ENVIRONMENTAL REVIEW

SENIOR VILLAGE AT VALLE GREENE
1155 CHANNINGWAY DRIVE
FAIRBORN, OHIO
OHFA TRACKING NUMBER: 24-0087

JULY 30, 2025

PREPARED FOR:
OHIO HOUSING FINANCE AGENCY
2600 CORPORATE EXCHANGE DRIVE, SUITE 300
COLUMBUS, OHIO 43231

PREPARED BY:
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1.0 PROJECT INFORMATION

The Mannik & Smith Group, Inc. (MSG) was retained by the Ohio Housing Finance Agency (OHFA) to complete an Environmental Review of the Senior Village at Valle Greene Project in accordance with OHFA's HOME Investment Partnerships Program (HOME) Environmental Review Standards.

1.1 Project Location and Description

The Senior Village at Valle Greene development is a proposed 70-unit, two-story apartment building with an elevator. Comprised on one and two-bedroom units, this senior apartment community adheres to LEED Silver energy standards. It caters to seniors with incomes at 30%, 50% and 60% of Area Median Income. Notably, the design prioritizes accessibility, eliminating the need for stairs to access the building. The one-bedroom units are slightly larger than comparable properties and the size of the two-bedroom units fall within the range of comparable properties. Each unit will have a washer and dryer which will be a unique offering not found at comparable properties. This highly valued amenity enables senior residents to conveniently do their laundry within the units. There will be a community room with a limited kitchen facility and an on-site fitness room. The property will also offer on-site management and social service coordination.

The funding source for this project is the HOME funding. The proposed date of construction is May 2025.

1.2 Background Information

MSG completed Field Inspections of the property on February 5, 2025. A copy of the Field Checklist is provided in Appendix A. A Phase I ESA was completed by Kilbanke Environmental dated December 5, 2023, and updated by MAKSolve on February 28, 2025. A copy of the most recent report is provided in Appendix B.

The Project Sponsor is St. Mary Development Corporation, 2160 E. 5th Street, Dayton, Ohio 45403. Denise Blake is the Vice President of Redevelopment and point of contact for St. Mary Development Corporation; dblake@smdcd.org, (937)-227-8149.

The individuals who have prepared and reviewed this report are listed in the following table:

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2.0 MITIGATIONS

The project developer is responsible for compliance with the following mitigations and need to provide documentation of compliance with OHFA.

2.1 Site Specific Mitigations

- According to the United States Environmental Protection Agency (US EPA) map of radon zones, the Site is located in Zone 1, which is the highest potential for elevated indoor air radon concentrations greater than 4.0 pCi/L.

    - Action Item: Follow OHFA's Radon Policy and install passive radon systems and conduct post-construction sampling as a requirement of new construction. The proposed building construction must meet the requirements of ASTM E1465-08a for the installation of passive systems. Post-construction testing will be required (per ANSI-AARST MAMF-2010), and if results are at or above the EPA threshold (4.0 picocuries per liter [pCi/L]), the system shall be converted to an active recovery system pursuant to ASTM E1465-08a.

- The Site is located within the range of the endangered Indiana Bat and Northern Long-eared Bat.

    - Action Item: Removal of trees greater than or equal to three inches diameter at breast height must only occur between October 1 and March 31. If seasonal tree clearing is not possible, a summer presence/absence survey may be conducted for Indiana bats and northern long-eared bats. An environmental commitment to comply with seasonal tree clearing shall be included on all architectural and engineering plans, and written documentation that demonstrates that tree clearing only occurred within the seasonal window between October 1 and March 31 must be submitted to OHFA.

3.0 HOME ENVIRONMENTAL REVIEW

The Environmental Review has been completed according to the 2016 OHFA's HOME Environmental Review Standards.

3.1 Phase I Environmental Site Assessment (ESA)

Review Description:

The Phase I ESA should be conducted in accordance with the most current ASTM E1527 standard and within six months prior to the date of funding notification.

Compliance Determination:

A Phase I ESA was completed by Kilbanke Environmental dated December 5, 2023, and was updated by MAKSolve on February 28, 2025 following ASTM E1527-21 standards. A copy of the updated Phase I ESA report is included in Appendix B.

3.2 Letter of Reliance

Review Description:

A "reliance" statement/letter to the Ohio Housing Finance Agency shall be provided in the report.

Compliance Determination:

A reliance statement is provided in Section 1.2 and a reliance letter is attached in Appendix Y of the Phase I ESA. Reliance was granted to Oberer Companies and the Ohio Housing Finance Agency.

3.3 Conclusion Statement

Review Description:

A Conclusion Statement regarding the presence or absence of recognized environmental conditions (RECs) shall be provided per ASTM E1527-21 12.7.

Compliance Determination:

A summary was provided in Section 9 of the Phase I ESA. The assessment did not identify any RECs associated with the Site.

3.4 Environmental Professional Statement

Review Description:

An environmental professional statement shall be provided per ASTM E1527-21 12.14.

Compliance Determination:

The environmental professional statement was provided in Section 12 of the Phase I ESA.

3.5 Environmental Professional Qualifications

Review Description:

Environmental professional qualifications shall be provided per ASTM E1527-21 12.14.2.

Compliance Determination:

Environmental professional qualifications were provided in Section 13 and attached in Appendix R of the Phase I ESA.

3.6 Recognized Environmental Conditions (RECs)

Review Description:

RECs should be identified during the Phase I ESA investigation. If RECs or other concerns are identified, they should be resolved.

Compliance Determination:

No RECs were identified during the Phase I ESA investigation.

3.7 Environmental Liens and Activity Use Limitation (AUL) information

Review Description:

Consideration for the presence of Environmental liens and AULS shall be provided per ASTM E1527-21 6.2.4.

Compliance Determination:

No Environmental liens or AULs were identified in Section 2 of the Phase I ESA.

3.8 Site Plan

Review Description:

A Site plan/sketch must show prominent Site features including any identified concerns and should identify adjacent land use, including the names of any commercial or industrial businesses.

Compliance Determination:

A Site Plan is presented as Figure 2 and 3 in the Figures attachment of the Phase I ESA.

3.9 Interviews

Review Description:

Interviews should be conducted with local government officials (Health Department and Fire Department) and with a key site manager (owner, or owner representative).

Compliance Determination:

Interviews were conducted with the owner and local government officials in Section 6.0 and 7.0 of the Phase I ESA. Correspondence documentation was provided in Appendix P and Appendix Q of the Phase I ESA.

3.10 USGS Topographic Map

Review Description:

A United States Geological Survey (USGS) topographic map of the site shall be provided, with the site boundary identified.

Compliance Determination:

The USGS topographic map provided is identified as Figure 1 in the Figures Section of the Phase I ESA.

3.11 Aerial and Color Photographs

Review Description:

Aerial photographs and color photographs shall be provided.

Compliance Determination:

Aerial photographs (Appendix A) and color photographs (Appendix C) are provided in the Appendices of the Phase I ESA.

3.12 Sanborn Maps or Sanborn No Coverage Letter

Review Description:

Sanborn Maps or a Sanborn Map No Coverage Letter must be provided.

Compliance Determination:

The Sanborn No Coverage Letter is provided in Appendix C of the Phase I ESA.

3.13 Historical Documentation

Review Description:

Adequate historical documentation should be provided for the site and adjacent properties, identifying the Site's first use or back to 1940, whichever is earlier.

Compliance Determination:

Historical documentation was provided in Sections 5.2 of the Phase I ESA, with supporting documentation in Appendix C of the Phase I ESA.

3.14 Database Search Review

Review Description:

A search of government database records shall be provided, with records searched to the ASTM required approximate minimum search distances. An evaluation of the significance of the database listings shall be included.

Compliance Determination:

Record review information was included in Section 5.1 of the Phase I ESA. The regulatory database search report is provided in Appendix B of the Phase I ESA.

3.15 Vapor Encroachment Screening

Review Description:

Vapor Encroachment Screening documentation must be included if completed at the site.

Compliance Determination:

The Vapor Encroachment Screening review is included in Section 5.5 of the Phase I ESA. It was determined that a VEC does not exist at the Site due to the lack of RECs identified during the Phase I ESA process.

3.16 Interior Inspection

Review Description:

Provide documentation that an interior inspection was conducted of all on-site structures.

Compliance Determination:

The Site did not contain any buildings at the time of the Site Reconnaissance; therefore, interior building inspections were not completed.

3.17 Phase II Environmental Site Assessment (ESA)

Review Description:

The Phase II ESA should be completed to address the RECs identified within the Phase I ESA.

Compliance Determination:

Due to the lack of RECs identified in the Phase I ESA, a Phase II ESA was not completed.

3.18 Asbestos-Containing Materials (ACM)

Review Description:

For rehab and adaptive reuse projects, an ACM survey is required. The survey should be completed for areas to be disturbed by the proposed work, but may be delayed until just prior to the start of construction.

Compliance Determination:

The project will consist of new construction, and no structures are present on the Site. Therefore, asbestos-containing materials (ACMs) were not sampled and are not a concern at this time.

3.19 Air Quality

Review Description:

As part of the air quality consideration, determine whether the Site is located in an Air Quality Non-Attainment Area. Determine whether there are any Aerometric Retrieval System (AIRS) facilities or Toxic Release Inventory (TRI) facilities having air releases within 1,000-feet of the Site.

Compliance Determination:

According to the National Environmental Policy Act (NEPA) Assist Tool, there are no Aerometric Information Retrieval System (AIRS) or Toxics Release Inventory System (TRIS) facilities within 1,000-feet of the Study Site. A copy of the NEPAssist Report is included in Appendix C.

3.20 Airport Zones

Review Description:

In order to comply with the airport zones provision, the project is NOT located within a Runway Protection Zone (RPZ) of a civilian airport or the clear zone or Accident Potential Zone (APZ) of a military airfield.

Compliance Determination:

The Site is not within 15,000-feet of a military airport or within 2,500-feet of a civilian airport. The closest airport is the Wright-Patterson Air Force Base, approximately 3.7-miles northwest of the Site. Therefore, the Site is not located within a Runway Protection Zone (RPZ) of a civilian airport or the clear zone or Accident Potential Zone (APZ) or a military airfield. The project meets the requirements of the airport zones provision. An airport location map is included in Appendix D.

3.21 Coastal Barrier Resources

Review Description:

In order to comply with the Coastal Barrier Resources provision, the project is not located within a Coastal Barrier Resources System unit.

Compliance Determination:

According to the John H. Chafee Coastal Barrier Resources System (CBRS) map, the project Site is not located within a Coastal Barrier Resources System unit. A copy of the CBRS map is included in Appendix E.

3.22 Coastal Zone Management

Review Description:

In order to comply with the Coastal Zone Management provision, the project is not located in a Coastal Zone, or it has been determined that the project is consistent with the State Coastal Zone Management Plan.

Compliance Determination:

According to the Ohio Department of Natural Resources (ODNR) Office of Coastal Management Ohio Coastal Atlas Map Viewer, the project Site is not located within a Coastal Zone Management Area. A copy of the Coastal Atlas map is included in Appendix F.

3.23 Contamination

Review Description:

In order to comply with the Contamination provision, the project needs to be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended use of the property.

And

The project is not located within 0.25-miles of a Superfund or Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) site or other contaminated site reported to Federal, State, or local authorities without a statement in writing from the U.S. Environmental Protection Agency (EPA) or the appropriate State agency that there is no hazard that could affect the health and safety of the occupants or conflict with the intended use of the property.

Compliance Determination:

A review of the updated Phase I ESA did not identify any RECs associated with the Site. Additionally, the Site is not located within 0.25-miles of a Superfund or CERCLIS site.

3.24 Endangered Species

Review Description:

In order to comply with the Endangered Species provision, the project will NOT impact endangered or threatened species or their habitat.

Compliance Determination:

Based on the United States Fish & Wildlife Service (USFWS) Information for Planning and Consultation (IPAC) review (project code 2024-0143861), the following species were identified with ranges that overlap the project area: Indiana bat (endangered), Northern long-eared bat (endangered), Tricolored bat (proposed endangered), and Monarch butterfly (candidate). No critical habitats are located on-site. A review of the Ohio Natural Heritage Database indicates that there are no records or state or federally listed species within one mile of the project site. The Ohio Department of Natural Resources (ODNR), in their review of the project, identified the following additional threatened and endangered species: little brown bat (state endangered).

Per recommendations from USFWS and ODNR, removal of trees greater than or equal to three inches diameter at breast height may only occur between October 1 and March 31. Seasonal clearing is recommended to avoid adverse effects to Indiana bats and northern long-eared bats. If seasonal tree clearing is not possible, a summer presence/absence survey may be conducted for Indiana bats and northern long-

eared bats. If Indiana bats and northern long-eared bats are not detected during the survey, then tree clearing may occur at any time of the year. Surveys must be conducted by an approved surveyor and be designed in coordination with the USFWS Ohio Field Office. Surveyors must have a valid federal permit and mist net surveys may only be conducted between June 1 and August 15.

Written documentation must be submitted by St. Mary Development Corporation to OHFA to demonstrate that tree clearing only occurred within the seasonal window between October 1 and March 31. An environmental commitment to comply with seasonal tree clearing shall be included on all architectural and engineering plans, and written documentation that demonstrates that tree clearing only occurred within the seasonal window between October 1 and March 31 must be submitted to OHFA.

Copies of the IPaC species list and ODNR review are included in Appendix G.

3.25 Environmental Justice

Review Description:

As part of the environmental justice consideration, a "printable standard report" for the site and a one-mile buffer from U.S. Environmental Protection Agency's (EPA's) Environmental Justice Screen (EJSCREEN) online tool shall be reviewed.

Compliance Determination:

According to the U.S. EPA EJScreen report obtained for the review, the project area has a people of color population of 23%, which is lower than the State of Ohio average (24%). The low-income population within a 1-mile radius of the Site measured 16%, with a state average of 33%. The Senior Village at Valle Greene project is intended to enhance the quality of life in the community and will not cause adverse effects to new and existing residents. No adverse environmental impacts were identified in the project's total environmental review. A copy of the EJScreen report is included in Appendix H.

3.26 Explosives and Flammable Hazards

Review Description:

In order to comply with the Explosives and Hazards provision, the acceptable separation distance (ASD) requirements must be met as described in 24 CFR part 51, subpart C. Two main factors affect this determination; 1) does the project itself include a hazardous facility, and 2) are aboveground storage tanks (ASTs) near the project. Furthermore, if ASTs are in proximity to the project, the rehabilitation of the building cannot increase residential densities in the building. If the project will increase residential densities, the project must be in compliance with the standards for acceptable separation distances (ASD), as set forth at 24 CFR part 51, subpart C.

Compliance Determination:

No ASTs were observed on or within visible range of the Site.

MAKSolve eliminated adjoining properties as potential hazardous facilities impacting the Site based on their lack of environmental concern related to the Site.

According to the National Pipeline Mapping System (NPMS) public viewer, there are no gas transmission pipelines or hazardous liquid pipelines located on the Site. The nearest pipeline is approximately 1,400 feet

west of the Site.

According to the ODNR Oil & Gas Wells map viewer, no oil & gas wells are located on or near the Site.

Explosion hazard documentation is included in Appendix I.

3.27 Farmland Protection

Review Description:

In order to comply with the Farmland Protection provision, the project activity must be solely rehabilitation, or the project will not convert unique, prime, or significant (state or local) farmland to an urban use.

Compliance Determination:

The Site is not currently farmed. According to the U.S. Department of Agriculture's (USDA) The regulatory definition of farmland (7 CFR 658.2(a)) indicates that farmland does not include land already committed to urban development or water storage. Farmland already in urban development includes lands identified as "urbanized areas" (UA) on the Census Bureau Map. According to the 2020 Census Urban Areas of the United States and Puerto Rico map, the Site is located in a designated urban area; therefore, the land is already committed to urban development. Thus, the project is exempt from the Farmland Protection Policy Act (FPPA). A copy of the 2020 U.S. Census map is included in Appendix J.

3.28 Floodplains

Review Description:

As part of the floodplain consideration, complete a review of the Federal Emergency Management Agency (FEMA) map and determine whether the Site is located within the 100-year floodplain.

Compliance Determination:

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the City of Fairborn effective March 8, 2022, the Study Site is in Zone X, outside the 100- and 500-year floodplains. Therefore, the Site is not located in a Special Flood Hazard Area. A copy of the FIRM is included in Appendix K.

3.29 Historic Preservation

Review Description:

As part of the Historic Preservation, no demolition of an eligible building is permitted, and any plans for rehabilitation must meet Secretary of Interior standards.

Compliance Determination:

The Site consists of a vacant parcel. There are no buildings present; therefore, the site does not contain any buildings listed or eligible for listing to the National Register of Historic Places. The vicinity of the project area was developed from agricultural fields in the late 1990s, and there are no properties over thirty years of age in the Area of Potential Effect (APE), and none would be potentially eligible under Consideration G. As

documented through a request to the Ohio History Connection's GIS system, there are no listed historic sites in the Project Area or the Area of Potential Effect.

An Ohio State Historic Preservation Office (OSHPO) Section 106 Application was prepared by an MSG federally-qualified historian that meets the Secretary of Interior standards. The Section 106 Application was submitted to the OSHPO on May 14, 2025, and on May 21, 2025 the OSHPO requested a Phase I archaeological survey concentrated on the well-drained Ockley silt loam portions of the APE. A Phase I Cultural Resource Management Survey was prepared by Professional Archaeological Services Team in July 2025 and submitted to the OSHPO. On July 28, 2025, the OSHPO concurred that the proposed new construction will have no effect on historic properties or archaeological resources. No further coordination is necessary barring the unanticipated discovery of archaeological remains during project construction.

In the event an Inadvertent Discovery (ID) occurs at any phase of a project or undertaking as defined, and human remains, or archaeological materials are exposed as a result of project activities, work should cease immediately, and the Tribe(s) must be included with the SHPO in any consultation regarding treatment and disposition of the find.

Copies of the OSHPO project summary form, survey table of properties in the APE, photo pages, the mapped results of an OSHPO literature review search, Phase I Cultural Resource Management Survey, and OSHPO decision letter are included in Appendix L.

3.30 Lead-Based Paint (LBP)

Review Description:

Lead-based paint evaluation shall be conducted in accordance with the OHFA Lead-Based Paint Investigation Policy as referenced in the OHFA Environmental Review Standards for HOME-Funded Projects document.

Compliance Determination:

The project will consist of new construction and does not involve any pre-1978 structures. Therefore, LBP is not a concern at this time.

3.31 Noise

Review Description:

As part of the noise evaluation, provide consideration of the presence of major roadways within 1,000-feet, railroads within 3,000-feet, and airports within 5-miles of the site. All activities will be developed to ensure an internal noise level of no more than 45 decibels (mitigation may be required). Additionally, hazards and nuisances, including site safety and noise, should be minimized and mitigated during the construction process.

Compliance Determination:

Noise sources in the vicinity of the Site were evaluated including major roadways within 1,000-feet, railroads within 3,000-feet, and airports within 5-miles. No major roadways or railroads were identified within their associated distances in relation to the Site. The Wright-Patterson Air Force Base (WPAFB) is located approximately 3.7 miles northwest of the Site. A review of the WPAFB Noise Contour Map indicates that the Site is located outside the 65 dB contour and therefore will not require additional noise mitigation. The Site is not located in proximity to any major roadways within 1,000-feet, railroads within 3,000-feet, and airports within 5-miles of the Site; therefore a HUD noise screening was not required.

The attached WPAFB Noise Contour Map is available in Appendix M.

Anticipated hazards and nuisances, including site safety and noise, are anticipated to be addressed during the duration of the project. Noise will be limited to typical construction-related noise during the designated noise producing work time and site safety will be achieved through implemented site safety plans. A copy of the Architectural Plan Set is provided in Appendix R.

3.32 Radon

Review Description:

Radon testing and mitigation shall be conducted in accordance with the OHFA Radon Policy as specified in Section B of the OHFA 2021 Design & Architectural Standards.

Compliance Determination:

According to the United States Environmental Protection Agency (US EPA) map of radon zones, the Site is located in Zone 1, which is the highest potential for elevated indoor air radon concentrations greater than 4.0 pCi/L. Per OHFA's Radon Policy, the installation of passive radon systems and post-construction testing are required for new construction. Construction shall meet the requirements of ASTM E1465-08a for the installation of passive systems. Post-construction testing will be required (per ANSI-AARST MAMF-2010), and if results are at or above the EPA threshold (4.0 picoCuries per liter [pCiIL]), the system shall be converted to an active recovery system pursuant to ASTM E1465-08a.

3.33 Safe Drinking Water

Review Description:

In order to comply with the Safe Drinking Water provision, projects with a potable water system must use only lead-free pipes, solder, and flux.

Compliance Determination:

The project will consist of new construction and will not utilize lead pipes, solder, or flux. Therefore, the project is in compliance with the safe drinking water provision.

3.34 Soil Suitability

Review Description:

As part of the soil suitability consideration, determine whether the on-site soils are suitable for construction of the proposed development using NRCS classifications. Soil suitability should include the following: support, drainage, depth, and fertility. Slope, erosion, and drainage of the Site shall be properly developed and consultation with the appropriate agency and regulations shall be followed. If a geotechnical study of the site has been performed, it can be used to meet this requirement.

Compliance Determination:

The USDA NRCS Web Soil Survey map for the Site was reviewed in the Phase I ESA. Soils were identified as Eldean silt loam, Ockley silt loam, and Sloan silty clay loam. The Eldean series consists of very deep, well

drained soils that are moderately deep to calcareous sandy and gravelly material. The Ockley series consists of very deep, well drained soils that are deep or very deep to calcareous, stratified sandy and gravelly outwash. The Sloan series consists of very deep, very poorly drained soils formed in loamy alluvium on flood plains. The majority of the soils on the Site did not meet the hydric criteria.

The proposed project is not anticipated to negatively affect the soil stability of the Site. Erosion control measures and storm water runoff control will be managed through the design site plan during construction and after the construction phase has been completed. A copy of the Architectural Plan Set is provided in Appendix R.

3.35 Sole Source Aquifers

Review Description:

In order to comply with the Sole Source Aquifers provision, the project will NOT impact a Sole Source Aquifer.

Compliance Determination:

According to the US EPA Sole Source Aquifer Map, the site is not located within a Sole Source Aquifer. The map is included in Appendix N.

3.36 Visible Mold

Review Description:

A consideration for the presence of visible mold shall be provided.

Compliance Determination:

Based on the lack of structures, mold was not considered a potential environmental concern to the Site.

3.37 Wetlands

Review Description:

In order to comply with the Wetlands provision, the project will NOT adversely impact a wetland. The project will NOT drain, dredge, channelize, fill, dike, impound, or perform grading activities in wetlands.

Compliance Determination:

According to the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) map, no wetlands are located on the Site. A copy of the NWI map is included in Appendix O.

MSG's site reconnaissance did not identify any wetlands or evidence of wetlands present on the Site.

3.38 Wild and Scenic Rivers

Review Description:

In order to comply with the Wild and Scenic Rivers provision, the project is not located near a Wild and Scenic River.
OR
The project is located near a Wild and Scenic River and is consistent with the River's Management Plan.

Compliance Determination:

Based on a review of the National Wild and Scenic Rivers System map, the Site is not located in the vicinity of a Wild and Scenic River. A copy of the National Wild and Scenic Rivers System map is included in Appendix P.

3.39 Zoning

Review Description:

As part of the zoning code consideration, identify zoning classification and obvious violations if applicable. Zoning of the Site should account for development patterns including density, construction, alteration, and use of buildings, structures, or land.

Compliance Determination:

According to the letter provided by the City of Fairborn dated February 27, 2024, the Site is currently zoned as Planned Unit Development which permits the proposed development to be allowed. A copy of the letter is attached in Appendix Q.

The proposed design plan is consistent with the land use and zoning of the site. According to the Architectural plan set and zoning use of the area, the proposed development will fit within the plans of the neighborhood development. A copy of the Architectural Plan Set is provided in Appendix R.

APPENDIX A
FIELD INSPECTION FORM

Project Number: 401.2300347	**MSG Inspector:** John Thornburg

Site Location: Senior Village at Valle Greene **Date of Investigation:** 2/5/2025
Site Contact Name*: **Title:**
Relationship To Site: **Phone #:**
Weather/Obvious Limiting Conditions: 35 degrees F, Partly Cloudy

* Remember you must try to interview a **prior** owner/occupant **and** a **current** owner/occupant.
If the site is abandoned, you must attempt to interview an owner/occupant of a neighboring property.

Adjacent Properties (Include roadways and waterways):

North: Residential subdivision

East: Apartments

South: Vacant commercial building, Ace Hardware Home Services

West: Living Well Spine Center
Medical Office Building.

Site Description & Usage

Acreage: 5.9 Acres
Current Owner: **Date Acquired:**
Previous Owner: **Date Acquired:**
Site Use (identify all on-site activities)**:** Vacant land

Historical Site Usage:
Building(s):

Size	Use	Age	No. of Stories (indicate if basement present)

Access Roads:

Utilities / Services

Natural Gas	☐ **Yes** ☒ **No**	**Provider:**
Electric	☐ **Yes** ☒ **No**	**Provider:**
Water	☐ **Yes** ☒ **No**	**Provider:**
Wastewater	☐ **Yes** ☒ **No**	**Provider:**

Hazardous Substances, Petroleum Products & Unidentified Substance Containers

Substance	Quantity	Location	Condition	REC ?
N/A				☐ **Yes** ☐ **No**
				☐ **Yes** ☐ **No**

Project Number: 401.2300347	**MSG Inspector:** John Thornburg

				☐ Yes ☐ No
				☐ Yes ☐ No
				☐ Yes ☐ No
				☐ Yes ☐ No
				☐ Yes ☐ No
				☐ Yes ☐ No

Underground (UST) and Aboveground Storage Tanks (AST)

UST or AST	Size	Construction	Age	Contents	REC ?
☐ UST ☐ AST					☐ Yes ☐ No
☐ UST ☐ AST					☐ Yes ☐ No
☐ UST ☐ AST					☐ Yes ☐ No
☐ UST ☐ AST					☐ Yes ☐ No
☐ UST ☐ AST					☐ Yes ☐ No

Any evidence of fill ports, vent pipes or uniform patches in pavement? ☐ Yes ☒ No
Comments:

Any evidence of ASTs having been removed from the site? (e.g., concrete saddles, concrete pads, secondary containment, etc.) ☐ Yes ☒ No
Comments:

Polychlorinated Biphenyls (PCBs)

Possible PCB-Containing Equipment – Type and Location	Labels	Condition	REC ?
N/A			☐ Yes ☒ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No

Solid Waste Disposal

Waste Type	Storage Container Location & Hauler	Condition	REC ?
N/A			☐ Yes ☒ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No

Wastewater

Wastewater Type	Handling	REC ?
N/A		☐ Yes ☒ No
		☐ Yes ☐ No
		☐ Yes ☐ No

Project Number: 401.2300347	**MSG Inspector:** John Thornburg

Storm Water/ Surface Water

Storm Water Management Practices:
Any Discolorations or Sheen Observed? ☐ Yes ☒ No **REC?** ☐ Yes ☒ No
Comments: Only water observed was standing water in tracks from drill rig

Stressed Vegetation

Stained or Unseasonable Stressed Vegetation? ☐ Yes ☒ No **REC?** ☐ Yes ☒ No
Comments:

Stained Soil & Pavement

Stained Soil or Pavement? ☐ Yes ☒ No **REC?** ☐ Yes ☒ No
Evidence of New Soil or Pavement? ☐ Yes ☒ No
Comments:

Odors

Strong, Pungent or Noxious Odors? ☐ Yes ☒ No **REC?** ☐ Yes ☒ No
Comments:

Pools of Liquids

Pools of Liquid? ☐ Yes ☒ No **REC?** ☐ Yes ☒ No
Comments:

Pits, Ponds or Lagoons

Pits (existing or filled) ☐ Yes ☒ No **REC?** ☐ Yes ☒ No
Comments:
Ponds ☐ Yes ☒ No **REC?** ☐ Yes ☒ No
Comments:
Lagoons ☐ Yes ☒ No **REC?** ☐ Yes ☒ No
Comments:

Wells

Supply Wells ☐ Yes ☒ No **REC?** ☐ Yes ☒ No
Comments:
Monitoring Wells ☐ Yes ☒ No **REC?** ☐ Yes ☒ No
Comments:
Drywells ☐ Yes ☒ No **REC?** ☐ Yes ☒ No
Comments:

Project Number:	401.2300347	**MSG Inspector:**	John Thornburg

Septic Systems

Septic System ☐ **Yes** ☒ **No** **REC?** ☐ **Yes** ☒ **No**

Comments: _____

Spills

Have any spills occurred at the site or near the site? ☐ **Yes** ☐ **No** **REC?** ☐ **Yes** ☒ **No**

Comments: _____

Previous Investigations (attach a copy)

☐ Environmental Audit	☒ Environmental Site Assessment	☐ Environmental Permit
☐ UST Registration	☐ Hydrogeologic Report	☐ Drinking Water Well Installation Docs
☐ Geotechnical Studies	☐ Other _____	

Site Sketch (show all RECs, key features / findings and identify adjacent land uses including roadways, waterways, etc.) Use this page only if it is helpful. Most often, an aerial photo or existing site plan (provided by the client) is available to use as the site sketch.

See attached sketch

Site Photographs (remember to, at a minimum, take photos of all on-site buildings, all RECs or possible RECs, and all other significant features). Use this page only if it is helpful to you. You may prefer to catalog your photos by marking photo locators on your site sketch.

	Direction Facing (circle one)	
1.	N S E W	See Photolog
2.	N S E W	
3.	N S E W	
4.	N S E W	
5.	N S E W	
6.	N S E W	
7.	N S E W	
8.	N S E W	
9.	N S E W	
10.	N S E W	
11.	N S E W	
12.	N S E W	
13.	N S E W	
14.	N S E W	
15.	N S E W	
16.	N S E W	
17.	N S E W	
18.	N S E W	
19.	N S E W	
20.	N S E W	
21.	N S E W	
22.	N S E W	
23.	N S E W	
24.	N S E W	
25.	N S E W	

Historical Research (attempt to review resources in five-year intervals)

Street Directories

Year	Occupant

Chadwick Plat Map

Year	Occupant

Sanborn Fire Insurance Map

Year	Occupant

Title Search

Grantee	Grantor	Date	Volume	Page

Property Easements

Grantee	Grantor	Date	Volume	Page



Photo 1: General view of the Subject Property from across Channingway Drive.



Photo 2: View along the south perimeter of the Subject Property facing east down Channingway Drive.



Photo 3: Looking northeast at the southwest portion of the Subject Property.



Photo 4: View of the south-central portion of the Subject Property.



Photo 5: Typical vegetation on the western portion of the Subject Property.



Photo 6: Additional view of vegetation on the west portion of the Subject Property facing west.



Photo 7: View of wet area disturbed by drilling equipment on the west portion of the Subject Property.



Photo 8: View of typical vegetation on the central portion of the Subject Property.



Photo 9: Apparent outfall from a storm water retention basing along the north property line immediately north of the Subject Property



Photo 10: Typical vegetation on the north portion of the Subject Property.



Photo 11: Close up of surface vegetation on the north portion of the Subject Property.



Photo 12: View of the residential sub-division north of the Subject Property facing west northwest.



Photo 13: Typical view of vegetation on the northeast portion of the Subject Property.



Photo 14: View of the central east portion of the Subject Property with paths cleared for drilling access.



Photo 15: View of the field portion of the Subject Property on the southeast portion of the property.



Photo 16: View of the soil mound along the south portion of the Subject property.



Photo 17: View of the culvert under Channingway Drive on the southeast portion of the Subject Property.



Photo 18: Typical east adjoining apartment building.



Photo 19: View of the vacant commercial south of the east portion of the Subject Property following Channingway Drive.



Photo 20: View of the west adjoining building.

APPENDIX B
PHASE I ESA

PHASE I ENVIRONMENTAL SITE ASSESSMENT

OF THE

VACANT LAND
CHANNINGWAY DRIVE
FAIRBORN, GREENE COUNTY, OHIO 45324

PREPARED FOR

OBERER COMPANIES
3445 NEWMARK DRIVE
MIAMISBURG, OHIO 45342
ATTN: MR. ROBERT MCCANN, CFO

PROJECT NUMBER: 028-25

DATE: FEBRUARY 28, 2025

Environmental & Safety Consultants

432 Windsor Park Drive • Dayton, Ohio 45459 • Phone: 937.815.6949 • Fax: 937.660.6845

February 28, 2025

Mr. Robert McCann, CFO
Oberer Companies
3445 Newmark Drive
Miamisburg, Ohio 45342

RE: Vacant Land
Channingway Drive
Fairborn, Greene County, Ohio 45324
Project Number: 028-25

Dear Mr. McCann,

MAKSolve has completed a Phase I Environmental Site Assessment of the Vacant Land located at Channingway Drive in Fairborn, Greene County, Ohio. The environmental assessment included a property visit, an investigation of regulatory and historical records, and an interview with the current owner representative. Details of the findings, professional opinion and conclusions regarding the above-mentioned property are contained in the attached report.

This document was prepared for and can be relied upon by Oberer Companies and the Ohio Housing Finance Agency as the end users of the report. MAKSolve assures that the scope of the investigation and contents included within the report are in conformance with ASTM E 1527-21, ASTM E 2600-10 and additional environmental review requirements associated with Ohio Housing Trust Funds (OHTF) and follow the generally accepted standards and practices of environmental consultants. The statements contained in the report are true and accurate to the best of our knowledge.

Sincerely,
MAKSolve, LLC

John Bowen
Senior Project Manager

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EXECUTIVE SUMMARY

MAKSolve was retained by Oberer Companies, to perform a Phase I Environmental Site Assessment (ESA) in compliance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E 1527-2 and the Ohio Housing Finance Agency (OHFA) environmental review standards of the property known as Vacant Land located on Channingway Drive in Fairborn, Greene County, Ohio 45324 (Subject Property). Any exceptions to, or deletions from, this practice are described within this report.

The Phase I Environmental Site Assessment (ESA) is designed to provide Oberer Companies with an assessment concerning environmental conditions as they may exist at the subject property. This assessment was conducted utilizing generally accepted ESA industry standards in accordance with the "All Appropriate Inquiries" rule, promulgated by the EPA (40 C.F.R. Part 312) and the American Society of Testing Materials ("ASTM") Standard E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, version E1527-21 and if applicable, the client's scope of work as discussed in the Reliance section of this report. This executive summary is provided for convenience only and is not a substitute for a thorough reading of the entire report, including all appendices.

The Phase I Environmental Site Assessment (ESA) is designed to provide Oberer Companies with an assessment concerning environmental conditions as they may exist at the subject property.

Under the direction of Environmental Professional John Bowen, Environmental Scientist Marinda VanHoose of MAKSolve conducted the property visit on February 18, 2025. Ms. VanHoose was unaccompanied during the property visit. At the time of the visit, weather conditions were partly cloudy and approximately 20 degrees Fahrenheit.

The subject property is located in a residential/commercial area of Fairborn, Ohio. The subject property consists of a rectangular-shaped parcel, totaling approximately 5.9170 acres of wooded and vacant land. According to the Greene County Auditor, the subject property is identified as parcel ID number A02000200470000500.

Based on a review of historical resources such as aerial photographs, topographic maps, city directories, and city records; the subject property appears to have previously been in agricultural use as early as 1942 until the late 90's. From 2001 onward, the subject property appears as vacant land with the continued development of roads, residences, and commercial buildings surrounding it until 2019 when the subject property is noted as wooded land as it stands today.

As summarized, MAKSolve has performed a *Phase I Environmental Site Assessment* in conformance with the scope and limitations of ASTM Practice E1527-21 of the Vacant Land at

Channingway Drive in Fairborn, Greene County, Ohio (subject property). Any exceptions to, or deletions from, this practice are described in Section 7 of this *report.*

Report Section		No Further Action	REC	HREC	CREC	Issue/ Further Investigation	Comments
2.5	**Data Gaps**	X					
3.0	**User-Provided Information**	X					
5.0	**Site Reconnaissance**	X					
6.1	**Regulatory Records Review**	X					
6.2	**Historic Records Review**	X					
6.5	**Vapor Encroachment Evaluation**	X					
7.0	**Interviews & Local Government Records**	X					
8.0	**Non-Scope Considerations**					X	Noise, Radon, Soil Suitability

Recognized Environmental Condition

This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property.

Historic Recognized Environmental Condition

This assessment has revealed no evidence of historic recognized environmental conditions in connection with the subject property.

Controlled Recognized Environmental Condition

This assessment has revealed no evidence of controlled recognized environmental conditions in connection with the subject property.

De Minimis Conditions

This assessment has revealed no evidence of de minimis conditions in connection with the subject property.

Business Environmental Risks

A risk that can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, is defined by ASTM Practice E1527-13 as a Business Environmental Risk. This assessment has revealed evidence of business environmental risks in connection with the *subject property*.

- Noise: The subject property is located within 5 miles from the Wright Patterson Air Force Base.
- Radon: According to the United States Environmental Protection Agency, the subject property is located in Radon Zone 1 (Highest potential; average indoor radon levels may be greater than 4 pCi/L (picocuries per liter)).
- Soil Suitability: According to the United States Department of Agriculture, the subject property is underlain by soil which is determined to be Very Limited.
- Based on the subject property's location, two endangered species (Indiana Bat and Northern Long Eared Bat) may be present.

Data Gaps

Data gaps were encountered, however, none impacted the Environmental Professional's ability to assess recognized environmental conditions.

Opinion

- Based on its location in proximity to a Wright Patterson Airforce Base, a noise study may be warranted.
- Based on its location in Zone 1, if the subject property is to be utilized for residential purposes, radon testing prior to occupancy may be warranted.
- Based on the underlying soil type, a geotechnical investigation may be warranted.
- Site development in consultation with the United State Fish & Wildlife Service and the Ohio Department of Natural Resources is recommended.

Key Dates of the Report

Report Component	Date Conducted	Expiration Date
Interviews	February 27, 2025	August 23, 2025
FOIA Request	February 18, 2025	August 17, 2025
Government Database Search	February 18, 2025	August 17, 2025
Site Reconnaissance	February 18, 2025	August 17, 2025
EP Declaration	February 28, 2025	August 24, 2025
Report Date	February 28, 2025	August 24, 2025

1.0 INTRODUCTION

MAKSolve has performed a Phase I Environmental Site Assessment (Phase I ESA) of Vacant Land located at Channingway Drive in Fairborn, Ohio (subject property). This Environmental Site Assessment (ESA) documents the methods and findings of the Phase I ESA performed in general conformance with 42 U.S.C. §9601(35)(b)— Standards and Practices for All Appropriate Inquiries (AAI), and ASTM International — Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Processes E1527-21, The Ohio Housing Finance Agency, Environmental Review Standards for OHTF Funded Projects, the specific scope of work provided, and generally accepted industry standards. The purpose of the Phase I ESA is to identify Recognized Environmental Conditions (RECs), historical recognized environmental conditions (HRECs), and/or controlled recognized environmental conditions (CRECs) at the subject property and potential impacts from nearby facilities. If requested by the client, ASTM scope and non-scope considerations may also be addressed.

The Phase I ESA is being conducted at the request of Oberer Companies, in preparation of potential development of the subject property.

1.1 Scope of Work

The Phase I ESA conducted at the subject property was in general accordance with ASTM Standard E 1527-21 and associated OHFA Funded Projects, which includes the following:

- A site reconnaissance and visual survey of properties proximate to the subject property,
- Review of records and interviews with regulatory officials and representatives regarding current and former operations at the subject property,
- A review of historical resources, such as: property records, topographic maps, fire insurance maps, city directories, and aerial photographs,
- Review of previous environmental site assessments, if made available,
- Review of State and Federal environmental database information,
- Review of non-scope issues defined in the OHTF funding requirements including the consideration of: floodplains, wetlands, noise, air quality, visible mold, farmland protection, environmental justice, radon, traffic hazards, explosion hazard, underground mines, sink holes, or tunnels, zoning, soil suitability, steepslopes, lakes, ponds, or culverts, lead-based paint (LBP), asbestos containing materials (ACM).
- Evaluation of information and preparation of the report provided herein.

Typically, a Phase I ESA does not include sampling or testing of air, soil, groundwater, surface water, or building materials. These activities would be carried out under separate cover, if necessary.

1.2 Reliance

This ESA report is prepared for the exclusive use and reliance of Oberer Companies and the Ohio Housing Finance Agency. No other party, known or unknown to MAKSolve, is intended as a beneficiary of this work product, its content or information embedded therein. Oberer Companies and the Ohio Housing Finance Agency may choose to share the contents of this report with any third party. However, third parties use this report at their own risk. Third party reliance letters may be issued on request to MAKSolve subject to approval of Oberer Companies, Ohio Housing Finance Agency, and Vacant Land, LLC. and payment to MAKSolve of a fee for such letters. Reliance on the ESA by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the proposal, ESA report, and MAKSolve's Contract. The limitation of liability defined in the Contract is the aggregate limit of MAKSolve's liability to the client and all relying parties.

If the ESA will be used by a different user (third party) than the user for whom the ESA was originally prepared, the third party must also satisfy the user's responsibilities in Section 6 of ASTM E 1527-21.

1.3 Limitation and Exceptions

This Phase I ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs, HRECs, and CRECs to be present at the subject property. Not every property warrants the same level of assessment. Consistent with good commercial or customary practice, the appropriate level of assessment was guided by the type of property subject to assessment and the information developed in the course of inquiry.

Certain additional services considered optional by ASTM Standard E1527-21, such as asbestos-containing building materials, biological agents, cultural and historic resources, ecological resources, endangered species, health and safety, industrial hygiene, lead-based paint, lead in drinking water, mold, radon, and wetlands, if not included in this report, were not included in the scope of work.

The findings and conclusions presented in this Phase I ESA are the result of professional interpretation of the information collected at the time of this study. This Phase I ESA was not an exhaustive search of all available records. MAKSolve cannot "certify" or guarantee that the subject property is free of environmental impairment; no warranties regarding the environmental quality of the subject property are expressed or implied. Significant limitations to our conclusions as a result of information gaps or incomplete information are documented in various sections of the report.

The findings of this report, to the best of our knowledge, are valid as of the date of this report. However, changes in the conditions of a property can occur with the passage of time, whether

due to natural processes or the works of man, on this or adjacent properties. In addition, changes in applicable or appropriate regulations and standards may occur, whether they result from legislation, from the broadening of knowledge, or from other reasons. Per the E1527-21 Standard (the Standard), a Phase I ESA completed less than 180 days prior to the date of acquisition of the subject property is presumed valid. A Phase I ESA for which the information was collected or updated within one year of the date of acquisition of the subject property may be used, provided that the report is updated within 180 days of the date of purchase or intended transaction. Per the Standard, if a Phase I ESA or Phase I ESA Update is not completed within 12 months of the information collected, a new Phase I ESA is required.

Specified information contained in this report has been obtained from publicly available sources and other secondary sources of information. Although care has been taken in compiling this information, MAKSolve disclaims any and all liability for any errors, omissions, or inaccuracies in the data provided by third parties in such information and data.

The work was performed using the degree of care and skill ordinarily exercised under similar circumstances by environmental consultants practicing in this or similar localities at the time these services were provided. No other warranty or guarantee, expressed or implied, is made as to the findings, opinions, and conclusions included in this report. If in the opinion of the client, or any third party claiming reliance on MAKSolve's report or services, that MAKSolve was negligent or in breach of contract, such aforementioned parties shall have one year from the date of MAKSolve's site visit to make a claim.

1.4 Deviations

In performance of this Phase I ESA, MAKSolve has not identified potential exceptions or deviations from the E1527-21 standard of practice except where noted.

1.5 Data Gaps

The actions and investigations undertaken as part of the ESA are property-specific and limited to the legally defined subject property boundaries as defined by the user. All pertinent information has been reasonably obtained in a good faith effort from the appropriate government agencies, landowner or occupant and through investigative property visit and other all appropriate inquiries. However, the following limiting conditions or deviations were encountered:

- MAKSolve was unable to document the historical use of the subject property prior to its first development because historical data prior to 1942 was not reasonably ascertainable from local agencies and other historical sources. This data gap is not significant and does not alter the conclusions or recommendations of this assessment.

- Data gaps in excess of the recommended 5-year interval were encountered. However, based on the available information reviewed, this data failure is not considered to be a significant data gap and is not expected to alter the conclusions or recommendations of this assessment.
- MAKSolve was not able to view the ground surface due to snow cover. This data gap failure is not critical and does not alter the conclusions or recommendations of this assessment.
- MAKSolve was not able to view the entire ground surface due to dense vegetation. This data gap failure is not critical and does not alter the conclusions or recommendations of this assessment.
- MAKSolve has not received responses from all of our FOIA requests; specifically the local Health Department, Local Water Department, Local Police Department, and Local School Department. This data gap is not considered to represent a significant data gap with regard to the findings of this report as the information generally obtained is also usually obtained from other resources.

1.6 Significant Assumptions

It is assumed that any and all information provided, either via interview, records review or historical resources search is true and accurate, without predisposition.

1.7 Special Terms and Conditions

This Phase I Environmental Assessment was prepared in accordance with the stated and agreed upon Scope of Work. This report was specifically and only prepared for the identified specific clients (users) and for their specific purpose; no other person or entity for any other purpose may use or rely on this report or its contents unless specifically authorized in writing by MAKSolve. No other special terms and conditions are applicable to this Phase I Environmental Assessment.

1.8 Definitions

For the purpose of this report, and as defined by ASTM Standard E1527-21, *a recognized environmental condition* (REC) is defined as "the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment."

A *controlled recognized environmental condition* (CREC) is defined as a "recognized environmental condition affecting the subject property that has been addressed to the

satisfaction of the applicable regulatory authority or authorities with hazardous substances or petroleum products allowed to remain in place subject to implementation of required controls (for example, activity and use limitations or other property use limitations)." A CREC is considered a REC under ASTM.

A *historical recognized environmental condition* (HREC) is defined as "a previous release of hazardous substances or petroleum products affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities without subjecting the subject property to any controls (for example, activity and use limitations or other property use limitations)." An HREC is not considered an REC under ASTM.

A *de minimis* condition is defined as "a condition related to a release that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. A condition determined to be a de minimis condition is not a recognized environmental condition nor a controlled recognized environmental condition."

A *data gap* is defined as "a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information."

A *business environmental risk* (BER) is defined as "a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of commercial real estate, not necessarily related to those environmental issues required to be investigated in this practice."

ASTM 1527-21 states the term *environment* "shall have the same meaning as the definition of environment in CERCLA 42 U.S.C. • 9601(8))", which is defined as "(A) the navigable waters, the waters of the contiguous zone, and the ocean waters of which the natural resources are under the exclusive management authority of the United States under the Magnuson-Stevens Fishery Conservation and Management Act [16 U.S.C. 1801 et seq.], and (B) any other surface water, ground water, drinking water supply, land surface or subsurface strata, or ambient air within the United States or under the jurisdiction of the United States."

A *vapor encroachment condition* (VEC) is defined as "the presence or likely presence of chemical of concern vapors in the subsurface of the target property caused by the release of vapors from contaminated soil and/or groundwater either on or near the target property."

Other ASTM terms used in this report are further clarified in the ASTM E1527-21 standard which can be obtained from ASTM International (astm.org).

2 USER-PROVIDED INFORMATION

In accordance with ASTM Standards E1527-21, MAKSolve requested that the User of this Phase I ESA provide information that would assist in identifying the potential for RECs in connection with the subject property. Information received from the User is contained in the appendices of this report and is summarized below. Issues identified by MAKSolve during the review of the information along with related comments are also presented.

The EP maintains the responsibility for developing opinions and documenting findings about *"recognized environmental conditions,"* however, the user of the ESA shares in the burden of providing information regarding known environmental concerns. To assist in the EP's development of findings and opinions and to not jeopardize the user's qualification for any of the LLPs to CERCLA liability, the user is required to consider the following and recommended to notify the EP of the findings, if applicable:

- Information regarding environmental liens;
- Information regarding title and judicial records for environmental liens and activity and use limitations (AULs) that have been placed on the subject property;
- Specialized knowledge of the subject property and adjoining properties, in relation to "recognized environmental conditions;"
- The relationship of the purchase price to the fair market value of the subject property, if not contaminated;
- Active or pending litigation regarding the subject property; and/or
- Commonly known information about the presence or likely presence of releases or potential releases at the subject property.

A user questionnaire was completed by Mr. McCann, CFO with Oberer Companies. A copy of the completed questionnaire is presented in Appendix G. Mr. McCann's user questionnaire responses are summarized below.

Client Questionnaire Item	Client Did Not Respond	Client's Response	
		Yes	No
Aware of any information regarding environmental liens against the subject property.			X
Has actual knowledge of environmental liens or AULs that have been placed on the subject property.			X
Possesses specialized knowledge of the subject property or the activities performed there.			X
Believes the "purchase price" (refinance value) of the subject		N/A	N/A

Client Questionnaire Item	Client Did Not Respond	Client's Response	
		Yes	No
property reflects the fair market value of the subject property.			
Aware of commonly known or reasonably ascertainable information about the subject property that would help the environmental professional to identify conditions indicative of releases or threatened releases.		X	
Aware of obvious indicators that point to the presence or likely presence of releases or potential releases at the subject property.			X

According to the User Questionnaire the purpose of the reason for performing the Phase I ESA is to qualify for an LLP to CERCLA liability.

3 PHYSICAL SETTING

General site settings including topography, surface water bodies, geology and hydrology are detailed in the following sections.

3.1 Topography

The topography of the subject property appears to be generally level with adjoining properties, with a small hill at the southern property boundary. The regional topographic gradient is to the northwest toward Lyre Lake. According to the United States Geological Survey (USGS) topographic maps (Yellow Springs, OH, 2019 and Fairborn, OH, 2019), the subject property has an elevation of between approximately 849 to 857 feet above mean sea level (AMSL) (see Figure 1, Property Location Map).

3.2 Surface Water Bodies

No surface water features (i.e., streams, ponds, or rivers) were observed on or adjacent to the subject property.

Besides stormwater ponds located in the adjoining developments, the nearest surface water in the vicinity of the subject property is Beaver Creek located approximately 2,800 feet to the west of the subject property.

3.3 Geology

The subject property is located in the Southern Ohio Loamy Till Plain area of the Central Lowlands section of the Interior Plains physiographic region of Ohio. The Southern Ohio Loamy Till Plain is described as having surface of loamy till; end and recessional moraines, commonly associated with boulder belts, between relatively flat-lying ground moraine, cut by steep-valleyed large streams; stream valleys filled with outwash and alternate between broad floodplains and narrows. The Southern Ohio Loamy Till Plain consists of loamy, high-lime Wisconsinan-age till, outwash, and loess over Lower Paleozoic-age carbonate rocks and, in the east, shales.

3.4 Soils

According to the USDA's Soil Conservation Service Web Soil Survey data, the subject property is underlain by Eldean silt loam, Ockley silt loam, and Sloan silty clay loam.

The Eldean series consists of very deep, well drained soils that are moderately deep to calcareous sandy and gravelly material. They formed in outwash materials dominantly of limestone origin on outwash terraces, kames, and moraines. In some places, the upper part of the solum formed in silty or loamy alluvium or in loess as much as 46 cm (18 inches thick). Slope ranges from 0 to 35 percent.

The Ockley series consists of very deep, well drained soils that are deep or very deep to calcareous, stratified sandy and gravelly outwash. Ockley soils formed in as much as 51 cm (20 inches) of loess or silty material and in the underlying loamy outwash. They are commonly on stream terraces and outwash plains, and less commonly on kame moraines and eskers. Slope ranges from 0 to 30 percent.

The Sloan series consists of very deep, very poorly drained soils formed in loamy alluvium on flood plains. Slope ranges from 0 to 2 percent.

A copy of the soil survey report for the subject property is provided in Appendix D.

3.5 Hydrology

The Ground Water Resources of Greene County map, prepared by Robert L. Stewart and generated by the Ohio Department of Natural Resources in 1991, shows the subject property is located in an “area in which yields 3 to 10 gallons per minute may be developed.” “Relatively thick, unconsolidated glacial deposits of silty sand, gravel, and clayey till. Water-bearing deposits may be encountered at depths ranging from 35 to more than 300 feet. Cautious drilling advisable to attempt the development of relatively meager supplies, although potential yields greater than 100 gallons per minute may be developed from properly drilled and screened wells.”

4 Site Reconnaissance

Under the direction of Environmental Professional John Bowen, Environmental Scientist Marinda VanHoose of MAKSolve conducted the property visit on February 18, 2025. Ms. VanHoose was unaccompanied during the property visit. At the time of the visit, weather conditions were partly cloudy and approximately 20 degrees Fahrenheit.

The site reconnaissance consisted of observing the boundaries and systematically traversing the subject property to provide an overlapping field of view, wherever possible. The site reconnaissance consisted of walking the subject property perimeter, exterior areas, common areas, mechanical areas, and maintenance areas. The building interior was entered. The adjacent properties were visually observed from public thoroughfares but were not entered.

4.1 Subject Property Information

As part of the site reconnaissance, MAKSolve looked for evidence of the presence of hazardous substances and/or petroleum products used, stored, or discarded at and near the subject property. A summary of the site reconnaissance is provided below. The locations of pertinent observations are depicted on the figures provided at the end of this report. Photographs of pertinent findings and features observed during the site reconnaissance are provided in Appendix A. Certain information obtained during the site visit, such as the number of structures, descriptions of roadways and parking facilities, utility services, and other general observations, may be presented in other sections of this report.

4.1.1 Subject Property

A description of the subject property is provided below:

The subject property consists of mostly wooded and undeveloped land with a small hill at the southern property boundary.

4.1.2 Adjoining Property Information

Adjacent properties were viewed from the subject property, subject buildings, walking subject property boundaries, and via adjacent public thoroughfares. The following table describes the use of each adjacent property.

Adjoining Property Information				
Direction	**Address**	**Occupant**	**Use**	**REC**
North	1717-1745 Arden Bend	Residents	Residential	No
East	1170-1179 L'Amour Lane	Residents	Residential	No
East	1160-1160 Dickens Drive	Residents	Residential	No
South	1181 Steinbeck Way	Residents	Residential	No
South	1810 Successful Drive	Hondros College	University	No

Adjoining Property Information				
Direction	**Address**	**Occupant**	**Use**	**REC**
South	1170 Channingway Drive	Ace Hardware	Commercial	No
West	1145 Channingway Drive	Chiropractor	Medical	No
West	1790 Commerce Center Boulevard	Fairborn Vision Center	Medical	No

4.1.3 General Subject Property Setting

The subject property consists of approximately 5.9170 acres and currently does not contain any structures. The subject property consists of wooded and vacant land with a small hill at the southern property boundary. The subject property is accessed from the south via public sidewalk along Channingway Drive.

4.2 Site Reconnaissance Findings

Condition, Feature or Operation Observed or Identified?	Yes	No
Structures and Other Improvements		X
Roads		X
Potable Water Supply		X
Sewage Disposal		X
Hazardous Substances		X
Petroleum Products		X
Underground Storage Tanks (USTs)		X
Aboveground Storage Tanks (ASTs)		X
Strong, Pungent, or Noxious Odors		X
Standing Surface Water and Pools or Sumps Containing Liquids Likely to be Hazardous Substances or Petroleum Products		X
Drums, Totes, and Intermediate Bulk Containers		X
Hazardous Substances and Petroleum Product Containers Not in Connection with Identified Uses		X
Unidentified Substance Containers		X
PCB Containing Items		X
Heating and Cooling Systems		X
Stains or Corrosion on Floors, Walls, or Ceilings		X
Drains and Sumps		X
Pits, Ponds, or Lagoons		X
Stressed Vegetation		X
Solid Waste		X
Stained Soil or Pavement		X
Water/ Wastewater		X
Wells		X
Other		X

5 Records Review

The purpose of the records review is to obtain and review records that will help identify RECs in connection with the subject property.

5.1 Regulatory Records Review

MAKSolve contracted Environmental Data Resources, Inc. (EDR) to conduct a search of Federal and State databases containing known and suspected sites of environmental contamination. The number of listed sites identified within the approximate minimum search distance (AMSD) from the Federal and State environmental records database listings specified in ASTM Standard E 1527-21 are summarized in the following table. Detailed information for sites which could materially affect the environmental condition of the subject property (on-property, up-gradient, adjacent properties, and/or releases within 500 feet) will be detailed below, along with an opinion about the significance of the listing to the analysis of recognized environmental conditions in connection with the subject property. The table below identifies all of the database hits within their AMSD.

Database	Subject Property	Search Distance	< 1/8	1/8-1/4	1/4 -1/2	1/2 -1	>1	Total
NPL	0	1.0	0	0	0	0	NR	0
Proposed NPL	0	1.0	0	0	0	0	NR	0
NPL Liens	0	1.0	0	0	0	0	NR	0
Delisted NPL	0	1.0	0	0	0	0	NR	0
Federal Facility	0	0.5	0	0	NR	NR	NR	0
SEMS	0	0.5	0	0	NR	NR	NR	0
SEMS- Archive	0	0.5	0	0	NR	NR	NR	0
CORRACTS	0	1.0	0	0	0	0	NR	0
RCRA TSDF	0	0.5	0	0	NR	NR	NR	0
RCRA-LQG	0	0.25	0	0	NR	NR	NR	0
RCRA-SQG	0	0.25	0	0	NR	NR	NR	0
RCRA-VSQG	0	0.25	0	0	NR	NR	NR	0
LUCIS	0	0.5	0	0	NR	NR	NR	0
US Eng Controls	0	0.5	0	0	NR	NR	NR	0
US Inst Controls	0	0.5	0	0	NR	NR	NR	0
ERNS	0	0.001	0	NR	NR	NR	NR	0
OH SHWS	0	N/A	N/A	N/A	N/A	N/A	NR	0
OH DERR	0	1.0	0	0	0	0	NR	0
OH SWF/LF	0	0.5	0	0	0	NR	NR	0
OH LUST	0	0.5	0	0	1	NR	NR	1
Indian LUST	0	0.5	0	0	0	NR	NR	0
OH Unreg LTanks	0	0.5	0	0	0	NR	NR	0
FEMA UST	0	0.25	0	0	NR	NR	NR	0
OH UST	0	0.25	0	0	NR	NR	NR	0
OH AST	0	0.25	0	0	NR	NR	NR	0
Indian UST	0	0.25	0	0	NR	NR	NR	0

Database	Subject Property	Search Distance	< 1/8	1/8-1/4	1/4 -1/2	1/2 -1	>1	Total
OH Hist Eng Controls	0	0.5	0	0	0	NR	NR	0
OH Hist Inst Controls	0	0.5	0	0	0	NR	NR	0
OH Eng Controls	0	0.5	0	0	0	NR	NR	0
OH Inst Controls	0	0.5	0	0	0	NR	NR	0
OH VCP	0	0.5	0	0	0	NR	NR	0
Indian VCP	0	0.5	0	0	0	NR	NR	0
OH Brownfields	0	0.5	0	0	0	NR	NR	0
US Brownfields	0	0.5	0	0	0	NR	NR	0
Additional Records	Subject Property	Search Distance	< 1/8	1/8-1/4	1/4 -1/2	1/2 -1	>1	Total
RCRA NonGen / NLR	0	0.25	0	1	NR	NR	NR	1
Ust Finder Release	0	0.5	0	0	1	NR	NR	1
E Manifest	0	0.25	2	0	NR	NR	NR	2
ADD ALL HITS FROM THE ADDITIONAL RECORDS PORTION OF THE EDR								
EDR Exclusive Records	Subject Property	Search Distance	< 1/8	1/8-1/4	1/4 -1/2	1/2 -1	>1	Total
EDR MGP	0	1.0	0	0	0	0	NR	0
EDR Hist Auto	0	0.125	0	NR	NR	NR	NR	0
EDR Hist Cleaner	0	0.125	0	NR	NR	NR	NR	0
Totals	0		2	1	2	0	0	5

5.1.1 Orphan Properties

Orphan sites are sites that could not be located by EDR due to incomplete and/or inaccurate address information included in the United States Environmental Protection Agency (USEPA)/state databases. Although the exact locations of the orphan sites are frequently unknown, MAKSolve attempts to evaluate the potential adverse environmental impact that these sites may have on the subject property. This evaluation consists of reviewing street names in an effort to learn whether the street on which the site is located lies within the search distance of the subject property and evaluating the site type and information provided by government agencies. MAKSolve reviewed the information provided by EDR, no orphan sites were found.

5.2 Historic Records Review

As part of this Phase I ESA, MAKSolve attempted to develop a history of the previous uses of the subject property, adjacent properties, and the surrounding area to help identify past uses that may have resulted in one or more RECs at the subject property. Efforts were made to identify the uses of the subject property back to the subject property's first use, or back to 1940, whichever is earlier.

5.2.1 Historic Records Sources and Availability

The table below summarizes the historic resources reviewed or consulted as part of this Phase I ESA.

Resource	Source reviewed	Source	Date Reviewed
Aerial Photographs	Yes	EDR	1968, 1974, 1984, 1994, 2001, 2006, 2011, 2015, 2019, 1964, 1950, 1942
Fire Insurance Maps	Yes	EDR	No coverage found
USGS Topographic Maps	Yes	EDR	2019, 2016, 2013, 1992, 1984, 1981, 1975, 1974, 1968, 1965, 1955, 1906, 1904
City Directories	Yes	EDR	2000, 2005, 2010, 2014, 2017, 2020
Property Tax Files	Yes	Greene County Auditor	2025
Building Department Records	No	N/A	No response has been received as of the date of this report.
Zoning/Land Use Records	No	N/A	No response has been received as of the date of this report.
Interviews	Yes	Questionnaires	2025
Chain of Title	No	N/A	N/A
AULs and Environmental Liens	No	N/A	N/A
Recorded Land Title Records	Yes	EDR	2025
Previous Reports	Yes	Kilbane Environmental	2025
Other Historical Sources	No	N/A	N/A

5.2.2 Subject Property Historical Uses

Decade	Resources	Description of Use
Pre-1900	Resource not identified	Data gap.
1900	Topographic Maps (1904, 1906)	Data gap.
1910	Resource not identified	Data gap.
1920	Resource not identified	Data gap.
1930	Resource not identified	Data gap.
1940	Aerial Photos (1942, 1948)	What appears to be agricultural land.
1950	Aerial Photos (1950, 1952) Topographic Map (1955)	No significant changes.
1960	Aerial Photos (1964, 1968) Topographic Maps (1965, 1968)	No significant changes.
1970	Aerial Photo (1974) Topographic Maps (1974, 1975)	No significant changes.
1980	Aerial Photo (1984) Topographic Maps (1981, 1984)	No significant changes.
1990	Aerial Photo (1994) Topographic Map (1992)	No significant changes.
2000	Aerial Photos (2001, 2006)	Appears to change to vacant grassy land.
2010	Aerial Photos (2011, 2015, 2019) Topographic Maps (2013, 2016,	By 2019 appears to be wooded and grassy land with a border of trees around the perimeter and some clear areas near the

Decade	Resources	Description of Use
	2019)	center south portion of the subject property.
2020	Google Earth (2025)	No significant changes.

5.2.3 Adjacent Property Historical Use

The table below summarizes the adjacent properties' historic uses.

Decade	Resources	Description of Use	Occupant
Pre-1900	Resource not identified	Data gap.	N/A
1900	Topographic Maps (1904, 1906)	Data gap.	N/A
1910	Resource not identified	Data gap.	N/A
1920	Resource not identified	Data gap.	N/A
1930	Resource not identified	Data gap.	N/A
1940	Aerial Photos (1942, 1948)	What appears to be farmland on all sides with wooded land to the northwest, and what appears to be two residential buildings with a shed farther north.	N: Farmland, Residences E: Farmland S: Farmland W: Wooded land, Farmland
1950	Aerial Photos (1950, 1952) Topographic Map (1955)	No significant changes.	No significant changes.
1960	Aerial Photos (1964, 1968) Topographic Maps (1965, 1968)	No significant changes.	No significant changes.
1970	Aerial Photo (1974) Topographic Maps (1974, 1975)	No significant changes.	No significant changes.
1980	Aerial Photo (1984) Topographic Maps (1981, 1984)	No significant changes.	No significant changes.
1990	Aerial Photo (1994) Topographic Map (1992)	No significant changes.	No significant changes.
2000	Aerial Photos (2001, 2006) City Directories (2000, 2005)	By 2001, there appears to be a road developed to the south with vacant land at the southwest and a community of buildings surrounding a small lake to the southeast. To the east also appears to be a large apartment complex with what appears to be garages and roadways. The land to the north appears to be vacant with the building farther north appearing to remain with more developed roads. To the west appears to be vacant land with parts of the wooded area cleared for two buildings with parking areas. In the 2000 city directory, the building to the northwest at 1750 Commerce Center Blvd is identified. By 2006, the vacant land to the south appears to be developed with four more	N: Vacant land and residences E: Apartment complex S: Apartment complex and commercial structures W: Vacant land and commercial structures, Klein Associates Incorporated, Pettit Dennis Oral Surgeon, Fairborn Vision Center

Decade	Resources	Description of Use	Occupant
		buildings with parking areas, along with another building/parking area in the previously vacant land to the west. The 2005 city directory identifies 1762 as a dentist and 1790 as an optometrist.	
2010	Aerial Photos (2011, 2015, 2019) Topographic Maps (2013, 2016, 2019) City Directories (2010, 2014, 2017)	By 2011, the land to the south appears further developed with three additional buildings. Another building with a parking area appears to be added to the west. In the 2010 city directory, the building to the southwest (1170) is identified as well as 1145 to the west. By 2014, 1750 building changes ownership. By 2017, 1145 building is listed as a chiropractor.	N: No significant changes E: No significant changes S: Airflow Advantage W: Wooded land and commercial structures, Applied Research Associates INC A, Living Well Spine CTR
2020	City Directory (2020) Google Earth (2025)	Sometime between 2019 and 2025, there appears to have been a residential cul-de-sac with a lake and roadway developed to the north. This cul-de-sac extends past the far north residences on their western side, and wraps around their southern side. In 2020 city directory, 1750 changes ownership again.	N: Residences E: No significant changes S: No significant changes W: Trumpet Behavioral Health

5.2.4 Interviews

MAKSolve was supplied with a completed Property Contact Questionnaire. Representative Tony Quinter, Project Manager with Oberer Companies completed the questionnaire which is discussed further below in section 7.0 of this report. No significant environmental concerns were noted by the representative, based on the information provided.

5.2.5 Title Records

No title records were provided by the user/client. Please refer to the Records Review section for current and historical ownership/use of the subject property.

5.2.6 Property Tax Files

Property tax files are reviewed to gather information regarding past ownership, appraisals, maps, photos, etc. According to the Greene County Auditor, the subject property is located in the City of Fairborn, on Channingway Drive and is identified as parcel number A02000200470000500, is approximately 5.9170 acres in size, is undeveloped, and is owned by Oberer Construction Managers LTD since May 26, 1016. Previous ownership information was not available.

5.2.7 Building Department Records

Building Department records were not reasonably obtainable as of the publication of this report.

5.2.8 Zoning/Land Use

MAKSolve reviewed the City of Fairborn Online Zoning Map. According to the map reviewed the subject property is zoned: Planned Development.

5.2.9 Other Historical Records

The history of the subject property was documented using standard sources and other historical sources were not researched.

5.2.10 Previous Environmental Reports

Reports provided to MAKSolve for review are tabulated below:

Type of Report	Author/Date/Project Number	Findings
Phase I	Kilbane Environmental/ December 5, 2023/ 23573(1)	The previous Phase I report found no environmental concerns in association with the subject property. The previous Phase I report mentioned Greene County being classified as Radon Zone 1, implying impact from radon in the area of the subject property is possible. The previous Phase I report was conducted to the ASTM standards of the time and did not appear to have any findings that contradicted the findings of MAKSolve listed within this report.

A copy of the previous report is provided in Appendix F.

5.2.11 Historic Narrative Summary

Based on a review of historical resources such as aerial photographs, fire insurance maps, topographic maps, city directories, and city records, the subject property appears to have previously been agricultural land as early as 1942 until the late 90's. From 2001 onward; the subject property appears to be vacant land with the continued development of roads, residences, and commercial buildings surrounding it until 2019 when the subject property is noted as wooded land as it stands today.

5.3 Additional Environmental Resources

No additional environmental resources were provided to MAKSolve for review.

5.4 Environmental Lien and Activity/Use Limitations

Environmental lien records recorded against the subject property were not provided by the client. As part of the approved scope of work, a review of these records was not included. MAKSolve assumes that the client is evaluating this information outside of the context of this report.

5.5 Vapor Encroachment Evaluation

No activity and use limitations at the subject property indicating vapor encroachment were identified during this assessment. No significant release of chemicals of concern is known to have occurred on the subject property or the adjacent properties. Therefore, vapor encroachment does not appear to be a potential concern to the subject property.

6 INTERVIEWS & LOCAL GOVERNMENT RECORDS

Resource	Date of Contact	Type of Contact	Response Received	Comments
Property Owner Representative	2/7/2025	Questionnaire	Yes	Representative Mr. Quinter is not aware of any environmental concerns in association with the subject property.
Key Site Manager	N/A	N/A	N/A	N/A
Client/User	2/27/2025	Questionnaire	Yes	Owner Mr. McCann is not aware of any environmental concerns in association with the subject property.
Occupant	N/A	N/A	N/A	N/A
Major Occupant	N/A	N/A	N/A	N/A
Local Health Department	2/18/2025	Online request	No	As of the date of this report, no response has been received.
Local Fire Department	2/18/2025	Online request	Yes	Office Assistant Cheyenne Mendenhall stated the Fairborn Fire Department does not have any records of environmental concern in association with the subject property.
Local Building and Zoning Department	2/18/2025	Online request	Yes	City Planner Kathleen Riggs stated no violations found in their records.
Local Water and Sewer District	2/18/2025	Online request	No	As of the date of this report, no response has been received.
Local Police Department	2/18/2025	Online request	No	As of the date of this report, no response has been received.
Local School Department	2/18/2025	Online request	No	As of the date of this report, no response has been received.
Ohio EPA	2/18/2025	Online request	Yes	Administrative Professional Penny Prather stated the Ohio EPA does not have any records in association with the subject property.
Bureau of Underground Storage Tank Regulations (BUSTR)	2/18/2025	Online request	Yes	Administrative Professional Marla Reichenbach stated the Ohio Department of Commerce does not have any records in association with the subject property.

Interviews

Role	User (Client)
Name	Robert McCann
Title	CFO
Company	Oberer Companies
Method	User Questionnaire
Comments	Mr. McCann is not aware of any environmental concerns in association with the subject property.

Role	Property Owner (Representative)
Name	Tony Quinter
Title	Project Manager
Company	Oberer Companies
Method	Property Contact Questionnaire (Interview)
Comments	Mr. Quinter is not aware of any environmental concerns in association with the subject property.

Role	Local Government Official
Name	Penny Prather
Title	Administrative Professional
Company	Ohio EPA
Method	Online Request
Comments	The Ohio EPA did not find any records in association with the subject property.

Role	Local Government Official
Name	Marla Reichenback
Title	Administrative Professional 2
Company	Ohio Department of Commerce
Method	Online Request
Comments	The Division of State Fire Marshal (BUSTR) did not find and records in association with the subject property.

Role	Local Government Official
Name	Cheyenne Mendenhall
Title	Office Assistant II
Company	Fire Department
Method	Online Request
Comments	The Fairborn Fire Department does not have any records of environmental concern in association with the subject property.

Role	Local Government Official
Name	Kathleen Riggs
Title	City Planner
Company	City of Fairborn Development Services
Method	Online Request
Comments	The City of Fairborn Development Department did not find any building, zoning, or fire code violations in association with the subject property. Per Ms. Riggs, they are unaware of any underground or above ground storage tanks or contamination concerns at the subject property.

Copies of all information requests and correspondence are provided in Appendix G.

7 Non-Scope Considerations

The following additional reviews were conducted at the request of the client in accordance with OHFA guidelines, and as such are outside of the scope of the ASTM E-1527-21 Phase I Environmental Site Assessment standard.

7.1 Asbestos-Containing Building Materials

No buildings are located on the subject property; therefore, asbestos-containing building materials (ACBM) are not a concern at the subject property.

7.2 Lead-Based Paint

No buildings are located on the subject property; therefore, lead-based paint is not a concern at the subject property.

7.3 Histoplasmosis

No buildings are located on the property; therefore, histoplasmosis does not appear to be a concern at the site.

7.4 Microbial Conditions (Mold)

No buildings are located on the subject property; therefore, mold is not a concern at the subject property.

7.5 Historic Preservation

No structures were present on the property. Therefore, further evaluation of historic preservation requirements is not warranted.

7.6 Noise

HUD noise limits were evaluated by identifying all roads within 1,000 feet of the subject property boundary having four or more lanes and/or 10,000 ADT or greater, identifying all railroads within 3,000 feet of any subject property boundary, and noting all airports that are within five miles of the subject property.

For new construction and construction from nonresidential to residential projects, a noise analysis utilizing the methodology in HUD's Noise Guidebook (HUD-953-CPD) will be performed by HUD as part of HUD's Environmental Assessment. For rehabilitation and refinancing, noise exposure by itself will not result in existing properties for insurance but will be considered as a marketability factor.

A cursory review of potential noise hazards was performed via reviewing street maps, USGS topographic maps, observations made during the property visit, and a review of Federal

Aviation Administration internet websites. This review is not comprehensive. However, attempts were made to identify roadways (four lanes or more) within 1,000 feet of the subject property, civil airports within five miles, and military airfield within 15 miles of the subject property.

Based on the location of the subject property with respect to Wright-Patterson Air Force Base, a noise survey may be warranted.

The following table identifies noise hazards identified within the given radii from the subject property:

Noise Hazard	Distance searched	Hazard identified	Comments
Major Roadways	1,000 feet	No	No concern
Railroads	3,000 feet	No	No concern
Civilian Airports	5 Miles	No	No concern
Military Airfield	15 Miles	Yes	Wright-Patterson Air Force Base is located approximately 3.30 miles north-west of the subject property.

7.7 Farmland Protection

According to the USDA Natural Resources Conservation Services Farmland Classification soil survey the soils beneath the subject property are all considered to be areas of Prime Farmland and/or Prime Farmland If Drained. However, as the subject property is located within the incorporated limits of the City of Fairborn, farmland protection is not a concern.

7.8 Explosion Hazard

There are inherent potential dangers associated with locating HUD-assisted projects near hazardous facilities which store, handle, or process hazardous substances of a flammable or explosive nature. Project sites located too close to facilities handling, storing or processing conventional fuels, hazardous gases or chemicals of an explosive or flammable nature may expose occupants or end-users of a project to the risk of injury in the event of a fire or an explosion.

To address this risk, regulations at 24 CFR Part 51 Subpart C require HUD-assisted projects to be separated from these facilities by a distance that is based on the contents and volume of the aboveground storage tank, or to implement mitigation measures.

Based on the site reconnaissance observations and review of the aerial photos, no above-ground storage tanks were observed in the surrounding area of the subject property. Based on the observations and aerial review, explosion hazards do not appear to be a concern in connection with the subject property.

7.9 Soil Suitability

According to the USDA's Soil Conservation Service Web Soil Survey data, the subject property is underlain by Eldean silt loam, Ockley silt loam, and Sloan silty clay loam. A copy of the soil survey with descriptions is presented in section 3.4 Soils of this report.

According to the OHFA, Environmental Review Standards for HOME funded projects (May 11, 2016), geotechnical surveys are required for soil types that have "very limited" characteristics with respect to commercial and residential construction.

Based on the suitability ratings, a geophysical survey appears to be warranted.

Soil Type	Dwelling w/o basement	Dwelling with basement	Small commercial building
Eldean silt loam	Somewhat Limited	Not Limited	Somewhat Limited
Ockley silt loam	Not Limited	Not Limited	Somewhat Limited
Sloan silty clay loam	Very Limited	Very Limited	Very Limited

7.10 Traffic Hazards

In compliance with the OHFA Environmental Review standards for HOME Funded Projects, MAKSolve submitted a FOIA request to the Fairborn Police Department requesting information regarding traffic hazards in the project area that could directly impact the project site and/or project resident safety during normal activities (at a bus stop, for example), or if there is heavy vehicle and/or truck/bus traffic or limited sight lines at the project ingress/egress. As of the date of this report no response has been received regarding the information requested. Based on an internet search of Fairborn's Fatal and Serious Injury Crashes from 2005-2022, no accidents with serious injuries or fatalities have been reported in the vicinity of the subject property. Based on this information, traffic hazards do not appear to be a concert at the subject property location.

A Traffic Hazard Map is provided in Appendix H.

7.11 High-Tension Power Lines

A review of an interactive map from ArcGIS Online showing the U.S. Electric Power transmission Lines indicate no high-tension power lines in the vicinity of the subject property.

A map of the high-tension power lines can be found in appendix I.

7.12 Steep Slopes, Lakes, Ponds, or Culverts

Based on the site reconnaissance, an approximately 9 foot elevation difference was observed on the subject property. The majority of the difference is located at the southern boundary of the subject property where adjacent to the sidewalk there is a ditch that rises into a small hill. Based on observations, no significant tripping hazards were identified.

7.13 Radon

The subject property is located in Zone 1 (Moderate Potential per the USEPA's Map of Radon Zones. According to the Ohio Department of Health, 1,147 radon tests were conducted at locations in the 45324 zip code. The mean value was 7.71 picocuries per Liter (pCi/L). The USEPA action level is 4.0 pCi/L. Based on the subject property's location in Zone 1, if the site is to be used for residential purposes, radon testing and/or mitigation may be warranted.

A copy of the Ohio — EPA Map of Radon Zones is provided as Appendix J.

7.14 Drinking Water Quality

Drinking water for the subject property is provided by the City of Fairborn. The district was required to perform system-wide lead screening of their water system starting in 1992, under the USEPA "Lead and Copper Regulations" (Federal Register Volume 56, No. 26460). These regulations, promulgated in June 1991, require public water systems to perform screening and provide for public notification and corrective action to reduce the lead hazards present in the water system.

According to the Greene County-Fairborn 2023 Drinking Water Quality Report the public water supply has met the 90th percentile for the lead action level of 15 parts per billion (ppb) and is currently in compliance with the USEPA's Lead and Copper Regulations.

A copy of the 2023 Water Quality Report is included in Appendix K.

7.15 100 Year Flood Zone

The Federal Emergency Management Agency (FEMA) website was accessed, and flood zoning reviewed for the property. The property is rated as Flood Zone X, an Area of Minimal Flood Hazard.

Based upon the above information, flood areas are not expected to be a concern at this time. No further action is recommended.

A FEMA Firmette for the property is presented in Appendix L.

7.16 Wetlands

No obvious evidence of wetland areas was observed on the subject property during the property visit. Review of the United States Department of the Interior, National Wetland Inventory map of Fairborn, Ohio, revealed no delineated wetlands mapped on the subject property.

Based on the above information, wetland areas are not expected to be an environmental concern at this time.

A NWI Map for the property is presented in appendix M.

7.17 Coastal Barrier Resources

A review of the Coastal Barrier Resource System (CBRS) confirmed the subject property is not within or within the vicinity of a CBRS.

A copy of the Coastal Barrier Resources System Map which includes the subject property is presented in Appendix N.

7.18 Coastal Zone Management

Based on the review of the Ohio Department of Natural Resources "Ohio Coastal Atlas Map Viewer". The subject property is not located within a Coastal Zone Area.

A Copy of the Ohio Coastal Atlas Map Viewer is presented in Appendix O.

7.19 Sole Source Aquifer

The property location was evaluated to determine if the property is located over the Greater Miami Buried Aquifer & OKI Extension (Southern Portion) Sole Source Aquifer in southwestern Ohio. Based on a review of the information and mapping, as provided by the Ohio Environmental Protection Agency, the property is not located over a sole source aquifer system.

A copy of the sole source aquifer Map which includes the subject property is presented in Appendix P.

7.20 Wild and Scenic Rivers

According to the Wild and Scenic Rivers Map of Ohio, as produced by the Ohio Department of Natural Resources, the subject property is not located in the vicinity of a Wild and Scenic River.

A copy of the Wild and Scenic Rivers Map is included in Appendix Q.

7.21 Threatened and endangered Species

According to the US Fish and Wildlife Service Information for Planning and Consultation (IPaC) list of endangered species, based on the subject property's location in Greene County, the potential exists for the presence of two threatened or endangered species. These include the Indiana Bat and the Northern Long-eared Bat. According to the IPaC report there are no critical habitats within the subject property area. Based on the site observations of the subject property, threatened or endangered species habitats may be present on the subject property.

A copy of the IPaC report can be found in Appendix R.

7.22 High Pressure Gas Lines/ Explosive Hazards

A review of National Pipeline Mapping System (NPMS) map, a search for indication of pipeline easements and visual inspection for underground pipeline markers identified no pipelines on the subject property. The nearest pipeline is approximately 1,400 feet to the west of the subject property boundary.

Based on the above information, gas lines are not expected to be a concern at this time. A copy of the NPMS map is provided in appendix S.

7.23 Airport Hazard

HUD standards regarding the acceptability of property located in a Runway Clear Zones (also known as Runway Protection Zones), Clear Zones, and Accident Potential Zones are found in 24 CFR Part 51 Subpart D. An Accident Potential Zone is an area at military airfields which is beyond the Clear Zone. Construction or major rehabilitation of any property located within a Clear Zone is prohibited. Acquisition, refinance, and minor rehabilitation of projects within Clear Zones are allowed with some restrictions. HUD must determine that projects located in Accident Potential Zones are generally consistent with Department of Defense land compatibility guidelines for Accident Potential Zones.

HUD, as part of its environmental review for an existing property, shall advise the Lender who will advise the mortgagor which is purchasing the property that the property is in a Runway Clear Zone, Clear Zone, and what the implications of such a location are:

- The buyer must sign a statement acknowledging receipt of this information.
- HUD may reject mortgage insurance for property within a Runway Clear Zone or Clear Zone because of the possibility that the property may be acquired at a later date by the airport operator.

Based on a review of the USGS topographic maps, street maps, observations during the property visit, and a review of FAA websites, the subject property is not located within 2,500 feet of the end of a runway at a civilian airport or within 15,000 feet of the end of a runway at a military airfield.

A map with a 2,500 and 15,000 foot radius circle is presented in Appendix T.

7.24 Air Quality

According to the US EPA Greenbook Summary Non-Attainment Area population Exposure Report (https://www3.epa.gov/airquality/greenbook/popexp.html) (reportedly to be current as

of January 31, 2025), the subject property is not located in a current Nonattainment Area County for all Criteria Pollutants.

A copy of the Ohio Nonattainment Area Counties is presented in Appendix U.

7.25 Environmental Justice

In accordance with the HUD Guidelines, MAKSolve attempted to obtain a standard report for the subject property and a one-mile buffer from the USEPA's EJScreen online tool. At the time of this report the USEPA's EJScreen website was not available.

EJ Screen documentation is provided in Appendix V.

7.26 Underground Mines, Sink Holes, or Tunnels

A review of the Ohio Department of Natural Resources (ODNR) Abandoned Underground Mine Locator Map indicated no mines are located on or adjacent to the subject property.

A copy of the Abandoned Underground Mine Locator Map is included in Appendix W.

8 FINDINGS

MAKSolve was retained by Oberer Companies, to perform a Phase I Environmental Site Assessment (ESA) in compliance with the Ohio Housing Finance Agency (OHFA), OHTF funding requirements, dated May 01, 2017 of the property known as Vacant Land located at Channingway Drive in Fairborn, Greene County, Ohio 45324 (Subject Property). MAKSolve performed the ESA in conformance with the Scope of Work and the provisions of the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E 1527-21. Any exceptions to, or deletions from, this practice are described within this report.

The Phase I Environmental Site Assessment (ESA) is designed to provide Oberer Companies with an assessment concerning environmental conditions as they may exist at the subject property. This assessment was conducted utilizing generally accepted ESA industry standards in accordance with the "All Appropriate Inquiries" rule, promulgated by the EPA (40 C.F.R. Part 312) and the American Society of Testing Materials ("ASTM") Standard E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, version E1527-21 and if applicable, the client's scope of work as discussed in the Reliance section of this report. This executive summary is provided for convenience only and is not a substitute for a thorough reading of the entire report, including all appendices.

The Phase I Environmental Site Assessment (ESA) is designed to provide Oberer Companies with an assessment concerning environmental conditions as they may exist at the subject property.

Under the direction of Environmental Professional John Bowen, Environmental Scientist Marinda VanHoose of MAKSolve conducted the property visit on February 18, 2025. Ms. VanHoose was unaccompanied during the property visit. At the time of the visit, weather conditions were partly cloudy and approximately 20 degrees Fahrenheit.

The subject property is located in a residential/commercial area of Fairborn, Ohio. The subject property consists of a rectangular-shaped parcel, totaling approximately 5.9170 acres of wooded and vacant land. According to the Greene County Auditor, the subject property is identified as parcel ID number A02000200470000500.

Based on a review of historical resources such as aerial photographs, fire insurance maps, topographic maps, city directories, and city records; the subject property appears to have previously been agricultural land as early as 1942 until the late 90's. From 2001 onward, the subject property is noted to be vacant land with the continued development of roads, residences, and commercial buildings surrounding it until 2019 when the subject property is seen as wooded land as it stands today.

9 CONCLUSIONS

As summarized, MAKSolve has performed a *Phase I Environmental Site Assessment* in conformance with the scope and limitations of ASTM Practice E1527-21 of Channingway Drive in Fairborn, Greene County, Ohio (subject property). Any exceptions to, or deletions from, this practice are described in Section 2.3 of this *report.*

Recognized Environmental Condition

This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property.

Historic Recognized Environmental Condition

This assessment has revealed no evidence of historic recognized environmental conditions in connection with the subject property.

Controlled Recognized Environmental Condition

This assessment has revealed no evidence of controlled recognized environmental conditions in connection with the subject property.

De Minimis Conditions

This assessment has revealed no evidence of de minimis conditions in connection with the subject property.

Business Environmental Risks

A risk that can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, is defined by ASTM Practice E1527-13 as a Business Environmental Risk. This assessment has revealed evidence of business environmental risks in connection with the *subject property*.

- Noise: The subject property is located within 5 miles from the Wright Patterson Air Force Base.
- Radon: According to the United States Environmental Protection Agency, the subject property is located in Radon Zone 1 (Highest potential; average indoor radon levels may be greater than 4 pCi/L (picocuries per liter)).
- Soil Suitability: According to the United States Department of Agriculture, the subject property is underlain by soil which is determined to be Very Limited.
- Based on the subject property's location, two endangered species (Indiana Bat and Northern Long Eared Bat) may be present.

10 OPINIONS

Based on the above referenced information, MAKSolve's opinion is the following:

- Based on its location in proximity to a Wright Patterson Airforce Base, a noise study may be warranted.
- Based on its location in Zone 1, if the subject property is to be utilized for residential purposes, radon testing prior to occupancy may be warranted.
- Based on the underlying soil type, a geotechnical investigation may be warranted.
- Site development in consultation with the United State Fish & Wildlife Service and the Ohio Department of Natural Resources is recommended.

11 REFERENCES

11.1 Published References

CERCLIS - Comprehensive Environmental Response, Compensation, and Liability Information System, United States Environmental Protection Agency (U.S. EPA), List-8: State/Event Listing (EDR),

CORRACTS - U.S. EPA, Office of Solid Waste and Emergency Response (EDR),

Emergency Response Notification System - U.S. EPA, Office of Solid Waste and Emergency Response (EDR),

Hazardous Waste Handlers and TSD Facilities - U.S. EPA Division of Hazardous Waste Management (EDR),

LUST Data - Ohio Division of State Fire Marshal, Bureau of Underground Storage Tank Regulations (BUSTR) (EDR),

National Priorities List – U.S. EPA (EDR),

Ohio Spills List - Ohio Environmental Protection Agency (OEPA), Division of Emergency Response,

Solid Waste Facilities - OEPA, Division of Solid and Infectious Waste (EDR),

U.S. EPA – Enforcement Compliance History (ECHO) online database,

UST Data - Ohio Division of State Fire Marshal, BUSTR (EDR).

11.2 Map, Aerial Photo, and Other Geographic References

Aerial Photographs – EDR (1968, 1974, 1984, 1994, 2001, 2006, 2011, 2015, 2019, 1964, 1950 and 1942),

Historical City Directories – EDR (2000, 2005, 2010, 2014, 2017 and 2020),

Historical Topographic Maps – EDR (2019, 2016, 2013, 1992, 1984, 1981, 1975, 1974, 1968, 1965, 1955, 1906 and 1904),

Sanborn Fire Insurance Maps – EDR (no coverage)

County Tax Map – Greene County Auditor's Office,

Federal Emergency Management Agency (FEMA), National Flood Hazard Layer FIRMette, https://msc.fema.gov/portal/search,

US Fish and Wildlife Service (FWS) -National Wetlands Inventory, https://www.fws.gov/wetlands/,

Soil Survey of Greene County, Ohio - United States Department of Agriculture, Soil Conservation Services (EDR) and USDA Web Soil Survey, and

U.S. Geological Survey 7.5-Minute and 15-Minute Series Topographic Maps – Yellow Spring, Ohio and Fairborn, Ohio (EDR).

Ohio Department of Natural Resources (ODNR), Divison of Mineral Resources and Divison of Geological Survey, Mines of Ohio: https://gis.ohiodnr.gov/MapViewer/?config=OhioMines

Ohio-EPA Map of Radon Zones: https://www.epa.gov/sites/default/files/2014-08/documents/ohio.pdf

Pipeline and Hazardous Materials Safety Administration (PHMSA), National Pipeline Mapping System, https://pvnpms.phmsa.dot.gov/PublicViewer/

Soil Survey of Greene County, Ohio - United States Department of Agriculture, Soil Conservation Services (EDR) and USDA Web Soil Survey

12 ENVIRONMENTAL PROFESSIONAL DECLARATION

I, John Bowen, declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in 40 CFR § 312.10. I have the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the property. I have developed and performed the all-appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



February 28, 2025

John Bowen — Date

13 ENVIRONMENTAL PROFESSIONAL QUALIFICATIONS

This ASTM E 1527-13 Phase I Environmental Site Assessment report of the subject property was prepared by or under the supervision of the following Environmental Professional.

John Bowen

Senior Project Manager, MAKSolve, LLC

EDUCATION

B.S. Environmental Science, Purdue University

PROFESSIONAL LICENSES

Ohio Department of Health Asbestos Inspector/Management Planner

Radon Tester

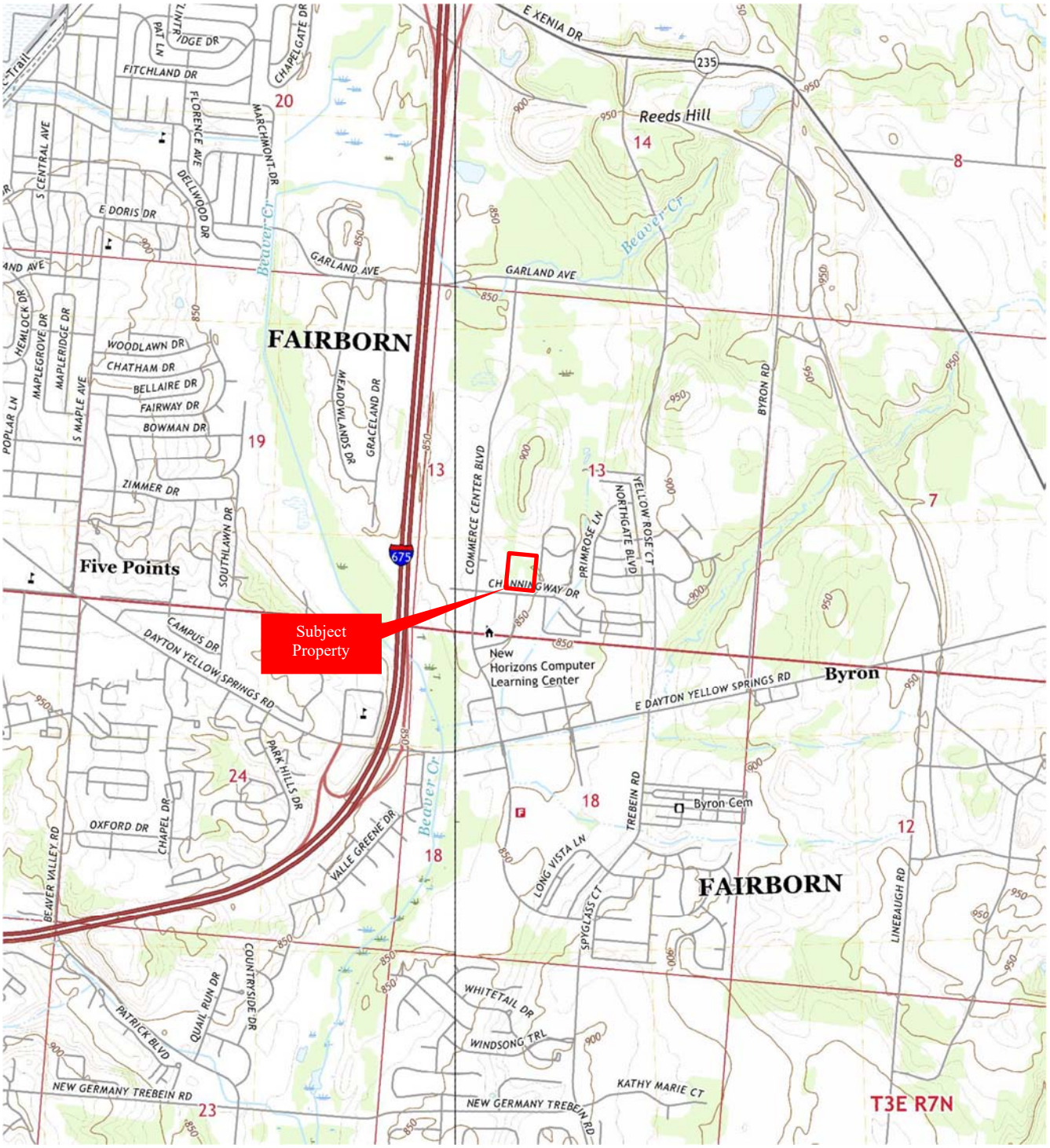
PROFESSIONAL EXPERIENCE

Mr. John Bowen has been active in the environmental field since 1999 and is currently a Senior Project Manager with MAKSolve, LLC. He has extensive project management experience, with emphasis on site assessment; remedial work plans; implementation of corrective actions; remedial system operation, maintenance, and reporting; underground storage tank closures; and asbestos surveys and abatement management. Mr. John Bowen has provided services to industrial, commercial, and governmental clients at locations across the United States. His due diligence experience includes:

Mr. John Bowen has performed and managed numerous due diligence projects for real estate transactions of residential, commercial, and industrial properties and portfolios throughout the country. Phase I Environmental Site Assessments (ESAs) were conducted in accordance with ASTM, Brownfields Revitalization Act All Appropriate Inquiry (AAI), Ohio EPA VAP or client-specific standards.

Mr. John Bowen has provided environmental due diligence services for numerous national clients during mergers and acquisitions (M&A) of large real estate portfolios. Services included site assessment; soil, groundwater, and asbestos sampling; conducting regulatory compliance and permit review; regulatory agency communication; developing cost estimates for escrow account budgeting and management; conducting baseline environmental condition assessments; and report preparation.

FIGURES



Source	Date	Revision	Project
USGS	2019	NA	028-25

Figure 1 — **Yellow Springs, Ohio 7.5 Minute Topographic Map**

MAK SOLVE

Vacant Land
Channingway Drive
Fairborn, Ohio

N
W E
S



Figure 2	Site Plan	Project Number 028-25

MAK SOLVE

Vacant Land
Channingway Drive
Fairborn, Ohio

N
W E
S



Figure 3	Property Diagram	Project Number 028-25
MAK SOLVE	Vacant Land Channingway Drive Fairborn, Ohio	N W E S

APPENDICES

APPENDIX A:
PHOTOGRAPHS

Project name: Vacant Land
Project No.: 028-25
Date Pictures Taken: February 17, 2025



Photograph 1: Property signage.


Photograph 2: Southwest corner of subject property boundary looking north.


Photograph 3: Southwest corner of subject property boundary looking east.


Photograph 4: Northwest corner of subject property boundary looking east.


Photograph 5: Southeast corner of subject property boundary looking north.


Photograph 6: Interior of the subject property.

Project name: Vacant Land
Project No.: 028-25
Date Pictures Taken: February 17, 2025



Photograph 7: Interior of the subject property.



Photograph 8: Interior of the subject property.



Photograph 9: North adjacent property.



Photograph 10: East adjacent property.



Photograph 11: South adjacent property.



Photograph 12: West Adjacent property.

APPENDIX B:
GOVERNMENT RECORDS SEARCH

KRAIG HAGLER

Greene County Auditor | Greene County, Ohio

Search by parcel number, owner name, or address

2024

Summary

Tax

Transfers 3

Deeds

History 3

Payment History 36

Value History

CAUV Soil Breakdown

Utilities 7

Land 2

Commercial Buildings

Dwellings

Other Improvements

Sketch

Levy Distribution

Tax Bill

Tax Estimator

Map this Parcel

Map with EagleView

Tax Card

Pay Taxes Online

Parcel Number
A02-0002-0047-0-0005-00

Legal Description
8-3-13 5.917AC E OF COMMERCE CENTER BLVD CHANNINGWAY DR

Location
CHANNINGWAY DR

Owner
OBERER CONSTRUCTION MANAGERS LTD

Acres
5.9170

Property

Tax District
A02-FAIRBORN CITY FAIRBORN CSD

School District
FAIRBORN CSD

Neighborhood
00317000-A02 COMMERCIAL

Subdivision

Map Number
0047-00

Routing Number
015-00

Certified Delinquent Year

Deed

Legal Description
8-3-13 5.917AC E OF COMMERCE CENTER BLVD CHANNINGWAY DR

Acres
5.9170

Date Sold
05/26/2016

Sales Amount
0.00

Volume / Page
/

Owner

Contact

OBERER CONSTRUCTION MANAGERS LTD
3475 NEWMARK DR
MIAMISBURG OH 45342

Owner Name

OBERER CONSTRUCTION MANAGERS LTD

Taxpayer

Contact

OBERER COMPANIES
3445 NEWMARK DR
MIAMISBURG OH 45342

Values

Land Use
400-COMMERCIAL - VACANT LAND

	Appraised	Assessed
Land	8,880	3,110
Improvement	0	0
Total	8,880	3,110
CAUV (N)	0	0
Homestead (N)	0	0
Owner Occupancy (N)	0	0
Taxable	8,880	3,110

Current Charges

Full Rate
84.090000

Effective Rate
57.762249

Qualifying Rate
49.977360

	Prior	First	Second
Tax	0.00	89.80	89.80
Special	0.00	0.00	0.00
Total	0.00	89.80	89.80
Paid	0.00	0.00	0.00
Due	0.00	89.80	179.60
Due On		**02/28/2025**	

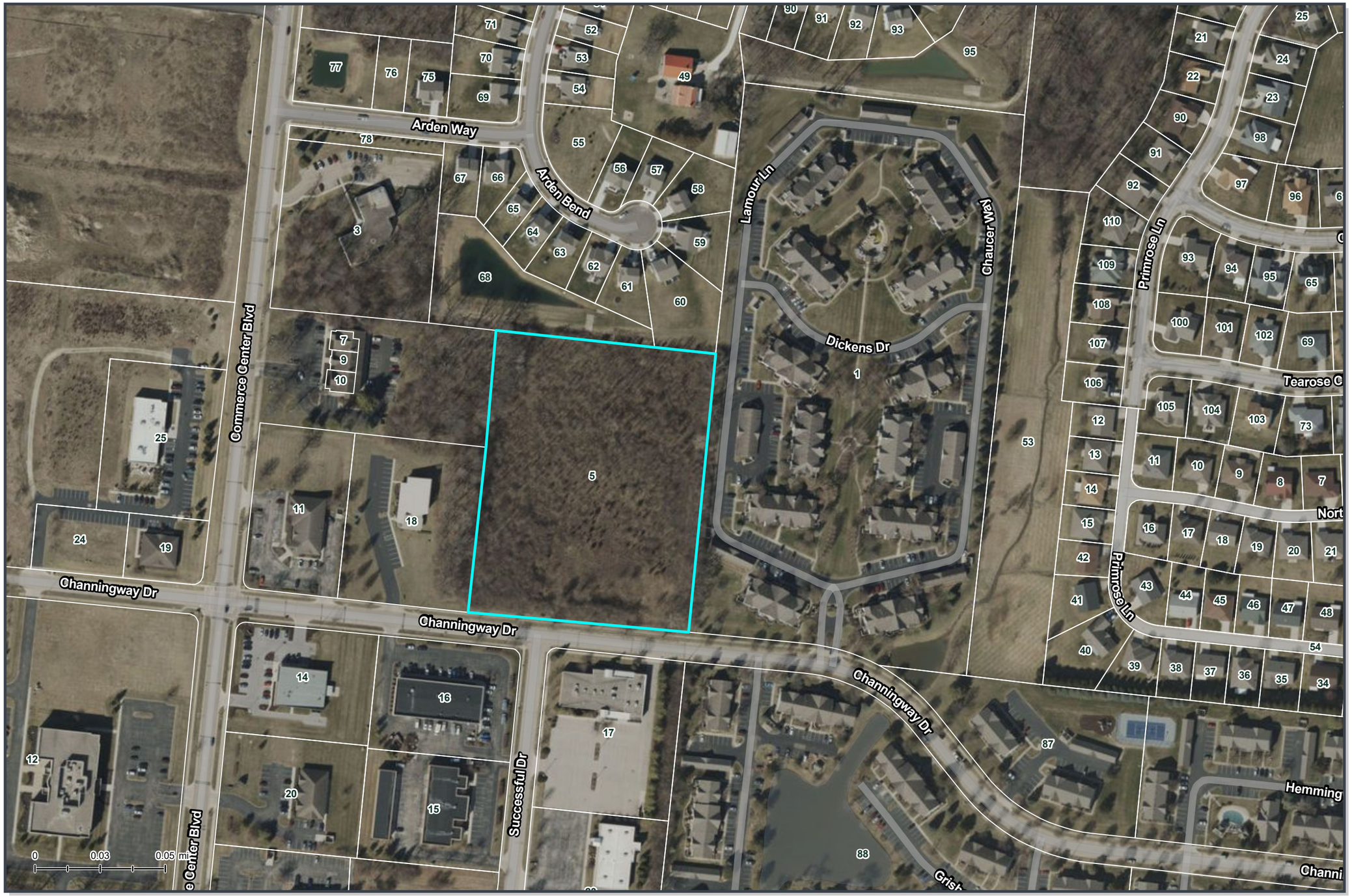
Adding on? Try our tax estimator.

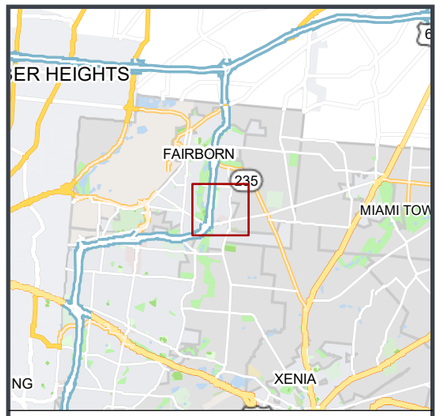
Last Updated: 02/16/2025 10:00 PM
Powered By: ISSG Inc

Channingway Drive Parcel Outline

Geographic Information Management System

GREENE COUNTY OHIO





Greene County Legend

- Interstate Highway
- US Highway
- State Route
- Local Roads
- Parcel Boundary
- Corporation Boundary
- Topography
- Parcel Number / Lot Number
- Schools
- Parks
- Cemetery
- Shopping
- Buildings
- Hydrography

1 inch = 200 feet

DISCLAIMER:

The data and maps provided herein may not be construed as a legal document or legal representation. Any person or entity who relies on this data does so solely at their own risk. The data provided was prepared by Greene County in accordance with Section 5713.09 of the Ohio Revised Code. Neither Greene County, Ohio nor its employees or officers warrant the accuracy, reliability, or timeliness of any of the data provided herein. This data is provided "as is" without warranty of any kind, and assumes no legal responsibility for the information it contains.

Spatial Reference
NAD 1983 HARN StatePlane Ohio South FIPS 3402 Feet
GCS: GCS North American 1983 HARN
Datum: North American 1983 HARN
Projection: Lambert Conformal Conic
Central Meridian: -82.5000
Latitude of Origin: 38.0000
Longitude of Origin: 0.0000
False Easting: 1,968,500.0000
False Northing: 0.0000
Central Parallel: 0.0000
Standard Parallel: 38.7333
Standard Parallel 2: 40.0333
Scale Factor: 0.0000
Azimuth: 0.0000
Map Units: Foot US

GIMS Greene County Geographic Information Management System

County Auditor Kraig A. Hagler

Created On: 2/17/2025 3:53 PM

Vacant Land
1790 Commerce Center Blvd
Fairborn, OH 45324

Inquiry Number: 7901032.2s
February 17, 2025

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527 - 21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E2247 - 16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E1528 - 22) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1790 COMMERCE CENTER BLVD
FAIRBORN, OH 45324

COORDINATES

Latitude (North):	39.7906790 - 39° 47' 26.44''
Longitude (West):	83.9961630 - 83° 59' 46.18''
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	243441.1
UTM Y (Meters):	4408610.5
Elevation:	853 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	14434888 YELLOW SPRINGS, OH
Version Date:	2019
Northwest Map:	14434926 FAIRBORN, OH
Version Date:	2019

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20191012
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
1790 COMMERCE CENTER BLVD
FAIRBORN, OH 45324

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	P & B ELECTRIC	1835 SUCCESSFUL DRIV	E MANIFEST	Lower	407, 0.077, SSW
A2	P+B ELECTRIC	1835 SUCCESSFUL DR F	E MANIFEST	Lower	407, 0.077, SSW
3	NEW HORIZONS COMPUTE	1890 COMMERCE CENTER	RCRA NonGen / NLR	Higher	835, 0.158, SW
B4	ELDER BEERMAN DC	1340 DAYTON-YELLOW S	LUST, UST, ARCHIVE UST	Higher	2325, 0.440, SSE
B5	ELDER BEERMAN DC	1340 DAYTON-YELLOW S	UST FINDER, UST FINDER RELEASE	Higher	2325, 0.440, SSE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL ---- National Priority List
Proposed NPL ---- Proposed National Priority List Sites
NPL LIENS ---- Federal Superfund Liens

Lists of Federal Delisted NPL sites

Delisted NPL ---- National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY ---- Federal Facility Site Information listing
SEMS ---- Superfund Enterprise Management System

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE ---- Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS ---- Corrective Action Report

Lists of Federal RCRA TSD facilities

RCRA-TSDF ---- RCRA - Treatment, Storage and Disposal

Lists of Federal RCRA generators

RCRA-LQG ---- RCRA - Large Quantity Generators
RCRA-SQG ---- RCRA - Small Quantity Generators
RCRA-VSQG ---- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---- Land Use Control Information System

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROLS..... Institutional Controls Sites List

Federal ERNS list

ERNS..... Emergency Response Notification System

Lists of state- and tribal hazardous waste facilities

SHWS..... This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.
DERR..... Division of Environmental Response and Revitalization Database

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF..... Licensed Solid Waste Facilities

Lists of state and tribal leaking storage tanks

LAST..... Leaking Aboveground Storage Tank Listing
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
UNREG LTANKS..... Ohio Leaking UST File

Lists of state and tribal registered storage tanks

FEMA UST..... Underground Storage Tank Listing
UST..... Underground Storage Tank File
AST..... Above Ground Storage Tanks
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

HIST ENG CONTROLS..... Operation & Maintenance Agreements Database
HIST INST CONTROLS..... Institutional Controls Database
ENG CONTROLS..... Sites with Engineering Controls
INST CONTROL..... Sites with Institutional Engineering Controls

Lists of state and tribal voluntary cleanup sites

VCP..... Voluntary Action Program Sites
INDIAN VCP..... Voluntary Cleanup Priority Listing

Lists of state and tribal brownfield sites

BROWNFIELDS..... Ohio Brownfield Inventory

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY..... Recycling Facility Listing

HIST LF ---- Old Solid Waste Landfill
INDIAN ODI ---- Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 ---- Torres Martinez Reservation Illegal Dump Site Locations
ODI ---- Open Dump Inventory
IHS OPEN DUMPS ---- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---- Delisted National Clandestine Laboratory Register
CDL ---- Clandestine Drug Lab Locations
US CDL ---- National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

ARCHIVE UST ---- Archived Underground Storage Tank Sites

Local Land Records

LIENS 2 ---- CERCLA Lien Information

Records of Emergency Release Reports

HMIRS ---- Hazardous Materials Information Reporting System
SPILLS ---- Emergency Response Database
SPILLS 90 ---- SPILLS 90 data from FirstSearch
SPILLS 80 ---- SPILLS 80 data from FirstSearch

Other Ascertainable Records

FUDS ---- Formerly Used Defense Sites
DOD ---- Department of Defense Sites
SCRD DRYCLEANERS ---- State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR ---- Financial Assurance Information
EPA WATCH LIST ---- EPA WATCH LIST
2020 COR ACTION ---- 2020 Corrective Action Program List
TSCA ---- Toxic Substances Control Act
TRIS ---- Toxic Chemical Release Inventory System
SSTS ---- Section 7 Tracking Systems
ROD ---- Records Of Decision
RMP ---- Risk Management Plans
RAATS ---- RCRA Administrative Action Tracking System
PRP ---- Potentially Responsible Parties
PADS ---- PCB Activity Database System
ICIS ---- Integrated Compliance Information System
FTTS ---- FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS ---- Material Licensing Tracking System
COAL ASH DOE ---- Steam-Electric Plant Operation Data
COAL ASH EPA ---- Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER ---- PCB Transformer Registration Database
RADINFO ---- Radiation Information Database
HIST FTTS ---- FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS ---- Incident and Accident Data
CONSENT ---- Superfund (CERCLA) Consent Decrees
INDIAN RESERV ---- Indian Reservations

FUSRAP ---- Formerly Utilized Sites Remedial Action Program
UMTRA ---- Uranium Mill Tailings Sites
LEAD SMELTERS ---- Lead Smelter Sites
US AIRS ---- Aerometric Information Retrieval System Facility Subsystem
US MINES ---- Mines Master Index File
MINES MRDS ---- Mineral Resources Data System
ABANDONED MINES ---- Abandoned Mines
FINDS ---- Facility Index System/Facility Registry System
ECHO ---- Enforcement & Compliance History Information
UXO ---- Unexploded Ordnance Sites
DOCKET HWC ---- Hazardous Waste Compliance Docket Listing
FUELS PROGRAM ---- EPA Fuels Program Registered Listing
PFAS NPL ---- Superfund Sites with PFAS Detections Information
PFAS FEDERAL SITES ---- Federal Sites PFAS Information
PFAS TSCA ---- PFAS Manufacture and Imports Information
PFAS TRIS ---- List of PFAS Added to the TRI
PFAS RCRA MANIFEST ---- PFAS Transfers Identified In the RCRA Database Listing
PFAS ATSDR ---- PFAS Contamination Site Location Listing
PFAS WQP ---- Ambient Environmental Sampling for PFAS
PFAS PROJECT ---- NORTHEASTERN UNIVERSITY PFAS PROJECT
PFAS NPDES ---- Clean Water Act Discharge Monitoring Information
PFAS ECHO ---- Facilities in Industries that May Be Handling PFAS Listing
PFAS ECHO FIRE TRAIN ---- Facilities in Industries that May Be Handling PFAS Listing
PFAS PT 139 AIRPORT ---- All Certified Part 139 Airports PFAS Information Listing
AQUEOUS FOAM NRC ---- Aqueous Foam Related Incidents Listing
BIOSOLIDS ---- ICIS-NPDES Biosolids Facility Data
UST FINDER ---- UST Finder Database
PFAS ---- PFOA & PFOS Site Listing
AIRS ---- Title V Permits Listing
ASBESTOS ---- Asbestos Notification Listing
COAL ASH ---- Coal Ash Disposal Site Listing
CRO ---- Cessation of Regulated Operations Facility Listing
DRYCLEANERS ---- Drycleaner Facility Listing
Financial Assurance ---- Financial Assurance Information Listing
HIST USD ---- Urban Setting Designations Database
LEAD ---- Lead Inspections Listing
NPDES ---- NPDES General Permit List
VAPOR ---- Vapor Intrusion
TOWNGAS ---- DERR Towngas Database
UIC ---- Underground Injection Wells Listing
USD ---- Urban Setting Designation Sites

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP ---- EDR Proprietary Manufactured Gas Plants
EDR Hist Auto ---- EDR Exclusive Historical Auto Stations
EDR Hist Cleaner ---- EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF ---- Recovered Government Archive Solid Waste Facilities List

EXECUTIVE SUMMARY

RGA LUST---------- Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Lists of state and tribal leaking storage tanks

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Commerce Division of State Fire Marshal's List of Reported Petroleum Underground Storage Tank Release Incidents.

A review of the LUST list, as provided by EDR, and dated 10/31/2024 has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ELDER BEERMAN DC	***1340 DAYTON-YELLOW S***	***SSE 1/4 - 1/2 (0.440 mi.)***	***B4***	***17***
FR Status: NFA: No Further Action				

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 09/16/2024 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NEW HORIZONS COMPUTE	1890 COMMERCE CENTER	SW 1/8 - 1/4 (0.158 mi.)	3	14
EPA ID:: OHR000159418				

EXECUTIVE SUMMARY

UST FINDER RELEASE: US EPA's UST Finder data is a national composite of leaking underground storage tanks. This data contains information about, and locations of, leaking underground storage tanks. Data was collected from state sources and standardized into a national profile by EPA's Office of Underground Storage Tanks, Office of Research and Development, and the Association of State and Territorial Solid Waste Management Officials.

A review of the UST FINDER RELEASE list, as provided by EDR, and dated 06/08/2023 has revealed that there is 1 UST FINDER RELEASE site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ELDER BEERMAN DC	***1340 DAYTON-YELLOW S***	***SSE 1/4 - 1/2 (0.440 mi.)***	***B5***	***19***

E MANIFEST: EPA established a national system for tracking hazardous waste shipments electronically. This system, known as ?e-Manifest,? will modernize the nation?s cradle-to-grave hazardous waste tracking process while saving valuable time, resources, and dollars for industry and states.

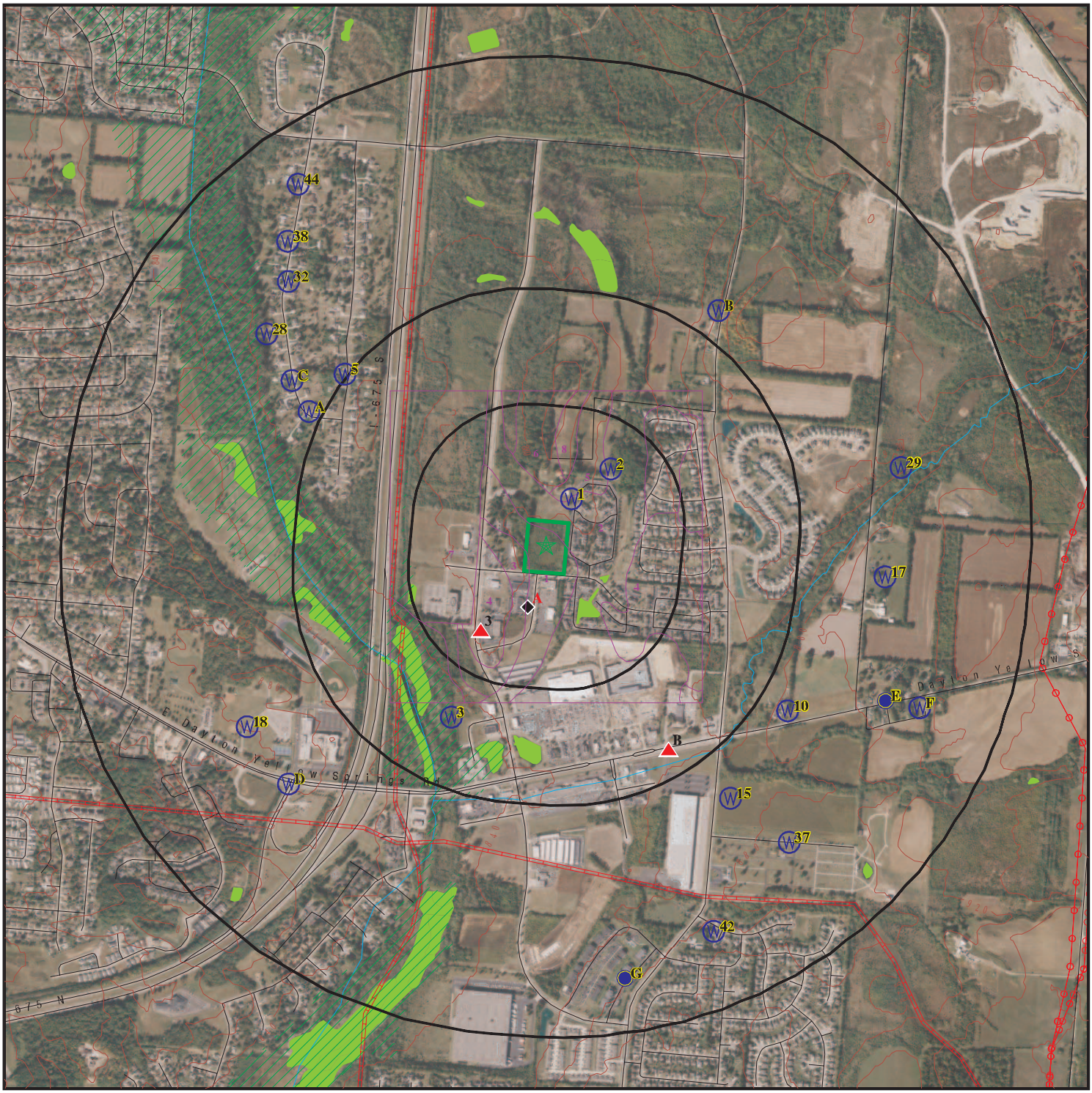
A review of the E MANIFEST list, as provided by EDR, and dated 09/16/2024 has revealed that there are 2 E MANIFEST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
P & B ELECTRIC	1835 SUCCESSFUL DRIV	SSW 0 - 1/8 (0.077 mi.)	A1	8
P+B ELECTRIC	1835 SUCCESSFUL DR F	SSW 0 - 1/8 (0.077 mi.)	A2	11

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 7901032.2S



0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Pipelines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Vacant Land	CLIENT:	Maksolve
ADDRESS:	1790 Commerce Center Blvd Fairborn OH 45324	CONTACT:	Marinda Vanhoose
LAT/LONG:	39.790679 / 83.996163	INQUIRY #:	7901032.2s
		DATE:	February 17, 2025 4:54 pm

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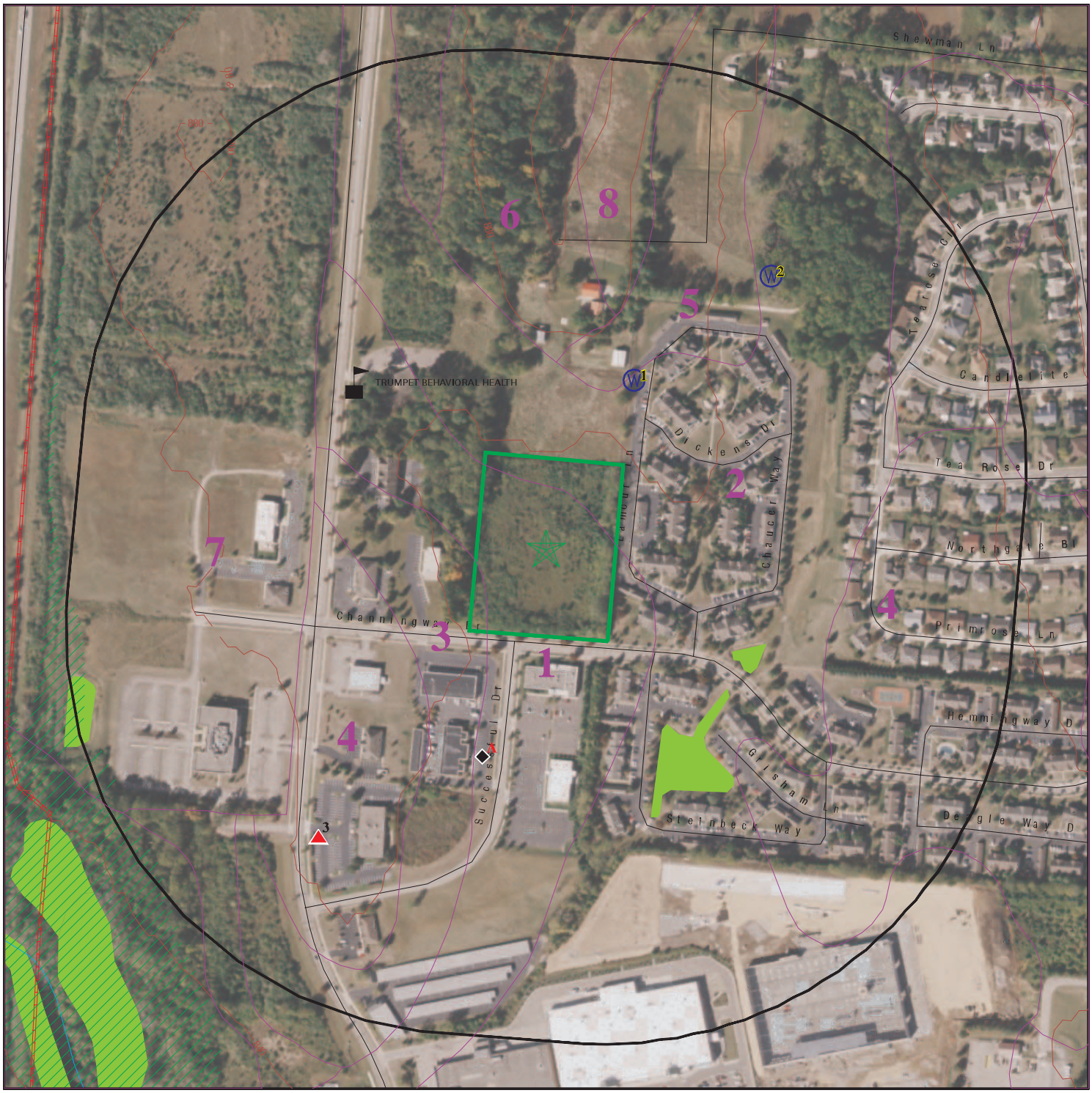
DETAIL MAP - 7901032.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Pipelines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Vacant Land	CLIENT:	Maksolve
ADDRESS:	1790 Commerce Center Blvd Fairborn OH 45324	CONTACT:	Marinda Vanhoose
LAT/LONG:	39.790679 / 83.996163	INQUIRY #:	7901032.2s
		DATE:	February 17, 2025 4:56 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Superfund) sites								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Lists of Federal Delisted NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites subject to CERCLA removals and CERCLA orders								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Lists of Federal CERCLA sites with NFRAP								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA facilities undergoing Corrective Action								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA TSD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA generators								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
Lists of state- and tribal hazardous waste facilities								
SHWS	N/A		N/A	N/A	N/A	N/A	N/A	N/A
DERR	1.000		0	0	0	0	NR	0
Lists of state and tribal landfills and solid waste disposal facilities								
SWF/LF	0.500		0	0	0	NR	NR	0
Lists of state and tribal leaking storage tanks								
LAST	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LUST	0.500		0	0	1	NR	NR	1
INDIAN LUST	0.500		0	0	0	NR	NR	0
UNREG LTANKS	0.500		0	0	0	NR	NR	0
Lists of state and tribal registered storage tanks								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
HIST ENG CONTROLS	0.500		0	0	0	NR	NR	0
HIST INST CONTROLS	0.500		0	0	0	NR	NR	0
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
Lists of state and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
Lists of state and tribal brownfield sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
SWRCY	0.500		0	0	0	NR	NR	0
HIST LF	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
ARCHIVE UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS 2	0.001		0	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SPILLS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
SPILLS 80	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	1	NR	NR	NR	1
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
MINES MRDS	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
PFAS NPL	0.250		0	0	NR	NR	NR	0
PFAS FEDERAL SITES	0.250		0	0	NR	NR	NR	0
PFAS TSCA	0.250		0	0	NR	NR	NR	0
PFAS TRIS	0.250		0	0	NR	NR	NR	0
PFAS RCRA MANIFEST	0.250		0	0	NR	NR	NR	0
PFAS ATSDR	0.250		0	0	NR	NR	NR	0
PFAS WQP	0.250		0	0	NR	NR	NR	0
PFAS PROJECT	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
PFAS NPDES	0.250		0	0	NR	NR	NR	0
PFAS ECHO	0.250		0	0	NR	NR	NR	0
PFAS ECHO FIRE TRAIN	0.250		0	0	NR	NR	NR	0
PFAS PT 139 AIRPORT	0.250		0	0	NR	NR	NR	0
AQUEOUS FOAM NRC	0.250		0	0	NR	NR	NR	0
BIOSOLIDS	0.001		0	NR	NR	NR	NR	0
UST FINDER	0.250		0	0	NR	NR	NR	0
UST FINDER RELEASE	0.500		0	0	1	NR	NR	1
E MANIFEST	0.250		2	0	NR	NR	NR	2
PFAS	0.250		0	0	NR	NR	NR	0
AIRS	0.001		0	NR	NR	NR	NR	0
ASBESTOS	0.001		0	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
CRO	0.001		0	NR	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HIST USD	0.500		0	0	0	NR	NR	0
LEAD	0.001		0	NR	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
VAPOR	0.500		0	0	0	NR	NR	0
TOWNGAS	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
USD	0.500		0	0	0	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	2	1	2	0	0	5

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

N/A = This State does not maintain a SHWS list. See the Federal CERCLIS list.

A1
SSW
< 1/8
0.077 mi.
407 ft.

P & B ELECTRIC
1835 SUCCESSFUL DRIVE
FAIRBORN, OH 45324

Site 1 of 2 in cluster A

E MANIFEST **1027850830**
N/A

Relative:
Lower

Actual:
852 ft.

E MANIFEST:

Manifest Tracking Number:	016848741JJK
Last Updated Date:	20191205
Shipped Date:	20190603
Received Date:	20190613
Manifest Status:	Signed
Submission Type:	DataImage5Copy
Origin Type:	Web
Generator EPA ID:	CESQG
Generator Name:	P & B Electric
Generator Location Street Number:	Not reported
Generator Location Street 1:	1835 SUCCESSFUL DRIVE
Generator Location Street 2:	Not reported
Generator Location City:	FAIRBORN
Generator Location State:	OH
Generator Location Zip:	45324
Generator Mail Street Number:	Not reported
Generator Mail Street 1:	1835 SUCCESSFUL DRIVE
Generator Mail Street 2:	Not reported
Generator Mail City:	Fairborn
Generator Mail Zip:	45324
Generator Mail State:	OH
Generator Contact Company Name:	Not reported
Designated Facility EPA ID:	IN0000351387
Designated Facility Name:	Lighting Resources Incorporated
Designated Facility Mail Street Number:	Not reported
Designated Facility Mail Street 1:	Not reported
Designated Facility Mail Street 2:	498 PARK 800 DR
Designated Facility Mail City:	GREENWOOD
Designated Facility Mail Zip:	46143-9525
Designated Facility Mail State:	IN
Designated Facility Location Street Number:	Not reported
Designated Facility Location Street 1:	498 PARK 800 DR
Designated Facility Location Street 2:	Not reported
Designated Facility Location City:	GREENWOOD
Designated Facility Location Zip:	46143-9525
Designated Facility Location State:	IN
Designated Facility Contact Company Name:	Not reported
Manifest Residue Indicator:	N
Rejection Indicator:	N

Manifest Tracking Number:	016849568JJK
Last Updated Date:	20190926
Shipped Date:	20180820
Received Date:	20180820
Manifest Status:	Signed
Submission Type:	DataImage5Copy
Origin Type:	Web
Generator EPA ID:	CESQG
Generator Name:	P & B Electric
Generator Location Street Number:	Not reported
Generator Location Street 1:	1835 SUCCESSFUL DRIVE
Generator Location Street 2:	Not reported

P & B ELECTRIC (Continued) **1027850830**

Generator Location City:	FAIRBORN
Generator Location State:	OH
Generator Location Zip:	45324
Generator Mail Street Number:	Not reported
Generator Mail Street 1:	1835 Successful Drive
Generator Mail Street 2:	Not reported
Generator Mail City:	Fairborn
Generator Mail Zip:	45324
Generator Mail State:	OH
Generator Contact Company Name:	Not reported
Designated Facility EPA ID:	IN0000351387
Designated Facility Name:	Lighting Resources Incorporated
Designated Facility Mail Street Number:	Not reported
Designated Facility Mail Street 1:	Not reported
Designated Facility Mail Street 2:	498 PARK 800 DR
Designated Facility Mail City:	GREENWOOD
Designated Facility Mail Zip:	46143-9525
Designated Facility Mail State:	IN
Designated Facility Location Street Number:	Not reported
Designated Facility Location Street 1:	498 PARK 800 DR
Designated Facility Location Street 2:	Not reported
Designated Facility Location City:	GREENWOOD
Designated Facility Location Zip:	46143-9525
Designated Facility Location State:	IN
Designated Facility Contact Company Name:	Not reported
Manifest Residue Indicator:	N
Rejection Indicator:	N

Manifest Tracking Number:	016849810JJK
Last Updated Date:	20191030
Shipped Date:	20181206
Received Date:	20181206
Manifest Status:	Signed
Submission Type:	DataImage5Copy
Origin Type:	Web
Generator EPA ID:	CESQG
Generator Name:	P & B Electric
Generator Location Street Number:	Not reported
Generator Location Street 1:	1835 SUCCESSFUL DRIVE
Generator Location Street 2:	Not reported
Generator Location City:	FAIRBORN
Generator Location State:	OH
Generator Location Zip:	45324
Generator Mail Street Number:	Not reported
Generator Mail Street 1:	1835 SUCCESSFUL DRIVE
Generator Mail Street 2:	Not reported
Generator Mail City:	Fairborn
Generator Mail Zip:	45324
Generator Mail State:	OH
Generator Contact Company Name:	Not reported
Designated Facility EPA ID:	IN0000351387
Designated Facility Name:	Lighting Resources Incorporated
Designated Facility Mail Street Number:	Not reported
Designated Facility Mail Street 1:	Not reported
Designated Facility Mail Street 2:	498 PARK 800 DR
Designated Facility Mail City:	GREENWOOD
Designated Facility Mail Zip:	46143-9525

P & B ELECTRIC (Continued) **1027850830**

Designated Facility Mail State:	IN
Designated Facility Location Street Number:	Not reported
Designated Facility Location Street 1:	498 PARK 800 DR
Designated Facility Location Street 2:	Not reported
Designated Facility Location City:	GREENWOOD
Designated Facility Location Zip:	46143-9525
Designated Facility Location State:	IN
Designated Facility Contact Company Name:	Not reported
Manifest Residue Indicator:	N
Rejection Indicator:	N

Manifest Tracking Number:	019869637JJK
Last Updated Date:	20200910
Shipped Date:	20200720
Received Date:	20200722
Manifest Status:	Signed
Submission Type:	DataImage5Copy
Origin Type:	Web
Generator EPA ID:	CESQG
Generator Name:	P & B Electric
Generator Location Street Number:	Not reported
Generator Location Street 1:	1835 SUCCESSFUL DRIVE
Generator Location Street 2:	Not reported
Generator Location City:	FAIRBORN
Generator Location State:	OH
Generator Location Zip:	45324
Generator Mail Street Number:	Not reported
Generator Mail Street 1:	1835 SUCCESSFUL DRIVE
Generator Mail Street 2:	Not reported
Generator Mail City:	Fairborn
Generator Mail Zip:	45324
Generator Mail State:	OH
Generator Contact Company Name:	Not reported
Designated Facility EPA ID:	IN0000351387
Designated Facility Name:	Lighting Resources Llc
Designated Facility Mail Street Number:	498
Designated Facility Mail Street 1:	Not reported
Designated Facility Mail Street 2:	PARK 800 DR
Designated Facility Mail City:	GREENWOOD
Designated Facility Mail Zip:	46143-9525
Designated Facility Mail State:	IN
Designated Facility Location Street Number:	498
Designated Facility Location Street 1:	PARK 800 DR
Designated Facility Location Street 2:	Not reported
Designated Facility Location City:	GREENWOOD
Designated Facility Location Zip:	46143-9525
Designated Facility Location State:	IN
Designated Facility Contact Company Name:	Not reported
Manifest Residue Indicator:	N
Rejection Indicator:	N

Federal Waste:

Manifest Tracking Number:	019869637JJK
Waste Line Number:	1
Federal Waste Code:	D009
Federal Waste:	MERCURY

P & B ELECTRIC (Continued) **1027850830**

Transporter:
- Manifest Tracking Number: 019869637JJK
- Transporter Line Number: 1
- Transporter EPA ID: IN0000351387
- Transporter Name: Lighting Resources Llc

Waste Line:
- Manifest Tracking Number: 019869637JJK
- Waste Line Number: 1
- U.S. DOT Hazardous Indicator: Y
- U.S. DOT ID Number: NA3077
- U.S. DOT Description: Na3077, Environmentally Hazardous Waste, Solid, N.O.S., 9, Pg111, (Mercury), Rq
- Non-Hazardous Waste Description: Not reported
- Number of Containers: 1
- Container Type Code: DM
- Container Type Description: Metal drums, barrels, kegs
- Waste Quantity: 500
- Quantity Unit of Measure Code: P
- Quantity Unit of Measure Description: Pounds
- Waste Quantity, in Tons: 0.25
- Acute Waste Quantity, in Tons: 0
- Non-Acute Waste Quantity, in Tons: 0.25
- Waste Quantity, in Kilograms: 226.7575
- Acute Waste Quantity, in Kilograms: 0
- Non-Acute Waste Quantity, in Kilorgrams: 226.7575
- Management Method Code: H011
- Management Method Description: MERCURY RECOVERY
- Waste Residue Indicator: N
- Quantity Discrepancy Indicator: Y
- Waste Type Discrepancy Indicator: N
- Waste Density: Not reported
- Waste Density Unit of Measure Code: Not reported
- Waste Density Unit of Measure Description: Not reported
- Form Code: Not reported
- Form Code Description: Not reported
- Source Code: Not reported
- Source Code Description: Not reported
- Waste Minimization Code: Not reported
- Waste Minimization Code Description: Not reported
- Consent Number: Not reported
- EPA Waste Indicator: Y

A2 **P+B ELECTRIC** **E MANIFEST** **1028032689**
SSW **1835 SUCCESSFUL DR FAIRBORN,** **N/A**
< 1/8 **FAIRBORN, OH 45324**
0.077 mi.
407 ft. **Site 2 of 2 in cluster A**

Relative: **Lower**
Actual: **852 ft.**

E MANIFEST:
- Manifest Tracking Number: 019327963JJK
- Last Updated Date: 20211021
- Shipped Date: 20210921
- Received Date: 20210921
- Manifest Status: Signed
- Submission Type: DataImage5Copy
- Origin Type: Web

P+B ELECTRIC (Continued) **1028032689**

Generator EPA ID:	VSQG
Generator Name:	P+B Electric
Generator Location Street Number:	Not reported
Generator Location Street 1:	1835 SUCCESSFUL DR FAIRBORN,
Generator Location Street 2:	Not reported
Generator Location City:	FAIRBORN
Generator Location State:	OH
Generator Location Zip:	45324
Generator Mail Street Number:	Not reported
Generator Mail Street 1:	1835 SUCCESSFUL DR FAIRBORN,
Generator Mail Street 2:	Not reported
Generator Mail City:	Fairborn
Generator Mail Zip:	45324
Generator Mail State:	OH
Generator Contact Company Name:	Not reported
Designated Facility EPA ID:	TNR000042119
Designated Facility Name:	Lighting Resources Llc
Designated Facility Mail Street Number:	128
Designated Facility Mail Street 1:	Not reported
Designated Facility Mail Street 2:	LP AUER ROAD
Designated Facility Mail City:	JOHNSON CITY
Designated Facility Mail Zip:	37604-5129
Designated Facility Mail State:	TN
Designated Facility Location Street Number:	300
Designated Facility Location Street 1:	BOGGS LANE
Designated Facility Location Street 2:	Not reported
Designated Facility Location City:	JOHNSON CITY
Designated Facility Location Zip:	37604
Designated Facility Location State:	TN
Designated Facility Contact Company Name:	Not reported
Manifest Residue Indicator:	N
Rejection Indicator:	N

Manifest Tracking Number:	019327976JJK
Last Updated Date:	20240209
Shipped Date:	20210608
Received Date:	20210609
Manifest Status:	Corrected
Submission Type:	DataImage5Copy
Origin Type:	Web
Generator EPA ID:	VSQG
Generator Name:	P+B Electric
Generator Location Street Number:	1835
Generator Location Street 1:	1835 SUCCESSFUL DR
Generator Location Street 2:	Not reported
Generator Location City:	FAIRBORN
Generator Location State:	OH
Generator Location Zip:	45324
Generator Mail Street Number:	1835
Generator Mail Street 1:	SUCCESSFUL DR
Generator Mail Street 2:	Not reported
Generator Mail City:	Fairborn
Generator Mail Zip:	45324
Generator Mail State:	OH
Generator Contact Company Name:	Not reported
Designated Facility EPA ID:	TNR000042119
Designated Facility Name:	Lighting Resources Llc

P+B ELECTRIC (Continued) **1028032689**

Designated Facility Mail Street Number: 128
Designated Facility Mail Street 1: Not reported
Designated Facility Mail Street 2: LP AUER ROAD
Designated Facility Mail City: JOHNSON CITY
Designated Facility Mail Zip: 37604-5129
Designated Facility Mail State: TN
Designated Facility Location Street Number: 300
Designated Facility Location Street 1: BOGGS LANE
Designated Facility Location Street 2: Not reported
Designated Facility Location City: JOHNSON CITY
Designated Facility Location Zip: 37604
Designated Facility Location State: TN
Designated Facility Contact Company Name: Not reported
Manifest Residue Indicator: N
Rejection Indicator: Y

Rejection:
Manifest Tracking Number: 019327976JJK
Rejection Type Indicator: FullReject
Rejection Transporter On-site Indicator: N
Alternate Destination Facility Type: Not reported
Alternate Designated Facility EPA ID: Not reported
Alternate Designated Facility Name: Not reported
Alternate Designated Facility Mail Street Number: Not reported
Alternate Designated Facility Mail Street 1: Not reported
Alternate Designated Facility Mail Street 2: Not reported
Alternate Designated Facility Mail City: Not reported
Alternate Designated Facility Mail Zip: Not reported
Alternate Designated Facility Mail State: Not reported
Alternate Designated Facility Location Street Number: Not reported
Alternate Designated Facility Location Street 1: Not reported
Alternate Designated Facility Location Street 2: Not reported
Alternate Designated Facility Location City: Not reported
Alternate Designated Facility Location Zip: Not reported
Alternate Designated Facility Location State: Not reported
Alternate Designated Facility Contact Company Name: Not reported

Transporter:
Manifest Tracking Number: 019327976JJK
Transporter Line Number: 1
Transporter EPA ID: TNR000024273
Transporter Name: Lighting Resources, Llc

Waste Line:
Manifest Tracking Number: 019327976JJK
Waste Line Number: 1
U.S. DOT Hazardous Indicator: Y
U.S. DOT ID Number: UN3077
U.S. DOT Description: Un3077,Environmentally Hazardous, Substance, Solid,N.O.S., (Mercury) 9, Pgiii, Rq
Non-Hazardous Waste Description: Not reported
Number of Containers: 2
Container Type Code: DM
Container Type Description: Metal drums, barrels, kegs
Waste Quantity: 856
Quantity Unit of Measure Code: P

P+B ELECTRIC (Continued) **1028032689**

Quantity Unit of Measure Description:	Pounds
Waste Quantity, in Tons:	0.428
Acute Waste Quantity, in Tons:	0
Non-Acute Waste Quantity, in Tons:	0.428
Waste Quantity, in Kilograms:	388.20886
Acute Waste Quantity, in Kilograms:	0
Non-Acute Waste Quantity, in Kilorgrams:	388.20886
Management Method Code:	H011
Management Method Description:	MERCURY RECOVERY
Waste Residue Indicator:	N
Quantity Discrepancy Indicator:	N
Waste Type Discrepancy Indicator:	N
Waste Density:	Not reported
Waste Density Unit of Measure Code:	Not reported
Waste Density Unit of Measure Description:	Not reported
Form Code:	Not reported
Form Code Description:	Not reported
Source Code:	Not reported
Source Code Description:	Not reported
Waste Minimization Code:	Not reported
Waste Minimization Code Description:	Not reported
Consent Number:	Not reported
EPA Waste Indicator:	Y

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3 **NEW HORIZONS COMPUTER LEARNING CENTERS** **RCRA NonGen / NLR** **1014400152**
SW **1890 COMMERCE CENTER BLVD** **OHR000159418**
1/8-1/4 **FAIRBORN, OH 45324**
0.158 mi.
835 ft.

Relative: **Higher**

Actual: **861 ft.**

RCRA Listings:

Date Form Received by Agency:	20210414
Handler Name:	New Horizons Computer Learning Centers
Handler Address:	1890 Commerce Center Blvd
Handler City,State,Zip:	FAIRBORN, OH 45324
EPA ID:	OHR000159418
Contact Name:	Not reported
Contact Address:	Not reported
Contact City,State,Zip:	Not reported
Contact Telephone:	Not reported
Contact Fax:	Not reported
Contact Email:	Not reported
Contact Title:	Not reported
EPA Region:	05
Land Type:	Private
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Not reported
State District Owner:	Oh
State District:	SW
Mailing Address:	Not reported
Mailing City,State,Zip:	Not reported
Owner Name:	Not reported
Owner Type:	Not reported
Operator Name:	Not reported
Operator Type:	Not reported

NEW HORIZONS COMPUTER LEARNING CENTERS (Continued) **1014400152**

Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
202 GPRA Corrective Action Baseline:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	20210414
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name: JAMES COX	
Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	1890 COMMERCE CENTER BLVD
Owner/Operator City,State,Zip:	FAIRBORN, OH 45324
Owner/Operator Telephone:	937-879-6080
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name: NEW HORIZONS COMPUTER LEARNING CENTERS	

NEW HORIZONS COMPUTER LEARNING CENTERS (Continued) **1014400152**

Legal Status:	Private
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	1890 COMMERCE CENTER BLVD
Owner/Operator City,State,Zip:	FAIRBORN, OH 45324
Owner/Operator Telephone:	937-879-6080
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	20100406
Handler Name:	NEW HORIZONS COMPUTER LEARNING CENTERS
Federal Waste Generator Description:	Small Quantity Generator
State District Owner:	Oh
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	No
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

Receive Date:	20210414
Handler Name:	NEW HORIZONS COMPUTER LEARNING CENTERS
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Oh
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	No
Electronic Manifest Broker:	No

List of NAICS Codes and Descriptions:

NAICS Codes:	No NAICS Codes Found

Has the Facility Received Notices of Violations:

Found Violation:	Yes
Agency Which Determined Violation:	State
Violation Short Description:	Generators - General
Date Violation was Determined:	20100406
Actual Return to Compliance Date:	20100407
Return to Compliance Qualifier:	Documented
Violation Responsible Agency:	State
Scheduled Compliance Date:	Not reported
Enforcement Identifier:	001
Date of Enforcement Action:	20100415
Enforcement Responsible Agency:	State
Enforcement Docket Number:	Not reported
Enforcement Attorney:	Not reported
Corrective Action Component:	No
Appeal Initiated Date:	Not reported

NEW HORIZONS COMPUTER LEARNING CENTERS (Continued) **1014400152**

Appeal Resolution Date:	Not reported
Disposition Status Date:	Not reported
Disposition Status:	Not reported
Disposition Status Description:	Not reported
Consent/Final Order Sequence Number:	Not reported
Consent/Final Order Respondent Name:	Not reported
Consent/Final Order Lead Agency:	Not reported
Enforcement Type:	WRITTEN INFORMAL
Enforcement Responsible Person:	OHTS
Enforcement Responsible Sub-Organization:	SW
SEP Sequence Number:	Not reported
SEP Expenditure Amount:	Not reported
SEP Scheduled Completion Date:	Not reported
SEP Actual Date:	Not reported
SEP Defaulted Date:	Not reported
SEP Type:	Not reported
SEP Type Description:	Not reported
Proposed Amount:	Not reported
Final Monetary Amount:	Not reported
Paid Amount:	Not reported
Final Count:	Not reported
Final Amount:	Not reported

Evaluation Action Summary:

Evaluation Date:	20100406
Evaluation Responsible Agency:	State
Found Violation:	Yes
Evaluation Type Description:	FOCUSED COMPLIANCE INSPECTION
Evaluation Responsible Person Identifier:	JSTK
Evaluation Responsible Sub-Organization:	SW
Actual Return to Compliance Date:	20100407
Scheduled Compliance Date:	Not reported
Date of Request:	Not reported
Date Response Received:	Not reported
Request Agency:	Not reported
Former Citation:	Not reported

B4 **ELDER BEERMAN DC** **LUST U000892070**
SSE **1340 DAYTON-YELLOW SPRINGS RD** **UST N/A**
1/4-1/2 **FAIRBORN, OH 45324** **ARCHIVE UST**
0.440 mi.
2325 ft. **Site 1 of 2 in cluster B**

Relative:
Higher

Actual:
854 ft.

LUST:

Name:	ELDER BEERMAN DC
Address:	1340 DAYTON-YELLOW SPRINGS RD
City,State,Zip:	FAIRBORN, OH 45324
Release Number:	29003183 - N00001
Release Date:	01/06/2015
LTF Status:	6 Closure of regulated UST
FR Status:	**NFA: No Further Action**
Priority:	2
Review Date:	01/21/2015
Priority Decode:	SUS/CON from non-regulated UST
Class1 Decode:	A viable RP have been identified
Latitude:	39.780422

ELDER BEERMAN DC (Continued) **U000892070**

Longitude:	-83.992587
Class:	Viable Responsible Party has been identified
Incident Number:	Not reported
Last Update:	Kelly Gill
Last Update Date:	01/21/2015
Last Update Updated:	01/21/2015
Sub Status:	Approved
Rules:	2012
Coordinator:	Bryan Duzak
Rating:	Not reported

UST:

Name:	ELDER BEERMAN DC
Address:	1340 DAYTON-YELLOW SPRINGS RD
City,State,Zip:	FAIRBORN, OH 45324
Facility Id:	29003183
Owner Name:	BON-TON STORES INC.
Owner Address:	3585 S. CHURCH ST.
Owner City/State/Zip:	18052
Tank Number:	T00001
Status:	REM - Removed
UST Capacity:	10000
Tank Content:	Diesel
Installation Date:	10/01/1990
Construction:	FRP-Fiberglass Reinforced Plastic
Date Last Used:	12/07/2014
Date TCL Closed:	Not reported
Date Removed:	12/07/2014
CAS Number:	68334-30-5
Abandoned Approved:	Not reported
Regulated:	YES
Sensitive Area:	NO
Date Of Sensitivity:	Not reported
UST Configurations:	Not reported
Construction Comments:	Fiberglass Reinforced Plastic
Corrosion Protections:	NR - None Required by Rule
Corrosion Protection Comments:	Not reported
Primary Release Detection:	ATG - Automatic Tank Gauging
Secondary Release Detection:	Not reported
Release Detection Comments:	RDTank: Automatic Tank Gauging / RDLine:
Piping Configuration:	Not reported
Piping Configuration Comments:	Not reported
Piping Styles:	P - Pressure
Piping Constructions:	FRP - Fiberglass Reinforced Plastic
Piping Construction Comments:	Fiberglass Reinforced Plastic
Piping Corrosion Protections:	NR - None required by rule
Piping Corrosion Protection Comments:	Not reported
Piping Release Detections:	ELLD - Electronic Line Leak Detector
Piping Release Detection Comments:	Electronic Line Leak Detector
Spill Prevention Manholes:	SB - Spill Containment Manhole (bucket)
Spill Prevention Manhole Comments:	Yes
OverFill Prevention:	Not reported
OverFill Prevention Comment:	OverFill Spill: Yes
Comments:	Not reported

ELDER BEERMAN DC (Continued) **U000892070**

ARCHIVE UST:

Name:	ELDER BEERMAN DC
Address:	1340 DAYTON-YELLOW SPRINGS RD
City,State,Zip:	FAIRBORN, OH 45324
Facility Number:	29003183
Owner Name:	BON-TON STORES INC.
Owner Address:	3585 S. CHURCH ST.
Owner City,St,Zip:	WHITEHALL, PA 18052
Owner Telephone:	610-261-7093
Owner ID:	W021828
Facility Type:	Trucking/Transport
Contact Name:	David Bond
Contact Telephone:	484-239-8122
Tank Number:	1
Depth at Location:	FAIRBORN FIRE DEPARTMENT
Authorized:	No
Eligible Award:	Not reported
Action:	No
Tank ID:	T00001
Tank Type:	Not reported
Tank Status:	**Currently In Use**
Install Date:	Not reported
Content:	Not reported
Capacity:	Not reported
Corrosion Protection Tank:	Not reported
CAS #:	Not reported
Regulated:	Yes
Overfill Device Installed:	Yes
Spill Device Installed:	Yes
Release Detection On Tank:	Not reported
Date Removed:	Not reported
Date Last Use:	Not reported
Date Abandoned/Closed:	Not reported
AST/UST:	UST
Corrosion Protection Piping:	Not reported
Piping Material:	Not reported
Piping Type:	Not reported
Release Detection On Piping:	Electronic Line Leak Detector

B5 **ELDER BEERMAN DC** **UST FINDER** **1028608675**
SSE **1340 DAYTON-YELLOW SPRINGS RD** **UST FINDER RELEASE** **N/A**
1/4-1/2 **FAIRBORN, OH 0**
0.440 mi.
2325 ft. **Site 2 of 2 in cluster B**

Relative:
Higher

Actual:
854 ft.

UST FINDER:

Object ID:	335924
Facility ID:	OH29003183
Name:	ELDER BEERMAN DC
Address:	1340 DAYTON-YELLOW SPRINGS RD
City,State,Zip:	FAIRBORN, OH
Address Match Type:	Not reported
Open USTs:	0
Closed USTs:	1
TOS USTs:	0
Population 1500ft:	221

ELDER BEERMAN DC (Continued) **1028608675**

Private Wells 1500ft:	13
Within 100yr Floodplain:	No
Land Use:	Non-Developed
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported
WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Facility Status:	Closed UST(s)
Date of Last Inspection:	Not reported
EPA Region:	5
Tribe:	Not reported
Coordinate Source:	State
X Coord:	-83.992587
Y Coord:	39.780422
Latitude:	39.780422
Longitude:	-83.992587

UST FINDER:

Object ID:	1459201
Facility ID:	OH29003183
Tank ID:	OH29003183_T00001
Tank Status:	Closed
Installation Date:	1990/10/01 15:59:59+00
Removal Date:	2014/12/07 15:59:59+00
Tank Capacity:	10000
Substances:	Diesel
Tank Wall Type:	Single

UST FINDER RELEASE:

Object ID:	301116
Facility ID:	OH29003183
Lust ID:	OH29003183-N00001
Name:	ELDER BEERMAN DC
Address:	1340 DAYTON-YELLOW SPRINGS RD
City,State,Zip:	FAIRBORN, OH 0
Address Match Type:	Not reported
Reported Date:	2015/01/06 15:59:59+00
Status:	No Further Action
Substance:	Not reported
Population within 1500ft:	220
Domestic Wells within 1500ft:	13
Land Use:	Non-Developed
Within SPA:	No
SPA PWS Facility ID:	Not reported
SPA Water Type:	Not reported
SPA Facility Type:	Not reported
SPA HUC12:	Not reported
Within WHPA:	No
WHPA PWS Facility ID:	Not reported
WHPA Water Type:	Not reported

ELDER BEERMAN DC (Continued) **1028608675**

WHPA Facility Type:	Not reported
WHPA HUC12:	Not reported
Within 100yr Floodplain:	No
Tribe:	Not reported
EPA Region:	5
NFA Letter 1:	Not reported
NFA Letter 2:	Not reported
NFA Letter 3:	Not reported
NFA Letter 4:	Not reported
Closed With Residual Contaminate:	Not reported
Coordinate Source:	State
X Coord:	-83.99259
Y Coord:	39.78042
Latitude:	39.7804199999999
Longitude:	-83.99259

Count: 0 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 02/03/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 02/03/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: N/A
Last EDR Contact: 02/04/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/20/2024
Date Data Arrived at EDR: 12/18/2024
Date Made Active in Reports: 12/20/2024
Number of Days to Update: 2

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 12/18/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/03/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/03/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 07/15/2024
Date Data Arrived at EDR: 07/17/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 84

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 01/30/2025
Next Scheduled EDR Contact: 05/19/2025
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 11/04/2024
Date Data Arrived at EDR: 11/15/2024
Date Made Active in Reports: 02/11/2025
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/15/2024
Next Scheduled EDR Contact: 12/02/2024
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/04/2024
Date Data Arrived at EDR: 11/15/2024
Date Made Active in Reports: 02/11/2025
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/15/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/11/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 09/04/2024
Number of Days to Update: 79

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/11/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

Lists of state- and tribal hazardous waste facilities

SHWS: This state does not maintain a SHWS list. See the Federal CERCLIS list and Federal NPL list.

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: Ohio EPA
Telephone: 614-644-2924
Last EDR Contact: 01/23/2025
Next Scheduled EDR Contact: 05/12/2025
Data Release Frequency: N/A

DERR: Division of Emergency & Remedial Response's Database

The DERR listings contains sites from all of Ohio that are in the Division of Environmental Response and Revitalization (DERR) database, which is an index of sites for which our district offices maintain files. The database is NOT a record of contaminated sites or sites suspected of contamination. Not all sites in the database are contaminated, and a site's absence from the database does not imply that it is uncontaminated.

Date of Government Version: 09/20/2024
Date Data Arrived at EDR: 10/30/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 76

Source: Ohio EPA
Telephone: 614-644-3538
Last EDR Contact: 01/28/2025
Next Scheduled EDR Contact: 05/12/2025
Data Release Frequency: Semi-Annually

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF: Licensed Solid Waste Facilities

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 09/30/2024
Date Data Arrived at EDR: 10/02/2024
Date Made Active in Reports: 12/17/2024
Number of Days to Update: 76

Source: Ohio Environmental Protection Agency
Telephone: 614-644-2621
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Semi-Annually

Lists of state and tribal leaking storage tanks

LAST: Leaking Aboveground Storage Tank Listing

Suspected/confirmed release from Aboveground storage tank sites.

Date of Government Version: 10/31/2024
Date Data Arrived at EDR: 10/31/2024
Date Made Active in Reports: 01/15/2025
Number of Days to Update: 76

Source: Department of Commerce
Telephone: 614-752-7928
Last EDR Contact: 01/30/2025
Next Scheduled EDR Contact: 05/19/2025
Data Release Frequency: N/A

LUST: Leaking Underground Storage Tank File

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 10/31/2024
Date Data Arrived at EDR: 10/31/2024
Date Made Active in Reports: 01/15/2025
Number of Days to Update: 76

Source: Department of Commerce
Telephone: 614-752-8200
Last EDR Contact: 01/30/2025
Next Scheduled EDR Contact: 05/19/2025
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/11/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/07/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

UNREG LTANKS: Ohio Leaking UST File
A suspected or confirmed release of petroleum from a non-regulated UST.

Date of Government Version: 08/25/1999
Date Data Arrived at EDR: 08/19/2003
Date Made Active in Reports: 08/26/2003
Number of Days to Update: 7

Source: Department of Commerce
Telephone: 614-752-7938
Last EDR Contact: 08/01/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Lists of state and tribal registered storage tanks

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 08/12/2024
Date Data Arrived at EDR: 10/30/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 76

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

UST: Underground Storage Tank Tank File
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 10/08/2024
Date Data Arrived at EDR: 11/05/2024
Date Made Active in Reports: 01/23/2025
Number of Days to Update: 79

Source: Department of Commerce
Telephone: 614-752-8200
Last EDR Contact: 02/04/2025
Next Scheduled EDR Contact: 05/19/2025
Data Release Frequency: Quarterly

AST: Above Ground Storage Tanks
A listing of aboveground storage tank site locations in the state.

Date of Government Version: 10/17/2024
Date Data Arrived at EDR: 10/22/2024
Date Made Active in Reports: 11/18/2024
Number of Days to Update: 27

Source: Department of Commerce
Telephone: 614-752-7037
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/11/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 07/29/2024
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/14/2024
Date Data Arrived at EDR: 05/30/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 90

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

HIST INST CONTROLS: Institutional Controls Database

"Institutional control" is a restriction that is recorded in the same manner as a deed which limits access to or use of the property such that exposure to hazardous substances or petroleum are effectively and reliably eliminated or mitigated. Examples of institutional controls include land and water use restrictions. This database is no longer updated or maintained by the state agency.

Date of Government Version: 05/10/2005
Date Data Arrived at EDR: 04/06/2006
Date Made Active in Reports: 05/04/2006
Number of Days to Update: 28

Source: Ohio EPA
Telephone: 614-644-2306
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

HIST ENG CONTROLS: Operation & Maintenance Agreements Database

Volunteers that complete a voluntary action that relies on the ongoing operation and maintenance (O&M) of an engineered control to make the site protective (e.g" cap systems and ground water treatment systems) must enter into a legally binding agreement with the Ohio EPA before the director issues a covenant not to sue. This O&M Agreement must describe how the remedy is constructed and how itwill be monitored, maintained and repaired. It also lays out inspection opportunities for the agency. Companies must document that they have the financial capability to operate any remedy relied on, before the agency will agree to enter into the O&M Agreement. The statute requires that the agency be notified of any change in ownership. This database is no longer updated or maintained by the state agency.

Date of Government Version: 05/10/2005
Date Data Arrived at EDR: 04/04/2006
Date Made Active in Reports: 05/04/2006
Number of Days to Update: 30

Source: Ohio EPA
Telephone: 614-644-2306
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

ENG CONTROLS: Sites with Engineering Controls

A database that tracks properties with engineering controls.

Date of Government Version: 09/20/2024
Date Data Arrived at EDR: 10/30/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 76

Source: Ohio EPA
Telephone: 614-644-2306
Last EDR Contact: 01/28/2025
Next Scheduled EDR Contact: 05/12/2025
Data Release Frequency: Semi-Annually

INST CONTROL: Sites with Institutional Engineering Controls

A database that tracks properties with institutional controls.

Date of Government Version: 09/20/2024
Date Data Arrived at EDR: 10/30/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 76

Source: Ohio Environmental Protection Agency
Telephone: 614-644-2306
Last EDR Contact: 01/28/2025
Next Scheduled EDR Contact: 05/12/2025
Data Release Frequency: Semi-Annually

Lists of state and tribal voluntary cleanup sites

VCP: Voluntary Action Program Sites
Site involved in the Voluntary Action Program.

Date of Government Version: 09/20/2024
Date Data Arrived at EDR: 10/30/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 76

Source: Ohio EPA, Voluntary Action Program
Telephone: 614-728-1298
Last EDR Contact: 01/28/2025
Next Scheduled EDR Contact: 05/12/2025
Data Release Frequency: Semi-Annually

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/10/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

Lists of state and tribal brownfield sites

BROWNFIELDS: Ohio Brownfield Inventory
A statewide brownfields inventory. A brownfield is an abandoned, idled or under-used industrial or commercial property where expansion or redevelopment is complicated by known or potential releases of hazardous substances and/or petroleum.

Date of Government Version: 09/03/2024
Date Data Arrived at EDR: 09/04/2024
Date Made Active in Reports: 11/18/2024
Number of Days to Update: 75

Source: Ohio EPA
Telephone: 614-644-3748
Last EDR Contact: 12/04/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/09/2024
Date Data Arrived at EDR: 09/11/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/24/2025
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycling Facility Listing
A listing of recycling facility locations.

Date of Government Version: 12/18/2024
Date Data Arrived at EDR: 12/27/2024
Date Made Active in Reports: 01/02/2025
Number of Days to Update: 6

Source: Ohio EPA
Telephone: 614-728-5357
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Quarterly

HIST LF: Old Solid Waste Landfill
A list of about 1200 old abandoned dumps or landfills. This database was developed from Ohio EPA staff notebooks and other information dating from the mid-1970s

Date of Government Version: 09/03/2024
Date Data Arrived at EDR: 09/04/2024
Date Made Active in Reports: 11/18/2024
Number of Days to Update: 75

Source: Ohio EPA
Telephone: 614-644-3749
Last EDR Contact: 12/04/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: No Update Planned

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Varies

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/23/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 02/07/2024
Date Data Arrived at EDR: 11/13/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 6

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 12/09/2024
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/20/2024
Date Data Arrived at EDR: 08/19/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 51

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Lab Locations

A list of clandestine drug lab sites with environmental impact. This list is extracted from the SPILLS database based on the "product" type.

Date of Government Version: 09/24/2024
Date Data Arrived at EDR: 10/30/2024
Date Made Active in Reports: 01/15/2025
Number of Days to Update: 77

Source: Ohio EPA
Telephone: 614-644-2080
Last EDR Contact: 01/28/2025
Next Scheduled EDR Contact: 05/12/2025
Data Release Frequency: Semi-Annually

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/20/2024
Date Data Arrived at EDR: 08/19/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 51

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

ARCHIVE UST: Archived Underground Storage Tank Sites

Underground storage tank records that have been removed from the Underground Storage Tank database.

Date of Government Version: 10/08/2024
Date Data Arrived at EDR: 11/05/2024
Date Made Active in Reports: 01/23/2025
Number of Days to Update: 79

Source: Department of Commerce, Division of State Fire Marshal
Telephone: 614-752-7938
Last EDR Contact: 02/04/2025
Next Scheduled EDR Contact: 05/19/2025
Data Release Frequency: Quarterly

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 02/03/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/14/2024
Date Data Arrived at EDR: 06/17/2024
Date Made Active in Reports: 06/24/2024
Number of Days to Update: 7

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/11/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

SPILLS: Emergency Response Database

Incidents reported to the Emergency Response Unit. The focus of the ER program is to minimize the impact on the environment from accidental releases, spills, and unauthorized discharges from any fixed or mobile sources. Incidents involving petroleum products, hazardous materials, hazardous waste, abandoned drums, or other materials which may pose as a pollution threat to the state?s water, land, or air should be reported immediately. Not all incidents included in the database are actual SPILLS, they can simply be reported incidents.

Date of Government Version: 09/24/2024
Date Data Arrived at EDR: 10/30/2024
Date Made Active in Reports: 01/15/2025
Number of Days to Update: 77

Source: Ohio EPA
Telephone: 614-644-2084
Last EDR Contact: 01/28/2025
Next Scheduled EDR Contact: 05/12/2025
Data Release Frequency: Semi-Annually

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 09/13/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 55

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SPILLS 80: SPILLS80 data from FirstSearch

Spills 80 includes those spill and release records available from FirstSearch databases prior to 1990. Typically, they may include chemical, oil and/or hazardous substance spills recorded before 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 80.

Date of Government Version: 04/24/2004
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 03/01/2013
Number of Days to Update: 57

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 11/12/2024
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 70

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/11/2025
Next Scheduled EDR Contact: 05/26/2025
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 07/13/2021
Date Made Active in Reports: 03/09/2022
Number of Days to Update: 239

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/07/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 07/30/2021
Date Data Arrived at EDR: 02/03/2023
Date Made Active in Reports: 02/10/2023
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/03/2025
Next Scheduled EDR Contact: 05/19/2025
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/20/2024
Number of Days to Update: 94

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA Watch List

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 01/27/2025
Next Scheduled EDR Contact: 05/12/2025
Data Release Frequency: No Update Planned

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 01/30/2025
Next Scheduled EDR Contact: 05/12/2025
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 06/14/2022
Date Made Active in Reports: 03/24/2023
Number of Days to Update: 283

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/24/2025
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2022
Date Data Arrived at EDR: 11/13/2023
Date Made Active in Reports: 02/07/2024
Number of Days to Update: 86

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/11/2025
Next Scheduled EDR Contact: 05/26/2025
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 10/15/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 90

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/15/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 10/24/2024
Date Data Arrived at EDR: 11/01/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 18

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 02/03/2025
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 10/23/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 09/19/2023
Date Data Arrived at EDR: 10/03/2023
Date Made Active in Reports: 10/19/2023
Number of Days to Update: 16

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 02/03/2025
Next Scheduled EDR Contact: 05/12/2025
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2024
Date Data Arrived at EDR: 10/02/2024
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 100

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/12/2024
Date Data Arrived at EDR: 10/17/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 33
Source: Nuclear Regulatory Commission
Telephone: 301-415-0717
Last EDR Contact: 01/09/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2023
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 90
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/30/2025
Next Scheduled EDR Contact: 05/12/2025
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 12/17/2024
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 10/04/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 12/06/2024
Number of Days to Update: 51

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/22/2025
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2024
Date Data Arrived at EDR: 10/09/2024
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 93

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2021
Date Data Arrived at EDR: 03/09/2023
Date Made Active in Reports: 03/20/2023
Number of Days to Update: 11

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 12/30/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 03/03/2023
Date Data Arrived at EDR: 03/03/2023
Date Made Active in Reports: 06/09/2023
Number of Days to Update: 98

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 01/23/2025
Next Scheduled EDR Contact: 05/12/2025
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 05/08/2024
Date Data Arrived at EDR: 08/14/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 14

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/06/2025
Next Scheduled EDR Contact: 05/26/2025
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 12/19/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/21/2025
Number of Days to Update: 19

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 02/03/2025
Next Scheduled EDR Contact: 04/07/2025
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data
Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 10/01/2024
Date Data Arrived at EDR: 10/02/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 7

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Quarterly

US MINES: Mines Master Index File
Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/01/2024
Date Data Arrived at EDR: 11/18/2024
Date Made Active in Reports: 02/11/2025
Number of Days to Update: 85

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 11/18/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing
This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/02/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 10/09/2024
Number of Days to Update: 50

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing
Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines
An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2024
Date Data Arrived at EDR: 09/11/2024
Date Made Active in Reports: 11/19/2024
Number of Days to Update: 69

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 12/10/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Quarterly

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 08/23/2022
Date Data Arrived at EDR: 11/22/2022
Date Made Active in Reports: 02/28/2023
Number of Days to Update: 98

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 11/22/2024
Next Scheduled EDR Contact: 03/03/2025
Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System
Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/13/2024
Date Data Arrived at EDR: 08/20/2024
Date Made Active in Reports: 08/28/2024
Number of Days to Update: 8

Source: EPA
Telephone: (312) 353-2000
Last EDR Contact: 11/20/2024
Next Scheduled EDR Contact: 03/10/2025
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 02/12/2025
Next Scheduled EDR Contact: 06/02/2025
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 09/06/2023
Date Data Arrived at EDR: 09/13/2023
Date Made Active in Reports: 12/11/2023
Number of Days to Update: 89

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/06/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 12/21/2024
Date Data Arrived at EDR: 12/27/2024
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 14

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 12/27/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/08/2024
Date Data Arrived at EDR: 11/08/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 67

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/13/2025
Next Scheduled EDR Contact: 05/26/2025
Data Release Frequency: Quarterly

PFAS NPL: Superfund Sites with PFAS Detections Information

EPA's Office of Land and Emergency Management and EPA Regional Offices maintain data describing what is known about site investigations, contamination, and remedial actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) where PFAS is present in the environment.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 703-603-8895
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS FEDERAL SITES: Federal Sites PFAS Information

Several federal entities, such as the federal Superfund program, Department of Defense, National Aeronautics and Space Administration, Department of Transportation, and Department of Energy provided information for sites with known or suspected detections at federal facilities.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS TSCA: PFAS Manufacture and Imports Information

EPA issued the Chemical Data Reporting (CDR) Rule under the Toxic Substances Control Act (TSCA) and requires chemical manufacturers and facilities that manufacture or import chemical substances to report data to EPA. EPA publishes non-confidential business information (non-CBI) and includes descriptive information about each site, corporate parent, production volume, other manufacturing information, and processing and use information.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS TRIS: List of PFAS Added to the TRI

Section 7321 of the National Defense Authorization Act for Fiscal Year 2020 (NDAA) immediately added certain per- and polyfluoroalkyl substances (PFAS) to the list of chemicals covered by the Toxics Release Inventory (TRI) under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) and provided a framework for additional PFAS to be added to TRI on an annual basis.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-566-0250
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS RCRA MANIFEST: PFAS Transfers Identified In the RCRA Database Listing

To work around the lack of PFAS waste codes in the RCRA database, EPA developed the PFAS Transfers dataset by mining e-Manifest records containing at least one of these common PFAS keywords: PFAS, PFOA, PFOS, PERFL, AFFF, GENX, GEN-X (plus the VT waste codes). These keywords were searched for in the following text fields: Manifest handling instructions (MANIFEST_HANDLING_INSTR), Non-hazardous waste description (NON_HAZ_WASTE_DESCRIPTION), DOT printed information (DOT_PRINTED_INFORMATION), Waste line handling instructions (WASTE_LINE_HANDLING_INSTR), Waste residue comments (WASTE_RESIDUE_COMMENTS).

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 10/02/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS ATSDR: PFAS Contamination Site Location Listing

PFAS contamination site locations from the Department of Health & Human Services, Center for Disease Control & Prevention. ATSDR is involved at a number of PFAS-related sites, either directly or through assisting state and federal partners. As of now, most sites are related to drinking water contamination connected with PFAS production facilities or fire training areas where aqueous film-forming firefighting foam (AFFF) was regularly used.

Date of Government Version: 06/24/2020
Date Data Arrived at EDR: 03/17/2021
Date Made Active in Reports: 11/08/2022
Number of Days to Update: 601

Source: Department of Health & Human Services
Telephone: 202-741-5770
Last EDR Contact: 01/16/2025
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Varies

PFAS WQP: Ambient Environmental Sampling for PFAS

The Water Quality Portal (WQP) is a part of a modernized repository storing ambient sampling data for all environmental media and tissue samples. A wide range of federal, state, tribal and local governments, academic and non-governmental organizations and individuals submit project details and sampling results to this public repository. The information is commonly used for research and assessments of environmental quality.

Date of Government Version: 12/13/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS NPDES: Clean Water Act Discharge Monitoring Information

Any discharger of pollutants to waters of the United States from a point source must have a National Pollutant Discharge Elimination System (NPDES) permit. The process for obtaining limits involves the regulated entity (permittee) disclosing releases in a NPDES permit application and the permitting authority (typically the state but sometimes EPA) deciding whether to require monitoring or monitoring with limits. Caveats and Limitations: Less than half of states have required PFAS monitoring for at least one of their permittees and fewer states have established PFAS effluent limits for permittees. New rulemakings have been initiated that may increase the number of facilities monitoring for PFAS in the future.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS PROJECT: NORTHEASTERN UNIVERSITY PFAS PROJECT

The PFAS Contamination Site Tracker records qualitative and quantitative data from each site in a chart, specifically examining discovery, contamination levels, government response, litigation, health impacts, media coverage, and community characteristics. All data presented in the chart were extracted from government websites, such as state health departments or the Environmental Protection Agency, and news articles.

Date of Government Version: 05/19/2023
Date Data Arrived at EDR: 04/05/2024
Date Made Active in Reports: 06/06/2024
Number of Days to Update: 62

Source: Social Science Environmental Health Research Institute
Telephone: N/A
Last EDR Contact: 12/05/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Varies

PFAS ECHO: Facilities in Industries that May Be Handling PFAS Listing

Regulators and the public have expressed interest in knowing which regulated entities may be using PFAS. EPA has developed a dataset from various sources that show which industries may be handling PFAS. Approximately 120,000 facilities subject to federal environmental programs have operated or currently operate in industry sectors with processes that may involve handling and/or release of PFAS.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS ECHO FIRE TRAIN: Facilities in Industries that May Be Handling PFAS Listing

A list of fire training sites was added to the Industry Sectors dataset using a keyword search on the permitted facilitys name to identify sites where fire-fighting foam may have been used in training exercises. Additionally, you may view an example spreadsheet of the subset of fire training facility data, as well as the keywords used in selecting or deselecting a facility for the subset. as well as the keywords used in selecting or deselecting a facility for the subset. These keywords were tested to maximize accuracy in selecting facilities that may use fire-fighting foam in training exercises, however, due to the lack of a required reporting field in the data systems for designating fire training sites, this methodology may not identify all fire training sites or may potentially misidentify them.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PFAS PT 139 AIRPORT: All Certified Part 139 Airports PFAS Information Listing

Since July 1, 2006, all certified part 139 airports are required to have fire-fighting foam onsite that meet military specifications (MIL-F-24385) (14 CFR 139.317). To date, these military specification fire-fighting foams are fluorinated and have been historically used for training and extinguishing. The 2018 FAA Reauthorization Act has a provision stating that no later than October 2021, FAA shall not require the use of fluorinated AFFF. This provision does not prohibit the use of fluorinated AFFF at Part 139 civilian airports; it only prohibits FAA from mandating its use. The Federal Aviation Administration?s document AC 150/5210-6D - Aircraft Fire Extinguishing Agents provides guidance on Aircraft Fire Extinguishing Agents, which includes Aqueous Film Forming Foam (AFFF).

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-272-0167
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

AQUEOUS FOAM NRC: Aqueous Foam Related Incidents Listing

The National Response Center (NRC) serves as an emergency call center that fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. The spreadsheets posted to the NRC website contain initial incident data that has not been validated or investigated by a federal/state response agency. Response center calls from 1990 to the most recent complete calendar year where there was indication of Aqueous Film Forming Foam (AFFF) usage are included in this dataset. NRC calls may reference AFFF usage in the ?Material Involved? or ?Incident Description? fields.

Date of Government Version: 12/30/2024
Date Data Arrived at EDR: 01/02/2025
Date Made Active in Reports: 01/10/2025
Number of Days to Update: 8

Source: Environmental Protection Agency
Telephone: 202-267-2675
Last EDR Contact: 01/02/2025
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

PCS: Permit Compliance System

PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 12/16/2016
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/10/2017
Number of Days to Update: 63

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: No Update Planned

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

BIOSOLIDS: ICIS-NPDES Biosolids Facility Data
The data reflects compliance information about facilities in the biosolids program.

Date of Government Version: 10/13/2024
Date Data Arrived at EDR: 10/16/2024
Date Made Active in Reports: 10/23/2024
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-564-4700
Last EDR Contact: 01/14/2025
Next Scheduled EDR Contact: 04/28/2025
Data Release Frequency: Varies

UST FINDER: UST Finder Database
EPA developed UST Finder, a web map application containing a comprehensive, state-sourced national map of underground storage tank (UST) and leaking UST (LUST) data. It provides the attributes and locations of active and closed USTs, UST facilities, and LUST sites from states and from Tribal lands and US territories . UST Finder contains information about proximity of UST facilities and LUST sites to: surface and groundwater public drinking water protection areas; estimated number of private domestic wells and number of people living nearby; and flooding and wildfires.

Date of Government Version: 06/08/2023
Date Data Arrived at EDR: 10/04/2023
Date Made Active in Reports: 01/18/2024
Number of Days to Update: 106

Source: Environmental Protection Agency
Telephone: 202-564-0394
Last EDR Contact: 02/06/2025
Next Scheduled EDR Contact: 05/19/2025
Data Release Frequency: Varies

UST FINDER RELEASE: UST Finder Releases Database
US EPA's UST Finder data is a national composite of leaking underground storage tanks. This data contains information about, and locations of, leaking underground storage tanks. Data was collected from state sources and standardized into a national profile by EPA's Office of Underground Storage Tanks, Office of Research and Development, and the Association of State and Territorial Solid Waste Management Officials.

Date of Government Version: 06/08/2023
Date Data Arrived at EDR: 10/31/2023
Date Made Active in Reports: 01/18/2024
Number of Days to Update: 79

Source: Environmental Protecton Agency
Telephone: 202-564-0394
Last EDR Contact: 02/06/2025
Next Scheduled EDR Contact: 05/19/2025
Data Release Frequency: Semi-Annually

E MANIFEST: Hazardous Waste Electronic Manifest System
EPA established a national system for tracking hazardous waste shipments electronically. This system, known as ?e-Manifest,? will modernize the nation?s cradle-to-grave hazardous waste tracking process while saving valuable time, resources, and dollars for industry and states.

Date of Government Version: 09/16/2024
Date Data Arrived at EDR: 09/17/2024
Date Made Active in Reports: 12/20/2024
Number of Days to Update: 94

Source: Environmental Protection Agency
Telephone: 833-501-6826
Last EDR Contact: 12/12/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Varies

PFAS: PFOA & PFOS Site Listing
PFAS have been widely used in numerous industrial and residential applications since the 1950a??s. Their stability and unique chemical properties produce waterproof, stain resistant, and nonstick qualities in products. They are found in some firefighting foams and a wide range of consumer products such as carpet treatments, non-stick cookware, water-resistant fabrics, food packaging materials, and personal care products.

Date of Government Version: 06/04/2024
Date Data Arrived at EDR: 06/26/2024
Date Made Active in Reports: 09/18/2024
Number of Days to Update: 84

Source: Ohio EPA
Telephone: 614-644-2752
Last EDR Contact: 12/05/2024
Next Scheduled EDR Contact: 03/24/2025
Data Release Frequency: Varies

AIRS: Title V Permits Listing

A listing of Title V Permits issued by the Division of Air Pollution Control. It is a federal operating permit program adopted and implemented by the state. The basic program elements typically specify that major sources will submit an operating application to the specified state environmental regulatory agency according to a schedule.

Date of Government Version: 09/06/2024
Date Data Arrived at EDR: 09/06/2024
Date Made Active in Reports: 11/18/2024
Number of Days to Update: 73

Source: Ohio EPA
Telephone: 614-644-2270
Last EDR Contact: 12/05/2024
Next Scheduled EDR Contact: 03/24/2025
Data Release Frequency: Quarterly

ASBESTOS: Asbestos Notification Listing

A listing of notifications site locations with abatement and demolition dates.

Date of Government Version: 10/18/2024
Date Data Arrived at EDR: 10/23/2024
Date Made Active in Reports: 11/18/2024
Number of Days to Update: 26

Source: Ohio EPA
Telephone: 614-466-3770
Last EDR Contact: 01/23/2025
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Varies

COAL ASH: Coal Ash Disposal Site Listing

A listing of coal ash disposal site locations.

Date of Government Version: 04/13/2015
Date Data Arrived at EDR: 04/16/2015
Date Made Active in Reports: 05/29/2015
Number of Days to Update: 43

Source: Ohio EPA
Telephone: 614-644-2134
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

CRO: Cessation of Regulated Operations Facility Listing

"Cessation of Regulated Operations" means the discontinuation or termination of regulated operations or the finalizing of any transaction or proceeding through which those operations are discontinued. "Regulated Operations" means the production, use, storage or handling of regulated substances.

Date of Government Version: 01/10/2024
Date Data Arrived at EDR: 01/31/2024
Date Made Active in Reports: 04/22/2024
Number of Days to Update: 82

Source: Ohio EPA
Telephone: 614-644-3065
Last EDR Contact: 01/30/2025
Next Scheduled EDR Contact: 05/13/2024
Data Release Frequency: Varies

DRYCLEANERS: Drycleaner Facility Listing

A listing of drycleaner facility locations.

Date of Government Version: 09/03/2024
Date Data Arrived at EDR: 09/11/2024
Date Made Active in Reports: 09/13/2024
Number of Days to Update: 2

Source: Ohio EPA
Telephone: 614-644-3469
Last EDR Contact: 12/10/2024
Next Scheduled EDR Contact: 03/31/2025
Data Release Frequency: Semi-Annually

FIN ASSURANCE: Financial Assurance Information Listing

Financial assurance information.

Date of Government Version: 12/05/2017
Date Data Arrived at EDR: 12/08/2017
Date Made Active in Reports: 01/08/2018
Number of Days to Update: 31

Source: Ohio EPA
Telephone: 614-644-2955
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Semi-Annually

FIN ASSURANCE 3: Financial Assurance3 Information Listing

Information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 10/07/2024
Date Data Arrived at EDR: 10/09/2024
Date Made Active in Reports: 12/30/2024
Number of Days to Update: 82

Source: Ohio EPA
Telephone: 614-644-2621
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Varies

HIST USD: Urban Setting Designations Database

A USD may be requested for properties participating in the VAP when there is no current or future use of the ground water by local residents for drinking, showering, bathing or cooking. In these areas, an approved USD would lower the cost of cleanup and promote economic redevelopment while still protecting public health and safety. If these USDs were to be approved, the ground water cleanup or response requirements for the areas could be lessened. The Ohio EPA director may approve a USD request based on a demonstration that the USD requirements are met and an evaluation of existing and future uses of ground water in the area. The Ohio EPA director's decision on approval or denial of the request is needed before cleanup requirements for the site can be determined. This database is no longer updated or maintained by the state agency.

Date of Government Version: 05/10/2005
Date Data Arrived at EDR: 04/25/2006
Date Made Active in Reports: 05/11/2006
Number of Days to Update: 16

Source: Ohio EPA
Telephone: 614-644-3749
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

LEAD: Lead Inspections Listing

Department of Health lead inspections included in the Environmental Licensing System.

Date of Government Version: 11/20/2024
Date Data Arrived at EDR: 11/20/2024
Date Made Active in Reports: 12/02/2024
Number of Days to Update: 12

Source: Department of Health
Telephone: 614-466-3543
Last EDR Contact: 12/09/2024
Next Scheduled EDR Contact: 03/24/2025
Data Release Frequency: Quarterly

NPDES: NPDES General Permit List

General information regarding NPDES (National Pollutant Discharge Elimination System) permits.

Date of Government Version: 01/27/2025
Date Data Arrived at EDR: 01/28/2025
Date Made Active in Reports: 02/11/2025
Number of Days to Update: 14

Source: Ohio EPA
Telephone: 614-644-2031
Last EDR Contact: 01/18/2025
Next Scheduled EDR Contact: 05/12/2025
Data Release Frequency: Quarterly

VAPOR: Vapor Intrusion

A listing of vapor intrusion related sites.

Date of Government Version: 06/16/2020
Date Data Arrived at EDR: 06/18/2020
Date Made Active in Reports: 09/01/2020
Number of Days to Update: 75

Source: Ohio EPA
Telephone: 614-644-2924
Last EDR Contact: 12/05/2024
Next Scheduled EDR Contact: 03/24/2025
Data Release Frequency: Varies

TOWNGAS: DERR Towngas Database

The database includes 82 very old sites (circa 1895) which produced gas from coal for street lighting. Most visual evidence of these sites has disappeared, however the potential for buried coal tar remains. The database is no longer in active use.

Date of Government Version: 07/28/1992
Date Data Arrived at EDR: 02/21/2003
Date Made Active in Reports: 03/05/2003
Number of Days to Update: 12

Source: Ohio EPA
Telephone: 614-644-3749
Last EDR Contact: 02/12/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UIC: Underground Injection Wells Listing
A listing of underground injection well locations.

Date of Government Version: 10/25/2024
Date Data Arrived at EDR: 10/25/2024
Date Made Active in Reports: 01/14/2025
Number of Days to Update: 81

Source: Ohio EPA
Telephone: 614-644-2752
Last EDR Contact: 01/23/2025
Next Scheduled EDR Contact: 05/12/2025
Data Release Frequency: Varies

USD: Urban Setting Designation Sites
A USD may be requested for properties participating in the VAP when there is no current or future use of the ground water by local residents for drinking, showering, bathing or cooking. In these areas, an approved USD would lower the cost of cleanup and promote economic redevelopment while still protecting public health and safety. If these USDs were to be approved, the ground water cleanup or response requirements for the areas could be lessened. The Ohio EPA director may approve a USD request based on a demonstration that the USD requirements are met and an evaluation of existing and future uses of ground water in the area. The Ohio EPA director's decision on approval or denial of the request is needed before cleanup requirements for the site can be determined.

Date of Government Version: 09/26/2024
Date Data Arrived at EDR: 10/18/2024
Date Made Active in Reports: 11/20/2024
Number of Days to Update: 33

Source: Ohio EPA
Telephone: 614-644-3749
Last EDR Contact: 01/28/2025
Next Scheduled EDR Contact: 05/12/2025
Data Release Frequency: Semi-Annually

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Ohio Environmental Procetion Agency in Ohio.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Ohio Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Commerce in Ohio.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/20/2013
Number of Days to Update: 172

Source: Department of Commerce
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 11/04/2024
Date Data Arrived at EDR: 11/05/2024
Date Made Active in Reports: 01/27/2025
Number of Days to Update: 83

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/04/2025
Next Scheduled EDR Contact: 05/19/2025
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 12/23/2024
Next Scheduled EDR Contact: 04/14/2025
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 11/30/2023
Date Made Active in Reports: 12/01/2023
Number of Days to Update: 1

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 01/23/2025
Next Scheduled EDR Contact: 05/05/2025
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/06/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2020
Date Data Arrived at EDR: 11/30/2021
Date Made Active in Reports: 02/18/2022
Number of Days to Update: 80

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/06/2025
Next Scheduled EDR Contact: 05/26/2025
Data Release Frequency: Annually

VT MANIFEST: Hazardous Waste Manifest Data
Hazardous waste manifest information.

Date of Government Version: 10/28/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/09/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 802-241-3443
Last EDR Contact: 01/06/2025
Next Scheduled EDR Contact: 04/21/2025
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 11/27/2024
Next Scheduled EDR Contact: 03/17/2025
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Child Day Care Facilities
Source: Department of Job & Family Services
Telephone: 614-466-6282

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

VACANT LAND
1790 COMMERCE CENTER BLVD
FAIRBORN, OH 45324

TARGET PROPERTY COORDINATES

Latitude (North):	39.790679 - 39° 47' 26.44''
Longitude (West):	83.996163 - 83° 59' 46.19''
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	243441.1
UTM Y (Meters):	4408610.5
Elevation:	853 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	14434888 YELLOW SPRINGS, OH
Version Date:	2019
Northwest Map:	14434926 FAIRBORN, OH
Version Date:	2019

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

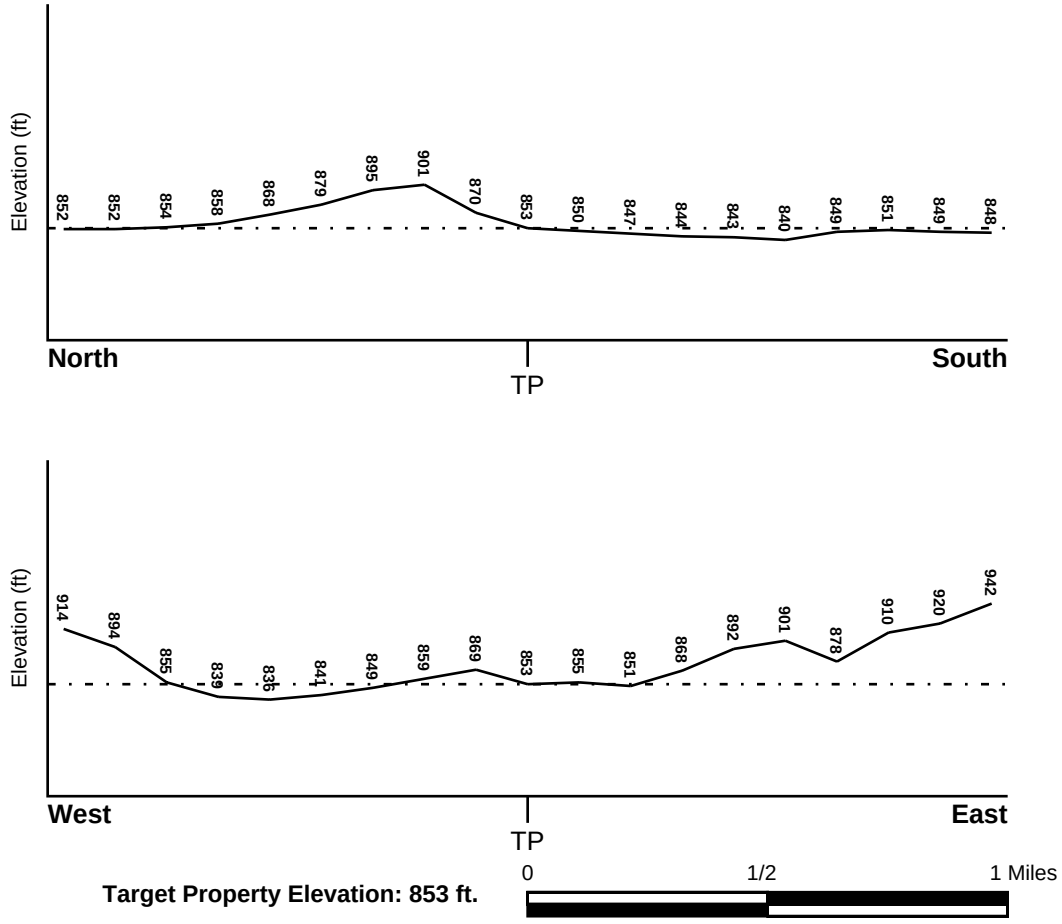
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General South

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 853 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
39057C0040D	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
39057C0020D	FEMA FIRM Flood data
39057C0019D	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
YELLOW SPRINGS	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

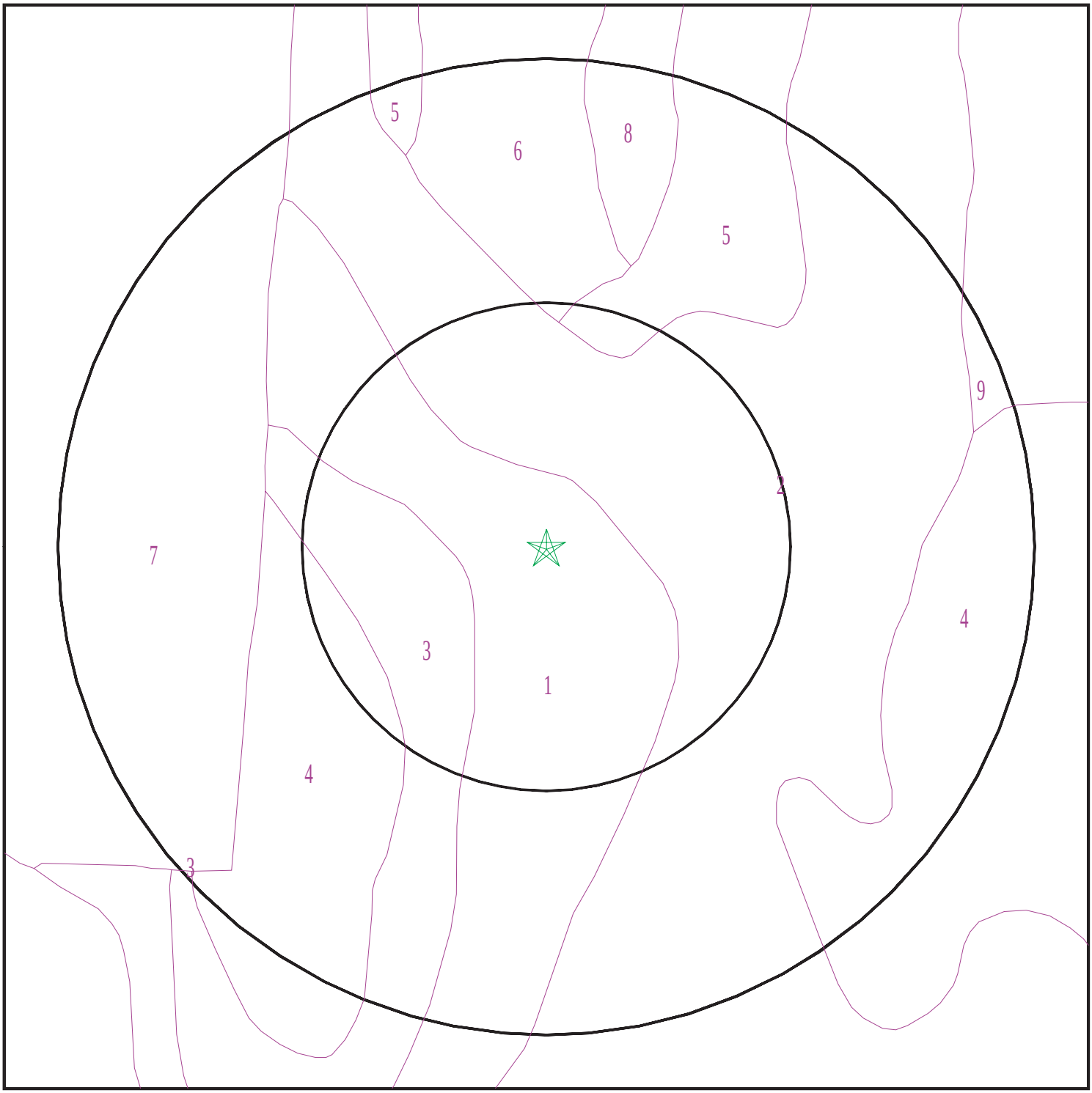
Era:	Paleozoic
System:	Ordovician
Series:	Upper Ordovician (Cincinnatian)
Code:	O3 *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 7901032.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Vacant Land	CLIENT:	Maksolve
ADDRESS:	1790 Commerce Center Blvd Fairborn OH 45324	CONTACT:	Marinda Vanhoose
LAT/LONG:	39.790679 / 83.996163	INQUIRY #:	7901032.2s
		DATE:	February 17, 2025 4:57 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Ockley

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141.14 Min: 42.34	Max: 8.4 Min: 6.6
2	9 inches	22 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141.14 Min: 42.34	Max: 8.4 Min: 6.6
3	22 inches	44 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141.14 Min: 42.34	Max: 8.4 Min: 6.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
4	44 inches	59 inches	stratified gravelly coarse sand to gravelly sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141.14 Min: 42.34	Max: 8.4 Min: 6.6

Soil Map ID: 2

Soil Component Name: Sloan

Soil Surface Texture: silty clay loam

Hydrologic Group: Class B/D - Drained/undrained hydrology class of soils that can be drained and are classified.

Soil Drainage Class: Very poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 15 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	24 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 7.8 Min: 6.6
2	24 inches	44 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 7.8 Min: 6.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	44 inches	59 inches	stratified loam to silt loam to sandy loam to clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14.11 Min: 4.23	Max: 7.8 Min: 6.6

Soil Map ID: 3

Soil Component Name: Eldean

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	12 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 141.14 Min: 42.34	Max: 8.4 Min: 6.6
2	12 inches	33 inches	gravelly clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 141.14 Min: 42.34	Max: 8.4 Min: 6.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	33 inches	38 inches	very gravelly sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 141.14 Min: 42.34	Max: 8.4 Min: 6.6
4	38 inches	59 inches	stratified sand to very gravelly loamy coarse sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 141.14 Min: 42.34	Max: 8.4 Min: 6.6

Soil Map ID: 4

Soil Component Name: Ockley

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141.14 Min: 42.34	Max: 8.4 Min: 6.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	9 inches	22 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141.14 Min: 42.34	Max: 8.4 Min: 6.6
3	22 inches	44 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141.14 Min: 42.34	Max: 8.4 Min: 6.6
4	44 inches	59 inches	stratified gravelly coarse sand to gravelly sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141.14 Min: 42.34	Max: 8.4 Min: 6.6

Soil Map ID: 5

Soil Component Name: Ritchey

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 46 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 4.23 Min: 0	Max: 7.8 Min: 6.1
2	7 inches	18 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 4.23 Min: 0	Max: 7.8 Min: 6.1
3	18 inches	20 inches	unweathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 4.23 Min: 0	Max: 7.8 Min: 6.1

Soil Map ID: 6

Soil Component Name: Ritchey

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 46 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 4.23 Min: 0	Max: 7.8 Min: 6.1
2	7 inches	18 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 4.23 Min: 0	Max: 7.8 Min: 6.1
3	18 inches	20 inches	unweathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 4.23 Min: 0	Max: 7.8 Min: 6.1

Soil Map ID: 7

Soil Component Name: Miamian

Soil Surface Texture: clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 1.41	Max: 8.4 Min: 7.4
2	7 inches	38 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 1.41	Max: 8.4 Min: 7.4
3	38 inches	59 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4.23 Min: 1.41	Max: 8.4 Min: 7.4

Soil Map ID: 8

Soil Component Name: Ritchey

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 46 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 4.23 Min: 0	Max: 7.8 Min: 6.1
2	7 inches	18 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 4.23 Min: 0	Max: 7.8 Min: 6.1
3	18 inches	20 inches	unweathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 4.23 Min: 0	Max: 7.8 Min: 6.1

Soil Map ID: 9

Soil Component Name: Milton

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 76 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.42 Min: 0	Max: Min:
2	5 inches	29 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.42 Min: 0	Max: Min:
3	29 inches	31 inches	unweathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.42 Min: 0	Max: Min:

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
2	USGS40000953551	1/8 - 1/4 Mile NE
18	USGS40000953478	1/2 - 1 Mile WSW
E30	USGS40000953485	1/2 - 1 Mile ESE
E31	USGS40000953489	1/2 - 1 Mile ESE
37	USGS40000953464	1/2 - 1 Mile SE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
42	USGS40000953452	1/2 - 1 Mile SSE
G43	USGS40000953441	1/2 - 1 Mile South

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

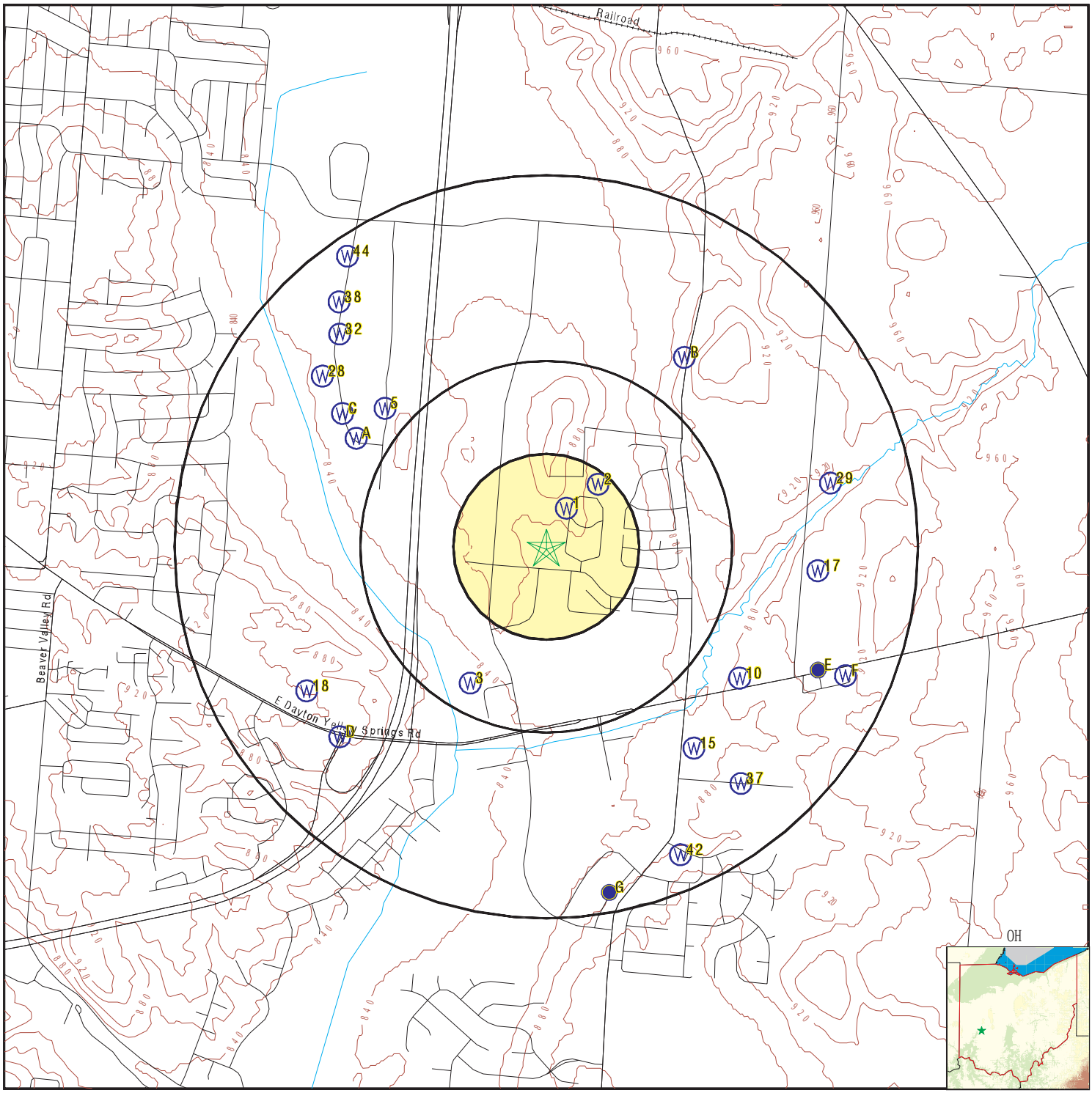
MAP ID	WELL ID	LOCATION FROM TP
1	OHD900000765171	0 - 1/8 Mile NNE
3	OHD900000777984	1/4 - 1/2 Mile SSW
A4	OHD900000307168	1/2 - 1 Mile WNW
5	OHD900000339594	1/2 - 1 Mile NW
A6	OHD900000303276	1/2 - 1 Mile WNW
A7	OHD900000698575	1/2 - 1 Mile WNW
A8	OHD900000598053	1/2 - 1 Mile WNW
A9	OHD900000320845	1/2 - 1 Mile WNW
10	OHD900000800214	1/2 - 1 Mile SE
B11	OHD900000642326	1/2 - 1 Mile NE
B12	OHD900000863973	1/2 - 1 Mile NE
C13	OHD900000698079	1/2 - 1 Mile WNW
C14	OHD900000317928	1/2 - 1 Mile NW
15	OHD900000864635	1/2 - 1 Mile SE
C16	OHD900000714929	1/2 - 1 Mile NW
17	OHD900000864632	1/2 - 1 Mile East
D19	OHDM30000013130	1/2 - 1 Mile SW
D20	OHDM30000013131	1/2 - 1 Mile SW
D21	OHDM30000010879	1/2 - 1 Mile SW
D22	OHDM30000010880	1/2 - 1 Mile SW
D23	OHDM30000017892	1/2 - 1 Mile SW
D24	OHDM30000017895	1/2 - 1 Mile SW
D25	OHDM30000068702	1/2 - 1 Mile SW
D26	OHDM30000017893	1/2 - 1 Mile SW
D27	OHDM30000017894	1/2 - 1 Mile SW
28	OHD900000647451	1/2 - 1 Mile NW
29	OHD900000864631	1/2 - 1 Mile ENE
32	OHD900000622584	1/2 - 1 Mile NW
E33	OHD900000864633	1/2 - 1 Mile ESE
E34	OHD900000867396	1/2 - 1 Mile ESE
E35	OHD900000723673	1/2 - 1 Mile ESE
E36	OHD900000811592	1/2 - 1 Mile ESE
38	OHD900000857729	1/2 - 1 Mile NW
F39	OHD900000765087	1/2 - 1 Mile ESE
F40	OHD900000864634	1/2 - 1 Mile ESE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
F41	OHD900000867397	1/2 - 1 Mile ESE
44	OHD900000864509	1/2 - 1 Mile NW
G45	OHD900000864636	1/2 - 1 Mile South

PHYSICAL SETTING SOURCE MAP - 7901032.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Oil, gas or related wells

SITE NAME:	Vacant Land	CLIENT:	Maksolve
ADDRESS:	1790 Commerce Center Blvd Fairborn OH 45324	CONTACT:	Marinda Vanhoose
		INQUIRY #:	7901032.2s
LAT/LONG:	39.790679 / 83.996163	DATE:	February 17, 2025 4:57 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
NNE
0 - 1/8 Mile
Higher

OH WELLS **OHD900000765171**

Database:	Water Well Database	Well Log #:	271349
Well Type:	Water Well	Drill Type:	Not Reported
Test Type:	Not Reported	Well Use:	Not Reported
Aquifer Type:	BEDROCK	Permit #:	Not Reported
Test Rate (gpm):	3	Draw Down:	55
Test Duration:	Not Reported	Surface Water Level (ft):	31
Date Measured:	Not Reported	Casing Height (ft):	Not Reported
Screen Length (ft):	Not Reported	Total Depth (ft):	60
Completion Date:	19630728000000.000	Depth to Bedrock (ft):	29
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	831.9	Well Drilled By:	Not Reported
Comments:	Not Reported		

2
NE
1/8 - 1/4 Mile
Higher

FED USGS **USGS40000953551**

Organization ID:	USGS-OH	Organization Name:	USGS Ohio Water Science Center
Monitor Location:	GR-132	Type:	Well
Description:	Not Reported	HUC:	05080001
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Richmond Group
Aquifer Type:	Confined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	3	Level reading date:	1989-06-27
Feet below surface:	7.62	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1988-03-23	Feet below surface:	10.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1987-11-18	Feet below surface:	15.75
Feet to sea level:	Not Reported	Note:	Not Reported

3
SSW
1/4 - 1/2 Mile
Lower

OH WELLS **OHD900000777984**

Database:	Water Well Database	Well Log #:	304903
Well Type:	Sealing Report	Drill Type:	Not Reported
Test Type:	Not Reported	Well Use:	DOMESTIC
Aquifer Type:	Not Reported	Permit #:	Not Reported
Test Rate (gpm):	Not Reported	Draw Down:	Not Reported

Test Duration:	Not Reported	Surface Water Level (ft):	40
Date Measured:	20140319000000.000	Casing Height (ft):	Not Reported
Screen Length (ft):	Not Reported	Total Depth (ft):	50
Completion Date:	20140319000000.000	Depth to Bedrock (ft):	Not Reported
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	Not Reported	Well Drilled By:	Not Reported
Comments:	Inadequate Water Supply.		

A4
WNW
1/2 - 1 Mile
Lower

OH WELLS **OHD900000307168**

Database:	Water Well Database	Well Log #:	909835
Well Type:	Water Well	Drill Type:	ROTARY
Test Type:	Pumping	Well Use:	DOMESTIC
Aquifer Type:	SHALE	Permit #:	Not Reported
Test Rate (gpm):	15	Draw Down:	6
Test Duration:	1.5	Surface Water Level (ft):	18
Date Measured:	20000612000000.000	Casing Height (ft):	1
Screen Length (ft):	Not Reported	Total Depth (ft):	81
Completion Date:	20000612000000.000	Depth to Bedrock (ft):	29
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	834.7	Well Drilled By:	Not Reported
Comments:	Not Reported		

5
NW
1/2 - 1 Mile
Higher

OH WELLS **OHD900000339594**

Database:	Water Well Database	Well Log #:	946208
Well Type:	Water Well	Drill Type:	ROTARY
Test Type:	Air	Well Use:	AGRIC/IRRIG
Aquifer Type:	SAND AND GRAVEL	Permit #:	Not Reported
Test Rate (gpm):	10	Draw Down:	4
Test Duration:	2	Surface Water Level (ft):	22
Date Measured:	20020918000000.000	Casing Height (ft):	Not Reported
Screen Length (ft):	2	Total Depth (ft):	29
Completion Date:	20020918000000.000	Depth to Bedrock (ft):	Not Reported
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	833.8	Well Drilled By:	Not Reported
Comments:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A6
WNW
1/2 - 1 Mile
Lower

OH WELLS **OHD900000303276**

Database:	Water Well Database	Well Log #:	885344
Well Type:	Water Well	Drill Type:	ROTARY
Test Type:	Pumping	Well Use:	AGRIC/IRRIG
Aquifer Type:	SHALE	Permit #:	Not Reported
Test Rate (gpm):	15	Draw Down:	4.5
Test Duration:	3	Surface Water Level (ft):	12
Date Measured:	19990516000000.000	Casing Height (ft):	1
Screen Length (ft):	5	Total Depth (ft):	61
Completion Date:	19990516000000.000	Depth to Bedrock (ft):	30
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	841.5	Well Drilled By:	Not Reported
Comments:	Not Reported		

A7
WNW
1/2 - 1 Mile
Lower

OH WELLS **OHD900000698575**

Database:	Water Well Database	Well Log #:	909849
Well Type:	Water Well	Drill Type:	ROTARY
Test Type:	Not Reported	Well Use:	AGRIC/IRRIG
Aquifer Type:	SHALE	Permit #:	Not Reported
Test Rate (gpm):	15	Draw Down:	4
Test Duration:	1	Surface Water Level (ft):	17
Date Measured:	20010709000000.000	Casing Height (ft):	1
Screen Length (ft):	5	Total Depth (ft):	61
Completion Date:	20010709000000.000	Depth to Bedrock (ft):	32
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	838.7	Well Drilled By:	Not Reported
Comments:	Not Reported		

A8
WNW
1/2 - 1 Mile
Lower

OH WELLS **OHD900000598053**

Database:	Water Well Database	Well Log #:	963124
Well Type:	Water Well	Drill Type:	ROTARY
Test Type:	Pumping	Well Use:	AGRIC/IRRIG
Aquifer Type:	SHALE	Permit #:	Not Reported
Test Rate (gpm):	17	Draw Down:	0
Test Duration:	1	Surface Water Level (ft):	20
Date Measured:	20030619000000.000	Casing Height (ft):	2
Screen Length (ft):	9	Total Depth (ft):	81
Completion Date:	20030619000000.000	Depth to Bedrock (ft):	33

Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	833.9	Well Drilled By:	Not Reported
Comments:	Not Reported		

A9
WNW
1/2 - 1 Mile
Higher

OH WELLS **OHD900000320845**

Database:	Water Well Database	Well Log #:	909831
Well Type:	Water Well	Drill Type:	ROTARY
Test Type:	Pumping	Well Use:	DOMESTIC
Aquifer Type:	SHALE	Permit #:	ZERO
Test Rate (gpm):	20	Draw Down:	1.5
Test Duration:	1.5	Surface Water Level (ft):	16
Date Measured:	20000425000000.000	Casing Height (ft):	1
Screen Length (ft):	Not Reported	Total Depth (ft):	81
Completion Date:	20000425000000.000	Depth to Bedrock (ft):	34
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	838.5	Well Drilled By:	Not Reported
Comments:	Not Reported		

10
SE
1/2 - 1 Mile
Higher

OH WELLS **OHD900000800214**

Database:	Water Well Database	Well Log #:	2054206
Well Type:	Water Well	Drill Type:	CABLE TOOL
Test Type:	Bailing	Well Use:	FIRE PROTECTION
Aquifer Type:	SHALE	Permit #:	989232
Test Rate (gpm):	9	Draw Down:	19
Test Duration:	2	Surface Water Level (ft):	23
Date Measured:	20151008000000.000	Casing Height (ft):	1
Screen Length (ft):	Not Reported	Total Depth (ft):	65
Completion Date:	20151008000000.000	Depth to Bedrock (ft):	31
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	871.7	Well Drilled By:	Not Reported
Comments:	Not Reported		

B11
NE
1/2 - 1 Mile
Higher

OH WELLS **OHD900000642326**

Database:	Water Well Database	Well Log #:	2077105
Well Type:	Water Well	Drill Type:	CABLE TOOL

Test Type:	Bailing	Well Use:	AGRIC/IRRIG
Aquifer Type:	SAND AND GRAVEL	Permit #:	Not Reported
Test Rate (gpm):	15	Draw Down:	2
Test Duration:	2	Surface Water Level (ft):	8
Date Measured:	20191206000000.000	Casing Height (ft):	1
Screen Length (ft):	3	Total Depth (ft):	28
Completion Date:	20191206000000.000	Depth to Bedrock (ft):	Not Reported
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	4	Screen Type:	CONTINOUS WIRE WOUND
Screen Material:	STAINLESS STEEL	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	Not Reported	Well Drilled By:	Not Reported
Comments:	Not Reported		

B12
NE
1/2 - 1 Mile
Higher

OH WELLS **OHD900000863973**

Database:	Water Well Database	Well Log #:	734289
Well Type:	Water Well	Drill Type:	ROTARY
Test Type:	Not Reported	Well Use:	Not Reported
Aquifer Type:	SHALE	Permit #:	Not Reported
Test Rate (gpm):	5	Draw Down:	10
Test Duration:	Not Reported	Surface Water Level (ft):	7
Date Measured:	Not Reported	Casing Height (ft):	Not Reported
Screen Length (ft):	Not Reported	Total Depth (ft):	38
Completion Date:	19811025000000.000	Depth to Bedrock (ft):	21
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	889.6	Well Drilled By:	Not Reported
Comments:	Not Reported		

C13
WNW
1/2 - 1 Mile
Higher

OH WELLS **OHD900000698079**

Database:	Water Well Database	Well Log #:	909848
Well Type:	Water Well	Drill Type:	ROTARY
Test Type:	Pumping	Well Use:	AGRIC/IRRIG
Aquifer Type:	SHALE	Permit #:	Not Reported
Test Rate (gpm):	10	Draw Down:	7
Test Duration:	1	Surface Water Level (ft):	12
Date Measured:	20010706000000.000	Casing Height (ft):	1
Screen Length (ft):	5	Total Depth (ft):	101
Completion Date:	20010706000000.000	Depth to Bedrock (ft):	35
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	842.3	Well Drilled By:	Not Reported
Comments:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database | EDR ID Number

C14
NW
1/2 - 1 Mile
Higher

OH WELLS **OHD900000317928**

Database:	Water Well Database	Well Log #:	885362
Well Type:	Water Well	Drill Type:	ROTARY
Test Type:	Air	Well Use:	AGRIC/IRRIG
Aquifer Type:	SHALE	Permit #:	Not Reported
Test Rate (gpm):	8	Draw Down:	20
Test Duration:	2	Surface Water Level (ft):	23
Date Measured:	19991027000000.000	Casing Height (ft):	1
Screen Length (ft):	5	Total Depth (ft):	101
Completion Date:	19991227000000.000	Depth to Bedrock (ft):	45
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	831	Well Drilled By:	Not Reported
Comments:	Not Reported		

15
SE
1/2 - 1 Mile
Higher

OH WELLS **OHD900000864635**

Database:	Water Well Database	Well Log #:	267388
Well Type:	Water Well	Drill Type:	Not Reported
Test Type:	Not Reported	Well Use:	Not Reported
Aquifer Type:	SHALE AND SANDSTONE	Permit #:	Not Reported
Test Rate (gpm):	1	Draw Down:	159
Test Duration:	2	Surface Water Level (ft):	16
Date Measured:	Not Reported	Casing Height (ft):	Not Reported
Screen Length (ft):	Not Reported	Total Depth (ft):	175
Completion Date:	19630207000000.000	Depth to Bedrock (ft):	23
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	853.4	Well Drilled By:	Not Reported
Comments:	Not Reported		

C16
NW
1/2 - 1 Mile
Higher

OH WELLS **OHD900000714929**

Database:	Water Well Database	Well Log #:	909840
Well Type:	Water Well	Drill Type:	ROTARY
Test Type:	Not Reported	Well Use:	AGRIC/IRRIG
Aquifer Type:	SHALE	Permit #:	Not Reported
Test Rate (gpm):	20	Draw Down:	.5
Test Duration:	1	Surface Water Level (ft):	14
Date Measured:	20000920000000.000	Casing Height (ft):	1
Screen Length (ft):	5	Total Depth (ft):	64
Completion Date:	20000920000000.000	Depth to Bedrock (ft):	60

Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	839.5	Well Drilled By:	Not Reported
Comments:	Not Reported		

17
East
1/2 - 1 Mile
Higher

OH WELLS **OHD900000864632**

Database:	Water Well Database	Well Log #:	82097
Well Type:	Water Well	Drill Type:	Not Reported
Test Type:	Not Reported	Well Use:	Not Reported
Aquifer Type:	SHALE AND SANDSTONE	Permit #:	Not Reported
Test Rate (gpm):	10	Draw Down:	15
Test Duration:	2	Surface Water Level (ft):	30
Date Measured:	Not Reported	Casing Height (ft):	Not Reported
Screen Length (ft):	Not Reported	Total Depth (ft):	110
Completion Date:	19520117000000.000	Depth to Bedrock (ft):	24
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	881.3	Well Drilled By:	Not Reported
Comments:	Not Reported		

18
WSW
1/2 - 1 Mile
Higher

FED USGS **USGS40000953478**

Organization ID:	USGS-OH	Organization Name:	USGS Ohio Water Science Center
Monitor Location:	GR-131	Type:	Well
Description:	Not Reported	HUC:	05080001
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Sand and gravel aquifers (glaciated regions)		
Formation Type:	Outwash	Aquifer Type:	Confined single aquifer
Construction Date:	Not Reported	Well Depth:	152
Well Depth Units:	ft	Well Hole Depth:	152
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	2	Level reading date:	1989-06-27
Feet below surface:	71.36	Feet to sea level:	Not Reported
Note:	Not Reported		

Level reading date:	1987-11-18	Feet below surface:	75.85
Feet to sea level:	Not Reported	Note:	Not Reported

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

D19
SW
1/2 - 1 Mile
Higher

OH WELLS **OHDM30000013130**

Database:	Monitoring Water Wells Listing		
Well Log #:	944830	Well Type:	Water Well
Drill Type:	AUGER	Test Type:	Not Reported
Well Use:	MONITOR	Aquifer Type:	SAND AND GRAVEL
Permit #:	Not Reported	Test Rate (gpm):	Not Reported
Draw Down:	Not Reported	Test Duration:	Not Reported
Surface Water Level (ft):	Not Reported	Date Measured:	Not Reported
Casing Height (ft):	Not Reported	Screen Length (ft):	10
Total Depth (ft):	44	Completion Date:	20020320000000.000
Depth to Bedrock (ft):	Not Reported	Drill Year:	Not Reported
Well Seal Report #:	Not Reported	Screen Diameter (in):	Not Reported
Screen Type:	Not Reported	Screen Material:	Not Reported
Pump Type:	Not Reported	Pump Capacity (gpm):	Not Reported
Pump Installed By:	Not Reported	Water Level Elev (ft):	Not Reported
Well Drilled By:	Not Reported	Comments:	Not Reported

D20
SW
1/2 - 1 Mile
Higher

OH WELLS **OHDM30000013131**

Database:	Monitoring Water Wells Listing		
Well Log #:	944809	Well Type:	Water Well
Drill Type:	AUGER	Test Type:	Not Reported
Well Use:	MONITOR	Aquifer Type:	SAND AND GRAVEL
Permit #:	MW#1	Test Rate (gpm):	Not Reported
Draw Down:	Not Reported	Test Duration:	Not Reported
Surface Water Level (ft):	Not Reported	Date Measured:	Not Reported
Casing Height (ft):	Not Reported	Screen Length (ft):	10
Total Depth (ft):	30	Completion Date:	20020313000000.000
Depth to Bedrock (ft):	Not Reported	Drill Year:	Not Reported
Well Seal Report #:	Not Reported	Screen Diameter (in):	Not Reported
Screen Type:	Not Reported	Screen Material:	Not Reported
Pump Type:	Not Reported	Pump Capacity (gpm):	Not Reported
Pump Installed By:	Not Reported	Water Level Elev (ft):	Not Reported
Well Drilled By:	Not Reported	Comments:	Not Reported

D21
SW
1/2 - 1 Mile
Higher

OH WELLS **OHDM30000010879**

Database:	Monitoring Water Wells Listing		
Well Log #:	849567	Well Type:	Water Well
Drill Type:	AUGER	Test Type:	Not Reported
Well Use:	MONITOR	Aquifer Type:	SAND
Permit #:	Not Reported	Test Rate (gpm):	Not Reported
Draw Down:	Not Reported	Test Duration:	Not Reported
Surface Water Level (ft):	Not Reported	Date Measured:	19980223000000.000
Casing Height (ft):	Not Reported	Screen Length (ft):	15
Total Depth (ft):	26	Completion Date:	19980325000000.000

Depth to Bedrock (ft):	Not Reported	Drill Year:	Not Reported
Well Seal Report #:	Not Reported	Screen Diameter (in):	Not Reported
Screen Type:	Not Reported	Screen Material:	Not Reported
Pump Type:	Not Reported	Pump Capacity (gpm):	Not Reported
Pump Installed By:	Not Reported	Water Level Elev (ft):	Not Reported
Well Drilled By:	Not Reported	Comments:	Not Reported

D22
SW
1/2 - 1 Mile
Higher

OH WELLS **OHDM30000010880**

Database:	Monitoring Water Wells Listing		
Well Log #:	849569	Well Type:	Water Well
Drill Type:	Not Reported	Test Type:	Not Reported
Well Use:	MONITOR	Aquifer Type:	SAND
Permit #:	Not Reported	Test Rate (gpm):	Not Reported
Draw Down:	Not Reported	Test Duration:	Not Reported
Surface Water Level (ft):	Not Reported	Date Measured:	Not Reported
Casing Height (ft):	Not Reported	Screen Length (ft):	10
Total Depth (ft):	34	Completion Date:	19980325000000.000
Depth to Bedrock (ft):	Not Reported	Drill Year:	Not Reported
Well Seal Report #:	Not Reported	Screen Diameter (in):	Not Reported
Screen Type:	Not Reported	Screen Material:	Not Reported
Pump Type:	Not Reported	Pump Capacity (gpm):	Not Reported
Pump Installed By:	Not Reported	Water Level Elev (ft):	Not Reported
Well Drilled By:	Not Reported	Comments:	Not Reported

D23
SW
1/2 - 1 Mile
Higher

OH WELLS **OHDM30000017892**

Database:	Monitoring Water Wells Listing		
Well Log #:	2008062	Well Type:	Water Well
Drill Type:	CABLE TOOL	Test Type:	Not Reported
Well Use:	MONITOR	Aquifer Type:	CLAY
Permit #:	Not Reported	Test Rate (gpm):	Not Reported
Draw Down:	Not Reported	Test Duration:	Not Reported
Surface Water Level (ft):	35	Date Measured:	20070126000000.000
Casing Height (ft):	0	Screen Length (ft):	20
Total Depth (ft):	58	Completion Date:	20070126000000.000
Depth to Bedrock (ft):	Not Reported	Drill Year:	Not Reported
Well Seal Report #:	Not Reported	Screen Diameter (in):	4
Screen Type:	CONTINOUS WIRE WOUND	Screen Material:	STAINLESS STEEL
Pump Type:	Not Reported	Pump Capacity (gpm):	Not Reported
Pump Installed By:	Not Reported	Water Level Elev (ft):	854.3
Well Drilled By:	Not Reported	Comments:	Not Reported

D24
SW
1/2 - 1 Mile
Higher

OH WELLS **OHDM30000017895**

Database:	Monitoring Water Wells Listing		
Well Log #:	2008065	Well Type:	Water Well

Drill Type:	AUGER	Test Type:	Not Reported
Well Use:	MONITOR	Aquifer Type:	SAND
Permit #:	Not Reported	Test Rate (gpm):	Not Reported
Draw Down:	Not Reported	Test Duration:	Not Reported
Surface Water Level (ft):	0	Date Measured:	Not Reported
Casing Height (ft):	0	Screen Length (ft):	10
Total Depth (ft):	15	Completion Date:	20070124000000.000
Depth to Bedrock (ft):	Not Reported	Drill Year:	Not Reported
Well Seal Report #:	Not Reported	Screen Diameter (in):	2
Screen Type:	MACHINE SLOTTED	Screen Material:	PVC
Pump Type:	Not Reported	Pump Capacity (gpm):	Not Reported
Pump Installed By:	Not Reported	Water Level Elev (ft):	889.3
Well Drilled By:	Not Reported	Comments:	Not Reported

D25
SW
1/2 - 1 Mile
Higher

OH WELLS **OHDM30000068702**

Database:	Monitoring Water Wells Listing		
Well Log #:	849568	Well Type:	Water Well
Drill Type:	Not Reported	Test Type:	Not Reported
Well Use:	MONITOR	Aquifer Type:	SAND
Permit #:	Not Reported	Test Rate (gpm):	Not Reported
Draw Down:	Not Reported	Test Duration:	Not Reported
Surface Water Level (ft):	14	Date Measured:	19980219000000.000
Casing Height (ft):	Not Reported	Screen Length (ft):	15
Total Depth (ft):	20	Completion Date:	19980325000000.000
Depth to Bedrock (ft):	Not Reported	Drill Year:	Not Reported
Well Seal Report #:	Not Reported	Screen Diameter (in):	Not Reported
Screen Type:	Not Reported	Screen Material:	Not Reported
Pump Type:	Not Reported	Pump Capacity (gpm):	Not Reported
Pump Installed By:	Not Reported	Water Level Elev (ft):	875.3
Well Drilled By:	Not Reported	Comments:	Not Reported

D26
SW
1/2 - 1 Mile
Higher

OH WELLS **OHDM30000017893**

Database:	Monitoring Water Wells Listing		
Well Log #:	2008063	Well Type:	Water Well
Drill Type:	AUGER	Test Type:	Not Reported
Well Use:	MONITOR	Aquifer Type:	SAND
Permit #:	Not Reported	Test Rate (gpm):	Not Reported
Draw Down:	Not Reported	Test Duration:	Not Reported
Surface Water Level (ft):	0	Date Measured:	Not Reported
Casing Height (ft):	0	Screen Length (ft):	10
Total Depth (ft):	16	Completion Date:	20070125000000.000
Depth to Bedrock (ft):	Not Reported	Drill Year:	Not Reported
Well Seal Report #:	Not Reported	Screen Diameter (in):	2
Screen Type:	MACHINE SLOTTED	Screen Material:	PVC
Pump Type:	Not Reported	Pump Capacity (gpm):	Not Reported
Pump Installed By:	Not Reported	Water Level Elev (ft):	889.3
Well Drilled By:	Not Reported	Comments:	Not Reported

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

D27
SW
1/2 - 1 Mile
Higher

OH WELLS **OHDM30000017894**

Database:	Monitoring Water Wells Listing		
Well Log #:	2008064	Well Type:	Water Well
Drill Type:	AUGER	Test Type:	Not Reported
Well Use:	MONITOR	Aquifer Type:	SAND
Permit #:	Not Reported	Test Rate (gpm):	Not Reported
Draw Down:	Not Reported	Test Duration:	Not Reported
Surface Water Level (ft):	0	Date Measured:	Not Reported
Casing Height (ft):	0	Screen Length (ft):	10
Total Depth (ft):	18	Completion Date:	20070125000000.000
Depth to Bedrock (ft):	Not Reported	Drill Year:	Not Reported
Well Seal Report #:	Not Reported	Screen Diameter (in):	2
Screen Type:	MACHINE SLOTTED	Screen Material:	PVC
Pump Type:	Not Reported	Pump Capacity (gpm):	Not Reported
Pump Installed By:	Not Reported	Water Level Elev (ft):	889.3
Well Drilled By:	Not Reported	Comments:	Not Reported

28
NW
1/2 - 1 Mile
Lower

OH WELLS **OHD900000647451**

Database:	Water Well Database	Well Log #:	963131
Well Type:	Water Well	Drill Type:	ROTARY
Test Type:	Pumping	Well Use:	AGRIC/IRRIG
Aquifer Type:	SHALE	Permit #:	Not Reported
Test Rate (gpm):	15	Draw Down:	1
Test Duration:	0	Surface Water Level (ft):	18
Date Measured:	20040410000000.000	Casing Height (ft):	1
Screen Length (ft):	5	Total Depth (ft):	60
Completion Date:	20040410000000.000	Depth to Bedrock (ft):	31
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	836.9	Well Drilled By:	Not Reported
Comments:	Not Reported		

29
ENE
1/2 - 1 Mile
Higher

OH WELLS **OHD900000864631**

Database:	Water Well Database	Well Log #:	423443
Well Type:	Water Well	Drill Type:	Not Reported
Test Type:	Not Reported	Well Use:	Not Reported
Aquifer Type:	LIMESTONE	Permit #:	Not Reported
Test Rate (gpm):	10	Draw Down:	5
Test Duration:	3	Surface Water Level (ft):	70
Date Measured:	Not Reported	Casing Height (ft):	Not Reported
Screen Length (ft):	Not Reported	Total Depth (ft):	128
Completion Date:	19720815000000.000	Depth to Bedrock (ft):	120

Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	829.2	Well Drilled By:	Not Reported
Comments:	Not Reported		

E30
ESE
1/2 - 1 Mile
Higher

FED USGS **USGS40000953485**

Organization ID:	USGS-OH	Organization Name:	USGS Ohio Water Science Center
Monitor Location:	GR-530	Type:	Well
Description:	Not Reported	HUC:	05090202
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Richmond Group
Aquifer Type:	Confined single aquifer	Construction Date:	19781122
Well Depth:	90	Well Depth Units:	ft
Well Hole Depth:	90	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	1	Level reading date:	1978-11-22
Feet below surface:	15	Feet to sea level:	Not Reported
Note:	Not Reported		

E31
ESE
1/2 - 1 Mile
Higher

FED USGS **USGS40000953489**

Organization ID:	USGS-OH	Organization Name:	USGS Ohio Water Science Center
Monitor Location:	GR-344	Type:	Well
Description:	Not Reported	HUC:	05080001
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Sand and gravel aquifers (glaciated regions)		
Formation Type:	Outwash	Aquifer Type:	Confined multiple aquifer
Construction Date:	19610304	Well Depth:	50
Well Depth Units:	ft	Well Hole Depth:	50
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1961-03-04
Feet below surface:	24	Feet to sea level:	Not Reported
Note:	Not Reported		

32
NW
1/2 - 1 Mile
Lower

OH WELLS **OHD900000622584**

Database:	Water Well Database	Well Log #:	963145
Well Type:	Water Well	Drill Type:	ROTARY
Test Type:	Pumping	Well Use:	AGRIC/IRRIG
Aquifer Type:	Not Reported	Permit #:	Not Reported
Test Rate (gpm):	20	Draw Down:	1

Test Duration:	1	Surface Water Level (ft):	20
Date Measured:	20041026000000.000	Casing Height (ft):	Not Reported
Screen Length (ft):	10	Total Depth (ft):	58
Completion Date:	20041022000000.000	Depth to Bedrock (ft):	Not Reported
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	829.9	Well Drilled By:	Not Reported
Comments:	Not Reported		

E33
ESE
1/2 - 1 Mile
Higher

OH WELLS **OHD900000864633**

Database:	Water Well Database	Well Log #:	242833
Well Type:	Water Well	Drill Type:	Not Reported
Test Type:	Not Reported	Well Use:	Not Reported
Aquifer Type:	LIMESTONE AND SHALE	Permit #:	Not Reported
Test Rate (gpm):	10	Draw Down:	2
Test Duration:	Not Reported	Surface Water Level (ft):	24
Date Measured:	Not Reported	Casing Height (ft):	Not Reported
Screen Length (ft):	Not Reported	Total Depth (ft):	50
Completion Date:	19610304000000.000	Depth to Bedrock (ft):	48
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	886.6	Well Drilled By:	Not Reported
Comments:	Not Reported		

E34
ESE
1/2 - 1 Mile
Higher

OH WELLS **OHD900000867396**

Database:	Water Well Database	Well Log #:	530069
Well Type:	Water Well	Drill Type:	Not Reported
Test Type:	Not Reported	Well Use:	Not Reported
Aquifer Type:	SHALE	Permit #:	Not Reported
Test Rate (gpm):	2	Draw Down:	70
Test Duration:	4	Surface Water Level (ft):	18
Date Measured:	Not Reported	Casing Height (ft):	Not Reported
Screen Length (ft):	Not Reported	Total Depth (ft):	90
Completion Date:	19781122000000.000	Depth to Bedrock (ft):	34
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	889.7	Well Drilled By:	Not Reported
Comments:	Not Reported		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

E35
ESE
1/2 - 1 Mile
Higher

OH WELLS **OHD900000723673**

Database:	Water Well Database	Well Log #:	1011277
Well Type:	Water Well	Drill Type:	ROTARY
Test Type:	Air	Well Use:	DOMESTIC
Aquifer Type:	SAND AND GRAVEL	Permit #:	Not Reported
Test Rate (gpm):	Not Reported	Draw Down:	18
Test Duration:	4	Surface Water Level (ft):	19
Date Measured:	20090409000000.000	Casing Height (ft):	1
Screen Length (ft):	13	Total Depth (ft):	37
Completion Date:	20090409000000.000	Depth to Bedrock (ft):	35
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	890	Well Drilled By:	Not Reported
Comments:	Not Reported		

E36
ESE
1/2 - 1 Mile
Higher

OH WELLS **OHD900000811592**

Database:	Water Well Database	Well Log #:	174938
Well Type:	Sealing Report	Drill Type:	ROTARY
Test Type:	Not Reported	Well Use:	ABANDONED
Aquifer Type:	Not Reported	Permit #:	Not Reported
Test Rate (gpm):	Not Reported	Draw Down:	0
Test Duration:	0	Surface Water Level (ft):	0
Date Measured:	20090409000000.000	Casing Height (ft):	0
Screen Length (ft):	Not Reported	Total Depth (ft):	37
Completion Date:	Not Reported	Depth to Bedrock (ft):	Not Reported
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	Not Reported	Well Drilled By:	Not Reported
Comments:	Casing New Inadequate Water		

37
SE
1/2 - 1 Mile
Higher

FED USGS **USGS40000953464**

Organization ID:	USGS-OH	Organization Name:	USGS Ohio Water Science Center
Monitor Location:	GR-137	Type:	Well
Description:	Not Reported	HUC:	05090202
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	3	Level reading date:	1989-06-27
Feet below surface:	14.93	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1988-03-23	Feet below surface:	16.18
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1987-11-19	Feet below surface:	19.12
Feet to sea level:	Not Reported	Note:	Not Reported

38
NW
1/2 - 1 Mile
Lower

OH WELLS **OHD900000857729**

Database:	Water Well Database	Well Log #:	794430
Well Type:	Water Well	Drill Type:	ROTARY
Test Type:	Not Reported	Well Use:	AGRIC/IRRIG
Aquifer Type:	GRAVEL	Permit #:	Not Reported
Test Rate (gpm):	25	Draw Down:	1
Test Duration:	1	Surface Water Level (ft):	15
Date Measured:	Not Reported	Casing Height (ft):	Not Reported
Screen Length (ft):	Not Reported	Total Depth (ft):	30
Completion Date:	19940810000000.000	Depth to Bedrock (ft):	Not Reported
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	839.6	Well Drilled By:	Not Reported
Comments:	Not Reported		

F39
ESE
1/2 - 1 Mile
Higher

OH WELLS **OHD900000765087**

Database:	Water Well Database	Well Log #:	199168
Well Type:	Sealing Report	Drill Type:	Not Reported
Test Type:	Not Reported	Well Use:	Not Reported
Aquifer Type:	Not Reported	Permit #:	Not Reported
Test Rate (gpm):	Not Reported	Draw Down:	Not Reported
Test Duration:	Not Reported	Surface Water Level (ft):	10
Date Measured:	Not Reported	Casing Height (ft):	Not Reported
Screen Length (ft):	Not Reported	Total Depth (ft):	50
Completion Date:	20111201000000.000	Depth to Bedrock (ft):	Not Reported
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	Not Reported	Well Drilled By:	Not Reported
Comments:	Not Reported		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

F40
ESE
1/2 - 1 Mile
Higher

OH WELLS **OHD900000864634**

Database:	Water Well Database	Well Log #:	252023
Well Type:	Water Well	Drill Type:	Not Reported
Test Type:	Not Reported	Well Use:	Not Reported
Aquifer Type:	SHALE	Permit #:	Not Reported
Test Rate (gpm):	30	Draw Down:	Not Reported
Test Duration:	10	Surface Water Level (ft):	18
Date Measured:	Not Reported	Casing Height (ft):	Not Reported
Screen Length (ft):	Not Reported	Total Depth (ft):	85
Completion Date:	19601209000000.000	Depth to Bedrock (ft):	35
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	896.5	Well Drilled By:	Not Reported
Comments:	Not Reported		

F41
ESE
1/2 - 1 Mile
Higher

OH WELLS **OHD900000867397**

Database:	Water Well Database	Well Log #:	509902
Well Type:	Water Well	Drill Type:	Not Reported
Test Type:	Not Reported	Well Use:	Not Reported
Aquifer Type:	SHALE AND SANDSTONE	Permit #:	Not Reported
Test Rate (gpm):	15	Draw Down:	10
Test Duration:	2	Surface Water Level (ft):	7
Date Measured:	Not Reported	Casing Height (ft):	Not Reported
Screen Length (ft):	Not Reported	Total Depth (ft):	50
Completion Date:	19780427000000.000	Depth to Bedrock (ft):	43
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	910.6	Well Drilled By:	Not Reported
Comments:	Not Reported		

42
SSE
1/2 - 1 Mile
Higher

FED USGS **USGS40000953452**

Organization ID:	USGS-OH	Organization Name:	USGS Ohio Water Science Center
Monitor Location:	GR-135	Type:	Well
Description:	Not Reported	HUC:	05090202
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Richmond Group
Aquifer Type:	Confined multiple aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	3	Level reading date:	1989-06-27
Feet below surface:	13.76	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1988-03-23	Feet below surface:	14.51
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1987-11-19	Feet below surface:	15.70
Feet to sea level:	Not Reported	Note:	Not Reported

G43
South
1/2 - 1 Mile
Higher

FED USGS **USGS40000953441**

Organization ID:	USGS-OH	Organization Name:	USGS Ohio Water Science Center
Monitor Location:	GR-345	Type:	Well
Description:	Not Reported	HUC:	05080001
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Ordovician System
Aquifer Type:	Confined single aquifer	Construction Date:	19531023
Well Depth:	30	Well Depth Units:	ft
Well Hole Depth:	30	Well Hole Depth Units:	ft
Ground water levels,Number of Measurements:	1	Level reading date:	1953-10-23
Feet below surface:	15	Feet to sea level:	Not Reported
Note:	Not Reported		

44
NW
1/2 - 1 Mile
Higher

OH WELLS **OHD900000864509**

Database:	Water Well Database	Well Log #:	824117
Well Type:	Water Well	Drill Type:	ROTARY
Test Type:	Not Reported	Well Use:	AGRIC/IRRIG
Aquifer Type:	SHALE	Permit #:	Not Reported
Test Rate (gpm):	8	Draw Down:	1
Test Duration:	2	Surface Water Level (ft):	18
Date Measured:	Not Reported	Casing Height (ft):	Not Reported
Screen Length (ft):	Not Reported	Total Depth (ft):	30
Completion Date:	19951114000000.000	Depth to Bedrock (ft):	29
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	836.2	Well Drilled By:	Not Reported
Comments:	Not Reported		

G45
South
1/2 - 1 Mile
Higher

OH WELLS **OHD900000864636**

Database:	Water Well Database	Well Log #:	100963
Well Type:	Water Well	Drill Type:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Test Type:	Not Reported	Well Use:	Not Reported
Aquifer Type:	SHALE	Permit #:	Not Reported
Test Rate (gpm):	Not Reported	Draw Down:	Not Reported
Test Duration:	Not Reported	Surface Water Level (ft):	15
Date Measured:	Not Reported	Casing Height (ft):	Not Reported
Screen Length (ft):	Not Reported	Total Depth (ft):	13
Completion Date:	19531023000000.000	Depth to Bedrock (ft):	11
Drill Year:	Not Reported	Well Seal Report #:	Not Reported
Screen Diameter (in):	Not Reported	Screen Type:	Not Reported
Screen Material:	Not Reported	Pump Type:	Not Reported
Pump Capacity (gpm):	Not Reported	Pump Installed By:	Not Reported
Water Level Elev (ft):	861.8	Well Drilled By:	Not Reported
Comments:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: OH Radon

Radon Test Results

Zipcode	Num Tests	Maximum	Minimum	Arith Mean	Geo Mean
45324	1147	163	0	7.71	4.07

Federal EPA Radon Zone for GREENE County: 1

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 45324

Number of sites tested: 5

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.400 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	5.100 pCi/L	60%	40%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Public Water System Data
Source: Ohio Environmental Protection Agency
Telephone: 614-644-2752
The database includes community, transient non-community and non-transient non-community water wells; and source treatment unit locations.

Water Treatment Facilities
Source: Ohio Environmental Protection Agency
Telephone: 614-644-2752

Water Well Database
Source: Department of Natural Resources
Telephone: 614-265-6740

Monitoring Water Wells Listing
Source: Department of Natural Resources
Telephone: 614-265-6740

OTHER STATE DATABASE INFORMATION

Oil and Gas Wells Listing
Source: Department of Natural Resources
Telephone: 614-265-6740
A listing of oil and gas well locations in the state.

RADON

State Database: OH Radon
Source: Department of Health
Telephone: 614-644-2727
Radon Statistics for Zip Code Areas

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

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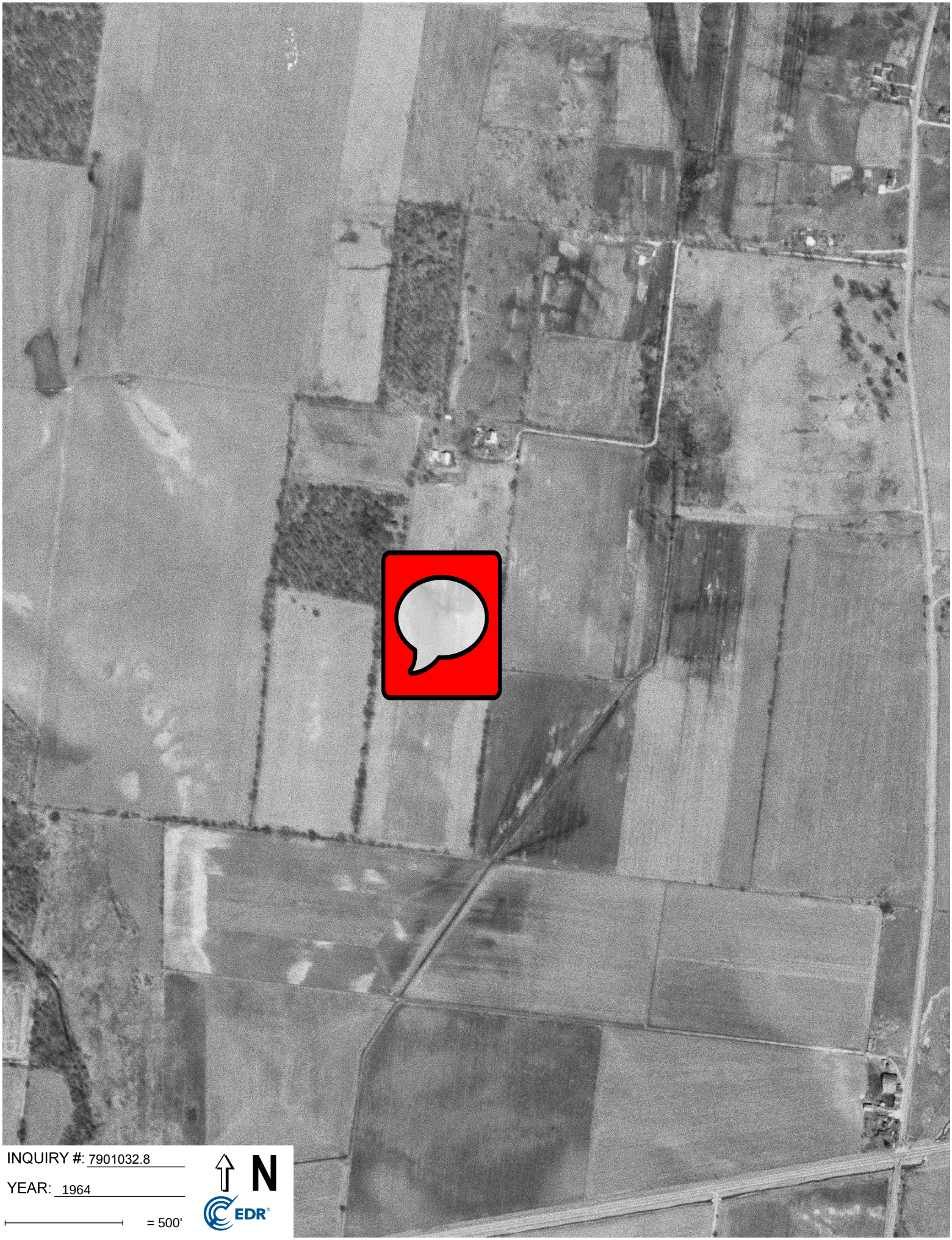
APPENDIX C:
HISTORICAL RESEARCH DOCUMENTATION



INQUIRY #: 7901032.8

YEAR: 1964

= 500'

N

EDR


INQUIRY #: 7901032.8
YEAR: 1952
= 500'
N
EDR
ds image extent or image is n
ed



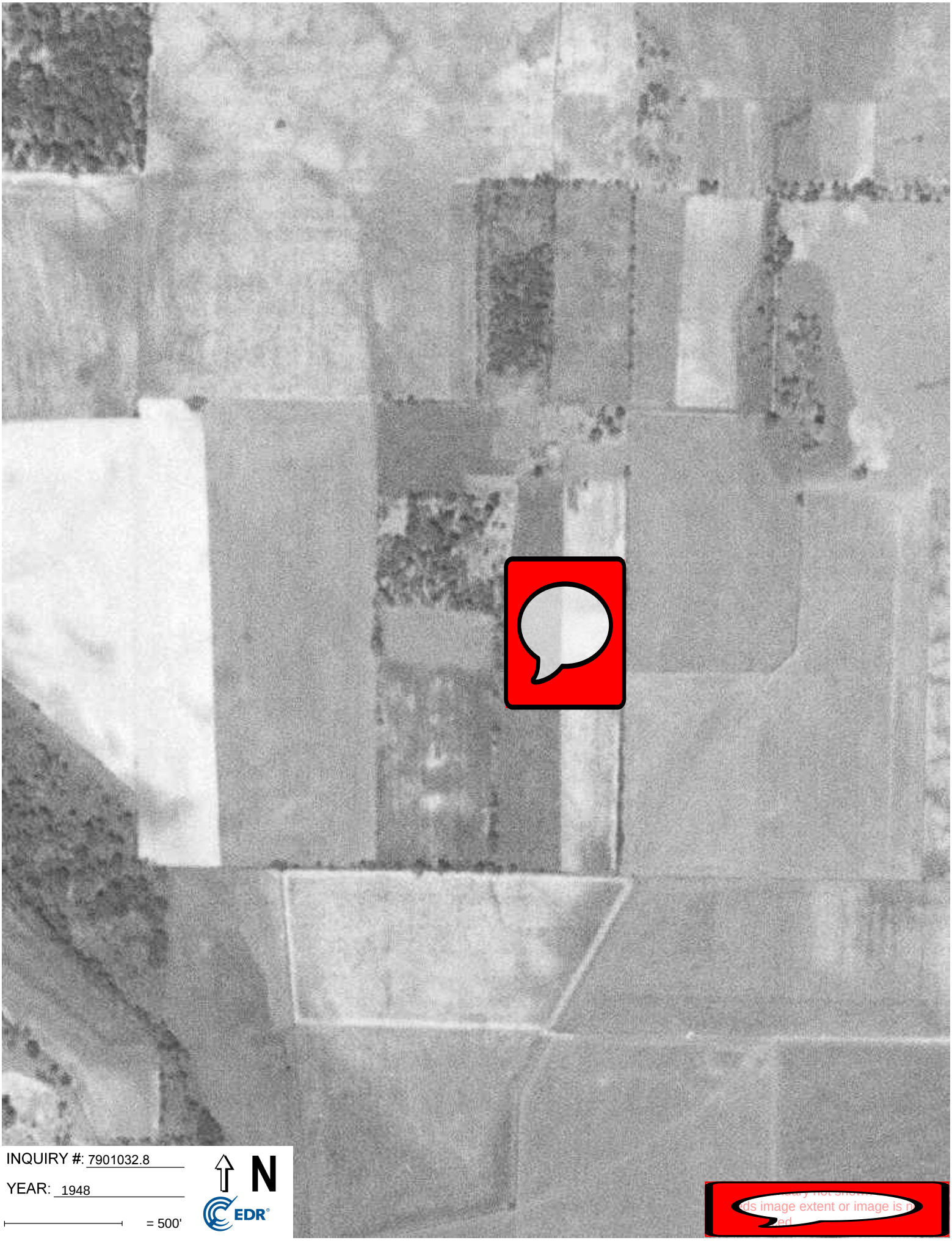
INQUIRY #: 7901032.8

YEAR: 1950

= 500'

N

EDR



INQUIRY #: 7901032.8

YEAR: 1948

= 500'

N

EDR



INQUIRY #: 7901032.8

YEAR: 1942

= 500'

N

EDR

Vacant Land

1790 Commerce Center Blvd

Fairborn, OH 45324

Inquiry Number: 7901032.8

February 19, 2025

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

02/19/25

Site Name:

Vacant Land
1790 Commerce Center Blvd
Fairborn, OH 45324
EDR Inquiry # 7901032.8

Client Name:

Maksolve
432 Windsor Park Drive
Dayton, OH 45459
Contact: Marinda Vanhoose

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Search Results:

Year	*Scale*	*Details*	*Source*
2019	1"=500'	Flight Year: 2019	USDA/NAIP
2015	1"=500'	Flight Year: 2015	USDA/NAIP
2011	1"=500'	Flight Year: 2011	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
2001	1"=500'	Acquisition Date: January 01, 2001	USGS/DOQQ
1994	1"=500'	Acquisition Date: January 01, 1994	USGS/DOQQ
1984	1"=500'	Flight Date: May 01, 1984	USDA
1974	1"=500'	Flight Date: May 01, 1974	USGS
1968	1"=500'	Flight Date: March 18, 1968	USGS
1964	1"=500'	Flight Date: April 15, 1964	USGS
1952	1"=500'	Flight Date: September 16, 1952	USGS
1950	1"=500'	Flight Date: August 13, 1950	USDA
1948	1"=500'	Flight Date: September 01, 1948	USGS
1942	1"=500'	Flight Date: September 22, 1942	USDA

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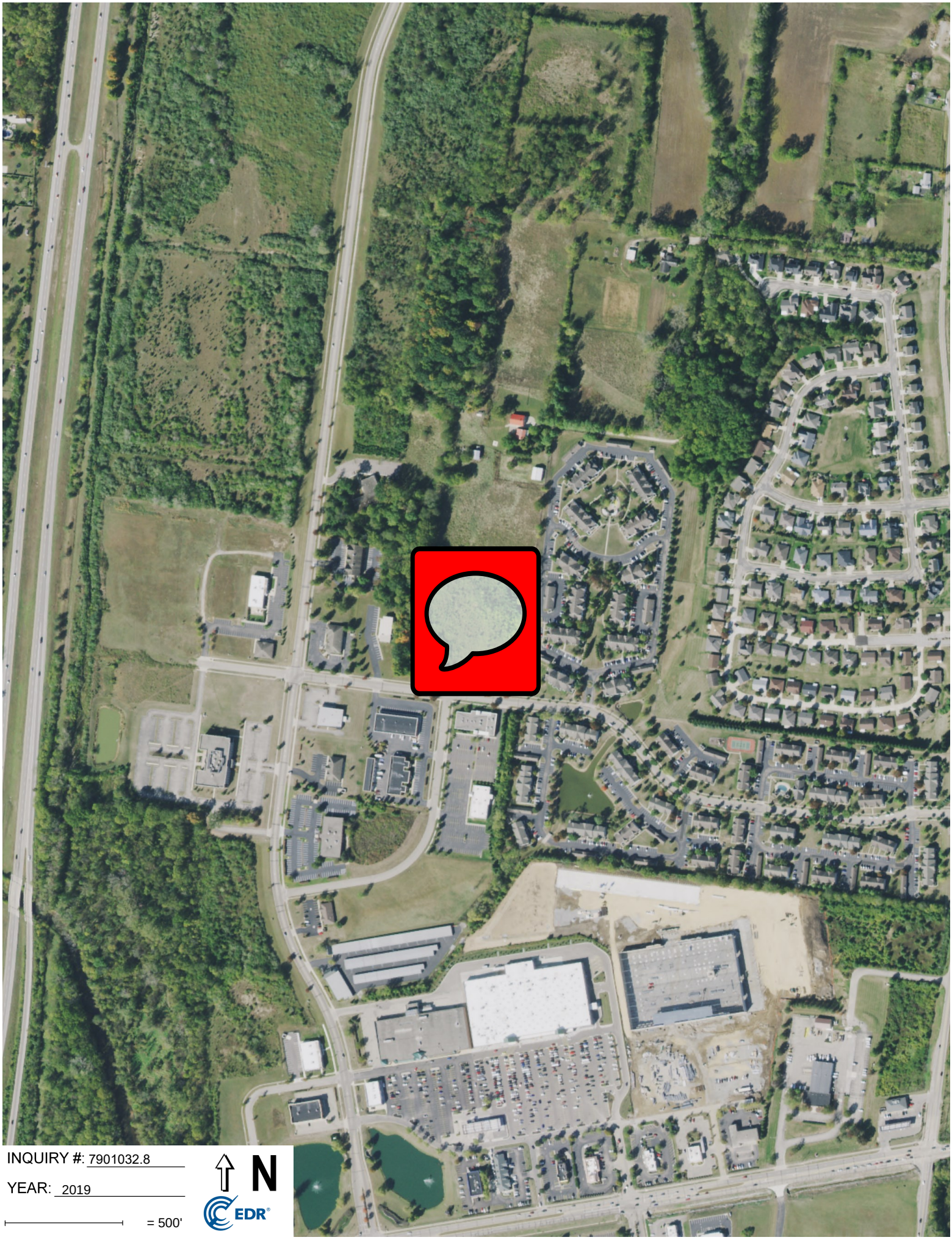


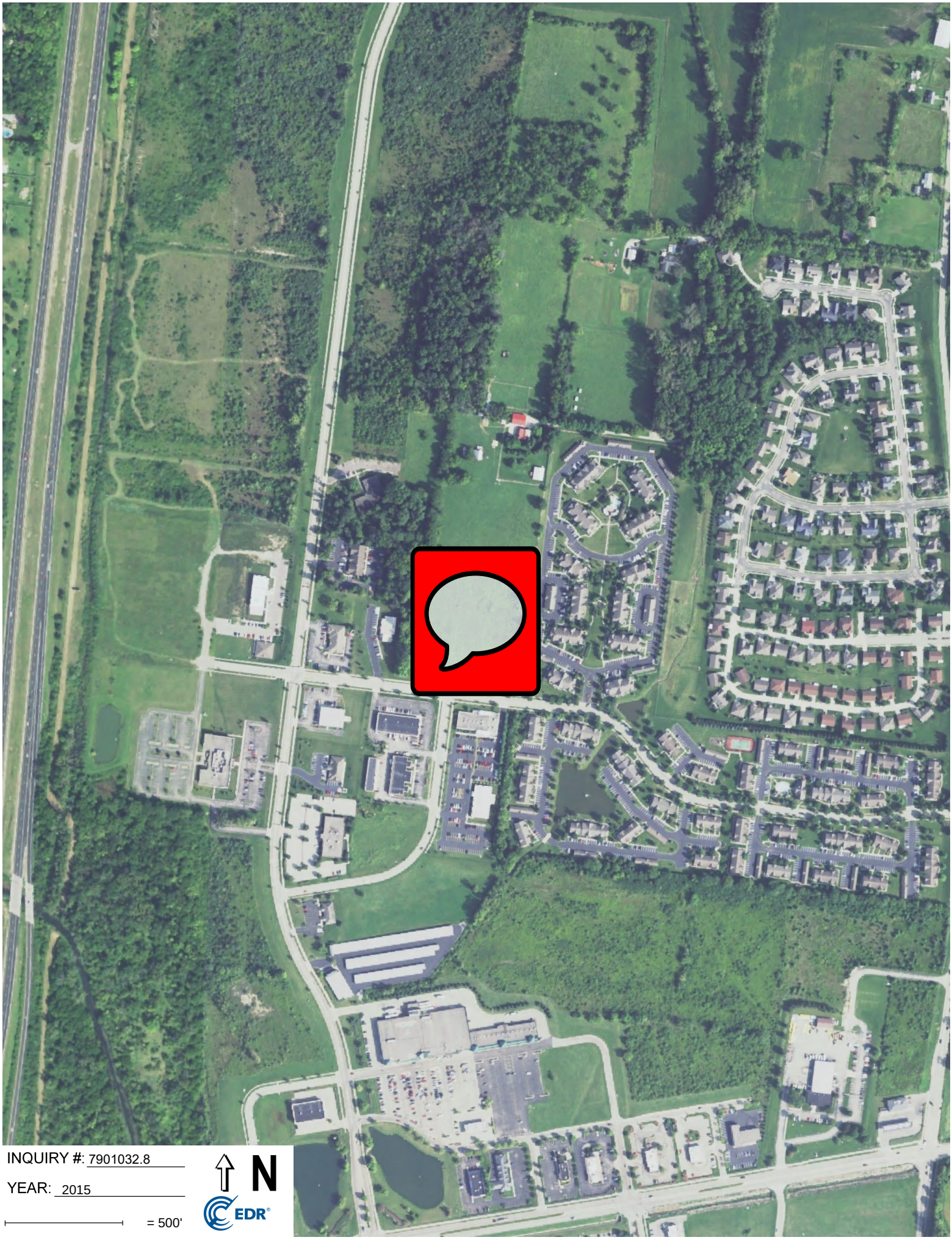
INQUIRY #: 7901032.8

YEAR: 2019

= 500'

N

EDR



INQUIRY #: 7901032.8

YEAR: 2015

= 500'

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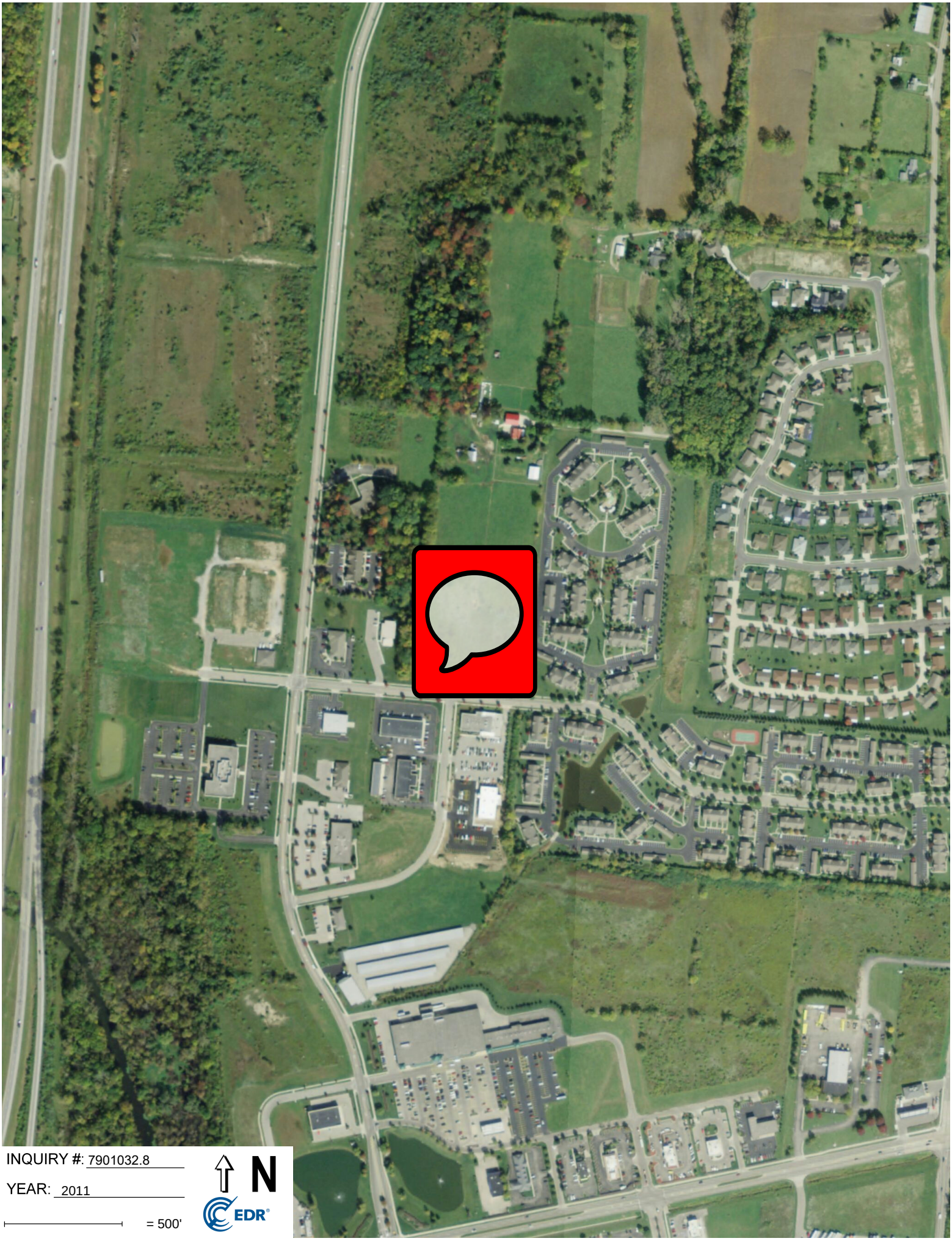
EDR



INQUIRY #: 7901032.8

YEAR: 2011

= 500'

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EDR



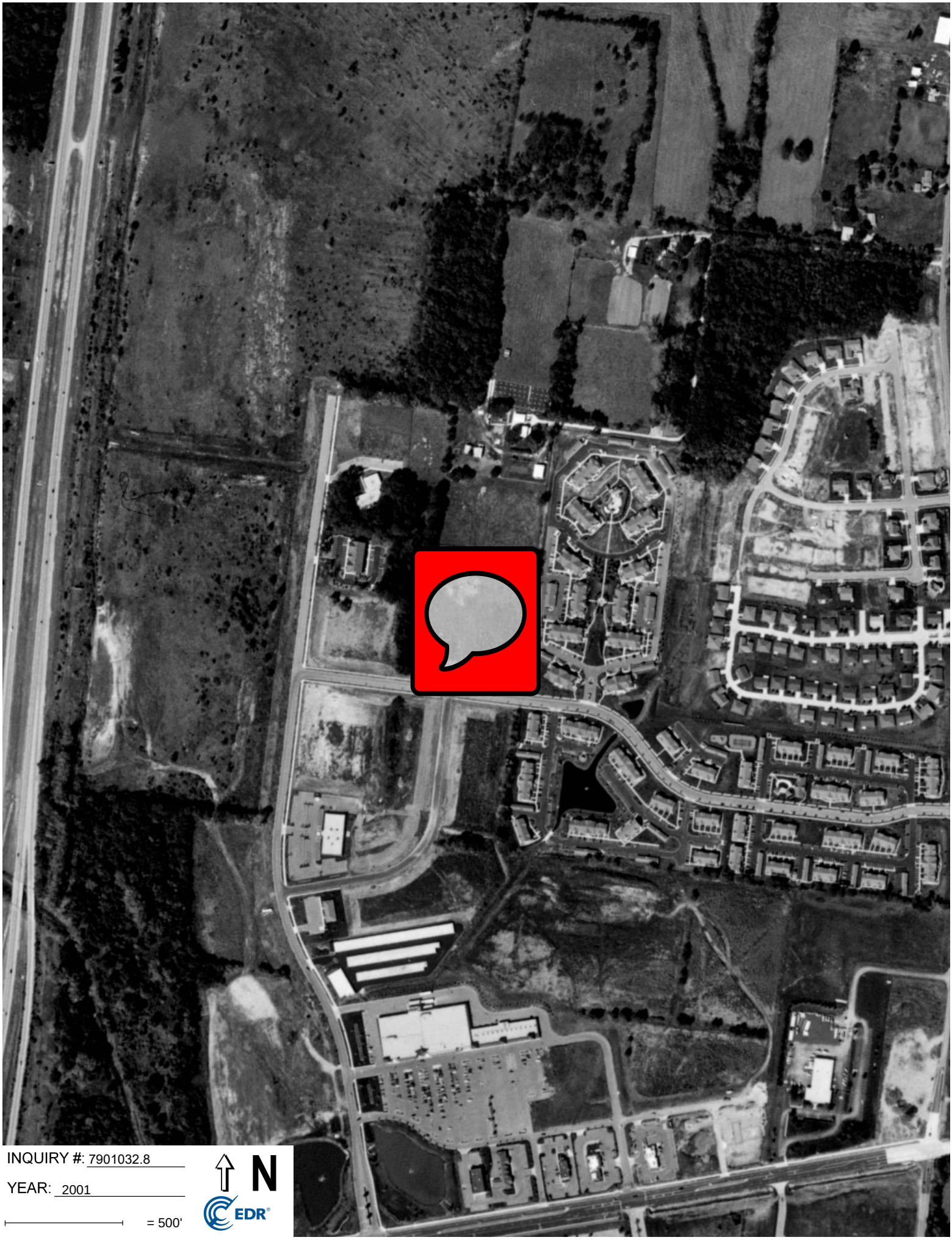
INQUIRY #: 7901032.8

YEAR: 2006

= 500'

N

EDR



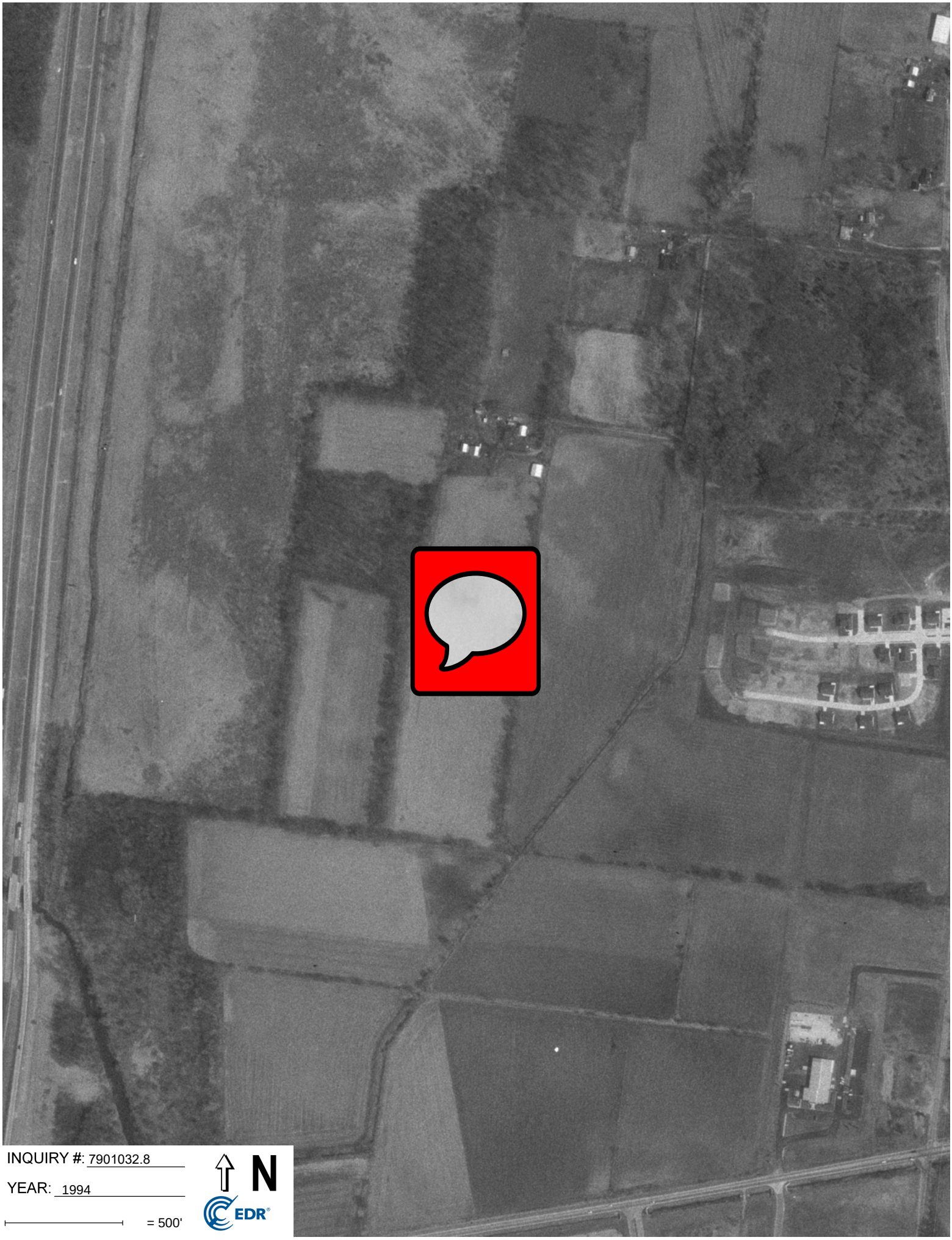
INQUIRY #: 7901032.8

YEAR: 2001

= 500'

N

EDR



INQUIRY #: 7901032.8

YEAR: 1994

= 500'

N

EDR



INQUIRY #: 7901032.8

YEAR: 1984

= 500'

N

EDR



INQUIRY #: 7901032.8

YEAR: 1974

= 500'

N

EDR



INQUIRY #: 7901032.8

YEAR: 1968

= 500'

N

EDR

Vacant Land

1790 Commerce Center Blvd

Fairborn, OH 45324

Inquiry Number: 7901032.3

February 17, 2025

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

02/17/25

Site Name:

Vacant Land
1790 Commerce Center Blvd
Fairborn, OH 45324
EDR Inquiry # 7901032.3

Client Name:

Maksolve
432 Windsor Park Drive
Dayton, OH 45459
Contact: Marinda Vanhoose

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Certified Sanborn Results:

Certification # 0193-4385-B04C

PO # 028-25

Project 028-25

UNMAPPED PROPERTY

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Certification #: 0193-4385-B04C

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- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Vacant Land

1790 Commerce Center Blvd

Fairborn, OH 45324

Inquiry Number: 7901032.4

February 17, 2025

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with QuadMatch™

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Shelton, CT 06484
Toll Free: 800.352.0050
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EDR Historical Topo Map Report

02/17/25

Site Name:

Vacant Land
1790 Commerce Center Blvd
Fairborn, OH 45324
EDR Inquiry # 7901032.4

Client Name:

Maksolve
432 Windsor Park Drive
Dayton, OH 45459
Contact: Marinda Vanhoose

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Maksolve were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# 028-25

Project: 028-25

Coordinates:

Latitude:	39.790679 39° 47' 26" North
Longitude:	-83.996163 -83° 59' 46" West
UTM Zone:	Zone 17 North
UTM X Meters:	243447.84
UTM Y Meters:	4408820.18
Elevation:	852.67' above sea level

Maps Provided:

2019
2016
2013
1992
1988
1981, 1984
1974, 1975
1965, 1968
1955
1906
1904

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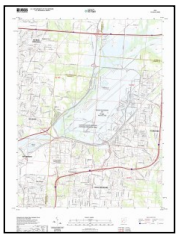
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2019 Source Sheets



Yellow Springs
2019
7.5-minute, 24000

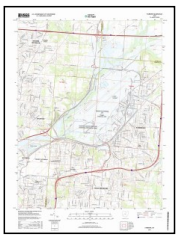


Fairborn
2019
7.5-minute, 24000

2016 Source Sheets

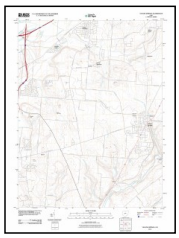


Yellow Springs
2016
7.5-minute, 24000

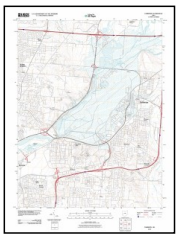


Fairborn
2016
7.5-minute, 24000

2013 Source Sheets



Yellow Springs
2013
7.5-minute, 24000



Fairborn
2013
7.5-minute, 24000

1992 Source Sheets



Fairborn
1992
7.5-minute, 24000
Aerial Photo Revised 1988



Yellow Springs
1992
7.5-minute, 24000
Aerial Photo Revised 1988

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1988 Source Sheets

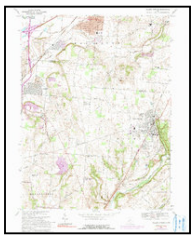


Fairborn
1988
7.5-minute, 24000
Aerial Photo Revised 1984

1981, 1984 Source Sheets



Fairborn
1981
7.5-minute, 24000
Aerial Photo Revised 1979



Yellow Springs
1984
7.5-minute, 24000
Aerial Photo Revised 1975

1974, 1975 Source Sheets



Fairborn
1974
7.5-minute, 24000
Aerial Photo Revised 1974



Yellow Springs
1975
7.5-minute, 24000
Aerial Photo Revised 1975

1965, 1968 Source Sheets



Fairborn
1965
7.5-minute, 24000
Aerial Photo Revised 1964



Yellow Springs
1968
7.5-minute, 24000
Aerial Photo Revised 1968

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1955 Source Sheets



Yellow Springs
1955
7.5-minute, 24000
Aerial Photo Revised 1954



Fairborn
1955
7.5-minute, 24000
Aerial Photo Revised 1954

1906 Source Sheets

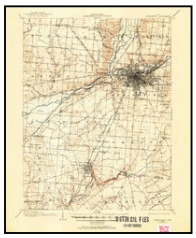


Dayton
1906
15-minute, 62500



Springfield
1906
15-minute, 62500

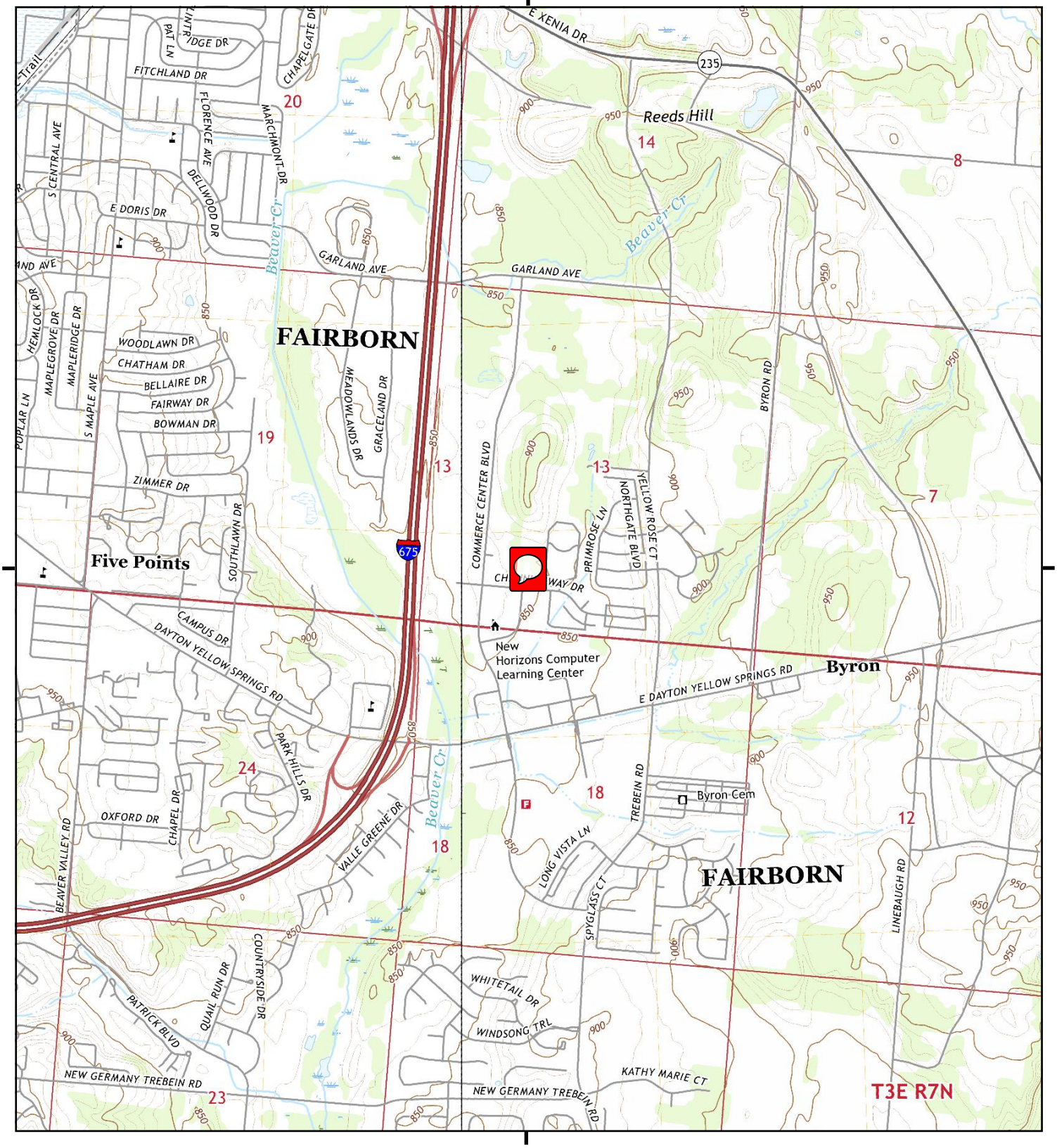
1904 Source Sheets



Springfield
1904
15-minute, 62500



Dayton
1904
15-minute, 62500



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

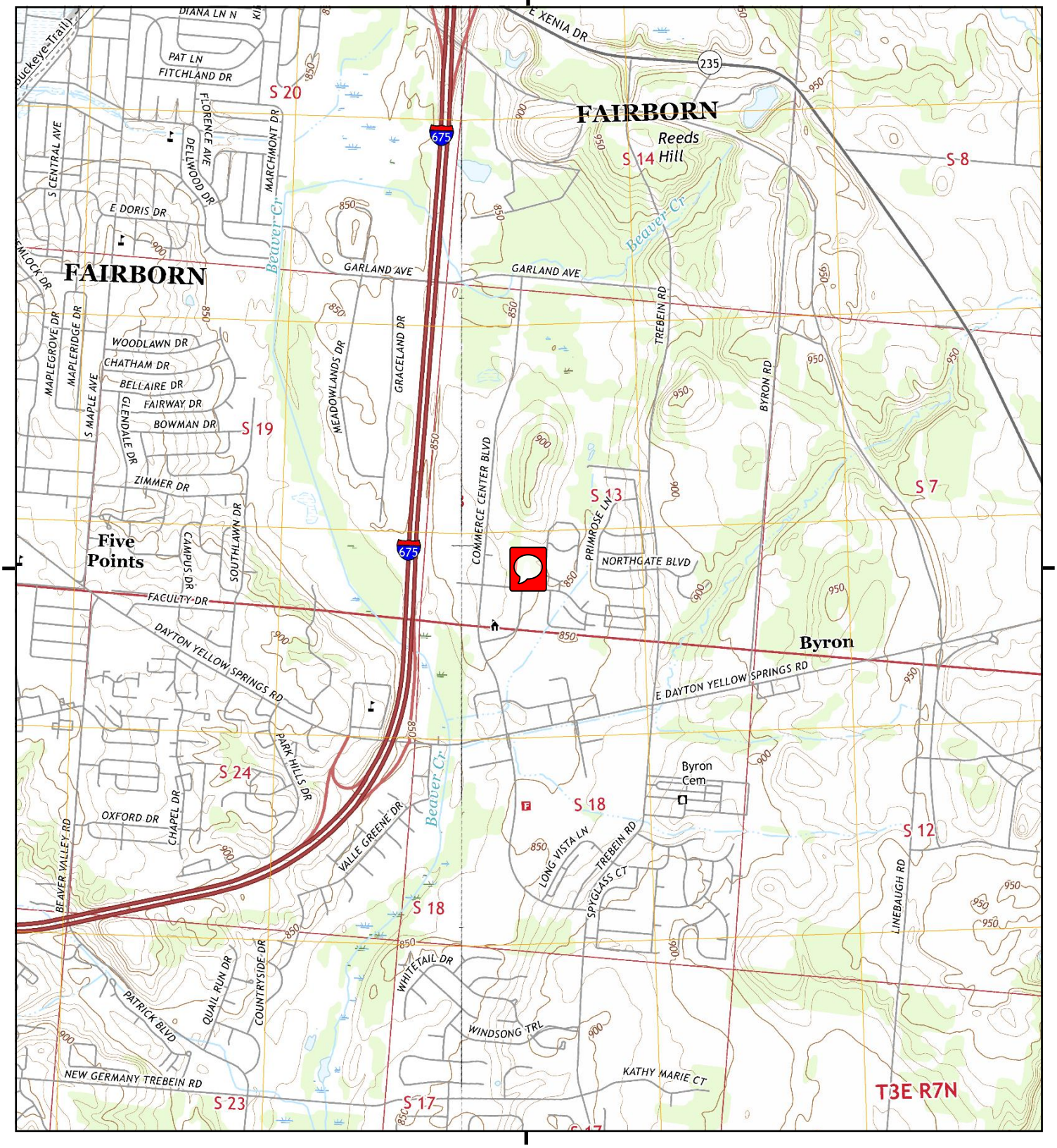
TP, Yellow Springs, 2019, 7.5-minute
NW, Fairborn, 2019, 7.5-minute

SITE NAME: Vacant Land
ADDRESS: 1790 Commerce Center Blvd
Fairborn, OH 45324
CLIENT: Maksolve

N

Historical Topo Map

2016



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

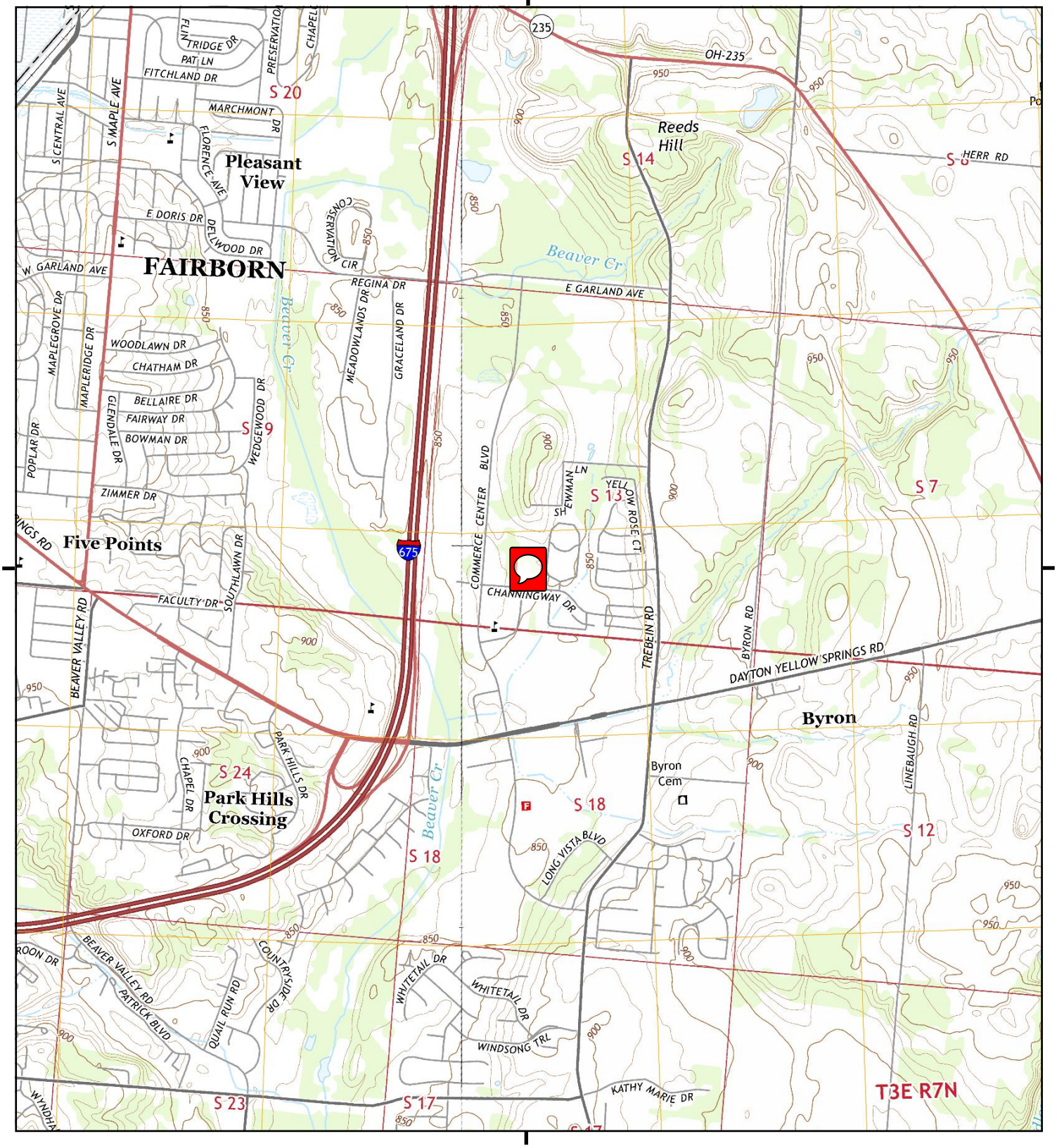
TP, Yellow Springs, 2016, 7.5-minute
NW, Fairborn, 2016, 7.5-minute

SITE NAME: Vacant Land
ADDRESS: 1790 Commerce Center Blvd
Fairborn, OH 45324
CLIENT: Maksolve

N

Historical Topo Map

2013



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

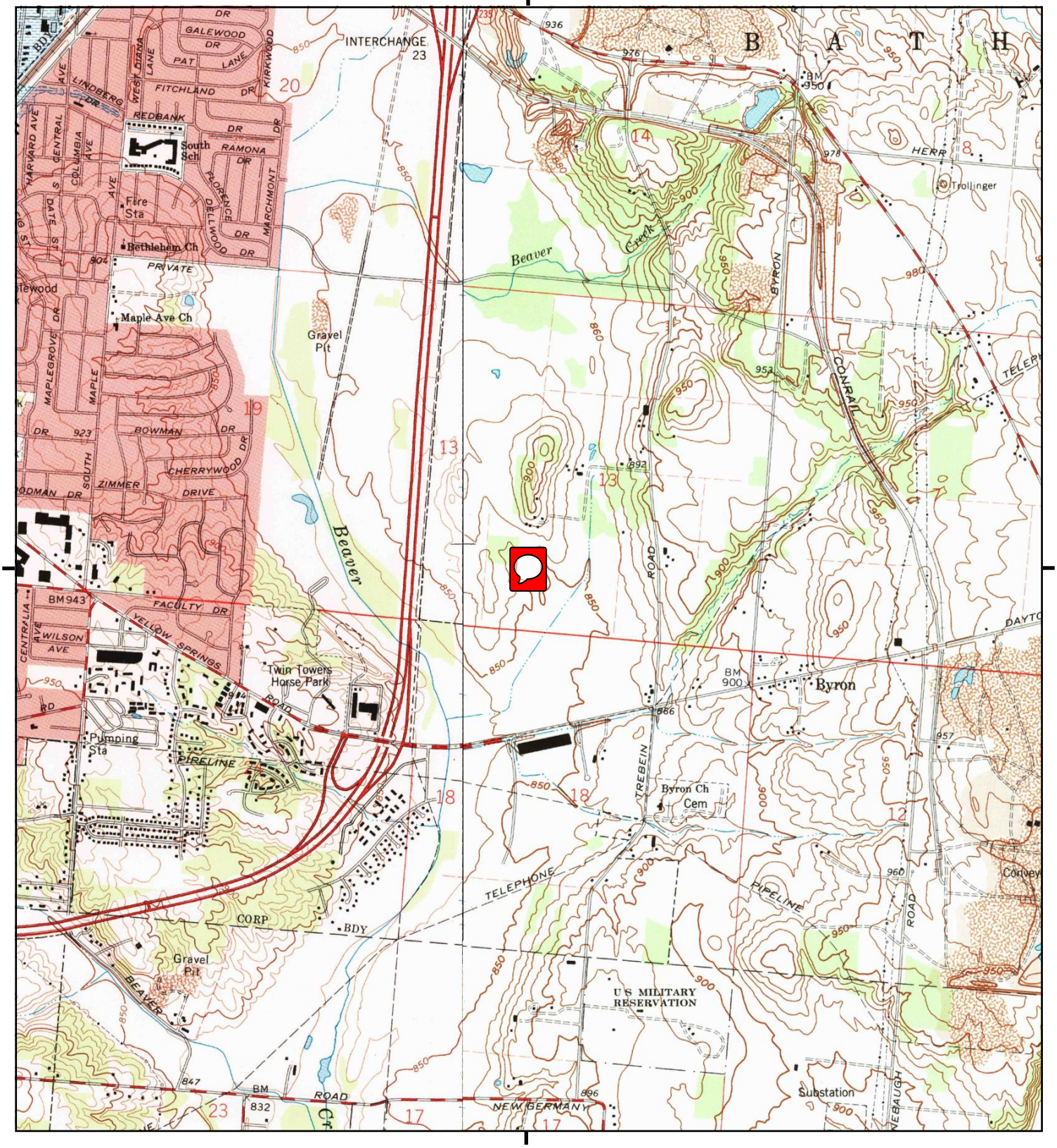
TP, Yellow Springs, 2013, 7.5-minute
NW, Fairborn, 2013, 7.5-minute

SITE NAME: Vacant Land
ADDRESS: 1790 Commerce Center Blvd
Fairborn, OH 45324
CLIENT: Maksolve

N

Historical Topo Map

1992



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

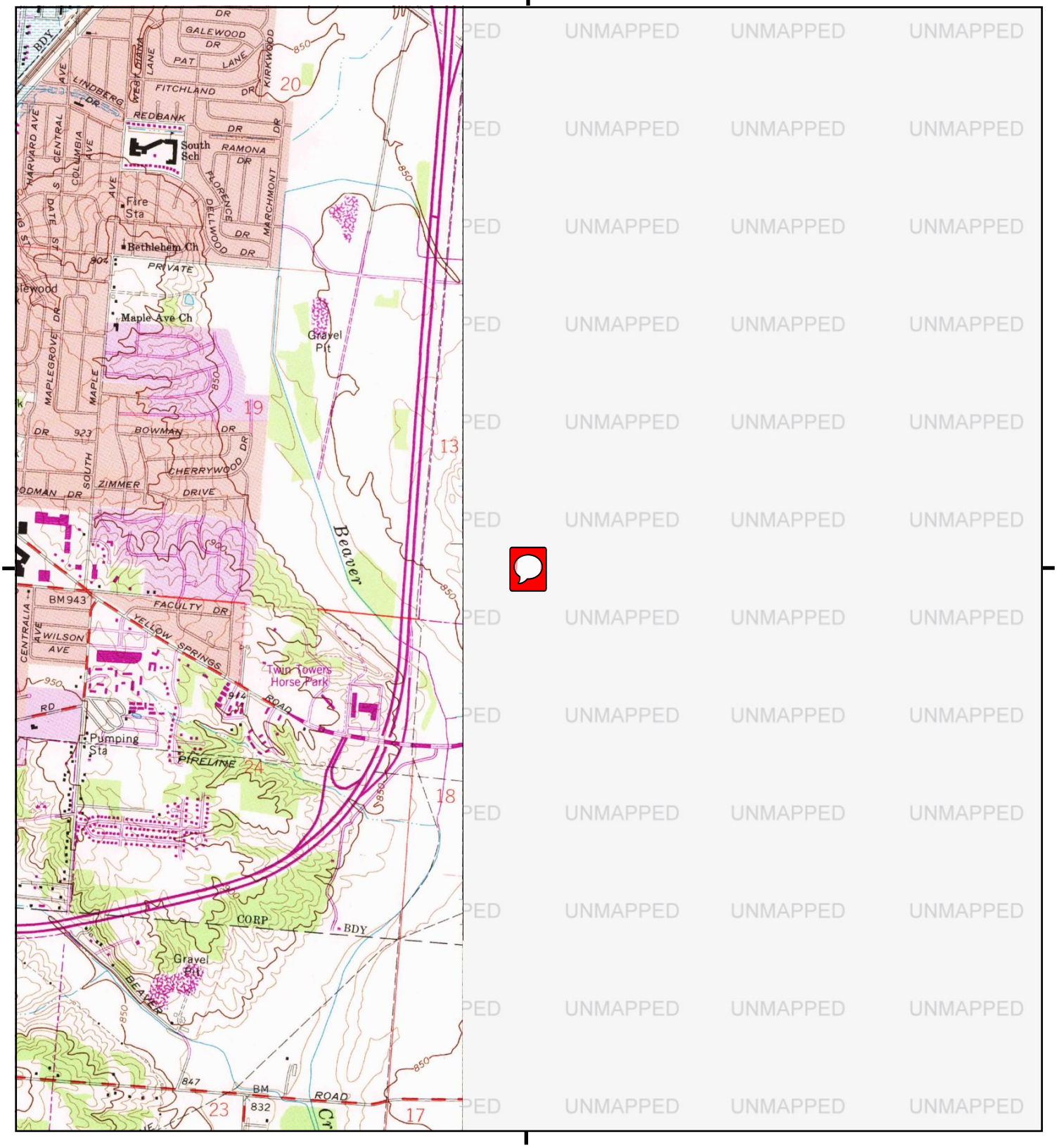
TP, Yellow Springs, 1992, 7.5-minute
NW, Fairborn, 1992, 7.5-minute

SITE NAME: Vacant Land
ADDRESS: 1790 Commerce Center Blvd
Fairborn, OH 45324
CLIENT: Maksolve

N

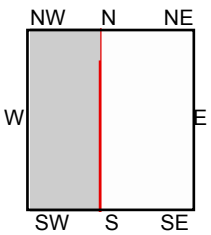
Historical Topo Map

1988



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



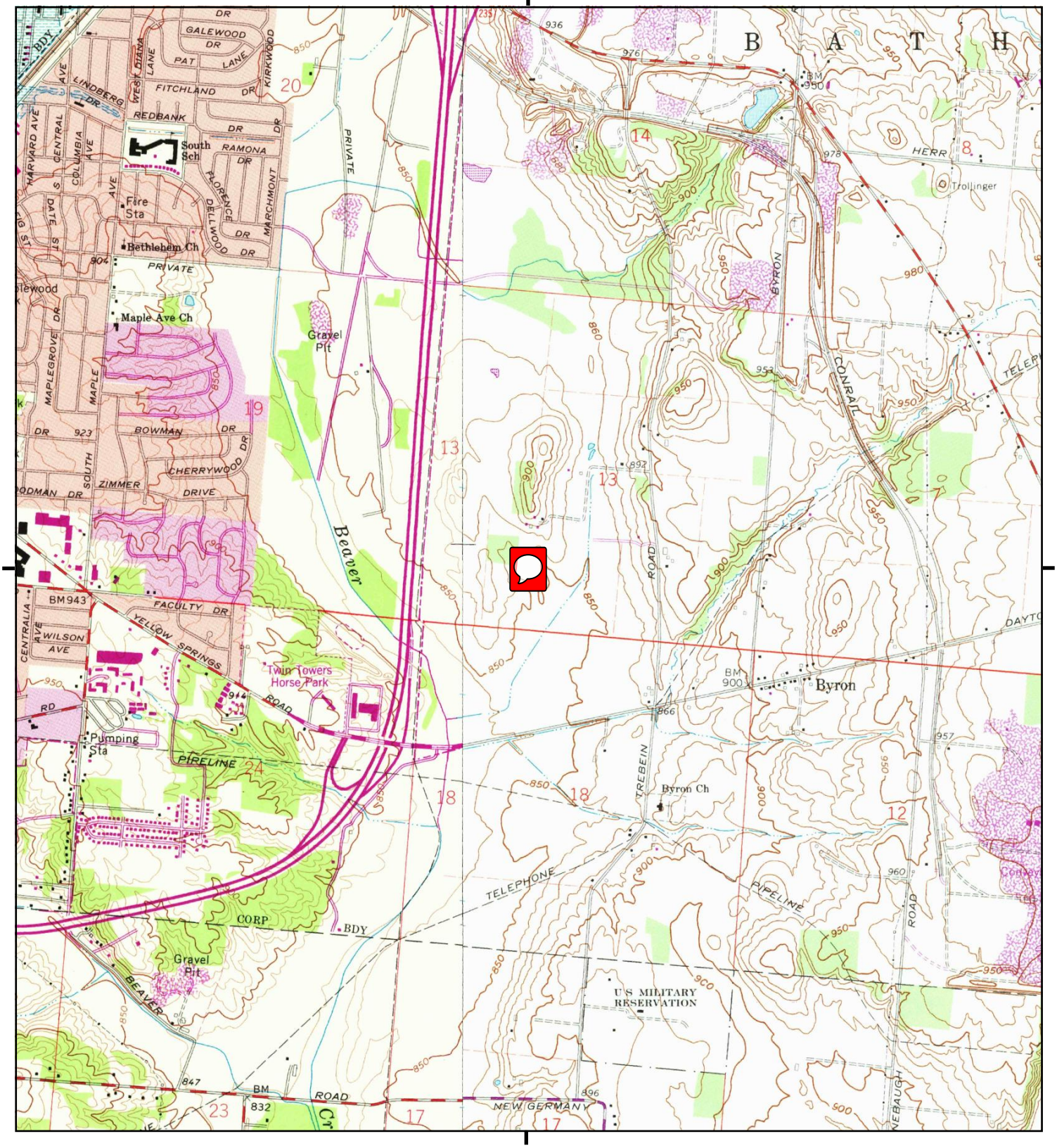
NW, Fairborn, 1988, 7.5-minute

SITE NAME: Vacant Land
ADDRESS: 1790 Commerce Center Blvd
Fairborn, OH 45324
CLIENT: Maksolve

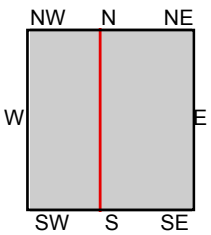
N

Historical Topo Map

1981, 1984



This report includes information from the following map sheet(s).



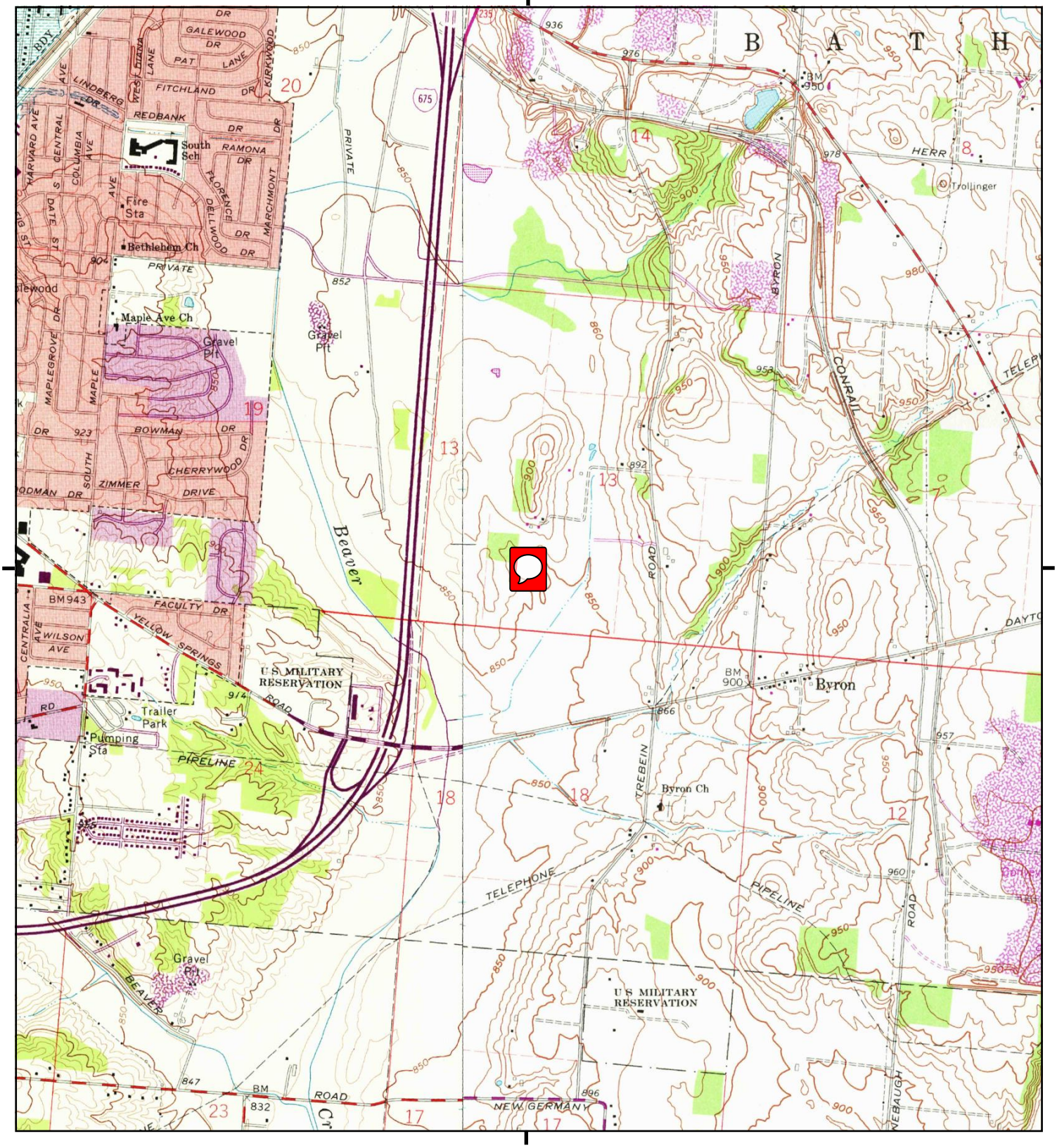
TP, Yellow Springs, 1984, 7.5-minute
NW, Fairborn, 1981, 7.5-minute

SITE NAME: Vacant Land
ADDRESS: 1790 Commerce Center Blvd
Fairborn, OH 45324
CLIENT: Maksolve

N

Historical Topo Map

1974, 1975



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

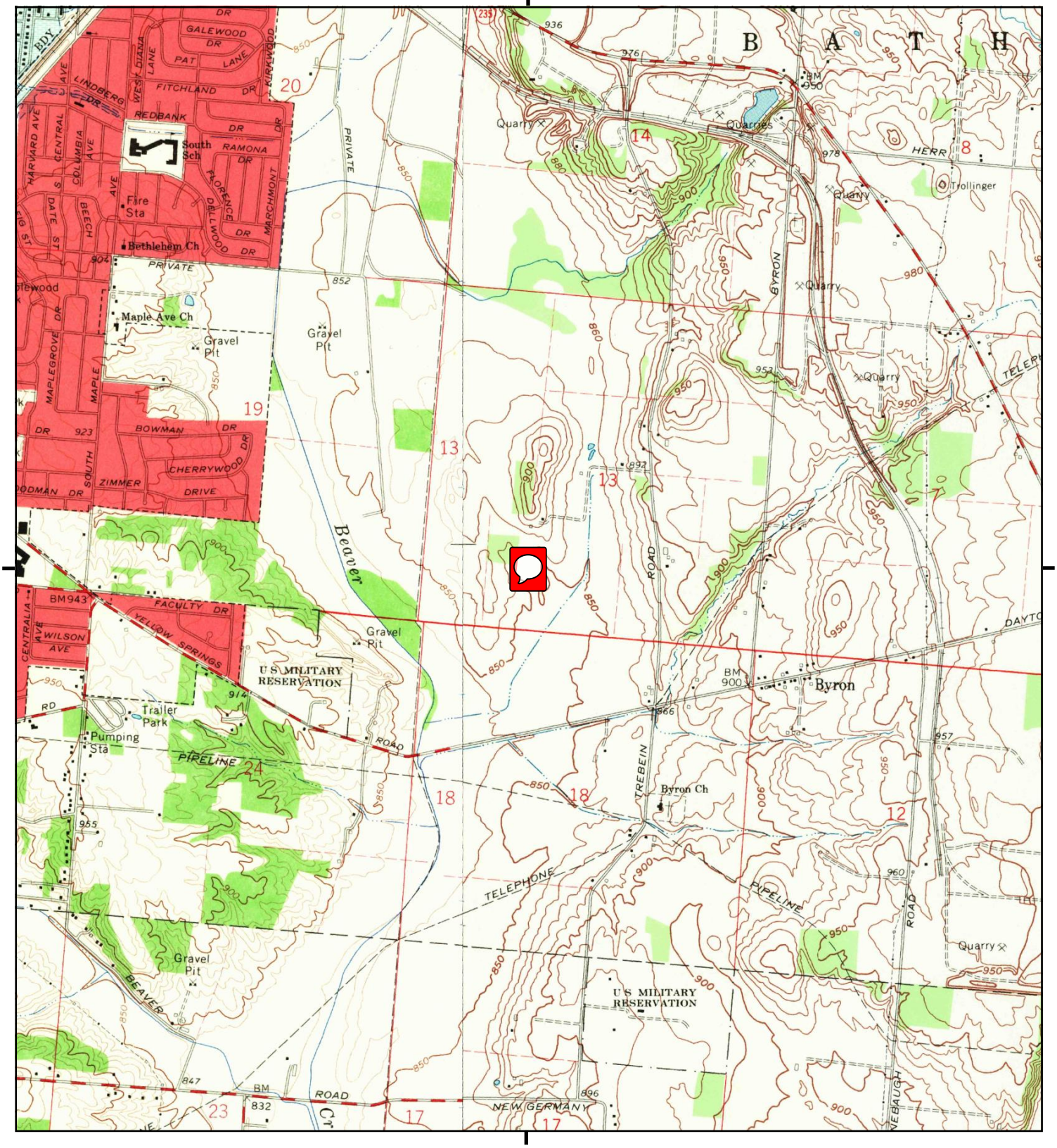
TP, Yellow Springs, 1975, 7.5-minute
NW, Fairborn, 1974, 7.5-minute

SITE NAME: Vacant Land
ADDRESS: 1790 Commerce Center Blvd
Fairborn, OH 45324
CLIENT: Maksolve

N

Historical Topo Map

1965, 1968



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

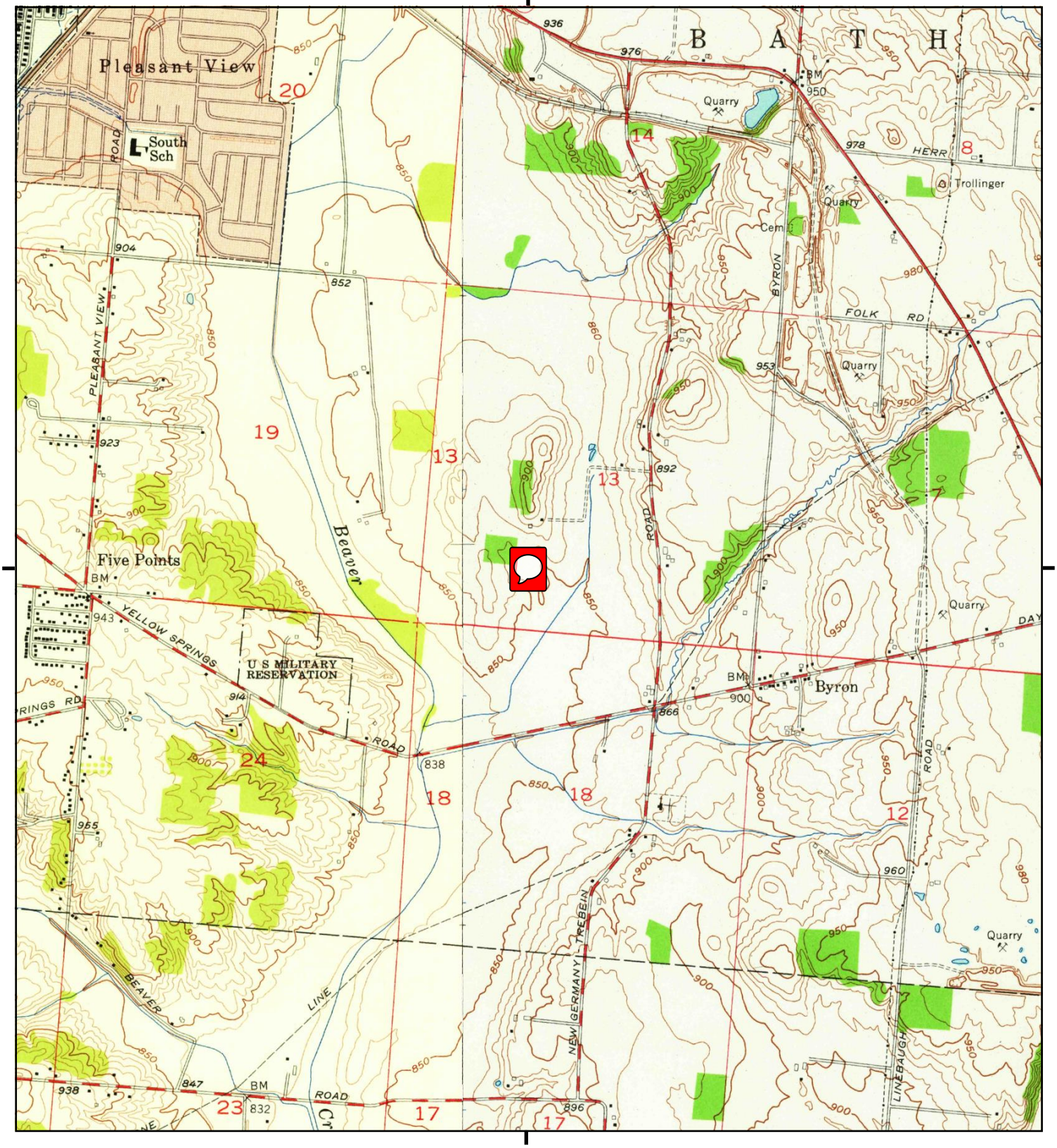
TP, Yellow Springs, 1968, 7.5-minute
NW, Fairborn, 1965, 7.5-minute

SITE NAME: Vacant Land
ADDRESS: 1790 Commerce Center Blvd
Fairborn, OH 45324
CLIENT: Maksolve

N

Historical Topo Map

1955



This report includes information from the following map sheet(s).

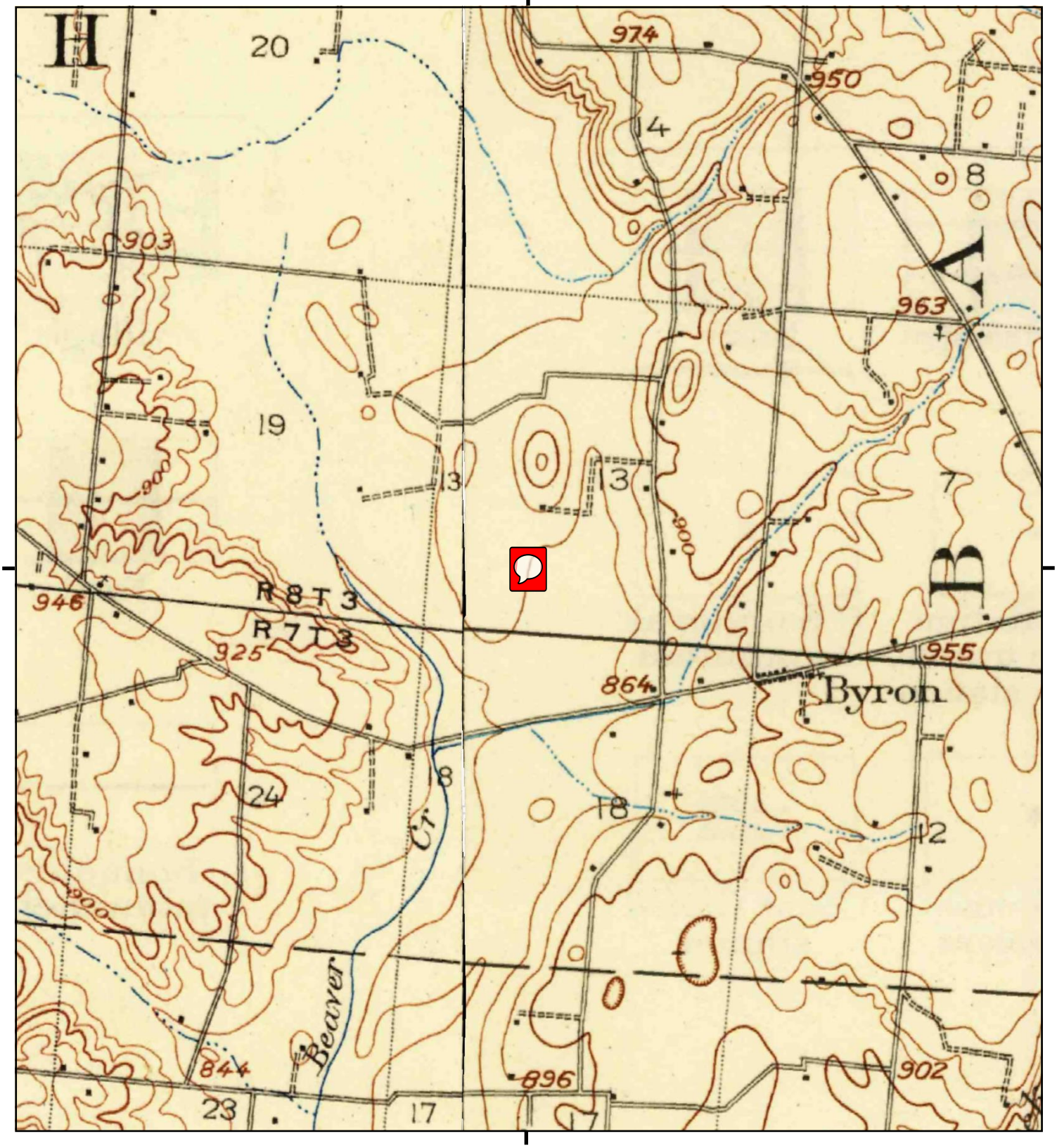
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Yellow Springs, 1955, 7.5-minute
NW, Fairborn, 1955, 7.5-minute

SITE NAME: Vacant Land
ADDRESS: 1790 Commerce Center Blvd
Fairborn, OH 45324
CLIENT: Maksolve

N



This report includes information from the following map sheet(s).

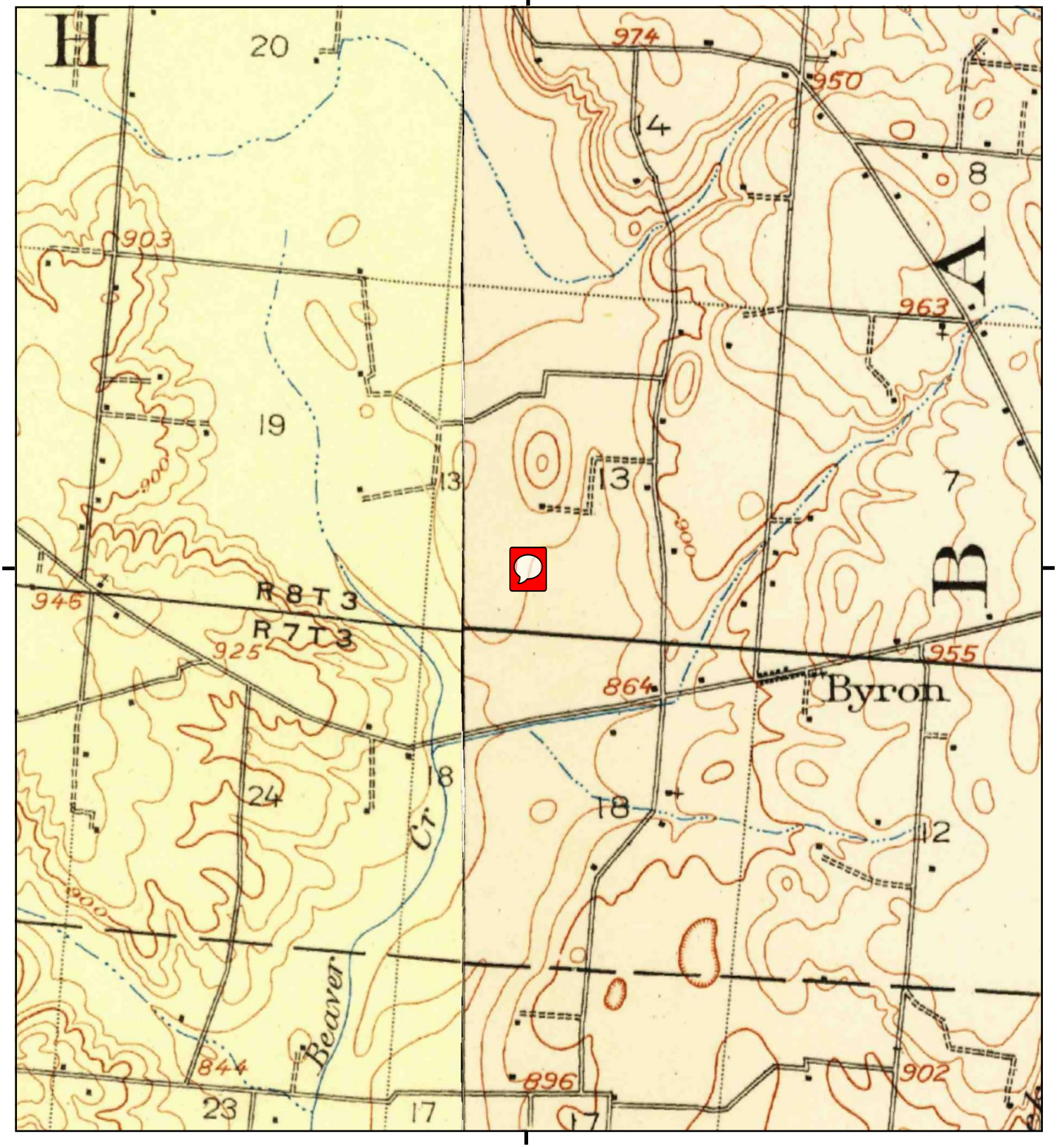
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Springfield, 1906, 15-minute
NW, Dayton, 1906, 15-minute

SITE NAME: Vacant Land
ADDRESS: 1790 Commerce Center Blvd
Fairborn, OH 45324
CLIENT: Maksolve

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Springfield, 1904, 15-minute
NW, Dayton, 1904, 15-minute

SITE NAME: Vacant Land
ADDRESS: 1790 Commerce Center Blvd
Fairborn, OH 45324
CLIENT: Maksolve

N

City Directory Images

Vacant Land
1790 Commerce Center Blvd
Fairborn, OH 45324

Inquiry Number: 7901032.5
February 20, 2025

The EDR-City Directory Image Report

EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

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City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available business directory data at approximately five year intervals.

RECORD SOURCES

The EDR City Directory Report accesses a variety of business directory sources, including Haines, InfoUSA, Polk, Cole, Bresser, and Stewart. Listings marked as EDR Digital Archive access Cole and InfoUSA records. The various directory sources enhance and complement each other to provide a more thorough and accurate report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	*Target Street*	*Cross Street*	*Source*
2020	☑	☑	EDR Digital Archive
2017	☑	☑	Cole Information
2014	☑	☑	Cole Information
2010	☑	☑	Cole Information
2005	☑	☑	Cole Information
2000	☑	☑	Cole Information
1995	☐	☐	Cole Information
1990	☐	☐	Haines Criss-Cross Directory
1985	☐	☐	Haines Criss-Cross Directory
1980	☐	☐	Haines Criss-Cross Directory
1975	☐	☐	Haines Criss-Cross Directory
1969	☐	☐	Haines Criss-Cross Directory
1967	☐	☐	Haines Criss-Cross Directory
1962	☐	☐	Haines Criss-Cross Directory
1958	☐	☐	Haines Criss-Cross Directory
1954	☐	☐	Haines Criss-Cross Directory
1951	☐	☐	Haines Criss-Cross Directory
1947	☐	☐	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

1790 Commerce Center Blvd
Fairborn, OH 45324

Year	CD Image	Source	
COMMERCE CENTER BLVD			
2020	pg A2	EDR Digital Archive	
2017	pg A4	Cole Information	
2014	pg A6	Cole Information	
2010	pg A8	Cole Information	
2005	pg A10	Cole Information	
2000	pg A12	Cole Information	
1995	-	Cole Information	Street not listed in Source
1990	-	Haines Criss-Cross Directory	Street not listed in Source
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1980	-	Haines Criss-Cross Directory	Street not listed in Source
1975	-	Haines Criss-Cross Directory	Street not listed in Source
1969	-	Haines Criss-Cross Directory	Street not listed in Source
1967	-	Haines Criss-Cross Directory	Street not listed in Source
1962	-	Haines Criss-Cross Directory	Street not listed in Source
1958	-	Haines Criss-Cross Directory	Street not listed in Source
1954	-	Haines Criss-Cross Directory	Street not listed in Source
1951	-	Haines Criss-Cross Directory	Street not listed in Source
1947	-	Haines Criss-Cross Directory	Street not listed in Source

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*	
CHANNINGWAY DR			
2020	pg. A1	EDR Digital Archive	
2017	pg. A3	Cole Information	
2014	pg. A5	Cole Information	
2010	pg. A7	Cole Information	
2005	pg. A9	Cole Information	
2000	pg. A11	Cole Information	
1995	-	Cole Information	Street not listed in Source
1990	-	Haines Criss-Cross Directory	Street not listed in Source
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1980	-	Haines Criss-Cross Directory	Street not listed in Source
1975	-	Haines Criss-Cross Directory	Street not listed in Source
1969	-	Haines Criss-Cross Directory	Street not listed in Source
1967	-	Haines Criss-Cross Directory	Street not listed in Source
1962	-	Haines Criss-Cross Directory	Street not listed in Source
1958	-	Haines Criss-Cross Directory	Street not listed in Source
1954	-	Haines Criss-Cross Directory	Street not listed in Source
1951	-	Haines Criss-Cross Directory	Street not listed in Source
1947	-	Haines Criss-Cross Directory	Street not listed in Source

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

CHANNINGWAY DR 2020

1045	FAIRBORN FAMILY PRACTICE ASSOC
	KETTERING HEALTH NETWORK
	LEWIS STEFANIE K MD
1051	MITRE CORP
1130	RONALD STICKELMAN
1145	BURNS ANDREW DC
	FAIRBORN CHIROPRACTIC ASSOC
	LIVING WELL SPINE CTR
	MCCOSKEY J TERRY
1150	JIM STRECK
1170	DETMER & SONS INC
	HUSSONG SHEET METAL HEATING
1251	ABIGAIL KREHBIEL
	AMANDA GRINDSTAFF
	ARIEL WHEELER
	GARNER MONHOLLAND
	JAIMIE MELEASON
	KATE PINKELMAN
	KEEAHNA FONTES
	LEIGHANNE VANDEWATER
	SYDNI MUNGIN
1267	ALICE WILSON
	AMY SMITH
	AUSTIN KNOBLAUCH
	DANIEL RINEHARDT
	JULIA BERGER
	SAGE RINEHARDT
	SAMANTHA SPENCE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

COMMERCE CENTER BLVD 2020

1750	TRUMPET BEHAVIORAL HEALTH
1754	T SCOTT MC MILLIN INC
	T SCOTT MCMILLIN INC
1758	MAISTROS MICHAEL J DDS
	MICHAEL MAISTROS
1762	DENNIS PETTIT
	DENNIS PETTIT INC
1790	FAIRBORN VISION CTR
	NEELY SHRODER SNYDER
1825	JENNIFER WOOD
	RENAISSANCE SERVICES INC
	SERCO INC
1840	BAUTISTA DAN FABELLA MD
	COMPU NET CLINICAL LABS
	DAN BAUTISTA
	DAN F BAUTISTA MD LLC
1890	NEW HORIZONS COMPUTER LEARNING
	PROGRESSIVE SUPPORT SVC INC
1920	JULIE BAKER
1940	VALLE GREENE SELF STORAGE
2006	PRO NAILS
2008	EDWARD JONES
2010	PET VALU
2015	RITERUG FLOORING
	RUG CO INC RITE
2377	MORRIS FURNITURE CO INC
	MORRIS OUTLET
	WCR INC

Target Street	Cross Street	Source
-	✓	Cole Information

CHANNINGWAY DR 2017

1045	KETTERING HEALTH NETWORK
1051	MITRE
1130	STICKLEMAN SCHNEIDER & ASSOC
1145	J TERRY MCCOSKEY CHIROPRCTR
	LIVING WELL SPINE CENTER
1170	AIRFLOW ADVANTAGE
	DETMER & SONS INC
	HUSSONG SHEET METAL HEATING & COOLIN
1251	FRANCE, DOMINIQUE
	FRANKLIN-HERRING, RODERICK F
	MITCHELL, RODNEY D
	MONHOLLAND, GARNER H
	TRAPINO, EVAN
1267	NEIL, ABBY
	WALSH, MICHAEL S

Target Street	Cross Street	Source
✓	-	Cole Information

COMMERCE CENTER BLVD 2017

1750	APPLIED RESEARCH ASSOCIATES INC A
1754	MCMILLIN T SCOTT DDS INC
	PRECISE CROWN & BRIDGE INC
1758	MICHAEL J MAISTROS DDS
1790	FAIRBORN VISION CENTER
	FAIRBORN VISION CENTER DRS NEELY SH
	OPTIGROUP INC
1825	LOGTEC
	RENAISSANCE SERVICES INC
1840	BAUTISTA DAN F MD
	COMPUNET CLINICAL LABORATORIES
	DAN F BAUTISTA MD
	DAN F BAUTISTA MD LLC
1890	NEW HORIZONS COMPUTER LEARNING CENTE
1920	STATE FARM INSURANCE
1940	VALLE GREENE SELF STORAGE
2015	RITE RUG
	RITE RUG FLOORING
2377	MORRIS HOME FURNISHINGS
	MORRIS WAREHOUSE CLEARANCE OUTLET

Target Street	Cross Street	Source
-	✓	Cole Information

CHANNINGWAY DR 2014

1045	KETTERING HEALTH NETWORK
1051	MITRE
1130	STICKELMAN SCHNEIDER & ASSOC
1145	LIVING WELL SPINE CENTER
	MCCOSKEY J TERRY CHIROPRCTR
	TAYLOR LEIGH A CHIROPRCTR
1170	AIRFLOW ADVANTAGE
	DETMER & SONS
	HUSSONG SHEET METAL HEATING & COOLIN
1251	CHIRICO, STEPHANIE
	FRANKLIN-HERRING, RODERICK F
	KARSHNER, KRYSTAL M
	KILBOURNE, ALAN W
	MELEASON, CHRIS J
	ROBERTSON, L
1267	BRITT, KELLEY L
	CUNNINGHAM, PARIS
	FUCHI, KAZUKO
	GREVE, GABRIEL H
	GUM, LINDA K
	MICHAEL, ADAM D
	SZKODY, JENNIFER L

Target Street	Cross Street	Source
✓	-	Cole Information

COMMERCE CENTER BLVD 2014

1745	MCMILLIN, T S
1750	APPLIED RESEARCH ASSOCIATES INC A
1754	MCMILLIN T SCOTT DDS
	PRECISE CROWN & BRIDGE INC
1762	PETTIT DENNIS ORAL SURGEON
1790	FAIRBORN VISION CENTER
	OPTIGROUP INC
1825	LOGTEC
	RENAISSANCE SERVICES INC
	SOKOL, DAN
1840	COMPUNET CLINICAL LABORATORIES
	DAN F BAUTISTA MD LLC
1890	NEW HORIZONS COMPUTER LEARNING CENTE
1920	MIKE BAKER STATE FARM INSURANCE AG
	STATE FARM INSURANCE
1940	BEAVER VALLEY SELF STORAGE
	VALLE GREENE SELF STORAGE
2015	RITE RUG
2377	MORRIS BACK ROOM
	MORRIS HOME FURNISHINGS

Target Street	Cross Street	Source
-	✓	Cole Information

CHANNINGWAY DR 2010

1130	STICKELMAN SCHNEIDER & ASSOC
1145	LIVING WELL SPINE CTR
1170	AIRFLOW ADVANTAGE
	DETMER & SONS INC
	HUSSONG SHEET METAL HEATING
1251	CHIRICO, STEPHANIE
	MORGAN, ERICA
	PINKELMAN, TIMOTHY S
	SCHAAF, KEVIN A
1267	GUM, LINDA K
	METZGER, RANDY
	SPALLA, SALVATORE M
	WESTON, MELISSA

Target Street	Cross Street	Source
✓	-	Cole Information

COMMERCE CENTER BLVD 2010

1750	KLEIN ASSOCIATES
1754	PRECISE CROWN & BRIDGE INC
	T SCOTT MC MILLIN INC
1758	DR MICHAEL J MAISTROS
1762	DENNIS PETTIT INC
1790	CENTRAL OPTICAL FAIRBORN LAB
	FAIRBORN VISION CTR
	NEELY SHRODER SNYDER
1825	MCR FEDERAL LLC
	MCR LLC
	SERCO INC
1840	DAN F BAUTISTA LLC
1890	BRILLIGENT SOLUTIONS INC
	NEW HORIZONS COMPUTER LEARNING
1920	MIKE BAKER INSURANCE INC
1930	CZARNOWSKI EXHIBIT SVC
1940	VALLE GREENE SELF STORAGE
2015	RITE RUG
2377	MIDWEST CLEARANCE OUTLET
	MORRIS FURNITURE CO INC
	MORRIS HOME FURNISHINGS
	MORRIS WAREHOUSE CLEARANCE

Target Street	Cross Street	Source
-	✓	Cole Information

CHANNINGWAY DR 2005

1130	MAD RIVER APPRAISALS AND CONSULTING
1251	HASAN, MOHAMMED
	HENRY, L
	HORACE, L
	SMITH, ANDREW
	SPAHR, GREGORY S
	TRUXAL, HEATHER M
	VANDENBOS, DARYL
1267	BELLMAN, NATHAN M
	HAESHBARGER, ELIZABETH A
	KIRSTEIN, WADE P
	METZGER, JENNIFER
	SPALLA, ASHLEY
	STEPHENSON, ANN M
	WALSH, KEVIN

Target Street	Cross Street	Source
✓	-	Cole Information

COMMERCE CENTER BLVD 2005

1750	KLEIN ASSOCIATES INC
1754	T SCOTT MCMILLIN DDS INC
1758	MICHAEL J MAISTROS DDS
1762	PETTIT DENNIS ORAL SURGEON
1790	FAIRBORN VISION CENTER
1825	LOGTEC INC
1890	NEW HORIZONS COMPUTER LEARNING CENTE
1920	BAKER MIKE
	MICHAEL BAKER INSURANCE AGENCY
1930	SYSTEMATICS SOLUTIONS INC
2377	MORRIS FURNITURE CO INC

Target Street	Cross Street	Source
-	✓	Cole Information

CHANNINGWAY DR 2000

1251	ABELS, COLLIN
	ELLIS, K R
	HELTON, DAVID
	KOVACS, GAYLE L
	MERRILL, J
	SCHMITT, J M
1267	BEATTY, MELISSA A
	BECKER, DEANNA
	BEJEC, D J
	DIETSCH, MATTHEW
	ENGLER, CONNIE J
	GARTZ, BRIAN
	MENDOZA, NOELIA
	SZKODY, J

Target Street	Cross Street	Source
✓	-	Cole Information

COMMERCE CENTER BLVD 2000

1750	KLEIN ASSOCIATES INCORPORATED
1920	BAKER MIKE INS
1930	SYSTEMATIC SOLUTIONS INCORPORATED
2377	ROBERDS

APPENDIX D:
SOIL SURVEY DATA

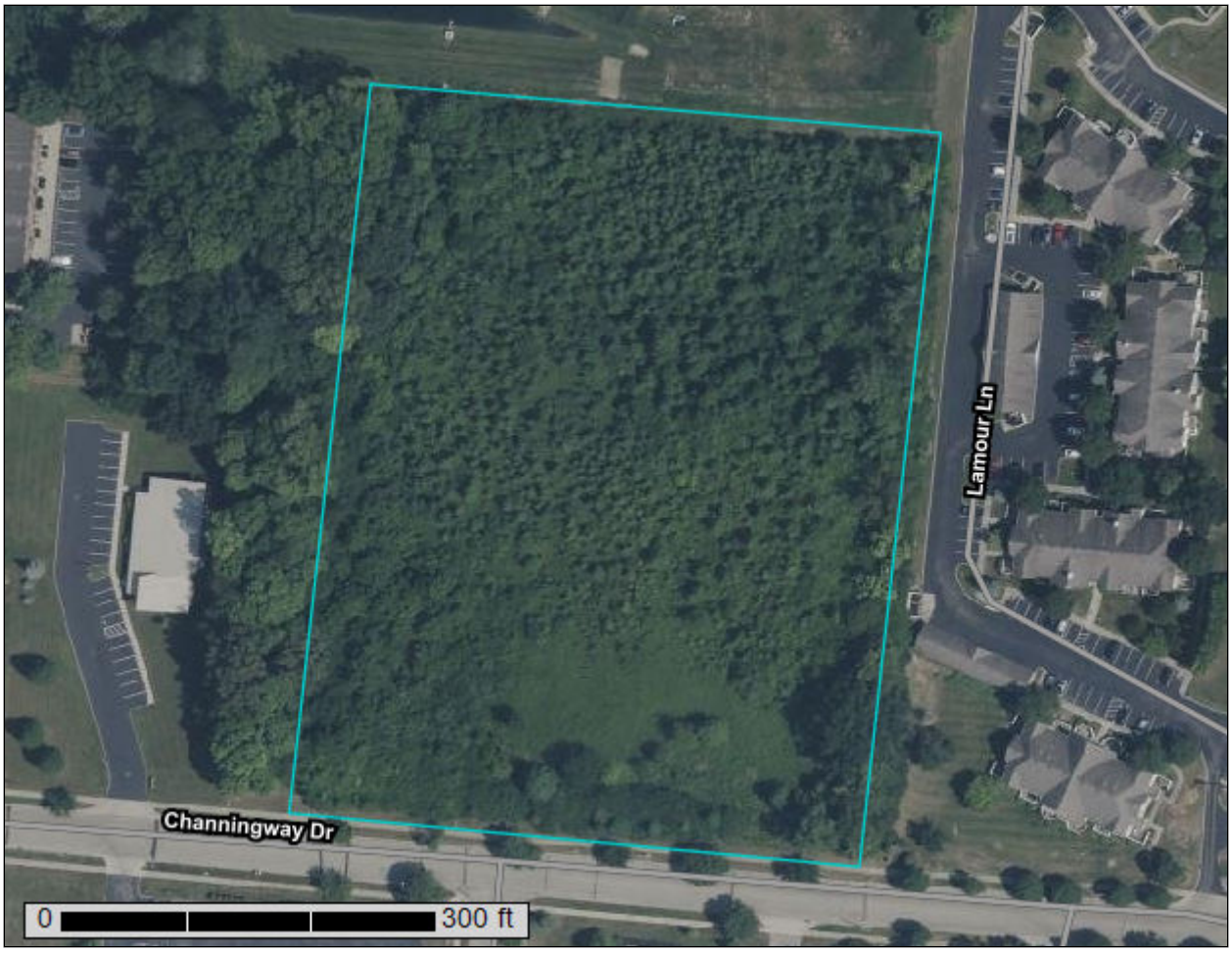
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Greene County, Ohio



February 19, 2025

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:1,240 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Greene County, Ohio
Survey Area Data: Version 22, Aug 27, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 18, 2023—Aug 4, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
EmB2	Eldean silt loam, 2 to 6 percent slopes, moderately eroded	0.3	5.1%
OcB	Ockley silt loam, Southern Ohio Till Plain, 2 to 6 percent slopes	4.7	75.4%
So	Sloan silty clay loam	1.2	19.5%
Totals for Area of Interest		**6.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Greene County, Ohio

EmB2—Eldean silt loam, 2 to 6 percent slopes, moderately eroded

Map Unit Setting

National map unit symbol: 5p55
Elevation: 670 to 1,160 feet
Mean annual precipitation: 29 to 40 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 151 to 192 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Eldean and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Eldean

Setting

Landform: Moraines, outwash terraces, kames
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy outwash over sandy and gravelly outwash

Typical profile

H1 - 0 to 13 inches: silt loam
H2 - 13 to 33 inches: gravelly clay loam
H3 - 33 to 38 inches: very gravelly sandy loam
H4 - 38 to 60 inches: stratified sand to very gravelly loamy coarse sand

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 65 percent
Available water supply, 0 to 60 inches: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: F111XD018IN - Dry Outwash Upland
Hydric soil rating: No

Minor Components

Loam surface layer

Percent of map unit: 3 percent

Gravelly loam surface layer
Percent of map unit: 2 percent

OcB—Ockley silt loam, Southern Ohio Till Plain, 2 to 6 percent slopes

Map Unit Setting
National map unit symbol: 2t4ln
Elevation: 400 to 1,300 feet
Mean annual precipitation: 37 to 46 inches
Mean annual air temperature: 48 to 55 degrees F
Frost-free period: 155 to 180 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Ockley and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ockley

Setting
Landform: Outwash terraces
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over loamy outwash over sandy and gravelly outwash

Typical profile
Ap - 0 to 10 inches: silt loam
2Bt1 - 10 to 41 inches: clay loam
2Bt2 - 41 to 66 inches: gravelly clay loam
3C - 66 to 79 inches: gravelly loamy coarse sand

Properties and qualities
Slope: 2 to 6 percent
Depth to restrictive feature: 40 to 70 inches to strongly contrasting textural stratification
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 50 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: F111XA015IN - Dry Outwash Upland, F111XD018IN - Dry Outwash Upland
Hydric soil rating: No

Minor Components

Sleeth

Percent of map unit: 5 percent
Landform: Stream terraces, outwash terraces
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F111XA014IN - Outwash Upland
Hydric soil rating: No

Fox

Percent of map unit: 5 percent
Landform: Terraces, outwash plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread, talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: F111XA015IN - Dry Outwash Upland
Hydric soil rating: No

Eldean

Percent of map unit: 5 percent
Landform: Outwash terraces
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F111XA015IN - Dry Outwash Upland
Hydric soil rating: No

So—Sloan silty clay loam

Map Unit Setting

National map unit symbol: 5p6x
Elevation: 700 to 1,000 feet
Mean annual precipitation: 31 to 45 inches
Mean annual air temperature: 50 to 55 degrees F
Frost-free period: 145 to 200 days
Farmland classification: Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Sloan and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sloan

Setting

Landform: Flood plains
Parent material: Loamy alluvium

Typical profile

H1 - 0 to 24 inches: silty clay loam
H2 - 24 to 45 inches: silty clay loam
H3 - 45 to 60 inches: stratified loam to silt loam to sandy loam to clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Available water supply, 0 to 60 inches: High (about 11.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: B/D
Ecological site: F111XD003IN - Wet Alluvium
Hydric soil rating: Yes

Minor Components

Eel

Percent of map unit: 4 percent
Landform: Flood-plain steps, flood plains
Ecological site: F111XD004IN - Dry Alluvium
Hydric soil rating: No

Ross

Percent of map unit: 4 percent
Landform: Terraces, flood plains
Ecological site: F111XD004IN - Dry Alluvium
Hydric soil rating: No

Silt loam surface layer

Percent of map unit: 4 percent
Landform: Flood plains
Hydric soil rating: Yes

High water table year round

Percent of map unit: 4 percent

Landform: Flood plains
Hydric soil rating: Yes

Algiers

Percent of map unit: 4 percent
Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F111XD003IN - Wet Alluvium
Hydric soil rating: No

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APPENDIX E:

Environmental Lien and AUL Search

None conducted per request of the user.

Appendix F:
PREVIOUS REPORTS

PHASE I ENVIRONMENTAL SITE ASSESSMENT

SENIOR VILLAGE AT VALLE GREENE

FAIRBORN, OHIO

Project No. 23573(1)

Prepared for:

Oberer Residential Construction LTD



Prepared by:

KILBANE ENVIRONMENTAL

December 5, 2023

PHASE I ENVIRONMENTAL SITE ASSESSMENT

SENIOR VILLAGE AT VALLE GREENE
Fairborn, Ohio
Project No. 23573(1)

Oberer Residential Construction LTD
12/05/2023

KILBANE ENVIRONMENTAL
7723 Tylers Place Blvd #321
Cincinnati, OH 45069
Phone: (513) 874-6652
Fax: (513) 554-0394
Email: info@kilbaneenv.com

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ACRONYMS

AST	Aboveground Storage Tank
ASTM	American Society for Testing Materials
BUSTR	Bureau of Underground Storage Tank Regulation
CAP	Corrective Actions in Progress
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation Liability Information System
CFR	Code of Federal Regulations
DEF	Deficiency
DERR	Division of Emergency and Remedial Response
ERNS	Emergency Response Notification System
LUST	Leaking Underground Storage Tank
msl	mean sea level
NFA	No Further Action
NFRAP	No Further Remedial Action Planned
NPL	National Priority List
ODNR	Ohio Department of Natural Resources
OEPA	Ohio Environmental Protection Agency
OSFMO	Ohio State Fire Marshal's Office
PCBs	Polychlorinated Biphenyls
RCRA	Resource Conservation and Recovery Act
RCRA CORRACTS	RCRA facilities subject to Corrective Action
RCRA non-CORRACTS TSD	RCRA Treatment, Storage, and Disposal facilities not subject to Corrective Action
RCRIS	Resource Conservation and Recovery Act Information System
RPT	Reported
SABR	Site Assessment and Brownfield Revitalization Program
SAC	Site Assessment Completed
SCS	Soil Conservation Service
SEMS	Superfund Enterprise Management System
SHWS	State Hazardous Waste Sites
SWL	Solid Waste Landfills
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground Storage Tank
VEC	Vapor Encroachment Condition

EXECUTIVE SUMMARY

The purpose of this investigation was to identify potential environmental liabilities associated with the project site ("Site"), based on review of available public documentation and a Site reconnaissance performed on November 16, 2023. The Site consists of approximately 5.917 acres of vacant land located on Channingway Drive in Fairborn, Greene County, Ohio. Based on county recorders information, aerial photographs and interviews, the Site has been vacant or agricultural land since at least 1948.

A review of state and federal databases identified the following facility within the search radius of the Site included in the summary below:

Summary of Regulatory File Review

Database	Search Radius	Total Identified
SEMS/CERCLIS	½-mile	0
NPL	1-mile	0
RCRA	Site & Adjacent	1
RCRA CORRACTS	1-mile	0
RCRA non-CORRACTS TSD	½-mile	0
ERNS	Site	0
FEDERAL IC/EC	½-mile	0
STATE IC/EC	½-mile	0
SHWS/DERR	1-mile	0
SWL	½-mile	0
UST	Site & Adjacent	0
LUST	½-mile	0
Brownfield/VAP	½-mile	0
Spills	Site	0
Other	¼-mile	0

The Site consists of approximately 5.917 acres of vacant land located on Channingway Drive in Fairborn, Greene County, Ohio. Based on the distance from the Site, local topography and other information available for review, the potential for the facility identified by the database to impact the Site is considered unlikely. No recognized environmental conditions were identified for the Site.

1.0 INTRODUCTION

This report presents the results of a Phase I Environmental Site Assessment prepared for the Site. This report contains general information that may not be specific to the Site; however, the information is included for completeness.

1.1 PURPOSE AND SCOPE OF WORK

The purpose of this investigation was to identify potential environmental liabilities associated with the Site. Kilbane Environmental personnel performed a Site reconnaissance on November 16, 2023. The scope of work for this assessment included the following:

- A Site "walk-over" inspection of surface conditions and potential problems or suspect contamination areas (e.g., chemical spills, PCB, fill areas, noxious odors, pools of liquid, stained soils or stressed vegetation). This walkover included an internal inspection of any existing buildings or structures to assess the potential for contamination and/or hazardous practices that could adversely impact the environment.

- A visual survey of the properties in the Site vicinity to evaluate the potential for impact to the Site from these properties.

- The assessment included a review of available property records and/or other field information to establish past land usage (e.g., ownership records, aerial photographs, Sanborn maps, city directories, USGS and Soil Conservation Service publications, foundation borings, and prior environmental assessment reports, if available). The current and past property owners were also interviewed, if available.

- A review of available state and federal files pertaining to this Site and surrounding area. Unless otherwise specified, we have provided the following information from review of available public files and regulatory agencies.

    1. Local Health and Fire Department records for the Site.

    2. SEMS/CERCLIS facilities within a ½-mile radius of the Site.

    3. NPL facilities within a one-mile radius of the Site.

    4. RCRA facilities on or adjacent to the Site.

    5. RCRA CORRACTS facilities within a one-mile radius of the Site.

    6. RCRA non-CORRACTS TSD facilities within a ½-mile radius of the Site.

    7. ERNS records for the Site.

8. FEDERAL/STATE IC/EC Registries within ½-mile radius of the Site.
9. State IC/EC Registries within ½-mile of the Site.
10. SHWS/DERR facilities within a one-mile radius of the Site.
11. SWL facilities within a ½-mile radius of the Site.
12. USTs on or adjacent to the Site.
13. LUST facilities within a ½-mile radius of the Site.
14. Brownfield locations within a ½-mile radius of the Site.
15. State Spills records for the Site.

1.2 LIMITATIONS, ASSUMPTIONS, ADDITIONS AND EXCEPTIONS OF THE ASSESSMENT

The information presented in this report represents observations and other data available at the time of our reconnaissance and the preparation of this report. This report has been prepared for the exclusive use of Oberer Residential Construction LTD and any affiliate(s) of Oberer Residential Construction LTD designated by Oberer Residential Construction LTD in connection with the real estate transaction of the subject property. This report is designed to satisfy the requirements for the innocent landowner defense to CERCLA liability as defined in 42 USC 9601(35)B. The conclusions provided by Kilbane Environmental are based solely on the scope of work conducted and the sources of information referenced in this report. Kilbane Environmental relied on interviews with Site representative, regulatory officials and documentation from state and local agencies. Kilbane Environmental assumed, where reasonable to do so, that the information is true and accurate. The independent conclusions represent the best professional judgment of the Environmental Professional based on the conditions that existed and the information and data available to Kilbane Environmental during this assessment. Any additional information that becomes available concerning this Site should be provided to Kilbane Environmental so that our conclusions may be reviewed and modified, as necessary. This report is not an audit of regulatory compliance or detailed condition survey for the presence of asbestos, lead paint, PCBs, radon or other naturally occurring non-disposed materials.

1.3 ASSESSMENT AUTHORIZATION AND RELIANCE

It is the understanding of Kilbane Environmental that this report is to be used and distributed for purposes connected with real estate transaction of this Site. This investigation was performed for Oberer Residential Construction LTD and any affiliate(s) of Oberer Residential Construction LTD. Authorization to perform this assessment was in the form of a written agreement between Mr. Robert McCann and Kilbane Environmental. Oberer Residential Construction LTD, St. Mary Development Corporation and any affiliate(s) designated by Oberer Residential Construction LTD, St. Mary Development Corporation and their designees can rely upon the information in this report as of the date of this report.

It is our understanding that the information contained in this Environmental Site Assessment will be used by the Ohio Housing Finance Agency (OHFA) in considering proposed financing of residential development of the property and that OHFA and the Ohio Department of Development (ODOD) may rely upon the Environmental Site Assessment as if it were issued to OHFA and ODOD. A copy of the Reliance Letter is included in Appendix A. Proof of insurance in included in Appendix B.

2.0 SITE DESCRIPTION

2.1 SITE LOCATION

The Site consists of approximately 5.917 acres of vacant land (parcel number A02000200470000500) located on Channingway Drive, west of L'Amour Lane in Fairborn, Greene County, Ohio. The Site is shown on the Yellow Springs, Ohio 7½-minute quadrangle map (Figure 1).

2.2 CURRENT SITE USE AND GENERAL SITE DESCRIPTION

The Site is generally rectangular in shape and consists of approximately 5.917 acres of vacant land.

2.3 STRUCTURES, ROADS, IMPROVEMENTS

No structures or roads are present on the Site.

2.4 ADJACENT LAND USES

The Site is located in an area that consists primarily of residential properties with a few commercial properties. A residential subdivision is located north of the Site with The Reserves at Channingway (apartment complex) located to the east. Channingway Drive is located to the south with a HVAC contractor and Hondros College further south. Living Well Senior Center and a small apartment building are located west of the Site. Figure 2 shows the Site and surrounding properties.

3.0 USER PROVIDED INFORMATION

The historical uses of the Site were established by evaluation of available public records and interviews. This evaluation assists in determining past usage or practices that may have generated, stored, or accepted for disposal, hazardous materials or wastes.

3.1 TITLE RECORDS, ENVIRONMENTAL LIENS, AND SITE USE LIMITATIONS

Potential environmental concerns may be identified by a review of past ownership records; however, these records are not a guarantee of actual historical activities. The following information was reviewed by Kilbane Environmental of the Greene County Auditor's website, regarding ownership of the Site.

Parcel Number: A02000200470000500:

Owner	Date of Transfer
Oberer Construction Management	05/2016
Oberer Development Co	prior

Kilbane Environmental did not perform a lien search. Kilbane Environmental was provided a copy of the Title Commitment Schedule B documentation by the User (Appendix C). The User did not indicate any known environmental liens or Activity and Use Limitations associated with the Site. No environmental concerns were identified with historical ownership of the Site.

3.2 REASON FOR PERFORMING PHASE I ENVIRONMENTAL SITE ASSESSMENT

This assessment is required as part of a real estate transaction, financing and due diligence.

3.3 SPECIALIZED KNOWLEDGE, COMMONLY KNOWN, OR REASONABLY ASCERTAINABLE INFORMATION

The User did not indicate any specialized knowledge or experience that is evidence of recognized environmental concerns at the Site.

3.4 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

The User did indicate that the purchase price reflects fair market value.

3.5 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

Seller

Mr. Robert McCann, representative of the Seller, completed a Seller's Environmental Questionnaire and Disclosure Statement. Mr. McCann did not indicate any knowledge of environmental conditions associated with the Site.

User

Mr. Robert McCann, representative for the User, was interviewed as part of this assessment. Mr. McCann did not indicate any knowledge of environmental conditions associated with the Site. Mr. McCann stated that "The subject property has been used as vacant land."

4.0 RECORDS REVIEW

4.1 REGULATORY FILE REVIEW

Brief descriptions of federal and state programs have been included for reference. The search criteria were initiated using the Site zip code and either expanded or narrowed as necessary in an effort to identify properties or facilities with environmental concerns that may impact the Site. A copy of the database report prepared by Envirosite Corporation for the Site on November 21, 2023 is provided in Appendix D. The databases searched are listed in the attached report and include the Standard Environmental Record Sources and Additional Record Sources referred to in the ASTM standard, including Tribal Record Sources, where appropriate. Other databases were reviewed but only mentioned if potential environmental concern is identified. Facilities listed in the database report are not always mapped in the correct locations or may be listed as unmappable because of incomplete or incorrect address information. Kilbane Environmental field observations and research are used in this section to verify and correct some location information as identified in the database report. The databases searched identified two non-geocoded facilities. Kilbane Environmental performed an analysis of the locations of these facilities and determined that, based on available data, the facilities are not located within the applicable search radius. Therefore, the facilities are not included in the evaluation.

The Site was not listed on any of the environmental databases searched.

A description of the various databases is as follows:

- Superfund Enterprise Management System (SEMS) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of the United States Environmental Protection Agency (USEPA) Superfund Program across the United States. The list was formerly known as Comprehensive Environmental Response, Compensation Liability Information System (CERCLIS) renamed to SEMS by the USEPA in 2015. The SEMS list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites that are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL. A review of the USEPA listings identified no SEMS facilities within a ½-mile search radius of the Site.

SEMS-ARCHIVE tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS/NFRAP (No Further Remedial Action Planned) renamed to SEMS-ARCHIVE by the USEPA in 2015. Archive status indicates that to the best of USEPA's knowledge, assessment at the site has been completed and that USEPA has determined no further steps will be taken to list the site on the NPL, unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. A review of the USEPA listings identified no SEMS-ARCHIVE facilities within a ½-mile search radius of the Site.

- National Priority List (NPL) facilities are sites that are listed by USEPA under CERCLA with the highest priority for cleanup. A review of the USEPA listings identified no NPL facilities within a one-mile search radius of the Site.

- The Resource Conservation and Recovery Act (RCRA), passed in 1976, established a regulatory system to track hazardous substances from the time of generation to disposal. It also requires safe and secure procedures to be used in treating, storing, and disposing of hazardous materials. A listing under RCRIS (Resource Conservation and Recovery Information System) is not a direct indication of environmental concerns with a facility. A review of the USEPA listings identified one RCRA generator within ¼-mile search radius of the Site.

- CORRACTS are RCRA facilities with reported violations which are subject to Corrective Action. A review of the USEPA listings identified no RCRA CORRACTS facilities within a one-mile search radius of the Site.

- Non-CORRACTS TSD are RCRA facilities which treat, store or dispose of hazardous materials and are not subject to Corrective Action. A review of the USEPA listings identified no RCRA TSD facilities within a ½-mile search radius of the Site.

- Federal IC/EC sites are federally managed sites that have either institutional or engineering controls. Institutional controls (IC) are those controls that seek to prevent exposure to contaminants remaining on a site (groundwater use restrictions, construction restrictions, property use restrictions, deed restrictions and post remediation care requirements). Engineering controls (EC) include caps, building foundations, liners and treatment methods to eliminate the means by which regulated substances can enter into the environment or affect human health. A review of the USEPA records identified no Federal IC/EC facilities within the ½-mile search radius of the Site.

- State IC/EC sites are state managed sites that have either institutional or engineering controls. Institutional controls (IC) are those controls that seek to prevent exposure to contaminants remaining on a site (groundwater use

restrictions, construction restrictions, property use restrictions, deed restrictions and post remediation care requirements). Engineering controls (EC) include caps, building foundations, liners and treatment methods to eliminate the means by which regulated substances can enter into the environment or affect human health. A review of the OEPA records identified no State IC/EC facilities within the ½-mile search radius of the Site.

- The USEPA maintains a database of reportable spills called the Emergency Response Notification System (ERNS). A reportable spill is "any unexpected, unintended, abnormal, or unapproved dumping, leakage, drainage, seepage, discharge or other loss of oil, hazardous substances and/or otherwise objectionable substance which enters or threatens to enter the waters of the State." According to spill regulations, reporting is required for spills "of such volume or mass as to cause or threaten to cause damage to the public health, safety and welfare, aquatic biota, animal life, plant life or recreation, domestic, commercial, industrial or agricultural uses." A review of the USEPA records identified no ERNS listings within the search radius of the Site.

- The Ohio Environmental Protection Agency (OEPA) Division of Emergency and Remedial Response (DERR) maintains a database of State Hazardous Waste Sites (SHWS). State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where potentially responsible parties will pay for cleanup. A review of the OEPA records identified no SHWS/DERR facilities within a one-mile search radius of the Site.

- Solid Waste Landfills (SWL) are any facilities included on the OEPA Division of Solid and Infectious Waste Management databases of all Compost and Demolition Debris, Industrial and Residual Waste, Municipal Solid Waste Landfills and Municipal and Solid Waste Transfer Facilities. A review of the OEPA listings identified no SWL facilities within a ½-mile search radius of the Site.

- The Ohio State Fire Marshal's Office (OSFMO) maintains a database of all registered Underground Storage Tanks (USTs). USTs which are not regulated include heating oil USTs used for heating the premises, residential and farm USTs of less than 1,100 gallons in size. A review of OSFMO records identified no UST facilities within a ¼-mile search radius of the Site.

- The OSFMO maintains a database of regulated Leaking Underground Storage Tanks (LUSTs). A review of OSFMO records identified no LUST facilities within a ½-mile search radius of the Site.

- Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. A review of sites that have voluntarily submitted information to the Brownfield inventory as part of the Site Assessment and Brownfield Revitalization Program (SABR) identified no Brownfields within a ½-mile radius of the Site.

- A database of spills reported to the US Department of Transportation (USDOT). A review of the USDOT database identified no Spill listings within the search radius of the Site.

- Other listings of the databases searched identified no “Other” listings within the search radius of the Site.

Listing	Address	Distance from Site & Direction	SEMS	SEMS ARCHIVE	NPL	RCRA GENERATOR	RCRA CORRACTS	RCRA TSD	ERNS	FEDERAL/STATE IC/EC	SHWS/DERR	SWL	UST/AST	LUST	BROWNFIELD/VCP	SPILLS	OTHER	STATUS / DATA
New Horizons Computer Learning Centers	1890 Commerce Center Blvd	0.132 mi SW				√												RCRA NonGen: Violation 04/2010 with compliance achieved 04/2010

RCRA NonGen – RCRA Non-Generator: No longer generating hazardous waste

Based on distance, status, location and local topography (shallow groundwater flow to the southeast toward an unnamed tributary to Beaver Creek and away from the Site), the potential for the facility identified by the database to impact the Site is considered unlikely.

4.2 PHYSICAL SETTING

The Yellow Springs, Ohio 7½-minute quadrangle map was reviewed to determine the physical setting of the Site (Figure 1). The elevation of the Site generally slopes to the southeast from a high of 854 feet above mean sea level (msl) to a low of 850 feet above msl. The migration of compounds that may pose environmental concern to the Site from adjoining or nearby properties is typically associated with shallow groundwater flow. Shallow groundwater flow is expected to mimic local topography. As such, properties that are at a lower elevation, hydraulically downgradient or cross-gradient are not expected to pose an environmental concern to the Site.

Regional Geology

The Site lies in the Southern Ohio Loamy Till Plain Physiographic Region of the State of Ohio. Topsoil on the Site is labeled as Ockley Series Silt loam, Sloan Series Silty clay loam and Eldean Series Silt loam. A description of the soil is included with the environmental database included in Appendix D.

Regional Hydrogeology

According to the Ohio Department of Natural Resources (ODNR) “Available Ground Water in Greene County, Ohio” the Site is a poor source of groundwater, producing less than three gallons per minute (gpm) in clay tilly and shale.

Based on the surface topography of the Site vicinity, it is likely that shallow groundwater on the Site will flow in a southerly direction.

4.3 HISTORICAL INFORMATION

The objective of consulting historical sources is to develop a history of the previous uses of the Site and Site vicinity in order to help identify the likelihood of past uses having led to recognized environmental conditions in connection with the Site. Historical use information describing the Site and vicinity was obtained from a variety of available sources.

Aerial Photographs

Aerial photographs of developed and undeveloped land have been produced since approximately 1930. Where available through local and federal government agencies, aerial photographs can be used to evaluate the historical use of a Site and vicinity. Aerial photographs were provided by Envirosite Corporation for the following years: 2021, 2019, 2017, 2015, 2013, 2011, 2009, 2004, 2001, 2000, 1994, 1988, 1984, 1979, 1975, 1974, 1968, 1964, 1960, 1952 and 1948. A copy of the Historical Aerial Photo Report is provided in Appendix E.

Significant observations noted in the aerial photographs are described below:

Date	Observations
2021	The Site is shown as undeveloped wooded/scrub land with a grassy area near the southern portion of the Site. Single family homes are shown to the north with an apartment complex to the east. Channingway Drive is shown to the south with office/commercial buildings further south. An office building and a small apartment building are shown west of the Site.
2019	The single-family homes previously shown north of the Site are shown as undeveloped grass-covered land.
2017	The Site is shown largely as undeveloped grass-covered land.
2004	Office/commercial buildings to the south and west are not shown.
1994	The Site and vicinity are shown as agricultural land. No structures are shown on or near the Site. Channingway Drive is not shown.
1968	Interstate 675 located further west of the Site is not shown.
1948	The Site and vicinity are shown as agricultural land.

Review of readily available aerial photographs for the Site from 2021 through 1948 show the Site as undeveloped or agricultural land.

Fire Insurance Maps

Sanborn Fire Insurance Maps were developed from the late 1800s through the 1980s, to provide information on locations of structures and operations during the time of the specific survey. When available, these maps are reviewed for further documentation of the historical use of the Site and vicinity. Fire insurance maps are typically available for more urban areas. Historical Information

Gathers performed a search for fire insurance maps and did not find any fire insurance maps for the Site or vicinity. A copy of the Fire Insurance Map Report with No Coverage Statement is provided in Appendix F.

Historical Topographic Maps

Historical topographic maps can provide history in the use of the property and development of the Site and surrounding vicinity. Available United States Geological Survey (USGS) historical topographic maps were provided by Envirosite Corporation. Historical topographic maps were evaluated for 2023, 2019, 2016, 2013, 2010, 1968 (revised 1992 and 1975), 1955, 1906 and 1904 (Appendix G). Review of the historical topographic maps show the Site as undeveloped with no structures or roads on the Site. No depressions or potential areas of fill were identified on the historical topographic maps.

City Directories

City directories are arranged by address and provide a listing of past usage of a Site and adjacent properties. Where available, city directories are reviewed to determine historical Site use and adjacent property use in regular intervals. Envirosite Corporation provided city directories for 2018 back through 1993. City directories identified the following non-residential facilities in the general vicinity of the Site.

ADDRESS Channingway Drive *(west to east)*	**LISTING**	**2018**	**2015**	**2011**	**2006**	**2001**	**1998**
1045	Family Medical Practice	√	√				
1130	Brilligent Solutions Inc	√	√				
	SAI Group LLC	√	√				
	Stickelman Schneider Assoc	√	√	√			
1145	Various Chiropractors	√	√	√	√		
	Living Well Spine Center		√				
1170	Detner & Sons Heating & Cooling	√	√	√	√		
	Hussong Sheet Metal Heating	√	√				

ADDRESS Commerce Center Blvd *(north to south)*	**LISTING**	**2018**	**2015**	**2011**	**2006**	**2001**	**1998**
1750	Applied Research Assoc	√	√				
	Klein Associates Inc					√	
1754	Precise Crown & Bridge Inc	√	√	√	√		
	Various Dentists	√	√	√	√		
1758	Various Dentists	√	√	√	√		
1762	Dennis Pettit Inc	√	√	√	√		
1790	Various Optometrists	√	√	√	√		
1825	Serco Inc	√	√				
	Renaissance Services Inc	√	√				
	MCR Federal LLC	√	√				
	Protos Logistics LLC	√					
1840	Compu Net Clinical Labs	√	√				
1890	New Horizons Computer Learning	√	√				
1920	Mike Baker Insurance	√	√	√	√		
1930	Rescare Homecare		√				
	Czarnowski Exhibit Svc			√	√		

The city directories listed office and medical/dental facilities in the vicinity of the Site. A copy of the City Directory Report is provided in Appendix H.

Previous Environmental Reports

Kilbane Environmental was not provided any environmental report previously prepared for the Site.

5.0 SITE RECONNAISSANCE

5.1 METHODOLOGY AND LIMITING CONDITIONS

This assessment was performed using the standard practices for Phase I Environmental Site Assessments in conformance with the scope and limitations of ASTM Practice E 1527-21 and the Ohio Housing Finance Agency (OHFA) Phase I Environmental Review Standards for HOME/HDAP Projects. The Site was walked in order to observe any abnormalities. Kilbane Environmental was not accompanied during the Site reconnaissance. During the Site reconnaissance on November 16, 2023 the weather was approximately 54 degrees Fahrenheit and sunny. The observations noted below apply to the Site as it was observed during the reconnaissance. Photographs taken during the Site reconnaissance are included in Appendix I.

5.2 GENERAL SITE SETTING

The Site is generally rectangular in shape and consists of approximately 5.917 acres of vacant land.

5.3 SITE OBSERVATIONS

Exterior Observations

The Site consists overgrown vacant land with dense areas of pear trees and honeysuckle. A grassy area was observed in the southern portion of the Site. A ditch was observed north of the sidewalk along Channingway Drive. No evidence of hazardous waste-producing or storage activities was observed on the Site at the time of the reconnaissance.

The following were not observed at the time of the reconnaissance:

- Extensive filling or grading suggesting trash or other solid waste disposal, or
- Areas of stressed vegetation, or
- Discharges to waterways.

Interior Observations

No structures were present on the Site.

Asbestos Containing Building Materials (ACBM)

No structures were present on the Site.

Lead Based Paint (LBP)

No structures were present on the Site.

Histoplasmosis

No structures were present on the Site.

Visible Mold

No structures were present on the Site.

Miscellaneous Debris and Noxious Odors

A small amount of wind-blown paper and plastic was observed in the wooded areas along the ditch north of Channingway Drive. No noxious odors were noted on the Site at the time of the reconnaissance.

Utilities

The following utilities may be available to the Site:

Service	Provider
Water	City of Fairborn
Sewer	City of Fairborn
Electric	American Electric Power
Gas	Vectren

PCBs

Polychlorinated Biphenyls (PCBs) have not been domestically produced since the mid-1970s. The Toxic Substance Control Act regulation 40 CFR 761, 49 Federal Register 44683, has restricted the use of PCBs in any equipment and oils unless specifically approved by the USEPA. No transformers were observed on the Site; however, one pad mounted transformer was observed near the eastern property line on the apartment complex property. The transformer

was observed to be in good condition with no visible signs of leakage. The transformer was not marked with a non-PCB label; the transformer is located at a lower elevation than the Site. No other potential PCB-containing equipment was observed on the Site at the time of the reconnaissance.

Major Potable Water Supplies

No potable water supplies were identified within a ½-mile radius of the Site according to the Ohio Department of Natural Resources (ODNR). A copy of the Ohio Water Wells map is provided in Appendix J. According to the ODNR information no major public water supply wells were identified within the search radius. One private well which was installed in 1963 was identified north of the Site. This well may no longer be in use as the area is now a residential development.

Wetlands

The Site was evaluated for the potential presence of wetland areas and other "waters of the United States". No wetlands or other waters were identified on the Site or the National Wetland Inventory (Appendix K).

100-Year Flood Plain

According to the Federal Emergency Management Agency's (FEMA) Flood Hazard maps, the Site is not located within the 100-year floodplain. The Site is located in a designated Zone X area described by FEMA as areas determined to be outside of the 0.2% annual chance floodplain (Appendix L).

Air Quality

No noxious odors were observed on the Site at the time of the reconnaissance. The Site is not located within an Air Quality Non-Attainment Area. According to USEPA Envirofacts website, no AIRS and no TRI facilities were identified within 1,000-feet of the Site.

Farmland Protection

The Site is surrounded by residential properties and is zoned for planned development; therefore, the Site is not considered part of the Farmland Protection program.

Environmental Justice

The Site is located in an area of primarily residential properties and office use. Information reviewed does not indicate the presence of any pollution or adverse living conditions from properties in the vicinity of the Site. Environmental Justice is not considered a concern. A Printable Standard Report for a one-mile buffer using the EJSCREEN mapper is included in Appendix M.

Radon

Concentrations of radon gas are measured by radioactive decay. Concentrations above 4.0 picoCuries per liter (pCi/L) are suggested by the USEPA as being potentially threatening to human health. Remediation and abatement are recommended for concentrations above 20.0 pCi/L. Radon testing was not performed as a part of this assessment. According to the USEPA, Greene County is classified as Radon Zone 1, which has a high radon potential with an indoor average radon level greater than 4.0 pCi/L. This classification suggests that impact from radon in the area of the Site is possible.

Steep Slopes, Lakes, Ponds or Culverts

No steep slopes, other lakes, or ponds were observed on the Site at the time of the reconnaissance.

Sinkholes or Tunnels

No sinkholes or tunnels were observed on the Site at the time of the reconnaissance.

5.4 MANMADE HAZARDS

Noise

Channingway Drive and Commerce Center Boulevard are located within the HUD specified distance of 1,000 feet of the Site. Neither of these roads had traffic counts through ODOT. No railways were identified to be within the 3,000-foot distance of the Site as specified by HUD. Wright Patterson Air Force Base is located within seven miles of the Site. However, based on a noise contour map for the air force base, the Site is located well outside of the 65 db area of the base.

Underground Storage Tanks (USTs)

Site representatives indicated no knowledge of current or historical underground storage tanks (USTs) on the Site. No physical evidence of USTs, such as vent pipes or fill ports, was identified on the Site at the time of the reconnaissance.

Aboveground Storage Tanks (ASTs)

Site representatives indicated no knowledge of current or historic aboveground storage tanks (ASTs) on the Site. No ASTs were observed on the Site or within a direct line of sight to the Site at the time of the reconnaissance.

Electric Magnetic Fields (EMFs)

No high-voltage power transmission lines (60 kiloVolts or higher) were observed near the Site at the time of the reconnaissance.

High Pressure Buried Gas Lines or Liquid Petroleum Transportation Pipelines

The USGS topographic map and U.S. DOT National Pipeline Mapping System show no pipelines with 1,000 feet of the Site. No high-pressure lines were identified on or near the Site.

Oil and Gas Wells

A review of oil and gas well location maps on the ODNR website indicated no oil or gas wells on the Site or in the Site vicinity. A copy of the oil and gas well map for the Site and vicinity is included in Appendix N.

Abandoned Underground Mines

A review of abandoned underground mine maps on the ODNR website indicated no underground mines on the Site or in the Site vicinity. A copy of the underground mines map for the Site and vicinity is included in Appendix O.

Vapor Encroachment Screen

In accordance with ASTM Standard 2600-10 (Vapor Encroachment Screening), a Tier 1 Screening of the Site has been conducted as part of this Phase I ESA. It has been considered that a Vapor Encroachment Condition (VEC) can be ruled out because a VEC does not exist at the Site.

Traffic Hazards

Based on the Site generally located in a residential/small office area, traffic hazards are not anticipated in the immediate vicinity of the Site.

Explosion Hazards

No explosion hazards were identified in the vicinity of the Site.

Zoning Code Violations

No zoning code violations were identified for the Site.

6.0 INTERVIEWS

Interviews were conducted with various individuals knowledgeable of the Site. The interviews were conducted in order to determine an awareness of any recognized environmental concerns. Questionnaires, completed by the user, owner, manager or occupant of the Site and logs of telephone calls with Site contacts as well as an OHFA Sellers Environmental Questionnaire and Disclosure Statement are provided as interview documentation and included in Appendix P.

6.1 INTERVIEWS WITH OWNER, SITE MANAGER, AND OCCUPANTS

Seller

Mr. Robert McCann, representative of the Seller, completed a Seller's Environmental Questionnaire and Disclosure Statement. Mr. McCann did not indicate any knowledge of environmental conditions associated with the Site.

6.2 INTERVIEWS WITH GOVERNMENT OFFICIALS

Copies of correspondence with the City of Fairborn Fire Department and Greene County Public Health are included in Appendix Q.

Fire Department

The City of Fairborn Fire Department was contacted as part of this assessment. Ms. Cheyenne Mendenhall, City of Fairborn Fire Department, responded to our request on behalf of the Fire Marshal who stated that they have no records related to this property.

Health Department

Greene County Public Health, Environmental Health Services, has been contacted as part of this assessment. As of the date of this report, Greene County Public Health has not yet responded to our request for information. If Greene County Public Health responds within 30 days of the date of this report with relevant Site information, an addendum letter will be provided.

7.0 FINDINGS

During this assessment of the Site, the following conditions were observed or identified during the review of public records and interviews:

- The Site is generally rectangular in shape and consists of approximately 5.917 acres of vacant overgrown land.
- A review of the USEPA listings identified one RCRA generator within ¼-mile search radius of the Site.
- Aerial photographs from 2021 back through 1948 were reviewed.
- Historical topographic maps were evaluated from 2023 back through 1904.

8.0 OPINION

Based on the findings of this assessment, our opinion of the potential impact is as follows:

- The potential for the facility identified by the database to impact the Site is considered unlikely, based on distance, status, location and/or local topography.
- Review of readily available aerial photographs for the Site from 2021 through 1948 did not identify usage of the Site that is considered evidence of environmental concern. The site was shown as undeveloped or agricultural land.
- Review of the historical topographic maps did not identify any potential fill areas.

Our opinion is based on generally accepted practices designed to minimize environmental liability. In addition, our opinion is based on information received and observations made during the Site reconnaissance.

9.0 CONCLUSIONS

Available OEPA and USEPA records, geologic maps, and published reports have been reviewed to determine the environmental compatibility of the Site. On November 16, 2023, Kilbane Environmental personnel performed a Site reconnaissance to evaluate the potential for environmental concerns that may impact the Site.

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-21, USEPA AAI standards and the OHFA Phase I Environmental Review Standards for HOME/HDAP projects of parcel number A02000200470000500 in Fairborn, Greene County, Ohio, the Site. Any exceptions to, or deletions from, this practice are described in the sections titled “Limitations, Assumptions, Additions, and Exceptions of the Assessment” and “Methodology and Limiting Conditions” of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with parcel number A02000200470000500 in Fairborn, Greene County, Ohio, the Site.

Within the scope of an investigation such as this assessment, the potential for unintentional omission of data may exist. Our opinion is based on generally accepted practices designed to minimize environmental liability.

10.0 DATA GAPS & DEVIATIONS

- No fire insurance maps were identified for the Site or vicinity. This is not considered to be a significant data gap based on other available historical information.

- As of the date of this report, Greene County Public Health has not yet responded to our request for information. This is not considered to be a significant data gap based on other available historical information and the Site historically shown as undeveloped or agricultural land.

11.0 BIBLIOGRAPHY

References

- Greene County Auditor website.
- Greene County Geographic Information System website, Aerial Photograph 2023.
- Envirosite Corporation, Historical Aerial Photo Report, Historical Topographic Map Report and City Directory Report.
- Historical Information Gathers, Fire Insurance Map Report – No Coverage Statement.
- USEPA, SEMS/CERCLIS Database, Updated Quarterly.
- USEPA, NPL Database, Updated Quarterly.
- USEPA, RCRIS Database, Updated Quarterly.
- USEPA, ERNS Database, Updated Annually.
- USEPA, Federal IC/EC Registry, Updates vary.
- OEPA, SHWS/DERR Database.
- OEPA, SWL, Updated Annually.
- OSFMO, UST Section, UST Files Updated Quarterly.
- OSFMO, LUST Section, LUST Files Updated Quarterly.
- USEPA Brownfield Management System, Updated Semi-Annually.
- USDOT Spills, Updated Annually.
- Ohio Public Library Information Network (OPLIN) Website.
- U.S. Department of Agriculture, Soil Conservation Service, Soil Survey of Greene County, Ohio, Web Service.
- USGS, Yellow Springs, Ohio, Topographic Map 1999.
- Ohio Department of Natural Resources, Ground Water Resources Greene County, 1986.
- Ohio Department of Natural Resources, Abandoned Underground Mine Locator website.
- Ohio Department of Natural Resources, Ohio Oil Well website.

References, cont...,

- Federal Emergency Management Agency, Map Service Center website.
- Ohio Department of Natural Resources, Office of Coastal Management website.
- U.S. Fish and Wildlife Service, Wetlands Mapper website.

Interviews

- Mr. Robert McCann, Representative of User
- Mr. Robert McCann, Representative of Seller
- Ms. Cheyenne Mendenhall, City of Fairborn Fire Department – on behalf of Shannon Fritz, Fire Marshal, City of Fairborn Fire Department
- Greene County Public Health, Environmental Health Services – No Response

12.0 ENVIRONMENTAL PROFESSIONAL(S) SIGNATURE

Kilbane Environmental prepared this Phase I Environmental Site Assessment report in accordance with the American Society for Testing Materials (ASTM) Standard E-1527-21 and the OHFA Environmental Review Standards for HOME Funded Projects (updated May 11, 2016). We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property (Appendix R). We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. If you have any questions or comments regarding our findings, please do not hesitate to contact us.

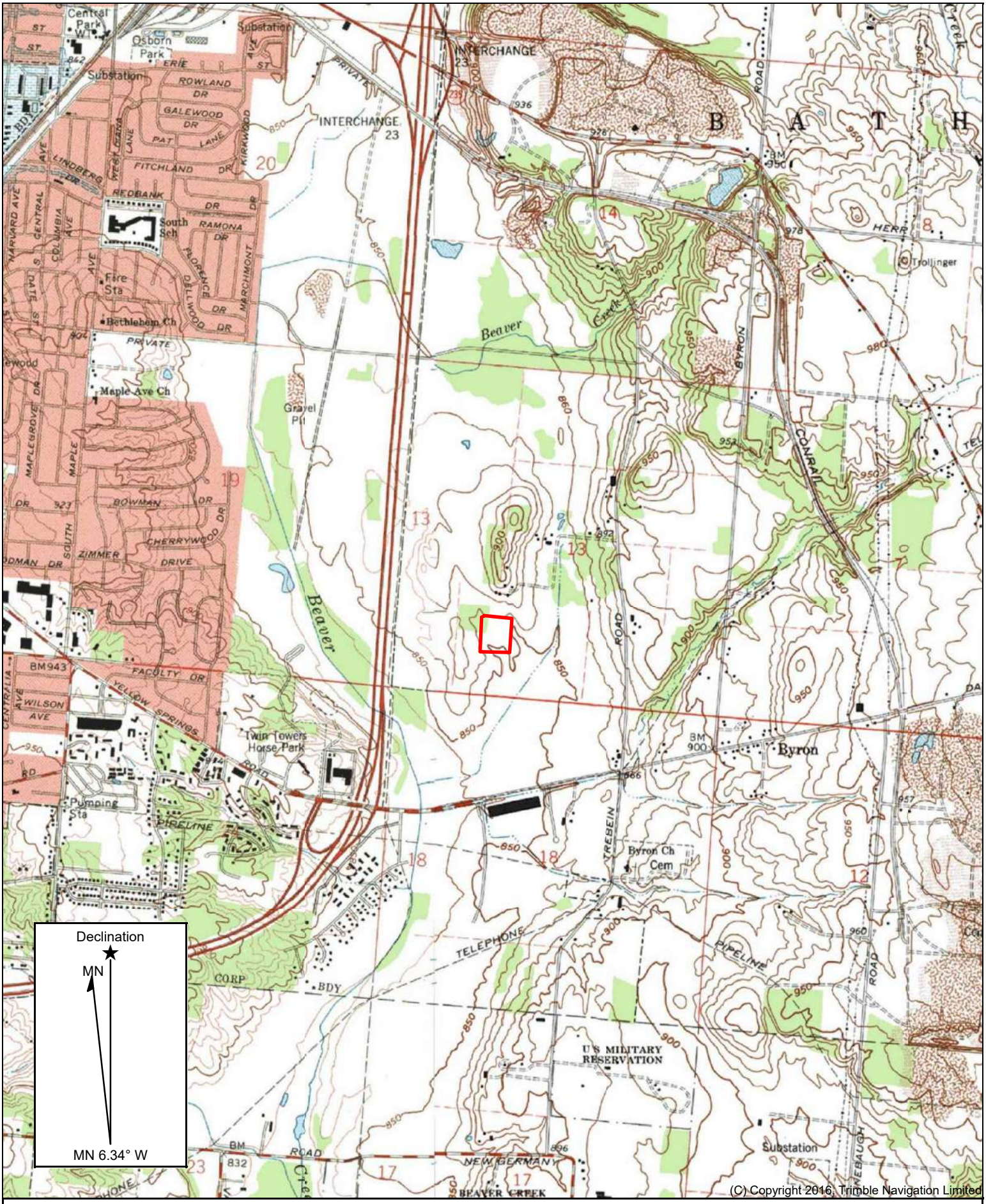
Sincerely,
KILBANE ENVIRONMENTAL

Thomas J. Kilbane, CPG
Member



TJK
c:/doc/reports/23573(1).doc

FIGURES



Name: YELLOW SPRINGS
Date: 12/01/23
Scale: 1 inch = 2,000 ft.

Location: 039.792138° N, 083.996593° W
FIGURE 1 Site Location Map
Project No. 23573

Datum: NAD27

APPENDIX A
Reliance Letter

KILBANE ENVIRONMENTAL

7723 TYLERS PLACE BOULEVARD #321
CINCINNATI, OHIO 45069
(513) 874-6652 • FAX (513) 554-0394

www.kilbaneenv.com

December 5, 2023

Office of Planning, Preservation & Development
Ohio Housing Finance Agency, 4th Floor
57 East Main Street
Columbus, OH 43215

RE: Phase I Environmental Site Assessment for Senior Village at Valle Greene

Please find enclosed the Phase I Environmental Site Assessment for the subject property dated December 5, 2023 and addressed to the Ohio Housing Finance Agency (OHFA) and Ohio Department of Development (ODOD).

It is my understanding that the information contained in the Environmental Site Assessment will be used by OHFA in considering proposed financing of residential development of the property and, furthermore, that OHFA and ODOD may rely upon the Environmental Site Assessment as if it were issued to OHFA and ODOD.

I **certify** that the attached is a true, correct and complete copy of the Environmental Site Assessment and that the report represents my professional opinion of the site as of this date. I also confirm the evaluation, recommendations and conclusions contained in the Environmental Site Assessment as of this date and that the Environmental Site Assessment has been performed in conformance with the scope and limitations of ***both*** the ASTM Practice E1527-21 and OHFA's Environmental Review Requirements.

Sincerely,
KILBANE ENVIRONMENTAL

Thomas J. Kilbane, CPG
Member

C:/doc/reports/23573(1)rel.doc

APPENDIX B
Insurance Certificate

KILBA-1 OP ID: BC

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 11/29/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER 513-868-9000 Wilks Insurance Agency, Inc. 319 N 2nd Street PO Box 295 Hamilton, OH 45012 Wilks Insurance	CONTACT NAME: Wilks Insurance PHONE (A/C, No, Ext): 513-868-9000 FAX (A/C, No): 513-863-7277 E-MAIL ADDRESS: becky@wilksinsurance.com
	INSURER(S) AFFORDING COVERAGE — NAIC #
	INSURER A : Cincinnati Insurance Company — 10677
INSURED Kilbane Environmental Group, LLC. 7723 Tylers Place Blvd #321 West Chester, OH 45069	INSURER B : Market Finders Ins. Corp
	INSURER C :
	INSURER D :
	INSURER E :
	INSURER F :

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY							
	CLAIMS-MADE X OCCUR			ENP 0019223	04/26/2022	04/26/2025	EACH OCCURRENCE	$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 500,000
							MED EXP (Any one person)	$ 10,000
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	POLICY PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:							$
A	AUTOMOBILE LIABILITY							
	X ANY AUTO			EBA 0019223	04/26/2023	04/26/2024	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X OWNED AUTOS ONLY X SCHEDULED AUTOS						BODILY INJURY (Per person)	$
	HIRED AUTOS ONLY NON-OWNED AUTOS ONLY						BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$
	DED RETENTION $							$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						X PER STATUTE OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	N / A		ENP 0019223	04/25/2022	04/25/2025	E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below			EMPLOYERS DEFENSE			E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
B	Professional Liabi			G71522040 004	05/10/2023	05/10/2024	Per Occur	1,000,000
							Gen Agg	2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

OHIOHOU

Ohio Housing Finance Agency
57 East Main Street
Columbus, OH 43215

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Becky Cach

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APPENDIX C
Schedule B Documentation

ALTA COMMITMENT FOR TITLE INSURANCE

Issued By:

CHICAGO TITLE INSURANCE COMPANY

Commitment Number:

38230478

NOTICE

IMPORTANT - READ CAREFULLY: THIS COMMITMENT IS AN OFFER TO ISSUE ONE OR MORE TITLE INSURANCE POLICIES. ALL CLAIMS OR REMEDIES SOUGHT AGAINST THE COMPANY INVOLVING THE CONTENT OF THIS COMMITMENT OR THE POLICY MUST BE BASED SOLELY IN CONTRACT.

THIS COMMITMENT IS NOT AN ABSTRACT OF TITLE, REPORT OF THE CONDITION OF TITLE, LEGAL OPINION, OPINION OF TITLE, OR OTHER REPRESENTATION OF THE STATUS OF TITLE. THE PROCEDURES USED BY THE COMPANY TO DETERMINE INSURABILITY OF THE TITLE, INCLUDING ANY SEARCH AND EXAMINATION, ARE PROPRIETARY TO THE COMPANY, WERE PERFORMED SOLELY FOR THE BENEFIT OF THE COMPANY, AND CREATE NO EXTRACONTRACTUAL LIABILITY TO ANY PERSON, INCLUDING A PROPOSED INSURED.

THE COMPANY'S OBLIGATION UNDER THIS COMMITMENT IS TO ISSUE A POLICY TO A PROPOSED INSURED IDENTIFIED IN SCHEDULE A IN ACCORDANCE WITH THE TERMS AND PROVISIONS OF THIS COMMITMENT. THE COMPANY HAS NO LIABILITY OR OBLIGATION INVOLVING THE CONTENT OF THIS COMMITMENT TO ANY OTHER PERSON.

COMMITMENT TO ISSUE POLICY

Subject to the Notice; Schedule B, Part I-Requirements; Schedule B, Part II-Exceptions; and the Commitment Conditions, Chicago Title Insurance Company, a Florida corporation (the "Company"), commits to issue the Policy according to the terms and provisions of this Commitment. This Commitment is effective as of the Commitment Date shown in Schedule A for each Policy described in Schedule A, only when the Company has entered in Schedule A both the specified dollar amount as the Proposed Policy Amount and the name of the Proposed Insured.

If all of the Schedule B, Part I-Requirements have not been met within one hundred eighty (180) days after the Commitment Date, this Commitment terminates and the Company's liability and obligation end.

Chicago Title Insurance Company

By:

Michael J. Nolan, President

Countersigned By:

Michelle Pensyl
Authorized Officer or Agent

Attest:

Marjorie Nemzura, Secretary

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by Chicago Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I-Requirements; Schedule B, Part II-Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.

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Transaction Identification Data for reference only:

ISSUING OFFICE:	FOR SETTLEMENT INQUIRIES, CONTACT:
Title Officer: Michelle Pensyl Chicago Title Insurance Company 1 S. Main St., Suite 250 Dayton, OH 45402 Phone: 9372238378 Fax: 937-223-7866 Main Phone: (937) 223-8378 Email: Michelle.Pensyl@CTT.com	Escrow Officer: Traci Walker Chicago Title Insurance Company 1 S. Main St., Suite 250 Dayton, OH 45402 Phone: 9372690463 Main Phone: (937)223-8378 Main Fax: 937-963-0843 Email: Traci.Walker@ctt.com

Order Number: **38230478**

Property Address: **Channingway Drive, Fairborn, OH 45324**

SCHEDULE A

1. Commitment Date: November 23, 2023 at 07:59 AM
2. Policy to be issued:
   (a) ALTA Owner's Policy 2006 - OH (12/01/2015)
   Proposed Insured: Purchaser with contractual rights under a purchase agreement with the vested owner identified at Item #4 below
   Proposed Policy Amount: $100,000.00
3. The estate or interest in the Land described or referred to in this Commitment is:
   Fee Simple
4. The Title is, at the Commitment Date, vested in:
   Oberer Construction Managers Ltd., an Ohio limited liability company, acquired by deed of record in Official Record Book 3711, Page 726, Recorder's Office, Greene County, Ohio.
5. The Land is described as follows:
   SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

END OF SCHEDULE A

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EXHIBIT "A"

Legal Description

Located in Section 13, Town 3, Range 8 Between the Miami Rivers Survey, City of Fairborn, Greene County, State of Ohio, and being the remainder of an original 12.069 acre tract of land (Auditor's Parcel A02-2-47-5) conveyed to Oberer Development Company by deed recorded in Volume 1194, Page 625 (Parcel C) of the Official Records of Greene County, Ohio, described as follows:

Beginning at an iron pin found at the southwest corner of Lot 7776 in Channingway Apartments, Section Three as recorded in Plat Cabinet 34, Pages 840B-841B and in the north line of Channingway Drive (60' wide) in "Corrective Plat" Commerce Center Boulevard, Phase II as recorded in Plat Cabinet 30, Pages 690B-691A, both of the Plat Records of Greene County, Ohio;

Thence with the north line of said Channingway Drive, North 84° 30' 40" West for a distance of 446.92 feet to an iron pin set at the southeast corner of Lot 8591 in Valle Greene North, Section 15 as recorded in Plat Cabinet 36, Pages 99B-100A of the Plat Records of Greene County, Ohio;

Thence with the east line of said Lot 8591 and its northerly extension, said extension being the east line of Lot 7867 in Valle Greene North, Section 7 as recorded in Plat Cabinet 30, Pages 714A-B of the Plat Records of Greene County, Ohio, North 05° 29' 17" East for a distance of 577.11 feet to an iron pin (Northmont Engr. cap) found at the northeast corner of said Lot 7867 and in the south line of a 20.582 acres (per deed) tract of land conveyed to Arnold Aliff by deed recorded in Volume 1428, Page 198 of the Official Records of Greene County, Ohio;

Thence with the south line of said Aliff land, South 84° 28' 42" East for a distance of 446.51 feet to an iron pin set in the west line of said Lot 7776;

Thence with the west line of said Lot 7776, South 05° 26' 51" East for a distance of 576.86 feet to the POINT OF BEGINNING, containing 5.917 acres, more or less.

NOTES:

The above description was prepared from the results of a field survey made by Cosler Engineering, LLC, by or under the direct supervision of Mitchell W. Cosler, Ohio Registered Surveyor No. 6393, on January 20, 2016.

Iron pins found are 0.63 inch diameter and iron pipes found are 1.0 inch outside diameter in good condition, unless otherwise described. Iron pins referred to as set are 0.63 inch diameter steel with a yellow plastic cap stamped "COSLER 6393". Magnetic nails referred to as found or set are 0.25 inch diameter chrome two (2) inches in length with a 0.56 inch diameter head stamped "MAG".

Bearings are based on those used in Commerce Center Boulevard and Valle Greene North plats. Distances are in U.S. Survey Feet.

For Informational Purposes Only:
PPN: A02000200470000500 and A02000200470000501

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SCHEDULE B, PART I
REQUIREMENTS

All of the following Requirements must be met:

1. The Proposed Insured must notify the Company in writing of the name of any party not referred to in this Commitment who will obtain an interest in the Land or who will make a loan on the Land. The Company may then make additional Requirements or Exceptions.

2. Pay the agreed amount for the estate or interest to be insured.

3. Pay the premiums, fees, and charges for the Policy to the Company.

4. Documents satisfactory to the Company that convey the Title or create the Mortgage to be insured, or both, must be properly authorized, executed, delivered, and recorded in the Public Records.

5. Any instrument of conveyance creating an insured interest must comply with local rules on descriptions and conveyances pursuant to Sections 315.251 and 319.203 of the Ohio Revised Code.

6. Approval of the legal description as contained in Schedule "A" herein by the Greene County Auditor's office. A copy was submitted to the County on December 4, 2023.

7. Deed from Oberer Construction Managers Ltd., an Ohio limited liability company, by its duly authorized member(s) conveying the premises herein to a Purchaser to be determined.

8. Copy of the Operating Agreement, and all amendments thereto, and resolution of Oberer Construction Managers Ltd., an Ohio limited liability company, authorizing the execution of the above deed.

9. Certificate of Good Standing from the Ohio Secretary of State for Oberer Construction Managers Ltd.

10. Statement from the governing board of the Valle Greene North Association Inc. that there are no unpaid assessment liens arising by reason of the nonpayment of common expenses which are a lien on the land in question and, if applicable, a waiver of any right to purchase should be furnished to the company.

11. Owners/Sellers Affidavit covering matters of title in a form acceptable to the Company.

12. An ALTA survey satisfactory to the Company will be required if the survey exceptions are to be deleted from the final policy.

13. The Proposed Policy amount(s) must be increased to the full value of the estate or interest being insured, and any additional premium must be paid at that time. An Owner's Policy should reflect the purchase price of full value of the Land. A Loan Policy should reflect the loan amount of value of the Land being used as collateral. Proposed Policy Amount(s) will be revised and premium charged consistent therewith when the final amounts are approved.

14. For each policy to be issued as identified in Schedule A, Item 2; the Company shall not be liable under this commitment until it receives a designation for a Proposed Insured, acceptable to the Company. As provided in Commitment Condition 4, the Company may amend this commitment to add, among other things, additional exceptions or requirements after the designation of the Proposed Insured.

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by Chicago Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I-Requirements; Schedule B, Part II-Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.

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SCHEDULE B, PART I
REQUIREMENTS
(continued)

15. The search did not disclose any open mortgages or deeds of trust of record, therefore the Company reserves the right to require further evidence to confirm that the property is unencumbered, and further reserves the right to make additional requirements or add additional items or exceptions upon receipt of the requested evidence.

16. Subject to additional requirements once the specifics of the contemplated transaction are known to the Company.

17. Further exceptions and/or requirements may be made upon review of the proposed documents creating the interest or estate to be insured and/or further ascertaining details of the transaction.

18. Payment of the full consideration to, or for the account of the grantors or mortgagors should be made.

19. Payment of taxes, charges and assessments levied and assessed against subject premises, which are due and payable.

20. Satisfactory evidence should be had that improvements and/or repairs or alterations thereto are completed; that contractors, subcontractors, labor and materialmen are all paid.

    Notice: Please be aware that due to the conflict between federal and state laws concerning the cultivation, distribution, manufacture or sale of marijuana, the Company is not able to close or insure any transaction involving Land that is associated with these activities.

    Notice: Please be aware that the Company will not insure a prohibited person as defined under Ohio Revised Code Section 5301.256 as to the ownership in agricultural land or land in proximity to a military installation as defined under the referenced code section which is an excluded matter under the Exclusions from Coverage of any policy issued.

END OF SCHEDULE B, PART I

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by Chicago Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I-Requirements; Schedule B, Part II-Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.

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SCHEDULE B, PART II
EXCEPTIONS

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

The Policy will not insure against loss or damage resulting from the terms and provisions of any lease or easement identified in Schedule A, and will include the following Exceptions unless cleared to the satisfaction of the Company:

1. Any defect, lien, encumbrance, adverse claim, or other matter that appears for the first time in the Public Records or is created, attaches, or is disclosed between the Commitment Date and the date on which all of the Schedule B, Part I—Requirements are met.

2. Rights or claims of parties in possession not shown by the Public Records.

3. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the title that would be disclosed by an accurate and complete land survey of the Land.

4. Easements, or claims of easements, not shown by the Public Records.

5. Any lien, or right to a lien, for services, labor, or material heretofore or hereafter furnished, imposed by law and not shown by the Public Records.

6. Taxes or special assessments which are not shown as existing liens by the Public Records.

7. No liability is assumed for tax increases occasioned by the retroactive revaluation as a result of the change in land usage, on account of errors or omissions and changes in the valuation of the property by legally constituted authorities.

8. Representations of the acreage or area in the property descriptions in Schedule A, or on the survey, if any.

9. Oil and gas leases, pipeline agreements or any other instruments related to the production or sale of oil and gas which may arise subsequent to the date of the Policy, pursuant to Ohio Revised Code Section 1509.31(D).

10. Any lease, grant, exception or reservation of minerals or mineral rights together with any rights appurtenant thereto.

11. Any covenant, condition or restriction referred to herein indicating a preference, limitation or discrimination based on race, color, religion, sex, handicap, familial status or national origin is omitted as provided in 42 U.S.C. Section 3604, unless and only to the extent that the restriction (a) is not in violation of state or federal law, (b) is exempt under 42 U.S.C. Section 3607, or (c) related to handicap, but does not discriminate against handicapped people.

12. The map(s)/plat(s) herein are being furnished as an aid in locating the herein described Land in relation to adjoining streets, natural boundaries and other land, and are not a survey of the land depicted. Except to the extent a policy of title insurance is expressly modified by endorsement, if any, the Company does not insure dimensions, distances, location of easements, acreage or other matters shown thereon.

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SCHEDULE B, PART II
EXCEPTIONS
(continued)

13. Rights of public to use those portions of subject premises lying within the confines of public roads and highways.

14. Easements and matters contained on Record Plan for Street Dedication Commerce Center Boulevard, Phase II, of record in Plat Cabinet 30, Pages 425B-426A, Recorder's Office, Greene County, Ohio.

    As affected by a Corrective Plat of the Record Plan for Commerce Center Boulevard, Phase II, of record in Plat Cabinet 30, Pages 690B-691A, Recorder's Office, Greene County, Ohio.

15. Restrictions, provisions, rights, obligations, assessments, liens, easement and covenants contained in Declaration of Covenants and Restrictions for Valle Greene North, Phase II, Areas B, C and D of record in Official Record Book 1186, Page 531, Recorder's Office, Greene County, Ohio.

    As affected by Declaration of Covenants, Conditions and Restrictions and Reservation of Easements for Valle Greene North Association, Inc., of record in Official Record Book 1299, Page 296, Recorder's Office, Greene County, Ohio.

    As affected by First Amendment to Declaration of Covenants, Conditions and Restrictions and Reservation of Easements for Valle Greene North Association, Inc., of record in Instrument No. 2021004768, Recorder's Office, Greene County, Ohio.

16. Restrictions, obligations, covenants and assessments contained in deed to Oberer Development Co., of record in Official Record Book 1194, Page 625, Recorder's Office, Greene County, Ohio.

17. Declaration of Restrictions by Fairborn SS East LLC, an Ohio limited liability company, and Oberer Development Co., an Ohio corporation, of record in Official Record Book 1376, Page 69, Recorder's Office, Greene County, Ohio.

18. Restrictions, easements, obligations and provisions contained in Declaration of Restrictions, Covenants and Easements by and among Oberer Development Co., an Ohio corporation, Shoppes at V.G., Ltd., an Ohio limited partnership, and WH Capital, L.L.C., a Georgia limited liability company, of record in Official Record Book 2527, Page 426, Recorder's Office, Greene County, Ohio.

19. Service payments, obligations, tax increment financing agreement and rights contained in City of Fairborn, Ohio, Ordinance No. 11-08 Declare Improvements to Certain Additional Parcels of Real Property to be a Public Purposes, and to Require the Owners Thereof to Make Service Payments in Lieu of Taxes to be Used to Pay for the Costs of Certain Public Infrastructure Improvements, of record in Official Record Book 2842, Page 875, Recorder's Office, Greene County, Ohio.

20. Declaration of Restrictions by Oberer Construction Managers, Ltd., of record in Instrument No. 2018001785, as re-recorded in Instrument No. 20180011092, both of the Recorder's Office, Greene County, Ohio.

21. Restrictive Use Agreement by and among The Shoppes at V.G., Ltd., an Ohio limited liability company, Oberer Construction Managers, Ltd., an Ohio limited liability company, 1187 DYS Associates, Ltd., an Ohio limited liability company, Kroger at V.G., Ltd., an Ohio limited liability company, and Menard, Inc., a Wisconsin corporation, of record in Instrument No. 2018018050, Recorder's Office, Greene County, Ohio.

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SCHEDULE B, PART II
EXCEPTIONS
(continued)

22. Tax parcel desc: 8-3-13 5.917 Ac E of Commerce Center Blvd.

Taxes, listed in the name(s) of Oberer Construction Managers Ltd., (Parcel ID A02000200470000500) for the first half of the year 2022 in the net amount of $103.84 are paid; Taxes for the second half of the year 2022 in the net amount of $103.84 are paid.

Tax valuation: Land Only: $3,110

Note: The above tax parcel is subject to an unrecorded TIF Agreement.

Tax parcel desc: 8-3-13 5.917 Ac E of Commerce Center Blvd

Taxes, listed in the name(s) of Oberer Construction Managers Ltd. (TIF Parcel), (Parcel ID A02000200470000501) for the first half of the year 2022 in the net amount of $0.00 (exempt), plus $930.15 Fairborn Cty Pub TIF assessment, plus $1,434.49 Fairborn Cty Sch Dist TIF assessment, plus $131.58 Gr. Co. Career Center TIF assessment, Total $2,496.22 are paid; Taxes for the second half of the year 2022 in the net amount of $0.00 (exempt), plus $930.15 Fairborn Cty Pub TIF assessment, plus $1,434.49 Fairborn Cty Sch Dist TIF assessment, plus $131.58 Gr. Co. Career Center TIF assessment, Total $2,496.22 are paid.

Tax valuation: Land Only: $79,730

There will be a Fairborn Cty Pub TIF assessment with the future installments of taxes, the exact amount(s) of which is not known at this time.

There will be a Fairborn Cty Sch Dist TIF assessment with the future installments of taxes, the exact amount(s) of which is not known at this time.

There will be a Gr. Co. Career Center TIF assessment with the future installments of taxes, the exact amount(s) of which is not known at this time.

23. Taxes and assessments for the year 2023, and thereafter, are a lien but are not yet due and payable.

Taxes or special assessments which are not shown as existing liens by the public records.

Additions or abatements, if any, which may hereafter be made by legally constituted authorities on account of errors, omissions or changes in the valuation.

END OF SCHEDULE B, PART II

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COMMITMENT CONDITIONS

1. DEFINITIONS

(a) "Knowledge" or "Known": Actual or imputed knowledge, but not constructive notice imparted by the Public Records.

(b) "Land": The land described in Schedule A and affixed improvements that by law constitute real property. The term "Land" does not include any property beyond the lines of the area described in Schedule A, nor any right, title, interest, estate, or easement in abutting streets, roads, avenues, alleys, lanes, ways, or waterways, but this does not modify or limit the extent that a right of access to and from the Land is to be insured by the Policy.

(c) "Mortgage": A mortgage, deed of trust, or other security instrument, including one evidenced by electronic means authorized by law.

(d) "Policy": Each contract of title insurance, in a form adopted by the American Land Title Association, issued or to be issued by the Company pursuant to this Commitment.

(e) "Proposed Insured": Each person identified in Schedule A as the Proposed Insured of each Policy to be issued pursuant to this Commitment.

(f) "Proposed Policy Amount": Each dollar amount specified in Schedule A as the Proposed Policy Amount of each Policy to be issued pursuant to this Commitment.

(g) "Public Records": Records established under state statutes at the Commitment Date for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without Knowledge.

(h) "Title": The estate or interest described in Schedule A.

2. If all of the Schedule B, Part I-Requirements have not been met within the time period specified in the Commitment to Issue Policy, this Commitment terminates and the Company's liability and obligation end.

3. The Company's liability and obligation is limited by and this Commitment is not valid without:

(a) the Notice;

(b) the Commitment to Issue Policy;

(c) the Commitment Conditions;

(d) Schedule A;

(e) Schedule B, Part I-Requirements;

(f) Schedule B, Part II-Exceptions; and

(g) a counter-signature by the Company or its issuing agent that may be in electronic form.

4. COMPANY'S RIGHT TO AMEND

The Company may amend this Commitment at any time. If the Company amends this Commitment to add a defect, lien, encumbrance, adverse claim, or other matter recorded in the Public Records prior to the Commitment Date, any liability of the Company is limited by Commitment Condition 5. The Company shall not be liable for any other amendment to this Commitment.

5. LIMITATIONS OF LIABILITY

(a) The Company's liability under Commitment Condition 4 is limited to the Proposed Insured's actual expense incurred in the interval between the Company's delivery to the Proposed Insured of the Commitment and the delivery of the amended Commitment, resulting from the Proposed Insured's good faith reliance to:

(i) comply with the Schedule B, Part I-Requirements;

(ii) eliminate, with the Company's written consent, any Schedule B, Part II-Exceptions; or

(iii) acquire the Title or create the Mortgage covered by this Commitment.

(b) The Company shall not be liable under Commitment Condition 5(a) if the Proposed Insured requested the amendment or had Knowledge of the matter and did not notify the Company about it in writing.

(c) The Company will only have liability under Commitment Condition 4 if the Proposed Insured would not have incurred the expense had the Commitment included the added matter when the Commitment was first delivered to the Proposed Insured.

(d) The Company's liability shall not exceed the lesser of the Proposed Insured's actual expense incurred in good faith and described in Commitment Conditions 5(a)(i) through 5(a)(iii) or the Proposed Policy Amount.

(e) The Company shall not be liable for the content of the Transaction Identification Data, if any.

(f) In no event shall the Company be obligated to issue the Policy referred to in this Commitment unless all of the Schedule B, Part I-Requirements have been met to the satisfaction of the Company.

(g) In any event, the Company's liability is limited by the terms and provisions of the Policy.

6. LIABILITY OF THE COMPANY MUST BE BASED ON THIS COMMITMENT

(a) Only a Proposed Insured identified in Schedule A, and no other person, may make a claim under this Commitment.

(b) Any claim must be based in contract and must be restricted solely to the terms and provisions of this Commitment.

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(continued)

(c) Until the Policy is issued, this Commitment, as last revised, is the exclusive and entire agreement between the parties with respect to the subject matter of this Commitment and supersedes all prior commitment negotiations, representations, and proposals of any kind, whether written or oral, express or implied, relating to the subject matter of this Commitment.

(d) The deletion or modification of any Schedule B, Part II-Exception does not constitute an agreement or obligation to provide coverage beyond the terms and provisions of this Commitment or the Policy.

(e) Any amendment or endorsement to this Commitment must be in writing and authenticated by a person authorized by the Company.

(f) When the Policy is issued, all liability and obligation under this Commitment will end and the Company's only liability will be under the Policy.

7. IF THIS COMMITMENT HAS BEEN ISSUED BY AN ISSUING AGENT

The issuing agent is the Company's agent only for the limited purpose of issuing title insurance commitments and policies. The issuing agent is not the Company's agent for the purpose of providing closing or settlement services.

8. PRO-FORMA POLICY

The Company may provide, at the request of a Proposed Insured, a pro-forma policy illustrating the coverage that the Company may provide. A pro-forma policy neither reflects the status of Title at the time that the pro-forma policy is delivered to a Proposed Insured, nor is it a commitment to insure.

9. ARBITRATION

The Policy contains an arbitration clause. All arbitrable matters when the Proposed Policy Amount is Two Million And No/100 Dollars ($2,000,000.00) or less shall be arbitrated at the option of either the Company or the Proposed Insured as the exclusive remedy of the parties. A Proposed Insured may review a copy of the arbitration rules at http://www.alta.org/arbitration.

END OF CONDITIONS

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FIDELITY NATIONAL FINANCIAL
PRIVACY NOTICE

Effective January 1, 2023

Fidelity National Financial, Inc. and its majority-owned subsidiary companies (collectively, "FNF," "our," or "we") respect and are committed to protecting your privacy. This Privacy Notice explains how we collect, use, and protect personal information, when and to whom we disclose such information, and the choices you have about the use and disclosure of that information.

A limited number of FNF subsidiaries have their own privacy notices. If a subsidiary has its own privacy notice, the privacy notice will be available on the subsidiary's website and this Privacy Notice does not apply.

Collection of Personal Information

FNF may collect the following categories of Personal Information:

- contact information (*e.g.*, name, address, phone number, email address);
- demographic information (*e.g.*, date of birth, gender, marital status);
- identity information (*e.g.* Social Security Number, driver's license, passport, or other government ID number);
- financial account information (*e.g.* loan or bank account information); and
- other personal information necessary to provide products or services to you.

We may collect Personal Information about you from:

- information we receive from you or your agent;
- information about your transactions with FNF, our affiliates, or others; and
- information we receive from consumer reporting agencies and/or governmental entities, either directly from these entities or through others.

Collection of Browsing Information

FNF automatically collects the following types of Browsing Information when you access an FNF website, online service, or application (each an "FNF Website") from your Internet browser, computer, and/or device:

- Internet Protocol (IP) address and operating system;
- browser version, language, and type;
- domain name system requests; and
- browsing history on the FNF Website, such as date and time of your visit to the FNF Website and visits to the pages within the FNF Website.

Like most websites, our servers automatically log each visitor to the FNF Website and may collect the Browsing Information described above. We use Browsing Information for system administration, troubleshooting, fraud investigation, and to improve our websites. Browsing Information generally does not reveal anything personal about you, though if you have created a user account for an FNF Website and are logged into that account, the FNF Website may be able to link certain browsing activity to your user account.

Other Online Specifics

Cookies. When you visit an FNF Website, a "cookie" may be sent to your computer. A cookie is a small piece of data that is sent to your Internet browser from a web server and stored on your computer's hard drive. Information gathered using cookies helps us improve your user experience. For example, a cookie can help the website load properly or can customize the display page based on your browser type and user preferences. You can choose whether or not to accept cookies by changing your Internet browser settings. Be aware that doing so may impair or limit some functionality of the FNF Website.

Web Beacons. We use web beacons to determine when and how many times a page has been viewed. This information is used to improve our websites.

Do Not Track. Currently our FNF Websites do not respond to "Do Not Track" features enabled through your browser.

Links to Other Sites. FNF Websites may contain links to unaffiliated third-party websites. FNF is not responsible for the privacy practices or content of those websites. We recommend that you read the privacy policy of every website you visit.

Use of Personal Information

FNF uses Personal Information for three main purposes:

- To provide products and services to you or in connection with a transaction involving you.
- To improve our products and services.
- To communicate with you about our, our affiliates', and others' products and services, jointly or independently.

When Information Is Disclosed

We may disclose your Personal Information and Browsing Information in the following circumstances:

- to enable us to detect or prevent criminal activity, fraud, material misrepresentation, or nondisclosure;
- to affiliated or nonaffiliated service providers who provide or perform services or functions on our behalf and who agree to use the information only to provide such services or functions;
- to affiliated or nonaffiliated third parties with whom we perform joint marketing, pursuant to an agreement with them to jointly market financial products or services to you;
- to law enforcement or authorities in connection with an investigation, or in response to a subpoena or court order; or
- in the good-faith belief that such disclosure is necessary to comply with legal process or applicable laws, or to protect the rights, property, or safety of FNF, its customers, or the public.

The law does not require your prior authorization and does not allow you to restrict the disclosures described above. Additionally, we may disclose your information to third parties for whom you have given us authorization or consent to make such disclosure. We do not otherwise share your Personal Information or Browsing Information with nonaffiliated third parties, except as required or permitted by law.

We reserve the right to transfer your Personal Information, Browsing Information, and any other information, in connection with the sale or other disposition of all or part of the FNF business and/or assets, or in the event of bankruptcy, reorganization, insolvency, receivership, or an assignment for the benefit of creditors. By submitting Personal Information and/or Browsing Information to FNF, you expressly agree and consent to the use and/or transfer of the foregoing information in connection with any of the above described proceedings.

Security of Your Information

We maintain physical, electronic, and procedural safeguards to protect your Personal Information.

Choices With Your Information

Whether you submit Personal Information or Browsing Information to FNF is entirely up to you. If you decide not to submit Personal Information or Browsing Information, FNF may not be able to provide certain services or products to you.

For California Residents: We will not share your Personal Information or Browsing Information with nonaffiliated third parties, except as permitted by California law. For additional information about your California privacy rights, please visit the "California Privacy" link on our website (https://fnf.com/pages/californiaprivacy.aspx) or call (888) 413-1748.

For Nevada Residents: We are providing this notice pursuant to state law. You may be placed on our internal Do Not Call List by calling FNF Privacy at (888) 714-2710 or by contacting us via the information set forth at the end of this Privacy Notice. For further information concerning Nevada's telephone solicitation law, you may contact: Bureau of Consumer Protection, Office of the Nevada Attorney General, 555 E. Washington St., Suite 3900, Las Vegas, NV 89101; Phone number: (702) 486-3132; email: aginquiries@ag.state.nv.us.

For Oregon Residents: We will not share your Personal Information or Browsing Information with nonaffiliated third parties for marketing purposes, except after you have been informed by us of such sharing and had an opportunity to indicate that you do not want a disclosure made for marketing purposes.

For Vermont Residents: We will not disclose information about your creditworthiness to our affiliates and will not disclose your personal information, financial information, credit report, or health information to nonaffiliated third parties to market to you, other than as permitted by Vermont law, unless you authorize us to make those disclosures.

For Virginia Residents: For additional information about your Virginia privacy rights, please email privacy@fnf.com or call (888) 714-2710.

Information From Children

The FNF Websites are not intended or designed to attract persons under the age of eighteen (18). We do not collect Personal Information from any person that we know to be under the age of thirteen (13) without permission from a parent or guardian.

International Users

FNF's headquarters is located within the United States. If you reside outside the United States and choose to provide Personal Information or Browsing Information to us, please note that we may transfer that information outside of your country of residence. By providing FNF with your Personal Information and/or Browsing Information, you consent to our collection, transfer, and use of such information in accordance with this Privacy Notice.

FNF Website Services for Mortgage Loans

Certain FNF companies provide services to mortgage loan servicers, including hosting websites that collect customer information on behalf of mortgage loan servicers (the "Service Websites"). The Service Websites may contain links to both this Privacy Notice and the mortgage loan servicer or lender's privacy notice. The sections of this Privacy Notice titled When Information is Disclosed, Choices with Your Information, and Accessing and Correcting Information do not apply to the Service Websites. The mortgage loan servicer or lender's privacy notice governs use, disclosure, and access to your Personal Information. FNF does not share Personal Information collected through the Service Websites, except as required or authorized by contract with the mortgage loan servicer or lender, or as required by law or in the good-faith belief that such disclosure is necessary: to comply with a legal process or applicable law, to enforce this Privacy Notice, or to protect the rights, property, or safety of FNF or the public.

Your Consent To This Privacy Notice; Notice Changes

By submitting Personal Information and/or Browsing Information to FNF, you consent to the collection and use of the information in accordance with this Privacy Notice. We may change this Privacy Notice at any time. The Privacy Notice's effective date will show the last date changes were made. If you provide information to us following any change of the Privacy Notice, that signifies your assent to and acceptance of the changes to the Privacy Notice.

Accessing and Correcting Information; Contact Us

If you have questions or would like to correct your Personal Information, visit FNF's Privacy Inquiry Website or contact us by phone at (888) 714-2710, by email at privacy@fnf.com, or by mail to:

Fidelity National Financial, Inc.
601 Riverside Avenue,
Jacksonville, Florida 32204
Attn: Chief Privacy Officer

APPENDIX D
Database Report

Government Records Report | 2023

With Platinum Review

Order Number: 92707

Report Generated: 11/21/2023

Project Name: Senior Village at Valle Greene

Project Number: 23573(1)

Senior Village at Valle Greene
Channingway
Fairborn, OH 45324

with Envirosite Atlas

Contact us at:
(866) 211-2028
envirositecorp.com

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Envirosite Corporation has conducted a search of all reasonably ascertainable records in accordance with EPA's AAI (40 CFR Part 312) requirements and the ASTM E-1527-21 Environmental Site Assessments standard.

SUBJECT PROPERTY INFORMATION:

ADDRESS:

Senior Village at Valle Greene
Channingway
Fairborn, OH 45324

COORDINATES:

Latitude (North):	39.790671 - 39°47'26.4"
Longitude (West):	-83.996173 - -83°59'46.2"
Universal Transverse Mercator:	Zone 17N
UTM X (Meters):	243446.95
UTM Y (Meters):	4408819.33
State Plane Coordinates:	3402 - Ohio South (US Survey Feet)
X Coordinate (Feet):	1548086.112 E
Y Coordinate (Feet):	655683.636 N

ELEVATION:

Elevation:	851 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH SUBJECT PROPERTY:

Subject Property Map: 39083-G8 Yellow Springs, OH
Most Recent Revision: 2019

MAP ID	SITE NAME	ADDRESS	DATABASE(S)	RELATIVE ELEVATION	DIRECTION / DISTANCE
A1	P+B ELECTRIC	1835 SUCLESFUL DR	MANIFEST EPA	Higher	SSW / 0.076 mi., 402 ft.
A2	P + B ELECTRIC | P & B ELECTRIC	1835 SUCCESFUL DR | 1835 ...	MANIFEST EPA	Higher	SSW / 0.078 mi., 412 ft.
3	NEW HORIZONS COMPUTER LEARNIN...	1890 COMMERCE CENTER BLVD	ECHO, FRS, RCRA_NONGEN	Higher	SW / 0.132 mi., 695 ft.

SUBJECT PROPERTY SEARCH RESULTS:

The subject property was not listed in any of the databases searched by Envirosite Corporation.

SEARCH RESULTS:

FEDERAL RCRA GENERATORS LIST

RCRA_NONGEN: Resource Conservation and Recovery Act listing of licensed non-generators **1 SITE FOUND WITHIN .25 MILE**

EQUAL/HIGHER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
3	*NEW HORIZONS COMPUTER LEARNING CENTERS*	*1890 COMMERCE CENTER BLVD*	*SW / 0.132 mi., 695 ft.*	*22*
	- ID: OHR000159418	Status: Generators - General	Date: Violation 2010-04-06 - Achieved Compliance 2010-04-07	

OTHER ASCERTAINABLE RECORDS

MANIFEST EPA: EPA Hazardous Waste Electronic Manifest System (e-Manifest) **2 SITES FOUND WITHIN .25 MILE**

EQUAL/HIGHER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
A1	P+B ELECTRIC	1835 SUCLESFUL DR	SSW / 0.076 mi., 402 ft.	*17*
A2	P + B ELECTRIC | P & B ELECTRIC	1835 SUCCESFUL DR | 1835 SUCCESSFUL DRIVE	SSW / 0.078 mi., 412 ft.	*18*

Following sites were unable to be mapped.

SITE NAME:	ADDRESS, CITY, ZIP:	DATABASE(S):
Wright Patterson AFB, Fairborn	State Rte 444, Fairborn 45324	DERR - OH
XENIA GAS & LIGHT COMPANY	SYCAMORE STREET NEAR SHAW..., XENIA...	TOWN GAS - OH

DATABASE(S) WITH NO MAPPED SITES:

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS

AST PBS	ASTs at Bulk Petroleum Terminals
EPA UST	EPA UST Finder database
FEMA UST	FEMA Underground Storage Tanks
HIST INDIAN UST R6	Historical Underground Storage Tanks on Indian Land in EPA Region 6
HIST INDIAN UST R7	Historical Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN UST R1	Underground Storage Tanks on Indian Land in EPA Region 1
INDIAN UST R10	Underground Storage Tanks on Indian Land in EPA Region 10
INDIAN UST R2	Underground Storage Tanks on Indian Land in EPA Region 2
INDIAN UST R4	Underground Storage Tanks on Indian Land in EPA Region 4
INDIAN UST R5	Underground Storage Tanks on Indian Land in EPA Region 5
INDIAN UST R6	Underground Storage Tanks on Indian Land in EPA Region 6
INDIAN UST R7	Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN UST R8	Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN UST R9	Underground Storage Tanks on Indian Land in EPA Region 9
ARCHIVE UST - OH	Archived Underground Storage Tanks
AST - OH	Aboveground Storage Tanks
HIST AST - OH	Historical Aboveground Storage Tanks
UST - OH	Underground Storage Tanks

FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST

ARCHIVED RCRA TSDF	Archived Resource Conservation and Recovery Act: Treatment Storage and Disposal Facilities

FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST *(cont.)*

RCRA_TSDF	Resource Conservation and Recovery Act: Treatment Storage and Disposal Facilities

FEDERAL CERCLIS LIST

CERCLIS NFRAP	Comprehensive Environmental Response Compensation and Liability Act No Further Remedial Action Planned
CERCLIS-HIST	Comprehensive Environmental Response Compensation and Liability Act
EPA SAA	EPA Superfund Alternative Approach
FEDERAL FACILITY	Federal Facility sites
SEMS_8R_ACTIVE SITES	Sites on SEMS Active Site Inventory
SEMS_8R_ARCHIVED SITES	Sites on SEMS Archived Site Inventory

FEDERAL RCRA CORRACTS FACILITIES LIST

CORRACTS	Hazardous Waste Corrective Action
HIST CORRACTS 2	Historical Hazardous Waste Corrective Action

FEDERAL DELISTED NPL SITE LIST

DELISTED NPL	Delisted National Priority List
DELISTED PROPOSED NPL	Delisted proposed National Priority List
SEMS_DELETED NPL	Sites Deleted from National Priorities List

FEDERAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

EPA LF MOP	EPA Landfill Methane Outreach Project Database

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS

EPA LUST	EPA LUST
HIST INDIAN LUST R4	Historical Leaking Underground Storage Tanks on Indian Land in EPA Region 4
HIST INDIAN LUST R8	Historical Leaking Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land in EPA Region 1
INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land in EPA Region 10
INDIAN LUST R2	Leaking Underground Storage Tanks on Indian Land in EPA Region 2
INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land in EPA Region 4
INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land in EPA Region 5
INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land in EPA Region 6
INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land in EPA Region 9
LAST - OH	Leaking Aboveground Storage Tanks
LUST - OH	Leaking Underground Storage Tanks
UNREG LTANKS - OH	Oil and Other releases

FEDERAL ERNS LIST

ERNS	Emergency Response Notification System

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

FED E C	Engineering Controls
FED I C	Institutional Controls
RCRA IC_EC	RCRA sites with Institutional and Engineering Controls

FEDERAL RCRA GENERATORS LIST

HIST RCRA_CESQG	Historical Resource Conservation and Recovery Act_Conditionally Exempt Small Quantity Generators
HIST RCRA_LQG	Historical Resource Conservation and Recovery Act_ Large Quantity Generators
HIST RCRA_NONGEN	Historical Resource Conservation and Recovery Act_Non Generators
HIST RCRA_SQG	Historical Resource Conservation and Recovery Act_Small Quantity Generators
RCRA_LQG	Resource Conservation and Recovery Act_ Large Quantity Generators

FEDERAL RCRA GENERATORS LIST *(cont.)*

RCRA_SQG	Resource Conservation and Recovery Act_Small Quantity Generators
RCRA_VSQG	Resource Conservation and Recovery Act_Very Small Quantity Generator

FEDERAL NPL SITE LIST

NPL	National Priority List
NPL EPA R1 GIS	GIS for EPA Region 1 NPL
NPL EPA R3 GIS	GIS for EPA Region 3 NPL
NPL EPA R6 GIS	GIS for EPA Region 6 NPL
NPL EPA R8 GIS	GIS for EPA Region 8 NPL
NPL EPA R9 GIS	GIS for EPA Region 9 NPL
PART NPL	Part National Priority List
PROPOSED NPL	Proposed National Priority List
SEMS_FINAL NPL	Sites included on the Final National Priorities List
SEMS_PROPOSED NPL	Sites Proposed to be Added to the National Priorities List

STATE AND TRIBAL BROWNFIELD SITES

TRIBAL BROWNFIELDS	Tribal Brownfields
BROWNFIELDS - OH	Brownfields

STATE INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

E C - OH	Engineering Controls
I C - OH	Institutional Controls
IC LUC - OH	Land Use and Institutional Control

STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

HIST LF - OH	Historical Landfills
HIST LF-LD - OH	Historical Land Disposal Sites
SWF/LF - OH	Solid Waste Facilities and Landfills

STATE AND TRIBAL VOLUNTARY CLEANUP SITES

VCP - OH	Voluntary Cleanup Program

LOCAL BROWNFIELD LISTS

BROWNFIELDS-ACRES	EPA ACRES Brownfields
FED BROWNFIELDS	Federal Brownfields

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

FED CDL	DOJ Clandestine Drug Labs
US HIST CDL	Historical Clandestine Drug Labs

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES

HIST INDIAN ODI R8	Historical Open Dump Inventory
INDIAN ODI R8	Open Dump Inventory
ODI	Open Dump Inventory
TRIBAL ODI	Indian Open Dump Inventory Sites
SWRCY - OH	Solid Waste Recycling

RECORDS OF EMERGENCY RELEASE REPORTS

HMIRS (DOT)	Hazardous Materials Information Reporting Systems
SPILLS - OH	Emergency Response Database

LOCAL LAND RECORDS

LIENS 2	CERCLA Lien Information

OTHER ASCERTAINABLE RECORDS

AFS	Air Facility Systems
ALT FUELING	Alternative Fueling Stations
ARENAS	ARENAS
ARENAS 2	ARENAS (additional)
BRS	Biennial Reporting Systems
CDC HAZDAT	Hazardous Substance Release and Health Effects Information

OTHER ASCERTAINABLE RECORDS *(cont.)*

CHURCHES	CHURCHES
COAL ASH DOE	Coal Ash: Department of Energy
COAL ASH EPA	Coal Ash: Environmental Protection Agency
COAL GAS	Coal Gas Plants
COLLEGES	COLLEGES
COLLEGES 2	COLLEGES 2
CONSENT (DECREES)	Superfund Consent Decree
CORRECTIVE ACTIONS_2020	Wastes - Hazardous Waste - Corrective Action
DAYCARE	DAYCARE
DEBRIS EPA LF	EPA Disaster Debris Landfill Sites
DEBRIS EPA SWRCY	EPA Disaster Debris Recovery Sites
DOCKET CRIM PROS 2	Additional Docket criminal prosecution cases
DOD	Department of Defense
DOT OPS	Department of Transportation Office of Pipeline Safety
ECHO	EPA Enforcement and Compliance History Online
ENOI	Electronic Notice of Intent
EPA FUELS	EPA Fuels Registration, Reporting, and Compliance List
EPA OSC	EPA On-Site Coordinator
EPA WATCH	EPA Watch List
FA HWF	Financial Assurance for Hazardous Waste Facilities
FEDLAND	Federal Lands
FRS	Facility Index Systems
FTTS	FIFRA/TSCA Tracking System
FTTS INSP	FIFRA/TSCA Tracking System: Inspections
FUDS	Formerly Used Defense Sites
GOV MANSIONS	Governors Mansions
HIST AFS	Historical Air Facility Systems
HIST AFS 2	Historical Air Facility Systems
HIST DOD	Department of Defense historical sites
HIST LEAD_SMELTER	Historical Lead Smelter Sites
HIST MLTS	Historical Material Licensing Tracking Systems
HIST PCB TRANS	Historical Polychlorinated Biphenyl (PCB) Facilities
HIST PCS ENF	Historical Enforced Permit Compliance Facilities
HIST PCS FACILITY	Historical Permit Compliance Facilities
HIST SSTS	Historical Section 7 Tracking Systems
HOSPITALS	HOSPITALS
HWC DOCKET	Hazardous Waste Compliance Docket
ICIS	Integrated Compliance Information System
INACTIVE PCS	Inactive Permit Compliance Facilities
INDIAN RESERVATION	American Indian Lands
LUCIS	Land Use Control Information Systems
LUCIS 2	Land Use Control Information Systems 2
MGP	Manufactured Gas Plant Sites
MINE OPERATIONS	Mines list from USGS
MINES	Mines
MINES USGS	Mines list from USGS
MLTS	Material Licensing Tracking Systems
NPL AOC	Areas related to NPL remediation sites
NPL LIENS	National Priority List Liens
NURSING HOMES	NURSING HOMES
OSHA	Occupational Safety & Health Administration
PADS	PCB Activity Database Systems
PCB TRANSFORMER	Polychlorinated Biphenyl (PCB) Waste
PCS ENF	Enforced Permit Compliance Facilities
PCS FACILITY	Permit Compliance Facilities
PFAS FED SITES	PFAS Federal Sites
PFAS INDUSTRY	PFAS Industry
PFAS MANIFEST	PFAS Manifest

OTHER ASCERTAINABLE RECORDS *(cont.)*

PFAS NPL	PFAS NPL Sites
PFAS PROD	PFAS Production
PFAS SPILLS	PFAS Spill Sites
PFAS TRIS	PFAS TRIS Sites
PFAS UCMR3	PFAS UCMR Samples
PFAS WQP	PFAS Water Quality Portal
PRISONS	PRISONS
RAATS	RCRA Administrative Action Tracking Systems
RADINFO	Radiation Information Systems
RMP	Risk Management Plans
ROD	Record of Decision
SCHOOLS PRIVATE	SCHOOLS PRIVATE
SCHOOLS PUBLIC	SCHOOLS PUBLIC
SCRD DRYCLEANERS	SCRD Drycleaners
SEMS_SMELTER	Sites on SEMS Potential Smelter Activity
SSTS	Section 7 Tracking Systems
STORMWATER	Storm Water Permits
TOSCA-PLANT	Toxic Substance Control Act: Plants
TRIS	Toxic Release Inventory Systems
UMTRA	Uranium Mill Tailing Sites
VAPOR	EPA Vapor Intrusion
AIRS - OH	Air Permits
COAL ASH - OH	Coal Ash Disposal Facilities
COAL ASH 2 - OH	Coal Ash Disposal Facilities
CRO - OH	Cessation of Regulated Operations
DAYCARE - OH	Daycare listing
DERR - OH	Division of Emergency & Remedial Response's Database
DRYCLEANERS - OH	Drycleaners
HIST NPDES - OH	Historical National Pollutant Discharge Elimination System
HIST USD - OH	Urban Setting Designation Sites: Withdrawn
MINES - OH	Coal & Industrial Mines
MINES 2 - OH	Coal Mine openings
MINES AUM - OH	Abandoned Mines
NPDES - OH	State Wastewater and NPDES Permits
PFAS - OH	PFAS Water Samples
SLUDGE - OH	Sludge
STORMWATER - OH	State NPDES Stormwater Permits
TOWN GAS - OH	Town Gas
UIC - OH	Underground Injection Controls
USD - OH	Urban Setting Designation Sites

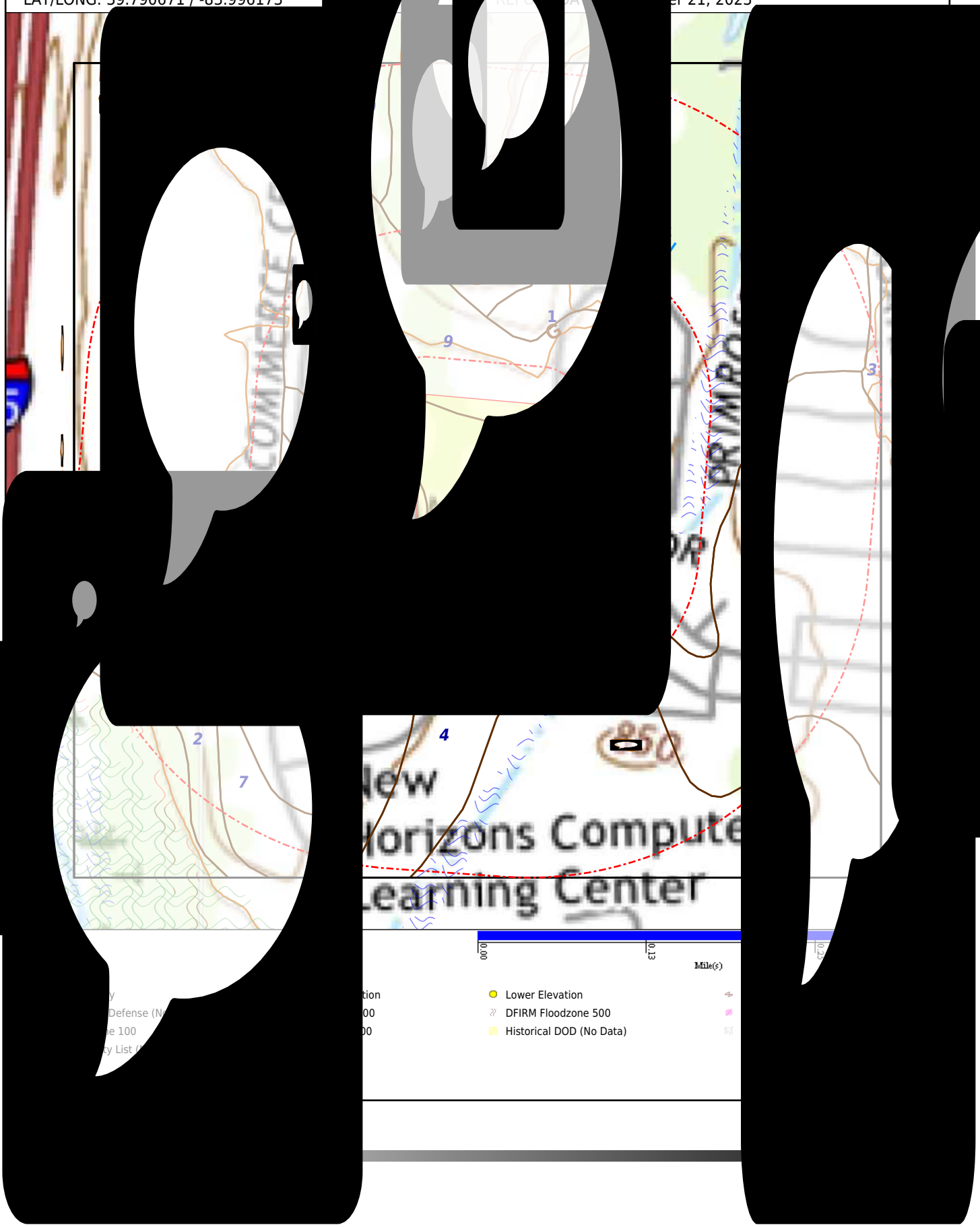
SUBJECT NAME: Senior Village at Valle Greene
ADDRESS: Channingway, Fairborn, OH, 45324
LAT/LONG: 39.790671 / -83.996173

PREPARED FOR: Kilbane Environmental
ORDER #: 92707
REPORT DATE: November 21, 2023



- Subject Property
- Department of Defense (No Data)
- FEMA FloodZone 100
- National Priority List (No Data)
- Equal/Higher Elevation
- DFIRM Floodzone 100
- FEMA FloodZone 500
- NWI
- Lower Elevation
- DFIRM Floodzone 500
- Historical DOD (No Data)
- CDC HAZDAT (No Data)
- Federal Lands (No Data)
- Indian Reservation (No Data)

SUBJECT NAME: Senior Village at Valle Gr[redacted] Environmental
ADDRESS: Channingway, Fairborn, OH, 4[redacted]
LAT/LONG: 39.790671 / -83.996173 [redacted]er 21, 2023



DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS								
AST PBS		0.250	0	0	--	--	--	0
EPA UST		0.250	0	0	--	--	--	0
FEMA UST		0.250	0	0	--	--	--	0
HIST INDIAN UST R6		0.250	0	0	--	--	--	0
HIST INDIAN UST R7		0.250	0	0	--	--	--	0
INDIAN UST R1		0.250	0	0	--	--	--	0
INDIAN UST R10		0.250	0	0	--	--	--	0
INDIAN UST R2		0.250	0	0	--	--	--	0
INDIAN UST R4		0.250	0	0	--	--	--	0
INDIAN UST R5		0.250	0	0	--	--	--	0
INDIAN UST R6		0.250	0	0	--	--	--	0
INDIAN UST R7		0.250	0	0	--	--	--	0
INDIAN UST R8		0.250	0	0	--	--	--	0
INDIAN UST R9		0.250	0	0	--	--	--	0
ARCHIVE UST - OH		0.250	0	0	--	--	--	0
AST - OH		0.250	0	0	--	--	--	0
HIST AST - OH		0.250	0	0	--	--	--	0
UST - OH		0.250	0	0	--	--	--	0
FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST								
ARCHIVED RCRA TSDF		0.500	0	0	0	--	--	0
RCRA_TSDF		0.500	0	0	0	--	--	0
FEDERAL CERCLIS LIST								
CERCLIS NFRAP		0.500	0	0	0	--	--	0
CERCLIS-HIST		0.500	0	0	0	--	--	0
EPA SAA		0.500	0	0	0	--	--	0
FEDERAL FACILITY		1.000	0	0	0	0	--	0
SEMS_8R_ACTIVE SITES		0.500	0	0	0	--	--	0
SEMS_8R_ARCHIVED SITES		0.500	0	0	0	--	--	0
FEDERAL RCRA CORRACTS FACILITIES LIST								
CORRACTS		1.000	0	0	0	0	--	0
HIST CORRACTS 2		1.000	0	0	0	0	--	0
FEDERAL DELISTED NPL SITE LIST								
DELISTED NPL		1.000	0	0	0	0	--	0
DELISTED PROPOSED NPL		1.000	0	0	0	0	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
FEDERAL DELISTED NPL SITE LIST *(cont.)*								
SEMS_DELETED NPL		1.000	0	0	0	0	--	0
FEDERAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS								
EPA LF MOP		0.500	0	0	0	--	--	0
FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS								
EPA LUST		0.500	0	0	0	--	--	0
HIST INDIAN LUST R4		0.500	0	0	0	--	--	0
HIST INDIAN LUST R8		0.500	0	0	0	--	--	0
INDIAN LUST R1		0.500	0	0	0	--	--	0
INDIAN LUST R10		0.500	0	0	0	--	--	0
INDIAN LUST R2		0.500	0	0	0	--	--	0
INDIAN LUST R4		0.500	0	0	0	--	--	0
INDIAN LUST R5		0.500	0	0	0	--	--	0
INDIAN LUST R6		0.500	0	0	0	--	--	0
INDIAN LUST R7		0.500	0	0	0	--	--	0
INDIAN LUST R8		0.500	0	0	0	--	--	0
INDIAN LUST R9		0.500	0	0	0	--	--	0
LAST - OH		0.500	0	0	0	--	--	0
LUST - OH		0.500	0	0	0	--	--	0
UNREG LTANKS - OH		0.500	0	0	0	--	--	0
FEDERAL ERNS LIST								
ERNS		SP	0	--	--	--	--	0
FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES								
FED E C		0.500	0	0	0	--	--	0
FED I C		0.500	0	0	0	--	--	0
RCRA IC_EC		0.250	0	0	--	--	--	0
FEDERAL RCRA GENERATORS LIST								
HIST RCRA_CESQG		0.250	0	0	--	--	--	0
HIST RCRA_LQG		0.250	0	0	--	--	--	0
HIST RCRA_NONGEN		0.250	0	0	--	--	--	0
HIST RCRA_SQG		0.250	0	0	--	--	--	0
RCRA_LQG		0.250	0	0	--	--	--	0
RCRA_NONGEN		0.250	0	1	--	--	--	1
RCRA_SQG		0.250	0	0	--	--	--	0
RCRA_VSQG		0.250	0	0	--	--	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
FEDERAL NPL SITE LIST								
NPL		1.000	0	0	0	0	--	0
NPL EPA R1 GIS		1.000	0	0	0	0	--	0
NPL EPA R3 GIS		1.000	0	0	0	0	--	0
NPL EPA R6 GIS		1.000	0	0	0	0	--	0
NPL EPA R8 GIS		1.000	0	0	0	0	--	0
NPL EPA R9 GIS		1.000	0	0	0	0	--	0
PART NPL		1.000	0	0	0	0	--	0
PROPOSED NPL		1.000	0	0	0	0	--	0
SEMS_FINAL NPL		1.000	0	0	0	0	--	0
SEMS_PROPOSED NPL		1.000	0	0	0	0	--	0
STATE AND TRIBAL BROWNFIELD SITES								
TRIBAL BROWNFIELDS		0.500	0	0	0	--	--	0
BROWNFIELDS - OH		0.500	0	0	0	--	--	0
STATE INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES								
E C - OH		0.500	0	0	0	--	--	0
I C - OH		0.500	0	0	0	--	--	0
IC LUC - OH		0.500	0	0	0	--	--	0
STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS								
HIST LF - OH		0.500	0	0	0	--	--	0
HIST LF-LD - OH		0.500	0	0	0	--	--	0
SWF/LF - OH		0.500	0	0	0	--	--	0
STATE AND TRIBAL VOLUNTARY CLEANUP SITES								
VCP - OH		0.500	0	0	0	--	--	0
LOCAL BROWNFIELD LISTS								
BROWNFIELDS-ACRES		0.500	0	0	0	--	--	0
FED BROWNFIELDS		0.500	0	0	0	--	--	0
LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES								
FED CDL		SP	0	--	--	--	--	0
US HIST CDL		SP	0	--	--	--	--	0
LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES								
HIST INDIAN ODI R8		0.500	0	0	0	--	--	0
INDIAN ODI R8		0.500	0	0	0	--	--	0
ODI		0.500	0	0	0	--	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES *(cont.)*								
TRIBAL ODI		0.500	0	0	0	--	--	0
SWRCY - OH		0.500	0	0	0	--	--	0
RECORDS OF EMERGENCY RELEASE REPORTS								
HMIRS (DOT)		SP	0	--	--	--	--	0
SPILLS - OH		0.125	0	--	--	--	--	0
LOCAL LAND RECORDS								
LIENS 2		SP	0	--	--	--	--	0
OTHER ASCERTAINABLE RECORDS								
AFS		SP	0	--	--	--	--	0
ALT FUELING		0.250	0	0	--	--	--	0
ARENAS		SP	0	--	--	--	--	0
ARENAS 2		SP	0	--	--	--	--	0
BRS		SP	0	--	--	--	--	0
CDC HAZDAT		1.000	0	0	0	0	--	0
CHURCHES		SP	0	--	--	--	--	0
COAL ASH DOE		0.500	0	0	0	--	--	0
COAL ASH EPA		0.500	0	0	0	--	--	0
COAL GAS		1.000	0	0	0	0	--	0
COLLEGES		SP	0	--	--	--	--	0
COLLEGES 2		SP	0	--	--	--	--	0
CONSENT (DECREES)		1.000	0	0	0	0	--	0
CORRECTIVE ACTIONS_2020		0.500	0	0	0	--	--	0
DAYCARE		SP	0	--	--	--	--	0
DEBRIS EPA LF		0.500	0	0	0	--	--	0
DEBRIS EPA SWRCY		0.500	0	0	0	--	--	0
DOCKET CRIM PROS 2		SP	0	--	--	--	--	0
DOD		1.000	0	0	0	0	--	0
DOT OPS		SP	0	--	--	--	--	0
ECHO		SP	0	--	--	--	--	0
ENOI		SP	0	--	--	--	--	0
EPA FUELS		SP	0	--	--	--	--	0
EPA OSC		0.125	0	--	--	--	--	0
EPA WATCH		SP	0	--	--	--	--	0
FA HWF		SP	0	--	--	--	--	0
FEDLAND		1.000	0	0	0	0	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
OTHER ASCERTAINABLE RECORDS *(cont.)*								
FRS		SP	0	--	--	--	--	0
FTTS		SP	0	--	--	--	--	0
FTTS INSP		SP	0	--	--	--	--	0
FUDS		1.000	0	0	0	0	--	0
GOV MANSIONS		SP	0	--	--	--	--	0
HIST AFS		SP	0	--	--	--	--	0
HIST AFS 2		SP	0	--	--	--	--	0
HIST DOD		1.000	0	0	0	0	--	0
HIST LEAD_SMELTER		SP	0	--	--	--	--	0
HIST MLTS		SP	0	--	--	--	--	0
HIST PCB TRANS		SP	0	--	--	--	--	0
HIST PCS ENF		SP	0	--	--	--	--	0
HIST PCS FACILITY		SP	0	--	--	--	--	0
HIST SSTS		SP	0	--	--	--	--	0
HOSPITALS		SP	0	--	--	--	--	0
HWC DOCKET		SP	0	--	--	--	--	0
ICIS		SP	0	--	--	--	--	0
INACTIVE PCS		SP	0	--	--	--	--	0
INDIAN RESERVATION		1.000	0	0	0	0	--	0
LUCIS		0.500	0	0	0	--	--	0
LUCIS 2		0.500	0	0	0	--	--	0
MANIFEST EPA		0.250	2	0	--	--	--	2
MGP		1.000	0	0	0	0	--	0
MINE OPERATIONS		0.250	0	0	--	--	--	0
MINES		0.250	0	0	--	--	--	0
MINES USGS		0.250	0	0	--	--	--	0
MLTS		SP	0	--	--	--	--	0
NPL AOC		1.000	0	0	0	0	--	0
NPL LIENS		SP	0	--	--	--	--	0
NURSING HOMES		SP	0	--	--	--	--	0
OSHA		SP	0	--	--	--	--	0
PADS		SP	0	--	--	--	--	0
PCB TRANSFORMER		SP	0	--	--	--	--	0
PCS ENF		SP	0	--	--	--	--	0
PCS FACILITY		SP	0	--	--	--	--	0
PFAS FED SITES		0.500	0	0	0	--	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
OTHER ASCERTAINABLE RECORDS *(cont.)*								
PFAS INDUSTRY		0.500	0	0	0	--	--	0
PFAS MANIFEST		0.500	0	0	0	--	--	0
PFAS NPL		0.500	0	0	0	--	--	0
PFAS PROD		0.500	0	0	0	--	--	0
PFAS SPILLS		0.500	0	0	0	--	--	0
PFAS TRIS		0.500	0	0	0	--	--	0
PFAS UCMR3		0.500	0	0	0	--	--	0
PFAS WQP		0.500	0	0	0	--	--	0
PRISONS		SP	0	--	--	--	--	0
RAATS		SP	0	--	--	--	--	0
RADINFO		SP	0	--	--	--	--	0
RMP		0.250	0	0	--	--	--	0
ROD		1.000	0	0	0	0	--	0
SCHOOLS PRIVATE		SP	0	--	--	--	--	0
SCHOOLS PUBLIC		SP	0	--	--	--	--	0
SCRD DRYCLEANERS		0.250	0	0	--	--	--	0
SEMS_SMELTER		SP	0	--	--	--	--	0
SSTS		SP	0	--	--	--	--	0
STORMWATER		SP	0	--	--	--	--	0
TOSCA-PLANT		SP	0	--	--	--	--	0
TRIS		SP	0	--	--	--	--	0
UMTRA		0.500	0	0	0	--	--	0
VAPOR		0.500	0	0	0	--	--	0
AIRS - OH		SP	0	--	--	--	--	0
COAL ASH - OH		0.500	0	0	0	--	--	0
COAL ASH 2 - OH		0.500	0	0	0	--	--	0
CRO - OH		0.250	0	0	--	--	--	0
DAYCARE - OH		SP	0	--	--	--	--	0
DERR - OH		0.500	0	0	0	--	--	0
DRYCLEANERS - OH		0.250	0	0	--	--	--	0
HIST NPDES - OH		SP	0	--	--	--	--	0
HIST USD - OH		SP	0	--	--	--	--	0
MINES - OH		0.250	0	0	--	--	--	0
MINES 2 - OH		0.250	0	0	--	--	--	0
MINES AUM - OH		0.250	0	0	--	--	--	0
NPDES - OH		SP	0	--	--	--	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
OTHER ASCERTAINABLE RECORDS *(cont.)*								
PFAS - OH		0.500	0	0	0	--	--	0
SLUDGE - OH		0.500	0	0	0	--	--	0
STORMWATER - OH		SP	0	--	--	--	--	0
TOWN GAS - OH		1.000	0	0	0	0	--	0
UIC - OH		SP	0	--	--	--	--	0
USD - OH		SP	0	--	--	--	--	0

Map Id: A1
Direction: SSW
Distance: 0.076 mi., 402 ft.
Elevation: 859 ft.
Relative: Higher

Site Name : P+B ELECTRIC
1835 SUCLESFUL DR
Fairborn, OH 45324

Database(s) : [MANIFEST EPA]

Envirosite ID: 54037766
EPA ID: OH-VSQG

MANIFEST EPA

Manifest Details

Manifest Number :	022106404JJK
Shipped Date :	2022-11-30
Updated Date :	2022-12-08
Received Date :	2022-11-30
Status :	Signed
Generator ID :	OH-VSQG
Generator Name :	P+B ELECTRIC
Generator Address :	1835 SUCLESFUL DR, Fairborn, OH 45324
Generator Mailing :	1835 SUCLESFUL DR, Fairborn, OH 45324
Generator Contact :	N/R
Destination ID :	TNR000042119
Destination Name :	LIGHTING RESOURCES LLC
Destination Mailing :	128 LP AUER ROAD, JOHNSON CITY, TN 37604-5129
Destination Address :	300 BOGGS LANE, JOHNSON CITY, TN 37604
Destination Contact :	N/R
Submission Type :	DataImage5Copy
Origin Type :	Web
Manifest Residue :	N
Rejection :	N
Last Date in Agency List :	2023-09-26

Waste Details

Waste Line Number :	1
Is DOT Hazardous :	Y
DOT ID Number :	UN3077
DOT Information :	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCES SOLID, N.O.S., (MERCURY), 9, PGIII, RQ
Non Waste Description :	N/R
Quantity :	1507 Pounds
Quantity Tons, Acute, Non-Acute :	0.7535, 0, 0.7535
Quantity Kg, Acute, Non-Acute :	0, 683.44714
Quantity Tons, Haz, Non-Haz :	0.7535, 0
Quantity Kg, Haz, Non-Haz :	683.44714, 0
Management Method :	H011 - MERCURY RECOVERY
Is EPA Waste :	Y
Federal Code :	D009
State Code :	N/R

Map Id: A2
Direction: SSW
Distance: 0.078 mi., 412 ft.
Elevation: 859 ft.
Relative: Higher

Site Name : P + B ELECTRIC | P & B ELECTRIC
1835 SUCCESFUL DR | 1835 SUCCESSFUL DRIVE
Fairborn, OH 45324

Database(s) : [MANIFEST EPA]

Envirosite ID: 54037765
EPA ID: CESQG

MANIFEST EPA

Manifest Details

Manifest Number :	022106256JJK
Shipped Date :	2022-03-29
Updated Date :	2022-04-18
Received Date :	2022-03-30
Status :	Signed
Generator ID :	VSQG
Generator Name :	P + B ELECTRIC
Generator Address :	1835 SUCCESFUL DR, Fairborn, OH 45324
Generator Mailing :	1835 SUCCESFUL DR, Fairborn, OH 45324
Generator Contact :	N/R
Destination ID :	TNR000042119
Destination Name :	LIGHTING RESOURCES LLC
Destination Mailing :	128 LP AUER ROAD, JOHNSON CITY, TN 37604-5129
Destination Address :	300 BOGGS LANE, JOHNSON CITY, TN 37604
Destination Contact :	N/R
Submission Type :	DataImage5Copy
Origin Type :	Web
Manifest Residue :	N
Rejection :	N
Last Date in Agency List :	2023-09-22

Waste Details

Waste Line Number :	1
Is DOT Hazardous :	Y
DOT ID Number :	UN3077
DOT Information :	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., (MERCURY), 9, PGIII, RQ
Non Waste Description :	N/R
Quantity :	832 Pounds
Quantity Tons, Acute, Non-Acute :	0.416, 0, 0.416
Quantity Kg, Acute, Non-Acute :	0, 377.3245
Quantity Tons, Haz, Non-Haz :	0.416, 0
Quantity Kg, Haz, Non-Haz :	377.3245, 0
Management Method :	H011 - MERCURY RECOVERY
Is EPA Waste :	Y
Federal Code :	D009
State Code :	N/R

Manifest Details

Manifest Number :	019869637JJK
Shipped Date :	2020-07-20
Updated Date :	2020-09-10
Received Date :	2020-07-22
Status :	Signed
Generator ID :	CESQG
Generator Name :	P & B ELECTRIC
Generator Address :	1835 SUCCESSFUL DRIVE, Fairborn, OH 45324
Generator Mailing :	1835 SUCCESSFUL DRIVE, Fairborn, OH 45324
Generator Contact :	N/R

Map Id: A2
Direction: SSW
Distance: 0.078 mi., 412 ft.
Elevation: 859 ft.
Relative: Higher

Site Name : P + B ELECTRIC | P & B ELECTRIC
1835 SUCCESFUL DR | 1835 SUCCESSFUL DRIVE
Fairborn, OH 45324

Database(s) : [MANIFEST EPA] ***(cont.)***

Envirosite ID: 54037765
EPA ID: CESQG

MANIFEST EPA ***(cont.)***

Destination ID :	IN0000351387
Destination Name :	LIGHTING RESOURCES LLC
Destination Mailing :	498 PARK 800 DR, GREENWOOD, IN 46143-9525
Destination Address :	498 PARK 800 DR, GREENWOOD, IN 46143-9525
Destination Contact :	N/R
Submission Type :	DataImage5Copy
Origin Type :	Web
Manifest Residue :	N
Rejection :	N
Last Date in Agency List :	2023-09-26

Waste Details

Waste Line Number :	1
Is DOT Hazardous :	Y
DOT ID Number :	NA3077
DOT Information :	NA3077, ENVIRONMENTALLY HAZARDOUS WASTE, SOLID, N.O.S., 9, PG111, (MERCURY), RQ
Non Waste Description :	N/R
Quantity :	500 Pounds
Quantity Tons, Acute, Non-Acute :	0.25, 0, 0.25
Quantity Kg, Acute, Non-Acute :	0, 226.7575
Quantity Tons, Haz, Non-Haz :	0.25, 0
Quantity Kg, Haz, Non-Haz :	226.7575, 0
Management Method :	H011 - MERCURY RECOVERY
Is EPA Waste :	Y
Federal Code :	D009
State Code :	N/R

Manifest Details

Manifest Number :	016848741JJK
Shipped Date :	2019-06-03
Updated Date :	2019-12-05
Received Date :	2019-06-13
Status :	Signed
Generator ID :	CESQG
Generator Name :	P & B ELECTRIC
Generator Address :	1835 SUCCESSFUL DRIVE, Fairborn, OH 45324
Generator Mailing :	1835 SUCCESSFUL DRIVE, Fairborn, OH 45324
Generator Contact :	N/R
Destination ID :	IN0000351387
Destination Name :	LIGHTING RESOURCES INCORPORATED
Destination Mailing :	498 PARK 800 DR, GREENWOOD, IN 46143-9525
Destination Address :	498 PARK 800 DR, GREENWOOD, IN 46143-9525
Destination Contact :	N/R
Submission Type :	DataImage5Copy
Origin Type :	Web
Manifest Residue :	N
Rejection :	N
Last Date in Agency List :	2023-09-26

Map Id: A2
Direction: SSW
Distance: 0.078 mi., 412 ft.
Elevation: 859 ft.
Relative: Higher

Site Name : P + B ELECTRIC | P & B ELECTRIC
1835 SUCCESFUL DR | 1835 SUCCESSFUL DRIVE
Fairborn, OH 45324

Database(s) : [MANIFEST EPA] ***(cont.)***

Envirosite ID: 54037765
EPA ID: CESQG

MANIFEST EPA ***(cont.)***

Waste Details

Waste Line Number :	1
Is DOT Hazardous :	Y
DOT ID Number :	NA3077
DOT Information :	NA3077, ENVIRONMENTALLY HAZARDOUS WASTE, SOLID, N.O.S., 9, PGIII, (MERCURY), RQ
Non Waste Description :	N/R
Quantity :	500 Pounds
Quantity Tons, Acute, Non-Acute :	0.25, 0, 0.25
Quantity Kg, Acute, Non-Acute :	0, 226.7575
Quantity Tons, Haz, Non-Haz :	0.25, 0
Quantity Kg, Haz, Non-Haz :	226.7575, 0
Management Method :	H010 - METALS RECOVERY
Is EPA Waste :	Y
Federal Code :	D009
State Code :	N/R

Manifest Details

Manifest Number :	016849810JJK
Shipped Date :	2018-12-06
Updated Date :	2019-10-30
Received Date :	2018-12-06
Status :	Signed
Generator ID :	CESQG
Generator Name :	P & B ELECTRIC
Generator Address :	1835 SUCCESSFUL DRIVE, Fairborn, OH 45324
Generator Mailing :	1835 SUCCESSFUL DRIVE, Fairborn, OH 45324
Generator Contact :	N/R
Destination ID :	IN0000351387
Destination Name :	LIGHTING RESOURCES INCORPORATED
Destination Mailing :	498 PARK 800 DR, GREENWOOD, IN 46143-9525
Destination Address :	498 PARK 800 DR, GREENWOOD, IN 46143-9525
Destination Contact :	N/R
Submission Type :	DataImage5Copy
Origin Type :	Web
Manifest Residue :	N
Rejection :	N
Last Date in Agency List :	2023-09-26

Waste Details

Waste Line Number :	1
Is DOT Hazardous :	Y
DOT ID Number :	NA3077
DOT Information :	NA3077, ENVIRONMENTALLY HAZARDOUS WASTE, SOLID, N.O.S., 9, PG111, (MERCURY), RQ
Non Waste Description :	N/R
Quantity :	420 Pounds
Quantity Tons, Acute, Non-Acute :	0.21, 0, 0.21

Map Id: A2
Direction: SSW
Distance: 0.078 mi., 412 ft.
Elevation: 859 ft.
Relative: Higher

Site Name : P + B ELECTRIC | P & B ELECTRIC
1835 SUCCESFUL DR | 1835 SUCCESSFUL DRIVE
Fairborn, OH 45324

Database(s) : [MANIFEST EPA] ***(cont.)***

Envirosite ID: 54037765
EPA ID: CESQG

MANIFEST EPA ***(cont.)***

Quantity Kg, Acute, Non-Acute :	0, 190.4763
Quantity Tons, Haz, Non-Haz :	0.21, 0
Quantity Kg, Haz, Non-Haz :	190.4763, 0
Management Method :	H010 - METALS RECOVERY
Is EPA Waste :	Y
Federal Code :	D009
State Code :	N/R

Manifest Details

Manifest Number :	016849568JJK
Shipped Date :	2018-08-20
Updated Date :	2019-09-26
Received Date :	2018-08-20
Status :	Signed
Generator ID :	CESQG
Generator Name :	P & B Electric
Generator Address :	1835 Successful Drive, Fairborn, OH 45324
Generator Mailing :	1835 Successful Drive, Fairborn, OH 45324
Generator Contact :	N/R
Destination ID :	IN0000351387
Destination Name :	LIGHTING RESOURCES INCORPORATED
Destination Mailing :	498 PARK 800 DR, GREENWOOD, IN 46143-9525
Destination Address :	498 PARK 800 DR, GREENWOOD, IN 46143-9525
Destination Contact :	N/R
Submission Type :	DataImage5Copy
Origin Type :	Web
Manifest Residue :	N
Rejection :	N
Last Date in Agency List :	2023-09-26

Waste Details

Waste Line Number :	1
Is DOT Hazardous :	Y
DOT ID Number :	NA3077
DOT Information :	RQ, HAZARDOUS WASTE, SOLID, N.O.S. 9, NA3077, PGIII (MERCURY)
Non Waste Description :	N/R
Quantity :	700 Pounds
Quantity Tons, Acute, Non-Acute :	0.35, 0, 0.35
Quantity Kg, Acute, Non-Acute :	0, 317.4605
Quantity Tons, Haz, Non-Haz :	0.35, 0
Quantity Kg, Haz, Non-Haz :	317.4605, 0
Management Method :	H010 - METALS RECOVERY
Is EPA Waste :	Y
Federal Code :	D009
State Code :	N/R

Map Id: 3
Direction: SW
Distance: 0.132 mi., 695 ft.
Elevation: 862 ft.
Relative: Higher

Site Name : NEW HORIZONS COMPUTER LEARNING CENTERS
1890 COMMERCE CENTER BLVD
FAIRBORN, OH 45324

Database(s) : [ECHO, FRS, RCRA_NONGEN]

Envirosite ID: 54037767
EPA ID: N/R

ECHO

Facility Name :	NEW HORIZONS COMPUTER LEARNING CENTERS
Facility Address :	1890 COMMERCE CENTER BLVD, FAIRBORN, OH 45324
County :	GREENE
Last Inspection Date :	N/R
Registry ID :	110041694468
FIPS Code :	39057
EPA Region :	05
Inspection Count :	0
Last Inspection Days :	N/R
Informal Count :	0
Last Informal Action Date :	2010-04-15
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	_____
Collection Method :	ADDRESS MATCHING-HOUSE NUMBER
Reference Point :	CENTER OF A FACILITY OR STATION
Accuracy Meters :	30
Derived Tribes :	N/R
Derived HUC :	05090202
Derived WBD :	050902020205
Derived STCTY FIPS :	39057
Derived Zip :	45324
Derived CD113 :	10
Derived CB2010 :	390572009003063
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	N/R

Map Id: 3
Direction: SW
Distance: 0.132 mi., 695 ft.
Elevation: 862 ft.
Relative: Higher

Site Name : NEW HORIZONS COMPUTER LEARNING CENTERS
1890 COMMERCE CENTER BLVD
FAIRBORN, OH 45324

Database(s) : [ECHO, FRS, RCRA_NONGEN] ***(cont.)***

Envirosite ID: 54037767
EPA ID: N/R

ECHO ***(cont.)***

Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	2010-04-15
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeak Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	N/R
NAA Flag :	N
Latitude :	39.78811
Longitude :	-83.99903
Last Date in Agency List :	2023-07-21

FRS

Facility Name :	NEW HORIZONS COMPUTER LEARNING CENTERS
Facility Address :	1890 COMMERCE CENTER BLVD, FAIRBORN, OH 45324
County :	GREENE

Site Details

Registry ID :	110041694468
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	2023-09-12

Source Description

Source Description :

RCRAInfo is EPA’s comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

Map Id: 3
Direction: SW
Distance: 0.132 mi., 695 ft.
Elevation: 862 ft.
Relative: Higher

Site Name : NEW HORIZONS COMPUTER LEARNING CENTERS
1890 COMMERCE CENTER BLVD
FAIRBORN, OH 45324

Database(s) : [ECHO, FRS, RCRA_NONGEN] ***(cont.)***

Envirosite ID: 54037767
EPA ID: N/R

FRS ***(cont.)***

FRS Environmental Interest

Source and System ID :	RCRAINFO - OHR000159418

RCRA_NONGEN

Facility Name :	NEW HORIZONS COMPUTER LEARNING CENTERS
Facility Address :	1890 COMMERCE CENTER BLVD, FAIRBORN, OH 45324
County :	GREENE
Date Form Received by Agency :	2021-04-14
EPA ID :	OHR000159418
Mailing Address :	N/R
Contact :	N/R
Contact Address :	N/R
Contact Country :	N/R
Contact Telephone :	N/R
Contact Email :	N/R
EPA Region :	05
Land Type :	Private
Source Type :	Implementer
Classification :	Not a generator, verified
Description :	Not a generator, verified
Last Date in Agency List :	2023-11-16

Owner/Operator Summary

Owner/Operator Name :	N/R
Owner/Operator Address :	N/R
Owner/Operator Country :	N/R
Owner/Operator Telephone :	N/R
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	N/R
Owner/Operator Type :	N/R
Owner/Operator Start Date :	N/R
Owner/Operator End Date :	N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste :	N
Mixed Waste (Haz. and Radioactive) :	N/R
Recycler of Hazardous Waste :	N
Transporter of Hazardous Waste :	N
Treater, Storer or Disposer of HW :	N
Underground Injection Activity :	N
On-site Burner Exemption :	N
Furnace Exemption :	N
Used Oil Fuel Burner :	N
Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N

Map Id: 3
Direction: SW
Distance: 0.132 mi., 695 ft.
Elevation: 862 ft.
Relative: Higher

Site Name : NEW HORIZONS COMPUTER LEARNING CENTERS
1890 COMMERCE CENTER BLVD
FAIRBORN, OH 45324

Database(s) : [ECHO, FRS, RCRA_NONGEN] ***(cont.)***

Envirosite ID: 54037767
EPA ID: N/R

RCRA_NONGEN ***(cont.)***

Used Oil Transporter : N

Historical Generators
Date Form Received by Agency : 2010-04-06
Facility Name : NEW HORIZONS COMPUTER LEARNING CENTERS
Classification : Small Quantity Generator

Notices of Violations Summary
Date of Violation : 2010-04-06
Date Achieved Compliance : 2010-04-07
Regulation Violated : Y
Area of Violation : Generators - General
Enforcement Action : WRITTEN INFORMAL
Enforcement Action Date : 2010-04-15
Enf. Disposition Status : N/R
Enf. Disp. Status Date : N/R
Violation Lead Agency : State
Enforcement Lead Agency : State
Proposed Penalty Amount : N/R
Final Penalty Amount : N/R
Paid Penalty Amount : N/R

Evaluation Action Summary
Evaluation Date : 2010-04-06
Evaluation : FOCUSED COMPLIANCE INSPECTION
Area of Violation : Generators - General
Date Achieved Compliance : 2010-04-07
Evaluation Lead Agency : State

ENVIROSITE ID	NAME	ADDRESS	CITY	ZIP	DATABASE(S)
20448652	Wright Patterson AFB, Fai...	State Rte 444	Fairborn	45324	DERR - OH
20670171	XENIA GAS & LIGHT COMPANY	SYCAMORE STREET NEAR SHAW...	XENIA	45385	TOWN GAS - OH

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS

AST PBS: Bulk petroleum terminals with a total bulk storage capacity of 50,000 barrels or more.

Agency Version Date: 08/24/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 02/14/2024
Agency: Department of Homeland Security
Agency Contact: 202-853-5361
Most Recent Contact: 11/20/2023

EPA UST: Facilities listed in the EPA UST Finder database

Agency Version Date: 07/11/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 01/02/2024
Agency: EPA
Agency Contact: (202) 566-1667
Most Recent Contact: 10/06/2023

FEMA UST: FEMA underground storage tank listing

Agency Version Date: 06/07/2023
Agency Update Frequency: Varies
Planned Next Contact: 11/28/2023
Agency: FEMA
Agency Contact: 202-212-5283
Most Recent Contact: 09/01/2023

HIST INDIAN UST R6: Historical Underground Storage Tanks on Indian Land in EPA Region 6

Agency Version Date: 12/03/2021
Agency Update Frequency: Semi Annually
Planned Next Contact: 01/23/2024
Agency: U.S. Environmental Protection Agency Region 6
Agency Contact: 855-246-3642
Most Recent Contact: 10/27/2023

HIST INDIAN UST R7: Historical Underground Storage Tanks on Indian Land in EPA Region 7

Agency Version Date: 08/10/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 01/11/2024
Agency: U.S. Environmental Protection Agency Region 7
Agency Contact: 855-246-3642
Most Recent Contact: 10/17/2023

INDIAN UST R1: Underground Storage Tanks on Indian Land in EPA Region 1

Agency Version Date: 09/22/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/19/2023
Agency: U.S. Environmental Protection Agency Region 1
Agency Contact: 855-246-3642
Most Recent Contact: 09/22/2023

INDIAN UST R10: Underground Storage Tanks on Indian Land in EPA Region 10

Agency Version Date: 10/18/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 01/12/2024
Agency: U.S. Environmental Protection Agency Region 10
Agency Contact: 855-246-3642
Most Recent Contact: 10/18/2023

INDIAN UST R2: Underground Storage Tanks on Indian Land in EPA Region 2

Agency Version Date: 12/07/2016
Agency Update Frequency: Quarterly
Planned Next Contact: 12/20/2023
Agency: U.S. Environmental Protection Agency Region 2
Agency Contact: 855-246-3642
Most Recent Contact: 09/25/2023

INDIAN UST R4: Underground Storage Tanks on Indian Land in EPA Region 4

Agency Version Date: 01/30/2023
Agency Update Frequency: Semi Annually
Planned Next Contact: 01/12/2024
Agency: U.S. Environmental Protection Agency Region 4
Agency Contact: 855-246-3642
Most Recent Contact: 10/18/2023

INDIAN UST R5: Underground Storage Tanks on Indian Land in EPA Region 5

Agency Version Date: 10/06/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/02/2024
Agency: U.S. Environmental Protection Agency Region 5
Agency Contact: 855-246-3642
Most Recent Contact: 10/06/2023

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

INDIAN UST R6: Underground Storage Tanks on Indian Land in EPA Region 6

Agency Version Date: 08/07/2023
Agency Update Frequency: Semi Annually
Planned Next Contact: 01/25/2024
Agency: U.S. Environmental Protection Agency Region 6
Agency Contact: 855-246-3642
Most Recent Contact: 10/31/2023

INDIAN UST R7: Underground Storage Tanks on Indian Land in EPA Region 7

Agency Version Date: 10/06/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/02/2024
Agency: U.S. Environmental Protection Agency Region 7
Agency Contact: 855-246-3642
Most Recent Contact: 10/06/2023

INDIAN UST R8: Underground Storage Tanks on Indian Land in EPA Region 8

Agency Version Date: 09/21/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/18/2023
Agency: U.S. Environmental Protection Agency Region 8
Agency Contact: 855-246-3642
Most Recent Contact: 09/21/2023

INDIAN UST R9: Underground Storage Tanks on Indian Land in EPA Region 9

Agency Version Date: 09/20/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/15/2023
Agency: U.S. Environmental Protection Agency Region 9
Agency Contact: 855-246-3642
Most Recent Contact: 09/20/2023

ARCHIVE UST - OH: Underground Storage Tanks that have been removed

Agency Version Date: 10/09/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/03/2024
Agency: Ohio EPA
Agency Contact: (614) 752-7938
Most Recent Contact: 10/09/2023

AST - OH: Boiler Tank Database

Agency Version Date: 06/16/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/08/2023
Agency: Department of Commerce
Agency Contact: (614) 466-3636
Most Recent Contact: 09/13/2023

HIST AST - OH: Historical Boiler Tank Database

Agency Version Date: 03/21/2023
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 12/07/2023
Agency: Department of Commerce
Agency Contact: (614) 466-3636
Most Recent Contact: 09/12/2023

UST - OH: Registered Underground Storage Tanks

Agency Version Date: 10/19/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/15/2024
Agency: Ohio EPA
Agency Contact: (614) 752-7938
Most Recent Contact: 10/19/2023

FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST

ARCHIVED RCRA TSDF: Resource Conservation and Recovery Act hazardous waste transportation storage disposal and treatment facilities

Agency Version Date: 09/01/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 11/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 09/01/2023

FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST (cont.)

RCRA_TSDF: Resource Conservation and Recovery Act hazardous waste transportation storage disposal and treatment facilities

Agency Version Date: 09/01/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 11/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 09/01/2023

FEDERAL CERCLIS LIST

CERCLIS NFRAP: The CERCLIS sites with No Further Remedial Action Planned from the CERCLIS program database. The Environmental Protection Agency decommissioned the CERCLIS data in 2014. The last update was November 12, 2013.

Agency Version Date: 10/03/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 10/03/2023

CERCLIS-HIST: The CERCLIS program database contains information on the assessment and remediation of federal hazardous waste sites. The Environmental Protection Agency decommissioned the CERCLIS data in 2014. The last update was November 12, 2013.

Agency Version Date: 10/03/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 10/03/2023

EPA SAA: Listing of Sites with Superfund Alternative Approach Agreements.

Agency Version Date: 07/10/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/29/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 10/04/2023

FEDERAL FACILITY: Sites where Federal Facilities Restoration and Reuse Office (FFRRO) arranged cleanup for Base Closure and Property Transfer at Federal Facilities

Agency Version Date: 10/03/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8712
Most Recent Contact: 10/03/2023

SEMS_8R_ACTIVE SITES: The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted. NPL sites include latitude and longitude information. For non-NPL sites, a brief site status is provided.

Agency Version Date: 10/03/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/03/2023

SEMS_8R_ARCHIVED SITES: The Archived Site Inventory displays site and location information at sites archived from SEMS. An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time.

Agency Version Date: 10/03/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/03/2023

FEDERAL RCRA CORRACTS FACILITIES LIST

CORRACTS: List of facilities where Resource Conservation and Recovery Act Corrective Action Program used to investigate and remediate hazardous releases

Agency Version Date: 09/01/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 11/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-1667
Most Recent Contact: 09/01/2023

FEDERAL RCRA CORRACTS FACILITIES LIST (cont.)

HIST CORRACTS 2: List of facilities where Resource Conservation and Recovery Act Corrective Action Program used to investigate and remediate hazardous releases that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 01/19/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-1667
Most Recent Contact: 10/25/2023

FEDERAL DELISTED NPL SITE LIST

DELISTED NPL: National Priority List of sites that were delisted and no longer require action

Agency Version Date: 10/03/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/03/2023

DELISTED PROPOSED NPL: Sites that have been delisted from the proposed National Priority List

Agency Version Date: 10/03/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/03/2023

SEMS_DELETED NPL: All Deleted National Priority List Sties

Agency Version Date: 10/03/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/03/2023

FEDERAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

EPA LF MOP: Sites in the EPA Landfill Methane Outreach Program

Agency Version Date: 08/31/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 11/27/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 08/31/2023

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS

EPA LUST: Releases listed in the EPA UST Finder database

Agency Version Date: 07/11/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 01/02/2024
Agency: EPA
Agency Contact: (202) 566-1667
Most Recent Contact: 10/06/2023

HIST INDIAN LUST R4: Historical Leaking Underground Storage Tanks on Indian Land in EPA Region 4

Agency Version Date: 08/23/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 01/11/2024
Agency: U.S. Environmental Protection Agency Region 4
Agency Contact: 855-246-3642
Most Recent Contact: 10/17/2023

HIST INDIAN LUST R8: Historical Leaking Underground Storage Tanks on Indian Land in EPA Region 8

Agency Version Date: 08/16/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 01/03/2024
Agency: U.S. Environmental Protection Agency Region 8
Agency Contact: 855-246-3642
Most Recent Contact: 10/09/2023

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land in EPA Region 1

Agency Version Date: 09/22/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/19/2023
Agency: U.S. Environmental Protection Agency Region 1
Agency Contact: 855-246-3642
Most Recent Contact: 09/22/2023

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land in EPA Region 10

Agency Version Date: 10/18/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 01/12/2024
Agency: U.S. Environmental Protection Agency Region 10
Agency Contact: 855-246-3642
Most Recent Contact: 10/18/2023

INDIAN LUST R2: Leaking Underground Storage Tanks on Indian Land in EPA Region 2

Agency Version Date: 12/07/2016
Agency Update Frequency: Quarterly
Planned Next Contact: 12/20/2023
Agency: U.S. Environmental Protection Agency Region 2
Agency Contact: 855-246-3642
Most Recent Contact: 09/25/2023

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land in EPA Region 4

Agency Version Date: 01/30/2023
Agency Update Frequency: Semi Annually
Planned Next Contact: 01/12/2024
Agency: U.S. Environmental Protection Agency Region 4
Agency Contact: 855-246-3642
Most Recent Contact: 10/18/2023

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land in EPA Region 5

Agency Version Date: 10/06/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/02/2024
Agency: U.S. Environmental Protection Agency Region 5
Agency Contact: 855-246-3642
Most Recent Contact: 10/06/2023

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land in EPA Region 6

Agency Version Date: 10/10/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 01/04/2024
Agency: U.S. Environmental Protection Agency Region 6
Agency Contact: 855-246-3642
Most Recent Contact: 10/10/2023

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land in EPA Region 7

Agency Version Date: 10/06/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/02/2024
Agency: U.S. Environmental Protection Agency Region 7
Agency Contact: 855-246-3642
Most Recent Contact: 10/06/2023

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land in EPA Region 8

Agency Version Date: 10/09/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 01/03/2024
Agency: U.S. Environmental Protection Agency Region 8
Agency Contact: 855-246-3642
Most Recent Contact: 10/09/2023

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land in EPA Region 9

Agency Version Date: 09/20/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/14/2023
Agency: U.S. Environmental Protection Agency Region 9
Agency Contact: 855-246-3642
Most Recent Contact: 09/20/2023

LAST - OH: Leaking Aboveground Storage Tanks

Agency Version Date: 08/17/2023
Agency Update Frequency: Varies
Planned Next Contact: 02/06/2024
Agency: Ohio EPA
Agency Contact: (614) 752-7938
Most Recent Contact: 11/10/2023

LUST - OH: Listing of leaking tanks

Agency Version Date: 09/25/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/20/2023
Agency: Ohio EPA
Agency Contact: (614) 752-7938
Most Recent Contact: 09/25/2023

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)

UNREG LTANKS - OH: Oil and other releases from the Ohio Department of Commerce

Agency Version Date: 08/17/2023
Agency Update Frequency: Varies
Planned Next Contact: 02/06/2024
Agency: Ohio Department of Commerce
Agency Contact: 614-387-7412
Most Recent Contact: 11/10/2023

FEDERAL ERNS LIST

ERNS: Emergency Response Notification System records of reported spills

Agency Version Date: 09/27/2023
Agency Update Frequency: Annually
Planned Next Contact: 12/22/2023
Agency: National Response Center United States Coast Guard
Agency Contact: N/R
Most Recent Contact: 09/27/2023

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

FED E C: Federal listing of remediation sites with engineering controls

Agency Version Date: 10/25/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/19/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 10/25/2023

FED I C: Federal listing of remediation sites with institutional controls

Agency Version Date: 10/25/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/19/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 10/25/2023

RCRA IC_EC: Sites with institutional or engineering controls related to Resource Conservation and Recovery Act

Agency Version Date: 10/09/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/03/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 10/09/2023

FEDERAL RCRA GENERATORS LIST

HIST RCRA_CESQG: List of Resource Conservation and Recovery Act licensed conditionally exempt small quantity generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 01/19/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 10/25/2023

HIST RCRA_LQG: List of Resource Conservation and Recovery Act licensed large quantity generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 01/22/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 10/26/2023

HIST RCRA_NONGEN: List of Resource Conservation and Recovery Act licensed non-generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 01/19/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 10/25/2023

FEDERAL RCRA GENERATORS LIST (cont.)

HIST RCRA_SQG: List of Resource Conservation and Recovery Act licensed small quantity generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 01/19/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 10/25/2023

RCRA_LQG: Resource Conservation and Recovery Act listing of licensed large quantity generators

Agency Version Date: 09/01/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 11/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 09/01/2023

RCRA_NONGEN: Resource Conservation and Recovery Act listing of licensed non-generators

Agency Version Date: 09/01/2023
Agency Update Frequency: Varies
Planned Next Contact: 11/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 09/01/2023

RCRA_SQG: Resource Conservation and Recovery Act listing of licensed small quantity generators

Agency Version Date: 09/01/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 11/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 09/01/2023

RCRA_VSQG: Resource Conservation and Recovery Act listing of licensed very small quantity generators.

Agency Version Date: 09/01/2023
Agency Update Frequency: Varies
Planned Next Contact: 11/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 09/01/2023

FEDERAL NPL SITE LIST

NPL: List of priority contaminated sites among identified releases or threatened releases of hazardous substances pollutants or contaminants nationally

Agency Version Date: 10/03/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/03/2023

NPL EPA R1 GIS: Geospatial data for the Environmental Protection Agency Region 1 National Priority List subject to environmental regulation

Agency Version Date: 10/03/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 10/03/2023

NPL EPA R3 GIS: Geospatial data for the Environmental Protection Agency Region 3 National Priority List subject to environmental regulation

Agency Version Date: 10/03/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 10/03/2023

NPL EPA R6 GIS: Geospatial data for the Environmental Protection Agency Region 6 National Priority List subject to environmental regulation

Agency Version Date: 10/03/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 10/03/2023

FEDERAL NPL SITE LIST (cont.)

NPL EPA R8 GIS: Geospatial data for the Environmental Protection Agency Region 8 National Priority List subject to environmental regulation

Agency Version Date: 10/03/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 10/03/2023

NPL EPA R9 GIS: Geospatial data for the Environmental Protection Agency Region 9 National Priority List subject to environmental regulation

Agency Version Date: 10/03/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 10/03/2023

PART NPL: Sites that are a part of an National Priority List site referred to as the parent site

Agency Version Date: 10/03/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/03/2023

PROPOSED NPL: Sites that have been proposed for the National Priority List

Agency Version Date: 10/03/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/03/2023

SEMS_FINAL NPL: All Included National Priority List Sites

Agency Version Date: 10/03/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/03/2023

SEMS_PROPOSED NPL: All Proposed National Priority List Sites

Agency Version Date: 10/03/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/03/2023

STATE AND TRIBAL BROWNFIELD SITES

TRIBAL BROWNFIELDS: Tribal brownfield remediation site listing

Agency Version Date: 02/10/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 02/12/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 11/16/2023

BROWNFIELDS - OH: Sites with Brownfields

Agency Version Date: 08/17/2023
Agency Update Frequency: Varies
Planned Next Contact: 02/07/2024
Agency: Ohio EPA
Agency Contact: (614) 644-2285
Most Recent Contact: 11/13/2023

STATE INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

E C - OH: Sites with Engineering Controls

Agency Version Date: 05/22/2023
Agency Update Frequency: Varies
Planned Next Contact: 02/07/2024
Agency: Division of Environmental Response and Revitalization
Agency Contact: (614) 644-2309
Most Recent Contact: 11/13/2023

STATE INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES (cont.)

I C - OH: Sites with Institutional Controls

Agency Version Date: 05/22/2023
Agency Update Frequency: Varies
Planned Next Contact: 02/07/2024
Agency: Division of Environmental Response and Revitalization
Agency Contact: (614) 644-2309
Most Recent Contact: 11/13/2023

IC LUC - OH: State Remedial Response Sites with Land Use Institutional Controls in Place.

Agency Version Date: 09/13/2021
Agency Update Frequency: Varies
Planned Next Contact: 02/05/2024
Agency: Division of Environmental Response and Revitalization
Agency Contact: (614) 644-2924
Most Recent Contact: 11/09/2023

STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

HIST LF - OH: Old/abandoned Solid Waste Facilities

Agency Version Date: 08/10/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/31/2024
Agency: Ohio EPA
Agency Contact: (614) 644-2782
Most Recent Contact: 11/06/2023

HIST LF-LD - OH: Database developed from Ohio EPA staff notebooks and other information dating from the mid-1970s.

Agency Version Date: 10/23/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 01/16/2024
Agency: Ohio EPA
Agency Contact: (614) 644-2782
Most Recent Contact: 10/20/2023

SWF/LF - OH: Solid Waste Landfills

Agency Version Date: 04/18/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/04/2024
Agency: Ohio EPA
Agency Contact: (614) 644-2306
Most Recent Contact: 10/10/2023

STATE AND TRIBAL VOLUNTARY CLEANUP SITES

VCP - OH: Sites with Voluntary Cleanup Program

Agency Version Date: 08/17/2023
Agency Update Frequency: Varies
Planned Next Contact: 02/07/2024
Agency: Ohio EPA
Agency Contact: (614) 644-2309
Most Recent Contact: 11/13/2023

LOCAL BROWNFIELD LISTS

BROWNFIELDS-ACRES: EPA Brownfields Assessment, Cleanup and Redevelopment Exchange System.

Agency Version Date: 08/17/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 02/07/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 11/13/2023

FED BROWNFIELDS: Federal brownfield remediation sites

Agency Version Date: 07/03/2023
Agency Update Frequency: Semi Annually
Planned Next Contact: 12/25/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 09/28/2023

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

FED CDL: The U.S. Department of Justice listing of clandestine drug lab locations

Agency Version Date: 09/18/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/13/2023
Agency: U.S. Department of Justice
Agency Contact: 202-307-7610
Most Recent Contact: 09/18/2023

US HIST CDL: The U.S. Department of Justice historical listing of clandestine drug lab locations

Agency Version Date: 08/05/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 01/15/2024
Agency: U.S. Department of Justice
Agency Contact: 202-307-7610
Most Recent Contact: 10/19/2023

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES

HIST INDIAN ODI R8: List of Region 8 Indian land open dump inventory sites maintained within the STARS program that is no longer in current agency list.

Agency Version Date: 11/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 12/06/2023
Agency: Indian Health Service
Agency Contact: 855-246-3642
Most Recent Contact: 09/11/2023

INDIAN ODI R8: Region 8 Indian land open dump inventory sites maintained within the STARS program

Agency Version Date: 07/21/2022
Agency Update Frequency: Varies
Planned Next Contact: 02/14/2024
Agency: Indian Health Service
Agency Contact: 855-246-3642
Most Recent Contact: 11/20/2023

ODI: Open dump inventory sites

Agency Version Date: 10/03/2017
Agency Update Frequency: No Update
Planned Next Contact: 01/10/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 10/16/2023

TRIBAL ODI: Indian land open dump inventory for all regions

Agency Version Date: 08/01/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/22/2024
Agency: Indian Health Service
Agency Contact: 301-443-3593
Most Recent Contact: 10/26/2023

SWRCY - OH: Recycling Facilities

Agency Version Date: 06/01/2023
Agency Update Frequency: Varies
Planned Next Contact: 11/22/2023
Agency: Ohio EPA
Agency Contact: (614) 644-2782
Most Recent Contact: 08/28/2023

RECORDS OF EMERGENCY RELEASE REPORTS

HMIRS (DOT): Hazardous Material spills reported by the Department of Transportation

Agency Version Date: 08/24/2023
Agency Update Frequency: Varies
Planned Next Contact: 02/14/2024
Agency: U.S. Department of Transportation
Agency Contact: (202) 366-4996
Most Recent Contact: 11/20/2023

SPILLS - OH: Incidents reported to the Emergency Response Unit

Agency Version Date: 09/27/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/22/2023
Agency: Ohio EPA
Agency Contact: N/R
Most Recent Contact: 09/27/2023

LOCAL LAND RECORDS

LIENS 2: Comprehensive Environmental Response Compensation and Liability Act sites with liens

Agency Version Date: 05/11/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 02/13/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 11/17/2023

OTHER ASCERTAINABLE RECORDS

AFS: Air Facility Systems Quarterly Extract

Agency Version Date: 07/07/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 10/03/2023

ALT FUELING: Alternative Fueling Stations by fuel type.

Agency Version Date: 08/31/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 11/27/2023
Agency: U.S. Department of Energy
Agency Contact: N/R
Most Recent Contact: 08/31/2023

ARENAS: List of Arenas and Sport Venues

Agency Version Date: 04/28/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/16/2024
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 10/20/2023

ARENAS 2: List of Convention Centers and Fairgrounds

Agency Version Date: 07/24/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/12/2024
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 10/18/2023

BRS: Reporting of hazardous waste generation and management from large quantity generators

Agency Version Date: 09/01/2023
Agency Update Frequency: Biennial
Planned Next Contact: 11/28/2023
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 09/01/2023

CDC HAZDAT: The Agency for Toxic Substances and Disease Registry's Hazardous Substance Release/Health Effects Database.

Agency Version Date: 10/03/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/28/2023
Agency: Agency for Toxic Substances and Disease Registry
Agency Contact: 770-488-6399
Most Recent Contact: 10/03/2023

CHURCHES: List of places of worship

Agency Version Date: 07/28/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/18/2024
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 10/24/2023

COAL ASH DOE: List of existing and planned generators with 1 megawatt or greater of combined capacity that are utilizing coal ash impoundments.

Agency Version Date: 08/21/2023
Agency Update Frequency: Varies
Planned Next Contact: 02/09/2024
Agency: Department of Energy
Agency Contact: (202) 586-8800
Most Recent Contact: 11/15/2023

OTHER ASCERTAINABLE RECORDS (cont.)

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

Agency Version Date: 02/18/2021
Agency Update Frequency: Varies
Planned Next Contact: 01/03/2024
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 10/09/2023

COAL GAS: Manufactured Gas Plant locations

Agency Version Date: 09/07/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/04/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 09/07/2023

COLLEGES: List of major Universities & Colleges

Agency Version Date: 06/28/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/19/2023
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 09/22/2023

COLLEGES 2: List of Universities & Colleges

Agency Version Date: 07/03/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/25/2023
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 09/28/2023

CONSENT (DECREES): Legal decisions regarding responsibility for Superfund locations

Agency Version Date: 10/03/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/28/2023
Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 10/03/2023

CORRECTIVE ACTIONS_2020: In 2009 the EPA created the 2020 Corrective Action Baseline list of contaminated or potentially contaminated sites with a cleanup goal to complete 95% by the year 2020. The names on the list indicate the facility owners who may or may not have caused the contamination.

Agency Version Date: 12/21/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 12/19/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: N/R
Most Recent Contact: 09/22/2023

DAYCARE: List of Daycare facilities

Agency Version Date: 06/27/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/18/2023
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 09/21/2023

DEBRIS EPA LF: EPA list of designated landfill facilities for the safe disposal of disaster debris.

Agency Version Date: 09/18/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 09/18/2023

DEBRIS EPA SWRCY: EPA list of facilities for the safe recovery, recycling, and disposal of disaster debris.

Agency Version Date: 09/18/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/13/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 09/18/2023

OTHER ASCERTAINABLE RECORDS (cont.)

DOCKET CRIM PROS 2: Criminal affirmative cases filed by the United States involving CAA CWA CERCLA EPCRA FIFRA MPRSA RCRA & TSCA.

Agency Version Date: 06/06/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 11/27/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-1744
Most Recent Contact: 08/31/2023

DOD: Department of Defense sites from the Protected Areas Database (PAD-US)

Agency Version Date: 10/03/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/28/2023
Agency: United States Geologic Survey (USGS)
Agency Contact: 1-888-275-8747
Most Recent Contact: 10/03/2023

DOT OPS: Incident Data Report

Agency Version Date: 04/27/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/16/2024
Agency: U.S. Department of Transportation
Agency Contact: (202) 366-4996
Most Recent Contact: 10/20/2023

ECHO: ECHO is EPA Enforcement and Compliance History Online website to search for facilities in your community to assess their compliance with environmental regulations related to CAA, CWA, RCRA, & SDWA.

Agency Version Date: 06/02/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 11/23/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-1667
Most Recent Contact: 08/29/2023

ENOI: The Electronic Notice of Intent (eNOI) database contains construction sites and industrial facilities that submit permit requests to EPA for Construction General Permits (CGP) and Multi-Sector General Permits (MSGP).

Agency Version Date: 03/19/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 02/02/2024
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 11/08/2023

EPA FUELS: List of companies and facilities registered to participate in EPA Fuel Programs under Title 40 CFR Part 80.

Agency Version Date: 10/09/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 01/03/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 10/09/2023

EPA OSC: Listing of oil spills and hazardous substance release sites requiring EPA On-Site Coordinators.

Agency Version Date: 05/26/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 11/16/2023

EPA WATCH: The EPA Watch List was used to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. EPA maintained the lists from 2011 - 2013.

Agency Version Date: 02/09/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 02/12/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 11/16/2023

FA HWF: Hazardous Waste Facilities with Financial Assurance

Agency Version Date: 06/16/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/07/2023
Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 09/12/2023

OTHER ASCERTAINABLE RECORDS (cont.)

FEDLAND: Federal Lands from the Protected Areas Database (PAD-US)

Agency Version Date: 10/03/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/28/2023
Agency: United States Geologic Survey (USGS)
Agency Contact: 1-888-275-8747
Most Recent Contact: 10/03/2023

FRS: Facility Registry Systems

Agency Version Date: 07/17/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/05/2024
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 10/11/2023

FTTS: Tracking of administrative and enforcement activities related to FIFRA/TSCA

Agency Version Date: 04/06/2013
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 12/01/2023
Agency: Environmental Protection Agency
Agency Contact: (202) 564-2280
Most Recent Contact: 09/05/2023

FTTS INSP: Tracking of inspections related to FIFRA/TSCA

Agency Version Date: 05/08/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 11/23/2023
Agency: Environmental Protection Agency
Agency Contact: (202) 564-2280
Most Recent Contact: 08/29/2023

FUDS: Defense sites that require cleanup

Agency Version Date: 07/18/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/08/2024
Agency: US Army Corps of Engineering
Agency Contact: (202) 761-0011
Most Recent Contact: 10/12/2023

GOV MANSIONS: List of Governors Mansions

Agency Version Date: 04/27/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/16/2024
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 10/20/2023

HIST AFS: List of Air Facility Systems Quarterly Extract that are no longer in current agency list.

Agency Version Date: 06/19/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2024
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 11/16/2023

HIST AFS 2: List of Air Facility Systems Quarterly Extract that are no longer in current agency list.

Agency Version Date: 11/26/2018
Agency Update Frequency: Quarterly
Planned Next Contact: 12/15/2023
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 09/20/2023

HIST DOD: Department of Defense historical sites

Agency Version Date: 10/03/2023
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 12/28/2023
Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 10/03/2023

HIST LEAD_SMELTER: List of former lead smelter sites that is no longer in current agency list.

Agency Version Date: 12/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 12/01/2023
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 09/05/2023

OTHER ASCERTAINABLE RECORDS (cont.)

HIST MLTS: List of sites in possession/use of radioactive materials regulated by NRC that is no longer in current agency list.

Agency Version Date: 07/13/2016
Agency Update Frequency: Annually
Planned Next Contact: 12/11/2023
Agency: Nuclear Regulatory Commission
Agency Contact: (800) 397-4209
Most Recent Contact: 09/14/2023

HIST PCB TRANS: List of PCB Disposal Facilities that are no longer in current agency list.

Agency Version Date: 01/18/2018
Agency Update Frequency: No Update
Planned Next Contact: 12/29/2023
Agency: Environmental Protection Agency
Agency Contact: (703) 308-8404
Most Recent Contact: 10/04/2023

HIST PCS ENF: List of permitted facilities to discharge wastewater (Federal equivalent to NPDES) that are no longer in current agency list.

Agency Version Date: 12/08/2018
Agency Update Frequency: Annually
Planned Next Contact: 01/12/2024
Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 10/18/2023

HIST PCS FACILITY: List of Permitted facilities to discharge wastewater (Federal equivalent to NPDES) that are no longer in current agency list.

Agency Version Date: 12/18/2018
Agency Update Frequency: Annually
Planned Next Contact: 01/12/2024
Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 10/18/2023

HIST SSTS: List of tracking of facilities who produce pesticides and their quantity that are no longer in current agency list.

Agency Version Date: 02/13/2019
Agency Update Frequency: Annually
Planned Next Contact: 01/02/2024
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 10/06/2023

HOSPITALS: List of major Hospitals

Agency Version Date: 06/28/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/19/2023
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 09/22/2023

HWC DOCKET: Listing of Federal facilities which are managing or have managed hazardous waste; or have had a release of hazardous waste.

Agency Version Date: 07/13/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 01/03/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 10/09/2023

ICIS: Comprised of all Federal Administrative and Judicial enforcement information [intended to replace PCS] by tracking enforcement and compliance information (also contains what used to be known as FFTS)

Agency Version Date: 06/06/2023
Agency Update Frequency: Varies
Planned Next Contact: 11/27/2023
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 08/31/2023

INACTIVE PCS: Inactive Permitted facilities to discharge wastewater

Agency Version Date: 06/06/2023
Agency Update Frequency: Varies
Planned Next Contact: 11/27/2023
Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 08/31/2023

OTHER ASCERTAINABLE RECORDS (cont.)

INDIAN RESERVATION: American Indian Lands from the Protected Areas Database (PAD-US)

Agency Version Date: 10/03/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/28/2023
Agency: United States Geologic Survey (USGS)
Agency Contact: 1-888-275-8747
Most Recent Contact: 10/03/2023

LUCIS: Land Use Control Information Systems

Agency Version Date: 03/08/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 11/24/2023
Agency: Department of the Navy: BRAC PMO
Agency Contact: (619) 532-0900
Most Recent Contact: 08/30/2023

LUCIS 2: Land Use Control Information Systems

Agency Version Date: 01/17/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 01/01/2024
Agency: Department of the Navy: BRAC PMO
Agency Contact: (619) 532-0900
Most Recent Contact: 10/05/2023

MANIFEST EPA: EPA Hazardous Waste Electronic Manifest System (e-Manifest)

Agency Version Date: 07/18/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 01/08/2024
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 10/12/2023

MGP: Locations of all Manufactured Gas Plants

Agency Version Date: 07/24/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 01/15/2024
Agency: Environmental Protection Agency
Agency Contact: N/R
Most Recent Contact: 10/19/2023

MINE OPERATIONS: Mine plants and operations for commodities monitored by the National Minerals Information Center of the USGS

Agency Version Date: 04/25/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/10/2024
Agency: USGS Mineral Resources Program
Agency Contact: (703) 648-5953
Most Recent Contact: 10/16/2023

MINES: Mines Master Index Files

Agency Version Date: 06/07/2023
Agency Update Frequency: Varies
Planned Next Contact: 11/28/2023
Agency: Department of Labor
Agency Contact: (202) 693-9400
Most Recent Contact: 09/01/2023

MINES USGS: Listing of all active mines and mineral plants in 2003

Agency Version Date: 04/25/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/10/2024
Agency: USGS Mineral Resources Program
Agency Contact: (703) 648-5953
Most Recent Contact: 10/16/2023

MLTS: Sites in possession/use of radioactive materials regulated by NRC

Agency Version Date: 07/03/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/22/2023
Agency: Nuclear Regulatory Commission
Agency Contact: (800) 397-4209
Most Recent Contact: 09/27/2023

NPL AOC: Areas of Concern related to NPL remediation sites

Agency Version Date: 10/03/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: Environmental Protection Agency
Agency Contact: N/R
Most Recent Contact: 10/03/2023

OTHER ASCERTAINABLE RECORDS (cont.)

NPL LIENS: National Priority List of sites with Liens

Agency Version Date: 10/03/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/03/2023

NURSING HOMES: List of Nursing Homes

Agency Version Date: 06/27/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/18/2023
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 09/21/2023

OSHA: OSHA's listing of inspections violations and fatality information

Agency Version Date: 06/05/2023
Agency Update Frequency: Varies
Planned Next Contact: 11/24/2023
Agency: Occupational Safety & Health Administration
Agency Contact: 800-321-6742
Most Recent Contact: 08/30/2023

PADS: Listing of generators transporters commercial store/ brokers and disposers of PCB

Agency Version Date: 10/02/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/27/2023
Agency: Environmental Protection Agency
Agency Contact: (703) 308-8404
Most Recent Contact: 10/02/2023

PCB TRANSFORMER: Disposal and Storage of Polychlorinated Biphenyl (PCB) Waste

Agency Version Date: 10/16/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 01/10/2024
Agency: Environmental Protection Agency
Agency Contact: (703) 308-8404
Most Recent Contact: 10/16/2023

PCS ENF: Permitted facilities to discharge wastewater (Federal equivalent to NPDES)

Agency Version Date: 06/06/2023
Agency Update Frequency: Varies
Planned Next Contact: 11/27/2023
Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 08/31/2023

PCS FACILITY: Permitted facilities to discharge wastewater (Federal equivalent to NPDES)

Agency Version Date: 06/06/2023
Agency Update Frequency: Varies
Planned Next Contact: 11/27/2023
Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 08/31/2023

PFAS FED SITES: PFAS Detection on Federal Facilities

Agency Version Date: 08/01/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 01/22/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: N/R
Most Recent Contact: 10/26/2023

PFAS INDUSTRY: List of Industries potentially handling PFAS

Agency Version Date: 08/01/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 01/22/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: N/R
Most Recent Contact: 10/26/2023

PFAS MANIFEST: PFAS Transfer Manifest

Agency Version Date: 08/01/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 01/22/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: N/R
Most Recent Contact: 10/26/2023

OTHER ASCERTAINABLE RECORDS (cont.)

PFAS NPL: List of NPL sites with PFAS or PFOA contamination

Agency Version Date: 06/20/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/11/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 09/14/2023

PFAS PROD: PFAS Production Sites

Agency Version Date: 08/01/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 01/22/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: N/R
Most Recent Contact: 10/26/2023

PFAS SPILLS: List of PFAS Spill Sites

Agency Version Date: 08/01/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 01/22/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: N/R
Most Recent Contact: 10/26/2023

PFAS TRIS: List of TRIS sites where PFAS or PFOA are used/manufactured/ treated/ transported/released.

Agency Version Date: 08/31/2023
Agency Update Frequency: Varies
Planned Next Contact: 11/27/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 08/31/2023

PFAS UCMR3: List of PWS wells sampled for Unregulated Contaminant Monitoring Rule (UCMR)

Agency Version Date: 06/02/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 02/02/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 11/08/2023

PFAS WQP: List of PFAS from Water Quality Portal

Agency Version Date: 08/01/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 01/22/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: N/R
Most Recent Contact: 10/26/2023

PRISONS: List of Prison facilities

Agency Version Date: 08/17/2023
Agency Update Frequency: Varies
Planned Next Contact: 02/07/2024
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 11/13/2023

RAATS: Listing of major violators with enforcement actions issued under RCRA. Includes administrative and civil actions filed by the EPA. This dataset is no longer maintained.

Agency Version Date: 09/23/2019
Agency Update Frequency: Varies
Planned Next Contact: 12/18/2023
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 09/21/2023

RADINFO: EPA regulated facilities with radiation and radioactive materials

Agency Version Date: 08/01/2019
Agency Update Frequency: Varies
Planned Next Contact: 12/06/2023
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 09/11/2023

RMP: Facilities producing/handling/ process/ distribute/ store specific chemicals report plans required by the Clean Air Act

Agency Version Date: 06/14/2023
Agency Update Frequency: Monthly
Planned Next Contact: 12/05/2023
Agency: Environmental Protection Agency
Agency Contact: (202) 564-2534
Most Recent Contact: 09/08/2023

OTHER ASCERTAINABLE RECORDS (cont.)

ROD: Permanent remedy at an NPL site

Agency Version Date: 10/03/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/28/2023
Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 10/03/2023

SCHOOLS PRIVATE: List of Private Schools

Agency Version Date: 06/28/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/19/2023
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 09/22/2023

SCHOOLS PUBLIC: List of Public Schools

Agency Version Date: 06/28/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/19/2023
Agency: DHS Homeland Infrastructure Foundation
Agency Contact: N/R
Most Recent Contact: 09/22/2023

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners

Agency Version Date: 08/09/2023
Agency Update Frequency: No Update
Planned Next Contact: 01/30/2024
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 11/03/2023

SEMS_SMELTER: This report includes sites that have smelting-related, or potentially smelting-related, indicators in the SEMS database. The report includes information on the site location as well as contaminants of concern.

Agency Version Date: 10/03/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/28/2023
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 10/03/2023

SSTS: Tracking of facilities who produce pesticides and their quantity

Agency Version Date: 05/18/2023
Agency Update Frequency: Annually
Planned Next Contact: 02/05/2024
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 11/09/2023

STORMWATER: Permitted storm water sites

Agency Version Date: 08/24/2023
Agency Update Frequency: Varies
Planned Next Contact: 02/14/2024
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 11/20/2023

TOSCA-PLANT: Plants controlled by the Toxic Substance Control Act

Agency Version Date: 08/22/2023
Agency Update Frequency: Varies
Planned Next Contact: 02/12/2024
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 11/16/2023

TRIS: Information regarding toxic chemicals that are being used/manufactured/ treated/ transported/released into the environment

Agency Version Date: 08/31/2023
Agency Update Frequency: Varies
Planned Next Contact: 11/27/2023
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 08/31/2023

OTHER ASCERTAINABLE RECORDS (cont.)

UMTRA: Uranium Recovery Sites

Agency Version Date: 06/21/2022
Agency Update Frequency: Varies
Planned Next Contact: 11/27/2023
Agency: United States Nuclear Regulatory Commission
Agency Contact: (301) 415-8200
Most Recent Contact: 08/31/2023

VAPOR: EPA Vapor Intrusion Database

Agency Version Date: 03/19/2021
Agency Update Frequency: Varies
Planned Next Contact: 02/05/2024
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 11/09/2023

AIRS - OH: Title V Permit listings

Agency Version Date: 06/08/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 11/28/2023
Agency: Ohio EPA
Agency Contact: (614) 644-2270
Most Recent Contact: 09/01/2023

COAL ASH - OH: Sites with Coal Ash Disposal Facilities

Agency Version Date: 01/22/2018
Agency Update Frequency: Varies
Planned Next Contact: 02/12/2024
Agency: Ohio EPA
Agency Contact: (614) 644-2782
Most Recent Contact: 11/16/2023

COAL ASH 2 - OH: Sites with Coal Ash Disposal Facilities

Agency Version Date: 01/22/2018
Agency Update Frequency: Quarterly
Planned Next Contact: 02/12/2024
Agency: Ohio EPA
Agency Contact: 614) 644-2782
Most Recent Contact: 11/16/2023

CRO - OH: Cessation of Regulated Operations Facility Listing

Agency Version Date: 09/23/2022
Agency Update Frequency: Varies
Planned Next Contact: 12/01/2023
Agency: Ohio EPA
Agency Contact: (614) 644-2621
Most Recent Contact: 09/06/2023

DAYCARE - OH: Daycare listing

Agency Version Date: 07/04/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/25/2023
Agency: Department of Job and Family Services
Agency Contact: (800) 686-1556
Most Recent Contact: 09/28/2023

DERR - OH: Sites listed in the DERR database

Agency Version Date: 10/30/2023
Agency Update Frequency: Varies
Planned Next Contact: 01/25/2024
Agency: Ohio EPA
Agency Contact: (614) 644-2304
Most Recent Contact: 10/30/2023

DRYCLEANERS - OH: Sites with Drycleaners

Agency Version Date: 09/19/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/14/2023
Agency: Ohio EPA
Agency Contact: (614) 644-2924
Most Recent Contact: 09/19/2023

HIST NPDES - OH: List of Industrial & Municipal water discharge permits that are no longer in current agency list.

Agency Version Date: 07/13/2018
Agency Update Frequency: Annually
Planned Next Contact: 01/01/2024
Agency: Ohio EPA
Agency Contact: (614) 644-2001
Most Recent Contact: 10/05/2023

OTHER ASCERTAINABLE RECORDS (cont.)

HIST USD - OH: Withdrawn sites

Agency Version Date: 10/02/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 12/27/2023
Agency: Ohio EPA
Agency Contact: (614) 644-2924
Most Recent Contact: 10/02/2023

MINES - OH: List of Coal & Industrial Mine locations

Agency Version Date: 06/26/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/18/2023
Agency: Division of Mineral Resources Management
Agency Contact: (330) 339-2207
Most Recent Contact: 09/21/2023

MINES 2 - OH: List of current & past Coal mine openings

Agency Version Date: 07/26/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/15/2023
Agency: Division of Mineral Resources Management
Agency Contact: (330) 339-2207
Most Recent Contact: 09/20/2023

MINES AUM - OH: List of Abandoned Underground Mine locations

Agency Version Date: 06/29/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/20/2023
Agency: Division of Mineral Resources Management
Agency Contact: (330) 339-2207
Most Recent Contact: 09/25/2023

NPDES - OH: Listing of facilities with wastewater and NPDES permits

Agency Version Date: 10/02/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/27/2023
Agency: Ohio EPA
Agency Contact: (614) 644-2001
Most Recent Contact: 10/02/2023

PFAS - OH: List of wells in the statewide PFAS investigation

Agency Version Date: 10/11/2023
Agency Update Frequency: Quarterly
Planned Next Contact: 01/05/2024
Agency: Ohio EPA and Ohio Department of Health
Agency Contact: (614) 644-2160
Most Recent Contact: 10/11/2023

SLUDGE - OH: Database of sludge pits, ponds and lagoon sites. The SIABASE data was published by US EPA in 1980.

Agency Version Date: 12/25/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 01/03/2024
Agency: Ohio EPA
Agency Contact: (614) 644-2782
Most Recent Contact: 10/09/2023

STORMWATER - OH: Listing of facilities with wastewater and NPDES permits

Agency Version Date: 09/14/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/11/2023
Agency: Ohio EPA
Agency Contact: (614) 644-2001
Most Recent Contact: 09/14/2023

TOWN GAS - OH: A list of 82 sites of coal gas generators in Ohio.

Agency Version Date: 12/25/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 01/09/2024
Agency: Ohio EPA
Agency Contact: (614) 644-2782
Most Recent Contact: 10/13/2023

UIC - OH: Regulated Underground Injection Controlled wells

Agency Version Date: 08/22/2023
Agency Update Frequency: Varies
Planned Next Contact: 02/12/2024
Agency: Ohio EPA
Agency Contact: (614) 644-2752
Most Recent Contact: 11/16/2023

OTHER ASCERTAINABLE RECORDS (cont.)

USD - OH: Sites with Urban Setting Designation Sites

Agency Version Date: 10/02/2023
Agency Update Frequency: Varies
Planned Next Contact: 12/27/2023

Agency: Ohio EPA
Agency Contact: (614) 644-2924
Most Recent Contact: 10/02/2023

SUBJECT PROPERTY ADDRESS:

Senior Village at Valle Greene
Channingway
Fairborn, OH 45324

SUBJECT PROPERTY COORDINATES:

Latitude(North):	39.790671 - 39°47'26.4"
Longitude(West):	-83.996173 - -83°59'46.2"
Universal Transverse Mercator:	Zone 17N
UTM X (Meters):	243446.95
UTM Y (Meters):	4408819.33
State Plane Coordinates:	3402 - Ohio South (US Survey Feet)
X Coordinate (Feet):	1548086.112 E
Y Coordinate (Feet):	655683.636 N

ELEVATION:

Elevation:	851 ft. above sea level

USGS TOPOGRAPHIC MAP:

Subject Property Map:	39083-G8 Yellow Springs, OH
Most Recent Revision:	2019

GEOHYDROLOGY DATA:

SUBJECT PROPERTY TOPOGRAPHY:

Topographic Gradient: North

DFIRM FLOOD ZONE:

	DFIRM Flood
Subject Property County:	Electronic Data:
GREENE	Yes - refer to the PROPERTY PROXIMITY MAP and AREA MAP
Flood Plain Panel at Subject Property:	39023C0300E (Eff. date 2/17/2010) 39057C0040E (Eff. date 3/8/2022)
Additional Panels in search area:	39023C0275E (Eff. date 2/17/2010) 39113C0195E (Eff. date 1/6/2005) 39057C0020E (Eff. date 3/8/2022) 39057C0019E (Eff. date 3/8/2022)

FEMA FLOOD ZONE:

	FEMA Flood
Subject Property County:	Electronic Data:
GREENE	Yes - refer to the PROPERTY PROXIMITY MAP and AREA MAP
Flood Plain Panel at Subject Property:	3901930010B 3901930030B

Additional Panels in search area:	3901950010C 3901930025C 3901950005B 3901930005B

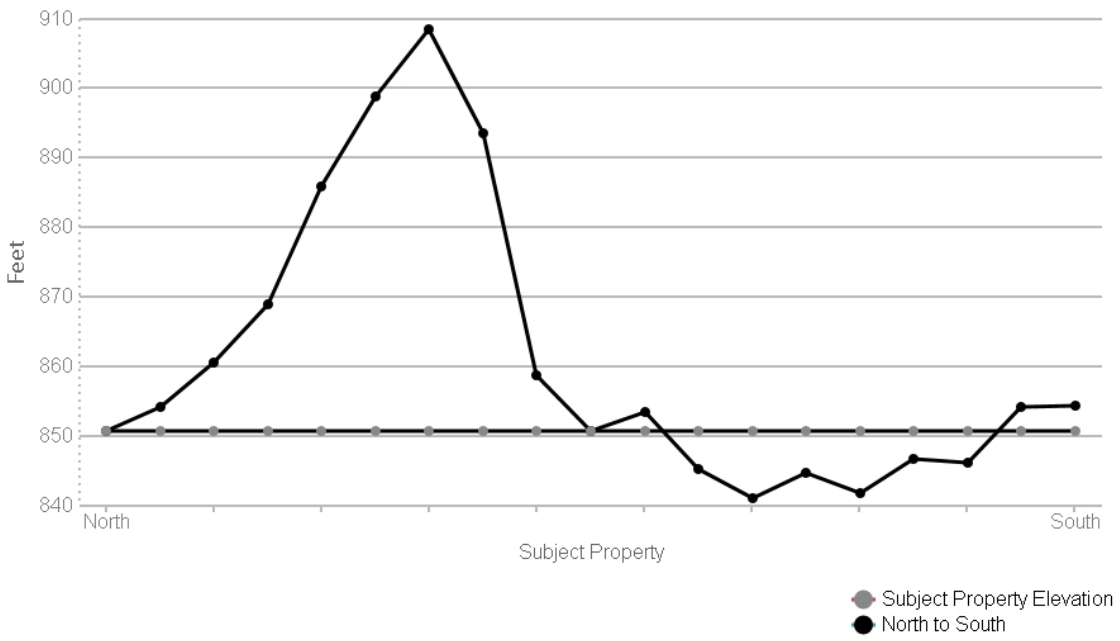
NATIONAL WETLAND INVENTORY:

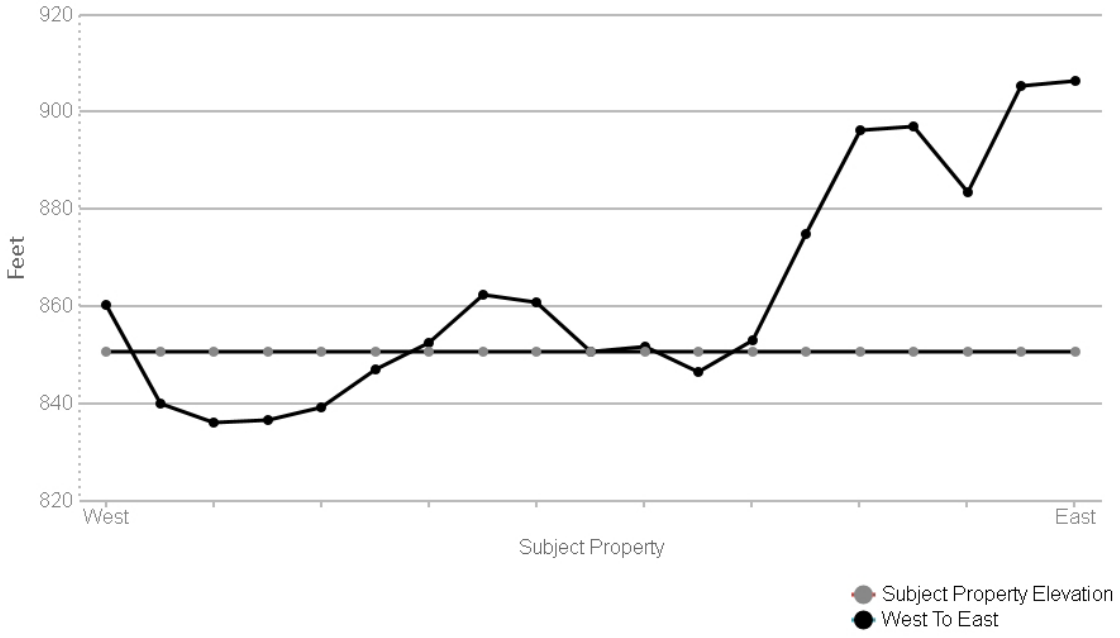
	NWI Electronic
NWI Quad at Subject Property:	Data Coverage:
Yellow Springs	Yes - refer to the Geological Findings Map

LITHOSTRATIGRAPHIC INFORMATION:

ROCK STRATIGRAPHIC UNIT:		GEOLOGIC AGE IDENTIFICATION
Era:	Paleozoic	Category: 123 O3 Upper Ordovician (Cincinnatian)
System:	Ordovician	
Series:	Upper Ordovician (Cincinnatian)	
Code:	O3	

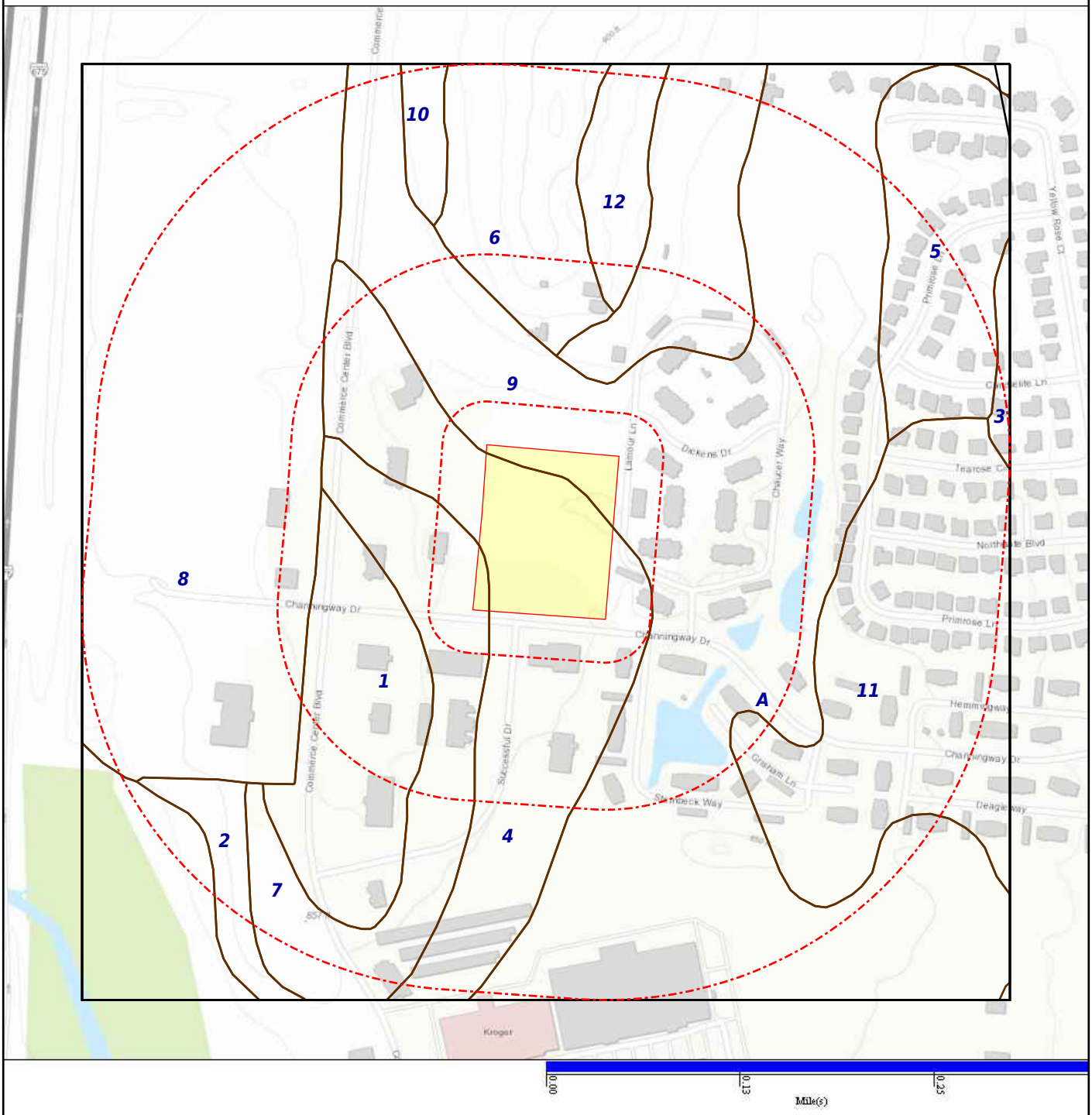
SURROUNDING ELEVATION PROFILES:





~~SUBJECT NAME: Senior Village at Valle Greene~~
~~ADDRESS: Channingway, Fairborn, OH, 45324~~
LAT/LONG: 39.790671 / -83.996173

~~PREPARED FOR: Kilbane Environmental~~
ORDER #: 92707
REPORT DATE: November 21, 2023



SOIL COMPOSITION IN GENERAL AREA OF SUBJECT PROPERTY:

Agency source: Soil Conservation Service, US Department of Agriculture

SOIL MAP ID 1	SSURGO
USDA Soil Name	Ockley,Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	B
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Low

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-23	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.3
2	23-51	Silty clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	4.5-6.5
3	51-163	Clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials,	COARSE-GRAINED SOILS, Sands, sands with fines, Clayey Sand. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and	14.11-42.34	5.1-7.3

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	51-163	Clay loam	1984.	the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	14.11-42.34	5.1-7.3
4	163-200	Loamy sand	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	141.14-705	7.4-8.4

SOIL MAP ID 2 **SSURGO**

USDA Soil Name	Eldean,Series
USDA Soil Texture	Clay loam
Hydrologic Soil Group	B
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-33	Clay loam	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM,	4.23-14.11	5.6-7.3

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-33	Clay loam	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	1984).	4.23-14.11	5.6-7.3
2	33-84	Clay loam	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.8
3	84-97	Sandy loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	COARSE-GRAINED SOILS, Sands, sands with fines, Clayey Sand. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-42.34	6.6-8.4
4	97-152	Sand	Granular materials (35% or less passing No. 200 sieve), silty or clayey gravel and sand. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and	42.34-141.14	6.6-8.4

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
4	97-152	Sand	Transportation Officials, 1984.	the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	42.34-141.14	6.6-8.4

SOIL MAP ID 3 **SSURGO**

USDA Soil Name	Ritchey,Taxadjunct
USDA Soil Texture	Silt loam
Hydrologic Soil Group	D
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-18	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.3
2	18-46	Clay	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil	4.23-14.11	6.6-8.4

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	18-46	Clay	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.6-8.4
3	46-51		No data	No data	0-4.23	0-0

SOIL MAP ID 4 **SSURGO**

USDA Soil Name	Ockley,Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	B
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Low

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-25	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.3
2	25-104	Clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size	4.23-14.11	4.5-6.5

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	25-104	Clay loam	of State Highway and Transportation Officials, 1984.	distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	4.5-6.5
3	104-168	Clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	COARSE-GRAINED SOILS, Sands, sands with fines, Clayey Sand. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	14.11-42.34	5.1-7.3
4	168-200	Loamy coarse sand	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	141.14-705	7.4-8.4

SOIL MAP ID 5 **SSURGO**

USDA Soil Name	Milton,Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	C
Soil Drainage Class	Well drained
Hydric Classification	1
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-20	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.1-6.5
2	20-48	Silty clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.6-7.3
3	48-74	Clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	6.1-7.8
4	74-99		No data	No data	0.42-4.23	0-0

SOIL MAP ID 6	SSURGO
USDA Soil Name	Ritchey,Taxadjunct
USDA Soil Texture	Silt loam
Hydrologic Soil Group	D
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-18	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.3
2	18-46	Clay	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.6-8.4
3	46-51		No data	No data	0-4.23	0-0

SOIL MAP ID 7	SSURGO
USDA Soil Name	Eldean,Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	B
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-33	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.3
2	33-84	Clay loam	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.8
3	84-97	Sandy loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	COARSE-GRAINED SOILS, Sands, sands with fines, Clayey Sand. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM	4.23-42.34	6.6-8.4

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	84-97	Sandy loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	test D 2487, in ASTM, 1984).	4.23-42.34	6.6-8.4
4	97-152	Sand	Granular materials (35% or less passing No. 200 sieve), silty or clayey gravel and sand. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	42.34-141.14	6.6-8.4

SOIL MAP ID 8 **SSURGO**

USDA Soil Name	Miamian,Series
USDA Soil Texture	Clay loam
Hydrologic Soil Group	C
Soil Drainage Class	Not Reported
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-18	Clay loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size	4.23-14.11	5.1-6.5

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-18	Clay loam	of State Highway and Transportation Officials, 1984.	distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.1-6.5
2	18-97	Clay loam	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	5.1-6.5
3	97-152	Loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-4.23	7.4-8.4

SOIL MAP ID 9	**SSURGO**
USDA Soil Name	Sloan,Series
USDA Soil Texture	Silty clay loam
Hydrologic Soil Group	B/D
Soil Drainage Class	Very poorly drained
Hydric Classification	88
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-61	Silty clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.1-7.8
2	61-114	Silty clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.1-7.8
3	114-152	Sandy loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.6-7.8

SOIL MAP ID 10	SSURGO
USDA Soil Name	Ritchey,Taxadjunct
USDA Soil Texture	Silt loam
Hydrologic Soil Group	D
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-18	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.3
2	18-46	Clay	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.6-8.4
3	46-51		No data	No data	0-4.23	0-0

SOIL MAP ID 11	SSURGO
USDA Soil Name	Ockley,Series
USDA Soil Texture	Silt loam
Hydrologic Soil Group	B
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Low

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-23	Silt loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.3
2	23-51	Silty clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	4.5-6.5
3	51-163	Clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	COARSE-GRAINED SOILS, Sands, sands with fines, Clayey Sand. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM	14.11-42.34	5.1-7.3

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	51-163	Clay loam	Silt-Clay materials (more than 35% passing No. 200) clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	test D 2487, in ASTM, 1984).	14.11-42.34	5.1-7.3
4	163-200	Loamy sand	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	141.14-705	7.4-8.4

SOIL MAP ID 12 **SSURGO**

USDA Soil Name	Ritchey,Taxadjunct
USDA Soil Texture	Silt loam
Hydrologic Soil Group	D
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-18	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is less than 50%), Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and	4.23-14.11	5.6-7.8

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-18	Silt loam	Silt-Clay materials (more than 35% passing NO. 200), silty soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	5.6-7.8
2	18-46	Clay	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14.11	6.6-8.4
3	46-51		No data	No data	0-4.23	0-0

SOIL MAP ID A **STATSGO**

USDA Soil Name	Eldean,Series
USDA Soil Texture	Clay loam
Hydrologic Soil Group	B
Soil Drainage Class	Well drained
Hydric Classification	10
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-12	Clay loam	No data	No data	4.2343-14.1143	5.6-7.3
2	12-23	No data	No data	No data	1.4114-14.1143	5.6-7.8
3	23-30	No data	No data	No data	4.2343-14.1143	6.6-8.4
4	30-60	Sand	No data	No data	42.343-141.1433	7.4-8.4

WATER AGENCY DATA:

WATER AGENCY SEARCH DISTANCES:

DATABASE:	SEARCH DISTANCE (MILES):
NWIS	1.000
OIL & GAS WELLS - OH	1.000
PWS	1.000
WELLS - OH	1.000

DISTANCE TO NEAREST:	DISTANCE:
NWIS	0.151 mi / 796 ft
OIL & GAS WELLS - OH	N/A
PWS	N/A
WELLS - OH	0.055 mi / 289 ft

FEDERAL WATER AGENCY DATA SUMMARY:

MAP ID:	WELL ID:	LOCATION FROM SP:
2	394735083593700	1/8 - 1/4 Mile NE
16	394706084003000	1/2 - 1 Mile WSW
B21	394708083585900	1/2 - 1 Mile ESE
B24	394710083585700	1/2 - 1 Mile ESE
27	394653083591100	1/2 - 1 Mile SE
35	394643083592200	1/2 - 1 Mile SSE
D36	394638083593500	1/2 - 1 Mile SSE

Note: PWS System location is not always the same as well location.

STATE/LOCAL WATER AGENCY DATA SUMMARY:

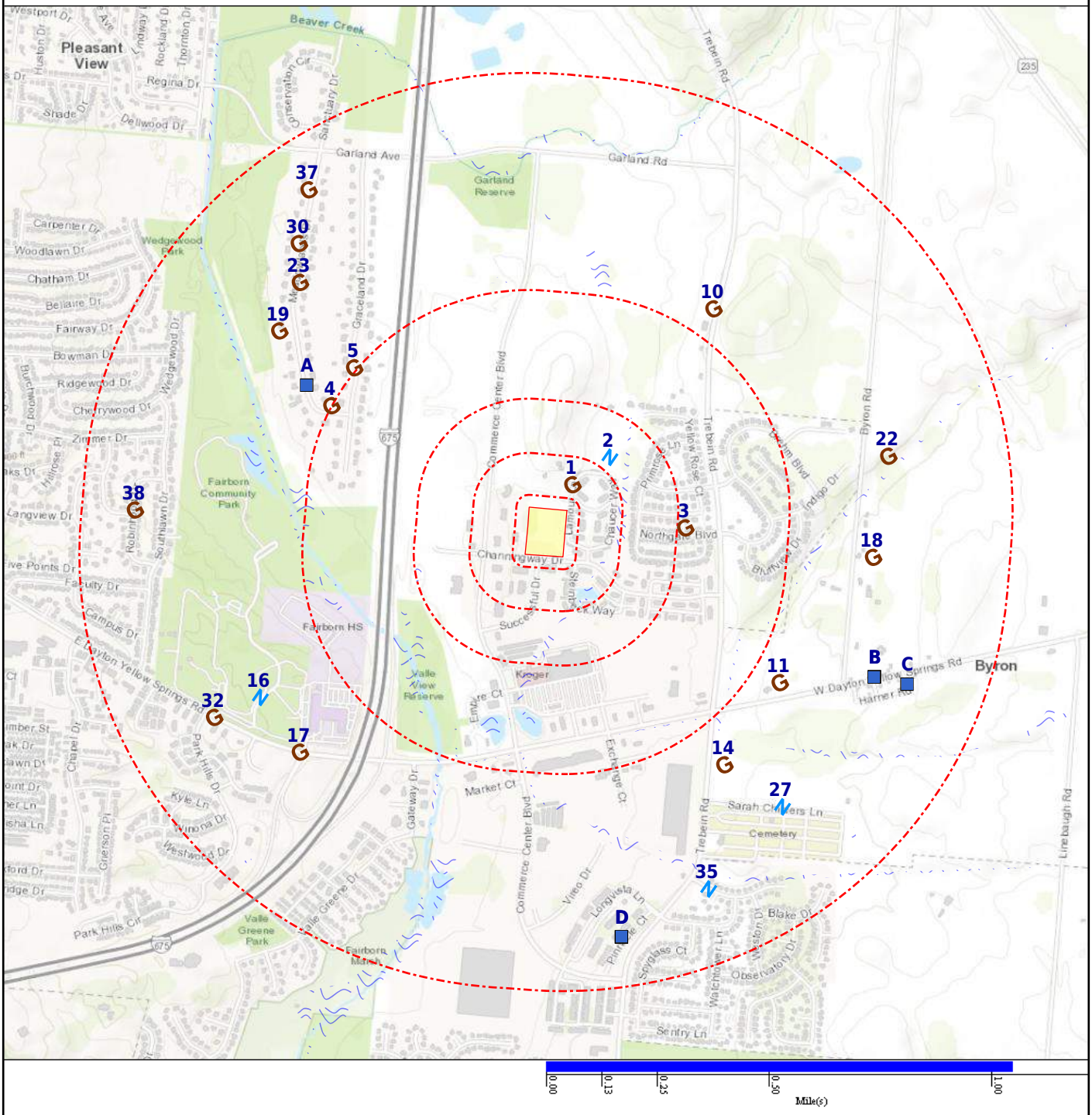
MAP ID:	WELL ID:	LOCATION FROM SP:
1	271349	< 1/8 Mile NE
3	441989	1/4 - 1/2 Mile E
4	909835	1/2 - 1 Mile WNW
5	946208	1/2 - 1 Mile WNW
A6	885344	1/2 - 1 Mile WNW
A7	909849	1/2 - 1 Mile WNW
A8	963124	1/2 - 1 Mile WNW
A9	909831	1/2 - 1 Mile WNW
10	2077105 | 734289	1/2 - 1 Mile NE
11	2054206	1/2 - 1 Mile ESE
A12	909848	1/2 - 1 Mile WNW
A13	885362	1/2 - 1 Mile WNW
14	267388	1/2 - 1 Mile SE
A15	909840	1/2 - 1 Mile WNW
17	2008062 | 2008063 | 2008064	1/2 - 1 Mile SW
18	82097	1/2 - 1 Mile E
19	963131	1/2 - 1 Mile WNW
B20	614622	1/2 - 1 Mile ESE
22	423443	1/2 - 1 Mile E
23	963145	1/2 - 1 Mile NW
B25	242833	1/2 - 1 Mile ESE
B26	530069	1/2 - 1 Mile ESE
B28	1011277	1/2 - 1 Mile ESE
B29	614629 | 802284	1/2 - 1 Mile ESE
30	794430	1/2 - 1 Mile NW
B31	711175	1/2 - 1 Mile ESE
32	697585 | 780197	1/2 - 1 Mile WSW
C33	252023	1/2 - 1 Mile ESE
C34	509902	1/2 - 1 Mile ESE

STATE/LOCAL WATER AGENCY DATA SUMMARY: *(cont.)*

MAP ID:	WELL ID:	LOCATION FROM SP:
37	824117	1/2 - 1 Mile NW
38	555130	1/2 - 1 Mile W
D39	100963	1/2 - 1 Mile SSE

SUBJECT NAME: Senior Village at Valle Greene
ADDRESS: Channingway, Fairborn, OH, 45324
LAT/LONG: 39.790671 / -83.996173

PREPARED FOR: Kilbane Environmental
ORDER #: 92707
REPORT DATE: November 21, 2023



Map Id: 1
Direction: NE
Distance: 0.055 mi., 290 ft.
Elevation: 863 ft.
Relative: Higher

Site Name : 271349
39.79218, -83.995139
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34065470
EPA ID: N/R

WELLS - OH

Well Number :	271349
Total Depth :	60
Completion Date :	1963-07-28
Bedrock Depth :	29
Comments :	N/R
DEM Elevation :	862.9
BR Elevation :	833.9
Comp Elevation :	802.9
Township :	BATH
Aquifer Type :	BEDROCK
Well Use :	DOMESTIC
Driller Name :	SCOTT WELL & PUMP CO
Pump Type :	N/R
Completion Year :	1963
Owner First Name :	OWEN
Owner Last Name :	COLLINS
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	TREBAIN RD, OH
County :	GREENE
Is flowing Ind :	N
Test Rate :	3
Draw Down :	55
Draw Down Test Duration :	N/R
Water Level :	31
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	Y
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	\\NRAS1\
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.79218
Longitude :	-83.995139
Last Date in Agency List :	2023-11-08

Map Id: 2
Direction: NE
Distance: 0.151 mi., 797 ft.
Elevation: 852 ft.
Relative: Higher

Site Name : 394735083593700
39.793115, -83.993544
OH

Database(s) : [NWIS]

Envirosite ID: 31290795
EPA ID: N/R

NWIS

Site Identification Number :	394735083593700
Site Type :	Well
Station Name :	GR-132
Agency :	U.S. Geological Survey
District :	N/R
State :	OH
County :	Greene County
Country :	USA
Land Net Location :	SWNENE 13T 3 R 8
Name of Location Map :	YELLOW SPRINGS
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	867.00
Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	5
Altitude Datum :	National Geodetic Vertical Datum of 1929
Hydrologic Unit :	Upper Great Miami, Indiana, Ohio
Drainage Basin :	N/R
Topographic Setting :	Flat surface
Flags for the Type of Data Collected:	NANNNNNNNNNNNNNNNNNNNNNNNNNNO
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Data have been checked by the reporting agency.
Data-Other GW Files :	YYNYNYNN
National Aquifer :	N/R
Local Aquifer :	Richmond Group
Local Aquifer Type :	Confined single aquifer
Well Depth :	N/R
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	443909300
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	0
Field Water-Level Measurements Begin Date:	1987-11-18
Field Water-level Measurements End Date:	1989-06-27
Field Water-Level Measurements Count:	3
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	39.793115
Longitude :	-83.993544
Last Date in Agency List :	2023-09-22

Map Id: 3
Direction: E
Distance: 0.263 mi., 1389 ft.
Elevation: 860 ft.
Relative: Higher

Site Name : 441989
39.790745, -83.990395
OH

Database(s) : [WELLS - OH]

Envirosite ID: 50894862
EPA ID: N/R

WELLS - OH

Well Number :	441989
Total Depth :	42
Completion Date :	1973-02-20
Bedrock Depth :	N/R
Comments :	N/R
DEM Elevation :	N/R
BR Elevation :	N/R
Comp Elevation :	N/R
Township :	BATH
Aquifer Type :	GRAVEL
Well Use :	DOMESTIC
Driller Name :	W BARKER & SONS WELL DRILLING
Pump Type :	N/R
Completion Year :	1973
Owner First Name :	THOMAS
Owner Last Name :	EASTER
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	430 ROSEWOOD RD, OH
County :	GREENE
Is flowing Ind :	N
Test Rate :	10
Draw Down :	N/R
Draw Down Test Duration :	24
Water Level :	15
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	2022-06-09
Changed by :	odnr_editor
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.790745
Longitude :	-83.990395
Last Date in Agency List :	2023-11-08

Map Id: 4
Direction: WNW
Distance: 0.501 mi., 2646 ft.
Elevation: 853 ft.
Relative: Higher

Site Name : 909835
39.79482, -84.00528
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34235362
EPA ID: N/R

WELLS - OH

Well Number :	909835
Total Depth :	81
Completion Date :	2000-06-12
Bedrock Depth :	29
Comments :	N/R
DEM Elevation :	852.7
BR Elevation :	823.7
Comp Elevation :	771.7
Township :	BATH
Aquifer Type :	SHALE
Well Use :	DOMESTIC
Driller Name :	JENKINS PUMP SALES & SERV
Pump Type :	N/R
Completion Year :	2000
Owner First Name :	KEN
Owner Last Name :	CHILCLERA
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1576 MEADOWLAND DR, FAIRBORN, OH 45324
County :	GREENE
Is flowing Ind :	N
Test Rate :	15
Draw Down :	6
Draw Down Test Duration :	1.5
Water Level :	18
Water Measure :	T
Water Level Date :	2000-06-12
Casing Height :	1
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	15
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.79482
Longitude :	-84.00528
Last Date in Agency List :	2023-11-08

Map Id: 5
Direction: WNW
Distance: 0.505 mi., 2667 ft.
Elevation: 855 ft.
Relative: Higher

Site Name : 946208
39.796076, -84.004307
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34276207
EPA ID: N/R

WELLS - OH

Well Number :	946208
Total Depth :	29
Completion Date :	2002-09-18
Bedrock Depth :	N/R
Comments :	N/R
DEM Elevation :	855.8
BR Elevation :	N/R
Comp Elevation :	826.8
Township :	BATH
Aquifer Type :	SAND & GRAVEL
Well Use :	AGRIC/IRRIG
Driller Name :	CRABTREE DRILLING
Pump Type :	N/R
Completion Year :	2002
Owner First Name :	REBECCA
Owner Last Name :	SPENCER
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1521 GRACELAND DR, FAIRBORN, OH 45324
County :	GREENE
Is flowing Ind :	N/R
Test Rate :	10
Draw Down :	4
Draw Down Test Duration :	2
Water Level :	22
Water Measure :	T
Water Level Date :	2002-09-18
Casing Height :	N/R
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	2002-11-22
Added by :	BROWN,CLEVE
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.796076
Longitude :	-84.004307
Last Date in Agency List :	2023-11-08

Map Id: A6
Direction: WNW
Distance: 0.517 mi., 2728 ft.
Elevation: 853 ft.
Relative: Higher

Site Name : 885344
39.79462, -84.00573
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34175786
EPA ID: N/R

WELLS - OH

Well Number :	885344
Total Depth :	61
Completion Date :	1999-05-16
Bedrock Depth :	30
Comments :	N/R
DEM Elevation :	853.5
BR Elevation :	823.5
Comp Elevation :	792.5
Township :	BATH
Aquifer Type :	SHALE
Well Use :	AGRIC/IRRIG
Driller Name :	JENKINS PUMP SALES & SERV
Pump Type :	N/R
Completion Year :	1999
Owner First Name :	OTAS
Owner Last Name :	HURN
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1565 MEADOWSLAND, FARIBORN, OH 45324
County :	GREENE
Is flowing Ind :	N
Test Rate :	15
Draw Down :	4.5
Draw Down Test Duration :	3
Water Level :	12
Water Measure :	T
Water Level Date :	1999-05-16
Casing Height :	1
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	1999-10-19
Added by :	CUTLER
Date Changed :	1999-10-19
Changed by :	NRDNR\CUTLER
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.79462
Longitude :	-84.00573
Last Date in Agency List :	2023-11-08

Map Id: A7
Direction: WNW
Distance: 0.528 mi., 2789 ft.
Elevation: 855 ft.
Relative: Higher

Site Name : 909849
39.79494, -84.00577
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34480353
EPA ID: N/R

WELLS - OH

Well Number :	909849
Total Depth :	61
Completion Date :	2001-07-09
Bedrock Depth :	32
Comments :	N/R
DEM Elevation :	855.7
BR Elevation :	823.7
Comp Elevation :	794.7
Township :	BATH
Aquifer Type :	SHALE
Well Use :	AGRIC/IRRIG
Driller Name :	JENKINS PUMP SALES & SERV
Pump Type :	N/R
Completion Year :	2001
Owner First Name :	DON
Owner Last Name :	PARNELL
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1556 MEADOWLANDS, FAIRBORN, OH 45324
County :	GREENE
Is flowing Ind :	N/R
Test Rate :	15
Draw Down :	4
Draw Down Test Duration :	1
Water Level :	17
Water Measure :	T
Water Level Date :	2001-07-09
Casing Height :	1
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	2001-10-03
Added by :	CORY BONIFAS
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	15
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.79494
Longitude :	-84.00577
Last Date in Agency List :	2023-11-08

Map Id: A8
Direction: WNW
Distance: 0.531 mi., 2805 ft.
Elevation: 853 ft.
Relative: Higher

Site Name : 963124
39.79474, -84.00596
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34281703
EPA ID: N/R

WELLS - OH

Well Number :	963124
Total Depth :	81
Completion Date :	2003-06-19
Bedrock Depth :	33
Comments :	N/R
DEM Elevation :	853.9
BR Elevation :	820.9
Comp Elevation :	772.9
Township :	BATH
Aquifer Type :	SHALE
Well Use :	AGRIC/IRRIG
Driller Name :	JENKINS PUMP SALES & SERV
Pump Type :	N/R
Completion Year :	2003
Owner First Name :	ED
Owner Last Name :	TINN
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1557 MEADOWLAND DR, FAIRBORN, OH 45324
County :	GREENE
Is flowing Ind :	N/R
Test Rate :	17
Draw Down :	0
Draw Down Test Duration :	1
Water Level :	20
Water Measure :	T
Water Level Date :	2003-06-19
Casing Height :	2
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	2003-07-31
Added by :	CORY BONIFAS
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	17
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.79474
Longitude :	-84.00596
Last Date in Agency List :	2023-11-08

Map Id: A9
Direction: WNW
Distance: 0.558 mi., 2945 ft.
Elevation: 854 ft.
Relative: Higher

Site Name : 909831
39.79542, -84.00607
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34384680
EPA ID: N/R

WELLS - OH

Well Number :	909831
Total Depth :	81
Completion Date :	2000-04-25
Bedrock Depth :	34
Comments :	N/R
DEM Elevation :	854.5
BR Elevation :	820.5
Comp Elevation :	773.5
Township :	BATH
Aquifer Type :	SHALE
Well Use :	DOMESTIC
Driller Name :	JENKINS PUMP SALES & SERV
Pump Type :	N/R
Completion Year :	2000
Owner First Name :	JOHN
Owner Last Name :	SANDERS
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	ZERO
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1532 MEADOWLANDS DR, FAIRBORN, OH 45324
County :	GREENE
Is flowing Ind :	N
Test Rate :	20
Draw Down :	1.5
Draw Down Test Duration :	1.5
Water Level :	16
Water Measure :	T
Water Level Date :	2000-04-25
Casing Height :	1
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	20
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.79542
Longitude :	-84.00607
Last Date in Agency List :	2023-11-08

Map Id: 10
Direction: NE
Distance: 0.563 mi., 2975 ft.
Elevation: 894 ft.
Relative: Higher

Site Name : 2077105 | 734289
39.798062, -83.989181
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34064231
EPA ID: N/R

WELLS - OH

Well Number :	2077105
Total Depth :	28
Completion Date :	2019-12-06
Bedrock Depth :	N/R
Comments :	N/R
DEM Elevation :	N/R
BR Elevation :	N/R
Comp Elevation :	N/R
Township :	BATH
Aquifer Type :	SAND & GRAVEL
Well Use :	AGRIC/IRRIG
Driller Name :	HAMILTON & SONS WELL DRILLING
Pump Type :	N/R
Completion Year :	2019
Owner First Name :	JOHN
Owner Last Name :	EDGINGTON
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1575 TREBEIN RD, FAIRBORN, OH 45324
County :	GREENE
Is flowing Ind :	N
Test Rate :	15
Draw Down :	2
Draw Down Test Duration :	2
Water Level :	8
Water Measure :	G
Water Level Date :	2019-12-06
Casing Height :	1
Location Ind :	N/R
Assoc Rpt Ind :	N
Date Added :	2019-12-09
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	15
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.798062
Longitude :	-83.989181
Last Date in Agency List :	2023-11-08

Well Number :	734289
Total Depth :	38
Completion Date :	1981-10-25
Bedrock Depth :	21
Comments :	N/R
DEM Elevation :	896.6

Map Id: 10
Direction: NE
Distance: 0.563 mi., 2975 ft.
Elevation: 894 ft.
Relative: Higher

Site Name : 2077105 | 734289
39.798062, -83.989181
OH

Database(s) : [WELLS - OH] ***(cont.)***

Envirosite ID: 34064231
EPA ID: N/R

WELLS - OH ***(cont.)***

BR Elevation :	875.6
Comp Elevation :	858.6
Township :	BATH
Aquifer Type :	SHALE
Well Use :	DOMESTIC
Driller Name :	WHITE WELL DRILLING
Pump Type :	N/R
Completion Year :	1981
Owner First Name :	THURMAN
Owner Last Name :	SHERMAN
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	3821 TREBEIN RD, FAIRBORN, OH 45324
County :	GREENE
Is flowing Ind :	N
Test Rate :	5
Draw Down :	10
Draw Down Test Duration :	N/R
Water Level :	7
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.798062
Longitude :	-83.989181
Last Date in Agency List :	2023-11-08

Map Id: 11
Direction: ESE
Distance: 0.565 mi., 2985 ft.
Elevation: 894 ft.
Relative: Higher

Site Name : 2054206
39.785556, -83.986389
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34425871
EPA ID: N/R

WELLS - OH

Well Number :	2054206
Total Depth :	65
Completion Date :	2015-10-08
Bedrock Depth :	31
Comments :	N/R
DEM Elevation :	894.7
BR Elevation :	863.7
Comp Elevation :	829.7
Township :	BATH
Aquifer Type :	SHALE
Well Use :	FIRE PROTECTION
Driller Name :	HAMILTON & SONS WELL DRILLING
Pump Type :	N/R
Completion Year :	2015
Owner First Name :	COMPLETE
Owner Last Name :	BUILDING SERVICE
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	989232
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1495 E DAYTON YELLOW SPRINGS RD, FAIRBORN, OH 45324
County :	GREENE
Is flowing Ind :	N
Test Rate :	9
Draw Down :	19
Draw Down Test Duration :	2
Water Level :	23
Water Measure :	G
Water Level Date :	2015-10-08
Casing Height :	1
Location Ind :	N/R
Assoc Rpt Ind :	N
Date Added :	N/R
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	9
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	55
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.785556
Longitude :	-83.986389
Last Date in Agency List :	2023-11-08

Map Id: A12
Direction: WNW
Distance: 0.579 mi., 3060 ft.
Elevation: 852 ft.
Relative: Higher

Site Name : 909848
39.7955, -84.00648
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34480352
EPA ID: N/R

WELLS - OH

Well Number :	909848
Total Depth :	101
Completion Date :	2001-07-06
Bedrock Depth :	35
Comments :	N/R
DEM Elevation :	854.3
BR Elevation :	819.3
Comp Elevation :	753.3
Township :	BATH
Aquifer Type :	SHALE
Well Use :	AGRIC/IRRIG
Driller Name :	JENKINS PUMP SALES & SERV
Pump Type :	N/R
Completion Year :	2001
Owner First Name :	SAM
Owner Last Name :	HAMILTON
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1525 MEADOWLANDS, FAIRBORN, OH 45324
County :	GREENE
Is flowing Ind :	N/R
Test Rate :	10
Draw Down :	7
Draw Down Test Duration :	1
Water Level :	12
Water Measure :	T
Water Level Date :	2001-07-06
Casing Height :	1
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	2001-10-03
Added by :	CORY BONIFAS
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	10
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.7955
Longitude :	-84.00648
Last Date in Agency List :	2023-11-08

Map Id: A13
Direction: WNW
Distance: 0.585 mi., 3087 ft.
Elevation: 853 ft.
Relative: Higher

Site Name : 885362
39.79598, -84.00623
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34235329
EPA ID: N/R

WELLS - OH

Well Number :	885362
Total Depth :	101
Completion Date :	1999-12-27
Bedrock Depth :	45
Comments :	N/R
DEM Elevation :	854
BR Elevation :	809
Comp Elevation :	753
Township :	BATH
Aquifer Type :	SHALE
Well Use :	AGRIC/IRRIG
Driller Name :	JENKINS PUMP SALES & SERV
Pump Type :	N/R
Completion Year :	1999
Owner First Name :	FRANK & KIM
Owner Last Name :	HILL
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1504 MEADOWLANDS DR, FAIRBORN, OH 45324
County :	GREENE
Is flowing Ind :	N
Test Rate :	8
Draw Down :	20
Draw Down Test Duration :	2
Water Level :	23
Water Measure :	T
Water Level Date :	1999-10-27
Casing Height :	1
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	2000-03-01
Added by :	CUTLER
Date Changed :	2000-03-02
Changed by :	NRDNR\CUTLER
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.79598
Longitude :	-84.00623
Last Date in Agency List :	2023-11-08

Map Id: 14
Direction: SE
Distance: 0.603 mi., 3185 ft.
Elevation: 869 ft.
Relative: Higher

Site Name : 267388
39.782826, -83.988701
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34430891
EPA ID: N/R

WELLS - OH

Well Number :	267388
Total Depth :	175
Completion Date :	1963-02-07
Bedrock Depth :	23
Comments :	N/R
DEM Elevation :	869.4
BR Elevation :	846.4
Comp Elevation :	694.4
Township :	BATH
Aquifer Type :	SHALE & SANDSTONE
Well Use :	DOMESTIC
Driller Name :	BARNES & SONS
Pump Type :	N/R
Completion Year :	1963
Owner First Name :	SAM
Owner Last Name :	MILLES
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	TREBEIN RD, OH
County :	GREENE
Is flowing Ind :	N
Test Rate :	1
Draw Down :	159
Draw Down Test Duration :	2
Water Level :	16
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	Y
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	\\NRAS1\
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.782826
Longitude :	-83.988701
Last Date in Agency List :	2023-11-08

Map Id: A15
Direction: WNW
Distance: 0.610 mi., 3219 ft.
Elevation: 852 ft.
Relative: Higher

Site Name : 909840
39.796145, -84.006649
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34235368
EPA ID: N/R

WELLS - OH

Well Number :	909840
Total Depth :	64
Completion Date :	2000-09-20
Bedrock Depth :	60
Comments :	N/R
DEM Elevation :	853.5
BR Elevation :	793.5
Comp Elevation :	789.5
Township :	BATH
Aquifer Type :	SHALE
Well Use :	AGRIC/IRRIG
Driller Name :	JENKINS PUMP SALES & SERV
Pump Type :	N/R
Completion Year :	2000
Owner First Name :	STEVE
Owner Last Name :	LYE
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1515 MEADOWLAND, FAIRBORN, OH 45432
County :	GREENE
Is flowing Ind :	N/R
Test Rate :	20
Draw Down :	0.5
Draw Down Test Duration :	1
Water Level :	14
Water Measure :	T
Water Level Date :	2000-09-20
Casing Height :	1
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	2002-02-11
Added by :	HAIKER, BILL
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	20
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.796145
Longitude :	-84.006649
Last Date in Agency List :	2023-11-08

Map Id: 16
Direction: WSW
Distance: 0.684 mi., 3613 ft.
Elevation: 899 ft.
Relative: Higher

Site Name : 394706084003000
39.785059, -84.008267
OH

Database(s) : [NWIS]

Envirosite ID: 20785798
EPA ID: N/R

NWIS

Site Identification Number :	394706084003000
Site Type :	Well
Station Name :	GR-131
Agency :	U.S. Geological Survey
District :	N/R
State :	OH
County :	Greene County
Country :	USA
Land Net Location :	NESWNE S24 T 2 R 7
Name of Location Map :	FAIRBORN
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	900.
Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	5.
Altitude Datum :	National Geodetic Vertical Datum of 1929
Hydrologic Unit :	Upper Great Miami, Indiana, Ohio
Drainage Basin :	N/R
Topographic Setting :	Flat surface
Flags for the Type of Data Collected:	NANNNNNNNNNNNNNNNNNNNNNNNNNNO
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	1987-11-18
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Data have been checked by the reporting agency.
Data-Other GW Files :	YYNYNYNN
National Aquifer :	Sand and gravel aquifers (glaciated regions)
Local Aquifer :	Outwash
Local Aquifer Type :	Confined single aquifer
Well Depth :	152.
Hole Depth :	152.
Source of Depth Data :	R
Project Number :	443909300
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	0
Field Water-Level Measurements Begin Date:	1987-11-18
Field Water-level Measurements End Date:	1989-06-27
Field Water-Level Measurements Count:	2
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	39.785059
Longitude :	-84.008267
Last Date in Agency List :	2023-09-22

Map Id: 17
Direction: SW
Distance: 0.685 mi., 3615 ft.
Elevation: 889 ft.
Relative: Higher

Site Name : 2008062 | 2008063 | 2008064
39.78327, -84.00659
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34101532
EPA ID: N/R

WELLS - OH

Well Number :	2008062
Total Depth :	58
Completion Date :	2007-01-26
Bedrock Depth :	N/R
Comments :	N/R
DEM Elevation :	889.3
BR Elevation :	N/R
Comp Elevation :	831.3
Township :	BATH
Aquifer Type :	CLAY
Well Use :	MONITOR
Driller Name :	FLINNER DRILLING INC DBA FRONTZ
Pump Type :	N/R
Completion Year :	2007
Owner First Name :	N/R
Owner Last Name :	SPEEDWAY #6337
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	97 W DAYTON YELLOW SPRINGS RD, FAIRBORN, OH 45324
County :	GREENE
Is flowing Ind :	N
Test Rate :	N/R
Draw Down :	N/R
Draw Down Test Duration :	N/R
Water Level :	35
Water Measure :	G
Water Level Date :	2007-01-26
Casing Height :	0
Location Ind :	N/R
Assoc Rpt Ind :	N
Date Added :	N/R
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.78327
Longitude :	-84.00659
Last Date in Agency List :	2023-11-08

Well Number :	2008063
Total Depth :	16
Completion Date :	2007-01-25
Bedrock Depth :	N/R
Comments :	N/R
DEM Elevation :	889.3

Map Id: 17
Direction: SW
Distance: 0.685 mi., 3615 ft.
Elevation: 889 ft.
Relative: Higher

Site Name : 2008062 | 2008063 | 2008064
39.78327, -84.00659
OH

Database(s) : [WELLS - OH] ***(cont.)***

Envirosite ID: 34101532
EPA ID: N/R

WELLS - OH ***(cont.)***

BR Elevation :	N/R
Comp Elevation :	873.3
Township :	BATH
Aquifer Type :	SAND
Well Use :	MONITOR
Driller Name :	FLINNER DRILLING INC DBA FRONTZ
Pump Type :	N/R
Completion Year :	2007
Owner First Name :	N/R
Owner Last Name :	SPEEDWAY #6337
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	97 W DAYTON YELLOW SPRINGS RD, FAIRBORN, OH 45324
County :	GREENE
Is flowing Ind :	N
Test Rate :	N/R
Draw Down :	N/R
Draw Down Test Duration :	N/R
Water Level :	0
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	0
Location Ind :	N/R
Assoc Rpt Ind :	N
Date Added :	N/R
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.78327
Longitude :	-84.00659
Last Date in Agency List :	2023-11-08

Well Number :	2008064
Total Depth :	18
Completion Date :	2007-01-25
Bedrock Depth :	N/R
Comments :	N/R
DEM Elevation :	889.3
BR Elevation :	N/R
Comp Elevation :	871.3
Township :	BATH
Aquifer Type :	SAND
Well Use :	MONITOR
Driller Name :	FLINNER DRILLING INC DBA FRONTZ

Map Id: 17
Direction: SW
Distance: 0.685 mi., 3615 ft.
Elevation: 889 ft.
Relative: Higher

Site Name : 2008062 | 2008063 | 2008064
39.78327, -84.00659
OH

Database(s) : [WELLS - OH] ***(cont.)***

Envirosite ID: 34101532
EPA ID: N/R

WELLS - OH ***(cont.)***

Pump Type :	N/R
Completion Year :	2007
Owner First Name :	N/R
Owner Last Name :	SPEEDWAY #6337
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	97 W DAYTON YELLOW SPRINGS RD, FAIRBORN, OH 45324
County :	GREENE
Is flowing Ind :	N
Test Rate :	N/R
Draw Down :	N/R
Draw Down Test Duration :	N/R
Water Level :	0
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	0
Location Ind :	N/R
Assoc Rpt Ind :	N
Date Added :	N/R
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.78327
Longitude :	-84.00659
Last Date in Agency List :	2023-11-08

Well Number :	2008065
Total Depth :	15
Completion Date :	2007-01-24
Bedrock Depth :	N/R
Comments :	N/R
DEM Elevation :	889.3
BR Elevation :	N/R
Comp Elevation :	874.3
Township :	BATH
Aquifer Type :	SAND
Well Use :	MONITOR
Driller Name :	FLINNER DRILLING INC DBA FRONTZ
Pump Type :	N/R
Completion Year :	2007
Owner First Name :	N/R
Owner Last Name :	SPEEDWAY #6337
Subdivition Name :	N/R
Subdivision Map Year :	N/R

Map Id: 17
Direction: SW
Distance: 0.685 mi., 3615 ft.
Elevation: 889 ft.
Relative: Higher

Site Name : 2008062 | 2008063 | 2008064
39.78327, -84.00659
OH

Database(s) : [WELLS - OH] ***(cont.)***

Envirosite ID: 34101532
EPA ID: N/R

WELLS - OH ***(cont.)***

Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	97 W DAYTON YELLOW SPRINGS RD, FAIRBORN, OH 45324
County :	GREENE
Is flowing Ind :	N
Test Rate :	N/R
Draw Down :	N/R
Draw Down Test Duration :	N/R
Water Level :	0
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	0
Location Ind :	N/R
Assoc Rpt Ind :	N
Date Added :	N/R
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.78327
Longitude :	-84.00659
Last Date in Agency List :	2023-11-08

Well Number :	849567
Total Depth :	26
Completion Date :	1998-03-25
Bedrock Depth :	N/R
Comments :	N/R
DEM Elevation :	889.3
BR Elevation :	N/R
Comp Elevation :	863.3
Township :	BATH
Aquifer Type :	SAND
Well Use :	MONITOR
Driller Name :	FORE TESTING/DRILLING INC
Pump Type :	N/R
Completion Year :	1998
Owner First Name :	N/R
Owner Last Name :	EMRO MARKETING
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	97 W DAYTON YELLOW SPRING, FAIRBORN, OH

Map Id: 17
Direction: SW
Distance: 0.685 mi., 3615 ft.
Elevation: 889 ft.
Relative: Higher

Site Name : 2008062 | 2008063 | 2008064
39.78327, -84.00659
OH

Database(s) : [WELLS - OH] ***(cont.)***

Envirosite ID: 34101532
EPA ID: N/R

WELLS - OH ***(cont.)***

County :	GREENE
Is flowing Ind :	N/R
Test Rate :	N/R
Draw Down :	N/R
Draw Down Test Duration :	N/R
Water Level :	N/R
Water Measure :	G
Water Level Date :	1998-02-23
Casing Height :	N/R
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	1999-10-19
Added by :	BROWN
Date Changed :	1999-10-19
Changed by :	NRDNR\BROWNC
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.78327
Longitude :	-84.00659
Last Date in Agency List :	2023-11-08

Well Number :	849568
Total Depth :	20
Completion Date :	1998-03-25
Bedrock Depth :	N/R
Comments :	N/R
DEM Elevation :	889.3
BR Elevation :	N/R
Comp Elevation :	869.3
Township :	BATH
Aquifer Type :	SAND
Well Use :	MONITOR
Driller Name :	FORE TESTING/DRILLING INC
Pump Type :	N/R
Completion Year :	1998
Owner First Name :	N/R
Owner Last Name :	EMRO MARKETING
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	97 W DAYTON YELLOW SPRING RD, FAIRBORN, OH
County :	GREENE
Is flowing Ind :	N/R
Test Rate :	N/R
Draw Down :	N/R
Draw Down Test Duration :	N/R
Water Level :	14

Map Id: 17
Direction: SW
Distance: 0.685 mi., 3615 ft.
Elevation: 889 ft.
Relative: Higher

Site Name : 2008062 | 2008063 | 2008064
39.78327, -84.00659
OH

Database(s) : [WELLS - OH] ***(cont.)***

Envirosite ID: 34101532
EPA ID: N/R

WELLS - OH ***(cont.)***

Water Measure :	G
Water Level Date :	1998-02-19
Casing Height :	N/R
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	1999-10-19
Added by :	BROWN
Date Changed :	1999-10-19
Changed by :	NRDNR\BROWNC
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.78327
Longitude :	-84.00659
Last Date in Agency List :	2023-11-08

Well Number :	849569
Total Depth :	34
Completion Date :	1998-03-25
Bedrock Depth :	N/R
Comments :	N/R
DEM Elevation :	889.3
BR Elevation :	N/R
Comp Elevation :	855.3
Township :	BATH
Aquifer Type :	SAND
Well Use :	MONITOR
Driller Name :	FORE TESTING/DRILLING INC
Pump Type :	N/R
Completion Year :	1998
Owner First Name :	N/R
Owner Last Name :	EMRO MARKETING
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	97 W DAYTON YELLOW SPRING RD, FAIRBORN, OH
County :	GREENE
Is flowing Ind :	N/R
Test Rate :	N/R
Draw Down :	N/R
Draw Down Test Duration :	N/R
Water Level :	N/R
Water Measure :	G
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	1999-10-19

Map Id: 17
Direction: SW
Distance: 0.685 mi., 3615 ft.
Elevation: 889 ft.
Relative: Higher

Site Name : 2008062 | 2008063 | 2008064
39.78327, -84.00659
OH

Database(s) : [WELLS - OH] ***(cont.)***

Envirosite ID: 34101532
EPA ID: N/R

WELLS - OH ***(cont.)***

Added by :	BROWN
Date Changed :	1999-10-19
Changed by :	NRDNR\BROWNC
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.78327
Longitude :	-84.00659
Last Date in Agency List :	2023-11-08

Well Number :	944809
Total Depth :	30
Completion Date :	2002-03-13
Bedrock Depth :	N/R
Comments :	N/R
DEM Elevation :	889.3
BR Elevation :	N/R
Comp Elevation :	859.3
Township :	BATH
Aquifer Type :	SAND & GRAVEL
Well Use :	MONITOR
Driller Name :	BELASCO DRILLING INC
Pump Type :	N/R
Completion Year :	2002
Owner First Name :	N/R
Owner Last Name :	SSA #6337 SMOKES FL
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	MW#1
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	97 W DAYTON YELLOW SPRING RD, FAIRBORN, OH
County :	GREENE
Is flowing Ind :	N/R
Test Rate :	N/R
Draw Down :	N/R
Draw Down Test Duration :	N/R
Water Level :	N/R
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	2002-04-18
Added by :	CUTLER, PATSY
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R

Map Id: 17
Direction: SW
Distance: 0.685 mi., 3615 ft.
Elevation: 889 ft.
Relative: Higher

Site Name : 2008062 | 2008063 | 2008064
39.78327, -84.00659
OH

Database(s) : [WELLS - OH] ***(cont.)***

Envirosite ID: 34101532
EPA ID: N/R

WELLS - OH ***(cont.)***

Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.78327
Longitude :	-84.00659
Last Date in Agency List :	2023-11-08

Well Number :	944830
Total Depth :	44
Completion Date :	2002-03-20
Bedrock Depth :	N/R
Comments :	N/R
DEM Elevation :	889.3
BR Elevation :	N/R
Comp Elevation :	845.3
Township :	BATH
Aquifer Type :	SAND & GRAVEL
Well Use :	MONITOR
Driller Name :	BELASCO DRILLING INC
Pump Type :	N/R
Completion Year :	2002
Owner First Name :	N/R
Owner Last Name :	SSA # 6337, SMOKES
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	97 W DAYTON YELLOW SPRING RD, FAIRBORN, OH
County :	GREENE
Is flowing Ind :	N/R
Test Rate :	N/R
Draw Down :	N/R
Draw Down Test Duration :	N/R
Water Level :	N/R
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	2002-04-18
Added by :	CUTLER, PATSY
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.78327
Longitude :	-84.00659

Map Id: 17
Direction: SW
Distance: 0.685 mi., 3615 ft.
Elevation: 889 ft.
Relative: Higher

Site Name : 2008062 | 2008063 | 2008064
39.78327, -84.00659
OH

Database(s) : [WELLS - OH] ***(cont.)***

Envirosite ID: 34101532
EPA ID: N/R

WELLS - OH ***(cont.)***

Last Date in Agency List :	2023-11-08

Map Id: 18
Direction: E
Distance: 0.689 mi., 3640 ft.
Elevation: 911 ft.
Relative: Higher

Site Name : 82097
39.789744, -83.982442
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34170308
EPA ID: N/R

WELLS - OH

Well Number :	82097
Total Depth :	110
Completion Date :	1952-01-17
Bedrock Depth :	24
Comments :	N/R
DEM Elevation :	911.3
BR Elevation :	887.3
Comp Elevation :	801.3
Township :	BATH
Aquifer Type :	SHALE & SANDSTONE
Well Use :	DOMESTIC
Driller Name :	WEAVER (DON)
Pump Type :	N/R
Completion Year :	1952
Owner First Name :	E
Owner Last Name :	OBERSCHLAKE
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	BYRON RD, OH
County :	GREENE
Is flowing Ind :	N
Test Rate :	10
Draw Down :	15
Draw Down Test Duration :	2
Water Level :	30
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	Y
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	\\NRAS1\

Map Id: 18
Direction: E
Distance: 0.689 mi., 3640 ft.
Elevation: 911 ft.
Relative: Higher

Site Name : 82097
39.789744, -83.982442
OH

Database(s) : [WELLS - OH] ***(cont.)***

Envirosite ID: 34170308
EPA ID: N/R

WELLS - OH ***(cont.)***

Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.789744
Longitude :	-83.982442
Last Date in Agency List :	2023-11-08

Map Id: 19
Direction: WNW
Distance: 0.691 mi., 3651 ft.
Elevation: 854 ft.
Relative: Higher

Site Name : 963131
39.797333, -84.007472
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34281707
EPA ID: N/R

WELLS - OH

Well Number :	963131
Total Depth :	60
Completion Date :	2004-04-10
Bedrock Depth :	31
Comments :	N/R
DEM Elevation :	854.9
BR Elevation :	823.9
Comp Elevation :	794.9
Township :	BATH
Aquifer Type :	SHALE
Well Use :	AGRIC/IRRIG
Driller Name :	JENKINS PUMP SALES & SERV
Pump Type :	N/R
Completion Year :	2004
Owner First Name :	SCOTT
Owner Last Name :	BATES
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1531 GRACELAND DR, FAIRBORN, OH 45324
County :	GREENE
Is flowing Ind :	N/R
Test Rate :	15
Draw Down :	1
Draw Down Test Duration :	0
Water Level :	18
Water Measure :	T
Water Level Date :	2004-04-10
Casing Height :	1
Location Ind :	N/R

Map Id: 19
Direction: WNW
Distance: 0.691 mi., 3651 ft.
Elevation: 854 ft.
Relative: Higher

Site Name : 963131
39.797333, -84.007472
OH

Database(s) : [WELLS - OH] ***(cont.)***

Envirosite ID: 34281707
EPA ID: N/R

WELLS - OH ***(cont.)***

Assoc Rpt Ind :	N/R
Date Added :	2004-07-12
Added by :	BROWN,CLEVE
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	15
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.797333
Longitude :	-84.007472
Last Date in Agency List :	2023-11-08

Map Id: B20
Direction: ESE
Distance: 0.719 mi., 3795 ft.
Elevation: 903 ft.
Relative: Higher

Site Name : 614622
39.785527, -83.983143
OH

Database(s) : [WELLS - OH]

Envirosite ID: 51001746
EPA ID: N/R

WELLS - OH

Well Number :	614622
Total Depth :	200
Completion Date :	1984-06-01
Bedrock Depth :	33
Comments :	N/R
DEM Elevation :	N/R
BR Elevation :	N/R
Comp Elevation :	N/R
Township :	BATH
Aquifer Type :	SHALE
Well Use :	DOMESTIC
Driller Name :	JENKINS PUMP SALES & SERV
Pump Type :	N/R
Completion Year :	1984
Owner First Name :	BOB
Owner Last Name :	HUTCHINSON
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1497 DAYTON YELLOW SPRING RD, OH
County :	GREENE
Is flowing Ind :	N
Test Rate :	3

Map Id: B20
Direction: ESE
Distance: 0.719 mi., 3795 ft.
Elevation: 903 ft.
Relative: Higher

Site Name : 614622
39.785527, -83.983143
OH

Database(s) : [WELLS - OH] ***(cont.)***

Envirosite ID: 51001746
EPA ID: N/R

WELLS - OH ***(cont.)***

Draw Down :	100
Draw Down Test Duration :	1
Water Level :	15
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	Y
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	2022-06-09
Changed by :	odnr_editor
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.785527
Longitude :	-83.983143
Last Date in Agency List :	2023-11-08

Map Id: B21
Direction: ESE
Distance: 0.724 mi., 3821 ft.
Elevation: 903 ft.
Relative: Higher

Site Name : 394708083585900
39.785615, -83.982989
OH

Database(s) : [NWIS]

Envirosite ID: 20784305
EPA ID: N/R

NWIS

Site Identification Number :	394708083585900
Site Type :	Well
Station Name :	GR-530
Agency :	U.S. Geological Survey
District :	N/R
State :	OH
County :	Greene County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	YELLOW SPRINGS
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	904
Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	5
Altitude Datum :	National Geodetic Vertical Datum of 1929
Hydrologic Unit :	Little Miami
Drainage Basin :	N/R
Topographic Setting :	Flat surface
Flags for the Type of Data Collected:	NONNNNNNNNNNNNNNNNNNNNNNNNNNO
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN

Map Id: B21
Direction: ESE
Distance: 0.724 mi., 3821 ft.
Elevation: 903 ft.
Relative: Higher

Site Name : 394708083585900
39.785615, -83.982989
OH

Database(s) : [NWIS] ***(cont.)***

Envirosite ID: 20784305
EPA ID: N/R

NWIS ***(cont.)***

Date of First Construction :	1978-11-22
Date Site Established or Inventoried:	1991-03-07
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Data have been checked by the reporting agency.
Data-Other GW Files :	YYYYNNNN
National Aquifer :	N/R
Local Aquifer :	Richmond Group
Local Aquifer Type :	Confined single aquifer
Well Depth :	90
Hole Depth :	90
Source of Depth Data :	L
Project Number :	443910000
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	0
Field Water-Level Measurements Begin Date:	1978-11-22
Field Water-level Measurements End Date:	1978-11-22
Field Water-Level Measurements Count:	1
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	39.785615
Longitude :	-83.982989
Last Date in Agency List :	2023-09-22

Map Id: 22
Direction: E
Distance: 0.727 mi., 3838 ft.
Elevation: 901 ft.
Relative: Higher

Site Name : 423443
39.79316, -83.9818
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34076775
EPA ID: N/R

WELLS - OH

Well Number :	423443
Total Depth :	128
Completion Date :	1972-08-15
Bedrock Depth :	120
Comments :	N/R
DEM Elevation :	899.2
BR Elevation :	779.2
Comp Elevation :	771.2
Township :	BATH
Aquifer Type :	LIMESTONE
Well Use :	DOMESTIC

Map Id: 22
Direction: E
Distance: 0.727 mi., 3838 ft.
Elevation: 901 ft.
Relative: Higher

Site Name : 423443
39.79316, -83.9818
OH

Database(s) : [WELLS - OH] ***(cont.)***

Envirosite ID: 34076775
EPA ID: N/R

WELLS - OH ***(cont.)***

Driller Name :	HAMILTON & SONS WELL DRILLING
Pump Type :	N/R
Completion Year :	1972
Owner First Name :	ARNOLD
Owner Last Name :	WILLIAMS
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	3644 BYRON RD, OH
County :	GREENE
Is flowing Ind :	N
Test Rate :	10
Draw Down :	5
Draw Down Test Duration :	3
Water Level :	70
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	Y
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.79316
Longitude :	-83.9818
Last Date in Agency List :	2023-11-08

Map Id: 23
Direction: NW
Distance: 0.729 mi., 3852 ft.
Elevation: 849 ft.
Relative: Lower

Site Name : 963145
39.79897, -84.0066
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34116365
EPA ID: N/R

WELLS - OH

Well Number :	963145
Total Depth :	58
Completion Date :	2004-10-22
Bedrock Depth :	N/R

Map Id: 23
Direction: NW
Distance: 0.729 mi., 3852 ft.
Elevation: 849 ft.
Relative: Lower

Site Name : 963145
39.79897, -84.0066
OH

Database(s) : [WELLS - OH] ***(cont.)***

Envirosite ID: 34116365
EPA ID: N/R

WELLS - OH ***(cont.)***

Comments :	N/R
DEM Elevation :	849.9
BR Elevation :	N/R
Comp Elevation :	791.9
Township :	BATH
Aquifer Type :	N/R
Well Use :	AGRIC/IRRIG
Driller Name :	JENKINS PUMP SALES & SERV
Pump Type :	N/R
Completion Year :	2004
Owner First Name :	DAVE
Owner Last Name :	JUDSON
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1378 MEADOWLANDS DR, FAIRLAWN, OH 45324
County :	GREENE
Is flowing Ind :	N/R
Test Rate :	20
Draw Down :	1
Draw Down Test Duration :	1
Water Level :	20
Water Measure :	T
Water Level Date :	2004-10-26
Casing Height :	N/R
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	2005-01-21
Added by :	BROWN,CLEVE
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	20
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.79897
Longitude :	-84.0066
Last Date in Agency List :	2023-11-08

Map Id: B24
Direction: ESE
Distance: 0.737 mi., 3890 ft.
Elevation: 909 ft.
Relative: Higher

Site Name : 394710083585700
39.78617, -83.982433
OH

Database(s) : [NWIS]

Envirosite ID: 31396759
EPA ID: N/R

NWIS

Site Identification Number :	394710083585700
Site Type :	Well
Station Name :	GR-344
Agency :	U.S. Geological Survey
District :	N/R
State :	OH
County :	Greene County
Country :	USA
Land Net Location :	NWNWNWS12T3R7
Name of Location Map :	YELLOW SPRINGS
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	910
Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	5
Altitude Datum :	National Geodetic Vertical Datum of 1929
Hydrologic Unit :	Upper Great Miami, Indiana, Ohio
Drainage Basin :	N/R
Topographic Setting :	Hillside
Flags for the Type of Data Collected:	NANNNNNNNNNNNNNNNNNNNNNNNNNNO
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	1961-03-04
Date Site Established or Inventoried:	1990-11-21
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Unchecked data.
Data-Other GW Files :	YYYYNYNN
National Aquifer :	Sand and gravel aquifers (glaciated regions)
Local Aquifer :	Outwash
Local Aquifer Type :	Confined multiple aquifers
Well Depth :	50
Hole Depth :	50
Source of Depth Data :	D
Project Number :	443909300
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	0
Field Water-Level Measurements Begin Date:	1961-03-04
Field Water-level Measurements End Date:	1961-03-04
Field Water-Level Measurements Count:	1
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	39.78617
Longitude :	-83.982433
Last Date in Agency List :	2023-09-22

Map Id: B25
Direction: ESE
Distance: 0.746 mi., 3940 ft.
Elevation: 911 ft.
Relative: Higher

Site Name : 242833
39.786423, -83.982128
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34346842
EPA ID: N/R

WELLS - OH

Well Number :	242833
Total Depth :	50
Completion Date :	1961-03-04
Bedrock Depth :	48
Comments :	N/R
DEM Elevation :	910.6
BR Elevation :	862.6
Comp Elevation :	860.6
Township :	BATH
Aquifer Type :	LIMESTONE & SHALE
Well Use :	DOMESTIC
Driller Name :	THOMAS WELL DRILLING
Pump Type :	N/R
Completion Year :	1961
Owner First Name :	C
Owner Last Name :	GARGETT
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	7
Address :	DAYTON YELLOW SPRING RD, OH
County :	GREENE
Is flowing Ind :	N
Test Rate :	10
Draw Down :	2
Draw Down Test Duration :	N/R
Water Level :	24
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	Y
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	\\NRAS1\
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.786423
Longitude :	-83.982128
Last Date in Agency List :	2023-11-08

Map Id: B26
Direction: ESE
Distance: 0.748 mi., 3948 ft.
Elevation: 908 ft.
Relative: Higher

Site Name : 530069
39.785482, -83.98257
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34090060
EPA ID: N/R

WELLS - OH

Well Number :	530069
Total Depth :	90
Completion Date :	1978-11-22
Bedrock Depth :	34
Comments :	N/R
DEM Elevation :	907.7
BR Elevation :	873.7
Comp Elevation :	817.7
Township :	BATH
Aquifer Type :	SHALE
Well Use :	DOMESTIC
Driller Name :	HALLS WELL DRILLING
Pump Type :	N/R
Completion Year :	1978
Owner First Name :	WILLIAM
Owner Last Name :	SMITH
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	DAYTON SPRINGS, OH
County :	GREENE
Is flowing Ind :	N
Test Rate :	2
Draw Down :	70
Draw Down Test Duration :	4
Water Level :	18
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	Y
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.785482
Longitude :	-83.98257
Last Date in Agency List :	2023-11-08

Map Id: 27
Direction: SE
Distance: 0.756 mi., 3993 ft.
Elevation: 895 ft.
Relative: Higher

Site Name : 394653083591100
39.781448, -83.986322
OH

Database(s) : [NWIS]

Envirosite ID: 20786559
EPA ID: N/R

NWIS

Site Identification Number :	394653083591100
Site Type :	Well
Station Name :	GR-137
Agency :	U.S. Geological Survey
District :	N/R
State :	OH
County :	Greene County
Country :	USA
Land Net Location :	NESESW S18 T 3 R 7
Name of Location Map :	YELLOW SPRINGS
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	891.
Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	5.
Altitude Datum :	National Geodetic Vertical Datum of 1929
Hydrologic Unit :	Little Miami
Drainage Basin :	N/R
Topographic Setting :	Flat surface
Flags for the Type of Data Collected:	NANNNNNNNNNNNNNNNNNNNNNNNNNNO
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	1987-11-19
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Minimal data.
Data-Other GW Files :	YYNNNYNN
National Aquifer :	N/R
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	N/R
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	443909300
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	0
Field Water-Level Measurements Begin Date:	1987-11-19
Field Water-level Measurements End Date:	1989-06-27
Field Water-Level Measurements Count:	3
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	39.781448
Longitude :	-83.986322
Last Date in Agency List :	2023-09-22

Map Id: B28
Direction: ESE
Distance: 0.757 mi., 3997 ft.
Elevation: 909 ft.
Relative: Higher

Site Name : 1011277
39.78578, -83.98222
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34331221
EPA ID: N/R

WELLS - OH

Well Number :	1011277
Total Depth :	37
Completion Date :	2009-04-09
Bedrock Depth :	35
Comments :	N/R
DEM Elevation :	909
BR Elevation :	874
Comp Elevation :	872
Township :	BATH
Aquifer Type :	SAND & GRAVEL
Well Use :	DOMESTIC
Driller Name :	HAMILTON & SONS WELL DRILLING
Pump Type :	N/R
Completion Year :	2009
Owner First Name :	N/R
Owner Last Name :	STONE
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1479 DAYTON YELLOW SPRINGS RD, FAIRBORN, OH 45324
County :	GREENE
Is flowing Ind :	N/R
Test Rate :	N/R
Draw Down :	18
Draw Down Test Duration :	4
Water Level :	19
Water Measure :	G
Water Level Date :	2009-04-09
Casing Height :	1
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	2010-01-05
Added by :	BROWN,CLEVE
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.78578
Longitude :	-83.98222
Last Date in Agency List :	2023-11-08

Map Id: B29
Direction: ESE
Distance: 0.765 mi., 4042 ft.
Elevation: 911 ft.
Relative: Higher

Site Name : 614629 | 802284
39.7857, -83.982086
OH

Database(s) : [WELLS - OH]

Envirosite ID: 51112144
EPA ID: N/R

WELLS - OH

Well Number :	614629
Total Depth :	230
Completion Date :	1984-08-30
Bedrock Depth :	55
Comments :	N/R
DEM Elevation :	N/R
BR Elevation :	N/R
Comp Elevation :	N/R
Township :	BATH
Aquifer Type :	SHALE
Well Use :	DOMESTIC
Driller Name :	JENKINS PUMP SALES & SERV
Pump Type :	N/R
Completion Year :	1984
Owner First Name :	TOM
Owner Last Name :	SEITHER
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1471 DAYTON YELLOW SPRING RD, OH
County :	GREENE
Is flowing Ind :	N
Test Rate :	11
Draw Down :	3
Draw Down Test Duration :	3
Water Level :	6
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	Y
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	2022-06-09
Changed by :	odnr_editor
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.7857
Longitude :	-83.982086
Last Date in Agency List :	2023-11-08

Well Number :	802284
Total Depth :	101
Completion Date :	1994-09-20
Bedrock Depth :	39
Comments :	N/R
DEM Elevation :	N/R

Map Id: B29
Direction: ESE
Distance: 0.765 mi., 4042 ft.
Elevation: 911 ft.
Relative: Higher

Site Name : 614629 | 802284
39.7857, -83.982086
OH

Database(s) : [WELLS - OH] ***(cont.)***

Envirosite ID: 51112144
EPA ID: N/R

WELLS - OH ***(cont.)***

BR Elevation :	N/R
Comp Elevation :	N/R
Township :	BATH
Aquifer Type :	LIMESTONE & SHALE
Well Use :	MONITOR
Driller Name :	WILEY WELL DRILLING INC
Pump Type :	N/R
Completion Year :	1994
Owner First Name :	N/R
Owner Last Name :	UNIBILT
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1471 DAYTON YELLOW SPRING RD, OH
County :	GREENE
Is flowing Ind :	N
Test Rate :	N/R
Draw Down :	N/R
Draw Down Test Duration :	N/R
Water Level :	N/R
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	N/R
Assoc Rpt Ind :	Y
Date Added :	N/R
Added by :	N/R
Date Changed :	2022-06-09
Changed by :	odnr_editor
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.7857
Longitude :	-83.982086
Last Date in Agency List :	2023-11-08

Map Id: 30
Direction: NW
Distance: 0.794 mi., 4193 ft.
Elevation: 854 ft.
Relative: Higher

Site Name : 794430
39.800227, -84.006627
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34472391
EPA ID: N/R

WELLS - OH

Well Number :	794430
Total Depth :	30
Completion Date :	1994-08-10
Bedrock Depth :	N/R
Comments :	N/R
DEM Elevation :	854.6
BR Elevation :	N/R
Comp Elevation :	824.6
Township :	BATH
Aquifer Type :	GRAVEL
Well Use :	AGRIC/IRRIG
Driller Name :	HAMILTON & SONS WELL DRILLING
Pump Type :	N/R
Completion Year :	1994
Owner First Name :	FRANK
Owner Last Name :	SUBLETT
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1379 MEADOWLANDS DR, FAIRBORN, OH 45324
County :	GREENE
Is flowing Ind :	N
Test Rate :	25
Draw Down :	1
Draw Down Test Duration :	1
Water Level :	15
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.800227
Longitude :	-84.006627
Last Date in Agency List :	2023-11-08

Map Id: B31
Direction: ESE
Distance: 0.795 mi., 4200 ft.
Elevation: 912 ft.
Relative: Higher

Site Name : 711175
39.785805, -83.981428
OH

Database(s) : [WELLS - OH]

Envirosite ID: 51009377
EPA ID: N/R

WELLS - OH

Well Number :	711175
Total Depth :	60
Completion Date :	1990-08-30
Bedrock Depth :	36
Comments :	N/R
DEM Elevation :	N/R
BR Elevation :	N/R
Comp Elevation :	N/R
Township :	BATH
Aquifer Type :	SHALE
Well Use :	DOMESTIC
Driller Name :	SPROWLS DRILLING CO
Pump Type :	N/R
Completion Year :	1990
Owner First Name :	KEVIN
Owner Last Name :	BURKE
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	12
Address :	1451 DAYTON YELLOW SPRING RD, OH
County :	GREENE
Is flowing Ind :	N
Test Rate :	15
Draw Down :	20
Draw Down Test Duration :	1
Water Level :	8.5
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	2022-06-09
Changed by :	odnr_editor
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.785805
Longitude :	-83.981428
Last Date in Agency List :	2023-11-08

Map Id: 32
Direction: WSW
Distance: 0.796 mi., 4203 ft.
Elevation: 907 ft.
Relative: Higher

Site Name : 697585 | 780197
39.784401, -84.010197
OH

Database(s) : [WELLS - OH]

Envirosite ID: 50909976
EPA ID: N/R

WELLS - OH

Well Number :	697585
Total Depth :	92
Completion Date :	1989-06-01
Bedrock Depth :	21
Comments :	N/R
DEM Elevation :	N/R
BR Elevation :	N/R
Comp Elevation :	N/R
Township :	MIAMI
Aquifer Type :	LIMESTONE
Well Use :	AGRIC/IRRIG
Driller Name :	LOWER WELL DRILLING CO
Pump Type :	N/R
Completion Year :	1989
Owner First Name :	PAUL
Owner Last Name :	WAGNER
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	22
Address :	600 DAYTON YELLOW SPRING RD, OH
County :	GREENE
Is flowing Ind :	N
Test Rate :	10
Draw Down :	15
Draw Down Test Duration :	10
Water Level :	15
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	2022-06-09
Changed by :	odnr_editor
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.784401
Longitude :	-84.010197
Last Date in Agency List :	2023-11-08

Well Number :	780197
Total Depth :	138
Completion Date :	1994-05-24
Bedrock Depth :	N/R
Comments :	N/R
DEM Elevation :	N/R

Map Id: 32
Direction: WSW
Distance: 0.796 mi., 4203 ft.
Elevation: 907 ft.
Relative: Higher

Site Name : 697585 | 780197
39.784401, -84.010197
OH

Database(s) : [WELLS - OH] ***(cont.)***

Envirosite ID: 50909976
EPA ID: N/R

WELLS - OH ***(cont.)***

BR Elevation :	N/R
Comp Elevation :	N/R
Township :	BATH
Aquifer Type :	GRAVEL
Well Use :	PUBLIC/SEMI-PUB
Driller Name :	N/R
Pump Type :	N/R
Completion Year :	1994
Owner First Name :	N/R
Owner Last Name :	FAIRCREEK CHURCH
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	600 E DAYTON YELLOW SPRING RD, OH
County :	GREENE
Is flowing Ind :	N
Test Rate :	30
Draw Down :	3.1
Draw Down Test Duration :	12
Water Level :	74
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	N/R
Assoc Rpt Ind :	Y
Date Added :	N/R
Added by :	N/R
Date Changed :	2022-06-09
Changed by :	odnr_editor
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.784401
Longitude :	-84.010197
Last Date in Agency List :	2023-03-14

Map Id: C33
Direction: ESE
Distance: 0.820 mi., 4330 ft.
Elevation: 914 ft.
Relative: Higher

Site Name : 252023
39.785558, -83.981056
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34242558
EPA ID: N/R

WELLS - OH

Well Number :	252023
Total Depth :	85
Completion Date :	1960-12-09
Bedrock Depth :	35
Comments :	N/R
DEM Elevation :	914.5
BR Elevation :	879.5
Comp Elevation :	829.5
Township :	BATH
Aquifer Type :	SHALE
Well Use :	DOMESTIC
Driller Name :	WEAVER (DON)
Pump Type :	N/R
Completion Year :	1960
Owner First Name :	W
Owner Last Name :	WEIMER
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	DAYTON YELLOW SPRING RD, OH
County :	GREENE
Is flowing Ind :	N
Test Rate :	30
Draw Down :	N/R
Draw Down Test Duration :	10
Water Level :	18
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	Y
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	\\NRAS1\
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.785558
Longitude :	-83.981056
Last Date in Agency List :	2023-11-08

Map Id: C34
Direction: ESE
Distance: 0.829 mi., 4379 ft.
Elevation: 916 ft.
Relative: Higher

Site Name : 509902
39.785616, -83.980841
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34371771
EPA ID: N/R

WELLS - OH

Well Number :	509902
Total Depth :	50
Completion Date :	1978-04-27
Bedrock Depth :	40
Comments :	N/R
DEM Elevation :	917.6
BR Elevation :	874.6
Comp Elevation :	867.6
Township :	BATH
Aquifer Type :	SHALE & SANDSTONE
Well Use :	N/R
Driller Name :	EDDIE ACHOR WELL DRILLING
Pump Type :	N/R
Completion Year :	1978
Owner First Name :	J
Owner Last Name :	BATES
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1451 DAYTON YELLOW SPRING RD, OH
County :	GREENE
Is flowing Ind :	N
Test Rate :	15
Draw Down :	10
Draw Down Test Duration :	2
Water Level :	7
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	Y
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.785616
Longitude :	-83.980841
Last Date in Agency List :	2023-11-08

Map Id: 35
Direction: SSE
Distance: 0.837 mi., 4419 ft.
Elevation: 895 ft.
Relative: Higher

Site Name : 394643083592200
39.77867, -83.989378
OH

Database(s) : [NWIS]

Envirosite ID: 31307464
EPA ID: N/R

NWIS

Site Identification Number :	394643083592200
Site Type :	Well
Station Name :	GR-135
Agency :	U.S. Geological Survey
District :	N/R
State :	OH
County :	Greene County
Country :	USA
Land Net Location :	SENWSE S 18T 3 R 7
Name of Location Map :	YELLOW SPRINGS
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	890.00
Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	5
Altitude Datum :	National Geodetic Vertical Datum of 1929
Hydrologic Unit :	Little Miami
Drainage Basin :	N/R
Topographic Setting :	Hillside
Flags for the Type of Data Collected:	NANNNNNNNNNNNNNNNNNNNNNNNNNNO
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Data have been checked by the reporting agency.
Data-Other GW Files :	YYNYNYNN
National Aquifer :	N/R
Local Aquifer :	Richmond Group
Local Aquifer Type :	Confined multiple aquifers
Well Depth :	N/R
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	443909300
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	0
Field Water-Level Measurements Begin Date:	1987-11-19
Field Water-level Measurements End Date:	1989-06-27
Field Water-Level Measurements Count:	3
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	39.77867
Longitude :	-83.989378
Last Date in Agency List :	2023-09-22

Map Id: D36
Direction: SSE
Distance: 0.878 mi., 4635 ft.
Elevation: 878 ft.
Relative: Higher

Site Name : 394638083593500
39.777282, -83.992989
OH

Database(s) : [NWIS]

Envirosite ID: 20784271
EPA ID: N/R

NWIS

Site Identification Number :	394638083593500
Site Type :	Well
Station Name :	GR-345
Agency :	U.S. Geological Survey
District :	N/R
State :	OH
County :	Greene County
Country :	USA
Land Net Location :	SWNWSES18T3R7
Name of Location Map :	YELLOW SPRINGS
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	880
Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	5
Altitude Datum :	National Geodetic Vertical Datum of 1929
Hydrologic Unit :	Upper Great Miami, Indiana, Ohio
Drainage Basin :	N/R
Topographic Setting :	Hillside
Flags for the Type of Data Collected:	NANNNNNNNNNNNNNNNNNNNNNNNNNNO
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	1953-10-23
Date Site Established or Inventoried:	1990-11-21
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Unchecked data.
Data-Other GW Files :	YYNYNYNN
National Aquifer :	N/R
Local Aquifer :	Ordovician System
Local Aquifer Type :	Confined single aquifer
Well Depth :	30
Hole Depth :	30
Source of Depth Data :	D
Project Number :	443909300
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	0
Field Water-Level Measurements Begin Date:	1953-10-23
Field Water-level Measurements End Date:	1953-10-23
Field Water-Level Measurements Count:	1
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	39.777282
Longitude :	-83.992989
Last Date in Agency List :	2023-09-22

Map Id: 37
Direction: NW
Distance: 0.878 mi., 4638 ft.
Elevation: 855 ft.
Relative: Higher

Site Name : 824117
39.802009, -84.006205
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34098557
EPA ID: N/R

WELLS - OH

Well Number :	824117
Total Depth :	30
Completion Date :	1995-11-14
Bedrock Depth :	29
Comments :	N/R
DEM Elevation :	854.2
BR Elevation :	825.2
Comp Elevation :	824.2
Township :	BATH
Aquifer Type :	SHALE
Well Use :	AGRIC/IRRIG
Driller Name :	HAMILTON & SONS WELL DRILLING
Pump Type :	N/R
Completion Year :	1995
Owner First Name :	ALLEN
Owner Last Name :	GEORGE
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1319 MEADOWLANDS DR, FAIRBORN, OH 45324
County :	GREENE
Is flowing Ind :	N
Test Rate :	8
Draw Down :	1
Draw Down Test Duration :	2
Water Level :	18
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	N/R
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.802009
Longitude :	-84.006205
Last Date in Agency List :	2023-11-08

Map Id: 38
Direction: W
Distance: 0.881 mi., 4650 ft.
Elevation: 906 ft.
Relative: Higher

Site Name : 555130
39.791343, -84.01354
OH

Database(s) : [WELLS - OH]

Envirosite ID: 51129217
EPA ID: N/R

WELLS - OH

Well Number :	555130
Total Depth :	85
Completion Date :	1980-12-02
Bedrock Depth :	N/R
Comments :	N/R
DEM Elevation :	N/R
BR Elevation :	N/R
Comp Elevation :	N/R
Township :	BATH
Aquifer Type :	GRAVEL & SAND
Well Use :	DOMESTIC
Driller Name :	HAMILTON & SONS WELL DRILLING
Pump Type :	N/R
Completion Year :	1980
Owner First Name :	JAMES
Owner Last Name :	POOL
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	1828 ROBINWOOD DR, OH
County :	GREENE
Is flowing Ind :	N
Test Rate :	10
Draw Down :	3
Draw Down Test Duration :	6
Water Level :	60
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	Y
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	2022-06-09
Changed by :	odnr_editor
Sustained Yield :	N/R
Attach Status :	N/R
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.791343
Longitude :	-84.01354
Last Date in Agency List :	2023-11-08

Map Id: D39
Direction: SSE
Distance: 0.889 mi., 4694 ft.
Elevation: 876 ft.
Relative: Higher

Site Name : 100963
39.777124, -83.992957
OH

Database(s) : [WELLS - OH]

Envirosite ID: 34330838
EPA ID: N/R

WELLS - OH

Well Number :	100963
Total Depth :	13
Completion Date :	1953-10-23
Bedrock Depth :	11
Comments :	N/R
DEM Elevation :	876.8
BR Elevation :	865.8
Comp Elevation :	863.8
Township :	BATH
Aquifer Type :	SHALE
Well Use :	DOMESTIC
Driller Name :	LOWER (EDWARD H)
Pump Type :	N/R
Completion Year :	1953
Owner First Name :	JAMES
Owner Last Name :	TODD
Subdivition Name :	N/R
Subdivision Map Year :	N/R
Subdivision Number :	N/R
Permiot Number :	N/R
Sec Owner Name :	N/R
Lot Number :	N/R
Section Number :	N/R
Address :	TEBEIN RD, OH
County :	GREENE
Is flowing Ind :	N
Test Rate :	N/R
Draw Down :	N/R
Draw Down Test Duration :	N/R
Water Level :	15
Water Measure :	N/R
Water Level Date :	N/R
Casing Height :	N/R
Location Ind :	Y
Assoc Rpt Ind :	N/R
Date Added :	N/R
Added by :	N/R
Date Changed :	N/R
Changed by :	N/R
Sustained Yield :	N/R
Attach Status :	\\NRAS1\
Pump Type Code :	N/R
Pump Set :	N/R
Pitless Type :	N/R
Assoc Well Number :	N/R
Project Well ID :	N/R
Latitude :	39.777124
Longitude :	-83.992957
Last Date in Agency List :	2023-11-08

RADON DATA:

STATE SOURCE: No Available Data

FEDERAL AREA RADON INFORMATION FOR: 45324

NUMBER OF SAMPLE SITES: 7

Area:	Average Activity:	% <4 pCi/L:	% 4-20 pCi/L:	% >20 pCi/L:
basement	5.1 pCi/L	60%	40%	0%
first floor	1.4 pCi/L	100%	0%	0%

FEDERAL EPA RADON ZONE FOR GREENE COUNTY: Zone = 1

Note: Zone 1 indoor average level > 4 pCI/L

: Zone 2 indoor average level > = 2 pCI/L and <= 4 pCI/L

: Zone 3 indoor average < 2 pCI/L

HIST PWS ENF
Historical Public Water Supply locations with Enforcement Violations
Environmental Protection Agency
(800) 426-4791
List of Safe Drinking Water Information Systems (SDWIS) with enforcement violations that are no longer in current agency list.

NWIS
National Water Information Systems
United States Geological Society
(703) 648-5953
Information on all water resources for the United States. This database contains all current and historical data for the nation.

PWS
Public Water Supply
Environmental Protection Agency
(800) 426-4791
Safe drinking water information Systems

PWS ENF
Public Water Supply locations with Enforcement Violations
Environmental Protection Agency
(800) 426-4791
Safe drinking water information Systems with enforcememnt violations

WELLS - OH
Wells
Ohio Department of Natural Resources
Water Wells

FLOOD Q3
Flood data
Environmental Protection Agency
(202) 566-1667
Q3 Flood Data

HYDROLOGIC UNIT
Hydrologic Unit Maps
USGS
The United States Geological Survey created a hierarchical system of hydrologic units originally called regions, sub-regions, accounting units, and cataloging units. Each unit was assigned a unique Hydrologic Unit Code (HUC). As first implemented the system had 21 regions, 221 subregions, 378 accounting units, and 2,264 cataloging units. Over time the system was changed and expanded. As of 2010 there are six levels in the hierarchy, represented by hydrologic unit codes from 2 to 12 digits long, called regions, subregions, basins, subbasins, watersheds, and subwatersheds. The table below describes the system's hydrologic unit levels and their characteristics, along with example names and codes.

WETLANDS NWI
National Wetland Inventory
U.S. Fish and Wildlife Service
(703) 358-2171
Wetland Inventory for the United States

SSURGO
Detailed Soil Data Map
Natural Resources Conservation Service: U.S. Department of Agriculture
(202) 690-4985
Detailed Soil Data Map

STATSGO & MUI
General Soil Data Map
Natural Resources Conservation Service: U.S. Department of Agriculture
(202) 690-4985
General Soil Data Map

USGS GEOLOGIC AGE
USGS Digital Data Series DDS
Natural Resources Conservation Service: U.S. Department of Agriculture
(202) 690-4985
USGS Digital Data Series DDS: Geologic Age and Rock Stratigraphic Unit

OIL & GAS WELLS - OH
Oil and Gas Well Data
Division of Oil & Gas Resources
614.265.6923
Oil and gas well locations and detail for all 6 districts

RADON
National Radon Database
U.S. Environmental Protection Agency
215-814-2469
A study of the EPA/State Residential Radon Survey and the National Residential Radon Survey.

RADON EPA
RADON EPA
U.S. Environmental Protection Agency
215-814-2469
EPA list of Radon zones

AIRPORT FACILITIES
Airport landing facilities
Federal Aviation Administration
(866) 835-5322
Airport landing facilities

BASINS
Better Assessment Science Integrating point & Non-point Sources
U.S. Environmental Protection Agency
855-246-3642
Integrated geographical information system national watershed data and environmental assessment known as Better Assessment Science Integrating point & Non-point Sources

DIGITAL OBSTACLE
Obstacles of interest to aviation users
Federal Aviation Administration
855-379-6518
The Digital Obstacle File describes all known obstacles of interest to aviation users in the U.S. with limited coverage of the Pacific the Caribbean Canada and Mexico. The obstacles are assigned unique numerical identifiers; accuracy codes and listed in order of ascending latitude within each state or area by FAA Region.

EPICENTERS
National Geographical Data Center
National Geographical Data Center
303-497-6826
List of recent and historic earthquakes and information.

FLOOD DFIRM
National Flood Hazard Layer Database
Federal Emergency Management Agency
The National Flood Hazard Layer Database (NFHL) is a computer database that contains the flood hazard map information from FEMAs Flood Map Modernization program. These map data are from Digital Flood Insurance Rate Map (DFIRM) databases and Letters of Map Revision.

APPENDIX E
Historical Aerial Photo Report

Historical Aerial Photo Report | 2023

Order Number: 92707
Report Generated: 11/23/2023

Project Name: Senior Village at Valle Greene
Project Number: 23573(1)

Senior Village at Valle Greene
Channingway
Fairborn, OH, 45324

Contact us at:
(866) 211-2028
envirositecorp.com

Historical Aerial Photo Report *2023*

Envirosite's Historical Aerial Photo Report is designed to assist in evaluating a subject property resulting from past activities. Envirosite's Historical Aerial Photo Report includes a search of available historical aerial photographs, dating back to the 1930s, or earliest available photographs.

ENVIROSITE SEARCHED SOURCES

SUBJECT PROPERTY:

Senior Village at Valle Greene
Channingway
Fairborn, OH, 45324

YEAR:	***SCALE:***	***SOURCE:***
1948	1" = 1,000'	U.S.G.S
1952	1" = 1,000'	U.S.G.S
1960	1" = 1,000'	U.S.G.S
1964	1" = 500'	U.S.G.S
1968	1" = 500'	U.S.G.S
1974	1" = 1,000'	U.S.G.S
1975	1" = 1,000'	U.S.G.S
1979	1" = 1,000'	U.S.G.S
1984	1" = 1,000'	NHAP
1988	1" = 1,000'	NAPP
1994	1" = 500'	DOQ
2000	1" = 1,000'	NAPP
2001	1" = 500'	DOQ
2004	1" = 500'	NAIP
2009	1" = 500'	NAIP
2011	1" = 500'	NAIP
2013	1" = 500'	NAIP
2015	1" = 500'	NAIP
2017	1" = 500'	NAIP
2019	1" = 500'	NAIP
2021	1" = 500'	NAIP

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FLIGHT YEAR:
1948

N
W E
S

Scale: 1" = 1,000'



FLIGHT YEAR:
1952

N
W E
S

Scale: 1" = 1,000'



FLIGHT YEAR:
1960

N
W E
S

Scale: 1" = 1,000'



FLIGHT YEAR:
1964

N
W E
S

Scale: 1" = 500'



FLIGHT YEAR:
1968

N
W E
S

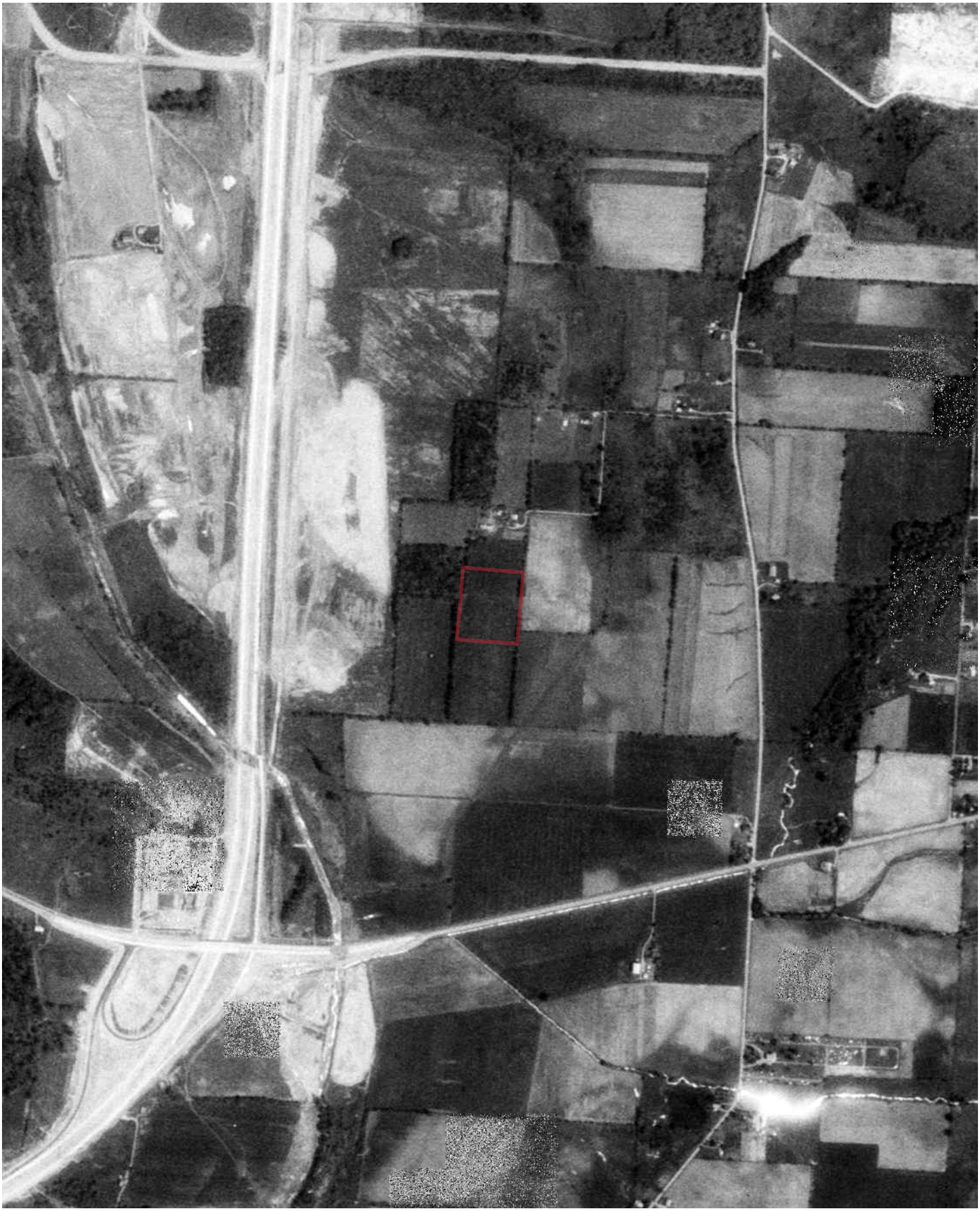
Scale: 1" = 500'



FLIGHT YEAR:
1974

N
W E
S

Scale: 1" = 1,000'



FLIGHT YEAR:
1975

N
W E
S

Scale: 1" = 1,000'



FLIGHT YEAR:
1979

N
W E
S

Scale: 1" = 1,000'



FLIGHT YEAR:
1984

N
W E
S

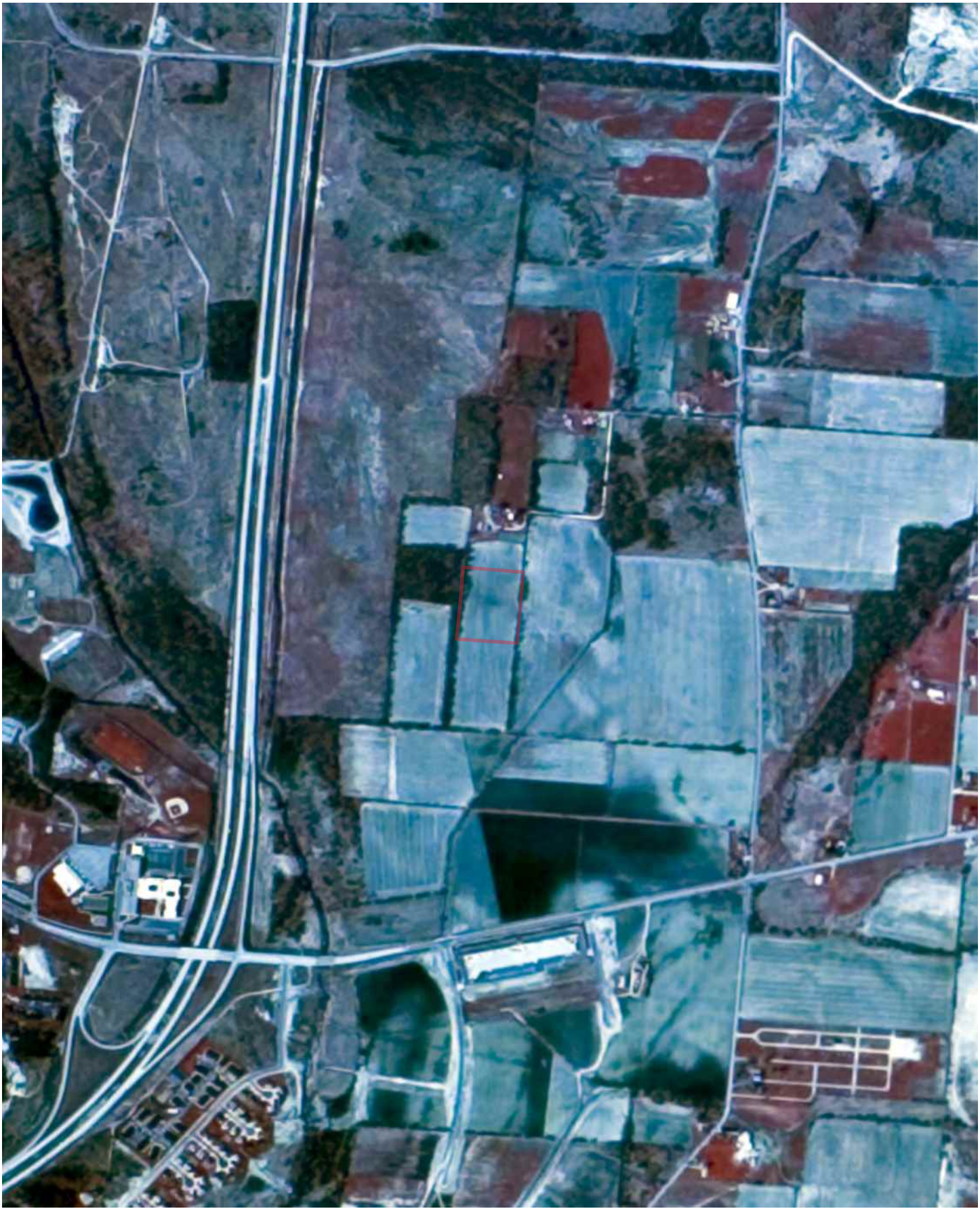
Scale: 1" = 1,000'



FLIGHT YEAR:
1988

N
W E
S

Scale: 1" = 1,000'



FLIGHT YEAR:
1994

N
W E
S

Scale: 1" = 500'



FLIGHT YEAR:
2000

N
W E
S

Scale: 1" = 1,000'



FLIGHT YEAR:
2001

N
W E
S

Scale: 1" = 500'



FLIGHT YEAR:
2004

N
W E
S

Scale: 1" = 500'



FLIGHT YEAR:
2009

N
W E
S

Scale: 1" = 500'



FLIGHT YEAR:
2011

N
W E
S

Scale: 1" = 500'



FLIGHT YEAR:
2013

N
W E
S

Scale: 1" = 500'



FLIGHT YEAR:
2015

N
W E
S

Scale: 1" = 500'



FLIGHT YEAR:
2017

N
W E
S

Scale: 1" = 500'



FLIGHT YEAR:
2019

N
W E
S

Scale: 1" = 500'



FLIGHT YEAR:
2021

N
W E
S

Scale: 1" = 500'



APPENDIX F
Sanborn Fire Insurance Maps

HIG Research Summary

Site Location
Senior Village at Valle Greene
Channingway
Fairborn, OH

Requested by
Envirosite Corporation
2 Corporate Drive
Shelton, CT

HIG Project #
2078685
Client Project #
92707
Date Created
11/21/2023

Historical Information Gatherers

This Research Summary identifies the products and services provided by Historical Information Gatherers, Inc. (HIG) for the above referenced site location. All products are provided as PDFs unless otherwise noted.

FIM+ Maps

The HIG Historical Map Collection and the United States Library of Congress Map Collection were searched for fire insurance maps (FIMs), real estate atlases and similar maps for the site location and adjoining properties. No FIMs or similar maps were identified for the site location and/or adjoining properties.

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infogroup

Fire Insurance Maps No Coverage Statement

Site Location
Senior Village at Valle Greene
Channingway
Fairborn, OH

Requested by
Envirosite Corporation
2 Corporate Drive
Shelton, CT

HIG Project #
2078685
Client Project #
92707
Date Created
11/21/2023

Historical Information Gatherers

FIM+ Maps

The HIG Historical Map Collection and the United States Library of Congress Map Collection were searched for fire insurance maps (FIMs), real estate atlases and similar maps for the site location and adjoining properties. No FIMs or similar maps were identified for the site location and/or adjoining properties.

APPENDIX G
Historical Topographic Map Report

Historical Topographic Map Report | 2023

Order Number: 92707

Report Generated: 11/21/2023

Project Name: Senior Village at Valle Greene

Project Number: 23573(1)

Senior Village at Valle Greene
Channingway
Fairborn, OH 45324

Contact us at:
(866) 211-2028
envirositecorp.com

Envirosite's Historical Topographic Map Report is designed to assist in evaluating a subject property resulting from past activities. Envirosite's Historical Topographic Map Report includes a search of USGS historical topographic maps, dating back to the early 1900s.

TOPOGRAPHIC MAPS FOUND:

	Map Name:	Year:	Revision Year:	Scale:
1.	Springfield	1904	N/R	1 : 62500
2.	Springfield	1906	N/R	1 : 62500
3.	Yellow Springs	1955	N/R	1 : 24000
4.	Yellow Springs	1968	N/R	1 : 24000
5.	Yellow Springs	1968	1975	1 : 24000
6.	Yellow Springs	1968	1992	1 : 24000
7.	Yellow_Springs	2010	N/R	1 : 24000
8.	Yellow_Springs	2013	N/R	1 : 24000
9.	Yellow_Springs	2016	N/R	1 : 24000
10.	Yellow_Springs	2019	N/R	1 : 24000
11.	Yellow_Springs	2023	N/R	1 : 24000

The USGS 7.5 minute series includes scales 1:24,000 / 1:25,000 / 1:31,680. The USGS 15 minute series includes scales 1:48,000 / 1:62,500 / 1:63,360. The USGS 30x60 minute series scale is 1:100,000.

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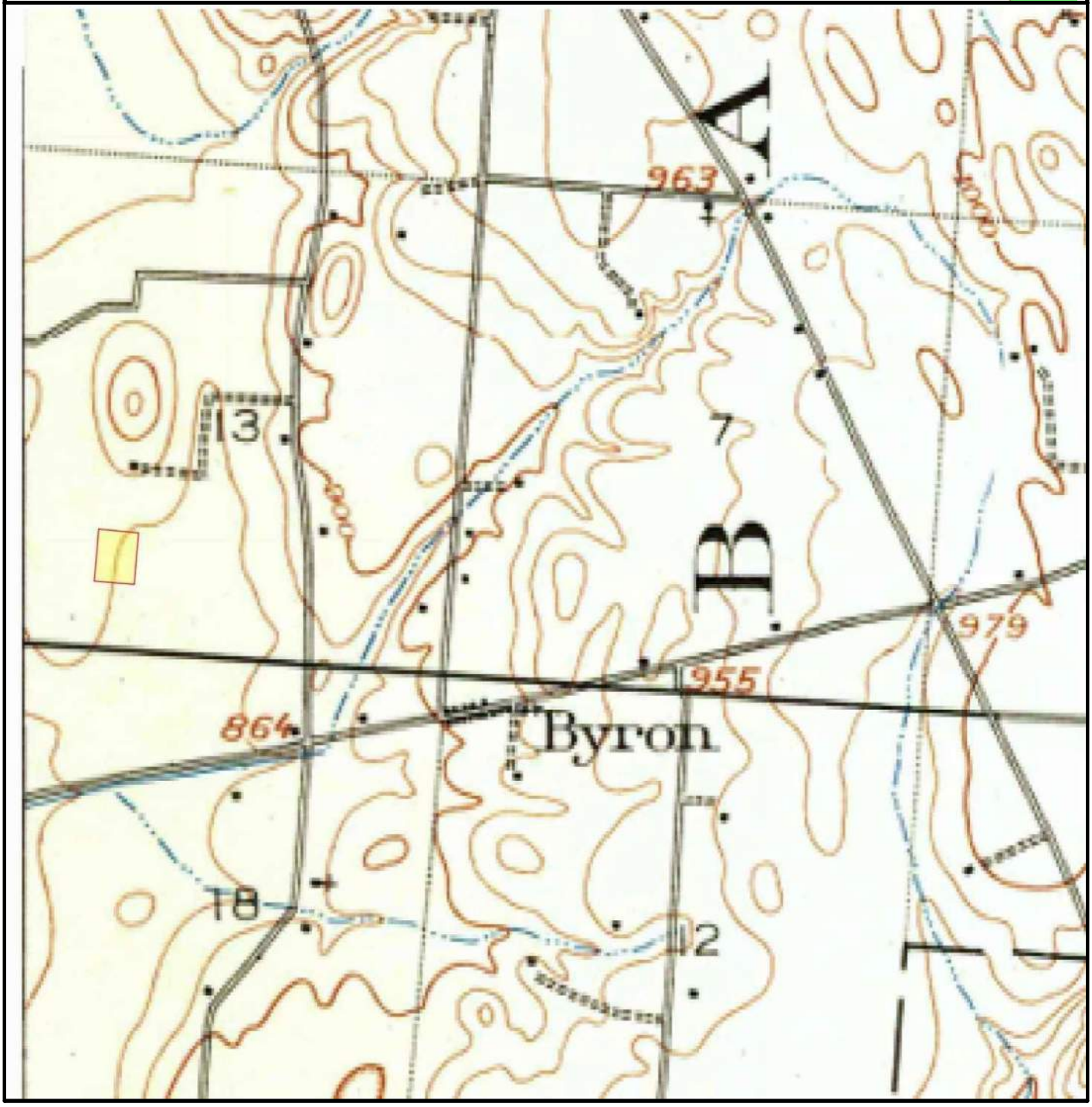
SUBJECT NAME: Senior Village at Valle Greene
ADDRESS: Channingway, Fairborn, OH, 45324
LAT/LONG: 39.790671 / -83.996173

PREPARED FOR: Kilbane Environmental
ORDER #: 92707
REPORT DATE: 11/21/2023

SUBJECT QUAD:

MAP NAME:	Springfield	MAP YEAR:	1904	REVISION YEAR:	N/R
SCALE:	1 : 62500	Part	1		

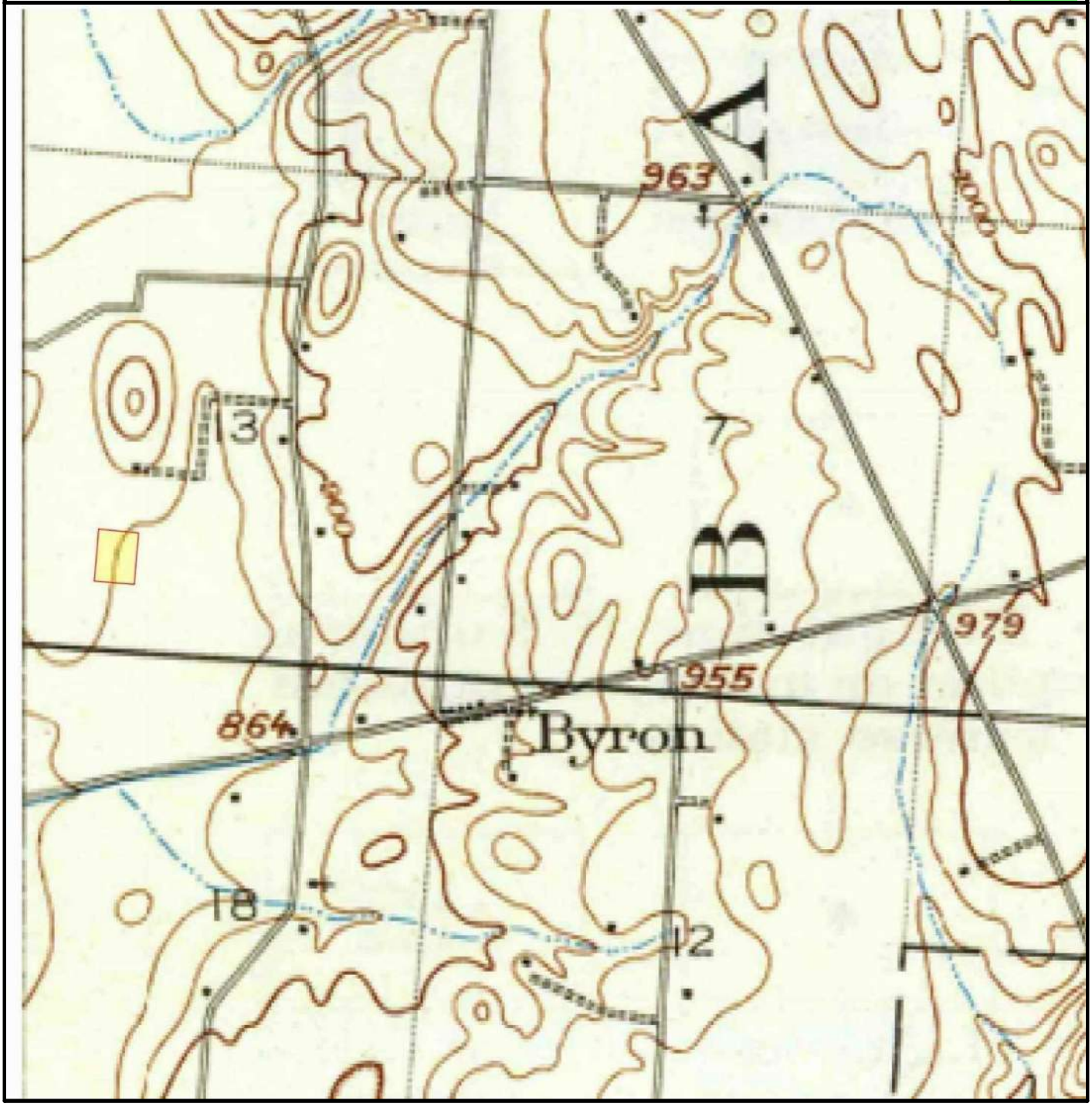


SUBJECT NAME: Senior Village at Valle Greene
ADDRESS: Channingway, Fairborn, OH, 45324
LAT/LONG: 39.790671 / -83.996173

PREPARED FOR: Kilbane Environmental
ORDER #: 92707
REPORT DATE: 11/21/2023

SUBJECT QUAD:

MAP NAME:	Springfield	MAP YEAR:	1906	REVISION YEAR:	N/R
SCALE:	1 : 62500	Part	1		

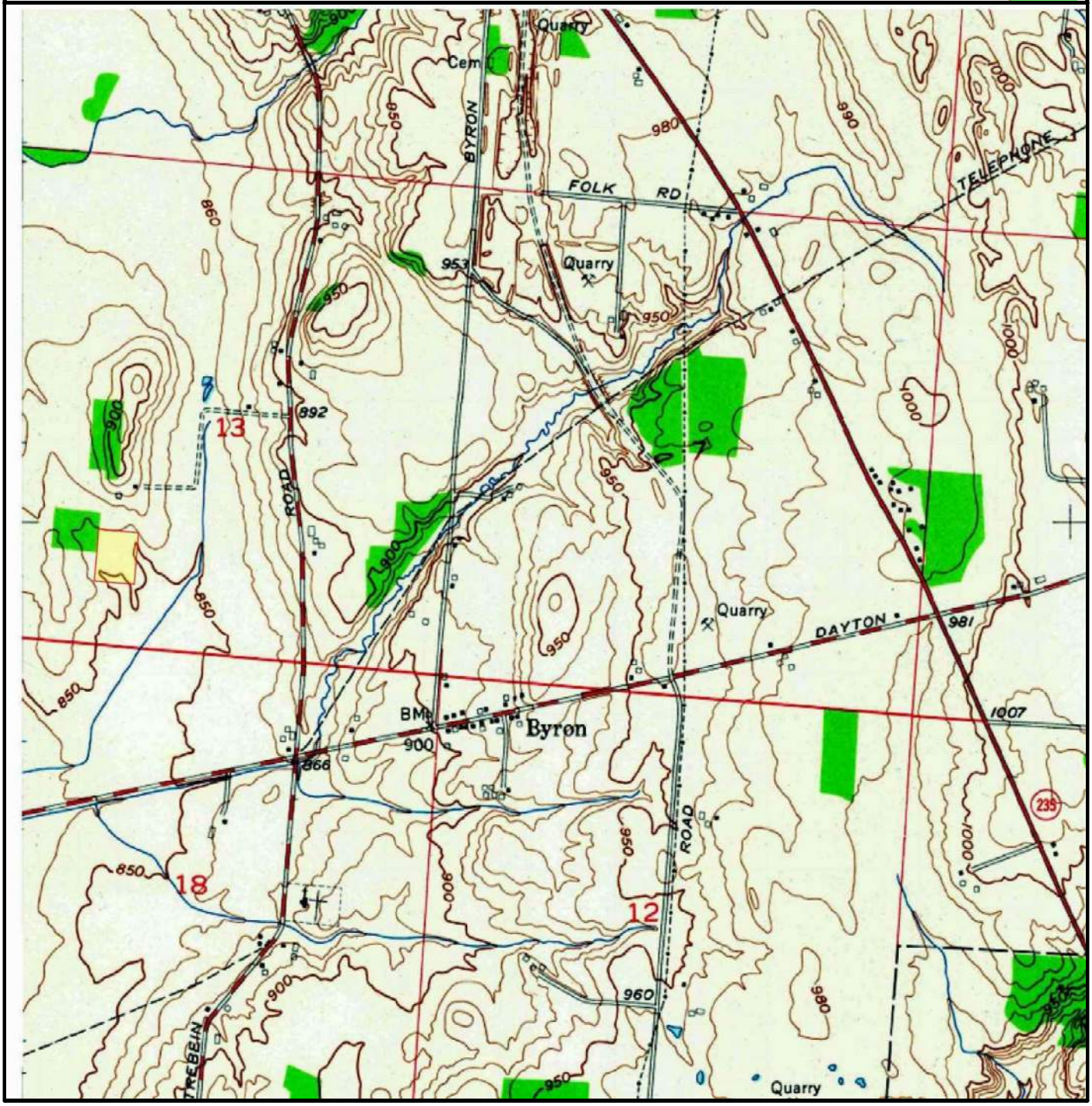


SUBJECT NAME: Senior Village at Valle Greene
ADDRESS: Channingway, Fairborn, OH, 45324
LAT/LONG: 39.790671 / -83.996173

PREPARED FOR: Kilbane Environmental
ORDER #: 92707
REPORT DATE: 11/21/2023

SUBJECT QUAD:

MAP NAME:	Yellow Springs	MAP YEAR:	1955	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	1		

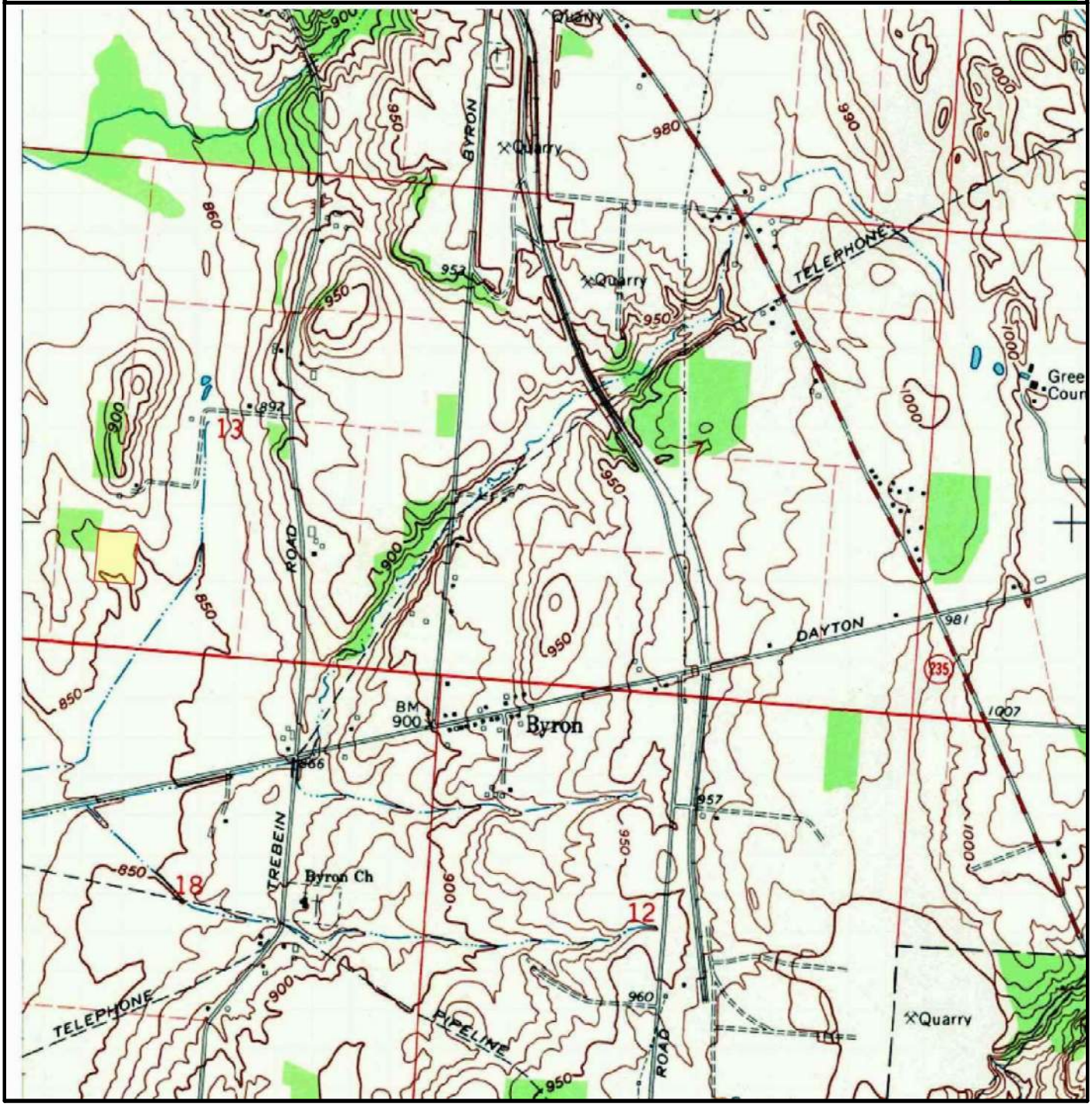


SUBJECT NAME: Senior Village at Valle Greene
ADDRESS: Channingway, Fairborn, OH, 45324
LAT/LONG: 39.790671 / -83.996173

PREPARED FOR: Kilbane Environmental
ORDER #: 92707
REPORT DATE: 11/21/2023

SUBJECT QUAD:

MAP NAME:	Yellow Springs	MAP YEAR:	1968	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	1		

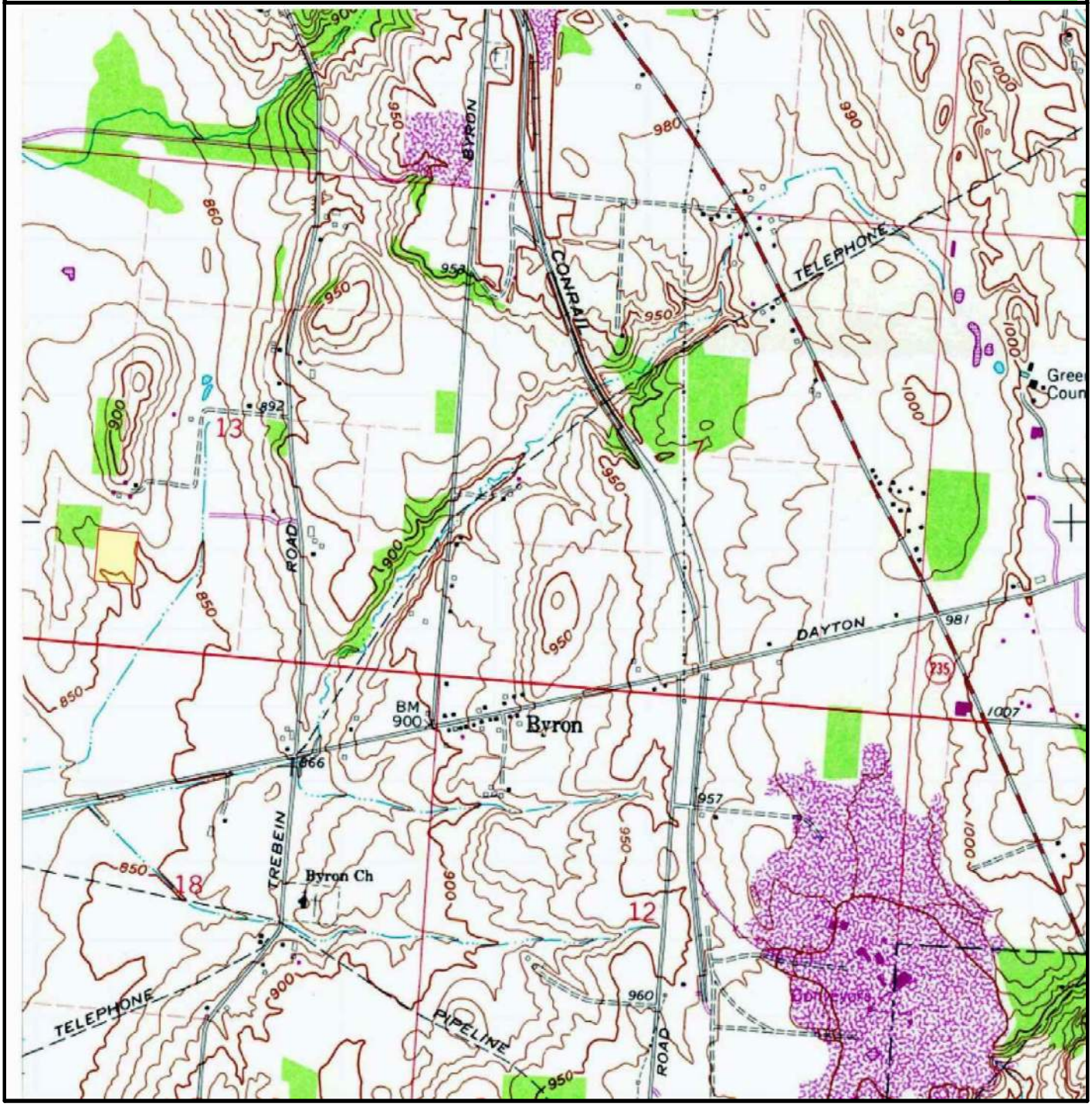


SUBJECT NAME: Senior Village at Valle Greene
ADDRESS: Channingway, Fairborn, OH, 45324
LAT/LONG: 39.790671 / -83.996173

PREPARED FOR: Kilbane Environmental
ORDER #: 92707
REPORT DATE: 11/21/2023

SUBJECT QUAD:

MAP NAME:	Yellow Springs	MAP YEAR:	1968	REVISION YEAR:	1975
SCALE:	1 : 24000	Part	1		

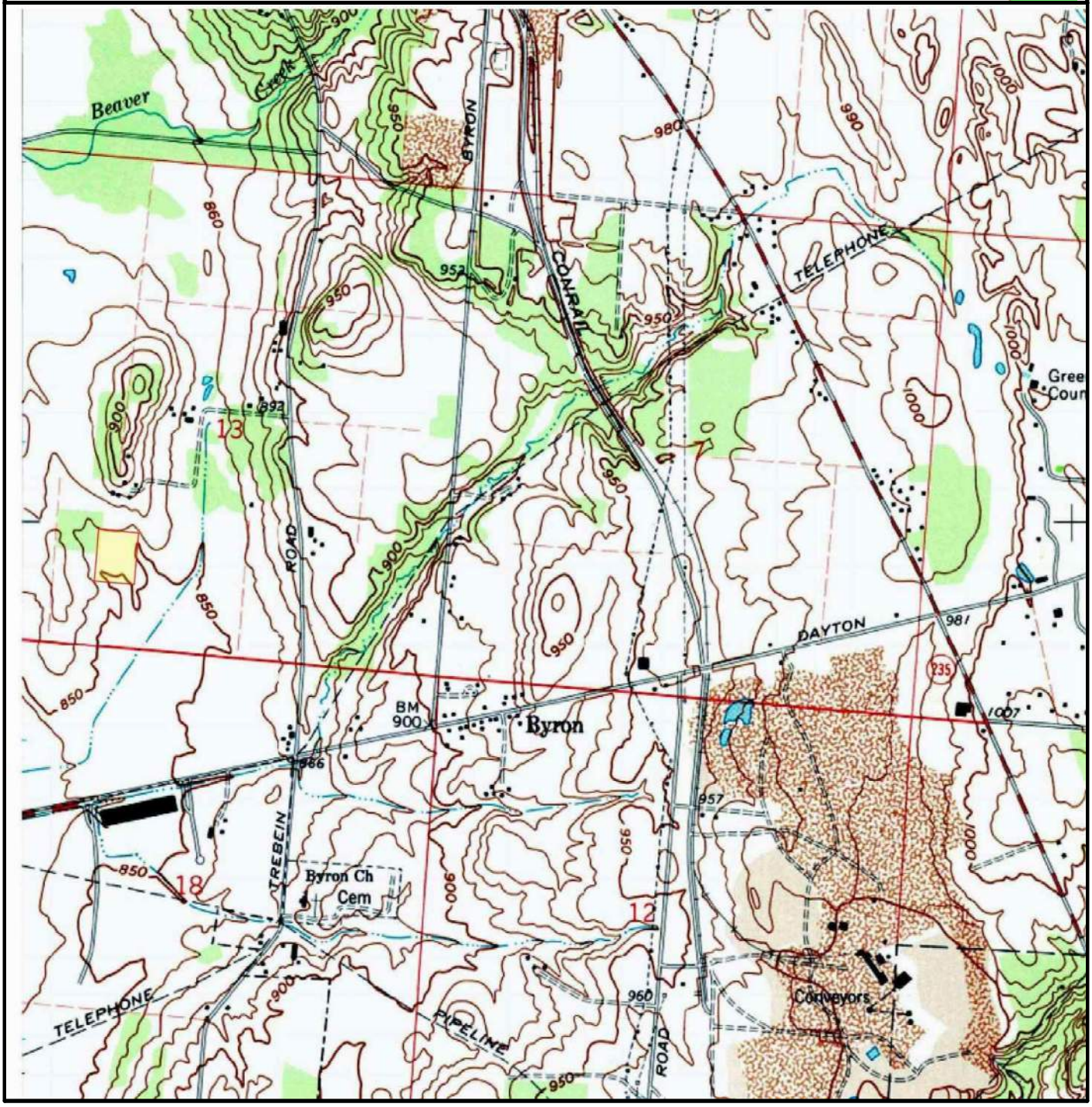


SUBJECT NAME: Senior Village at Valle Greene
ADDRESS: Channingway, Fairborn, OH, 45324
LAT/LONG: 39.790671 / -83.996173

PREPARED FOR: Kilbane Environmental
ORDER #: 92707
REPORT DATE: 11/21/2023

SUBJECT QUAD:

MAP NAME:	Yellow Springs	MAP YEAR:	1968	REVISION YEAR:	1992
SCALE:	1 : 24000	Part	1		

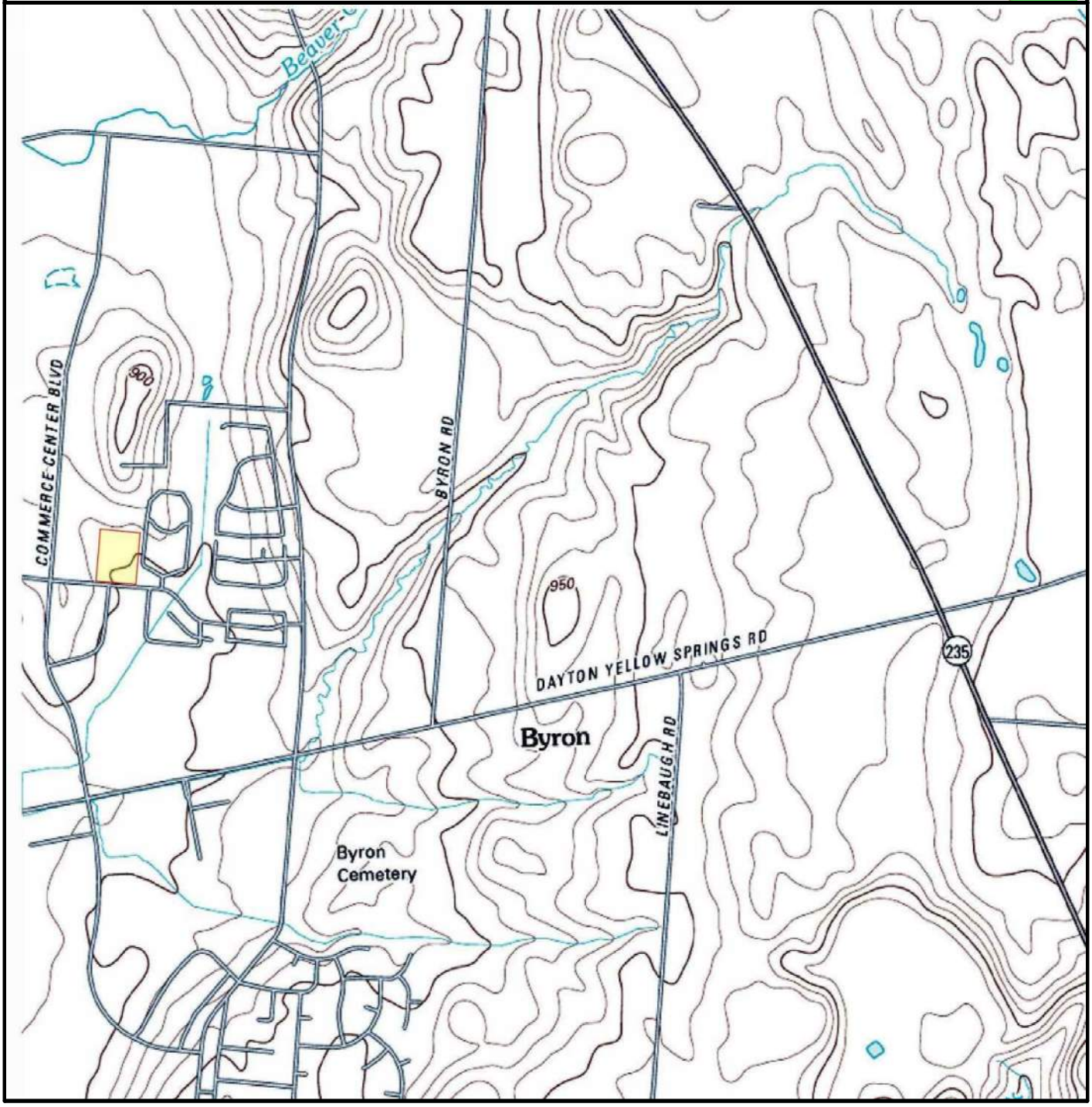


SUBJECT NAME: Senior Village at Valle Greene
ADDRESS: Channingway, Fairborn, OH, 45324
LAT/LONG: 39.790671 / -83.996173

PREPARED FOR: Kilbane Environmental
ORDER #: 92707
REPORT DATE: 11/21/2023

SUBJECT QUAD:

MAP NAME:	Yellow_Springs	MAP YEAR:	2010	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	1		

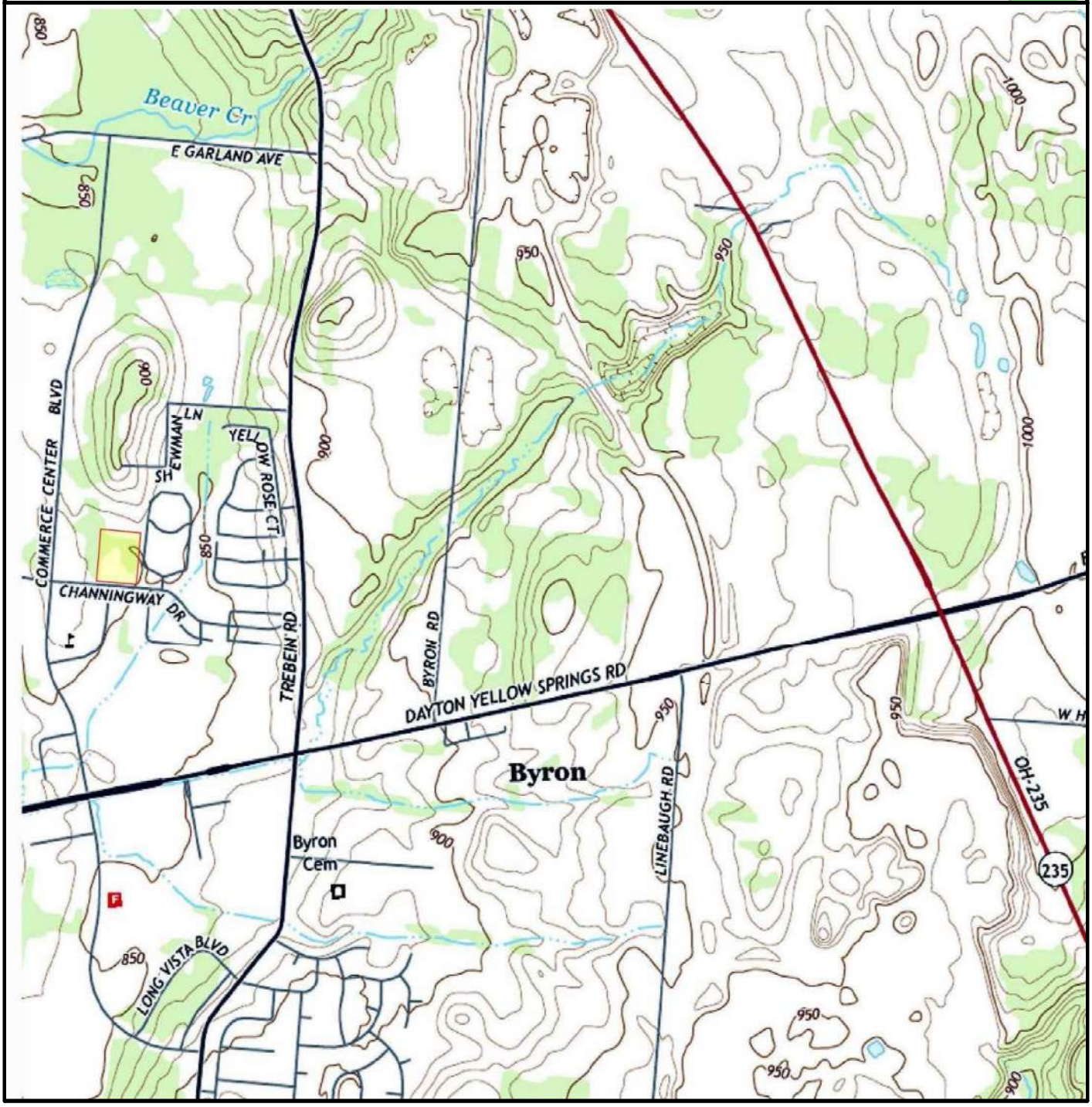


SUBJECT NAME: Senior Village at Valle Greene
ADDRESS: Channingway, Fairborn, OH, 45324
LAT/LONG: 39.790671 / -83.996173

PREPARED FOR: Kilbane Environmental
ORDER #: 92707
REPORT DATE: 11/21/2023

SUBJECT QUAD:

MAP NAME:	Yellow_Springs	MAP YEAR:	2013	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	1		

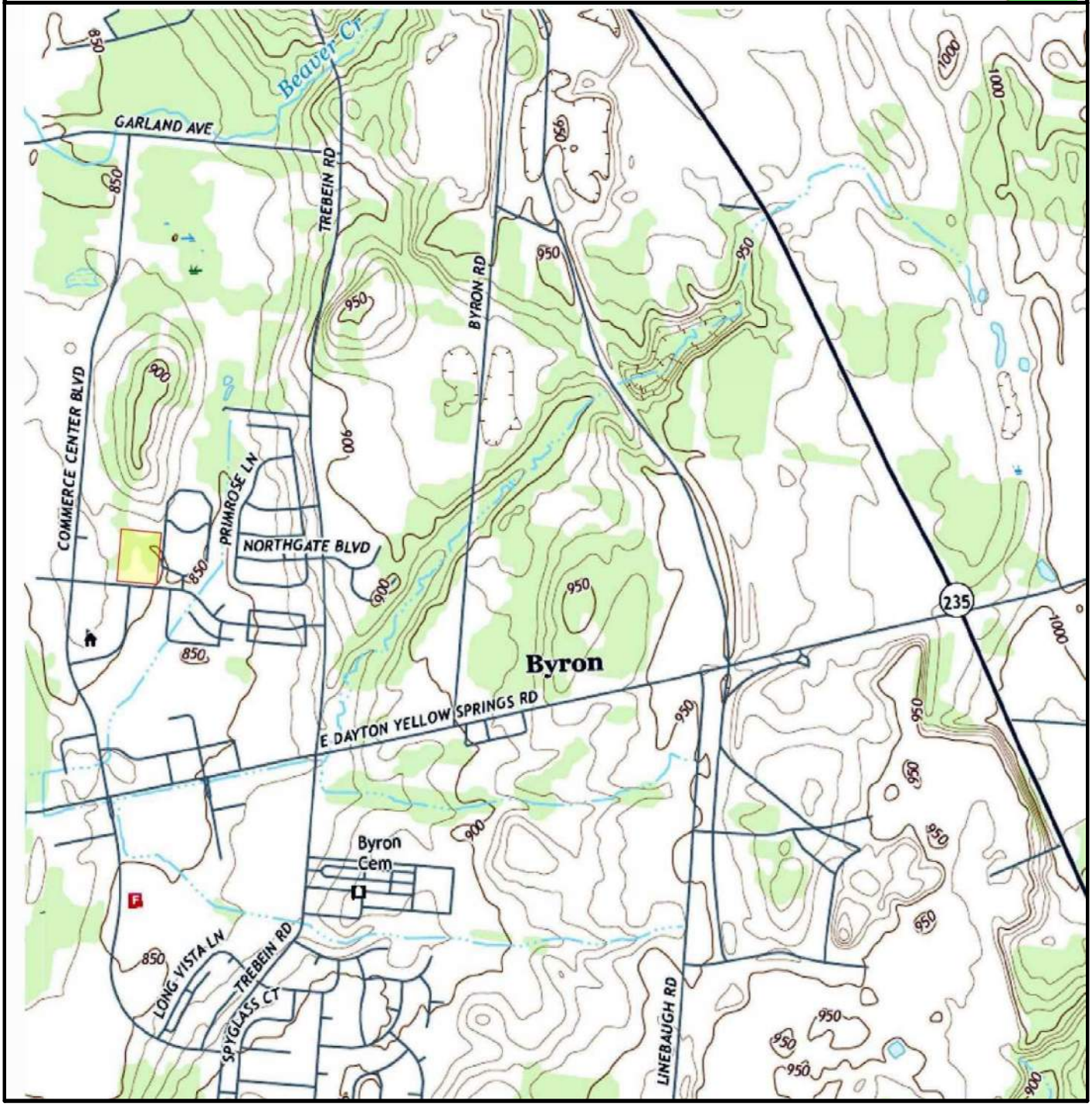


SUBJECT NAME: Senior Village at Valle Greene
ADDRESS: Channingway, Fairborn, OH, 45324
LAT/LONG: 39.790671 / -83.996173

PREPARED FOR: Kilbane Environmental
ORDER #: 92707
REPORT DATE: 11/21/2023

SUBJECT QUAD:

MAP NAME:	Yellow_Springs	MAP YEAR:	2016	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	1		



SUBJECT NAME: Senior Village at Valle Greene
ADDRESS: Channingway, Fairborn, OH, 45324
LAT/LONG: 39.790671 / -83.996173

PREPARED FOR: Kilbane Environmental
ORDER #: 92707
REPORT DATE: 11/21/2023

SUBJECT QUAD:

MAP NAME:	Yellow_Springs	MAP YEAR:	2019	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	1		

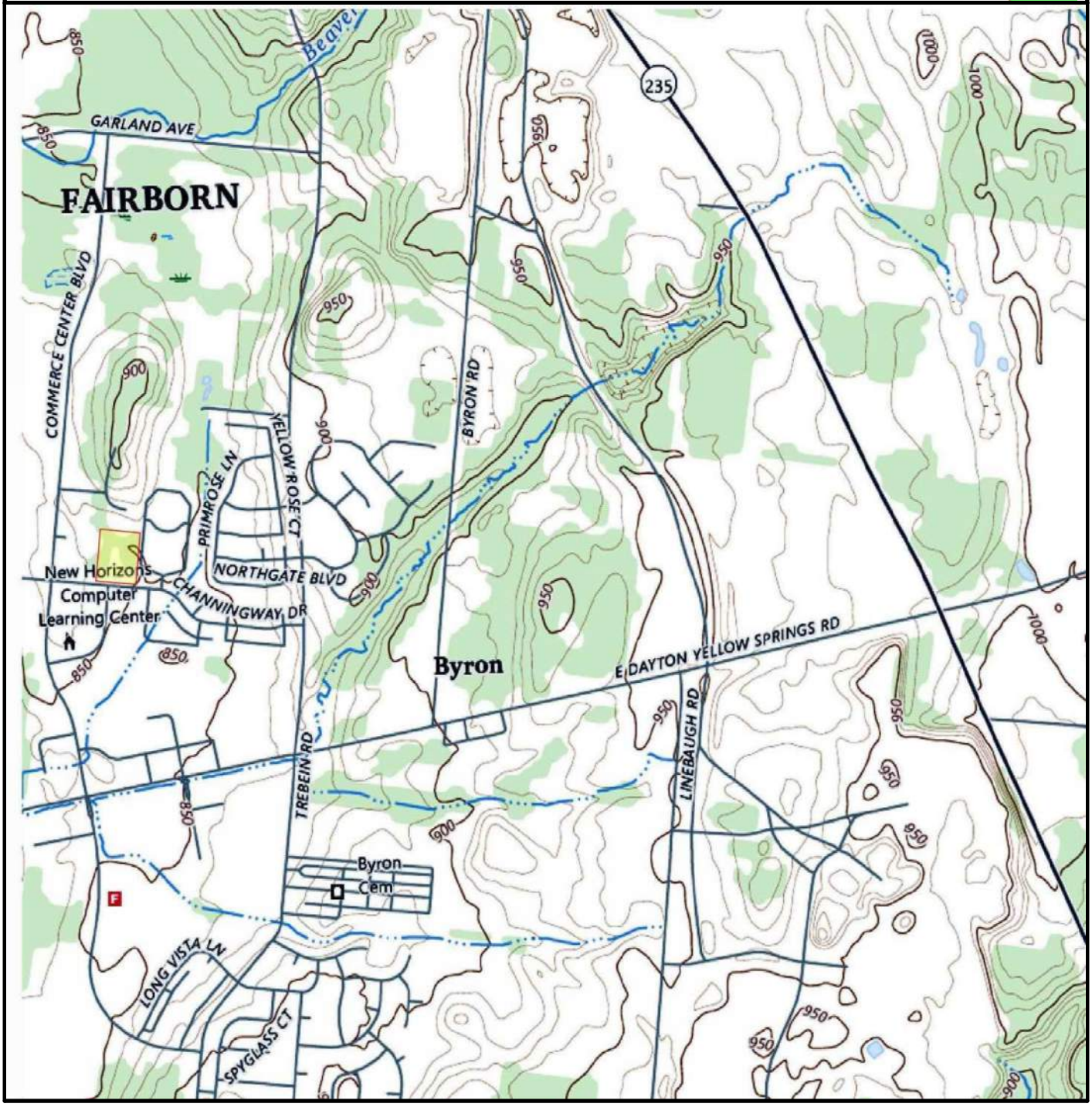


SUBJECT NAME: Senior Village at Valle Greene
ADDRESS: Channingway, Fairborn, OH, 45324
LAT/LONG: 39.790671 / -83.996173

PREPARED FOR: Kilbane Environmental
ORDER #: 92707
REPORT DATE: 11/21/2023

SUBJECT QUAD:

MAP NAME:	Yellow_Springs	MAP YEAR:	2023	REVISION YEAR:	N/R
SCALE:	1 : 24000	Part	1		



APPENDIX H
City Directory Report

City Directory Report | 2023

Order Number: 92707

Report Generated: November 22, 2023

Senior Village at Valle Greene
Channingway
Fairborn, OH 45324

---

56 Broome Corporate Parkway
Conklin, NY 13748

Toll Free: 866-211-2028
www.envirositecorp.com

Prepared for Envirosite Corporation By:

Property Archives

City Directory Report

Envirosite's Standard City Directory Report is a screening tool designed to assist in historical use determination of a subject property and adjacent properties. It includes a search of Property Archives digital datasets and national book collections including the Library of Congress and/or the Allen County Public Library at five year intervals or the closest available intervals.

RESEARCH SUMMARY:

The following research sources were consulted in the preparation of this report:

SOURCE:	***YEAR:***
Property Archives	2018, 2015, 2011, 2006, 2001, 1998, 1993

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This report was prepared by Property Archives, LLC for Envirosite Corporation

Property Archives

SUBJECT PROPERTY:

Channingway , Fairborn, OH 45324

ADJOINING PROPERTIES:

1750 - 1930 Commerce Center Blvd, Fairborn, OH

Channingway, Fairborn, OH 45324

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2018 Channingway, Fairborn, OH 45324

FAIRBORN FAMILY PRACTICE	1045 CHANNINGWAY DR
KETTERING HEALTH NETWORK	1045 CHANNINGWAY DR
LEWIS, STEFANIE K MD	1045 CHANNINGWAY DR
BRILLIGENT SOLUTIONS INC	1130 CHANNINGWAY DR
SAI GROUP LLC	1130 CHANNINGWAY DR
STICKELMAN SCHNEIDER ASSOC	1130 CHANNINGWAY DR
MCCOSKEY J TERRY	1145 CHANNINGWAY DR
TAYLOR, LEIGH A DC	1145 CHANNINGWAY DR
DETMER & SONS	1170 CHANNINGWAY DR
HUSSONG SHEET METAL HEATING	1170 CHANNINGWAY DR
DEANNA BECKER	1267 CHANNINGWAY DR
LINDA GUM	1267 CHANNINGWAY DR
MATTHEW DIETSCH	1267 CHANNINGWAY DR

2015 Channingway, Fairborn, OH 45324

FAIRBORN FAMILY PRACTICE	1045 CHANNINGWAY DR
KETTERING HEALTH NETWORK	1045 CHANNINGWAY DR
MOORE, SHARON L	1045 CHANNINGWAY DR
BRILLIGENT SOLUTIONS INC	1130 CHANNINGWAY DR
BROOKS, TONI	1130 CHANNINGWAY DR
SAI GROUP LLC	1130 CHANNINGWAY DR
STICKELMAN SCHNEIDER & ASSOC	1130 CHANNINGWAY DR
LIVING WELL SPINE CTR	1145 CHANNINGWAY DR
MCCOSKEY, J TERRY DC	1145 CHANNINGWAY DR
TAYLOR, LEIGH A DC	1145 CHANNINGWAY DR
DETMER & SONS	1170 CHANNINGWAY DR
DETMER & SONS HTG & COOLING	1170 CHANNINGWAY DR
HUSSONG SHEET METAL HEATING	1170 CHANNINGWAY DR
CHARLOTTE ALI	1251 CHANNINGWAY DR
JAIMIE MELEASON	1251 CHANNINGWAY DR
BRIAN BRITT	1267 CHANNINGWAY DR
DEANNA BECKER	1267 CHANNINGWAY DR
KELLEY BRITT	1267 CHANNINGWAY DR
LINDA GUM	1267 CHANNINGWAY DR
MATTHEW DIETSCH	1267 CHANNINGWAY DR

2011 Channingway, Fairborn, OH 45324

Ronald Stickelman	1130 CHANNINGWAY DR
James Mc Coskey	1145 CHANNINGWAY DR
J Terry Mc Coskey	1145 CHANNINGWAY DR
Gil Dukeman	1150 CHANNINGWAY DR
Eric Detmer	1170 CHANNINGWAY DR
Frank Detmer	1170 CHANNINGWAY DR
Frank Detmer	1170 CHANNINGWAY DR

2006 Channingway, Fairborn, OH 45324

Ronald Stickelman	1130 CHANNINGWAY DR
James Mc Coskey	1145 CHANNINGWAY DR
J Terry Mc Coskey	1145 CHANNINGWAY DR
Gil Dukeman	1150 CHANNINGWAY DR
Eric Detmer	1170 CHANNINGWAY DR
Frank Detmer	1170 CHANNINGWAY DR
Frank Detmer	1170 CHANNINGWAY DR

2001 Channingway, Fairborn, OH 45324

Collin Abels	1251 Channingway Dr
David Helton	1251 Channingway Dr
Gayle L Kovacs	1251 Channingway Dr
J Merrill	1251 Channingway Dr
K R Ellis	1251 Channingway Dr

Brian Gartz	1267 Channingway Dr
C J Engler	1267 Channingway Dr
D J Bejec	1267 Channingway Dr
Deanna Becker	1267 Channingway Dr
Matthew Dietsch	1267 Channingway Dr
Melissa A Beatty	1267 Channingway Dr
Noelia Mendoza	1267 Channingway Dr

1998: Channingway, Fairborn, OH 45324

No results

1993: Channingway, Fairborn, OH 45324

No results

2018: Commerce Center Blvd, Fairborn, OH

APPLIED RESEARCH ASSOC INC	1750 COMMERCE CENTER BLVD	
MC MILLIN, T SCOTT DDS	1754 COMMERCE CENTER BLVD	
PRECISE CROWN & BRIDGE INC	1754 COMMERCE CENTER BLVD	
MAISTROS, MICHAEL J DDS	1758 COMMERCE CENTER BLVD	
DENNIS PETTIT INC	1762 COMMERCE CENTER BLVD	
NEELY SHRODER SNYDER	1790 COMMERCE CENTER BLVD	
SERCO INC	1825 COMMERCE CENTER BLVD	
RENAISSANCE SERVICES INC	1825 COMMERCE CENTER BLVD	
MCR FEDERAL LLC	1825 COMMERCE CENTER BLVD	
PROTOS LOGISTICS LLC	1825 COMMERCE CENTER BLVD	
COMPU NET CLINICAL LABS	1840 COMMERCE CENTER BLVD	
ANSARI, ADIL MD	1840 COMMERCE CENTER BLVD	
NEW HORIZONS COMPUTER LEARNING	1890 COMMERCE CENTER BLVD	
MIKE BAKER INSURANCE INC	1920 COMMERCE CENTER BLVD	

2015: Commerce Center Blvd, Fairborn, OH

APPLIED RESEARCH ASSOC INC	1750 COMMERCE CENTER BLVD	
PRECISE CROWN & BRIDGE INC	1754 COMMERCE CENTER BLVD	
MC MILLIN, T SCOTT DDS	1754 COMMERCE CENTER BLVD	
T SCOTT MC MILLIN INC	1754 COMMERCE CENTER BLVD	
MAISTROS, MICHAEL J DDS	1758 COMMERCE CENTER BLVD	
DENNIS PETTIT INC	1762 COMMERCE CENTER BLVD	
PETTIT, DENNIS DDS	1762 COMMERCE CENTER BLVD	
SHRODER, STEVEN W OD	1790 COMMERCE CENTER BLVD	
SNYDER, ELIZABETH OD	1790 COMMERCE CENTER BLVD	
OPTI GROUP INC	1790 COMMERCE CENTER BLVD	B
FAIRBORN VISION CTR	1790 COMMERCE CENTER BLVD	
CENTRAL OPTICAL	1790 COMMERCE CENTER BLVD	
NEELY SHRODER SNYDER	1790 COMMERCE CENTER BLVD	
OPTIGROUP INC	1790 COMMERCE CENTER BLVD	
MCR FEDERAL LLC	1825 COMMERCE CENTER BLVD	
RENAISSANCE SERVICES INC	1825 COMMERCE CENTER BLVD	
SERCO INC	1825 COMMERCE CENTER BLVD	
COMPUNET CLINICAL LABORATORIES	1840 COMMERCE CENTER BLVD	
BAUTISTA, DAN MD	1840 COMMERCE CENTER BLVD	
ANSARI, ADIL MD	1840 COMMERCE CENTER BLVD	
JODI FULLER	1890 COMMERCE CENTER BLVD	
NEW HORIZONS COMPUTER LEARNING	1890 COMMERCE CENTER BLVD	
MIKE BAKER INSURANCE INC	1920 COMMERCE CENTER BLVD	
RESCARE HOMECARE	1930 COMMERCE CENTER BLVD	

2011: Commerce Center Blvd, Fairborn, OH

Frank Maestas	1750 COMMERCE CENTER BLVD
PRECISE CROWN & BRIDGE INC	1754 COMMERCE CENTER BLVD

Carmen Charles	1754 COMMERCE CENTER BLVD
T Scott Mc Millin	1754 COMMERCE CENTER BLVD
Michael Maistros	1758 COMMERCE CENTER BLVD
Dennis Pettit	1762 COMMERCE CENTER BLVD
Tracey Mcmillin	1762 COMMERCE CENTER BLVD
Steven Shroder	1790 COMMERCE CENTER BLVD
Jerry Neely	1790 COMMERCE CENTER BLVD
Jerry Neely	1790 COMMERCE CENTER BLVD
Elizabeth Snyder	1790 COMMERCE CENTER BLVD
Jerry Sitzes	1790 COMMERCE CENTER BLVD
Michael Zettler	1825 COMMERCE CENTER BLVD
Dave Kessinger	1890 COMMERCE CENTER BLVD
Mike Baker	1920 COMMERCE CENTER BLVD
CZARNOWSKI EXHIBIT SVC	1930 COMMERCE CENTER BLVD

2006: Commerce Center Blvd, Fairborn, OH

Frank Maestas	1750 COMMERCE CENTER BLVD
Carmen Charles	1754 COMMERCE CENTER BLVD
PRECISE CROWN & BRIDGE INC	1754 COMMERCE CENTER BLVD
T Scott Mc Millin	1754 COMMERCE CENTER BLVD
Michael Maistros	1758 COMMERCE CENTER BLVD
Dennis Pettit	1762 COMMERCE CENTER BLVD
Tracey Mcmillin	1762 COMMERCE CENTER BLVD
Jerry Neely	1790 COMMERCE CENTER BLVD
Elizabeth Snyder	1790 COMMERCE CENTER BLVD
Steven Shroder	1790 COMMERCE CENTER BLVD
Jerry Neely	1790 COMMERCE CENTER BLVD
Jerry Sitzes	1790 COMMERCE CENTER BLVD
Michael Zettler	1825 COMMERCE CENTER BLVD
Dave Kessinger	1890 COMMERCE CENTER BLVD
Mike Baker	1920 COMMERCE CENTER BLVD
CZARNOWSKI EXHIBIT SVC	1930 COMMERCE CENTER BLVD

2001: Commerce Center Blvd, Fairborn, OH

Klein Associates Inc	1750 Commerce Center Blvd

1998: Commerce Center Blvd, Fairborn, OH

No results

1993: Commerce Center Blvd, Fairborn, OH

No results

APPENDIX I
Site Photographs and Descriptions



Photograph #1 – Southern portion of the Site along Channingway Drive



Photograph #2 – Grassy area on the southern portion of the Site



Photograph #3 – Thick small tree growth across most of the Site (Bradford pear)



Photograph #4 – Mounded area on the southern portion of the Site next to ditch



Photograph #5 – Stormwater discharge pipe in ditch



Photograph #6 – Adjacent properties to the north of the Site



Photograph #7 – Adjacent property east of the Site



Photograph #8 – Adjacent property west of the Site (northern portion)



Photograph #9 – Adjacent property west of the Site (southern portion)



Photograph #10 – Adjacent property south of the Site



Photograph #11 – Looking north across the adjacent property to the west



Photograph #12 – Looking east along Channingway Drive

APPENDIX J
Ohio Water Wells

WATER WELL LOG & DRILLING REPORT

Ohio Department of Natural Resources
Division of Geological Survey
Phone: 614-265-6740

Well Log Number: 271349

Original Owner & Location

Original Owner Name: *OWEN COLLINS*
County: *GREENE* | **Township:** *BATH* | **Section Number:**
Address: *TREBAIN RD*
City: | **State:** *OH* | **Zip Code:**
Location Number: *17* | **Location Map Year:** *1965* | **Location Area:**
Latitude: *39.79218* | **Longitude:** *-83.995139*

Construction Details

Borehole Diameter 1: *in.* | **Borehole Depth 1:** *60 ft.* | **Depth to Bedrock:** *29 ft.*
Casing Diameter 1: *5.63 in.* | **Casing Length 1:** *31 ft.* | **Casing Thickness 1:** *in.*
Casing Height Above Ground: *ft.* | **Aquifer Type:** *BEDROCK* | **Well Use:** *DOMESTIC*
Date of Completion: *07/28/1963* | **Total Depth:** *60*
Drilling Company Name: *SCOTT WELL & PUMP CO*

Well Test Details

Static Water Level: *31 ft.* | **Test Rate:** *3 gpm*
Drawdown: *55 ft.* | **Test Duration:** *hrs.*
Associated Documents:

Comments

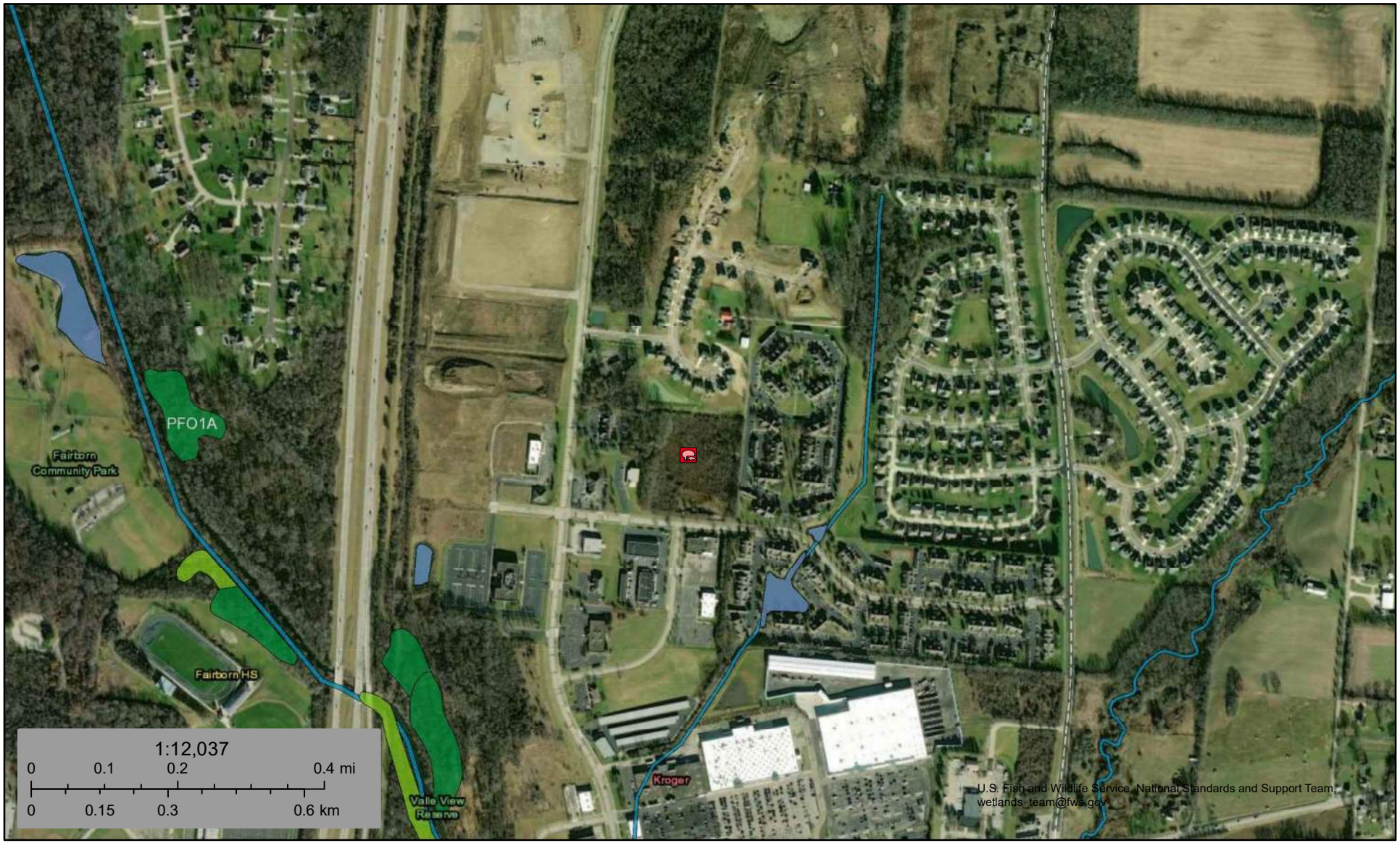
Drilling Log

Formations:	From:	To:
TOP SOIL	0	3
CLAY	3	19
HARDPAN	19	29
SHALE	29	60
BEDROCK	29	60

APPENDIX K
National Wetland Inventory

U.S. Fish and Wildlife Service
National Wetlands Inventory

Channingway Drive



December 1, 2023

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

APPENDIX L
Flood Plains

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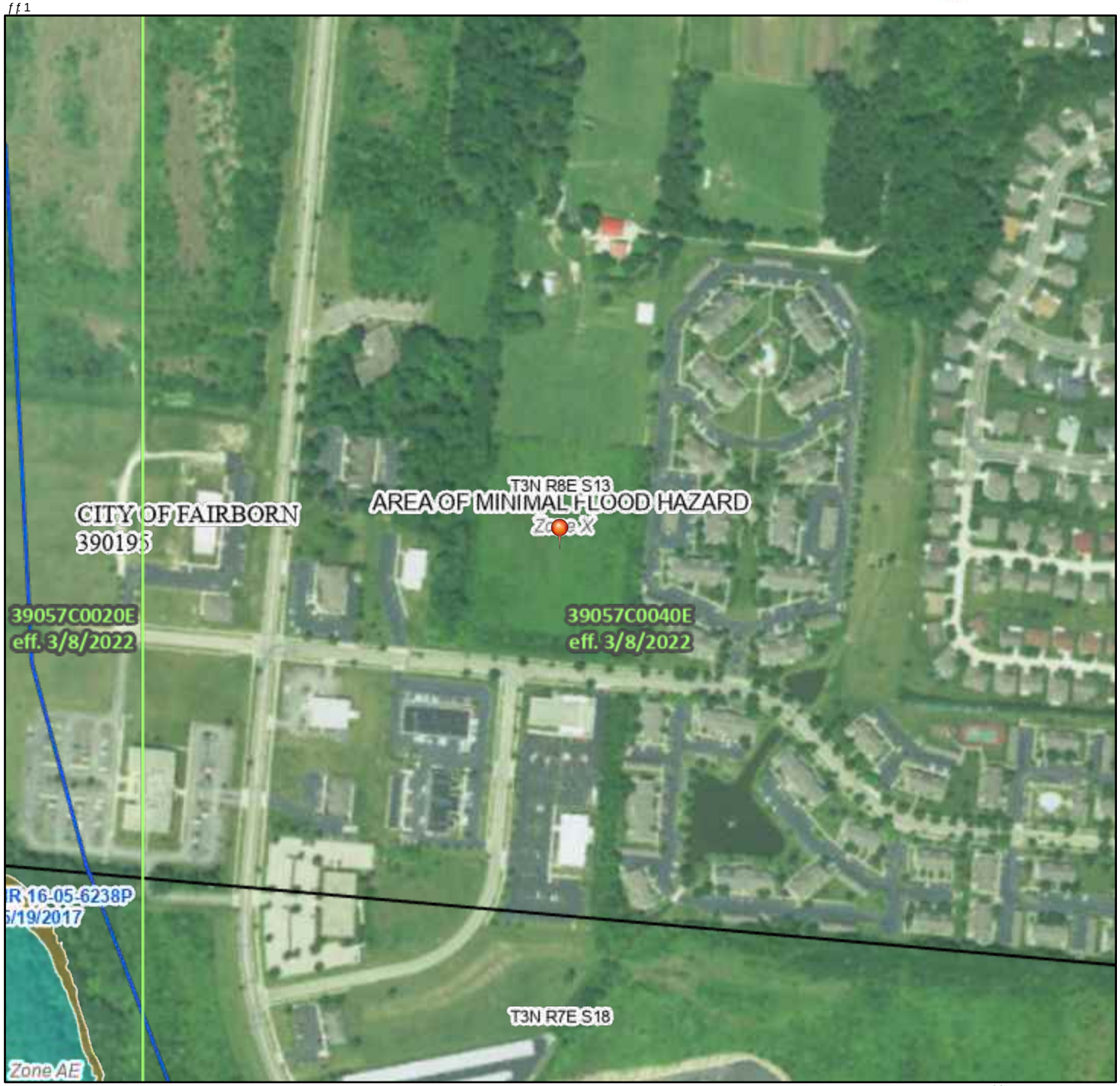
FEMA



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/HJHQG

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=RQH$ 9 $
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5LVN2DWRU\)ORRGZD\

$QQXDO &KDQFH)ORRG+D]DUG $UHDV
R DQQXDO FKDQFH IORRG ZDWHUV GHSWKV OHVV WKDQ IHHW RU ZKHUH
DUHDV R OHVV WKDQ VTXDUH PLOH=RQH;
)WXUH&RQGLWLRQV $QQXDO
&KDQFH)ORRG+D]DUG =RQH;
$UHDZLWK5HGXFHG)ORRG5LVNGHWR
/HYHH 6HH1RWHV =RQH;
$UHDZLWK)ORRG5LVNGHWR/HYHH =RQH'

$UHDR DQQLBO)ORRG+D]DUG =RQH;
(IIHFWLYH'DWD
$UHDR &RDVWDO8QHPHQGHG)ORRG+D]DUG =RQH'
&KDQQHO &XOYHUW RU 6WUXFWXUH
/HYHH L'LNH RU)ORRGZDOO

&URVV6HFWLRQV ZLWK $QQXDO &KDQFH
DWHU 6XUIDFH(OHYDWLRQ
&RDVWDO 7UDQVHFW
%DVH)ORRG(OHYDWLRQ /LQH %
/LPLW R 6WUXFWXUH
-XULVGLFWLRQ%RXQGDU\
&RDVWDO 7UDQVHFW %DVH/LQH
3URFHVV%DVH/LQH
+GURJUDSKLF)HDWXUH

L:LWKGUDZQ$VVHVVHG
1R'LWKGUDZQ$VVHVVHG
&RPSXWHG

7KHSLQGLVSODHGRQWKHPDSLV DQDSSUR[LPDWH
SRLQW VHOHFWHGEWKHXVHU DQGGRHV QRW UHSUHV
DQDWKRULWDWLYHSURSHUW\ORFDWLRQ

7KLVPSFRROLHVZLWKJ8VWDQGDUGIRU WKHXVHR
GL.LWDO IORRGPS/LI LW LVQRW YRLGV/GHVFULEHGEHORZ
7KHEDVHPHVVKRZQFRROLHVZLWKJ8VEDVHPHS
DFFXUDWWDQGUG/

7KHIORRGKDUGLQRUPDWLQLVGHULYHGLUHFWO\IURPWKH
DWKRULWDWLYH)HEHVHUYLFHVSURYLGHGEJ8 7KLVPS
ZVHSRUWHGRQ DW $ DQGGRHV QW
UHOHFW FKDQHV RU DPGPQWV VXEVHXHQW WRWKLVGDWHDQG
WLFH 7KH)HDQGHIHFWLYHLQRUPWLQRQPFKDQHRU
EHFRPVXSUVHGEQHZGDWDRYHU WLFH

7KLVPSLBHLVYRLGLI WKHIQHRU RUHR WKHIOORZLQJPS
HOHPQWV GRQRW DSSHDU EDVHPSLBHU\ IORRGJRQHODEHOV
OHHQG VFDOHEDU PSFUHDWLRQGDWH FRRL W\LGHQWLILHUV
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XQPSHGDQGXQRGHUQL}GDUHDV FDQQRW EHXVHGIRU
UHDODWRU\SUSRVHV

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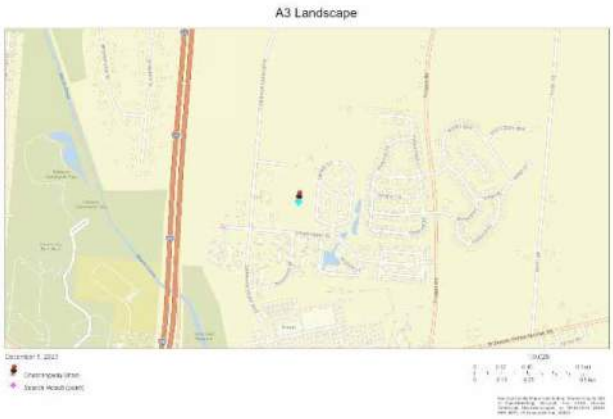
APPENDIX M
EPA EJScreen Mapper Report

EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

Fairborn, OH

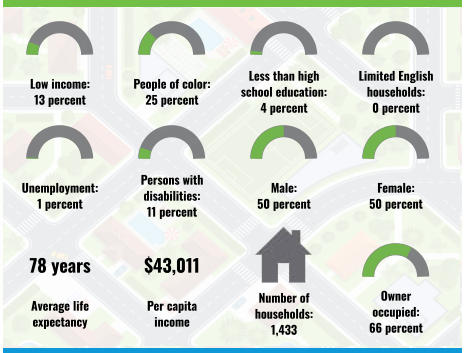
1 mile Ring Centered at 39.791076,-83.996217
Population: 2,868
Area in square miles: 3.14



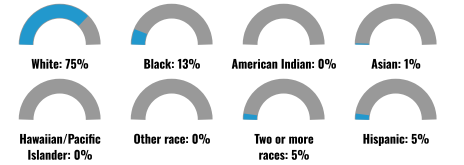
LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	97%
Spanish	1%
Total Non-English	3%

COMMUNITY INFORMATION



BREAKDOWN BY RACE



BREAKDOWN BY AGE



LIMITED ENGLISH SPEAKING BREAKDOWN



Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race.
Source: U.S. Census Bureau, American Community Survey (ACS) 2017-2021. Life expectancy data comes from the Centers for Disease Control.

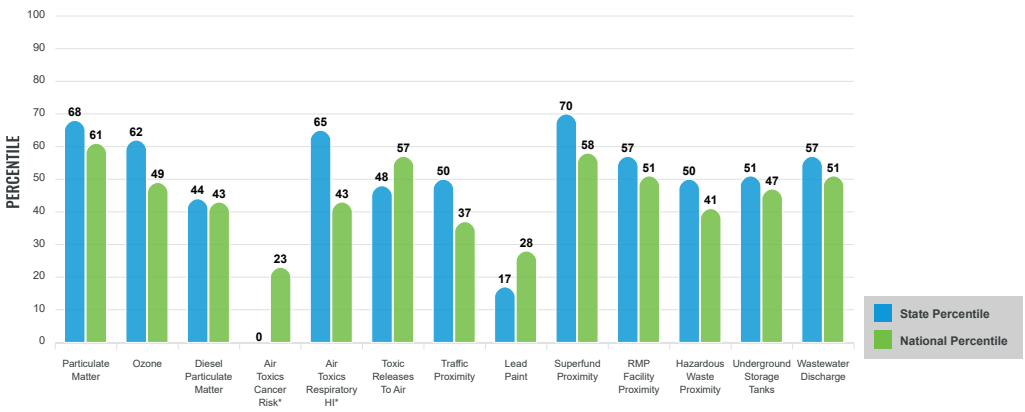
Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the EJScreen website.

EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

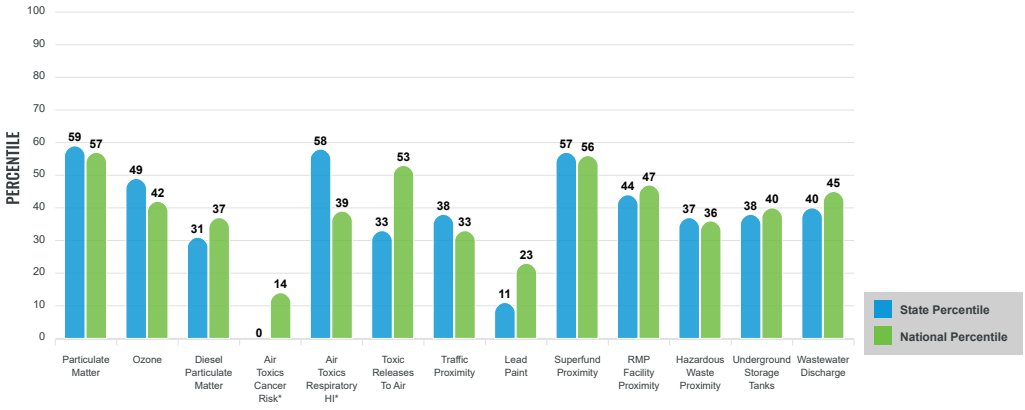
EJ INDEXES FOR THE SELECTED LOCATION



SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.

SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

Report for 1 mile Ring Centered at 39.791076,-83.996217

EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES					
Particulate Matter (µg/m^3)	9.93	9.18	87	8.08	90
Ozone (ppb)	62.7	61.4	70	61.6	61
Diesel Particulate Matter (µg/m^3)	0.216	0.261	39	0.261	50
Air Toxics Cancer Risk* (lifetime risk per million)	20	22	0	25	5
Air Toxics Respiratory HI*	0.3	0.25	51	0.31	31
Toxic Releases to Air	3,000	10,000	44	4,600	79
Traffic Proximity (daily traffic count/distance to road)	67	110	55	210	46
Lead Paint (% Pre-1960 Housing)	0.071	0.44	12	0.3	30
Superfund Proximity (site count/km distance)	0.16	0.094	88	0.13	81
RMP Facility Proximity (facility count/km distance)	0.32	0.49	64	0.43	69
Hazardous Waste Proximity (facility count/km distance)	0.46	1.3	50	1.9	48
Underground Storage Tanks (count/km^2)	1.6	2.9	52	3.9	54
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.013	0.47	63	22	69
SOCIOECONOMIC INDICATORS					
Demographic Index	19%	28%	43	35%	29
Supplemental Demographic Index	7%	14%	16	14%	18
People of Color	25%	24%	68	39%	44
Low Income	13%	33%	20	31%	23
Unemployment Rate	1%	6%	23	6%	22
Limited English Speaking Households	0%	1%	0	5%	0
Less Than High School Education	4%	10%	32	12%	31
Under Age 5	8%	6%	73	6%	74
Over Age 64	19%	18%	59	17%	62
Low Life Expectancy	19%	21%	32	20%	47

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

Sites reporting to EPA within defined area:

Superfund 0
Hazardous Waste, Treatment, Storage, and Disposal Facilities 0
Water Dischargers 1
Air Pollution 4
Brownfields 0
Toxic Release Inventory 0

Other community features within defined area:

Schools 1
Hospitals 0
Places of Worship 1

Other environmental data:

Air Non-attainment ..... Yes
Impaired Waters ..... Yes

Selected location contains American Indian Reservation Lands* ..... No
Selected location contains a "Justice40 (CEJST)" disadvantaged community ..... Yes
Selected location contains an EPA IRA disadvantaged community ..... Yes

Report for 1 mile Ring Centered at 39.791076,-83.996217

EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	19%	21%	32	20%	47
Heart Disease	6.8	7.2	33	6.1	64
Asthma	9.4	10.7	13	10	33
Cancer	7.7	6.6	78	6.1	82
Persons with Disabilities	10.6%	14.8%	26	13.4%	36

CLIMATE INDICATORS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	7%	7%	68	12%	54
Wildfire Risk	0%	0%	0	14%	0

CRITICAL SERVICE GAPS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	5%	15%	21	14%	28
Lack of Health Insurance	4%	7%	35	9%	30
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access	No	N/A	N/A	N/A	N/A
Food Desert	Yes	N/A	N/A	N/A	N/A

Footnotes

Report for 1 mile Ring Centered at 39.791076,-83.996217

APPENDIX N
Oil and Gas Wells

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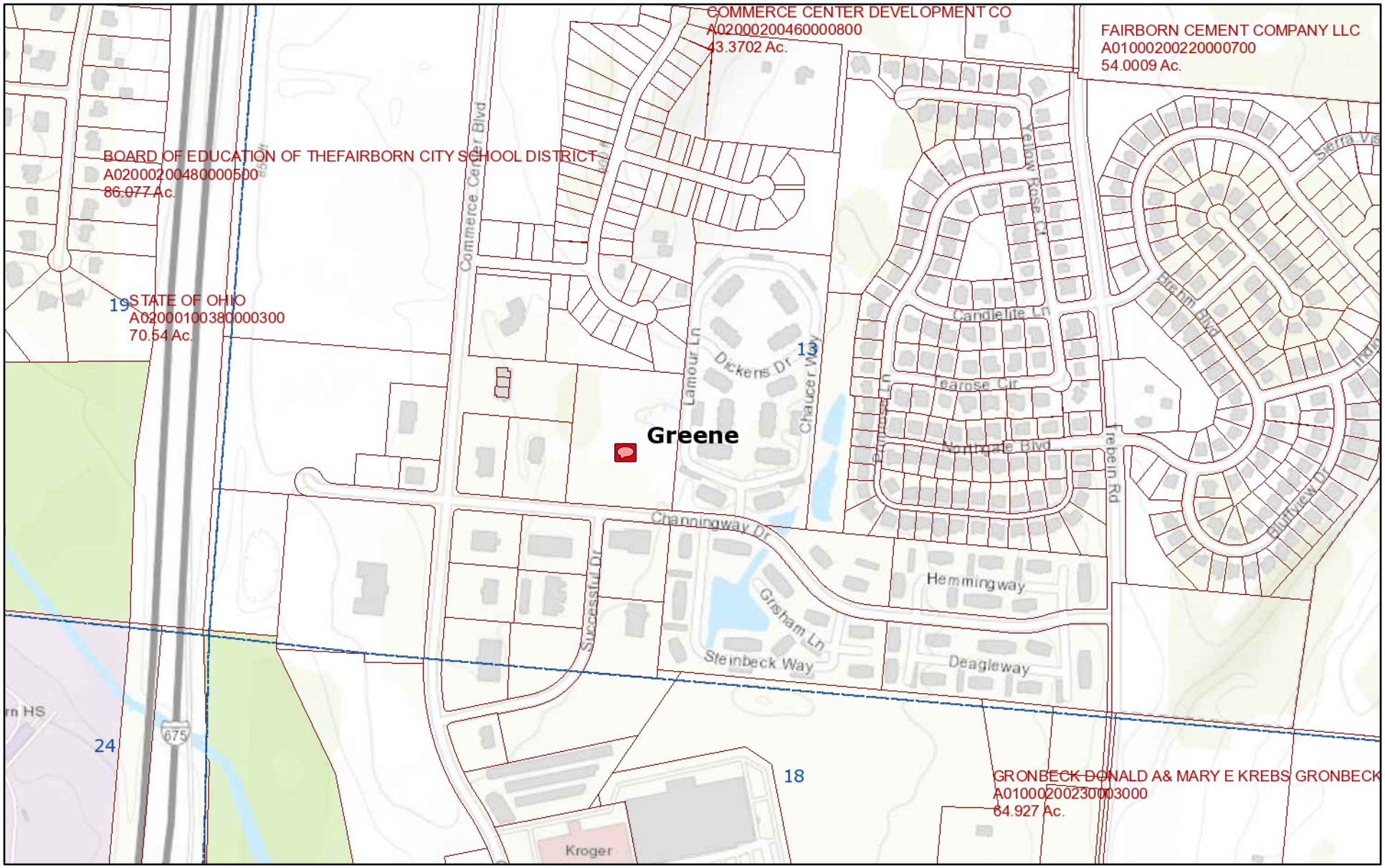

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6WDWHZLGH 3D&XHOH &RUQW 7RZQVKLS

/DQG 6XEGLYLV&RQ &RQWLHV

PL

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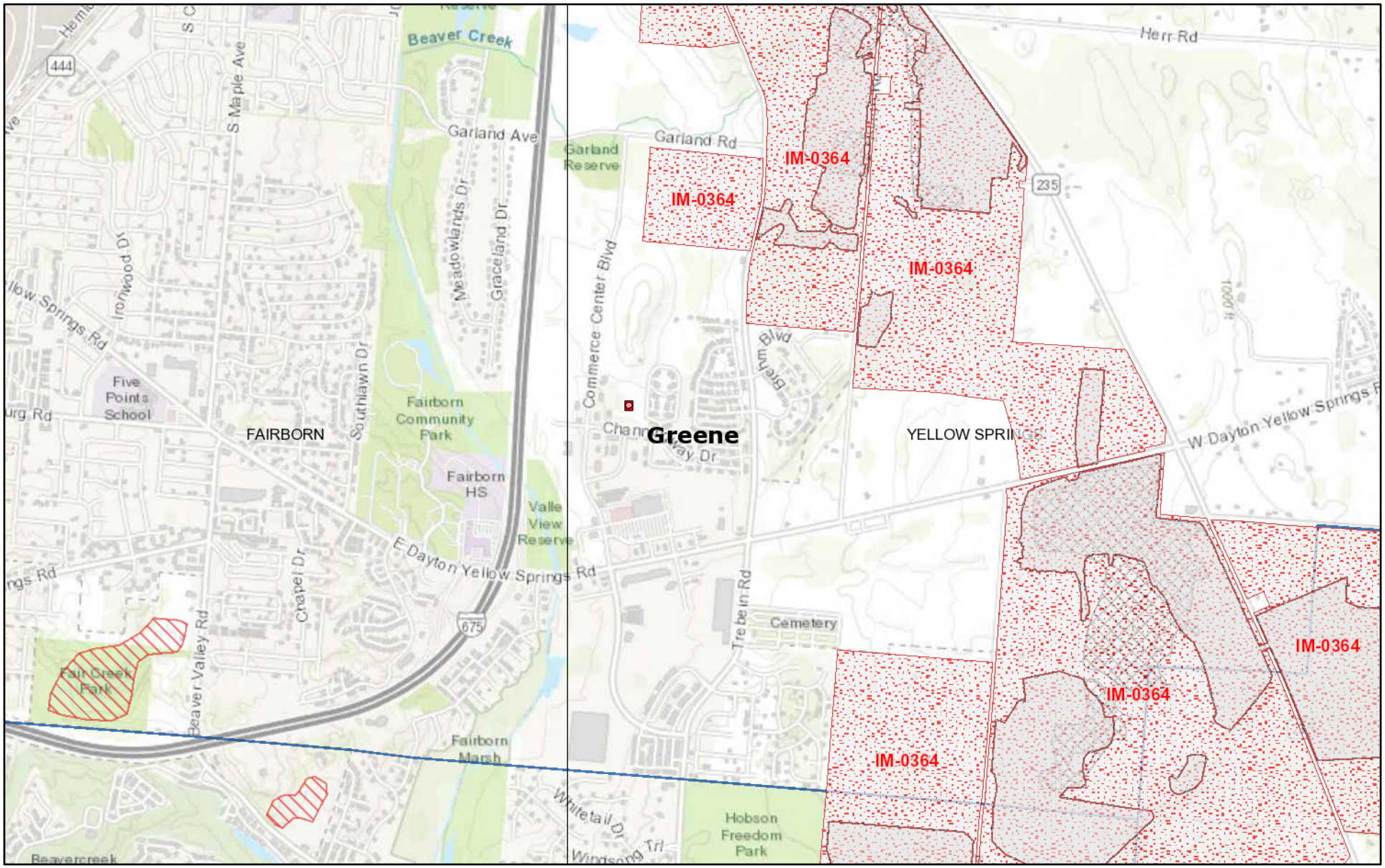
2'15 'LYLVLRQ RI 2LO DQG *DV 5HVRXUFH

APPENDIX O
Abandoned Underground Mines

0LQHV RI 2KLR



'HFHPEHU

4XDGUDQJOH . &XUUHQW +LVWRULF)URP *HRORJ\ 0DSV 3URSRVHG

$EDQGRQHG EHIRUH 3URSRVHG 3DVW 2ULJLQDO $SSOLFDWLRQ

3DVW 2ULJLQDO $SSOLFDWLRQ &XUUHQW $GMDFHQW $UHD $SSOLFDWLRQ

$GMDFHQW $UHD $SSOLFDWLRQ .QRZQ

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1$6$ 1*$ (3$ 86'$

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APPENDIX P

OHFA Sellers Environmental Questionnaire and Disclosure Statement

E1527-21

X3 USER QUESTIONNAIRE

INTRODUCTION

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "*Brownfields Amendments"*), the *User* must conduct the following inquiries required by 40 CFR §§ 312.25, 312.28, 312.29, 312.30 and 312.31. These inquiries must also be conducted by EPA Brownfield Assessment and Characterization grantees. The *User* should provide the following information to the *environmental professional.* Failure to conduct these inquiries could result in a determination that "*all appropriate inquiries"* is not complete.

(1.) Environmental liens that are filed or recorded against the *subject property* (40 CFR §312.25).

Did a search of *land title records* (or judicial records where appropriate, see NOTE 1 below) identify any *environmental liens* filed or recorded against the *subject property* under federal, tribal, state or local law? Yes or NO (circle one)

NOTE 1: In certain jurisdictions, federal, tribal, state or local statues/regulations specify that *environmental liens* and *AULs* be filed in judicial records rather than in *land title records*. In such cases judicial records should be searched for environmental liens and AULs.

If Yes, please explain.

_____

_____

_____

_____

_____

(2.) Activity and Use Limitations that are in place on the *subject property* or that have been filed or recorded against the *subject property*.

Did a search of land title records (or judicial records where appropriate, see NOTE 1 above) identify any *AULs*, such as *engineering controls*, land use restrictions or *institutional* controls that are in place at the *subject property* and/or have been filed or recorded against the *subject property* under federal, tribal, state or local law? Yes or NO (circle one)

If Yes, please explain.

_____

_____

_____

_____

_____

(3.) Specialized knowledge or experience of the person seeking to qualify for the *LLP* (40 CFR §312.28).

Do you have any specialized knowledge or experience related to the *subject property* or nearby *properties*? For example, are you involved in the same line of business as the current or former *occupants* of the *subject property* or an *adjoining property* so that you would have specialized knowledge of the chemicals/processes used by this type of business? Yes or No (circle one)

If Yes, please explain.

(4.) Relationship of the purchase price to the fair market value of the *subject property* if it were not contaminated (40 CFR §312.29).

Does the purchase price being paid for this *subject property* reasonably reflect the fair market value of the *property*? Yes or No (circle one)

If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *subject property*? Yes or No (circle one) Please explain.

(5.) Commonly known or *reasonably ascertainable* information about the *subject property* (40 CFR §312.30).

Are you aware of commonly known or *reasonably ascertainable* information about the *subject property* that would help the *environmental professional* to identify conditions indicative of *releases* or threatened *releases*? For example,

(a.) Do you know the past uses of the *subject property?* Yes or No (circle one)
If Yes, please provide.
The subject property has been used as vacant land.

(b.) Do you know of specific chemicals that are present or once were present at the *subject property?* Yes or No (circle one)
If Yes, please provide.

(c.) Do you know of spills or other chemical releases that have taken place at the *subject property?* Yes or No (circle one)
If Yes, please explain.

(d.) Do you know of any environmental cleanups that have taken place at the *subject property?* Yes or No (circle one)
If Yes, please explain.

(6.) The degree of obviousness of the presence or likely presence of contamination at the *subject property,* and the ability to detect the contamination by appropriate investigation (40 CFR §312.31).
Based on your knowledge and experience related to the *subject property*, are there any *obvious* indicators that point to the presence or likely presence of *releases* at the *subject property*? Yes or No (circle one)

If Yes, please explain.

X3.1 In addition, certain information should be collected, if available, and provided to the *environmental professional* conducting the *Phase I Environmental Site Assessment*. This information is intended to assist the *environmental professional,* but is not necessarily required to qualify for one of the *LLPs*. The information includes:

(Please answer the following questions using the lines that immediately follow each.)

X3.1.1 The reason why the Phase I is being performed
It is a funding requirement for the development of the site

X3.1.2 The type of *property* and type of *property* transaction, for example, sale, purchase, exchange, etc.
Sale

X3.1.3 The complete and correct address for the *subject property* (a map or other documentation showing *property* location and boundaries is helpful)
Since the site has not been developed, there is no address for the subject property.
The Parcel ID is A02000200470000500.

X3.1.4 The scope of services desired for the Phase I (including whether any parties to the *property* transaction may have a required standard scope of services or whether any considerations beyond the requirements of Practice E1527 are to be considered)
Standard Ohio Housing Finance Agency

X3.1.5 Identification of all parties who will rely on the Phase I *report,*
Oberer Residential Construction, LTD.
St. Mary Development Corporation
Ohio Housing Finance Agency

X3.1.6 Identification of the site contact and how the contact can be reached

Robert M. McCann Email: rmccann@oberer.com Phone: (937) 531-5521

X3.1.7 Any special terms and conditions which must be agreed upon by the *environmental professional*

None

X3.1.8 Any other knowledge or experience with the *subject property* that may be pertinent to the *environmental professional* (for example, copies of any available prior *environmental site assessment reports,* documents, correspondence, etc., concerning the subject *property* and its environmental condition).

None

This questionnaire was completed by:

Name	Robert M. McCann
Address	3445 Newmark Drive, Miamisburg, Ohio 45342
Email	rmccann@oberer.com
Phone Number	(937) 531-5521
Date	12/04/24

SELLER'S ENVIRONMENTAL QUESTIONNAIRE AND DISCLOSURE STATEMENT

Dear Land Owner:

The prospective purchaser of your land is approaching you with this questionnaire because they are seeking HOME funds from the Ohio Housing Finance Agency (OHFA). The use of HOME funds through OHFA requires the completion of this document: "Sellers Environmental Questionnaire and Disclosure Statement".

OHFA requires of the purchaser to include this completed questionnaire with the project's Environmental Site Assessment (ESA) Phase I report. We ask that you, the **property owner** make a good faith effort to answer the questions in the checklist. Please take time and care to check whatever records are in your possession. Should you respond to any of the questions in the affirmative or if answers are unknown, are qualified or cannot be obtained, please understand that the burden is on the purchaser and his/her environmental consultant to determine whether further inquiry is appropriate. Please make your best effort to document the reason for any affirmative answer to provide the purchaser with all appropriate information. And again, please keep in mind that the prospective purchaser's environmental consultant must determine if further inquiry is warranted.

Purchaser: Oberer Residential Construction, LTD.

Purchaser's Telephone No.: (937) 531-5521

Owner's Name: Oberer Construction Managers, LTD.

Owner's Telephone No.: (937) 278-0851

Subject Property: Parcel ID: A02000200470000500 Street: Channingway Drive

1. **Land use:** Is the property or adjoining property currently used for manufacturing or industrial use? Adjoining properties include those that border the immediate site and include properties across the street from the property.

YES NO (If "YES", please describe)

Subject Property: Vacant Land

Adjoining property north: Single-Family Residential

Adjoining property south: Commercial Office and Commercial Services

Adjoining property east: Multi-Family Residential

Adjoining property west: Commercial Office and Commercial Service

2. Has the property or adjoining property been used for manufacturing or industrial purposes in the past?

YES NO (If "YES", please describe)

Subject Property Previous use: The subject property is a greenfield site has always been vacant land

Previous use (north): Vacant Land

Previous use (south): Vacant Land

Previous use (east): Vacant Land

Previous use (west): Vacant Land

3. Are there any pesticides, automotive or industrial batteries, paints or other chemicals stored on the property or at the facility (other than undamaged containers of consumer products under five gallons in total volume)?

YES NO (If "YES", please describe)

4. Are there any plastic or metal industrial drums (typically 55-gallon) located on the property or at the facility?

YES NO (If "YES", please describe)

5. Has fill dirt been brought onto the site that could be contaminated?

YES NO (If "YES", please describe)

6. Have any construction debris, substances identified as hazardous, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried and/or burned on the site?

YES NO (If "YES", please describe)

7. Are there any pits, ponds or lagoons located on the property in connection with waste treatment or waste disposal?

YES NO (If "YES", please describe)

8. Is there any soil on the property that has been obviously stained?

YES NO (If "YES", please describe)

9. Are storage tanks above or underground located on the property?

YES NO (If "YES", please describe)

10. Are vent pipes protruding from the ground at the property or adjacent to any structure located on the property?

YES NO (If "YES", please describe)

11. Does the property discharge waste water, other than storm water, directly to a ditch or stream on or adjacent to the property?

YES NO (If "YES", please describe)

12. If the property is served by a private well or non-public water system has the well or water system been designated as contaminated by a governmental environmental or health agency?

YES NO (If "YES", please describe)

13. **Asbestos:** Does the property or any buildings located on the property contain any asbestos?
YES  (If "YES", please describe)

14. **Polychlorinated biphenyls (PCBs):** Have polychlorinated biphenyls been used in electrical transformers, capacitors or other equipment at the property?
YES  (If "YES", please describe)

15. Is there a transformer that is not owned by a public or private utility or group and for which there are no records indicating the absence of PCBs?
YES  (If "YES", please describe)

16. **Radon:** Has the property or any buildings located on the property been tested for radon?
YES  (If "YES", please describe)

17. **Urea-Formaldehyde:** Does the property or any buildings located on the property contain any urea-formaldehyde materials?
YES  (If "YES", please describe)

18. **Lead:** Does the property or any buildings located on the property contain any lead-based paint or lead plumbing?
YES  (If "YES", please describe)

19. **Miscellaneous:** Do you, the owner of the property or operator of the facility, have any knowledge of environmental liens or governmental notification relating to violations of environmental laws in regards to the property or any facility located on the property?
YES  (If "YES", please describe)

20. Have you, the owner of the property or operator of the facility, been informed of the presence of hazardous substances or environmental violations in regards to the property or the facility located on the property?

YES NO (If "YES", please describe)

21. Are you aware of any environmental assessment of the property that indicated the presence of hazardous substances on the site or recommended further assessment of the property?

YES NO (If "YES", please describe)

22. Are there past, current or pending lawsuits or administrative proceedings for alleged environmental damages involving the property or any owner or tenant of the property? No

YES NO (If "YES", please describe)

23. Does the purchase and/or sales price of this property reflect the presence of hazardous substances on the property?

YES NO (If "YES", please describe)

24. **Agricultural Land/Orchards/Plant Nurseries/Golf Courses:** Have pesticides, herbicides or other agricultural chemicals been stored, mixed on or applied to the property?

YES NO (If "YES", please describe)

25. **This questionnaire was completed by the property owner *(required)*: Owner's/ Seller's Signature: _____ Owner's Printed Name:** Robert M. McCann
Address: 3445 Newmark Drive
City, State, Zip: Miamisburg, Ohio 45342
Telephone Number: (937) 531-5521
Relationship to Site: Owner

APPENDIX Q
Government Agency Correspondence

lori@kilbaneenv.com

From: Cheyenne Mendenhall <cheyenne.mendenhall@fairbornoh.gov>
Sent: Wednesday, November 29, 2023 10:18 AM
To: lori@kilbaneenv.com
Subject: Request

Good Morning,

I have forwarded this request to our Fire Marshal, we are actively working to fulfill it at this time.

Cheyenne Mendenhall, Office Assistant II
City of Fairborn Fire Department

Phone 937-754-3080 | **Fax** 937-879-2201
44 W. Hebble Avenue, Fairborn, OH 45324



lori@kilbaneenv.com

From: Cheyenne Mendenhall <cheyenne.mendenhall@fairbornoh.gov>
Sent: Friday, December 1, 2023 1:01 PM
To: lori@kilbaneenv.com
Subject: Records Request

Good Afternoon,

After viewing our records there are no records of above/below ground storage tanks, no records of structure fires, no records of hazardous materials, or emergency responses.

Have a great weekend

Cheyenne Mendenhall, Office Assistant II
City of Fairborn Fire Department

Phone 937-754-3080 | **Fax** 937-879-2201
44 W. Hebble Avenue, Fairborn, OH 45324

KILBANE ENVIRONMENTAL

7723 TYLERS PLACE BLVD #321
CINCINNATI, OHIO 45069
(513) 874-6650 • FAX (513) 554-0394

www.kilbaneenv.com

November 21, 2023

Fairborn Fire Department
44 W. Hebble Avenue
Fairborn, OH 45324
Attn: Fire Chief Ryan Williams

Re: Data Request for HUD Environmental Review, Channingway Drive (5.917 acres of vacant land west of L'Amour Lane)
Parcel Number: A02000200470000500
Fairborn, Greene County, Ohio
Project Number: 23573(1)

Dear Chief Williams:

We are requesting information on behalf of the Ohio Housing Finance Agency in connection with the environmental review record for development of a multi-family senior housing to be located on Channingway Drive west of L'Amour Lane in Fairborn, Greene County, Ohio, Parcel Number: A02000200470000500. The development will consist of a 70-unit building with common areas. Ohio Department of Development funding requires that we have a record of response on file. A location map is attached.

Please provide the following information:

1. Are you aware of any USTs at or near the project site?
2. Are you aware of any hazardous-material responses or other environmental concerns in the project area?
3. Do you have file(s) available for the project site that can be made available for review, or can copies be provided?
4. What station will provide service to this location?
5. What is the approximate response time for fire and medical emergencies?
6. Who provides ambulance service in [city, village or township]?
7. Is the fire department included in the building plan review process? If not, would the fire department like to review the plans for this project?

Thank you for your assistance in this matter. Please fax back any information to (513) 554-0394, attention Tom Kilbane. Please refer to Project No. 23573(1) when submitting any information regarding this site.

If there are any questions regarding this request for information, please contact me at (513) 874-6650, ext 302 or you can email to: kilbane@kilbaneenv.com. Thank you for your time.

Sincerely,
KILBANE ENVIRONMENTAL

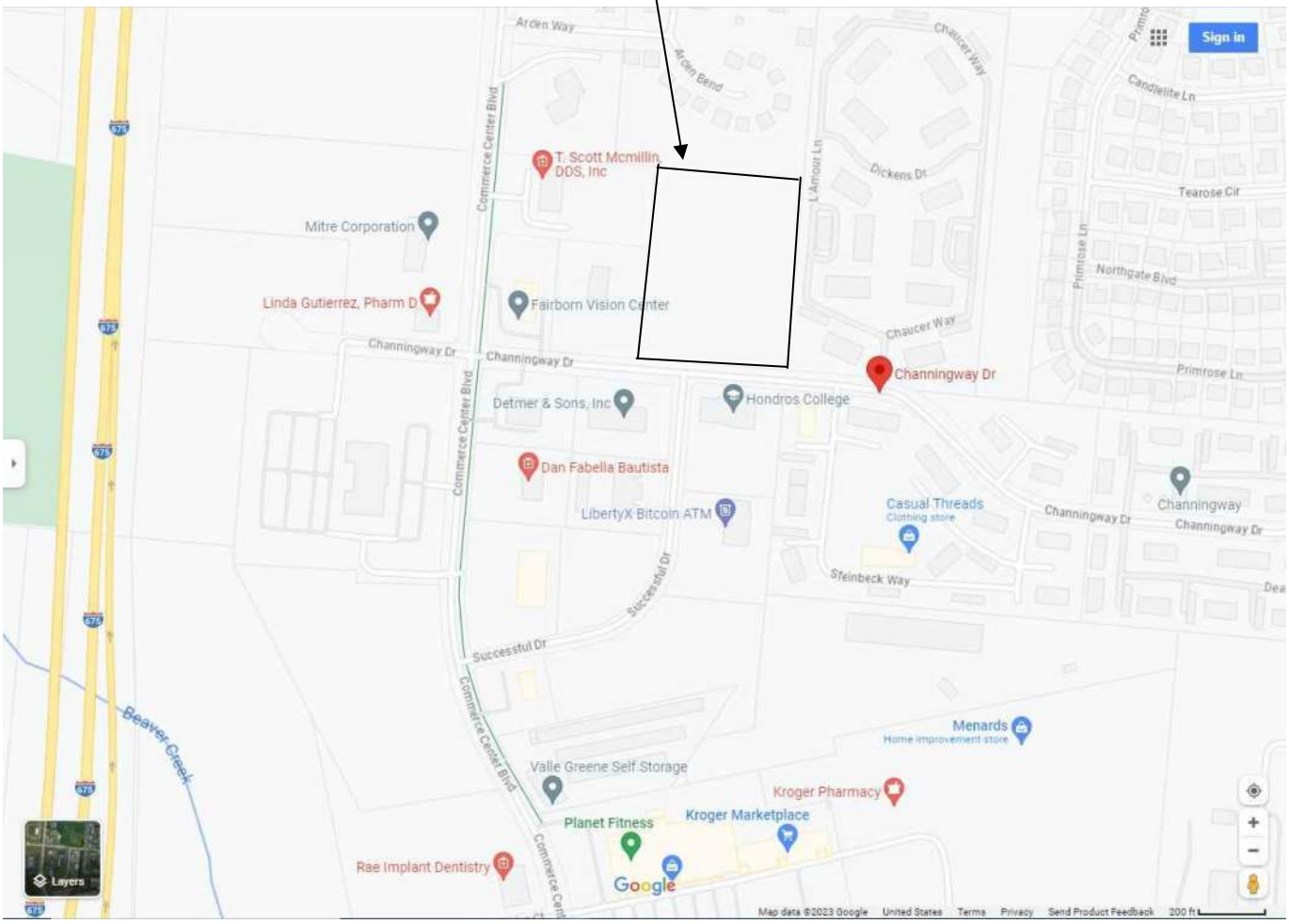
Thomas J. Kilbane
Member

SITE LOCATION:

Channingway Drive
Fairborn, Greene County, Ohio

Parcel Number: A02000200470000500

Kilbane Project Number: 23573(1)



KILBANE ENVIRONMENTAL

7723 TYLERS PLACE BLVD #321
CINCINNATI, OHIO 45069
(513) 874-6650 • FAX (513) 554-0394

www.kilbaneenv.com

November 21, 2023

Greene County Public Health
360 Wilson Drive
Xenia, OH 45385
Attn: Mr. Jeffrey Webb, MPH, REHS
Director of Environmental Health Services

Re: Data Request for HUD Environmental Review, Channingway Drive
5.917 acres of vacant land west of L'Amour Lane
Parcel Number: A02000200470000500
Fairborn, Greene County, Ohio
Project Number: 23573(1)

Dear Mr. Webb:

We are requesting information on behalf of the Ohio Housing Finance Agency in connection with the environmental review record for development of multi-family senior housing to be located on Channingway Drive west of L'Amour Lane in Fairborn, Greene County, Ohio, Parcel Number: A02000200470000500. Ohio Department of Development funding requires that we have a record of response on file. A location map is attached.

Please provide the following information:

1. Is the Health Department aware of any environmental concerns at the project site or in the area?
2. Is the Health Department aware of any air quality concerns at the project site or in the area?
3. Do you have files available for the project Site that can be made available for review, or can copies be provided?

Thank you for your assistance in this matter. Please fax back any information to (513) 554-0394, attention Tom Kilbane. Please refer to Project No. 23573(1) when submitting any information regarding this site.

If there are any questions regarding this request for information, please contact me at (513) 874-6650, ext 302 or you can email to: kilbane@kilbaneenv.com. Thank you for your time.

Sincerely,
KILBANE ENVIRONMENTAL

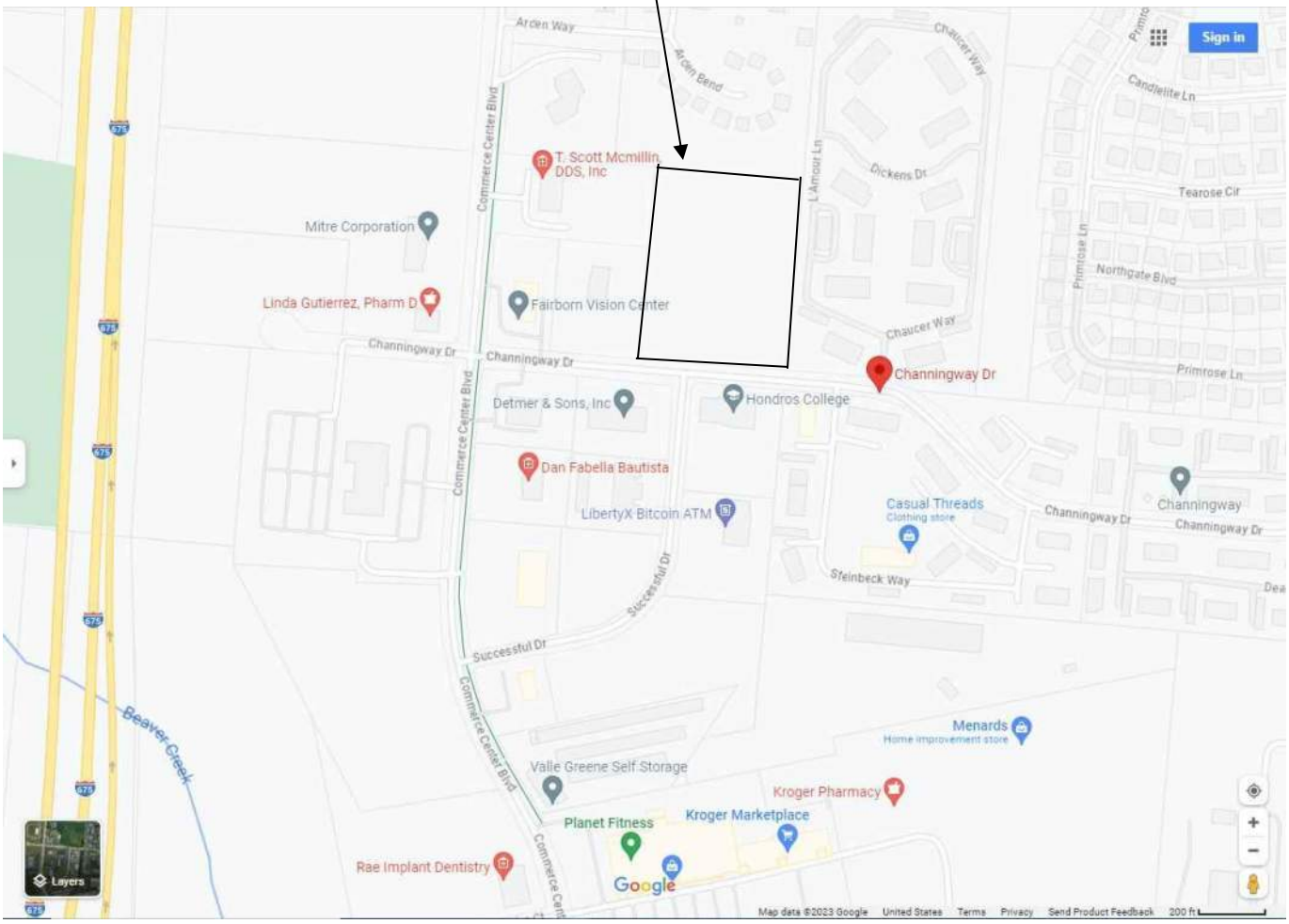
Thomas J. Kilbane
Member

SITE LOCATION:

Channingway Drive
Fairborn, Greene County, Ohio

Parcel Number: A02000200470000500

Kilbane Project Number: 23573(1)



APPENDIX R
Qualifications of Environmental Professionals

Thomas J. Kilbane, CPG – President

Summary of Capabilities

- Project Management
- Phase I/Phase II Environmental Site Assessments
- Underground Storage Tank (UST) Assessments, Remediation Services, Removals, and Closures
- Soil and Groundwater Contamination Assessments
- Environmental Audits
- Wetlands Reconnaissance, Delineation, Permitting and Mitigations
- Asbestos Surveys and Management Plans

Education

- B.S. Geology, Wright State University, 1986

Professional Registrations/Affiliations

- Certified Professional Geologist, AIPG 2002, CPG-10679
- Professional Geologist, Tennessee, since 1995, TN 3691
- Certified Asbestos Hazard Evaluation Specialist, Ohio and Kentucky since 1993

Professional Memberships

- Member National Groundwater Association
- Full Member American Industrial Hygiene Association
- Member American Indoor Air Quality Council

Health and Safety Training

- 40-hrs. Hazardous Materials Incident Response Operations, USEPA
- 8-hrs. Supervisors HAZMAT Training

Professional Capabilities

Mr. Kilbane has more than 32 years of experience providing geological and environmental services to industry and governmental agencies on a variety of projects. These projects have included site investigations, environmental audits, wetlands permitting and mitigations, asbestos surveys and management plans, underground storage tank management, remediation and operation and maintenance. Reporting has included proposal and report preparation for audits, site investigations, work plans, RCRA and CERCLA reports. All Phase I and II Environmental Site Assessments are performed in general accordance with ASTM and AAI guidelines, and to meet client and lender specific requirements.

Mr. Kilbane is also responsible for business development and client relations. In this role he markets existing services and develops and markets new services including all levels of client contacts.

Select Project Experience

- Management and technical oversight for over 50 underground storage tanks, closures, investigations, and remediations in Ohio, Indiana and Kentucky.

- Final review and reporting for five part environmental assessment at DOE's Miamisburg Mound Plant. $775,000 investigation covered various areas of Operating Unit OU-2.

- Managed several wetland reconnaissance and delineation projects throughout Ohio and Kentucky. In addition, prepared and provided oversight for the creation of several wetlands from 0.75 to 12 acres in size.

- Manager for a VOC remediation under DOE's Interim Response Actions for impacted soil in Mounds B-Building courtyard. Remediation included the installation of a soil vapor extraction system to remove the VOCs.

- Managed a site investigation and asbestos survey of a ceramics manufacturer in northeast Ohio. The project investigated included two lagoons, and numerous buried disposal areas.

- Managed and performed an environmental audit and site investigation at two facilities of an automotive parts manufacturer. Investigation included sampling over 20 borings, 15 PCB wipe samples and numerous paint chip samples.

- Ohio coordinator and primary proposal author for site investigations at 42 sites nationwide. Primary contact with client in identifying the scope of the project and developing the work plan and field sampling plan. Directly managed investigation activities at eight facilities in Indiana, Kentucky, Ohio, Pennsylvania, and West Virginia.

- Managed and provided oversight for a RCRA closure related to a release of spent trichloroethene. Project included defining the extent of contamination, excavation of impacted soils and proper disposal at a permitted hazardous waste landfill.

- Managed the completion of a large site investigation and remediation project for a major airline. Remedial activities included thermal treatment of excavated soils.

- Assembled data from field investigations and prepared a CERCLA Interim Measures Work Plan for a former textile dye facility in Virginia. The work plan included surface soils impacted with high lead concentrations, discolored soil associated with metals, a landfill, a building demolition, and storm water control.

- Task manager for a SVE remedial system used to remediate VOC impacted soils. The system successfully remediated over 90 percent of the reported VOCs in the remedial area

Select Project Experience, cont..,

- Assisted in the preparation of various CERCLA RI/FS documents for a former tar product facility. Documents prepared included work plan, field sampling plan, and QAPP.

- Coordinated and performed O&M activities for two CERCLA sites in Kentucky. One site contains a groundwater pump and treat system that includes reinjection of the groundwater. The other site pumps groundwater into a 25,000-gallon holding tank for off-site disposal.

- Various environmental audits have been performed for clients such as Aetna, the U.S. Postal Service, and various financial institutions.

- Management and performance of numerous asbestos surveys in Ohio and Kentucky. One project included collected samples of refractory by coring through an electric furnace at an operating steel mill.

Professional Experience

- President, Kilbane Environmental, 05/2001 to present

- Environmental Manager, Alt & Witzig Engineering, Inc., 01/1996 to 05/2001

- Project Manager, ICF Kaiser Engineers, Inc., 08/1994 to 10/1995

- Project Manager, Dames & Moore, Inc., 03/1992 to 08/1994

- Environmental Scientist, State of Ohio, BUSTR, 10/1990 to 03/1992

- Project Manager/Cartographer, Department of Defense, 01/1987 to 10/1990

APPENDIX G:
CORRESPONDENCE DOCUMENTATION

February 18, 2025

Greene County Public Health Department
360 Wilson Drive
Xenial, Ohio 45385

Via online form

Re: Data Request for OHFA Review, Vacant Land
East Adjacent to 1790 Commerce Center Blvd
Fairborn, Greene County, Ohio 45324
Parcel ID: A02000200470000500

To Whom It May Concern:

We are requesting information on behalf of the Ohio Housing Finance Agency in connection with the environmental review record for the Vacant Land in Fairborn, Greene County, Ohio.

Please provide the following information:

Is the health department aware of any environmental concerns at the project site or in the area?

Do you have files(s) available for the project site that can be made available for review, or can copies be provided?

Thank you for your assistance in this matter. If there are any questions regarding this request for information, please contact me at (937) 815-6949 or email marinda@maksolve.com.

Sincerely,

Marinda VanHoose
Environmental Scientist
MAKSolve

February 18, 2025

Ryan Williams, Fire Chief
City of Fairborn Fire Department
44 West Hebble Avenue
Fairborn, OH 45324

via email: fire@fairbornoh.gov

Re: Data Request for OHFA Review, Vacant Land
East Adjacent to 1790 Commerce Center Blvd
Fairborn, Greene County, Ohio 45324
Parcel ID: A02000200470000500

Dear Fire Chief Williams,

We are requesting information on behalf of the Ohio Housing Finance Agency in connection with the environmental review record for the Vacant Land in Fairborn, Greene County, Ohio. Please provide the following information:

1. Are you aware of any USTs at or near the project site?
2. Are you aware of any hazardous-material responses or other environmental concerns in the project area?
3. Do you have file(s) available for the project site that can be made available for review, or can copies be provided?
4. What station will provide service to this location?
5. What is the approximate response time for fire and medical emergencies?
6. Who provides ambulance service in the city?
7. Is the fire department included in the building plan review process? If not, would the fire department like to review the plans for this project?

Thank you for your assistance in this matter. If there are any questions regarding this request for information, please contact me at (937) 815-6949 or larry@maksolve.com.

Sincerely,

Marinda VanHoose
Environmental Scientist
MAKSolve

February 18, 2025

Fairborn Planning Division
Kathleen Riggs, City Planner
44 West Hebble Avenue
Fairborn, Ohio 45324

Subject Property: Vacant Land East Adjacent to 1790 Commerce Center Blvd, Fairborn, Greene County, Ohio 45324

Parcel ID: A02000200470000500

MAKSolve is conducting a Phase I Environmental Site Assessment of the aforementioned property. As part of the site assessment, we are looking for information regarding current zoning and any code violations on file for the subject property.

You can send your response to my attention at marinda@maksolve.com, or mail it to my attention at 432 Windsor Park Drive, Dayton, OH 45459.

If you have any questions regarding this submittal, please call me at 937-815-6949.

Thank you.

Marinda VanHoose
Earth Scientist
MAKSolve

February 18, 2025

Travis Cooper
Water & Sewer maintenance Superintendent Via: travis.cooper@fairbornoh.gov
Fairborn Water and Sewer Department
700 Pierce Dr
Fairborn, Ohio 45324

Subject Property: Vacant Land East Adjacent to 1790 Commerce Center Blvd, Fairborn, Greene County, Ohio 45324

Parcel ID: A02000200470000500

MAKSolve is conducting a Phase I Environmental Site Assessment of the aforementioned property. As part of the site assessment, we are requesting a records review regarding the property. Specifically, we are requesting:

Date of water connection
Water violations (if applicable)
Date of sewer hookup
Special sewer permits (if applicable)
Sewer discharge violations (if applicable)
Information regarding any current or historic septic tank systems (if applicable)

You can send your response to my attention at marinda@maksolve.com, or mail it to my attention at 432 Windsor Park Drive, Dayton, OH 45459.

If you have any questions regarding this submittal, please call me at 937-815-6949.

Thank you.

Marinda VanHoose
Earth Scientist
MAKSolve

February 18, 2025

Fairborn Police Department
70 West Hebble Avenue
Fairborn, Ohio, 45324
Attn: Ben Roman, Police Chief

Re: Data Request for OHFA Review, Vacant Land
East Adjacent to 1790 Commerce Center Blvd
Fairborn, Greene County, Ohio 45324

Parcel ID: A02000200470000500

Dear Mr. Roman:

We are requesting information on behalf of the Ohio Housing Finance Agency in connection with the environmental review record for the Vacant Land in Fairborn, Greene County, Ohio.

Please provide the following information:

1. Is criminal activity a significant problem in the area of the project site, as compared with the city in general? If so, what steps can the project take to promote safety in the area?
2. What is the approximate response time for emergency calls?
3. Are numerous traffic violations or accidents reported at the intersections near the project site? Is the area safe for pedestrian traffic?

Thank you for your assistance in this matter. If there are any questions regarding this request for information, please contact me at 937-815-6949.

Sincerely,

Marinda VanHoose
Environmental Scientist
MAKSolve

File Review Request Checklist

Please Note: Pursuant to Ohio Revised Code 149.43(B)(5), you are not required to fill out this checklist or otherwise provide any public records request in writing. This checklist is intended to help facilitate your public records search by listing the manner in which records are generally maintained by Ohio EPA and accessed in the ordinary course of Ohio EPA's duties.

YOUR CONTACT INFORMATION:

Requester Name: Marinda VanHoose **Affiliation:** MAKSolve
Requester Address: 432 Windsor Park Drive
City: Dayton **State:** OH **Zip:** 45459
Requester Phone #: 937-815-6949
Requester Email: marinda@maksolve.com

1. RECORDS REQUESTED:

Please list all names the facility may have operated under during the period of interest.

Facility or Site Names and Address:

Name	Address	City	County
Vacant Property	East Adjacent to 1790 Commerce Center Blvd	Fairborn	Greene
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.

Facility ID No. or other identifying information: Parcel IDs: A02000200470000500

2. DATE RANGE **From:** 1900 **To:** February 2025

3. DIVISIONS AND MAJOR PROGRAM AREAS:

Division of Air Pollution Control (DAPC):

- ☐ Stack Tests
- ☐ Asbestos Emission Controls
- ☐ Air Permits
- ☐ Open Burning Regulation
- ☐ Ambient Air Monitoring
- ☐ Mobile Sources/Asphalt Plants
- ☐ Toxic Release Inventory
- ☐ Air Nuisance

Division of Surface Water (DSW):

- ☒ Nonpoint Source
- ☒ NPDES/Pretreatment
- ☐ Storm Water
- ☐ Surface Water Permits to Install
- ☐ Sludge Management
- ☐ Water Quality Reports/Watershed
- ☐ Wetland and Stream Permitting (401)

Division of Environmental Response and Revitalization (DERR):

Division of Drinking and Ground Waters (DDAGW):

- [x] Emergency Response Incident Reports
- [x] RCRA Corrective Action Files
- [x] RCRA Groundwater Files
- [x] RCRA Closure Files
- [x] Voluntary Action Program (VAP) Files
- [x] Site Assessments
- [ ] Monthly Operating Reports (MORs)
- [ ] Lead and Copper Files
- [x] Plan approvals, well logs, etc.
- [x] Ground Water Quality Characterization
- [x] Underground Injection Control files

Division of Materials and Waste Management (DMWM):

Solid Waste Section:

- [ ] Construction and Demolition Debris (C&DD)
- [ ] Scrap Tires
- [ ] Composting
- [ ] Open Dumping
- [ ] Infectious Waste
- [ ] Municipal Solid Waste Landfills/Incinerators
- [ ] Municipal Solid Waste Transfer Stations
- [ ] Residual/Industrial Solid Waste Landfills
- [ ] Solid Waste Management Planning
- [ ] Beneficial Use

Hazardous Waste Section:

- [x] Cessation of Regulated Operations
- [x] RCRA C-Hazardous Waste

Division of Environmental and Financial Assistance (DEFA): (Water Pollution Control Loan Fund (wastewater plants/public only); and Drinking Water Assistance Fund (drinking water plants/lines/public).

- [ ] Nomination
- [ ] Facilities Plan Approval (as applicable)
- [ ] Performance Certification Approval (as applicable)
- [ ] Signed Final Exhibit
- [ ] WRRSP Annual Reports
- [ ] STAG (project plan, proof of publication, FONSI issued by USEPA, Notification of STAG grant award from USEPA
- [ ] Application
- [ ] PTI Approval (as applicable)
- [ ] Final Loan Agreement
- [ ] WRRSP Signed Covenants

4. <u>COMMON PUBLIC DOCUMENT TYPES</u>

- [x] Final Permits/Licenses/Authorizations
- [x] Inspection Reports/Checklists
- [x] Director's Final Findings and Orders
- [x] District Office Investigation Reports
- [ ] Financial Assurance Documents
- [ ] Water Plant Operator Certifications
- [ ] Settlement Correspondence
- [ ] Attorney General Office Referral Letters
- [ ] Total Maximum Daily Load Reports
- [x] Notices of Violation
- [x] Emergency Response Incident Reports
- [x] Discharge Monitoring Reports (DMRs)
- [ ] Public Notice/Public Hearing Transcript
- [ ] Wastewater Operator Certifications
- [x] Return to Compliance Letters
- [x] Bilateral Compliance Agreements
- [x] Environmental Covenants

February 18, 2025

Ohio Department of Commerce
Division of State Fire Marshal

Subject Property: Vacant Land East Adjacent to 1790 Commerce Center Blvd, Fairborn, Greene County, Ohio 45324

Parcel ID: A02000200470000500

MAKSolve is conducting a Phase I Environmental Site Assessment of the aforementioned property. As part of the site assessment, we are requesting a records review regarding any calls, complaints, hazardous materials incidents, spills, releases, Aboveground Storage Tanks (ASTs), Underground Storage Tanks (USTs), fire code violations or other environmentally related issues that may be on file for this location.

You can send your response to my attention at marinda@maksolve.com, or mail it to my attention at 432 Windsor Park Drive, Dayton, OH 45459.

If you have any questions regarding this submittal, please call me at 937-815-6949.

Thank you.

Marinda VanHoose
Earth Scientist
MAKSolve

Note: Information in this request was sent via the OTTER Website

February 18, 2025

Ryan Williams, Fire Chief
City of Fairborn Fire Department
44 West Hebble Avenue
Fairborn, OH 45324

via email: fire@fairbornoh.gov

Re: Data Request for OHFA Review, Vacant Land
East Adjacent to 1790 Commerce Center Blvd
Fairborn, Greene County, Ohio 45324
Parcel ID: A02000200470000500

Dear Fire Chief Williams,

We are requesting information on behalf of the Ohio Housing Finance Agency in connection with the environmental review record for the Vacant Land in Fairborn, Greene County, Ohio. Please provide the following information:

1. Are you aware of any USTs at or near the project site?
    a. No. Please refer to the State of Ohio Dept. of Commerce for this data.
2. Are you aware of any hazardous-material responses or other environmental concerns in the project area?
    a. Without an address, we can only check for incidents in that general area. There have been no incidents in that area that meet your description in the last two years.
3. Do you have file(s) available for the project site that can be made available for review, or can copies be provided?
    a. The Fairborn Fire Department does not.
4. What station will provide service to this location?
    a. Fire Station 2 is the first due station.
5. What is the approximate response time for fire and medical emergencies?
    a. Our current average travel time for the first arriving piece of equipment is 4 minutes and 11 seconds.
6. Who provides ambulance service in the city?
    a. The Fairborn Fire Department provides both Fire and EMS.

7. Is the fire department included in the building plan review process? If not, would the fire department like to review the plans for this project?
    a. Yes, in collaboration with the building department and City planner.

Thank you for your assistance in this matter. If there are any questions regarding this request for information, please contact me at (937) 815-6949 or larry@maksolve.com.

Sincerely,

Marinda VanHoose
Environmental Scientist
MAKSolve

February 18, 2025

Marinda VanHoose
MAKSolve LLC
432 Windsor Park Drive
Dayton, Ohio 45459

RE: Public Records
Commercial Land
NW Washington Blvd.
Hamilton, Ohio

Dear Marinda VanHoose:

I wish to inform you that Ohio EPA's Southwest District Office has received your above referenced request. Records housed in the divisions you requested, in this office, have been searched and we have no records or information responsive to this request. If you believe there may be records relating to this location under a different name or address, please feel free to contact me and I'll be glad to initiate a new search.

However, you may want to look up Ohio EPA's eDocument Search which could include documents that the district offices may not have. The web address is: http://edocpub.epa.ohio.gov/publicportal/edochome.aspx.

You can also contact the following departments to see if they have any records on the property you've requested.

- Richard Bouder- Public Records Manager, Ohio EPA, Director's Office, Columbus Office; this will include Spill Reports and any other files that Central Office may have. – (614) 644-2782 or richard.bouder@epa.ohio.gov
- Kelly Snedegar- State Fire Marshal's Office (BUSTR/LUST - Under/Above Ground Storage Tank) – kelly.snedegar@com.state.oh.us
- Mike Kramer- Southwest Ohio Air Quality Agency– Any documents regarding Asbestos or any other Air related documents (513) 946-7727 or Mike.Kramer@hamilton-co.org

Should you have any questions or concerns, please feel free to contact me at (937) 285-6025 or Penny.Prather-Dix@epa.ohio.gov.

Sincerely,

Penny Prather-Dix

Penny Prather-Dix
Administrative Professional

February 19, 2025

TO: Marinda VanHoose

FROM: Marla Reichenbach
Administrative Professional 2 BUSTR

On Behalf of the Bureau of Underground Storage Tank Regulations, the Records Management Section is responding to your public records request. Thank you for your request. We have searched our data base regarding records for Underground Storage Tanks and found no release/records for the specific address/facility you requested:

1790 Commerce Center Blvd, Fairborn, OH

Please contact your local fire department in that they may have records for this address/facility. If you are requesting information for Aboveground Storage tanks, please contact the Code Enforcement Bureau at (614) 728-5460 and if you need records regarding permits and registrations, please contact Maria with the Bureau of Testing and Registration at (614) 995-0301.

Our request forms are designed to use one form per facility number or address. If you have additional addresses you need information for, please submit additional request forms.

Please do not hesitate to contact me if I can be of further assistance.

marla.reichenbach@com.ohio.gov

Property Contact Questionnaire

Please sign your name and print your name and the date below. By signing you state that the information you provided herein is accurate to the best of your knowledge.

Signature	Date	Print Name

Property Information

Property Name	Property Identification (e.g. Block & Lot or Parcel ID #)
[redacted]	[redacted]

Property Street Address
[redacted]

Property City	Property County	Property State & Zip
[redacted]	[redacted]	[redacted]

Property Size (acres)	# Buildings	# Units	# Stories	Square footage (total)
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Foundation	Property Use
[redacted] ☐ Basement	☐ Commercial [redacted] ☐ Industrial ☐ Other (specify)

Describe renovations & provide dates:

[redacted]

Key Site Manager Contact Information

Key Site Manager Name & Title	Company
[redacted]	[redacted]

Address	City	State & Zip
[redacted]	[redacted]	[redacted]

Phone	Fax
[redacted]	

Cell phone	Email
[redacted]	[redacted]

Current Property Owner

Owner Name & Title	Company
[redacted]	[redacted]

Address	City	State & Zip
[redacted]	[redacted]	[redacted]

Date of Acquisition
[redacted]

1. UTILITIES

Utility	Provider	Utility	Provider
Electricity	[redacted]	Fuel Oil	[redacted]
Natural Gas	[redacted]	Steam	[redacted]
Sanitary Sewerage	[redacted]	Solid Waste Removal (include medical waste)	[redacted]
Potable Water	[redacted]		

If a potable water well and/or septic system is located at property, please complete Sections 5.1.6 and/or 5.1.8.

2.1 CURRENT OPERATIONS

Is the property currently used for any of the following operations? ***(Check all that apply.)***

☐ Manufacturing operations ☐ Gasoline service station ☐ Automobile repair ☐ Printing facility ☐ Dry cleaning*
☐ Photodevelopment ☐ Junkyard or landfill ☐ Waste treatment, transfer, storage, disposal, processing, or recycling

***If dry cleaning operations currently occur or have occurred at property, please complete Section 5.1.9.**

Describe current operations:
[redacted]

2.2 PAST OPERATIONS & OWNERS

Has the property ever been used for any of the following operations? ***(Check all that apply.)***

☐ Manufacturing operations ☐ Gasoline service station ☐ Automobile repair ☐ Printing facility ☐ Dry cleaning*
☐ Photodevelopment ☐ Junkyard or landfill ☐ Waste treatment, transfer, storage, disposal, processing, or recycling

***If dry cleaning operations currently occur or have occurred at property, please complete Section 5.1.9.**

Describe property use/operations prior to the construction of buildings currently at the property:
[redacted]

Provide previous property owners, occupants, and/or operators. Attach pages as necessary.

Company	Owner/ Occupant/ Operator	Dates of occupancy	Operations	Contact name & number

2.3 NEIGHBORING OPERATIONS

Check any operations which occur, or have occurred in the past, at adjoining properties.

☐ Manufacturing operations ☐ Gasoline service station ☐ Automobile repair ☐ Printing facility ☐ Dry cleaning*
☐ Photodevelopment ☐ Junkyard or landfill ☐ Waste treatment, transfer, storage, disposal, processing, or recycling

3. EXISTING DOCUMENTATION

Does the following documentation exist? If yes, please provide copies.

Yes	No		Yes	No	
☐	[redacted]	ESA Reports	☐	[redacted]	Community Right-to-know plan
☐	[redacted]	Env. Compliance Audit Reports	☐	[redacted]	Safety Plans
☐	[redacted]	Environmental Permits	☐	[redacted]	SPCC Plans
☐	[redacted]	UST/AST registrations	☐	[redacted]	Emergency prepardness & prevention plans
☐	[redacted]	Underground injection permits	☐	[redacted]	Hydrogeologic reports
☐	[redacted]	MSDS	☐	[redacted]	Government correspondence & violations
☐	[redacted]	Hazardous waste generator notices	☐	[redacted]	Recorded AULs
☒	☐	Geotechnical studies	☐	[redacted]	Environmental Liens
☐	[redacted]	Risk Assessments	☐	☐	Other _____

4. KNOWN ENVIRONMENTAL CONCERNS

	Yes	No
Are you aware of any pending, threatened, or past litigation relevant to h*azardous substances* or *petroleum products* in, on, or from the property?	☐	
Are you aware of any pending, threatened, or past administrative proceedings relevant to *hazardous substances* or *petroleum products* in, on, or from the property?	☐	
Are you aware of any notices from governmental agencies regarding possible violation of environmental laws or possible liability relating to *hazardous substances* or *petroleum products*?	☐	
Are you aware of any remediation activities that have occurred at the property or adjacent properties in response to contaminated soil, groundwater, and/or surface water?	☐	
Are you aware of any proposed remediations at the property?	☐	

If yes to any of the above, describe. Attach pages as necessary. _____

Are you aware of any of the following currently or previously located at the subject property?

(Check all that apply. If you answer yes to any of the items, provide the additional information described on the following pages.)

	Yes – currently	Yes – previously	No – never	If yes, provide additional information in section below:
Underground storage tanks:	☐	☐		***5.1.1***
Aboveground storage tanks:	☐	☐		***5.1.2***
Electrical transformers or capacitors:	☐	☐		***5.1.3***
Hydraulic equipment, including elevators, dock levelers, lifts, compactors, & balers:	☐	☐		***5.1.3***
Chemical storage (greater than 5 gallons):	☐	☐		***5.1.4***
Hazardous wastes, including used oil:	☐	☐		***5.1.5***
Wells, including potable water wells, monitoring wells, test wells:	☐	☐		***5.1.6***
Sumps:	☐	☐		***5.1.6***
Pits:	☐	☐		***5.1.6***
Floor drains:	☐	☐		***5.1.6***
Surface water bodies, stormwater discharge, and/or wetlands:	☐	☐		***5.1.7***
Lagoons:	☐	☐		***5.1.8***
Septic systems:	☐	☐		***5.1.8***
Oil water separators:	☐	☐		***5.1.8***
Dry cleaners:	☐	☐		***5.1.9***
Asbestos:	☐	☐		***5.2.1***
Radon studies/mitigation systems:	☐	☐		***5.2.2***
Lead:	☐	☐		***5.2.3***
Air emissions, including emergency generators, fume hoods, & spray paint booths:	☐	☐		***5.2.4***
Mold growth and/or water intrusion:	☐	☐		***5.2.5***

If you have answered No to all of the above, you are finished with the Questionnaire.

5. ADDITIONAL INFORMATION

Underground Storage Tanks (USTs)

If USTs are/were located at the property (including closed or removed USTs), complete the following tables:

UST No.	Capacity (gallons)	Contents	Material of Construction	Install Date	LD? (Y/N)	CP? (Y/N)	S/O? (Y/N)	DLIT
1	N/A							
2								
3								
4								
5								

LD: Leak detection, CP: Corrosion Protection, S/O: Spill/Overflow Protection, DLIT: Date of last integrity test

UST No.	Location/Former Location	Use/Former Use	Registered? (Y/N)	Permit No.	Status
1	N/A				
2					
3					
4					
5					

Status: ACT – Active, NIU - Not in use, REM – Removed, CIP – Closed in place

Do any underground pipelines traverse the property? Include easements. Yes No

Please attach additional UST information and documentation, including tightness test reports, closure reports, registration forms, permits, correspondence (e.g. No Further Action letters), and approvals.

Aboveground Storage Tanks (ASTs)

If ASTs (include & indicate **silos**) are/were located at the property, please describe:

Capacity (gallons)	Contents	Material of Construction	Location	Install Date	Secondary Containment? (Y/N)	Permit # &/or Facility #	Status	Registered? (Y/N)
N/A								

Status: ACT – Active, NIU - Not in use, REM – Removed

Please attach any additional AST documentation.

Electrical & Hydraulic Equipment

Are the transformers labeled “Non-PCB” or has the owner verified they are Non-PCB? Yes ☐ No

Have any releases of dielectric fluid occurred? Yes ☐ No

Are dry-type transformers located at the property? Yes ☐ No

Do any high-tension electric transmission lines traverse the property? Include easements. Yes ☐ No

Number of hydraulic elevators at the property: _____ Number of cable-drawn elevators at property: _____

If applicable, who services the hydraulic elevators? _____

Describe any other hydraulic equipment at the property (including trash compactors, lifts, & dock levelers):

_____

If hydraulic elevators are located at property, have any hydraulic fluid releases occurred? Yes ☐ No

Chemical Storage

Chemical	Use	Amount Stored	Type of Container	MSDS present? (Y/N)	Leaks from container?
NA					

Has a significant release of chemicals (greater than 5 gallons) occurred at the property? Yes ☐ No

Are you aware of any parts cleaners or degreasers located at the property? Yes ☐ No

Please attach additional chemical storage information/documentation, including information concerning any releases, if applicable.

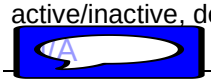
Waste Generation

Waste type/description	Location stored on property	Quantity generated per month	Waste manifest? (Y/N)	Waste handler
NA				

Please attach additional waste information, including copies of waste manifests for each above types of waste.

Wells, Sumps, Pits, & Floor Drains

Wells: Describe wells present at the property, include quantity, type (monitoring, test, potable water supply, etc.), active/inactive, depths of wells, and locations.



If water quality tests have been performed on water provided by wells, please attach copy of analytical results.

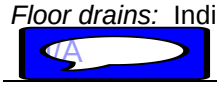
Sumps: Describe location, whether they are equipped with pumps, and if so, to where the pumps discharge.



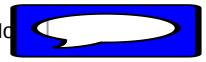
Pits: Describe pits' construction and whether equipped with sump. Include hydraulic elevator pits and quantity, and to where sump discharges or if it retains all it collects.



Floor drains: Indicate locations and to where they discharge.



Is/are grease trap(s) located at the property? If yes, please provide following information. Yes ☐ No



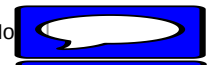
Locations: 

Construction: _____

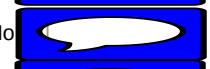
Who services them? _____ How often cleaned out? _____

Surface Water Bodies & Stormwater Discharge

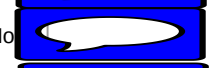
Are stormwater retention or detention basins located at the property? Yes ☐ No



If yes, are there outflow or overflow structures? Yes ☐ No



Are there streams and/or ponds at the property? Yes ☐ No



Are wetlands located at the property? Yes ☐ No



If yes, where? _____

To where do roof drains/leaders discharge? _____

Does the property have a NPDES permit? Yes ☐ No



Lagoons, Septic Systems, & Separators

Lagoons: Describe purpose, years of existence, and location:



Septic system: If currently or previously located at property, provide following: ☐ Active ☐ Inactive ☐ Closed

Type: ☐ Tank ☐ Leach field ☐ Spray field ☐ Cesspool ☐ Other (specify) _____

Describe location: 

Separator: If an oil/water separator is located at the property, provide following:

Location: 

Discharges to: _____ Tank capacity: _____

Construction: _____ Permit required? _____ Used oil removed by: _____

5.2.1 Asbestos-containing materials

Describe asbestos-containing materials (ACMs) at the property, amount, location, & type.

N/A

Has an asbestos survey been conducted at the property?	Yes ☐	No
Has an asbestos abatement been conducted at the property?	Yes ☐	No
Is an ACM Operations & Maintenance Plan in place at the property?	Yes ☐	No

If yes to the above questions, please attach reports/documentation.

FAIRBORN
A CITY IN MOTION

City of Fairborn
44 W. Hebble Avenue
Fairborn, OH 45324
p: 937.754.3056
f: 937.754.3051

Kathleen Riggs, City Planner
Development Services

February 25, 2025

Marinda VanHoose
MAKSolve
432 Windsor Park Drive
Dayton, Ohio 45459

RE: Parcel A02000200470000500, 1155 Channingway Drive, Fairborn OH 45324

Dear Ms. VanHoose,

In response to your inquiry, please be advised that the subject property1155 Channingway Drive, parcel identification number A02000200470000500, is located within the City of Fairborn Planned Development zoning district. This property is currently undeveloped land and does not have any building, zoning or fire code violations. We are unaware of any underground or above ground storage tanks on this site or any contamination concerns.

If you should have any questions, please contact me at 937-754-3056.

Sincerely,

Kathleen Riggs
City Planner

USER QUESTIONNAIRE

INTRODUCTION: In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the *"Brownfields Amendments"),* the *user* must conduct the following inquiries required by 40 CFR 312.24, 312.28, 312.29, 312.30, and 312.31. The user should provide the following information to the *environmental professional.* Failure to conduct these inquiries could result in a determination that *"all appropriate inquiries"* is not complete.

(1) ***Environmental liens that are filed or recorded against the property. (40 CFR 312.25*).**
Question: Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state, or local law? Yes:_____No:___X___
If yes, please provide details below, or attach a separate sheet.

(2) ***Activity and use limitations that are in place on the property or that have been filed or recorded against the property (40 CFR 312.26(a)(1)(v) and vi)).***
Question: Are you aware of any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?
Yes:_____No:___X___
If yes, please provide details below, or attach a separate sheet.

(3) ***Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).***
Question: As the user of this ESA do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?
Yes:_____No:___X___
If yes, please provide details below, or attach a separate sheet.

(4) ***Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29).***
Question: Does the purchase price being paid for this property reasonably reflect the fair market value of the property?
Yes:__X____No:___N/A___
If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?
Yes:_____No:___N/A_X__
If yes, please provide details below, or attach a separate sheet

(5) ***Commonly known or reasonably ascertainable information about the property (40 CFR 312.30).***
Question: Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases?
Yes:___X___No:_____
For example, as a user,

(a)	Do you know the past uses of the property?	Yes:	_X_	No:	___
(b	Do you know of specific chemicals that are present or once were present at the property?	Yes:	___	No:	_X_
(c)	Do you know of spills or other chemical releases that have taken place at the property?	Yes:	___	No:	_X_
(d	Do you know of any environmental cleanups that have taken place at the property?	Yes:	___	No:	_X_

(6) ***The degree of obviousness of the presence of likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).***
Question: As the user of this ESA, based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property?
Yes:_____No:___X___
If yes, please provide details below, or attach a separate sheet

(7) In addition, certain information should be collected, if available, and provided to the *environmental professional* at *MAKSolve*. This information is intended to assist the *environmental professional but* is not necessarily required to qualify for one of the LLPs. The information includes:

(a) the reason why the Phase I is being performed,

Requirement of funding for the development.

(b) the type of property and type of property transaction, for example, sale, purchase, exchange, etc.,

Purchase and development of site as a seventy unit apartment community.

(c) the complete and correct address for the property (a map or other documentation showing property location and boundaries is helpful),

1155 Channingway (approx.), Fairborn, Ohio 45324 (PPN

(d) the scope of services desired for the Phase I (including whether any parties to the *property* transaction may have a required standard scope of services or whether any considerations beyond the requirements of Practice E 1527 are to be considered),

HOME Regulations

(e) identification of all parties who will rely on the Phase I report,

TBD

(f) identification of the site contact and how the contact can be reached,

Robert M. McCann, rmccann@Oberer.com

(g) any special terms and conditions which must be agreed upon by the *environmental professional,* and

None

(h) any other knowledge or experience with the *property* that may be pertinent to the *environmental professional* (for example, copies of any available prior *environmental* site *assessment reports,* documents, correspondence, etc., concerning the *property* and its environmental condition).

None

To the best of the signatory's knowledge, as of the date hereof, the answers given in this questionnaire are deemed accurate. No active environmental investigation has been personally conducted by the signatory. Furthermore, this certification shall not be construed to constitute a professional opinion or an all-inclusive report but, rather, merely a disclosure of information known to the signatory as of the date hereof.

_____ _____

Signature Date

Robert M. McCann

_____

Printed Name

Chief Financial Officer of Seller and Co-developer

_____

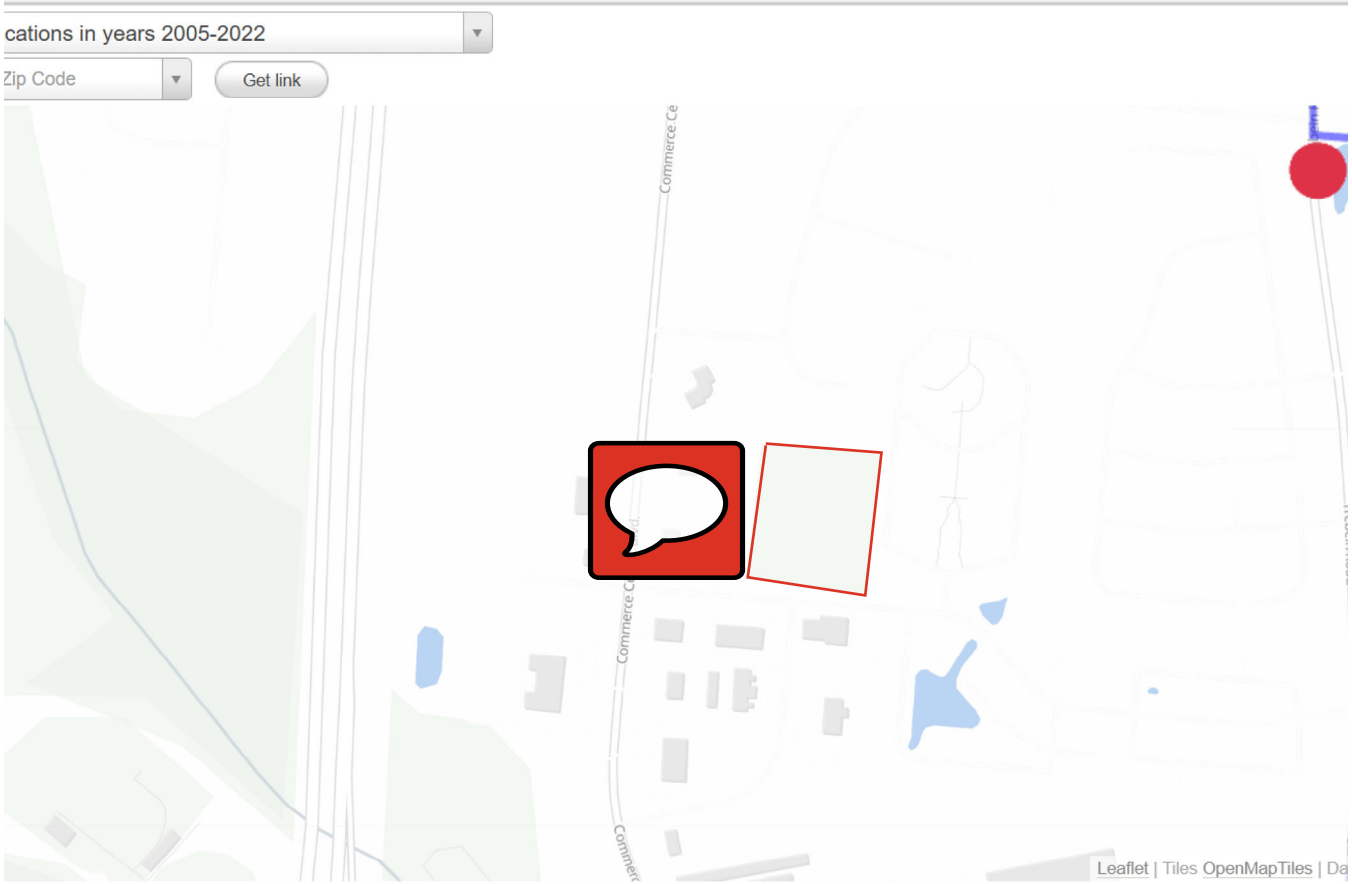
Title/Affiliation with Subject Property

__Oberer Companies_____

Company Name

Reference: ASTM E 1527-21 "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process," Appendix X3.

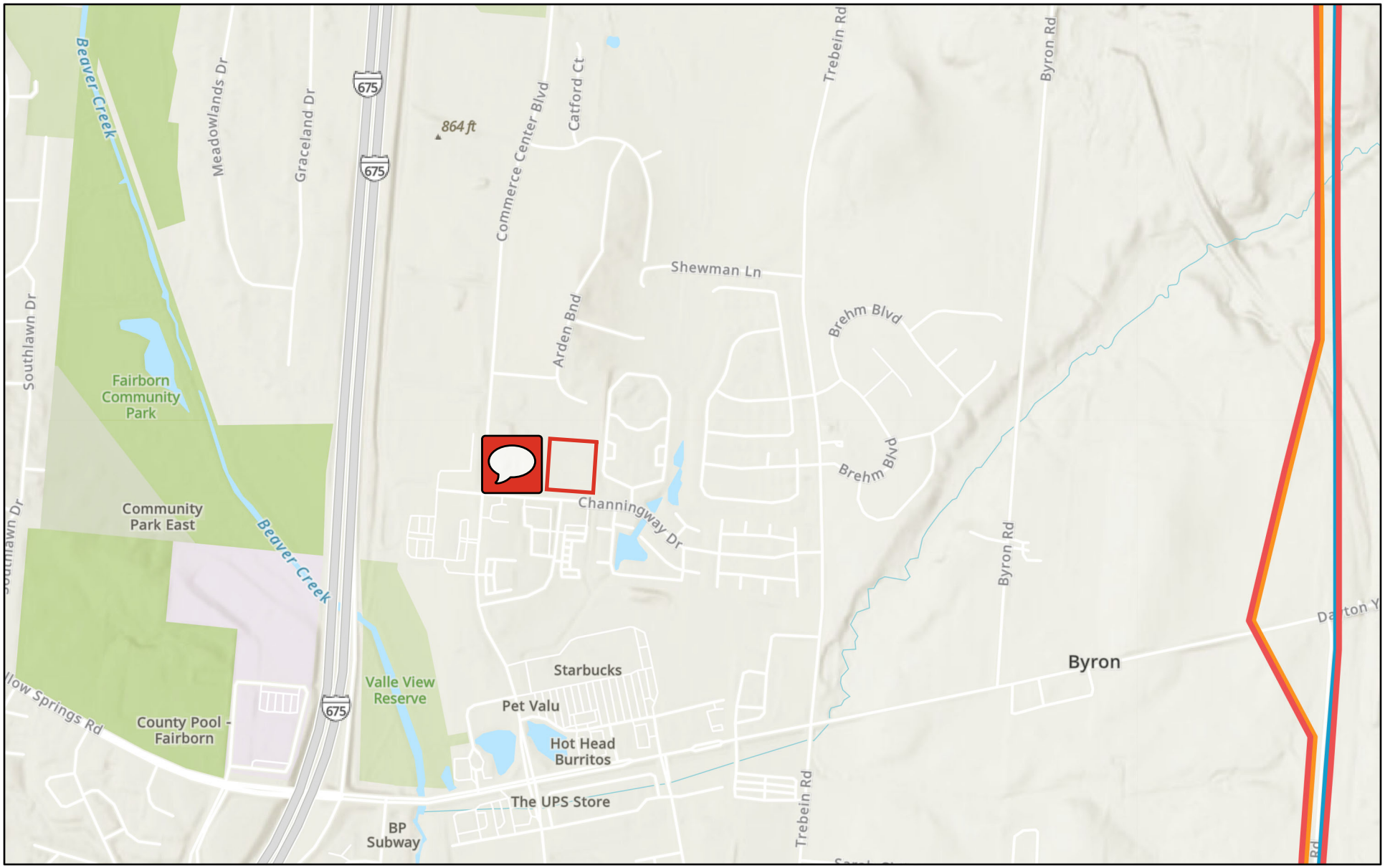
APPENDIX H:
TRAFFIC HAZARDS



howing 606,840 points.

APPENDIX I:
HIGH TENSION POWER LINES

Power Line Map



2/21/2025

U.S. Electric Power Transmission Lines

- Under 100 (Kilovolts)
- 100-161 (Kilovolts)
- 345 (Kilovolts)

World Hillshade

1:17,842

0 0.1 0.2 0.4 mi

0 0.17 0.35 0.7 km

Esri Community Maps Contributors, Greene County GIS, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS,

APPENDIX J:
RADON ZONE MAP

OHIO - EPA Map of Radon Zones

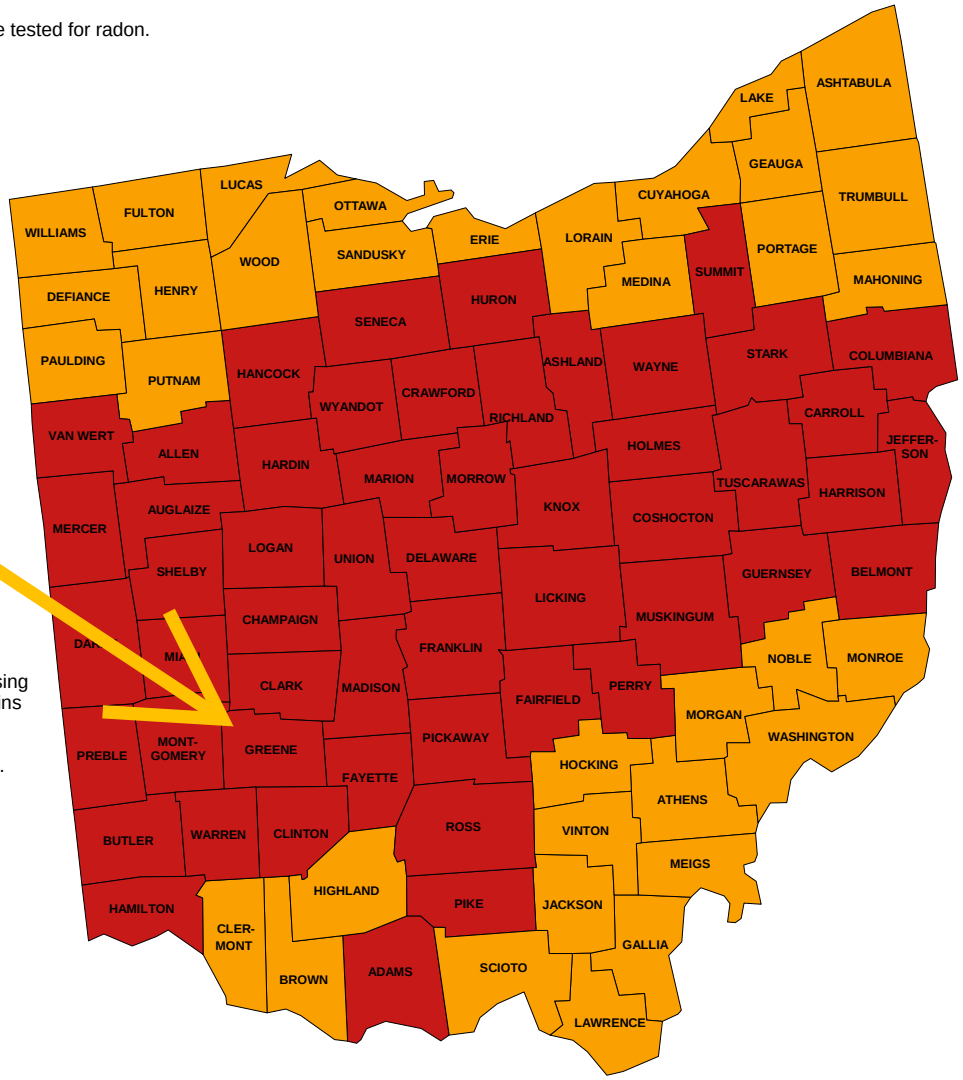
http://www.epa.gov/radon/zonemap.html

The purpose of this map is to assist National, State and local organizations to target their resources and to implement radon-resistant building codes.

This map is not intended to determine if a home in a given zone should be tested for radon. Homes with elevated levels of radon have been found in all three zones.

All homes should be tested, regardless of zone designation.

IMPORTANT: Consult the ion entitled "Preliminary Geologic Radon Potential Assessment of SGS Open-file Report 93-292-E) before using this map. http://energy /radon/grpinfo.html This document contains information on rado ations within counties. EPA also recommends t plemented with any available local data in order t edict the radon potential of a specific area.



Zone 1 Zone 2 Zone 3

APPENDIX K:
DRINKING WATER QUALITY

GREENE COUNTY
Sanitary Engineering

Greene County continues to meet all Ohio EPA standards and, through continuing improvements, will be able to meet the projected needs of our customers.

2023 Drinking Water Quality Report
Greene County-Fairborn Water System
2022 Testing Year

Director's Message

We are pleased to announce Greene County Sanitary Engineering Department (GCSED) has continued to meet or exceed all state and federal drinking water quality standards again for the 2022 testing year. GCSED takes great pride in protecting public health and providing excellent customer service to our citizens and rate-payers. GCSED is laser focused on water protection, service reliability, and affordability!

Protection: GCSED updated its **Source Water Area Protection** program that is designed to protect vital water resources from pollution and contamination!

Reliability: GCSED is developing its **Asset Management Program** to help inventory, assess, manage, and replace critical system assets ahead of failures!

Affordability: GCSED continues to be mindful of utility rates and currently ranks in the **mid-range** of Miami Valley water utilities for **affordability**.

The GCSED team is dedicated to providing our customers safe, plentiful, and affordable water right at your tap. Look for more information on our reinvestment initiative, Greene Forward, in our upcoming quarterly newsletters.

Sincerely,

Jason Tincu
Director

Source Water Information



The source of drinking water for the Greene County-Fairborn Water System is the City of Fairborn (wholesaler). Fairborn's drinking water comes from wells drilled below the earth's surface. These wells are located in one primary and one backup well field. Both well fields, with a total of 9 wells, are located over the Great Miami Buried Valley Aquifer.

Source Water Assessment - Well Field Susceptibility

A Source Water Assessment Report was prepared by Ohio EPA for the City of Fairborn's Mad River, North and Central Park well fields, which supply water to the Greene County-Fairborn Water System. The Ohio EPA has determined that the aquifer that supplies drinking water to these well fields is highly susceptibility to contamination. This conclusion is based on: water quality results that indicate impacts of volatile organic compounds and nitrates; the sand and gravel aquifer is unconfined or partially confined and has a relatively shallow depth to water; the topography is relatively flat, allowing most of the recharge to infiltrate into the ground instead of running off; and potential contaminant sources within the protection areas. Appropriate protective strategies should be implemented to prevent further contamination of the drinking water source. Please contact GCSED Director Jason Tincu at (937) 562-7450 if you would like more information about the City of Fairborn's assessment. Please keep in mind that Ohio EPA cannot provide this information to residents directly.



Sources of Potential Contaminants in Drinking Water



The sources of drinking water (both tap water and bottled water) include wells, rivers, lakes, streams, ponds, reservoirs, and springs. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material. It also can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;

(B) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses;

(D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems;

(E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

More information about contaminants and potential health effects can be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline at **1-800-426-4791.**

Taking Special Precautions



Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS, or other immune system disorders, some elderly, and infants can be particularly at risk from infection. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at **1-800-426-4791.**

About Your Drinking Water

The Ohio EPA requires regular sampling to ensure drinking water safety. GCSED conducted sampling for dozens of different contaminants (bacteria, inorganics, disinfection byproducts, lead and copper) in 2022, most of which were not detected in our water supply. The Ohio EPA requires us to monitor some contaminants less than once per year because the concentrations of these chemicals do not change frequently. Some of our data, though accurate, are more than one year old.

Monitoring & Reporting Violations & Enforcement Actions

The Greene County-Fairborn Water System did not receive any monitoring or reporting violations or enforcement actions in 2022.

Table of Detected Contaminants

How to read the Water Quality Data Table: The EPA establishes the safe drinking water regulations that limit the amount of contaminants allowed in drinking water. The table below shows the concentrations of detected substances in comparison to regulatory limits. Substances that were tested for, but not detected, are not included in this table.

Listed below is information on those contaminants that were found in the drinking water for the Greene County-Fairborn Water System. The data presented below are from the most recent testing done in accordance with the regulations. Terms and abbreviations used within this table are defined in the Definition of Terms on the following page.

2023 report - 2022 data Fairborn (OH2956203)

Regulated water source data (see attached Fairborn Consumer Confidence Report)

Regulated Contaminants (Units)	Highest Level Allowed (MCL)	Ideal Goals (MCLG)	Violation	Level Detected	Range of Detection	Year Sampled	Possible Source of Contamination
Chlorine (ppm)	MRDL - 4	MRDLG - 4	No	0.96	0.8 - 1.2	2022	water additive to control microbes
Trihalomethanes (ppb)	80.00	NA	No	21.00	20.7 - 21.2	2022	by-products of chlorination
Haloacetic Acids (ppb)	60.00	NA	No	6.90	6.8 - 7.0		
	Action Level (AL)	**MCLG**	**Individual Results over the AL**	**90% of test levels were less**	**Violation**	**Year Sampled**	**Typical Source of Contaminants**
Copper							
Copper (ppm)	1.3	1.3	N/A	0.026	No	2022	erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems
	_0_ out of _10_ samples were found to have copper levels in excess of the copper action level of 1.3 ppm.						
Unregulated Contaminants	Highest Level Allowed (MCL)	Ideal Goals (MCLG)	Violation	Level Detected	Range of Detection	Year Sampled	Possible Source of Contamination
Bromoform ug/l)	-	-	-	0.70	7.0 - 7.0	2022	
Bromodichloromethane (ug/l)	-	-	-	5.90	5.9 - 6.0		
Chloroform (ug/l)	-	-	-	10.50	10.5 - 10.9		
Dibromochloromethane (ug/l)	-	-	-	3.60	3.6 - 3.6		
Dibromoacetic Acid (ug/l)	-	-	-	1.30	1.3 - 1.3		
Dichloroacetic Acid (ug/l)	-	-	-	3.40	3.4 - 3.5		
Trichloroacetic Acid (ug/l)	-	-	-	2.10	2.1 - 2.2		

Why does my Greene County Water Report include a water report from another municipality?

The Greene County Water Report may include a water report from another municipality because Greene County water lines do not extend into certain areas. Therefore, Greene County purchases water from three municipalities: Dayton, Fairborn, and Montgomery County. Greene County is required by law to include water quality information from these individual municipalities if water is purchased for one of our water systems.



Definition of Terms

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in the drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible, using available treatment technology.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Parts per Million (ppm) or Milligrams per Liter (mg/l): Units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

Parts per Billion (ppb), or micrograms per liter (ug/l): Units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

Action Level (AL): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

The < symbol: A symbol which mean less than.

NA: Not applicable.

Risk Factors Explained

The following substances are found in our water, normally at levels below the action levels. There are some risk factors that could be involved with even low levels of these substances. Some terms and abbreviations used in this section are included in the "Definition of Terms" section above.

Nitrate: Nitrate in drinking water, at levels above 10 ppm is a health risk for infants of less than six (6) months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant or are pregnant, you should ask for advice from your health care provider.

Arsenic: EPA has issued rules regarding the drinking water standard for arsenic. Arsenic is a naturally occurring mineral known to cause cancer in humans in high concentrations. EPA continues to research the health effects of low levels of arsenic. It is linked to other health effects such as skin damage and circulatory problems. Some people who drink water containing arsenic in excess of the MCL, over many years, could experience skin damage or problems with their circulatory system, and may have increased risk of getting cancer.

Lead: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Greene County is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may want to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 800-426-4791 or at www.epa.gov/safewater/lead.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels in your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have you water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

Greene County has mapped each of their public water systems, which provide additional information on the risk of lead exposure. These maps can be accessed on the GCSED website at: www.greenecountyohio.gov/938/Water-Quality-Reports.

License to Operate

In 2022, Greene County had a current, unconditional license to operate this water system.

Public Participation and Contact Information

How do I participate in decisions concerning my drinking water?

Public participation and comments are encouraged. The Fairborn Water System is operated under the direction of the Fairborn City Council. Public meetings are held the first and third Monday of each month at 6:00 p.m. in the Fairborn Government Center located at 44 W. Hebble Ave, Fairborn Ohio 45324. Additionally, the Citizen Capital Improvements Review Committee reviews and makes recommendations for all major public works projects. Citizens' comments, as part of this process, are welcome. For more information on this committee's schedule, you may call the Fairborn City Manager's Office at (937) 754-3030.

Contact Information

Greene County Sanitary Engineering Department

667 Dayton-Xenia Rd.
Xenia, OH 45385

Phone: (937) 562-7450
Fax: (937) 562-7465

www.greenecountyohio.gov/317/Sanitary-Engineering



Greene County Commissioners:

(937) 562-5006

EPA Safe Drinking Water Hotline:

(800) 426-4791

City of Fairborn 2022 Water Quality Report

Spring 2023

FAIRBORN
A CITY IN MOTION

Opportunities to Participate

The Water System is operated under the direction of the City Council. Public meetings are held the first and third Monday of each month at 6:00 p.m. in the Fairborn Government Center located at 44 W. Hebble Ave, Fairborn Ohio 45324.

Additionally, the Citizen Capital Improvements Review Committee reviews and makes recommendations for all major public works projects. Citizens' comments, as part of this process, are welcome. For more information on this committee's schedule, you may call the City Manager's Office at 937-754-3030.

What Is This Report?

To assure that you are aware of the quality of the water you consume, the Ohio Environmental Protection Agency (OEPA) requires that a water quality report be provided to all consumers. This report includes information regarding 2022 sampling results, division and city contacts, and opportunities to participate in the decision making process.

Each year over 1 billion gallons of potable water is produced at the City of Fairborn Water Treatment Plant. The plant and distribution system are approved for operation under a current, unconditional license issued by the Ohio Environmental Protection Agency (OEPA). In accordance to OEPA requirements, a wide array of sampling is conducted to assure that the finished product meets or exceeds current operational standards. In 2022 the City of Fairborn had an unconditioned license to operate our water system.

It is an OEPA requirement that certain language be included in all reports. Such language has been italicized in this document. Questions regarding this language should be directed to the OEPA.

If you would like copies of any of our sampling results or the Ohio EPA's vulnerability analysis of our water system, please email request to: Jeremy.billetter@fairbornoh.gov or call (937)754-3081.

About Drinking Water

Our drinking water comes from wells drilled below the earth's surface. These wells are located in one primary location known as the Mad River Well Field. A total of eight wells, are located over the Great Miami Buried Valley Aquifer.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels through the ground, it dissolves naturally occurring minerals, and, in some cases radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contamination and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

Contaminants that may be present in source water include:

- *Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.*
- *Inorganic contaminants, such as salts and metals, which naturally occur or result from urban storm runoff, industrial or domestic wastewater discharges, and gas production, mining or farming.*
- *Pesticides and herbicides may come from a variety of sources such as agriculture, urban stormwater runoff, and septic systems.*
- *Organic chemical contaminants, including synthetic and volatile organic chemicals, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.*
- *Radioactive contaminants can be naturally occurring or be the result of oil and gas production and mining activities.*

In order to ensure tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Help our Streams!! Wash your car over the lawn or a gravel base.

This allows the ground to help neutralize the soap, grime and any other contaminants from your car rather than sending it directly to creeks and streams. Try to use ecofriendly or biodegradable soap that is low or phosphate free. You can also take your car to a commercial car wash where wastewater is either recycled or treated.



Who To Contact

For water quality, water and sewer maintenance, and storm water collection system questions or problems, contact: Division of Water and Sewer Maintenance at 937-754-3097

For information on OEPA requirements, contact: Safe Drinking Water Hotline At 800-426-4791

2022 Water Quality Sampling Results

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Inorganic Contaminants							
Fluoride (ppm)	4	4	1.13	0.80 to 1.21	No	2022	Erosion of natural deposits; water additives which promotes strong teeth; discharge from fertilizer and aluminum factories
Barium (ppm)	2	2	0.16	0.15 to 0.16	No	2020	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Cyanide (ppb)	200	200	7	<5 to 7	No	2020	Discharge from steel, plastic and fertilizer factories
Copper (ppm)	1.3	AL = 1.3	0.19	0.055 to 0.23	No	2020	Corrosion of household plumbing systems
	None of the 30 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.						
Lead (ppb)	0	AL=15	3.2	BDL to 9.4	No	2020	Corrosion of household plumbing systems
	None of the 30 samples were found to have lead levels in excess of the lead action level of 15 ppb.						
Radioactive Contaminants							
Radium (pCi/L)	5	0	1.67	1.00 to 1.67	No	2020	Erosion of natural deposits
Residual Disinfectants and Byproducts							
Total Chlorine (ppm)	MRDL = 4	MRDLG = 4	1.04	.80 to 1.09	No	2022	Water Additive used to control microbes
Total Trihalomethanes (ppb)	NA	80	22.9	19.4 to 22.9	No	2022	Byproduct of drinking water chlorination for disinfection
Total Haloacetic Acids (ppb)	NA	60	6.9	6.2 to 6.9	No	2022	Byproduct of drinking water chlorination for disinfection
Unregulated Contaminants							
Bromodichloromethane (ppb)*	None Set	None Set	6.9	5.6 to 6.9	No	2022	Byproduct of drinking water chlorination for disinfection
Bromoform (ppb)*	None Set	None Set	0.8	0.7 to 0.8	No	2022	Byproduct of drinking water chlorination for disinfection
Chloroform (ppb)*	None Set	None Set	10.7	9.5 to 10.7	No	2022	Byproduct of drinking water chlorination for disinfection
Dibromochloromethane (ppb)*	None Set	None Set	4.5	3.6 to 4.5	No	2022	Byproduct of drinking water chlorination for disinfection
Dibromoacetic Acid (ppb)*	None Set	None Set	1.2	1.2 to 1.2	No	2022	Byproduct of drinking water chlorination for disinfection
Dichloroacetic Acid (ppb)*	None Set	None Set	3.2	2.8 to 3.2	No	2022	Byproduct of drinking water chlorination for disinfection
Trichloroacetic Acid (ppb)*	None Set	None Set	2.5	2.2 to 2.5	No	2022	Byproduct of drinking water chlorination for disinfection

Abbreviations:

ppm = parts per million which can also be expressed as milligrams per liter (mg/L).

ppb = parts per billion which can also be expressed as micrograms per liter (ug/L).

TT = Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

pCi/L = picocuries per liter**, BDL** = below the detectable limit

Definitions:

Maximum Contaminant Level Goal (MCLG) – the level of a contaminant in drinking water below which there are no known or expected risks to health. MCLG's allow for a margin of safety.

Maximum Contaminant Level (MCL) – the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available technology.

Action Level (AL) – the concentration of a contaminant which if exceeded, triggers treatment or other requirements which a water system shall follow.

Maximum Residual Disinfectant Level Goal (MRDLG) - the level of drinking water disinfectant below which there is no known or expected health risk. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants

Maximum Residual Disinfectant Level (MRDL) – the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Not Applicable (NA) – does not apply.

Reducing Your Risk of Exposure to Lead

While City of Fairborn lead results are well below the maximum contaminant level, the Ohio Environmental Protection Agency requires that we provide you with the following information:

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Fairborn Division of Water and Sewer is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for thirty seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 800-426-4791 or at http://www.epa.gov/safewater/lead.

In 2011 the Ohio EPA issued a Drinking Water Assessment report for the City of Fairborn:

*This assessment indicates that the City of Fairborn's source of drinking water has a **high** susceptibility to contamination due to the:*

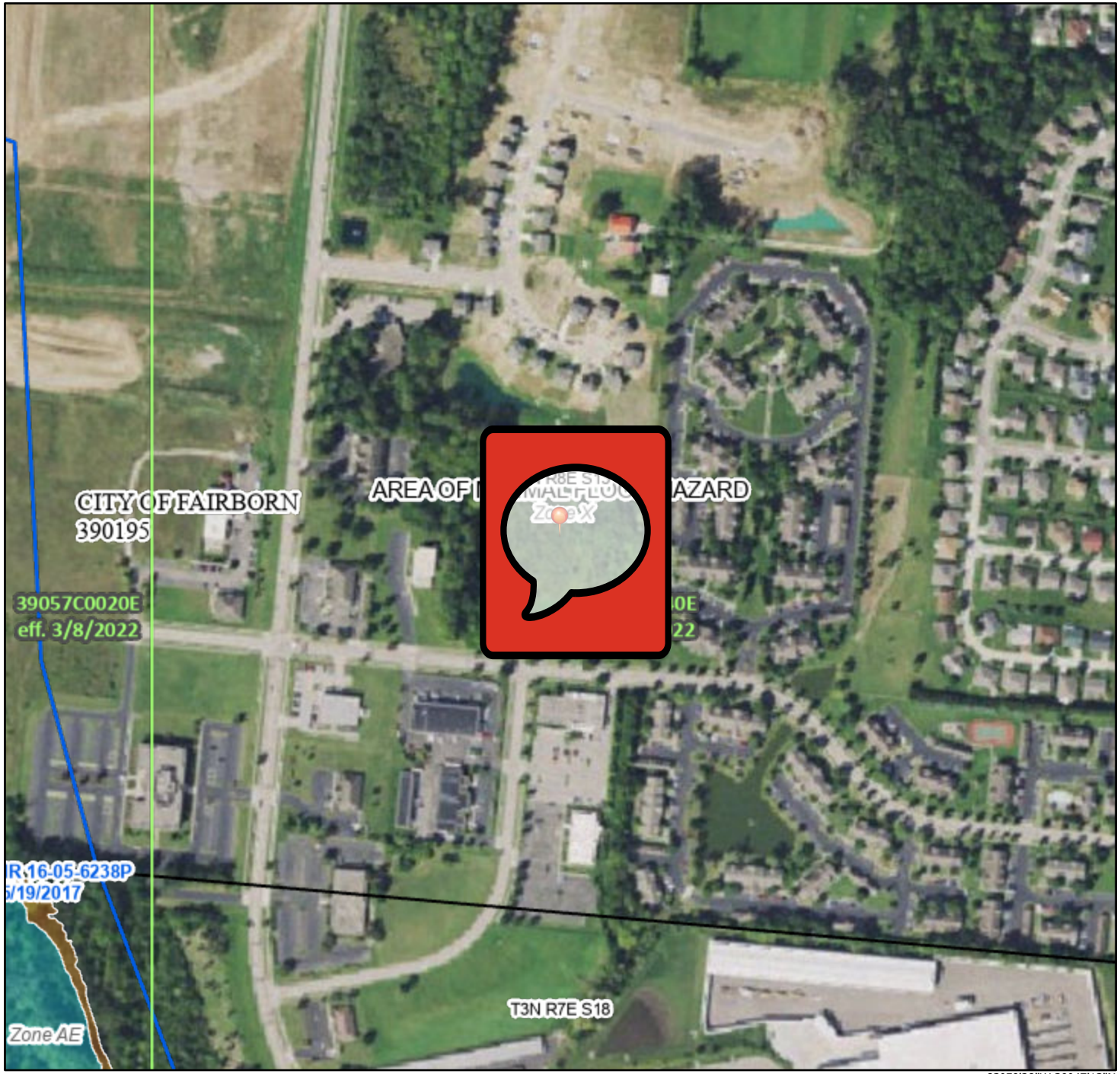
a) Lack of a protective layer of clay overlying the aquifer
b) Shallow depth (less than 20 feet below ground surface) of the aquifer.
c) Presence of significant potential contaminant sources in the protection area.

To obtain this report please email:
Jeremy.billetter@fairbornoh.gov

APPENDIX L:
FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FIRMETTE

National Flood Hazard Layer FIRMette

84°0'5"W 39°47'41"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

83°59'28"W 39°47'13"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/20/2025 at 8:32 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX M:
NATIONAL WETLAND INVENTORY MAP

U.S. Fish and Wildlife Service
National Wetlands Inventory

NWI Map



February 20, 2025

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

APPENDIX N:
COASTAL BARREIR RESOURCES

U.S. Fish and Wildlife Service
Coastal Barrier Resources System

CBRS Map



February 21, 2025

CBRS Buffer Zone

CBRS Units

Otherwise Protected Area

System Unit

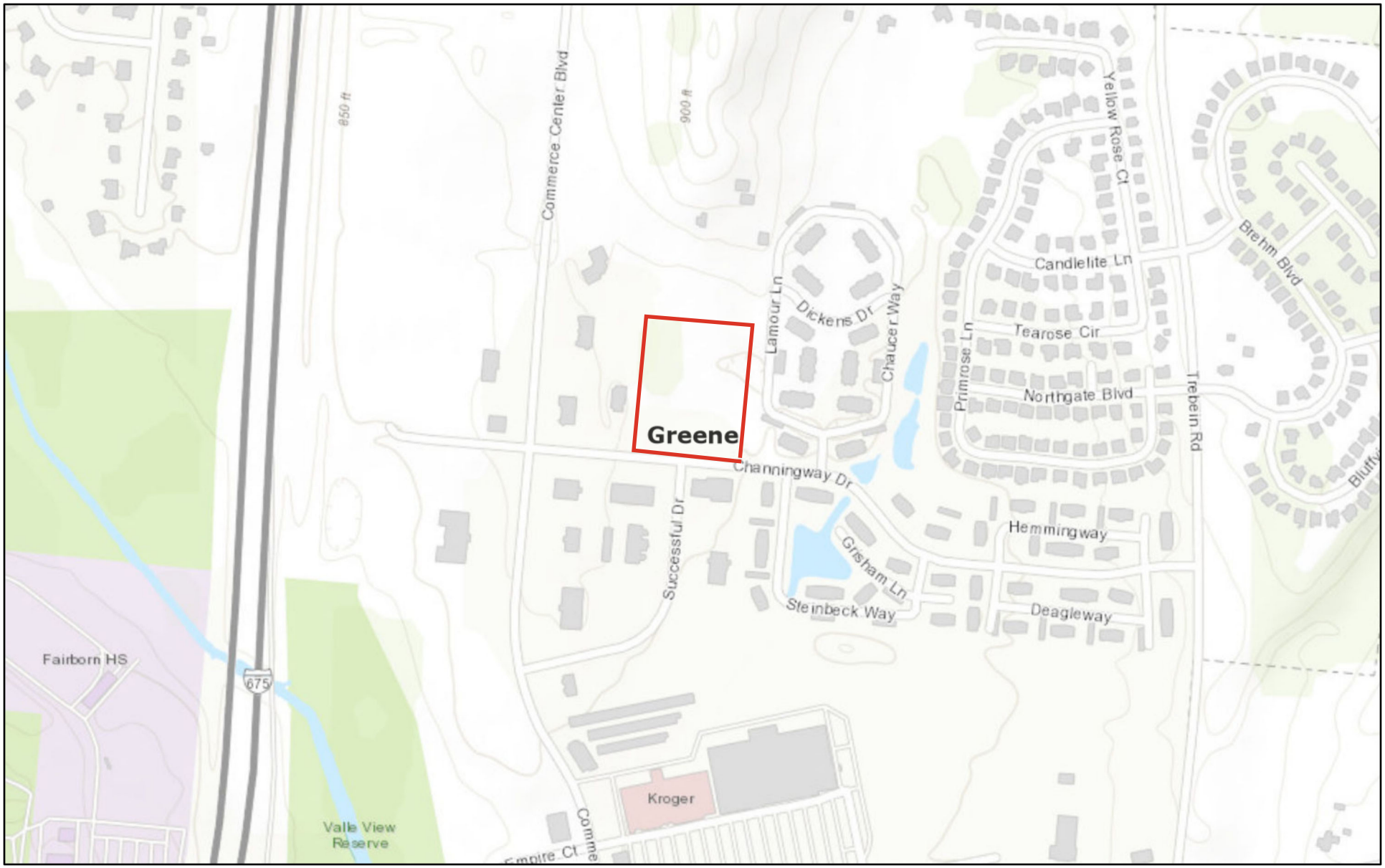
This map is for general reference only. The Coastal Barrier Resources System (CBRS) boundaries depicted on this map are representations of the controlling CBRS boundaries, which are shown on the official maps, accessible at https://www.fws.gov/library/collections/official-coastal-barrier-resources-system-maps. All CBRS related data should be used in accordance with the layer metadata found on the CBRS Mapper website.

The CBRS Buffer Zone represents the area immediately adjacent to the CBRS boundary where users are advised to contact the Service for an official determination (https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation) as to whether the property or project site is located "in" or "out" of the CBRS.

CBRS Units normally extend seaward out to the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward

APPENDIX O:
COASTAL ZONE MANAGEMENT

Ohio Coastal Atlas Map Viewer



February 21, 2025

1:9,028

0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

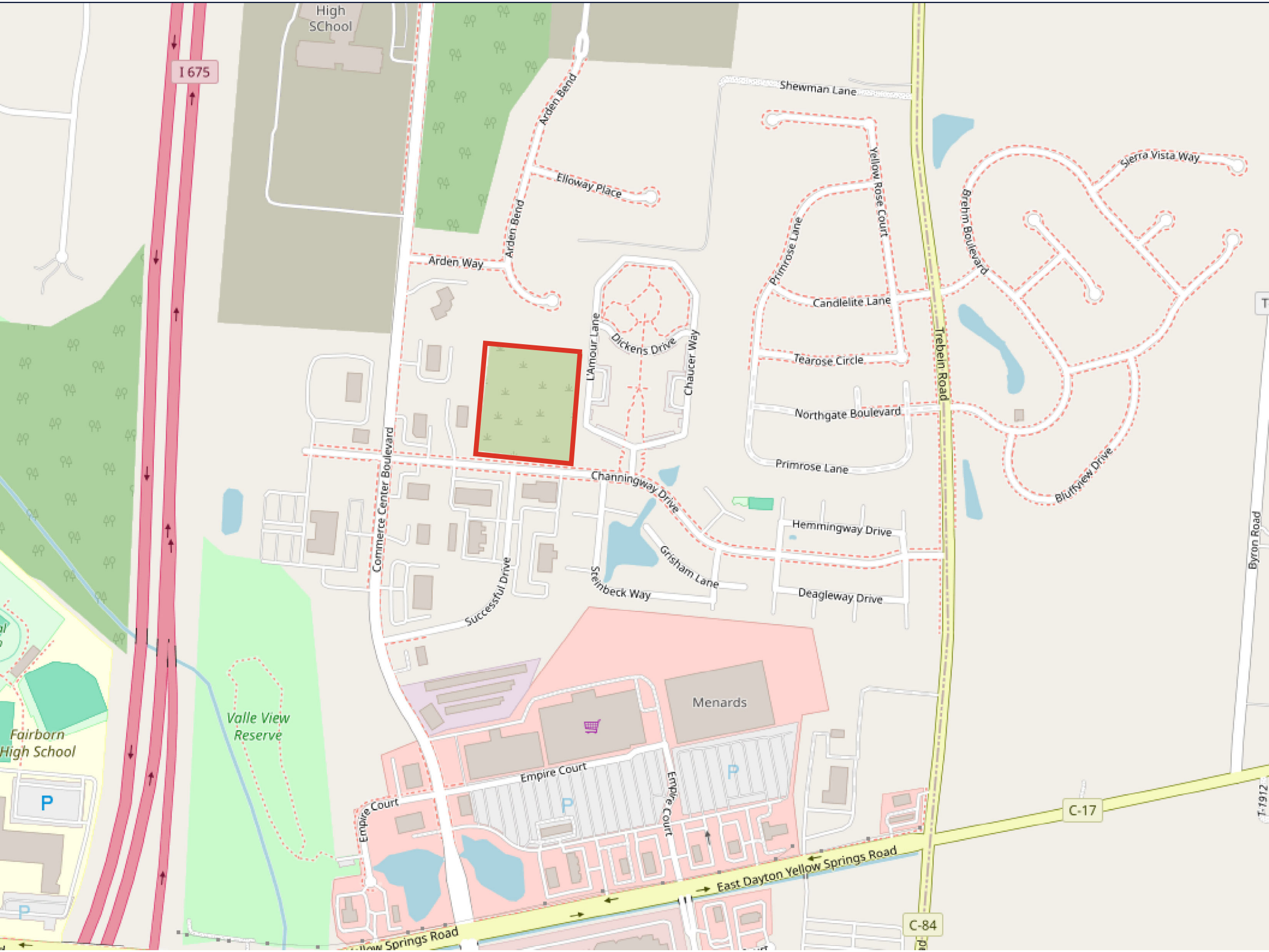
Greene County GIS, Esri, HERE, Garmin, INCREMENT P, USGS, METI/ NASA, EPA, USDA

ODNR - Office of Coastal MGMT

APPENDIX P:
SOLE SOURCE AQUIFER


Commerce Center Blvd
Successful Dr
Channingway Dr
Lamour Ln
Dickens Dr
Chaucer Way
Primrose Ln
Tearose Cir
Northgate Blv
Candlelite L
Yellow Rose L
Hemmingway
Grisham Ln
Steinbeck Way
Deagleway
Greene County GIS, Esri, HERE, Garmin, INCREMENT P, Intermap, NGA, USGS

APPENDIX Q:
WILD AND SCENIC RIVERS


High SChool
I 675
Shewman Lane
Arden Bend
Elloway Place
Arden Bend
Arden Way
Yellow Rose Court
Primrose Lane
Brehm Boulevard
Sierra Vista Way
Candlelite Lane
Trebein Road
Tearose Circle
L'Amour Lane
Dickens Drive
Chaucer Way
Northgate Boulevard
Primrose Lane
Bluffview Drive
Channingway Drive
Commerce Center Boulevard
Hemmingway Drive
Grisham Lane
Steinbeck Way
Successful Drive
Deagleway Drive
Byron Road
Menards
Valle View Reserve
Fairborn High School
Empire Court
Empire Court
Empire Court
C-17
East Dayton Yellow Springs Road
C-84
Yellow Springs Road

APPENDIX R:
THREATENED AND ENDANGERED SPECIES

IPaC Information for Planning and Consultation **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Greene County, Ohio



NOT FOR CONSULTATION

Local office

Ohio Ecological Services Field Office

(614) 416-8993
(614) 416-8994

4625 Morse Road, Suite 104
Columbus, OH 43230-8355

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

NOT FOR CONSULTATION

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Indiana Bat Myotis sodalis Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat Myotis septentrionalis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat Perimyotis subflavus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

Insects

NAME	STATUS

NOT FOR CONSULTATION

Monarch Butterfly Danaus plexippus — Proposed Threatened

Wherever found

There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/9743

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

NOT FOR CONSULTATION

- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete
If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

Review the FAQs
The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON

NOT FOR CONSULTATION

Bald Eagle Haliaeetus leucocephalus

Breeds Oct 15 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1626

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

NOT FOR CONSULTATION

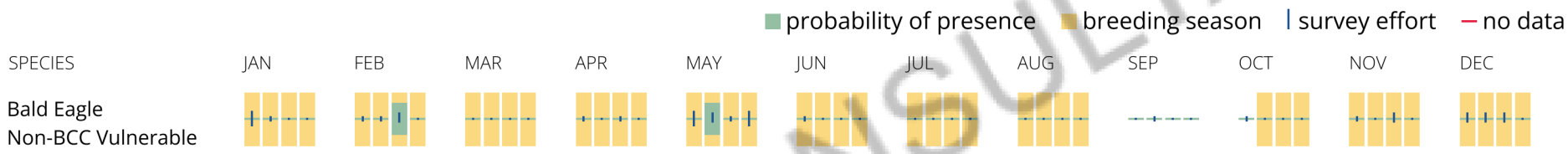
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Bald & Golden Eagles FAQs

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle (Bald and Golden Eagle Protection Act requirements may apply).

Proper interpretation and use of your eagle report

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On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:
The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()

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Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Migratory birds

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

Measures for Proactively Minimizing Migratory Bird Impacts

Your IPaC Migratory Bird list showcases birds of concern, including Birds of Conservation Concern (BCC), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the Nationwide avoidance and

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minimization measures for birds document, and any other project-specific avoidance and minimization measures suggested at the link Measures for avoiding and minimizing impacts to birds for the birds of concern on your list below.

Ensure Your Migratory Bird List is Accurate and Complete

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles document, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Chimney Swift Chaetura pelagica This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Kentucky Warbler Geothlypis formosa This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20

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Lesser Yellowlegs Tringa flavipes This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Prothonotary Warbler Protonotaria citrea This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird Euphagus carolinus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Short-billed Dowitcher Limnodromus griseus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

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Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

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Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



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Migratory Bird FAQs

Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Avoidance & Minimization Measures for Birds describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the Bald and Golden Eagle Protection Act and those species marked as "Vulnerable". See the FAQ "What are the levels of concern for migratory birds?" for more information on the levels of concern covered in the IPaC migratory bird species list.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle (Bald and Golden Eagle Protection Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, and to verify survey effort when no results present, please visit the Rapid Avian Information Locator (RAIL) Tool.

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, or migrating in my area?

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To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Bald and Golden Eagle Protection Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ "Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Proper interpretation and use of your migratory bird report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list does not

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represent all birds present in your project area. It is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs
Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:
The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

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The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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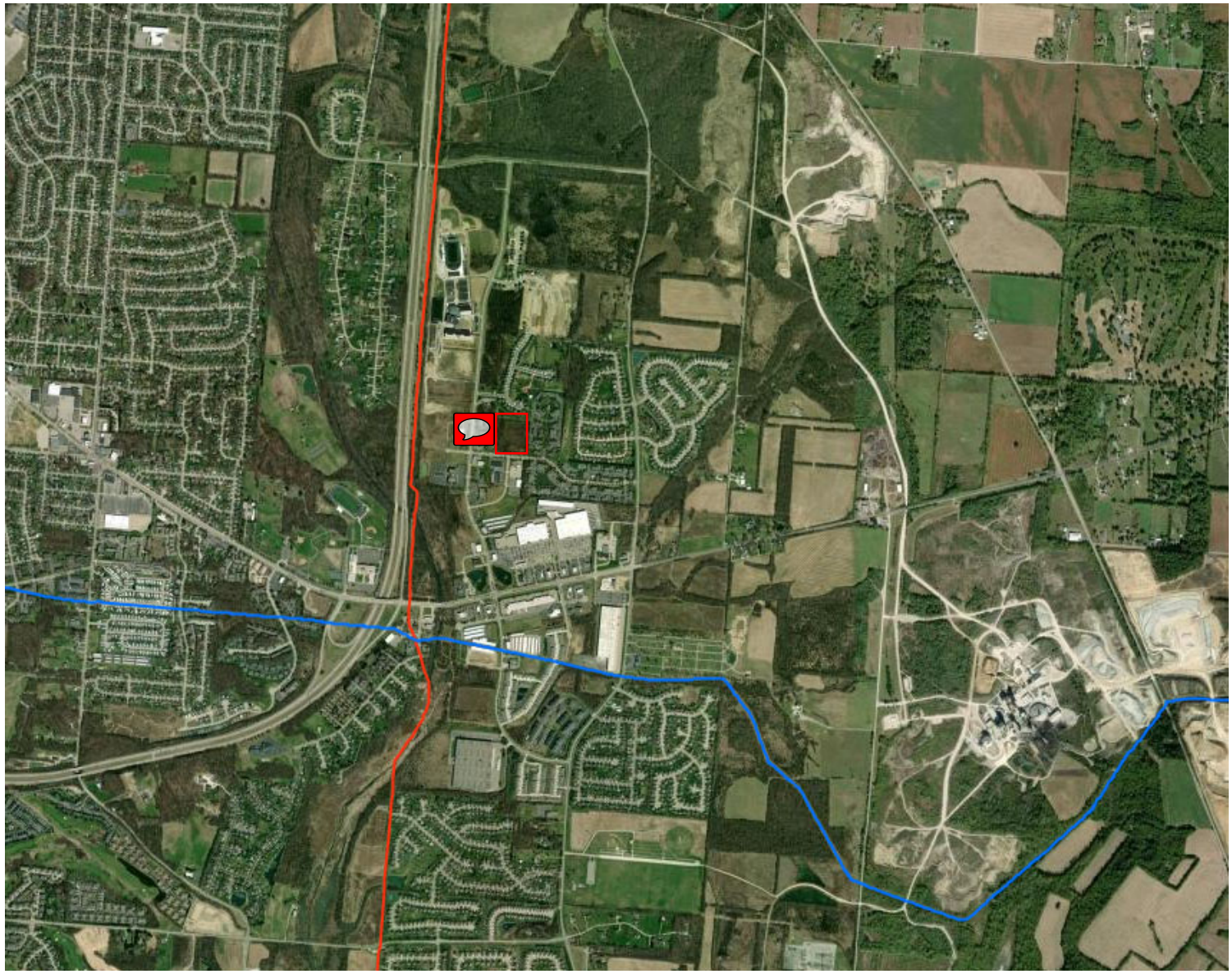
APPENDIX S:
HIGH PRESSURE BURIED GAS LINES

Pipeline and Hazardous Materials Safety Administration

NATIONAL PIPELINE MAPPING SYSTEM



Legend

- Gas Transmission Pipelines
- Hazardous Liquid Pipelines

500 m
1000 ft

Pipelines depicted on this map represent gas transmission and hazardous liquid lines only. Gas gathering and gas distribution systems are not represented.

This map should never be used as a substitute for contacting a one-call center prior to excavation activities. Please call 811 before any digging occurs.

Questions regarding this map or its contents can be directed to npms@dot.gov.

Projection: Geographic

Datum: NAD83

Map produced by the Public Viewer application at www.npms.phmsa.dot.gov

World Imagery map service data is attributed to Esri, Maxar, Earthstar Geographics, and the GIS User Community.

Date Printed: Feb 20, 2025

811 Know what's below. Call before you dig.

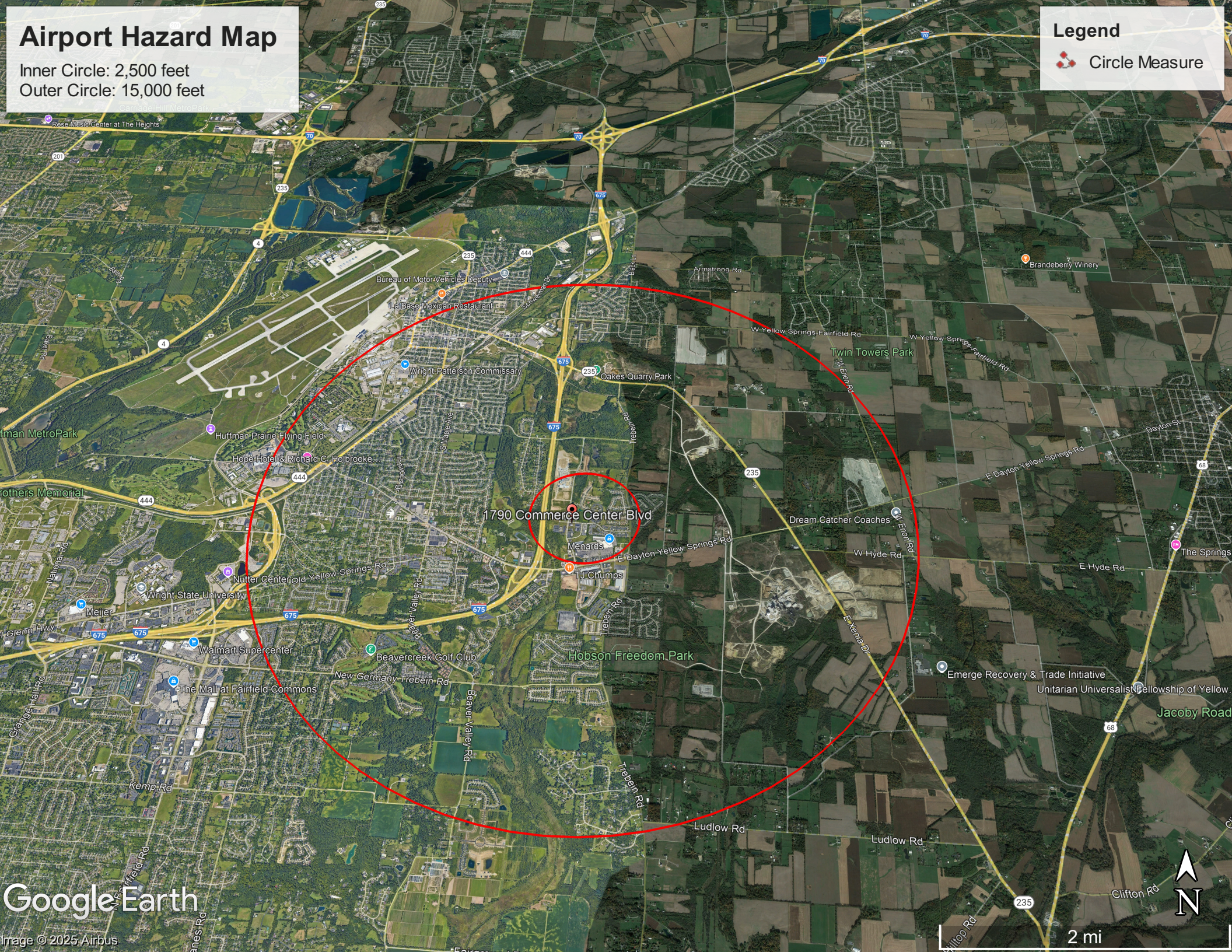
APPENDIX T:
AIRPORT HAZARDS

Airport Hazard Map

Inner Circle: 2,500 feet
Outer Circle: 15,000 feet

Legend

Circle Measure



APPENDIX U:
AIR QUALITY

logo

Summary Nonattainment Area Population Exposure Report

Data is current as of January 31, 2025

Ordered by state(s)
The NO_2 nonattainment area became a maintenance area on September 22, 1998. All Carbon Monoxide areas were redesignated to maintenance areas as of September 27, 2010. The 8-hour Ozone (1997) standard was revoked on April 6, 2015 and the 1-hour Ozone (1979) standard was revoked on June 15, 2005.
Download National Dataset: dbf | xls | Data dictionary (PDF)

State(s)	General Area Name (see note)	2010 Population in 1000s (area count)									
		8-Hour Ozone (2015)	8-Hour Ozone (2008)	PM-2.5 (2012)	PM-2.5 (2006)	PM-2.5 (1997)	PM-10 (1987)	SO_2 (2010)	SO_2 (1971)	Lead (2008)	Lead (1978)
AK	Fairbanks				87(1)						
AZ	Douglas/Paul Spur (Cochise County)						17(1)				
AZ	Hayden/Miami						26(2)	20(2)	5(1)	5(1)	
AZ	Nogales						30(1)				
AZ	Phoenix-Mesa	3,945(1)	3,850(1)				3,853(1)				
AZ	Rillito (Pima County)						1(1)				
AZ	West Pinal				52(1)		283(1)				
AZ	Yuma	87(1)					101(1)				
CA	Amador and Calaveras Cos (Central Mountain Cos)	84(2)	46(1)								
CA	Chico	220(1)	220(1)								
CA	Imperial County	175(1)	175(1)	154(1)	154(1)						
CA	Los Angeles-South Coast Air Basin	15,704(3)	15,723(3)	15,716(1)	15,716(1)	15,716(1)				9,437(1)	
CA	Mariposa and Tuolumne Cos (Southern Mountain Cos)	74(2)	18(1)								
CA	Mono County						0(1)				
CA	Nevada County (Western Part)	82(1)	82(1)								
CA	Owens Valley						7(1)				
CA	Plumas County			6(1)							
CA	Sacramento Metro	2,240(1)	2,241(1)		2,206(1)						
CA	San Diego	3,077(1)	3,095(1)								
CA	San Francisco-Bay Area	6,969(1)	6,973(1)		6,971(1)						

State(s)	General Area Name (see note)	2010 Population in 1000s (area count)									
		8-Hour Ozone (2015)	8-Hour Ozone (2008)	PM-2.5 (2012)	PM-2.5 (2006)	PM-2.5 (1997)	PM-10 (1987)	SO_2 (2010)	SO_2 (1971)	Lead (2008)	Lead (1978)
CA	San Joaquin Valley	3,937(2)	3,938(2)	3,842(1)	3,842(1)	3,842(1)	126(1)				
CA	San Luis Obispo	1(1)	2(1)								
CA	Searles Valley						4(1)				
CA	Southeast Desert Modified AQMA	1,292(2)	1,294(2)				495(2)				
CA	Tuscan Buttes	0(1)	0(1)								
CA	Ventura County	821(1)	823(1)								
CA	Yuba City	0(1)									
CO	Denver-Boulder-Greeley-Ft. Collins-Loveland	3,331(1)	3,330(1)								
CT	Greater Connecticut	1,629(1)	1,629(1)								
DC-MD-VA	Washington	5,136(1)									
GU	Piti-Cabras							6(1)	1(1)		
GU	Tanguisson Power Plant								1(1)		
IA	Muscatine County							30(1)			
ID	Pocatello						1(1)				
IL-IN-WI	Chicago-Joliet-Napier	9,075(1)									
IN	Fort Wayne-Huntington-Auburn							21(1)			
KS	Salina									0(1)	
KY	Henderson-Webster Counties							7(1)			
KY-IN	Louisville	876(1)									
LA	Evangeline Parish							0(1)			
LA	New Orleans							36(1)			
MA-NH	Boston-Worcester-Manchester		17(1)								
MD	Baltimore	2,663(1)	2,663(1)					990(1)			
MI	Allegan County	47(1)									
MI	Benton Harbor	157(1)									
MI	Detroit-Ann Arbor							306(2)			
MI	Muskegon	147(1)									
MN	Minneapolis-St. Paul									9(1)	

State(s)	General Area Name (see note)	2010 Population in 1000s (area count)									
		8-Hour Ozone (2015)	8-Hour Ozone (2008)	PM-2.5 (2012)	PM-2.5 (2006)	PM-2.5 (1997)	PM-10 (1987)	SO_2 (2010)	SO_2 (1971)	Lead (2008)	Lead (1978)
MO	Iron, Dent, and Reynolds Counties									0(1)	
MO	New Madrid County							0(1)			
MO-IL	St. Louis	2,488(1)						0(1)		5(1)	3(1)
MT	Billings/Laurel								7(1)		
MT	Lame Deer						1(1)				
MT	Polson (Lake County)						4(1)				
MT	Ronan (Lake County)						3(1)				
NV	Las Vegas	1,892(1)									
NY	Jamestown		135(1)								
NY	St. Lawrence County							12(1)			
NY-NJ-CT	New York-N. New Jersey-Long Island	20,217(1)	20,217(1)								
OH	Canton-Massillon									6(1)	
OH	Cleveland-Akron-Elyria	2,780(1)									
OR	Klamath Falls				47(1)						
PA	Clearfield and Indiana Counties							93(1)			
PA	Lancaster		519(1)								
PA	Pittsburgh-New Castle		2,356(1)	1,223(1)	21(1)	21(1)		147(3)	5(1)	18(1)	
PA	Reading		411(1)							49(2)	
PA	Warren County							18(1)			
PA-NJ	Allentown-Bethlehem-Easton		712(1)								
PA-NJ-DE-MD	Philadelphia-Wilmington-Atlantic City	7,437(1)	7,634(2)								
PR	Arecibo									32(1)	
PR	Guayama-Salinas							23(1)			
PR	San Juan							275(1)			
TN	Johnson City-Kingsport-Bristol							15(1)			
TX	Dallas-Fort Worth	6,202(1)	6,280(1)								
TX	Fairfield							4(1)			
TX	Houston-Sugar Land-Baytown	5,773(1)	5,892(1)								
TX	Howard County							0(1)			

State(s)	General Area Name (see note)	2010 Population in 1000s (area count)									
		8-Hour Ozone (2015)	8-Hour Ozone (2008)	PM-2.5 (2012)	PM-2.5 (2006)	PM-2.5 (1997)	PM-10 (1987)	SO_2 (2010)	SO_2 (1971)	Lead (2008)	Lead (1978)
TX	Hutchinson County							15(1)			
TX	Mount Pleasant							0(1)			
TX	Navarro County							2(1)			
TX	San Antonio	1,715(1)									
TX	Tatum							2(1)			
TX-NM	El Paso-Las Cruces	813(1)					652(2)				
UT	Provo	516(1)			518(1)						
UT	Salt Lake City	1,616(1)			1,665(1)				1,030(1)		
UT	Tooele County								58(1)		
UT	Uinta Basin	47(1)									
VA	Giles County							0(1)			
WI	Milwaukee-Racine	1,648(1)									
WI	Sheboygan	68(1)									
WV-OH	Parkersburg-Marietta							4(1)			
WY	Upper Green River Basin		11(1)								
		2010 Population in 1000s (area count) by Pollutant									
Total Estimated 2010 Population in Nonattainment Areas (1000's)		8-Hour Ozone (2015)	8-Hour Ozone (2008)	PM-2.5 (2012)	PM-2.5 (2006)	PM-2.5 (1997)	PM-10 (1987)	SO_2 (2010)	SO_2 (1971)	Lead (2008)	Lead (1978)
Across All Criteria Pollutants: 121,102		114,981 (46)	90,288 (34)	20,942 (5)	31,280 (11)	19,579 (3)	5,605 (20)	2,027 (30)	1,106 (7)	9,561 (11)	3 (1)

The Summary Population Exposure Report is a summary of the population living in an area that is in nonattainment for at least one of the NAAQS.

Area Name:

The "State(s) Area Name" column contains a common or general name for the nonattainment areas on the row, but may not reflect the exact name of any area on the row. This column cannot be exact since the nonattainment area for one pollutant may not contain the same counties, cities, or states as the nonattainment area for another pollutant on the same row. The abbreviations listed in the "State(s)" column reflect all states identified in row. However, some states on a row may be nonattainment for some pollutants and not for others in the general area. A multi-state area with states that have not all been redesignated to maintenance is counted as a nonattainment area until all of the states in the area are redesignated, with the whole area population displayed.

Discover. **Connect.** **Ask.**

Follow.

2025-01-31

APPENDIX V:
ENVIRONMENTAL JUSTICE

EPA United States Environmental Protection Agency

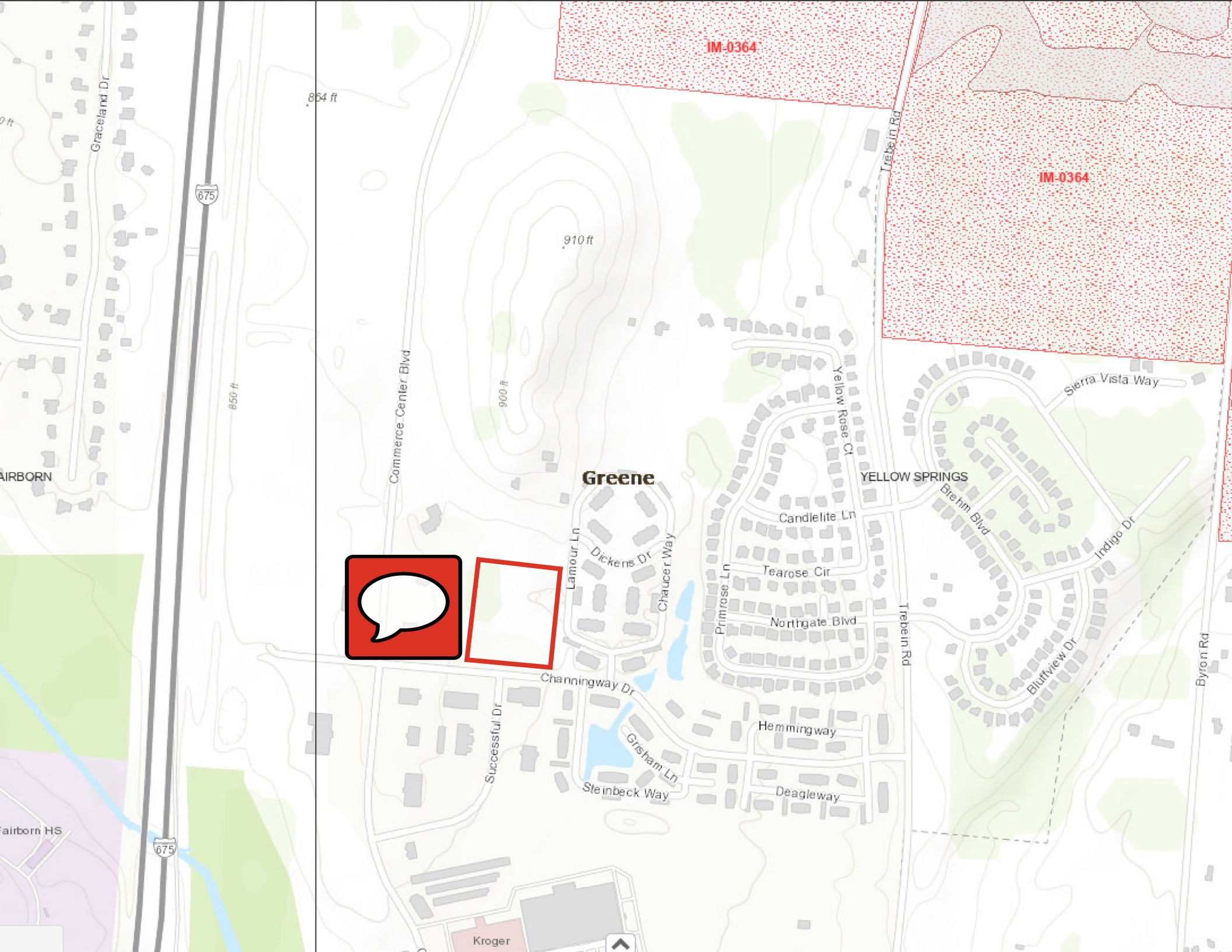
Sorry, but this web page does not exist.

We want to help you find what you are looking for.

- See our A-Z list of website topics <https://epa.gov/topics-epa-web>
- Search frequently asked questions or submit a question <https://usepa.servicenowservices.com/ecss>
- Old snapshots of www.epa.gov <https://epa.gov/utilities/wwwepagov-snapshots>
- Go to the EPA home page <https://epa.gov/>

To report problems with our website, or to suggest improvements to our website, please use the "Contact Us" link on the page where you see a problem, or where you would like to suggest an improvement. There are "Contact Us" links at the upper right and bottom of each web page.

APPENDIX W:
UNDERGROUND MINES, SINK HOLES AND TUNNELS


IM-0364
IM-0364
864 ft
910 ft
900 ft
850 ft
Graceland Dr
675
675
Commerce Center Blvd
Trebein Rd
Yellow Rose Ct
Sierra Vista Way
Greene
YELLOW SPRINGS
Brehm Blvd
Candlelite Ln
Lamour Ln
Dickens Dr
Chaucer Way
Primrose Ln
Tearose Cir
Northgate Blvd
Indigo Dr
Bluffview Dr
Byron Rd
Channingway Dr
Successful Dr
Hemmingway
Grisham Ln
Steinbeck Way
Deagleway
Kroger
Fairborn HS

APPENDIX X:
CERTIFICATE OF INSURANCE

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 9/11/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	Rathweg Insurance Associates, Inc. 2212 S Patterson Blvd Kettering, OH 45409 License #: 1749	CONTACT NAME: Rachel Sutton PHONE (A/C, No, Ext): (937)296-9393 FAX (A/C, No): (937)293-0440 E-MAIL ADDRESS: rachels@rathweginsurance.com	
		INSURER(S) AFFORDING COVERAGE	NAIC #
		INSURER A : Palomar Excess and Surplus Lines Insurance Comp	
INSURED	NEWSolve LLC Maksolve 432 Windsor Park Dr Dayton, OH 45459-4111	INSURER B : Hastings Mutual Insurance Company	14176
		INSURER C :	
		INSURER D :	
		INSURER E :	
		INSURER F :	

COVERAGES CERTIFICATE NUMBER: 00006926-0 REVISION NUMBER: 95

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	[X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [X] POLICY [ ] PRO-JECT [ ] LOC OTHER:			EVPP-24-0000017-00	3/22/2024	3/22/2025	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 50,000 $ EXCLUDED $ 1,000,000 $ 2,000,000 $ 2,000,000
B	AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] OWNED AUTOS ONLY [X] SCHEDULED AUTOS [X] HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY			ACV6347197	8/31/2024	8/31/2025	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
	[ ] UMBRELLA LIAB [ ] OCCUR [ ] EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $						EACH OCCURRENCE AGGREGATE	$ $
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N [ ] (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		EVPP-24-0000017-00	3/22/2024	3/22/2025	[ ] PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
A	Pollution			EVPP-24-0000017-00	3/22/2024	3/22/2025	Each Condition	1,000,000
A	Professional Liab.			EVPP-24-0000017-00	3/22/2024	3/22/2025	Each Claim	1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Certificate holder is listed as an additional insured if required by written contract in respects to the General Liability policy for ongoing and completed operations on a primary and non-contributory basis with waiver of subrogation, per forms CGL 00 03 1023, CGL 00 04 1023, CGL 00 05 1023, CPL 0006 1023

CERTIFICATE HOLDER

Oberer Companies
3475 Newmark Drive
Miamisburg, OH 45342

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Rachel Sutton (RAS)

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 8/29/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	Rathweg Insurance Associates, Inc. 2212 S Patterson Blvd Kettering, OH 45409 License #: 1749	CONTACT NAME: Rachel Sutton PHONE (A/C, No, Ext): (937)296-9393 FAX (A/C, No): (937)293-0440 E-MAIL ADDRESS: rachels@rathweginsurance.com	
		INSURER(S) AFFORDING COVERAGE	NAIC #
		INSURER A : Palomar Excess and Surplus Lines Insurance Comp	
INSURED	NEWSolve LLC Maksolve 432 Windsor Park Dr Dayton, OH 45459-4111	INSURER B : Hastings Mutual Insurance Company	14176
		INSURER C :	
		INSURER D :	
		INSURER E :	
		INSURER F :	

COVERAGES CERTIFICATE NUMBER: 00006926-0 REVISION NUMBER: 90

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS		
A	[X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [X] POLICY [ ] PRO-JECT [ ] LOC [ ] OTHER:			EVPP-24-0000017-00	3/22/2024	3/22/2025	EACH OCCURRENCE	$	1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$	50,000
							MED EXP (Any one person)	$	EXCLUDED
							PERSONAL & ADV INJURY	$	1,000,000
							GENERAL AGGREGATE	$	2,000,000
							PRODUCTS - COMP/OP AGG	$	2,000,000
								$	
B	AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] OWNED AUTOS ONLY [X] SCHEDULED AUTOS [X] HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY			ACV6347197	8/31/2024	8/31/2025	COMBINED SINGLE LIMIT (Ea accident)	$	1,000,000
							BODILY INJURY (Per person)	$	
							BODILY INJURY (Per accident)	$	
							PROPERTY DAMAGE (Per accident)	$	
								$	
	[ ] UMBRELLA LIAB [ ] OCCUR [ ] EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $						EACH OCCURRENCE	$	
							AGGREGATE	$	
								$	
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N [ ] N/A If yes, describe under DESCRIPTION OF OPERATIONS below			EVPP-24-0000017-00	3/22/2024	3/22/2025	[ ] PER STATUTE [ ] OTH-ER		
							E.L. EACH ACCIDENT	$	1,000,000
							E.L. DISEASE - EA EMPLOYEE	$	1,000,000
							E.L. DISEASE - POLICY LIMIT	$	1,000,000
A	Pollution			EVPP-24-0000017-00	3/22/2024	3/22/2025	Each Condition		1,000,000
A	Professional Liab.			EVPP-24-0000017-00	3/22/2024	3/22/2025	Each Claim		1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Certificate holder is listed as an additional insured if required by written contract in respects to the General Liability policy for ongoing and completed operations on a primary and non-contributory basis with waiver of subrogation, per forms CGL 00 03 1023, CGL 00 04 1023, CGL 00 05 1023, CPL 0006 1023

CERTIFICATE HOLDER

Ohio Housing Finance Agency
Office of Planning, Preservation & Development
57 East Main Street
Columbus, OH 43215

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Rachel Sutton (RAS)

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APPENDIX Y:
RELIANCE LETTER

February 24, 2025

Office of Planning, Preservation & Development
Ohio Housing Finance Agency, 4th Floor
57 East Main Street
Columbus, Ohio 43215

RE: Phase I ESA for: Vacant Land
Channingway Drive
Fairborn, Greene County, Ohio 45324
MAKSolve Project Number: 028-25

Please find enclosed the Phase I Environmental Site Assessment for the subject property dated March 24, 2025 and addressed to the Ohio Housing Finance Agency (OHFA) and Ohio Development Services Agency (ODSA).

It is my understanding that the information contained in the Environmental Site Assessment will be used by OHFA in considering proposed financing of residential development of the property and, furthermore, that OHFA and ODSA may rely upon the Environmental Site Assessment as if it were issued to OHFA and ODSA.

I **certify** that the attached is a true, correct and complete copy of the Environmental Site Assessment and that the report represents my professional opinion of the site as of this date. I also confirm the evaluation, recommendations and conclusions contained in the Environmental Site Assessment as of this date and that the Environmental Site Assessment has been performed in conformance with the scope and limitations of ***both*** the ASTM Practice E1527-21, and OHFA'S Environmental Review Requirements.

Sincerely,

John Bowen

John Bowen
President
MAKSolve

APPENDIX C
AIR QUALITY

NEPAssist Report



March 3, 2025

Project Buffer

Site

1:5,733

0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

© 2025 Microsoft Corporation © 2025 Maxar ©CNES (2025) Distribution Airbus DS © 2025 TomTom

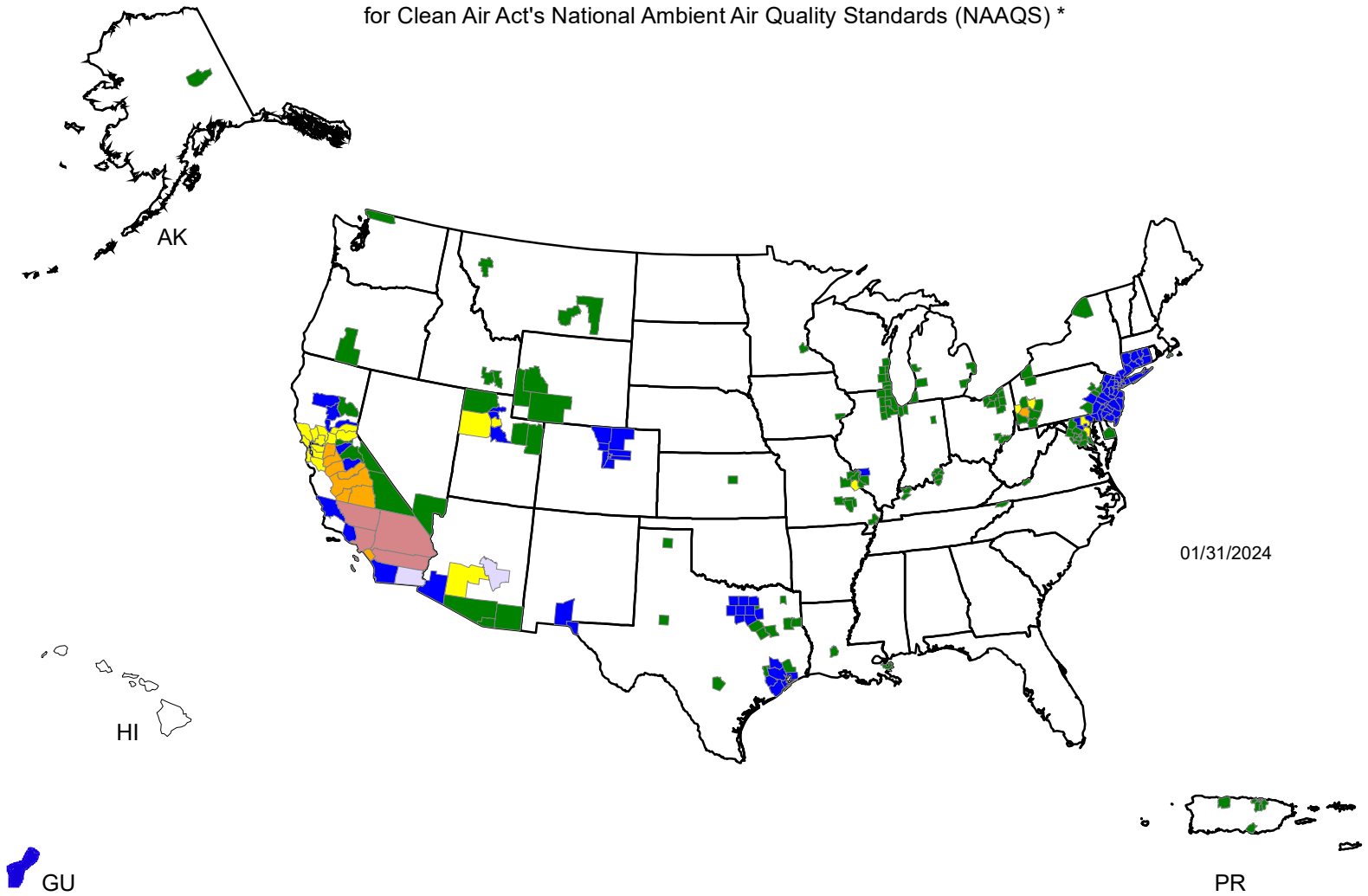
Project Location	39.790737,-83.996369
Within 0.5 miles of an Ozone 1-hr (1979 standard) Non-Attainment/Maintenance Area?	yes
Within 0.5 miles of an Ozone 8-hr (1997 standard) Non-Attainment/Maintenance Area?	yes
Within 0.5 miles of an Ozone 8-hr (2008 standard) Non-Attainment/Maintenance Area?	no
Within 0.5 miles of an Ozone 8-hr (2015 standard) Non-Attainment/Maintenance Area?	no
Within 0.5 miles of a Lead (2008 standard) Non-Attainment/Maintenance Area?	no
Within 0.5 miles of a SO2 1-hr (2010 standard) Non-Attainment/Maintenance Area?	no
Within 0.5 miles of a PM2.5 24hr (2006 standard) Non-Attainment/Maintenance Area?	no
Within 0.5 miles of a PM2.5 Annual (1997 standard) Non-Attainment/Maintenance Area?	yes
Within 0.5 miles of a PM2.5 Annual (2012 standard) Non-Attainment/Maintenance Area?	no
Within 0.5 miles of a PM10 (1987 standard) Non-Attainment/Maintenance Area?	no
Within 0.5 miles of a CO Annual (1971 standard) Non-Attainment/Maintenance Area?	no
Within 0.5 miles of a NO2 Annual (1971 standard) Non-Attainment/Maintenance Area?	no
Within 0.5 miles of a Federal Land?	no
Within 0.5 miles of an impaired stream?	no
Within 0.5 miles of an impaired waterbody?	yes
Within 0.5 miles of a waterbody?	yes
Within 0.5 miles of a stream?	yes
Within 0.5 miles of an NWI wetland?	Available Online
Within 0.5 miles of a Brownfields site?	no
Within 0.5 miles of a Superfund site?	no
Within 0.5 miles of a Toxic Release Inventory (TRI) site?	no

Within 0.5 miles of a water discharger (NPDES)?	no
Within 0.5 miles of a hazardous waste (RCRA) facility?	yes
Within 0.5 miles of an air emission facility?	yes
Within 0.5 miles of a school?	no
Within 0.5 miles of an airport?	no
Within 0.5 miles of a hospital?	no
Within 0.5 miles of a designated sole source aquifer?	yes
Within 0.5 miles of a historic property on the National Register of Historic Places?	no
Within 0.5 miles of a Chemical Data Reporting (CDR) site?	no
Within 0.5 miles of a Land Cession Boundary?	yes
Within 0.5 miles of a tribal area (lower 48 states)?	no
Within 0.5 miles of the service area of a mitigation or conservation bank?	yes
Within 0.5 miles of the service area of an In-Lieu-Fee Program?	yes
Within 0.5 miles of a Public Property Boundary of the Formerly Used Defense Sites?	no
Within 0.5 miles of a Munitions Response Site?	no
Within 0.5 miles of an Essential Fish Habitat (EFH)?	no
Within 0.5 miles of a Habitat Area of Particular Concern (HAPC)?	no
Within 0.5 miles of an EFH Area Protected from Fishing (EFHA)?	no
Within 0.5 miles of a Bureau of Land Management Area of Critical Environmental Concern?	no
Within 0.5 miles of an ESA-designated Critical Habitat Area per U.S. Fish & Wildlife Service?	no
Within 0.5 miles of an ESA-designated Critical Habitat river, stream or water feature per U.S. Fish & Wildlife Service?	no

Created on: 3/3/2025 11:55:02 AM

Counties Designated "Nonattainment"

for Clean Air Act's National Ambient Air Quality Standards (NAAQS) *



Legend **

- County Designated Nonattainment for 6 NAAQS Pollutants
- County Designated Nonattainment for 5 NAAQS Pollutants
- County Designated Nonattainment for 4 NAAQS Pollutants
- County Designated Nonattainment for 3 NAAQS Pollutants
- County Designated Nonattainment for 2 NAAQS Pollutants
- County Designated Nonattainment for 1 NAAQS Pollutant

* The National Ambient Air Quality Standards (NAAQS) are health standards for Carbon Monoxide, Lead (1978 and 2008), Nitrogen Dioxide, 8-hour Ozone (2008), Particulate Matter (PM-10 and PM-2.5 (1997, 2006 and 2012), and Sulfur Dioxide.(1971 and 2010)

** Included in the counts are counties designated for NAAQS and revised NAAQS pollutants. Revoked 1-hour (1979) and 8-hour Ozone (1997) are excluded. Partial counties, those with part of the county designated nonattainment and part attainment, are shown as full counties on the map.

logo

Summary Nonattainment Area Population Exposure Report

Data is current as of January 31, 2025

Ordered by state(s)
The NO_2 nonattainment area became a maintenance area on September 22, 1998. All Carbon Monoxide areas were redesignated to maintenance areas as of September 27, 2010. The 8-hour Ozone (1997) standard was revoked on April 6, 2015 and the 1-hour Ozone (1979) standard was revoked on June 15, 2005.
Download National Dataset: dbf | xls | Data dictionary (PDF)

State(s)	General Area Name (see note)	2010 Population in 1000s (area count)									
		8-Hour Ozone (2015)	8-Hour Ozone (2008)	PM-2.5 (2012)	PM-2.5 (2006)	PM-2.5 (1997)	PM-10 (1987)	SO_2 (2010)	SO_2 (1971)	Lead (2008)	Lead (1978)
AK	Fairbanks				87(1)						
AZ	Douglas/Paul Spur (Cochise County)						17(1)				
AZ	Hayden/Miami						26(2)	20(2)	5(1)	5(1)	
AZ	Nogales						30(1)				
AZ	Phoenix-Mesa	3,945(1)	3,850(1)				3,853(1)				
AZ	Rillito (Pima County)						1(1)				
AZ	West Pinal				52(1)		283(1)				
AZ	Yuma	87(1)					101(1)				
CA	Amador and Calaveras Cos (Central Mountain Cos)	84(2)	46(1)								
CA	Chico	220(1)	220(1)								
CA	Imperial County	175(1)	175(1)	154(1)	154(1)						
CA	Los Angeles-South Coast Air Basin	15,704(3)	15,723(3)	15,716(1)	15,716(1)	15,716(1)				9,437(1)	
CA	Mariposa and Tuolumne Cos (Southern Mountain Cos)	74(2)	18(1)								
CA	Mono County						0(1)				
CA	Nevada County (Western Part)	82(1)	82(1)								
CA	Owens Valley						7(1)				
CA	Plumas County			6(1)							
CA	Sacramento Metro	2,240(1)	2,241(1)		2,206(1)						
CA	San Diego	3,077(1)	3,095(1)								
CA	San Francisco-Bay Area	6,969(1)	6,973(1)		6,971(1)						

State(s)	General Area Name (see note)	2010 Population in 1000s (area count)									
		8-Hour Ozone (2015)	8-Hour Ozone (2008)	PM-2.5 (2012)	PM-2.5 (2006)	PM-2.5 (1997)	PM-10 (1987)	SO_2 (2010)	SO_2 (1971)	Lead (2008)	Lead (1978)
CA	San Joaquin Valley	3,937(2)	3,938(2)	3,842(1)	3,842(1)	3,842(1)	126(1)				
CA	San Luis Obispo	1(1)	2(1)								
CA	Searles Valley						4(1)				
CA	Southeast Desert Modified AQMA	1,292(2)	1,294(2)				495(2)				
CA	Tuscan Buttes	0(1)	0(1)								
CA	Ventura County	821(1)	823(1)								
CA	Yuba City	0(1)									
CO	Denver-Boulder-Greeley-Ft. Collins-Loveland	3,331(1)	3,330(1)								
CT	Greater Connecticut	1,629(1)	1,629(1)								
DC-MD-VA	Washington	5,136(1)									
GU	Piti-Cabras							6(1)	1(1)		
GU	Tanguisson Power Plant								1(1)		
IA	Muscatine County							30(1)			
ID	Pocatello						1(1)				
IL-IN-WI	Chicago-Joliet-Napier	9,075(1)									
IN	Fort Wayne-Huntington-Auburn							21(1)			
KS	Salina									0(1)	
KY	Henderson-Webster Counties							7(1)			
KY-IN	Louisville	876(1)									
LA	Evangeline Parish							0(1)			
LA	New Orleans							36(1)			
MA-NH	Boston-Worcester-Manchester		17(1)								
MD	Baltimore	2,663(1)	2,663(1)					990(1)			
MI	Allegan County	47(1)									
MI	Benton Harbor	157(1)									
MI	Detroit-Ann Arbor							306(2)			
MI	Muskegon	147(1)									
MN	Minneapolis-St. Paul									9(1)	

State(s)	General Area Name (see note)	2010 Population in 1000s (area count)									
		8-Hour Ozone (2015)	8-Hour Ozone (2008)	PM-2.5 (2012)	PM-2.5 (2006)	PM-2.5 (1997)	PM-10 (1987)	SO_2 (2010)	SO_2 (1971)	Lead (2008)	Lead (1978)
MO	Iron, Dent, and Reynolds Counties									0(1)	
MO	New Madrid County							0(1)			
MO-IL	St. Louis	2,488(1)						0(1)		5(1)	3(1)
MT	Billings/Laurel								7(1)		
MT	Lame Deer						1(1)				
MT	Polson (Lake County)						4(1)				
MT	Ronan (Lake County)						3(1)				
NV	Las Vegas	1,892(1)									
NY	Jamestown		135(1)								
NY	St. Lawrence County							12(1)			
NY-NJ-CT	New York-N. New Jersey-Long Island	20,217(1)	20,217(1)								
OH	Canton-Massillon									6(1)	
OH	Cleveland-Akron-Elyria	2,780(1)									
OR	Klamath Falls				47(1)						
PA	Clearfield and Indiana Counties							93(1)			
PA	Lancaster		519(1)								
PA	Pittsburgh-New Castle		2,356(1)	1,223(1)	21(1)	21(1)		147(3)	5(1)	18(1)	
PA	Reading		411(1)							49(2)	
PA	Warren County							18(1)			
PA-NJ	Allentown-Bethlehem-Easton		712(1)								
PA-NJ-DE-MD	Philadelphia-Wilmington-Atlantic City	7,437(1)	7,634(2)								
PR	Arecibo									32(1)	
PR	Guayama-Salinas							23(1)			
PR	San Juan							275(1)			
TN	Johnson City-Kingsport-Bristol							15(1)			
TX	Dallas-Fort Worth	6,202(1)	6,280(1)								
TX	Fairfield							4(1)			
TX	Houston-Sugar Land-Baytown	5,773(1)	5,892(1)								
TX	Howard County							0(1)			

State(s)	General Area Name (see note)	2010 Population in 1000s (area count)									
		8-Hour Ozone (2015)	8-Hour Ozone (2008)	PM-2.5 (2012)	PM-2.5 (2006)	PM-2.5 (1997)	PM-10 (1987)	SO_2 (2010)	SO_2 (1971)	Lead (2008)	Lead (1978)
TX	Hutchinson County							15(1)			
TX	Mount Pleasant							0(1)			
TX	Navarro County							2(1)			
TX	San Antonio	1,715(1)									
TX	Tatum							2(1)			
TX-NM	El Paso-Las Cruces	813(1)					652(2)				
UT	Provo	516(1)			518(1)						
UT	Salt Lake City	1,616(1)			1,665(1)				1,030(1)		
UT	Tooele County								58(1)		
UT	Uinta Basin	47(1)									
VA	Giles County							0(1)			
WI	Milwaukee-Racine	1,648(1)									
WI	Sheboygan	68(1)									
WV-OH	Parkersburg-Marietta							4(1)			
WY	Upper Green River Basin		11(1)								
		2010 Population in 1000s (area count) by Pollutant									
Total Estimated 2010 Population in Nonattainment Areas (1000's)		8-Hour Ozone (2015)	8-Hour Ozone (2008)	PM-2.5 (2012)	PM-2.5 (2006)	PM-2.5 (1997)	PM-10 (1987)	SO_2 (2010)	SO_2 (1971)	Lead (2008)	Lead (1978)
Across All Criteria Pollutants: 121,102		114,981 (46)	90,288 (34)	20,942 (5)	31,280 (11)	19,579 (3)	5,605 (20)	2,027 (30)	1,106 (7)	9,561 (11)	3 (1)

The Summary Population Exposure Report is a summary of the population living in an area that is in nonattainment for at least one of the NAAQS.

Area Name:

The "State(s) Area Name" column contains a common or general name for the nonattainment areas on the row, but may not reflect the exact name of any area on the row. This column cannot be exact since the nonattainment area for one pollutant may not contain the same counties, cities, or states as the nonattainment area for another pollutant on the same row. The abbreviations listed in the "State(s)" column reflect all states identified in row. However, some states on a row may be nonattainment for some pollutants and not for others in the general area. A multi-state area with states that have not all been redesignated to maintenance is counted as a nonattainment area until all of the states in the area are redesignated, with the whole area population displayed.

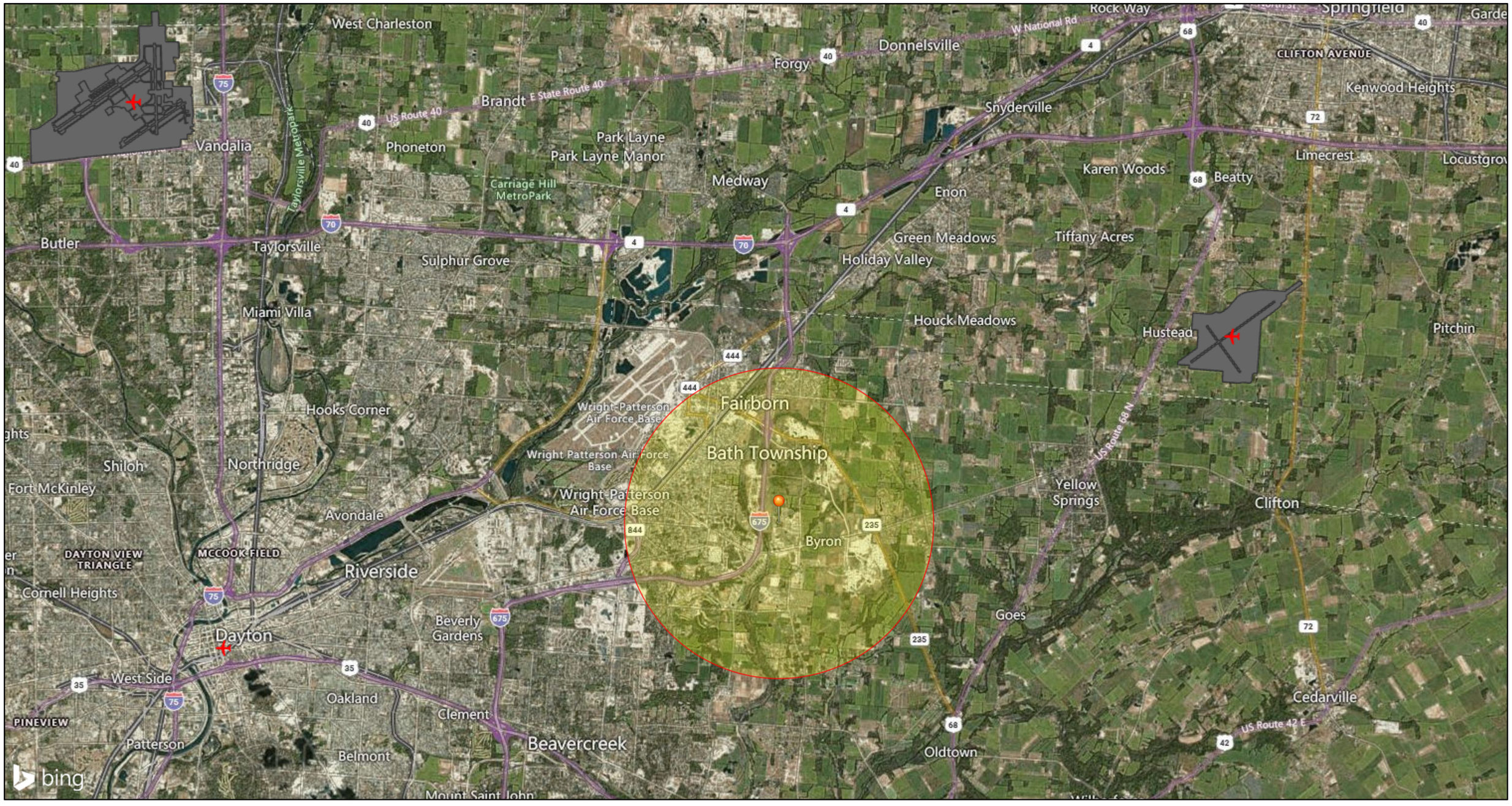
Discover. **Connect.** **Ask.**

Follow.

2025-01-31

APPENDIX D
AIRPORT HAZARDS

Airport Map



March 3, 2025

Project Buffer

Site

Airport Points

Airport Polygons

1:144,448

0 1.25 2.5 5 mi

0 2.25 4.5 9 km

© 2025 Microsoft Corporation Earthstar Geographics
SIO © 2025 TomTom, EPA OEI

APPENDIX E
COASTAL BARRIER RESOURCES

U.S. Fish and Wildlife Service
Coastal Barrier Resources System

CBRS Map



December 5, 2024

CBRS Buffer Zone

CBRS Units

Otherwise Protected Area

System Unit

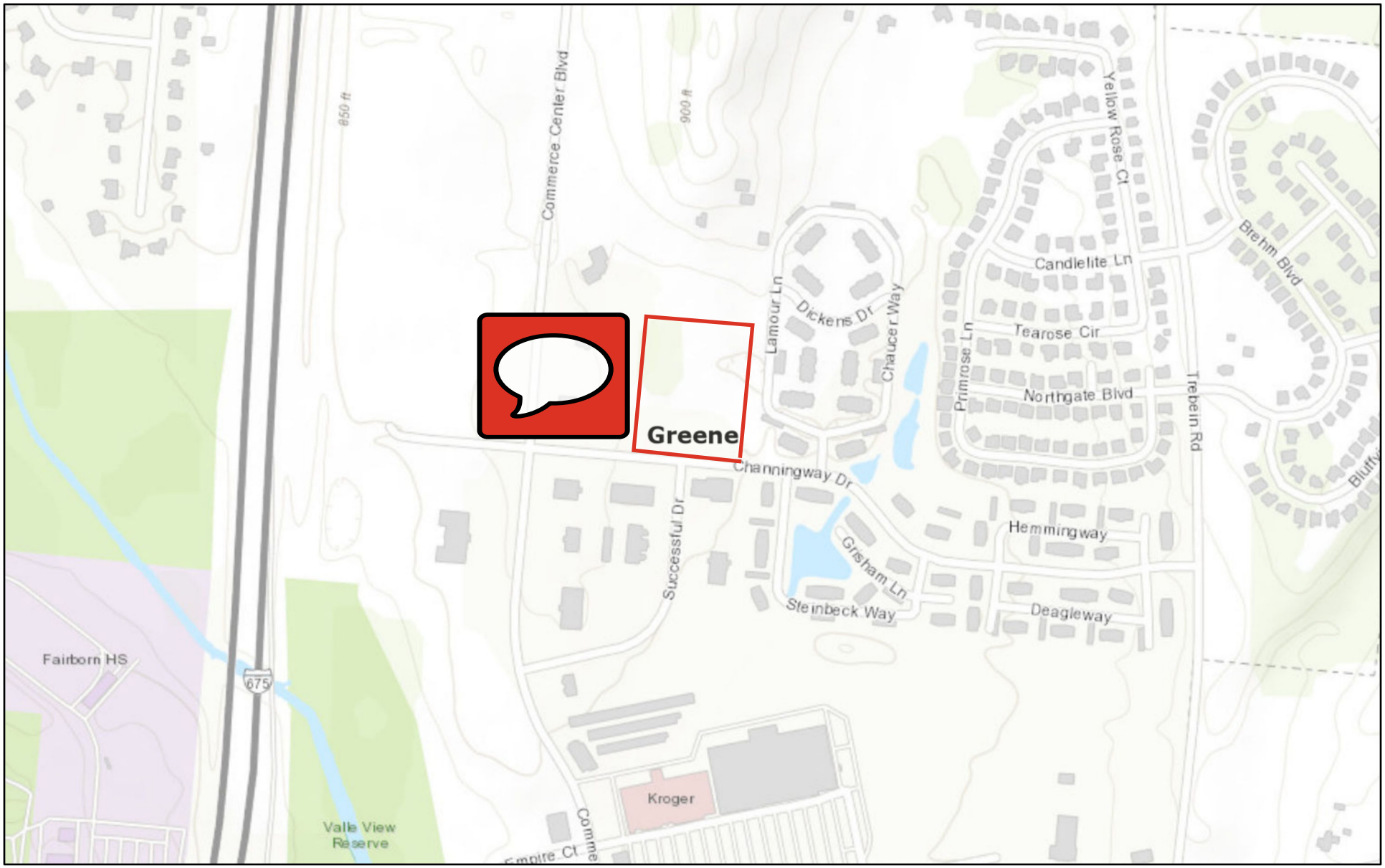
This map is for general reference only. The Coastal Barrier Resources System (CBRS) boundaries depicted on this map are representations of the controlling CBRS boundaries, which are shown on the official maps, accessible at https://www.fws.gov/library/collections/official-coastal-barrier-resources-system-maps. All CBRS related data should be used in accordance with the layer metadata found on the CBRS Mapper website.

The CBRS Buffer Zone represents the area immediately adjacent to the CBRS boundary where users are advised to contact the Service for an official determination (https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation) as to whether the property or project site is located "in" or "out" of the CBRS.

CBRS Units normally extend seaward out to the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward

APPENDIX F
COASTAL ZONE MANAGEMENT

Ohio Coastal Atlas Map Viewer



February 21, 2025

1:9,028

0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

Greene County GIS, Esri, HERE, Garmin, INCREMENT P, USGS, METI/ NASA, EPA, USDA

ODNR - Office of Coastal MGMT

APPENDIX G
ENDANGERED SPECIES

Department of Natural Resources
ohiodnr.gov

Mike DeWine, *Governor*
Jon Husted, *Lt. Governor*
Mary Mertz, *Director*

Office of Real Estate & Land Management
Tara Paciorek - Chief
2045 Morse Road – E-2
Columbus, Ohio 43229-6693

January 10, 2025

Stephanie Rimko
WallacePancher Group
A Division of The Mannik & Smith Group, Inc.
1085 South Hermitage Road
Hermitage, Pennsylvania 16148

Re: 24-1925 - Senior Village at Valle Greene

Project: The proposed project involves the construction of a 70-unit senior living community with associated paved areas, landscaping, and a parking area.

Location: The proposed project is located in Bath Township, Greene County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state, or federal agency nor relieve the applicant of the obligation to comply with any local, state, or federal laws or regulations.

Natural Heritage Database: The Natural Heritage Database has the following data within one mile of the project area:

Baltic Rush (*Juncus balticus*), P
Northern Bog Violet (*Viola nephrophylla*), P
Kirtland's Snake (*Clonophis kirtlandii*), T

Conservation status abbreviations are as follows: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federally endangered, and FT = federally threatened. The review was performed on the specified project area as well as an additional one-mile radius. Records searched date from 1980. Features searched include locations of rare and endangered plants and animals determined to be of value to the conservation of their species, high quality plant communities, animal breeding assemblages, and outstanding geological features.

The species listed above are not recorded within the boundaries of the specified project area. However, please note that Ohio has not been completely surveyed and we rely on receiving information from

many sources. Therefore, a lack of records for an area is not a statement that rare species or unique features are absent from that area.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that Best Management Practices be utilized to minimize erosion and sedimentation.

The project is within the vicinity of records for the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, and the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species. Because presence of state endangered bat species has been established in the area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree cutting inside this buffer may be acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

In addition, the entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. The DOW recommends tree cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH ≥ 20 if possible.

The DOW also recommends that a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if a potential hibernaculum is present within the project area. Direction on how to conduct habitat assessments can be found in the current USFWS "*RANGE-WIDE INDIANA BAT & NORTHERN LONG-EARED BAT SURVEY GUIDELINES*." If a habitat assessment finds that a potential hibernaculum is present within 0.25 miles of the project area, please send this information to Eileen Wyza for project recommendations. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with the DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

The project is within the range of the following listed mussel species.

Federally Endangered
clubshell (*Pleurobema clava*)
snuffbox (*Epioblasma triquetra*)
rayed bean (*Villosa fabalis*)

Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

The project is within the range of the tonguetied minnow (*Exoglossum laurae*), a state threatened fish. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

The project is within the range of the eastern massasauga (*Sistrurus catenatus*), a state endangered and a federally threatened snake species. The eastern massasauga uses a range of habitats including wet prairies, fens, and other wetlands, as well as adjacent drier upland habitat. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the smooth greensnake (*Opheodrys vernalis*), a state endangered species. This species is primarily a prairie inhabitant, but also found in marshy meadows and roadside ditches. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the Kirtland's snake (*Clonophis kirtlandii*), a state threatened species. This secretive species prefers wet fields and meadows. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the spotted turtle (*Clemmys guttata*), a state threatened species. This species prefers fens, bogs and marshes, but also is known to inhabit wet prairies, meadows, pond edges, wet woods, and the shallow sluggish waters of small streams and ditches. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the US Fish & Wildlife Service.

Water Resources: The Division of Water Resources has the following comment.

If the subject project is in a floodplain regulated by the Federal Emergency Management Agency (FEMA), the local local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals. The FEMA National Flood Hazard Layer (NHFL) Viewer website can be utilized to see if the project is in a FEMA regulated floodplain. If the project is not in a FEMA regulated floodplain, then no further action is required.

ODNR appreciates the opportunity to provide these comments. Please contact Mike Pettegrew (Environmental Services Administrator) at mike.pettegrew@dnr.ohio.gov if you have questions about these comments or need additional information.

Expiration: *ODNR Environmental Reviews are typically valid for 2 years from the issuance date. If the scope of work, project area, construction limits, and/or anticipated impacts to natural resources have changed significantly from the original project submittal, then a new Environmental Review request should be submitted.*

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ohio Ecological Services Field Office
4625 Morse Road, Suite 104
Columbus, OH 43230-8355
Phone: (614) 416-8993 Fax: (614) 416-8994

In Reply Refer To: 12/05/2024 20:38:24 UTC
Project Code: 2025-0028109
Project Name: MSG-OHFA-0030-Senior Village at Valle Greene-24-0087

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Ohio Ecological Services Field Office
4625 Morse Road, Suite 104
Columbus, OH 43230-8355
(614) 416-8993

PROJECT SUMMARY

Project Code: 2025-0028109
Project Name: MSG-OHFA-0030-Senior Village at Valle Greene-24-0087
Project Type: Residential Construction
Project Description: Development of a 70-unit, new construction senior housing development. Site plan also includes parking and landscaped areas.
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.7907171,-83.9962006318606,14z



Counties: Greene County, Ohio

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: The Mannik & Smith Group, Inc.
Name: Stephanie Rimko
Address: 1085 S. Hermitage Rd
City: Hermitage
State: PA
Zip: 16148
Email srimko@manniksmithgroup.com
Phone: 7249810155

APPENDIX H
ENVIRONMENTAL JUSTICE

EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

Site

1 mile Ring Centered at 39.790750,-83.996375
Population: 3,034
Area in square miles: 3.14



LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	96%
Spanish	1%
Arabic	1%
Total Non-English	4%

COMMUNITY INFORMATION

- Low income: 16 percent
- People of color: 23 percent
- Less than high school education: 4 percent
- Limited English households: 0 percent
- Unemployment: 1 percent
- Persons with disabilities: 11 percent
- Male: 50 percent
- Female: 50 percent
- 79 years — Average life expectancy
- $47,102 — Per capita income
- Number of households: 1,507
- Owner occupied: 64 percent

BREAKDOWN BY RACE

- White: 77%
- Black: 10%
- American Indian: 0%
- Asian: 1%
- Hawaiian/Pacific Islander: 0%
- Other race: 0%
- Two or more races: 5%
- Hispanic: 7%

BREAKDOWN BY AGE

From Ages 1 to 4	8%
From Ages 1 to 18	20%
From Ages 18 and up	80%
From Ages 65 and up	16%

LIMITED ENGLISH SPEAKING BREAKDOWN

Speak Spanish	100%
Speak Other Indo-European Languages	0%
Speak Asian-Pacific Island Languages	0%
Speak Other Languages	0%

Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race.
Source: U.S. Census Bureau, American Community Survey (ACS) 2018-2022. Life expectancy data comes from the Centers for Disease Control.

Report for 1 mile Ring Centered at 39.790750,-83.996375
Report produced December 5, 2024 using EJScreen Version 2.3

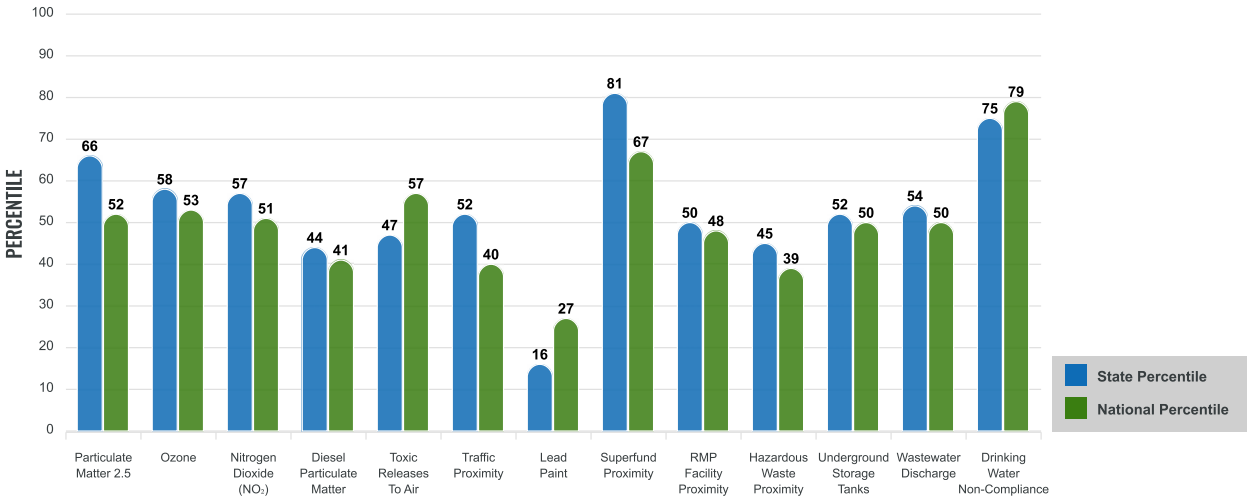
Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the EJScreen website.

EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

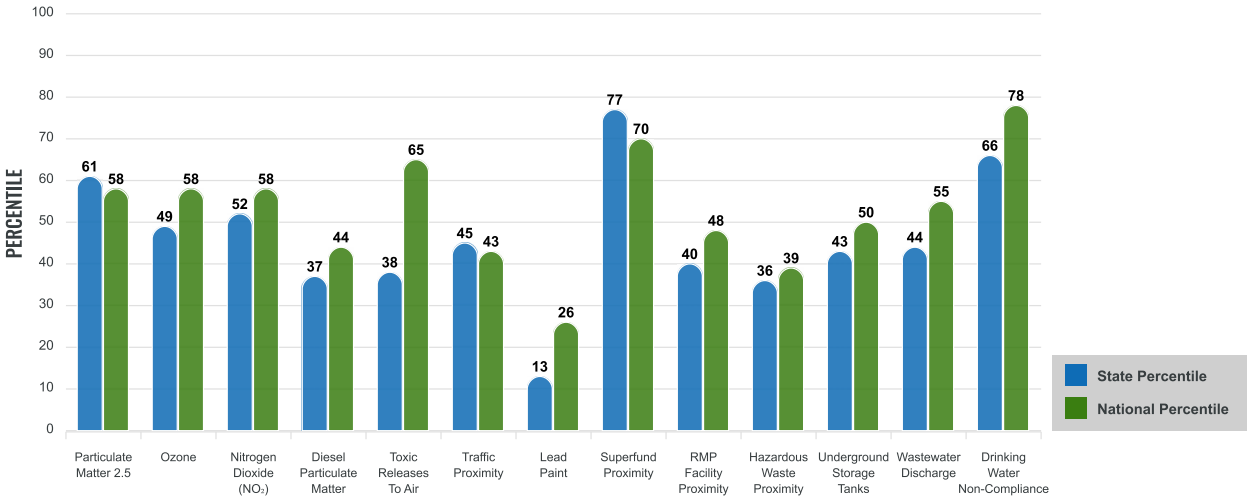
EJ INDEXES FOR THE SELECTED LOCATION



SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low income, percent persons with disabilities, percent less than high school education, percent limited English speaking, and percent low life expectancy with a single environmental indicator.

SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



Report for 1 mile Ring Centered at 39.790750,-83.996375

Report produced December 5, 2024 using EJScreen Version 2.3

EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
ENVIRONMENTAL BURDEN INDICATORS					
Particulate Matter 2.5 ($\mu g/m^3$)	8.82	8.17	82	8.45	70
Ozone (ppb)	64.3	63.3	62	61.8	68
Nitrogen Dioxide (NO_2) (ppbv)	9.4	8.5	64	7.8	69
Diesel Particulate Matter ($\mu g/m^3$)	0.152	0.177	41	0.191	48
Toxic Releases to Air (toxicity-weighted concentration)	3,000	10,000	44	4,600	79
Traffic Proximity (daily traffic count/distance to road)	740,000	960,000	54	1,700,000	47
Lead Paint (% Pre-1960 Housing)	0.077	0.44	13	0.3	32
Superfund Proximity (site count/km distance)	0.31	0.14	89	0.39	76
RMP Facility Proximity (facility count/km distance)	0.37	0.7	49	0.57	56
Hazardous Waste Proximity (facility count/km distance)	0.92	2.3	41	3.5	43
Underground Storage Tanks (count/km^2)	1.5	2.8	53	3.6	58
Wastewater Discharge (toxicity-weighted concentration/m distance)	320	2500	57	700000	65
Drinking Water Non-Compliance (points)	0.99	0.77	65	2.2	77
SOCIOECONOMIC INDICATORS					
Demographic Index USA	0.73	N/A	N/A	1.34	28
Supplemental Demographic Index USA	1.18	N/A	N/A	1.64	27
Demographic Index State	0.8	1.2	41	N/A	N/A
Supplemental Demographic Index State	0.91	1.46	21	N/A	N/A
People of Color	23%	24%	65	40%	41
Low Income	16%	33%	25	30%	29
Unemployment Rate	1%	6%	29	6%	27
Limited English Speaking Households	0%	1%	76	5%	57
Less Than High School Education	4%	9%	31	11%	30
Under Age 5	8%	5%	76	5%	77
Over Age 64	16%	18%	48	18%	52

*Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

Sites reporting to EPA within defined area:

- Superfund 0
- Hazardous Waste, Treatment, Storage, and Disposal Facilities 0
- Water Dischargers 1
- Air Pollution 4
- Brownfields 0
- Toxic Release Inventory 0

Other community features within defined area:

- Schools 1
- Hospitals 0
- Places of Worship 1

Other environmental data:

- Air Non-attainment ..... Yes
- Impaired Waters ..... Yes

- Selected location contains American Indian Reservation Lands* ..... No
- Selected location contains a "Justice40 (CEJST)" disadvantaged community ..... Yes
- Selected location contains an EPA IRA disadvantaged community ..... Yes

Report for 1 mile Ring Centered at 39.790750,-83.996375

Report produced December 5, 2024 using EJScreen Version 2.3

EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	19%	21%	31	20%	46
Heart Disease	6.5	6.9	38	5.8	68
Asthma	9.7	10.8	21	10.3	36
Cancer	8.1	7	80	6.4	85
Persons with Disabilities	11%	15%	27	13.7%	37

CLIMATE INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	7%	7%	68	12%	55
Wildfire Risk	0%	0%	0	14%	0

CRITICAL SERVICE GAPS

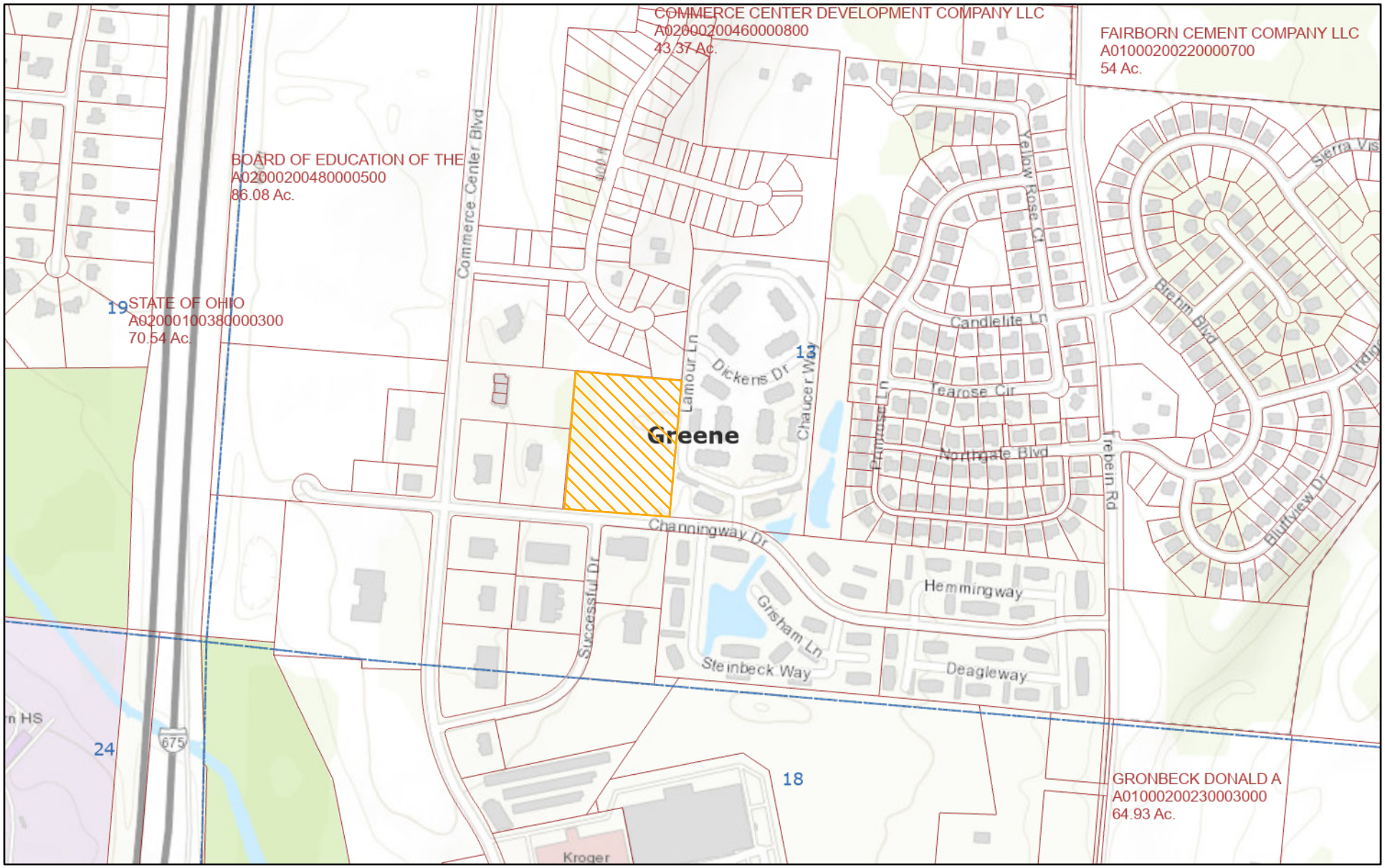
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	7%	13%	35	13%	40
Lack of Health Insurance	4%	7%	28	9%	25
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access Burden	No	N/A	N/A	N/A	N/A
Food Desert	Yes	N/A	N/A	N/A	N/A

Report for 1 mile Ring Centered at 39.790750,-83.996375

Report produced December 5, 2024 using EJScreen Version 2.3

APPENDIX I
EXPLOSIVES AND FLAMMABLE HAZARDS

Ohio Oil & Gas Wells



March 7, 2025

Statewide Parcels

Land Subdivision

Current Township

Counties

1:9,028

0 0.05 0.1 0.2 mi

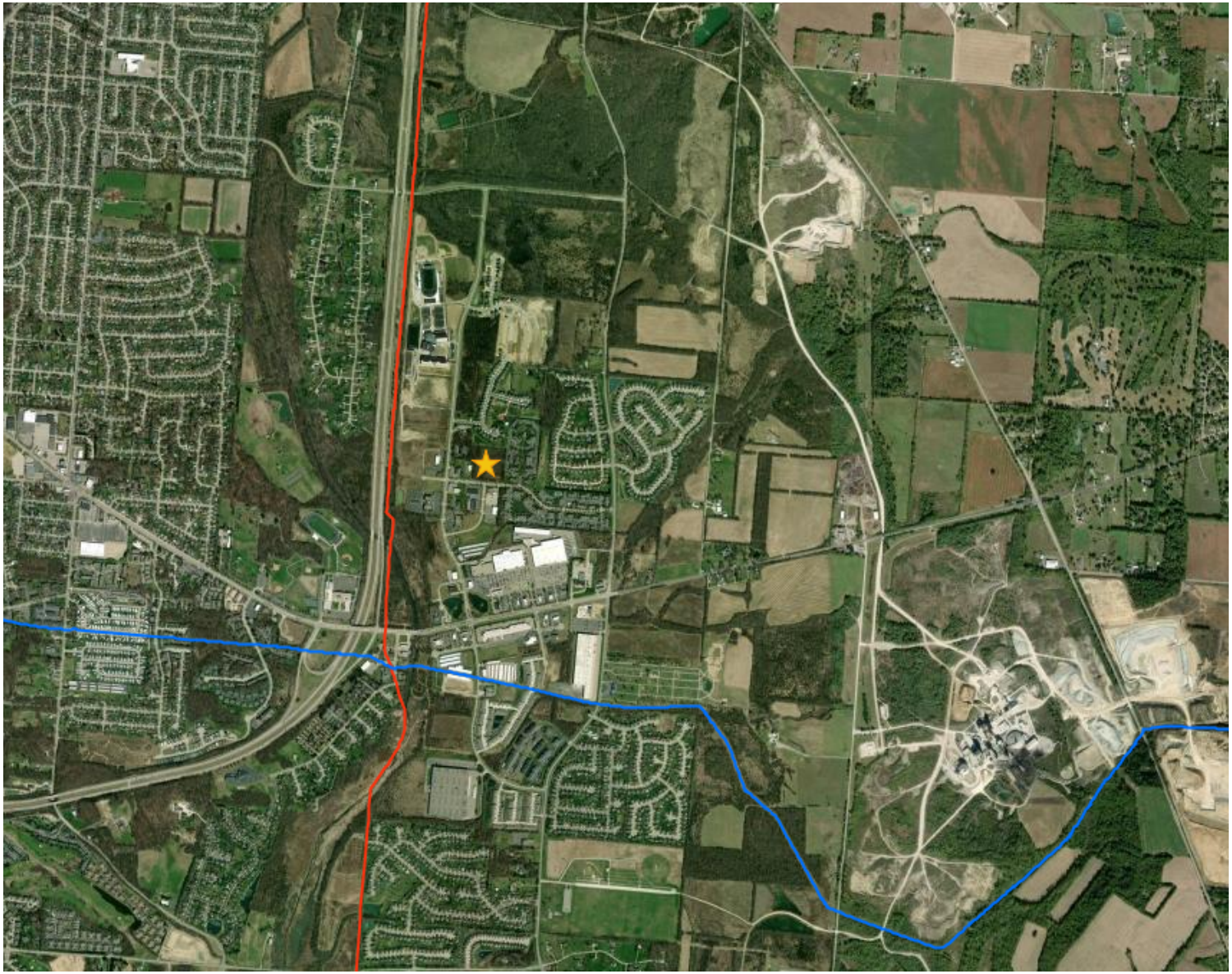
0 0.07 0.15 0.3 km

Division of Drinking and Ground Waters, Ohio EPA, Greene County GIS, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA

ODNR - Division of Oil and Gas Resources Management

Pipeline and Hazardous Materials Safety Administration

NATIONAL PIPELINE MAPPING SYSTEM



Legend

- Accidents (Liquid)
- Incidents (Gas)
- Gas Transmission Pipelines
- Hazardous Liquid Pipelines

500 m
1000 ft

Pipelines depicted on this map represent gas transmission and hazardous liquid lines only. Gas gathering and gas distribution systems are not represented.

This map should never be used as a substitute for contacting a one-call center prior to excavation activities. Please call 811 before any digging occurs.

Questions regarding this map or its contents can be directed to npms@dot.gov.

Projection: Geographic

Datum: NAD83

Map produced by the Public Viewer application at www.npms.phmsa.dot.gov

World Imagery map service data is attributed to Esri, Maxar, Earthstar Geographics, and the GIS User Community.

Date Printed: Mar 07, 2025

811 Know what's below. Call before you dig.

APPENDIX J
FARMLANDS PROTECTION

2020 Census

Urban Areas of the United States and Puerto Rico



Legend

KS	State (or statistical equivalent)
	County (or statistical equivalent)
Sumter	Urban Area with a population of 10,000 or more[1]
Dillon	Urban Area with a population of less than 10,000[2]

[1] *Urban Area with a population of 25,000 or more for Alaska*

[2] *Urban Area with a population of less than 25,000 for Alaska*

Note: An urban area title consists of the commonly recognized place names within the urban area. The full title also includes the two letter United States Postal Service (USPS) state abbreviation(s) of the state(s) the urban area is within. For urban areas within a single state, the state abbreviation is omitted on this map.

Vintage and source: 2020 Census Urban Areas reflect the corrections applied in February 2023 and June 2023. All other legal and statistical boundaries are as of January 1, 2020. 2020 Census Urban Areas are delineated based on the results of the 2020 Census, National Land Cover Database (NLCD) and Coastal Change Analysis Program (C-CAP) land cover data, and Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES) commuting data.

About urban areas: The Census Bureau's urban areas represent densely developed territory, and encompass residential, commercial, and other non-residential urban land uses. The Census Bureau delineates urban areas after each decennial census by applying specified criteria to decennial census and other data.

For more information about the U.S. Census Bureau and Census Urban and Rural Classification, please visit <www.census.gov>.

United States® Census Bureau

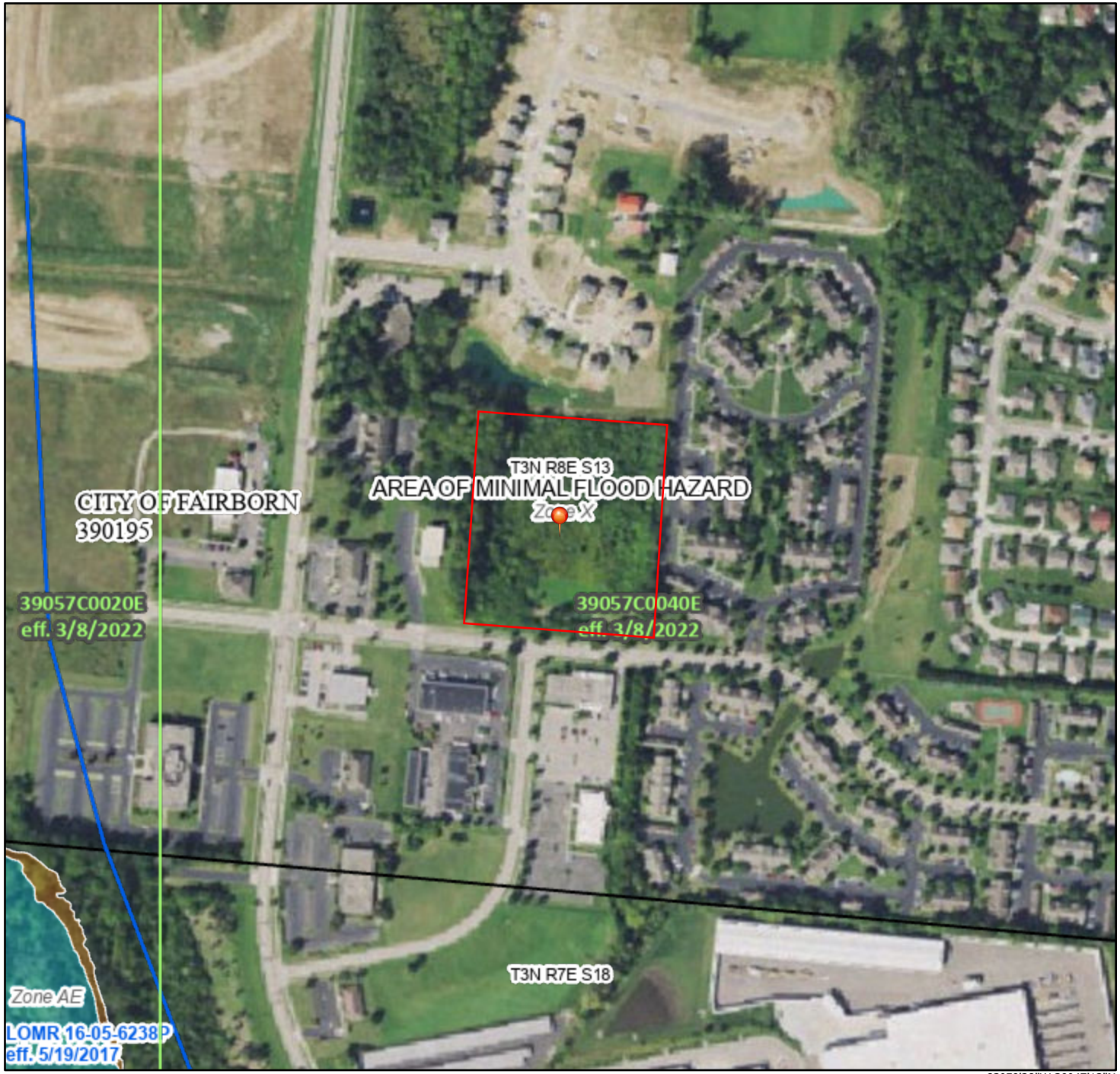
Prepared by the Geography Division, August 2023

APPENDIX K
FLOODPLAINS

National Flood Hazard Layer FIRMette

FEMA

84°0'5"W 39°47'40"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

83°59'28"W 39°47'12"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 12/5/2024 at 4:03 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX L
HISTORIC PRESERVATION

OHIO HISTORIC PRESERVATION OFFICE:
RESOURCE PROTECTION AND REVIEW

Section 106 Review - Project Summary Form

For projects requiring a license from the Federal Communications Commission, please use FCC Forms 620 or 621. DO NOT USE THIS FORM.

SECTION 1: GENERAL PROJECT INFORMATION

All contact information provided must include the name, address and phone number of the person listed. Email addresses should also be included, if available. Please refer to the Instructions or contact an OHPO reviewer (mailto:Section106@ohiohistory.org) if you need help completing this Form. Unless otherwise requested, we will contact the

Date: **05/14/2025**

Name/Affiliation of person submitting form: **Jeffrey Nagle, Project Historian, Mannik & Smith Group**

Mailing Address: **20600 Chagrin Blvd. Suite 500, Shaker Heights, Ohio 44122**

Phone/Fax/Email: **301-412-6365 / jnagle@manniksmithgroup.com**

person submitting this Form with questions or comments about this project.

A. Project Info:

1. This Form provides information about:
   New Project Submittal:
   YES NO

   Additional information relating to previously submitted project:
   YES **NO**

   OHPO/RPR Serial Number from previous submission:

2. Project Name (if applicable): **Senior Village at Valle Greene**

3. Internal tracking or reference number used by Federal Agency, consultant, and/or applicant to identify this project (if applicable): **2300437.0030**

B. Project Address or vicinity: **Channingway Drive north of Successful Drive**

C. City/Township: **Fairborn**

D. County: **Greene**

E. Federal Agency and Agency Contact. *If you do not know the federal agency involved in your project, please contact the party asking you to apply for Section 106 Review, not OHPO, for this information. HUD Entitlement Communities acting under delegated environmental review authority should list their own contact information.*

Housing & Urban Development

F. Type of Federal Assistance. *List all known federal sources of federal funding, approvals, and permits to avoid repeated reviews.*

HOME funds

G. State Agency and Contact Person (if applicable):

Ohio Housing Finance Agency
Rachel Nelson
Project Administration Section Chief
2600 Corporate Exchange Dr., Suite 300
Columbus, OH 43231
Ph: 614-644-7592
Fax: 614-644-5393
RNelson@ohiohome.org

H. Type of State Assistance:

I. Is this project being submitted at the direction of a state agency **solely** under Ohio Revised Code 149.53 or at the direction of a State Agency? *Answering yes to this question means that you are sure that no federal funding, permits or approvals will be used for any part of your project, and that you are seeking comments only under ORC 149.53.*

YES **NO**

J. Public Involvement- Describe how the public has been/will be informed about this project and its potential to affect historic properties. Please summarize how they will have an opportunity to provide comments about any effects to historic properties. (This step is required for all projects under 36 CFR § 800.2):

K. Please list other consulting parties that you have contacted/will contact about this project, such as Indian Tribes, Certified Local Governments, local officials, property owners, or preservation groups. (See 36 CFR § 800.2 for more information about involving other consulting parties). Please summarize how they will have an opportunity to provide comments:

SECTION 2: PROJECT DESCRIPTION AND AREA OF POTENTIAL EFFECTS (APE)

Provide a description of your project, its site, and geographical information. You will also describe your project's Area of Potential Effects (APE). Please refer to the Instructions or

contact an OHPO reviewer if you need help with developing the APE or completing this form.

For challenging projects, provide as much information as possible in all sections, and then check the box in Section 5.A. to ask OHPO to offer preliminary comments or make recommendations about how to proceed with your project consultation. This is recommended if your project involves effects to significant historic properties or if there may be challenging procedural issues related to your project. Please note that providing information to complete all Sections will still be required and that asking OHPO for preliminary comments may tend to delay completion of the review process for some projects.

A. Does this project involve any Ground-Disturbing activity: **YES** NO
(If **Yes**, you must complete all of Section 2.A. If **No**, proceed directly to Section 2. B.)

1. General description of width, length and depth of proposed ground disturbing activity:
The Project Area runs approximately 300 feet east to west and approximately 290 feet north to south. Depth of ground disturbing activity will be concomitant to the foundation of a two-story structure without basement.

2. Narrative description of previous land use and past ground disturbances, if known:
By the time the first detailed maps of the area were created in the middle of the twentieth century, the Project Area was in use as agricultural fields. Beginning in the late 1990s, suburban development began in the vicinity and the project area was enclosed and no longer in agricultural use by 2001. It has stood vacant since, with succession scrub tree cover developing.

3. Narrative description of current land use and conditions:
The Project Area is currently undeveloped, and predominantly in light tree cover.

4. Does the landowner know of any archaeological resources found on the property?
YES **NO** If yes, please describe:

B. Submit the exact project site location on a USGS 7.5-minute topographic quadrangle map for all projects. Map sections, photocopies of map sections, and online versions of USGS maps are acceptable as long as the location is clearly marked. Show the project's Area of Potential Effects (APE). It should be clearly distinguished from other features shown on the map:
1. USGS Quad Map Name:
Yellow Springs
2. Township/City/Village Name:
Fairborn

C. Provide a street-level map indicating the location of the project site; road names must be identified and legible. Your map must show the exact location of the boundaries for the project site. Show the project's Area of Potential Effects (APE). It should be clearly distinguished from other features shown on the map: **See Figure 2**

D. Provide a verbal description of the APE, including a discussion of how the APE will include areas with the potential for direct and indirect effects from the project. Explain the steps taken to identify the project's APE, and your justification for the specific boundaries chosen:
The northwest corner of the APE is located at the corner of Commerce Center

Boulevard and Arden Way. It proceeds east and follows Arden Bend southeast to the northern property boundary of 1732 Arden Bend. It proceeds in a line projecting east from the northeast corner of 1732 Arden Bend to a point north of the northwest corner of 1162 Dickens Drive, then turns east-southeast to parallel 1162 Dickens. At reaching the walkway east of 1162 Dickens, it turns south, following the path of the walkway to Channingway Drive. It jogs east along Channingway to the channel separating Steinbeck Way and Grisham Lane, then continues south-southeast following the channel. At a point parallel to the north side of 1187 Steinbeck, it turns west and proceeds to Commerce Center, then turns north and follows Commerce Center to the northwest corner.

The APE describes the vacant parcel consisting the Project Area that will be directly impacted by the project, as well as surrounding residential and commercial properties within the viewshed of the proposed new construction that will experience indirect visual effects and temporary indirect effects from construction.

E. Provide a detailed description of the project. This is a critical part of your submission. Your description should be prepared for a cold reader who may not be an expert in this type of project. The information provided must help support your analysis of effects to historic properties, not other types of project impacts. Do not simply include copies of environmental documents or other types of specialized project reports. If there are multiple project alternatives, you should include information about all alternatives that are still under active consideration:

The Senior Village at Valle Greene is a 70-unit, two-story apartment building with an elevator. Comprised on one and two-bedroom units, this senior apartment community adheres to LEED Silver energy standards. It caters to seniors with incomes at 30%, 50% and 60% of Area Median Income. Notably, the design prioritizes accessibility, eliminating the need for stairs to access the building. The one-bedroom units are slightly larger than comparable properties and the size of the two-bedroom units fall within the range of comparable properties. Each unit will have a washer and dryer which will be a unique offering not found at comparable properties. This highly valued amenity enables senior residents to conveniently do their laundry within the units. There will be a community room with a limited kitchen facility and an on-site fitness room. The property will also offer on-site management and social service coordination.

SECTION 3: IDENTIFICATION OF HISTORIC PROPERTIES

Describe whether there are historic properties located within your project APE. To make that determination, use information generated from your own Background Research and Field Survey. Then choose one of the following options to report your findings. Please refer to the Instructions and/or contact an OHPO reviewer if you are unsure about how to identify historic properties for your project.

If you read the Instructions and you're still confused as to which reporting option best fits your project, or you are not sure if your project needs a survey, you may choose to skip this section, but provide as much supporting documentation as possible in all other Sections, then check the box in Section 5.A. to request preliminary comments from OHPO. After reviewing the information provided, OHPO will then offer comments as to which reporting option is best suited to document historic properties for your project. Please note that providing information to complete this Section will still be required and that asking OHPO for preliminary comments may tend to delay completion of the review process for some projects.

Recording the Results of Background Research and Field Survey:

A. **Summary of discussions and/or consultation with OHPO** about this project that demonstrates how the Agency Official and OHPO have agreed that no Field Survey was necessary for this project (typically due to extreme ground disturbance or other special circumstances). Please **attach copies** of emails/correspondence that document this agreement. You must explain how the project's potential to affect both archaeological and historic resources were considered.

B. **A table that includes the minimum information** listed in the OHPO Section 106 Documentation Table (which is generally equivalent to the information found on an inventory form). This information must be printed and mailed with the Project Summary Form. To provide sufficient information to complete this Section, you must also include summary observations from your field survey, background research and eligibility determinations for each property that was evaluated in the project APE.

C. **OHI (Ohio Historic Inventory) or OAI (Ohio Archaeological Inventory) forms**- New or updated inventory forms may be prepared using the OHI pdf form with data population capabilities, the Internet IForm, or typed on archival quality inventory forms. To provide sufficient information to complete this Section, you must include summary observations from your field survey and background research. You must also include eligibility determinations for each property that was evaluated in the project APE

D. **A historic or archaeological survey report** prepared by a qualified consultant that meets professional standards. The survey report should meet the Secretary of the Interior's Standards and Guidelines for Identification and OHPO Archaeological Guidelines. You may also include new inventory forms with your survey, or update previous inventory forms. To complete this section, your survey report must include summary observations from your field survey, background research and eligibility determinations for each property that was evaluated within the APE.

E. **Project Findings**. Based on the conclusions you reached in completing Section 3, please choose one finding for your project. There are (mark one):

Historic Properties Present in the APE:

No Historic Properties Present in the APE: The APE was a rural area in agricultural use through the mid-1990s. Development of the area began in the late 1990s. There are no buildings in the APE over 30 years of age. The buildings within the APE are unexceptional examples of contemporary commercial buildings and dwellings that do not rise to the level of inclusion under Consideration G. None of the properties are eligible under Criteria A, B, or C, and they are unlikely to contribute under Criterion D.

SECTION 4: SUPPORTING DOCUMENTATION

This information must be provided for all projects.

A. Photographs must be keyed to a street-level map, and should be included as attachments to this application. Please label all forms, tables and CDs with the date of your submission and project name, as identified in Section 1. You must present enough documentation to clearly show existing conditions at your project site and convey details about the buildings, structures or sites that are described in your submission. Faxed or photocopied photographs are not acceptable. See Instructions for more info about photo submissions or 36 CFR § 800.11 for federal documentation standards.

1. Provide photos of the entire project site and take photos to/from historic properties from/towards your project site to support your determination of effect in Section 5.

2. Provide current photos of all buildings/structures/sites described.

B. Project plan, specifications, site drawings and any other media presentation that conveys detailed information about your project and its potential to affect historic properties.

C. Copies or summaries of any comments provided by consulting parties or the public.

SECTION 5: DETERMINATION OF EFFECT

A. **Request Preliminary Comments.** For challenging projects, provide as much information as possible in previous sections and ask OHPO to offer preliminary comments or make recommendations about how to proceed with your project consultation. This is recommended if your project involves effects to significant historic properties, if the public has concerns about your project's potential to affect historic properties, or if there may be challenging procedural issues related to your project. Please be aware that providing information in all Sections will still be required and that asking OHPO for preliminary comments may tend to delay completion of the review process for some projects.

1. We request preliminary comments from OHPO about this project:
   YES NO

2. Please specify as clearly as possible the particular issues that you would like OHPO to examine for your project (for example- help with developing an APE, addressing the concerns of consulting parties, survey methodology, etc.):

B. **Determination of Effect.** If you believe that you have gathered enough information to conclude the Section 106 process, you may be ready to make a determination of effect and ask OHPO for concurrence, while considering public comments. Please select and mark one of the following determinations, then explain the basis for your decision on an attached sheet of paper:

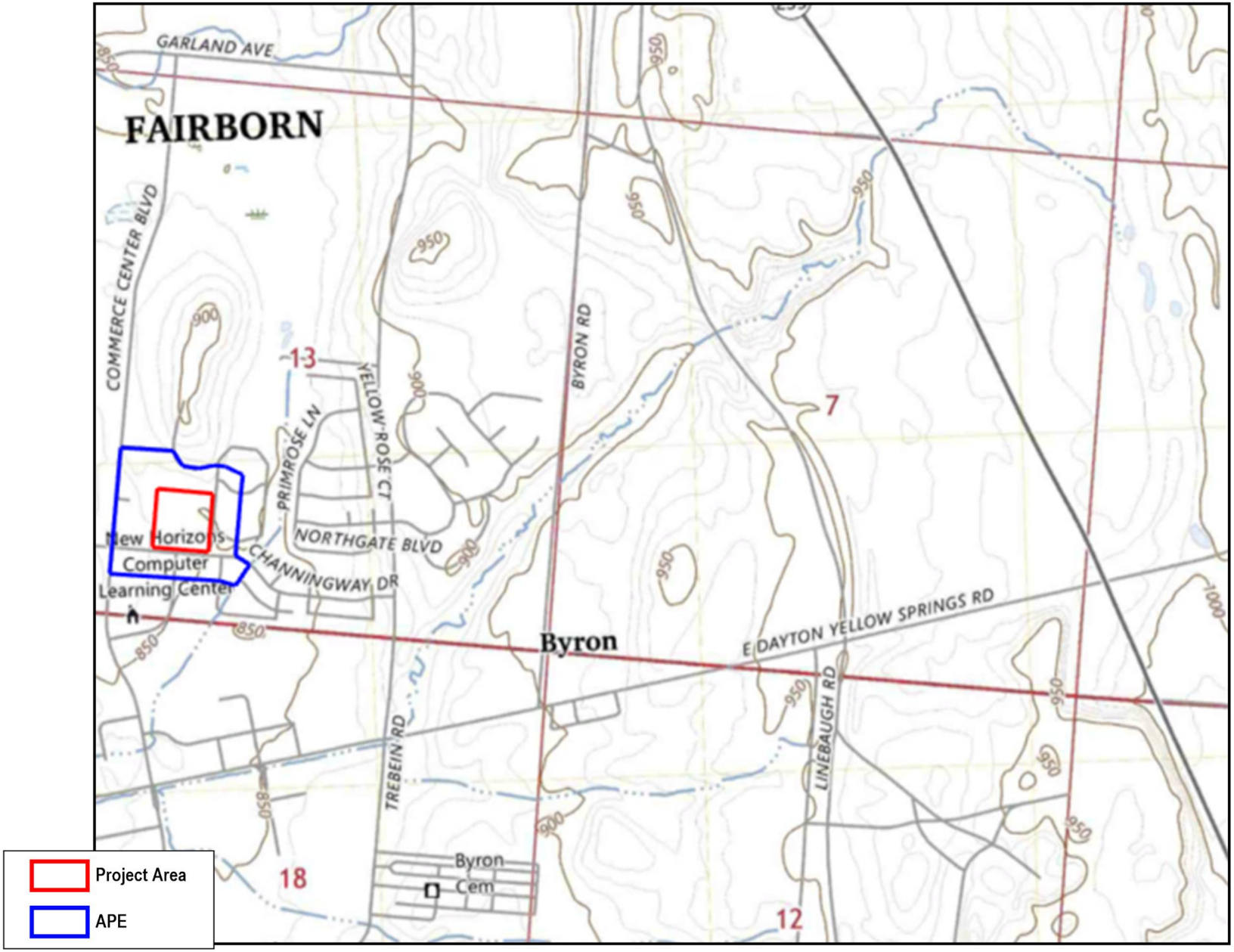
No historic properties will be affected based on 36 CFR § 800.4(d) (1).
Please explain how you made this determination:

The APE was a rural area in agricultural use through the mid-1990s. Development of the area began in the late 1990s. There are no buildings in the APE over 30 years of age. The buildings within the APE are unexceptional examples of contemporary commercial and domestic buildings that do not rise to the level of inclusion under Consideration G. None of the properties are eligible under Criteria A, B, or C, and they are unlikely to contribute under Criterion D. There are no historic properties present in the APE to be affected by the undertaking.

No Adverse Effect [36 CFR § 800.5(b)] on historic properties. This finding cannot be used if there are no historic properties present in your project APE. Please explain why the Criteria of Adverse Effect, [36 CFR Part 800.5(a) (1)], were found not to be applicable for your project:

Adverse Effect [36 CFR § 800.5(d) (2)] on historic properties. Please explain why the criteria of adverse effect, [36 CFR Part 800.5(a) (1)], were found to be applicable to your project. You may also include an explanation of how these adverse effects might be avoided, reduced or mitigated:

Please send completed form and supporting documentation to our office through the section106@ohiohistory.org e-mail address. Note that file size is limited to 30 MB. The Ohio SHPO has a federally mandated review time of 30 calendar day. To check your submission was received and logged in for our review, please visit https://www.ohiohistory.org/preserve/state-historic-preservation-office/hpreviews/section-106-project-status.



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www.MannikSmithGroup.com

Figure 1
USGS Quad Map
Yellow Springs 2023

N

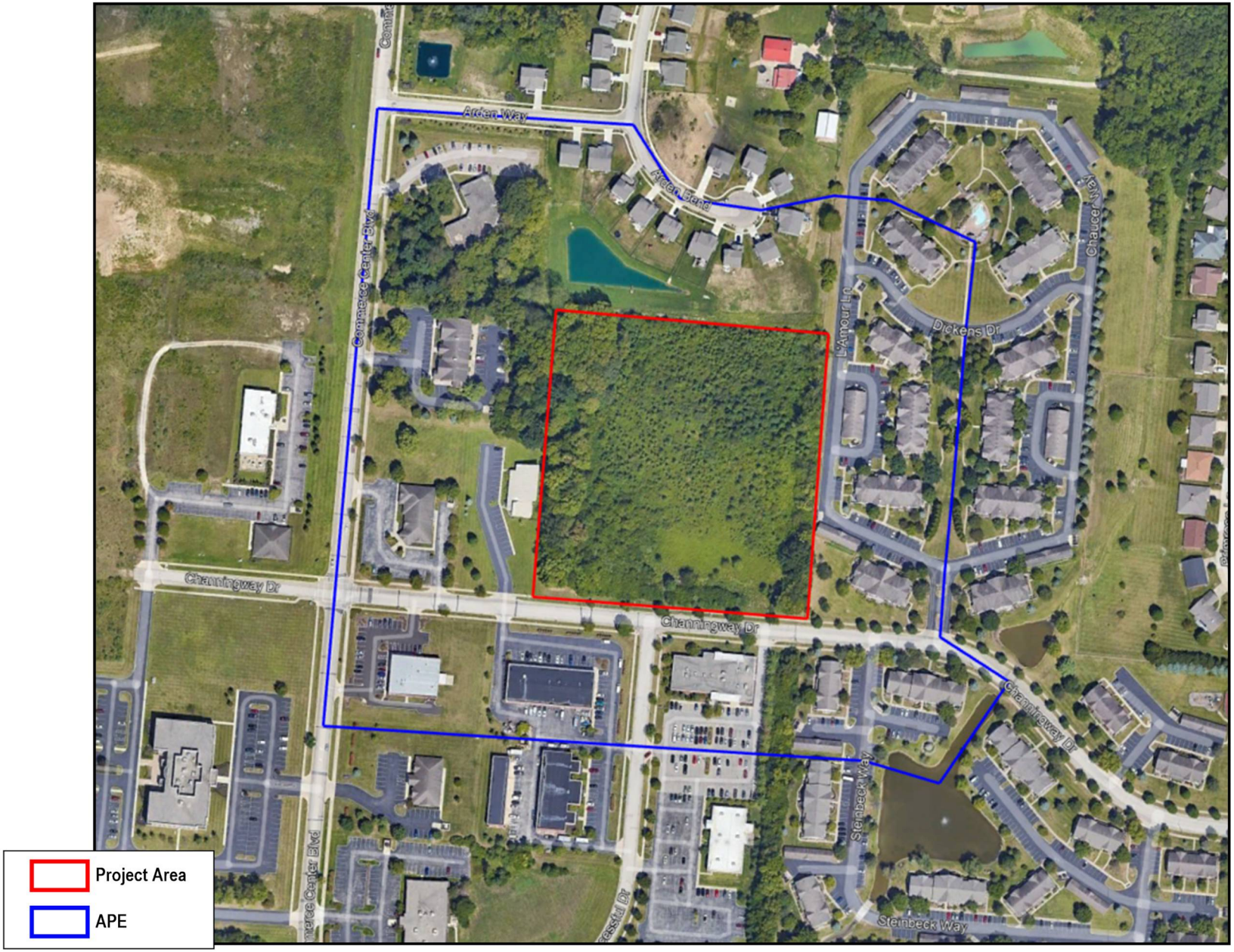

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Figure 2
Area of Potential Effects

N

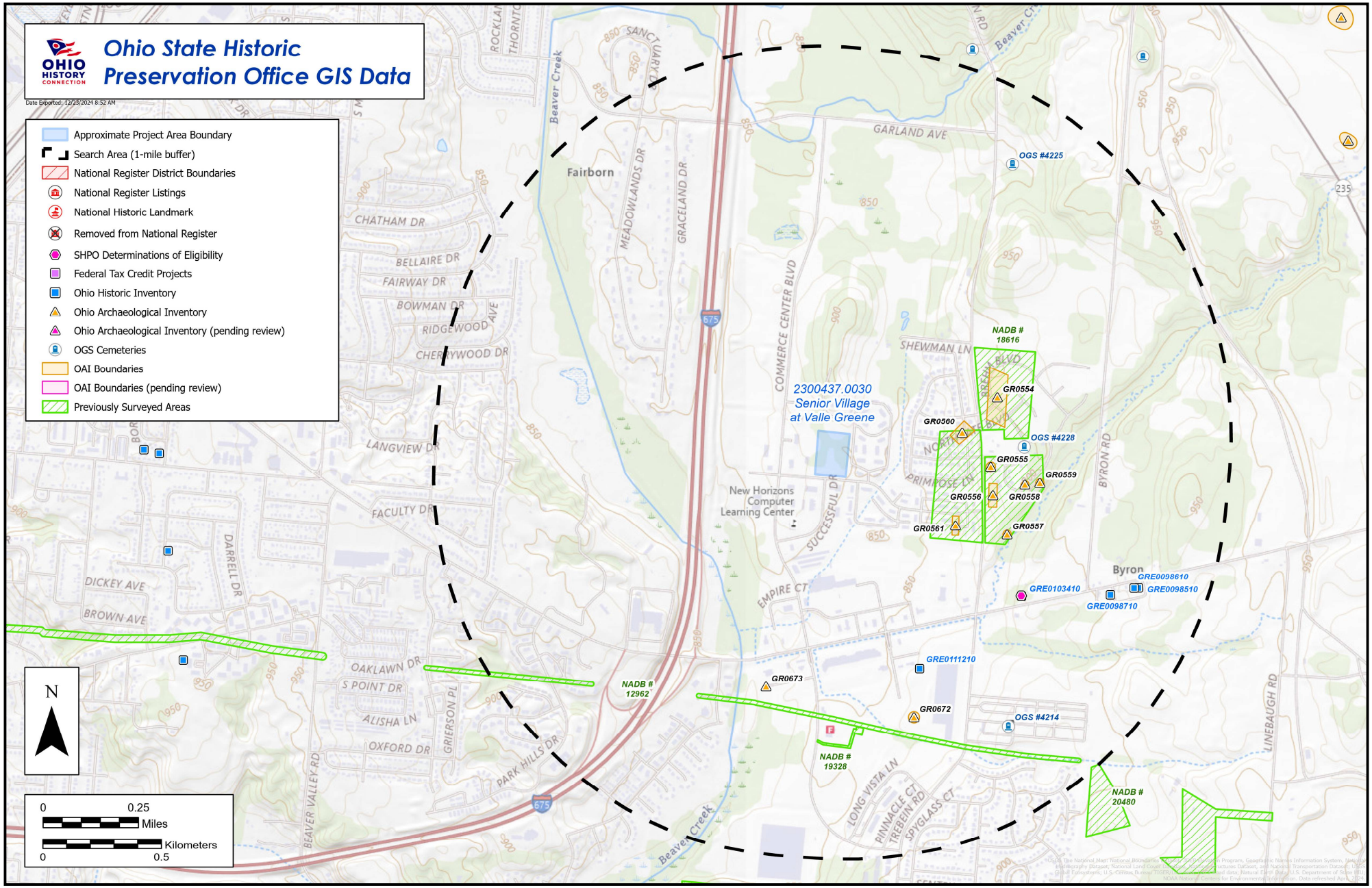

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Figure 3
Literature Review Results

N

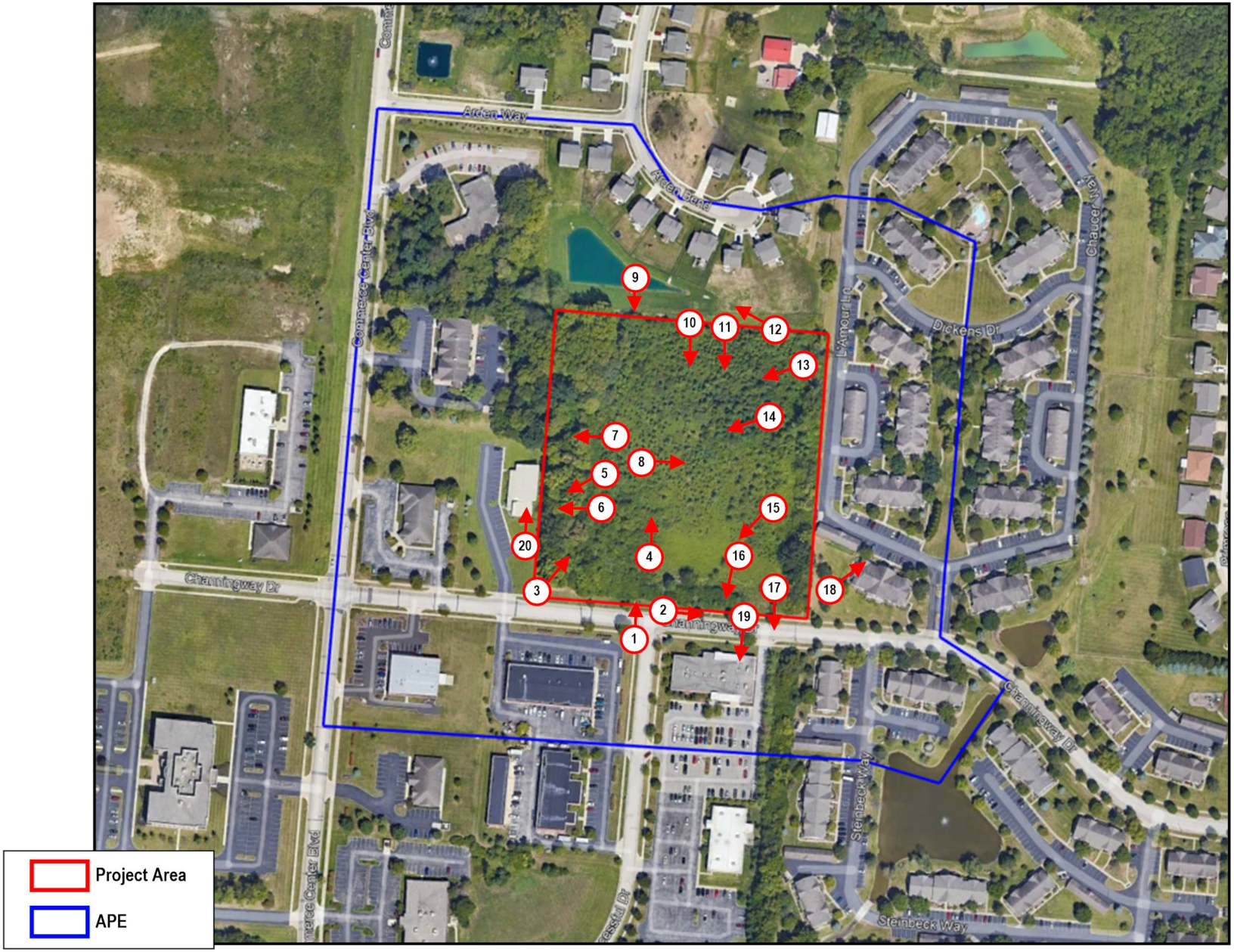

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Figure 4
Photo Locations

N

Table 1
Section 106 Documentation Table

Photo Reference Number	Address / Street Name	Common Name (if known)	OHI Number/Bridge Structure File Number	Date Inventoried	Date(s) of Construction / Alteration	Style & Type of Building Structure	Material	National Register Eligible (Y/N/Undetermined)	Applicable NR Criteria	Applicable Aspects of Integrity	Recommendation
											All buildings within the APE were constructed after 1994. All are unexceptional contemporary commercial buildings or dwellings not considered eligible under Consideration G. None are potentially eligible under Criteria A, B, or C. None are likely to provide information under Criterion D.



Photo 1: General view of the Subject Property from across Channingway Drive.



Photo 2: View along the south perimeter of the Subject Property facing east down Channingway Drive.



Photo 3: Looking northeast at the southwest portion of the Subject Property.



Photo 4: View of the south-central portion of the Subject Property.



Photo 5: Typical vegetation on the western portion of the Subject Property.



Photo 6: Additional view of vegetation on the west portion of the Subject Property facing west.



Photo 7: View of wet area disturbed by drilling equipment on the west portion of the Subject Property.



Photo 8: View of typical vegetation on the central portion of the Subject Property.



Photo 9: Apparent outfall from a storm water retention basing along the north property line immediately north of the Subject Property



Photo 10: Typical vegetation on the north portion of the Subject Property.



Photo 11: Close up of surface vegetation on the north portion of the Subject Property.



Photo 12: View of the residential sub-division north of the Subject Property facing west northwest.



Photo 13: Typical view of vegetation on the northeast portion of the Subject Property.



Photo 14: View of the central east portion of the Subject Property with paths cleared for drilling access.



Photo 15: View of the field portion of the Subject Property on the southeast portion of the property.



Photo 16: View of the soil mound along the south portion of the Subject property.



Photo 17: View of the culvert under Channingway Drive on the southeast portion of the Subject Property.



Photo 18: Typical east adjoining apartment building.



Photo 19: View of the vacant commercial south of the east portion of the Subject Property following Channingway Drive.



Photo 20: View of the west adjoining building.

P rofessional
A rchaeological
S ervices
T eam

Craig Keener, Ph.D.
2152 Twin Creek Road
West Alexandria, OH 45381
Phone/Fax: (614) 214-4478
Email: c_keener@pasteam.com

07.09.25

Denise Blake
St. Mary Development Corporation
2160 East Fifth Street
Dayton, OH 45403

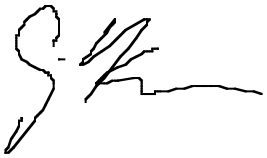
Re: Phase I cultural resource survey for the 2.3ha (5.8a.) Senior Village at Valle Greene Development in the City of Fairborn, Greene County, Ohio.

Dear Denise,

Attached is an electronic report link for the Phase I cultural resource survey for the 2.3ha (5.8a.) Senior Village at Valle Greene Development in the City of Fairborn, Greene County, Ohio. No archaeological sites were found. Consequently, no further work was recommended for the project.

Note that the State Historic Preservation Office (SHPO) is now requiring that all survey reports be sent in as electronic download links. This also includes a GIS coordinate folder which SHPO requires if you were to send this in. These links will be sent to you by email. An invoice for the project is also attached. Please let me know if you have any questions on any of the results and keep us in mind for any future work that you may have.

Sincerely,



Craig S. Keener, Ph.D.

#2073

Professional Archaeological Services Team

Phase I Cultural Resource Management Survey of the 2.3ha (5.8a) Senior Village at the Valley Greene Housing Development in the City of Fairborn, Greene County, Ohio

Craig S. Keener

July 2025

"Interpreting the Past, Envisioning the Future"

Phase I Cultural Resource Management Survey for the Proposed 2.3ha (5.8a.) Senior Village at the Valley Greene Housing Development in the City of Fairborn, Greene County, Ohio

Craig S. Keener, Ph.D.

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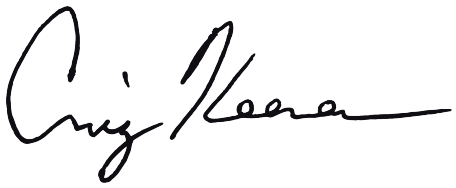

Craig S. Keener P.I.

07.09.25

Abstract

Professional **A**rchaeological **S**ervices **T**eam conducted a Phase I Cultural Resource Management (CRM) survey for the proposed 2.3a (5.8a) Senior Village at the Valley Greene Housing Development in the City of Fairborn, Greene County, Ohio. The proposed survey was conducted in June and July at the request of St. Mary Development Corporation. The survey is investigating the project under Section 106 requirements as they pertain to archaeological resources and historical resources.

The project area is located north of Channingway Drive in secondary tree. brush and weed growth. Located in the City of Fairborn all of the surrounding land has been developed with modern business buildings or housing. Several buried utilities are present within 15m (50ft) of the road.

Located in the Till Plains, the project area is situated on low valley train outwash deposits. Three soil types are located in the project: Eldean (EbB2), Ockley (OcB) and Sloan (So) soils. Shovel test units and visual inspection were used to examine the project area. The investigation found no new archaeological sites.

To summarize, no further archaeological or historical work is recommended for the project location.

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29. View of test unit at 45W, 30W.

Introduction

Professional **A**rchaeological **S**ervices **T**eam conducted a Phase I Cultural Resource Management (CRM) survey for the proposed 2.3ha (5.8a) Senior Village at the Valle Greene Housing Development in the City of Fairborn, Greene County, Ohio (Figures 1-2). The proposed project was conducted at the request of St. Mary Development Corporation. The survey is investigating the project under Section 106 requirements as they pertain to cultural resources. The purpose of the project is to build 70 multi-family housing complex. The buildings will be two stories high. Parking lots will also be constructed.

The project area is located north of Channingway Drive in secondary tree, brush and weed growth (Figures 2 and 5; Plates 1-3, 5-6, 8-11, 13-14, 16-18, 20, 22-24, and 26). Brush covered areas were particularly dense and there were a few locations that were not penetrable and thus could not be tested. Located in the City of Fairborn all of the surrounding land has been developed with modern business buildings or housing.

The project area is located in the Till Plains on low valley train outwash deposits (Pavey et al. 1999). The project contains three soil types that include the following: Eldean (EbB2), Ockley (OcB) and Sloan (So) soils. Slope ranges from 0-40% in the project with steeper gradients along an artificial embankment and drainage ditch that fronts the road (see Plates 6, 10-11, 13). Poorly drained soils were found in the northern third of the project and along much of the western edge of the project. Some disturbance from grading was present within areas of the project, where trails had been created for core sampling. Also there is an artificial embankment and drainage ditch present along the southern side of the project. This has impacted an area approximately 9.1m to 12.2m (30ft to 40ft) wide from the edge of the project. Several buried utilities are also present within 15m (50ft) of the road (Plate 9). A drainage ditch is also present along most of the eastern edge of the project, impacting 7.5m to 12.2m (25ft to 30ft) of surface area.

The visual Area of Potential Effect was not defined for this project by the lead agency. Based on email correspondence with the State Historic Preservation Office the direct APE was considered the prime concern for determining any archaeological potential evident within the project. No portion of the project contains any pre-1975 structures within the footprint of the project or adjacent to the project. Plates 4, 7, 12, 15, 19, 21, 25, and 27 show the areas adjacent to the project. Many views have tree and brush cover blocking views but where the surface areas are open modern buildings are in sight.

Shovel test units and visual inspection were used to investigate the project area. Dr. Craig Keener served as the principal investigator for this project and conducted the fieldwork along with Kevin Nye. The report and figures were completed by Dr. Craig Keener, and Kevin Nye.

Background Investigation

PAST reviewed records at the State Historic Preservation Office (SHPO) in June of 2025. A study radius of 1 mile from the center of project was used to obtain information on archaeological and historic resources. For historic structures only properties/resources that can be seen from the project were noted. Records that were checked included the National Register of Historic Places (NRHP) files, sites Determined Eligible to the NRHP, the Mills Atlas, the Ohio Archaeological Inventory (OAI), the Ohio Historic Inventory (OHI), Cultural Resource Management (CRM) survey files, historic atlases and maps, cemeteries, and county histories.

Mills' (1914) atlas was consulted to determine if any prehistoric earthworks/ mounds, villages or burials were reported in the project area or study radius. Mills hand plotted most of these sites on county maps from the recollections of postmen or local individuals who knew or had heard of such sites in these vicinities. The vast majority of these sites were not field checked, so the accuracy of a given site's position or its actual existence is questionable unless field checked. Mills' atlas is a useful planning tool, however, since it is reliable in giving a researcher a general idea of where earthworks/mounds may be located. Analysis of the Greene County Mills' map showed no sites within the project area. No site appears to be in the study radius.

The USGS 1968 (Revised 1992) *Yellow Springs Quadrangle,* and 1965 (Revised 1992) *Fairborn Quadrangle Ohio, 7.5 Minute Series (Topographic)* map of the Ohio Archaeological Inventory (OAI) shows no archaeological site overlapping the project area (see Figure 3). Ten archaeological sites lie in the surrounding study radius. Most of these are unassigned precontact lithic scatters. The sites are listed below.

33GR554: Late Archaic
33GR555: unassigned precontact
33GR556: unassigned precontact/unassigned historic
33GR557: unassigned precontact/unassigned historic
33GR558: unassigned precontact
33GR559: unassigned precontact
33GR560: unassigned precontact/unassigned historic
33GR561: unassigned precontact/unassigned historic
33GR672: unassigned precontact
33GR673: Late Archaic

No CRM survey is shown overlapping the project (see Figure 3). Three surveys (Cooper and Weller 2014; Riordan and McDaniel 1982; Scheurer 1984) are shown in the study radius.

Examination of the NRHP files failed to identify any buildings, sites or structures within or immediately adjacent to the project area (see Figure 3). No sites were noted in the study radius.

Examination of the files containing sites Determined eligible to the NRHP files failed to identify any buildings, sites or structures within or immediately adjacent to the project area (see Figure 3). One site was noted in the study radius, approximately .5 mile away to the southeast. This site is blocked from view by intervening buildings and tree cover.

The Ohio Historic Inventory has no recorded houses in the project or immediately adjacent. Three resources are recorded in the study radius over .5 mile from the project (Figure 3). These resources cannot be seen from the project.

The Ohio Genealogical Society list of Ohio Cemeteries was examined and no cemeteries are shown inside or adjacent to the project area. Three cemeteries are shown in the study area (Figure 3).

The Greene County histories indicate no historical events or historical significance associated with the project area (Broadstone 1918; Dills 1881).

The 1855 *Map of Greene County, Ohio* (Byles 1855) shows no house in the project area (Figure 4). Ownership of the land cannot be ascertained.

The 1874 *Combination Atlas Map of Greene County, Ohio* (Everts 1874) shows no house in the project area (Figure 4). The project is shown as owned by W. Watts. The county history does not mention anything on Watts. On www.findagrave.com there are numerous W. Watts that are listed.

The 1896 *Riddell's Greene County Atlas* (Riddell 1896) shows no house in the project area (Figure 4). The project continues to be owned by W. Watts.

The 1904 *Springfield, Ohio 15 Minute Series (Topographic)* map shows no house in the project (Figure 4).

The USGS 1968 (Revised 1992) *Yellow Springs Quadrangle,* and 1965 (Revised 1992) *Fairborn Quadrangle Ohio, 7.5 Minute Series (Topographic)* map continues to show no house within the project area.

Environmental Section

Physiography

Greene County is situated within the Till Plains. Glacial deposits cover the county and range from a few feet to several feet in thickness. End moraines, kames, and outwash deposits are well represented. Underlying bedrock is represented by limestone, and dolomite of Silurian and Ordovician age. Major drainages of the county include the

Little Miami River, Mad River, Caesar Creek, and Big Sugar Creek, (Pavey et al. 1999; USDA, SCS 1978).

The project area is located in the western portion of Greene County. The elevation within the project area ranges from 259.1m to 262.1m (850ft to 860ft).

Soils

Soil types in the project area are important, for they can help determine the likelihood/potential for cultural activities or archaeological sites. Soil types also help us understand the process of taphonomy and how sites are preserved or changed from depositional factors, erosion, or soil acidity. Three soil types are located within the project area:

Eldean (EbB2) silt loam, 2-6% slope
Ockley (OcB) silt loam, 2-6% slope
Sloan (So) silty clay loam, 0-2% slope

The above soils are a mix of poorly and well drained types. Disturbed soils are present along the southern edge of the project due to utilities and the presence of an artificial embankment.

Fauna

The clearance of most of Ohio's presettlement forest resulted in the extinction of many species which could have been used by precontact populations. The most useful species found in archaeological assemblages of precontact and early Euroamerican populations include deer, elk, bison, black bear, wolf, beaver, turkey, passenger pigeon, mountain lion, ruffed grouse, cottontail rabbit, squirrel, water fowl, fish, and mussels. This variety of faunal resources supplied the seasonal food needs of indigenous populations and provided raw materials for tools (e.g., bone awls, shell hoes) and/or ceremonial artifacts (e.g., canine teeth, deer antler skull caps) (Cleland 1966)

Flora

Presettlement vegetational patterns in Ohio have changed dramatically with the arrival of Euroamerican populations because of the impact of agriculture and industrial and urban developments. Large swaths of indigenous forests were cut down for use as lumber, fuel for the coal and iron industries, a source for heating (e.g., fire), and to clear fields for agricultural uses. Marshes, wetlands and prairies were also altered by post settlement populations with most wet areas having been drained for agriculture, and prairies replaced by cultivated fields. The presettlement vegetational patterns of Ohio have been classified by Gordon (1966). In southwestern Ohio forests were once

dominated by mixed mesophytic segregates such as broad leaved deciduous species and evergreen varieties. The project area was once dominated by ash, elm, beech, maple, and walnut. Nut bearing varieties provided a seasonal source of food for precontact populations.

Formulation of a Research Design

The development of the research design incorporates information obtained from the archival review, culture history, and environmental context, which are used to identify objectives and questions to apply when testing a designated project area. The information obtained from the local and regional area help in the assessment of any identified building/site when determining its potential eligibility for nomination to the NRHP. A summary of the background findings and how this information may relate to the testing and evaluation of the project is provided below.

The project area is situated in the Till Plains ow valley train outwash deposits. Slope ranges from 0-40% across the project. Steep slope is present along an artificial embankment and the side slopes flanking the road. The land surface contains very dense secondary tree and brush covered areas. Some test locations were in inpenetrable areas that could not be reached. Three soil types represent the project area: Eldean (EbB2), Ockley (OcB) and Sloan (So) soils (USDA, SCS 1978). The soils are a mix of poorly and well drained types. A number of disturbances, as noted in the Introduction, are present in the project that will prohibit testing in some areas. Poorly drained soils are present in the northern third of the project area and along the western side of the project. These areas will likely be probed or visually inspected.

The archival review indicated that no precontact archaeological sites are located in or adjacent to the testable portions of the project area. Precontact sites recorded in the greater surrounding region are often recorded on better drained elevated landforms located on hills, rises, and along well drained stream valley landforms such as elevated terraces. Historic residential deposits (Ball 1984; South 1977) are not expected as pre-1973 structures do not appear to be located in the testable portions of the project.

Methodological Approach

The project area was tested using shovel test units/probes, and visual inspection. The testing methodology is described below. Sites, if identified, are inventoried by Field Site #s (FS #). Each sequential site identified follows in numerical order and is recorded within the field notes and field maps and discussed accordingly within this report.

Subsurface testing will involve the excavation of a series of shovel test units within areas with <50% surface visibility. Test units are placed 15m apart in a 15m by 15m grid. If a shovel test unit is identified as positive, four radial shovel test units will be excavated in the four cardinal directions from the positive test unit (within the project

boundaries. Radial shovel test units will be spaced 7.5m (25ft) from the positive shovel test unit. Radials are not excavated in slope, disturbed locations, wet/saturated locations or between positive test units. Radial shovel test units are used to help identify site boundaries within the project area for any site identified. Shovel test units and radial shovel test units are .25m^2 (2.69ft^2) in size and are excavated by natural stratigraphic layers to a depth of approximately 5cm (2in) below subsoil. The soil matrix from each stratigraphic level will be dry screened through .6 cm (.25in) hardware mesh. Any recovered artifacts are provenienced and placed in bags. Any features found on the subsoil floor of a shovel test unit will be drawn to scale with a plan view and photographed. A representative photo of the floor of a shovel test unit will be provided for the project area to exhibit a typical shovel test unit encountered during the survey.

Excavated areas, which reveal complete disturbance to the subsoil or exhibit excessive erosion (less than 8cm of A horizon) are labeled shovel probes which possess 30cm diameters or smaller. Those test units which are deemed shovel probes are not screened and are back filled when determined to be disturbed. Areas which exhibit wet soils (with standing water or saturated soil) or disturbance at the surface will be labeled as such on the fieldwork map, and will not be excavated (unless noted by field supervisor). In these areas the test grid may expand to 30m (100ft). If surface conditions are clearly disturbed or wet then field methods will shift to visual inspection.

At historic residential sites the test unit grid will be tightened to a 7.5m (25ft) grid around houses, as a sheet midden is expected. These grids can be limited by steep slope and/or disturbance. The grid will focus on the areas within 15m (50ft) of a house. Beyond this distance the grid will shift back to a 15m (50ft) grid, unless otherwise noted by the Principal Investigator, or if there is a need for radial units.

Visual inspection is utilized in order to locate any unknown outbuildings, ruins, springs, dumps, or testable portions of the project. Any sites identified during visual inspection will be assigned a field site number and tested as deemed necessary by the field supervisor and/or principal investigator. Any testable landform identified will be subjected to testing methodologies and/or a testing grid, which will cover the landform adequately. Visual inspection also confirms areas of disturbance. Visual inspection transects spaced 5m (16ft) apart will be walked across the project in its entirety.

Field Work

The field work portion of the Phase I CRM survey was conducted on June 18th and July 8th, 2025. Temperatures were in the 80s and the weather was overcast to sunny. One datum was used for the test grid and placed at the southeast corner of the project (Figure 6). The UTM coordinates for the datum point are the following: 757272E, 4408751N (WGS84). Plates 1-3, 5-6, 8-11, 13-14, 16-18, 20, 22-24, and 26 photo-document the surface conditions of the project area. A total of 69 shovel test units were used to examine the project area. Six test unit locations were disturbed while another 29 contained hydric/saturated soils. Ten locations were deemed wet soil locations at surface

and not tested. Another seven locations fell on the artificial embankment just north of Channingway Road. Some areas appeared to be disturbed by former trails for core drilling. Two test locations could not be accessed due to very dense brush and briar growth, and/or fallen tree debris.

Intact test units exhibited an A/Ap horizon that was typically a 10YR4/3 silt loam that generally ranged from 19cm to 36cm (7.4in to 14.1in) in thickness. The A/Ap horizon overlay a dark yellowish brown 10YR4/4 silt clay. Plates 28-29 show representative test units. No archaeological material was recovered from the test units.

Visual Area of Potential Effect Considerations

Archival research indicated no historic properties or resources are present inside the project area or immediately adjacent to the project. Buildings in view of the project along Channingway Drive are modern buildings

Conclusions and Recommendations

Professional **A**rchaeological **S**ervices **T**eam completed a Phase I Cultural Resource Management survey for the proposed Senior Village at the Valley Greene Housing Development in the City of Fairborn, Greene County, Ohio. The survey was conducted at the request of the St. Mary Development Corporation. The project was tested through the use of shovel test units, and visual inspection. Testing and examination of the project area identified no new archaeological sites.

Summary

To summarize, the results of the Phase I survey of the project enable PAST to conclude that no historic properties lie inside the direct APE or in the line of sight visual APE. No additional archaeological or historical investigation is warranted for the project area.

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Figures



Figure 1. Map of Ohio political boundaries showing the location of the project area.

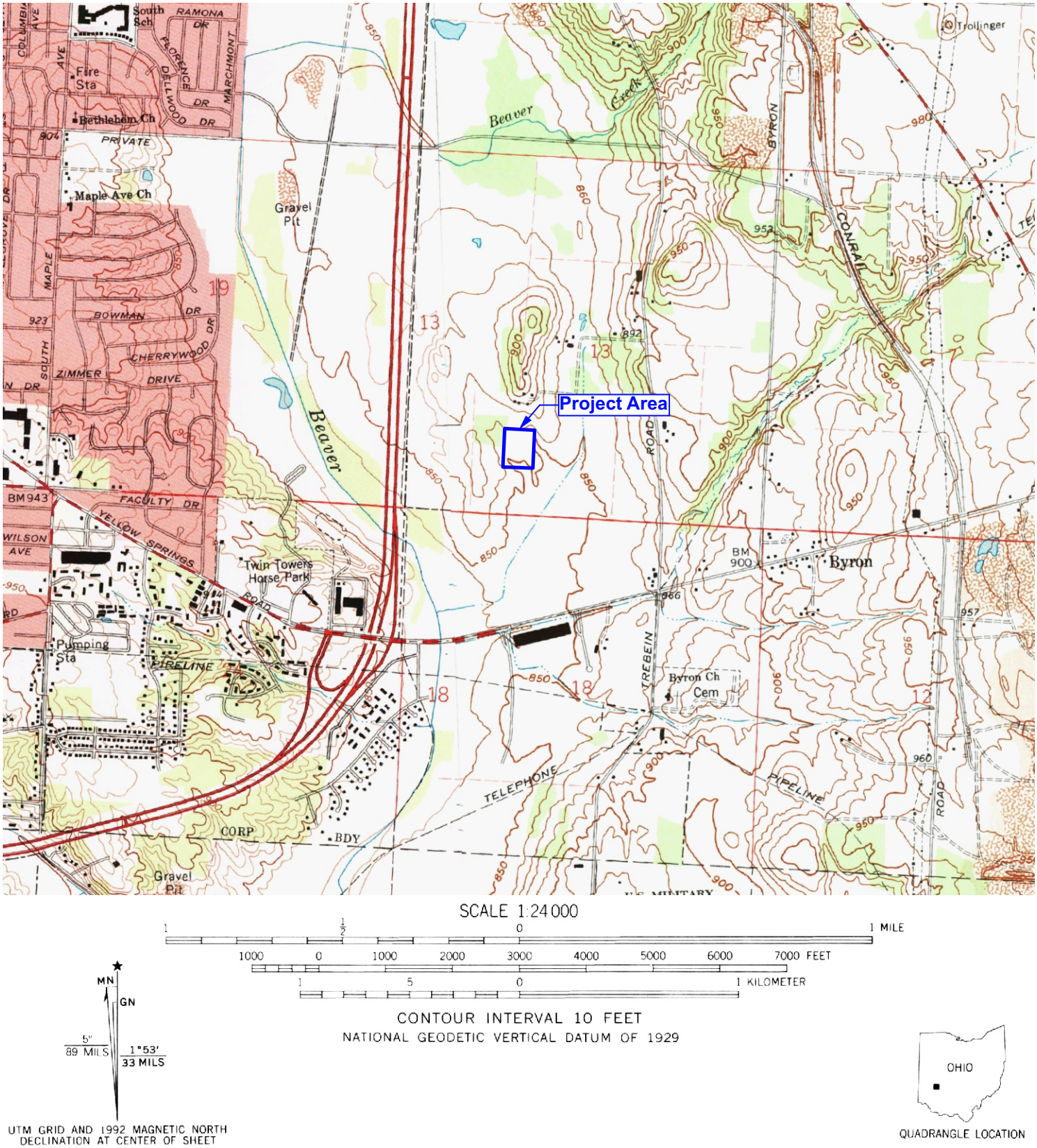
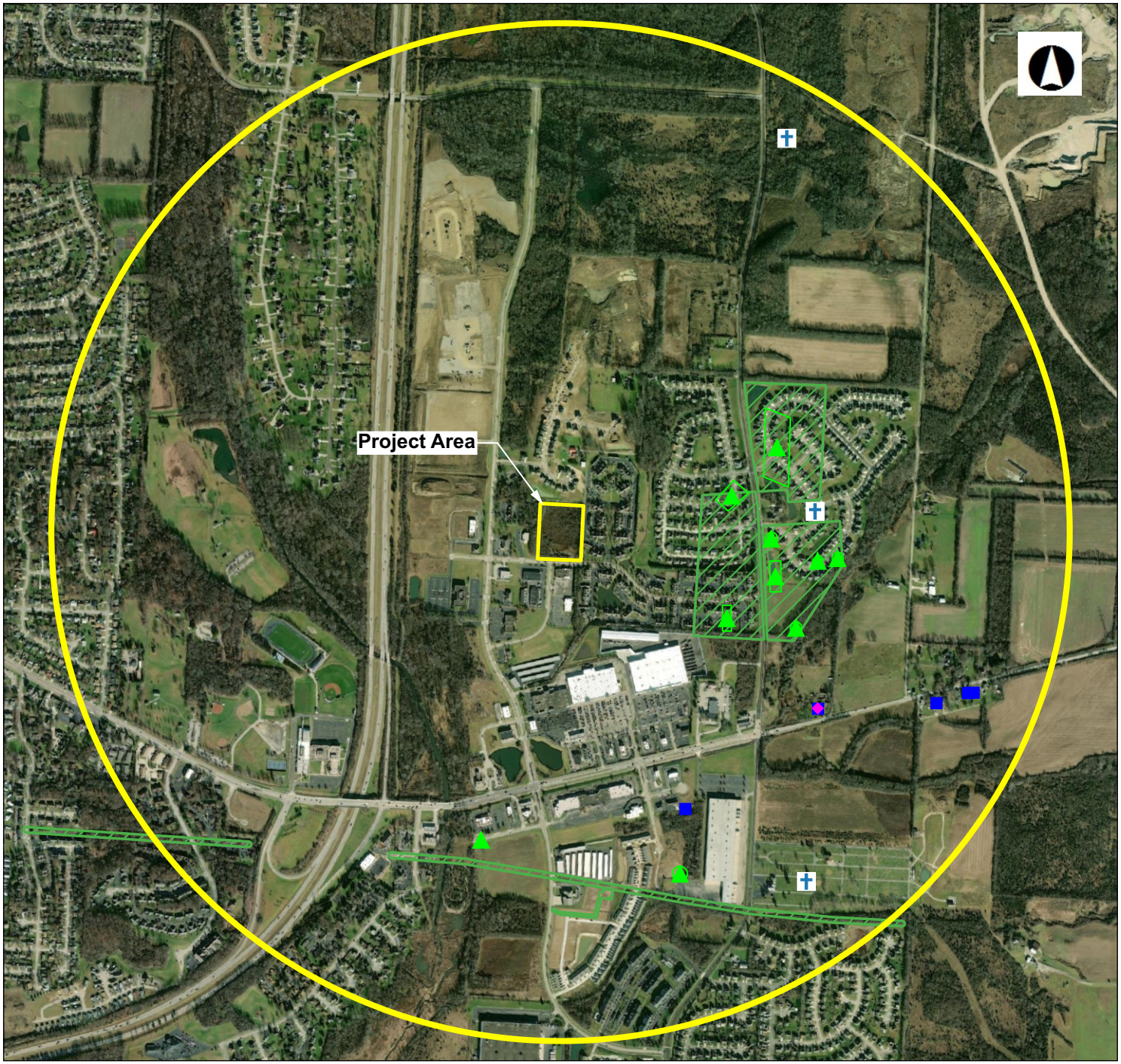


Figure 2. Portion of the USGS 1968 (Revised 1992) *Yellow Springs Quadrangle,* and 1965 (Revised 1992) *Fairborn Quadrangle Ohio, 7.5 Minute Series (Topographic)* maps showing the location of the project area.



OHIO HISTORY CONNECTION
State Historic Preservation Office

Legend

NR Listings
- Listed
- National Historic Landmark
- Delisted

Determinations of Eligibility
- DOE
- Demolished

- Archaeological Sites
- Historic Structures
- Historic Bridges

OGS Cemeteries
- Confident
- Not Confident

- NR Boundaries
- OAI Site Boundaries
- Phase1
- Phase2
- Phase3

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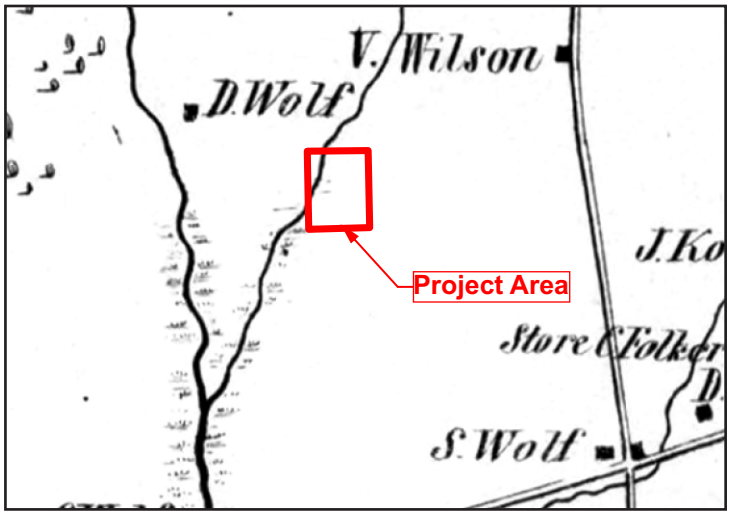
Figure 3. SHPO GIS map showing the project area and 1 mile study radius.



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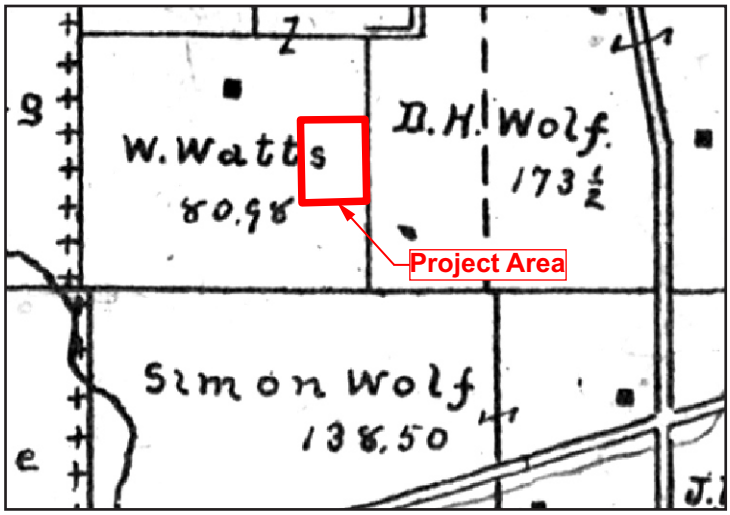

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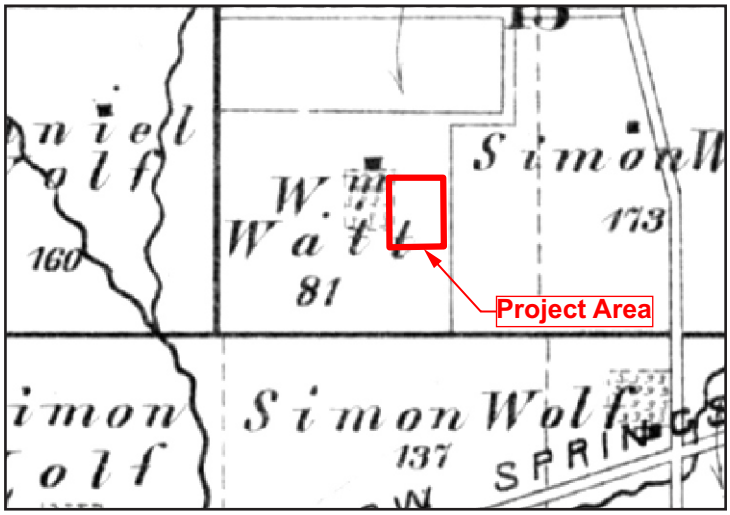

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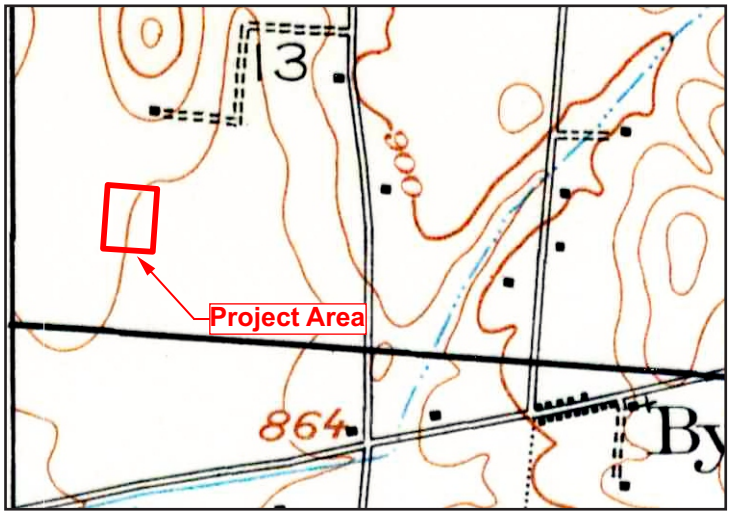

(d)

Figure 4. Portion of the (a) 1855 *Map of Greene County, Ohio* (Byles 1855), (b) *Combination Atlas Map of Greene County Ohio* (Everts 1874), (c) *Riddell's Greene County Atlas* (Riddell 1896), (d) 1904 *Springfield, Ohio 15 Minute Series (Topographic*) map showing the estimated location of the project area.



Figure 5. Aerial (2023) showing proposed project area, testing results and photo locations.

Plates



Plate 1. View of project area, facing north.



Plate 2. View of project area, facing northwest.



Plate 3. View of project area, facing west.



Plate 4. View of landscape to southeast of project area.



Plate 5. View of project area, facing northwest.



Plate 6. View of drainage ditch flanking south side of project area, facing west.



Plate 7. View of landscape to south of project area.



Plate 8. View of project area, facing north.



Plate 9. View of project area, facing east. Note buried utilities along Channingway Drive.



Plate 10. View of project area, facing northeast. Note ditch on right and artificial embankment and former trail.



Plate 11. View of project area, facing north. Note artificial embankment, former trail, and brush pile.



Plate 12. View of landscape to southwest of project area.



Plate 13. View of artificial embankment in southwest corner of project, facing southwest.



Plate 14. View of project area, facing east.



Plate 15. View of landscape to west of project area.



Plate 16. View of project area, facing south.



Plate 17. View of project area, facing southeast.



Plate 18. View of project area, facing east.



Plate 19. View of landscape to northwest of project area.



Plate 20. View of project area, facing south.



Plate 21. View of landscape to north of project area.



Plate 22. View of project area, facing west.



Plate 23. View of project area, facing southwest.



Plate 24. View of project area, facing south.



Plate 25. View of landscape to northeast of project area.



Plate 26. View of project area, facing west.



Plate 27. View of landscape east of project area.



Plate 28. View of test unit at 15W, 30N.



Plate 29. View of test unit at 45W, 30W.

In reply refer to:
2025-GRE-65128

July 28, 2025

Emailed by SHPO

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1160 Dublin Rd #100
Columbus, OH 43215

RE: Section 106 Review- Phase 1 CRM Survey, Senior Village at Valle Green, Greene County, Ohio

Dear Mr. Nagle:

This is in response to the report entitled, *Phase I Cultural Resource Management Survey of the 2.3ha (5.8a) Senior Village at the Valley Greene Housing Development in the City of Fairborn, Greene County, Ohio*, received on July 21, 2025. The comments of the State Historic Preservation Office (SHPO) are made in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended, and the associated regulations at 36 CFR Part 800. The U.S. Department of Housing and Urban Development is the federal agency for this undertaking.

The report documents efforts to identify archaeological resources within the area of potential effects for the Valley Greene Housing Development project. No archaeological sites were identified. The federal agency is responsible for the effect finding but based upon the information provided it is SHPO's opinion that a *No Historic Properties Affected* is appropriate for this undertaking. No further coordination is required unless the project changes or archaeological remains are discovered during the project.

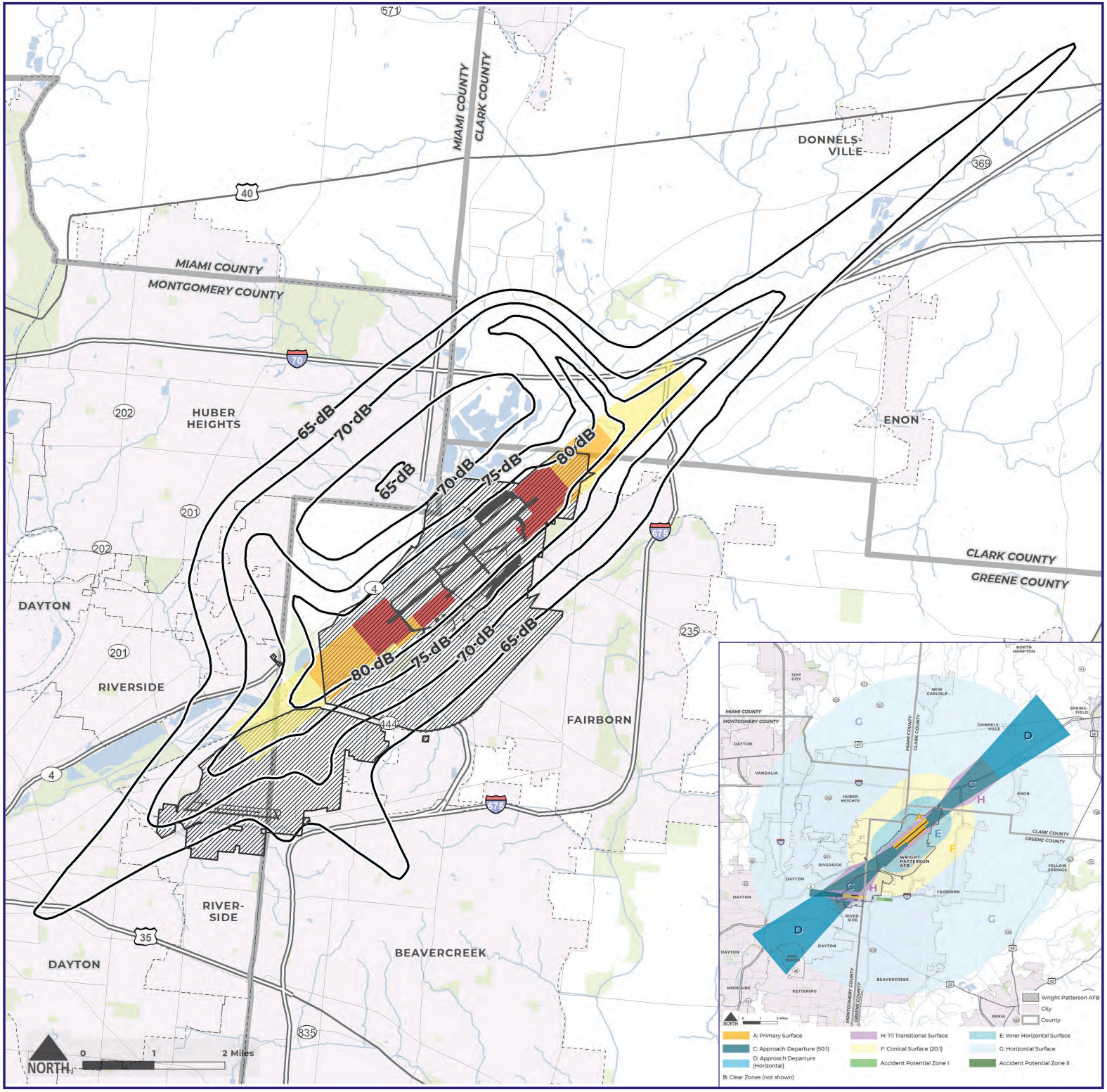
If you have any questions, please contact Thomas Grooms at tgrooms@ohiohistory.org. Thank you for your cooperation.

Sincerely,

Diana, Welling, State Historic Preservation Officer

Serial No. 1110016

APPENDIX M
NOISE



Clear Zone (CZ)
Accident Potential Zone I (APZ I)
Accident Potential Zone II (APZ II)

2022 AICUZ DNL Noise Contours

Wright Patterson AFB
City
County

WPAFB COMPOSITE AICUZ MAP

APPENDIX N
SOLE SOURCE AQUIFERS


Lamour Ln
Dickens Dr
Chaucer Way
Primrose Ln
Tearose Cir
Northgate Blv
Channingway Dr
Commerce Center Blvd
Successful Dr
Hemmingway
Grisham Ln
Steinbeck Way
Deagleway
Greene County GIS, Esri, HERE, Garmin, INCREMENT P, Intermap, NGA, USGS

APPENDIX O
WETLANDS PROTECTION

U.S. Fish and Wildlife Service
National Wetlands Inventory

Wetland Map



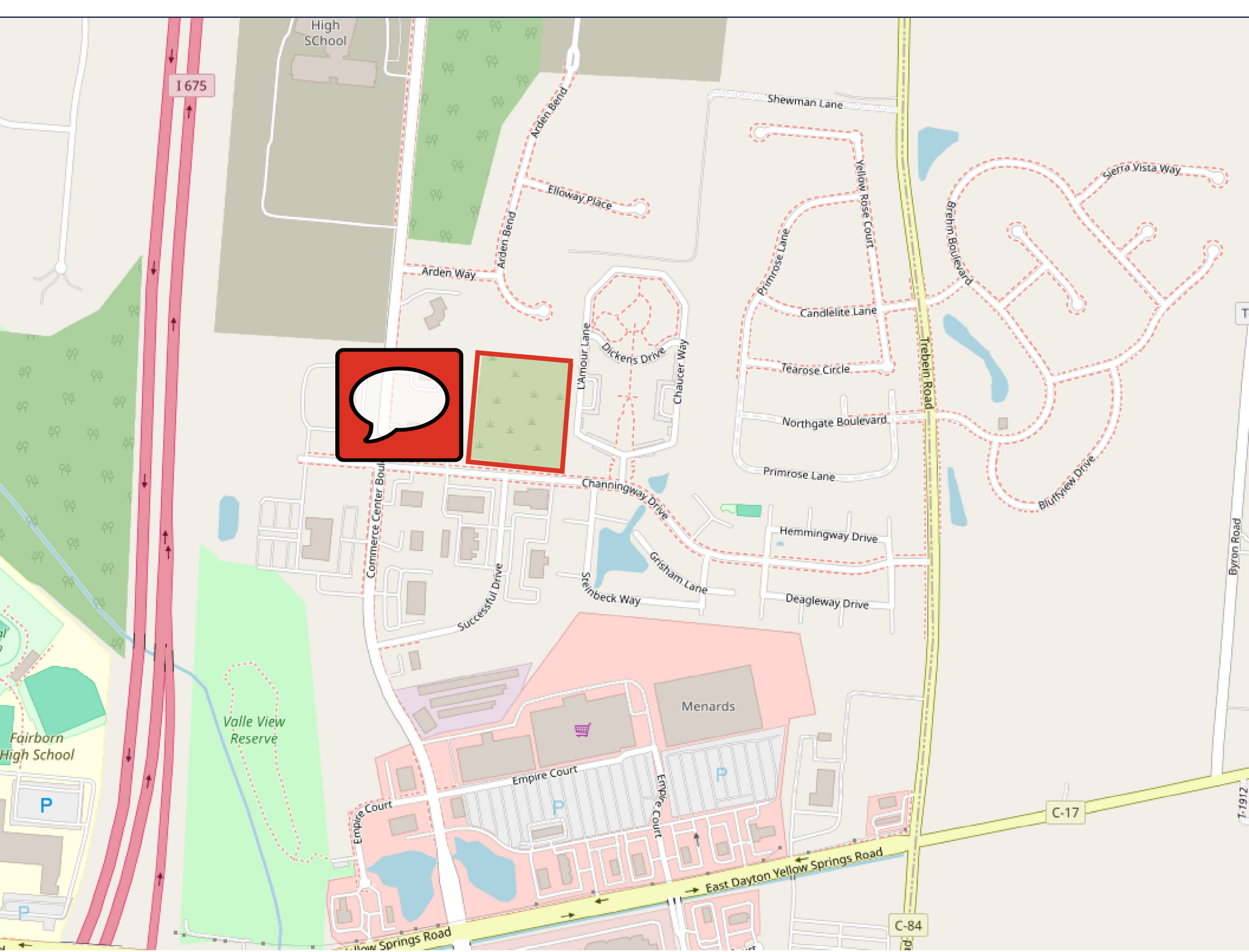
December 5, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

APPENDIX P
WILD AND SCENIC RIVERS


High SChool
I 675
Shewman Lane
Arden Bend
Elloway Place
Arden Bend
Arden Way
Yellow Rose Court
Primrose Lane
Brehm Boulevard
Sierra Vista Way
Candlelite Lane
L'Amour Lane
Dickens Drive
Chaucer Way
Trebein Road
Tearose Circle
Northgate Boulevard
Primrose Lane
Bluffview Drive
Channingway Drive
Commerce Center Boul
Hemmingway Drive
Grisham Lane
Steinbeck Way
Successful Drive
Deagleway Drive
Byron Road
Menards
Valle View Reserve
Fairborn High School
Empire Court
Empire Court
Empire Court
C-17
East Dayton Yellow Springs Road
C-84
Yellow Springs Road

APPENDIX Q
ZONING

FAIRBORN
A CITY IN MOTION

City of Fairborn
44 W. Hebble Avenue
Fairborn, OH 45324
p: 937.754.3056
f: 937.754.3051

Kathleen Riggs
Development Services Department
Kathleen.riggs@fairbornoh.gov

February 27, 2024

Robert M. McCann
Chief Financial Officer
Oberer Companies
3445 Newmark Drive
Miamisburg, Ohio 45342

Re: Senior Village at Valle Greene
Parcel # A02000200470000500

Dear Mr. McCann:

This letter is to confirm the current zoning for the above referenced parcel is Planned Unit Development. The plan which was approved by the City of Fairborn Resolution 10-24 included up to 72 multi-family units for a 55 and older residential community.

If you have any questions or need any additional information, then please do not hesitate to contact me.

Sincerely,

Kathleen Riggs
City Planner

Attachments: Resolution 10-24

RESOLUTION NO. 10-24

AUTHORIZING THE APPROVAL OF THE PRELIMINARY PLANNED UNIT DEVELOPMENT PLAN TO ESTABLISH A SENIOR VILLAGE ON PARCEL NO. A02000200470000500.

WHEREAS, the City is seeking approval of a Preliminary Planned Unit Development (PUD) on approximately 6 acres located at 1185 Channingway Dr. (Parcel No. A02000200470000500); and

WHEREAS, the Preliminary PUD Plan would comprise a residential community of up to 72 multi-family units for persons 55 and older; and

WHEREAS, the approval of these plans by the Planning Board are conditioned upon several factors enumerated below; and

WHEREAS, based on the required standards listed in the City of Fairborn Codified Ordinances, the Planning Board, by a vote of 6-0, recommended approval of the Preliminary PUD Plan at their meeting held on February 13, 2024; and

WHEREAS, Staff recommends approval of the Preliminary PUD Plan with the conditions set forth herein.

NOW, THEREFORE, THE COUNCIL OF THE CITY OF FAIRBORN HEREBY RESOLVES:

SECTION 1. That the recommendation of the Planning Board to approve the Preliminary PUD Plan of approximately 6 acres located at 1185 Channingway Dr. (Parcel No. A02000200470000500) in a PUD Zoning District with the following conditions is accepted:

1) All access roads, private drives, water supply lines, and fire hydrants located on and associated with the site shall be in accordance with the Ohio Fire Code as approved by the Fire Chief and the City Engineer.

2) The approach drive to the development shall incorporate the best alignment with Successful Dr. as approved by the City Engineer.

3) The community shall be intended for and solely occupied by persons aged fifty–five (55) and older, as governed by all applicable State and Federal regulations pertaining to said types of housing for older persons.

4) The final elevations shall include brick/stone and multiple styles of siding with the final site plan submitted in the Final Planned Unit Development Plan application process in accordance with Fairborn Codified Ordinances.

5) Two (2) durable Mylar copies of the approved document shall be submitted to the City for signatures: both copies shall be signed and subsequently stamped as recorded within nine (9) months of City Council approval and one (1) Mylar copy shall be returned to the City of Fairborn's Engineering Division.

SECTION 2. That the City Manager be and he is hereby authorized to approve the Preliminary PUD Plan of approximately 6 acres located at 1185 Channingway Dr. (Parcel No. A02000200470000500) in a PUD Zoning District with the above-stated conditions.

SECTION 3. It is hereby found and determined that all formal actions of this Council concerning and relating to the adoption of this Resolution were adopted in an open meeting of this Council, and that any and all deliberations of this Council and any of its committees that resulted in such formal action were in meetings open to the public, in compliance with all legal requirements, including, but not limited to Section 121.22 of the Ohio Revised Code.

SECTION 4. That this Resolution shall take effect immediately upon its passage.

MAYOR

PASSED: FEB 19 2024

EFFECTIVE: FEB 19 2024

ATTEST:

CLERK, CITY OF FAIRBORN, OHIO

MICHAEL MCNAMEE
CITY SOLICITOR
CITY OF FAIRBORN

APPENDIX R
ARCHITECTURAL PLAN SET

New Multi-Family Building:

Senior Village at Valle Greene

1155 Channingway Drive
Fairborn, Ohio 45324

OHFA Tracking Number: 24-0087

DEVELOPMENT TEAM

LEAD DEVELOPER:

St. Mary Development Corporation

2160 E. Fifth Street
Dayton, Ohio 45430

CO-DEVELOPER:

OBERER COMPANIES

3445 Newmark Drive
Miamisburg, Ohio 45342

DESIGN TEAM

ARCHITECT:

RDA GROUP ARCHITECTS
7662 PARAGON ROAD | DAYTON, OH 45459 | 937.610.3440

CIVIL ENGINEER:

Choice One Engineering

8956 Glendale Milford Rd. Suite 1 Loveland, OH 45140

LEED CONSULTANT:

Sol Design and Consulting

501 E. 13th Street Cincinnati, OH 45202

GEOTECHNICAL ENGINEER:

Alt & Witzig Engineering, Inc.

1825 O'Brien Road Columbus, OH 43228

PME ENGINEER:

E2M CONSULTING ENGINEERING
682 TUXEDO PLACE
CINCINNATI, OH 45206
TEL: 513.597.0650
www.e2m-eng.com

STRUCTURAL ENGINEER:

New Millennium Building Engineers, LLC

3146 Mount Carmel Road
Cincinnati, OH 45244 513-258-8050

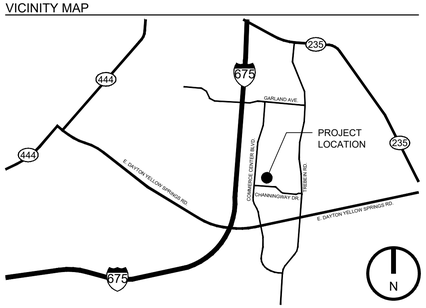
PROJECT SUMMARY

PROJECT CONSISTS OF CONSTRUCTION OF A NEW 2-STORY MULTI-FAMILY BUILDING LOCATED IN FAIRBORN OHIO. PROJECT CONSISTS OF 70 UNITS AND ASSOCIATED COMMON, CIRCULATION, AND SUPPORT SPACES.

THE PROJECT IS SUBJECT TO THE FOLLOWING STANDARDS AND REQUIREMENTS ALL CONTRACTORS WILL BE RESPONSIBLE FOR ENSURING ALL EQUIPMENT, MATERIALS, METHODS OF INSTALLATION, CONSTRUCTION PRACTICES, ETC. USED THROUGHOUT THE PROJECT WILL MEET OR EXCEED THE CRITERIA AND/OR REQUIREMENTS LISTED WITHIN THE DOCUMENTS

1. 2024 OHIO BUILDING CODE [OBC]
2. 2024 OHIO MECHANICAL CODE [OMC]
3. 2024 OHIO PLUMBING CODE [OPC]
4. 2017 OHIO FIRE CODE [OFC]
5. 2023 OHIO ELECTRICAL CODE [OEC]
6. 2017 NATIONAL ELECTRIC CODE [NEC]
7. 2021 IECC AND ASHRAE STANDARD 90.1-2010
8. OHIO ENERGY CODE 2021
9. ICC A117.1-2017 [ACCESSIBILITY SAFE HARBOR]
10. CITY OF FAIRBORN ZONING CODE
11. OHFA FUNDING REQUIREMENTS INCLUDING BUT NOT LIMITED TO THE DESIGN AND CONSTRUCTION FEATURE FORM INCLUDED HEREIN.
12. U.S. GREEN BUILDING COUNCIL REQUIREMENTS TO ACHIEVE SILVER LEVEL LEED CERTIFICATION UNDER THE LEED BD+C HOMES AND MULTIFAMILY LOW-RISE RATING SYSTEM, INCLUDING BUT NOT LIMITED TO SUSTAINABILITY, LEED, AND ENERGY STAR CRITERIA INCLUDED HEREIN WHICH IS SUBJECT TO 3RD PARTY COMPLIANCE VERIFICATION.

VICINITY MAP



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CODE REVIEW

CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION
310.3: R-2

CHAPTER 4: SPECIAL DETAILED REQUIREMENTS BASED ON USE / OCCUPANCY
SECTION 420 GROUP R-2
420.2 SEPARATION WALLS: WALLS SEPARATING DWELLING UNITS / SLEEPING UNITS AND WALLS SEPARATING DWELLING OR SLEEPING UNITS FROM OTHER OCCUPANCIES SHALL BE CONSTRUCTED AS FIRE PARTITIONS PER SECTION 708.
420.3 HORIZONTAL SEPARATION: FLOOR ASSEMBLIES SEPARATING DWELLING UNITS / SLEEPING UNITS IN THE SAME BUILDING AND FLOOR ASSEMBLIES SEPARATING DWELLING OR SLEEPING UNITS FROM OTHER OCCUPANCIES SHALL BE CONSTRUCTED AS HORIZONTAL ASSEMBLIES PER SECTION 711.
420.4 AUTOMATIC SPRINKLER SYSTEM: AUTOMATIC SPRINKLER SYSTEM THROUGHOUT PER SECTION 903.2.8.
420.5 FIRE ALARM SYSTEMS AND SMOKE ALARMS: FIRE ALARM SYSTEMS AND SMOKE ALARMS PER SECTIONS 907.2.6, 907.2.8 AND 907.2.9. SINGLE- OR MULTIPLE-STATION SMOKE ALARMS SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 907.2.11.

CHAPTER 5: GENERAL BUILDING HEIGHT AND AREA
TABLE 504.3: ALLOWABLE HEIGHT:
USE 'R', S13R, TYPE VA = 60' ALLOWABLE / 32' ACTUAL
TABLE 505.4: ALLOWABLE STORIES:
USE 'R', S13R, TYPE VA = 4 STORY ALLOWABLE / 2 STORY ACTUAL
TABLE 506.2: ALLOWABLE AREA:
USE 'R-2', S13R, TYPE VA =12,000SF
+ 9,000 SF INCREASE = 21,000 SF ALLOWABLE
FIRE AREA 'A' = 18,000 ACTUAL
FIRE AREA 'B' = 9,096 ACTUAL
FIRE AREA 'C' = 9,096 ACTUAL
TABLE 506.3.3: FRONTAGE INCREASE - FIRE AREA 'A' ONLY
ACTUAL 626' OPEN / 782' OVERALL PERIMETER = 80% OPEN PERIMETER.
FRONTAGE INCREASE FACTOR = .75
12,000 + [12,000 x 0.75] = 21,000 SF
508.2: ACCESSORY OCCUPANCIES [REFER TO CODE REVIEW PLANS]
AGGREGATE SHALL NOT EXCEED 10% OF THE FLOOR AREA [3,619 SF MAX]
FITNESS ROOM [EXERCISE] 462 SF [B USE - UNDER 50 OCCUPANTS]
OFFICE = 688 SF [B USE]
COMMUNITY ROOM = 1,216 [A USE] UN-CONCENTRATED TABLES AND CHAIRS
508.2.4 NO SEPARATION IS REQUIRED BETWEEN ACCESSORY OCCUPANCIES AND THE MAIN OCCUPANCY- EXCEPTION 2: R-2 SHALL BE SEPARATED FROM DWELLING UNITS AND ACCESSORY USES PER SECTION 420
508.4.4.1 R REQUIRED SEPARATIONS SHALL BE FIRE BARRIERS PER SECTION 707 OR HORIZONTAL ASSEMBLIES PER SECTION 711, OR BOTH
509: INCIDENTAL USE AREAS - ELECTRICAL INSTALLATIONS AND TRANSFORMERS PER SECTIONS 110.26 THROUGH 110.34 AND SECTIONS 450.8 THROUGH 450.48 OF NFPA 70

CHAPTER 6: TYPES OF CONSTRUCTION
TABLE 601:
PRIMARY STRUCTURAL FRAME = 1 HOUR
EXTERIOR BEARING WALLS = 1 HOUR
INTERIOR BEARING WALLS = 1 HOUR
NON-BEARING WALLS = 0 HOUR
FLOOR CONSTRUCTION = 1 HOUR
ROOF CONSTRUCTION = 1 HOUR
602.5.: CONSTRUCTION TYPE VA

CHAPTER 7: FIRE-RESISTANCE RATED CONSTRUCTION
706.1FIRE WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTIONS 706.2 THROUGH 706.11. THE EXTENT AND LOCATION OF SUCH FIRE WALLS SHALL PROVIDE A COMPLETE SEPARATION. WHERE A FIRE WALL SEPARATES OCCUPANCIES THAT ARE REQUIRED TO BE SEPARATED BY A FIRE BARRIER WALL, THE MOST RESTRICTIVE REQUIREMENTS OF EACH SEPARATION SHALL APPLY
TABLE 706.4 NOTE (a) IN TYPE V CONSTRUCTION, FIRE WALL FIRE RESISTANCE RATING OF 2 HOURS IS PERMITTED
713.4 1 HOUR SHAFT ENCLOSURES REQUIRED [LESS THAN 4 STORIES]
713.7 OPENINGS IN A SHAFT ENCLOSURE SHALL BE PROTECTED PER SECTION 716 AS REQUIRED FOR FIRE BARRIERS. DOORS SHALL BE SELF- OR AUTOMATIC-CLOSING BY SMOKE DETECTION PER SECTION 716.2.6.6.

718.2 IN COMBUSTIBLE CONSTRUCTION, FIREBLOCKING SHALL BE INSTALLED TO CUT OFF CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND SHALL FORM AN EFFECTIVE BARRIER BETWEEN FLOORS, BETWEEN A TOP STORY AND A ROOF OR ATTIC SPACE.
718.2.1 FIREBLOCKING SHALL CONSIST OF THE FOLLOWING MATERIALS:
1. TWO INCH NOMINAL LUMBER.
2. TWO THICKNESSES OF 1-INCH NOMINAL LUMBER WITH BROKEN LAP JOINTS.
3. ONE THICKNESS OF 0.719-INCH WOOD STRUCTURAL PANELS WITH JOINTS BACKED BY 0.719-INCH WOOD STRUCTURAL PANELS.
4. ONE THICKNESS OF 0.75-INCH PARTICLE BOARD WITH JOINTS BACKED BY 0.75-INCH PARTICLE BOARD.
5. ONE-HALF-INCH GYPSUM BOARD.
6. ONE-FOURTH-INCH CEMENT-BASED MILLBOARD.
7. BATTS OR BLANKETS OF MINERAL WOOL, MINERAL FIBER OR OTHER APPROVED MATERIALS INSTALLED IN SUCH A MANNER AS TO BE SECURELY RETAINED IN PLACE.
8. CELLULOSE INSULATION TESTED IN THE FORM AND MANNER INTENDED FOR USE TO DEMONSTRATE ITS ABILITY TO REMAIN IN PLACE AND TO RETARD THE SPREAD OF FIRE AND HOT GASES.
9. MASS TIMBER COMPLYING WITH SECTION 2304.11.
718.4 DRAFT STOPPING SHALL BE INSTALLED TO SUBDIVIDE ATTIC SPACES WHERE REQUIRED BY SECTION 708.4.2. IN OTHER THAN GROUP R, DRAFTSTOPPING SHALL BE INSTALLED TO SUBDIVIDE COMBUSTIBLE ATTIC SPACES AND COMBUSTIBLE CONCEALED ROOF SPACES SUCH THAT ANY HORIZONTAL AREA DOES NOT EXCEED 3,000 SQUARE FEET. VENTILATION OF CONCEALED ROOF SPACES SHALL BE MAINTAINED IN ACCORDANCE WITH SECTION 1202.2.1. EXCEPTION: BUILDINGS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1.

CHAPTER 8: INTERIOR FINISHES
803.1.1: INTERIOR WALL AND CEILING FINISH MATERIALS
CLASS A = FLAME SPREAD INDEX 0-25, SMOKE DEVELOPED INDEX 0-450
CLASS B = FLAME SPREAD INDEX 26-75, SMOKE DEVELOPED INDEX 0-450
CLASS C = FLAME SPREAD INDEX 76-200, SMOKE DEVELOPED INDEX 0-450
TABLE 803.13: INTERIOR WALL AND CEILING FINISH REQUIREMENTS

USE	R
EXIT ENCLOSURES & PASSAGE'S:	C
CORRIDORS:	C
ROOMS AND ENCLOSED SPACES:	C

804.4.2: FLOOR FINISH - MINIMUM CRITICAL RADIANT FLUX
USE GROUP R-2, S = CLASS II

CHAPTER 9: FIRE PROTECTION SYSTEMS
903.2.8 AN AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION 903.3 SHALL BE PROVIDED THROUGHOUT ALL BUILDINGS WITH A GROUP R FIRE AREA.
903.2.11.1 STORIES WITHOUT OPENINGS: AUTOMATIC SPRINKLER SYSTEM REQUIRED
903.3.1.1 SPRINKLERS SHALL BE INSTALLED THROUGHOUT IN ACCORDANCE WITH NFPA 13 .
905.3.1: STANDPIPE SYSTEM - REQUIRED: EXCEPTION 1: CLASS 1 PERMITTED
906: PORTABLE FIRE EXTINGUISHERS IN ACCORDANCE WITH FIRE CODE AND LOCAL FIRE DEPARTMENT
907.2.9.1 MANUAL FIRE ALARM SYSTEM THAT ACTIVATES THE OCCUPANT NOTIFICATION SYSTEM PER SECTION 907.5 REQUIRED EXCEPTION 2: MANUAL FIRE ALARM BOXES ARE NOT REQUIRED WHERE THE BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION 903.3.1.1 OR 903.3.1.2 AND THE OCCUPANT NOTIFICATION APPLIANCES WILL AUTOMATICALLY ACTIVATE THROUGHOUT THE NOTIFICATION ZONES UPON A SPRINKLER WATER FLOW.
907.2.11.2 SINGLE- OR MULTIPLE-STATION SMOKE ALARMS SHALL BE INSTALLED AND MAINTAINED AT ALL OF THE FOLLOWING LOCATIONS IN R-2:
1. ON THE CEILING OR WALL OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF BEDROOMS.
2. IN EACH ROOM USED FOR SLEEPING PURPOSES.
907.2.11.5 INTERCONNECTION: WHERE MORE THAN ONE SMOKE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING UNIT THE SMOKE ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT. PHYSICAL INTERCONNECTION OF SMOKE ALARMS SHALL NOT BE REQUIRED WHERE LISTED WIRELESS ALARMS ARE INSTALLED AND ALL ALARMS SOUND UPON ACTIVATION OF ONE ALARM. THE ALARM SHALL BE CLEARLY AUDIBLE IN ALL BEDROOMS OVER BACKGROUND NOISE LEVELS WITH ALL INTERVENING DOORS CLOSED.
907.2.11.7 SMOKE DETECTORS LISTED IN ACCORDANCE WITH UL 268 AND PROVIDED AS PART OF THE BUILDING FIRE ALARM SYSTEM SHALL BE AN ACCEPTABLE ALTERNATIVE TO SINGLE- AND MULTIPLE-STATION SMOKE ALARMS AND SHALL COMPLY WITH THE FOLLOWING:
1. THE FIRE ALARM SYSTEM SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS IN SECTION 907.
2. ACTIVATION OF A SMOKE DETECTOR IN A DWELLING UNIT OR SLEEPING UNIT SHALL INITIATE ALARM NOTIFICATION IN THE DWELLING UNIT OR SLEEPING UNIT IN ACCORDANCE WITH SECTION 907.5.2.
3. ACTIVATION OF A SMOKE DETECTOR IN A DWELLING UNIT OR SLEEPING UNIT SHALL NOT ACTIVATE ALARM NOTIFICATION APPLIANCES OUTSIDE OF THE DWELLING UNIT OR SLEEPING UNIT, PROVIDED THAT A SUPERVISORY SIGNAL IS GENERATED AND MONITORED PER SECTION 907.6.6.

CHAPTER 10: MEANS OF EGRESS - REFER TO CODE REVIEW PLANS
TABLE 1004.1.2: REFER TO CODE REVIEW FLOOR PLANS FOR OCCUPANT LOAD
TABLE 1004.5: REFER TO CODE REVIEW FLOOR PLANS FOR CALCULATIONS
1005.3 REQUIRED CAPACITY BASED ON OCCUPANT LOAD:
1005.3.1: STAIRWAYS .3" / OCCUPANT
1005.3.2: OTHER EGRESS COMPONENTS .2" / OCCUPANT
TABLE 1006.2.1: SPACES WITH 1 EXIT OR 1 EXIT ACCESS DOORWAY
"A": 49 MAX OCC / 75' MAX COMMON PATH OF EGRESS TRAVEL DIST.
"B": 49 MAX OCC / 100' " "
"R": 20 MAX OCC / 125' " "
REFER TO CODE REVIEW PLANS
1006.2.2.4 THE LOCATION AND NUMBER OF EXIT OR EXIT ACCESS DOORWAYS SHALL BE PROVIDED FOR ELECTRICAL ROOMS IN ACCORDANCE WITH SECTION 110.26 OF NFPA 70 FOR ELECTRICAL EQUIPMENT RATED 1,000 VOLTS OR LESS, AND SECTION 110.33 OF NFPA 70 FOR ELECTRICAL EQUIPMENT RATED OVER 1,000 VOLTS. PANIC HARDWARE SHALL BE PROVIDED WHERE REQUIRED IN ACCORDANCE WITH SECTION 1010.2.9.2.
TABLE 1006.3.3: MIN. NUMBER OF EXITS OR ACCESS TO EXITS PER STORY
1-500 OCCUPANTS = 2
1009.1 ACCESSIBLE MEANS OF EGRESS REQUIRED
1009.3.2 STAIRWAY WIDTH EXCEPTION: THE CLEAR WIDTH OF 48 INCHES BETWEEN HANDRAILS IS NOT REQUIRED IN BUILDINGS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM PER 903.3.1.1 OR 903.3.1.2.
1009.3.3 AREA OF REFUGE EXCEPTION 2:AREAS OF REFUGE ARE NOT REQUIRED AT STAIRWAYS IN BUILDINGS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM PER 903.3.1.1 OR 903.3.1.2.
1010.1.1 SIZE OF DOORS: MINIMUM CLEAR OPENING WIDTH OF 32 INCHES MEASURED BETWEEN THE FACE OF THE DOOR AND THE STOP, WITH THE DOOR OPEN 90 DEGREES
1010.1.2.1 SIDE-HINGED SWINGING DOORS SHALL SWING IN THE DIRECTION OF EGRESS TRAVEL WHERE SERVING A ROOM OR AREA CONTAINING AN OCCUPANT LOAD OF 50 OR MORE PERSONS.
1011.2 THE REQUIRED CAPACITY OF STAIRWAYS SHALL BE PER 1005.1, BUT THE MINIMUM WIDTH SHALL BE NOT LESS THAN 44 INCHES
1012.5.1THE MINIMUM WIDTH AND REQUIRED CAPACITY OF A MEANS OF EGRESS RAMP SHALL BE NOT LESS THAN THAT REQUIRED FOR CORRIDORS BY SECTION 1020.3. THE CLEAR WIDTH OF A RAMP BETWEEN HANDRAILS, IF PROVIDED, OR OTHER PERMISSIBLE PROJECTIONS SHALL BE 36 INCHES
TABLE 1017.2: EXIT ACCESS TRAVEL DISTANCE:
'R' USE W/ SPRINKLER = 250' ALLOWABLE
ACTUAL TRAVEL DISTANCE - REFER TO CODE REVIEW PLANS
1020.2 CORRIDORS SHALL BE FIRE-RESISTANCE RATED PER TABLE 1020.2. THE CORRIDOR WALLS REQUIRED TO BE FIRE-RESISTANCE RATED SHALL COMPLY WITH SECTION 708 FOR FIRE PARTITIONS.
TABLE 1020.2: CORRIDOR FIRE RESISTANCE RATING W/ SPRINKLER SYST.
'R' GREATER THAN 10 OCCUPANTS = .5 HR
1020.2.1 ELEVATOR HOISTWAY OPENINGS SHALL BE PROTECTED PER 3006.2.1.
TABLE 1020.3 MIN. CORRIDOR WIDTH = 44", WITHIN DWELLING UNIT = 36"
1020.5 EXCEPTION 2: R-2: WHERE THE BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM PER SECTION 903.3.1.1, THE LENGTH OF THE DEAD-END CORRIDORS SHALL NOT EXCEED 50 FEET
SECTION 1031 EMERGENCY ESCAPE AND RESCUE NOT REQUIRED

CHAPTER 11: ACCESSIBILITY
SAFE HARBOR - ANSI ICC A117.1-2017
1104.1: ACCESSIBLE ROUTE PROVIDED TO ALL ENTRANCES.
1105.1: ACCESSIBLE ENTRANCES PROVIDED
1108.2 DWELLING UNITS AND SLEEPING UNITS THAT ARE REQUIRED TO BE ACCESSIBLE UNITS, TYPE A UNITS AND TYPE B UNITS SHALL COMPLY WITH THE APPLICABLE PORTIONS OF CHAPTER 11 OF ICC A117.1.
1108.6.2.2.1 IN GROUP R-2 OCCUPANCIES CONTAINING MORE THAN 20 DWELLING UNITS OR SLEEPING UNITS, AT LEAST 2 PERCENT OF THE UNITS SHALL BE A TYPE A UNIT. TYPE A UNITS SHALL BE DISPERSED AMONG THE VARIOUS CLASSES OF UNITS.
1110.2: ACCESSIBLE TOILET ROOMS PROVIDED.
1110.8 PASSENGER ELEVATORS ON AN ACCESSIBLE ROUTE SHALL BE ACCESSIBLE AND COMPLY WITH CHAPTER 30
1112.: ACCESSIBLE SIGNAGE - PROVIDED FOR TOILET ROOMS, AND OTHER AREAS REQUIRED BY ANSI/ADAAG.

CHAPTER 16: STRUCTURAL DESIGN
TABLE 1607.1: LIVE LOADS
CORRIDORS [1ST FLOOR] = 100 PSF
OFFICES = 50 PSF
STAIRS AND EXITS = 100 PSF
PRIVATE ROOMS AND CORRIDORS = 40 PSF
PUBLIC ROOMS AND CORRIDORS = 100 PSF
STORAGE = 125 PSF

CHAPTER 17: SPECIAL INSPECTIONS
STATEMENT OF SPECIAL INSPECTIONS - REFER TO FORM

CHAPTER 29: PLUMBING SYSTEMS - REFER TO CODE REVIEW PLAN / MATRIX FOR FIXTURE REQUIREMENTS / COUNTS BASED ON TABLE 2902.1
2902.2 SEPARATE FACILITIES SHALL BE PROVIDED FOR EACH SEX. EXCEPTIONS:
1.SEPARATE FACILITIES SHALL NOT BE REQUIRED FOR DWELLING UNITS.

CHAPTER 30: ELEVATORS
3001.2 AN ELEVATOR EMERGENCY TWO-WAY COMMUNICATION SYSTEM IS TO BE PROVIDED THAT INCLUDES BOTH VISUAL AND AUDIBLE COMMUNICATION MODES COMPLYING WITH THE REQUIREMENTS OF ASME A17.1/CSA B44.
3002.4 ONE ELEVATOR SHALL IS BEING PROVIDED FOR FIRE DEPARTMENT EMERGENCY ACCESS TO ALL FLOORS. THE ELEVATOR CAR SHALL BE OF SUCH A SIZE AND ARRANGEMENT TO ACCOMMODATE AN AMBULANCE STRETCHER 24 INCHES BY 84 INCHES WITH NOT LESS THAN 5-INCH RADIUS CORNERS, IN THE HORIZONTAL, OPEN POSITION AND SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL FOR EMERGENCY MEDICAL SERVICES. THE SYMBOL SHALL BE NOT LESS THAN 3 INCHES IN HEIGHT AND SHALL BE PLACED INSIDE ON BOTH SIDES OF THE HOISTWAY DOOR FRAME.
3006.3 ENCLOSED ELEVATOR LOBBIES ARE NOT REQUIRED

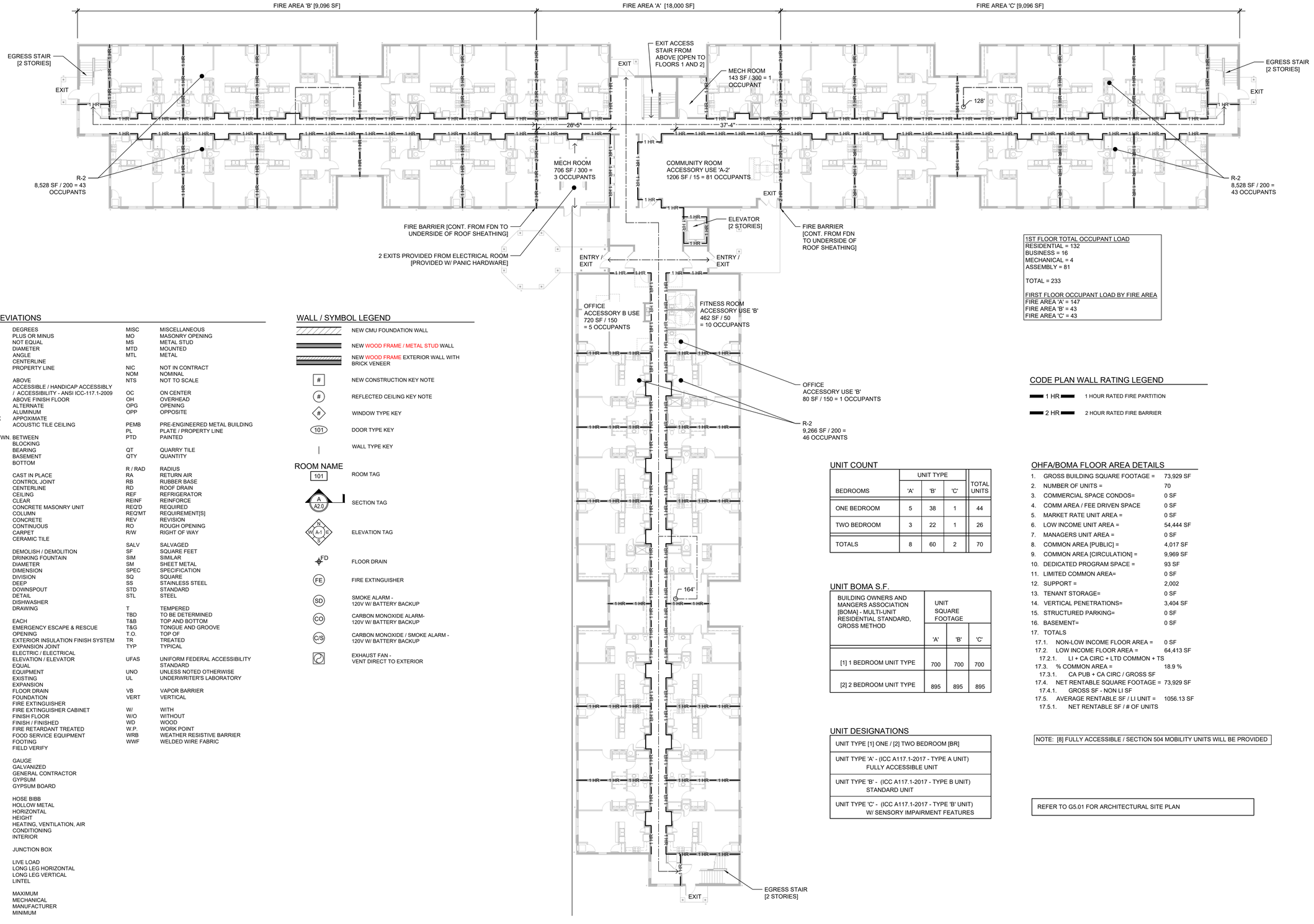
CONTRACT ADMINISTRATION

1. RDA IS PROVIDING CONTRACT ADMINISTRATION SERVICES FOR THIS PROJECT. CONTRACTOR AND CLIENT / OWNER ARE RESPONSIBLE TO COORDINATE THE PROPOSED WORK, SCHEDULES, INSTALLATIONS, PERMITS, INSPECTIONS, ETC.
2. CONTACT ARCHITECT FOR CLARIFICATION SHOULD THERE BE QUESTIONS REGARDING THE INTERPRETATION OR INTENT OF THE DOCUMENTS, FIELD DISCOVERY, ETC. THAT WOULD IMPACT OR AFFECT THE WORK AS PROPOSED. RDA IS NOT BE LIABLE FOR DEVIATIONS, FIELD CHANGES, AND CLIENT / OWNER CHANGES DURING CONSTRUCTION.
3. FIELD CONFIRM ALL EXISTING CONDITIONS, PROPOSED INSTALLATIONS AND HOW THEY INTERFACE TO ENSURE THE SYSTEMS CAN BE INSTALLED PER THE INTENT OF THE DOCUMENTS AND TO MEET APPLICABLE BUILDING AND ZONING CODES, LOCAL REQUIREMENTS, CLIENT / OWNER REQUIREMENTS, ETC.
4. MEET ALL APPLICABLE BUILDING AND ZONING CODES REQUIREMENTS WHETHER SPECIFICALLY NOTED HEREIN OR NOT. BUILDING CODES REPRESENT THE MINIMUM ACCEPTABLE STANDARD.
5. INSTALL ALL PRODUCTS, MATERIALS, INSTALLATIONS, AND THE LIKE IN ACCORDANCE WITH APPLICABLE INDUSTRY STANDARDS, APPLICABLE MANUFACTURER'S DETAILS AND INSTRUCTIONS, IN ACCORDANCE WITH BEST PRACTICES, AND BUILDING CODE PROVISIONS.

THE PLANS AND SPECIFICATIONS ARE INTENDED TO DEPICT THE GENERAL SCOPE, LAYOUT AND QUALITY OF WORKMANSHIP REQUIRED. THE DOCUMENTS ARE NOT AN 'INSTRUCTION MANUAL' TO EXECUTE THE WORK NOR ARE THEY INTENDED TO SHOW OR DESCRIBE IN DETAIL EVERY ITEM NECESSARY FOR THE PROPER INSTALLATION OF THE WORK. THE MEANS AND METHODS REQUIRED TO EXECUTE THE WORK DESCRIBED IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL INCLUDE THE ANCILLARY WORK REQUIRED, WHETHER EXPLICITLY STATED OR NOT, FOR THE PROPER COMPLETION OF THE WORK AS INTENDED. THE CONTRACTOR IS REQUIRED TO MEET OR EXCEED BUILDING CODE REQUIREMENTS, APPLICABLE INDUSTRY STANDARDS, ASTM STANDARDS, AND/OR MANUFACTURER INSTALLATION REQUIREMENTS AS THEY RELATE TO THE WORK.

THE PLANS AND SPECIFICATIONS REPRESENT A SINGLE COMPLETE DESIGN PACKAGE INDICATING THE INTENDED SCOPE OF THE PROJECT IN ITS ENTIRETY. AS SUCH, THE PROJECT IS STRUCTURED TO BE AWARDED TO A SINGLE PRIME CONTRACTOR. THE DOCUMENTS DO NOT DELINEATE BID PACKAGES OR ASSIGN RESPONSIBILITIES TO ANY SUBSEQUENT SUBCONTRACTORS, DICTATE CONSTRUCTION SEQUENCING, NOR PROVIDE COORDINATION BETWEEN ANY 'TRADES'. SUCH ACTIVITIES ARE THE RESPONSIBILITY OF THE HOLDER OF THE CONSTRUCTION CONTRACT. IN THE EVENT OF A DISCREPANCY WITHIN THE DRAWINGS OR BETWEEN THE DRAWINGS AND THE SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT REPRESENTED IN THE DOCUMENTS SHALL PREVAIL.

REFER T



1ST FLOOR TOTAL OCCUPANT LOAD
RESIDENTIAL = 132
BUSINESS = 16
MECHANICAL = 4
ASSEMBLY = 81

TOTAL = 233

FIRST FLOOR OCCUPANT LOAD BY FIRE AREA
FIRE AREA 'A' = 147
FIRE AREA 'B' = 43
FIRE AREA 'C' = 43

ABBREVIATIONS

°	DEGREES	MISC	MISCELLANEOUS
±	PLUS OR MINUS	MO	MASONRY OPENING
#	NOT EQUAL	MS	METAL STUD
Ø	DIAMETER	MTD	MOUNTED
∠	ANGLE	MTL	METAL
℄	CENTERLINE		
℞	PROPERTY LINE	NIC	NOT IN CONTRACT
		NOM	NOMINAL
ABV	ABOVE	NTS	NOT TO SCALE
ADA	ACCESSIBLE / HANDICAP ACCESSIBLY / ACCESSIBILITY - ANSI ICC-117.1-2009	OC	ON CENTER
AFF	ABOVE FINISH FLOOR	OH	OVERHEAD
ALT	ALTERNATE	OPG	OPENING
ALUM	ALUMINUM	OPP	OPPOSITE
APPROX	APPOXIMATE		
ATC	ACOUSTIC TILE CEILING	PEMB	PRE-ENGINEERED METAL BUILDING
		PL	PLATE / PROPERTY LINE
BET/BETWN.	BETWEEN	PTD	PAINTED
BLKG	BLOCKING		
BRG	BEARING	QT	QUARRY TILE
BSMT	BASEMENT	QTY	QUANTITY
BTM	BOTTOM		
		R / RAD	RADIUS
CIP	CAST IN PLACE	RA	RETURN AIR
CJ	CONTROL JOINT	RB	RUBBER BASE
CL	CENTERLINE	RD	ROOF DRAIN
CLG	CEILING	REF	REFRIGERATOR
CLR	CLEAR	REINF	REINFORCE
CMU	CONCRETE MASONRY UNIT	REQ'D	REQUIRED
COL	COLUMN	REQ'MT	REQUIREMENT[S]
CONC	CONCRETE	REV	REVISION
CONT	CONTINUOUS	RO	ROUGH OPENING
CPT	CARPET	R/W	RIGHT OF WAY
CT	CERAMIC TILE		
		SALV	SALVAGED
DEMO	DEMOLISH / DEMOLITION	SF	SQUARE FEET
DF	DRINKING FOUNTAIN	SIM	SIMILAR
DIA	DIAMETER	SM	SHEET METAL
DIM	DIMENSION	SPEC	SPECIFICATION
DIV	DIVISION	SQ	SQUARE
DP	DEEP	SS	STAINLESS STEEL
DS	DOWNSPOUT	STD	STANDARD
DTL	DETAIL	STL	STEEL
DW	DISHWASHER		
DWG	DRAWING	T	TEMPERED
		TBD	TO BE DETERMINED
EA	EACH	T&B	TOP AND BOTTOM
EERO	EMERGENCY ESCAPE & RESCUE OPENING	T&G	TONGUE AND GROOVE
		T.O.	TOP OF
EIFS	EXTERIOR INSULATION FINISH SYSTEM	TR	TREATED
EJ	EXPANSION JOINT	TYP	TYPICAL
ELEC	ELECTRIC / ELECTRICAL		
ELEV	ELEVATION / ELEVATOR	UFAS	UNIFORM FEDERAL ACCESSIBILITY STANDARD
EO	EQUAL		
EQUIP	EQUIPMENT	UNO	UNLESS NOTED OTHERWISE
EX	EXISTING	UL	UNDERWRITER'S LABORATORY
EXP	EXPANSION		
FD	FLOOR DRAIN	VB	VAPOR BARRIER
FDN	FOUNDATION	VERT	VERTICAL
FE	FIRE EXTINGUISHER		
FEC	FIRE EXTINGUISHER CABINET	W/	WITH
FF	FINISH FLOOR	W/O	WITHOUT
FIN	FINISH / FINISHED	WD	WOOD
FRT	FIRE RETARDANT TREATED	W.P.	WORK POINT
FSE	FOOD SERVICE EQUIPMENT	WRB	WEATHER RESISTIVE BARRIER
FTG	FOOTING	WWF	WELDED WIRE FABRIC
FV	FIELD VERIFY		
GA	GAUGE		
GALV	GALVANIZED		
GC	GENERAL CONTRACTOR		
GYP	GYPSUM		
GYP BD	GYPSUM BOARD		
HB	HOSE BIBB		
HM	HOLLOW METAL		
HOR	HORIZONTAL		
HT	HEIGHT		
HVAC	HEATING, VENTILATION, AIR CONDITIONING		
INT	INTERIOR		
JB	JUNCTION BOX		
LL	LIVE LOAD		
LLH	LONG LEG HORIZONTAL		
LLV	LONG LEG VERTICAL		
LTL	LINTEL		
MAX	MAXIMUM		
MECH	MECHANICAL		
MFR	MANUFACTURER		
MIN	MINIMUM		

WALL / SYMBOL LEGEND

- NEW CMU FOUNDATION WALL
- NEW WOOD FRAME / METAL STUD WALL
- NEW WOOD FRAME EXTERIOR WALL WITH BRICK VENEER
- # — NEW CONSTRUCTION KEY NOTE
- # — REFLECTED CEILING KEY NOTE
- # — WINDOW TYPE KEY
- 101 — DOOR TYPE KEY
- WALL TYPE KEY
- ROOM NAME / 101 — ROOM TAG
- A / A2.0 — SECTION TAG
- N / W A-1 E / S — ELEVATION TAG
- FD — FLOOR DRAIN
- FE — FIRE EXTINGUISHER
- SD — SMOKE ALARM - 120V W/ BATTERY BACKUP
- CO — CARBON MONOXIDE ALARM- 120V W/ BATTERY BACKUP
- C/S — CARBON MONOXIDE / SMOKE ALARM - 120V W/ BATTERY BACKUP
- EXHAUST FAN - VENT DIRECT TO EXTERIOR

CODE PLAN WALL RATING LEGEND

- 1 HR — 1 HOUR RATED FIRE PARTITION
- 2 HR — 2 HOUR RATED FIRE BARRIER

UNIT COUNT

BEDROOMS	UNIT TYPE 'A'	UNIT TYPE 'B'	UNIT TYPE 'C'	TOTAL UNITS
ONE BEDROOM	5	38	1	44
TWO BEDROOM	3	22	1	26
TOTALS	8	60	2	70

UNIT BOMA S.F.

BUILDING OWNERS AND MANGERS ASSOCIATION [BOMA] - MULTI-UNIT RESIDENTIAL STANDARD, GROSS METHOD	UNIT SQUARE FOOTAGE 'A'	'B'	'C'
[1] 1 BEDROOM UNIT TYPE	700	700	700
[2] 2 BEDROOM UNIT TYPE	895	895	895

UNIT DESIGNATIONS

UNIT TYPE [1] ONE / [2] TWO BEDROOM [BR]
UNIT TYPE 'A' - (ICC A117.1-2017 - TYPE A UNIT) FULLY ACCESSIBLE UNIT
UNIT TYPE 'B' - (ICC A117.1-2017 - TYPE B UNIT) STANDARD UNIT
UNIT TYPE 'C' - (ICC A117.1-2017 - TYPE 'B' UNIT) W/ SENSORY IMPAIRMENT FEATURES

OHFA/BOMA FLOOR AREA DETAILS

1.	GROSS BUILDING SQUARE FOOTAGE =	73,929 SF
2.	NUMBER OF UNITS =	70
3.	COMMERCIAL SPACE CONDOS=	0 SF
4.	COMM AREA / FEE DRIVEN SPACE	0 SF
5.	MARKET RATE UNIT AREA =	0 SF
6.	LOW INCOME UNIT AREA =	54,444 SF
7.	MANAGERS UNIT AREA =	0 SF
8.	COMMON AREA [PUBLIC] =	4,017 SF
9.	COMMON AREA [CIRCULATION] =	9,969 SF
10.	DEDICATED PROGRAM SPACE =	93 SF
11.	LIMITED COMMON AREA=	0 SF
12.	SUPPORT =	2,002
13.	TENANT STORAGE=	0 SF
14.	VERTICAL PENETRATIONS=	3,404 SF
15.	STRUCTURED PARKING=	0 SF
16.	BASEMENT=	0 SF
17.	TOTALS	
17.1.	NON-LOW INCOME FLOOR AREA =	0 SF
17.2.	LOW INCOME FLOOR AREA =	64,413 SF
17.2.1.	LI + CA CIRC + LTD COMMON + TS	
17.3.	% COMMON AREA =	18.9 %
17.3.1.	CA PUB + CA CIRC / GROSS SF	
17.4.	NET RENTABLE SQUARE FOOTAGE =	73,929 SF
17.4.1.	GROSS SF - NON LI SF	
17.5.	AVERAGE RENTABLE SF / LI UNIT =	1056.13 SF
17.5.1.	NET RENTABLE SF / # OF UNITS	

NOTE: [8] FULLY ACCESSIBLE / SECTION 504 MOBILITY UNITS WILL BE PROVIDED

REFER TO G5.01 FOR ARCHITECTURAL SITE PLAN

A FIRST FLOOR CODE REVIEW PLAN

SCALE: 1/16" = 1'-0" 0 8' 16' 32'

STATE OF OHIO — PRELIMINARY — NOT FOR CONSTRUCTION — REGISTERED ARCHITECT
Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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OBERER COMPANIES
3445 Newmark Drive
Miamisburg, Ohio 45342

New Multi-Family Building:
Senior Village at Valle Greene
1155 Channingway Drive
Fairborn, Ohio 45324
OHFA Tracking Number: 24-0087

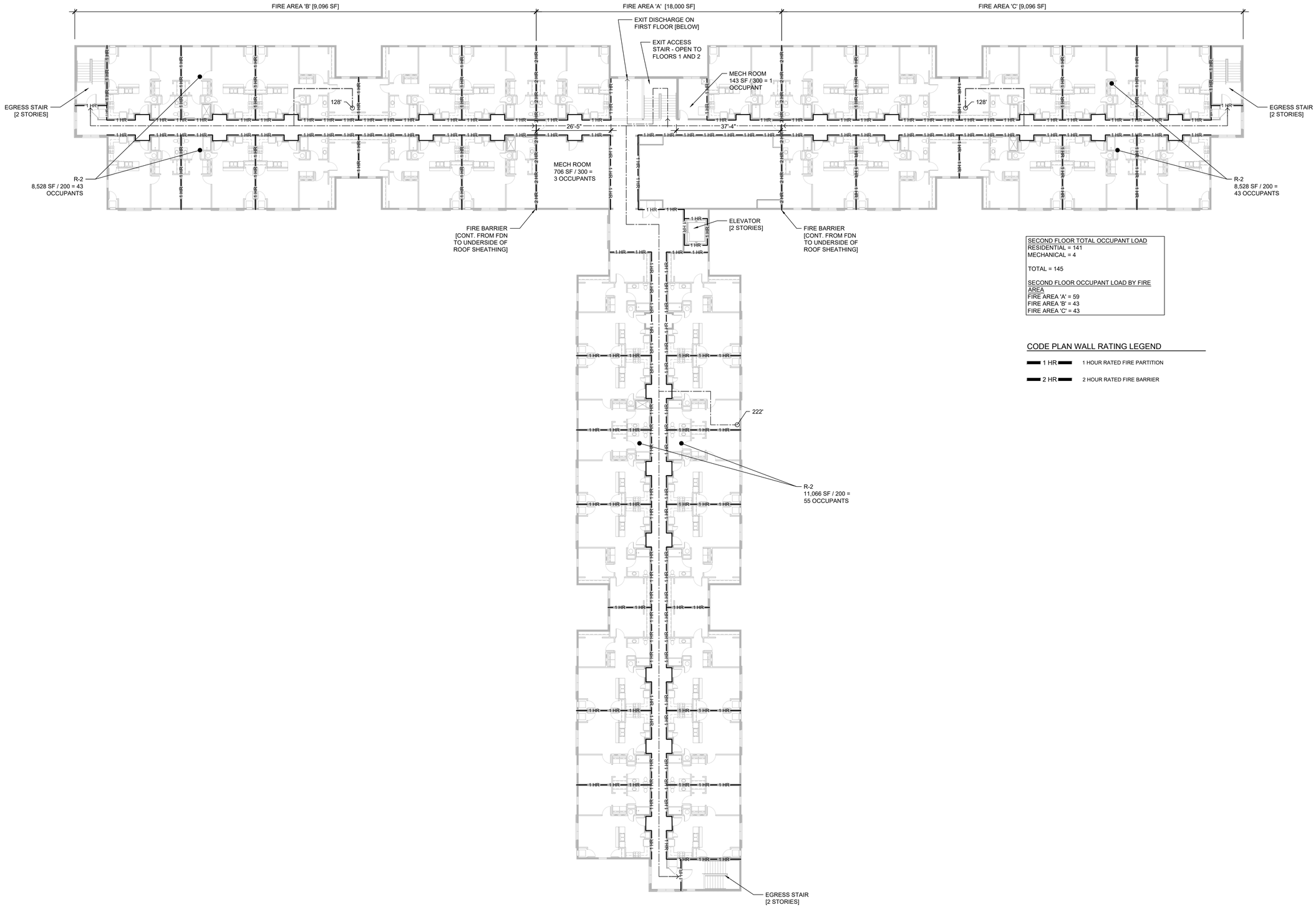
Project Number
2023-191

Date
September 13, 2024

Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
BUILDING KEY PLANS
CODE REVIEW PLANS

Sheet Number
G1.01



SECOND FLOOR TOTAL OCCUPANT LOAD
RESIDENTIAL = 141
MECHANICAL = 4

TOTAL = 145

SECOND FLOOR OCCUPANT LOAD BY FIRE AREA
FIRE AREA 'A' = 59
FIRE AREA 'B' = 43
FIRE AREA 'C' = 43

CODE PLAN WALL RATING LEGEND

1 HR — 1 HOUR RATED FIRE PARTITION

2 HR — 2 HOUR RATED FIRE BARRIER

A SECOND FLOOR CODE REVIEW PLAN

SCALE: 1/16" = 1'-0"

0 8' 16' 32'

STATE OF OHIO
JONATHAN ROBERT SCHAAF
REGISTERED ARCHITECT
PRELIMINARY NOT FOR CONSTRUCTION

Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
BUILDING KEY PLANS
CODE REVIEW PLANS

Sheet Number
G1.02

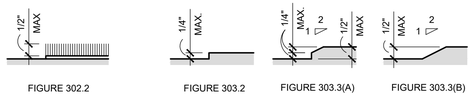
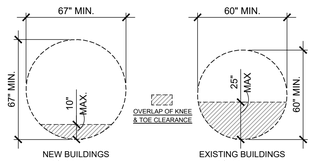


FIGURE 302.2 | FIGURE 303.2 | FIGURE 303.3(A) | FIGURE 303.3(B)

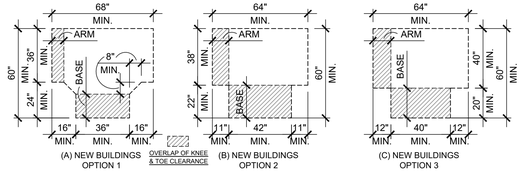
ICC/ANSI A117.1 - 2017 SECTION 302
CARPET ON FLOOR SURFACES

ICC/ANSI A117.1 - 2017 SECTION 303
CHANGES IN FLOOR LEVEL



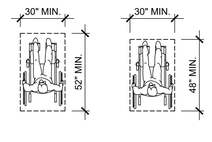
NEW BUILDINGS FIGURE 304.3.1 | EXISTING BUILDINGS FIGURE 304.3.1.2

ICC/ANSI A117.1 - 2017 SECTION 304.3.1
SIZE OF TURNING SPACE [CIRCULAR]



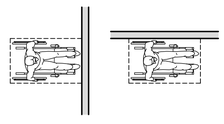
(A) NEW BUILDINGS OPTION 1 | OVERLAP OF KNEE & TOE CLEARANCE | (B) NEW BUILDINGS OPTION 2 | (C) NEW BUILDINGS OPTION 3

ICC/ANSI A117.1 - 2017 SECTION 304.3.2.1
SIZE OF TURNING SPACE [T-SHAPED]



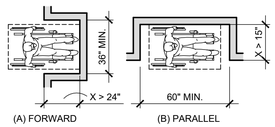
NEW BUILDINGS FIGURE 305.3.1 | EXISTING BUILDINGS FIGURE 305.3.2

ICC/ANSI A117.1 - 2017 SECTION 305.3
SIZE OF CLEAR FLOOR SPACE



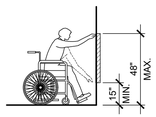
(A) FORWARD | (B) PARALLEL

ICC/ANSI A117.1 - 2017 SECTION 305.5
POSITION OF CLEAR FLOOR SPACE

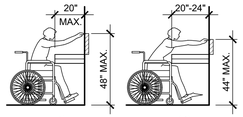


(A) FORWARD | (B) PARALLEL

ICC/ANSI A117.1 - 2017 SECTION 305.7
MANUVERING CLEARNCE IN AN ALCOVE

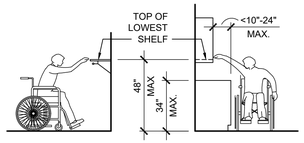


ICC/ANSI A117.1 - 2017 SECTION 308.2.1
UNOBSTRUCTED FORWARD REACH



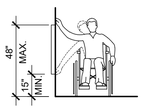
(A) | (B)

ICC/ANSI A117.1 - 2017 SECTION 308.2.2
OBSTRUCTED FORWARD REACH

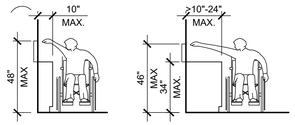


ICC/ANSI A117.1 - 2017 SECTION 308.2.1 "INTERPOLATION"
ACCESSIBLE CLOSET SHELF/ROD

ICC/ANSI A117.1 - 2017 SECTION 308.3.2 "INTERPOLATION"
ACCESSIBLE KITCHEN WALL CABINET

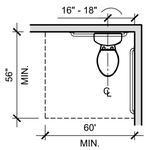


ICC/ANSI A117.1 - 2017 SECTION. 308.3.1
UNOBSTRUCTED SIDE REACH

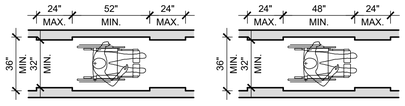


(A) | (B)

ICC/ANSI A117.1 - 2017 SECTION 308.3.2
MAXIMUM SIDE REACH OVER AN OBSTRUCTION

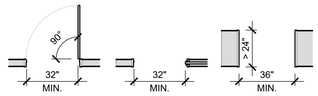


ICC/ANSI A117.1 - 2017 SECTIONS 604.2 & 604.3
SIZE OF CLEARANCE FOR WATER CLOSET



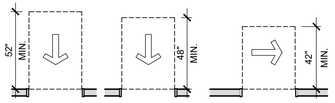
NEW BUILDINGS FIGURE 403.5.1(A) | EXISTING BUILDINGS FIGURE 403.5.1(C)

ICC/ANSI A117.1 - 2017 SECTION 403.5
CLEAR WIDTH OF AN ACCESSIBLE ROUTE



(A) HINGED | (B) SLIDING / (C) FOLDING | (D) DOORWAYS WITHOUT DOORS

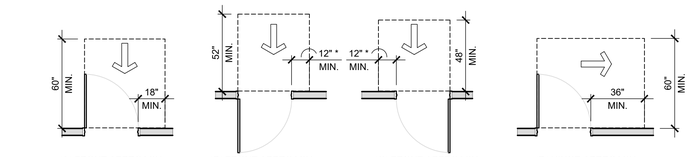
ICC/ANSI A117.1 - 2017 SECTION 404.2.2
CLEAR WIDTH OF DOORWAYS



(A) NEW BLDG. | (B) EXIST. BLDG | (C) SIDE APPROACH

FRONT APPROACH

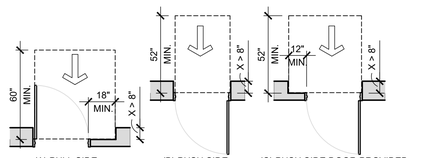
ICC/ANSI A117.1 - 2017 SECTION 404.2.3.4
MANEUVERING CLEARANCE AT OPENINGS WITHOUT DOORS



(A) FRONT APPROACH PULL SIDE | (B) FRONT APPROACH PUSH SIDE - NEW BLDG. | (C) FRONT APPROACH PUSH SIDE - EXIST. BLDG. | (D) HINGE APPROACH PULL SIDE

(E) HINGE APPROACH PULL SIDE | (F) HINGE APPROACH PUSH SIDE | (G) LATCH APPROACH PULL SIDE | (H) LATCH APPROACH PUSH SIDE

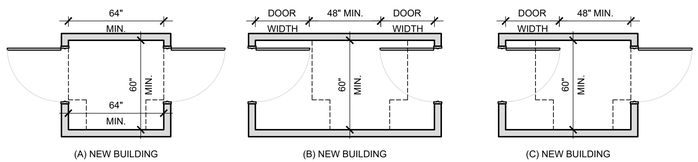
ICC/ANSI A117.1 - 2017 SECTION 404.2.3.2
MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS



(A) PULL SIDE [NEW BUILDING] | (B) PUSH SIDE [NEW BUILDING] | (C) PUSH SIDE DOOR PROVIDED W/ BOTH CLOSER & LATCH [NEW BUILDING]

(D) PULL SIDE [EXISTING BUILDING] | (E) PUSH SIDE [EXISTING BUILDING] | (F) PUSH SIDE DOOR PROVIDED W/ BOTH CLOSER & LATCH [EXISTING BUILDING]

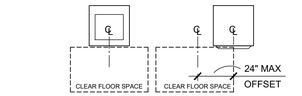
ICC/ANSI A117.1 - 2017 SECTION 404.2.3.5
MANEUVERING CLEARANCE AT RECESSED DOORS



(A) NEW BUILDING | (B) NEW BUILDING | (C) NEW BUILDING

(D) EXISTING BUILDING | (E) EXISTING BUILDING | (F) EXISTING BUILDING

ICC/ANSI A117.1 - 2017 SECTION 404.2.5
TWO DOORS IN A SERIES



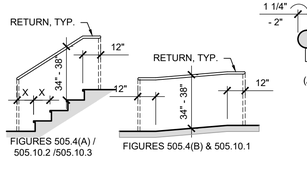
(A) TOP LOADING | (B) FRONT LOADING

PLAN

(A) TOP LOADING | (B) FRONT LOADING

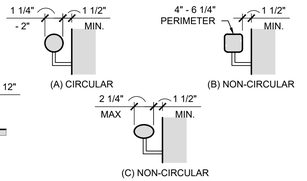
ELEVATION

ICC/ANSI A117.1 - 2017 SECTION 611
LAUNDRY EQUIPMENT



FIGURES 505.4(A) / 505.10.2 /505.10.3 | FIGURES 505.4(B) & 505.10.1

ICC/ANSI A117.1 - 2017 SECTION 505
HANDRAIL HEIGHT / EXTENSIONS



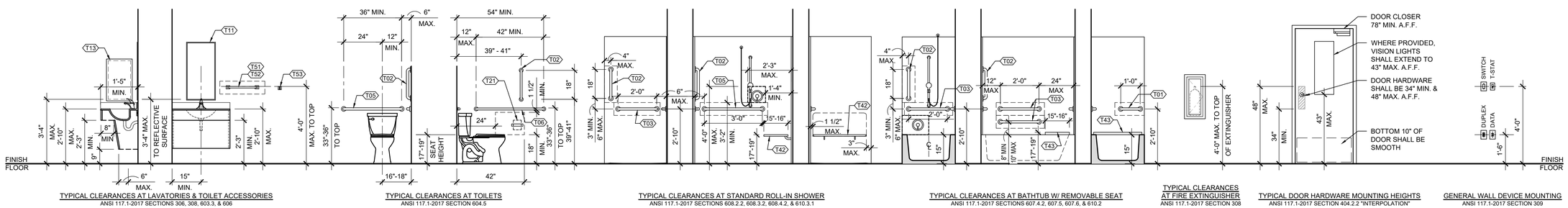
(A) CIRCULAR | (B) NON-CIRCULAR

(C) NON-CIRCULAR

ICC/ANSI A117.1 - 2017 SECTIONS 505.5 & 505.7
HANDRAIL CLEARANCE & CROSS SECTION

B ACCESSIBILITY STANDARDS

SCALE: N.T.S.



TYPICAL CLEARANCES AT LAVATORIES & TOILET ACCESSORIES
ANSI 117.1-2017 SECTIONS 306, 308, 603.3, & 606

TYPICAL CLEARANCES AT TOILETS
ANSI 117.1-2017 SECTION 604.5

TYPICAL CLEARANCES AT STANDARD ROLL-IN SHOWER
ANSI 117.1-2017 SECTIONS 608.2.2, 608.3.2, 608.4.2, & 610.3.1

TYPICAL CLEARANCES AT BATHTUB W/ REMOVABLE SEAT
ANSI 117.1-2017 SECTIONS 607.4.2, 607.5, 607.6, & 610.2

TYPICAL CLEARANCES AT FIRE EXTINGUISHER
ANSI 117.1-2017 SECTION 308

TYPICAL DOOR HARDWARE MOUNTING HEIGHTS
ANSI 117.1-2017 SECTION 404.2.2 "INTERPOLATION"

GENERAL WALL DEVICE MOUNTING
ANSI 117.1-2017 SECTION 309

A ACCESSIBILITY MOUNTING & CLEARANCE STANDARDS

SCALE: N.T.S.

STATE OF OHIO
JONATHAN ROBERT SCHAAF
14503
REGISTERED ARCHITECT
PRELIMINARY NOT FOR CONSTRUCTION

Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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7662 PARAGON ROAD | DAYTON, OH 45459 | 937.610.3440

OBERER COMPANIES
3445 Newmark Drive
Miamisburg, Ohio 45342

New Multi-Family Building:
Senior Village at Valle Greene
1155 Channingway Drive
Fairborn, Ohio 45324
OHFA Tracking Number: 24-0087

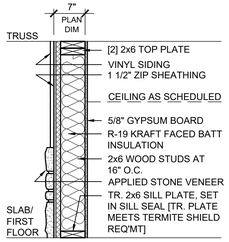
Project Number
2023-191

Date
September 13, 2024

Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

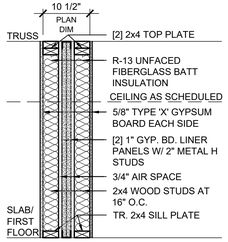
Sheet Title
ACCESSIBILITY GUIDELINES

Sheet Number
G1.03



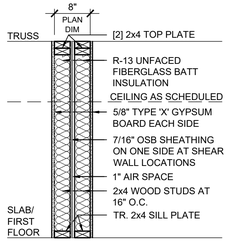
1 HR RATED EXTERIOR WALL
UL DESIGN # U355

W-1



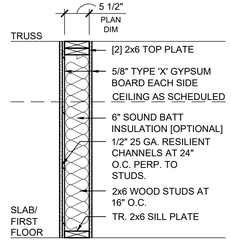
2 HOUR RATED DEMISING WALL
UL # U366

W-2



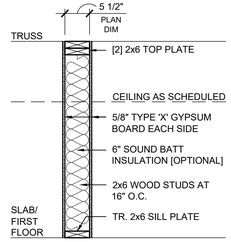
1 HOUR RATED DEMISING /
SHEAR WALL UL DESIGN # U341

W-3



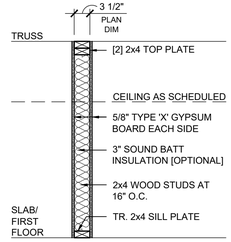
1 HOUR RATED DEMISING WALL
UL DESIGN # U311 - STC 52+

W-4



2x6 WALL W/ GYP. BD. BOTH SIDES

W-5A

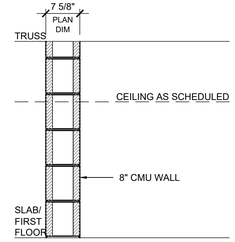


2x6 WALL W/ GYP. BD. ONE SIDE

W-5B

2x4 WALL W/ GYP. BD. BOTH SIDES

W-6A

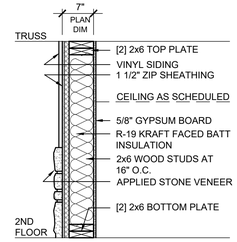


2x4 WALL W/ GYP. BD. ONE SIDE

W-6B

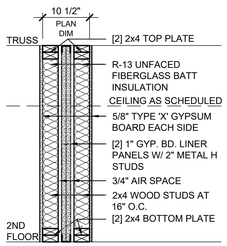
1 HOUR RATED SHAFT WALL
UL DESIGN # U905

W-7



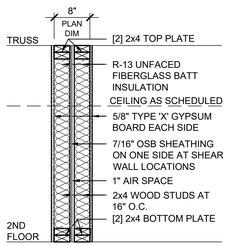
1 HR RATED EXTERIOR WALL
UL DESIGN # U355

W-8



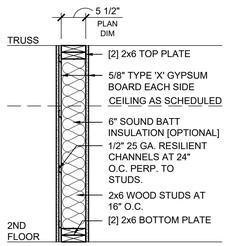
2 HOUR RATED DEMISING WALL
UL # U366

W-9



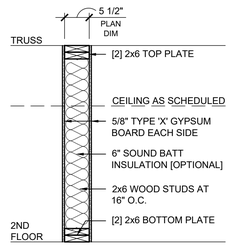
1 HOUR RATED DEMISING /
SHEAR WALL UL DESIGN # U341

W-10



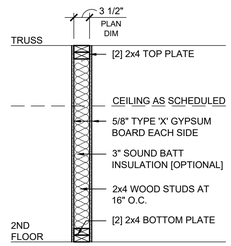
1 HOUR RATED DEMISING WALL
UL DESIGN # U311 - STC 52+

W-11



2x6 WALL W/ GYP. BD. BOTH SIDES

W-12A



2x6 WALL W/ GYP. BD. ONE SIDE

W-12B

2x4 WALL W/ GYP. BD. BOTH SIDES

W-13A

2x4 WALL W/ GYP. BD. ONE SIDE

W-13B

A WALL TYPES

SCALE: 3/4" = 1'-0"

0" 6" 12" 24"

RATED FLOOR PENETRATION

PENETRATION TYPE	LOCATION ASSEMBLY	PENETRATION TEST
STEEL PIPE 4"Ø OR SMALLER SCHEDULE 5 OR HEAVIER	L514 & L534	F-C-1010
IRON PIPE 4"Ø OR SMALLER CAST OR DUCTILE		
CONDUIT 4"Ø OR SMALLER STEEL EMT OR STEEL CONDUIT		
COPPER TUBE 4"Ø OR SMALLER TYPE L OR HEAVIER		
PVC PIPE 4"Ø OR SMALLER - SCHEDULE 40 SOLID OR HEAVIER SOLID CORE [DWV]		F-C-2032
RIGID NON-METALLIC CONDUIT 4"Ø OR SMALLER SCHEDULE 40		
CPVC PIPE 4"Ø OR SMALLER SDR 17 [DWV]		
WIRE CABLE		F-C-3013
BATH TUB		F-C-2036
WATER CLOSET		F-C-2037

RATED STUD WALL PENETRATION

PENETRATION TYPE	LOCATION ASSEMBLY	PENETRATION TEST
METALLIC CONDUIT 4"Ø OR SMALLER EMT CONDUIT	U305, U311, U336, U341, U385, U905	W-L-1091
METALLIC CONDUIT 6"Ø OR SMALLER STEEL CONDUIT		
NON-METALLIC CONDUIT 2"Ø OR SMALLER SCHEDULE 40 PVC	U305, U311, U336, U341, U385, U905	W-L-2038
METALLIC PIPE/COPPER PIPE/TUBE 6"Ø OR SMALLER TYPE L OR HEAVIER TUBING	U305, U311, U336, U341, U385, U905	W-L-1091
METALLIC PIPE/COPPER PIPE/TUBE 6"Ø OR SMALLER REGULAR OR HEAVIER PIPE		
NON-METALLIC PIPE/TUB [OBC 709.6.2] 2"Ø OR SMALLER SCHEDULE 40 PVC/CPVC	U305, U311, U336, U341, U385, U905	W-L-2003 W-L-2014
NON-METALLIC PIPE/TUB [OBC 709.6.2] 4"Ø OR SMALLER SCHEDULE 40 PVC/CPVC		
CABLE/WIRE W/ NON-COMBUSTIBLE JACKET/INSUL MAX. 4 COPPER CONDUCTOR NO. 2 AWG OR SMALLER ALUM OR STEEL ARMORED/MTL. CLAD CABLE	U305, U311, U336, U341, U385, U905	W-L-3015
NON-COMBUSTIBLE PIPES/TUBES/VENTS 6"Ø MAX. TYPE L OR HEAVIER COPPER TUBE	U305, U311, U336, U341, U385, U905	W-L-1091
NON-COMBUSTIBLE PIPES/TUBES/VENTS 6"Ø MAX. REGULAR OR HEAVIER COPPER PIPE		
NON-COMBUSTIBLE PIPES/TUBES/VENTS 24"Ø MAX. SCH 10 OR HEAVIER STEEL PIPE		
NON-COMBUSTIBLE PIPES/TUBES/VENTS 24"Ø MAX. CAST OR DUCTILE IRON PIPE		
CABLE/WIRE W/ COMBUSTABLE JACKET/INSUL MAX. NO. 10 AWG COPPER MULTI CONDUCTOR [NM] CABLE W/ PVC INSUL MAX 150 PAIR NO. 24 AWG COPPER TELEPHONE CABLE W/ PVC INSUL	U305, U311, U336, U341, U385, U905	W-L-3001
COMBUSTIBLE PIPES/TUBES/VENTS 2"Ø MAX. SCH 40 PVC/CPVC [DWV] PIPING	U305, U311, U336, U341, U385, U905	W-L-2003 W-L-2005
COMBUSTIBLE PIPES/TUBES/VENTS 4"Ø MAX. SCH 40 PVC/ABS/FRPP		
COMBUSTIBLE PIPES/TUBES/VENTS 8"Ø OR 10"Ø SCH 40 PVC [DWV] PIPING		

NOTE: UL ASSEMBLIES ARE PROVIDED PER DESIGN, NOT CERTIFIED BY RDA.

STATE OF OHIO
JONATHAN ROBERT SCHAAF
14503
REGISTERED ARCHITECT
PRELIMINARY NOT FOR CONSTRUCTION

Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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7662 PARAGON ROAD | DAYTON, OH 45459 | 937.610.3440

OBERER COMPANIES
3445 Newmark Drive
Miamisburg, Ohio 45342

New Multi-Family Building:
Senior Village at Valle Greene
1155 Channingway Drive
Fairborn, Ohio 45324
OHFA Tracking Number: 24-0087

Project Number
2023-191

Date
September 13, 2024

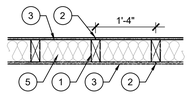
Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
WALL TYPES

Sheet Number
G1.04

DESIGN NO. U305

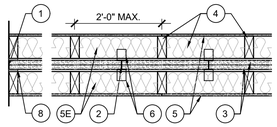
BEARING WALL RATINGS - 1 HR



1. WOOD STUDS - NOM. 2x4 SPACED AT 16" O.C. MAX., EFFECTIVELY FIRESTOPPED.
2. JOINT AND NAIL HEADS - JOINTS COVERED WITH JOINT COMPOUND AND PAPER TAPE. JOINT COMPOUND AND PAPER TAPE MAY BE OMITTED WHEN SQUARE EDGE BOARDS ARE USED. AS AN ALTERNATE, NOM. 3/32" THICK GYPSUM VENEER PLASTER MAY BE APPLIED TO THE ENTIRE SURFACE OF CLASSIFIED VENEER BASEBOARD WITH THE JOINTS REINFORCED WITH PAPER TAPE. NAIL HEADS EXPOSED OR COVERED WITH JOINT COMPOUND.
3. GYPSUM BOARD* - 5/8" THICK PAPER OR VINYL SURFACED, WITH BEVELED, SQUARE, OR TAPERED EDGES, APPLIED EITHER HORIZONTALLY OR VERTICALLY. GYPSUM PANELS NAILED 7" O.C. WITH 6d CEMENT COATED NAIL 1 7/8" LONG, 0.0915" SHANK DIA. AND 15/64" DIA. HEADS. WHEN IN WIDTHS OTHER THAT 48", GYPSUM PANELS ARE TO BE INSTALLED HORIZONTALLY. FOR AN ALTERNATE METHOD OF ATTACHMENT OF GYPSUM PANELS, REFER TO ITEM 6, 6A, OR 6B, STEEL FRAMING MEMBERS.
4. STEEL CORNER FASTENERS - (OPTIONAL) - FOR USE AT WALL CORNERS. CHANNEL SHAPED, 2" LONG BY 1" HIGH ON THE BACKSIDE WITH (2) 1/8" WIDE CLEATS PROTRUDING INTO THE 5/8" WIDE CHANNEL, FABRICATED FROM 24 GA. GALV. STEEL. FASTENERS APPLIED ONLY TO THE END OR CUT EDGE (NOT ALONG TAPERED EDGES) OF THE GYPSUM BOARD, NO GREATER THAN 2" FROM CORNER OF GYPSUM BOARD, MAX. SPACING 16" O.C. NAILED TO ADJACENT STUD THROUGH TAB USING (1) 6d CEMENT COATED NAIL PER FASTENER. CORNERS OF WALL BOARD SHALL BE NAILED TO TOP AND BOTTOM PLATE USING 6d CEMENT COATED NAILS.
5. BATTS AND BLANKETS* - [OPTIONAL - REQUIRED WHEN ITEM 6A IS USED (RC-1)] GLASS FIBER OR MINERAL WOOL INSULATION. PLACED TO COMPLETELY OR PARTIALLY FILL THE STUD CAVITIES. WHEN ITEM 6A IS USED, GLASS OR FIBER MINERAL WOOL INSULATION SHALL BE FRICTION-FITTED TO COMPLETELY FILL THE STUD CAVITIES.
6. CAULKING AND SEALANTS - (NOT SHOWN, OPTIONAL) A BEAD OF ACOUSTICAL SEALANT APPLIED AROUND THE PARTITION PERIMETER FOR SOUND CONTROL.
7. STC RATING - THE STC RATING OF THE WALL ASSEMBLY IS 56 WHEN IT IS CONSTRUCTED AS DESCRIBED BY ITEMS 1 THROUGH 6, EXCEPT:
   A. ITEM 2, ABOVE - NAILHEADS SHALL BE COVERED WITH JOINT COMPOUND.
   B. ITEM 2, ABOVE - JOINTS AS DESCRIBED, SHALL BE COVERED WITH FIBER TAPE AND JOINT COMPOUND.
   C. ITEM 5, ABOVE - BATTS AND BLANKETS* THE CAVITIES FORMED BY THE STUDS SHALL BE FRICTION FIT WITH R-19 UNFACED FIBERGLASS INSULATION BATTS MEASURING 6 1/4" THICK AND 15 1/4" WIDE.
   D. ITEM 6, ABOVE - STEEL FRAMING MEMBERS* TYPE RSIC-1 CLIPS SHALL BE USED TO ATTACH GYPSUM BOARD TO STUDS ON EITHER SIDE OF WALL ASSEMBLY.
   E. ITEM 8, ABOVE - CAULKING AND SEALANTS (NOT SHOWN) A BEAD OF ACOUSTICAL SEALANT SHALL BE APPLIED AROUND THE PARTITION PERIMETER FOR SOUND CONTROL.
   F. STEEL CORNER FASTENERS (ITEM 4) FIBER, SPRAYED (ITEMS 5A AND 5B) AND STEEL FRAMING MEMBERS (ITEM 6A), NOT EVALUATED AS ALTERNATIVES FOR OBTAINING STC RATING.

DESIGN NO. U336

BEARING WALL RATING - 2 HR
[PROTECTED WALL, SEE ITEM 4]
STC RATING - 61 [SEE ITEM 9]



1. FLOOR, INTERMEDIATE OR TOP WALL - 2" WIDE CHANNEL SHAPED WITH 1" LONG LEGS FORMED FROM NO. 25 MSG GALV. STEEL, SECURED WITH SUITABLE FASTENERS SPACE AT 24" O.C.
2. METAL STUDS - STEEL MEMBERS FORMED FROM NO. 25 MSG GALV. STEEL HAVING "H" - SHAPED FLANGED SPACED 24" O.C.; OVERALL DEPTH 2" AND FLANGE WIDTH 1-3/8".
3. GYPSUM BOARD - TWO LAYERS OF 1" THICK GYPSUM BOARD LINER PANELS, SUPPLIED IN NOM. 24" WIDTHS. VERTICAL EDGES OF PANELS FRICTION FITTED INTO "H" - SHAPED STUDS.
4. WOOD STUDS - NOM. 2" BY 4" MAX. SPACING 24" O.C. STUDS CROSS BRACED AT MID-HEIGHT WHERE NECESSARY FOR CLIP ATTACHMENT. MIN. 3/4" SEPARATION BETWEEN WOOD FRAMING AND FIRE SEPARATION WALL.
5. GYPSUM BOARD - CLASSIFIED OR UNCLASSIFIED - MIN. 1/2" THICK, 4' WIDE, APPLIED EITHER HORIZONTALLY OR VERTICALLY. GYPSUM BOARD ATTACHED TO STUDS WITH 1-1/4" LONG STEEL DRYWALL NAILS SPACED 8" O.C. VERTICAL JOINTS LOCATED OVER STUDS. (OPTIONAL) JOINTS COVERED WITH PAPER TAPE AND JOINT COMPOUND. NAIL HEADS COVERED WITH JOINT COMPOUND.

5E. BATTS AND BLANKETS - USED IN ADDITION ITEM 5. PLACED IN STUD CAVITIES, ANY GLASS FIBER OR MINERAL WOOL INSULATION, MAX. 3.0 PCF DENSITY, BEARING THE UL CLASSIFICATION MARKING AS TO SURFACE BURNING CHARACTERISTICS AND/OR FIRE RESISTANCE.

6. ATTACHMENT CLIPS - ALUMINUM ANGLE, 0.063 IN. THICK, 2" WIDE WITH 2" AND 2-1/4" LEGS. CLIPS SECURED WITH TYPE S SCREWS 3/8" LONG TO "H" STUDS AND WITH TYPE W SCREWS 1-1/4" LONG TO WOOD FRAMING THROUGH HOLES PROVIDED IN CLIP.

6A. CLIP PLACEMENT (ITEM 6) FOR SEPARATION WALLS UP TO 23 FT. HIGH. SPACE CLIPS A MAX. OF 10 FT O.C. VERTICALLY BETWEEN WOOD FRAMING AND "H" STUDS.

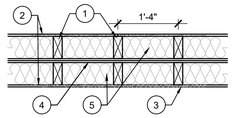
7. NON-BEARING WALL PARTITION INTERSECTION - (OPTIONAL) - TWO NOM. 2" BY 4" STUD OR NOM. 2" BY 6" STUD NAILED TOGETHER WITH 3" LONG 10d NAILS SPACED A MAX. 16" O.C. VERTICALLY AND FASTENED TO ONE SIDE OF THE MINIMUM 2" BY 4" STUD WITH 3" LONG 10d NAILS SPACED A MAX. 16" O.C. VERTICALLY. INTERSECTION BETWEEN PARTITION WOOD STUDS TO BE FLUSH WITH THE 2" BY 4" STUDS. THE WALL PARTITION WOOD STUDS ARE TO BE FRAMED WITH A SECOND 2" BY 4" WOOD STUD FASTENED WITH 3" LONG 10d NAILS SPACED A MAX. 16" O.C. VERTICALLY. MAXIMUM ONE NON-BEARING WALL PARTITION INTERSECTION PER STUD CAVITY. NON-BEARING WALL PARTITION STUD DEPTH SHALL BE AT A MINIMUM EQUAL TO THE DEPTH OF THE WALL.
8. CAULKING AND SEALANTS - (OPTIONAL - INTENDED FOR USE AS AN AIR BARRIER - NOT EVALUATED AS FIREBLOCKING) A BEAD OF SEALANT APPLIED AROUND THE PARTITION PERIMETER, AND AT THE INTERFACE BETWEEN WOOD OR STEEL FRAMING AND GYPSUM BOARD PANELS TO CREATE AS AIR BARRIER.

8A. CAULKING AND SEALANTS - (OPTIONAL - INTENDED FOR USE AS AN AIR BARRIER - NOT EVALUATED AS FIREBLOCKING) A BEAD OF SEALANT APPLIED AROUND THE PARTITION PERIMETER IN THE 3/4" AIR SPACE BETWEEN WOOD FRAMING (ITEM 4) AND SHAFTLINER PANELS (ITEM 3) TO CREATE AS AIR BARRIER.

9. STC RATING - THE STC RATING OF THE WALL ASSEMBLY IS 61 WHEN IT IS CONSTRUCTED AS DESCRIBED BY ITEMS 1 THROUGH 8, EXCLUDING ITEM 7, EXCEPT:
   A. ITEM 4, ABOVE - WOOD STUDS - PROTECTED WALL STUDS SHALL BE SPACED 24" O.C.
   B. ITEM 5, ABOVE - GYPSUM BOARD - MIN. WEIGHT 1.6 PSF. SHALL BE APPLIED VERTICALLY AND ATTACHED TO STUDS WITH 1-1/4" LONG STEEL DRYWALL SCREWS SPACED 8" O.C. JOINTS AND SCREWHEADS SHALL BE COVERED WITH PAPER TAPE AND JOINT COMPOUND.
   C. ITEM 6, ABOVE - ALUMINUM CLIPS - SPACED A MAX. OF 10 FT O.C. VERTICALLY.
   D. BATTS AND BLANKETS - THE CAVITIES FORMED BY THE WOOD STUDS SHALL BE FRICTION FIT WITH 3-1/2" THICKNESS FIBERGLASS INSULATION BATTS, MIN. 0.60 PCF.
   E. MAX. HEIGHT OF SEPARATION WALL IS 23 FT.
   F. THE STC RATING APPLIES TO CONFIGURATION B ONLY.

DESIGN NO. U341

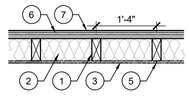
BEARING WALL RATING - 1 HR [STC 54]



1. WOOD STUDS - DOUBLE ROW OF NOM. 2x4 STUDS, SPACED AT 24" O.C. MAX CROSS BRACED AT MID-HEIGHT AND EFFECTIVELY FIRE STOPPED AT TOP AND BOTTOM OF WALL. NO MIN. AIR SPACE BETWEEN STUD ROWS EXCEPT TO ACCOMMODATE ATTACHMENT OF SHEATHING, WHERE REQUIRED.
2. GYPSUM BOARD - ANY 5/8 IN. THICK UL CLASSIFIED GYPSUM BOARD THAT IS ELIGIBLE FOR USE IN DESIGN NOS. L501, G512 OR U305. NOM 5/8 IN. THICK 4 FT WIDE. GYPSUM BOARD APPLIED HORIZONTALLY OR VERTICALLY, UNLESS SPECIFIED BELOW, AND NAILED TO STUDS AND BEARING PLATES 7 IN. OC WITH 6D CEMENT COATED NAILS, 1-7/8 IN. LONG, 0.0915 IN. SHANK DIAM AND 1/4 IN. DIAM HEAD. AS AN ALTERNATE, NO. 6 BUGLE HEAD DRYWALL SCREWS, 1-7/8 IN. LONG, MAY BE SUBSTITUTED FOR THE 6D CEMENT COATED NAILS.
3. JOINT AND NAIL HEADS - GYPSUM BOARD JOINTS OF OUTER LAYER COVERED WITH TAPE AND JOINT COMPOUND. NAIL HEADS OF OUTER LAYER COVERED WITH JOINT COMPOUND. AS AN ALTERNATE, NOM 3/32 IN. THICK GYPSUM VENEER PLASTER MAY BE APPLIED TO THE ENTIRE SURFACE OF CLASSIFIED VENEER BASEBOARD WITH JOINTS REINFORCED WITH PAPER TAPE.
4. SHEATHING (OPTIONAL) SEPTUM MAY BE SHEATHED WITH MIN 7/16 IN. THICK WOOD STRUCTURAL PANELS MIN GRADE "C-D" OR "SHEATHING" OR MIN 1/2 IN. THICK MINERAL AND FIBER BOARDS*.
5. BATTS AND BLANKETS - 3-1/2 IN. MAX THICKNESS GLASS OR MINERAL FIBER BATT INSULATION. OPTIONAL WHEN SHEATHING (ITEM 4) IS USED ON BOTH HALVES OF WALL.

DESIGN NO. U355

BEARING WALL RATINGS - 1 HR



1. WOOD STUDS - NOM. 2x4 SPACED AT 16" O.C. MAX., EFFECTIVELY FIRESTOPPED.
2. BATTS AND BLANKETS* - GLASS FIBER BATTS, MIN. 3-1/2" THICK, MIN. DENSITY OF 0.72 PCF, PRESSURE FIT IN WALL CAVITIES BETWEEN STUDS AND CROSS BRACING.
3. GYPSUM BOARD* - 5/8" THICK 4 FT WIDE GYPSUM BOARDS, PAPER, GLASS MAT OR VINYL SURFACED, WITH BEVELED, SQUARE, OR TAPERED EDGES, APPLIED VERTICALLY. WALLBOARD NAILED 8" O.C. WITH 6d CEMENT-COATED NAILS OR NO. 6 BUGLE HEAD DRYWALL SCREWS, 1 7/8" LONG.
4. STEEL CORNER FASTENERS - (OPTIONAL) - FOR USE AT WALL CORNERS. CHANNEL SHAPED, 2" LONG BY 1" HIGH ON THE BACKSIDE WITH (2) 1/8" WIDE CLEATS PROTRUDING INTO THE 5/8" WIDE CHANNEL, FABRICATED FROM 24 GA. GALV. STEEL. FASTENERS APPLIED ONLY TO THE END OR CUT EDGE (NOT ALONG TAPERED EDGES) OF THE GYPSUM BOARD, NO GREATER THAN 2" FROM CORNER OF GYPSUM BOARD, MAX. SPACING 16" O.C. NAILED TO ADJACENT STUD THROUGH TAB USING (1) 6d CEMENT COATED NAIL PER FASTENER. CORNERS OF WALL BOARD SHALL BE NAILED TO TOP AND BOTTOM PLATE USING 6d CEMENT COATED NAILS.
5. JOINT AND FASTENER HEADS - WALLBOARD JOINTS COVERED WITH JOINT COMPOUND AND PAPER TAPE. FASTENER HEADS COVERED WITH JOINT COMPOUND. WHEN SQUARE-EDGE GYPSUM BOARD IS USED, TREATMENT OF JOINTS IS OPTIONAL.
6. SHEATHING - 1-1/2" THICK POLYISOCYANURATE COMPOSITE FOAMED PLASTIC INSULATION BOARDS, NOM. 48 BY 48 OR 96", WITH A FACER ON ONE OR BOTH SIDES AND BONDED TO FIBERBOARD, ORIENTED STRAND BOARD OR PLYWOOD ON ONE SIDE. SHEATHING IS APPLIED VERTICALLY. SHEATHING FASTENED ATTACHED TO STUDS WITH 8d NAILS OR 2-1/2" LONG TYPE W SCREWS SPACED 8" O.C. ALONG THE EDGES AND 12" O.C. IN THE FIELD.
7. EXTERIOR WALL COVERING - INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

DESIGN NO. U905

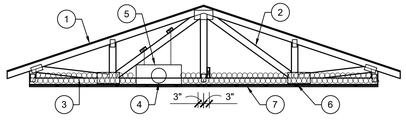
BEARING WALL RATING - 2 HOUR
NONBEARING WALL RATING - 2 HOUR

1. CONCRETE BLOCKS - VARIOUS DESIGNS. CLASSIFICATION D-2 (2HOUR).
2. MORTAR - BLOCKS LAID IN FULL BED OF MORTAR, NOM. 3/8" THICK, OF NOT LESS THAN 2 1/4 AND NOT MORE THAN 3 1/2 PARTS OF CLEAN SHARP SAND TO 1 PART PORTLAND CEMENT (PROPORTIONED BY VOLUME) AND NOT MORE THAN 50 PERCENT HYDRATED LIME (BY CEMENT VOLUME). VERTICAL JOINTS STAGGERED.
3. PORTLAND CEMENT STUCCO OR GYPSUM PLASTER - ADD 1/2 HOUR TO CLASSIFICATION IF USED. WHERE COMBUSTIBLE MEMBERS ARE FRAMED IN WALL, PLASTER OR STUCCO MUST BE APPLIED ON THE FACE OPPOSITE FRAMING TO ACHIEVE A MAX. CLASSIFICATION OF 1 1/2 HOUR. ATTACHED TO CONCRETE BLOCKS (ITEM 1).
4. LOOSE MASONRY FILL - IF ALL CORE SPACES ARE FILLED WITH LOOSE DRY EXPANDED SLAG, EXPANDED CLAY OR SHALE (ROTARY KILN PROCESS), WATER REPELLANT VERMICULITE MASONRY FILL INSULATION, OR SILICONE TREATED PERLITE LOOSE FILL INSULATION ADD 2 HOUR TO CLASSIFICATION.
5. FOAMED PLASTIC* - (OPTIONAL - NOT SHOWN) - 1 1/2" THICK MAX., 4' WIDE SHEATHING ATTACHED TO CONCRETE BLOCKS (ITEM 1)

5A. BUILDING UNITS - AS AN ALTERNATE TO ITEM 5, MIN. 1" THICK POLYISOCYANURATE COMPOSITE FOAMED PLASTIC INSULATION BOARDS, NOM. 48" x 48" x 96".

DESIGN NO. P533

UNRESTRAINED ASSEMBLY RATING - 1 HR



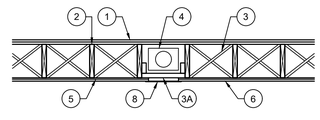
1. ROOFING SYSTEM - ANY UL CLASS A, B, OR C ROOFING SYSTEM (TGFU) OR PREPARED ROOF COVERING (TFWZ) ACCEPTABLE FOR USE OVER NOM. 15/32" THICK WOOD STRUCTURAL PANELS SECURED TO TRUSSES WITH NO. 6d RINGED SHANK NAILS SPACED 12" O.C. ALONG EACH TRUSS. STAPLES HAVING EQUAL OR GREATER WITHDRAW AND LATERAL RESISTANCE STRENGTH MAY BE SUBSTITUTED FOR THE 6d NAILS. CONSTRUCTION ADHESIVE MAY BE USED WITH EITHER THE NAILS OR STAPLES.
2. TRUSSES - PITCHED OR PARALLEL CHORD TRUSSES, SPACE A MAX. 24"O.C., FABRICATED FROM NOM. 2x4 LUMBER WITH LUMBER ORIENTATED VERTICALLY OR HORIZONTALLY. TRUSS MEMBERS SECURED TOGETHER WITH MIN. 0.0356" THICK GALVANIZED PLATES. PLATES HAVE 5/6" LONG TEETH PROJECTING PERPENDICULAR TO THE PLANE OF THE PLATE. THE TEETH ARE IN PAIRS FACING EACH OTHER (MADE FROM THE SAME PUNCH) FORMING A SPLIT TOOTH TYPE PLATE. EACH TOOTH HAS A CHISEL POINT ON ITS OUTSIDE EDGE. THESE POINTS ARE DIAGONALLY OPPOSITE EACH OTHER FOR EACH PAIR. THE TOP HALF OF EACH TOOTH HAS A TWIST FOR STIFFNESS. THE PAIRS ARE REPEATED ON APPROX. 7/8" CENTERS WITH FOUR ROWS OF TEETH PER INCH OF PLATE WIDTH. WHERE THE TRUSS INTERSECTS WITH THE INTERIOR FACE OF THE EXTERIOR WALLS, THE MIN. TRUSS DEPTH SHALL BE 5 1/4" WITH A MIN. ROOF SLOPE OF 3/12 AND A MIN. AREA IN THE PLANE OF THE TRUSS OF 21 S.F. WHERE THE TRUSS INTERSECTS WITH THE INTERIOR FACE OF THE EXTERIOR WALLS, THE MIN. TRUSS DEPTH MAY BE REDUCED TO 3" IF THE BATTS AND BLANKETS (ITEM 3) ARE USED AS SHOWN IN THE ABOVE ILLUSTRATION (ALTERNATE ILLUSTRATION PLACEMENT) AND ARE FIRMLY PACKED AGAINST THE INTERSECTION OF THE BOTTOM CHORDS AND THE PLYWOOD SHEATHING.
3. BATTS AND BLANKETS - (OPTIONAL) - GLASS FIBER INSULATION FITTED IN THE CONCEALED SPACE, DRAPED OVER THE RESILIENT CHANNELS AND GYPSUM WALLBOARD CEILING MEMBRANE OR FASTENED TO UNDERSIDE OF THE ROOFING SYSTEM. ANY GLASS FIBER INSULATION BEARING THE UL CLASSIFICATION MARKING AS TO SURFACE BURNING CHARACTERISTICS AND/OR FIRE RESISTANCE, HAVING A MIN. DENSITY OF 0.5 PCF.

3A. LOOSE FILL MATERIAL - AS AN ALTERNATE TO ITEM 3, ANY LOOSE FILL MATERIAL BEARING THE UL CLASSIFICATION MARKING FOR SURFACE BURNING CHARACTERISTICS, HAVING A MIN. DENSITY OF 0.5 PCF.

4. AIR DUCT - ANY UL CLASS 0 OR CLASS 1 FLEXIBLE AIR DUCT INSTALLED IN ACCORDANCE WITH THE INSTRUCTIONS PROVIDED BY THE DAMPER MANUFACTURER.
5. CEILING DAMPER - MAXIMUM NOMINAL AREA, 324 SQ. IN. WITH AT MAXIMUM SQUARE SIZE, 18"x18" RECTANGULAR SIZES NOT TO EXCEED 324 SQ. IN. WITH A MAXIMUM WIDTH OF 18" MAXIMUM DAMPER HEIGHT IS 14" INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION INSTRUCTIONS PROVIDED WITH THE DAMPER. MAXI. DAMPER OPENINGS NOT TO EXCEED 162 SQ. IN. PER 100 S.F. OF CEILING AREA.
6. FURRING CHANNELS - RESILIENT CHANNELS, MIN. 3/8" DEEP BY MIN. 2" WIDE AT BASE AND MIN. 1 1/4" WIDE AT THE FACE, FORMED FROM 0.020" THICK GALVANIZED STEEL, SPACED 12" O.C. CHANNELS SECURED TO EACH TRUSS WITH 1 1/4" LONG TYPE S STEEL SCREWS. CHANNELS OVERLAPPED AT SPLICES 4". CHANNELS ORIENTED OPPOSITE AT WALLBOARD BUTT JOINTS (SPACED 6" O.C.) AS SHOWN IN THE ABOVE ILLUSTRATION.
7. GYPSUM BOARD - NOM. 5/8" THICK, 48" WIDE GYPSUM BOARD, INSTALLED WITH LONG DIMENSION PERPENDICULAR TO RESILIENT CHANNELS. GYPSUM BOARD SECURED WITH 1 1/8" LONG TYPE S SCREWS SPACED 12" O.C. AND LOCATED A MIN. OF 1/2" FROM SIDE JOINTS AND 3" FROM THE END JOINTS. AT END JOINTS, TWO RESILIENT CHANNELS ARE USED, EXTENDING A MIN. OF 6" BEYOND BOTH ENDS OF THE JOINT. WHEN INSULATION, ITEM 3 OR 3A, IS DRAPED OVER THE THE RESILIENT CHANNEL / GYPSUM WALLBOARD CEILING MEMBRANE, SCREWS SHALL BE INSTALLED AT 8" O.C.
8. FINISHING SYSTEM - (NOT SHOWN) - VINYL, DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOINTS AND SCREW-HEADS. NOM 2" WIDE PAPER TAPE EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS.

DESIGN NO. L514

UNRESTRAINED ASSEMBLY RATING - 1 HR



1. FLOORING SYSTEMS -

   SYSTEM NO. 3

   SUBFLOORING - MIN 19/32" THICK WOOD STRUCTURAL PANELS, MIN. GRADE "C-D" OR "SHEATHING". FACE GRAIN OF PLYWOOD OR STRENGTH AXIS OF PANELS TO BE PERPENDICULAR TO JOISTS WITH JOINTS STAGGERED.

   FINISH FLOORING - FLOOR TOPPING MIXTURE - MIN 3/4" THICKNESS OF FLOOR TOPPING MIXTURE HAVING A MIN. COMPRESSIVE STRENGTH OF 1100 PSI. MIXTURE SHALL CONSIST OF 6.8 GAL. OF WATER TO 80 LBS. OF FLOOR TOPPING MIXTURE TO 1.9 CU. FT. OF SAND.

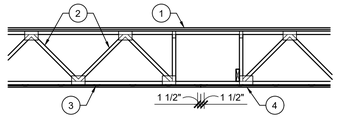
2. WOOD JOISTS - MIN. 2x10 JOIST SPACED 16" O.C. AND EFFECTIVELY FIREBLOCKED IN ACCORDANCE WITH LOCAL CODES.
3. CROSS BRIDGING - MIN. 1x3 OR MIN. 2x10 SOLID BLOCKING.

3A. HORIZONTAL BRIDGING - USED IN LIEU OF ITEM 3 IN SAME JOIST BAY AS ITEM 4 (CEILING DAMPER), WHEN ITEM 4 IS EMPLOYED. WOOD 2x4 SECURED BETWEEN JOISTS WITH NAILS.

4. CEILING DAMPER - (OPTIONAL) - MAX. NOM AREA SHALL BE 198 SQ. IN. MAX RECTANGULAR SIZE SHALL BE 12" WIDE BY 16 1/2" LONG. MAX HEIGHT OF DAMPER SHALL BE 8 3/4" AGGREGATE DAMPER OPENINGS SHALL NOT EXCEED 99 SQ. IN. PER 100 SQ. FT. OF CEILING AREA. DAMPER INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION INSTRUCTIONS PROVIDED WITH THE DAMPER. A STEEL GRILLE (ITEM 8) SHALL BE INSTALLED IN ACCORDANCE WITH INSTALLATION INSTRUCTIONS.
5. RESILIENT CHANNELS - FORMED OF 25 MSG GALVANIZED STEEL, SPACED 24" O.C. PERPENDICULAR TO JOISTS. CHANNELS OVERLAPPED AT SPLICES 4" AND FASTENED TO EACH JOIST WITH 1 1/4" LONG TYPE S BUGLE HEAD SCREWS. ADDITIONAL RESILIENT CHANNELS POSITIONED SO AS TO COINCIDE WITH END JOINTS OF GYPSUM BOARD (ITEM 6). ADDITIONAL CHANNELS SHALL EXTEND MIN. 3" BEYOND EACH SIDE EDGE OF BOARD.
6. GYPSUM BOARD - NOM. 1/2" THICK, 4'-0" WIDE GYPSUM BOARD. WHEN RESILIENT CHANNELS (ITEM 5) ARE USED, GYPSUM BOARD INSTALLED WITH LONG DIMENSION PERPENDICULAR TO RESILIENT CHANNELS AND THE SIDE EDGES OF THE BOARD LOCATED BETWEEN JOISTS. GYPSUM BOARD FASTENED TO RESILIENT CHANNELS WITH 1" LONG TYPE S BUGLE HEAD SCREWS SPACED 12"O.C. END JOINTS OF GYPSUM BOARD SIMILARLY FASTENED TO ADDITIONAL RESILIENT CHANNELS POSITIONED AT END JOINT LOCATIONS. SCREWS LOCATED 3/4" MIN. DISTANCE FROM SIDES AND 1/2" MIN. FROM ENDS OF GYPSUM BOARD SHEETS.
7. FINISHING SYSTEM - (NOT SHOWN) - VINYL, DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOINTS AND SCREW-HEADS. NOM. 2" WIDE PAPER TAPE EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS. AS AN ALTERNATE, NOM. 3/32" THICK VENEER PLASTER MAY BE APPLIED TO THE ENTIRE SURFACE OF GYPSUM BOARD.
8. GRILLE - STEEL GRILLE, INSTALLED IN ACCORDANCE WITH THE INSTALLATION INSTRUCTIONS PROVIDED WITH THE CEILING DAMPER.

DESIGN NO. L534

UNRESTRAINED ASSEMBLY RATING - 1 HR



1. FLOORING SYSTEMS -

   SYSTEM NO. 2

   SUBFLOORING - MIN 23/32" THICK T&G PLYWOOD WOOD STRUCTURAL PANELS, MIN. GRADE "UNDERLAYMENT"/ FACE GRAIN OF PLYWOOD TO BE PERPENDICULAR TO THE TRUSSES WITH END JOINTS STAGGERED 4 FT. PLYWOOD SECURED TO TRUSSES WITH CONSTRUCTION ADHESIVE AND NO. 6d RINGED SHANK NAILS SPACED 12" O.C. ALONG EACH TRUSS. ADHESIVE APPLIED AS 3/8" DIA. BEAD TO TOP CHORD OF TRUSSES AND GROOVED EDGES OF PLYWOOD.

   VAPOR BARRIER - (OPTIONAL) - COMMERCIAL ASPHALT SATURATED FELT, 0.030" THICK.

   VAPOR BARRIER - (OPTIONAL) - NOM. 0.010" THICK COMMERCIAL ROSIN-SIZED BUILDING PAPER.

   FINISH FLOORING - MIN 3/4" THICKNESS OF LIGHTWEIGHT INSULATING CONCRETE WITH PERLITE AGGREGATE OR VERMICULITE AGGREGATE, OR GYPSUM CONCRETE.

2. TRUSSES - PARALLEL CHORD TRUSSES, SPACE A MAX. 24"O.C., FABRICATED FROM NOM. 2x4 LUMBER WITH LUMBER ORIENTATED VERTICALLY OR HORIZONTALLY. MIN. TRUSS DEPTH IS 18". TRUSS MEMBERS SECURED TOGETHER WITH MIN. 0.0356" THICK GALVANIZED PLATES. PLATES HAVE 5/16" LONG TEETH PROJECTING PERPENDICULAR TO THE PLANE OF THE PLATE. THE TEETH ARE IN PAIRS FACING EACH OTHER (MADE FROM THE SAME PUNCH) FORMING A SPLIT TOOTH TYPE PLATE. EACH TOOTH HAS A CHISEL POINT ON ITS OUTSIDE EDGE. THESE POINTS ARE DIAGONALLY OPPOSITE EACH OTHER FOR EACH PAIR. THE TOP HALF OF EACH TOOTH HAS A TWIST FOR STIFFNESS. THE PAIRS ARE REPEATED ON APPROX. 7/8" CENTERS WITH FOUR ROWS OF TEETH PER INCH OF PLATE WIDTH.
3. RESILIENT CHANNELS - RESILIENT CHANNEL FORMED FROM NO. 26 MSG GALVANIZED STEEL, SPACED 16" O.C. PERPENDICULAR TO TRUSSES. CHANNELS SECURED TO EACH TRUSS WITH 1 1/4" LONG NO. 6 TYPE S BUGLE HEAD SCREW. CHANNELS OVERLAPPED AT SPLICES 4". TWO RESILIENT CHANNELS USED AT END JOINTS OF GYPSUM BOARD (ITEM 4), EACH EXTENDING A MIN OF 6" BEYOND BOTH SIDE EDGES OF THE BOARD.
4. GYPSUM BOARD - ONE LAYER OF NOM. 5/8" THICK, 4'-0" WIDE GYPSUM BOARD, INSTALLED WITH LONG DIMENSION PERPENDICULAR TO FURRING OR RESILIENT CHANNELS. GYPSUM BOARD SECURED WITH 1" LONG NO. 6 TYPE S BUGLE HEAD STEEL SCREWS SPACED 12" O.C. AND LOCATED A MIN. OF 1 1/2" FROM SIDE AND END JOINTS. END JOINTS SECURED TO BOTH FURRING OR RESILIENT CHANNELS AS SHOWN IN THE END JOINT DETAIL.
5. FINISHING SYSTEM - (NOT SHOWN) - VINYL, DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOINTS AND SCREW-HEADS. NOM 2" WIDE PAPER TAPE EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS. AS AN ALTERNATE, NOM 3/32" THICK VENEER PLASTER MAY BE APPLIED TO THE ENTIRE SURFACE OF GYPSUM BOARD.

STATE OF OHIO
JONATHAN ROBERT SCHAAF
#14503
REGISTERED ARCHITECT
PRELIMINARY NOT FOR CONSTRUCTION

Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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OBERER COMPANIES
3445 Newmark Drive
Miamisburg, Ohio 45342

New Multi-Family Building:
Senior Village at Valle Greene
1155 Channingway Drive
Fairborn, Ohio 45324
OHFA Tracking Number: 24-0087

Project Number
2023-191

Date
September 13, 2024

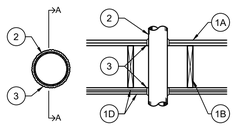
Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
UL ASSEMBLIES

Sheet Number
G1.05

SYSTEM NO. F-C-1010

F RATINGS - 1 AND 2 HOUR (SEE ITEM 1)
T RATINGS - 1/2, 3/4, 1 AND 1 1/2 HOUR (SEE ITEM 2)
L RATING AT AMBIENT - LESS THAN 1 CFM/S.F.
L RATING AT 400° F - LESS THAN 1 CFM/S.F.



SECTION A-A

1. FLOOR-CEILING ASSEMBLY - THE 1 HOUR FIRE RATED SOLID OR TRUSSED LUMBER JOISTS FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL L500 SERIES FLOOR-CEILING DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY. THE 2 HOUR FIRE-RATED WOOD JOIST FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN DESIGN NUMBERS L505, L511 OR L536 IN THE UL FIRE RESISTANCE RATING DIRECTORY. THE F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE FLOOR-CEILING ASSEMBLY. THE GENERAL CONSTRUCTION FEATURES OF THE FLOOR-CEILING ASSEMBLY ARE SUMMARIZED BELOW:
   A. FLOORING SYSTEM - LUMBER OR PLYWOOD SUBFLOOR WITH FINISH FLOOR OF LUMBER, PLYWOOD OR FLOOR TOPPING MIXTURE* AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX. DIA. OF FLOOR OPENING IS 5".
   B. WOOD JOISTS* - FOR 1 HOUR FIRE-RATED FLOOR-CEILING ASSEMBLIES, NOM. 10" DEEP (OR DEEPER) LUMBER, STEEL OF COMBINATION LUMBER AND STEEL JOISTS, TRUSSES OF STRUCTURAL WOOD MEMBERS* WITH BRIDGING AS REQUIRED AND WITH ENDS FIRESTOPPED. FOR 2 HOUR FIRE-RATED FLOOR-CEILING ASSEMBLIES, NOM. 2x10 LUMBER JOISTS SPACED 16" O.C. WITH NOM. 1x3 LUMBER BRIDGING AND WITH ENDS FIRESTOPPED.
   C. FURRING CHANNELS - (NOT SHOWN) - IN 2 HOUR FIRE-RATED ASSEMBLIES, RESILIENT GALVANIZED STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS BETWEEN FIRST AND SECOND LAYERS OF GYPSUM BOARD (ITEM 1D). FURRING CHANNELS SPACED MAX. 24" O.C. IN 1 HOUR FIRE-RATED ASSEMBLIES, RESILIENT GALVANIZED STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS BETWEEN GYPSUM BOARD AND WOOD JOISTS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. FURRING CHANNELS SPACED MAX. 24" O.C.
   D. GYPSUM BOARD* - NOM. 4' WIDE BY 5/8" THICK AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. FIRST LAYER OF GYPSUM BOARD SECURED TO WOOD JOISTS OR FURRING CHANNELS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. SECOND LAYER OF GYPSUM BOARD (2 HOUR FIRE-RATED ASSEMBLY) SCREW-ATTACHED TO FURRING CHANNELS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX. DIA. OF CEILING OPENING IN 5".
2. THROUGH PENETRANTS - ONE METALLIC PIPE, CONDUIT OR TUBE INSTALLED APPROXIMATELY MIDWAY BETWEEN WOOD JOISTS. DIA. OF OPENINGS HOLE-SAWED THROUGH FLOORING SYSTEM AND THROUGH GYPSUM BOARD CEILING TO BE NOM 1/2" GREATER THAN THE OUTSIDE DIA. OF THROUGH-PENETRANT. FOR 1 HOUR RATED FLOOR ASSEMBLIES, THROUGH PENETRANT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE OPENING WITH AN ANNULAR SPACE OF 0" (POINT CONTACT) TO 1/2". FOR 2 HOUR RATED FLOOR ASSEMBLIES, THROUGH PENETRANT TO BE CENTERED IN THE OPENING. PIPE, CONDUIT OR TUBE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR-CEILING ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
   A. STEEL PIPE - NOM. 4" DIA. (OR SMALLER) SCHEDULE 5 (OR HEAVIER) STEEL PIPE.
   B. IRON PIPE - NOM. 4" DIA. (OR SMALLER) CAST OR DUCTILE IRON PIPE.
   C. CONDUIT - NOM. 4" DIA. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR STEEL CONDUIT.
   D. COPPER PIPE - NOM. 4" DIA. (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
   E. COPPER TUBING - NOM. 4" DIA. (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.

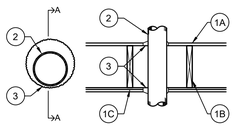
   THE T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY RATING OF THE FLOOR-CEILING ASSEMBLY AND TYPE OF THROUGH-PENETRANT USED AS SHOWN IN THE TABLE BELOW:

FLOOR CEILING RATING HR.	TYPE OF PENETRANT	T RATING HOUR
1	STEEL OR IRON PIPE	1
1	STEEL CONDUIT	1
1	COPPER TUBE OR PIPE	3/4
2	STEEL OR IRON PIPE	1 1/2
2	STEEL CONDUIT	1 1/2
2	COPPER TUBE OR PIPE	1/2

3. FILL, VOID OR CAVITY MATERIAL* - FILL MATERIAL FORCED INTO ANNULUS TO FILL SPACE TO MAX. EXTENT POSSIBLE ON TOP SURFACE OF FLOOR AND BOTTOM SURFACE OF CEILING. MIN. 3/8" DIA. BEAD OF FILL MATERIAL APPLIED AT POINT CONTACT LOCATION ON TOP SURFACE OF FLOOR AND BOTTOM SURFACE OF GYPSUM BOARD CEILING.

SYSTEM NO. F-C-2032

F RATINGS - 1 HOUR
T RATINGS - 0, 1/4, 3/4 AND 1 HOUR (SEE ITEM 2)
L RATING AT AMBIENT - LESS THAN 1 CFM/S.F.
L RATING AT 400° F - LESS THAN 1 CFM/S.F.



SECTION A-A

1. FLOOR-CEILING ASSEMBLY - THE 1 HOUR FIRE RATED SOLID OR TRUSSED LUMBER JOISTS FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL L500 SERIES FLOOR-CEILING DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY. THE GENERAL CONSTRUCTION DETAILS OF THE FLOOR-CEILING ASSEMBLY ARE SUMMARIZED BELOW:
   A. FLOORING SYSTEM - LUMBER OR PLYWOOD SUBFLOOR WITH FINISH FLOOR OF LUMBER, PLYWOOD OR FLOOR TOPPING MIXTURE* AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX. DIA. OF FLOOR OPENING IS 5".
   B. WOOD JOISTS* - NOM. 2x10 LUMBER JOISTS SPACED 16" O.C. WITH NOM. 1x3 LUMBER BRIDGING AND WITH ENDS FIRESTOPPED. AS AN ALTERNATE TO LUMBER JOIST, NOM. 10" DEEP (OR DEEPER) LUMBER, STEEL OF COMBINATION LUMBER AND STEEL JOISTS, TRUSSES OF STRUCTURAL WOOD MEMBERS* WITH BRIDGING AS REQUIRED AND WITH ENDS FIRESTOPPED.
   C. FURRING CHANNELS - (NOT SHOWN) - RESILIENT GALVANIZED STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS (ITEM 1B) BETWEEN GYPSUM BOARD (ITEM 1D) AND WOOD JOISTS AS REQUIRED IN THE INDIVIDUAL FLOOR-CEILING DESIGN.
   D. GYPSUM BOARD* - NOM. 4' WIDE BY 5/8" THICK AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. GYPSUM BOARD SECURED TO WOOD JOISTS OR FURRING CHANNELS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX. DIA. OF CEILING OPENING IN 5".

1.1 CHASE WALL - (OPTIONAL NOT SHOWN) - THE THROUGH PENETRANT (ITEM NO. 2) MAY BE ROUTED THROUGH A FIRE RATED OR NON FIRE RATED SINGLE, DOUBLE OR STAGGERED WOOD STUD/GYPSUM BOARD CHASE WALL. WHEN FIRE RATED THE CHASE WALL SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
   A. STUDS - NOM. 2x4, 2x6 OR DOUBLE 2x4 LUMBER STUDS.
   B. SOLE PLATE - NOM. 2x4, 2x6 OR PARALLEL 2x4 LUMBER PLATES, TIGHTLY BUTTED.
   C. TOP PLATE - THE DOUBLE TOP PLATE SHALL CONSIST OF 2x4 OR 2x6 OR TWO SETS OF PARALLEL 2x4 LUMBER PLATES, TIGHTLY BUTTED/ MAX. DIA. OF OPENING IS 4".
   D. GYPSUM BOARD* - THICKNESS, TYPE, NUMBER OF LAYERS AND FASTENERS SHALL BE AS SPECIFIED IN INDIVIDUAL WALL AND PARTITION DESIGN.

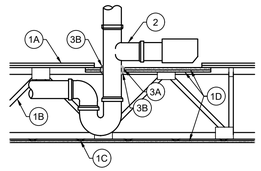
2. THROUGH PENETRANTS - ONE METALLIC PIPE, CONDUIT OR TUBE TO BE INSTALLED WITHIN THE FIRESTOP SYSTEM. DIA. OF OPENINGS HOLE-SAWED THROUGH FLOORING SYSTEM AND THROUGH GYPSUM BOARD CEILING TO BE 1/4 TO 1 5/8" LARGER THAN THE OUTSIDE DIA. OF THROUGH-PENETRANT. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR-CEILING ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
   A. POLYVINYL CHLORIDE (PVC) PIPE - NOM. 2" DIA. (OR SMALLER) SCHEDULE 40 SOLID OR CELLULAR CORE PVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THE PENETRANT IS USED IS 1 HOUR EXCEPT THAT WHEN NOM. DIA. OF PIPE EXCEEDS 1", THE T RATING IS 1/4 HOUR.
   B. RIGID NONMETALLIC CONDUIT (RNC)+ - NOM. 2" DIA. (OR SMALLER) SCHEDULE 40 PVC CONDUIT INSTALLED IN ACCORDANCE WITH ARTICLE 347 OF THE NATIONAL ELECTRICAL CODE (NFPA NO. 70). THE T RATING FOR THE FIRESTOP SYSTEM WHEN THE PENETRANT IS USED IS 1 HOUR EXCEPT THAT WHEN NOM. DIA. OF PIPE EXCEEDS 1", THE T RATING IS 1/4
   C. CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE - NOM. 2" DIA. (OR SMALLER) SDR 17 CPVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THE PENETRANT IS USED IS 1 HOUR EXCEPT THAT WHEN NOM. DIA. OF PIPE EXCEEDS 1", THE T RATING IS 1/4
   D. ACRYLONITRILE BUTADIENE STYRENE (ABS) PIPE - NOM. 2" DIA. (OR SMALLER) SCHEDULE 40 CELLULAR OF SOLID CORE ABS PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THE PENETRANT IS USED IS 0 HOUR.
   E. POLYBUTYLENE (PB) PIPE - NOM. 1" DIA. (OR SMALLER) SDR 11 PB PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THE PENETRANT IS USED IS 1 HOUR.
   F. CROSS LINKED POLYETHYLENE ALUMINUM-CROSS LINKED POLTETHYLENE (PEX-AL-PEX) TUBING - NOM. 1" DIA. (OR SMALLER) SDR 5 PEX AL-PEX TUBING FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THE PENETRANT IS USED IS 3/4 HOUR.
   G. CROSS LINKED POLYETYLENE (PEX) TUBING - NOM. 2" DIA. (OR SMALLER) SDR 9 PEX TUBING FOR USE CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. THE T RATING FOR THE FIRESTOP SYSTEM WHEN THE PENETRANT IS USED IS 1 HOUR.
   H. ELECTRICAL NONMETALLIC TUBING (ENT)+ - NOM. 2" DIA. (OR SMALLER) PVC TUBING INSTALLED IN ACCORDANCE WITH ARTICLE 331 OF THE NATIONAL ELECTRICAL CODE (NFPA NO. 70). THE T RATING FOR THE FIRESTOP SYSTEM WHEN THE PENETRANT IS USED IS 1 HOUR EXCEPT TYHAT WHEN NOM. DIA. OF TUBE EXCEEDS 1", THE T RATING IS 1/4 HOUR
   I. CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE - NOM. 2" DIA. (OR SMALLER) SCHEDULE 80 CPVC PIPE IS USED IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS.

   WHEN 2A, 2B, 2C, 2E, 2F, 2G, 2H, OR 2I IS USED, THE ANNULAR SPACE SHALL BE MIN. 0" (POINT CONTACT) TO MAX. 1 5/8". WHEN 2D IS USED THE ANNULAR SPACE SHALL BE MIN. 0" (POINT CONTACT) TO MAX. 1" EXCEPT THAT WHEN NOM. PIPE DIA EXCEEDS 1 1/2", THE MAX. ANNULAR SPACE IS 5/8".

3. FILL, VOID OR CAVITY MATERIAL* - MIN. 3/4" THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS ON TOP SURFACE OF FLOOR. MIN. 5/8" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS ON BOTTOM SURFACE OF CEILING OF LOWER TOP PLATE OF CHASE WALL ASSEMBLY. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN. 1/8" CROWN IS FORMED AROUND THE THROUGH PENETRANT ON BOTTOM SURFACE OF CEILING OR LOWER PLATE OF CHASE WALL ASSEMBLY.

SYSTEM NO. F-C-2036

F RATINGS - 1 HOUR
T RATINGS - 1 HOUR



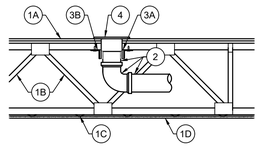
1. FLOOR-CEILING ASSEMBLY - THE FIRE RATED SOLID OR TRUSSED LUMBER JOISTS FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL L500 SERIES FLOOR-CEILING DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY. THE GENERAL CONSTRUCTION DETAILS OF THE FLOOR-CEILING ASSEMBLY ARE SUMMARIZED BELOW:
   A. FLOORING SYSTEM - LUMBER OR PLYWOOD SUBFLOOR WITH FINISH FLOOR OF LUMBER, PLYWOOD OR FLOOR TOPPING MIXTURE* AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. RECTANGULAR CUTOUT IN FLOORING TO ACCOMMODATE THE BATHTUB DRAIN PIPING (ITEM 2) TO BE MAX. 8"x12"
   B. WOOD JOISTS* - NOM. 2x10 LUMBER JOISTS SPACED 16" O.C. WITH NOM. 1x3 LUMBER BRIDGING AND WITH ENDS FIRESTOPPED. AS AN ALTERNATE TO LUMBER JOIST, NOM. 10" DEEP (OR DEEPER) LUMBER, STEEL OR COMBINATION LUMBER AND STEEL JOISTS, TRUSSES OF STRUCTURAL WOOD MEMBERS* WITH BRIDGING AS REQUIRED AND WITH ENDS FIRESTOPPED.
   C. FURRING CHANNELS - RESILIENT GALVANIZED STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS (ITEM 1B) BETWEEN GYPSUM BOARD (ITEM 1D) AND WOOD JOISTS AS REQUIRED IN THE INDIVIDUAL FLOOR-CEILING DESIGN.
   D. GYPSUM BOARD* - NOM. 4' WIDE BY 5/8" THICK AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. GYPSUM BOARD SECURED TO WOOD JOISTS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. TWO PIECES OF GYPSUM BOARD, EACH MIN. 4" LONGER AND WIDER THAN THE CUTOUT IN THE FLOORING, SCREW-ATTACHED TO BOTTOM OF FLOORING CONCENTRIC WITH CUTOUT. DIA. OF OPENING HOLE-SAWED THROUGH BOTH LAYERS OF THE GYPSUM BOARD PATCH TO BE 1/2" TO 5/8" LARGER THAN OUTSIDE DIA. OF BATHTUB DRAIN PIPING (ITEM 2).

2. DRAIN PIPING - NOM. 1 1/2" DIA. SCHEDULE 40 POLYVINYL CHLORIDE (PVC) OR ACRYLONITRILE BUTADIENE STYRENE (ABS) DRAIN PIPES AND FITTINGS CEMENTED TOGETHER AND PROVIDED WITH PVC OR ABS BATHTUB WASTE/OVERFLOW FITTINGS, RESPECTIVELY.

3. FIRESTOP SYSTEM - THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
   A. FILL, VOID OR CAVITY MATERIAL* - WRAP STRIP - NOM. 1/4" THICK INTUMESCENT ELASTOMERIC MATERIAL FACED ON BOTH SIDE WITH A PLASTIC FILM, SUPPLIED IN 1 1/2" WIDE STRIPS. NOM. 1 1/2" WIDE STRIP TIGHTLY WRAPPED AROUND DRAIN PIPING SECURED TOGETHER EITH 1 1/2" WIDE ALUMINUM FOIL TAPE AND SLID INTO HOLE-SAWED OPENING IN GYPSUM BOARD PATCH (ITEM 1D). TOP EDGE OF WRAP STRIP TO EXTEND A NOM. 1/2" BELOW ABOVE TOP SURFACE OF GYPSUM BOARD PATCH.
   B. FILL, VOID OR CAVITY MATERIAL* - SEALANT - NOM. 1/4"" THICKNESS OF FILL MATERIAL TO BE APPLIED TO PERIMETER OF WRAP STRIP AT ITS EGRESS FROM THE UNDERSIDE OF THE GYPSUM BOARD PATCH. NOM. 1/4" THICKNESS OF FILL MATERIAL TO BE APPLIED TO THE EXPOSED EDGE OF THE WRAP STRIP LAYER AND TO FILL ALL GAPS BETWEEN THE WRAP STRIP LAYER AND THE TEE OF THE DRAIN FITTING ON THE TOP SURFACE OF THE GYPSUM BOARD PATCH.

SYSTEM NO. F-C-2037

F RATINGS - 1 HOUR
T RATINGS - 1 HOUR



1. FLOOR-CEILING ASSEMBLY - THE FIRE RATED SOLID OR TRUSSED LUMBER JOIST FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL L500 SERIES FLOOR-CEILING DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY. THE GENERAL CONSTRUCTION DETAILS OF THE FLOOR-CEILING ASSEMBLY ARE SUMMARIZED BELOW:
   A. FLOORING SYSTEM - LUMBER OR PLYWOOD SUBFLOOR WITH FINISH FLOOR OF LUMBER, PLYWOOD OR FLOOR TOPPING MIXTURE* AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX. DIA. OF OPENING IS 5".
   B. WOOD JOISTS* - NOM. 2x10 LUMBER JOISTS SPACED 16" O.C. WITH NOM. 1x3 LUMBER BRIDGING AND WITH ENDS FIRESTOPPED. AS AN ALTERNATE TO LUMBER JOIST, NOM. 10" DEEP (OR DEEPER) LUMBER, STEEL OR COMBINATION LUMBER AND STEEL JOISTS, TRUSSES OF STRUCTURAL WOOD MEMBERS* WITH BRIDGING AS REQUIRED AND WITH ENDS FIRESTOPPED.
   C. FURRING CHANNELS - RESILIENT GALVANIZED STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS (ITEM 1B) BETWEEN GYPSUM BOARD (ITEM 1D) AND WOOD JOISTS AS REQUIRED IN THE INDIVIDUAL FLOOR-CEILING DESIGN.
   D. GYPSUM BOARD* - NOM. 4' WIDE BY 5/8" THICK AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. GYPSUM BOARD SECURED TO WOOD JOISTS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN.

2. DRAIN PIPING - NOM. 4" DIA. SCHEDULE 40 POLYVINYL CHLORIDE (PVC) OR ACRYLONITRILE BUTADIENE STYRENE (ABS) DRAIN PIPING AND FITTINGS. DIA OF CIRCULAR OPENING HOLE THROUGH FLOORING (ITEM 1A) TO BE MAX. 1/2" LARGER THAN OUTSIDE DIA. OF PIPE. SHORT LENGTH OF PIPE WITH 90 DEGREE ELBOW FITTING CEMENTED INTO BOTTOM SOCKET OF CLOSET FLANGE (ITEM 5). DRAIN PIPING CEMENTED TO ELBOW.

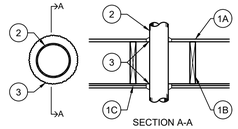
3. FIRESTOP SYSTEM - THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
   A. FILL, VOID OR CAVITY MATERIAL* - WRAP STRIP - NOM. 1/4" THICK INTUMESCENT ELASTOMERIC MATERIAL FACED ON BOTH SIDE WITH A PLASTIC FILM, SUPPLIED IN 1 1/2" WIDE STRIPS. NOM. 1 1/2" WIDE STRIP TIGHTLY WRAPPED AROUND NONMETALLIC PIPE WITH EDGES BUTTED AGAINST THE UNDERSIDE OF FLOORING AROUND THE ENTIRE PERIMETER OF THE HOLE-SAWED OPENING. TWO LAYERS OF WRAP STRIP ARE REQUIRED. EACH LAYER OF WRAP STRIP TO BE INSTALLED WITH BUTTED SEAM, BUTTED SEAMS IN SUCCESSIVE LAYERS STAGGERED OR ALIGNED. WRAP STRIP LAYER(S) TEMPORARILY HELD IN POSITION USING ALUMINUM FOIL TAPE..
   B. STEEL COLLAR - COLLAR FABRICATED FROM COILS OF PRECUT 0.016" THICK (30 MSG) GALV. SHEET STEEL AVAILABLE FROM WRAP STRIP MANUFACTURER. COLLAR SHALL BE NOM. 1 1/2" DEEP WITH MIN. FOUR 1" WIDE BY 2" LING ANCHOR TABS FOR SECUREMENT TO TOP SURFACE OF FLOORING. RETAINER TABS, 3/4" WIDE TAPERING DOWN TO 1/4" WIDE AND LOCATED OPPOSITE THE ANCHOR TABS, ARE FOLDED 90 DEGREES TOWARD THROUGH-PENETRANT SURFACE TO MAINTAIN THE ANNULAR SPACE AROUND THE THROUGH-PENETRANT AND TO RETAIN THE WRAP STRIPS. STEEL COLLAR WRAPPED AROUND WRAP STRIPS AND THROUGH-PENETRANT WITH A 1" WIDE OVERLAP ALONG ITS PERIMETER JOINT AND SECURED TOGETHER BY MEANS OF A MIN. 1/2" WIDE BY 0.028" THICK STAINLESS STEEL HOSE CLAMP AT MID-HEIGHT OF THE STEEL COLLAR. AS AN ALTERNATE TO THE STEEL HOSE CLAMP, THE STEEL COLLAR CAN BE SECURED TOGETHER BY MEANS OF THREE NO. 8 BY 3/8" LONG STEEL SHEET METAL SCREWS. ANCHOR TABS OF COLLAR BENT OUTWARDS AND SECURED TO TOP SURFACE OF FLOORING OR UNDERSIDE OF FLOOR USING MIN. 3/4" LONG STEEL WOOD SCREWS IN CONJUNCTION WITH 1/4" BY 1 1/4" DIA. STEEL FENDER WASHERS.

4. CLOSET FLANGE - PVC OR ABS CLOSET STUB SIZED TO ACCOMMODATE DRAIN PIPE. CLOSET FLANGE INSTALLED IN HOLE-SAWED OPENING IN FLOORING SYSTEM WITH FLANGE SECURED TO TOP OF FLOORING WITH STEEL SCREWS.

5. WATER CLOSET - (NOT SHOWN) - FLOOR MOUNTED VITREOUS CHINA WATER CLOSET.

SYSTEM NO. F-C-3013

F RATINGS - 1 AND 2 HOUR (SEE ITEM 2A)
T RATINGS - 3/4, 1 AND 2 HOUR (SEE ITEM 2A)
L RATING AT AMBIENT - LESS THAN 1 CFM/S.F.
L RATING AT 400° F - LESS THAN 1 CFM/S.F.



SECTION A-A

1. FLOOR-CEILING ASSEMBLY - THE 1 HOUR FIRE RATED SOLID OR TRUSSED LUMBER JOISTS FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL L500 SERIES FLOOR-CEILING DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY. THE 2 HOUR FIRE RATED WOOD JOIST FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN DESIGN NOS. L505, L511 OR L536 IN THE UL FIRE RESISTANCE DIRECTORY. THE GENERAL CONSTRUCTION DETAILS OF THE FLOOR-CEILING ASSEMBLY ARE SUMMARIZED BELOW:
   A. FLOORING SYSTEM - LUMBER OR PLYWOOD SUBFLOOR WITH FINISH FLOOR OF LUMBER, PLYWOOD OR FLOOR TOPPING MIXTURE* AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX. DIA. OF FLOOR OPENING IS 2".
   B. WOOD JOISTS* - FOR 1 HOUR FIRE-RATED FLOOR-CEILING ASSEMBLIES NOM. 10" DEEP (OR DEEPER) LUMBER, STEEL OR COMBINATION LUMBER AND STEEL JOISTS, TRUSSES OR STRUCTURAL WOOD MEMBERS* WITH BRIDGING AS REQUIRED AND WITH ENDS FIRESTOPPED. FOR 2 HOUR FIRE RATED FLOOR-CEILING ASSEMBLIES, NOM. 2x10 LUMBER JOISTS SPACED 16" O.C. WITH NOM. 1x3 LUMBER BRIDGING AND WITH ENDS FIRESTOPPED.
   C. FURRING CHANNELS - (NOT SHOWN) - IN 2 HOUR FIRE-RATED ASSEMBLIES, RESILIENT GALVANIZED STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS BETWEEN FIRST AND SECOND LAYERS OF GYPSUM BOARD (ITEM 1D). FURRING CHANNELS SPACED MAX. 24" O.C.. IN 1 HOUR FIRE-RATED ASSEMBLIES, RESILIENT GALVANIZED STEEL FURRING INSTALLED PERPENDICULAR TO WOOD JOISTS BETWEEN GYPSUM BOARD AND WOOD JOISTS A SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. FURRING CHANNELS SPACED MAX. 24" O.C..
   D. GYPSUM BOARD* - NOM. 4' WIDE BY 5/8" THICK AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. FIRST LAYER OF GYPSUM BOARD SECURED TO WOOD JOISTS OR FURRING CHANNELS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. SECOND LAYER OF GYPSUM BOARD (2 HOUR FIRE-RATED ASSEMBLY) SCRWE ATTACHED TO FURRING CHANNELS AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX. DIA. OF CEILING OPENING IN 2".

1.1 CHASE WALL - (OPTIONAL, NOT SHOWN) - THE THROUGH PENETRANT (ITEM NO. 2) MAY BE ROUTED THROUGH A FIRE RATED SINGLE, DOUBLE OR STAGGERED WOOD STUD/GYPSUM BOARD CHASE WALL HAVING A FIRE RATING CONSISTANT WITH THAT OF THE FLOOR-CEILING ASSEMBLY. THE CHASE WALL SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
   A. STUDS - NOM. 2x6 OR DOUBLE 2x4 LUMBER STUDS.
   B. SOLE PLATE - NOM. 2x6 OR PARALLEL 2x4 LUMBER PLATES, TIGHTLY BUTTED.
   C. TOP PLATE - THE DOUBLE TOP PLATE SHALL CONSIST OF TWO NOM. 2x6 OR TWO SETS OF PARALLEL 2x4 LUMBER PLATES, TIGHTLY BUTTED/ MAX. DIA. OF OPENING IS 2".
   D. GYPSUM BOARD* - THICKNESS, TYPE, NUMBER OF LAYERS AND FASTENERS SHALL BE AS SPECIFIED IN INDIVIDUAL WALL AND PARTITION DESIGN.

2. CABLES - ONE OR MORE CABLES TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. CABLE(S) TO BE INSTALLED APPROX. MIDWAY BETWEEN WOOD JOIST. DIA. OF OPENINGS HOLE-SAWED THROUGH FLOORING SYSTEM AND THROUGH GYPSUM WALLBOARD CEILING TO BE MIN. 3/8" LARGER THAT THE OUTSIDE DIA. OF CABLE OR CABLE BUNDLE. THE ANNULAR SPACE WITHIN THE FIRESTOP SYSTEM SHALL BE A MIN. 0" (POINT CONTACT) TO A MAX. 1 1/4". CABLES TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR-CEILING ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF CABLES MAY BE USED:
   A. MAX. 100 PAIR NO. 24 AWG (OR SMALLER) COPPER CONDUCTOR TELEPHONE CABLE WITH POLYVINYL CHLORIDE (PVC) INSULATION AND JACKET MATERIALS.
   B. MAX. 3/C (WITH GROUND) NO. 2/0 (OR SMALLER) AWG ALUMINUM CONDUCTOR SERVICE ENTRANCE CABLE WITH PVC INSULATION AND JACKET MATERIALS.
   C. MAX. 3/C (WITH GROUND) NO. 12 AWG (OR SMALLER) COPPER CONDUCTOR NONMETALLIC SHEATHED (ROMEX) CABLE WITH PVC INSULATION AND JACKET MATERIALS.

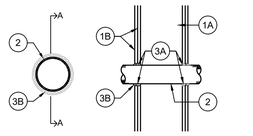
   THE NUMBER OF CABLES ALLOWED WITHIN THE OPENING IS DEPENDANT UPON THE TYPE AND SIZE OF CABLE AS TABULATED IN ITEM 2A.

3. THROUGH PENETRATING PRODUCTS* - (NOT SHOWN) - AS AN ALTERANTE TO ITEM 2, THROUGH-PENETRATING PRODUCT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. ONE CABLE TO BE INSTALLED APPROX. MIDWAY BETWEEN WOOD JOIST. DIA. OF OPENINGS HOLE-SAWED THROUGH FLOORING SYSTEM AND THROUGH GYPSUM BOARD CEILING TO BE MIN. 3/8" LARGER THAT THE OUTSIDE DIA. OF CABLE. THE ANNULAR SPACE WITHIN THE FIRESTOP SYSTEM SHALL BE A MIN. 0" (POINT CONTACT) TO A MAX. 1 1/4". THROUGH PENETRATING PRODUCT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR-CEILING ASSEMBLY. THE FOLLOWING TYPES OF THROUGH-PENETRATING PRODUCTS MAY BE USED
   A. MAX. FOUR COPPER CONDUCTORS NO. 2/0 AWG (OR SMALLER) ALUMINUM OR STEEL ARMORED CABLE# OR METAL-CLAD CABLE+.
   B. TWO OR MORE TWISTED COPPER CONDUCTORS NO. 6 AWG (OR SMALLER) POWER LIMITED CIRCUIT CABLE+ WITH OR WITHOUT A JACKET UNDER A METAL ARMOR.
   C. TWO OR MORE TWISTED COPPER CONDUCTORS NO. 10 AWG (OR SMALLER) POWER LIMITED FIRE ALARM CABLE+ WITH OR WITHOUT A JACKET UNDER A METAL ARMOR.
   D. TWO OR MORE TWISTED COPPER CONDUCTORS NO. 12 AWG (OR SMALLER) NON POWER LIMITED CIRCUIT CABLE+ WITH OR WITHOUT A JACKET UNDER A METAL ARMOR.

   THE F AND T RATINGS OF THE FIRESTOP SYSTEM ARE DEPENDANT UPON THE HOURLY RATING OF THE FLOOR-CEILING AND TYPE AND NUMBER OF THROUGH PENETR

SYSTEM NO. W-L-1091

F RATINGS - 1 AND 2 HOUR (SEE ITEM 1)
T RATINGS - 0 HOUR



SECTION A-A

1. WALL ASSEMBLY - THE FIRE RATED GYPSUM WALLBOARD/ STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

   A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL STUDS. WOOD STUDS TO CONSIST OF NOM. 2x4 LUMBER SPACED 16" O.C. STEEL STUDS TO BE 2 1/2" WIDE AND SPACED MAX. 24" O.C. WHEN STEEL STUDS ARE USED AND THE DIA. OF OPENING EXCEEDS THE WIDTH OF STUD CAVITY, THE OPENING SHALL BE FRAMED ON ALL SIDES USING LENGTHS OF STEEL STUD INSTALLED BETWEEN THE VERTICAL STUDS AND SCREW-ATTACHED TO THE STEEL STUDS AT EACH END. THE FRAMED OPENING IN THE WALL SHALL BE 4"-6" WIDER AND 4"-6" HIGHER THAN THE DIA. OF THE PENETRATING ITEM SUCH THAT, WHEN THE PENETRATING ITEM IS INSTALLED IN THE OPENING, A 2"-3" CLEARANCE IS PRESENT BETWEEN THE PENETRATING ITEM AND THE FRAMING IN ALL FOUR SIDES.
   B. GYPSUM BOARD* - NOM. 4' WIDE BY 5/8" THICK WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIA. OF OPENING IS 24 5/8" FOR STEEL STUD WALLS. MAX. DIA. OF OPENING IS 14 1/2" FOR WOOD STUD WALLS.

   THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.

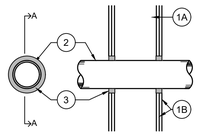
2. THROUGH PENETRANTS - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND THE PERIPHERY OF OPENING SHALL BE MIN. 1/8" TO MAX. 1/2" PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
   A. STEEL PIPE - NOM. 24" DIA. (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
   B. IRON PIPE - NOM. 24" DIA. (OR SMALLER) CAST OR DUCTILE IRON PIPE.
   C. CONDUIT - NOM. 4" DIA. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR 6" DIA. STEEL CONDUIT.
   D. COPPER PIPE - NOM. 6" DIA. (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
   E. COPPER TUBING - NOM. 6" DIA. (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.

3. FIRESTOP SYSTEM - THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:

   A. PACKING MATERIAL - IN 2 HOUR FIRE RATED ASSEMBLIES, MIN. 2" THICKNESS OF MIN. 4 PCF MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM ON BOTH SIDES OF THE WALL. PACKING MATERIAL TO BE RECESSED FROM BOTH SURFACES OF THE WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL. IN 1 HOUR FIRE RATED ASSEMBLIES, MIN. 3 3/4" THICKNESS OF MIN. 4 PCF MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE FLUSH WITH BOTH SURFACES OF THE WALL.
   B. FILL, VOID OR CAVITY MATERIAL* - SEALANT - IN 2 HOUR FIRE RATED ASSEMBLIES, 1/4" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS ON BOTH SURFACES OF WALL. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN. 1/4" THICK CROWN IS FORMED AROUND THE PENETRATING ITEM AND LAPPING A MIN. 1/4" BEYOND THE PERIPHERY OF THE OPENING. IN 1 HOUR FIRE RATED ASSEMBLIES, A MIN. 1/2" THICK CROWN IN FORMED AROUND THE PENETRATING ITEM AND LAPPING A MIN. 1/2" BEYOND THE PERIPHERY OF THE OPENING ON BOTH SURFACES OF WALL.

SYSTEM NO. W-L-2038

F RATINGS - 1 AND 2 HOUR (SEE ITEM 1)
T RATINGS - 1 AND 1 1/2 HOUR (SEE ITEM 1)



SECTION A-A

1. WALL ASSEMBLY - THE 1 OR 2 HOUR FIRE RATED GYPSUM BOARD/ STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

   A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2x4 LUMBER SPACED 16" O.C. STEEL STUDS TO BE A MIN. 2 1/2" WIDE AND SPACED MAX. 24" O.C.
   B. GYPSUM BOARD* - NOM. 5/8" THICK, 4' WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX. DIAMETER OF OPENING IS 4 3/8".

   THE HOURLY F AND T RATINGS OF THE FIRESTOP SYSTEM ARE EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.

2. THROUGH PENETRANTS - ONE NONMETALLIC PIPE OR CONDUIT TO BE CENTERED WITHIN THE FIRE STOP SYSTEM. THE MAX. DIA. OF THE THROUGH PENETRANT AND ANNULAR SPACE WITHIN THE FIRESTOP SYSTEM IS DEPENDANT UPON THE TYPE OF FILL MATERIAL (ITEM 3). PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF NONMETALLIC PIPES, CONDUITS OR TUBING MAY BE USED:

   A. POLYVINYL CHLORIDE (PVC) PIPE - NOM. 2" DIA. (OR SMALLER) SCHEDULE 40 SOLID CORE PVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS.
   B. CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE - NOM. 2" DIA. (OR SMALLER) SDR 17 CPVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS.
   C. RIGID NONMETALLIC CONDUIT + - NOM. 2" DIA. (OR SMALLER) SCHEDULE 40 PVC CONDUIT INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NFPA NO. 70).
   D. ELECTRICAL NONMETALLIC TUBING (ENT)+ - NOM. 1" DIA. (OR SMALLER) PVC TUBING INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NFPA NO. 70).

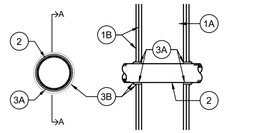
3. FILL, VOID OR CAVITY MATERIAL* - SEALANT - IN 2 HOUR FIRE RATED ASSEMBLIES, MIN. 1 1/4" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. IN 1 HOUR FIRE RATED ASSEMBLIES, MIN. 5/8" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, ON BOTH SURFACES OF WALL. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN. 5/8" THICK CROWN IS FORMED AROUND THE PENETRATING ITEM AND LAPPING A MIN. 1" BEYOND THE PERIPHERY OF THE OPENING.

   THE MAX DIA. OF THE THROUGH PENETRANT AND ANNULAR SPACE WITHIN THE FIRESTOP SYSTEM IS DEPENDANT UPON THE TYPE OF FILL MATERIAL AS TABULATED BELOW:

MAX. DIA. OF THROUGH PENETRANT (IN.)	NOM. ANNULAR SPACE (IN.)	FILL MATERIAL TYPE
1	1/2	FSP 1100 PUTTY
2	1	FS 1900 SEALANT

SYSTEM NO. W-L-2003

F RATINGS - 1 AND 2 HOUR (SEE ITEM 3)
T RATINGS - 1 AND 2 HOUR (SEE ITEM 3)
L RATING AT AMBIENT - 7 CFM/S.F. (SEE ITEM 3B)
L RATING AT 400° F - LESS THAN 1 CFM/S.F. (SEE ITEM 3B)



SECTION A-A

1. WALL ASSEMBLY - 1 AND 2 HOUR FIRE RATED GYPSUM WALLBOARD/ STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300, U400 OR V400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

   A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL STUDS. WOOD STUDS TO CONSIST OF NOW 2x4 LUMBER SPACED 16" O.C. WITH NOM. 2x4 LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE A MIN. 3 5/8" WIDE BY 1 3/8" DEEP CHANNELS SPACED MAX. 24" O.C.
   B. GYPSUM BOARD* - NOM. 4' WIDE BY 5/8" THICK WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300, U400 OR V400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX. DIA. OF OPENING IS 3 1/8".

2. THROUGH PENETRANTS - ONE NONMETALLIC PIPE OR CONDUIT TO BE CENTERED IN THE THROUGH OPENING. THE ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND PERIPHERY OF OPENING SHALL BE A MIN. 1/4" AND A MAX. 3/8". PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE FLOOR-CEILING ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF NONMETALLIC PIPES OR CONDUITS MAY BE USED:

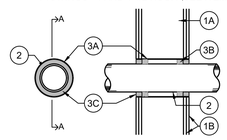
   A. POLYVINYL CHLORIDE (PVC) PIPE - NOM. 2" DIA. (OR SMALLER) SCHEDULE 40 SOLID CORE PVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS.
   B. RIGID NONMETALLIC CONDUIT ++ - NOM. 2" DIA. (OR SMALLER))(SCHEDULE 40 OR 80) PVC CONDUIT INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NFPA NO. 70).
   C. CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE - NOM. 2" DIA. (OR SMALLER) SDR 13.5 CPVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS.
   D. CELLULAR CORE POLYVINYL CHLORIDE (ccPVC) PIPE - NOM. 2" DIA. (OR SMALLER) SCHEDULE 40 CELLULAR CORE PVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEM.
   E. ACRYLONITRILE BUTADIENE STYRENE (ABS) PIPE - NOM. 2" DIA. (OR SMALLER) SCHEDULE 40 SOLID CORE ABS PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS.
   F. CELLULAR CORE ACRYLONITRILE BUTADIENE STYRENE (ccABS) PIPE - NOM. 2" DIA. (OR SMALLER) SCHEDULE 40 CELLULAR CORE ABS PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS.

3. FIRESTOP SYSTEM - THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:

   A. FILL, VOID OR CAVITY MATERIAL* - WRAP STRIP - NOM. 1/4" THICK INTUMESCENT ELASTOMERIC MATERIAL FACED ON ONE SIDE WITH ALUMINUM FOIL, SUPPLIED IN 2" WIDE STRIPS. NOM. 2" WIDE STRIP TIGHTLY WRAPPED AROUND NONMETALLIC PIPE (FOIL SIDE OUT) WITH SEAM BUTTED. WRAP STRIP LAYER SECURELY BOUND WITH STEEL WIRE OR ALUMINUM FOIL TAPE AND SLID INTO ANNULAR SPACE APPROX. 1 1/4" SUCH AS THAT APPROX. 3/4" OF THE WRAP STRIP PROTRUDES FROM THE WALL SURFACE.
   B. FILL, VOID OR CAVITY MATERIAL* - CAULK, SEALANT OR PUTTY - MIN. 5/8" THICKNESS OF CAULK OR PUTTY APPLIED INTO ANNULAR SPACE BETWEEN WRAP STRIP AND PERIPHERY OF OPENING. A NOM. 1/4" DIA. BEAD OF CAULK OR PUTTY TO BE APPLIED TO THE WRAP STRIP/WALL INTERFACE AND TO THE EXPOSED EDGE OF THE WRAP STRIP LAYERS APPROX. 3/4" FROM THE WALL SURFACE.
   C. FOIL TAPE - (NOT SHOWN) - NOM. 4" WIDE, 3 MIL THICK ALUMINUM TAPE WRAPPED AROUND PIPE PRIOR TO THE INSTALLATION OF THE WRAP STRIP (ITEM 3A). MIN. OF ONE WRAP, FLUSH WITH BOTH SIDES OF WALL AND PROCEEDING OUTWARD. TAPE IS NOT REQUIRED FOR PIPES SHOWN IN ITEMS 2A, 2B AND 2C.

SYSTEM NO. W-L-2014

F RATINGS - 1 AND 2 HOUR (SEE ITEM 3)
T RATINGS - 1 AND 1 1/2 HOUR (SEE ITEM 3)



SECTION A-A

1. WALL ASSEMBLY - THE FIRE RATED GYPSUM WALLBOARD/ STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

   A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2x4 LUMBER SPACED 16" O.C. STEEL STUDS TO BE A MIN. 2 1/2" WIDE AND SPACED MAX. 24" O.C.
   B. GYPSUM BOARD* - TWO LAYERS OF NOM. 5/8" THICK GYPSUM WALLBOARD AS SPECIFIED IN THE INDIVIDUAL WALL AND PARTITION DESIGN. MAX. DIA. OF OPENING IS 8".

2. NONMETALLIC PIPE - NOM. 4" DIA. (OR SMALLER) SCHEDULE 40 POLYVINYL CHLORIDE (PVC) OR SDR17 CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS. PIPE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.

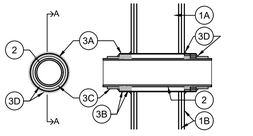
3. FIRESTOP SYSTEM - THE HOURLY F AND T RATING FOR THE FIRESTOP SYSTEMS ARE DEPENDANT UPON THE SIZE OF THE PIPE, ANNULAR SPACE, AND MIN. FORMING AND FILL MATERIAL THICKNESS AS DESCRIBED IN THE TABLE BELOW. WHEN THE ANNULAR SPACE IN THE TABLE SHOWS A RANGE OF DISTANCES, THE PENETRATING ITEM MAY BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITH IN THE FIRESTOP SYSTEM. THE FIRESTOP SYSTEMS SHALL CONSIST OF THE FOLLOWING:

   A. STEEL SLEEVE OR WIRE MESH - NO. 8 STEEL WIRE MESH HAVING A MIN. 1" LAP ALONG THE LOGITUDINAL SEAM. LENGTH OF SLEEVE TO BE 1/4" TO 1/2" LESS THAN OVERALL THICKNESS OF WALL SUCH THAT, WHEN INSTALLED IN CIRCULAR OPENING, THE ENDS OF THE SLEEVE ARE RECESSED 1/8" TO 1/4" FROM EACH SURFACE OF THE WALL. SLEEVE MAY ALSO BE FORMED ON A MIN. 0.034" THICK (20 MSG) GALV. SHEET STEEL.
   B. PACKING MATERIAL - MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM AT THE THICKNESS SHOWN IN THE TABLE BELOW. PACKING MATERIAL TO BE RECESSED FROM BOTH SURFACES OF THE WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL. AS AN OPTION TO THE ABOVE, BACKER ROD AND/OR FOAMED PLASTIC BACKER MATERIAL MAY BE USED.
   C. FILL, VOID OR CAVITY MATERIAL* - WRAP STRIP - ALLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF THE WALL AS SHOWN IN THE TABLE BELOW:

MAX. PIPE DIA. (IN.)	ANNULAR SPACE (IN.)	MIN. FORMING MTL DEPTH (IN.)	MIN. FILL MTL DEPTH (IN.)	F RATING (HOUR)	T RATING (HOUR)
4	3/4 - 3 1/2	1 1/4	1 1/4	2	1 1/2
2	1 3/8	3/4	3/4	1	1

SYSTEM NO. W-L-2005

F RATINGS - 1 AND 2 HOUR
T RATINGS - 0, 3/4, 1, 1 1/2 AND 2 HOUR
L RATING AT AMBIENT - 7 CFM/S.F.
L RATING AT 400° F - LESS THAN 1 CFM/S.F.



SECTION A-A

1. WALL ASSEMBLY - 1 AND 2 HOUR FIRE RATED GYPSUM WALLBOARD/ STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300, U400 OR V400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

   A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2x4 LUMBER SPACED 16" O.C. WITH NOM. 2x4 LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE A MIN. 3 5/8" WIDE BY 1 3/8" DEEP CHANNELS SPACED MAX. 24" O.C.

   B. GYPSUM BOARD* - NOM. 4' WIDE BY 5/8" THICK WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300, U400 OR V400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX. DIA. OF OPENING IS 13 3/4".

2. NONMETALLIC PIPE - NOM. 6", 8" OR 10" DIA. SCHEDULE 40 POLYVINYL CHLORIDE (PVC) PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS. ONE PIPE TO BE CENTERED IN THE FIRESTOP SYSTEM. PIPE TO BE INSTALLED NEAR CENTER OF STUD CAVITY WIDTH AND TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL.

3. FIRESTOP SYSTEM - INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F AND T RATINGS FOR THE FIRESTOP SYSTEM ARE DEPENDANT UPON THE SIZE OF NONMETALLIC PIPE AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW:

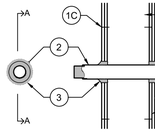
NOMINAL PIPE DIAMETER (IN.)	ANNULAR SPACE (IN.)	WALL FIRE RATING (HOUR)	F RATING (HOUR)	T RATING (HOUR)
6	3/4	1	1	1
6	3/4	2	2	2
8	1	1	1	3/4
8	1	2	2	1 1/2
10	1 1/2	1	1	3/4
10	1 1/2	2	1	3/4

THE DETAILS OF THE FIRESTOP SYSTEM SHALL BE AS FOLLOWS:

   A. STEEL SLEEVE - THE CYLINDRICAL SLEEVE FABRICATED FROM MIN. 0.016" THICK (28 GAUGE) GALV SHEET STEEL AND HAVING A MIN. 1" LAP ALONG THE LONGITUDINAL SEAM. LENGTH OF STEEL SLEEVE SHALL BE EQUAL TO THICKNESS OF WALL PLUS 9 1/2", 10" OR 11" FOR THE 6", 8" OR 10" DIA. PIPE SIZES, RESPECTIVELY. INSIDE DIA. OF STEEL SLEEVE AND DIA. OF THROUGH OPENING IN THE GYPSUM WALLBOARD LAYERS TO BE EQUAL TO OUTSIDE DIA. OF WRAP STRIP (ITEM B) LAYERS ON PIPE. CYLINDRICAL SLEEVE INSERTED IN ANNULAR SPACE AROUND NONMETALLIC PIPE AND CENTERED IN WALL. AFTER INSTALLATION OF THE WRAP STRIP (ITEM B) LAYERS, MIN. 1/2" WIDE x MIN. 0.028" THICK STAINLESS STEEL BAND CLAMPS INSTALLED AROUND STEEL COLLAR ON BOTH SIDES OF WALL ASSEMBLY WITH ONE BAND CLAMP LOCATED NEAR THE WALL SURFACE AND ANOTHER LOCATED APPROX. 1" FROM THE OUTER EDGE ON THE WRAP STRIP LAYERS. EDGES OF STEEL SLEEVE TO BE SLIT APPROX. 1" O.C. AROUND CIRCUMFERENCE OF SLEEVE ON BOTH SIDES OF WALL, WITH LENGTH OF SLITS APPROXIMATELY EQUAL TO THICKNESS OF MAT WRAP LAYERS. TO FORM RETAINER TABS. RETAINER TABS BENT 90 DEG TOWARD PIPE TO LOCK WRAP STRIP LAYER(S) IN POSITION.
   B. FILL, VOID OR CAVITY MATERIAL* - WRAP STRIP - NOM. 1/4" THICK INTUMESCENT ELASTOMERIC MATERIAL FACED ON ONE SIDE WITH ALUMINUM FOIL, SUPPLIED IN 2" WIDE BY 24" LONG STRIPS. TWO STACKS OF WRAP STRIP (NOM. 4" HIGH STACK) TIGHTLY WRAPPED AROUND NONMETALLIC PIPE ON EACH SIDE OF WALL AND SLID INTO STEEL SLEEVE (ITEM A) SUCH THAT INNER EDGES ARE FLUSH WITH OR RECESSED MAX. 1/4" INTO SURFACE OF WALL. FOR NOM. 6" DIA. PIPES, THREE LAYERS OF WRAP STRIP ARE REQUIRED IN EACH STACK. FOR NOM. 8" DIA. PIPES, FOUR LAYERS OF WRAP STRIP ARE REQUIRED IN EACH STACK. FOR NOM. 10" DIA PIPES, SIX LAYERS OF WRAP STRIP ARE REQUIRED IN EACH STACK. EACH LAYER OF WRAP STRIP TO INSTALLED WITH BUTTED SEAMS, WITH THE BUTTED SEAMS IN SUCCESSIVE LAYERS STAGGERED. WRAP STRIPS TEMPORARILY HELD IN POSITION USING ALUMINUM FOIL TAPE, FILAMENT TAPE, STEEL WIRE TIE, OR EQUIVALENT.
   C. PIPE COVERING* - NOM. 1" THICK HOLLOW CYLINDRICAL HEAVY DENSITY (MIN. 3.5 PCF OR 56 KG/M^3) GLASS FIBER UNITS JACKETED ON THE OUTSIDE WITH AN ALL SERVICE JACKET. MIN. 6" LENGTH OF PIPE COVERING INSTALLED AROUND PVC PIPE AT ITS EGRESS FROM THE WRAP STRIP LAYERS (ITEM B) ON BOTH SIDES OF THE WALL. PIPE COVERING SECURED TO PIPE WITH STEEL WIRE TIES SPACED MAX. 4" O.C. EDGE OF PIPE COVERING ABUTTING WRAP STRIP TO BE SEALED WITH A MIN. 1/4" DIA. BEAD OF CAULK (ITEM D). SEE PIPE AND EQUIPMENT COVERING - MATERIALS (BRGU) - CATEGORY IN THE BUILDING MATERIALS DIRECTORY FOR NAMES OF MANUFACTURERS. ANY PIPE COVERING MATERIAL MEETING THE ABOVE SPECIFICATIONS AND BEARING THE UL CLASSIFICATION MARKING WITH FLAME SPREAD INDEX OF 25 OR LESS AND SMOKE DEVELOPED INDEX OF 50 OR LESS MAY BE USED.
   D. FILL, VOID OR CAVITY MATERIAL* - CAULK OR SEALANT - GENEROUS BEAD OF CAULK TO BE APPLIED TO OUTER PERIMETER OF STEEL SLEEVE AT INTERFACE WITH WALL SURFACES AND TO PERIMETER OF PIPE COVERING MATERIAL WRAP AT ITS INTERFACE WITH THE WRAP STRIP LAYERS..

SYSTEM NO. W-L-3001

F RATINGS - 1 AND 2 HOUR (SEE ITEM 1)
T RATINGS - 3/4, 1, 1 1/2 AND 2 HOUR (SEE ITEM 2)
L RATING AT AMBIENT - 15CFM/S.F. (SEE ITEM 3)
L RATING AT 400° F - LESS THAN 1 CFM/S.F. (SEE ITEM 3)



SECTION A-A

1. WALL ASSEMBLY - THE 1 OR 2 HOUR FIRE RATED GYPSUM WALLBOARD/ STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

   A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2x4 LUMBER SPACED 16" O.C. WITH NOM. 2x4 LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE A MIN. 3 5/8" WIDE BY 1 3/8" DEEP CHANNELS SPACED MAX. 24" O.C.

   B. GYPSUM BOARD* - NOM. 1/2" OR 5/8" THICK, 4' WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 WALL OR PARTITION DESIGN. DIA. OF CIRCULAR THROUGH OPENING TO BE 3/8" TO 5/8" LARGER THAT OUTSIDE DIA. OF CABLE OR CABLE BUNDLE.

   C. FASTENERS - WHEN WOOD STUD FRAMING IS EMPLOYED GYPSUM WALLBOARD LAYERS ATTACHED TO STUDS WITH CEMENT COATED NAILS AS SPECIFIED IN THE INDIVIDUAL WALL OR PARTITION DESIGN. WHEN STEEL CHANNEL STUD FRAMING IS EMPLOYED, GYPSUM WALL BOARD ATTACHED TO STUDS WITH TYPE S SELF-DRILLING, SELF-TAPPING BUGLE-HEAD STEEL SCREWS AS SPECIFIED IN THE INDIVIDUAL WALL OR PARTITION DESIGN.

   THE HOURLY F RATING OF THE FIRESTOP SYSTEM ARE EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.

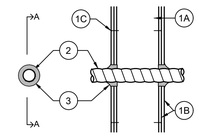
2. CABLES - INDIVIDUAL CABLE OR MAX. 1" DIA. CABLE BUNDLE INSTALLED IN THROUGH OPENING WITH AN ANNULAR SPACE OF MIN. 0" (POINT CONTACT) TO MAX. 3/4". CABLE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF CABLES MAY BE USED:

   A. MAX. 150 PAIR NO. 24 AWG COPPER CONDUCTOR TELEPHONE CABLE WITH POLYVINYL CHLORIDE (PVC) INSULATION AND JACKET MATERIALS. WHEN MAX. 25 PAIR TELEPHONE CABLE IS USED, T RATING IS 2 HOUR. WHEN 50 TO 150 PAIR TELEPHONE CABLE IS USED IN 1 HOUR FIRE RATED WALL, T RATING IS 3/4" HOUR. WHEN 50 TO 150 PAIR TELEPHONE CABLE IS USED IN 2 HOUR FIRE RATED WALL, T RATING IS 1 HOUR.
   B. MAX. NO. 10 AWG COPPER CONDUCTOR TYPE NM (ROMEX) NONMETALLIC SHEATHED CABLE WITH PVC INSULATION AND JACKET MATERIALS. WHEN TYPE NM CABLE IS USED, MAX. T RATING IS 1 1/2 HOUR.
   C. MULTIPLE FIBER OPTICAL COMMUNICATION CABLE JACKETED WITH PVC AND HAVING A MAX. OUTSIDE DIA. OF 5/8". WHEN FIBER OPTIC CABLE IS USED, MAX T RATING IS 2 HOUR.
   D. MAX. 12 AWG MULTICONDUCTOR (MAX. SEVEN CONDUCTORS) POWER/CONTROL CABLE WITH CROSS-LINKED POLYETHYLENE (XLPE) INSULATION AND XLPE OR PVC JACKET MATERIALS. WHEN MULTICONDUCTOR POWER/CONTROL CABLE IS USED, MA. T RATING IS 2 HOUR.
   E. MAX. FOUR CONDUCTOR WITH GROUND NO. 2 AWG. (OR SMALLER) ALUMINUM SER CABLES WITH POLYVINYL CHLORIDE INSULATION AND JACKET MATERIALS.

3. FILL, VOID OR CAVITY MATERIAL* - CAULK, SEALANT OR PUTTY - CAULK OR PUTTY FILL MATERIAL INSTALLED TO COMPLETELY FILL ANNULAR SPACE BETWEEN CABLE AND GYPSUM WALL BOARD ON BOTH SIDES OF WALL AND WITH MIN. 1/4" DIA. BEAD OF CAULK OR PUTTY APPLIED TO PERIMETER OF CABLE(S) AT ITS EGRESS FROM EACH SIDE OF THE WALL.

SYSTEM NO. W-L-3015

F RATINGS - 1 AND 2 HOUR (SEE ITEM 3)
T RATINGS - 0, 3/4, AND 2 HOUR (SEE ITEM 2)
L RATING AT AMBIENT - LESS THAN 1 CFM/S.F. (SEE ITEM 3)
L RATING AT 400° F - LESS THAN 1 CFM/S.F. (SEE ITEM 3)



SECTION A-A

1. WALL ASSEMBLY - THE 1 OR 2 HOUR FIRE RATED GYPSUM BOARD/ STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

   A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2x4 LUMBER SPACED 16" O.C. WITH NOM. 2x4 LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE A MIN. 3 5/8" WIDE BY 1 3/8" DEEP CHANNELS SPACED MAX. 24" O.C.

   B. GYPSUM BOARD* - NOM. 5/8" THICK, 4' WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL WALL OR PARTITION DESIGN. MAX. DIA. OF OPENING CUT INTO G

OHIO HOUSING FINANCE AGENCY

Instructions

2024 Design and Construction Features Form

Project Name: Sr. Village at Valle Greene | Project Number: 24-0087

Instructions

1. The architectural entity with whom the owner and developer contracted with to provide architectural services will complete the form and obtain all required signatures for the certifications.
2. The project applicant will submit the completed and signed form with the proposal application.
3. If funded, the project applicant will complete and submit the form again at final application with all changes from what was submitted at proposal application clearly identified.
4. A copy of the final, completed form must also be included in the 80% percent plan sets, copied onto the page(s) following the cover sheet, submitted at final application.

Both a signed PDF and the excel file are required for submission.

All communications related to the architectural review, including submission of architectural plans, must be sent to arch@ohiohome.org

Provide an answer for all sections, do not skip or leave blank any question. Use the "Not Applicable" (N/A) option if a question does not apply to your project. Use the following color-code to determine your response type:

	Unrestricted answer
	Drop-down or other restricted answer. Do not leave blank, select N/A.
	Formula, auto-populate, or other locked cell
	Formula, auto-populate, blank, or other unlocked cell where overriding the formula is allowable but very unlikely

Submission Requirements Checklist

Prelim.	Final	
☐	☐	**The completed, signed Certification.**
☐	☑	**The completed excel file of the DCF form.**
☐	☐	**Scope of Work form.** *(must also be completed at B609)*
☐	☐	**Exception Request form(s), if applicable.**
	☐	**Asbestos, mold, lead-based paint considerations as required.**
	☐	**Items required to be completed per Phase I or II Environmental Site Assessment, or per applicable Environmental Review performed by OHFA.**
	☐ ☐	**Drawings/Plans, which must include all of the following:**
☐	☐	Cover sheet with name of development, development address, development team, drawing index, code information, and table indicating unit schedule (including accessible, adaptable and sensory impaired units), types and sizes
☐	☐	Site plan
		Including adjacent parcel information (e.g. zoning, roads, railroad tracks, etc.)
		clearly show the context of the neighborhood that the property will exist
		All site details, and parking data and layouts
☐	☐	Landscape intent
☐	☐	Demolition Plan
☐	☐	Historic features (adaptive reuse & historic rehabs) *including description at preliminary and plans at final*
☐	☐	Dimensioned floor plans with *preliminary including room designations and proposed finishes*
☐	☐	Exterior elevations with material notations
	☐	Interior elevations with material notations (casework, PGB and MR gypsum board locations, etc.)
	☐	Schematic Drawings and/or specifications for HVAC, plumbing, and electrical or similar items included in the scope of work.
☐	☐	Wall sections (if applicable)
	☐	Structure (if applicable)
	☐	Finishes and schedules
	☐	Details
	☐	Mechanical Plans *(recommended to submit schematic or description of mechanical at preliminary submission)*
		Drawings must have a dimensioned plumbing plan and control points located for rough-in site verification. All pipes through-floor and the walls they are intended to be located within must be dimensioned relative to the foundation where they must align with walls and/or islands above.
		OHFA strongly encourages a surveyor to locate wall and through-slab pipe penetrations. Foundation over dig must be filled with insulation or forms and then back filled
Prelim.	**Final**	
☐	☐	**Electronic format (pdf)**
		Single PDF file for drawings including all site plans, dimensioned floor plans, elevations, wall sections, structure, finishes, details and mechanical plans.
		Separate PDF file for specifications. *(no hard copy)*
	☐	**Electronic format (AutoCAD)**
		Dimensioned floor plans only, submitted in DXF or DWG AutoCAD R-14 format.
		- Required to include the project architect's parylines used for the area calculations as required by BOMA.
		- If drawings are externally referenced (xref), submissions must be bound (xbind) prior to creating files for OHFA.
		- Proprietary authorship information such as title blocks, Architecture seals, etc. should be removed.
		- DXF should be generated from the base file and not a plan sheet file.
☐	☐	**Hard copy**
		Full set of architectural plans, 11"x17" scaled to fit. **Full-size architectural plans will be rejected.**
		- Do not submit printed set of specifications set with the drawings

OHIO HOUSING FINANCE AGENCY

Development Information

2024 Design and Construction Features Form

Project Name: Sr. Village at Valle Greene | Project Number: 24-0087

Basic Project Information

Project Name	Sr. Village at Valle Greene
OHFA Project Number	24-0087
LIHTC Type	9% LIHTC
List other OHFA sources:	HOAF, HDL
Address	1155 CHANNINGWAY DRIVE (APPROX)
City or Township	Fairborn
Zip Code	45324
County	Greene
Construction Type	New Construction
Rehab Level (if applicable)	
Population Served	Seniors
Number of Buildings	1
Project Architect*	RDA Group Architects
General Contractor	Greater Dayton Construction
Lead Developer	St Mary Development Corp

*May use a Certified Engineer

Project Narrative

Design Exception Request Summary

Total Number of Design Exceptions Requested: 0

Provide the total number of exceptions for each category:

0	New Construction:				
	Non-OHFA Requirement		Special Consideration		Supply Chain Issues
0	Rehabilitation or Adaptive Reuse:				
	Universal Design		Accessibility		Replace items with 75%+ RUL
	Durable Materials - Exterior		Main Entry		Outdoor Recreational Features
	Sidewalks		Durable Materials - Interior		Major Building Components
	Common Areas		Elevators		Interior Doors
	Floor Coverings		Unit Sizes		Bedroom Sizes
	Bathrooms		Kitchen & Appliances		Laundry Facilities
	Supply Chain Issues		Other:		

List of Exceptions Requested:

Summarize each exception requested with a short phrase (1-5 words each):

Wage Rate Requirements

If federal or state funds are utilized in the proposed development, select any regulations that apply to the proposed development.

☐ **Davis Bacon and related acts:**
Davis Bacon Act prevailing wage provisions apply to contractors and subcontractors performing on federally funded or assisted contracts in excess of $2,000 for construction, alteration or repair (including painting and decorating of public buildings or public works).

☐ **Ohio Prevailing Wage:**
Ohio's prevailing wage laws apply to all public improvements financed in whole or in part by public funds when the total overal project cost is fairely estimated to be more than $200,000 for new construction or $60,000 for reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting.

☑ **HUD Section 3 Requirements:**
HUD Section 3 is a provision of the Housing and Urban Development (HUD) Act of 1968 requiring that recipients of certain HUD financial assistance, to the greatest extent feasible, provide job training, employment, and contracting opportunities for low- or very low-income residents in connection with projects and public works.

☐ **None of the above are applicable**

Sustainability

Are all energy efficiency requirements as stated in the **Ohio Building Code** or **Residential Code**?

☑ Yes, Development will meet all energy efficiency requirements as stated in the Ohio Building Code or Residential Code.
☐ No.

Third Party Certification selected:

Must specify full name of certification being sought. Exception requests must clearly articulate why the selected certification is equivalent or better to the three certifications.

☑	Enterprise Green Communities Certification or EGC Plus Certification	
☑	LEED Residential - Silver Level Certification or higher	Silver
☐	National Green Building Standard (NGBS) - Silver Level Certification or higher	

With Energy Star Homes or Energy Star MFNC compliance verified by a HERS rater

☐ Exception for: *list the certification being selected.*

HERS Rater (organization): Sol Consultants | Phone: 513.455.8228 | Email: samyog@solconsults.com

OHIO HOUSING FINANCE AGENCY

Contact Information

2024 Design and Construction Features Form

Project Name: Sr. Village at Valle Greene | Project Number: 24-0087

Project Contacts

Project Architect or Certified Engineer Information

Name:	RDA Group Architects	Contact Name:	Jonathan Schaaf
Address:	7645 Washington Woods Dr.	Title:	Principal
City:	Dayton	Telephone Number:	937.610.3440
County:	Montgomery	Cell Phone Number:	
State:	Ohio	E-Mail Address:	jrs@rda-group.com
Zip Code + 4:	45459-3620		

General Contractor Information

Name:	Greater Dayton Construction		
Address:	4197 Research Blvd	Contact Name:	Kevin Hess
City:	Beavercreek	Title:	Vice President
County:	Greene	Telephone Number:	937.456.6503
State:	OH	Cell Phone Number:	937.673.2280
Zip Code + 4:	45430-2203	E-Mail Address:	khess@gdcg.com

Lead Developer Information

Name:	St Mary Development Corp		
Address:	2160 E. Fifth Street	Contact Name:	Wesley Young
City:	Dayton	Title:	Executive Vice President
County:	Montgomery	Telephone Number:	937.277.8149
State:	Ohio	Cell Phone Number:	937.307.7173
Zip Code + 4:	45403-2445	E-Mail Address:	wyoung@smdcd.org

Co-Developer Information (if applicable)

Name:	Oberer Residential Construction, LLC		
Address:	3445 Newmark Drive	Contact Name:	Robert M. McCann
City:	Miamisburg	Title:	Treasurer
County:	Montgomery	Telephone Number:	937.531.5521
State:	Ohio	Cell Phone Number:	937.307.6396
Zip Code + 4:	453425426	E-Mail Address:	rmccann@oberer.com

Co-Developer 2 Information (if applicable)

Name:			
Address:		Contact Name:	
City:		Title:	
County:		Telephone Number:	
State:		Cell Phone Number:	
Zip Code + 4:		E-Mail Address:	

Development Consultant Information (if applicable)

Name:			
Address:		Contact Name:	
City:		Title:	
County:		Telephone Number:	
State:		Cell Phone Number:	
Zip Code + 4:		E-Mail Address:	

Historic Consultant Information (if applicable)

Name:			
Address:		Contact Name:	
City:		Title:	
County:		Telephone Number:	
State:		Cell Phone Number:	
Zip Code + 4:		E-Mail Address:	

OHIO HOUSING FINANCE AGENCY

Amenities & Scope of Work Summary

2024 Design and Construction Features Form

Project Name: Sr. Village at Valle Greene | Project Number: 24-0087

Amenities

Amenities listed below are not required, and any amenities that are part of the project design must be identified below. Those required for competitive criteria are identified separately.

☐	Athletic Field	☐	Counseling Room(s)	☐	Indoor Play Area
☐	Basketball Court	☐	Covered Mailboxes	☑	Laundry Room(s)
☐	Bike Racks	☐	Day Care	☐	Media/Library Room
☐	Bicycle Storage	☐	Dog Park(s)	☐	Outdoor Exercise Area
☐	Clubhouse	☑	Exercise Room(s)	☑	Patio(s)
☑	Community Building	☐	Exterior Tenant Storage	☐	Playground Area(s)
☑	Community Room(s)	☐	Garage(s)	☐	Raised Garden Beds
☐	Computer Room(s)	☐	Gazebo/Pavilion	☐	Security Alarm System
☐	Security Gate(s)				
☑	Service Coordinator Office				
☐	Splash Pads				
☐	Swimming Pool				
☑	Water Features				
☐	Walking Paths				
☑	Wellness Center				

List any additional features that are included to benefit the population being served.

Design-Related Competitive Criteria *(for 9% LIHTC)*

Select the items below that the development is seeking competitive points for under the 2024 QAP.

☑	Property-wide Wi-Fi (no cost to residents)	☐	A minimum 400 sqft. Outdoor patio area for residents that is at least 50% covered
☑	Energy Star-certified washer and dryer in all units	☐	An outdoor playground area *(new affordability - general & preserved affordability)*
☑	Energy Star-certified dishwasher in all units	☐	Roll-in showers in at least 50% of the total units *(new affordability - senior)*
☑	Exercise Room		

Scope of Work Summary

Must also submit the Scope of Work Excel Workbook, available under the forms of the program webpage.

Provide an overview of the proposed improvements to be made involving site design, building design, mechanical and electrical systems and building components including building exterior, interior, and life safety items.

The community will consist of a single two-story building containing approximately 73,929 sq. ft. The building will contain one elevator and will be wood frame contruction on a cement slab. The exterior will be a combination of vinyl siding, cultured stone and brick. The building will be all electric and will be designed to meet LEED Silver energy standard. Each unit will include Energy/Star appliances to include: refrigerator, range, dishwasher and washer and dryer. The building will include: a laundry room, management office, excercise room, community room and space for service coordination. The site utilities will include: water, sanitary sewer and a storm water management system. The landscape plan is robust and there will be a covered patio and entranceway.

Address any issues raised in the Phase I Environmental Site Assessment (ESA) report(s) in the space provided below. Include information for all single-site and scattered-site proposals, as required by applicable program funding guidelines.

There were no issues raised in the Phase I Environmental Site Assessment.

Additional Scope Information for Rehabs & Adaptive Reuse

For any developments involving acquisition and rehabilitation or adaptive reuse, provide a narrative describing the history of improvements made to the building(s) and/or units.

OHIO HOUSING FINANCE AGENCY

Amenities & Scope of Work Summary

2024 Design and Construction Features Form

Project Name: Sr. Village at Valle Greene | Project Number: 24-0087

For any developments proposing adaptive reuse or rehabilitation with historic tax credits, specify any restrictions or requirements that will be used to determine compliance with the Ohio Historic Preservation Tax Credit and/or Federal Historic Preservation Tax Credit programs.

Address any issues raised in the Physical Capital Needs Assessment (PCNA) and Scope of Work report(s) in the space provided below. Include information for all developments proposing rehabilitation of existing units or the adaptive reuse of a building at proposal submission, especially where the scope of work and PCNA do not agree.

OHIO HOUSING FINANCE AGENCY

Development Details & Floor Area Details

2024 Design and Construction Features Form

Project Name: Sr. Village at Valle Greene | Project Number: 24-0087

Development Details

Number of sites:	1	Number of buildings that includes commercial space:	0
Site Acreage:	5.917		
Number of residential buildings:	1	Number of Units:	
Number of accessory buildings:	0	efficiency	
		one-bedroom	44
Total Number of units:	70	two-bedroom	26
Low-income Units:	70	three-bedroom	
		four bedroom	

Date built:

For proposals involving acquisition/rehabilitation or adaptive reuse, please specify the year the building(s) were originally constructed. For multiple building proposals, a range of dates may be provided

Date first occupied:

Year development was or will be occupied. For multiple building proposals or scattered site projects, a range of dates may be provided.

List detrimental land uses sufficiently close to impair residents' use. Include remedy addressing the land use.

None

List building/zoning variances, and identify if requested, pending or received:

No variances are required

Floor Area Details

Total Number of Low Income Units: 70

Space	GSF	Notes
Gross Square Footage of all Buildings	73,929	Measures from exterior face of exterior building; includes structured exterior spaces (stair, balcony, portico).
Commercial Space Condominium Areas	0	Legally separate space under control of another program or condominimized legal separation.
Commercial Areas and Fee-Driven Space	0	Includes spaces for which residents must pay a fee for use/access (garages, storage, etc.)
Market Rate Unit Area	0	Must include lofts, mezzanine and restricted headroom areas
Low Income Unit Area	54	Must include lofts, mezzanine and restricted headroom areas
Manager's Unit Area	0	Must include lofts, mezzanine and restricted headroom areas
Common Area (Public)	4,017	Public restrooms, community rooms, libaries, offices, meeting rooms, kitchens, car canopy, portico, fitness rooms, laundry, mailboxes.
Common Area (Circulation)	9,969	Public hallways, stairways, and corridors to residential units.
Dedicated Program Space	93	Counseling space, wellness and health clinic, day care centers, etc.
Limited Common Area (Private)	0	Exterior spaces with access only through residential unit, i.e. balcony/porch/deck (patios without roof are not included).
Support	2,002	Electrical, mechanical, elevator room, sprinkler room, janitorial, trash, maintenance, storage that is not for tenant use, free-standing maintenance buildings.
Tenant Storage	0	Tenant storage outside of unit.
Major Vertical Penetrations	3,404	Includes duct shafts, stair shaft, elevator shaft, space open to below
Structured Parking/Garage	0	Attached or detached garage that residents do not pay a fee for.
Basement	0	Includes spaces with a minimum of 7' clear head height. Spaces less than 7' clear head space are crawl spaces per RCO 305.
TOTALS		
Non Low-income Floor Area	0	Commercial Space Condo Areas + Commercial Areas + Market Rate Unit Area
Low Income Floor Area	10,023	LI Unit Area + Common Area (Circulation) + Limited Common Area (Private) + Tenant Storage
% Common Area	18.92%	Common Area (Public) + Common Area (Circulation) / Gross Square Footage

OHIO HOUSING FINANCE AGENCY

Development Details & Floor Area Details

2024 Design and Construction Features Form

Project Name: Sr. Village at Valle Greene | Project Number: 24-0087

Net Rentable Square Footage	73,929	Gross Square Footage - Non Low-Income Floor Area
Average net Rentable SQFT per LI Unit	1056.128571	Net Rentable Square Footage / Total Number of Low-Income Units



Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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7662 PARAGON ROAD | DAYTON, OH 45459 | 937.610.3440

OBERER COMPANIES
3445 Newmark Drive
Miamisburg, Ohio 45342

New Multi-Family Building:
Senior Village at Valle Greene
1155 Channingway Drive
Fairborn, Ohio 45324
OHFA Tracking Number: 24-0087

Project Number	2023-191
Date	September 13, 2024

Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
OHFA DESIGN AND CONSTRUCTION FEATURES FORM

Sheet Number
G2.01

OHIO HOUSING FINANCE AGENCY

Accessibility Information

2024 Design and Construction Features Form

Project Name	Project Number
Village at Valle Greene	24-0087

Adaptability & Accessibility

All developments must comply with all accessibility requirements as outlined in the Ohio Building Code, chapter 4101:1-11 for the design and construction of accessible project features, including site, common areas and units.

- ☑ Yes, the project will comply with the accessibility requirements as outlined in the Ohio Building Code.
- ☐ No,

Verify that the project will be designed and constructed to meet the requirements of the Fair Housing Act and that all units, other than the accessible units, will be designed and constructed as ANSI Type B units.

- ☑ Yes, the project will be designed and constructed to meet the requirements of the Fair Housing Act and all units, other than the accessible units, will be designed and constructed as ANSI Type B units.
- ☐ No,

504 Accessibility

All developments receiving OHFA funding must meet the accessibility requirements of Section 504. Identify the implementing standard the development will utilize to demonstrate compliance with Section 504 requirements (select one)

- ☐ Uniform Federal Accessibility Standards (UFAS)
- ☐ 2010 ADA Standards for Accessible Design under Title II of the ADA, except for certain specific identified provisions, as detailed in HUD's Notice on "Instructions for use of alternative accessibility standard," published in the Federal Register on May 23, 2014 ("Deeming Notice").
- ☑ An equivalent standard as defined in HUD's Deeming Notice (such as ICC/ANSI A117.1-2009 with ICB/OCB), specify: ICC/ANSI A117.1

	Required	Provided
504 Mobility Units*:	8	8
504 Sensory Units:	2	2

Number of accessible parking spaces: 10

** Providing twice the number that is federally mandated under Section 504 as accessible for persons with mobility disabilities. To calculate the number of 504-mobility units needed to meet this threshold standard, first multiply the total number of units by 5%, roundup to the nearest whole unit, and multiply the result by two.*

Exception(s) Regested for technical infeasibility of full compliance with 504 accessibility (adaptive reuse or rehabilitation only)

- ☐ Yes, Number of non-conforming accessible units: Reason:
- ☑ No,
- ☐ N/A,

OHIO HOUSING FINANCE AGENCY

Universal Design Information

2024 Design and Construction Features Form

Project Name	Project Number
Village at Valle Greene	24-0087

Universal Design Components

Select all of the below items that will be included in the development. Refer to the Design and Architectural Standards that are effective at the time application. Mandatory items are marked with an **R**, please identify "exception" under "page or note" if an exception was requested for the item. Exceptions for mandatory items must include two non-mandatory items.

Additionally, specify the architectural page reference, or if it will be covered by a general/universal plan note, mark "Note".

Entry

Included?	Page or Note	Item
R	G3.02	36" wide (minimum) entry door *- On rehab/adaptation reuse only, not required on all units if infeasibility can be proven*
R	G3.02	Entry door with lever-style handle
R	A1.12	For primary entrance, minimum 5' x 5' level clear space inside and outside entry door
R	E-001	Adequate non-glare lighting at walkways, accessible routes, and exterior spaces
R	E 101A	Adequate lighting both inside and outside the building and unit entrance
R	NOTE	High visibility address numbers (both building and exterior units)
R	A1.31	Overhead weather protection at entrances *- On rehab/adaptation reuse only, not required on all units if infeasibility can be proven*
☐		Built-in shelf/bench/ledge located outside the door
☐		Nonslip surfaces on walkways and entryways
☐		Primary unit entry with an accessible/dual peephole and backlit doorbell
☐		Door locks that are easy to operate, such as keyless locks with remote control or keypad
☑	G3.02	No step entry (1/2" or less threshold) at main entrance

Interior Stairs and Hallways

Included?	Page or Note	Item
R	E 101A	Adequate lighting to illuminate all stairway(s), landings, and hallway(s)
R	A1.12	Hallways with a minimum width of 42"
R	NOTE	Anti-slip strips on front edge of steps in color contrast material
☐		Color contrast between stair treads and risers
☑	A2.51	Handrails on both sides of interior stairs

Interior Doors

Included?	Page or Note	Item
R	G3.02	34" wide (minimum) doors leading to habitable room, allowing for a 32" minimum clearance
R	G3.02	Lever-style door hardware on all interior doors
R	G3.02	Interior maximum door threshold of ¾ inch beveled or flush
☐		Pocket doors with easy-to-grip handles

Faucets

Included?	Page or Note	Item
R	P-501	Anti-scald faucets with lever handle for all sinks, bathtubs, and showers
R	P-501	Pressure balanced faucets

Electrical

Included?	Page or Note	Item
R	E 102	Thermostat and control panels that are easy to read and simple to operate
R	E-504	Rocker, touch light, or hands-free switches
R	E 103	Extra electrical outlets (for medical equipment or rechargeable items, etc.) placed 18" to 24" above finished floor (bedroom only)
☐		Lighted switches visible in the dark
☐		Switched outlets for lamps, etc. to be turned on with wall switch
☑	E 504	Electrical outlets, phone jacks, and data ports at least 18" above finished floor
☑	E 504	Light switches between 44"-48" above finished floor; thermostats no more than 48" above finished floor
☐		Clear access space of 30" by 48" in front of switches, outlets, and controls
☐		Audible and visual alarms for smoke/fire/carbon monoxide in all code-required accessible areas and all units

Bathrooms

Included?	Page or Note	Item
R	NOTE	Countertops with beveled/radiused corners. Outside corners are suggested to be a two-inch corner radius, waterfall edge with onwinch radius, o
R	NOTE	Adjustable-height showerhead (articulated arm or similar) or hand-held showerhead with flexible hose and easily operable controls
R	E 504	Non-glare lighting at vanities
☑	A2.11	A full- or half-bath on the main floor with clear floor space of 30" x 48"
☑	E-103	Overhead light fixture in tub/shower
☐		Mirror(s) placed for both standing and sitting, such as a full-length or tilting mirror
☑	A2.11	Toilet centered at least 15" from any side wall, tub, or cabinet
☐		In at least one bathroom per unit, including the following: - Low-threshold or curbless shower at least 5' x 3' OR ADA bathtub with seat - Clear knee space (at least 27" high) under sink. May be open knee space or achieved by means of removable vanity or fold-back or soft-storing doors. Pipe protection panels must be provided to prevent contact with hot or sharp surfaces. - Grab bars, or wall-blocking for future installation of grab bars, in tub/shower, and toilet. Grab bars must be properly anchored and supported.

Kitchens

Included?	Page or Note	Item

OHIO HOUSING FINANCE AGENCY

Universal Design Information

2024 Design and Construction Features Form

Project Name	Project Number
Village at Valle Greene	24-0087

R	A2.11	At least 15" clear space/"landing zone" on each side of stove and sink, and at least one side of refrigerator. This is countertop clear space and may be shared with another appliance and/or required work surface if applicable.
R	NOTE	Loop handles on drawers and cabinets
R	A2.11	Non-glare task lighting to illuminate sink, stove, and work areas
☐		Adjustable height shelves in wall cabinets
☐		Adjustable height base cabinets
☐		Pull-out work surface near the oven, refrigerator and/or microwave
☐		Visual contrast at front edge of countertop or between the countertop and the cabinets
☐		Side-by-side refrigerator-freezer
☑	NOTE	Cooktop/range with front or side-mounted controls (senior units only)
☐		Extra outlets for small appliances, electronics, etc.
☐		Clear knee space (at least 27" high) under sink, counters, and/or cook tops. If under sink, pipes must have protection and may not be in the required knee space. May be open knee space or achieved by means of removable base cabinets or fold-back or soft-storing doors.

Closets

Included?	Page or Note	Item
☐		Area is well-lit with a switch located outside the space
☑	G3.02	Doors and handles that are easy to operate. No bi-fold or accordion-type doors
☑	A2.62	Adjustable-height shelving and/or closet rods OR clothes rods installed at multiple heights
☐		Pull-out shelves, rollout cabinets, and other easy to access storage components

OHIO HOUSING FINANCE AGENCY

Certifications

2024 Design and Construction Features Form

Project Name	Project Number
Village at Valle Greene	24-0087

Certifications

We represent, warrant and certify to OHFA that the following does and will apply to the proposed development:

The Development will be designed and constructed to meet the requirements of all applicable laws, codes, program guidelines, as well as the OHFA Design and Architectural Standards and specific features applicable to the project as outlined in this form. This includes any and all local, state, or federal accessibility laws that currently exist and apply to the project. Any additional cost of construction required for the Development to be in compliance with any of these laws has been included in the development budget.

By signing this document, the owner, architect, and general contractor certify that the plans, specifications, and features submitted as part of this application will become a minimum standard for the proposed development. This hereby becomes a binding agreement for the actual construction intent if the development is awarded OHFA funding. By signing this document, the owner, architect, and general contractor certify that the plans, specifications, and features submitted as part of this application will become a minimum standard for the proposed development. This hereby becomes a binding agreement for the actual construction intent if the development is awarded OHFA funding.

OHFA does not take responsibility for design, construction, and plan review or any other municipal or building department review or approval and in no way does this agreement supersede any requirement by such jurisdictions.

OHFA reserves the right to verify compliance with agreed-upon features including durability of materials, accessibility, universal design, green building requirements and energy efficiency components.

1. Architect or Professional Engineer

I certify that the plans, specifications, and scope of work for the Development meet, and will continue to meet, any and all requirements including those set forth in this form, the OHFA Design and Architectural Standards, and all other applicable laws, codes, program guidelines or policy documents.

I understand that I am contractually obligated to know the federal, state and local accessibility laws applicable to the Development and have applied them accordingly. To the best of my professional knowledge and belief, I agree that the Development as designed is in compliance with all applicable federal, state and local housing and accessibility laws and regulations.

Authorized Signatory — Date

Johnathan Schaaf — Principal
Print Name (Authorized Signatory) — Title

RDA Group Architects — Registration Number
Organization

2. General Contractor

I certify that I have reviewed the plans, specifications, and scope of work for the Development and that the Development will be constructed in accordance with any and all requirements as set forth in this form, the OHFA Design and Architectural Standards, and all other applicable laws, codes, program guidelines or policy documents.

I understand that I am obligated to know the federal, state and local accessibility laws applicable to the Development and will build the project accordingly.

Authorized Signatory — Date

Kevin Hess — Vice President
Print Name (Authorized Signatory) — Title

Greater Dayton Construction, Ltd.
Organization

3. Owner

I certify that I have reviewed the plans, specifications, and scope of work for the Development and that the Development shall be constructed in accordance with any and all requirements as set forth in this form, OHFA Design and Architectural Standards, and all other applicable laws, codes, program guidelines or policy documents.

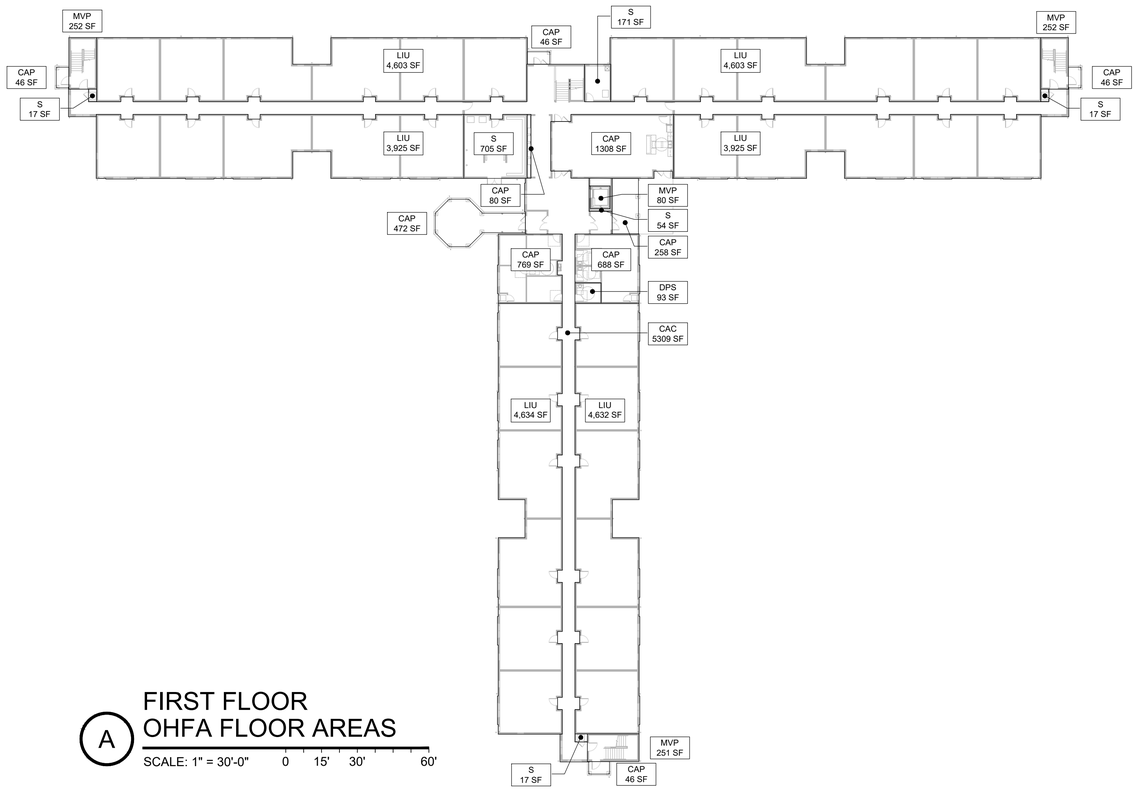
The undersigned understands that any deviations from federal and state accessibility requirements are the responsibility of the Owner and, as such, Owner is responsible for such deviations.

Further, if for any reason, the features are not constructed in accordance with the requirements set forth above, the undersigned understands that OHFA may revoke or recapture the Development's funding and/or limit or prohibit the future participation of the undersigned, any subsidiaries or related entities in OHFA programs.

Authorized Signatory — Date

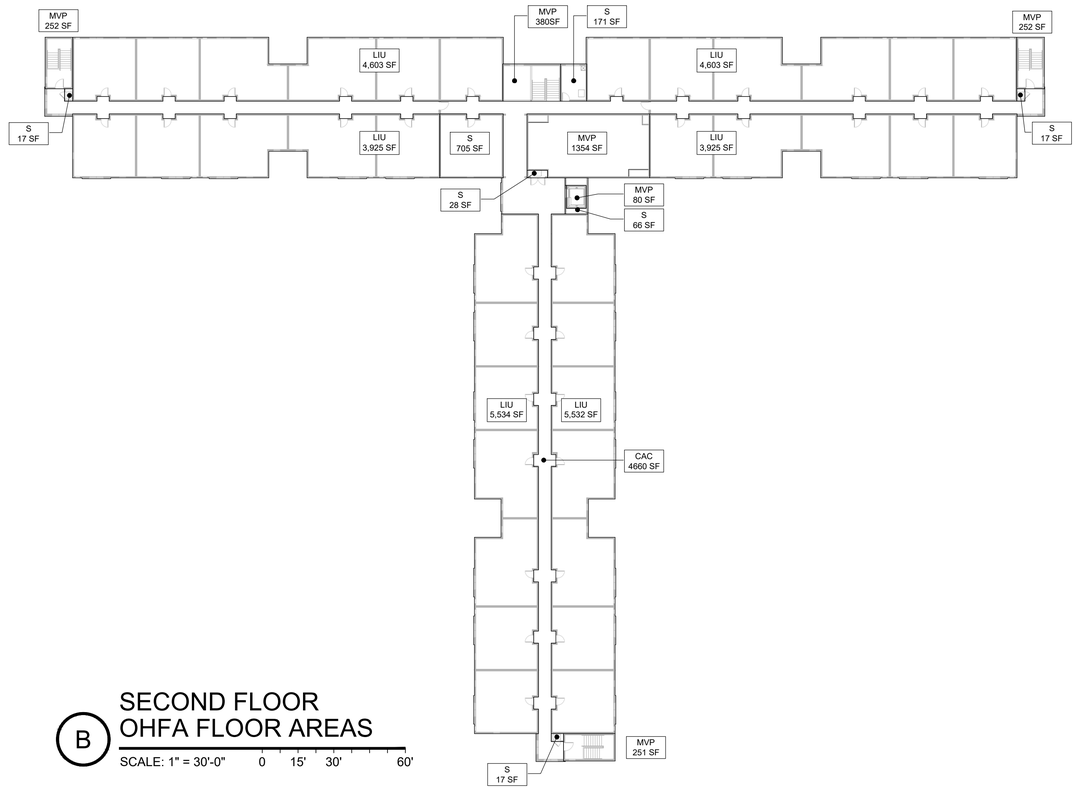
Print Name (Authorized Signatory) — Title

Organization



A FIRST FLOOR OHFA FLOOR AREAS

SCALE: 1" = 30'-0" 0 15' 30' 60'



B SECOND FLOOR OHFA FLOOR AREAS

SCALE: 1" = 30'-0" 0 15' 30' 60'

RDA GROUP ARCHITECTS
7662 PARAGON ROAD | DAYTON, OH 45459 | 937.610.3440

OBERER COMPANIES
3445 Newmark Drive
Miamisburg, Ohio 45342

New Multi-Family Building:

Senior Village at Valle Greene

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OHFA Tracking Number: 24-0087

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06.17.24	Progress
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09.13.24	OHFA 80% Review

Sheet Title: OHFA DESIGN AND CONSTRUCTION FEATURES FORM

Sheet Number: G2.02

STATE OF OHIO — NATIONAL REGISTRATION — REGISTERED ARCHITECT — PRELIMINARY — NOT FOR CONSTRUCTION

Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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SECTION 018113

SUSTAINABILITY DESIGN REQUIREMENTS

Senior Village at Valle Greene

PART 1 GENERAL

GENERAL CONDITIONS
A. The General Conditions, Modifications to General Conditions, Supplementary or Special Conditions and any Instructions to Bidders shall apply to all Divisions of work.
B. The requirements of State, Local or appropriate codes applicable to the work, whichever is the most stringent is a requirement of all Divisions of work.

WORK OF THIS SECTION
A. Section includes:
   1. Sustainable Project Goals
   2. Enterprise Green Communities Certification requirements
B. The intent of this project is to achieve an Enterprise Green Communities 2020 certification.
C. Contractor shall coordinate work and requirements with Owner Contracted Green Rater/Verifier for Green certifications. Pertinent to green certifications the role of the Green Rater/Verifier is to guide the construction team with certification process; review documentation, verify green requirements are met; and to perform third-party testing.

REFERENCES
A. American Society of Heating, Refrigerating and Air-Conditioning Engineers:
   1. ASHRAE 52.2 - Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size.
   2. ASHRAE 62 - Ventilation for Acceptable Indoor Air Quality.
   3. ASHRAE 90.1 - Energy Efficient Design of New Buildings except Low-Rise Residential Buildings.
   4. ASHRAE 129 - Measuring Air-Change Effectiveness.
B. ASTM International:
   1. ASTM E408 - Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques.
   2. ASTM E903 - Standard Test Method for Solar Absorption, Reflectance, and Transmittance of Materials Using Integrating Spheres.
C. Forest Stewardship Council: FSC Guidelines- Forest Stewardship Council Guidelines.
D. Sheet Metal and Air Conditioning Contractors: SMACNA IAQ - IAQ Guidelines for Occupied Buildings under Construction.
E. South Coast Air Quality Management District: SCAQMD Rule 1168 - Adhesive and Sealant Applications.
F. South Coast Air Quality Management District: SCAQMD Rule 1113 – Interior paints, coatings, and primers.
G. SCS Global Services Recycled Content Certification
H. California Department of Public Health (CDPH) emission standard, formerly California 01350 – VOC emission limits
I. CARB Phase 2 – composite wood formaldehyde emissions testing standard
J. American National Standards Institute (ANSI) / American Water Works Association (AWWA) C810-17 Standard
K. National Pollutant Discharge Elimination System (NPDES)'s Stormwater Discharges from Construction Activities guidance
L. U.S. Environmental Protection Agency:
   1. EPA Baseline IAQ - Testing for Indoor Air Quality, Baseline IAQ, and Materials Section 01445.
   2. EPA 402-K-01-002 – A Step-by-Step Guide on how to Build Radon-Resistant Homes

M. Enterprise Green Communities:
   1. Green Communities Checklist 2020
   2. Green Communities Criteria 2020
N. ENERGY STAR Qualified Homes Program Requirements
   1. https://www.energystar.gov/partner_resources/residential_new/homes_prog_regs/national_page

SUBMITTALS
A. The contractor shall submit the following items directly to the Green Rater/Verifier.
B. Construction Waste Diversion Rate (Calculation and/or Waste Tickets)
C. The contractor shall submit cut-sheets of products intended to comply with Environmentally Preferable Products (EPP). See Green Communities Checklist Section 6 for list of products intended to meet this requirement. EPP criteria are as follows:
   1. Ingredient Transparency for Material Health Requirement – Publicly disclosed where content is characterized and screened using health hazard lists or restricted substances lists to 1,000 ppm
   2. Recycled Content and Ingredient Transparency Requirement – Minimum 25% post-consumer
   3. Chemical Hazard Optimization Requirement – Third-party verification of optimization to 100 ppm.
   4. Healthier Materials Selection Requirement – see specific requirements for low-emission paints, coatings, primers, wallpaper, adhesives, sealants, flooring, insulation, and composite wood under criterion 6.4.
   5. Environmentally Responsible Material Requirement – see specific requirements for embodied emissions for concrete, steel, insulation, roofing, paving, and non-composite wood under criterion 6.5
   6. Regional Materials Requirement – Extracted, manufactured, and fabricated (all processes) within 500-mile crow-fly distance of site.

QUALITY ASSURANCE
A. Perform work in accordance with the Enterprise Green Communities Criteria for prerequisites and credits pertinent to this project listed in Green Communities worksheet included at the end of this section.
B. Maintain one copy of Green Communities Criteria on site. Criteria is available for download at https://www.greencommunitiesonline.org/sites/default/files/egc_2020_criteria_manual.pdf
C. Thoroughly review any requests for substitution for products that are related to Enterprise Green Communities prerequisites and credits. Any substitutions may jeopardize projects' ability to obtain certification.
D. Perform storm water management and erosion control Work in accordance with EPA Best Management Practices or local erosion and sedimentation control standards whichever is more stringent.
E. Perform Work to meet or exceed minimum energy efficiency and performance in accordance with Energy Star requirements. Energy Star Checklist is enclosed at end of this section.
F. Perform Work without use of CFC based refrigerants in HVAC building systems.
G. Perform ventilation Work in accordance with ASHRAE 62.
H. Develop and implement construction indoor air quality management plan including the following:
   1. Comply with minimum requirements of SMACNA IAQ.
   2. Protect stored and installed absorptive materials from moisture damage.
      a. Store materials on elevated platforms under cover, and in dry location.
      b. When materials are not stored in enclosed location, cover tops and sides of material with secured waterproof sheeting.
   3. Protect HVAC equipment during construction.
      a. Shut down return side of HVAC system whenever possible during heavy construction or demolition.
      b. When HVAC systems are operated during heavy construction, furnish disposable temporary filters.

PART 2 PRODUCTS

PRODUCT SUBSTITUTION
A. Thoroughly review any requests for substitution for products that are related to Green Communities prerequisites and credits. Any substitutions may jeopardize the project's ability to obtain certification.

PART 3 EXECUTION

EGC 1.4 Integrative Design: Construction Management (mandatory)
1. At the onset of construction organize an Enterprise Green Communities trades training moderated by Green Verifier.
2. Following trades to attend - GC Project Manager, GC Site Superintendent, Mechanical-Electrical-Plumbing, Insulation, Framing, Drywall, Air-Infiltration Package.
3. Provide a minimum of 2-week notice to Green Verifier prior to training date.

EGC 2.1 Site Selection (mandatory)
This project has ecologically sensitive features.
If ecologically sensitive features are identified in the Ecological Resource Protection Zone (ERPZ) meet the following:
1. Protect floodplain functions
   New Construction
   a. Do not develop on a site that contains any SFHA as identified by FEMA on the FIRM, or
2. Protect aquatic ecosystems
   New Construction
   a. Do not build within 100 feet of any of the wetlands or deepwater habitats identified in the ERPZ.

All Projects
3. Conserve habitat for any species on federal or state threatened or endangered lists
   a. Do not extend the building, built structures, roads, or parking areas into habitats for threatened and endangered plant and animal species on the site, as identified in the ERPZ.
   b. Minimize disturbances within the ERPZ during construction. If construction activities permanently disrupt the habitat of threatened or endangered animal habitats, follow the guidance of responsible state (or local) agencies on how to best address.

EGC 2.14 Local Economic Development and Community Wealth Creation
1. Contractor shall demonstrate that local preference for construction employment and subcontractor hiring was part of bidding process.

EGC 3.1 Environmental Remediation (mandatory)
1. Submit Phase 1 Environmental Site Assessment report to Green Verifier/Verifier
   If an environmental site assessment reveals any hazardous materials, mitigate these before proceeding with development.

EGC 3.2 Erosion and Sedimentation Control (mandatory)
Applies only when any site-work or excavation is in scope:
Contractor shall implement EPA's National Pollutant Discharge Elimination System (NPDES)' Stormwater Discharges from Construction Activities guidance, or local requirements, whichever is more stringent. If excavation and site work is part of scope:
1. Stockpile and protect disturbed topsoil for reuse.
2. Control the path and velocity of runoff with silt fencing or equivalent.
3. Protect sewer inlets, streams, and lakes on site during construction with silt fencing, silt sacks or comparable measures.
4. Provide swales to divert surface water from hillsides.

5. Identify and protect significant, high value trees during construction with fencing outside the critical root zone.
6. If soil is disturbed during construction on sloped areas, use tiers, erosion blankets, compost blankets, etc. to stabilize soil.

EGC 3.3 Ecosystem Services/ Landscape (mandatory)
When new landscaping is provided, or existing landscaping is modified:
1. All new landscaping (trees, shrubs, and groundcover, including grasses) should be native or adapted to the region. All new plants must be appropriate to the site's soil and microclimate, and none should be invasive species.
2. All disturbed existing landscape areas should be reseeded with native groundcover or plans and mulch.

EGC 3.4 Surface Stormwater Management (mandatory)
Applicable to New Construction or Rehab disturbing greater than 5,000 square feet
1. Treat or retain, on site, the precipitation volume from the 60th (60th is mandatory) percentile precipitation event as defined by the U.S. EPA in the Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act.

EGC 3.6 Efficient Irrigation and Water Reuse (mandatory)
When new irrigation system is provided, or existing system is modified:
1. Comply with all local water restrictions.
2. Design irrigation zones to respond to weather considerations, solar exposure, reflected light/heat from adjacent building or hardscape, soil type, topography/slope, plant material.
3. Establish irrigation volume and frequency per zone to be appropriate for the climate, soil type, and plants.
4. Select emission devices, valves, pipes, controllers, and sensors suitable to the landscape requirements that will facilitate long-term reliability and serviceability.
5. Design irrigation system to target each planting area with no overspray of impervious surfaces or adjacent planting areas. Prevent runoff of water from the site.
6. Install timer/controller that activates the valves for each watering zone at the best time of day to minimize evaporative losses while maintaining healthy plants and obeying local regulations and water-use guidance.
7. Install soil moisture sensor controller per vegetation zone or rain delay controller.

EGC 4.1 & 4.2 Water-Conserving Fixtures (mandatory)
1. Service pressure in each unit must not exceed 60 psi. Provide documentation of municipal water pressure. Green verifier will test water pressure at units.
2. Following flow rates are required to reduce total indoor water consumption by **30%**:
3. Toilets must be **WaterSense certified** and **1.28** gallons per flush or less, including dual-flush and pressure-assisted models.
4. Urinals must be **WaterSense certified** and **0.5** gallons per flush or less.
5. Showerheads must be **WaterSense-labeled** and **1.75** gallons per minute or less.
6. Kitchen faucets must be **1.5** gallons per minute or less.
7. Lavatory faucets must be **WaterSense certified** and **1.2** gallons per minute or less.

EGC 5.1a Building Performance Standard (mandatory)

Multi-family
Achieve **Energy Star Multifamily New Construction, Version 1.1**certification: Energy Analysis conducted by Green Verifier confirms that the project design meets or exceeds **Energy Star Multifamily New Construction, Version 1.1, ASHRAE Path** performance standard. Meeting energy

performance standards further requires mandatory inspection and testing conducted by Owner Contracted Green Rater/Verifier for Green certifications.
1. FOR NEW CONSTRUCTION ONLY Builder to meet Energy Star performance requirements of all four **Energy Star Multifamily New Construction, Version 1.1**Checklists (included in section 018113):
   a. National Rater Design Review Checklist (to be completed by Green Rater/Verifier)
   b. National Rater Field Checklist (to be completed by Green Rater/Verifier)
   c. National HVAC Design Report (to be completed by HVAC Contractor)
   d. National HVAC Functional Testing Checklist (to be completed by Green Rater/Verifier)
   e. Water Management System Builder Requirements (to be completed by Builder)

Minimum envelope leakage – where applicable: the following areas of building envelope and demising walls shall be sealed, caulked, gasketed, or weather-stripped to minimize envelope leakage:
1. Joints around exterior doors and windows.
2. Joints between walls and foundation; between conditioned spaces and attics, demising walls, crawl spaces and garage.
3. Top plates and bottom plates shall be sealed at all locations.
4. Minimize thermal bridging per Energy Star Version 3 Thermal Enclosure System Rater Checklist
5. All mechanical, plumbing, and electrical penetrations in exterior and demising walls. Mechanical chase shall be sealed at crawl space ceiling.
6. Exterior sheathing and house wrap.
7. Minimize entry of air from outside, attic, garage, and crawl space into exterior wall and interior wall cavities to ensure passing of air infiltration test. Also minimize air transfer from unit to unit, and unit to corridor.
8. Batt insulation shall be stapled to face of stud to ensure full contact of insulation with face of drywall. Cut insulation around all mechanical, plumbing, and electrical work.
9. Seal all duct boots in floors to subfloors and seal all duct boots in walls to drywall.
10. Seal gaps between drywall and all duct penetrations in ceilings, including exhaust fans.

Thermal Bypass Inspection - The Green Rater will conduct a visual Thermal Bypass Inspection to inspect proper installation and continuity of thermal insulation and air-tightness of envelope. This inspection must take place after exterior envelope insulation has been installed, but prior to and installation of any drywall. One inspection per floor shall be conducted. If additional inspections are deemed necessary due construction sequencing, Contractor shall notify the Architect and Green Verifier immediately. Contractor shall schedule the inspection with no less than two-week notice to the Green Verifier. Contractor shall provide access to each unit and cooperate with conducting of the test. Additional inspections necessary due to incomplete work shall be back-charged to the Contractor. A sample Thermal Bypass Inspection Checklist is enclosed in section 018113.

Final Inspections - Upon substantial completion and prior to occupancy, the Green Verifier will conduct a visual Final Inspection to verify green requirements incorporated in the project. The contractor shall notify the Green Rater at least four (4) weeks prior to the anticipated date for such inspection. Contractor shall provide access to each unit and cooperate with conducting of the test. Additional inspections necessary due to incomplete work shall be back-charged to the Contractor.

Third-Party Testing - Third-party Testing is to be scheduled and conducted in conjunction with the final inspection. The contractor shall notify the Green Verifier at least four (4) weeks prior to the anticipated date for such inspection. Contractor shall provide access to each unit and cooperate with conducting of the test.

Following tests shall be conducted by Green Verifier:
1. Air Infiltration Test (Blower door Test) – Mandatory – Measures air leakage through unit enclosure such as exterior walls, demising walls, ceilings, chases, etc.
2. Distribution Loss Test (Duct Blaster Test) – Mandatory – Measures leakage through the mechanical distribution system

3. FOR NEW CONSTRUCTION ONLY - Local Exhaust Test – Measures the amount of air exhausted through the bathroom fans and kitchen fans.
4. FOR NEW CONSTRUCTION ONLY - Back-draft Potential Test – Measures the amount of back-draft through a fireplace.
5. FOR NEW CONSTRUCTION ONLY - HVAC System Balancing – Measures and checks the air pressure in each room relative to adjacent spaces.

EGC 5.5b Moving to Zero Carbon: All Electric
1. No combustion equipment used as part of the building project.

EGC 5.6 Sizing of Heating and Cooling Equipment (mandatory)
Applicable to rehabs that include replacement of heating and cooling equipment.
1. Size and select heating and cooling equipment in accordance with the Air Conditioning Contractors of America (ACCA) Manuals J and S or ASHRAE handbooks.

EGC 5.7 Energy Star Appliances (mandatory)
1. If replacing or installing new appliances provide Energy Star-labeled refrigerators, dishwashers, and clothes washers.

EGC 5.8 Lighting (mandatory)
When replacing or installing new light fixtures
1. All permanently installed fixtures shall be high-efficiency that is capable of meeting recommended light levels in the Illuminating Engineering Society Handbook, 10th edition.
2. Recessed light fixtures installed as part of air barrier shall be Insulation Contact Air-Tight (ICAT)
3. Common space lighting or Non-apartment building spaces must be controlled by occupancy sensors or automatic bi-level lighting controls, except 24-hour lighting required by code.
4. Lighting power density in dwelling units shall be 1.1 W/SF or less.
5. All exterior lighting shall have motion sensor controls, integrative PV cells, photosensors, or astronomic time-clock operation.
6. Exterior fixtures shall meet the following:
   a. Luminaires shall be fully shielded emitting no light above 90 degrees. The luminaire's mounting hardware shall not permit mounting in any configuration other than those maintaining full shielding. Non-residential luminaires shall have an uplight rating of U0.
   b. Fixtures shall have no sag or drop lenses, side light panels or uplight panels.
   c. Fixtures shall employ warm-toned (3000k or lower) white light sources or may employ amber light sources or filtered LED light sources.

EGC 6.4 Healthier Material Selection (mandatory)
1. Use products that comply with the following requirements.

PRODUCT CATEGORY	MANDATORY	REFERENCE
All interior paints, coatings, primers and wallpaper	VOC content less than or equal to the thresholds provided by the most recent version of SCAQMD 1113 available at time of product specification for all interior paints, coatings and primers. VOC emissions verified as compliant with CDPH Standard Method for all wall finish paints.	For wall finish paints compliant with the mandatory CDPH specification, seek those certified to Master Painters Institute (MPI) X-Green, Green Wise Gold, GREENGUARD Gold, SCS Indoor Advantage Gold, and Berkeley Analytical ClearChem. GS-11 paints comply with the optional APE-free criterion, as do Red List–free products.

	All wallpaper, phthalate free	
All interior adhesives and sealants	VOC content less than or equal to the thresholds provided by the most recent version of SCAQMD 1168 available at time of product specification for all interior adhesives and sealants.	Orthophthalate plasticizers are common in polyurethane and modified polymer sealants. While not common, they may also be found in some acrylic latex or siliconized acrylic sealants. Verify that specified sealants are phthalate-free. Minimize the need for adhesives when possible. For instance, finger-joints and mechanical fasteners do not contain chemicals of concern.
Flooring	All flooring products (whether carpet or hard surface) must comply with CDPH emission requirements. No flexible PVC with phthalates may be installed, whether the phthalates were intentionally added or added via recycled content. No carpet in the project may be installed in building entryways, laundry rooms, bathrooms, kitchens/kitchenettes, or utility rooms. Fluid applied finish floors may only be installed in non-occupied spaces, such as mechanical rooms.	Common flooring product labels that meet or exceed the mandatory CDPH emission requirement include FloorScore, GREEN-GUARD Gold, SCS Indoor Advantage Gold, Berkeley Analytical ClearChem, and Carpet Rug Institute Green Label Plus (CRI+). In place of vinyl or other PVC-based resilient flooring, consider salvaged hardwoods, natural linoleum, rubber, cork, other PVC-free resilient flooring, ceramic or stone tile, sealed concrete, or pre-finished solid wood flooring. Pre-finished products, compared to those finished on site, keep potential exposures lower through a more controlled environment during finishing. If possible, use a floor system that can feature mechanical attachments (e.g., nails, floating wood flooring) instead of glues. This approach makes flooring easier to recycle in the future.
Insulation	If fiberglass or mineral wool batts are used, these must be formaldehyde-free.	Alternative insulation products include recycled cotton, cellulose, wool, and blown fiberglass. All major U.S. manufacturers of residential fiberglass batt insulation have transitioned to formaldehyde-free products. Some formaldehyde-free mineral wool batts are also available
Composite wood	Formaldehyde emissions less than or equal to the thresholds provided by CARB Phase 2 and/or TSCA Title IV for plywood, particleboard, MDF, and these materials within other products like cabinets and doors. For any other composite wood	While finish products (including plywood, MDF, particleboard, and cabinet and door components) comply by law with this mandatory requirement, ensure that all products installed in the project that are exposed to the conditioned space meet these standards or at a minimum do not include added urea formaldehyde. No-added formaldehyde (NAF) products qualify as ULEF and will be eligible for

	products not covered by CARB/TSCA requirements, but used in interior spaces, these must at minimum be NAUF (have no added urea formaldehyde).	optional points. However, be aware that the alternative binders utilized in these products may include regrettable substitutions. For instance, the most common alternative binder for composite wood is PMDI, which is made with isocyanates. PMDI is expected to be a lower hazard during use than formaldehyde, but more information is needed. Preferable alternatives would be more than half bio-based (e.g., binders that are at least 50% soy) with full content disclosure, so they can be vetted for health hazards.

EGC 6.8 Managing Moisture: Foundations (mandatory)
Applicable when foundation work is in scope.
Beneath Concrete Slabs (including those in basements and crawl spaces)
Option 1
1. Install a capillary break as follows: 4-inch layer of ½-inch diameter or greater clean aggregate.
2. Immediately above the capillary break, install at least 6-mil polyethylene sheeting overlapped at least 6 inches at the seams to serve as a vapor retarder in direct contact with the slab above.

Option 2
1. Install a 4-inch uniform layer of sand, overlain with a layer or strips of geotextile drainage matting installed according to the manufacturer's instructions.
2. Immediately above the capillary break, install at least 6-mil polyethylene sheeting overlapped at least 6 inches at the seams to serve as a vapor retarder in direct contact with the slab above.

EGC 6.9 Managing Moisture: Roofing and Wall Systems (mandatory)
Applicable only when wall or roof systems are replaced.
Walls
1. Provide a continuous housewrap /weather-resistive barrier with sheets lapped shingle-style to prevent bulk water that penetrates the finished exterior cladding system from entering the wall assembly or being introduced through window or door openings or through other penetrations. Alternatively, install a fluid applied weather-resistive barrier in accordance with manufacturer's instructions.
2. Flashings at roof /wall intersections and wall penetrations (i.e., plumbing, electrical, vents, HVAC refrigerant lines and the like in addition to windows and doors) must be integrated with the weather-resistive barrier and drainage plane prior to any exterior finish being installed to prevent bulk water from entering the exterior wall assembly.
3. Flashing installed at bottom of exterior walls with weep holes included for masonry veneer and weep screen for stucco cladding systems or equivalent drainage system.

Roof
1. Install drip edge at entire perimeter of roof.
2. At wall /roof intersections, maintain ≥2" clearance between wall cladding and roofing materials, install flashing along the intersection, and use kick-out flashing.

EGC 6.10 Construction Waste Management (mandatory)
Contractor to investigate local options for diversion of all construction waste and develop a plan for tracking waste diversion either through a contracted company or by tracking and sorting following components of construction waste.
Option 1
1. Recycle a minimum of **75%** of total construction waste

STATE OF OHIO
NATHAN ROBERT SCHAAF
#14503
REGISTERED ARCHITECT
PRELIMINARY NOT FOR CONSTRUCTION
Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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OBERER COMPANIES
3445 Newmark Drive
Miamisburg, Ohio 45342

New Multi-Family Building:
Senior Village at Valle Greene
1155 Channingway Drive
Fairborn, Ohio 45324
OHFA Tracking Number: 24-0087

Project Number
2023-191

Date
September 13, 2024

Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
SUSTAINABLE DESIGN REQUIREMENTS

Sheet Number
G2.11

OR

Option 2

1. Select at least two of the following waste streams and recycle 100% of those waste streams:
   a. Cardboard
   b. Wood
   c. Metal
   d. Drywall
   e. Concrete, brick and/or asphalt
   f. Insulation, foam, and plastics
   g. Carpet

EGC 7.1 Radon Mitigation (mandatory)
Applicable only in EPA Zone 1
New Construction
1. Install an under-slab passive-radon mitigation system per standard recommended in ANSI-AARST Standard: Reducing Radon in New Construction: 1 & 2 Family Dwellings and Townhouses, CCAH-2013.
2. Install a vertical vent pipe with junction box within 10 feet of an electrical outlet in case an active system should prove necessary in the future.

EGC 7.3 Combustion Equipment (mandatory)
Applicable only when combustion equipment is provided **anywhere in the building**:
1. Provide at least one hard-wired carbon monoxide detector with battery backup for each sleeping area, minimum one on each floor.
2. Any combustion equipment installed must be power-vented or closed-combustion.

EGC 7.5 Integrated Pest Management (mandatory)
1. Seal all wall, floor and joint penetrations with low-VOC caulking or other appropriate nontoxic sealing method.
2. Install corrosion-proof metal pest screens for all openings greater than ¼ inch.
3. Seal off entry points under kitchen and bathroom sinks.

EGC 7.7 Ventilation (mandatory)
1. When replacing or installing new Bathroom Exhaust Fans, provide in full accordance with ASHRAE 62.2-2010 Energy Star-labeled dual-speed continuous bathroom fan, OR intermittent bathroom fans exhausted directly to outdoors, connected to a light switch, and equipped with a humidistat sensor, ventilation timer, occupancy sensor, delay off switch or ventilation control, minimum 50 cfm in each bathroom and provide product documentation.
2. When replacing or installing new Kitchen Exhaust Fans, provide in full accordance with ASHRAE 62.2-2010 power-vented fans or range hoods exhausted directly to the outdoors at an intermittent rate of 100 cfm and provide product documentation.
3. Provide in full accordance with ASHRAE 62.2-2010 a whole-house mechanical ventilation system. Refer to HVAC drawings for ventilation strategy and required cfm of fresh air to each apartment unit. Local exhaust airflow may be credited toward the whole-house ventilation airflow requirement when local exhaust fans are used to provide whole-house mechanical ventilation.
4. In full accordance with ASHRAE 62.1-2010, install a mechanical ventilation system for all hallways and common spaces in Multifamily buildings.
5. All systems and associated ductwork must be installed per manufacturer's recommendations.
6. If using central ventilation systems with rooftop fans, each rooftop fan must be direct-drive and variable-speed with speed controller mounted near the fan. Fans with design CFM 300-2000 must also have an ECM motor.
7. Green Verifier/Energy Rater to conduct testing to verify ventilation system flow rates are within 15 CFM or 15% of the design value.

8. All systems and associated ductwork must be installed per manufacturer's recommendations.

EGC 7.12 Beyond ADA: Universal Design (mandatory)
Select one option below to implement. Implement three strategies in that option. For all selected strategies affecting dwelling units, implement that strategy for 75% of the project's dwelling units.
Option 1
1. Ensure high levels of even, natural, and artificial lighting within circulation and common areas.
2. Include universal, gender neutral restrooms available for use in common areas.
3. In properties with more than 12 units, create sub-clusters of units with no more than 12 units sharing semi-private space or entry sequence to promote connections with neighbors.
4. For shared interior or exterior spaces, include permanent essential amenities, including seating, toilets, and drinking water to promote comfort and use.

Option 2
1. Create approachable building entries that are welcoming, are easy to identify, promote feelings of safety, and are accessible without the use of stairs. Include a covered entryway with seating, greenery, and lighting. Include exterior signage that is prominent, visible from sidewalk, access road, or parking lot.
2. Create paths with auditory crossing signals, adequate crossing times, clear signage, visible access ramps, median refuge islands, and connections to walking, cycling, and public transit routes.
3. Make streets and paths throughout the project site universally accessible, smooth, and sufficiently wide, and provide curb cuts at street crossings and entry points, and turning radii adequate for a wheelchair or walker.
4. Create logical circulation patterns and navigability throughout the project, with particular focus on the path from the dwelling units to transit or frequently used areas: continuous pathways, signage, art, lighting, or multi-sensory features to promote navigability.
5. Provide clear signage throughout the building that avoids jargon, uses clear language, incorporates a positive frame, and is multi-lingual where appropriate. Incorporate illustrations to encourage universal understanding. Signage for way-finding and other purposes should be available in the interior and exterior spaces.
6. Avoid strong patterns on floor finishes. Use carpets and flooring that have subtle neutral patterns.
7. Install light switches and power outlets that contrast in color and value with wall surfaces and have an indicator light when turned off. Mount light switches at 52 inches and power outlets at 20 inches above the finished floor.

Option 3
1. Install slip-resistant flooring in the common spaces, frequently used pathways, units, and entryways.
2. Install grab bars to provide extra support in bathrooms, including the shower, and in bedrooms and other areas where they would provide assistance. Mount horizontally or vertically, not on a diagonal.
3. Install all towel bars to support the same loads that grab bars are required to by code.
4. Install thermostatic or anti-scald control faucets.

Option 4
1. Design all interior and exterior doors to be accessible without the use of steps or raised thresholds and all sloped surfaces to have proper support on both sides.
2. Install lever handles on all doors.
3. Install accessible bathtub or roll-in shower with hand-held adjustable shower head.
4. Ensure that equipment and controls are easily navigable by all people.

Option 5
1. Design all hallways with a 42-inch clearance.
2. Design all doors to be thirty-two (32) inches clear and/or 36 inches rough opening, including entry doors, doors to habitable rooms or hallways, doors in walk-in closets, patio doors, and doors in utility/storage rooms larger than 48" x 48" in size.
3. Design kitchens and bathrooms to have a 5' x 5' diameter turning circle.

4. Provide storage space adequate for wheelchairs, walkers, electric scooters, and strollers.

EGC 8.1 Building Maintenance Manual (mandatory)
1. General Contractor to provide Maintenance manual that addresses HVAC operations and maintenance, appliance guidance, lighting equipment, green cleaning products, and pest control. Refer to EGC 2020 criteria handbook for details.

EGC 8.2 Emergency Management Manual (mandatory)
1. General Contractor to provide Emergency Management Manual targeted toward operations and maintenance staff and other building level personnel. The manual should address responses to various types of emergencies, leading with those that have the greatest probability of negatively affecting the project. The manual should provide guidance as to how to sustain the delivery of adequate housing throughout an emergency and cover a range of topics including but not limited to:
   a. Communication plans for staff and residents to use in the event of an emergency.
   b. Useful contact information for public utility and other service providers
   c. Infrastructure and building "shutdown" procedures

EGC 8.4 Walk-throughs and Orientations to Property Operations (mandatory)
1. General Contractor to provide a comprehensive walk-through and orientation for property manager(s) and building operations staff within 90 days of initial occupancy. Use the appropriate manuals (8.1 & 8.2) as the base of the curriculum, and review the project's green features, operations and maintenance procedures, and emergency protocols.

ENCLOSURES

Multifamily New Construction, 1.1
New Construction
1. Enterprise Green Communities Checklist
2. Energy Star National Rater Design Review Checklist
3. Energy Star National Rater Field Checklist
4. Energy Star National HVAC Design Report
5. Energy Star National HVAC Functional Testing Checklist
6. Energy Star Water Management System Builder Requirements

END OF SECTION 018113

2020 ENTERPRISE GREEN COMMUNITIES **CRITERIA CHECKLIST**

CRITERIA CHECKLIST

This checklist provides an overview of the technical requirements within the Enterprise Green Communities Criteria.
To achieve Enterprise Green Communities Certification, all projects must achieve compliance with the Criteria mandatory measures applicable to that construction type. **New Construction projects must also achieve at least 40 optional points, and Substantial and Moderate Rehab projects must also achieve at least 35 optional points.**

These projects that also comply with Criterion 5.2b or Criterion 5.4 will be recognized with Enterprise Green Communities Certification Plus.

Project:	Hamilton Place
Address:	5432 N Hamilton Rd, Columbus, OH, 43230, USA
Location Type:	Urban
Building Type:	New Construction

Yes	Maybe		1. INTEGRATIVE DESIGN	Notes
Yes		M	**1.1 Integrative Design: Project Priorities Survey** Complete the Project Priorities Survey, which can be found in the Appendix.	
Yes		M	**1.2 Integrative Design: Charrettes and Coordination Meetings** Develop an integrative design process that moves the outputs of the Project Priorities Survey into action through a series of collaborative meetings. Prioritize multi-benefit strategies. Assign responsibility within your design and development teams for accountability.	
Yes		M	**1.3 Integrative Design: Documentation** Include Enterprise Green Communities Criteria information in your contract documents and construction specifications (Division 1 Section 01 81 13 Sustainable Design Requirements) as necessary for the construction team to understand the requirements and how they will be verified. Ensure, and indicate, that the drawings and specifications have been generated to be compliant and meet the certification goals.	
Yes		M	**1.4 Integrative Design: Construction Management** Create, implement, and document your contractor/subcontractor education plan to ensure that all persons working on-site fully understand their role in achieving the project objectives. Include a summary of the Project Priorities Survey (Criterion 1.1), the sustainability goals, and anticipated roles of each party in regards to the performance expected of the project. Attach and reference this training plan to Division 1 Section 01 81 13 Sustainable Design Requirements. Include timeline estimates for performance testing and verification schedules in the overall construction schedule. As relevant, review requirements for Criteria 8.1, 8.2, and 8.3, and begin populating these documents with relevant information from design and construction.	
		12 or 15	**1.5 Design for Health and Well-Being: Health Action Plan** Follow Steps 1-6 of the Health Action Plan framework per the full criterion. *[12 points with extra 3 points for Step 7]* This includes: 1) Commit to embedding health into the project lifecycle; 2) Partner with a project health professional; 3) Collect and analyze community health data; 4) Engage with community stakeholders to prioritize health data and strategies; 5) Identify strategies to address those health issues; 6) Create an implementation plan; and 7) Create a monitoring plan.	
		10	**1.6 Resilient Communities: Multi-Hazard Risk/Vulnerability Assessment** Conduct a four-part assessment (social, physical, functional, strategy) to identify critical risk factors of your property and implement at least two sets of strategies to enable the project to adapt to, and mitigate, climate related or seismic risks. See full criterion for more guidance.	

		8	**1.7 Resilient Communities: Strengthening Cultural Resilience** Integrate community and resident participation in the development processes so that the built environment honors cultural identities, resident voices, and community histories. Option 1: Complete a Cultural Resilience Assessment OR Option 2: Convene a Cultural Advisory Group	
0	0		1. INTEGRATIVE DESIGN SUBTOTAL	
Yes	Maybe		2. LOCATION + NEIGHBORHOOD FABRIC	Notes
Yes		M	**2.1 Sensitive Site Protection** All projects must: 1. Protect floodplain functions (e.g., storage, habitat, water quality) by limiting new development within the 100-year floodplain of all types of watercourses. 2. Conserve and protect aquatic ecosystems, including wetlands and deepwater habitats, that provide critical ecosystem functions for fish, other wildlife, and people. 3. Protect ecosystem function by avoiding the development of areas that contain habitat for plant and animal species identified as threatened or endangered. 4. Conserve the most productive agricultural soils by protecting prime farmland, unique farmland, and farmland of statewide or local importance. If your site contains any of these ecologically sensitive features, follow the specific Requirements under that subheading.	waiver for farmland
Yes		M	**2.2 Connections to Existing Development and Infrastructure** *(Mandatory for New Construction projects that do not qualify as Rural/Tribal/Small Town)* Locate the project on a site with access to existing roads, water, sewers, and other infrastructure and within or contiguous to (having at least 25% of the perimeter bordering) existing development. Connect the project to the existing pedestrian network. For sites over 5 acres, provide connections to the adjacent street network at least every 800 feet. Tie all planned bike paths to existing bike paths.	
Yes		M	**2.3 Compact Development** *(Mandatory for New Construction)* At a minimum, build to the residential density (dwelling units/acre) of the census block group where the project is located. In Rural/Tribal/Small Town locations that do not have zoning requirements: Build to a minimum net density of 5 units per acre for single-family houses; 10 units per acre for multifamily buildings, single and two-story; and 15 units per acre for multifamily buildings greater than two-stories.	60 units / 1.26 acre (with setbacks) = 47.6 DU/ac; CNT density - 2.98 DU/ac
7		5 or 7	**2.4 Increased Compact Development** Exceed the residential density (dwelling units/acre) of the census block group in which your project is located. Exceed by 2x for *[5 points]* ; exceed by 3x for *[7 points]* . In Rural/Tribal/Small Towns that do not have zoning requirements, build to a minimum net density of 7.5 units per acre for single-family houses; 12 units per acre for multifamily buildings, single and two-story; and 20 units per acre for multifamily buildings greater than two stories. *[5 points]*	60 units / 1.26 acre (with setbacks) = 47.6 DU/ac; CNT density - 2.98 DU/ac
Yes		M	**2.5 Proximity to Services and Community Resources** *(Mandatory for New Construction)* Locate the project within a 0.5-mile walk distance of at least four, or a 1-mile walk distance of at least seven, of the listed services. For projects that qualify as Rural/Tribal/Small Town, locate the project within 5 miles of at least four of the listed services.	

N/A		M	**2.6 Preservation of and Access to Open Space for Rural/Tribal/Small Town** *(Mandatory for New Construction Rural/Tribal/Small Town)* Option 1: Locate the project within a 0.25-mile walk distance of dedicated public open space that is a minimum of 0.75 acres; at least 80% of which unpaved. OR Option 2: Set aside a minimum of 10% (minimum of 0.25 acres) of the total project acreage as open and accessible to all residents; at least 80% of which unpaved.	
		6 max	**2.7 Preservation of and Access to Open Space** Option 1: Locate the project within a 0.25-mile walk distance of dedicated open space that is a minimum of 0.75 acres; at least 80% of which unpaved. *[4 points]* OR Option 2: Set aside a percentage of permanent open space for use by all residents; at least 80% of which unpaved. 25% *[2 points]* ; 35% *[4 points]* ; 45% + written statement of preservation/ conservation policy *[6 points]*.	
Yes		M	**2.8 Access to Transit** *(Mandatory for New Construction projects that do not qualify as Rural/Tribal/Small Town; Optional for all other project types)* **Mandatory: New Construction, not Rural/Tribal/Small Town** Locate projects within a 0.5-mile walk distance of transit services (bus, rail and/or ferry), constituting at least 45 or more transit rides per weekday, with some type of weekend service.	
		2	**Optional: New Construction, not Rural/Tribal/Small Town** Locate the project along dedicated bike trails or lanes (Class I, II, or IV) that lead to high-quality transit services (100 trips per day) within 3 miles. *[2 points]*	
		2, 6, 8	**Optional: Rehabilitation, not Rural/Tribal/Small Town** Locate projects within a 0.5-mile walk distance of public transit services (bus, rail and/or ferry), constituting at least 45 or more transit rides per weekday, with some type of weekend service. *[6 points]* Locate the project along dedicated bike trails or lanes (Class I, II, or IV) that lead to high-quality transit services (100 trips per day) within 3 miles. *[2 points]*	
		6	**Optional: New Construction and Rehabilitation, Rural/Tribal/Small Town** Locate the project within 0.5 mile walk distance of public transit services with at least 45 rides per weekday and some weekend service. OR, Install at least two charging stations for electric vehicles. OR, Locate the project with 5 miles of one of the following transit options: 1) vehicle share program; 2) dial-a-ride program; 3) employer vanpool; 4) park-and-ride; 5) public/private regional transportation.	
		2-8	**2.9 Improving Connectivity to the Community** Improve access to community amenities through at least one of the options incentivizing biking mobility or improving access to transit.	
		5 max	**2.10 Passive Solar Heating/Cooling** Design and build with passive solar design, orientation, and shading that meet the guidelines specified.	
		6	**2.11 Adaptive Reuse of Buildings** Rehabilitate and adapt an existing structure that was not previously used as housing. Design the project to adapt, renovate, or reuse at least 50% of the existing structure and envelope.	
		6	**2.12 Access to Fresh, Local Foods** Provide residents and staff with access to fresh, local foods through one of the following options: Option 1: Neighborhood Farms and Gardens Option 2: Community-Supported Agriculture Option 3: Proximity to Farmers Market	

8		8	**2.13 Advanced Certification: Site Planning, Design and Management** Locate building(s) within a community that is certified in LEED for Neighborhood Development, LEED for Cities and Communities, Living Community Challenge, or SITES.	Columbus, OH is LEED for Cities.
	2	6 max	**2.14 Local Economic Development and Community Wealth Creation** Demonstrate that local preference for construction employment and subcontractor hiring was part of your bidding process, and how it functioned during construction. *[2 points]* OR Demonstrate that you achieved at least 20% local employment. *[3 points]* OR Provide physical space for small business, nonprofits, and/or skills and workforce education. *[3 points]*	
N/A		M	**2.15a Access to Broadband: Broadband Ready** *(Mandatory for New Construction and Substantial Rehab Projects in Rural/Tribal/Small Town Locations)* Incorporate broadband infrastructure so that when broadband service comes to a community, the property can be easily connected. Include a network of mini-ducts or conduit throughout the building, extending from the expected communications access point to each network termination point in the building.	
	6	6	**2.15b Access to Broadband: Connectivity** Ensure all units and common spaces in the property have broadband internet access with at least a speed of 25/3 mbs.	
15	8		2. LOCATION + NEIGHBORHOOD FABRIC SUBTOTAL	
Yes	Maybe		3. SITE IMPROVEMENT	Notes
Yes		M	**3.1 Environmental Remediation** Determine whether there are any hazardous materials present on the site through one of the four methods listed. Mitigate any contaminants found.	
Yes		M	**3.2 Minimization of Disturbance during Staging and Construction** For sites >1 acre, implement EPA's National Pollutant Discharge Elimination System Stormwater Discharges from Construction Activities guidance, or local requirements, whichever is more stringent. For sites with an area <= 1, follow guidance in full criterion.	
Yes		M	**3.3 Ecosystem Services/Landscape** *(Mandatory, if providing landscaping)* If providing plantings, all must be native or climate-appropriate (adapted) to the region and appropriate to the site's soil and microclimate. Do not introduce any invasive plant species. Plant, seed, or xeriscape all disturbed areas.	
Yes		M	**3.4 Surface Stormwater Management** *(Mandatory for New Construction; Mandatory for Substantial and Moderate Rehab projects if land disturbed is >= 5,000 sq.ft.)* Treat or retain on-site precipitation equivalent to the 60th percentile precipitation event. Where not feasible due to geotechnical issues, soil conditions, or the size of the site, treat or retain the maximum volume possible.	
		10 max	**3.5 Surface Stormwater Management** Through on-site infiltration, evapotranspiration, and rainwater harvesting, retain precipitation volume from 70% precipitation event *[6 points]*, 80% precipitation event *[8 points]* , or 90% precipitation event *[10 points]*.	

N/A		M	**3.6 Efficient Irrigation and Water Reuse** *(Mandatory, if permanent irrigation is utilized)* If irrigation is utilized, install an efficient irrigation system per the requirements listed.	
		4 or 6	**3.7 Efficient Irrigation and Water Reuse** *(Optional, if irrigation is utilized)* Meet the requirements of Criterion 3.6 AND: Option 1: Install an efficient irrigation system equipped with a WaterSense labeled weather-based irrigation controller (WBIC) OR Option 2: At least 50% of the site's irrigation satisfied by water use from the sources listed.	
0	0		3. SITE IMPROVEMENT SUBTOTAL	
Yes	Maybe		4. WATER	Notes
Yes		M	**4.1 Water-Conserving Fixtures** Reduce total indoor water consumption by at least 20% compared to baseline indoor water consumption chart. Any new toilet, showerhead, and/or lavatory faucet must be WaterSense certified. For all single-family homes and all dwelling units in buildings three stories or fewer, the supply pressure may not exceed 60 psi.	Proposed flow rates: Toilets: 1.28 gpf Showerheads: 1.75 gpm Kitchen faucets: 1.5 gpm Lavatory faucets: 1.2 gpm
3		6 max	**4.2 Advanced Water Conservation** Reduce total indoor water consumption by at least 30% compared to baseline indoor water consumption chart. Any new toilet, showerhead, and/or lavatory faucet must be WaterSense certified.	
N/A			**4.3 Water Quality**	
		M, 3	**Mandatory/Optional:** Mandatory for Substantial Rehabs of buildings built before 1986; Optional for all other building types: Replace lead service lines *[3 points]*	
		M	**Mandatory:** For multifamily buildings with either a cooling tower, a centralized hot water system, or 10+ stories: Develop a Legionella water management program	
		8	**Optional:** Test and remediate as indicated for lead, nitrates, arsenic, and coliform bacteria	
		4	**4.4 Monitoring Water Consumption and Leaks** Conduct pressure-loss tests and visual inspections to determine if there are leaks; fix leaks. AND Install an advanced water monitoring and leak detection system capable of identifying and shutting water off during anomalous water events. OR Install a device to separately monitor water consumption of each cold branch off the apartment line riser for each dwelling unit or each cold water riser and the domestic hot water cold water feed for each building or each toilet that allows remote monitor readings; common laundry facilities; boiler makeup water; outdoor water consumption; and water consumption in any non-residential space.	
		4	**4.5 Efficient Plumbing Layout and Design** Store no more than 0.5 gallon of water in any piping/manifold between the fixture and the water heating source or recirculation line. No more than 0.6 gallon of water shall be collected from the fixture before a 10-degree Fahrenheit rise in temperature is observed. Recirculation systems must be demand-initiated.	

Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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OBERER COMPANIES
3445 Newmark Drive
Miamisburg, Ohio 45342

New Multi-Family Building:
Senior Village at Valle Greene
1155 Channingway Drive
Fairborn, Ohio 45324
OHFA Tracking Number: 24-0087

Project Number
2023-191

Date
September 13, 2024

Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
SUSTAINABLE DESIGN REQUIREMENTS

Sheet Number
G2.12

		6 max	**4.6 Non-Potable Water Reuse** Harvest, treat, and reuse rainwater and/or greywater to meet a portion of the project's non-potable water needs: 10% reuse *[3 points]* ; 20% reuse *[4 points]* ; 30% reuse *[5 points]*; 40% reuse *[6 points]*.	
		8	**4.7 Access to Potable Water During Emergencies** Provide residents with ready access to potable water in the event of an emergency that disrupts normal access to potable water, including disruptions related to power outages that prevent pumping water to upper floors of multifamily buildings or pumping of water from on-site wells, per one of the three options listed.	
3	0		4. WATER SUBTOTAL	

Yes	Maybe		5. OPERATING ENERGY	Notes
Yes		M	**5.1a Building Performance Standard** *(Mandatory for New Construction)* Certify all buildings with residential units in the project through either ENERGY STAR Multifamily New Construction, ENERGY STAR Manufactured Homes, and/or ENERGY STAR Certified Homes as relevant. AND Provide projected operating energy use intensity and projected operating building emissions intensity.	
N/A		M	**5.1b Building Performance Standard** *(Mandatory for Rehab)* Provide projected operating energy use intensity and projected operating building emissions intensity. AND Conduct commissioning for compartmentalization, insulation installation, and HVAC systems as indicated. AND one of the following options: - ERI Option: <= HERS 80 for each dwelling unit. Exception for some Rehabs built before 1980. - ASHRAE Option: Energy performance of the completed building equivalent to, or better than, ASHRAE 90.1-2013 using an energy model created by a qualified energy services provider according to Appendix G 90.1-2016.	
	5	12 max	**5.2a Moving to Zero Energy: Additional Reductions in Energy Use** *(Not available for projects using prescriptive path for Criterion 5.1a or for projects following Criterion 5.2b or 5.4.)* Projects in CZ 1-4A following this criterion must also comply with Criterion 7.8. Design and construct a building that is projected to be more efficient than what is required by Criteria 5.1a/b. Achieve HERS score of 5 lower than required by 5.1a/b if following ERI path for compliance OR 5% greater efficiency than required if following ASHRAE path for 5.1a/b compliance *[5 points]*. Additional 1 point for each additional 2-point decrease in HERS score required by Criteria 5.1a/b if following ERI path for compliance OR for 1% greater efficiency if following ASHRAE path for Criteria 5.1a/b, up to a maximum of 12 optional points.	
		12-15	**5.2b Moving to Zero Energy: Near Zero Certification** [Mandatory for Enterprise Green Communities Certification Plus] *(Not available for projects following Criterion 5.2a or 5.4.)* Projects in CZ 1-4A following this criterion must also comply with Criterion 7.8. Certify the project in a program that requires advanced levels of building envelope performance such as DOE ZERH *[12 points]* and/or PHI Classic or PHIUS+ *[15 points]* .	

		3-6	**5.3a Moving to Zero Energy: Photovoltaic/Solar Hot Water Ready** *(Not available for projects following Criterion 5.3b or 5.4.)* Orient, design, engineer, wire, and/or plumb the development through the Photovoltaic Ready pathway or Solar Hot Water Ready Pathway to accommodate installation of photovoltaic (PV) or solar hot water system in the future.	
		8 max	**5.3b Moving to Zero Energy: Renewable Energy** *(Not available for projects following Criterion 5.3a or 5.4)* Install renewable energy source to provide a specified percentage of the project's estimated source energy demand. See full criterion for allowable sources. 4-8 **Option 1:** For percentage of total project energy consumption provided by renewable energy. OR 1-5 **Option 2:** For percentage of common area meter energy consumption provided by renewable energy.	
		24	**5.4 Achieving Zero Energy** [Automatic Qualification for Enterprise Green Communities Certification Plus] *(Not available for projects following Criterion 5.2a, 5.2b, 5.3a, or 5.3b.)* Projects in CZ 1-4A following this criterion must also comply with Criterion 7.8. Achieve Zero Energy performance through one of the following options: **Option 1:** Certify each building in the project to DOE Zero Energy Ready Home program or PHI Plus AND Either install renewables and/or procure renewable energy, which in sum will produce as much, or more, energy in a given year than the project is modeled to consume. OR **Option 2:** Certify each building in the project in a program that requires zero energy performance such as PHIUS+ Source Zero, PHI Plus, PHI Premium, ILFI's Zero Energy Petal, Zero Carbon Petal, or Living Building Certification.	
		5 max	**5.5a Moving to Zero Carbon: All-Electric Ready** *(Not available for projects following Criterion 5.5b)* Ensure the project has adequate electric service and has been designed and wired to allow for a seamless switch to electricity as a fuel source in the future for the following uses: space heating *[1 point]*, space cooling *[1 point]* , water heating (DHW) *[1 point]* , clothes dryers *[1 point]* , equipment for cooking *[1 point]*.	
15		15	**5.5b Moving to Zero Carbon: All Electric** *(Not available for projects following Criterion 5.5a)* No combustion equipment used as part of the building project; the project is all-electric.	
Yes		M	**5.6 Sizing of Heating and Cooling Equipment** *(Mandatory for Substantial and Moderate Rehabs that include replacement of heating and cooling equipment. Not relevant for projects following Criterion 5.1a, 5.2b, or 5.4.)* Size and select heating and cooling equipment in accordance with ACCA manuals J and S OR in accordance with the ASHRAE Handbook of Fundamentals	
Yes		M	**5.7 ENERGY STAR Appliances** *(Mandatory for Substantial and Moderate Rehabs providing appliances. Not relevant for projects following 5.1a, 5.2b, or 5.4.)* Install ENERGY STAR clothes washers, dishwashers, and refrigerators. If appliances will not be installed or replaced at this time, specify that at the time of installation or replacement, ENERGY STAR models must be used via Criterion 8.1 and Criterion 8.4.	

Yes		M	**5.8 Lighting** *(Mandatory for all lighting within New Construction and Substantial Rehab projects. Mandatory for new lighting in Moderate Rehab projects.)* Follow the guidance for high-efficacy permanently installed lighting and other characteristics for recessed light fixtures, lighting controls, lighting power density, and exterior lighting.	
		8	**5.9 Resilient Energy Systems: Floodproofing** *(Not relevant for Rehab projects in Special Flood Hazard Areas)* Conduct floodproofing of lower floors, including perimeter floodproofing (barriers/shields). Design and install building systems as specified by the full criterion so that the operation of those systems will not be grossly affected in case of a flood.	
		8	**5.10 Resilient Energy Systems: Critical Loads** Loads Provide emergency power to serve at least three critical energy loads as described by the full criterion. **Option 1:** Islandable PV system **OR** **Option 2:** Efficient aenerator	
15	5		5. OPERATING ENERGY SUBTOTAL	

Yes	Maybe		6. MATERIALS	Notes
		8 max	**6.1 Ingredient Transparency for Material Health** Install products that have publicly disclosed inventories characterized and screened to 1,000 ppm or better: • 1 point per 5 installed Declare or HPD products from at least three different product categories • 1 point per 2 installed Declare or HPD products in any of these categories: adhesives, sealants, windows • 1 point per each product with third-party verified HPD or third-party verified Declare label • 2 points per each product with third-party verified HPD or third-party verified Declare label in any of these categories: adhesives, sealants, windows	
		3 max	**6.2 Recycled Content and Ingredient Transparency** Use building products that feature, and disclose, their recycled content. The building product must make up 75% by weight or cost of a project category for the project and be composed of at least 25% post-consumer recycled content.	
		8 max	**6.3 Chemical Hazard Optimization** Install products that have third-party verification of optimization to 100 ppm or better per the options listed within the full criterion.	
Yes		M	**6.4 Healthier Material Selection**	no carpet
3		15 max	Select all interior paints, coatings, primers, and wallpaper; interior adhesives and sealants; flooring; insulation; and composite wood as specified. Optional points also available.	
		12 max	**6.5 Environmentally Responsible Material Selection** Select concrete, steel, or insulation with a publicly disclosed EPD *[3 points]* , install a green or cool roof *[3 points]* , use reflective paving *[3 points]* , and/or use FSC certified wood *[3 points]* . Refer to criterion for specifics.	

Yes		M	**6.6 Bath, Kitchen, Laundry Surfaces** *(Mandatory for New Construction and Substantial Rehab. Moderate Rehabs that do not include work in the shower and tub areas are exempt from the shower and tub enclosure requirement.)* Use materials that have durable, cleanable surfaces throughout bathrooms, kitchens, and laundry rooms. Use moisture-resistant backing materials per ASTM # D 6329 or 3273 behind tub/shower enclosures, apart from one-piece fiberglass enclosures which are exempt.	
		4 max	**6.7 Regional Materials** Use products that were extracted, processed, and manufactured within 500 miles of the project for a minimum of 90%, based on weight or on cost, of the amount of the product category installed. Select any or all of these options (every two compliant materials can qualify for 1 point): • Framing Cladding (e.g. siding, masonry, roofing) • Flooring Concrete/cement and aggregate • Drywall/interior sheathing	
Yes		M	**6.8 Managing Moisture: Foundations** *(Mandatory for all New Construction projects and all Rehab projects with either basement and/or crawl space foundations)* Install capillary breaks and vapor retarders that meet specified criteria appropriate for the foundation type.	
Yes		M	**6.9 Managing Moisture: Roofing and Wall Systems** *(Mandatory for all Rehab projects that include deficiencies in or include replacing particular assemblies called out below. New Construction projects are considered compliant per Criterion 5.1.)* Provide water drainage away from walls, window, and roofs by implementing the list of techniques.	
Yes		M	**6.10 Construction Waste Management**	
		6 max	Develop and implement a waste management plan that reduces non-hazardous construction and demolition waste through recycling, salvaging, or diversion strategies through one of the three options. Achieve optional points by going above and beyond the requirement.	
		2	**6.11 Recycling Storage** For projects with municipal recycling infrastructure and/or haulers, provide separate bins for the collection of trash and recycling for each dwelling unit and all shared community rooms. OR For projects without that infrastructure, advocate to the local waste hauler or municipality for regular collection of recyclables.	
3	0		6. MATERIALS SUBTOTAL	

Yes	Maybe		7. HEALTHY LIVING ENVIRONMENT	Notes
Yes		M	**7.1 Radon Mitigation** *(Mandatory for New Construction and Substantial Rehab)* For New Construction in EPA Zone 1 areas, install passive radon-resistant features below the slab and a vertical vent pipe with junction box within 10 feet of an electrical outlet in case an active system should prove necessary in the future. For Substantial Rehab projects in EPA Zone 1, test before and after the retrofit and mitigate per the specified protocols.	
N/A		M	**7.2 Reduce Lead Hazards in Pre-1978 Buildings** *(Mandatory for Substantial Rehab of Buildings Constructed Before 1978)* Conduct lead risk assessment or inspection to identify lead hazards. Control identified lead hazards using lead abatement or interim controls, using lead-safe work practices that minimize and contain dust.	

N/A		M	**7.3 Combustion Equipment** **For New Construction and Rehab projects:** Specify power-vented or direct-vent equipment when installing any new combustion appliance for space or water heating that will be located within the conditioned space. If there are any combustion appliances within the conditioned space, install one hard-wired carbon monoxide (CO) alarm with battery backup function for each sleeping zone, placed per National Fire Protection Association (NFPA) 72. **For Rehabs:** If there is any combustion equipment located within the conditioned space for space or water heating that is not power-vented or direct-vent and that is not scheduled for replacement, conduct combustion safety testing prior to and after the retrofit; remediate as indicated.	
N/A		M	**7.4 Garage Isolation** • Provide a continuous air barrier between the conditioned space and any garage space to prevent the migration of any contaminants into the living space. Visually inspect common walls and ceilings between attached garages and living spaces to ensure that they are air-sealed before insulation is installed. • Do not install ductwork or air handling equipment for the conditioned space in a garage. • Fix all connecting doors between conditioned space and garage with gaskets or make airtight. • Install one hard-wired CO alarm with battery backup function for each sleeping zone of the project, placed per NFPA 72 unless the garage is mechanically ventilated or an open parking structure.	
Yes		M	**7.5 Integrated Pest Management** Seal all wall, floor, and joint penetrations with low-VOC caulking or other appropriate nontoxic sealing methods to prevent pest entry.	
Yes		M	**7.6 Smoke-Free Policy** **Mandatory:** Implement and enforce a smoke-free policy in all common areas and within a 25-foot perimeter around the exterior of all residential buildings. Lease language must prohibit smoking in these locations and provide a graduated enforcement policy. Make the smoke-free policy readily available.	
10		10	**Optional:** Expand the policy above to include all indoor spaces in the property.	
Yes		M 12 max	**7.7 Ventilation** *(Mandatory for New Construction and Substantial Rehab; Optional for Moderate Rehab)* For each dwelling unit in full accordance with ASHRAE 62.2-2010, install: • A local mechanical exhaust system in each bathroom *[3 points if Moderate Rehab]* • A local mechanical exhaust system in each kitchen *[3 points if Moderate Rehab]* • A whole-house mechanical ventilation system *[3 points if Moderate Rehab]* Verify these flow rates are either within +/- 15 CFM or +/- 15% of design value. For each multifamily building of four or more stories, in full accordance with ASHRAE–162.1-2010, install: • A mechanical ventilation system for all hallways and common spaces *[3 points if Moderate Rehab]* For all project types, in addition to the above requirements: • All systems and ductwork must be installed per manufacturer's recommendations • All bathroom fans must be ENERGY STAR-labeled and wired for adequate run-time. • If using central ventilation systems with rooftop fans, each fan must be direct-drive and variable-speed with speed controller mounted near the fan. Fans with design CFM 300-2000 must also have an ECM motor.	

N/A		M , 5	**7.8 Dehumidification** *(Mandatory for properties in Climate Zones 1A, 2A, 3A, and 4A following Criterion 5.2a, 5.2b, or 5.4. Optional for all other properties.)* **Option 1:** Design, select, and install supplemental dehumidification equipment to keep relative humidity OR **Option 2:** Equip all dwelling units with dedicated space, drain, and electrical hook-ups for permanent supplemental dehumidification systems to be installed if needed and install interior RH monitoring equipment as described.	
		3	**7.9 Construction Pollution Management** **Option 1:** Earn the EPA Indoor airPlus label OR **Option 2:** In all dwelling units, seal all heating, cooling, and ventilation return and supply floor ducts and returns throughout construction to prevent construction debris from entering. Flush all dwelling units after completion of construction and prior to occupancy for either 48 hours or with at least 14,000 ft3 per ft2 of floor area, then replace all air handling equipment filters.	
		3	**7.10 Noise Reduction** **Option 1:** Test and demonstrate that noise levels in bedrooms meet 30 dB LAeq (continuous) and 45 dB LAmax, (single sound). OR **Option 2:** Provide a noise abatement plan specific to the site covering general noise mitigation techniques in accordance with 24 CFR 51B. OR Option 3: Ensure all exterior wall and party wall penetrations are sealed with acoustical sealant, all party walls and floor/ceiling assemblies have an STC rating of at least 55, and exterior windows and doors in projects near a significant exterior noise source have an STC rating of at least 35	
Yes		8	**7.11 Active Design: Promoting Physical Activity** *(All projects must comply with at least one of either Criterion 7.11, 7.12, or 7.13. Points are not available for that criterion, but, are available for projects that meet two or three of these criteria.)* **Option 1:** Encouraging Everyday Stair Usage (buildings that include stairs as the only means to travel from one floor to another are not eligible for this option.) Provide a staircase that is accessible and visible from the main lobby and is visible within a 25-foot walking distance from any point in the lobby per the specifications listed. Place point-of-decision signage. OR **Option 2:** Activity Spaces. Provide on-site dedicated recreation space with exercise or play opportunities for adults and/or children that is open and accessible to all residents; see criterion for specifics.	Tot Lot and Exercise Room
8		8	**7.12 Beyond ADA: Universal Design** *(All projects must comply with at least one of either Criterion 7.11, 7.12, or 7.13. Points are not available for that criterion, but, are available for projects that meet two or three of these criteria.)* Select and implement at least one of the Options with at least three different strategies in at least 75% units. **Option 1:** Create welcoming and accessible spaces that encourage equitable use and social connections. **Option 2:** Create spaces that are easy and intuitive to use and navigate. **Option 3:** Promote safety and create spaces that allow for human error. **Option 4:** Create spaces that can be accessed and used with minimal physical effort. **Option 5:** Create spaces with the appropriate size and space to allow for use, whatever the user's form of mobility, size, or posture.	-

		8	**7.13 Healing-Centered Design** *(All projects must comply with at least one of either Criterion 7.11, 7.12, or 7.13. Points are not available for that criterion, but, are available for projects that meet two or three of these criteria.)* Select and implement at least two of the Options with at least two different strategies listed in at least 75% units. **Option 1:** Provide an environment that promotes feelings of real and perceived safety. **Option 2:** Create flexible spaces that allow for personalization and/or manipulation to meet individual and community needs. **Option 3:** Connect residents and staff to a living landscape and the natural environment. **Option 4:** Utilize art and culture in project design and programming and promote social connectedness.	
18	0		7. HEALTHY LIVING ENVIRONMENT SUBTOTAL	

Yes	Maybe		8. OPERATIONS, MAINTENANCE + RESIDENT ENGAGEMENT	Notes
Yes		M	**8.1 Building Operations & Maintenance Manual and Plan** *(For all Multifamily projects)* Develop a manual with thorough building operations and maintenance (O&M) guidance and a complementary plan. The manual and plan should be developed over the course of the project design, development, and construction stages, and should include sections/chapters addressing the list of topics.	
Yes		M	**8.2 Emergency Management Manual** *(For all Multifamily projects)* Provide a manual on emergency operations targeted toward operations and maintenance staff and other building-level personnel. The manual should address responses to various types of emergencies, leading with those that have the greatest probability of negatively affecting the project. The manual should provide guidance as to how to sustain the delivery of adequate housing throughout an emergency and cover a range of topics, including but not limited to: • communication plans for staff and residents • useful contact information for public utility and other service providers • infrastructure and building, "shutdown" procedures • plan for regular testing of backup energy systems, if these exist	
Yes		M	**8.3 Resident Manual** Provide a guide for homeowners and renters that explains the intent, benefits, use, and maintenance of their home's green features and practices. The Resident Manual should encourage green and healthy activities per the list of topics.	
Yes		M	**8.4 Walk-Throughs and Orientations to Property Operation** Provide a comprehensive walk-through and orientation for all residents, property manager(s), and buildings operations staff.	
Yes		M	**8.5 Energy and Water Data Collection and Monitoring** For rental properties, upload project energy and water performance data in an online utility benchmarking platform annually for at least five years from time of construction completion per one of the four methods provided; grant Enterprise view access for that period. For owner-occupied units, collect and monitor utility data in a manner that allows for easy access and review.	
0	0		8. OPERATIONS, MAINTENANCE + RESIDENT ENGAGEMENT SUBTOTAL	
54	13		TOTAL	

Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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Date
September 13, 2024

Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
SUSTAINABLE DESIGN REQUIREMENTS

Sheet Number
G2.13

ENERGY STAR Multifamily New Construction
National Rater Design Review Checklist [1], Version 1 / 1.1 / 1.2 (Rev. 04)

If pursuing Track A – HVAC Grading by Rater, complete this page. [3]

Building Name: _____ Number of Units: _____ Permit Date: _____

Building Address: _____ City: _____ State: _____

1. Partnership Status	Must Correct	Rater [4] Verified	N/A
1.1 Rater has verified and documented that builder or developer has an ENERGY STAR partnership agreement using http://www.energystar.gov/ResPartnerDirectory. Builder name: _____ Developer name: _____	☐	☐	-
1.2 ASHRAE Only: Rater has verified modeler is listed in the online directory: www.energystar.gov/ASHRAEdirectory. Modeler name: _____ (Not required for buildings in California)	☐	☐	☐
1.3 Rater has verified and documented that their company has an ENERGY STAR partnership agreement using www.energystar.gov/ResPartnerDirectory. [5]	☐	☐	-
1.4 Rater(s) signing checklists attest that they have completed EPA-recognized training and are credentialed by a Home Certification Organization (HCO) or meet the credential requirements of a Multifamily Review Organization (MRO).	☐	☐	-
1.5 Certification is being pursued for the whole building; all units and common spaces in the building are designed to meet the requirements below. [6]	☐	☐	☐
2. High-Performance Fenestration Specified fenestration meets or exceeds the levels in Items 2.1 and 2.2 based on location, Path, and the program version used to certify the building. [7]			
2.1 Dwelling units:			
2.1.1 Prescriptive: ENERGY STAR MF Reference Design requirements.	☐	☐	☐
2.1.2 ERI and ASHRAE only: 2009 IECC or, for National v1.2, 2021 IECC residential requirements. [8]	☐	☐	☐
2.2 Common space: [2]			
2.2.1 ERI and Prescriptive: ENERGY STAR MF Reference Design requirements for Class AW windows.	☐	☐	☐
2.2.2 ASHRAE only: 2009 IECC or, for National v1.2, 2021 IECC commercial requirements. [8]	☐	☐	☐
3. High-Performance Insulation Specified ceiling [9], wall [10], floor, and slab-on-grade insulation meet or exceed the levels in 3.1 and 3.2 based on location, Path, and the program version used to certify the building. [11, 12, 13]			
3.1 Dwelling unit:			
3.1.1 Prescriptive: ENERGY STAR MF Reference Design requirements.	☐	☐	☐
3.1.2 ERI & ASHRAE only: Either the Residential chapter or the "Group R" column in the Commercial chapter of the 2009 IECC or, for National v1.2, the 2021 IECC. See exceptions in Footnote 11. [8, 14]	☐	☐	☐
3.2 Common space: [2] Either the Residential chapter or the "All Other" column in the Commercial chapter of the 2009 IECC, or for National v1.2 the 2021 IECC. See exceptions in Footnote 11. [8, 14]	☐	☐	☐
4a. Review of ANSI / RESNET / ACCA 310 HVAC Design Report with ENERGY STAR Supplements [8] , [15]			
4a.1 The following documentation collected for records, with no applicable Items left blank. [16]			
4a.1.1 For all dwelling units, HVAC design report(s) compliant with ANSI / RESNET / ACCA 310 and the National HVAC Design Supplement(s) to Std. 310 for Dwellings & Units.	☐	☐	-
4a.1.2 For common spaces using ANSI / RESNET / ACCA 310, HVAC design report(s) compliant with ANSI / RESNET / ACCA 310.	☐	☐	☐
4a.1.3 National HVAC Design Supplement to Std. 310 for Common Spaces & Central Systems.	☐	☐	☐
4a.2 For systems meeting Item 4a.1.1 or 4a.1.2, ANSI / RESNET / ACCA 310 design review criteria have been met for applicable housing type.	☐	☐	-
4a.3 Prescriptive Path: Dwelling Unit Mechanical Ventilation is <150% of ASHRAE 62.2-2013 requirements. [17]	☐	☐	☐
4a.4 Dwelling Units: Total occupant gains do not exceed 645 Btuh per occupant. [18]	☐	☐	☐
4a.5 Dwelling Units: Non-occupant internal gains are less than 3,600 Btuh.	☐	☐	☐
4a.6 Dwelling Units: Cooling sizing % is within the cooling sizing limit selected by the HVAC designer.	☐	☐	☐
4a.7 Common spaces: Item 2.3 is completed for all spaces in the building listed in Footnote 19.	☐	☐	☐
4a.8 Common spaces: Item 2.4 is equal to or greater than Item 2.3.	☐	☐	☐

Rater Name: _____ Date of Review: _____

Rater Signature: _____ Rater Company Name: _____

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If pursuing Track B – HVAC Testing by FT Agent, complete this page.

Building Name: _____ Number of Units: _____ Permit Date: _____

Building Address: _____ City: _____ State: _____

1. Partnership Status	Must Correct	Rater [4] Verified	N/A
1.1 Rater has verified and documented that builder or developer has an ENERGY STAR partnership agreement using www.energystar.gov/partnerlocator. Builder name: _____ Developer name: _____	☐	☐	-
1.2 ASHRAE Only: Rater has verified modeler is listed in the online directory: www.energystar.gov/ASHRAEdirectory. Modeler name: _____ (Not required for buildings in California)	☐	☐	☐
1.3 Rater has verified and documented that their company is an ENERGY STAR Partner.	☐	☐	-
1.4 Rater(s) signing checklists attest that they have completed EPA-recognized training and are credentialed by a Home Certification Organization (HCO) or meet the credential requirements of a Multifamily Review Organization (MRO).	☐	☐	-
1.5 Certification is being pursued for the whole building; all units and common spaces in the building are designed to meet the requirements below. [6]	☐	☐	☐
2. High-Performance Fenestration Specified fenestration meets or exceeds the levels in Items 2.1 and 2.2 based on location, Path, and the program version used to certify the building. [7]			
2.1 Dwelling units:			
2.1.1 Prescriptive: ENERGY STAR MF Reference Design requirements.	☐	☐	☐
2.1.2 ERI and ASHRAE only: 2009 IECC or, for National v1.2, 2021 IECC residential requirements. [8]	☐	☐	☐
2.2 Common space: [2]			
2.2.1 ERI and Prescriptive: ENERGY STAR MF Reference Design requirements for Class AW windows.	☐	☐	☐
2.2.2 ASHRAE only: Specified fenestration meets or exceeds 2009 IECC commercial requirements. [8]	☐	☐	☐
3. High-Performance Insulation Specified ceiling [9], wall [10], floor, and slab-on-grade insulation meet or exceed the levels in 3.1, 3.2 and 3.3 based on location, Path, and the program version used to certify the building. [11, 12, 13]			
3.1 Dwelling unit:			
3.1.1: Prescriptive: ENERGY STAR MF Reference Design requirements.	☐	☐	☐
3.1.2: ERI and ASHRAE only: Either the Residential chapter or the "Group R" column in the Commercial chapter of the 2009 IECC or, for National v1.2, the 2021 IECC. See exceptions in Footnote 11. [8, 13]	☐	☐	☐
3.2 Common space: [2] Either the Residential chapter or the "All Other" column in the Commercial chapter of the 2009 IECC or, for National v1.2, the 2021 IECC. See exceptions in Footnote 11. [8, 13]	☐	☐	☐
4b. Review of ENERGY STAR MFNC National HVAC Design Report [19, 20, 21]			
4b.1 National HVAC Design Report(s) collected for records, with no applicable Items left blank.	☐	☐	-
4b.2 National HVAC Design Report(s) reviewed by Rater for the following parameters (Nat'l MFNC HVAC Design Report Item # in parenthesis):			
4b.2.1 Prescriptive Path: Dwelling Unit Mechanical Ventilation (2.7) is <150% of ASHRAE 62.2-2013 requirements. [17]	☐	☐	☐
4b.2.2 Cooling season and heating season outdoor design temperatures used in loads (3.4) are within the limits defined for the State and County, or US Territory, where the building will be built, or the designer has provided an allowance from EPA to use alternative values. All limits are published at www.energystar.gov/hvacdesigntemps. Note that revised (i.e., 2019 Edition) limits are required to be used for all HVAC Design Reports generated after 07/01/2020. [22]	☐	☐	☐
4b.2.3 Number of occupants used in loads (3.6) is within ± 2 of each dwelling unit to be certified and total occupant gains (3.7) do not exceed 645 Btuh per occupant. [18]	☐	☐	☐
4b.2.4 Conditioned floor area used in loads (3.8) is between 100 sq. ft. smaller and 300 sq. ft. larger than each dwelling unit to be certified. [23]	☐	☐	☐
4b.2.5 Window area used in loads (3.9) is between 15 sq. ft. smaller and 60 sq. ft. larger than each dwelling unit to be certified, or for dwelling units to be certified with > 500 sq. ft. of window area, between 3% smaller and 12% larger. [24]	☐	☐	☐
4b.2.6 Predominant window SHGC used in loads (3.10) is within 0.1 of predominant value in each dwelling unit to be certified. [25]	☐	☐	☐

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4b. Review of ENERGY STAR MFNC National HVAC Design Report (continued) [19]	Must Correct	Rater [4] Verified	N/A
4b.2.7 Mechanical ventilation used in loads (3.12) is the same as the ventilation design (2.7) for the given unit plan.	☐	☐	☐
4b.2.8 Non-occupant internal gains (3.13) are less than 3,600 Btuh. [19]	☐	☐	☐
4b.2.9 Sensible & total heat gain are documented (3.15, 3.17) for the configuration of each dwelling unit to be certified. [26]	☐	☐	☐
4b.2.10 Cooling sizing % (4.18) is within the cooling sizing limit (4.19) selected by the HVAC designer.	☐	☐	☐
4b.2.11 Common spaces: Item 2.8 is completed for all spaces in the building listed in Footnote 19.	☐	☐	☐
4b.2.12 Common spaces: Item 2.9 is equal to or greater than Item 2.8.	☐	☐	☐

Rater Name: _____ Date of Review: _____

Rater Signature: _____ Rater Company Name: _____

5. Additional Construction Document Review – Recommended, not required	
5.1 Air Sealing: Review construction documents to verify that air-sealing details at assemblies adjacent to exterior and unconditioned spaces are represented which, at a minimum, demonstrate compliance with checklist items in Section 4 of the National Rater Field Checklist (noted with an asterisk below). Items 5.1.9 and 5.1.10 are not verified by the Rater in the field, but are recommended.	
5.1.1 Ducts, flues, shafts, plumbing, piping, wiring, exhaust fans, & other penetrations to unconditioned space sealed, with blocking / flashing as needed*.	☐
5.1.2 Recessed lighting fixtures adjacent to unconditioned space ICAT labeled and gasketed. Also, if in insulated ceiling without attic above, exterior surface of fixture insulated to ≥ R-10 in CZ 4-8*.	☐
5.1.3 Continuous top plate or blocking is at top of walls adjoining unconditioned space including at balloon-framed parapets, and sealed*.	☐
5.1.4 Drywall sealed to top plate at all unconditioned attic / wall interfaces using caulk, foam, drywall adhesive (but not other construction adhesives), or equivalent material. Either apply sealant directly between drywall and top plate or to the seam between the two from the attic above*.	☐
5.1.5 Rough opening around windows & exterior doors sealed* [27]	☐
5.1.6 Assemblies that separate attached garages from occupiable space sealed and, also, an air barrier installed, sealed, and aligned with these assemblies*. [28]	☐
5.1.7 Attic access panels, roof hatches and drop-down stairs are gasketed (i.e., not caulked) or equipped with durable covers that are gasketed*. [29]	☐
5.1.8 Doors adjacent to unconditioned space (e.g., attics, garages, basements), ambient conditions, or a unit entrance to a corridor / stairwell, made substantially air-tight with door seal and weatherstripping or equivalent gasket*.	☐
5.1.9 Above-grade sill plates adjacent to conditioned space sealed to foundation or sub-floor. Gasket also placed beneath above-grade sill plate if resting atop concrete / masonry & adjacent to conditioned space. [30, 31]	☐
5.1.10 The gap between the common wall (e.g., the drywall shaft wall) and the structural framing between units sealed at all exterior boundaries.	☐
5.2 Dwelling Unit Compartmentalization	
5.2.1 Review construction documents to verify that air-sealing details [32] are represented such that air exchange between the dwelling unit and outside as well as the dwelling unit and other adjacent spaces is minimized and designed to achieve compartmentalization less than or equal to 0.30 CFM50 per square feet of dwelling unit enclosure area, following procedures in ANSI / RESNET / ICC 380.	☐
5.2.2 Seal all spaces 5.1.1-5.1.10 on adiabatic unit enclosure assemblies.	☐
5.3 Prescriptive Path: Verify that Window-to-wall ratio ≤ 30%. [33]	☐
5.4 Verify that fully-aligned air barrier details are in compliance with checklist items in Section 2 of the National Rater Field Checklist.	☐
5.5 Verify that thermal bridging details are in compliance with checklist items in Section 3 of the National Rater Field Checklist.	☐
5.6 Verify that HVAC details are in compliance with checklist items in Sections 5 - 10 of the National Rater Field Checklist.	☐
5.6.1 Verify that HVAC design includes access and means to measure the dwelling-unit mechanical ventilation airflow rate.	☐
5.6.2 Verify that bedrooms with design airflow ≥ 150 CFM are specified with a combination of transfer grilles, jump ducts dedicated return ducts, and/or undercut doors to achieve a Rater-measured pressure differential ≥ -5 Pa and ≤ +5 Pa with respect to the main body of the dwelling unit when all air handlers are operating.	☐
5.6.3 Verify that Functional Testing Agent(s) hold(s) credential required to complete the applicable sections of the National HVAC Functional Testing Checklist for all HVAC equipment in the building. For Track A, a Functional Testing Agent is not needed to complete Sections 2 and 3 for HVAC systems that will be verified and graded by the Rater. [34]	☐
5.7 Verify that Domestic Hot Water, Lighting, Appliances, Plumbing Fixtures, and Whole Building Utility Data Acquisition Strategy details are in compliance with checklist items in Sections 11 – 14 of the National Rater Field Checklist.	☐

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National Rater Design Checklist Footnotes, Version 1 / 1.1 / 1.2 (Rev. 04)

Footnotes:

1. This Checklist applies to all dwelling units, sleeping units, common spaces [2], and garages (open or enclosed) in the building being certified, and where specified, parking lots. These requirements apply to all Paths, unless otherwise specified. These requirements do not apply to parking garages or lots where the cost of the energy use of the parking garage or lot is not the responsibility of the Builder/Developer. Building Owner or Property Manager. This Checklist does not apply to commercial or retail spaces. This Checklist does not apply to common spaces that are located in buildings on the property without dwelling units. A 'sleeping unit' as defined by ANSI / RESNET / ICC 301, is a room or space in which people sleep, which can also include permanent provisions for living, eating, and either sanitation or kitchen facilities but not both. Where the term 'dwelling unit' is used in this Checklist, the requirement is also required of 'sleeping' units. The term 'building' refers to a structure that encompasses dwelling/sleeping units and (if present) common spaces, sharing one or more of the following attributes: a common street address, a common entrance or exit, central/shared mechanical systems, or structurally interdependent wall or roof systems. Attached structures such as townhouses and 4-story two-unit structures (commonly referred to as "2-over-2s") may be considered separate buildings if they are divided by a vertical fire separation wall from the foundation to the roof sheathing and share none of the other attributes listed above. A skyway or a breezeway that connects two structures is not considered a common entrance or exit.
2. The term 'common space' refers to any spaces in the building being certified that serve a function in support of the residential part of the building that is not part of a dwelling or sleeping unit. This includes spaces used by residents, such as corridors, stairs, lobbies, laundry rooms, exercise rooms, residential recreation rooms, and dining halls, as well as offices and other spaces used by building management, administration or maintenance in support of the residents.
3. To be eligible for Track A – HVAC Grading by Rater, dwelling units must have at least one unitary HVAC system including air conditioners or heat pumps up to 65 kBtuh, or furnaces up to 125 kBtuh (i.e., within the scope of ANSI / RESNET / ACCA 310). Track A – HVAC Grading by Rater shall use ANSI / RESNET / ACCA 310 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the HCO or MRO that the building is being certified under for all dwelling unit systems.
4. The term 'Rater' refers to the person(s) completing the third-party verification required for certification. The person(s) shall: a) be a Certified Rater, Approved Inspector, as defined by ANSI / RESNET / IECC 301, or an equivalent designation as determined by a HCO or MRO; and, b) have attended and successfully completed an EPA-recognized training class. See www.energystar.gov/mftraining.
   As stated in the National Program Requirements, for Townhouses, all items shall be verified for each certified home and sampling protocols shall not be used. For other multifamily building types, Raters who operate under an MRO or an HCO Sampling Protocol are permitted to verify any Checklist item designated "Rater Verified" using an MRO or HCO-approved sampling protocol. No parties other than Raters are permitted to use sampling to complete this Checklist.
5. Raters are only required to document the partnership status of their company once, for the first home that the Rater certifies for them.
6. The whole building must be submitted to the HCO or MRO for certification after required verification is complete for all units and common spaces, unless using the conditional certification process described in the ENERGY STAR Certification Process in the applicable Program Requirements.
7. All windows, doors and skylights must meet or exceed the U-factor and SHGC requirements specified in Tables 1 or 2 below. If no NFRC rating is noted on the window or in product literature (e.g., for site-built fenestration), select the U-factor and SHGC value from Tables 4 and 10, respectively, in the 2013 ASHRAE Handbook of Fundamentals, Chapter 15. Select the highest U-factor and SHGC value among the values listed for the known window characteristics (e.g., frame type, number of panes, glass color, and presence of low-e coating). Note that the U-factor requirement applies to all fenestration while the SHGC only applies to the glazed portion.

Table 1: All Versions except National v1.2:

	Dwelling Unit Options		Common Space Options	
ERI and ASHRAE	2009 IECC Residential Chapter[†]	2009 IECC Commercial Chapter "Group R" Column	2009 IECC Residential Chapter[†]	2009 IECC Commercial Chapter "All Other" Column
Prescriptive	ENERGY STAR MF Reference Design			

Table 4: National v1.2

	Dwelling Unit Options		Common Space Options	
ERI and ASHRAE	2021 IECC: Residential Chapter[†]	2021 IECC Commercial Chapter "Group R" Column	2021 IECC Residential Chapter[†]	2021 IECC Commercial Chapter "All Other" Column
Prescriptive	ENERGY STAR MF Reference Design			

[†]When referencing the R-value from the Residential chapter, steel-frame components must use the table for steel-frame ceilings, walls, and floors.

The following exceptions apply:

a. For ceilings with attic spaces, R-30 shall satisfy the requirement for R-38, R-38 shall satisfy the requirement for R-49, and R-49 shall satisfy the requirement for R-60 wherever the full height of uncompressed insulation at the lower R-value extends over the wall top plate at the eaves. This exemption shall not apply if the alternative calculations in e) are used;
b. For ceilings without attic spaces, that are not roofs with insulation above deck, R-30 shall satisfy the requirement for any required value above R-30 if the design of the roof / ceiling assembly does not provide sufficient space for the required insulation value. This exemption shall be limited to 20% of the total insulated ceiling area. This exemption shall not apply if the alternative calculations in e) are used;
c. When referencing the 2009 IECC Commercial chapter, buildings in Climate Zone 4 and Climate Zone 5/Marine 4 may use U-0.089 and U-0.064 respectively for Group R wood-framed walls instead of the printed U-0.064 and U-0.051.
d. An alternative total UA calculation may also be used to demonstrate compliance, as follows:
   For all Versions, the total building thermal envelope UA shall be less than or equal to the total UA resulting from multiplying the U-factors specified in Items 2.1, 2.2, 3.1, and 3.2 by the same assembly area as the building to be certified.
   ERI and ASHRAE Paths Only: Exception for buildings permitted before 01/01/2025 and certified using National v1.2
   The total building thermal envelope UA shall be less than or equal to 105% of the total UA resulting from multiplying the U-factors in Item 2.1, 2.2, 3.1 and 3.2 by the same assembly area as the building to be certified.
   The UA calculation shall be done using a method consistent with the ASHRAE Handbook of Fundamentals and shall include the thermal bridging effects of framing materials. The calculation for a steel-frame envelope assembly shall use the ASHRAE zone method or a method providing equivalent results, and not a series-parallel path calculation method. In jurisdictions designated by a code official as having Very Heavy Termite Infestation, the total UA limit shall be calculated by replacing the code-required slab insulation R-value and depth with the slab insulation R-value and depth specified in the building to be certified.
   The performance of all components (i.e., roofs, walls, floors, slabs-on-grade, and fenestration) can be traded off using the UA approach. Note that Items 1.5, 1.6, and 3.1 through 3.7 of the National Rater Field Checklist shall be met regardless of the UA tradeoffs calculated.
12. Slab edge insulation is only required for slab-on-grade floors with a floor surface less than 24 inches below grade. Slab-on-grade perimeter insulation shall extend to the top of the slab to provide a complete thermal break. If the top edge of the insulation is installed between the exterior wall and the edge of the interior slab, it shall be permitted to be cut at a 45-degree angle away from the exterior wall. The following alternatives apply:
   a. Slab assemblies with an F-Factor equivalent to that of the insulation required in Item 3.4 of the National Rater Field Checklist may be used. F-Factors shall be determined using Table A6.3.1-1 from ASHRAE 90.1-2022 Appendix A. See www.energystar.gov/F-Factor for more details.

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   b. The thermal break is permitted to be created using ≥ R-3 rigid insulation on top of the slab. In such cases, up to 10% of the slab surface is permitted to not be insulated (e.g., for sleepers, for sill plates). Insulation installed on top of slab shall be covered by a durable floor surface (e.g., hardwood, tile, carpet).
13. Where an insulated wall separates a garage, patio, porch, or other unconditioned space from the conditioned space of the building, slab perimeter insulation shall also be installed at this interface to provide a thermal break between the conditioned and unconditioned slab, if the slab is in contact with the ground at that interface. Where specific details cannot meet this requirement, partners shall provide the detail to EPA to request an exemption prior to the building's certification. EPA will compile exempted details and work with industry to develop feasible details for use in future revisions to the program. A list of currently exempted details is available at: www.energystar.gov/slabedge. If an exemption is used, then the Total UA Compliance option (5c) within the Multifamily Workbook must be used to demonstrate compliance with Section 3 if the ASHRAE Path or Prescriptive Path is used, and may be used to demonstrate compliance if the ERI Path is used. F-Factors shall be determined using Table A6.3.1 from ASHRAE 90.1-2022 Appendix A. See www.energystar.gov/F-Factor for more details.
14. For each Item, when referencing either IECC Residential or Commercial, all building components subject to that Item shall meet or exceed the residential levels or all building components shall meet or exceed the commercial levels. It is not permitted to choose the Residential chapter for one building component within an Item and the Commercial chapter for another building component within the same Item. However, it is permitted to choose the IECC residential levels for Item 3.1.2 and choose the IECC commercial levels for Item 3.2.2 (or vice versa).
15. If pursuing Track A, all dwelling units must complete Items 4a.1.1 and 4a.2. Item 4a.3 shall be completed for dwelling units in buildings pursuing the Prescriptive Path. Items 4a.4 through 4a.6 shall be completed if any dwelling units in the building to be certified contain an air conditioner or heat pump; otherwise, 'N/A' shall be checked. All common space systems and central systems must be documented within the HVAC Design Supplement to Std. 310 for Common Spaces & Central Systems. Where a system type within the scope of ANSI / RESNET / ACCA 310 serves a single common space, it may also be verified for MFNC using the ANSI / RESNET / ACCA Standard 310 process, and then Items 4a.1.2 and 4a.2 must be completed.
16. As an alternative, the ENERGY STAR SFNH National HVAC Design Report may be collected in lieu of the ENERGY STAR National HVAC Design Supplement to Std. 310 for Dwellings & Units. In such cases, at least two documents will still be collected – an HVAC design report compliant with ANSI / RESNET / ACCA Std. 310 plus the ENERGY STAR SFNH National HVAC Design Report. Note that for buildings with more than one HVAC system, one ENERGY STAR SFNH National HVAC Design Report per system would need to be collected. For buildings with central systems or common space systems that are not using Track A, the ENERGY STAR National HVAC Design Supplement to Std. 310 for Common Spaces & Central Systems must also be collected.
17. Raters may use this table to determine the maximum ventilation rate allowed. Where the Exhaust Fan Type in Item 2b of the HVAC Design Report indicates "Continuous" for both Bathroom and Kitchen, the Rater may use this equation to determine the maximum ventilation rate allowed: 30 CFM x number of bathrooms + 75 CFM.

	Number of Bedrooms				
Floor area	1	2	3	4	5
<500	45	57	67.5	79.5	90
501-1000	67.5	79.5	90	102	112.5
1001-1500	90	102	112.5	124.5	135
1501-2000	112.5	124.5	135	147	157.5
2001-2500	135	147	157.5	169.5	180
2501-3000	157.5	169.5	180	192	202.5
3001-3500	180	192	202.5	214.5	225
3501-4000	202.5	214.5	225	237	247.5
4001-4500	225	237	247.5	259.5	270
4501-5000	247.5	259.5	270	282	292.5

18. To determine the number of occupants among all HVAC systems in the dwelling unit, calculate the number of bedrooms, as defined below, and add one. The number of occupants used in loads must be within ± 2 of the dwelling unit to be certified.
    A bedroom is defined by ANSI / RESNET / ICC 301-2014 as a room or space 70 sq. ft. or greater size, with egress window and closet, used or intended to be used for sleeping. A "den", "library", or "home office" with a closet, egress window, and 70 sq. ft. or greater size or other similar rooms shall count as a bedroom, but living rooms and foyers shall not.
    An egress window, as defined in 2009 IRC Section R310, shall refer to any operable window that provides for a means of escape and access for rescue in the event of an emergency. The egress window definition has been summarized for convenience. The egress window shall:
    - have a sill height of not more than 44 inches above the floor; AND
    - have a minimum net clear opening of 5.7 sq. ft.; AND
    - have a minimum net clear opening height of 24 in.; AND
    - have a minimum net clear opening width of 20 in.; AND
    - be operational from the inside of the room without the use of keys, tools or special knowledge.

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19. The following spaces require outdoor air ventilation: corridors, offices, break rooms, gyms, fitness centers, exercise rooms, lobbies, community rooms, meeting rooms, multi-purpose rooms, lounges, laundry rooms, swimming pools, daycares, classrooms, shared or commercial kitchens, shared dining rooms, and computer rooms.
20. If pursuing Track B, then Section 4b shall be fully completed if any dwelling unit contains split air conditioners, unitary air conditioners, air-source heat pumps, and water-source (i.e., geothermal) heat pumps up to 65 kBtuh with forced-air distribution systems (i.e., ducts), or furnaces up to 225 kBtuh with forced-air distribution systems (i.e., ducts). For a building without any of these system types in the dwelling units, collection of the National HVAC Design Report is still required and reviewed per Items 4b.2.1, 4b.2.11 and 4b.2.12 where applicable, but EPA does not require that the report be reviewed per Item 4b.2.2 – 4b.2.10. For Track B systems that are documented using the SFNH HVAC Design Report, where room-by-room loads are calculated using Unabridged ACCA Manual J v8 and where occupant gains and non-occupant gains are not reported, items 4b.2.3 and 4b.2.8 may be marked "N/A". Where the HVAC designer has checked the "N/A" box in Section 3 of the National HVAC Design Report, the Rater shall confirm that all dwelling unit heating and cooling systems are exempt (i.e., non-ducted mini-splits or multi-splits, PTACs, or PTHPs) and mark "N/A" for items 4b.2.2-4b.2.10.
21. The Rater shall collect the National HVAC Design Report(s) per building. See Footnote 1 of the National HVAC Design Report for alternatives. Where using an ENERGY STAR Single-Family New Homes National HVAC Design Report, Rater must still review all Items under 4b.2. Regardless of whether the "unit-specific design", "group design", or "worst-case design" box has been checked in Item 3.2 of the National HVAC Design Report, the system design as documented on the National HVAC Design Report must fall within the tolerances in Item 4b.2 for the unit to be certified. The Rater is only responsible for verifying that the designer has not left any applicable items blank on the National HVAC Design Report and for verifying the discrete objective parameters in Item 4b.2 of this Checklist, not for verifying the accuracy of every input on the National HVAC Design Report. Buildings certified under Rev. 04 of the program requirements are permitted to use any Revision of the MFNC National HVAC Design Report.
22. Visit www.energystar.gov/hvacdesigntemps for the maximum cooling season design temperature and minimum heating season design temperature permitted and the process for a designer to obtain an allowance from EPA. The same design report is permitted to be used in other counties, as long as the design temperature limits in those other counties meet or exceed the cooling and heating season temperature limits for the county selected. For example, if Fauquier County, VA, is used for the load calculations, with a 1% cooling temperature limit of 93 °F, then the same report could be used in Fairfax County (which has a higher limit of 94 °F) but not in Arlington County (which has a lower limit of 92 °F).
23. Conditioned Floor Area for the dwelling unit to be certified shall be calculated in accordance with the definition in ANSI / RESNET / ICC 301-2019.
24. Window area for the dwelling unit to be certified shall be calculated in accordance with the on-site inspection protocol provided in Normative Appendix B of ANSI / RESNET / ICC 301-2019.
25. "Predominant" is defined as the SHGC value used in the greatest amount of window area in the dwelling unit.
26. The Rater shall confirm that the designer has documented the loads for all the configurations (e.g., level, orientation) that the dwelling unit might be built in. For example, if a unit plan will only be built in a specific level and orientation (e.g., top-floor, facing South), then the designer only needs to document the loads for this one configuration. Orientation represents the direction that the front door of the dwelling unit is facing.
27. In Climate Zones 1 through 3, a continuous stucco cladding system sealed to windows and doors is permitted to be used in lieu of sealing rough openings with caulk or foam.
28. For dwelling or sleeping units adjacent to garages, EPA recommends, but does not require, carbon monoxide (CO) alarms installed in a central location in the immediate vicinity of each separate sleeping zone and according to NFPA 720.
29. Examples of durable covers include, but are not limited to, pre-fabricated covers with integral insulation, rigid foam adhered to cover with adhesive, or batt insulation mechanically fastened to the cover (e.g., using batts, metal wire, or metal strapping).
30. Existing sill plates (e.g., in a building undergoing a gut rehabilitation) on the interior side of structural masonry or monolithic walls may not be able to complete this Item. In addition, other existing sill plates resting atop concrete or masonry and adjacent to conditioned space can in lieu of using a gasket, be sealed with caulk, foam, or equivalent material at both the interior seam between the sill plate and the subfloor and the seam between the top of the sill plate and the sheathing.
31. In Climate Zones 1 through 3, a continuous stucco cladding system adjacent to sill and bottom plates is an alternate option of sealing plates to foundation or sub-floor with caulk, foam, or equivalent material.
32. Recommended air leakage paths to be sealed include, but are not limited to the following:
    a. Plumbing penetrations, including those from water piping, drain waste and vent piping, HVAC piping, and gas line piping.
    b. Electrical penetrations, including those for receptacle outlets, lighting outlets / fixtures, communications wiring, thermostats, and smoke alarms.
    c. HVAC penetrations, including those for fans and for exhaust, supply, transfer, and return air ducts.
    d. Envelope penetrations, including at the intersection of baseboard trim and floor, at the intersection of walls and ceilings, around window trim and dwelling unit doors, including the door latch hole.
33. Window-to-Wall ratio is taken as the sum of all window area divided by the total exterior above-grade wall area. All decorative glass and skylight window area contribute to the total window area to above-grade wall ratio (WWR). Spandrel sections of curtain wall systems contribute to the above-grade wall area.
34. Functional Testing Agents must hold an approved credential, as listed at www.energystar.gov/ftas, or must be a representative of the Original Equipment Manufacturer (OEM), or a contractor credentialed by an HVAC Quality Installation Training and Oversight Organization (H-QUITO), if not completing Sections 6 and higher. Functional Testing Agents may not be the installing contractor, nor employed by the same company as the installing contractor, unless they are a credentialed contractor. An explanation of the credentialing process and links to H-QUITOs, which maintain lists of credentialed contractors, can be found at www.energystar.gov/findhvac. A directory of other FT Agents can be found at www.energystar.gov/ftas.

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Building Name: _____ Number of Units: _____ Permit Date: _____

Building Address: _____ City: _____ State: _____

Thermal Enclosure System	Must Correct	Builder Verified [4]	Rater Verified [4]	N/A [5]
1. High-Performance Fenestration & Insulation				
1.1 Fenestration meets or exceeds specification in Items 2.1 & 2.2 of the Natl Rater Design Review Checklist.	☐	☐	☐	-
1.2 Insulation meets or exceeds specification in Items 3.1 & 3.2 of the Natl Rater Design Review Checklist.	☐	Up to 10% ☐	☐	-
1.3 All insulation achieves Grade I install. per ANSI / RESNET / ICC 301. Alternatives in Footnote 6. [7]	☐	Up to 10% ☐	☐	-
1.4 Prescriptive Path: Window-to-wall ratio ≤ 30%. [8]	☐	☐	☐	☐
1.5 Heated plenums in unconditioned space or ambient conditions must meet the following requirements: [9]				
1.5.1 Sides of heated plenum are an air barrier and insulated to ≥ R-3ci in CZ 1-4; ≥ R-5ci in CZ 5-8; ≥ R-7.5ci in CZ 7; ≥ R-9.5ci in CZ 8. [10] **AND;**	☐	☐	☐	☐
1.5.2 Insulation at top of heated plenum meets Item 3.6 where applicable. Otherwise, meets or exceeds the R-value for mass floors from the "All Other" column of Table 502.2(1) of 2009 IECC. [10, 11] **AND;**	☐	☐	☐	☐
1.5.3 Bottom of heated plenum must have at least R-13 insulation. [11, 12]	☐	☐	☐	☐
1.6 Garages with space heating must meet the following requirements: [9]				
1.6.1 Insulation on above grade walls and walls on the first story below grade ≥ R-5ci in CZ 5-6; ≥ R-7.5ci in CZ 7; ≥ R-9.5ci in CZ 8. [10] **AND;**	☐	☐	☐	☐
1.6.2 Ceiling insulation meets Item 3.6 where applicable. Otherwise, meets or exceeds the R-value for mass floors from the "All Other" column of Table 502.2(1) of 2009 IECC. [10]	☐	☐	☐	☐
2. Fully-Aligned Air Barriers [13] At each insulated location below, a complete air barrier is provided that is fully aligned as follows:				
Ceilings: At interior or exterior horizontal surface of ceiling insulation in Climate Zones 1-3; at interior horizontal surface of ceiling insulation in Climate Zones 4-8. Also, at exterior vertical surface of ceiling insulation in all climate zones (e.g., using a wind baffle that extends to the full height of the insulation in every bay or a tabbed baffle

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4. Air Sealing (Unless otherwise noted below, "sealed" indicates the use of caulk, foam, or equivalent material.)	Must Correct	Builder Verified [3]	Rater Verified [4]	N/A [5]
The following items must be verified in dwelling units and common spaces to reduce air leakage to exterior, adjacent buildings, or unconditioned spaces.				
4.1 Ducts, flues, shafts, plumbing, piping, wiring, exhaust fans, & other penetrations to unconditioned space sealed, with blocking / flashing as needed.	☐	☐	☐	-
4.2 Recessed lighting fixtures adjacent to unconditioned space ICAT labeled and gasketed. Also, if in insulated ceiling without attic above, exterior surface of fixture insulated to ≥ R-10 in CZ 4-8. [19]	☐	☐	☐	☐
4.3 Continuous top plate or blocking is at top of walls adjoining unconditioned space including at balloon-framed parapets, and sealed.	☐	☐	☐	☐
4.4 Drywall sealed to top plate at all unconditioned attic / wall interfaces using caulk, foam, drywall adhesive (but not other construction adhesives), or equivalent material. Either apply sealant directly between drywall and top plate or to the seam between the two from the attic above.	☐	☐	☐	☐
4.5 Rough opening around windows & exterior doors sealed. [20]	☐	☐	☐	-
4.6 Assemblies that separate attached garages from occupiable space sealed and, also, an air barrier installed, sealed, and aligned with these assemblies. [37]	☐	☐	☐	☐
4.7 Doors adjacent to unconditioned space (e.g., attics, garages, basements) or ambient conditions made substantially air-tight with door seal and weatherstripping or equivalent gasket.	☐	☐	☐	☐
4.8 Attic access panels, roof hatches and drop-down stairs are gasketed (i.e., not caulked) or equipped with durable covers that are gasketed. [20]	☐	☐	☐	☐
The following items must be additionally verified in dwelling units, to reduce air leakage between conditioned spaces.				
4.9 Doors serving as a unit entrance from a corridor/stairwell made substantially air-tight with door seal and weatherstripping or equivalent gasket.	☐	☐	☐	☐
4.10 Rater-measured compartmentalization is no greater than 0.30 CFM50 per square feet of dwelling unit enclosure area, following procedures in ANSI / RESNET / ICC 380. [38]	☐	-	☐	☐
4.10.1 For dwelling units with forced air distribution systems without ducted returns and air handlers located in a closet or space adjacent to unconditioned space, the Rater-measured pressure difference between the space containing the air handler and the conditioned space during the compartmentalization test is no greater than 5 Pa. [39]	☐	-	☐	☐
HVAC System [40]	**Must Correct**	**Rater Verified [4]**		**N/A [5]**
5. Heating & Cooling Eqpt. Complete Track A - HVAC Grading by Rater [41] or Track B - HVAC Testing by FT Agent [42]	☐	☐		☐
Track A: 5a.1 Blower fan volumetric airflow is Grade I or II per ANSI / RESNET / ACCA 310	☐	☐		☐
Track A: 5a.2 Blower fan watt draw is Grade I or II per ANSI / RESNET / ACCA 310	☐	☐		☐
Track A: 5a.3 Refrigerant charge is Grade I per ANSI / RESNET / ACCA 310. See Footnote 43 for exemptions.	☐	☐		☐
Track A: 5a.4 HVAC manufacturer & model number on installed equipment matches the HVAC Design Report in compliance with ANSI / RESNET / ACCA 310 or the HVAC Design Supplement to Std. 310 for Common Spaces and Central Systems. [44]	☐	☐		☐
Track B: 5b.1 HVAC manufacturer & model number on installed equipment matches either of the following (check box):[45] ☐ National HVAC Design Report (4.6-4.9 & 4.25-4.26) ☐ Written approval received from designer	☐	☐		-
Track B: 5b.2 External static pressure measured by Rater at contractor-provided test locations and documented below: [46] Return-Side External Static Pressure: _____ IWC Supply-Side External Static Pressure: _____ IWC	☐	☐		☐
5.5 Prescriptive Path: Heating and cooling equipment serving dwelling units, common spaces, and garages meet the efficiency levels specified in the Exhibit X. Electric resistance space heating is not installed in dwelling units. [47]	☐	☐		☐
5.6 ERI Path: Heating and cooling equipment serving common spaces and garages, but not serving dwelling units, meet the efficiency levels specified in the Exhibit X. See Exhibit X for restrictions on electric resistance space heating. [47]	☐	☐		☐
5.7 National HVAC Functional Testing Checklist(s) collected prior to certification, with all HVAC systems in the building fully documented. Exception: Where credentialed HVAC Contractor(s) are completing the National HVAC Functional Testing Checklist, the checklist is not required to be collected for the systems they verify. [48]	☐	☐		☐
5.8 Rater has verified and documented that Functional Testing Agent(s) ("FT Agent(s)") completing the National HVAC Functional Testing Checklist(s) hold one of the required credentials and completed orientation, if applicable. [49] Credential(s): _____ FT Agent Name(s): _____	☐	☐		☐

Equipment Controls	Must Correct	LP Verified [46]	Rater Verified [4]	N/A [5]
5.9 All heating and cooling systems serving a dwelling unit have thermostatic controls within the dwelling unit.	☐	-	☐	☐
5.9.1 Prescriptive Path: Dwelling unit thermostats are programmable.	☐	-	☐	☐
5.10 Where present, stair and elevator shaft vents are equipped with motorized dampers that are capable of being automatically closed during normal building operation and are interlocked to open as required by fire and smoke detection systems. Dampers are verified to be closed at the time of inspection.	☐	☐	☐	☐

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Equipment Controls (Continued)	Must Correct	LP Verified [46]	Rater Verified [4]	N/A [5]
5.11 Freeze protection systems, such as heat tracing of piping and heat exchangers, including self-regulating heat tracing, and garage / plenum heaters include automatic controls that are verified to shut off the systems when pipe wall or garage / plenum temperatures are above 40°F.	☐	☐	☐	☐
5.11.1 Where heat tracing is installed for freeze-protection, controls must be based on pipe wall temperature and a minimum of R-3 pipe insulation is also required.	☐	☐	☐	☐
5.12 Snow- and ice-melting systems include automatic controls that are verified to shut off the systems when the pavement temperature is above 50°F and no precipitation is falling, and an automatic or manual control is installed that is verified to shut off system when the outdoor temperature is above 40°F, so that the potential for snow or ice accumulation is negligible.	☐	☐	☐	☐
Hydronic Distribution Requirements – Applies to heating or cooling systems serving more than one dwelling unit				
5.13 For hydronic distribution systems, all terminal heating and cooling distribution equipment are separated from the riser or distribution loop by a control valve or terminal distribution pump, so that heated or cooled fluid is not delivered to the dwelling unit distribution equipment when there is no call from the thermostat.	☐	☐	☐	☐
5.14 Terminal units in hydronic distribution systems are equipped with pressure independent balancing valves or pressure independent control valves.	☐	☐	☐	☐
5.15 Piping of a heating or cooling system is insulated in accordance with Item 4.42 on the National HVAC Design Report, including where passing through planks or any other penetrations.	☐	☐	☐	☐
5.16 For circulating pumps serving hydronic heating or cooling systems with three-phase motors, 1 horse-power or larger, motors meet or exceed efficiency standards for NEMA Premium™ motors. If 5 horse-power or larger, also installed with variable frequency drives.	☐	☐	☐	☐
6. Duct Quality Installation – *Applies to Heating, Cooling, Ventilation, Exhaust, & Pressure Balancing Ducts, Unless Noted in Footnote.*	**Must Correct**	**Rater Verified [4]**		**N/A [5]**
6.1 Ductwork installed without kinks, sharp bends, compressions, or excessive coiled flexible ductwork. [50]	☐	☐		☐
6.2 All bedrooms provided with transfer grilles, jump ducts, dedicated return ducts, and/or undercut doors. Bedrooms with a design supply airflow ≥ 150 CFM (per Item 5.2 on the National HVAC Design Report) achieve a Rater-measured pressure differential ≥ -5 Pa and ≤ +5 Pa with respect to the main body of the dwelling unit when all air handlers are operating. Townhouses only: In addition, bedrooms with a design supply airflow < 150 CFM achieve a Rater-measured pressure differential ≥ - 3 Pa and ≤ +3 Pa. See Footnote 51 for test configuration.	☐	☐		☐
6.3 All supply and return ducts in unconditioned space, including connections to trunk ducts, are insulated to ≥ R-6. [52]	☐	☐		☐
6.3.1 Prescriptive Path: Dwelling unit ductwork meets the location and insulation requirements specified in the ENERGY STAR Multifamily Reference Design.	☐	☐		☐
6.4 Rater-measured total duct leakage in dwelling units (and common spaces using ANSI / RESNET / ACCA 310) meets one of the following: [53, 54]				
6.4.1 Rough-in: Tested per allowances below, with air handler & all ducts, building cavities used as ducts, & duct boots sealed. Register grilles and all duct boots sealed to finished surface, Rater-verified at final. [55] No ducted returns [39]: The greater of ≤ 3 CFM25 per 100 sq. ft. of CFA or ≤ 30 CFM. Additionally, the Rater-measured pressure difference between the space containing the air handler and the conditioned space, with the air handler running at high speed, is ≤ 5 Pa. For systems > 1 ton, increase by 1 Pa per half ton. One or two ducted returns [39]: The greater of ≤ 4 CFM25 per 100 sq. ft. of CFA or ≤ 40 CFM. Three or more ducted returns [39]: The greater of ≤ 6 CFM25 per 100 sq. ft. of CFA or ≤ 60 CFM.	☐	☐		☐
6.4.2 Final: Tested per allowances below, with the air handler & all ducts, building cavities used as ducts, duct boots, & register grilles atop the finished surface (e.g., drywall, floor) installed. [56] No ducted returns [39]: The greater of ≤ 6 CFM25 per 100 sq. ft. of CFA or ≤ 60 CFM. Additionally, the Rater-measured pressure difference between the space containing the air handler and the conditioned space, with the air handler running at high speed, is ≤ 5 Pa. For systems > 1 ton, increase by 1 Pa per half ton. One or two ducted returns [39]: The greater of ≤ 8 CFM25 per 100 sq. ft. of CFA or ≤ 80 CFM. Three or more ducted returns [39]: The greater of ≤ 12 CFM25 per 100 sq. ft. of CFA or ≤ 120 CFM.	☐	☐		☐
6.5 Townhouses only: Rater-measured duct leakage to the outside the greater of ≤ 4 CFM25 per 100 sq. ft. of CFA or ≤ 40 CFM25. [53, 57]	☐	☐		☐
6.6 Common Space: Supply, return, and exhaust ductwork and all plenums serving common spaces are sealed at all transverse joints, longitudinal seams, and duct wall penetrations with mastic, mastic tape, or internal aerosol-based sealant.	☐	☐		☐
6.7 Duct leakage of central exhaust ductwork serving four or more dwelling units, meets one of the following two options:				
6.7.1 Rough-in: Tested including horizontal run outs, trunks, branches, and take-offs up to, but not including the grilles, the leakage does not exceed 25% of exhaust fan flow. [58]	☐	☐		☐
6.7.2 Final: Tested inclusive of all ductwork between the fan and the grilles, the leakage does not exceed 30% of exhaust fan flow. [58]	☐	☐		☐

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7. Dwelling-Unit & Common Space Mechanical Vent. Systems ("Vent Systems") [59] & Inlets in Return Duct [60] (National HVAC Design Report Item # indicated in parenthesis)	Must Correct	Rater Verified [4]	N/A [5]
7.1 Ventilation manufacturer & model number on installed equipment matches either of the following (check box): [45] ☐ National HVAC Design Report ☐ Written approval received from designer	☐	☐	-
7.2 Rater-measured ventilation rate is within either ± 15 CFM or ±15% of dwelling unit design values (2.7), and meets or exceeds rates required by ASHRAE 62.2-2010. [61]	☐	☐	-
7.3 Measured ventilation rate is within either ± 15 CFM or ±15% of common space design values (2.9), and meets or exceeds rates required by ASHRAE 62.1-2010 (2.8). [62, 63]	☐	☐	☐
7.4 A ventilation override control installed and also labeled if its function is not obvious (e.g., a label is required for a toggle wall switch, but not for a switch that's on the ventilation equipment). Townhouses only: In addition, the ventilation override control installed must be readily-accessible to the occupant.	☐	☐	-
7.5 For any outdoor air inlet connected to a ducted return of the dwelling unit HVAC system (Complete if present; otherwise check "N/A"): [60]			☐
7.5.1 Controls automatically restrict airflow using a motorized damper during vent. Off-cycle and occupant override. [64]	☐	☐	-
7.5.2 Rater-measured vent. Rate is ≤ 15 CFM or 15% above design value at highest HVAC fan speed. Alt. in Fn. 65. [65]	☐	☐	-
7.6 If located in the dwelling unit, system fan rated ≤ 3 sones if intermittent, ≤ 2 sones if continuous, or exempted. [66]	☐	☐	-
7.7 If dwelling-unit Vent System controller operates the dwelling unit HVAC fan, then HVAC fan operation is intermittent and either the fan type is ECM / ICM (4.12), or the controls will reduce the run-time by accounting for HVAC system heating or cooling hours. [67]	☐	☐	☐
7.8 In-unit bathroom fans or in-line fans are ENERGY STAR certified if used as part of the dwelling-unit mechanical ventilation system. [68]	☐	☐	☐
7.9 If central exhaust fans, ≤ 1 HP, are installed as part of the dwelling-unit mechanical ventilation system, then they are direct-drive, ECM, with variable speed controllers. If > 1 HP, their motors meet or exceed efficiency standards for NEMA Premium™ motors. [69]	☐	☐	☐
7.10 Air inlet locations (Complete if ventilation air inlet locations were installed (2.23, 2.24); otherwise check "N/A"): [70, 71]	-	-	☐
7.10.1 Inlet(s) pull ventilation air directly from outdoors and not from attic, crawlspace, garage, or adjacent dwelling unit.	☐	☐	-
7.10.2 Inlet(s) are ≥ 2 ft. above grade or roof deck; ≥ 10 ft. of stretched-string distance from known contamination sources not exiting the roof, and ≥ 3 ft. distance from dryer exhausts and sources exiting the roof. [72]	☐	☐	-
7.10.3 Inlet(s) are provided with rodent / insect screen with ≤ 0.5 inch mesh.	☐	☐	-

8. Local Mechanical Exhaust (National HVAC Design Report Item # indicated in parenthesis)

Dwelling Unit Mechanical Exhaust – In each dwelling unit kitchen and bathroom, a system is installed that exhausts directly to the outdoors and meets one of the following Rater-measured airflow and manufacturer-rated sound level standards: [59, 73]

Location		Continuous Rate	Intermittent Rate [74]	Must Correct	Rater Verified [4]	N/A [5]
8.1 Kitchen	Airflow	≥ 5 ACH, based on kitchen volume [75, 76] (Alternative in Fn. 75)	≥ 100 CFM and, if not integrated with range, also ≥ 5 ACH based on kitchen volume [75, 76, 77]	☐	☐	-
	Sound	Recommended: ≤ 1 sone	Recommended: ≤ 3 sones			
8.2 Bathroom	Airflow	≥ 20 CFM	≥ 50 CFM	☐	☐	-
	Sound	Required: ≤ 2 sones	Recommended: ≤ 3 sones			

Mechanical Exhaust for Common Spaces [7] and Shared Garages			
8.3 Measured exhaust rates are ≥ ASHRAE 62.1-2010 rates (2c). [62]	☐	☐	☐
8.4 Where an exhaust system is installed in a shared garage, it is equipped with controls that sense CO and NO2.	☐	☐	☐
9. Filtration			
9.1 MERV 6+ filter(s) installed in each ducted mechanical system serving an individual dwelling unit, designed so all return and mechanically supplied outdoor air passes through filter(s) prior to conditioning, and located to facilitate access & regular service by the occupant, building owner, or building maintenance staff. [78]	☐	☐	☐
9.1.1 Filter access panel includes gasket and fits snugly against the exposed edge of filter when closed to prevent bypass. [79]	☐	☐	☐
10. Combustion Appliances			
10.1 Furnaces, boilers, and water heaters located within the building's pressure boundary are mechanically drafted or direct-vented. Alternatives in Footnote 82. [80, 81]	☐	☐	☐
10.2 Fireplaces located within the building's pressure boundary are direct-vented. [80, 81]	☐	☐	☐
10.3 No unvented combustion appliances other than cooking ranges or ovens are located inside the building's pressure boundary. [80]	☐	☐	☐

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Other	Must Correct	LP Verified [46]	Rater Verified [4]	N/A [5]
11. Domestic Hot Water				
11.1 Prescriptive Path: Hot Water Equipment Minimum Efficiency Levels (must meet one of the following):				
11.1.1 Where rated in EF or UEF, meet or exceed the ENERGY STAR Multifamily Reference Design [83]	☐	-	☐	☐
11.1.2 Where rated in Et or COP:				
11.1.2a For all Versions except Nat'l v1.2, ≥ 95% Et if electric and ≥ 85% Et for other fuels.	☐	-	☐	☐
11.1.2b For Nat'l v1.2, ≥ 2.0 COP for electric serving dwelling units, ≥ 95% Et for electric serving common spaces, and ≥ 90% Et for other fuels.	☐	-	☐	☐
11.2 ERI Path: Hot Water Equipment Min. Efficiency Levels for equipment serving common spaces but not dwelling units nor shared laundry:				
11.2.1 For non-electric equipment: If rated in EF or UEF, meet the efficiency levels specified in the ENERGY STAR Multifamily Reference Design. If rated in Et ≥85%, or for Nat'l v1.2 ≥ 90%. [83]	☐	-	☐	☐
11.2.2 For electric equipment: ≥ 0.93 UEF, 0.95 EF or 95% Et. [83]	☐	-	☐	☐
12. Lighting				
12.1 Common Space [2] Lighting Controls:				
12.1.1 ERI and Prescriptive Path: All common spaces [7] (including shared garages), except the building lobby, mechanical equipment rooms, and where automatic shutoff would endanger the safety of occupants [84], have occupancy sensors, programmed timers, or automatic bi-level lighting controls installed and operation has been verified.	☐	☐	☐	☐
12.1.2 ASHRAE Path only: All common spaces [7] (including shared garages), except the building lobby, mechanical equipment rooms, corridors, and stairwells and where automatic shutoff would endanger the safety of occupants [84], have occupancy sensors or automatic bi-level lighting controls installed and operation has been verified.	☐	☐	☐	☐
12.2 Exterior lighting controls: Fixtures, including parking lot fixtures, must include automatic switching on timers or photocell controls except fixtures intended for 24-hour operation, required for security, or associated with the electric meter for an individual dwelling unit.	☐	☐	☐	☐
12.3 Common Spaces [7] and Garages: 90% of installed lighting fixtures are integrated LED fixtures or contain LED lamps. See Footnote 85 for alternate options.	☐	☐	☐	☐
12.4 ERI Path: All exterior and common space lighting fixtures meet the efficiency requirements in the ENERGY STAR Multifamily Reference Design, except fixtures located on dwelling unit balconies. [58, 89]	☐	-	☐	☐
12.5 Prescriptive Path: All lighting fixtures (i.e., dwelling units, common spaces, and exterior) meet the efficiency requirements in the ENERGY STAR Multifamily Reference Design. [58, 89]	☐	-	☐	☐
12.6 Prescriptive Path: Dwelling unit overall in-unit lighting power density ≤ 0.75 W/ft². When calculating overall lighting power density, use 1.1 W/ft² where lighting is not installed. [86]	☐	-	☐	☐

13. Appliances and Plumbing Fixtures	Must Correct	Rater Verified [4]	N/A [5]
13.1 Prescriptive Path: Installed appliances are ENERGY STAR certified. Installed bathroom faucets, bathroom aerators, and showerheads are WaterSense labeled. [90]	☐	☐	☐
13.2 ERI Path: Where installed in common spaces, refrigerators and dishwashers are ENERGY STAR certified and showerheads are WaterSense labeled.	☐	☐	☐
13.3 Prescriptive Path: Shower compartments with multiple fixtures cannot be operated simultaneously OR the total flow rate per shower compartment must not exceed 1.75 gallons per minute, as rated at 80 psi.	☐	☐	☐
14. Whole Building Energy Consumption Data Acquisition Strategy			
14.1 For buildings 50,000 ft² and larger, a strategy that enables the collection of monthly or annual building-level energy consumption data (electricity, natural gas, chilled water, steam, fuel oil, propane, etc.) has been confirmed. [91]	☐	☐	☐

Rater Name: _____ Rater Pre-Drywall Inspection Date(s):[92] _____ Rater Initials: _____

Rater Company Name: _____

Rater Name: _____ Rater Final Inspection Date(s):[93] _____ Rater Initials: _____

Rater Company Name: _____

Builder/Developer Employee: _____ Builder Inspection Date(s): _____ Builder Initials: _____

Builder/Developer Name: _____

Licensed Professional: _____ LP Inspection Date(s): _____ LP Initials: _____

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Footnotes:

1. This Checklist applies to all dwelling units, sleeping units, common spaces [2]; and garages (open or enclosed) in the building being certified, and where specified, parking lots. These requirements apply to all Paths, unless otherwise specified. These requirements do not apply to parking garages or lots where the cost of the energy use of the parking garage or lot is not the responsibility of the Builder/Developer, Building Owner or Property Manager. This Checklist does not apply to commercial or retail spaces. This Checklist does not apply to common spaces [7] that are located in buildings on the property without any dwelling or sleeping units. A 'sleeping unit' as defined by ANSI / RESNET / ICC 301, is a room or space in which people sleep, which can also include permanent provisions for living, eating, and either sanitation or kitchen facilities but not both. Where the term 'dwelling unit' is used in this Checklist, the requirement is also required of 'sleeping' units. The term 'building' refers to a structure that encompasses dwelling/sleeping units and (if present) common spaces, sharing one or more of the following attributes: a common street address, a common entrance or exit, central/shared mechanical systems, or structurally interdependent wall or roof systems. Attached structures such as townhouses and 4-story two-unit structures (commonly referred to as "2-over-2s") may be considered separate buildings if they are divided by a vertical fire separation wall from the foundation to the roof sheathing and share none of the other attributes listed above. A skywalk or a breezeway that connects two structures is not considered a common entrance or exit.
2. The term 'common space' refers to any spaces in the building being certified that serve a function in support of the residential part of the building that is not part of a dwelling or sleeping unit. This includes spaces used by residents, such as corridors, stairs, lobbies, laundry rooms, exercise rooms, residential recreation rooms, and dining halls, as well as offices and other spaces used by building management, administration or maintenance in support of the residents.
3. At the discretion of the Rater, the builder or developer may verify up to eight items in Sections 1-4 of this Checklist. For the purpose of this Checklist, "Builder" represents either the builder or the developer. When this allowance is used for Item 1.2 or 1.3, a maximum of 10% of the total surface area of the non-adiabatic insulated assemblies are permitted to be builder-verified; the remainder must be verified by the Rater. When exercised, the builder's responsibility will be formally acknowledged by the builder, or their designated agent, signing off on the checklist for the item(s) that they verified. However, if a quality assurance review indicates that Items have not been successfully completed, the Rater will be responsible for facilitating corrective action.
4. The term 'Rater' refers to the person(s) completing the third-party verification required for certification. The person(s) shall: a) be a Certified Rater, Approved Inspector, as defined by ANSI / RESNET / IECC 301, or an equivalent designation as determined by a Home Certification Organization (HCO) or Multifamily Review Organization (MRO); and, b) have attended and successfully completed an EPA-recognized training class. See www.energystar.gov/mftraining.
   As stated in the National Program Requirements, for Townhouses, all items shall be verified for each certified home and sampling protocols shall not be used. For other multifamily building types, Raters who operate under an MRO or an HCO Sampling Protocol are permitted to verify any Checklist Item designated "Rater Verified" using an MRO or HCO-approved sampling protocol. No parties other than Raters are permitted to use sampling to complete this Checklist.
5. The column titled "N/A," which denotes items that are "not applicable," should be used when the checklist Item is not present in the building or conflicts with local requirements.
6. Two alternatives are provided: a) Grade II cavity insulation is permitted to be used for assemblies that contain a layer of continuous, air impermeable insulation ≥ R-3 in Climate Zones 1 to 4, ≥ R-5 in Climate Zones 5 to 8; [10] b) Grade II batts are permitted to be used in floors if they fill the full width and depth of the framing cavity, even when compression occurs due to excess insulation, as long as the R-value of the batts has been appropriately assessed based on manufacturer guidance and the only defect preventing the insulation from achieving Grade I is the compression caused by the excess insulation.
7. Ensure compliance with this requirement using ANSI / RESNET / ICC 301 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the HCO or MRO that the building is certified under, with approved exceptions listed at www.energystar.gov/ERIExceptions.
8. Window-to-Wall ratio is taken as the sum of all window area divided by the total exterior above-grade wall area. All decorative glass and skylight window area contribute to the total window area to above-grade wall ratio (WWR). Spandrel sections of curtain wall systems contribute to the above-grade wall area.
9. Compliance with Items 1.5 and 1.6 is not required for buildings pursuing the ASHRAE Path, but the energy used by the heating systems must be modeled following the requirements in the Simulation Guidelines, available at www.energystar.gov/mfguidance.
10. For all Versions except National v1.2, the 2009 IECC Climate Zone designations are applicable, as defined and illustrated in Section R301 of the code. For National v1.2, the 2021 IECC Climate Zone designations are applicable, as defined and illustrated in Section R301 of the code. Note that some locations have shifted to a different Climate Zone in the 2021 IECC compared to prior editions.
11. Where conditioned space is above the plenum, in lieu of insulating the top of the plenum, the bottom of the plenum may be used to comply with Items 1.5.2 and 1.5.3, if its insulation meets the requirements of Item 1.5.2 and, where applicable, Item 3.6. When using this alternative, the bottom of the plenum must meet all the requirements for floor insulation which include a fully-aligned air barrier as described in Footnote 13 and Grade I installation per Item 1.3.
12. The bottom of the heated plenum is permitted to be suspended ceiling tiles or other non-air barrier material. If fiberglass insulation is installed, it must be paper-faced. This insulation shall achieve a Grade I or Grade II install.
13. For purposes of this LP-eligible, an air barrier is defined as any durable solid material that blocks air flow between conditioned space and unconditioned space, including necessary sealing to block excessive air flow at edges and seams and adequate support to resist positive and negative pressures without displacement or damage. EPA recommends, but does not require, rigid air barriers.
    Open-cell or closed-cell foam shall have a finished thickness ≥ 5.5 in. or 1.5 in., respectively, to qualify as an air barrier unless the manufacturer indicates otherwise.
    If flexible air barriers such as house wrap are used, they shall be fully sealed at all seams and edges and supported using fasteners with caps or heads ≥ 1 in. diameter unless otherwise indicated by the manufacturer. Flexible air barriers shall not be made of kraft paper, paper-based products, or other materials that are easily torn. If polyethylene is used, its thickness shall be ≥ 6 mil.

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14. All insulated ceiling surfaces, regardless of slope (e.g., cathedral ceilings, tray ceilings, conditioned attic roof decks, flat ceilings, sloped ceilings), must meet the requirements for ceilings, unless the ceiling is adiabatic.
15. All insulated vertical surfaces are considered walls (e.g., above and below grade exterior walls, knee walls) and must meet the air barrier requirements for walls. The following exceptions apply: air barriers recommended, but not required, in adiabatic walls; and, in Climate Zones 4 through 8, an air barrier at the interior vertical surface of insulation is recommended but not required in basement walls or crawlspace walls. For the purpose of these exceptions, a basement or crawlspace is a space for which ≥ 40% of the total gross wall area is below-grade.
16. EPA highly recommends, but does not require, an air barrier at the interior vertical surface of floor insulation in Climate Zones 4-8. [10]
17. Examples of supports necessary for permanent contact include staves for batt insulation or netting for blown-in insulation. Alternatively, supports are not required if batts fill the full depth of the floor cavity, even when compressed due to excess insulation, as long as the R-value of the batts has been appropriately assessed based on manufacturer guidance and the only defect preventing the insulation from achieving the required installation grade is the compression caused by the excess insulation.
18. Alternatively, an air barrier is permitted to be installed at the exterior horizontal surface of the floor insulation if the insulation is installed in contact with this air barrier, the exterior vertical surfaces of the floor cavity are also insulated, and air barriers are included at the exterior vertical surfaces of this insulation.
19. The minimum designated R-values must be achieved regardless of the trade-offs determined using an equivalent U-factor or UA alternative calculation. Note that if the minimum designated values and requirements for insulation values may be needed elsewhere to meet Item 1.2. Also, note that these requirements can be met by using any available strategy, such as a raised-heel truss, alternate framing that provides adequate space, and / or high-density insulation.
20. Examples of durable covers include, but are not limited to, pre-fabricated covers with integral insulation, rigid foam adhered to cover with adhesive, or batt insulation mechanically fastened to the cover (e.g., using bolts, metal wire, or metal strapping. Low-slope roof hatch covers to be insulated to R-5 minimum.
21. Slab edge insulation is required for slab-on-grade floors with a floor surface less than 24 inches below grade. Slab perimeter insulation shall extend to the top of the slab to provide a complete thermal break. If the top edge of the insulation is installed between the exterior wall and the edge of an interior, or exterior, slab, it shall be permitted to be cut at a 45-degree angle away from the exterior wall. The following alternatives apply:
    a. Slab assemblies with an F-Factor equivalent to that of the insulation required in Item 3.4 may be used. F-Factors shall be determined using Table A6.3.1-1 from ASHRAE 90.1-2022 Appendix A. See www.energystar.gov/F-Factor for more details.
    b. The thermal break is permitted to be created using ≥ R-3 rigid insulation on top the slab. In such cases, up to 10% of the slab surface is permitted to not be insulated (e.g., for sleepers, for sill plates). Insulation installed on top of slab shall be covered by a durable floor surface (e.g., hardwood, tile, carpet).
22. Where an insulated wall separates a garage, patio, courtyard, porch, or other unconditioned space from the conditioned space of the building, slab perimeter insulation shall also be installed at this interface to provide a thermal break between the conditioned and unconditioned slab, if the slab is in contact with the ground. Alternatively, insulation can be placed at that interface. Where specific details cannot meet this requirement, partners shall provide the detail to EPA to request an exemption prior to the building's certification. EPA will compile exempted details and work with industry to develop feasible details for use in future versions of the program. A list of currently exempted and non-exempted details is available at: www.energystar.gov/slabedge. If an exemption is used, then the Total UA Compliance option (5c) within the Multifamily Workbook must be used to demonstrate compliance with Item 1.2 if the ASHRAE Path or Prescriptive Path is used, and may be used to demonstrate compliance if the ERI Path is used. F-Factors shall be determined using Table A6.3.1-1 from ASHRAE 90.1-2022 Appendix A. See www.energystar.gov/F-Factor for more details.
23. Item 3.5 does not apply to the repeated concrete floor perimeter edges of a multistory building as those are subject to Item 3.7.1. Item 3.5 also does not apply where floor insulation meeting the requirements of Item 3.6 is installed above the slab and provides a continuous thermal boundary where it intersects the wall..
24. For the following podium constructions, a minimum of 8ft insulation is not required below the floor edge:
    a) Where podium wall is less than 8ft in height, insulation must instead be installed for the full height of the podium.
    b) For podiums that are at-grade or continue below-grade, insulate to a minimum of 8ft below the bottom of the slab edge, or a depth of 2ft , or 4 ft. for heated slabs in CZ 6-8, below-grade.
    c) Where a minimum of 4ft of insulation is installed on both interior and exterior surfaces of the wall.
    d) For podiums where the horizontal slab is not in direct contact with the exterior wall and R-5 insulation is provided at the slab edge, continuous with the under-slab insulation. See www.energystar.gov/slabedge for example.

    EPA has developed the following alternatives to comply with Item 3.5, instead of installing the insulation required:
    a) Projected concrete floors may use one of the options below:
        i. Install minimum R-2 insulation at the floor edge between conditioned space and the projected slab, AND:
            a. ASHRAE and Prescriptive Paths: Use the Total UA Compliance option (5c) within the Multifamily Workbook to demonstrate compliance with Item 1.2 and include a row that represents the floor edge.
            b. ERI Path: Model the floor edge using the R-value of the insulation provided (e.g., not the R-value of above-grade wall).
        ii. Install minimum R-5 insulation, above and below the concrete slab that extends horizontally for a minimum of 4 ft. Insulation installed on top of slab shall be covered by a durable floor surface. See www.energystar.gov/slabedge for example. When demonstrating compliance with Item 1.2, R-1 insulation may be associated with the area of the wall that is uninsulated due to the projected slab.
    b) All podiums and projected concrete floors, in lieu of installing the insulation required in Item 3.5, meet all of the following requirements.

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    i. Use the Total UA Compliance option (5c) within the Multifamily Workbook to demonstrate compliance with Item 1.2 and use the following U-factors:
        a. Where the above grade wall is in contact with a concrete floor above conditioned space, include a row that represents the floor-edge condition using a U-Factor of 1.20.
        b. Where the above grade wall is in contact with a concrete floor above unconditioned space, include a row that represents the floor-edge condition using a U-Factor of 1.64.
    ii. Where using the ASHRAE or ERI Paths, in the energy model the concrete floor edge area must be modeled with R-0.
25. While EPA recommends insulating interior columns for a minimum of R-5 for 4 vertical feet and vertically along other areas of discontinuity, such as where walls intersect the concrete slab; this is not required.
26. Item 3.7 is applicable to walls that are adjacent to other buildings. Mass walls utilized as the thermal mass component of a passive solar design (e.g., a Trombe wall) are exempt from this Item. To be eligible for this exemption, the passive solar design shall be comprised of the following five components: an aperture or collector, an absorber, thermal mass, a distribution system, and a control system. For more information, see: www.energy.gov/sites/prod/files/guide_to_passive_solar_home_design.pdf.
    Mass walls that are not part of a passive solar design (e.g., CMU block or log home enclosure) shall either utilize the strategies outlined in Item 3.7 or the pathway in the assembly with the least thermal resistance, as determined using a method consistent with the 2013 ASHRAE Handbook of Fundamentals, shall provide ≥ 50% of the applicable assembly resistance, defined as the reciprocal of the mass wall equivalent U-factor in the 2009 IECC Table 502.1.2. Documentation identifying the pathway with the least thermal resistance and its resistance value shall be collected by the Rater and any Builder Verified or Rater Verified box under Item 3.7 shall be checked.
27. Walls and rim / band joists using steel or other metal framing shall meet the reduced thermal bridging requirements by complying with Item 3.7.1 of

body of the dwelling unit (e.g., a door between a bedroom and a hallway) shall be closed and doors to rooms that can only be entered from the bedroom (e.g., a closet, a bathroom) shall be open. The Rater-measured pressure shall be rounded to the nearest whole number to assess compliance.

52. Item 6.3 does not apply to ducts that are a part of local mechanical exhaust or exhaust-only dwelling-unit mechanical ventilation systems. EPA recommends, but does not require, that all metal ductwork not encompassed by Section 6 (e.g., exhaust ducts, duct boots, ducts in conditioned space) also be insulated and that insulation be sealed to duct boots to prevent condensation.

53. Items 6.4 and 6.5 generally apply to the ducts of heating, space cooling, and dwelling-unit mechanical ventilation systems.

However, visual inspection is permitted in lieu of testing for the following system types: 1) a dwelling-unit mechanical ventilation system not connected to the space heating or space cooling system, regardless of the number of dwelling units it serves; 2) a space heating or space cooling system for which the ducts and air handler are in conditioned space and the total supply duct length of the system, including all supply trunks and branches, is ≤ 10 ft; and 3) a space heating or space cooling system that serves more than one dwelling unit. In such cases, a Rater shall visually verify that all seams and connections are sealed with mastic or metal tape and all duct boots are sealed to floor, wall, or ceiling using caulk, foam, or mastic type.

For duct systems requiring testing, duct leakage shall be determined and documented by a Rater using ANSI / RESNET / ICC 380 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the HCO or MRO that the building is being certified under. Leakage limits shall be assessed on a per-system, rather than per-dwelling unit, basis.

54. Note that compliance with Item 6.4.1 or 6.4.2 in conjunction with Section 4a of the National Rater Design Review Checklist automatically achieves Grade I total duct leakage per ANSI / RESNET / ACCA 310.

55. Cabinets (e.g., kitchen, bath, multimedia) or ducts that connect duct boots to toe-kick registers are not required to be in place during the 'rough-in' test.

56. Registers atop carpets are permitted to be removed and the face of the duct boot temporarily sealed during testing. In such cases, the Rater shall visually verify that the boot has been durably sealed to the subfloor (e.g., using duct mastic or caulk) to prevent leakage during normal operation.

57. Testing of duct leakage to the outdoors can be waived in accordance with the 2nd or 3rd alternative of ANSI / RESNET / ICC 301, Table 4.2.2 (1), footnote (w). Alternatively, testing of duct leakage to outdoors can be waived in accordance with Section 5.5.2 of ANSI / RESNET / ICC 380 if total duct leakage, at rough-in or final, is ≤ 4 CFM25 per 100 sq. ft. of conditioned floor area or 40 CFM25, whichever is larger. Guidance to assist partners with these alternatives, including modeling inputs, is available at www.energystar.gov/newhomesguidance.

58. For the purpose of computing leakage allowance, at rough-in, the 'exhaust fan flow' shall be the lesser of the rated fan flow (i.e., nameplate rating) and 133% of the sum of the design exhaust airflow of the dwelling units served by that fan. At final, the 'exhaust fan flow' shall be the lesser of the rated fan flow (i.e., nameplate rating) and 143% of the sum of the design exhaust airflow of the dwelling units served by that fan. To calculate central exhaust duct leakage allowance, EPA recommends using worksheet 3b of the Multifamily Workbook. Measured fan flow (either at the fan itself or the total airflow measured from all exhaust grilles served by the fan) may be used in lieu of the rated fan flow to determine the leakage allowance. Duct leakage shall be tested at the design or average operating pressure and shall use the procedures in the *RESNET Guidelines for Multifamily Energy Ratings*, available at www.resnet.us/blog/resnet-adopts-guidelines-for-multifamily-energy-ratings/. Where testing at the design or average operating pressure is not feasible, testing at 50 Pa is permitted, however the following flow equation must be used to determine the leakage allowance at 50 Pa.

$$CFM_{50} = CFM_{Design} / [P_{Design}^{(0.65)} / 50^{0.65}]$$

No less than 50% of the ductwork, based on total linear feet, shall be tested and must include ductwork other than the main trunks. Where portions of ductwork are tested, rather than entire risers, the percentage of leakage allowed is based upon the design airflow of the dwelling units that are evaluated in that portion. Where failures occur, the percentage of total linear feet required to be tested increases by 50%.

Where aerosol-based sealant is used on 100% of the exhaust ductwork between the fan and the grilles, the duct-sealing contractor is permitted to perform the test, but sampling is not permitted. Where tested at 25 Pa, the leakage allowance is permitted to be reduced according to the equation above by substituting '25' for '50'. The Rater is not required to witness these tests. Where aerosol-based sealant is used on some but not all ductwork, the ductwork selected for testing must be representative of all sealing strategies used. This test is not required of central exhaust systems serving clothes dryers but is required for the central exhaust portion of balanced systems such as HRVs and ERVs.

59. As defined by ANSI / RESNET / ICC 301-2019, a Dwelling Unit Mechanical Ventilation System is a ventilation system consisting of powered ventilation equipment such as motor-driven fans and blowers and related mechanical components such as ducts, inlets, dampers, filters and associated control devices that provides dwelling-unit ventilation at a known or measured airflow rate.

60. Item 7.5 applies to any outdoor air inlet connected to a ducted return of the dwelling unit HVAC system, regardless of its intended purpose (e.g., for ventilation air, make-up air, combustion air). This Item does not apply to HVAC systems without a ducted return.

61. The dwelling-unit ventilation air flows and local exhaust air flows shall be determined and documented by a Rater using ANSI / RESNET / ICC 380 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the HCO or MRO that the building is being certified under. In Item 7.2, the dwelling-unit ventilation rates required by ASHRAE 62.2-2010 can be calculated using the Multifamily Workbook or the following equation: 0.01 x Conditioned Floor Area + 7.5 x (number of bedrooms + 1). For sleeping units, the following equation must be used: 0.01 x Conditioned Floor Area + 7.5 x (number of beds). Where local codes do not permit dwelling-unit ventilation to exceed ASHRAE 62.2-2010 rates, Rater-measured ventilation rate is permitted to be 0-15 CFM less than rates required by ASHRAE 62.2-2010. Designers are permitted to provide multiple combinations of a design ventilation airflow rate, run-time per cycle, and cycle time. When multiple combinations are provided, the Rater shall first assess the run-time setting of the installed system and use that to determine the corresponding design ventilation rate. The Rater-measured ventilation rate must fall within the program-specified tolerance relative to that design ventilation rate.

62. While common spaces are not under the scope of ANSI / RESNET / ICC 380, the ventilation air flow and exhaust air flows in common spaces shall be measured in accordance with the procedures in ANSI / RESNET / ICC 380. The air flows may be measured by a Rater or a certified air-balancing contractor under the observation of a Rater. Sampling is only permitted where airflows are measured directly by the Rater. Where a system provides supply air that is a mix of return and outdoor air, and not 100% outdoor air, the outdoor air airflow shall be measured

Exhibit X – Prescriptive Minimum Heating and Cooling Equipment Efficiencies based on Version the building is certified to. Version 1, Version 1.1, and Oregon and Washington Version 1.2:[1]

Equipment Type	Minimum Efficiency
Room AC (window, through-wall, ductless mini-splits)	ENERGY STAR certified
Air conditioners, air cooled (<13 Kbtu/h)	13 SEER
Air conditioners, air cooled (≥13 and <65 Kbtu/h)	See Reference Design
Air conditioners, air cooled (≥65 and <240 Kbtu/h)	11.5 EER/12.0 IEER
Air conditioners, air cooled (≥240 and < 760 Kbtu/h)	10.0 EER/10.5 IEER
Electric resistance space heating [47]	• Not permitted in any dwelling unit using the Prescriptive Path • Electric resistance heating specified in common spaces and garages have a total heating capacity ≤ 12 kBtu/h (3.5 kW) per enclosed space and has automatic thermostatic controls
Warm-Air Furnace (<225 KBtu/h, common spaces)	78% AFUE or 80% Et
Warm-Air Furnace (<225 KBtu/h, dwelling units)	See Reference Design. For PTAC, use 80% Et
Warm-Air Furnace (≥225 KBtu/h)	80% Et (gas) or 81% Et (oil)
Packaged Terminal Air Conditioner (PTAC < 7 kBtu/h)	11.9 EER
Packaged Terminal Air Conditioner (PTAC > 15 kBtu/h)	9.5 EER
Packaged Terminal Air Conditioner (≥7 and ≤15 KBtu/h)	14.0 – (0.300 X Cap/1000) EER
Packaged Terminal Heat Pump (PTHP)	Cooling: 14.0– (0.3 X Cap/1000) EER Heating: 3.7– (0.052 X Cap/1000) COP
Air cooled heat pump (≥13 and <65 KBtu/h)	See Reference Design
Air cooled heat pump (≥65 and <240 KBtu/h)	Cooling: 11.1 EER/11.6 IEER Heating: 3.3 COP (@47°F DB)
Air cooled heat pump (≥240 KBtu/h)	Cooling: 9.6 EER/9.6 IEER Heating: 3.2 COP (@47°F DB)
Water-source heat pump (<135 KBtu/h)	Cooling: 14.0 EER(86°F entering water) Heating: 4.2 COP(68°F entering water)
Boilers, hot water (<300,000 Btu/h)	See Reference Design
Boilers, hot water (≥300,000 Btu/h)	86% E_t (89% E_t if using heat pumps)
VRF Air Conditioners and Heat Pumps	See Tables 6.8.1I and 6.8.1J of ASHRAE 90.1-2010
Air-cooled chillers with or without condenser	10.0 EER / 12.5 IPLV
Water-cooled chiller, positive displacement (<75 tons)	0.780 kW/ton (Full load) / 0.630 kW/ton (IPLV)
Water-cooled chiller, positive displacement (75-150 tons)	0.775 kW/ton (Full load) / 0.615 kW/ton (IPLV)
Water-cooled chiller, positive displacement (150-300tons)	0.680 kW/ton (Full load) / 0.580 kW/ton (IPLV)
Water-cooled chiller, positive displacement (>300 tons)	0.620 kW/ton (Full load) / 0.540 kW/ton (IPLV)
Water-cooled, centrifugal (<300 tons)	0.634 kW/ton (Full load) / 0.596 kW/ton (IPLV)
Water-cooled, centrifugal (≥300 and <600 tons)	0.576 kW/ton (Full load) / 0.549 kW/ton (IPLV)
Water-cooled, centrifugal (≥600 tons)	0.570 kW/ton (Full load) / 0.539 kW/ton (IPLV)
Air-cooled absorption single effect chiller	0.6 COP
Water-cooled absorption single effect chiller	0.7 COP
Absorption double effect indirect-fired chiller	1.0 COP (Full load) / 1.05 COP (IPLV)
Absorption double effect direct-fired chiller	1.0 COP (Full load) / 1.00 COP (IPLV)
Open-loop propeller or axial fan cooling towers*	>40 gpm/hp (@95°F entering water, 85°F leaving water, 75°F wb entering air)
Closed-loop propeller or axial fan cooling towers*	>15 gpm/hp (@102°F entering water, 90°F leaving water, 75°F wb entering air)
Open-loop centrifugal fan cooling towers*	>22 gpm/hp (@95°F entering water, 85°F leaving water, 75°F wb entering air)
Closed-loop centrifugal fan cooling towers*	>8 gpm/hp (@102°F entering water, 90°F leaving water, 75°F wb entering air)
Air source DX-DOAS (dehumidification mode)	4.0 ISMRE
Air source DX-DOAS (heat pump, heating mode)	2.7 ISCOP
Other DX-DOAS (e.g., water source)	See ASHRAE 90.1-2016; Table 6.8.1-15

Cap means the rated capacity of the product in Btu/h. If < 7,000 Btu/h, use 7,000; if > 15,000, use 15,000 in calculation.
[1] For Equipment Types not listed here, minimum efficiencies shall be based on those listed in ASHRAE 90.1-2010.
*Cooling tower fan motors must be equipped with VFD controlled by a temperature sensor on the condenser water supply pipe.

and compared to the total supply airflow to determine percentage of outdoor air supplied. This percentage shall be applied to airflow measured at supply registers to determine outdoor air provided for comparison to design airflow rates. Where the building has total corridor space ≤ 250 ft² and does not contain any of the other common spaces which require outdoor air per Item 2.2 of the National HVAC Design Report, outdoor air is not required to be provided to the corridor.

63. For permits on or before 01/01/2024, where outdoor air is supplied via a PTAC or PTHP, in lieu of measurement, the design CFM shall meet or exceed the ventilation rates required by ASHRAE 62.1-2010 and the space served by the PTAC or PTHP shall have at least one operable window. For permits after 01/01/2024, both the airflow and measurement of outdoor air through these systems will be required to demonstrate compliance with ASHRAE 62.1-2010 or alternative ventilation system specified (e.g., ducted supply).

64. For example, if an outdoor air inlet connected to a ducted return is used as a dedicated source of outdoor air for an exhaust ventilation system (e.g., bath fan), the outdoor airflow must be automatically restricted when the exhaust fan is not running and in the event of an override of the exhaust ventilation system.

In dwelling / sleeping units in multifamily buildings, but not townhouses, automatic restriction of airflow is exempted if a manual shutoff damper is used with a continuous exhaust ventilation system and is readily-accessible, labeled as the override, and not used as a balancing damper.

65. When assessing the ventilation rate, the highest HVAC fan speed applicable to ventilation mode shall be used (e.g., if the inlet only opens when the HVAC is in 'fan-only' mode, then test in this mode). If the inlet has a motorized damper that only opens when the local mechanical kitchen exhaust is turned on, then testing is not required.

When required, the ventilation airflow through the inlet shall be measured and documented by a Rater using ANSI / RESNET / ICC 380 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the HCO or MRO that the building is being certified under. As an alternative, measurement of the outdoor airflow can be waived if a Constant Airflow Regulating (CAR) damper with a manufacturer-specified maximum flow rate no higher than 15 CFM or 15% above the ventilation design value is installed on the inlet.

66. Dwelling-unit mechanical ventilation fans shall be rated for sound at no less than the airflow rate in Item 2.7 of the National HVAC Design Report. Fans exempted from this requirement include HVAC air handler fans, remote-mounted fans, and intermittent fans rated ≥ 400 CFM. To be considered for this exemption, a remote-mounted fan must be mounted outside the habitable spaces, bathrooms, toilets, and hallways and there shall be ≥ 4 ft. ductwork between the fan and intake grille. For ASHRAE 62.2-2010, habitable spaces are intended for continual human occupancy; such space generally includes areas used for living, sleeping, dining, and cooking but does not generally include bathrooms, toilets, hallways, storage areas, closets, or utility rooms.

67. Note that the 'fan-on' setting of a thermostat shall not be an acceptable controller because it would continuously operate the HVAC fan.

68. Bathroom fans with a rated flow rate ≥ 500 CFM and heat/energy recovery ventilation fans are exempted from the requirement to be ENERGY STAR certified.

69. As an alternative to meeting or exceeding the efficiency standards for NEMA Premium motors, documentation that an exhaust fan motor has a fan energy index (FEI) ≥ 1.2 at the design point of operation OR a fan efficacy ≥ 1.1 CFM/Watt is permitted.

70. Without proper maintenance, ventilation air inlet screens often become filled with debris. Therefore, EPA recommends, but does not require, that these ventilation air inlets be located so as to facilitate access and regular service by the building owner or maintenance staff. Ventilation air inlets that are only visible via rooftop access are exempted from Item 7.10 and the Rater shall mark 'N/A'.

71. Two alternatives to Item 10.1, distance to property line, are provided: 1) inlets providing outdoor air to a dwelling unit are permitted to be ≥ 5 ft. of stretched-string distance from outlets of both exhaust dwelling-unit mechanical ventilation systems and local mechanical exhaust systems, and 2) the outlet and inlet of ERV's and HRV's may use a smaller distance if allowed by the manufacturer of the system. If the second alternative is used, the manufacturer's instructions shall be collected for documentation purposes.

72. Known contamination sources include, but are not limited to, stacks, vents, exhausts, and vehicles.

73. Continuous bathroom local mechanical exhaust fans shall be rated for sound at no less than the airflow rate in Item 8.2. Intermittent bathroom and both intermittent and continuous kitchen local mechanical exhaust fans are recommended, but not required, to be rated for sound at no less than the airflow rate in Items 8.1 and 8.2. Per ASHRAE 62.2-2010, an exhaust system is one or more fans that remove air from the building, causing outdoor air to enter by ventilation inlets or normal leakage paths through the building envelope (e.g., bath exhaust fans, range hoods, clothes dryers). Per ASHRAE 62.2-2010, a bathroom is any room containing a bathtub, shower, spa, or similar source of moisture.

74. An intermittent mechanical exhaust system, where provided, shall be designed to operate as needed by the occupant. Control devices shall not impede occupant control in intermittent systems.

75. Where 5 ACH is selected, kitchen volume shall be determined by drawing the smallest possible rectangle on the floor plan that encompasses all cabinets, pantries, islands, peninsulas, ranges / ovens, and the kitchen exhaust fan, and multiplying by the average ceiling height for this area. In addition, the continuous kitchen exhaust rate shall be ≥ 25 CFM, per 2009 IRC Table M1507.3, regardless of the rate calculated using the kitchen volume. Cabinet volume shall be included in the kitchen volume. As an alternative to 5 ACH for Dwelling Units and Sleeping Units (but not Townhouses), 50 CFM of continuous exhaust is permitted to be used, regardless of kitchen volume. In such cases, the edge of the exhaust fan or intake grille shall be located within 10 ft of the edge of the range, as measured horizontally on the floor plan.

76. Alternatively, the prescriptive duct sizing requirements in Table 5.3 of ASHRAE 62.2-2010 or later are permitted to be used for kitchen exhaust fans based upon the rated airflow of the fan at 0.25 IWC. If the rated airflow is unknown, ≥ 6 in. smooth duct shall be used, with a rectangular to round duct transition as needed. Guidance to assist partners with these alternatives is available at www.energystar.gov/newhomesguidance. As an alternative to Item 8.1, dwelling units are permitted to use a continuous kitchen exhaust rate of 25 CFM per 2009 IRC Table M1507.3, if they are either a) Phius or PHI certified, or b) provide both dwelling-unit ventilation and local mechanical kitchen exhaust using a balanced system, and have a Rater-verified whole-building infiltration rate ≤ 1.0 ACH50 or ≤ 0.05 CFM50 per sq. ft. of Enclosure Area. 'Enclosure Area' is defined as the area of the surfaces that bound the volume being pressurized / depressurized during the test.

Version 1.2:
For Equipment Types not listed here, minimum efficiencies shall be based on 5% improvement over those listed in ASHRAE 90.1-2019. Use the efficiency values for "after 1/1/2023" where listed.

Equipment Type	CZ 1-4 [10]	CZ 4C-8 [10]
Room AC (through-wall)	ENERGY STAR certified	
Air conditioners, air cooled (Split system & single package)		
Air conditioners, air cooled (<65 kBtu/h)	See Reference Design	
Air conditioners, air cooled (≥65 and <135 kBtu/h)	15.7 IEER	14.6 IEER
Air conditioners, air cooled (≥135 and <240 kBtu/h)	15.1 IEER	14.0 IEER
Air conditioners, air cooled (≥240 and < 760 kBtu/h)	14.1 IEER	13.0 IEER
Electric resistance space heating [47]	• Not permitted in any dwelling unit using the Prescriptive Path • Electric resistance heating specified in common spaces has a total heating capacity ≤ 12 kBtu/h (3.5 kW) per enclosed space and has automatic thermostatic controls	
Warm-Air Furnace (<225 kBtu/h, common spaces)	See Reference Design	CZ 5-8 90% AFUE
Warm-Air Furnace (≥225 kBtu/h, common spaces)	80% Et	81% Et
Warm-Air Furnace (dwelling units)	See Reference Design	
Packaged Terminal Air Conditioner (PTAC), w/gas-fired heat (dwelling units)	80% Et	82% Et, AND 0.25 cfm50/ft2 avg per unit
PTAC (dwelling units)	12.5 EER	11.9 EER
PTAC (common spaces)	<7 kBtu/h: 12.5 EER ≥7 and ≤15 kBtu/h: 14.7 - (0.320 X Cap/1000) EER >15 kBtu/h: 10.0 EER	<7 kBtu/h: 11.9 EER ≥7 and ≤15 kBtu/h: 14.0 - (0.300 X Cap/1000) EER >15 kBtu/h: 9.5 EER
Packaged Terminal Heat Pump (PTHP) (cooling) [†]	<7 kBtu/h: 12.5 EER ≥7 and ≤ 10 kBtu/h: 14.7 - (0.320 X Cap/1000) EER > 10 kBtu/h: 11.5 EER	<7 kBtu/h: 11.9 EER ≥7 and ≤ 15 kBtu/h: 14.0 - (0.300 X Cap/1000) EER > 15 kBtu/h: 9.5 EER
PTHP (common spaces, cooling) [†]	≥7 and ≤ 15 kBtu/h: 14.7 - (0.320 X Cap/1000) EER >15 kBtu/h: 10.0 EER	≥7 and ≤ 15 kBtu/h: 14.0 - (0.300 X Cap/1000) EER >15 kBtu/h: 9.5 EER
PTHP (dwelling units, heating) [†]	< 8 kBtu/h: 3.3 COP ≥ 8 kBtu: 3.7– (0.052 X Cap/1000)	3.4 COP
PTHP (common spaces, heating) [†]	<7 kBtu/h: 3.3 COP ≥7 and ≤15 kBtu/h: 3.7– (0.052 X Cap/1000) COP > 15 kBtu/h: 2.9 COP	<10.5 kBtu/h: 3.4 COP ≥10.5 and ≤12 kBtu/h: 3.3 COP > 12 kBtu/h: 3.2 COP
Air cooled heat pump (Split system and single package) [†]		
Air cooled heat pump (<65 kBtu/h)	See Reference Design	
Air cooled heat pump (≥65 and <135 kBtu/h)	15.1 IEER, 3.5 COP	
Air cooled heat pump (≥135 and <240 kBtu/h)	14.4 IEER, 3.4 COP	
VRF Air Conditioners and Heat Pumps [†]	16.2 IEER, 3.3 COP	
Water-loop heat pump (WLHP) (<135 kBtu/h) [†]	15.0 EER, 4.5 COP	
Boilers, hot water (<300,000 Btu/h, dwelling units)	See Reference Design	
Boilers, hot water (≥300,000 Btu/h, dwelling units)	CZ 1-3 80% Et CZ 4 86% Et (89% Et with WLHP)	95% Et (90% Et with WLHP)
Boilers, hot water (common Spaces)	CZ 1-3 80% AFUE or Et CZ 4 86% AFUE or Et	86% AFUE or Et

Cap means the rated capacity of the product in Btu/h.
[†] Where domestic hot water is provided by heat pump water heaters, the systems noted above with an [†] may instead meet the efficiency listed in ASHRAE 90.1-2019. Use the efficiency values for "after 1/1/2023" where listed.

HVAC Designer Responsibilities:
- Complete one National HVAC Design Report for each building which includes system design for all unique unit plans and common spaces. For projects with multiple buildings, one National HVAC Design Report per building or per project is permitted. [1]
- Obtain efficiency features (e.g., window performance, insulation levels, and infiltration rate) from the builder, architect, or Rater. [2]
- Provide the completed National HVAC Design Report to the Rater and the person / company completing the National HVAC Functional Testing Checklist. [2]

1. Design Overview

1.1 Designer name: _____ Designer company: _____ Date: _____
1.2 Select which party you are providing these design services to: ☐ Builder / Developer ☐ FT Agent ☐ MEP / Credentialed HVAC contractor
1.3 Name of company you are providing these design services to (if different than Item 1.1): _____
1.4 Building address: _____ City: _____ State: _____ Zip code: _____

2a. Dwelling Unit & Common Space Mechanical Ventilation Design ("Vent System") [3] & Inlets in Return Duct [4, 5, 6] — Designer Verified

Airflow:

2.1 Dwelling unit ventilation airflow design rate & run-time meet the requirements of Section 4 of ASHRAE 62.2 [7] – _____ Prescriptive Path Only: Rates shall not exceed 2013 rates by more than 50%. [8]	☐
2.2 Common space outdoor airflow design rate meet the requirements of Section 6 of ASHRAE 62.1 [9, 10] – _____ ERI and Prescriptive Path Only: Rates shall not exceed 2013 rates by more than 50%.	☐
2.3 Access points to measure airflow rate and inspect outdoor air dampers are provided and accessible by the Rater. [2, 11]	☐

List unique unit plan for which 62.2 ventilation rates were calculated in the spaces to the right: [11, 18, 19]						
2.4 # of bedrooms:						
2.5 Square footage:						
2.6 Ventilation airflow rate required by ASHRAE 62.2:						
2.7 Ventilation airflow rate designed:						
2.7.1 If applicable, run-time per cycle (minutes):						
2.7.2 If applicable, cycle time (minutes):						
List common space for which 62.1 ventilation rates were calculated in the spaces to the right: [11, 18, 19]						
2.8 Ventilation airflow required by ASHRAE 62.1 (CFM): [10]						
2.9 Ventilation airflow designed (CFM): [10]						

System Type & Controls:

List Ventilation System ID in the spaces to the right: [12]						
2.10 Specified system type: (e.g., supply, exhaust, balanced, ERV, HRV)						
2.11 Manufacturer:						
2.12 Model Number:						
2.13 # installed in the building:						
2.14 Spaces each fan serves (i.e., single, multiple)						
2.15 Area / space(s) that system serves: (e.g., Unit A kitchens, corridor, community room)						
2.16 Specified control location: (e.g., Master bath, utility):						
2.17 Specified controls allow the systems to operate automatically, without occupant intervention. A ventilation override control is specified and also labeled if its function is not obvious (e.g., a label is required for a toggle wall switch, but not for a switch that's on the ventilation equipment). In townhouses only, this control must be readily accessible to the occupant. In all other multifamily dwelling units, the override control is not required to be readily accessible to the occupant. However, in such cases, EPA recommends but does not require that the control be readily accessible to others (e.g., building maintenance staff) in lieu of the occupant.						☐
2.18 For any outdoor air inlet designed to connect to the dwelling unit HVAC system, specified controls automatically restrict airflow using a motorized damper during ventilation off-cycle and occupant override. [6, 13]						☐ ☐ N/A

Sound:

2.19 If located in the dwelling unit, the fan of the specified system is rated ≤ 3 sones if intermittent and ≤ 2 sones if continuous, or exempted. [15]	☐ ☐ N/A

Efficiency:

2.20 If dwelling-unit Vent System controller operates the dwelling unit HVAC fan, then HVAC fan operation is intermittent and either the fan type in Item 4.12 is ECM / ICM, or the controls will reduce the run-time by accounting for HVAC system is heating or cooling hours. [16]	☐ ☐ N/A
2.21 If in-unit bathroom fans or in-line fans are specified as part of the Dwelling Unit Mechanical Ventilation System, then they are ENERGY STAR certified. [17]	☐ ☐ N/A

77. All intermittent kitchen exhaust fans must be capable of exhausting at least 100 CFM. In addition, if the fan is not part of a vented range hood or appliance-range hood combination (i.e., if the fan is not integrated with the range), then it must also be capable of exhausting ≥ 5 ACH, based on the kitchen volume.

78. Based upon, ASHRAE 62.2-2010, ducted mechanical systems are those that supply air to an occupiable space with a total amount of supply ductwork exceeding 10 ft. in length and through a thermal conditioning component, except for evaporative coolers. Systems that do not meet this definition are exempt from this requirement. While filters are recommended for mini-split systems, HRV's, and ERV's, these systems, ducted or not, typically do not have MERV-rated filters available for use and are, therefore, also exempted under this version of the requirements. HVAC filters located in the attic shall be considered accessible to the occupant, building owner, or building maintenance staff if either 1) drop-down stairs, a pull-down ladder, or door provide access to attic and a permanently installed walkway has been provided between the attic access location and the HVAC equipment, 2) the filter location enables arm-length access from a portable ladder without the need to step into the attic and the height of the ceiling access panel or the bottom of the wall access panel where access is provided is ≤ 12 ft.

79. Sealing mechanisms comparable to a gasket are also permitted to be used. The filter media box (i.e., the component in the HVAC system that houses the filter) may be either site-fabricated by the installer or pre-fabricated by the manufacturer to meet this requirement. These requirements only apply when the filter is installed in a filter media box located in the HVAC system, not when the filter is installed flush with the return grille.

80. The pressure boundary is the primary enclosure boundary separating indoor and outdoor air. For example, a volume that has more leakage to outside than to conditioned space would be outside the pressure boundary.

81. Per the 2009 International Mechanical Code, a direct-vent appliance is one that is constructed and installed so that all air for combustion is derived from the outdoor atmosphere and all flue gases are discharged to the outside atmosphere; a mechanical draft system is a venting system designed to remove flue or vent gases by mechanical means consisting of an induced draft portion under non-positive static pressure or a forced draft portion under positive static pressure; and a natural draft system is a venting system designed to remove flue or vent gases under nonpositive static vent pressure entirely by natural draft.

82. Naturally drafted equipment is only allowed if located in a space outside the pressure boundary, where the envelope assemblies separating it from conditioned space are insulated and air-sealed.

83. Where water heater efficiency is rated in Uniform Energy Factor (UEF) rather than Energy Factor (EF), the EF may be calculated from the Uniform Energy Factor (UEF) using the RESNET EF Calculator 2017. The calculated EF must meet the efficiency levels specified in the ENERGY STAR Multifamily Reference Design. Alternatively, electric water heaters serving dwelling units in buildings following National Version 1 or National Version 1.1, or serving common spaces following any Version, are permitted to be rated at 0.92 UEF instead of 0.93 UEF if the water heater rated storage volume is ≤ 50 gallons and the water heater height is ≤ 40 inches.

84. For common spaces where automatic lighting controls are not installed due to safety concerns associated with automatic lighting shutoff, the architect or engineer must provide the specific location(s) where this concern is applicable. The Rater shall retain a copy of the email or letter that documents the location(s) for their records and check the box in the "Rater Verified" column. For Item 12.1.1, this exemption does not apply to corridors or stairwells; where safety is a concern in those spaces, the ASHRAE Path should be pursued.

85. As an alternative to the efficiency requirements in Item 12.3, installed lighting may instead meet the following lighting power allowances. In common spaces (except garages), for ERI and Prescriptive Path, total installed lighting power for the combined common spaces [7] must not exceed ASHRAE 90.1-2007 allowances for those combined spaces, using the Space-by-Space or Building Area Method. For ASHRAE Path, total installed lighting power for the combined common spaces [7] must not exceed ASHRAE 90.1-2007 allowances for those combined spaces, using the Space-by-Space or Building Area Method, by more than 20%. In addition for ASHRAE Path, where the proposed lighting power in a given space is modeled with 30% or greater savings compared to the allowance in the Simulation Guidelines, field measurement of footcandles is required. For all Paths, see Footnote 86 and 87 for allowances.
In shared garages, installed lighting shall not exceed 0.24 W/ft².

86. Senior housing buildings can use the space-by-space allowances for 'facilities for the visually impaired' in ASHRAE 90.1-2016 Appendix G Table G3.7 for spaces used primarily by building residents. For example, 1.15 W/SF lighting power allowance may be used for the corridors in the baseline. To qualify for the increased allowance, the building must be designed to comply with the light levels in ANSI / IES RP-28 and must provide housing for seniors and/or people with special visual needs. Prescriptive Path dwelling unit overall in-unit lighting power density is permitted to be ≤ 1.3 W/SF, using 1.65 W/SF where lighting is not installed.

87. Lighting power density values from ASHRAE 90.1-2007 Section 9 for Space-by-Space Method for typical common spaces in multifamily properties are shown in the table below. Buildings following the Building Area method, the lighting power density is 0.7 W/ft². For spaces not shown, refer to ASHRAE 90.1-2007 Section 9.

ASHRAE Space Type	Lighting Power Densities (W/ft²)	ASHRAE Space Type	Lighting Power Densities (W/ft²)	ASHRAE Space Type	Lighting Power Densities (W/ft²)
Lobby / Elevator	1.3	Corridor / Transition	0.5	Office	1.1
Active Storage (e.g., trash chute / room, janitor closet)	0.8	Stairs – Active	0.6	Lounge / Recreation / Community Room / Computer Room	1.2
Inactive Storage (e.g., tenant storage)	0.3	Restroom	0.9	Electrical / Mechanical	1.5
Exercise Area / Room	0.9	Laundry Room	1.3	Workshop	1.9

88. This requirement applies to exterior lighting fixtures that are attached to the building, but does not apply to landscape or parking lot lighting fixtures.

89. For Prescriptive Path dwelling units, ENERGY STAR certified fixtures or light bulbs are required; however, the Rater is only responsible for verifying that the installed lighting meets the Tier I or Tier II definition specified in ANSI / RESNET / ICC 301. For locations outside the dwelling unit, as an alternative to ENERGY STAR certified fixtures or light bulbs, integrated LED fixtures or fixtures containing LED or fluorescent lamps are permitted. Note that for all locations in Version 1.2, light fixtures must be integrated LED fixtures or contain LED lamps and not fluorescent.

90. Appliances include refrigerators, dishwashers, clothes washers, and clothes dryers. Where an appliance type is not eligible for ENERGY STAR certification, (e.g., commercial dryers) the appliance is exempt from this requirement. Where a bathroom faucet or aerator is not eligible for WaterSense certification, (e.g., public use lavatory faucets) the fixture is exempt from this requirement.

91. Building area shall be calculated according to Gross Floor Area as defined by ENERGY STAR Portfolio Manager, which specifies to measure from the outside surface of exterior walls and includes all areas inside the building and excludes parking areas. Refer to the ENERGY STAR Portfolio Manager Glossary for a complete definition. Strategies include; an agreement with the utility companies to provide the aggregated building-level data, in a spreadsheet format or directly through Portfolio Manager; OR evidence that securing signed utility data release forms will be a mandatory component of all lease agreements; OR installation of a building-level energy monitor, data acquisition system, or utility-owned energy meter. If an energy monitor is installed, the builder shall provide the building operator with the manufacturer's documentation and operations manual. EPA recommends, but does not require, that one of these strategies also be implemented in buildings 25,000-49,999 ft².

92. Any Item that will be concealed by drywall (e.g., wall insulation) must be verified during the pre-drywall inspection.
If drywall is installed prior to the inspection, then it must be entirely removed to fully verify all Items. It is not sufficient to remove only portions of drywall to inspect a subset of areas. Furthermore, it is not acceptable to complete a Sampled Rating on a unit that has missed the pre-drywall inspection. Additional information is available in the Technical Bulletin: Pre-Drywall Inspection Is Always Required.

93. Some Items can typically only be verified at a later stage of construction than when the pre-drywall inspection occurs (e.g., bath fan airflow). Any Item that has not been verified during the pre-drywall inspection must be verified prior to or during the final inspection.

ENERGY STAR Multifamily New Construction
National HVAC

3.19 Common Space Heating & Cooling Loads [12] (required for all common space heating and cooling systems)	Designer Verified ☐ N/A
Common Space Name: _____ Design Conditions: Total Heat Gain: _____(kBtuh) Total Heat Loss: _____(kBtuh)	
Common Space Name: _____ Design Conditions: Total Heat Gain: _____(kBtuh) Total Heat Loss: _____(kBtuh)	
Common Space Name: _____ Design Conditions: Total Heat Gain: _____(kBtuh) Total Heat Loss: _____(kBtuh)	
3.20 Building Heating & Cooling Loads [13] (only required when shared systems such as central boilers or chillers are specified.) ☐ N/A	
System Name: _____Design Conditions: Total Heat Gain: _____(kBtuh) Total Heat Loss: _____(kBtuh)	
System Name: _____Design Conditions: Total Heat Gain: _____(kBtuh) Total Heat Loss: _____(kBtuh)	
4. Heating & Cooling Equipment Selection	
4.1 Equipment selected per ☐ ACCA Manual S, or where not applicable, ☐ Other: _____. (See Footnote 39)	☐
4.2 Prescriptive Path: Equipment serving dwelling units, common spaces, and garages meet the efficiency levels specified in the Exhibit X of the National Rater Field Checklist. Electric resistance space heating is not specified in dwelling units. [40]	☐ ☐ N/A
4.3 ERI Path: Equipment serving common spaces and garages but not serving dwelling units meet the efficiency levels specified in the Exhibit X of the National Rater Field Checklist. Also see Exhibit X for restrictions on electric space resistance. [40]	☐ ☐ N/A
Cooling Equipment [12] (Complete all applicable items, noting "N/A" as needed; where the same Equipment ID is used in multiple spaces (columns), identical data is not required to be repeated and can be left blank; where cooling is not provided, check "N/A".)	☐ N/A
List Cooling Equipment ID in the spaces to the right; duplicating as needed for each unique space served:	
4.4 Equipment type: (e.g., PTAC / AC, Chiller / CT, PTHP / WLHP / GSHP / ASHP / VRF)	
4.5 Area / Space(s) that system serves:	
4.6 Chiller / condenser / outdoor unit manufacturer:	
4.7 Chiller / condenser / outdoor unit model #:	
4.8 Evaporator / indoor unit manufacturer:	
4.9 Evaporator / indoor unit model #:	
4.10 AHRI reference #: [41]	
4.11 Rated efficiency:	
4.12 Evaporator fan type: PSC, ECM / ICM, Other	
4.13 Compressor speed: Single, Two, Variable	
4.14 Turn down ratio (for variable speed equipment):	
4.15 Latent capacity at design conditions (kBtuh): [42]	
4.16 Sensible capacity at design conditions (kBtuh): [42]	
4.17 Total capacity at design conditions (kBtuh): [42]	
4.18 Cooling sizing % = Total capacity (Item 4.17) divided by Total Heat Gain of space(s) in Item 4.5: [29]	
4.19 Meets cooling sizing limit: (see below for A, B, C, D or N/A) [29, 31]	
4.20 If "B", list Load sensible heat ratio = Max. sensible heat gain (Item 3.15) / Max. total heat gain (Item 3.17): [43]	
4.21 If "B", calculate HDD / CDD ratio: [43]	

Equipment Type & Climate Condition	Compressor Type (Per Item 4.13)		
	Single-Speed	Two-Speed	Variable-Speed
A: For Cooling-Only Equipment or For Cooling Mode of Heat Pump in Condition A climate [43]	Recommended: 90 – 115% Allowed: 90 – 130%	Recommended: 90 – 120% Allowed: 90 – 140%	Recommended: 90 – 130% Allowed: 90 – 160%
B: For Cooling Mode of Heat Pump in Condition B Climate [43]	90% - 100%, plus 15 kBtuh	90% - 100%, plus 15 kBtuh	90% - 100%, plus 15 kBtuh
C: For low-load spaces (≤15 kBtuh) [44]	≤ 20 kBtuh		
D: For low-load spaces (≤18 kBtuh) [44]		≤ 25 kBtuh	≤ 25 kBtuh

Heating Equipment [12] (Complete all applicable items, noting "N/A" as needed; where the same Equipment ID is used in multiple spaces (columns), identical data is not required to be repeated and can be left blank; where heating is not provided, check "N/A".)	Designer Verified ☐ N/A
List Heating Equipment ID in the spaces to the right; duplicating as needed for each unique space served:	
4.22 Electric equipment type: PTHP, WLHP, GSHP, ASHP, VRF, Boiler, Furnace, Electric Resistance	
4.23 Gas Equipment type: HW PTAC / fan coil, Gas-Fired PTAC, Boiler, Furnace	
4.24 Area / Space(s) that system serves:	
4.25 Manufacturer:	
4.26 Model Number:	
4.27 AHRI reference #: [41]	
4.28 Rated efficiency:	
4.29 Equipment output capacity (kBtuh): [45]	
4.30 Air-source heat pump output capacity (17°F) (kBtuh):	
4.31 Type of Venting: Natural Draft, Mechanically Drafted, Direct Vent [46]	
4.32 Furnace heating sizing % = Total capacity (Item 4.29) divided by Total Heat Loss of space(s) in Item 4.24: [29]	
4.33 Meets furnace sizing limit: (see below for A, B, C, or N/A) [29]	

A: For low-load spaces (≤ 10 kBtuh), furnace output capacity is ≤ 40 kBtuh

B: When Used for Heating Only	C: When Paired With Cooling
100 – 400%	Recommended: 100 – 140% Allowed: 100 – 400%

Equipment Controls	
4.34 All equipment controls below have been included where applicable in the HVAC Design.	☐
4.35 All heating and cooling systems serving a dwelling unit shall have thermostatic controls within the dwelling unit.	
4.35.1 Prescriptive Path: Dwelling unit thermostats are programmable.	
4.36 Stair and elevator shaft vents shall be equipped with motorized dampers that are capable of being automatically closed during normal building operation and are interlocked to open as required by fire and smoke detection systems.	
4.37 Freeze protection systems, such as heat tracing of piping and heat exchangers, including self-regulating heat tracing, and garage / plenum heaters shall include automatic controls capable of shutting off the systems when pipe wall or garage / plenum temperatures are above 40°F. Where heat tracing is specified for freeze protection, controls must be based on pipe wall temperature and a minimum of R-3 pipe insulation is also required.	
4.38 Snow- and ice-melting systems shall include automatic controls capable of shutting off the systems when the pavement temperature is above 50°F and no precipitation is falling, and an automatic or manual control that will allow shutoff when the outdoor temperature is above 40°F so that the potential for snow or ice accumulation is negligible.	
Hydronic Distribution Requirements – Applies to heating or cooling systems serving more than one dwelling unit ☐ N/A	
4.39 All hydronic distribution requirements below have been included where applicable in the HVAC Design.	☐
4.40 All terminal heating and cooling distribution equipment must be separated from the riser or distribution loop by a control valve or terminal distribution pump, so that heated or cooled fluid is not delivered to the dwelling unit distribution equipment when there is no call from the thermostat.	
4.41 Terminal units must be equipped with pressure independent balancing valves or pressure independent control valves.	
4.42 Piping of a heating or cooling system (e.g., steam, hot or chilled water, brine, refrigerant) shall be thermally insulated in accordance with ASHRAE 90.1-2007, Table 6.8.3. Construction documents must account for piping total thickness including required insulation when passing through planks or any other penetrations and shall specify that the piping must be inspected before access is covered up: Heating System: Pipe size:____ inches Insulation thickness:____inches Pipe size:____ inches Insulation thickness:____inches Cooling System: Pipe size:____ inches Insulation thickness:____inches Pipe size:____ inches Insulation thickness:____inches	
4.43 For circulating pumps serving hydronic heating or cooling systems with three-phase motors, 1 horse-power or larger, motors shall meet or exceed efficiency standards for NEMA Premium™ motors. If 5 horse-power or larger, must also be specified with variable frequency drives.	
4.44 If a variable speed pumping system is installed, system designed to prevent "dead-heading" and a method of water flow bypass is provided, such as a minimum flow bypass valve or 3-way valves on specific terminal units.	
4.45 For shared boilers, chillers, and cooling towers, temperature and pressure gauges, air eliminator, expansion tank, and check valves are clearly shown on the drawings. A complete sequence of operations for all systems indicating recommendations for all setpoints is provided. For condensing boilers, design return temperature is indicated and system is designed to return water at a temperature that enables condensing.	

5. Dwelling Unit Duct Design (Complete if heating or cooling equipment will be installed with ducts; otherwise check "N/A".)	Designer Verified ☐ N/A
5.1 Duct system designed for the equipment selected in Section 4, per ☐ ACCA Manual D ☐ Other: _____ Townhouses only: Duct system must be designed per ACCA Manual D.	☐

5.2 Room-by-room design airflows documented below (which must sum to the mode with the higher Design HVAC fan airflow). [12, 47, 48]

Name of the unit plan:		Name of the unit plan:	
Design HVAC fan airflow: [49] Cooling mode _____ CFM Heating mode _____ CFM		Design HVAC fan airflow: [49] Cooling mode _____ CFM Heating mode _____ CFM	
Design HVAC fan speed setting (e.g., low, medium, high): [50] Cooling mode _____ Heating mode _____		Design HVAC fan speed setting (e.g., low, medium, high): [50] Cooling mode _____ Heating mode _____	
Design total external static pressure (corresponding to the mode with the higher airflow above): [51] _____ IWC		Design total external static pressure (corresponding to the mode with the higher airflow above): [51] _____ IWC	
Room Name	Design Airflow (CFM)	Room Name	Design Airflow (CFM)
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	
10		10	
Total for all rooms	0	Total for all rooms	0

6. Duct Quality Installation – *Applies to Heating, Cooling, Ventilation, Exhaust, & Pressure Balancing Ducts, Unless Noted in Footnote*	
6.1 Applicable duct quality installation requirements in 6.2 – 6.8 below have been included in the HVAC Design.	☐
6.2 Ductwork specified without kinks, sharp bends, compressions, or excessive coiled flexible ductwork. [52]	
6.3 All supply and return ducts not in conditioned space, including connections to trunk ducts, are insulated to ≥ R-6. [53]	
6.3.1 Prescriptive Path: Dwelling unit ductwork meets the location and insulation requirements specified in the ENERGY STAR MF Reference Design.	
Dwelling Unit	
6. MERV 6+ filter(s) specified for each ducted mechanical System serving an individual dwelling unit, designed so all return and mechanically supplied outdoor air passes through filter(s) prior to conditioning, and located to facilitate access & regular service by the occupant, building owner, or building maintenance staff. Filter access panel specified with a gasket or comparable sealing mechanism.	
6.5 Ductwork air-sealing specified such that Rater-measured total duct leakage is ≤ 4 CFM25 per 100 ft² of CFA at rough-in or ≤ 8 CFM25 per 100 ft² at final, or if there are no ducted returns, ≤ 3 CFM25 per 100 ft² of CFA at rough-in or ≤ 6 CFM25 per 100 ft² at final. [54] Additionally, for Townhouses only, Rater-measured duct leakage to the outside is ≤ 4 CFM25 per 100 ft² of CFA or ≤ 40 CFM25. [55]	
6.6 All bedrooms provided with transfer grilles, jump ducts, dedicated return ducts, and/or undercut doors. Bedrooms with a design supply airflow ≥ 150 CFM (as reported in Item 5.2) are specified to achieve a Rater-measured pressure differential ≥ - 5 Pa and ≤ 5 Pa with respect to the main body of the dwelling unit when all air handlers are operating. Townhouses only: In addition, bedrooms with a design supply airflow < 150 CFM are specified to achieve a Rater-measured pressure differential ≥ - 3 Pa and ≤ +3 Pa.	
Common Space and Central Exhaust	
6.7 Duct design specifies that all supply, return, and exhaust ductwork and all plenums serving common spaces shall be sealed at all transverse joints, longitudinal seams, and duct wall penetrations.	
6.8 Central exhaust systems (that serve four or more dwelling units): Ductwork air-sealing specified such that measured duct leakage does not exceed 25% of exhaust fan flow at rough-in (e.g., including trunks, branches, and take-offs) or 30% of exhaust fan flow at final (e.g., inclusive of all ductwork between the fan and the grilles). [56]	

Footnotes:

1. This report shall represent system design for all unique unit plans, common spaces, and where applicable, parking garages. The term 'common space' refers to any spaces in the building being certified that serve a function in support of the residential part of the building that is not part of a dwelling or sleeping unit. This includes spaces used by residents, such as corridors, stairs, lobbies, laundry rooms, exercise rooms, residential recreation rooms, and dining halls, as well as offices and other spaces used by building management, administration or maintenance in support of the residents. As an alternative, for dwelling units, designers may instead choose to complete a Single-Family New Homes National HVAC Design Report for each unique unit plan, if room-by-room loads are calculated using Unabridged ACCA Manual J v8. Sections 4 and 5 must be completed in either Design Report unless exempted by this Report. All other systems, including all systems serving common spaces, must be documented in this Design Report. This report is designed to meet ASHRAE 62.1-2010 or later, ASHRAE 62.2-2010 or later, and ANSI / ACCA's 5 QI-2015 protocol, thereby improving the performance of HVAC equipment in new multifamily buildings when compared to multifamily buildings built to minimum code. However, these features alone cannot prevent all ventilation, indoor air quality, and HVAC problems (e.g., those caused by a lack of maintenance or occupant behavior). Therefore, system designs documented through the use of this report are not a guarantee of proper ventilation, indoor air quality, or HVAC performance.
2. The term 'Rater' refers to the person(s) completing the third-party verification required for certification. The person(s) shall: a) be a Certified Rater, Approved Inspector, as defined by ANSI / RESNET / IECC 301, or an equivalent designation as determined by a Home Certification Organization (HCO) or Multifamily Review Organization (MRO); and, b) have attended and successfully completed an EPA-recognized training class. See www.energystar.gov/mfraining.
3. As defined by ANSI / RESNET / ICC 301-2019, a Dwelling Unit Mechanical Ventilation System is a ventilation system consisting of powered ventilation equipment such as motor-driven fans and blowers and related mechanical components such as ducts, inlets, dampers, filters and associated control devices that provides dwelling-unit ventilation at a known or measured airflow rate.
4. The dwelling-unit mechanical ventilation system shall have at least one supply or exhaust fan with associated ducts and controls. Local exhaust fans are allowed to be part of a dwelling-unit mechanical ventilation system. Designers may provide supplemental documentation as needed to document the system design. For example, for Item 2.7, designers are permitted to provide multiple combinations of a design ventilation airflow rate, run-time per cycle, and cycle time. When multiple combinations are provided, the Rater will be required to first assess the run-time setting of the installed system and use that to determine the corresponding design ventilation rate. The Rater-measured ventilation rate then must fall within the program-specified tolerance relative to that design ventilation rate.
5. In "Warm-Humid" climates as defined by 2009 IECC Figure 301.1 (i.e., CZ 1 and portions of CZ 2 and 3A below the white line), it is recommended, but not required, that equipment be specified with sufficient latent capacity to maintain indoor relative humidity at ≤ 60%.
6. Item 2.18 applies to any outdoor air inlet connected to the dwellings unit HVAC system, regardless of its intended purpose (e.g., for ventilation air, make-up air, combustion air). For example, if an outdoor air inlet connected to a ducted return is used as a dedicated source of outdoor air for an exhaust ventilation system (e.g., bath fan), the outdoor airflow must be automatically restricted when the exhaust fan is not running and in the event of an override of the exhaust ventilation system.

   In dwelling / sleeping units in multifamily buildings, but not townhouses, automatic restriction of airflow is exempted if a manual shutoff damper is used with a continuous exhaust ventilation system and is readily-accessible, labeled as the override, and not used as a balancing damper.

   Note that a Rater will generally measure the ventilation rate at the highest HVAC fan speed applicable to ventilation mode (e.g., if the inlet only opens when the HVAC is in "heating" mode, then test it in this mode) to verify that it is ≤ 15 CFM or 15% above design value. If the inlet has a motorized damper that only opens when the local mechanical kitchen exhaust is turned on, then testing is not required. As an alternative, measurement of the outdoor airflow can be waived if a Constant Airflow Regulating (CAR) damper with a manufacturer-specified maximum flow rate no higher than 15 CFM or 15% above the ventilation design value is installed on the inlet.
7. Airflow design rates and run-times shall be determined using ASHRAE 62.2-2010 or later. Designers are permitted, but not required, to use published addenda and/or more recent editions of the standard to assess compliance. The year of the standard that is used shall be listed in the space provided. For dwelling units, the minimum ventilation rate required by ASHRAE 62.2 can be calculated using either Equation 4.1a or Table 4.1a. For sleeping units, the following equation must be used to determine minimum airflow rates: 0.01 x Conditioned Floor Area + 7.5 x (number of beds).
8. Where the Exhaust Fan Type in Section 2b indicates "Continuous" for both Bathroom and Kitchen, the Rater may use this equation to determine the maximum ventilation rate allowed: 30 CFM x number of bathrooms + 75 CFM.
9. Airflow design rates shall be determined using ASHRAE 62.1-2010 or later. Designers are permitted, but not required, to use published addenda and/or more recent editions of the standard to assess compliance. The year of the standard that is used shall be listed in the space provided.
10. The following spaces require outdoor air ventilation: corridors, offices, break rooms, gyms, fitness centers, exercise rooms, lobbies, community rooms, meeting rooms, multi-purpose rooms, lounges, laundry rooms, swimming pools, daycares, classrooms, shared or commercial kitchens, shared dining rooms, and computer rooms.
11. For permits on or before 01/01/2024, where outdoor air is supplied to a common space via a PTAC or PTHP, in lieu of measurement, the design CFM shall meet or exceed the ventilation rates required by ASHRAE 62.1-2010 and the space served by the PTAC or PTHP shall have at least one operable window. For permits after 01/01/2024, both the runtime and measurement of outdoor air through these systems will be required to demonstrate compliance with ASHRAE 62.1-2019 or alternative ventilation system specified (e.g., ducted supply).
12. If the tables provided cannot accommodate all the unit plans, spaces, or systems in the building, use the tables in Appendix A to supplement the Design Report.
13. List each individual common space separate from other spaces, such that when reporting airflow for Items 2.8 and 2.9, compliance for each space can be demonstrated. For example, list an office space separate from a community room, even if these spaces are served by the same system and even if the outdoor air rates required are the same. Similarly, where a space is repeated in the building, such as a corridor, report each space by floor (e.g., FL1 Corridor, FL2 Corridor). Rather than list these values in this report, as an alternative, the HVAC Designer is permitted to submit the values in a separate document or file. Where the building has total corridor space ≤ 250 ft² and does not contain any of the other common spaces which require outdoor air per Item 2.2, outdoor air is not required to be provided to the corridor and "N/A" may be entered for Item 2.9.
14. In addition, consult manufacturer requirements to ensure return air temperature requirements are met.

Appendix A – Supplementary tables for Section 2 and 3

2a. Dwelling Unit & Common Space Mechanical Ventilation Design [4, 5]							
List unique unit plan for which 62.2 ventilation rates were calculated in the spaces to the right:							
2.4 # of bedrooms:							
2.5 Square footage:							
2.6 Ventilation airflow rate required by ASHRAE 62.2:							
2.7 Ventilation airflow rate designed:							
2.7.1 If applicable, run-time per cycle (minutes):							
2.7.2 If applicable, cycle time (minutes):							
List common space for which 62.1 ventilation rates were calculated in the spaces to the right:							
2.8 Ventilation airflow rate required by ASHRAE 62.1:							
2.9 Ventilation airflow rate designed:							

System Type & Controls:	
List Ventilation System ID in the spaces to the right:	
2.10 Specified system type: (e.g., supply, exhaust, balanced, ERV, HRV)	
2.11 Manufacturer:	
2.12 Model Number:	
2.13 # installed in the building:	
2.14 Spaces each fan serves (i.e., single, multiple)	
2.15 Area / space(s) that system serves: (e.g., Unit A kitchens, corridor, community room)	
2.16 Specified control location: (e.g., Master bath, utility):	

3. Heating & Cooling Loads							
Dwelling Unit Heating & Cooling Loads (only required for ducted split AC, unitary AC, ASHP, WSHP, GSHP, and furnaces) [28] ☐ N/A							
List the unit plan for which Loads were calculated:							
3.5 Location of Unit: top, mid, bottom, corner, interior							
3.6 Number of occupants used in loads: [31, 34]							
3.7 Total occupant gains (Btuh): [31]							
3.8 Conditioned floor area used in loads: [31, 35]							
3.9 Window area used in loads: [31, 36]							
3.10 Predominant window SHGC used in loads: [31, 37]							
3.11 Infiltration (ACH / ACH50) used in loads: [38]							
3.12 Mechanical ventilation (CFM) used in loads:							
3.13 Non-occupant Internal gains (appliance, equipment and lighting) used in loads (Btuh): [31]							
3.14 Door orientation (N, NE, E, SE, S, SW, W, NW): [32]							
3.15 Sensible Heat Gain At Design Conditions (kBtuh): [31]							
3.16 Latent Heat Gain At Design Conditions (kBtuh):							
3.17 Total Heat Gain at Design Conditions (kBtuh): [33]							
3.18 Total Heat Loss at Design Conditions (kBtuh):							

STATE OF OHIO
JONATHAN ROBERT SCHAAF
REGISTERED ARCHITECT
PRELIMINARY NOT FOR CONSTRUCTION
Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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New Multi-Family Building:
Senior Village at Valle Greene
1155 Channingway Drive
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OHFA Tracking Number: 24-0087

Project Number
2023-191

Date
September 13, 2024

Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
SUSTAINABLE DESIGN REQUIREMENTS

Sheet Number
G2.17

OBERER COMPANIES

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Appendix A – Supplementary tables for Section 3

3.19 Common Space Heating & Cooling Loads (required for all common space heating and cooling systems)		
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
Common Space Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)

3.20 Building Heating & Cooling Loads (only required when shared systems such as central boilers or chillers are specified)		
System Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
System Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
System Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)
System Name:_____	Design Conditions: Total Heat Gain: _____(kBtuh)	Total Heat Loss: _____(kBtuh)

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Appendix A – Supplementary tables for Section 4

4. Heating & Cooling Equipment Selection							
Cooling Equipment (Complete all applicable items, noting "N/A" as needed; where the same Equipment ID is used in multiple spaces (columns), identical data is not required to be repeated and can be left blank; where cooling is not provided, check "N/A".) ☐ N/A							
List Cooling Equipment ID in the spaces to the right; duplicating as needed for each unique space served:							
4.4 Equipment type: (PTAC / AC, Chiller / CT, PTHP / WLHP / GSHP / ASHP / VRF)							
4.5 Area / Space(s) that system serves:							
4.6 Chiller / condenser / outdoor unit manufacturer:							
4.7 Chiller / condenser / outdoor unit model #:							
4.8 Evaporator / indoor unit manufacturer:							
4.9 Evaporator / indoor unit model #:							
4.10 AHRI reference #: [41]							
4.11 Rated efficiency:							
4.12 Evaporator fan type: PSC, ECM / ICM Other:							
4.13 Compressor speed: Single, Two, Variable							
4.14 Turn down ratio (for variable speed equipment):							
4.15 Latent capacity at design conditions (kBtuh): [42]							
4.16 Sensible capacity at design conditions (kBtuh): [42]							
4.17 Total capacity at design conditions (kBtuh): [42]							
4.18 Cooling sizing % = Total capacity (Item 4.17) divided by Total Heat Gain of space(s) in Item 4.5:							
4.19 Meets cooling sizing limit: (A, B, C, D or N/A) [26, 31]							
4.20 If "B", list Load sensible heat ratio = Max. sensible heat gain (Item 3.15) / Max. total heat gain (Item 3.17): [39]							
4.21 If "B", calculate HDD / CDD ratio: [43]							

	Compressor Type (Per Item 4.13)		
Equipment Type & Climate Condition	Single-Speed	Two-Speed	Variable-Speed
A: For Cooling-Only Equipment or For Cooling Mode of Heat Pump in Condition A Climate [43]	Recommended: 90 – 115% Allowed: 90 – 130%	Recommended: 90 – 120% Allowed: 90 – 140%	Recommended: 90 – 130% Allowed: 90 – 160%
B: For Cooling Mode of Heat Pump in Condition B Climate [43]	90% - 100%, plus 15 kBtuh	90% - 100%, plus 15 kBtuh	90% - 100%, plus 15 kBtuh
C: For low-load spaces (≤15 kBtuh) [44]	≤ 20 kBtuh		
D: For low-load spaces (≤18 kBtuh) [44]	≤ 25 kBtuh		≤ 25 kBtuh

Heating Equipment (Complete all applicable items, noting "N/A" as needed; where the same Equipment ID is used in multiple spaces (columns), identical data is not required to be repeated and can be left blank; where heating is not provided, check "N/A".) ☐ N/A							
List Heating Equipment ID in the spaces to the right; duplicating as needed for each unique space served:							
4.22 Electric equipment type: PTHP, WLHP, GSHP, ASHP, VRF, Boiler, Furnace, Electric Resistance							
4.23 Gas Equipment type: HW PTAC / fan coil, Gas-Fired PTAC, Boiler, Furnace							
4.24 Area / Space(s) that system serves:							
4.25 Manufacturer:							
4.26 Model Number:							
4.27 AHRI reference #: [41]							
4.28 Rated efficiency:							
4.29 Equipment output capacity (kBtuh):							
4.30 Air-source heat pump output capacity (kBtuh) (17°F):							
4.31 Type of Venting: Natural Draft, Mechanically Drafted, Direct Vent [46]							

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4.32 Furnace heating sizing % = Total capacity (Item 4.29) divided by Total Heat Loss of space(s) in Item 4.24:							
4.33 Meets furnace sizing limit: (A, B, C, or N/A) [29]							

A: For low-load spaces (≤ 10 kBtuh), furnace output capacity is ≤ 40 kBtuh	
B: When Used for Heating Only	C: When Paired With Cooling
100 – 400%	Recommended: 100 – 140% Allowed: 100 – 400%

Appendix A – Supplementary tables for Section 5

5. Dwelling-Unit Duct Design							
5.2 Room-by-room design airflows documented below (which must sum to the mode with the higher Design HVAC fan airflow) [12, 47, 48]							
Name of the unit plan:				Name of the unit plan:			
Design HVAC fan airflow: [49] Cooling mode _____ CFM Heating mode _____ CFM				Design HVAC fan airflow: [49] Cooling mode _____ CFM Heating mode _____ CFM			
Design HVAC fan speed setting (e.g., low, medium, high): [50] Cooling mode _____ Heating mode _____				Design HVAC fan speed setting (e.g., low, medium, high): [50] Cooling mode _____ Heating mode _____			
Design total external static pressure (corresponding to the mode with the higher airflow above): [51] _____ IWC				Design total external static pressure (corresponding to the mode with the higher airflow above): [51] _____ IWC			
Room Name	Design Airflow (CFM)			Room Name	Design Airflow (CFM)		
1				1			
2				2			
3				3			
4				4			
5				5			
6				6			
7				7			
8				8			
9				9			
10				10			
Total for all rooms				Total for all rooms			

Name of the unit plan:				Name of the unit plan:			
Design HVAC fan airflow: [49] Cooling mode _____ CFM Heating mode _____ CFM				Design HVAC fan airflow: [49] Cooling mode _____ CFM Heating mode _____ CFM			
Design HVAC fan speed setting (e.g., low, medium, high): [50] Cooling mode _____ Heating mode _____				Design HVAC fan speed setting (e.g., low, medium, high): [50] Cooling mode _____ Heating mode _____			
Design total external static pressure (corresponding to the mode with the higher airflow above): [51] _____ IWC				Design total external static pressure (corresponding to the mode with the higher airflow above): [51] _____ IWC			
Room Name	Design Airflow (CFM)			Room Name	Design Airflow (CFM)		
1				1			
2				2			
3				3			
4				4			
5				5			
6				6			
7				7			
8				8			
9				9			
10				10			
Total for all rooms				Total for all rooms			

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National HVAC Functional Testing Checklist [1], Version 1 / 1.1 /1.2 (Rev.04)

3. Indoor HVAC Fan Airflow - This section must be completed for split air conditioners, unitary air conditioners, air-source heat pumps (including multi-splits), and water-source (i.e., geothermal or water-loop) heat pumps up to 65 kBtuh with forced-air distribution systems (i.e., ducts) and to furnaces up to 225 kBtuh with forced-air distribution systems (i.e., ducts), whether serving dwelling units or other common spaces in the building. Mini-splits, ducted or non-ducted, are exempt; however, multi-split systems such as shared VRF systems, where indoor HVAC fans with forced-air distribution are connected to a shared outdoor unit that exceeds 65 kBtuh, are not exempt. [5]	FT Agent Verified[1]	N/A
3.1 The mode with the higher design HVAC fan airflow used, per Item 5.2 of National HVAC Design Report: ☐ Heating ☐ Cooling	☐	-
3.2 Static pressure test holes have been created, and test hole locations are well-marked and accessible.	☐	-
Test hole location for **return** external static pressure: ☐ Plenum ☐ Cabinet ☐ Transition ☐ Other: _____	-	-
Test hole location for **supply** external static pressure: ☐ Plenum ☐ Cabinet ☐ Transition ☐ Other: _____	-	-
3.3 Measured **return** external static pressure (Enter value only, without negative sign): _____ IWC	-	-
3.4 Measured **supply** external static pressure (Enter value only, without positive sign): _____ IWC	-	-
3.5 Measured **total** external static pressure = Value-only from Item 3.3 + Value-only from Item 3.4 = _____ IWC	-	-
3.6 **Measured** (Item 3.5) - **Design** (Item 5.2 on National HVAC Design Report) total external static pressure = ____ IWC	-	-
3.7 Measured HVAC fan airflow, using Item 3.5 and fan speed setting: _____ CFM	-	-
3.8 Measured HVAC fan airflow (Item 3.7) is ± 15% of design HVAC fan airflow (Item 5.2 on National HVAC Design Report).	☐	-

4. Air Balancing of Supply Registers & Return Grilles (Recommended, but not Required) [6]	Rater Verified	FT Agent Verified[1]	N/A
4.1 Balancing report attached with room-by-room design airflows from Item 5.2 on National HVAC Design Report, and contractor-measured airflow using ANSI / ACCA 5 QI-2015 protocol.	☐	☐	■
4.2 Room-by-room airflows verified to be within the greater of ± 20% or 25 CFM of design airflow.	☐	☐	■

5. Functional Testing: Indoor / Terminal Units - This section must be completed for all heating and cooling equipment located within dwelling units or common spaces, including systems identified in Sections 2 and 3, except where specifically noted. Indoor / terminal units include, but are not limited to, mini-splits, multi-splits, PTAC's, PTHP's, WLHP's, fan coils, and hydronic distribution systems. [5]	Rater Verified	FT Agent Verified[1]	N/A
5.1 Installation Checks			
5.1.1 Zone thermostat (or remote zone temperature sensor) in dwelling units, within the zone being served.	☐	☐	■
5.2 Functional Testing			
5.2.1 Measured zone temperature is within 5°F of zone temperature displayed on thermostat or sensor.	☐	☐	■
5.2.2 System turns on when there is a call for heat and heating is provided. System turns off when the heating setpoint has been met. [7]	☐	☐	■
If N/A, select the reason: ☐ due to high ambient temperature OR ☐ equipment lock-out	-	-	-
5.2.3 System turns on when there is a call for cooling and cooling is provided. System turns off when the cooling setpoint has been met. [7]	☐	☐	■
If N/A, select the reason: ☐ due to low ambient temperature OR ☐ equipment lock-out	-	-	-
5.2.4 Where CA inlets are connected to the dwelling unit HVAC system, a motorized damper is installed that closes when there is no call for ventilation or when fan is off.	☐	☐	■

6. Shared VRF Outdoor Units - This section must be completed for commercial-grade VRF outdoor units serving multiple dwelling units or common spaces.	FT Agent Verified[1]	N/A
6.1 Installation Checks		
6.1.1 Pressure testing on refrigerant piping has been completed for this system. (indicate exact test in / test out pressure (psig) / time (hours): _____/_____/_____	-	■
6.1.2 Vacuum testing has been completed. (indicate exact test in / test out pressure (psig) / time (hours): _____/_____/_____	-	■
6.1.3 Refrigerant line lengths and height differences have been recorded from as-built shop drawings or field measured, and documentation of the measurement is available, if requested.	☐	■
6.1.4 Indicate required additional charge amount (lbs): _____	-	■

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National HVAC Functional Testing Checklist [1], Version 1 / 1.1 /1.2 (Rev.04)

8. Cooling Towers - This section must be completed for all cooling towers serving dwelling units or common spaces.	FT Agent Verified[1]	N/A
8.1 Installation Checks		
8.1.1 Cooling Tower piping and all components are free from leaks.	☐	■
8.1.2 Temperature gauges, check valves, tower bypass valve and all other piping components installed as specified by HVAC Designer.	☐	■
8.1.3 Condenser Water Supply setpoint type: ☐ Fixed ☐Outdoor temperature reset ☐Seasonal / based on free cooling	-	■
8.1.4 All control sensors (condenser water supply temperature, outdoor air humidity, etc.) are located as specified by HVAC Designer.	☐	■
8.2 Functional Testing: Tower Fans [7] - N/A due to ambient temperature ___ °F or equipment lock-out ☐		■
8.2.1 Tower fan(s) do not short cycle (i.e., the minimum on time is 5 minutes and the minimum off time is 5 minutes, or as recommended by the manufacturer to prevent short cycling). [7]	☐	■
8.2.2 Cooling Tower fan(s) do not run unless associated cooling tower pump(s) are running. [7]	☐	■
8.2.3 If installed, basin heater is not enabled when the basin water temperature is above the setpoint. [7]	☐	■
8.2.4 Condenser Water Supply Sensor is reading within 3°F of measured temperature. [7]	☐	■
8.3 Functional Testing: Cooling Tower Pumps		
8.3.1 Cycle the cooling tower pumps on and off 1 time. Cooling tower pumps only operate when controls call for operation. (N/A if tower pumps are set to run year round.) [7]	☐	■

9. Chillers - This section must be completed for all chillers serving dwelling units or common spaces.	FT Agent Verified[1]	N/A
9.1 Installation Checks		
9.1.1 Chiller piping and all components are free from leaks.	☐	■
9.1.2 If multiple chillers, water flow is balanced across chillers using (indicate which one): ☐ Balancing valves ☐ Reverse return piping ☐ Individual chiller pumps ☐ Other: _____	-	■
9.1.3 Temperature, pressure gauges, air eliminator, expansion tank, check valves and all other piping components installed as specified by HVAC Designer.	☐	■
9.1.4 Chilled Water Supply temperature sensor (and outdoor air temperature sensor where applicable) are located as specified by HVAC Designer.	☐	■
9.2 Functional Testing: Chillers [7] - N/A due to ambient temperature ___ °F or equipment lock-out ☐		■
9.2.1 When there is a call for cooling, chillers are operating and maintaining chilled water setpoint. [7]	☐	■
9.2.2 When multiple chillers are supposed to operate at the same time, they operate according to the Engineer of Record's sequence of operations and the on / off sequencing is observed. [7]	☐	■
9.2.3 Chiller(s) do not short cycle (i.e., the minimum on time is 5 minutes and the minimum off time is 5 minutes, or as recommended by the chiller manufacturer to prevent short cycling). [7]	☐	■
9.2.4 Chilled Water Supply Sensor is reading within 3°F of measured chiller temperature. [7]	☐	■
9.2.5 Chiller minimum flow rate and change in flow rate are maintained within the manufacturer's stated limits throughout the sequence of operation. [7, 8]	☐	■
9.3 Functional Testing: Chilled Water System Pumps		
9.3.1 Where Chilled Water System pumps (i.e., the pumps which are responsible for moving the chilled water through the terminal units) are equipped with a VFD, which is responding to a pressure sensor within the system or a sensorless VFD system, indicate which one: ☐ VFD+Sensor ☐ Sensorless	-	■
9.3.2 If a variable speed pumping system is installed, confirm that the VFD increases and decreases pump speed in response to changes in the system.	☐	■
9.3.3 If a variable speed pumping system is installed, system prevents "dead-heading". (May be tested under real or simulated low flow conditions.) Select the method of low flow bypass: ☐ Minimum Flow Bypass Valve ☐ 3 way valves on specific terminal units ☐Other:	☐	■
9.3.4 Pumps are off when cooling is not required. (N/A if chilled water is required year round.)	☐	■

FT Agent Name: _____ Date: _____

FT Agent Signature: _____ Company Name: _____

Rater Name (if applicable): _____ Date: _____

Rater Signature: _____ Company Name: _____

ENERGY STAR Multifamily New Construction
National HVAC Functional Testing Checklist [1], Version 1 / 1.1 /1.2 (Rev.04)

Footnotes:

1. This Checklist is designed to align with the requirements of ANSI / ACCA's 5 QI-2015 protocol, thereby improving the performance of HVAC equipment in new multifamily buildings when compared to new multifamily buildings built to minimum code. However, these features alone cannot prevent all ventilation, indoor air quality, and HVAC problems (e.g., those caused by a lack of maintenance or occupant behavior). Therefore, this Checklist is not a guarantee of proper ventilation, indoor air quality, or HVAC performance.

   The items in this checklist may be marked as "FT Agent Verified" by an individual employed at the Company listed in Item 1.1, if performed under the oversight of the Functional Testing Agent signing this Checklist.

   The checklist may be completed and signed by a Rater, rather than a Functional Testing Agent, if only Sections 1, 4 and 5 are applicable. A Rater completing Section 5 or Item 4.2 for a system that is also being verified by a Functional Testing Agent, may sign the same checklist as the FT Agent. For units following Track A, a Functional Testing Agent is not needed to complete Sections 2 and 3 for unitary HVAC systems serving dwelling units that will be verified and graded by the Rater. Track A – Dwelling Unit HVAC Grading shall not be used until an implementation schedule has been defined for ANSI / RESNET / ACCA 310 by the Home Certification Organization (HCO) or Multifamily Review Organization (MRO) that the building is being certified under. Track A – Dwelling Unit HVAC Grading shall then use ANSI / RESNET / ACCA 310 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the HCO or MRO that the building is being certified under.

   Sections 2, 3, and 4 of this Checklist generally apply to split air conditioners, unitary air conditioners, air-source heat pumps, and water-source (i.e., geothermal or water-loop) heat pumps up to 65 kBtuh with forced-air distribution systems (i.e., ducts) and to furnaces up to 225 kBtuh with forced-air distribution systems (i.e., ducts). See specific sections for exemptions. If exempted, a Rater may complete those sections as N/A.

   Where the term 'dwelling unit' is used in this Checklist, the requirement is also required of 'sleeping' units. The term 'sleeping unit' refers to a room or space in which people sleep, which can also include permanent provisions for living, eating, and either sanitation or kitchen facilities but not both.

   The term 'common space' refers to any spaces in the building being certified that serve a function in support of the residential part of the building that is not part of a dwelling or sleeping unit. This includes spaces used by residents, such as corridors, stairs, lobbies, laundry rooms, exercise rooms, residential recreation rooms, and dining halls, as well as offices or other spaces used by building management, administration or maintenance in support of the residents.

2. An explanation of the credentialing process and links to H-QUITOs, which maintain lists of credentialed contractors, can be found at www.energystar.gov/findhvac. FT Agents may not be the installing contractor, nor employed by the same company as the installing contractor, unless they are a credentialed contractor. All FT Agents that are not credentialed contractors must sign up online in EPA's online database as an FT Agent and watch the online FT Agent orientation. See www.energystar.gov/ftas.
3. The term 'Rater' refers to the person(s) completing the third-party verification required for certification. The person(s) shall: a) be a Certified Rater, Approved Inspector, as defined by ANSI / RESNET / IECC 301, or an equivalent designation as determined by an HCO or MRO; and, b) have attended and successfully completed an EPA-recognized training class. See www.energystar.gov/mftraining.
4. Either factory-installed or field-installed TXV's may be used. For field-installed TXV's, ensure that sensing bulbs are insulated and tightly clamped to the vapor line with good linear thermal contact at the recommended orientation, usually 4 or 8 o'clock.
5. The term "mini-split" refers to air conditioners and heat pumps that have variable refrigerant flow and distributed refrigerant technology with a single outdoor section serving a single indoor section. The indoor section is typically, but not exclusively, mounted on room walls and/or ceilings and designed to heat or cool air within the conditioned space either directly or through limited duct runs. The term "multi-split" refers to air conditioners and heat pumps that have variable refrigerant flow and distributed refrigerant technology with the capability of serving multiple indoor sections with a single outdoor section. The indoor sections are typically, but not exclusively, mounted on room walls and/or ceilings and designed to heat or cool air within the conditioned space either directly or through a ducted system. A single outdoor section can serve one or more dwelling units. The length of the duct system is not a determinant for meeting either of these definitions. Systems where total supply duct length of the entire system, including the sum of all supply trunks and branches, is 10 ft or less, may complete Item 4.2 in lieu of Section 3.
6. Air balancing of supply registers and return grilles is highly recommended to improve the performance of the HVAC system and comfort of the occupants, but is not required at this time for certification. When air balancing is completed, balancing dampers or proper duct sizing shall be used instead of looped or coiled ductwork to limit flow to diffusers. When balancing dampers are used, they shall be located at the trunk to limit noise unless the trunk will not be accessible when the balancing process is conducted. In such cases, Opposable Blade Dampers (OBD) or dampers located in the duct boot are permitted to be used.
7. For seasonally dependent testing: Where temperature lock-outs or equipment safety lock-outs prevent systems from operating in the specified mode during functional testing, "N/A" may be checked. The builder or developer must then provide signed documentation acknowledging that components of the Functional Testing were not completed due to temperature lock-outs or equipment safety lock-outs.
8. When manually testing outdoor unit heating or cooling mode of operation, at least 25% of associated indoor / terminal units connected to the outdoor unit(s) shall be controlled to the same heating or cooling mode being tested. The FT Agent shall increase the number of indoor / terminal units as needed in order to verify the discharge temperature is warmer / colder than ambient.
9. This test can be marked "Verified" if the boiler or chiller does not shut off on low water or high temperature during sequence testing. Direct water flow measurements can be taken throughout testing but are not required.

ENERGY STAR Multifamily New Construction
National HVAC Functional Testing Checklist [1], Version 1 / 1.1 /1.2 (Rev.04)

HVAC Functional Testing Agent Responsibilities:

- The entity verifying Functional Testing, the Functional Testing Agent ("FT Agent"), must be a contractor credentialed by an HVAC Quality Installation Training and Oversight organization (H-QUITO), or must hold an approved credential, as listed at www.energystar.gov/ftas, or must be a representative of the Original Equipment Manufacturer (OEM) to complete this checklist. A contractor credentialed by an H-QUITO is only permitted to complete Sections 1-5 of this checklist. [2]
- Functional Testing checklists must be completed and signed by an FT Agent. [3] An FT Agent is permitted to complete just the specific sections of this checklist that pertain to their area of expertise. However, all applicable sections must be completed by an FT Agent, which may result in multiple checklists signed by multiple FT Agents. FT Agents shall only sign checklists that contain items that they have verified or have been verified under their oversight. An FT Agent may mark an item as 'verified' by conducting the test or inspection, or witness the test or inspection being conducted by the installing contractor or other HVAC professional. Where a checkbox for "FT Agent Verified" is not provided, FT Agents should fill in all applicable data fields.
- Functional Testing checklists must include all HVAC systems in the building that serve the dwelling units, common spaces, and where applicable, parking garages, but may exclude systems solely serving commercial / retail spaces. Multiple checklists will be needed to document all HVAC systems in the building. Except where items are verified by the installing contractor, items on the Functional Testing Checklist are permitted to be verified using MFNC HVAC Functional Testing Checklist Sampling Protocols.
- The completed checklists, along with the corresponding National HVAC Design Report, shall be retained by the FT Agent for quality assurance purposes. Furthermore, if the FT Agent is not a credentialed contractor, they shall provide the completed and signed checklists to the builder / developer and the Rater [3] responsible for certifying the units / building, prior to the building's certification. Credentialed contractors shall provide the checklist upon request.

1. Functional Testing Overview			
1.1 Company performing Functional Testing: _____ FT Agent name: _____ Date: _____			
1.2 Functional Testing Agent Credential: If a credentialed contractor, fill out applicable H-QUITO and ID Number: ☐ ACCA ☐ Advanced Energy ID Number: _____			
1.3 Builder / developer client name: _____			
1.4 Building address: _____ City: _____ State: _____ Zip code: _____			
1.5 National HVAC Design Report corresponding to this building has been collected from designer or builder. ☐			
1.6 Checklist applies to the following equipment (include unit # as applicable): _____			
1.7 Where sampling is used by the FT Agent, the installing contractor(s) have provided signed letter(s) attesting that they have completed testing on all systems in the building for the following Sections: ☐ Section 2 ☐ Section 3 ☐ Section 5 ☐ Section 6 ☐ N/A			
2. Refrigerant Charge - Run system for 15 minutes before testing. If outdoor ambient temperature at the condenser is ≤ 55°F or, if known, below the manufacturer-recommended minimum operating temperature for the cooling cycle, then the system shall include a TXV, the outdoor temperature shall be recorded in Item 2.1, and the contractor shall check "N/A" in this Section. [4] This section must be completed for refrigerant-based systems with field-installed refrigerant piping or components (i.e., split air conditioners, air-source heat pumps, and water-source heat pumps), up to 65 kBtuh, whether serving dwelling units or common spaces in the building. Ducted or non-ducted single-packaged systems (i.e., PTAC), mini-splits, or multi-splits are exempt from this section. When using the alternative OEM test procedure in Item 2.16, check "NA" for Items 2.1-2.15. [5]		**FT Agent Verified[1]**	**N/A**
2.1 Outdoor ambient temperature at condenser: _____ °F DB		-	-
2.2 Return-side air temperature inside duct near evaporator, during cooling mode: _____ °F WB		-	■
2.3 Liquid line pressure: _____ psig		-	■
2.4 Liquid line temperature: _____ °F DB		-	■
2.5 Suction line pressure: _____ psig		-	■
2.6 Suction line temperature: _____ °F DB		-	■
For System with Thermal Expansion Valve (TXV):			
2.7 Condenser saturation temperature: _____ °F DB (Using Item 2.3)		-	■
2.8 Subcooling value: _____ °F DB (Item 2.7 – Item 2.4)		-	■
2.9 OEM subcooling goal: _____ °F DB		-	■
2.10 Subcooling deviation: _____ °F DB (Item 2.8 – Item 2.9)		-	■
For System with Fixed Orifice:			
2.11 Evaporator saturation temperature: _____ °F DB (Using Item 2.5)		-	■
2.12 Superheat value: _____ °F DB (Item 2.6 – Item 2.11)		-	■
2.13 OEM superheat goal: _____ °F DB (Using superheat tables and Items 2.1 & 2.2)		-	■
2.14 Superheat deviation: _____ °F DB (Item 2.12 – Item 2.13)		☐	■
2.15 Item 2.10 is ± 3°F or Item 2.14 is ± 5°F.		☐	■
2.16 An OEM test procedure (e.g., as defined for a ground-source heat pump) has been used in place of the sub-cooling or super-heat process and documentation has been attached that defines this procedure.		☐	■

STATE OF OHIO
JONATHAN ROBERT SCHAAF
14503
REGISTERED ARCHITECT
PRELIMINARY NOT FOR CONSTRUCTION
Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025
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OBERER COMPANIES
3445 Newmark Drive
Miamisburg, Ohio 45342

New Multi-Family Building:
Senior Village at Valle Greene
1155 Channingway Drive
Fairborn, Ohio 45324
OHFA Tracking Number: 24-0087

Project Number
2023-191

Date
September 13, 2024

Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
SUSTAINABLE DESIGN REQUIREMENTS

Sheet Number
G2.18

ENERGY STAR Multifamily New Construction
National Water Management System Reqs.[1], Version 1 / 1.1 / 1.2 (Rev. 04)

Builder / Developer Partner Responsibilities:

- It is the exclusive responsibility of the Partner to ensure that each multifamily building is constructed to meet these requirements.
- While Partners are not required to maintain documentation demonstrating compliance for each multifamily building, Partners are required to develop a process to ensure compliance for each building (e.g., incorporate these requirements into the Scope of Work for relevant sub-contractors, require the site supervisor to inspect each building for these requirements, and/or sub-contract the verification of these requirements to a Rater [2]).
- In the event that the EPA determines that a certified multifamily building was constructed without meeting these requirements, the building may be decertified.

1. Water-Managed Site and Foundation
1.1 Impermeable surfaces, such as patio, porch, or plaza slabs, sidewalks, ramps and driveways, sloped ≥ 0.25 in. per ft. away from building to edge of surface or 10 ft., whichever is less. [3]
1.2 Back-fill has been tamped, and permeable surfaces sloped ≥ 0.5 in. per ft. away from building for ≥ 10 ft. Alternatives in Footnote. [3]
1.3 Capillary break beneath all slabs (e.g., slab on grade, basement slab) except crawlspace slabs using either: ≥ 6 mil polyethylene sheeting, lapped 6-12 in., or ≥ 1 in. extruded polystyrene insulation with taped joints. See additional exemptions for garage slabs in Footnote 4. [4, 5, 6, 7]
1.4 Capillary break at all crawlspace floors using one of the following options: [5, 6, 7]
1.4.1 Concrete slab over one of the following materials:
1.4.1a ≥ 6 mil polyethylene sheeting, lapped 6-12 in; OR,
1.4.1b ≥ 1 in. extruded polystyrene insulation with taped joints.
1.4.2 ≥ 6 mil polyethylene sheeting, lapped 6-12 in., & installed using one of the following:
1.4.2a Lapped up each wall or pier and fastened with furring strips or equivalent; OR,
1.4.2b Secured in the ground at the perimeter using stakes.
1.5 Exterior surface of below-grade walls of basements & unvented crawlspaces finished as follows: a) For poured concrete, masonry, & insulated concrete forms, finish with damp-proofing coating. [8] b) For wood framed walls, finish with polyethylene and adhesive or other equivalent waterproofing.
1.6 Class 1 vapor retarder not installed on interior side of vapor permeable insulation in exterior below-grade walls. [9]
1.7 Sump pit cover mechanically attached with full gasket seal or equivalent.
1.8 Drain tile installed at basement and crawlspace walls, with the top of the drain tile pipe below the bottom of the concrete slab or crawlspace floor. Drain tile surrounded with ≥ 6 in. of ½ to ¾ in. washed or clean gravel and with gravel layer fully wrapped with fabric cloth. Drain tile level or sloped to discharge to outside grade (daylight) or to a sump pit with a pump. If drain tile is on interior side of footing, then channel provided through footing to exterior side. [10]
2. Water-Managed Wall Assembly
2.1 Flashing at bottom of exterior walls with weep holes included for anchored stone / masonry veneer and weep screed for adhered stone / masonry veneer or stucco cladding, or equivalent drainage system. [11]
2.2 Fully sealed continuous drainage plane behind exterior cladding that laps over flashing in Item 2.1 and fully sealed at all penetrations. Additional bond-break drainage plane layer provided behind all adhered stone / masonry veneer or stucco cladding. [11, 12]
2.3 Window and door openings fully flashed. [13]
3. Water-Managed Roof Assembly
3.1 Step and kick-out flashing at all roof-wall intersections, extending ≥ 4" on wall surface above roof deck and integrated shingle-style with drainage plane above; boot / collar flashing at all roof penetrations. [14]
3.2 For buildings that don't have a slab-on-grade foundation and do have expansive or collapsible soils, gutters & downspouts provided that empty to tailored piping that discharges water on sloping final grade ≥ 5 ft. from foundation, or to underground catchment system not connected to the foundation drain system that discharges water ≥ 10 ft. from foundation. Alternatives & exemptions in Footnote. [3, 15, 16]
3.3 Self-adhering polymer-modified bituminous membrane at all valleys & roof deck penetrations. [3, 17]
3.4 In 2009 IECC Climate Zones 5 & higher, self-adhering polymer-modified bituminous membrane over sheathing at eaves from the edge of the roof line to > 2 ft. up roof deck from the interior plane of the exterior wall. [3, 17]
4. Water-Managed Building Materials
4.1 Wall-to-wall carpet *not* installed within 2.5 ft. of toilets, tubs, and showers.
4.2 If present, backers for wall tile and wall panels in tub and shower enclosures are fiber-cement board complying with ASTM C1288 or ISO 8336, Category C, or an alternate material listed in the Footnote. Paper-faced backerboard shall not be used. [18]
4.3 In Warm-Humid climates, Class 1 vapor retarders not installed on the interior side of air permeable insulation in above-grade walls, except at shower and tub walls. [9]
4.4 Building materials with visible signs of water damage or mold *not* installed or allowed to remain. [19]
4.5 Framing members & insulation products having high moisture content *not* enclosed (e.g., with drywall). [20]
4.6 For each condensate-producing HVAC component, corrosion-resistant drain pan (e.g., galvanized steel, plastic) included that drains to a conspicuous point of disposal in case of blockage. Backflow prevention valve included if connected to a shared drainage system.

ENERGY STAR Multifamily New Construction
National Water Management System Reqs.[1], Version 1 / 1.1 / 1.2 (Rev. 04)

Footnotes:

1. These requirements are designed to improve moisture control in buildings. However, these features alone cannot prevent all moisture problems. For example, leaky pipes or overflowing baths can lead to moisture issues and negatively impact the performance of the building. For the purpose of this document, the term 'Partner' represents either the builder or the developer.
2. The term 'Rater' refers to the person(s) completing the third-party verification required for certification. The person(s) shall: a) be a Certified Rater, Approved Inspector, as defined by ANSI / RESNET / ICC 301, or an equivalent designation as determined by a Home Certification Organization or Multifamily Review Organization and, b) have attended and successfully completed an EPA-recognized training class. See www.energystar.gov/mftraining.
3. Swales or drains designed to carry water from foundation are permitted to be provided as an alternative to the slope requirements for any building, and shall be provided for a building where setbacks limit space to less than 10 ft. Also, tamping of back-fill is not required if either: proper drainage can be achieved using non-settling compact soils, as determined by a certified hydrologist, soil scientist, or engineer; OR, the builder / developer has scheduled a site visit to provide in-fill and final grading after settling has occurred (e.g., after the first rainy season).
4. Not required for garage slabs that meet any of the following criteria:
   a. "Open" (i.e., 20% of wall area is openings for natural ventilation); OR
   b. Mechanically ventilated automatically by means of carbon monoxide detectors applied in conjunction with nitrogen dioxide detectors at a standby airflow rate of not less than 0.05 cfm/ft² and full-on rate not less than 0.75 cfm/ft².
5. Not required in Dry (B) climates as shown in 2009 IECC Figure 301.1 and Table 301.1.
6. Not required for raised pier foundations with no walls. To earn the ENERGY STAR, EPA recommends, but does not require, that radon resistant features be included in buildings built in EPA Radon Zones 1, 2 & 3. For more information, see www.epa.gov/indoorairplus.
7. For an existing slab (e.g., in a building undergoing a gut rehabilitation), in lieu of a capillary break beneath the slab, a continuous and sealed Class I or Class II Vapor Retarder (per Footnote 8) is permitted to be installed on top of the entire slab. In such cases, up to 10% of the slab surface is permitted to be exempted from this requirement (e.g., for sill plates). In addition, for existing slabs in occupiable space, the Vapor Retarder shall be, or shall be protected by, a durable floor surface. If Class I Vapor Retarders are installed, they shall not be installed on the interior side of air permeable insulation or materials prone to moisture damage.
8. Interior surface of an existing below-grade wall (e.g., in a building undergoing a gut rehab.) listed in Item 1.5a is permitted to be finished by:
   - Installing a continuous and sealed drainage plane, capillary break, Class I Vapor Retarder (per Footnote 8) and air barrier that terminates into a foundation drainage system as specified in Item 1.8; OR
   - If a drain tile is not required as specified in Footnote 9, adhering a capillary break and Class I Vapor Retarder (per Footnote 8) directly to the wall with the edges taped / sealed to make it continuous.

   Note that no alternative compliance option is provided for existing below-grade wood-framed walls in Item 1.5b.
9. The 2009 IRC defines Class I vapor retarders as a material or assembly with a rating of ≤ 0.1 perm, using the desiccant method with Proc. A of ASTM E 96. The following materials are typically ≤ 0.1 perm and shall not be used on the interior side of vapor permeable insulation in above-grade exterior walls in warm-humid climates or below-grade exterior walls in any climate: rubber membranes, polyethylene film, glass, aluminum foil, sheet metal, and foil-faced insulating / non-insulating sheathings. These materials can be used on the interior side of walls if air permeable insulation is not present (e.g., foil-faced rigid foam board adjacent to a below-grade concrete foundation wall is permitted).

   Note that this list is not comprehensive and other materials with a perm rating ≤ 0.1 also shall not be used. Also, if mfr. spec.'s for a product indicate a perm rating ≥ 0.1, then it may be used, even if it is in this list. Also note that open-cell and closed-cell foam generally have ratings above this limit and may be used unless mfr. spec.'s indicate a perm rating ≤ 0.1. Several exemptions to these requirements apply:
   - Class I vapor retarders, such as ceramic tile, may be used at shower and tub walls;
   - Class I vapor retarders, such as mirrors, may be used if mounted with clips or other spacers that allow air to circulate behind them.
10. Alternatively, either a drain tile that is pre-wrapped with a fabric filter or a Composite Foundation Drainage System (CFDS) that has been evaluated by ICC-ES per AC 243 are permitted to be used. Note that the CFDS must include a soil strip drain or another ICC-ES evaluated perimeter drainage system to be eligible for use. In an existing building (e.g., in a building undergoing a gut rehab.) a drain tile installed only on the interior side of the footing without a chamber is permitted. Additionally, a drain tile is not required when a certified hydrologist, soil scientist, or engineer has determined that a crawlspace foundation, or an existing basement foundation (e.g., in a building undergoing a gut rehab.), is installed in Group I Soils (i.e., well-drained ground or sand-gravel mixtures), as defined by 2009 IRC Table R405.1.
11. These items not required for existing structural masonry walls (e.g., in a building undergoing a gut rehabilitation). Note this exemption does not extend to existing wall assemblies with adhered or anchored stone / masonry veneers.
12. Any of the following systems may be used: a monolithic weather-resistant barrier (i.e., house wrap) shingled at horizontal joints and sealed or taped at all joints; weather resistant sheathings (e.g., faced rigid insulation) fully taped at all "butt" joints; lapped shingle-style building paper or felts; or other water-resistive barrier recognized by ICC-ES or other accredited agency.
13. Apply pan flashing over the rough sill framing, inclusive of the corners of the sill framing; side flashing that extends over pan flashing; and top flashing that extends over side flashing or equivalent details for structural masonry walls or structural concrete walls.
14. Intersecting wall siding shall terminate 1 in. above the roof or higher, per manufacturer's recommendations. Continuous flashing shall be installed in place of step flashing for metal and rubber membrane roofs.
15. The assessment of whether the soil is expansive or collapsible shall be completed by a certified hydrologist, soil scientist, or engineer.
16. Any of the following are permitted to be used as alternatives to Item 3.2: a) a roof design that deposits rainwater to a grade-level rock bed with a waterproof liner and a lateral drain pipe that meets discharge requirements per Item 3.2; b) a rainwater harvesting system that drains overflow to meet discharge requirements per Item 3.2; or c) a continuous rubber membrane (e.g., EPDM) that is aligned with the foundation wall from final grade to ≥ 8 in. below grade and then slopes ≥ 0.5 in. per ft. away from the building for at least 5 ft., with Group I Soils (as defined in Footnote 9) covering the membrane to within 3 in. of final grade.

ENERGY STAR Multifamily New Construction
National Water Management System Reqs.[1], Version 1 / 1.1 / 1.2 (Rev. 04)

17. As an alternative, any applicable option in 2009 IRC Section R905.2.8.2 is permitted to be used to meet Item 3.3 and any option in 2009 IRC Section R905.2.7.1 is permitted to be used to meet Item 3.4. EPA recommends, but does not require, that products meet ASTM D1970. In addition, any option in 2009 IRC Section R905.13 is permitted to be used to meet either Item 3.3 or 3.4.
18. In addition to fiber-cement board, fiber-mat reinforced cementitious panels complying with ASTM C1325; glass mat water-resistant gypsum panels complying with ASTM C1178; water-resistant fiber-reinforced gypsum panels complying with Section 6 of ASTM C1278; or materials that have been evaluated by ICC-ES per AC 115 may also be used to meet this requirement. Paper-faced backerboard may only be used behind monolithic enclosures or waterproof membranes that have been evaluated by ICC-ES per AC 115, and then only if it has received a rating of 10 when tested in accordance with ASTM D3273.
19. If mold is present, effort should be made to remove all visible signs of mold (e.g., by damp wipe with water and detergent). If removal methods are not effective, then the material shall be replaced. However, stains that remain after damp wipe are acceptable. Lumber with "tap stain fungi" is exempt from this Item as long as the lumber is structurally intact.
20. For wet-applied insulation, follow manufacturer's drying recommendations. EPA recommends that lumber moisture content be ≤ 18%.

STATE OF OHIO
NATIONAL REGISTERED ARCHITECT
Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

PRELIMINARY NOT FOR CONSTRUCTION

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OBERER COMPANIES
3445 Newmark Drive
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New Multi-Family Building:
Senior Village at Valle Greene
1155 Channingway Drive
Fairborn, Ohio 45324
OHFA Tracking Number: 24-0087

Project Number
2023-191

Date
September 13, 2024

Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
SUSTAINABLE DESIGN REQUIREMENTS

Sheet Number
G2.19

FINISH SPECIFICATIONS

FLOORING

LVP: LUXURY VINYL PLANKS
MANUF: PATCHCRAFT
STYLE: TIMBER GROVE II 6x48 - 20 MIL
COLOR: TBD

STR: STAIR TREADS
MANUF: JOHNSONITE
STYLE: SERVICE WEIGHT ROUND / SQUARE NOSE
COLOR: TBD
RISERS: PAINTED

BASE

RB: RUBBER BASE
MANUF: JOHNSONITE
STYLE: 4" VINYL COVE BASE
COLOR: TBD

WD: 1x6 MDF - PRIMED
MANUF: TBD
COLOR: TBD

PAINT:

P-1: GENERAL PAINT - WALLS
MANUF: SHERWIN WILLIAMS
COLOR: TBD
FINISH: EG-SHEL

P-2: ACCENT PAINT - WALLS
MANUF: SHERWIN WILLIAMS
COLOR: TBD
FINISH: EG-SHEL

P-3: DOOR / TRIM PAINT
MANUF: SHERWIN WILLIAMS
COLOR: TBD
FINISH: SEMI-GLOSS

P-4: CEILING/SOFFIT PAINT
MANUF: SHERWIN WILLIAMS
COLOR: WHITE
FINISH: EG-SHEL

P-5: KITCHEN / BATH PAINT - WALL / CEILING
MANUF: SHERWIN WILLIAMS
COLOR: TBD
FINISH: EG-SHEL

** COORDINATE ALL SELECTIONS WITH OWNER / ARCHITECT
**

ROOM FINISH SCHEDULE

#	NAME	FLOOR	BASE	WALLS	CEILING	REMARKS
150	STAIR	LVP	RB	P-1	P-4	
151	MECHANICAL	LVP	RB	P-1	P-4	
152	CORRIDOR	LVP	RB	P-1	P-4	
153	STAIR	LVP	RB	P-1	P-4	
154	MECHANICAL	LVP	RB	P-1	P-4	
155	CORRIDOR	LVP	RB	P-1	P-4	
156	STAIR	LVP	RB	P-1	P-4	
157	LAUNDRY	LVP	RB	P-1	P-4	
158	CORRIDOR	LVP	RB	P-1	P-4	
159	MECHANICAL	LVP	RB	P-1	P-4	
160	MAIL	LVP	RB	P-1	P-4	
161	COMMUNITY ROOM	LVP	RB	P-1	P-4	
162	LOBBY	LVP	RB	P-1	P-4	
163	VESTIBULE	LVP	RB	P-1	P-4	
164	VESTIBULE	LVP	RB	P-1	P-4	
165	OFFICE	LVP	RB	P-1	P-4	
165A	OFFICE	LVP	RB	P-1	P-4	
165B	OFFICE	LVP	RB	P-1	P-4	
165C	MECHANICAL	LVP	RB	P-1	P-4	
166	FITNESS	LVP	RB	P-1	P-4	
167	WELLNESS	LVP	RB	P-1	P-4	
167A	MECHANICAL	LVP	RB	P-1	P-4	
168	MEN'S TOILET	LVP	RB	P-1	P-4	
169	WOMEN'S TOILET	LVP	RB	P-1	P-4	
170	RESIDENT SERVICES	LVP	RB	P-1	P-4	
171	CORRIDOR	LVP	RB	P-1	P-4	
172	MECHANICAL	LVP	RB	P-1	P-4	
173	STAIR	LVP	RB	P-1	P-4	
211	MAINTENANCE	LVP	RB	P-1	P-4	
250	STAIR	LVP	RB	P-1	P-4	
251	MECHANICAL	LVP	RB	P-1	P-4	
252	CORRIDOR	LVP	RB	P-1	P-4	
253	STAIR	LVP	RB	P-1	P-4	
254	MECHANICAL	LVP	RB	P-1	P-4	
255	CORRIDOR	LVP	RB	P-1	P-4	
256	STAIR	LVP	RB	P-1	P-4	
257	LAUNDRY	LVP	RB	P-1	P-4	
258	CORRIDOR	LVP	RB	P-1	P-4	
259	JANITOR	LVP	RB	P-1	P-4	
260	MECHANICAL	LVP	RB	P-1	P-4	
261	MECHANICAL	LVP	RB	P-1	P-4	
262	LOBBY	LVP	RB	P-1	P-4	
263	CORRIDOR	LVP	RB	P-1	P-4	
264	MECHANICAL	LVP	RB	P-1	P-4	
265	STAIR	LVP	RB	P-1	P-4	
X01	KITCHEN	LVP	RB	P-1	P-4	
X02	PANTRY	LVP	RB	P-1	P-4	
X03	MECHANICAL	LVP	RB	P-1	P-4	
X04	LIVING	LVP	RB	P-1	P-4	
X05	CLOSET	LVP	RB	P-1	P-4	
X06	MECHANICAL	LVP	RB	P-1	P-4	
X07	BEDROOM 1	LVP	RB	P-1	P-4	
X08	CLOSET	LVP	RB	P-1	P-4	
X09	LAUNDRY	LVP	RB	P-1	P-4	
X10	BATH	LVP	RB	P-1	P-4	
X11	HALL	LVP	RB	P-1	P-4	
X12	BEDROOM 2	LVP	RB	P-1	P-4	
X13	CLOSET	LVP	RB	P-1	P-4	

REMARKS:
1. PAINT ALL NON-PRE-FINISHED SURFACES

GENERAL NOTES:
a. FLOORING CONTRACTOR SHALL CONFIRM ALL TRANSITIONS BETWEEN ROOMS, CORRIDORS, ROLL IN SHOWERS, ETC.
b. INSTALL TROWEL ON WATER PROOF MEMBRANE OVER ALL SUBFLOORS IN BATHROOMS / LAUNDRIES
c. SKIM, FLOAT, SLOPE FLOOR AS REQUIRED BETWEEN VARIOUS FLOOR LEVELS. COMPLY WITH ICC/ANSI 117.1-2017 SECTION 303 FOR ALL CHANGE IN LEVELS. PROVIDE THRESHOLD / TRANSITION STRIP ONLY IN LOCATIONS WHERE FLOATING THE FLOOR WILL NOT WORK FOR THE CONDITIONS.
d. PROVIDE ALL PREP WORK FOR PROPOSED FINISHES AS NOTED.
e. ALL COLORS/FINISHES AS SELECTED BY OWNER.

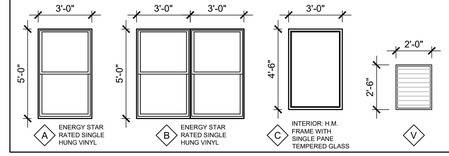
(#) WINDOW SCHEDULE

#	SIZE	NEW	EXIST	SALV.	EERO	TYPE/OPERATION	DETAILS	REMARKS
A	3'-0" X 5'-0"	●			●	SINGLE HUNG	H/A4.31	EERO COMPLIANT AT BEDROOMS
B	(2) 3'-0" X 5'-0"	●			●	TWIN SINGLE HUNG	H/A4.31	EERO COMPLIANT AT BEDROOMS
C	3'-0" X 4'-6"	●				FIXED SINGLE HUNG		
V	2'-0" X 2'-6"	●				HVAC LOUVER		REFER TO MECHANICAL DRAWINGS

WINDOW NOTES

1. COORDINATE ROUGH OPENING REQUIREMENTS WITH MANUFACTURER & AS REQUIRED TO MEET EERO/ EGRESS REQUIREMENTS
2. OBC SECTION 1030 EMERGENCY ESCAPE AND RESCUE [EERO]
   2.1. EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A MIN. NET CLEAR OPENING OF 5.7 SQUARE FEET
   2.2. THE MIN. NET CLEAR OPENING HEIGHT DIMENSION SHALL BE 24 INCHES. THE MIN. NET CLEAR OPENING WIDTH DIMENSION SHALL BE 20 INCHES. THE NET CLEAR OPENING DIMENSIONS SHALL BE THE RESULT OF NORMAL OPERATION OF THE OPENING.
   2.3. THE BOTTOM OF THE CLEAR OPENING NOT GREATER THAN 44 INCHES MEASURED FROM THE FLOOR
   2.4. THE OPENING SHALL BE OPERATIONAL FROM THE INSIDE OF THE ROOM WITHOUT THE USE OF KEYS OR TOOLS.
3. WINDOWS BE PROVIDED WITH 1/2 SCREENS.
4. INSTALL NEW JAMB MOUNTED MINI-BLINDS. INSTALL (2) BLINDS AT TYPE B WINDOW.
5. PROVIDE TEMPERED GLASS AT ALL LOCATIONS REQUIRED BY THE O.B.C. SECTION 2406, INCLUDING BUT NOT LIMITED TO: SWING AND SLIDING DOORS, BATHROOM WINDOWS, WINDOWS WITHIN 24" OF DOORS, WINDOWS W/ SILLS BELOW 18" AFF. CONTRACTOR TO VERIFY REQUIRED LOCATIONS. REFER TO FLOOR PLANS.

WINDOW TYPES



(#) TOILET ACCESSORY SCHEDULE

MARK	DESCRIPTION	MFR.	MODEL
T01	12" GRAB BAR	-	-
T02	18" GRAB BAR	-	-
T03	24" GRAB BAR	-	-
T04	30" GRAB BAR	-	-
T05	36" GRAB BAR	-	-
T06	42" GRAB BAR	-	-
T07	48" GRAB BAR	-	-
T08	CORNER GRAB BAR	-	-
T11	18"x36" MIRROR	-	-
T12	24"x36" MIRROR	-	-
T13	16"x26" MED. CAB. W/ MIRROR	-	-
T21	TOILET PAPER DISPENSER	-	-
T22	PAPER TOWEL DISPENSER	-	-
T23	SOAP DISPENSER	-	-
T24	SANITARY NAPKIN CONTAINER	-	-
T25	TOILET SEAT COVER DISPENSER	-	-
T26	ELECTRIC HAND DRYER	-	-
T31	SUPPLY / DRAIN PIPING WRAP	-	-
T41	SHOWER CURTAIN ROD	-	-
T42	FOLDING SHOWER SEAT	-	-
T43	REMOVABLE SHOWER SEAT	-	-
T51	18" TOWEL BAR	-	-
T52	24" TOWEL BAR	-	-
T53	ROBE HOOK	-	-
T61	BABY CHANGING STATION	-	-
T62	ADULT CHANGING STATION	-	-

* ALL BATHROOMS RECEIVE NEW TOILET ACCESSORIES - REMOVE EXISTING ACCESSORIES, PROVIDE NEW 2x BLOCKING AS REQUIRED FOR ALL NEW ACCESSORIES, REPAIR EXISTING FINISHES TO MATCH ADJACENT, TYP.



Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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OBERER COMPANIES
3445 Newmark Drive
Miamisburg, Ohio 45342

New Multi-Family Building:
Senior Village at Valle Greene
1155 Channingway Drive
Fairborn, Ohio 45324
OHFA Tracking Number: 24-0087

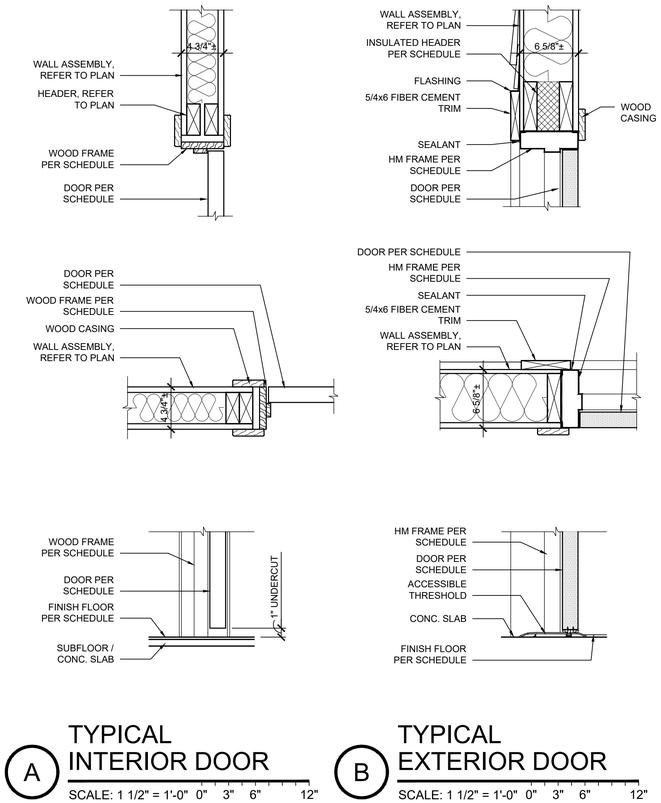
Project Number
2023-191

Date
September 13, 2024

Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
Schedules

Sheet Number
G3.01



A TYPICAL INTERIOR DOOR

SCALE: 1 1/2" = 1'-0" 0" 3" 6" 12"

B TYPICAL EXTERIOR DOOR

SCALE: 1 1/2" = 1'-0" 0" 3" 6" 12"

DOOR SCHEDULE

#	SIZE	NEW	EXISTING	SALVAGED	FRAME TYPE	DOOR TYPE	HDWR. SET #	FIRE RAT'G	REMARKS	DOOR ACCESS CONTROL
150	3'-6" X 7'-0"	●			F-5	D-1	-		EXT. STAIR ENTRY	●
151	3'-0" X 7'-0"	●			F-4	D-10	-		MECHANICAL - UNDERCUT DOOR 1"	
152	3'-6" X 7'-0"	●			F-2	D-6	-	60	STAIR	
153	3'-6" X 7'-0"	●			F-5	D-1	-		EXT. STAIR ENTRY	●
154	3'-0" X 7'-0"	●			F-4	D-10	-		MECHANICAL - UNDERCUT DOOR 1"	
155	3'-6" X 7'-0"	●			F-2	D-6	-	60	STAIR	
156	[2] 3'-0" X 7'-0"	●			F-5	D-4	-		EXT. BUILDING ENTRY	
157	3'-0" X 7'-0"	●			F-2	D-6	-	20	MAINTENANCE	
158	3'-0" X 7'-0"	●			F-2	D-10	-	20	MECHANICAL	
159	[2] 3'-0" X 7'-0"	●			F-1	D-9	-		EXT. SERVICE ENTRY	
160	[2] 3'-0" X 7'-0"	●			F-2	D-8	-	20	COMM. RM.	
161	[2] 3'-0" X 7'-0"	●			F-5	D-4	-		EXT. BUILDING ENTRY	
162	[2] 3'-0" X 7'-0"	●			F-2	D-8	-	20	COMM. RM.	
163A	[2] 3'-0" X 7'-0"	●			F-5	D-7	-		INT. VEST. ENTRY	
163B	[2] 3'-0" X 7'-0"	●			F-5	D-4	-		EXT. BUILDING ENTRY	
164A	[2] 3'-0" X 7'-0"	●			F-5	D-7	-		INT. VEST. ENTRY	
164B	[2] 3'-0" X 7'-0"	●			F-5	D-4	-		EXT. BUILDING ENTRY	
165	3'-0" X 7'-0"	●			F-2	D-6	-	20	OFFICE	●
165A	3'-0" X 7'-0"	●			F-3	D-5	-		OFFICE	
165B	3'-0" X 7'-0"	●			F-3	D-5	-		OFFICE	
165C	3'-0" X 7'-0"	●			F-3	D-10	-		MECHANICAL	
166	3'-0" X 7'-0"	●			F-2	D-6	-	20	FITNESS	●
166A	3'-0" X 7'-0"	●			F-3	D-10	-		MECHANICAL	
167	3'-0" X 7'-0"	●			F-2	D-6	-	20	TOILET	
168	3'-0" X 7'-0"	●			F-2	D-6	-	20	TOILET	
169	3'-0" X 7'-0"	●			F-2	D-6	-	20	WELLNESS	
170	3'-0" X 7'-0"	●			F-2	D-6	-	20	RESIDENT SERVICES	
171	3'-6" X 7'-0"	●			F-2	D-6	-	60	STAIR	
172	3'-0" X 7'-0"	●			F-4	D-10	-		MECHANICAL	
173	3'-6" X 7'-0"	●			F-5	D-1	-		EXT. CORR. ENTRY	●
250	3'-6" X 7'-0"	●			F-2	D-6	-	60	STAIR	
251	3'-0" X 7'-0"	●			F-4	D-10	-	20	MECHANICAL	
253	3'-6" X 7'-0"	●			F-2	D-6	-	60	STAIR	
254	3'-0" X 7'-0"	●			F-4	D-10	-	20	MECHANICAL	
257	3'-0" X 7'-0"	●			-	-	-	20	MAINTENANCE	●
259	3'-0" X 7'-0"	●			-	-	-	20	JANITOR	
260	3'-0" X 7'-0"	●			-	-	-	20	MECHANICAL	
261	[2] 3'-0" X 7'-0"	●			-	-	-	20	MECHANICAL	
264	3'-0" X 7'-0"	●			-	-	-	20	MECHANICAL	
265	3'-6" X 7'-0"	●			F-2	D-6	-	60	STAIR	
X01	3'-0" X 7'-0"	●			F-2	D-2	H-5	20	UNIT ENTRY	
X02	1'-6" X 6'-8"	●			F-3	D-3	H-8	-	UNIT PANTRY	
X03	2'-0" X 6'-8"	●			F-3	D-10	H-6	-	UNIT MECH - LOUVER IN DOOR	
X05	3'-0" X 6'-8"	●			F-3	D-3	H-8	-	UNIT CLOSET	
X06	3'-0" X 6'-8"	●			F-3	D-10	H-6	-	UNIT MECH - LOUVER IN DOOR	
X07	3'-0" X 6'-8"	●			F-3	D-3	H-7	-	UNIT BEDROOM - UNDERCUT DOOR 1"	
X10	3'-0" X 6'-8"	●			F-3	D-3	H-7	-	UNIT BATH	
X12	3'-0" X 6'-8"	●			F-3	D-3	H-7	-	UNIT BEDROOM - UNDERCUT DOOR 1"	

DOOR / FRAME / GLAZING NOTES

1. EXTERIOR DOOR FRAMES: H.M. / PVC, PAINT FINISH PER OWNER.
2. EXTERIOR DOORS SHALL BE INSULATED H.M., PAINT FINISH PER OWNER.
3. INTERIOR COMMON AREA/CORRIDOR FRAMES: H.M., PAINT FINISH PER OWNER.
4. INTERIOR COMMON AREA/CORRIDOR DOORS: 1 3/4" H.M., PAINT FINISH PER OWNER.
5. UNIT INTERIOR DOOR FRAMES: PAINTED WOOD WITH WOOD CASING, PAINT FINISH PER OWNER.
6. UNIT INTERIOR DOORS: 1 3/8" THICK SOLID CORE 2 PANEL DOORS , PAINT FINISH PER OWNER.
   6.1. UNDERCUT BEDROOM DOORS 1" FOR RETURN AIR
7. CLEARANCES PER "MANEUVERING CLEARANCES AT DOORS" DIAGRAM, BASED UPON FIGURE 404.2.3.2 ANSI. COORDINATE ANY CONFLICTS WITH THE ARCHITECT.
8. COORDINATE DOOR/FRAME TYPES, STYLE, FINISH WITH OWNER.
9. ALL HARDWARE SHALL BE LEVER TYPE, 26D FINISH., MATCH OWNER STANDARD.
10. ALL HARDWARE TO COMPLY WITH THE LATEST REQUIREMENTS OF THE OHIO BUILDING CODE, ADAAG, NFPA, NEC AND OTHER APPLICABLE REGULATORY AGENCIES. THE HARDWARE SUPPLIER SHALL COORDINATE STYLE, FINISH, AND OPERATION REQUIREMENTS WITH THE OWNER.
11. THE HARDWARE SUPPLIER SHALL COORDINATE THE KEYING REQUIREMENTS WITH THE OWNER.
12. DOOR ACCESSORIES SUCH AS CLOSERS, KICK PLATES, DOOR STOPS, (WALL OR FLUSH MOUNTED), THRESHOLDS, ETC. AS DIRECTED BY THE OWNER. PROVIDE WALL OR FLOOR STOP AT EACH DOOR
13. ADDITIONAL REQUIREMENTS [2017 OBC]:

716.5.1 FIRE DOOR ASSEMBLIES - SIDE HINGED OR PIVOTED SWINGING DOORS SHALL BE TESTED IN ACCORDANCE WITH NFPA 252 OR UL 10C.

716.5.3 DOOR ASSEMBLIES IN CORRIDORS AND SMOKE BARRIERS REQUIRED TO HAVE MINIMUM PROTECTION RATING OF 20 MINUTES SHALL BE TESTED IN ACCORDANCE WITH NFPA 252 OR UL 10C WITHOUT THE HOSE STREAM TEST.

716.5.7 FIRE RATED DOORS SHALL BE LABELED BY AN APPROVED AGENCY THE LABELS SHALL COMPLY WITH NFPA 80 AND SHALL BE PERMANENTLY AFFIXED TO THE DOOR OR FRAME.

716.5.7.1 FIRE DOORS SHALL BE LABELED WITH THE NAME OF THE MANUFACTURER, THE NAME OR TRADEMARK OF THE THIRD PARTY INSPECTION AGENCY, THE FIRE PROTECTION RATING AND THE MAXIMUM TRANSMITTED TEMPERATURE END POINT WHERE REQUIRED.

716.5.7.3 SMOKE AND DRAFT CONTROL DOORS COMPLYING WITH UL 1784 SHALL BE LABELED IN ACCORDANCE WITH 716.5.7.1 AND SHALL SHOW THE LETTER "S" ON THE FIRE RATING LABEL OF THE DOOR

716.5.9.1 SINGLE FIRE DOORS AND ACTIVE LEAVES OF PAIR'S OF SIDE HINGED SWINGING FIRE DOORS SHALL BE PROVIDED WITH AN ACTIVE LATCH BOLT THAT WILL SECURE DOOR WHEN IT IS CLOSED.

716.5.9.2 AUTOMATIC CLOSING FIRE DOOR ASSEMBLIES SHALL BE SELF CLOSING IN ACCORDANCE WITH NFPA 80

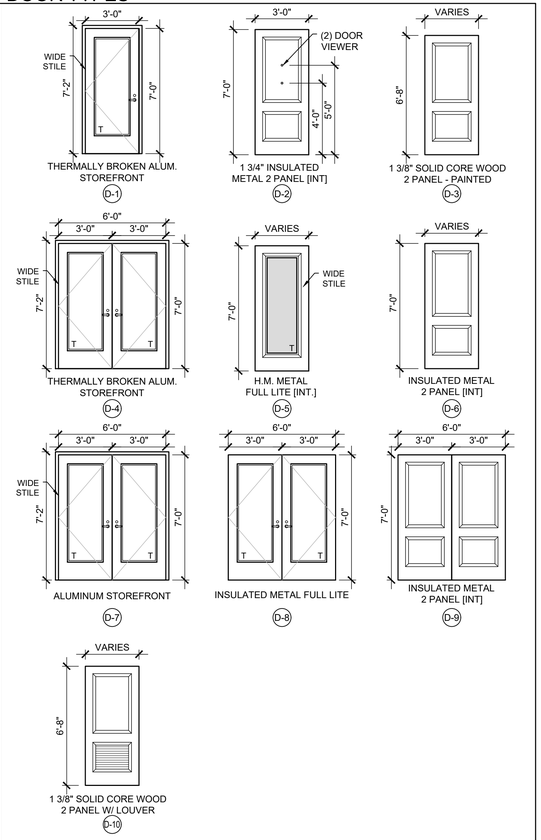
716.6 FIRE PROTECTION RATED GLAZING TESTED IN ACCORDANCE WITH NFPA 257 OR UL 9. FIRE PROTECTION RATED GLAZING IN 1/2 HOUR FIRE RESISTANT RATED PARTITIONS IS PERMITTED TO HAVE A 20 MINUTE FIRE PROTECTION RATING.

716.6.7.2 AREA LIMITATION OF FIRE PROTECTION RATED GLAZING NOT TO EXCEED 25% OF THE AREA OF THE COMMON WALL WITH ANY ROOM

FRAME TYPES

F-1 INSULATED HOLLOW METAL FRAME
F-2 FIRE RATED HOLLOW METAL FRAME
F-3 WOOD FRAME W/ WOOD CASING
F-4 HOLLOW METAL FRAME
F-5 ALUMINUM FRAME [STOREFRONT SYST]

DOOR TYPES



HARDWARE TYPES

H-1 - BUILDING ENTRY [EXTERIOR]
HINGES: PIANO
LOCKSET: PANIC ELECTRONIC STRIKE
PUSH/PULL: PULL/PANIC
CLOSER: YES
STOP: FLOOR
THRESHOLD: ADA
WEATHERSTRIPING: YES
KICK PLATE: BOTH SIDES
REMOTE LATCH RELEASE

H-2 - BUILDING ENTRY [EXTERIOR]
HINGES: BALL BEARING
LOCKSET: PANIC
PUSH/PULL: LEVER W/ CYLINDER / PANIC
CLOSER: YES
STOP: FLOOR
THRESHOLD: ADA
WEATHERSTRIPING: YES
KICK PLATE: BOTH SIDES

H-3 - STOREROOM [EXTERIOR]
HINGES: BALL BEARING
LOCKSET: STOREROOM
WEATHER STRIP: YES
CLOSER: YES
STOP: FLOOR - AS NEEDED
KICKPLATE: BOTH SIDES

H-4 - COMMON AREA [INTERIOR]
HINGES: BALL BEARING
LOCKSET: PASSAGE
PUSH/PULL: LEVER W/ CYLINDER / PANIC
CLOSER: YES
STOP: FLOOR
SMOKE SEAL: YES

H-5 - UNIT ENTRY [INTERIOR]
HINGES: BALL BEARING
LOCKSET: ENTRY W/ DEADBOLT [PANIC-PROOF]
CLOSER: SPRING HINGE
STOP: WALL STOP
THRESHOLD: ADA
SMOKE SEAL: YES
VIEWER [2 AT ACCESS. UNITS]
KICKPLATE - 8" H.

H-6 - UNIT STOREROOM [INTERIOR]
HINGES: BALL BEARING
LOCKSET: STOREROOM
SMOKE SEAL: NO
CLOSER: NO
STOP: FLOOR

H-7 - UNIT PRIVACY [INTERIOR]
HINGES: BALL BEARING
LOCKSET: PRIVACY
STOP: WALL - AS NEEDED

H-8 - UNIT PASSAGE [INTERIOR]
HINGES: BALL BEARING
LOCKSET: PASSAGE
STOP: WALL - AS NEEDED

H-9 - STOREROOM DOUBLE DOOR [INTERIOR]
HINGES: BALL BEARING
LOCKSET: STOREROOM
SMOKE SEAL: YES
CLOSER: YES
STOP: FLOOR
DROP PIN / COORDINATOR

H-10 - OFFICE [INTERIOR]
HINGES: BALL BEARING
LOCKSET: ENTRY
CLOSER: SPRING HINGE
STOP: FLOOR STOP
THRESHOLD: ADA
SMOKE SEAL: YES

H-11 - OFFICE [INTERIOR]
HINGES: BALL BEARING
LOCKSET: OFFICE
CLOSER: NO
STOP: WALL STOP
THRESHOLD: ADA
SOUND SEAL: YES

H-12 - TOILET ROOM [INTERIOR]
HINGES: BALL BEARING
LOCKSET: PRIVACY
CLOSER: YES
STOP: WALL STOP
THRESHOLD: ADA
SMOKE SEAL: YES

H-13 - TOILET RM [INTERIOR]
HINGES: BALL BEARING
LOCKSET: PRIVACY
CLOSER: NO
STOP: WALL STOP
THRESHOLD: NO
SMOKE SEAL: NO

H-14 - STOREROOM [INTERIOR]
HINGES: BALL BEARING
LOCKSET: STOREROOM
SMOKE SEAL: YES
CLOSER: YES
STOP: FLOOR

STATE OF OHIO
JONATHAN ROBERT SCHAAF
14503
REGISTERED ARCHITECT
PRELIMINARY NOT FOR CONSTRUCTION

Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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Fairborn, Ohio 45324
OHFA Tracking Number: 24-0087

Project Number	2023-191
Date	September 13, 2024

Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
Door Schedule

Sheet Number
G3.02

DIVISION 1
GENERAL PROJECT REQUIREMENTS

SECTION 01 00 00 GENERAL REQUIREMENTS

1.1. TRASH / DEBRIS:
- 1.1.1. CONTRACTOR SHALL PROVIDE ALL REQUIRED TRASH DUMPSTERS, HAULING, ETC. AS REQ'D FOR THE PROJECT. LOCATE IN A LOCATION APPROVED BY OWNER.
- 1.1.2. THE JOB SITE IS TO BE KEPT CLEAN DURING CONSTRUCTION. CONTRACTOR SHALL PERIODICALLY AND PROMPTLY REMOVE ALL DEBRIS FROM SITE AT THEIR EXPENSE IN A LEGAL MANNER. INCLUSIVE OF ALL BOXES, CRATES, OR TRASH OF INSTALLED ITEMS, INCLUDING DISPLAY FIXTURES AND HARDWARE SUPPLIED BY THE CONTRACTOR OR OTHERS.
- 1.1.3. FINAL CLEANING: PROVIDE FINAL CLEANING PRIOR TO FINAL INSPECTION.

1.2. PROJECT STAGING AREA: AT OWNER DIRECTION

1.3. CONSTRUCTION SAFETY:
- 1.3.1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION SAFETY; COMPLIANCE TO BE IN ACCORDANCE WITH ALL STATE, FEDERAL, AND O.S.H.A. REGULATIONS. THE ARCHITECT AND THE CONTRACTORS ARE NOT RESPONSIBLE FOR ANY DAMAGES RESULTING FROM THE NEGLECT OF TIMELY AND RESPONSIBLE MAINTENANCE OF THE PROJECT BY THE OWNER AFTER PROJECT COMPLETION.
- 1.3.2. ALL FIRE EXITS ARE TO REMAIN CLEAR AND OPEN DURING ALL PHASES OF CONSTRUCTION IF APPLICABLE.
- 1.3.3. TEMPORARY PROTECTION / BARRICADES: ERECT ALL NECESSARY TEMPORARY PROTECTION AND BARRICADES TO ALLOW CONTINUED USE OF THE FACILITY. COORDINATE WITH OWNER AS NECESSARY.
- 1.3.4. FIRE PREVENTION: PROVIDE FIRE EXTINGUISHERS AT THE JOBSITE.
  - 1.3.4.1. PROVIDE FIRE WATCH FOR ALL HOT WORK ACTIVITIES INCLUDING CUTTING, WELDING, AND OTHER CONSTRUCTION OPERATIONS THAT ARE CAPABLE OF STARTING FIRES.

1.4. PRODUCTS:
- 1.4.1. CONTRACTOR TO INSTALL ALL MATERIALS, APPLIANCES, ETC. ACCORDING TO MANUFACTURERS SPECIFICATIONS, RECOMMENDATIONS, AND INSTRUCTIONS, WHETHER A COMPLETE SYSTEM OR A COMPONENT PART OF A COMPLETE CONSTRUCTION SYSTEM.
- 1.4.2. ALL FINAL FINISHES AND SELECTIONS SHALL BE COORDINATED WITH THE PROJECT TEAM. COORDINATE ALL REQUIREMENTS OF FINISH SELECTIONS, AND CORRELATION BETWEEN FINISHES, TRIM COMPONENTS, ETC. PROVIDE MOCKUPS OF WORK/FINISHES AS APPLICABLE TO ENSURE CONFORMANCE WITH THE DESIGN INTENT.
- 1.4.3. ALL WORK, FINISHES, FIXTURES, AND ACCESSORIES SHALL BE IN FULL COMPLIANCE WITH ADAAG/ANSI REQUIREMENTS. ENSURE THAT ALL MATERIALS AND ACCESSORIES ARE PROVIDED TO ENSURE COMPLIANCE.
- 1.4.4. ITEMS MAY BE REFERRED TO AS SINGULAR, OR PLURAL ON THE DRAWINGS AND SPECIFICATIONS CONTRACTOR IS RESPONSIBLE FOR DETERMINING QUANTITY OF EACH ITEM REQUIRED.

1.5. PERMITS:
- 1.5.1. ALL WORK SHALL CONFORM TO THE 2024 OHIO BUILDING CODE, 2019 RESIDENTIAL CODE OF OHIO, AND ALL OTHER LOCAL GOVERNING CODES AND ORDINANCES HAVING THE AUTHORITY BEARING ON THE PERFORMANCE OF THE WORK, AND SHALL BE COMPLETED TO THE HIGHEST STANDARDS OF CRAFTSMANSHIP BY EACH RESPECTIVE TRADE. CONTRACTOR SHALL PAY FOR ALL REQUIRED PERMITS. WORK SHALL NOT BEGIN UNTIL ALL NECESSARY PERMITS ARE OBTAINED.
- 1.5.2. THE GENERAL CONTRACTOR SHALL VERIFY ALL PERMITS HAVE BEEN APPROVED BY APPROPRIATE AGENCIES PRIOR TO START OF CONSTRUCTION. NO CONSTRUCTION OR FABRICATION OF ANY ITEMS SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED ALL PLANS AND ANY DOCUMENTATION FROM ALL OF THE PERMITTING AND REGULATORY AUTHORITIES. FAILURE OF THE CONTRACTOR TO FOLLOW THIS PROCEDURE SHALL CAUSE THE CONTRACTOR TO ASSUME FULL RESPONSIBILITY FOR ANY SUBSEQUENT MODIFICATION OF THE WORK MANDATED BY AN REGULATORY AUTHORITY.
- 1.5.3. THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR ADDITIONAL CONSTRUCTION COST RESULTING FROM WORK STARTED PRIOR TO OBTAINING ALL GOVERNING AGENCIES APPROVALS.
- 1.5.4. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AS HOLDER OF PERMITS TO NOTIFY THE BUILDING OFFICIAL WHEN WORK IS READY FOR INSPECTION. REQUESTS SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF GOVERNING JURISDICTION. INSPECTORS SHALL HAVE COMPLETE ACCESS TO ALL WORK. RECORDS OF INSPECTIONS SHALL BE MAINTAINED ON THE JOB SITE IN ACCORDANCE WITH REQUIREMENTS AND FORMAT OF GOVERNING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES REQUIRED BY INSPECTIONS, EXCEPT FOR INSPECTIONS MADE BY OWNER OR IT'S AGENTS.
  - 1.5.4.1. CONTRACTOR SHALL MAINTAIN A COPY OF APPROVED PERMIT DRAWINGS ON-SITE FOR INSPECTION PURPOSES. COORDINATE WITH BUILDING DEPARTMENT.

1.6. COORDINATION:
- 1.6.1. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION BETWEEN SUB-CONTRACTORS, SUPPLIERS, AND VENDORS BASED ON THE ENTIRE SET OF DOCUMENTS. NO ADDITIONAL COMPENSATION WILL BE DUE TO A CONTRACTOR FOR ISSUES RESULTING FROM THE USE OF AN INCOMPLETE SET OF CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY IN WRITING OF INCONSISTENCIES OR DISCREPANCIES BETWEEN CONTRACT DOCUMENTS, DRAWINGS, SPECIFICATIONS, ETC.
- 1.6.2. COORDINATION AMONG ALL TRADES IS MANDATORY. ANY COST CHANGES RESULTING FROM THE LACK OF COORDINATION, SHALL BE BORNE BY THE CONTRACTOR CREATING THE CONFLICT.
- 1.6.3. GENERAL CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS TO ALL SUBCONTRACTORS. ALL CROSS-REFERENCING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
- 1.6.4. THE ABBREVIATION N.I.C. INDICATES WORK AND / OR MATERIALS NOT IN THE CONTRACT OF THE GENERAL CONTRACTOR. THIS SHALL NOT RELIEVE THE G.C. OF THE RESPONSIBILITY OF COORDINATION.

GREEN PERFORMANCE SPEC'S FOR FIXTURES & APPLIANCES

REFER TO PME DRAWINGS & SCHEDULES

1. FIXTURES
- 1.1. AVERAGE FLOW RATE OF LAV. FAUCETS SHALL BE 1.00 GAL./MIN. OR LESS. EACH. LAV. FAUCET OR AERATOR MUST BE WATER SENSE LABELED.
- 1.2. AVERAGE FLOW RATE OF SHOWERS SHALL BE 1.50 GAL./MIN. OR LESS. EA. SHOWERHEAD FIXTURE AND FITTING MUST BE WATERSENSE LABELED.
- 1.3. EA. CLOTHES WASHER MUST BE ENERGY STAR QUALIFIED

2. APPLIANCES
- 2.1. REFRIGERATOR TO BE ENERGY STAR RATED

NOISE ATTENUATION REQUIREMENTS

CONSTRUCTION MATERIALS TO HAVE SOUND TRANSMISSION CLASS RATINGS EQUAL TO OR GREATER THAN THOSE PRESENTED ON THE NOISE ATTENUATION FORM: REFER TO SOUND ATTENUATION FORM ON G2.17.

DIMENSIONING CONVENTIONS

1.1. DO NOT SCALE DRAWINGS
1.2. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS & CONDITIONS.
1.3. WALLS - DIMENSIONED TO THE FACE OF CONCRETE, CMU, OR FACE OF STUD
1.4. REFER TO DRAWINGS NOTES AND DETAILS FOR ANY SPECIAL NOTES THAT GOVERN THE LAYOUT.
1.5. ± DIMENSIONS ARE SUBJECT TO FIELD VERIFICATION.
1.6. TYPICAL INTERIOR WALL THICKNESS -
- 1.6.1. INTERIOR WOOD STUD PARTITIONS ARE 3-1/2" UNLESS NOTED OTHERWISE.

ADDITIONAL MATERIAL REQUIREMENTS

1.1. PROJECT PERSONNEL SHALL BE NOTIFIED, BOTH VERBALLY AND THROUGH NOTATIONS ON THE FINAL CONSTRUCTION DRAWINGS, THAT WORK SHALL BE HALTED AND OCD AND OHFA NOTIFIED IMMEDIATELY IF ARCHAEOLOGICAL REMAINS ARE DISCOVERED DURING CONSTRUCTION TO ALLOW FOR COORDINATION WITH SHPO REGARDING APPROPRIATE ACTIONS.

1.2. CONSTRUCTION DRAWINGS/SPECIFICATION SHALL BE MODIFIED TO INCLUDE THE FOLLOWING STATEMENT: "THE CONTRACTOR SHALL AT NO TIME INCORPORATE ANY MATERIAL THAT ARE COMPOSED OF OR CONTAIN ANY AMOUNT OF ASBESTOS. THE SUBSTITUTION OF MATERIALS THAT CONTAIN ANY AMOUNT OF ASBESTOS WILL IN NO CIRCUMSTANCES BE ACCEPTABLE. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR AND PROJECT ARCHITECT SHALL SUBMIT WRITTEN STATEMENTS OR CERTIFICATIONS ASSERTING THAT NO ASBESTOS CONTAINING MATERIALS WERE USED IN ANY PORTION OF THE CONSTRUCTION."

1.3. PROJECT PERSONNEL SHALL BE NOTIFIED, BOTH VERBALLY AND THROUGH NOTATIONS ON THE FINAL CONSTRUCTION DRAWINGS, THAT WORK SHALL BE HALTED IF INDICATORS OF CONTAMINATION [FILL OTHER THAN "CLEAN HARD FILL," DISCOLORED SOILS OR CHEMICAL/PETROLEUM ODORS] ARE IDENTIFIED DURING CONSTRUCTION TO ALLOW FOR A QUALIFIED ENVIRONMENTAL PROFESSIONAL TO INSPECT THE SITE AND MAKE RECOMMENDATIONS REGARDING APPROPRIATE ACTIONS.

STATE OF OHIO
JONATHAN ROBERT SCHAAF
14503
REGISTERED ARCHITECT
PRELIMINARY NOT FOR CONSTRUCTION

Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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7642 PARAGON ROAD | DAYTON, OH 45459 | 937.610.3440

OBERER COMPANIES
3445 Newmark Drive
Miamisburg, Ohio 45342

New Multi-Family Building:
Senior Village at Valle Greene
1155 Channingway Drive
Fairborn, Ohio 45324
OHFA Tracking Number: 24-0087

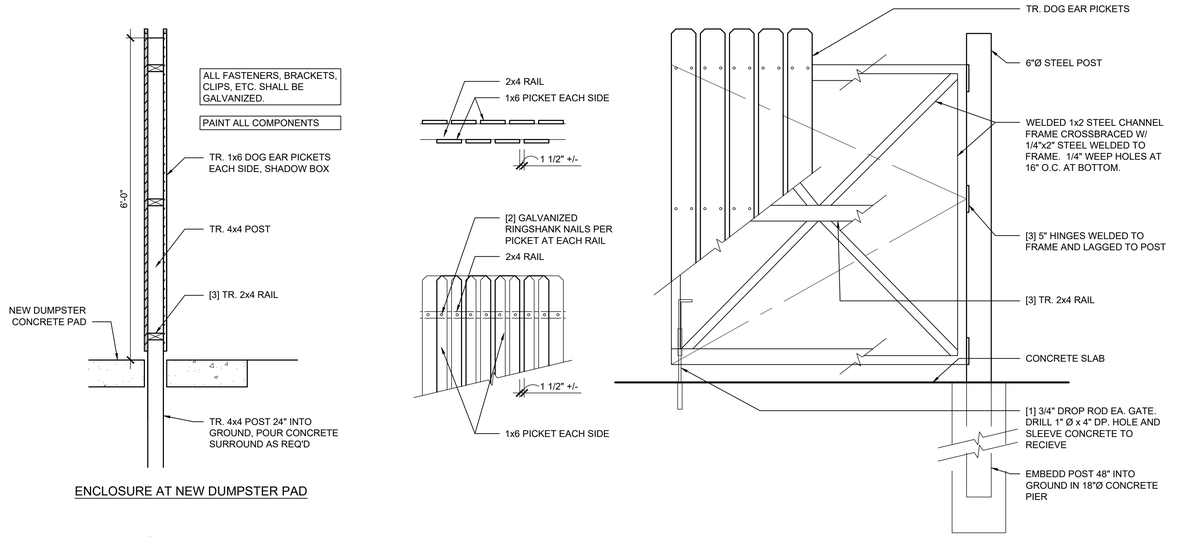
Project Number
2023-191

Date
September 13, 2024

Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
GENERAL SPECIFICATIONS

Sheet Number
G4.01



ENCLOSURE AT NEW DUMPSTER PAD

C DUMPSTER ENCLOSURE SECTION

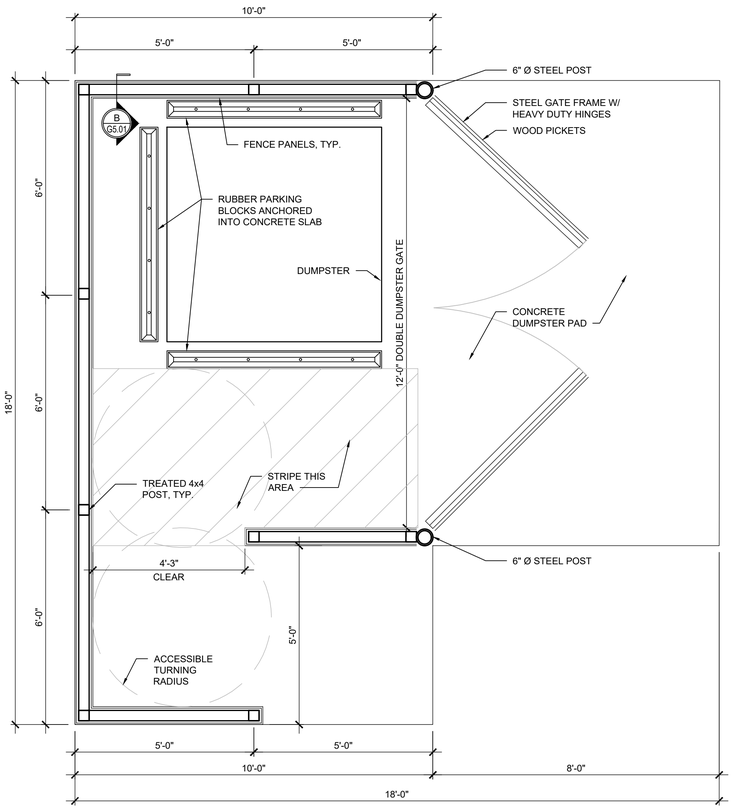
SCALE: 3/4" = 1'-0" 0 1 2

D DETAILS

SCALE: 3/4" = 1'-0" 0 1 2

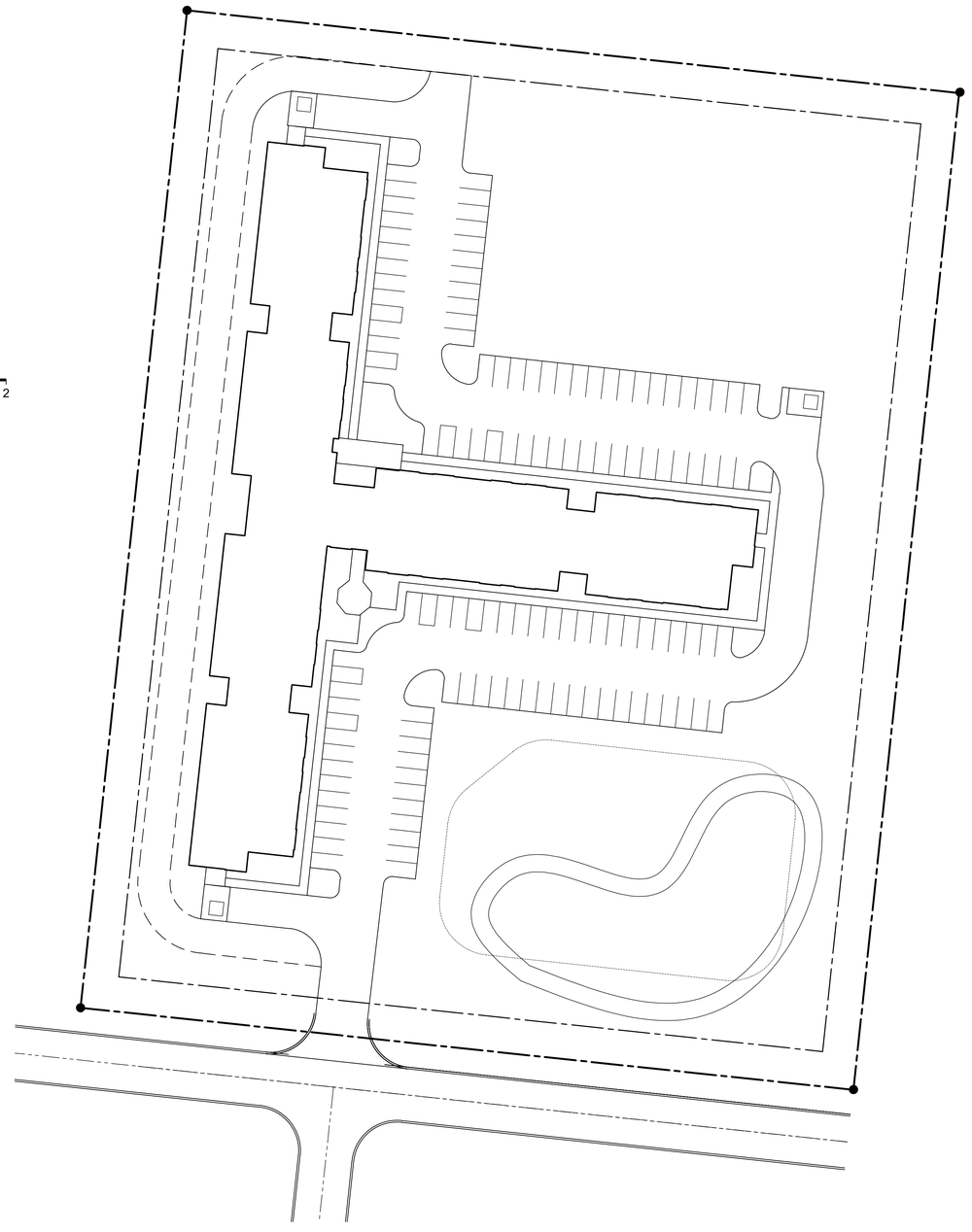
E GATE ELEVATION

SCALE: 3/4" = 1'-0" 0 1 2



B DUMPSTER ENCLOSURE PLAN

SCALE: 1/2" = 1'-0" 0 1 2 4



A ARCHITECTURAL SITE PLAN

SCALE: 1" = 40'-0" 0 20 40 80 N

STATE OF OHIO
JONATHAN ROBERT SCHAAF
REGISTERED ARCHITECT
PRELIMINARY NOT FOR CONSTRUCTION

Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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09.13.24	OHFA 80% Review

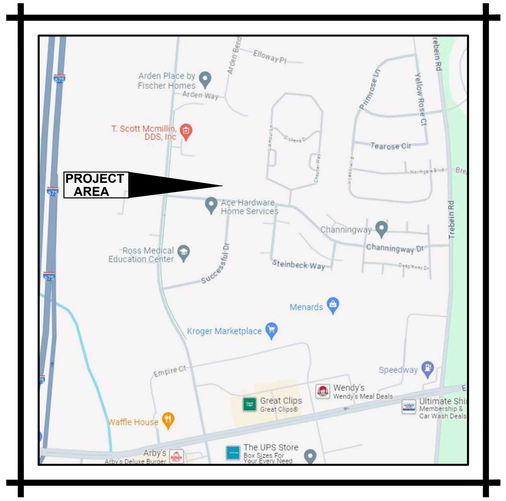
Sheet Title
ARCHITECTURAL SITE PLAN
DUMPSTER ENCLOSURE

Sheet Number
G5.01

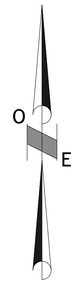
VALLE GREENE SENIOR

CITY OF FAIRBORN

GREENE COUNTY, OHIO



VICINITY MAP



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2023 SPECIFICATIONS

THE CONSTRUCTION STANDARDS AND DRAWINGS OF THE CITY OF FAIRBORN AND THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND GENERAL NOTES LISTED IN THE PLAN, SHALL GOVERN THIS IMPROVEMENT. THE MOST RESTRICTIVE SHALL APPLY.

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE CONSTRUCTION OF A NEW BUILDING AND ASSOCIATED PARKING LOTS, DRIVES, AND UTILITIES FOR THE PROPOSED VALLE GREENE SENIOR PROJECT LOCATED ON CHANNINGWAY DRIVE IN FAIRBORN, OHIO. SITE WORK TO INCLUDE STORM SEWER, SANITARY SEWER, WATERLINES, SITE GRADING, PAVEMENT WORK, AND BUILDING CONSTRUCTION.

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

STANDARD CONSTRUCTION DRAWINGS		ODOT STANDARD CONSTRUCTION DRAWINGS

ODOT SUPPLEMENTAL SPECIFICATIONS	
800	XXX

Approved _____
Date _____ AUTHORIZED SIGNATURE

ChoiceOne Engineering

440 E. HOEWISHER ROAD • SIDNEY, OHIO 45365 • 937.497.0200
8956 GLENDALE MILFORD ROAD, SUITE 1 • LOVELAND, OHIO 45140 • 513.239.8554

www.CHOICEONEENGINEERING.com

SEPTEMBER 13, 2024

JEFFREY S. PUTHOFF, P.E.
P.E.–#61619

SEPTEMBER 13, 2024
DATE

STATE OF OHIO
JEFFREY SCOTT PUTHOFF
61619
REGISTERED PROFESSIONAL ENGINEER

ChoiceOne Engineering

VALLE GREENE SENIOR

REVISIONS:

FILE NAME Sheet
DRAWN BY JMK
CHECKED BY JSP
PROJECT No. GREFA12305
SHEET NUMBER 1 OF 26

Z:\project\Greene\Fairborn\GRE-FAI-2305OhererMultiFamily\GT - Title Sheet.dwg 13-Sep-24 8:24 AM

ELEVATION DATUM
ALL ELEVATIONS ARE BASED ON NAVD 88 (ODOT VRS GEOID 18).

GENERAL NOTES AND DETAILS
ALL CONSTRUCTION METHODS, MATERIALS, AND SPECIFICATIONS SHALL COMPLY WITH THE LATEST VERSION OF THE CITY OF FAIRBORN STANDARDS AND SPECIFICATIONS AND/OR THE LATEST VERSION OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION STANDARDS AND SPECIFICATIONS (INCLUDING CURRENT SUPPLEMENTAL SPECIFICATIONS 800 AND 832), WHICHEVER IS MORE RESTRICTIVE AS DETERMINED BY THE CITY OF FAIRBORN.

UNDERGROUND UTILITIES
THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 ORC. EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION ACCORDING TO THE BEST AVAILABLE DATA. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING THEM IN THE FIELD PRIOR TO CONSTRUCTION AND WILL BE RESPONSIBLE FOR ANY DAMAGE DONE TO THEM. CONTRACTOR TO CONTACT OHIO UTILITIES PROTECTION SERVICE (1-800-362-2764) 48 HOURS PRIOR TO CONSTRUCTION.

NON-MEMBERS MUST BE CALLED DIRECTLY.

UTILITY OWNERSHIP
LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

STREETS AND STORM SEWER
CITY OF FAIRBORN
44 W. HEBBLE AVENUE
FAIRBORN, OHIO 45324
(937) 754-3055
ATTN: MANUEL JACOBS

WATER AND SANITARY
CITY OF FAIRBORN
44 W. HEBBLE AVENUE
FAIRBORN, OHIO 45324
(937) 754-3081
ATTN: MARCUS LEHOTAY

ELECTRIC
AES
1900 DRYDEN ROAD
DAYTON, OHIO 45439
(937) 331-4521
ATTN: WILLIAM GOURLEY

ELECTRIC
MIAMI VALLEY LIGHTING
1065 WOODMAN DRIVE
DAYTON, OHIO 45432
(937) 259-7191
ATTN: STEVEN GALYO

TELEPHONE
AT&T
7201 FAR HILLS AVENUE
CENTERVILLE, OHIO 45459
(937) 296-3894
ATTN: TYLER HERRING

CABLE
CHARTER COMMUNICATIONS
3691 TURNER ROAD
DAYTON, OHIO 45415
(937) 396-8611
ATTN: MARY EVANS

GAS
CENTERPOINT ENERGY
6500 CLYO ROAD
CENTERVILLE, OHIO 45459
(937) 312-2521
ATTN: GREGORY FISHMAN

FIBER OPTIC
LUMEN
ATTN: RELOCATIONS@LUMEN.COM

OHIO UTILITIES PROTECTION SERVICE 2
WORKING DAYS BEFORE YOU DIG CALL
TOLL FREE 800-362-2764

UTILITY INTERFERENCE
IF, DURING THE CONSTRUCTION, INTERFERENCE ARISES WITH EXISTING UTILITIES IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY AND COORDINATE AS NEEDED WITH THE UTILITY COMPANY INVOLVED. ANY AND ALL WORK REQUIRED FOR PRIVATE UTILITIES SHALL BE COORDINATED WITH AND, IF REQUIRED, DONE BY THEIR RESPECTIVE OWNERS, UNLESS OTHERWISE NOTED ON THESE PLANS. THE CONTRACTOR SHALL NOTIFY, AT LEAST 7 DAYS BEFORE BREAKING GROUND, ALL PUBLIC SERVICE CORPORATIONS HAVING WIRES, POLES, PIPES, CONDUITS, MANHOLES, OR OTHER STRUCTURES THAT MAY BE AFFECTED BY THIS OPERATION, INCLUDING ALL STRUCTURES WHICH ARE AFFECTED AND NOT SHOWN ON THESE PLANS.

EXISTING TILE HOOKUPS
THE DRAINAGE TILE CURRENTLY CONNECTED TO THE EXISTING STORM SEWER SHALL BE CONNECTED TO THE PROPOSED STORM SEWER. ANY DRAINAGE TILE DAMAGED BY THE CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL CONDITION. ALL TILE REMOVED, REPLACED AND/OR CONNECTED TO THE STORM SEWER SHALL BE NOTED ON THE RECORD DRAWINGS AND SHALL BE INSPECTED BY THE CITY OF FAIRBORN BEFORE THEY ARE COVERED.

ALL FIELD OR STORM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS OR PLUGGED AS APPROVED AND DIRECTED BY THE CITY OF FAIRBORN. CONNECTION OF INTERSECTING DRAIN TILES AND THE PROPOSED STORM SEWER SHALL BE THROUGH MANUFACTURED TEES, UNLESS OTHERWISE APPROVED BY THE CITY OF FAIRBORN. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTORS OVERALL LUMP SUM BID FOR THE PROJECT.

GEOTECHNICAL ENGINEERING REPORT
CONTRACTOR SHALL REVIEW THE GEOTECHNICAL REPORT FOR THE PROPOSED PROJECT AND PERFORM ALL GEOTECHNICAL WORK IN ACCORDANCE WITH THIS REPORT.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES
WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, CITY OF FAIRBORN SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT THE EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, CITY OF FAIRBORN SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTORS OVERALL LUMP SUM BID FOR THE PROJECT.

MUD
THE TRACKING OR SPILLAGE OF MUD, DIRT, OR DEBRIS UPON PUBLIC STREETS IS PROHIBITED AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR.

EXISTING UTILITY CONFLICT NOTE
IF A CONFLICT ARISES WITH EXISTING UTILITIES, THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND APPROPRIATE UTILITY COMPANY TO GET THE CONFLICT RESOLVED.

UTILITY STATEMENT
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. CHOICE ONE ENGINEERING CORPORATION MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN-SERVICE OR ABANDONED. CHOICE ONE ENGINEERING CORPORATION FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. CHOICE ONE ENGINEERING CORPORATION HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

CAD FILE DISCLAIMER
THE CAD FILE ASSOCIATED WITH THESE CONSTRUCTION PLANS IS A NON-CERTIFIED DOCUMENT. ANY USE OF THE INFORMATION OBTAINED OR DERIVED FROM THE ASSOCIATED CAD FILE WILL BE AT THE RECEIVING PARTY/USER'S RISK. CHOICE ONE ENGINEERING CORP. OFFERS NO WARRANTY AS TO THE ACCURACY OF THE INFORMATION IN THE CAD FILE OR THAT REVISIONS HAVE BEEN ISSUED AFTER THE CAD DRAWING WAS RELEASED. RECEIVING PARTIES/USERS SHALL HOLD HARMLESS TO THE MAXIMUM EXTENT ALLOWED BY LAW CHOICE ONE ENGINEERING CORP. FROM ANY USE OF THE CAD FILE BY THE RECEIVING PARTY/USER. IN ALL CIRCUMSTANCES, AND AT ALL TIMES, THE PUBLISHED PAPER AND/OR PDF DRAWINGS FOR THE PROJECT SHALL SUPERSEDE THE CAD FILES. IN THE CASE OF AN INCONSISTENCY BETWEEN THE PUBLISHED PAPER/PDF DRAWINGS AND THE ASSOCIATED CAD FILE, THE PUBLISHED PAPER/PDF DRAWINGS SHALL GOVERN THE PROJECT AND ALL WORK.

SAFETY
THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.

MASONRY COLLAR
A CONCRETE COLLAR SHALL BE PROVIDED WHERE PROPOSED STORM SEWER PIPE IS CONNECTED TO AN EXISTING PIPE. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

DEWATERING AND BY-PASS PUMPING
ANY DEWATERING, COFFERDAMS, OR PUMPING NECESSARY FOR THE CONSTRUCTION OF ANY ITEMS SHALL BE INCIDENTAL TO THOSE PARTICULAR CONSTRUCTION ITEMS AND SHALL BE INCLUDED IN THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

CLEAN WATER NOTE
ROOF DRAINS, FOUNDATION DRAINS, AND ALL OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SYSTEM ARE PROHIBITED.

SANITARY SEWER/LATERAL NOTE
ALL SANITARY SEWER LINES AND SANITARY LATERALS MUST BE INSTALLED WITH 40 INCHES MINIMUM OF COVER OR BELOW FROST DEPTH WHICHEVER IS GREATER.

RETENTION BASIN CLAY LINER NOTE
WHEN A RETENTION BASIN IS SHOWN, CONTRACTOR TO VERIFY SOIL IS SUITABLE TO HOLD WATER FOR PERMANENT POOL. IF FOUND THAT THE SOIL IS UNSUITABLE FOR PERMANENTLY HOLDING WATER, AN 18" THICK COMPACTED CLAY LINER SHALL BE INSTALLED THROUGHOUT THE ENTIRE WET POOL PORTION OF THE RETENTION BASIN. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTORS OVERALL LUMP SUM BID FOR THE PROJECT.

STORM SEWER INSTALLATION
THIS WORK CONSISTS OF CONSTRUCTING STORM SEWER. THE CONTRACTOR SHALL PROVIDE ALL TOOLS AND EQUIPMENT REQUIRED FOR INSTALLING THESE ITEMS. THE WORK ALSO INCLUDES FURNISHING ALL MATERIALS, EXCAVATING, BEDDING, LAYING PIPE, JOINTING, BACKFILLING, REMOVAL AND RESTORATION OF DISTURBED FACILITIES AND SURFACES, CURB REPAIR, SIDEWALK REPAIR, PAVEMENT REPAIR (I.E. PAVEMENT IN STREETS, ALLEYS AND DRIVEWAYS), DISPOSAL OF ALL SURPLUS EXCAVATION AND DISCARDED MATERIALS, AND OTHER WORK NECESSARY TO COMPLETE THE ITEMS. THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD LOCATE ALL EXISTING STORM SEWER, AND OTHER UTILITIES, PRIOR TO INSTALLING THE PROPOSED STORM SEWER SYSTEM. THE EXISTING STORM SEWER AND LATERALS SHOWN ON THE PLANS ARE IN THE APPROXIMATE LOCATION AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD LOCATE PROPOSED TIE-INS TO THE EXISTING STORM PRIOR TO ANY STORM SEWER CONSTRUCTION. ALL TIE-INS SHALL BE THROUGH PREMANUFACTURED TEES OR HOLES INSTALLED USING A CORING MACHINE. PIPE MAY BE ANY OF THE PIPE TYPES LISTED BELOW UNLESS OTHERWISE SPECIFIED ON THE PLANS.

TYPES OF PIPE PERMITTED	ODOT MATERIALS NUMBERS
CORRUGATED POLYETHYLENE SMOOTH-LINED PIPE (CPSLP)	707.33
POLYPROPYLENE CORRUGATED DOUBLE WALL PIPE (PCDWP)	707.65
POLYVINYL CHLORIDE SOLID WALL PIPE (SDR-35)	707.45
REINFORCED CONCRETE PIPE	706.02

GENERAL NOTES
1. INSTALL AND TEST ALL UTILITIES PER THE LATEST VERSION OF THE CITY OF FAIRBORN STANDARDS.

2. ALL DISTURBED AREAS AND ALL NON-PAVEMENT AREAS SHALL HAVE A MINIMUM OF 6" OF TOP SOIL PLACED AND ARE TO BE SEEDED AND MULCHED PER ODOT ITEM 659.

3. ALL CONCRETE USED FOR HEAVY DUTY PAVEMENT(S) AND STANDARD DUTY PAVEMENT(S) SHALL BE ODOT QC-1P AND REINFORCED WITH CONCRETE FIBERS AS SPECIFIED IN THE PROPOSED PAVEMENT SECTION(S) OR AS NOTED HERE. ALL OTHER CONCRETE (WALKS, CURBS, ETC.) SHALL ALSO BE ODOT QC-1P. ALL CONCRETE SHALL BE REINFORCED WITH 3 LBS/CY OF EITHER EUCLID CHEMICAL TUFSTRAND SF, FORTA FERRO FIBRILLATED MACROFIBERS OR APPROVED EQUIVALENT MEETING ASTM C 1116 TYPE 3, MINIMUM 2" LENGTH, ASPECT RATIO 50 TO 90. CONTRACTOR SHALL CONTACT THE FIBER MANUFACTURER'S SUPPLIER 48 HOURS PRIOR TO ORDERING THE FIRST BATCH OF CONCRETE FOR APPROPRIATE MIXING AND FINISHING PROCEDURES.

4. CONTRACTOR TO BE RESPONSIBLE FOR ANY PERMITS OR FEES THAT MAY BE NECESSARY FOR THE COMPLETION OF THE SITE WORK.

5. ALL WORK SHALL CONFORM WITH ALL FEDERAL, STATE, AND LOCAL ADA REGULATIONS AND STANDARDS.

6. ALL ITEMS ON SITE PLAN SHALL BE CONSTRUCTED PER THE LATEST VERSION OF THE CITY OF FAIRBORN STANDARDS.

STORM AND SANITARY CONDUITS/STRUCTURES AND RELATED WORK
THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 611, PIPE CULVERTS, SEWERS, DRAINS, AND DRAINAGE STRUCTURES, EXCEPT AS HEREIN MODIFIED.

THE INSTALLATION OF ALL STORM SEWER, SANITARY SEWER, AND ALL CORRESPONDING STRUCTURES SHALL BE PER MANUFACTURER'S RECOMMENDATIONS OR AS NOTED ON THE PLANS. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN A HIGH STANDARD OF WORK. CONTRACTOR IS RESPONSIBLE TO ENSURE ALL WORK IS PERFORMED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR AS NOTED ON THE PLANS. CONTRACTOR SHALL ALSO ENSURE THAT ALL ITEMS ARE FULLY AND PROPERLY FUNCTIONAL, AND TO A QUALITY ACCEPTABLE TO THE OWNER.

ALL PIPE CULVERTS, CONDUITS, SEWERS, DRAINS, AND DRAINAGE STRUCTURES (CATCH BASINS, YARD DRAINS, MANHOLES, ETC.) SHALL MEET THE MATERIAL REQUIREMENTS OF THIS ITEM. THE FOLLOWING ITEMS WILL NOT BE REQUIRED UNLESS OTHERWISE NOTED: 1) INSTALLATION PLAN, 2) CONSTRUCTION INSPECTION FORMS, 3) PERFORMANCE INSPECTIONS AND REPORTS, 4) CONDUIT AND DRAINAGE STRUCTURE EVALUATIONS.

THE CONTRACTOR SHALL ENSURE THE CONDUIT BEDDING AND BACKFILL COMPACTION DENSITY MEETS ASTM D698 (98% STANDARD PROCTOR). TESTING MAY BE REQUIRED IF DEEMED NECESSARY BY THE OWNER OR THE OWNER'S REPRESENTATIVE.

MAINTAINING TRAFFIC
MAINTAIN TRAFFIC AS INDICATED IN THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", ALSO THE FOLLOWING REQUIREMENTS SHALL APPLY.

EXCAVATIONS WITHIN PUBLIC RIGHT-OF-WAY LIMITS SHALL BE CLOSED AT TIMES WHEN WORK IS NOT BEING PERFORMED.

LOCAL TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT DURING THE TIME THAT AN APPROVED CLOSURE AND DETOUR IS ALLOWED BY THE GOVERNING AUTHORITY.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING NECESSARY TRAFFIC CONTROL DEVICES AND PAVEMENT REPAIR MATERIALS TO MAINTAIN THE TRAVELED PAVEMENT SAFELY.

NO SHUT DOWN OF ANY OWNER FACILITY DRIVE, ROADWAY OR PARKING LOT WILL BE ALLOWED WITHOUT WRITTEN CONSENT FROM THE OWNER. ALL OWNER ROADWAYS MUST HAVE AT LEAST ONE LANE OPEN AT ALL TIMES. NO STAGING OF TRUCKS OUTSIDE OF CONSTRUCTION LIMITS WILL BE PERMITTED WITHOUT CONSENT FROM THE OWNER.

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VALLE GREENE SENIOR
CITY OF FAIRBORN
GENERAL NOTES

REVISIONS:

FILE NAME: NOTES - 001
DRAWN BY: JMK
CHECKED BY: JSP
PROJECT No.: GREFAI2305
DATE: 9-13-2024
SHEET NUMBER: 2 OF 26

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SUBCONTRACTOR SUPERVISION
THE CONTRACTOR IS REQUIRED TO HAVE SOMEONE ON-SITE TO SUPERVISE THE SUBCONTRACTOR FOR QUALITY CONTROL PURPOSES AND TO PROVIDE ANY NECESSARY ASSISTANCE TO THE SUBCONTRACTOR TO ENSURE QUALITY WORK. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

EXCAVATION AND EMBANKMENT
TOPSOIL SHALL BE REMOVED FROM ALL DISTURBED AREAS AND ALL AREAS TO BE EXCAVATED OR EMBANKED. A MINIMUM OF 6" OF TOPSOIL SHALL BE FINE GRADED ON ALL DISTURBED AREAS.

ALL EMBANKMENT SHALL BE COMPACTED TO A MINIMUM OF 100% STANDARD PROCTOR OR AS DETERMINED BY THE OWNER. TESTING MAY BE REQUIRED BY THE OWNER.

SAWCUT PAVEMENT JOINTS
MORE THAN ONE SAWCUT MAY BE NECESSARY TO ENSURE A CLEAN CUT. JUST PRIOR TO ASPHALT OR CONCRETE PLACEMENT, ASPHALT MATERIAL SHALL BE PLACED ON THE VERTICAL FACE OF SAWCUT JOINTS PRIOR TO PAVING AS PER 401.14. AFTER THE ASPHALT WORK IS COMPLETED, THE TRANSVERSE JOINTS SHALL BE SEALED WITH LIQUID ASPHALT.

WATER LINE CROSSING SEPARATION
CONTRACTOR SHALL LOWER/DIP ANY EXISTING OR PROPOSED WATER LINES AS NEEDED TO OBTAIN AN 18" MINIMUM SEPARATION DISTANCE FROM THE WATER LINE TO ANY STORM OR SANITARY SEWER. WATER LINE SHALL BE LAID AT LEAST 10' HORIZONTALLY FROM ANY SEWERS. WHENEVER A SANITARY OR STORM SEWER AND WATER LINE MUST CROSS, THE SEWER AND WATER SHALL BE LAID AT SUCH AN ELEVATION THAT THERE IS AT LEAST 18" OF SEPARATION BETWEEN THE OUTSIDE WALLS OF THE TWO PIPES. ALSO ONE FULL LENGTH OF WATERLINE SHALL BE LOCATED SO THE JOINTS ARE AS FAR FROM THE STORM AND SANITARY SEWERS AS POSSIBLE. IF IT IS ABSOLUTELY IMPOSSIBLE TO MAINTAIN THE 18" VERTICAL SEPARATION, THE SEWER SHALL BE CONSTRUCTED OF WATER LINE TYPE MATERIALS WHICH WOULD BE ABLE TO WITHSTAND A 100 PSI PRESSURE TEST (NOTE: DO NOT PRESSURE TEST SEWER TO 100 PSI). THESE REQUIREMENTS WILL EXTEND FOR THE DISTANCE OF THE ENTIRE SPAN. NO CHANGE OF MATERIALS ARE ALLOWED MID-SPAN. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

PAVEMENT MARKINGS
ALL PAVEMENT MARKINGS SHALL BE PER ODOT ITEM 640 AND 642. ALL PAVEMENT MARKINGS TO BE TYPE 1, UNLESS APPLICATION IS REQUIRED WHEN AIR AND PAVEMENT TEMPERATURES ARE BETWEEN 35 °F AND 50 °F, THEN OBTAIN APPROVAL FROM THE OWNER AND APPLY ONLY PRE-QUALIFIED TYPE IA COLD WEATHER TRAFFIC PAINT MATERIALS PER ITEM 642 AND 740.

ALL MARKING LAYOUT AND COLOR SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

DOWNSPOUTS
THE CONTRACTOR SHALL CONNECT ANY DOWNSPOUTS AS SHOWN ON THE SITE PLAN OR TO THE CLOSEST STORM PIPING OR CATCH BASINS USING CPSLP OR PVC SDR-35 SEWER OR APPROVED EQUAL.

UTILITIES
CONTRACTOR SHALL INSTALL AND/OR COORDINATE THE INSTALLATION OF GAS, ELECTRIC, TELEPHONE, CABLE TELEVISION, FIBER OPTIC, ETC.. CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES PRIOR TO INSTALLATION OF ANY FACILITIES. ALL UTILITIES SHALL BE INSTALLED PER EACH PARTICULAR UTILITY COMPANY'S STANDARDS AND PROCEDURES. CONTRACTOR TO VERIFY ACTUAL SIZES, LOCATIONS (POINTS OF ENTRY INTO THE BUILDING) AND INVERTS OF ALL UTILITIES TYING INTO THE BUILDING WITH ALL ARCHITECT PLANS (BUILDING, PLUMBING, ELECTRICAL, ETC.) BEFORE CONSTRUCTION.

ASPHALT PAVEMENT REPLACEMENT NOTE
ANY EXISTING PAVEMENT THAT IS TO BE REMOVED SHALL BE SAWCUT FULL DEPTH AND RESTORED TO MATCH THE EXISTING PAVEMENT CROSS SECTION UNLESS OTHERWISE NOTED IN THE PLANS.

ASPHALT
ALL ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL APPLY TO THIS PROJECT EXCEPT FOR ODOT ITEM 401.20 ASPHALT BINDER PRICE ADJUSTMENT (ASPHALT CONCRETE BID ITEMS ARE NOT ELIGIBLE FOR ANY ASPHALT BINDER PRICE ADJUSTMENT).

ALL ASPHALT DELIVERED SHALL BE ACCOMPANIED WITH A LOAD TICKET AS PER ITEM 401.21.

REVIEW OF DRAINAGE FACILITIES
BEFORE FINAL ACCEPTANCE BY THE OWNER, REPRESENTATIVES OF THE OWNER, AND THE CONTRACTOR, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. ALL EXISTING SEWERS INSPECTED BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO PRE-EXISTING CONDITION OF THE SEWER. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY OF FAIRBORN AND/OR OWNER.

ALL NEW CONDUITS, UNDERDRAINS (INCLUDING THE STONE BACKFILL ABOVE THE UNDERDRAIN PIPING), INLETS, CATCH BASINS, MANHOLES, SWALES/DITCHES, AND DETENTION/RETENTION BASINS CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER (INCLUDING SEDIMENT) AND IN A CLEAN CONDITION AND FULLY AND PROPERLY FUNCTIONAL BEFORE THE PROJECT WILL BE ACCEPTED BY THE OWNER.

CLEARING AND GRUBBING
CONTRACTOR TO CLEAR THE AREA AS SHOWN ON THE PLANS AND/OR AS NEEDED TO WORK ON THIS PROJECT. UNLESS STATED ELSEWHERE IN THE PLANS, CLEARING AND GRUBBING IS TO BE KEPT TO A MINIMUM IN ORDER TO PRESERVE THE WOODED AREAS.

MODIFICATIONS
ANY MODIFICATIONS TO THE SPECIFICATIONS OR CHANGES TO THE WORK AS SHOWN ON THE DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL BY THE OWNER.

RESTORATION
THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ANY DISTURBED AND/OR DAMAGED AREAS, INCLUDING PAVEMENT, TO CONDITIONS EQUAL TO OR BETTER THAN CONDITIONS PRIOR TO CONSTRUCTION OR TO THE SATISFACTION OF THE OWNER.

MISCELLANEOUS
THE INTENT OF THESE DRAWINGS IS TO INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK BY THE CONTRACTOR. PERFORMANCE BY THE CONTRACTOR SHALL BE REQUIRED TO THE EXTENT CONSISTENT WITH THE CONTRACT DOCUMENTS AND REASONABLY INFERABLE FROM THEM AS BEING NECESSARY TO PRODUCE THE INTENDED RESULTS.

IN THE CASE OF AN INCONSISTENCY BETWEEN DRAWINGS AND SPECIFICATIONS OR WITHIN EITHER DOCUMENT, THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED IN ACCORDANCE WITH THE OWNER'S REPRESENTATIVE'S INTERPRETATION.

CONTRACTORS SHALL VERIFY ALL GRADES, ELEVATIONS, AND EXISTING UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

CONTRACTOR'S LUMP SUM BID PRICE SHALL INCLUDE ALL ITEMS AND OPERATIONS NEEDED, REQUIRED AND NECESSARY FOR THE PROPER EXECUTION OF THE PROJECT AND TO COMPLETE ALL WORK.

GRAFFITI AND VANDALISM
THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF ANY CONCRETE WORK OR OTHER ITEMS UNDER THIS CONTRACT WHICH IS DEEMED UNACCEPTABLE BY THE OWNER DUE TO GRAFFITI OR VANDALISM DAMAGE.

OWNER COORDINATION NOTES
THE CONTRACTOR SHALL COORDINATE THE PROPOSED WORK WITH THE OWNER'S REPRESENTATIVE PRIOR TO PERFORMING ANY WORK ON SITE. IF THE CONTRACTOR IS TO ENGAGE IN ANY OPERATIONS THAT AFFECT THE EXISTING FACILITY OPERATIONS, THE CONTRACTOR SHALL COORDINATE THE SCHEDULING OF SUCH ACTIVITIES WITH THE OWNER'S REPRESENTATIVE PRIOR TO PERFORMING ANY SUCH OPERATIONS OR ACTIVITIES.

THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY SUPPORT, BRACING, AND OTHER DEVICES AS MAY BE REQUIRED OR AS DIRECTED BY OWNER'S REPRESENTATIVE OR THE ENGINEER TO PROTECT THE SAFETY OF THE PUBLIC, ADJACENT STRUCTURES, ROADWAY AND/OR UTILITIES. ALL WORK TO BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.

GENERAL NOTES FOR CIVIL WORK
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKING AND IS TO INCLUDE SUCH COSTS AS A PART OF THE LUMP SUM PRICE ON THE PROJECT.

2. THE CONTRACTOR IS RESPONSIBLE TO CONTACT THE APPROPRIATE UNDERGROUND UTILITY MARKING SERVICE PRIOR TO THE START OF ANY CONSTRUCTION IN ORDER TO AVOID CONFLICTS WITH EXISTING UTILITIES. IF CONFLICTS ARE DISCOVERED, THE CONTRACTOR IS TO NOTIFY THE OWNER PRIOR TO THE START OF ANY WORK THAT WOULD BE IN CONFLICT WITH THE UTILITIES.

3. THE CONTRACTOR IS TO VISIT AND INVESTIGATE THE PROJECT SITE, PRIOR TO BIDDING, IN ORDER TO DETERMINE THE EXISTING GROUND AND SITE CONDITIONS. FOR SOIL TYPE AND GROUND WATER TABLE, THE CONTRACTOR IS ENCOURAGED TO UTILIZE ANY AVAILABLE DATA TO ESTIMATE GROUND CONDITIONS. SHOULD THE BIDDING CONTRACTOR REQUIRE ADDITIONAL TEST HOLES PRIOR TO BIDDING IN ORDER TO DETERMINE OR VALIDATE GROUND CONDITIONS, THIS CAN BE COMPLETED AT THE DISCRETION OF THE OWNER. NO TEST HOLES ARE TO BE DUG WITHOUT CONTACTING THE OWNER'S REPRESENTATIVE PRIOR TO EXCAVATION AND WITHOUT RECEIVING WRITTEN APPROVAL FROM THE OWNER'S REPRESENTATIVE TO DO SO.

4. THE CONTRACTOR SHALL COMPLY WITH ALL RULES AND REGULATIONS WITH REGARD TO EXCAVATION, SAFETY, QUALITY AND WORK PROGRESS. IT IS THE CONTRACTORS RESPONSIBILITY TO COMPLY WITH THESE THROUGHOUT CONSTRUCTION OPERATIONS.

5. THE LOCATION OF MATERIALS STORED ON SITE MUST RECEIVE THE APPROVAL OF THE OWNER. IN GENERAL, MATERIALS SHOULD BE STORED SO AS TO MINIMIZE THE INCONVENIENCE TO THE OWNER.

6. IF EXCAVATED MATERIALS ARE FOUND TO BE CONTAMINATED, REMEDIATION WILL BE AT THE OWNER'S EXPENSE PRIOR TO REMOVAL FROM THE SITE OR DISPOSAL ON-SITE BY THE CONTRACTOR. THIS PROCESS WILL BE COORDINATED BETWEEN THE OWNER AND CONTRACTOR.

7. TRENCH EXCAVATION SHALL BE PERFORMED IN ACCORDANCE WITH THE BID SPECIFICATIONS AND IN ACCORDANCE WITH ALL APPLICABLE OSHA RULES AND REGULATIONS. IN ADDITION, THE OWNER MAY HAVE ADDITIONAL REQUIREMENTS FOR EXCAVATION AND TRENCHING ON OWNER PROPERTY THAT MAY BE MORE STRINGENT THAN CURRENT LOCAL OR OSHA REQUIREMENTS. IN THIS CASE, THE OWNER'S REQUIREMENTS ARE TO BE FOLLOWED UNLESS THIS ACTION WOULD BE CONSIDERED NON-COMPLIANT WITH CURRENT GOVERNING CODES OR REGULATIONS AS DEFINED BY LOCAL OR GOVERNING AUTHORITIES. WHERE A NON-COMPLIANCE ISSUE IS NOTED, THE CONTRACTOR IS TO MAKE THE OWNER AND ENGINEER AWARE OF THE GOVERNING CODE.

8. THE CONTRACTOR WILL BE RESPONSIBLE TO REPAIR, REPLACE, AND/OR RECONNECT ANY EXISTING DRAINAGE TILES, NOT SHOWN ON THE PLANS, WHICH CROSS THROUGH THE EXCAVATED TRENCH. ANY DRAINAGE TILES ENCOUNTERED ARE TO BE BROUGHT TO THE ATTENTION OF THE OWNER AND A MEASUREMENT TAKEN FROM THE NEAREST MANHOLE OR INLET STRUCTURE TO THE CENTERLINE OF THE TILE. THIS INFORMATION SHALL BE PROVIDED TO THE OWNER AS PART OF THE RECORD DRAWINGS.

9. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPAIRS TO ANY UTILITY LINE(S) THAT THE CONTRACTOR DAMAGES UNLESS OTHERWISE CLEARLY THE RESPONSIBILITY OF THE UTILITY COMPANY.

10. THE CONTRACTOR WILL REPLACE ALL DAMAGED OR REMOVED DRIVES AND PAVEMENT WITH THE REQUIRED THICKNESS SHOWN ON THE PLANS OR MATCH EXISTING IF GREATER.

11. ALL DISTURBED LAWN AREAS SHALL BE GRADED TO DRAIN TO THE NEAREST INLET STRUCTURE.

12. CONTRACTOR SHALL USE PROPER EROSION CONTROL TECHNIQUES TO MAINTAIN GRADE PRIOR TO SEEDING.

13. CONTRACTOR TO REFER TO ODOT SPECIFICATION, ITEM 659 FOR SEEDING AND MULCHING UNLESS OTHERWISE SPECIFIED. CONTRACTOR WILL NOT SEED ANY AREA UNTIL OWNER HAS INSPECTED FINAL TOPSOIL GRADING.

14. CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE ALL FENCES, LAWN DECORATIONS, TREES, SHRUBS, PLANTING, VEGETATION ETC. WHICH IS DAMAGED, DISTURBED OR REMOVED DURING CONSTRUCTION.

15. DURING PAVING OPERATIONS, THE CONTRACTOR MUST SUBMIT A WRITTEN PLAN IDENTIFYING DRIVE AREAS WITHIN THE SITE THAT WILL BE SHUT DOWN FOR CONSTRUCTION OPERATIONS PRIOR TO START OF ANY WORK IN THOSE AREAS. CONTRACTOR MUST MAINTAIN A MINIMUM OF ONE LANE FOR TRAFFIC IN ANY AREAS SO DESIGNATED BY THE OWNER THROUGHOUT ALL CONSTRUCTION OPERATIONS.

ITEM 203 EXCAVATION AND EMBANKMENT CONSTRUCTION, AS PER PLAN
THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 203 ROADWAY EXCAVATION AND EMBANKMENT, EXCEPT AS HEREIN MODIFIED.

TOPSOIL SHALL BE REMOVED FROM ALL DISTURBED AREAS AND ALL AREAS TO BE EXCAVATED OR EMBANKED. A MINIMUM OF 6" OF TOPSOIL SHALL BE FINE GRADED ON ALL DISTURBED AREAS.

ALL EMBANKMENT FOR ALL PAVEMENT OR BUILDING AREAS SHALL BE OF SUITABLE ENGINEERED FILL MATERIAL AND SHALL BE COMPACTED TO A MINIMUM OF 100% STANDARD PROCTOR OR AS DETERMINED BY THE OWNER. ALL OTHER EMBANKMENT AREAS SHALL BE COMPACTED TO A MINIMUM OF 100% STANDARD PROCTOR OR AS DETERMINED BY THE OWNER. TESTING MAY BE REQUIRED BY THE OWNER.

ALL EXCESS SURFACE MATERIAL, EXCAVATED UNSUITABLE MATERIAL AND ALL EXCESS EXCAVATED MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN RESPONSIBILITY AND EXPENSE OUTSIDE OF THE PROPERTY AT A SITE APPROVED BY THE OWNER.

PAYMENT FOR ITEM 203 EXCAVATION AND EMBANKMENT CONSTRUCTION, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

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VALLE GREENE SENIOR
CITY OF FAIRBORN
GENERAL NOTES

REVISIONS:

FILE NAME NOTES - 002
DRAWN BY JMK
CHECKED BY JSP
PROJECT No. GREFAI2305
DATE 9-13-2024
SHEET NUMBER 3 OF 26

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ITEM 204 SUBGRADE COMPACTION AND PROOF ROLLING, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 204 SUBGRADE COMPACTION AND PROOF ROLLING, EXCEPT AS HEREIN MODIFIED.

ALL AREAS TO RECEIVE PAVEMENT SHALL BE COMPACTED AS NOTED IN ODOT ITEM 204. OWNER'S REPRESENTATIVE WILL REQUIRE PROOF ROLLING OF SUBGRADE PRIOR TO INSTALLATION OF SUB-BASE AND/OR BASE MATERIAL. PROOF ROLLING SHALL CONSIST OF DRIVING OVER THE SUBGRADE WITH A LOADED TANDEM DUMP TRUCK AS DIRECTED BY THE OWNER'S REPRESENTATIVE UNTIL NO DEFLECTION OR TIRE INDENTATION IN THE SUBGRADE IS PRESENT. CONTRACTOR TO PERFORM ALL PROOF ROLLING PROCEDURES AND ANY NECESSARY CORRECTIVE MEASURES AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

PAYMENT FOR ITEM 204 SUBGRADE COMPACTION AND PROOF ROLLING FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 204 EXCAVATION OF SUBGRADE AND STRUCTURAL EMBANKMENT, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 204 SUBGRADE COMPACTION AND PROOF ROLLING, EXCEPT AS HEREIN MODIFIED.

THIS WORK SHALL INCLUDE THE EXCAVATING OF UNSUITABLE SUBGRADE AND REPLACING WITH ODOT ITEM 304 AGGREGATE BASE, ODOT #1, ODOT #2, OR ANY COMBINATION AS DIRECTED BY THE OWNER. LOCATION AND AMOUNT OF THIS ITEM SHALL BE LOCATED BY THE OWNER AT THE TIME OF CONSTRUCTION ONLY AFTER THE CONTRACTOR HAS SATISFACTORILY ATTEMPTED TO DRY OUT AND WORK THE SUBGRADE. THIS ITEM INCLUDES EXCAVATION AND DISPOSAL OF UNSUITABLE MATERIAL, SUBGRADE COMPACTION, AND THE SUPPLY AND PLACEMENT OF THE ABOVE MENTIONED STRUCTURAL MATERIAL. THE QUANTITY WILL BE AS DETERMINED IN THE FIELD BASED ON SITE SUBGRADE CONDITIONS, BUT THIS ITEM COULD BE NON-PERFORMED IF DEEMED UNNECESSARY.

PAYMENT FOR ITEM 204 EXCAVATION OF SUBGRADE AND STRUCTURAL EMBANKMENT, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT CUBIC YARD BID PRICE WHICH THE CONTRACTOR SHALL PROVIDE WITH THEIR LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 204 GEOGRID, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 204, SUBGRADE COMPACTION AND PROOF ROLLING, EXCEPT AS HEREIN MODIFIED.

SELECTIONS OF AREAS THAT NEED GEOGRID, IN ADDITION TO ITEM 204, EXCAVATION OF SUBGRADE AND STRUCTURAL EMBANKMENT, AS PER PLAN, SHALL BE DETERMINED BY THE OWNER BY WITNESSING THE CONTRACTOR'S PROOF ROLLING THE EXPOSED SITE OR AS DETERMINED BY THE OWNER'S REPRESENTATIVE.

THE QUANTITY WILL BE AS DETERMINED IN THE FIELD BASED ON SITE SUBGRADE CONDITIONS, BUT THIS ITEM COULD BE NON-PERFORMED IF DEEMED UNNECESSARY. THE METHOD OF MEASUREMENT SHALL BE THE SURFACE AREA COVERED BY THE STABILIZATION MEMBRANE, NOT INCLUDING OVERLAP OR WASTE.

THE WORK SHALL INCLUDE SUBGRADE STABILIZATION BY UTILIZING THE TENSAR TX5 GEOGRID. LOCATION AND AMOUNT SHALL BE LOCATED BY THE OWNER AT THE TIME OF CONSTRUCTION. THE GEOGRID SHALL BE INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS AND SPECIFICATIONS. THIS WORK SHALL ALSO INCLUDE THE ADDITIONAL LABOR AND EQUIPMENT TO PROPERLY PLACE THE 304 AGGREGATE BASE OVER GEOGRID AS RECOMMENDED BY MANUFACTURER.

PAYMENT FOR ITEM 204 GEOGRID, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE AT THE CONTRACT SQUARE YARD BID PRICE WHICH THE CONTRACTOR SHALL PROVIDE WITH THEIR LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 304 AGGREGATE BASE, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 304 AGGREGATE BASE, EXCEPT AS HEREIN MODIFIED.

THIS ITEM SHALL ALSO INCLUDE SATURATING THE AGGREGATE BASE WITH WATER DURING PLACEMENT OF EACH LIFT PRIOR TO COMPACTION. THIS WORK SHALL INCLUDE "PROOF ROLLING" WITH LOADED TANDEM DUMP TRUCK AS DIRECTED BY THE OWNER'S REPRESENTATIVE UNTIL NO DEFLECTION OR TIRE INDENTATION IN THE AGGREGATE SUB-BASE/BASE IS PRESENT.

PAYMENT FOR ITEM 304 AGGREGATE BASE FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 659 SEEDING AND MULCHING, CLASS 1 (LAWN MIXTURE), AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 659, SEEDING AND MULCHING, EXCEPT AS HEREIN MODIFIED.

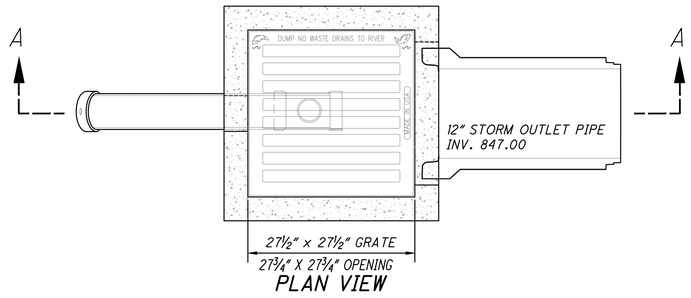
ALL DISTURBED AREAS OR AREAS DESIGNATED FOR SEEDING SHALL BE GRADED AND SEEDED AND SHALL HAVE A MINIMUM OF 6'' OF TOPSOIL OVER THE ENTIRE AREA. TESTING THE PH OF ANY EXISTING OR IMPORTED TOPSOIL PER ODOT 659.02 SHALL BE WAIVED. THE AREA SHALL BE HAND-RAKED AND DRESSED READY FOR SEEDING. NO STONE OVER $1\frac{9}{32}$ IN SIZE PERMITTED IN THE TOP 6''.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL.

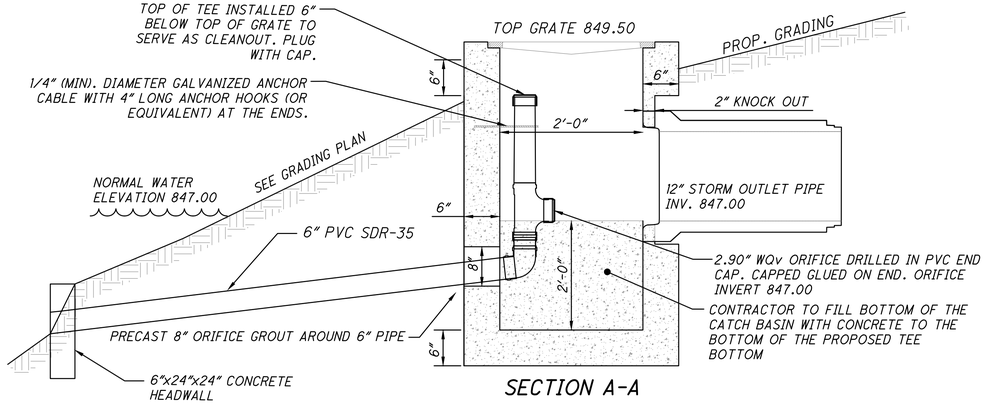
IT'S THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE THE REQUIRED GERMINATION RATES AND ENSURE THE GRASS IS ESTABLISHED TO THE SATISFACTION OF THE OWNER WHICH MAY REQUIRE WATERING, REGRADING/ADDING TOPSOIL AND RESEEDING.
ANY AREAS THAT HAVE ERODED OR WHERE NEW GRASS DID NOT GERMINATE SHALL BE ADDRESSED BY THE CONTRACTOR UNTIL THE AREAS ARE STABILIZED, SHAPED, AND DRAINED, AS INDICATED IN THE PLANS.

ANY DISTURBED AREA, OUTSIDE OF THE PROJECT WORK LIMITS, CAUSED BY THE CONTRACTOR'S WORK, SHALL BE RESTORED TO THE SATISFACTION OF THE PROPERTY OWNER AND PROJECT OWNER'S REPRESENTATIVE, AT THE CONTRACTOR'S SOLE EXPENSE.
THIS ITEM INCLUDES: TOPSOIL, SEEDING, MULCHING, COMMERCIAL FERTILIZER, WATER, AND REPAIR SEEDING AND MULCHING.

PAYMENT FOR ITEM 659 SEEDING AND MULCHING, CLASS 1 (LAWN MIXTURE), AS PER PLAN, FOR ALL ABOVE OPERATIONS, SHALL BE INCLUDED IN THE LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

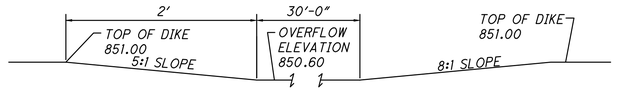


PLAN VIEW



SECTION A-A

2-2B CATCH BASIN, OUTLET STRUCTURE #1 (POND #1)



RETENTION POND 1 TYPICAL SECTION

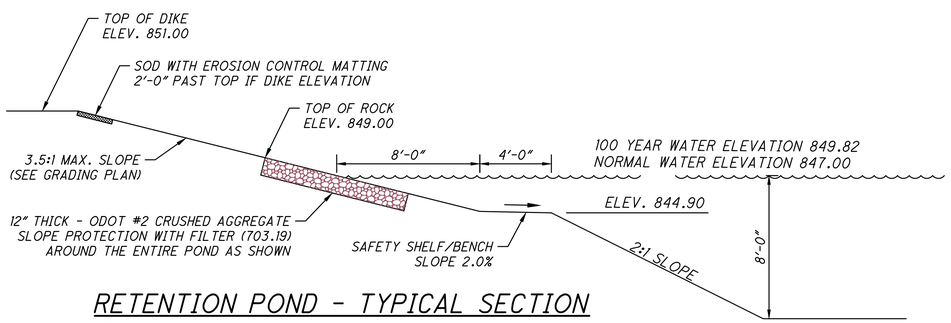
NOTES

A. GRATE SHALL BE NEENAH CATALOG NO. R-4871 (TYPE D GRATE) OR EQUIVALENT. CONTRACTOR SHALL FASTEN/BOLT DOWN GRATE TO STRUCTURE TO ENSURE GRATE IS SECURELY FASTENED IN PLACE.

B. PRECAST CONSTRUCTION IS REQUIRED, UNLESS OTHERWISE APPROVED, AND CONCRETE SHALL MEET THE REQUIREMENTS OF 706.13. KNOCKOUTS CAN BE PROVIDED IN PRECAST CONSTRUCTION. PRECAST WALLS SHALL HAVE A SUFFICIENT AMOUNT OF REINFORCEMENT TO PERMIT SHIPPING AND PLACEMENT WITHOUT DAMAGE.

RETENTION POND 1 WEIR DETAIL

NTS



RETENTION POND - TYPICAL SECTION

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VALLE GREENE SENIOR
CITY OF FAIRBORN
GENERAL NOTES AND DETAILS

REVISIONS:

FILE NAME NOTES - 003
DRAWN BY JMK
CHECKED BY JSP
PROJECT No. GREFAI2305
DATE 9-13-2024
SHEET NUMBER 4 OF 26

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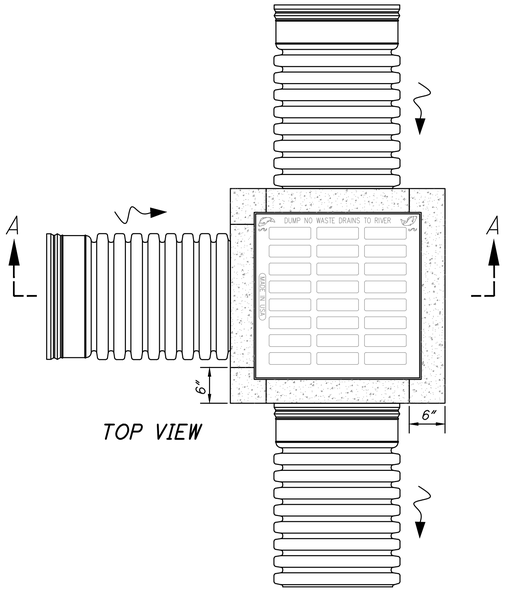
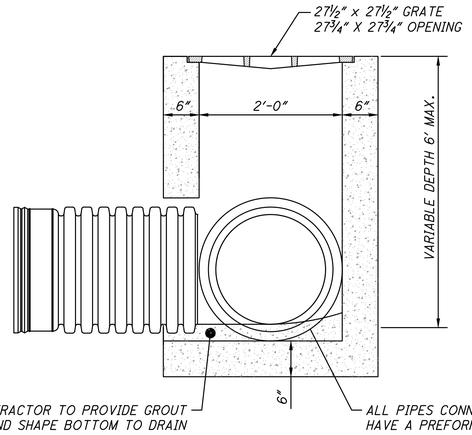


TOP VIEW



SECTION A-A

NOTES

A. LOCATION AND ELEVATIONS WHEN GIVEN ON THE PLANS IS TOP CENTER OF THE GRATE. WHEN SIDE OPENINGS ARE PROVIDED, ELEVATION SHALL BE THE FLOW LINE OF THE SIDE INLET.

B. CATCH BASINS INSTALLED IN NON-PAVED AREAS SHALL BE PROVIDED WITH A RECESSED GRATE MANUFACTURED BY NEENAH CATALOG NO. R-4859-C (TYPE A) OR EAST JORDAN IRON WORKS 5110 (TYPE M3) OR EQUIVALENT.

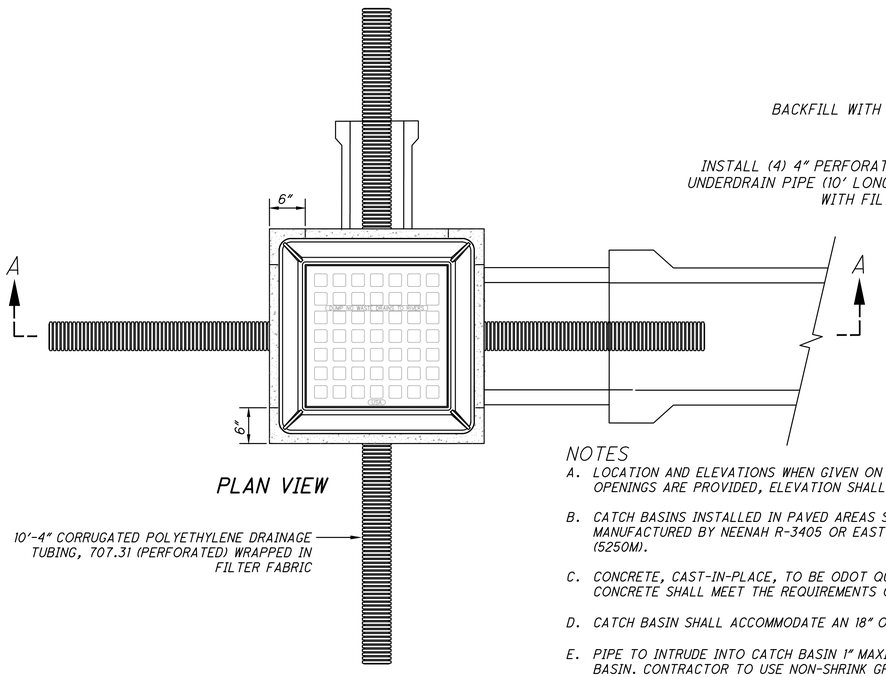
C. CONCRETE, CAST-IN-PLACE, TO BE ODOT QC 1. PRECAST CONSTRUCTION IS PERMITTED AND CONCRETE SHALL MEET THE REQUIREMENTS OF 706.13.

D. GRATE ELEVATION TO BE PLACED 4" - 6" BELOW THE NORMAL DITCH LINE RETURNING TO NORMAL 10'-0" ON EACH SIDE OF STRUCTURE.

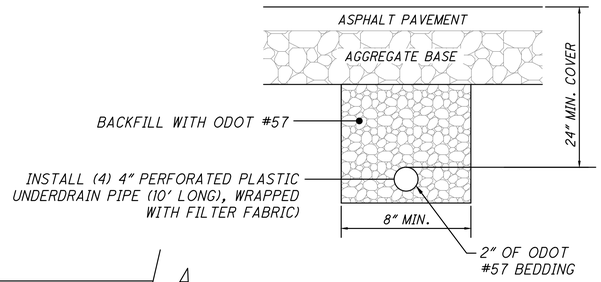
E. CATCH BASIN SHALL ACCOMMODATE AN 18" OR SMALLER PIPE.

F. PIPE TO INTRUDE INTO CATCH BASIN 1" MAXIMUM AND PIPE MUST BE CUT PARALLEL TO CATCH BASIN. CONTRACTOR TO USE NON-SHRINK GROUT COMPLETELY SEAL AROUND THE PIPE AND CATCH BASIN.

2-2B CATCH BASIN (NON-PAVED AREAS)



PLAN VIEW



UNDERDRAIN DETAIL

NOTES

A. LOCATION AND ELEVATIONS WHEN GIVEN ON THE PLANS IS TOP CENTER OF THE GRATE. WHEN SIDE OPENINGS ARE PROVIDED, ELEVATION SHALL BE THE FLOW LINE OF THE SIDE INLET.

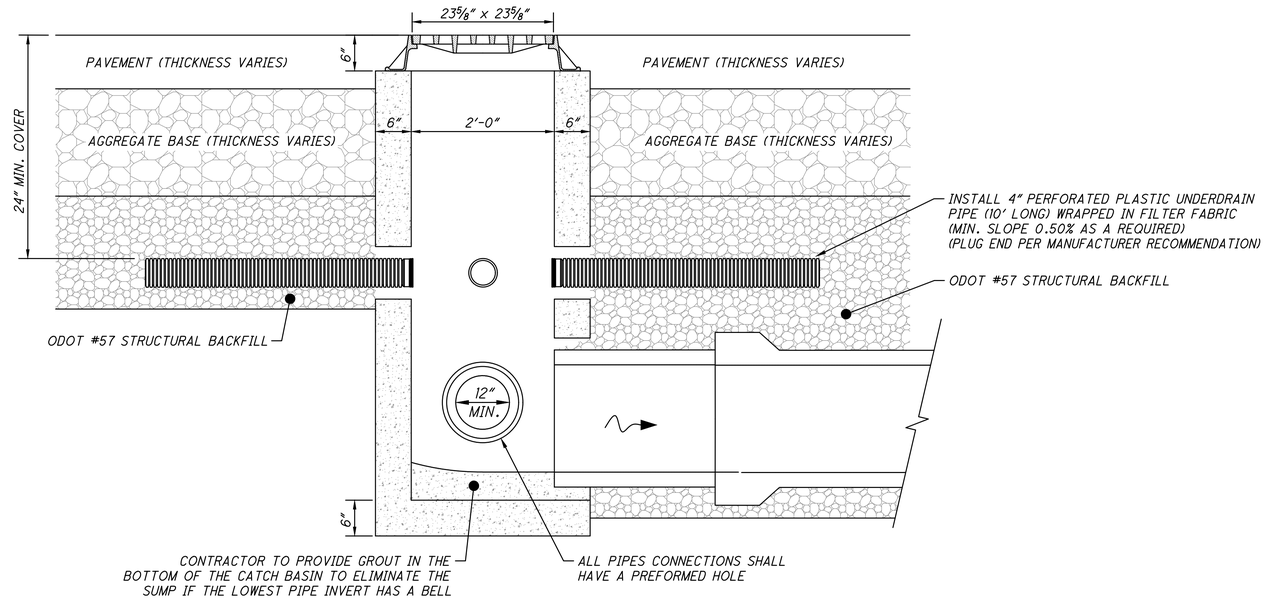
B. CATCH BASINS INSTALLED IN PAVED AREAS SHALL BE PROVIDED WITH A FRAME AND GRATE MANUFACTURED BY NEENAH R-3405 OR EAST JORDAN IRON WORKS (FRAME 5250Z) AND GRATE (5250M).

C. CONCRETE, CAST-IN-PLACE, TO BE ODOT QC 1. PRECAST CONSTRUCTION IS PERMITTED AND CONCRETE SHALL MEET THE REQUIREMENTS OF 706.13.

D. CATCH BASIN SHALL ACCOMMODATE AN 18" OR SMALLER PIPE.

E. PIPE TO INTRUDE INTO CATCH BASIN 1" MAXIMUM AND PIPE MUST BE CUT PARALLEL TO CATCH BASIN. CONTRACTOR TO USE NON-SHRINK GROUT COMPLETELY SEAL AROUND THE PIPE AND CATCH BASIN.

F. THE CONTRACTOR SHALL ENSURE THE FRAME IS SECURELY BOLTED/FASTENED TO THE CATCH BASIN DURING INSTALLATION IN ALL PAVED AREAS (GRAVEL, ASPHALT AND CONCRETE).



2-2C CATCH BASIN (PAVED AREAS, WITH UNDERDRAINS)

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VALLE GREENE SENIOR
CITY OF FAIRBORN
GENERAL DETAILS

REVISIONS:

FILE NAME: DETAILS - 004
DRAWN BY: JMK
CHECKED BY: JSP
PROJECT No.: GREFAI2305
DATE: 9-13-2024
SHEET NUMBER: 5 OF 26

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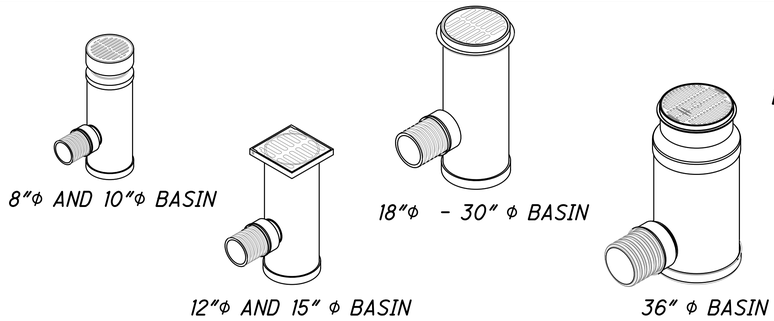

NOTES

A. LOCATION AND ELEVATIONS WHEN GIVEN ON THE PLANS IS TOP CENTER OF THE GRATE.

B. THE BASIN DIAMETER SHALL BE DETERMINED BY THE BASIN MANUFACTURER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE BASIN MANUFACTURER, NYLOPLAST, TO DETERMINE THE REQUIRED BASIN DIAMETER BASED ON THE PIPING CONFIGURATION AND TO SUPPLY THE NEEDED BASIN DIAMETER. CONTRACTOR TO INSTALL PER MANUFACTURERS RECOMMENDATIONS.

C. THE FRAME AND GRATE SHALL BE THE STANDARD OPTION DUCTILE IRON PER ASTM A536 GRADE 70-50-05. (NYLOPLAST - 8" #0899CGS, 10" #1099CGS, 12" #1299CGS.....36" #3099CGS). FOR LANDSCAPE AREAS THE FRAME AND GRATE SHALL BE THE (NYLOPLAST DOME GRATE: #0899CGD, #1099CGD, #1299CGD.....30" #3099CGD).

D. THE BASINS SHALL BE MANUFACTURED FROM PVC PIPE STOCK (RAW MATERIAL PER ASTM D1784 CELL CLASS 12454), UTILIZING A THERMOFORMING PROCESS TO REFORM THE PIPE STOCK TO SPECIFIED CONFIGURATION. A WATERTIGHT CONNECTION SHALL CONFORM TO ASTM D3212. FLEXIBLE ELASTOMERIC SEALS SHALL CONFORM TO ASTM F477. PER ASTM D1784 CELL CLASS 12454. (NYLOPLAST - 8" #2808AG, 10" #2810AG, 12" #2812AG.....36" #2836AG)

E. THE BASIN ADAPTOR CONNECTIONS HAVE THE CAPABILITY TO CONNECT INTO VARIOUS TYPES (HDPE, PVC SDR-35, PVC SCG-40, PVC C900, CORRUGATED/RIBBED PVC.

F. ALL YARD DRAINS THAT ARE INSTALLED WITHIN PLANTING BEDS AND/OR MULCH BEDS SHALL HAVE A BEEHIVE/DOME GRATE WITH A STONE COLLAR SURROUNDING THEM TO PREVENT MULCH FROM WASHING INTO THE BASIN. STONE COLLAR TO BE 6" WIDE BY 6" THICK AROUND THE ENTIRE PERIMETER OF THE BASIN AND CONSIST OF 1" TO 2" ROUND RIVER ROCK. CONTRACTOR SHALL FASTEN/BOLT DOWN GRATE TO BASIN TO ENSURE GRATE IS SECURELY FASTENED IN PLACE.

G. IF GRATES ARE LOCATED WITHIN PAVED OR WALKING AREAS, GRATES MUST BE SAFE FOR PEDESTRIAN TRAFFIC PER ADA REQUIREMENTS, BE LOCKING, BE DUCTILE IRON, AND MEET H-10 LOADING.

YARD DRAIN

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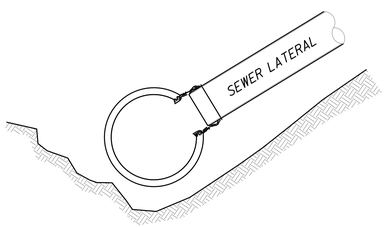
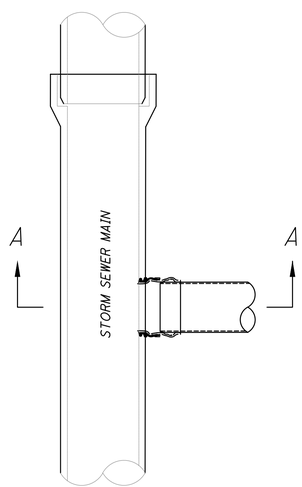


SECTION A-A



NOTES

A. THE INSERTA TEE GASKETED CONNECTION FITTING TYPE SHALL MATCH THE STORM SEWER MAIN MATERIAL AND BE MANUFACTURED BY INSERTA FITTINGS CO. OR EQUAL.

B. RECOMMEND CUTTING HOLE WITH A HOLE SAW FOR PVC PIPE AND A DIAMOND BIT FOR CONCRETE OR CLAY PIPE. THE HOLE SAW SIZE SHOULD FOLLOW THE MANUFACTURERS RECOMMENDATIONS. CONTRACTOR IS RESPONSIBLE TO FIX ANY LOOSE CONNECTIONS DUE TO IMPROPER HOLE SIZE.

C. INSERTA TEES SHALL BE USED WHEREVER POSSIBLE AND BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

INSERTA TEE (LATERAL TO MAIN) CONNECTION

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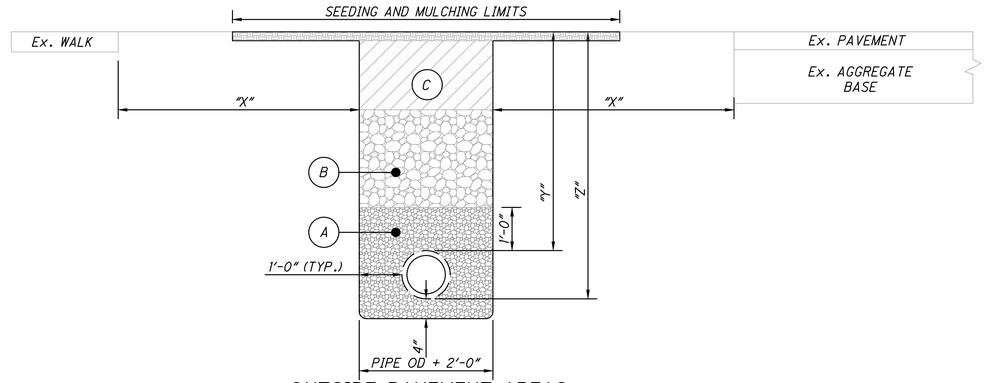
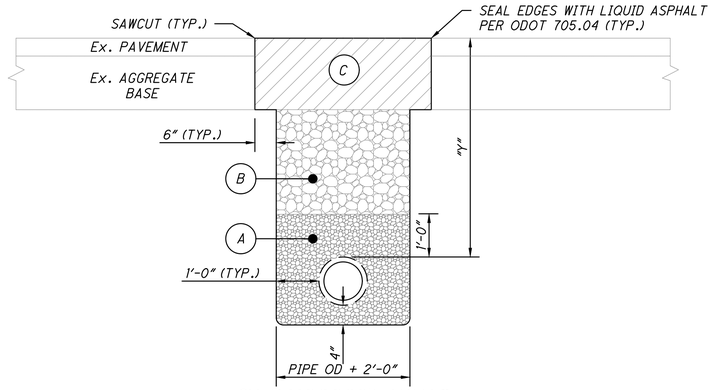


OUTSIDE PAVEMENT AREAS

"X"= DISTANCE FROM EDGE OF TRENCH TO EDGE OF CLOSEST PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, STONE AREA OR WALKS.

"Z"= DISTANCE FROM TOP OF BEDDING TO FINISH SURFACE.

"Y"= DEPTH OF COVER FOR PROPOSED CONDUIT
WATER MAINS.....4'-6" MIN. (REFER TO PROFILE)
STORM SEWERS.....2'-0" MIN. (REFER TO PROFILE)
SANITARY SEWERS.....4'-0" MIN. (REFER TO PROFILE)



IN PAVEMENT AREAS

NOTES

(A.) BEDDING SHALL BE PER ODOT 703.11 "STRUCTURAL BACKFILL FOR 611 BEDDING AND BACKFILL" TYPE 3 (#57 OR #67 AGGREGATE), OR OTHER APPROVED EQUIVALENT BY THE MUNICIPALITY. THERE SHALL BE 4" MIN. BEDDING BELOW THE PIPE. THE FOLLOWING BEDDING MATERIAL SHALL BE USED PER PROPOSED CONDUIT:

- WATER MAIN, WATER SERVICES, FIRE HYDRANTS AND APPURTENANCES - SHALL BE NATURAL CRUSHED STONE OR NATURAL GRAVEL.
- STORM AND SANITARY SEWERS - SHALL BE CRUSHED LIMESTONE OR NATURAL CRUSHED STONE.

(B.) STRUCTURAL BACKFILL - DENSITY TEST TO 95% OF ASTM D698 STANDARD PROCTOR CURVE MAY BE REQUIRED BY MUNICIPALITY TO BE COMPLETED BY A CERTIFIED COMMERCIAL TESTING LABORATORY.

FOR "OUTSIDE PAVEMENT AREAS":
ALL TRENCHES WHERE "X" IS GREATER THAN "Z", THE BACKFILL MATERIAL SHALL BE COMPACTED NATIVE MATERIAL IN 12" MAXIMUM LIFTS OR AS APPROVED BY THE MUNICIPALITY. NO MATERIAL SHALL BE USED FOR BACKFILLING THAT CONTAINS STONE, ROCKS, ETC., GREATER THAN 3" DIAMETER.

ALL TRENCHES WHERE "Z" IS GREATER THAN "X", THE BACKFILL MATERIAL SHALL BE ODOT ITEM 703.11, TYPE 1 (#304 AGGREGATE). THE AGGREGATE SHALL BE COMPACTED IN 12" MAXIMUM LIFTS AND BE USED UNTIL THE BACKFILL HEIGHT RESULTS IN "X" BEING GREATER THAN "Z" AT WHICH TIME NATIVE BACKFILL CAN BE USED.

FOR "IN PAVEMENT AREAS":
ALL TRENCHES SHALL HAVE ODOT ITEM 703.11, TYPE 1 (#304 AGGREGATE) BACKFILL PLACED FROM THE TOP OF THE BEDDING TO THE BOTTOM OF THE ROADWAY BASE.

(C.) ALL "OUTSIDE PAVEMENT AREAS" SHALL RECEIVE A MIN. OF 6" OF TOPSOIL OVER THE COMPACTED MATERIAL AND THEN SEEDED PER ODOT 659. ALL "IN PAVEMENT AREAS" SHALL FOLLOW THE CORRESPONDING PAVEMENT COMPOSITION PROVIDED IN THE HATCH LEGEND. THE TRENCH DETAIL SHOWS THE PAVEMENT REPAIR LIMITS. ANY PAVEMENT REPAIR BEYOND THIS WILL BE AT THE COST OF THE CONTRACTOR.

TRENCH DETAIL

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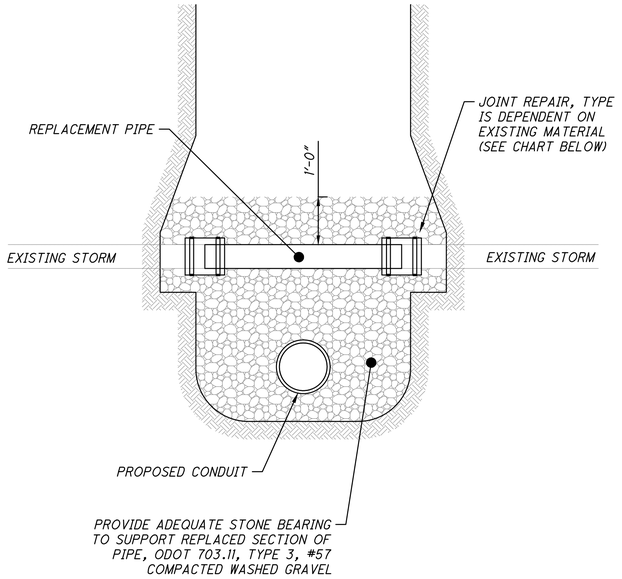
SEE TRENCH DETAIL
FOR PROPER BACKFILLING



EXISTING PIPE MATERIAL	JOINT REPAIR
PVC	STAINLESS STEEL SOLID SLEEVE PLASTIC TO PLASTIC, PVC COUPLING ASTM D-3034/F-1336PSM OR EQUAL
OTHER THAN PVC (CLAY, DUCTILE, ETC.)	STAINLESS STEEL SOLID SLEEVE COUPLINGS WITH STAINLESS STEEL BANDS, EACH SIDE, OR EQUAL
CMP	CORRUGATED METAL PIPE COUPLING
RCP	CONCRETE COLLAR

NOTES

A. CONCRETE REPAIRS OR PATCHES ARE UNACCEPTABLE.

B. ANY DRAINAGE TILE DAMAGED BY THE CONTRACTOR MUST BE REPLACED BY THE CONTRACTOR TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL CONDITION. ANYTHING REMOVED, REPLACED, AND/OR CONNECTED TO THE STORM SEWER MUST BE NOTED ON THE AS-BUILT DRAWINGS AND MUST BE INSPECTED BY THE INSPECTOR BEFORE THEY A RE-COVERED.

C. ALL FIELD OR STORM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION MUST BE PROVIDED WITH UNOBSTRUCTED OUTLETS OR PLUGGED AS APPROVED AND DIRECTED BY THE MUNICIPALITY.

REPAIR OF EXISTING FIELD TILE OR STORM PIPE DETAIL

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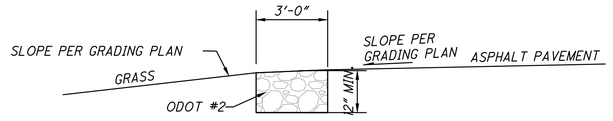
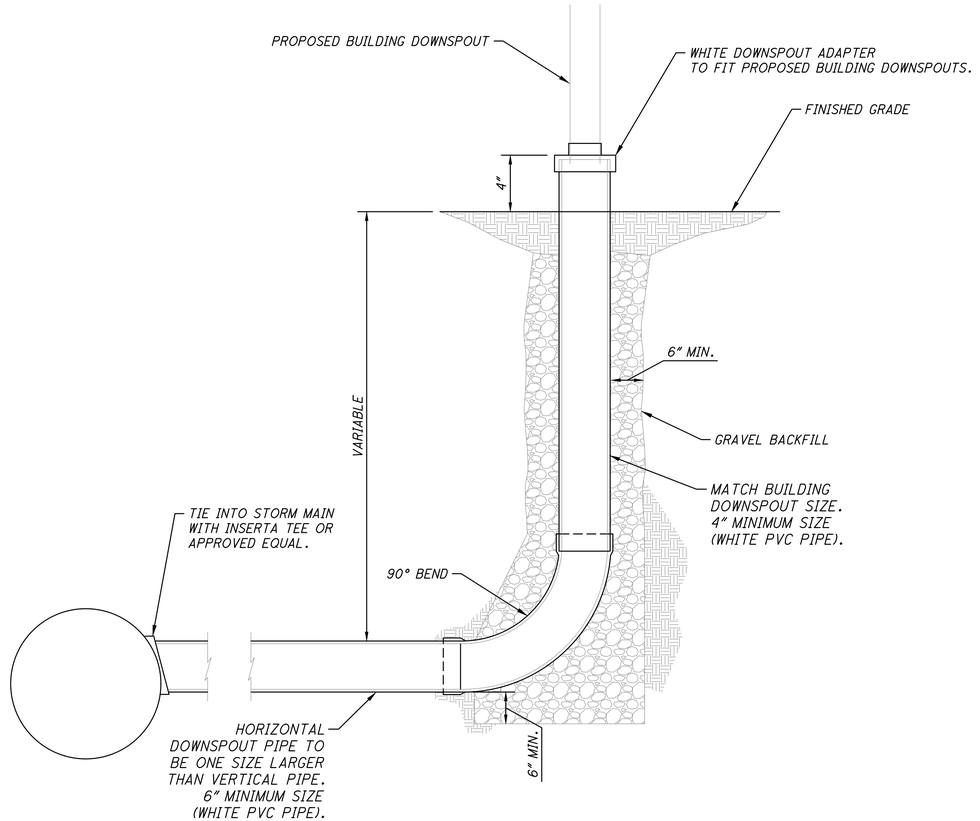


ROCK BERM DETAIL



DOWNSPOUT CONNECTION DETAIL

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SHEET NUMBER: 7 OF 26

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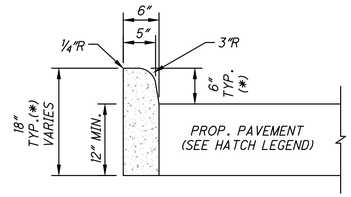

NOTES

A. (*) HEIGHT VARIES WITH CURB EXPOSURE. ASTERISK INDICATES PROPOSED TOP OF CURB SPOT GRADE ELEVATION WITH CURB EXPOSURE THAT VARIES FROM THE STANDARD 0.50' (6") CURB

B. CONCRETE WORK SHALL MEET THE REQUIREMENTS SET FORTH IN ODOT ITEM 609 CURBING.

C. CURBING SHALL HAVE CONTRACTION JOINTS EVERY 10' AND EXPANSION JOINTS EVERY 100'.

D. MINIMUM OF 6" OF ODOT 304 SHALL BE PLACED UNDER CURBING.

E. CURBING SHALL BE BACKFILLED IMMEDIATELY AFTER FORMS ARE REMOVED OR AS SOON AS PRACTICAL WHEN SLIPFORMING PRIOR TO OTHER CONSTRUCTION OPERATIONS.

F. PROVIDE BROOM FINISH AND EDGING TO ALL EXPOSED SURFACES.

G. APPLY WHITE PIGMENTED CURING COMPOUND ON ALL SURFACES INCLUDING BACK IMMEDIATELY AFTER FINISHING SURFACES. ANY OTHER METHOD OR TYPE OF CURING COMPOUND MUST BE PREAPPROVED.

H. ALL CONCRETE SHALL BE ODOT QC-1P.

I. CONCRETE TO INCLUDE 3 LBS/CY OF EITHER EUCLID CHEMICAL TUFSTRAND SF, FORTA FERRO SYNTHETIC MACROFIBERS OR APPROVED EQUIVALENT MEETING ASTM C 1116 TYPE 3, MINIMUM 2" LENGTH, ASPECT RATIO 50 TO 90. CONTRACTOR SHALL CONTACT THE FIBER MANUFACTURER'S SUPPLIER 48 HOURS PRIOR TO ORDERING THE FIRST BATCH OF CONCRETE FOR APPROPRIATE MIXING AND FINISHING PROCEDURES.

TYPE 6 BARRIER CURB

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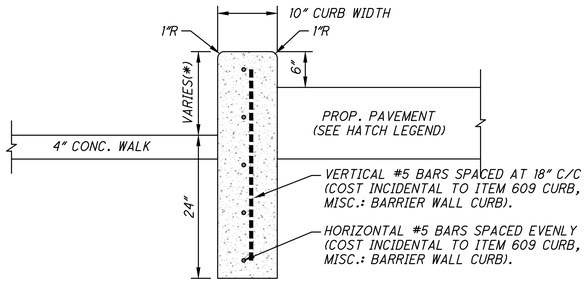


NOTES

A. (*) SEE PAVEMENT ELEVATION SHEET FOR PROP. ELEVATIONS.

B. ALL REBAR SHALL HAVE MINIMUM 3" COVER.

C. CONCRETE WORK SHALL MEET THE REQUIREMENTS SET FORTH IN ODOT ITEM 609 CURBING.

D. CURBING SHALL HAVE CONTRACTION JOINTS EVERY 10' AND EXPANSION JOINTS EVERY 100'.

E. MINIMUM OF 6" OF ODOT 304 SHALL BE PLACED UNDER CURBING.

F. CURBING SHALL BE BACKFILLED IMMEDIATELY AFTER FORMS ARE REMOVED OR AS SOON AS PRACTICAL WHEN SLIPFORMING PRIOR TO OTHER CONSTRUCTION OPERATIONS.

G. PROVIDE BROOM FINISH AND EDGING TO ALL EXPOSED SURFACES.

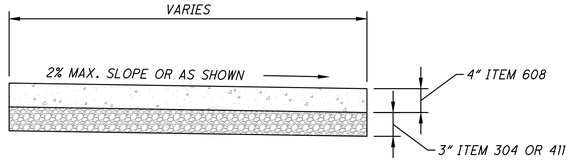
H. APPLY WHITE PIGMENTED CURING COMPOUND ON ALL SURFACES INCLUDING BACK IMMEDIATELY AFTER FINISHING SURFACES. ANY OTHER METHOD OR TYPE OF CURING COMPOUND MUST BE PREAPPROVED.

I. ALL CONCRETE SHALL BE ODOT QC-1P.

J. CONCRETE TO INCLUDE 3 LBS/CY OF EITHER EUCLID CHEMICAL TUFSTRAND SF, FORTA FERRO SYNTHETIC MACROFIBERS OR APPROVED EQUIVALENT MEETING ASTM C 1116 TYPE 3, MINIMUM 2" LENGTH, ASPECT RATIO 50 TO 90. CONTRACTOR SHALL CONTACT THE FIBER MANUFACTURER'S SUPPLIER 48 HOURS PRIOR TO ORDERING THE FIRST BATCH OF CONCRETE FOR APPROPRIATE MIXING AND FINISHING PROCEDURES.

CURB, MISC.: BARRIER WALL CURB

NTS



NOTES

A. WALK TO BE POURED ON 3" MINIMUM ODOT #304 OR ODOT #411 AGGREGATE.

B. PROVIDE EDGING AND BROOM FINISH TO ALL EXPOSED SURFACES.

C. CONCRETE SHALL CONFORM TO ODOT ITEM 499 CONCRETE AND WORK SHALL CONFORM TO ODOT ITEM 608, UNLESS OTHERWISE SPECIFIED WITHIN.

D. USE WHITE PIGMENTED CURING COMPOUND IMMEDIATELY AFTER FINISHING SURFACES. ANY OTHER METHOD OR TYPE OF CURING COMPOUND MUST BE PREAPPROVED.

E. ALL CONCRETE SHALL BE ODOT QC-1P.

F. PROPOSED CONCRETE WALK SHALL BE JOINTED AS CLOSE TO SQUARE AS POSSIBLE. JOINT SPACING MAY VARY SLIGHTLY DEPENDING ON THE LENGTH AND WIDTH OF THE PROPOSED SIDEWALK AREAS. JOINT SPACING SHALL TYPICALLY RANGE FROM 4'X4' TO 10'X10'. IN ALL CASES THE SIDEWALK SHALL BE JOINTED SO THAT THE MAXIMUM ASPECT RATIO (OF PANEL LENGTH TO WIDTH) OF THE JOINTING IS 1.25:1 OR LESS. CONTRACTOR TO VERIFY METHOD AND TYPE OF CONTROL JOINTING WITH OWNER PRIOR TO PERFORMING WORK.

G. SIDEWALK SHALL HAVE EXPANSION JOINTS EVERY 100'.

H. CONCRETE TO INCLUDE 3 LBS/CY OF EITHER EUCLID CHEMICAL TUFSTRAND SF, FORTA FERRO SYNTHETIC MACROFIBERS OR APPROVED EQUIVALENT MEETING ASTM C 1116 TYPE 3, MINIMUM 2" LENGTH, ASPECT RATIO 50 TO 90. CONTRACTOR SHALL CONTACT THE FIBER MANUFACTURER'S SUPPLIER 48 HOURS PRIOR TO ORDERING THE FIRST BATCH OF CONCRETE FOR APPROPRIATE MIXING AND FINISHING PROCEDURES.

CONCRETE WALK

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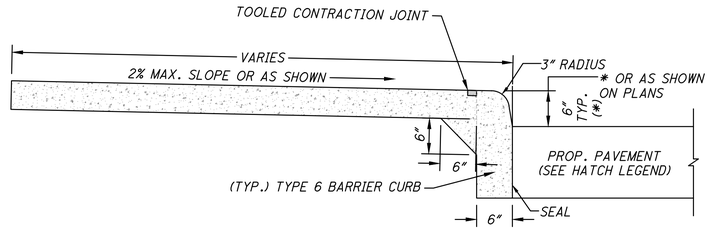


NOTES

A. WALK TO BE POURED ON 3" MINIMUM ODOT #304 OR ODOT #411 AGGREGATE.

B. (*) HEIGHT VARIES WITH CURB EXPOSURE. ASTERISK INDICATES PROPOSED TOP OF CURB SPOT GRADE ELEVATION WITH CURB EXPOSURE THAT VARIES FROM THE STANDARD 0.50' (6") CURB.

C. PROVIDE EDGING AND BROOM FINISH TO ALL EXPOSED SURFACES.

D. CONCRETE SHALL CONFORM TO ODOT ITEM 499 CONCRETE AND WORK SHALL CONFORM TO ODOT ITEM 608, UNLESS OTHERWISE SPECIFIED WITHIN.

E. USE WHITE PIGMENTED CURING COMPOUND IMMEDIATELY AFTER FINISHING SURFACES. ANY OTHER METHOD OR TYPE OF CURING COMPOUND MUST BE PREAPPROVED.

F. ALL CONCRETE SHALL BE ODOT QC-1P.

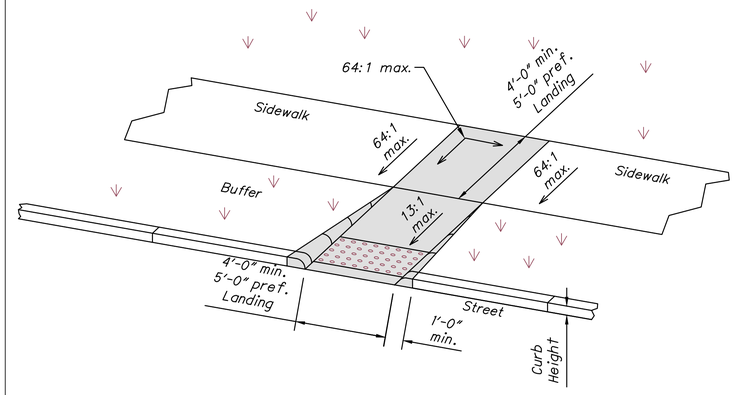
G. PROPOSED CONCRETE SIDEWALK SHALL BE JOINTED AS CLOSE TO SQUARE AS POSSIBLE. JOINT SPACING MAY VARY SLIGHTLY DEPENDING ON THE LENGTH AND WIDTH OF THE PROPOSED SIDEWALK AREAS. JOINT SPACING SHALL TYPICALLY RANGE FROM 4'X4' TO 10'X10'. IN ALL CASES THE SIDEWALK SHALL BE JOINTED SO THAT THE MAXIMUM ASPECT RATIO (OF PANEL LENGTH TO WIDTH) OF THE JOINTING IS 1.25:1 OR LESS. CONTRACTOR TO VERIFY METHOD AND TYPE OF CONTROL JOINTING WITH OWNER PRIOR TO PERFORMING WORK.

H. CURB/SIDEWALK SHALL HAVE EXPANSION JOINTS EVERY 100'.

I. CONCRETE TO INCLUDE 3 LBS/CY OF EITHER EUCLID CHEMICAL TUFSTRAND SF, FORTA FERRO SYNTHETIC MACROFIBERS OR APPROVED EQUIVALENT MEETING ASTM C 1116 TYPE 3, MINIMUM 2" LENGTH, ASPECT RATIO 50 TO 90. CONTRACTOR SHALL CONTACT THE FIBER MANUFACTURER'S SUPPLIER 48 HOURS PRIOR TO ORDERING THE FIRST BATCH OF CONCRETE FOR APPROPRIATE MIXING AND FINISHING PROCEDURES.

COMBINED CURB AND WALK

NTS



TYPE A2 (PERPENDICULAR WITH RETURNED CURB)

PERPENDICULAR CURB RAMP DETAILS

NTS

ChoiceOne Engineering
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LOVELAND, OHIO 513.239.8554
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VALLE GREENE SENIOR
CITY OF FAIRBORN
GENERAL DETAILS

REVISIONS:

FILE NAME	DETAILS - 007
DRAWN BY	JMK
CHECKED BY	JSP
PROJECT No.	GREFA12305
DATE	9-13-2024
SHEET NUMBER	8 OF 26

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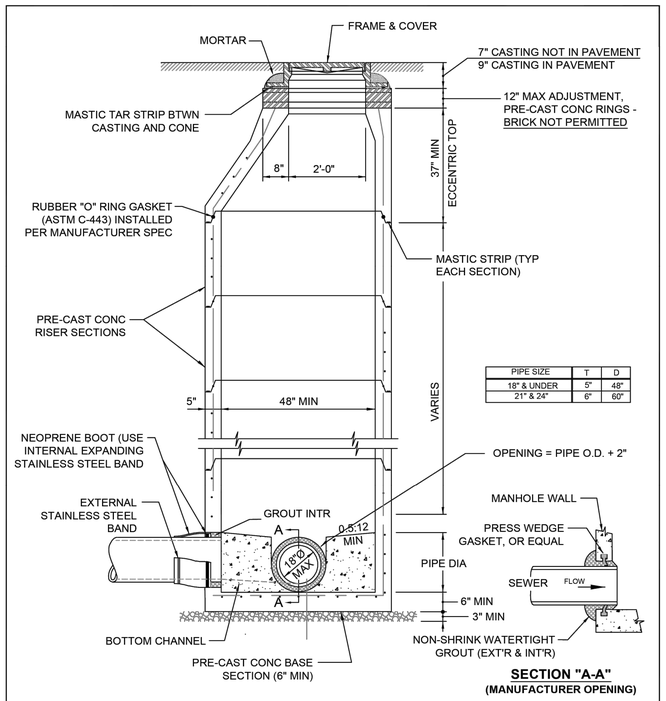

PIPE SIZE	T	D
18" & UNDER	5"	48"
21" & 24"	6"	60"

SECTION "A-A"
(MANUFACTURER OPENING)

NOTES:
1. FLEXIBLE JOINT SHOWN ABOVE FOR PIPES LESS THAN OR EQUAL TO 24"Ø SHALL BE THE "PRESS WEDGE II", MANUFACTURED BY PRESS SEAL GASKET CORP, OR APPROVED EQUAL.
2. GASKETED JOINT SHALL BE FLEXIBLE TO ACCOMMODATE UP TO 9° DEFLECTION OF PIPE IN ANY DIRECTION.
3. FOR LARGER DIAMETER SEWER REFER TO LARGE DIAMETER MANHOLE STANDARD.

FAIRBORN
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SANITARY STANDARD MANHOLE - TYPE A

DWG NO: **SS-2.0**

NOTE 1: DRAWING VALID ONLY WHEN USED AS SHOWN AND IN CONJUNCTION WITH OTHER FAIRBORN ENGINEERING SPECIFICATIONS AND/OR DETAILS. THIS DRAWING REPRESENTS MINIMUM STANDARDS. ANY MODIFICATIONS TO THIS DETAIL SHALL FIRST BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.
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REV NO	REV DATE	REV DESCRIPTION	REV NO	REV DATE	REV DESCRIPTION

ISSUE DATE:	**01/25/2019**
ENGR:	**MAJ**
APPROVED:	**TLH**
SCALE:	**NONE**
FILE:	

SANITARY SEWER

1. ROOF DRAINS, FOUNDATION DRAINS OR OTHER CLEAR WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE STRICTLY PROHIBITED.
2. FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE REPLACED OR CONNECTED TO THE STORM SEWER SYSTEM.
3. SANITARY MANHOLES SHALL BE PRE-CAST CONCRETE CONFORMING TO ASTM C-478 OR MONOLITHIC CONSTRUCTED OF CLASS "C" 4,000 PSI CONCRETE. PROVIDE WITH KOR -N-SEAL OR APPROVED EQUAL WATER TIGHT MANHOLE PIPE CONNECTION.
4. JOINTS BETWEEN PRE-CAST MANHOLE SECTIONS SHALL CONFORM TO ASTM C-443.
5. SANITARY SEWER MANHOLES SHALL BE CHANNELED AS PART OF THE MANUFACTURING PROCESS WHENEVER POSSIBLE. WHEN NOT, CHANNELS SHALL BE FIELD CONSTRUCTED USING CLASS "C" CONCRETE, NON-SHRINK GROUT, OR AS APPROVED BY THE ENGINEER.
6. CONTRACTOR SHALL NOT MAKE CONNECTION TO THE EXISTING SANITARY SEWER UNTIL THE NEW SEWER HAS BEEN INSPECTED, TESTED AND RELEASED. PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO PROTECT THE SEWER FROM GROUND WATER, SURFACE WATER, MUD, ANIMALS AND ANY OTHER DEBRIS ENTERING THE NEW AND EXISTING SANITARY SEWER SYSTEM.
7. SANITARY SEWER BEDDING SHALL BE 75-100% CRUSHED NO. 8'S.
8. SANITARY SEWER LATERAL BEDDING SHALL BE 75-100% CRUSHED NO. 8'S.
9. SEE FAIRBORN ENGINEERING STANDARDS FOR TRENCHING BACKFILL AND OTHER DETAILS.
10. APPROVED MATERIALS:
    A) PVC PIPE SHALL CONFORM TO ASTM D-3034
    B) PVC JOINTS TO ASTM D-3034 AND D-2312.
10. SEWER LATERAL CONNECTIONS SHALL BE MADE TO THE MAIN USING A WYE. CONNECTIONS TO EXISTING SEWERS, AS APPROVED BY THE ENGINEER, SHALL BE WITH AN APPROVED TAPPING SADDLE AND HOLE CUT WITH AN APPROVED TAPPING MACHINE/DEVICE.
11. SANITARY LATERALS SHALL BE CONSTRUCTED WITHOUT THE USE OF 90° BENDS AND HAVE A CLEANOUT AT 100' INTERVALS. 90° DEFLECTIONS SHALL BE ACCOMPLISHED USING TWO 45° FITTINGS WITH A MINIMUM 1' SEPARATION.
12. CONTRACTOR IS RESPONSIBLE FOR TELEVIEWING AND RECORDING ALL PIPE INTERIOR. PROVIDE AN ELECTRONIC COPY OF THE INSPECTION TO THE ENGINEERING DIVISION.
13. ALL EXISTING MANHOLES SHALL BE CORED.
14. TESTING OF MAINS, LATERALS & MANHOLES:
    A) SANITARY SEWER MAINS AND LATERALS SHALL BE AIR TESTED AT 3.5 PSI. SEE ENGINEERING STANDARDS FOR DETAILS.
    B) SANITARY SEWER PVC MAINS SHALL BE TESTED FOR DEFLECTION PER SPECIFICATION. SEE ENGINEERING STANDARDS FOR DETAILS.
    C) MANHOLES, FROM TOP OF CASTING, SHALL BE VACUUM TESTED. SEE ENGINEERING STANDARDS FOR DETAILS.

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GENERAL SANITARY NOTES

DWG NO: **SS-1.0**

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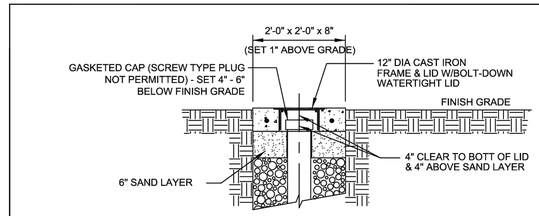
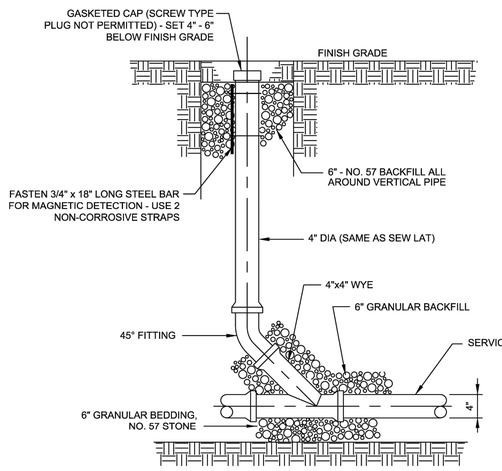
ISSUE DATE:	**03/14/2017**
ENGR:	**MAJ**
APPROVED:	**DPO**
SCALE:	**NONE**
FILE:	



CLEAN-OUT IN RIGHT-OF-WAY



CLEAN-OUT ON PRIVATE PROPERTY

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SANITARY CLEAN-OUT

DWG NO: **SS-4.0**

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VALLE GREENE SENIOR
CITY OF FAIRBORN
GENERAL DETAILS

REVISIONS:

FILE NAME: DETAILS - 008
DRAWN BY: JMK
CHECKED BY: JSP
PROJECT No.: GREFAI2305
DATE: 9-13-2024
SHEET NUMBER: 9 OF 26

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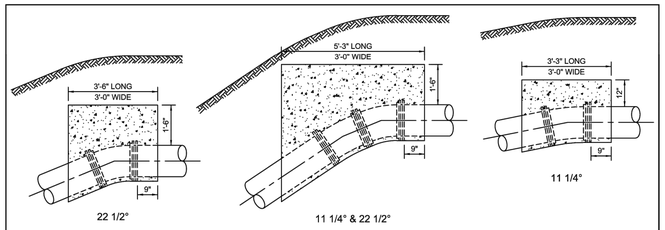
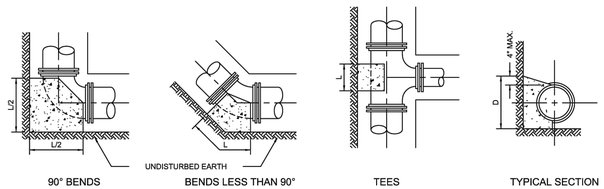


CONCRETE BLOCKING FOR VERTICAL BENDS



CONCRETE BLOCKING FOR HORIZONTAL BENDS

NOTES:

1. ALL BLOCKING REQUIRES CLASS "C" CONCRETE.
2. TIED OR RESTRAINED JOINTS MAY BE USED IN LIEU OF CONCRETE BLOCKING, AS APPROVED BY THE ENGINEER.

TEES

RUN	BRANCH 3",4",6"		8"		12"		16"	
	L	D	L	D	L	D	L	D
3",4",6"	16"	7"						
8"	14"	8"	18"	12"				
12"	9"	12"	18"	12"	24"	18"		
16"	8"	16"	14"	16"	28"	16"	30"	26"

BENDS

SIZE OF PIPE	DEGREE OF BEND 11 1/4°		22 1/2°		45°		90°	
	L	D	L	D	L	D	L	D
3",4",6"	8"	6"	10"	6"	20"	6"	36"	6"
8"	9"	8"	14"	8"	24"	9"	50"	8"
12"	14"	12"	22"	12"	30"	16"	60"	15"
16"	18"	16"	24"	16"	33"	36"	70"	22"

FAIRBORN
A CITY IN MOTION

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THRUST BLOCK & BEND DETAILS

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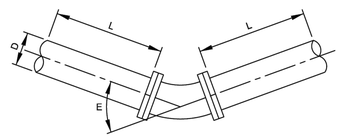
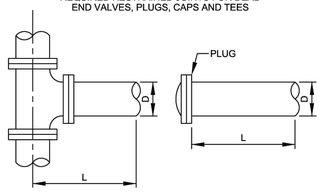
REV NO.	REV DATE	REV DESCRIPTION	REV NO.	REV DATE	REV DESCRIPTION

DWG NO:	WT-4.0
ISSUE DATE:	03/14/2017
ENG'R:	MAJ
APPROVED:	DPO
SCALE:	NONE
FILE:	

WATER MAIN
REQUIRED RESTRAINED JOINTS FOR BENDS



WATER MAIN
REQUIRED RESTRAINED JOINTS FOR DEAD END VALVES, PLUGS, CAPS AND TEES



D - DIAMETER OF PIPE

E - DEGREE OF DEFLECTION	4"	6"	8"	10"	12"	16"	20"	24"
11 1/4°	*	*	*	*	*	5	5	6
22 1/2°	*	2	3	5	6	8	10	12
45°	4	8	12	14	20	30	36	45
90°	12	26	38	48	66	98	125	145

LENGTH OF RESTRAINED JOINTS IN FEET

* NO RESTRAINT REQUIRED

D - DIAMETER OF PIPE

	4"	6"	8"	10"	12"	16"	20"	24"
L	12	26	38	48	66	96	125	145

LENGTH OF RESTRAINED JOINTS IN FEET

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WATERLINE RESTRAINED JOINTS

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REV NO.	REV DATE	REV DESCRIPTION	REV NO.	REV DATE	REV DESCRIPTION

DWG NO:	WT-4.1
ISSUE DATE:	03/14/2017
ENG'R:	MAJ
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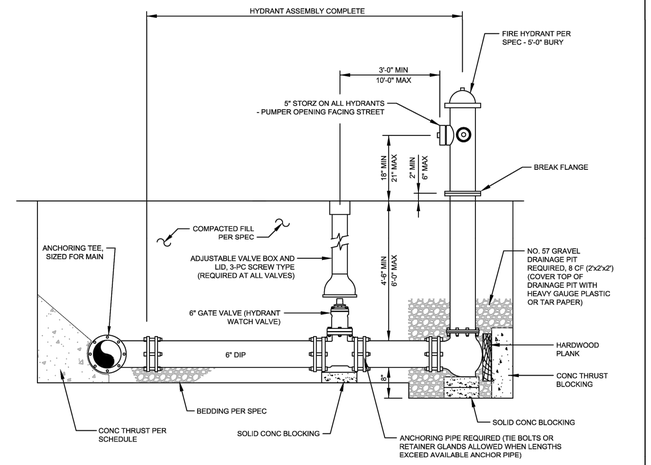
SCALE:	NONE
FILE:	



GENERAL NOTES:

1. NO NATURAL OR MAN-MADE BARRIERS SUCH AS WALLS, FENCES, POSTS, CURBS, SHRUBBERY, OR TREES SHALL BE INSTALLED SO AS TO IMPEDE THE USE, ACCESS, OR OPERATION OF HYDRANTS. MINIMUM CLEAR DISTANCE TO HYDRANT SHALL BE THREE (3) FEET.
2. IN AREAS WHERE HYDRANT INSTALLATION IS TO BE IN ROADWAY, PARKING LOT OR OTHER AREAS WHERE VEHICULAR TRAFFIC MAY CAUSE DAMAGE TO THE HYDRANT, PROTECTIVE BARRIERS ARE TO BE INSTALLED, AS DIRECTED BY THE ENGINEER.
3. HYDRANTS ALONG STREETS SHALL BE LOCATED IN THE TREE LAWN AREA OF THE RIGHT-OF-WAY, NOT LESS THAN 2' FROM THE BACK OF CURB AND NOT MORE THAN 5'.

FAIRBORN
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FIRE HYDRANT ASSEMBLY

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VALLE GREENE SENIOR
CITY OF FAIRBORN
GENERAL DETAILS

REVISIONS:

FILE NAME: DETAILS - 009
DRAWN BY: JMK
CHECKED BY: JSP
PROJECT No.: GREFA12305
DATE: 9-13-2024
SHEET NUMBER: 10 OF 26

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GENERAL CONDITIONS

1. **ALL WORK AND MATERIALS FURNISHED** SHALL BE IN ACCORDANCE WITH PLANS APPROVED BY THE CITY ENGINEER, MOST CURRENT EDITION OF FAIRBORN ENGINEERING STANDARDS AND MOST CURRENT EDITION OF ODOT CONSTRUCTION MATERIALS AND SPECIFICATIONS.

2. **CONTRACTOR REGISTRATION** IS REQUIRED BEFORE ANY WORK MAY BEGIN. CONTRACTORS SHALL PROVIDE CURRENT INSURANCE AND OTHER BUSINESS INFORMATION TO ENGINEERING DIVISION.

3. **PERMITS** ARE REQUIRED TO PERFORM WORK WITHIN THE PUBLIC RIGHT-OF-WAY, UNLESS WAIVED BY THE CITY ENGINEER.

4. **EXCESS EARTHEN FILL** SHALL BE PLACED WITHIN THE WORK SITE AND BE PROPERLY GRADED PER PLANS. PAVEMENT SUBGRADE SHALL BE FINE GRADED AND COMPACTED IN ACCORDANCE WITH ODOT ITEM 203. BACKFILLING BEHIND CURBING SHALL BE PROPERLY GRADED PER PLANS AND TAKE PLACE AS SOON AS THE 28-DAY CONCRETE COMPRESSIVE STRENGTH HAS BEEN ATTAINED.

5. **WATER AND SANITARY SERVICES** SHALL BE MARKED BY PLACING A 4x4 TREATED WOOD POST AT THE END OF THE LINE ON THE PRIVATE LOT JUST PAST THE UTILITY EASEMENT LINE. EXTEND POST 3' MIN ABOVE THE PROPOSED FINISH GRADE AND PAINT GREEN FOR SANITARY LINES AND BLUE FOR WATER LINES. THEY SHALL REMAIN IN PLACE UNTIL THE BUILDING CONNECTIONS ARE COMPLETED.

6. **UTILITY PIPING AND STRUCTURE LININGS** SHALL BE KEPT CLEAN AND FREE OF DEBRIS PRIOR TO AND DURING INSTALLATIONS AND UNTIL FINAL APPROVAL IS GRANTED BY THE FAIRBORN ENGINEERING DIVISION.

7. **CLEAN WATER CONNECTION** TO ANY SANITARY SEWER OR APPURTENANCE IS STRICTLY PROHIBITED.

8. **DISTURBED GROUND COVER** DURING CONSTRUCTION SHALL BE PROPERLY MAINTAINED PER THE APPROVED STORMWATER MANAGEMENT PLAN. CONTRACTOR SHALL INSTALL, ROUTINELY MONITOR AND MAINTAIN ALL NECESSARY EROSION CONTROL AND DRAINAGE CONTROL DEVICES IN ACCORDANCE WITH FAIRBORN ENGINEERING, GREENE COUNTY SOIL & WATER CONSERVATION AND THE OHIO EPA REGULATIONS UNTIL SATISFACTORY GROUND COVER HAS BEEN RE-ESTABLISHED AND APPROVED BY THE ENGINEER. NO WORK MAY BEGIN UNTIL ALL SUCH DEVICES ARE IN PLACE AND WORKING PROPERLY.

9. **TRAFFIC CONTROL** SHALL FIRST BE APPROVED BY THE ENGINEER AND BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN.

10. **CITY WATER** IS AVAILABLE DURING CONSTRUCTION FOR A FEE. REQUESTS FOR WATER MUST BE DIRECTED TO THE FAIRBORN WATER & SEWER DIVISION.

11. **ENGINEERING APPROVAL** DOES NOT RELIEVE THE OWNER, THE OWNER'S ENGINEER OR THE OWNER'S CONTRACTOR OF THE DESIGN AND/OR CONSTRUCTION OF THE IMPROVEMENTS. ALL WORK PERFORMED AND MATERIALS FURNISHED SHALL BE SUBJECT TO FINAL APPROVAL AND ACCEPTANCE BY THE CITY OF FAIRBORN ENGINEERING DIVISION.

12. **FAIRBORN ENGINEERING STANDARDS** ARE INTENDED TO PROVIDE A MINIMUM DESIGN STANDARD. PROJECT SPECIAL CIRCUMSTANCES MAY INVOLVE STANDARDS MODIFICATION AND/OR ADDITIONAL ENGINEERING. OWNER IS RESPONSIBLE FOR ANY ADDITIONAL ENGINEERING AND OBTAINING APPROVAL OF ANY MODIFICATIONS BY THE CITY ENGINEER.

13. **OHIO UTILITIES PROTECTION SERVICES** MUST BE CALLED, 8-1-1, AT LEAST 48 HOURS IN ADVANCE OF EXCAVATION WORK.

14. **OTHER GENERAL CONDITIONS**, OR STANDARDS MAY APPLY DURING CONSTRUCTION AS DETERMINED BY THE CITY ENGINEER.

FAIRBORN
A CITY IN MOTION

ENGINEERING DIVISION
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GENERAL CONDITIONS — DWG NO: GN-2.0

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ISSUE DATE:	01/25/2019
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APPROVED:	TLH
SCALE:	NONE
FILE:	

WATER MAIN & SERVICES

1. DUCTILE IRON PIPE CLASS 53 (AWWA C-151) SHALL BE USED FOR WATER MAIN, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. FITTINGS SHALL CONFORM TO AWWA A 21.4.

2. ACCEPTABLE JOINT RESTRAINTS: MEGALUG, CONCRETE THRUST BLOCKS.

3. WATER SERVICES TO EACH BUILDING SHALL HAVE WATER METER INSIDE SET IN A METER YOKE WITH REMOTE AUTOMATIC READING DEVICES. METER AND READING DEVICES ARE PROVIDED BY THE CITY WITH READING DEVICE CHARGED TO THE DEVELOPER/CONTRACTOR. THE APPROPRIATE BACKFLOW PREVENTION DEVICE SHALL BE PROVIDED ON EACH SERVICE LINE.

4. FIRE HYDRANTS SHALL BE:
   A) APPROVED FIRE HYDRANTS: MUELLER SUPER CENTURION A-423, AMERICAN DARLING B-62-B, CLOW MEDALLION, DRESSER M&H STYLE 929 RELIANT AND WATEROUS WB-67.
   B) LOCATE NOT LESS THAN 2' AND NO GREATER THAN 5' FROM BACK OF CURB OR EDGE OF PAVEMENT TO THE PUMPER CONNECTION.
   C) HYDRANTS SHALL HAVE THE 5" STORTZ PUMPER OPENING TO FACE THE STREET.
   D) CENTERLINE OF PUMPER CONNECTION SHALL HAVE 18"-21" CLEARANCE FROM FINISH GRADE.
   E) INSTALL WITH ANCHORING TEES AND ANCHORING PIPE WITH THE WATCH VALVE INSTALLED AT THE TEE.
   F) NO. 57 GRAVEL SHALL BE PLACED AROUND DRAIN HOLES.

5. WATER SERVICES UP TO 2" SHALL CONFORM TO THE FOLLOWING:
   A) MINIMUM SERVICE SHALL BE 1" K-COPPER OR LARGER.
   B) SERVICES GREATER THAN 2"Ø SHALL BE DUCTILE IRON.
   C) FITTINGS SHALL BE FORD BRASS PACK JOINT.
   D) CURB STOPS SHALL BE FORD BRASS BALL VALVES WITH 90° OPEN-CLOSE MOVEMENT.
   E) CORPORATION STOPS SHALL BE FORD BALL VALVE.
   F) CURB BOX SHALL BE TYLER OR BIBBY 93E SCREW TYPE, OR APPROVED EQUAL. THEY SHALL HAVE A CAST OR EQUAL COLLAR AND LID, MARKED WATER AND SECURED WITH A BRASS OR BRONZE BOLT INLAID LEVEL WITH THE LID SURFACE.
   G) CURB STOPS SHALL BE INSTALLED 48" TO 54" (MAX) BELOW FINISH GRADE AND BE LOCATED BETWEEN THE SIDEWALK AND CURB, OR WITHIN 2' OF THE CURB WHERE THERE IS NO SIDEWALK. A CURB STOP IS REQUIRED FOR EACH WATER METER. CURB STOPS ARE NOT ALLOWED UNDER CURBS, SIDEWALKS, DRIVEWAYS AND PARKING LOTS. MULTIPLE CURB BOXES SHALL BE SECURED WITH A COMMON 6" THICK CONCRETE COLLAR AND BOXES LABELED WITH SERVICE ADDRESS/ APT NUMBERS.
   H) CURB STOPS SHALL BE INSTALLED ATOP A LEVELED 1 1/2" CONCRETE PAD AND SET PLUMB.
   I) LOCATIONS OF WATER SERVICES SHALL BE APPROVED BY THE INSPECTOR PRIOR TO INSTALLATION.
   J) THE SERVICE LINE SHALL BE ONE-PIECE CONSTRUCTION FROM THE CURB STOP TO THE WATER METER PLUMBING UNLESS OTHERWISE APPROVED BY THE ENGINEER.
   K) SERVICES OVER 2" IN DIAMETER SHALL BE CONSTRUCTED IN ACCORDANCE WITH FAIRBORN WATER MAIN SPECIFICATIONS.

6. WATER VALVES:
   A) NOT BE DEEPER THAN 6'-0".
   B) RESILIENT WEDGE GATE VALVES WHEN BURIED LESS THAN 12'.
   C) BUTTERFLY VALVES WHEN BURIED GREATER THAN 12'.
   D) VALVES SHALL BE OPEN LEFT (COUNTER-CLOCKWISE).
   E) BURIED VALVES SHALL BE PROVIDED WITH MJ JOINTS.
   F) APPROVED VALVES: AMERICAN DARLING, MUELLER, CLOW, KENNEDY AND M&H.
   G) ANY PERMANENT INSERT VALVE THAT WILL BE USED IN THE FUTURE SHALL BE A TEAM INSERT VALVE, OR APPROVED EQUAL.

7. WATER MAINS AND SERVICES SHALL HAVE 4'-6" COVER.

8. NO SERVICE CONNECTIONS SHALL BE MADE TO THE WATER MAIN UNTIL THE MAIN HAS BEEN INSPECTED, HYDROSTATICALLY TESTED, DISINFECTED, PURITY TESTED AND RELEASED FOR TAPS BY THE ENGINEER.

9. TESTING WATER MAINS:
   A) A TWO-HOUR HYDROSTATIC PRESSURE TEST SHALL BE PERFORMED AFTER THE INSTALLATION OF THE MAIN. TEST PRESSURE SHALL BE 150% OF THE NORMAL OPERATING PRESSURE AND NOT LESS THAN 150 PSI. WATER MAIN VALVES AND FIRE HYDRANT VALVES SHALL BE TESTED IN THE CLOSED POSITION. WATER MAIN VALVES SHALL BE OPERATED TO FULLY OPEN AND CLOSED PRIOR TO INSTALLATION.
   B) DISINFECTION AND BACTERIOLOGICAL TESTING SHALL PROCEED IN ACCORDANCE WITH THE CITY REGULATIONS. A COPY IS AVAILABLE IN THE ENGINEERING DIVISION (937) 754-3055, OR AT THE WATER-SEWER DEPARTMENT (937) 754-3023.
   C) A FIVE MINUTE HYDROSTATIC PRESSURE TEST SHALL BE PERFORMED AFTER THE INSTALLATION OF THE WATER SERVICE. TEST PRESSURE SHALL BE 120 PSI. A VISUAL INSPECTION SHALL BE PERFORMED BY THE INSPECTOR CITY ON ALL JOINTS UNDER NORMAL OPERATING PRESSURE.

10. HORIZONTAL CLEARANCE OF 10' IS REQUIRED BETWEEN WATER AND SANITARY SEWER MAINS, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

11. UTILITY CROSSING:
   A) WATERLINE OVER SEWER: MINIMUM 18" VERTICAL SEPARATION. ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED AT POINT OF CROSSING SUCH THAT BOTH JOINTS WILL BE EQUIDISTANT AND AS FAR FROM THE SEWER AS POSSIBLE.
   B) WATERLINE UNDER SANITARY SEWER: MINIMUM 18" VERTICAL SEPARATION. ONE FULL LENGTH OF PIPE SHALL BE CENTERED AT POINT OF CROSSING SUCH THAT EACH END IS EQUIDISTANT FROM WATER MAIN. ADEQUATE STRUCTURAL SUPPORT FOR SEWER IS REQ'D.

12. SEE FAIRBORN ENGINEERING STANDARDS FOR TRENCH, BACKFILL, ANCHORING AND OTHER WATER DETAILS.

FAIRBORN
A CITY IN MOTION

ENGINEERING DIVISION
44 W. HEBBLE AVENUE FAIRBORN, OHIO 45324
PH: (937) 754-3055 FX: (937) 879-7395

GENERAL WATER LINE NOTES — DWG NO: WT-1.0

NOTE 1: DRAWING VALID ONLY WHEN USED AS SHOWN AND IN CONJUNCTION WITH OTHER FAIRBORN ENGINEERING SPECIFICATIONS AND/OR DETAILS. THIS DRAWING REPRESENTS MINIMUM STANDARDS. ANY MODIFICATIONS TO THIS DETAIL SHALL FIRST BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.
NOTE 2: CALL THE FOLLOWING AGENCIES AT LEAST 48 HOURS IN ADVANCE OF ANY EXCAVATION: **O.U.P.S.** AT **8-1-1** AND **O.A.G.P.U.P.S.** AT **(800) 925-0988**

REV NO	REV DATE	REV DESCRIPTION	REV NO	REV DATE	REV DESCRIPTION

ISSUE DATE:	04/19/2019
ENG'R:	MAJ
APPROVED:	TLH
SCALE:	NONE
FILE:	

WATER MAINS

WATER MAINS:

1. WATER MAINS SHALL BE DUCTILE IRON , 8" MINIMUM DIAMETER, CONFORMING TO AWWA C-151, CLASS 53, WITH FITTINGS CONFORMING TO AWWA 104.
2. COVER SHALL BE 4'-6" MINIMUM AND 6'-0" MAXIMUM, OR AS APPROVED BY THE ENGINEER.
3. HORIZONTAL DISTANCE BETWEEN WATER LINES AND SANITARY SEWERS SHALL BE 10' MINIMUM, MEASURED INSIDE-TO-INSIDE, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
4. WATERLINE CROSSING OVER ANY SEWER SHALL HAVE A MINIMUM 18" VERTICAL CLEARANCE BETWEEN THE PIPES. SEWER SHALL BE CENTERED EQUIDISTANT BETWEEN WATERLINE JOINTS. WHEN WATERLINE CROSSES UNDER SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER IS REQUIRED.
5. FITTINGS SHALL BE DUCTILE IRON, MECHANICAL JOINT.
6. FIRE HYDRANTS SHALL BE MANUFACTURED BY ONE OF THE FOLLOWING:
   A. MUELLER SUPER CENTURION 200, OR
   B. DARLING B-84-B, OR
   C. CLOW MEDALLION, OR
   D. DRESSER M&H STYLE 929 RELIANT.
7. FIRE HYDRANTS SHALL CONFORM TO THE FOLLOWING:
   A. 5 .25" MAIN VALVE OPENING.
   B. ONE 5" PUMPER WITH STORZ CONNECTION.
   C. TWO 2.5" HOSE CONNECTIONS.
   D. DAYTON STANDARD THREAD TYPE.
   E. PENTAGON CAP AND OPERATING NUT SHAPE.
   F. 1.5" TOP AND 1.5" BOTTOM OPERATING NUT.
   G. LEFT OPEN (COUNTER-CLOCKWISE).
   H. FINISH PAINT COLOR SHERWIN-WILLIAMS B54W102 INDUSTRIAL ENAMEL, MDTN.
   I. 4'-6" BURY.
   J. 6" MECHANICAL JOINT SHOE CONNECTION WITH. DRAIN PORT (WATER TO DRAIN FROM BARREL WHEN HYDRANT IN CLOSED POSITION).
8. FIRE HYDRANTS SHALL HAVE THE PUMPER OPENING FACING THE STREET OR PARKING LOT WITH THE STORZ CONNECTOR INTEGRAL.
9. CENTERLINE OF THE PUMPER CONNECTION SHALL HAVE A CLEARANCE OF 18'-21" FROM FINISH GRADE.
10. FIRE HYDRANTS SHALL BE LOCATED NO CLOSER THAN 2' NOR MORE THAN 5' FROM THE BACK OF CURB OR EDGE OF PAVEMENT TO THE PUMPER CONNECTION.
11. FIRE HYDRANTS SHALL BE LOCATED AT THE DEAD END OF ALL WATER MAINS.
12. FIRE HYDRANTS SHALL BE INSTALLED WITH ANCHORING TEES AND ANCHORING PIPE. THE HYDRANT WATCH VALVE SHALL BE INSTALLED AT THE TEE, APPROXIMATELY 3' FROM THE HYDRANT, OR AS DIRECTED BY THE ENGINEER.
13. PLACE #57 WASHED GRAVEL AROUND BARREL DRAIN HOLES.
14. WATER VALVES 12" AND UNDER SHALL BE DUCTILE IRON, RESILIENT WEDGE GATE VALVE TYPE WITH MECHANICAL JOINTS.
15. WATER VALVES LARGER THAN 12" SHALL BE DUCTILE IRON, BUTTERFLY VALVE TYPE WITH MECHANICAL JOINTS.
16. WATER VALVES SHALL OPEN LEFT (COUNTER-CLOCKWISE).
17. WATER VALVES SHALL BE MANUFACTURED BY MEULLER, AMERICAN DARLING, CLOW, KENNEDY OR M&H.
18. RESTRAINTS SHALL BE CLASS 'C' CONCRETE THRUST BLOCKS OR MEGALUGS, AS MANUFACTURED BY EBAA.
19. PIPE BEDDING SHALL BE 4" MINIMUM OF #67 CRUSHED GRAVEL OR #8 CRUSHED GRAVEL, WHEN APPROVED BY THE ENGINEER. LIMESTONE AGGREGATE IS PROHIBITED.
20. NO SERVICE CONNECTIONS SHALL BE MADE TO THE WATER MAIN UNTIL THE MAIN HAS BEEN INSPECTED, HYDROSTATICALLY TESTED, DISINFECTED, PURITY TESTED AND RELEASED FOR TAPS.
21. SEE ENGINEERING STANDARDS FOR BACKFILL AND TRENCH DETAIL REQUIREMENTS.

FAIRBORN
A CITY IN MOTION

ENGINEERING DIVISION
44 W. HEBBLE AVENUE FAIRBORN, OHIO 45324
PH: (937) 754-3055 FX: (937) 879-7395

WATER MAIN NOTES — DWG NO: WT-1.1

NOTE 1: DRAWING VALID ONLY WHEN USED AS SHOWN AND IN CONJUNCTION WITH OTHER FAIRBORN ENGINEERING SPECIFICATIONS AND/OR DETAILS. THIS DRAWING REPRESENTS MINIMUM STANDARDS. ANY MODIFICATIONS TO THIS DETAIL SHALL FIRST BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.
NOTE 2: CALL THE FOLLOWING AGENCIES AT LEAST 48 HOURS IN ADVANCE OF ANY EXCAVATION: **O.U.P.S.** AT **8-1-1** AND **O.A.G.P.U.P.S.** AT **(800) 925-0988**

REV NO	REV DATE	REV DESCRIPTION	REV NO	REV DATE	REV DESCRIPTION

ISSUE DATE:	03/14/2017
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VALLE GREENE SENIOR
CITY OF FAIRBORN
GENERAL DETAILS

REVISIONS:

FILE NAME: DETAILS - 010
DRAWN BY: JMK
CHECKED BY: JSP
PROJECT No.: GREFAI2305
DATE: 9-13-2024
SHEET NUMBER: 11 OF 26

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WATERMAIN TESTING & DISINFECTION

PRESSURE TESTING:

1. PRESSURE TESTING OF ALL NEW WATER MAINS SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT AWWA C-600 STANDARDS AND REGULATIONS.
2. ALL TRAPPED AIR SHALL BE EXPELLED PRIOR TO PRESSURIZING THE LINE.
3. A TWO-HOUR HYDROSTATIC PRESSURE TEST SHALL BE PERFORMED AFTER THE INSTALLATION OF THE MAIN. TEST PRESSURE SHALL BE 150% OF THE NORMAL OPERATING PRESSURE IN THE AREA BUT NOT LESS THAN 150 PSI IN ANY CASE.
4. ALLOWABLE LEAKAGE SHALL NOT BE MORE THAN 11.65 GALLONS PER INCH OF PIPE DIAMETER PER MILE OF PIPE PER 24 HOUR PERIOD.
5. PRIVATE WATERLINES CONNECTED TO SPRINKLER OR STANDPIPE SYSTEMS SHALL BE TESTED AT 200 PSI MINIMUM FOR 2 HOURS AND WITNESSED BY THE FAIRBORN CITY FIRE MARSHAL OR AUTHORIZED REPRESENTATIVE.
6. TESTING SHALL BE PERFORMED ONLY AFTER ALL MAIN VALVES, FIRE HYDRANT WATCH VALVES, CORPORATION VALVES AND CURB STOP VALVES HAVE BEEN INSTALLED.
7. CORPORATION VALVES SHALL BE LEFT IN THE OPEN POSITION DURING AND AFTER THE TESTING.
8. WATER MAIN VALVES SHALL BE OPERATED TO FULLY OPEN AND THEN CLOSED PRIOR TO INSTALLATION. WATER MAIN VALVES AND FIRE HYDRANT WATCH VALVES SHALL BE IN THE CLOSED POSITION DURING THE TESTING.
9. CURB STOP VALVES SHALL REMAIN IN THE CLOSED POSITION DURING AND AFTER THE TESTING.
10. TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER, OR DESIGNATED REPRESENTATIVE, EXCEPT FOR FIRE LINE TESTED AS NOTED ABOVE.
11. FAILED TEST SECTIONS SHALL BE FOUND AND CORRECTED AND THE TEST REPEATED UNTIL SATISFACTORY RESULTS ARE OBTAINED AND APPROVED BY THE ENGINEER.
12. NO SERVICE CONNECTIONS SHALL BE MADE TO THE WATER MAIN UNTIL THE MAIN HAS BEEN INSPECTED, HYDROSTATICALLY TESTED, DISINFECTED, BACTERIA TESTED AND RELEASED FOR TAPS BY THE ENGINEER.
13. DISINFECTION AND BACTERIA TESTING SHALL PROCEED IN ACCORDANCE WITH THE CITY POLICY. A COPY IS AVAILABLE IN THE ENGINEERING DIVISION AT THE GOVERNMENT CENTER ON HEBBLE AVENUE OR AT THE WATER-SEWER DEPARTMENT ON PIERCE DRIVE.
14. PRESSURE TESTING OF WATER SERVICES SHALL BE A FIVE (5) MINUTE HYDROSTATIC TEST PERFORMED AFTER THE INSTALLATION. TEST PRESSURE SHALL BE 120 PSI. VISUAL INSPECTION OF ALL JOINTS UNDER NORMAL OPERATING PRESSURE SHALL BE MADE BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.

DISINFECTION PROCEDURES:

1. DISINFECTION OF ALL NEW WATER MAINS AND VALVES SHALL BE IN ACCORDANCE WITH CURRENT AWWA 6-651 STANDARDS AND REGULATIONS.
2. WATER MAINS SHALL HAVE 1" TAPS AT THE INFLUENT END, EVERY 500'-700' AND AT THE END OF THE MAIN. EACH TAP SHALL HAVE A 90° OUTLET SILCOCK FOR SAMPLING.
3. CHLORINE RESIDUAL OF 50 MG/L MINIMUM SHALL BE PRESENT AT ALL THE TAPS.
4. CONTRACTOR SHALL NOTIFY THE CITY OF FAIRBORN UTILITIES DEPARTMENT, (937) 754-3107, 24 HOURS IN ADVANCE, TO TEST FOR CHLORINE RESIDUAL.
5. TWO CHLORINE RESIDUAL SAMPLES SHALL BE TAKEN, 24 HOURS APART AND FROM THE SAME SAMPLE POINT. IF THE SECOND SAMPLE DOES NOT PASS, THE LINE SHALL BE RE-CHLORINATED AND THE TEST PROCEDURES SHALL BE REPEATED.
6. WHEN THE SECOND SAMPLE PASSES, THE LINE SHALL BE FLUSHED TO OBTAIN NORMAL CITY CHLORINE LEVELS. ADDITIONAL FLUSHING MAY BE REQUIRED UNTIL NORMAL CITY CHLORINE LEVELS ARE OBTAINED.
7. ALL INFLUENT VALVES SHALL REMAIN CLOSED UNTIL BACTERIA TESTING IS COMPLETED.
8. TWO BACTERIA SAMPLES SHALL BE TAKEN, 24 HOURS APART AND FROM THE SAME SAMPLE POINT.
9. ALL BACTERIAL SAMPLE RESULTS MUST BE NEGATIVE BEFORE APPROVAL CAN BE GRANTED BY THE ENGINEER FOR USE.

FAIRBORN
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ENGINEERING DIVISION
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WATER LINE TESTING

DWG NO: **WT-1.3**

NOTE 1: DRAWING VALID ONLY WHEN USED AS SHOWN AND IN CONJUNCTION WITH OTHER FAIRBORN ENGINEERING SPECIFICATIONS AND/OR DETAILS. THIS DRAWING REPRESENTS MINIMUM STANDARDS. ANY MODIFICATIONS TO THIS DETAIL SHALL FIRST BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.
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REV NO.	REV DATE	REV DESCRIPTION	REV NO.	REV DATE	REV DESCRIPTION

ISSUE DATE:	**03/14/2017**
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APPROVED:	**DPO**
SCALE:	**NONE**
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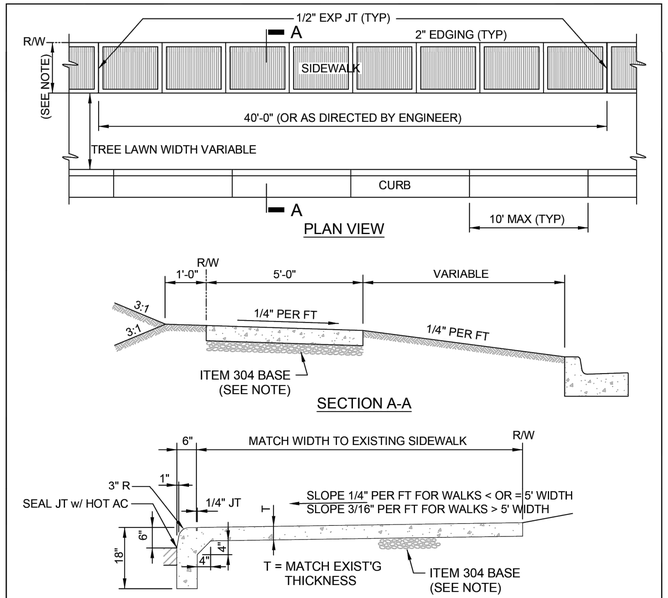

NOTES:

1. BROOM FINISH FOR ALL EXPOSED SURFACES.
2. CONCRETE SHALL BE ODOT CLASS "C", 6% AIR, #57 LIMESTONE AGGREGATE.
3. ALL EXPOSED SURFACES RECEIVE 2" EDGING (EXCEPT CURB).
4. SIDEWALK WIDTH DIMENSION VARIES PER PLAN, PER EXISTING SIDEWALK, OR AS DIRECTED BY THE ENGINEER. TYPICALLY, 4' FOR 50' R/W OR LESS AND 5' FOR 50' R/W AND GREATER. MONOLITHIC SIIDEWALK/CURB SHALL BE PER PLAN OR REPLACEMENT OF EXISTING.
5. SIDEWALK THRU RESIDENTIAL DRIVE 6" MIN. THICKNESS. SIDEWALK THRU COMMERCIAL DRIVE 8" MIN. ALL OTHER SIDEWALK 4" MIN.
6. 4" MIN GRANULAR BASE FOR NEW SIDEWALK. GRANULAR BASE FOR REPLACEMENT SIDEWALK AS DIRECTED BY ENGINEER.

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SIDEWALK DETAIL

DWG NO: **PV-4.0**

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REV NO.	REV DATE	REV DESCRIPTION	REV NO.	REV DATE	REV DESCRIPTION

ISSUE DATE:	**01/25/2019**
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FILE:	

STORM SEWER

1. ALL STORM MANHOLES ARE TO BE TYPE "A"., UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. CHANNEL BOTTOMS OF ALL MANHOLES AND CATCH BASINS.
3. ALL CATCH BASIN AND CURB INLET WITH GRATE TYPE LIDS SHALL BE BICYCLE SAFE, AS APPROVED BY THE ENGINEER.
4. SEE FAIRBORN ENGINEERING STANDARDS FOR TRENCHING, BACKFILL AND OTHER DETAILS.
5. MATERIALS SHALL CONFORM TO THE FOLLOWING:
   A) MINIMUM SIZE FOR ALL PIPE MATERIALS SHALL BE 12"Ø, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
   B) REINFORCED CONCRETE PIPE CONFORMING TO ASTM C-76, WITH JOINTS CONFORMING TO ASTM C-443.
   C) PVC PIPE CONFORMING TO ASTM D-3034, WITH JOINTS CONFORMING TO ASTM D-3034 AND ASTM D3212.
   D) A-2000 PIPE CONFORMING TO ASTM F-949, WITH JOINTS CONFORMING TO ASTM D-3212.
   E) PERMA-LOC OR ULTRA RIB PIPE CONFORMING TO ASTM F-794 AND AASHTO M304, WITH JOINTS CONFORMING TO ASTM D-3212.
   F) ADS N-12 WITH GASKETED BELL JOINTS.
6. ALL EXISTING MANHOLES AND CATCH BASINS SHALL BE CORED FOR NEW LINES.
7. REFER TO ODOT STANDARD DRAWINGS FOR REINFORCED CONCRETE HEAD AND END WALL DETAILS.

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GENERAL STORMWATER NOTES

DWG NO: **ST-1.0**

NOTE 1: DRAWING VALID ONLY WHEN USED AS SHOWN AND IN CONJUNCTION WITH OTHER FAIRBORN ENGINEERING SPECIFICATIONS AND/OR DETAILS. THIS DRAWING REPRESENTS MINIMUM STANDARDS. ANY MODIFICATIONS TO THIS DETAIL SHALL FIRST BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.
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REV NO.	REV DATE	REV DESCRIPTION	REV NO.	REV DATE	REV DESCRIPTION

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VALLE GREENE SENIOR
CITY OF FAIRBORN
GENERAL DETAILS

REVISIONS:

FILE NAME: DETAILS - 011
DRAWN BY: JMK
CHECKED BY: JSP
PROJECT No.: GREFAI2305
DATE: 9-13-2024
SHEET NUMBER: 12 OF 26

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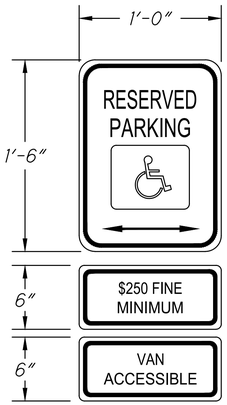
NUMBER OF PARKING SPACE REQUIREMENTS

TOTAL NUMBER OF PARKING SPACES PROVIDED	MINIMUM NUMBER OF REQUIRED ACCESSIBLE PARKING SPACES
1 TO 25	1
26 TO 50	2
51 TO 75	3
76 TO 100	4
101 TO 150	5
151 TO 200	6
201 TO 300	7
301 TO 400	8
401 TO 500	9
501 TO 1000	2 PERCENT OF TOTAL
1001 AND OVER	20, PLUS 1 FOR EACH 100, OR FRACTION THEREOF, OVER 1000

NOTE: ONE OUT OF EVERY (6) ACCESSIBLE PARKING SPACES, BUT NOT LESS THEN ONE, IS REQUIRED TO BE VAN ACCESSIBLE



NOTES

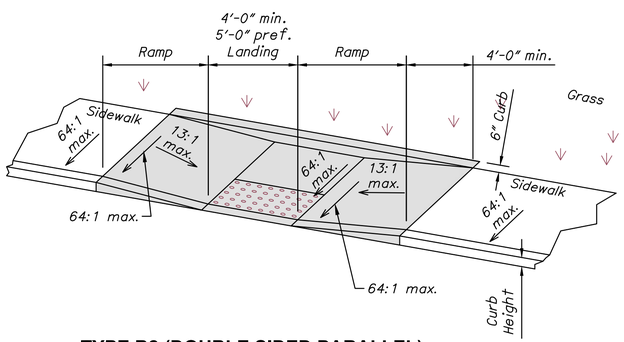
A. SIGNS: "RESERVED PARKING" SIGN (USDOT STANDARD R7-8 SIGN). THIS IS A STANDARD SIGN AND MAY BE ORDERED FROM ANY TRAFFIC SIGN SUPPLIER BY NUMBER. THE SIGN MUST BE SUPPLEMENTED WITH A "$250 FINE MINIMUM" SIGN (USDOT STANDARD R7-H8b SIGN) AND A "VAN ACCESSIBLE" SIGN (USDOT STANDARD R7-8a SIGN) AS APPLICABLE. CONFIRM WITH LOCAL REGULATIONS.

B. A U.S. DEPARTMENT OF TRANSPORTATION R7-8 (RESERVED PARKING) AND SUPPLEMENTAL SIGNS AS NOTED ABOVE MUST BE MOUNTED ON A PERMANENT POST SO THAT THE LOWER EDGE OF THE BOTTOM MOST SIGN IS AT LEAST FIVE FEET ABOVE THE PAVEMENT/GROUND. THE POST MUST BE MOUNTED IN THE CENTER OF THE ADA ACCESSIBLE PARKING SPACE, NO MORE THAN FIVE FEET FROM THE FRONT OF THE PARKING SPACE. ONE SIGN REQUIRED FOR EACH ACCESSIBLE PARKING SPACE. ALL WORK SHALL CONFORM WITH ALL FEDERAL, STATE AND LOCAL AMERICANS WITH DISABILITIES ACT (ADA) REGULATIONS AND STANDARDS AND LOCAL ACCESSIBILITY CODE.

C. ALL HANDICAP PARKING SPACES MUST ALSO HAVE A PAINTED INTERNATIONAL SYMBOL OF ACCESSIBILITY CENTERED IN THE PARKING STALL.

A.D.A. RESERVED PARKING SIGN

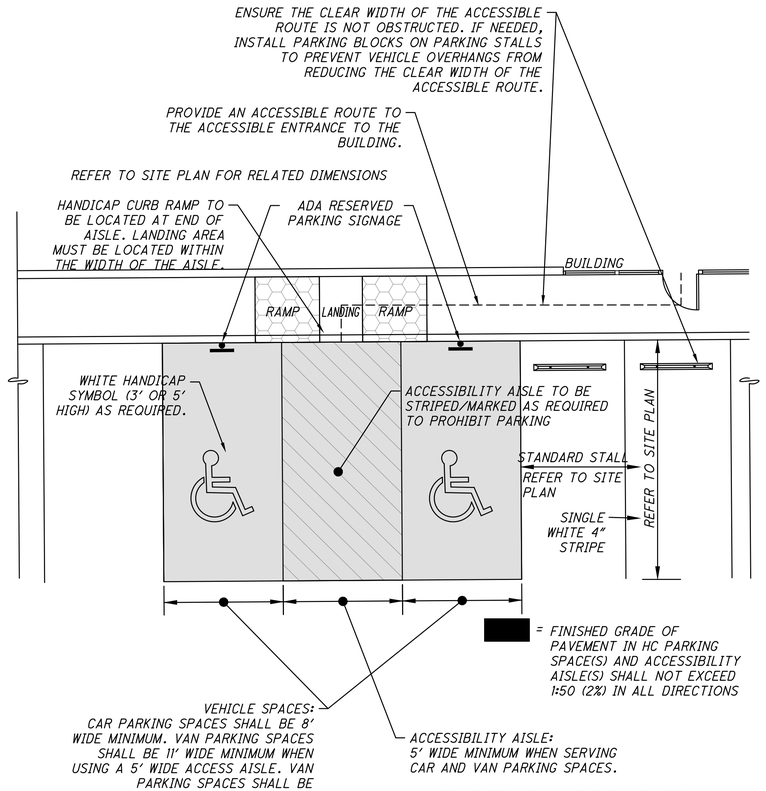
NTS



TYPE B2 (DOUBLE SIDED PARALLEL)

PARLLEL CURB RAMP DETAILS

NTS



NOTES:

THE MINIMUM COMBINED WIDTH FOR A VAN PARKING SPACE AND ACCESSIBILITY AISLE IS 16' WIDE.

THE MINIMUM COMBINED WIDTH FOR A CAR PARKING SPACE AND ACCESSIBILITY AISLE IS 13' WIDE.

TYPICAL HANDICAP PARKING SPACE AND STRIPING PLAN

(FOR REFERENCE ONLY) - NTS

SITE ACCESSIBILITY NOTES

A. REFER TO SITE PLAN FOR EXACT LOCATION OF HANDICAP PARKING, ACCESSIBILITY AISLES, WALKWAYS AND RAMPS.

B. ALL WALKWAYS, RAMPS, AND HANDICAP PARKING SIGNAGE, ETC. SHALL COMPLY WITH AND MEET APPROVED AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS AND LOCAL ACCESSIBILITY CODE.

C. ONE OUT OF EVERY SIX (6) ACCESSIBLE PARKING SPACES, BUT NOT LESS THAN ONE, IS REQUIRED TO BE VAN ACCESSIBLE.

D. ACCESSIBLE RAMPS: REFER TO SITE PLAN FOR TYPE/STYLE OF HANDICAP RAMP(S).

E. FINISHED GRADES OF PAVEMENT IN HC PARKING AND ACCESSIBILITY AISLE SHALL NOT EXCEED 1:50 SLOPE IN ANY DIRECTION.

HANDICAP ACCESSIBILITY ROUTE NOTES

ALL ACCESSIBILITY ROUTES SHALL COMPLY WITH AND MEET APPROVED AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS AND LOCAL ACCESSIBILITY CODE.

A. ACCESSIBLE ROUTES MUST CONNECT HC PARKING SPACES TO ACCESSIBLE ENTRANCES.

B. ACCESSIBLE ROUTES SHALL CONSIST OF ONE OR MORE OF THE FOLLOWING COMPONENTS: WALKING SURFACES WITH A RUNNING SLOPE NOT STEEPER THAN 1:20, RAMPS AND CURB RAMPS EXCLUDING THE FLARED SIDES. ALL COMPONENTS OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH THE APPLICABLE ADA REQUIREMENTS.

C. THE PREFERRED LOCATION FOR ACCESSIBLE ROUTES IS IN FRONT OF THE PARKED VEHICLES.

D. HC PARKING ACCESS AISLES MUST JOIN TO AN ACCESSIBLE ROUTE.

E. WHEN ACCESSIBLE ROUTES CROSS VEHICULAR TRAVEL LANES, MARK THE CROSSINGS TO ENHANCE PEDESTRIAN SAFETY.

F. ENSURE THE CLEAR WIDTH OF THE ACCESSIBLE ROUTE IS NOT OBSTRUCTED. IF NEEDED, INSTALL PARKING BLOCKS ON PARKING STALLS TO PREVENT VEHICLE OVERHANGS FROM REDUCING THE CLEAR WIDTH OF THE ACCESSIBLE ROUTE.

HANDICAP RAMP GENERAL NOTES

ALL RAMPS SHALL COMPLY WITH AND MEET APPROVED AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS AND LOCAL ACCESSIBILITY CODE.

RAMPS:

A. SLOPE: RAMP RUNS SHALL HAVE A RUNNING SLOPE NOT STEEPER THAN 13:1.

B. CROSS SLOPE: CROSS SLOPE OF RAMP RUNS SHALL NOT BE STEEPER THAN 64:1.

C. CLEAR WIDTH: THE CLEAR WIDTH OF A RAMP RUN AND, WHERE HANDRAILS ARE PROVIDED, THE CLEAR WIDTH BETWEEN HANDRAILS SHALL BE 36" MINIMUM.

D. RISE: THE RISE FOR ANY RAMP RUN SHALL BE 30" MAXIMUM.

E. HANDRAILS: RAMP RUNS WITH A RISE GREATER THAN 6" SHALL HAVE ADA COMPLIANT HANDRAILS.

F. EDGE PROTECTION: ADA COMPLIANT EDGE PROTECTION SHALL BE PROVIDED ON EACH SIDE OF RAMP RUNS AND AT EACH RAMP LANDING.

RAMP LANDINGS:

A. RAMPS SHALL HAVE LANDINGS AT THE TOP AND BOTTOM OF EACH RAMP RUN.

B. SLOPE: LANDINGS SHALL BE RELATIVITY LEVEL WITH SLOPES NOT STEEPER THAN 64:1 IN ANY DIRECTION.

C. WIDTH: THE LANDING CLEAR WIDTH SHALL BE AT LEAST AS WIDE AS THE WIDEST RAMP RUN LEADING TO THE LANDING.

D. LENGTH: THE LANDING CLEAR LENGTH SHALL BE 60" LONG MINIMUM.

E. CHANGE IN DIRECTION: RAMPS THAT CHANGE DIRECTION BETWEEN RUNS AT LANDINGS SHALL HAVE A CLEAR LANDING 60" X 60" MINIMUM.

HANDICAP CURB RAMP NOTES:

ALL RAMPS SHALL COMPLY WITH AND MEET APPROVED AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS AND LOCAL ACCESSIBILITY CODE.

A. SLOPE: RAMP SHALL HAVE A RUNNING SLOPE NOT STEEPER THAN 13:1.

B. COUNTER SLOPE: COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT BE STEEPER THAN 1:20. THE ADJACENT SURFACES AT TRANSITIONS AT CURB RAMPS TO WALKS, GUTTERS, AND STREETS SHALL BE AT THE SAME LEVEL. THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE FOOT OF A CURB RAMP, LANDING, OR BLENDED TRANSITIONS SHALL BE 20:1 OR FLATTER.

C. SIDES OF CURB RAMPS: WHERE PROVIDED, CURB RAMP FLARES SHALL NOT BE STEEPER THAN 1:10.

D. LANDINGS: LANDINGS SHALL BE PROVIDED AT THE TOPS OF CURB RAMPS. RAMP LANDINGS SHALL BE 4' MIN. X 4' MIN. (5'X5' PREFERRED) WITH A 64:1 OR FLATTER CROSS SLOPE AND RUNNING SLOPE. WHILE RAMPS MAY BE SKEWED TO THE CROSSWALK, THE ENTIRE LOWER LANDING AREA MUST FALL WITHIN THE CROSS WALK THAT THE RAMP SERVES AND CANNOT BE LOCATED IN THE TRAVELED LANE OF OPPOSING TRAFFIC. THE BOTTOM EDGE OF THE RAMP SHALL CHANGE PLANES PERPENDICULAR TO THE LANDING. THE EDGE OF THE CURB SHALL BE FLUSH WITH THE EDGE OF THE ADJACENT PAVEMENT AND GUTTER AND SURFACE SLOPES THAT MEET GRADE BREAKS SHALL ALSO BE FLUSH.

E. LOCATION: CURB RAMPS AND THE FLARED SIDES OF CURB RAMPS SHALL BE LOCATED SO THAT THEY DO NOT PROJECT INTO VEHICULAR TRAFFIC LANES, PARKING SPACES, OR PARKING ACCESS AISLES. CURB RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.

F. DIAGONAL CURB RAMPS: DIAGONAL OR CORNER TYPE CURB RAMPS WITH RETURNED CURBS OR OTHER WELL-DEFINED EDGES SHALL HAVE THE EDGES PARALLEL TO THE DIRECTION OF PEDESTRIAN FLOW. THE BOTTOM OF DIAGONAL CURB RAMPS SHALL HAVE A CLEAR SPACE 48 INCHES MINIMUM OUTSIDE ACTIVE TRAFFIC LANES OF THE ROADWAY. DIAGONAL CURB RAMPS PROVIDED AT MARKED CROSSINGS SHALL PROVIDE THE 48 INCHES MINIMUM CLEAR SPACE WITHIN THE MARKINGS. DIAGONAL CURB RAMPS WITH FLARED SIDES SHALL HAVE A SEGMENT OF CURB 24 INCHES LONG MINIMUM LOCATED ON EACH SIDE OF THE CURB RAMP AND WITHIN THE MARKED CROSSING.

G. ISLANDS: RAISED ISLANDS IN CROSSINGS SHALL BE CUT THROUGH LEVEL WITH THE STREET OR HAVE CURB RAMPS AT BOTH SIDES. EACH CURB RAMP SHALL HAVE A LEVEL AREA 48 INCHES LONG MINIMUM BY 36 INCHES WIDE MINIMUM (48" PREFERRED) AT THE TOP OF THE CURB RAMP IN THE PART OF THE ISLAND INTERSECTED BY THE CROSSINGS. EACH 48 INCH MINIMUM BY 36 INCH MINIMUM (48" PREFERRED) AREA SHALL BE ORIENTED SO THAT THE 48 INCH MINIMUM LENGTH IS IN THE DIRECTION OF THE RUNNING SLOPE OF THE CURB RAMP IT SERVES. THE 48 INCH MINIMUM BY 36 INCH MINIMUM (48" PREFERRED) AREAS AND THE ACCESSIBLE ROUTE SHALL BE PERMITTED TO OVERLAP.

H. DRAINAGE: CONTRACTOR IS TO ENSURE THE BASE OF EACH CONSTRUCTED CURB RAMP ALLOWS FOR PROPER DRAINAGE, WITHOUT EXCEEDING ALLOWABLE CROSS SLOPE OR RAMP VERTICAL CHANGE IN LEVEL EXCEEDING 1/8" BETWEEN THE 1) PAVEMENT AND GUTTER, AND 2) GUTTER AND RAMP, ARE NOT ALLOWED.

I. SURFACE TEXTURE: TEXTURE CONCRETE SURFACES BY COARSE BROOMING TRANSVERSE TO THE RAMP SLOPES TO BE ROUGHER THAN THE ADJACENT WALK.

J. JOINTS: PROVIDE EXPANSION JOINTS IN THE CURB RAMP AS EXTENSIONS OF WALK JOINTS AND CONSISTENT WITH ITEM 608.03 REQUIREMENTS FOR A NEW CONCRETE WALK. PROVIDE A 1/2" ITEM 705.03 EXPANSION JOINT FILLER AROUND THE EDGE OF RAMPS BUILT IN EXISTING CONCRETE WALKS. LINES SHOWN ON THIS DRAWING INDICATE THE RAMP EDGES AND SLOPE CHANGES, AND DO NOT NECESSARILY INDICATE JOINT LINES.

K. EXISTING SIDEWALKS: IN EXISTING SIDEWALKS, WHERE THE MAXIMUM RAMP SLOPE (13:1) IS NOT FEASIBLE DUE TO SITE CONSTRAINTS (E.G. UTILITY POLES OR VAULTS, RIGHT-OF-WAY LIMITS) IT MAY BE REDUCED AS FOLLOWS:

10:1 FOR A MAX. RISE OF 6",
8:1 FOR A MAX. RISE OF 3",
6:1 OVER A MAX. RUN OF 2'-0" FOR HISTORIC AREAS WHERE A FLATTER SLOPE IS NOT FEASIBLE.

TO PREVENT CHASING THE GRADE INDEFINITELY, THE TRANSITION FROM EXISTING SIDEWALK TO THE SHADED CURB RAMP AREA IS NOT REQUIRED TO EXCEED 15 FEET IN LENGTH.

DETECTABLE WARNINGS, IF REQUIRED:

A. INSTALL DETECTABLE WARNING ON CURB RAMP WITH APPROVED MATERIALS. THE DETECTABLE WARNING SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP (EXCLUSIVE OF FLARED SIDES) AND SHALL EXTEND EITHER THE FULL DEPTH OF THE CURB RAMP OR 24 INCHES DEEP MINIMUM MEASURED FROM THE BACK OF THE CURB ON THE RAMP SURFACE.

B. INSTALL ALL PROPRIETARY PRODUCTS AS PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

C. THE DEPTH OF CONCRETE UNDERNEATH DETECTABLE WARNING PRODUCTS SHALL BE A MINIMUM OF 4" THICK.

D. COLOR OF DETECTABLE WARNINGS SHOULD CONTRAST WITH SURROUNDING CONCRETE WALK AND RAMP (BLACK IS NOT AN ACCEPTABLE COLOR).

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VALLE GREENE SENIOR
CITY OF FAIRBORN
ADA SITE ACCESSIBILITY NOTES AND DETAILS

REVISIONS:

FILE NAME	ADA - 012
DRAWN BY	JMK
CHECKED BY	JSP
PROJECT No.	GREFAI2305
DATE	9-13-2024
SHEET NUMBER	13 OF 26

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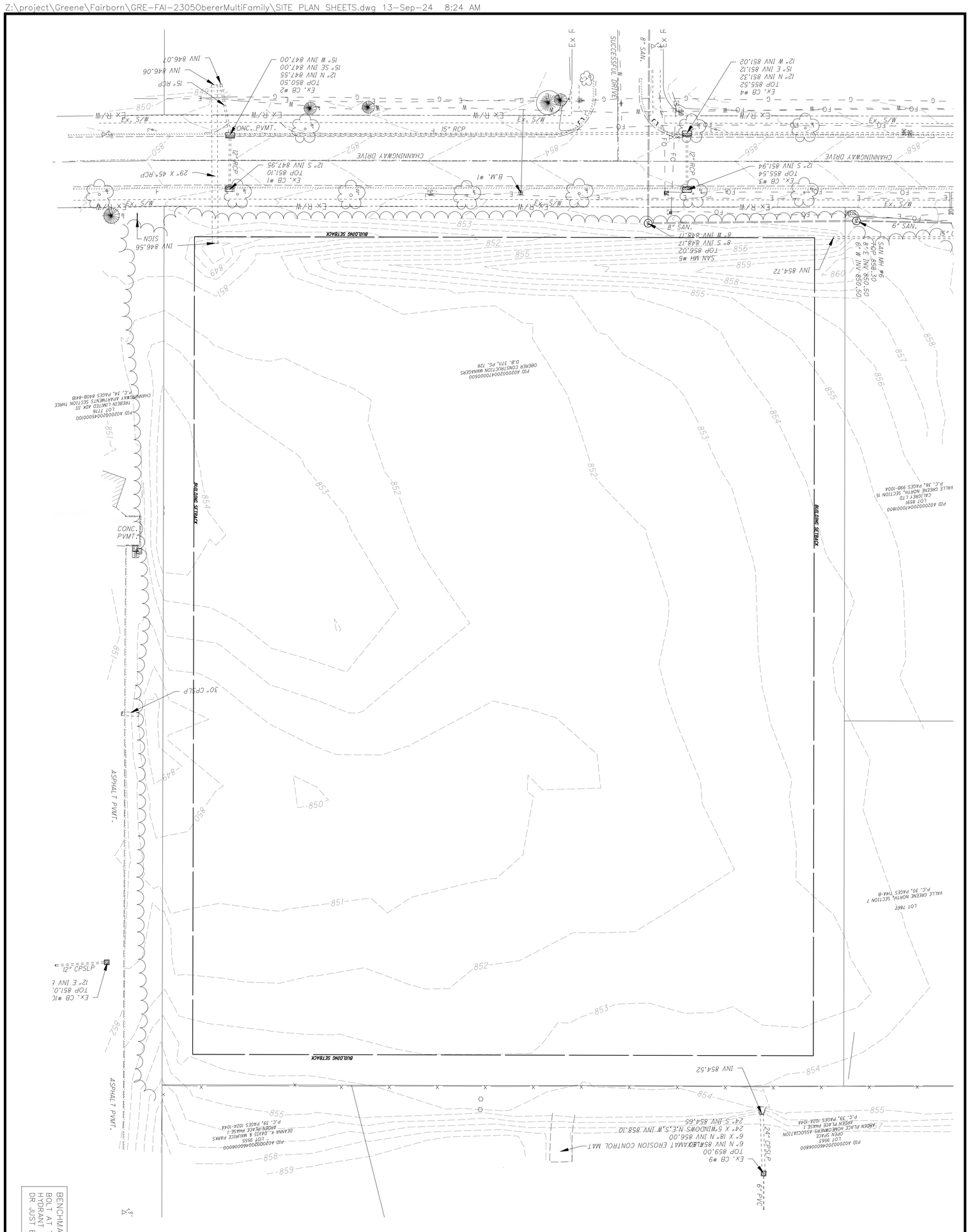

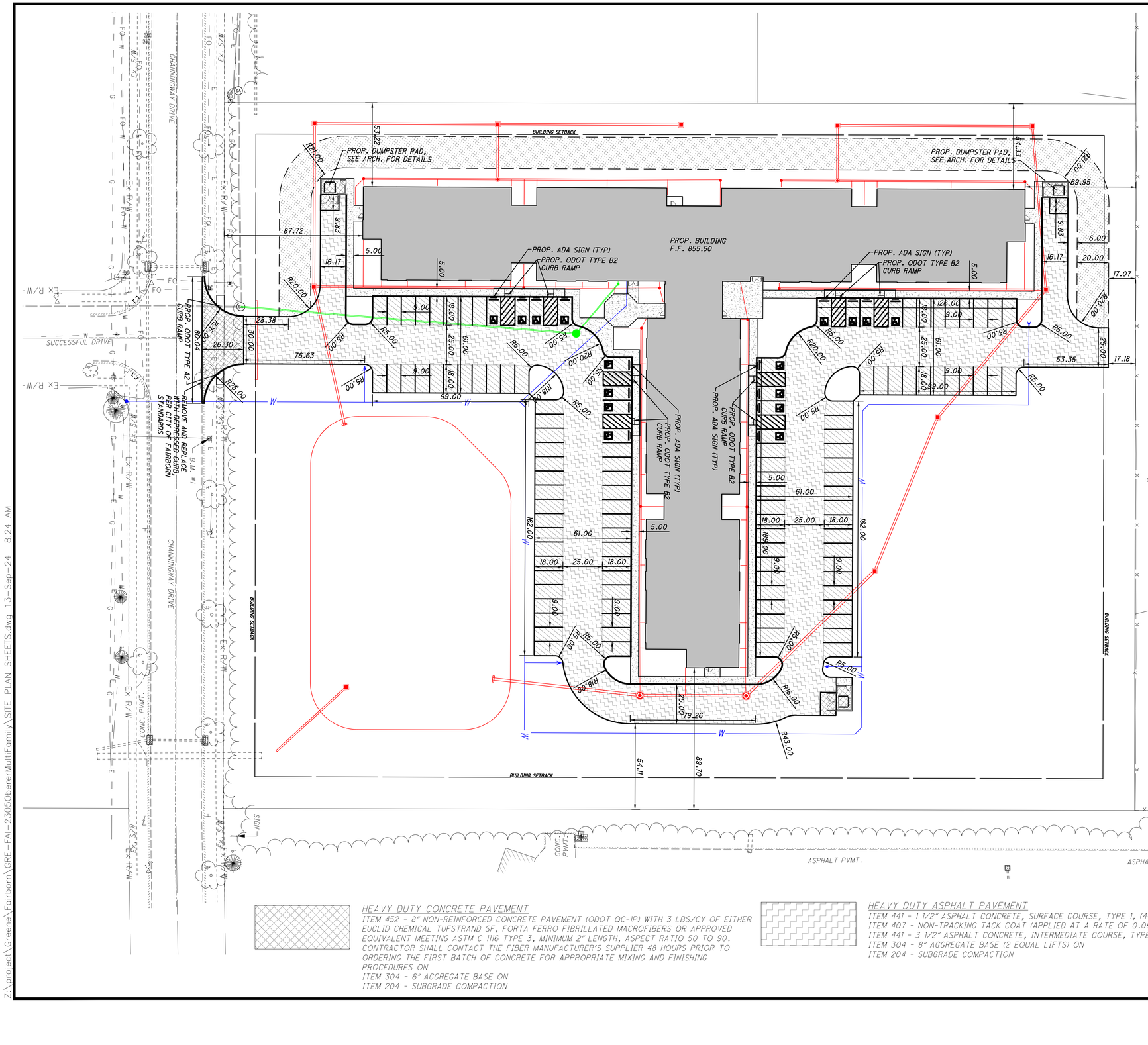

PAVEMENT STRIPING NOTES:

ANY PROPOSED PAVEMENT MARKING SHALL BE STRIPED AS PART OF THIS WORK.

ALL PAVEMENT MARKING LINES SHALL BE WHITE OR YELLOW (DO NOT REQUIRE REFLECTOR BEADS) AND SHALL CONSIST OF 4" WIDE LINES.

ALL PAVEMENT MARKINGS SHALL BE PER ODOT ITEM 640 AND 642. ALL PAVEMENT MARKINGS TO BE TYPE 1, UNLESS APPLICATION IS REQUIRED WHEN AIR AND PAVEMENT TEMPERATURES ARE BETWEEN 35 °F AND 50 °F, THEN OBTAIN APPROVAL FROM THE OWNER AND APPLY ONLY PRE-QUALIFIED TYPE IA COLD WEATHER TRAFFIC PAINT MATERIALS PER ITEM 642 AND 740.

ALL MARKING LAYOUT AND COLOR SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

NOTES:

1. ALL DIMENSIONS INVOLVING CURBING ARE TO THE FACE OF CURB, UNLESS OTHERWISE NOTED.
2. INSTALL DRIVEWAY PER CITY OF FAIRBORN STANDARDS.
3. CONTRACTOR TO VERIFY EXACT LOCATION, DEPTH AND SIZE OF UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OF ANY CONFLICTS PRIOR TO THE INSTALLATION OF UTILITIES.
4. CONTRACTOR TO FOLLOW ALL PERMIT REQUIREMENTS AND SPECIFICATIONS TO INSTALL THE PROPOSED DEVELOPMENT INCLUDING COORDINATING THE INSTALLATION WITH LOCAL OFFICIALS AS NEEDED AND/OR REQUIRED.
5. CONTRACTOR TO COORDINATE ALL WORK WITH THE OWNER AS NEEDED/REQUIRED.

PROPOSED BUILDING

CONCRETE SIDEWALK
ITEM 608 - 4" CONCRETE SIDEWALK (ODOT QC-1P) ON
ITEM 411 - 4" STABILIZED AGGREGATE BASE

GRASS PAVERS FOR FIRE TRUCK ACCESS

REGULAR DUTY ASPHALT PAVEMENT
ITEM 441 - 1 1/2" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, (449) PG 64-22 ON
ITEM 407 - NON-TRACKING TACK COAT (APPLIED AT A RATE OF 0.06 GALLONS PER SQUARE YARD) ON
ITEM 441 - 2 1/2" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, (449) ON
ITEM 304 - 6" AGGREGATE BASE (2 EQUAL LIFTS) ON
ITEM 204 - SUBGRADE COMPACTION

HEAVY DUTY CONCRETE PAVEMENT
ITEM 452 - 8" NON-REINFORCED CONCRETE PAVEMENT (ODOT QC-1P) WITH 3 LBS/CY OF EITHER EUCLID CHEMICAL TUFSTRAND SF, FORTA FERRO FIBRILLATED MACROFIBERS OR APPROVED EQUIVALENT MEETING ASTM C 1116 TYPE 3, MINIMUM 2" LENGTH, ASPECT RATIO 50 TO 90. CONTRACTOR SHALL CONTACT THE FIBER MANUFACTURER'S SUPPLIER 48 HOURS PRIOR TO ORDERING THE FIRST BATCH OF CONCRETE FOR APPROPRIATE MIXING AND FINISHING PROCEDURES ON
ITEM 304 - 6" AGGREGATE BASE ON
ITEM 204 - SUBGRADE COMPACTION

HEAVY DUTY ASPHALT PAVEMENT
ITEM 441 - 1 1/2" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, (449) PG 64-22 ON
ITEM 407 - NON-TRACKING TACK COAT (APPLIED AT A RATE OF 0.06 GALLONS PER SQUARE YARD) ON
ITEM 441 - 3 1/2" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, (449) ON
ITEM 304 - 8" AGGREGATE BASE (2 EQUAL LIFTS) ON
ITEM 204 - SUBGRADE COMPACTION

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VALLE GREENE SENIOR
CITY OF FAIRBORN
DIMENSIONING AND PAVEMENT PLAN

REVISIONS:

FILE NAME: DIMENSION
DRAWN BY: JMK
CHECKED BY: JSP
PROJECT No.: GREFAI2305
DATE: 9-13-2024
SHEET NUMBER: 15 OF 26

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GAS, ELECTRIC, COMMUNICATION CONFLICT NOTE:

CONTRACTOR TO LOWER/DIP THESE UTILITIES AS NEEDED TO AVOID CONFLICTS WITH ANY PROPOSED OR EXISTING SANITARY OR STORM OR WATER LINES THEY MAY CONFLICT WITH. IF THESE UTILITY LINES CONFLICT WITH ANY PROPOSED OR EXISTING WATERLINES THEN CONTRACTOR TO DETERMINE WHETHER TO LOWER/DIP THE WATERLINE OR LOWER/DIP THE GAS/ELECTRIC/COMMUNICATION LINE(S). CONTRACTOR MAY NEED TO CONSULT WITH AND OBTAIN OWNER'S APPROVAL AS TO WHICH UTILITY WILL BE LOWERED PRIOR TO PERFORMING THIS WORK. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

UNKNOWN EXISTING UNDERGROUND UTILITIES:

CONTRACTOR TO BE AWARE THERE MAY BE OTHER UNKNOWN SERVICES OR UNKNOWN UNDERGROUND UTILITIES OR ITEMS WHICH MAY BE LOCATED WITHIN THE SITE AND MAY REQUIRE REMOVAL OR REROUTING IN ORDER TO PERFORM THE PROPOSED PROJECT. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY OF ANY UNKNOWN UNDERGROUND UTILITIES OR OTHER ITEMS WHICH ARE ENCOUNTERED AND WORK WITH THE OWNER TO DECIDE HOW THESE ITEMS SHOULD BE HANDLED.

NOTES:

CONTRACTOR TO VERIFY EXACT LOCATION, DEPTH AND SIZE OF UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OF ANY CONFLICTS PRIOR TO THE INSTALLATION OF UTILITIES.

ALL UTILITIES TO BE INSTALLED PER CITY OF FAIRBORN STANDARDS.

CONTRACTOR TO VERIFY AND LOCATE WHERE STORM, SANITARY, AND WATER LATERALS AND ALL OTHER PROPOSED UTILITY SERVICES TIE INTO THE PROPOSED BUILDING PER BUILDING PLANS. CONTRACTOR SHALL ALSO VERIFY THE SIZES AND TYPES OF ALL LATERALS AND HOW THEY MAY TIE INTO THE PROPOSED BUILDINGS.

CONTRACTOR TO FOLLOW ALL PERMIT REQUIREMENTS AND SPECIFICATIONS TO INSTALL THE PROPOSED UTILITIES INCLUDING COORDINATING THE INSTALLATION WITH LOCAL OFFICIALS AS NEEDED AND/OR REQUIRED.

CONTRACTOR TO COORDINATE ALL WORK WITH THE OWNER AS NEEDED/REQUIRED.

PROP. STORM STRUCTURES
#2 TYPE 3 STM MH TOP 854.21 18" S INV. 847.60 18" N INV. 847.60 10" W INV. 849.40
#3 TYPE 3 STM MH TOP 854.39 18" S INV. 847.82 18" NW INV. 847.82 10" W INV. 849.40
#4 TYPE 2–2B CB TOP 851.46 18" SE INV. 848.10 15" NW INV. 848.35
#5 TYPE 2–2C CB TOP 852.07 15" SE INV. 848.72 15" NW INV. 848.72
#6 TYPE 2–2C CB TOP 854.30 10" S INV. 850.50 12" W INV. 849.34 15" SE INV. 849.09
#7 TYPE 2–2B CB TOP 852.50 12" S INV. 850.06 12" E INV. 850.06
#8 TYPE 2–2B CB TOP 853.38 12" N INV. 850.91 12" E INV. 850.91
#9 YARD DRAIN TOP 855.32 12" W INV. 851.05 10" N INV. 851.05 8" S INV. 851.05
#10 TYPE 2–2B CB TOP 853.60 12" S INV. 851.10
#11 TYPE 2–2B CB TOP 853.60 15" S INV. 850.45 12" N INV. 850.70 12" E INV. 850.70
#12 YARD DRAIN TOP 855.32 12" W INV. 851.00 10" N INV. 851.16 8" S INV. 851.25
#13 TYPE 2–2B CB TOP 853.60 15" N INV. 850.16 15" E INV. 850.16
#14 TYPE 2–2B CB TOP 854.34 15" W INV. 849.90 15" E INV. 849.90 12" N INV. 850.15
#15 TYPE 2–2B CB TOP 849.50 12" SE INV. 847.00

PROP. SAN. STRUCTURES
#1 TYPE 3 SAN MH TOP. 853.99 6" NW INV. 849.33 8" S INV. 849.23

SCALE IN FEET
0 15 30 60

DOWNSPOUT PIPING NOTE:

THE CONTRACTOR SHALL CONNECT ANY DOWNSPOUTS AS SHOWN ON THE SITE PLAN OR TO THE CLOSEST STORM PIPING OR CATCH BASINS USING CPSLP OR PVC SDR-35 SEWER OR APPROVED EQUAL.

EXISTING UTILITY NOTES:

CONTRACTOR SHALL DETERMINE THE TYPE OF SERVICE FOR ALL EXISTING UNDERGROUND LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION AND SHALL ENSURE THE FOLLOWING:

1. THAT ALL EXISTING STORM LINES OR ANY OTHER EXISTING CLEAN WATER DRAINAGE LINES THAT ARE DISCOVERED AND/OR ENCOUNTERED DURING CONSTRUCTION AND ARE OR NEED TO REMAIN IN SERVICE ARE ROUTED AS NEEDED TO ENSURE THAT THEY ARE CONNECTED INTO THE PROPOSED OR EXISTING STORM SEWER.

2. THAT ALL EXISTING SANITARY LINES THAT ARE DISCOVERED AND/OR ENCOUNTERED DURING CONSTRUCTION AND ARE TO REMAIN IN SERVICE ARE ROUTED AS NEEDED TO ENSURE THAT THEY ARE CONNECTED INTO ACTIVE EXISTING SANITARY SEWER LINES/STRUCTURES OR INTO PROPOSED SANITARY SEWER LINES/STRUCTURES.

3. THAT ALL EXISTING WATER LINES THAT ARE DISCOVERED AND/OR ENCOUNTERED DURING CONSTRUCTION AND ARE TO REMAIN IN SERVICE ARE ROUTED AS NEEDED TO ENSURE THAT THEY ARE CONNECTED INTO ACTIVE EXISTING WATER LINES OR INTO PROPOSED WATER LINES.

ALL WORK TO BE PER AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND TO BE WITNESSED BY THE OWNER'S REP. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

WATER MAIN CROSSING SEPARATION NOTE:

WHENEVER A SANITARY OR STORM SEWER AND WATER LINE MUST CROSS, THE SEWER AND WATER SHALL BE LAID AT SUCH AN ELEVATION THAT THERE IS AT LEAST 18" OF SEPARATION BETWEEN THE OUTSIDE WALLS OF THE TWO PIPES. IF REQUIRED, CONTRACTOR SHALL LOWER/DIP THE WATER MAIN AS NEEDED TO OBTAIN THE 18" MINIMUM SEPARATION DISTANCE. IF IT IS ABSOLUTELY IMPOSSIBLE TO MAINTAIN THE 18" VERTICAL SEPARATION, THE SANITARY SEWER SHALL BE CONSTRUCTED OF WATER LINE TYPE MATERIALS WHICH WOULD BE ABLE TO WITHSTAND A 100 PSI PRESSURE TEST (NOTE: DO NOT PRESSURE TEST SANITARY SEWER TO 100 PSI). THESE REQUIREMENTS WILL EXTEND FOR THE DISTANCE OF THE ENTIRE SPAN. NO CHANGE OF MATERIALS ARE ALLOWED MID-SPAN.

AT CROSSINGS, THE WATER MAIN SHALL HAVE A MINIMUM VERTICAL DISTANCE OF 18" FROM STORM AND SANITARY SEWERS. ALSO ONE FULL LENGTH OF WATER MAIN SHALL BE LOCATED SO THE JOINTS ARE AS FAR FROM THE STORM AND SANITARY SEWERS AS POSSIBLE.

EXISTING "APPROXIMATE" AND/OR "PER PLANS" UNDERGROUND UTILITIES NOTE:

EXISTING UNDERGROUND UTILITIES LABELED AS "APPROXIMATE" AND/OR "PER PLANS" HAVE BEEN SHOWN BASED ON PREVIOUS PLANS AND OLD SITE INFORMATION AND THEIR EXACT LOCATION, DEPTH, SIZE, TYPE, SLOPE, ETC. ARE UNKNOWN. CONTRACTOR SHALL TAKE THIS INTO ACCOUNT FOR ALL WORK RELATED TO AND/OR INVOLVING THESE UTILITIES AND SHALL FIELD VERIFY AND/OR DETERMINE ALL INFO FOR THESE UTILITIES PRIOR TO CONSTRUCTION.

ELECTRICAL/MECHANICAL NOTE:

CONTRACTOR SHALL REFER TO THE ELECTRICAL/MECHANICAL DRAWINGS FOR DEMOLITION AND/OR INSTALLATION INFO. OF ALL EXISTING AND PROPOSED ELECTRICAL/MECHANICAL ITEMS FOR THE SITE AND/OR HOW THESE ITEMS ARE TO BE HANDLED AND ADDRESSED.

LOCATE EXISTING UTILITIES NOTE:

THIS ITEM OF WORK MAY BE PERFORMED ON AS NEEDED BASIS AND SHALL CONSIST OF THE CONTRACTOR FIELD LOCATING THE VARIOUS EXISTING UTILITY LINES LOCATION, SIZE, AND DEPTH PRIOR TO PERFORMING ANY PROPOSED WORK OR ONCE WORK HAS BEGUN. THIS WORK MAY ALSO REQUIRE THE CONTRACTOR TO INSPECT THE LINES BY OTHER METHODS SUCH AS DYE TESTING OR CAMERA/VIDEO TO FIND THE ORIGIN AND LOCATION OF THE LINE. THE CONTRACTOR SHALL COOPERATE AND COORDINATE WITH THE OWNER AS NEEDED TO ENSURE EXISTING FACILITY OPERATIONS ARE MAINTAINED.

ALL WORK TO BE PER AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND TO BE WITNESSED BY THE OWNER'S REPRESENTATIVE. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

BENCHMARK #1 ELEV: 855.87 PT.#: 10256
BOLT AT TIP ARROW TOP FLANGE OF FIRE HYDRANT ON THE NORTH SIDE OF CHANNINGWAY DR JUST EAST OF SUCCESSFULL DR

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VALLE GREENE SENIOR
CITY OF FAIRBORN
UTILITY PLAN

REVISIONS:

FILE NAME: UTILITY
DRAWN BY: JMK
CHECKED BY: JSP
PROJECT No.: GREFAI2305
DATE: 9-13-2024
SHEET NUMBER: 16 OF 26

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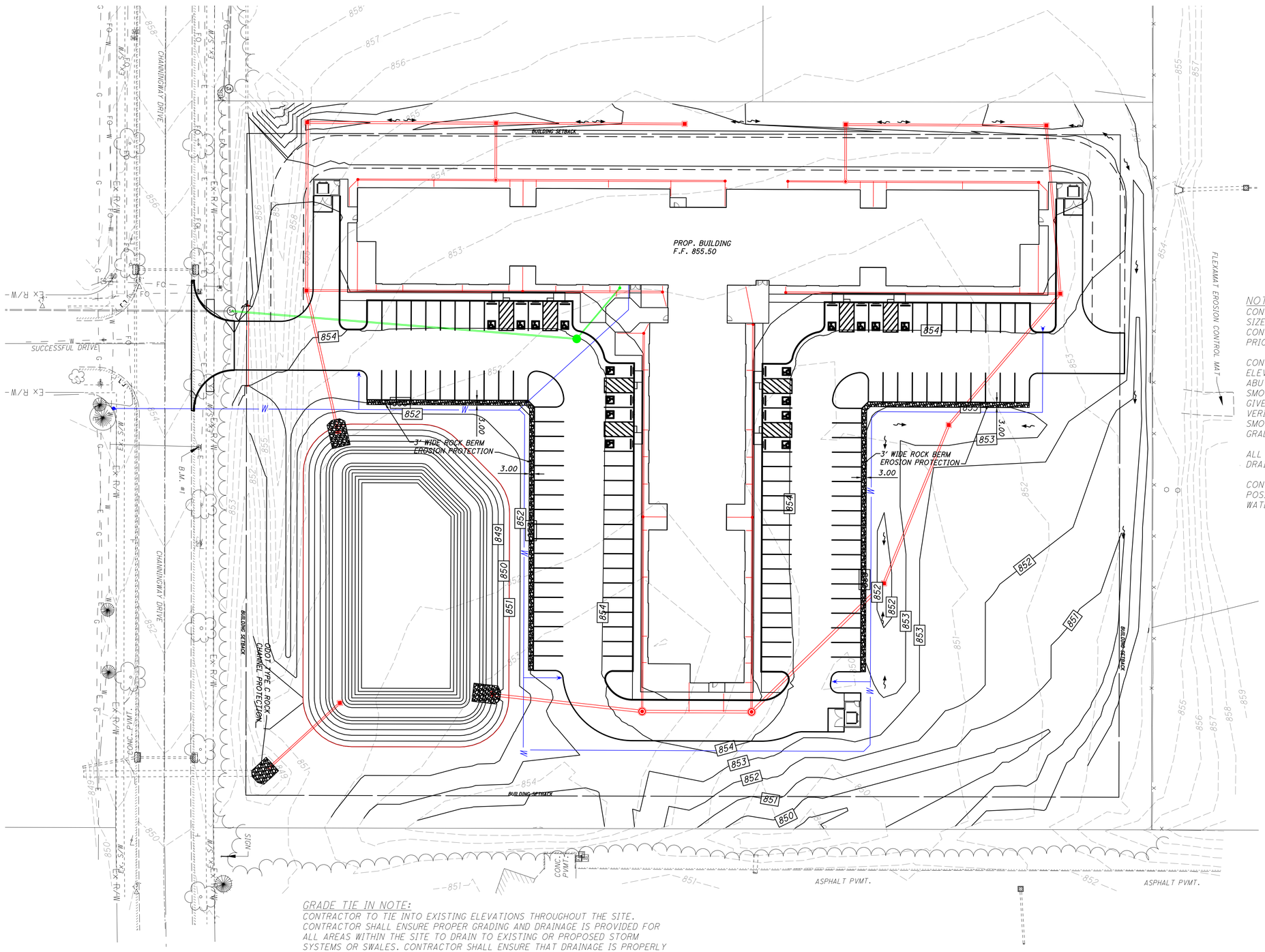

SCALE IN FEET

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NOTES:

CONTRACTOR TO VERIFY EXACT LOCATION, DEPTH AND SIZE OF UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OF ANY CONFLICTS PRIOR TO THE INSTALLATION OF UTILITIES.

CONTRACTOR TO TIE INTO EXISTING PAVEMENT ELEVATIONS AS REQUIRED WHEREVER NEW PAVEMENT ABUTS UP TO EXISTING PAVEMENT TO ENSURE A SMOOTH TRANSITION. ALL EX. PAVEMENT ELEVATIONS GIVEN ARE APPROXIMATED AND SHALL BE FIELD VERIFIED. CONTRACTOR SHALL ALSO ENSURE THAT A SMOOTH TRANSITION IS PROVIDED WHEREVER PROPOSED GRADES MEET EXISTING GRADES THROUGHOUT THE SITE.

ALL DISTURBED LAWN AREAS SHALL BE GRADED TO DRAIN TO THE NEAREST INLET STRUCTURE.

CONTRACTOR TO ENSURE ALL AREAS OF THE SITE HAVE POSITIVE DRAINAGE. NO PONDING OR PUDDLING OF WATER IS PERMITTED.

LEGEND

- 830 EXISTING CONTOURS
- 830 PROPOSED CONTOURS
- PROPOSED STORM SEWER
- PROPOSED EDGE PAVEMENT
- PROPOSED CURB

BENCHMARK #1 ELEV: 855.87 PT.#: 10256
BOLT AT TIP ARROW TOP FLANGE OF FIRE HYDRANT ON THE NORTH SIDE OF CHANNINGWAY DR JUST EAST OF SUCCESSFULL DR

GRADE TIE IN NOTE:

CONTRACTOR TO TIE INTO EXISTING ELEVATIONS THROUGHOUT THE SITE. CONTRACTOR SHALL ENSURE PROPER GRADING AND DRAINAGE IS PROVIDED FOR ALL AREAS WITHIN THE SITE TO DRAIN TO EXISTING OR PROPOSED STORM SYSTEMS OR SWALES. CONTRACTOR SHALL ENSURE THAT DRAINAGE IS PROPERLY DIRECTED AWAY FROM ANY BUILDINGS/STRUCTURES. THIS SHALL INCLUDE ALL TEMPORARY GRADING AS NEEDED INCLUDING INSTALLING TEMPORARY DRAINAGE SWALES AND INSTALLING ALL TEMPORARY STORM SEWER CATCH BASINS, INLETS, PIPING, ETC. AS NEEDED TO ENSURE PROPER DRAINAGE OF THE SITE THROUGHOUT THE COURSE OF CONSTRUCTION. ALL WORK TO BE COORDINATED WITH AND AS DIRECTED BY OWNER.

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VALLE GREENE SENIOR
CITY OF FAIRBORN
GRADING PLAN

REVISIONS:

FILE NAME	GRADING
DRAWN BY	JMK
CHECKED BY	JSP
PROJECT No.	GREFAI2305
DATE	9-13-2024
SHEET NUMBER	17 OF 26

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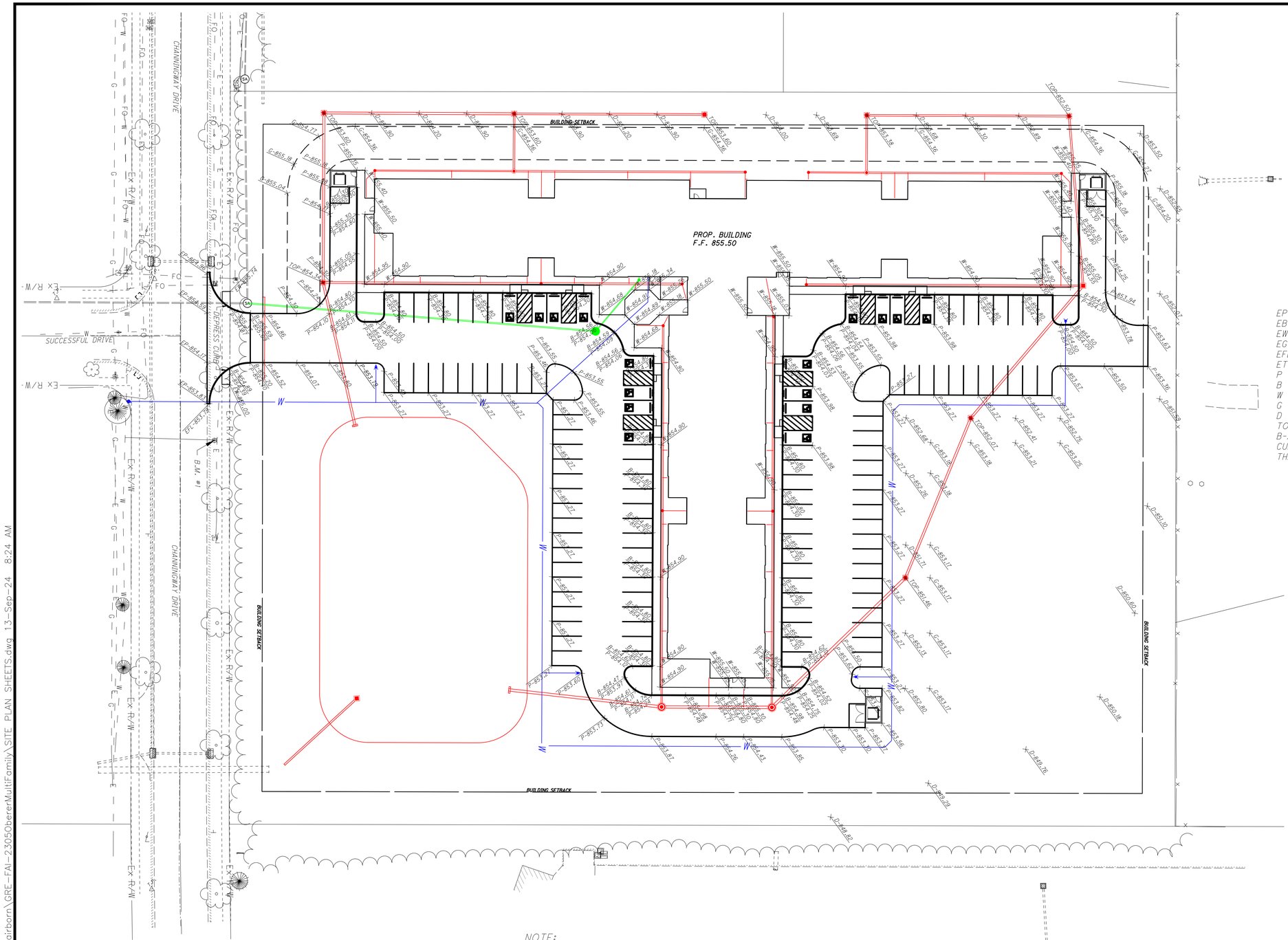

SCALE IN FEET
0 15 30 60

LEGEND

EP = EXISTING PAVEMENT ELEVATION
EB = EXISTING TOP OF CURB ELEVATION
EW = EXISTING SIDEWALK ELEVATION
EG = EXISTING GROUND ELEVATION
EFL = EXISTING FLOWLINE ELEVATION
ETOP = EXISTING TOP OF GRATE ELEVATION
P = PROPOSED PAVEMENT ELEVATION
B = PROPOSED TOP OF CURB ELEVATION
W = PROPOSED SIDEWALK ELEVATION
G = PROPOSED GROUND ELEVATION
D = PROPOSED SWALE ELEVATION
TOP = PROPOSED TOP OF GRATE ELEVATION
B-XXX.XX* = ASTERISK INDICATES PROPOSED TOP OF CURB SPOT GRADE ELEVATION WITH CURB EXPOSURE THAT VARIES FROM THE STANDARD 0.50' (6") CURB

BENCHMARK #1 ELEV: 855.87 PT.#: 10256
BOLT AT TIP ARROW TOP FLANGE OF FIRE HYDRANT ON THE NORTH SIDE OF CHANNINGWAY DR JUST EAST OF SUCCESSFULL DR

NOTE:
CONTRACTOR TO TIE INTO EXISTING PAVEMENT ELEVATIONS AS REQUIRED WHEREVER NEW PAVEMENT ABUTS UP TO EXISTING PAVEMENT TO ENSURE A SMOOTH TRANSITION. ALL EX. PAVEMENT ELEVATIONS GIVEN ARE APPROXIMATED AND SHALL BE FIELD VERIFIED. CONTRACTOR SHALL ALSO ENSURE THAT A SMOOTH TRANSITION IS PROVIDED WHEREVER PROPOSED GRADES MEET EXISTING GRADES THROUGHOUT THE SITE.

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VALLE GREENE SENIOR
CITY OF FAIRBORN
PAVEMENT ELEVATIONS PLAN

REVISIONS:

FILE NAME: PVMT.ELE.
DRAWN BY: JMK
CHECKED BY: JSP
PROJECT No.: GREFAI2305
DATE: 9-13-2024
SHEET NUMBER: 18 OF 26

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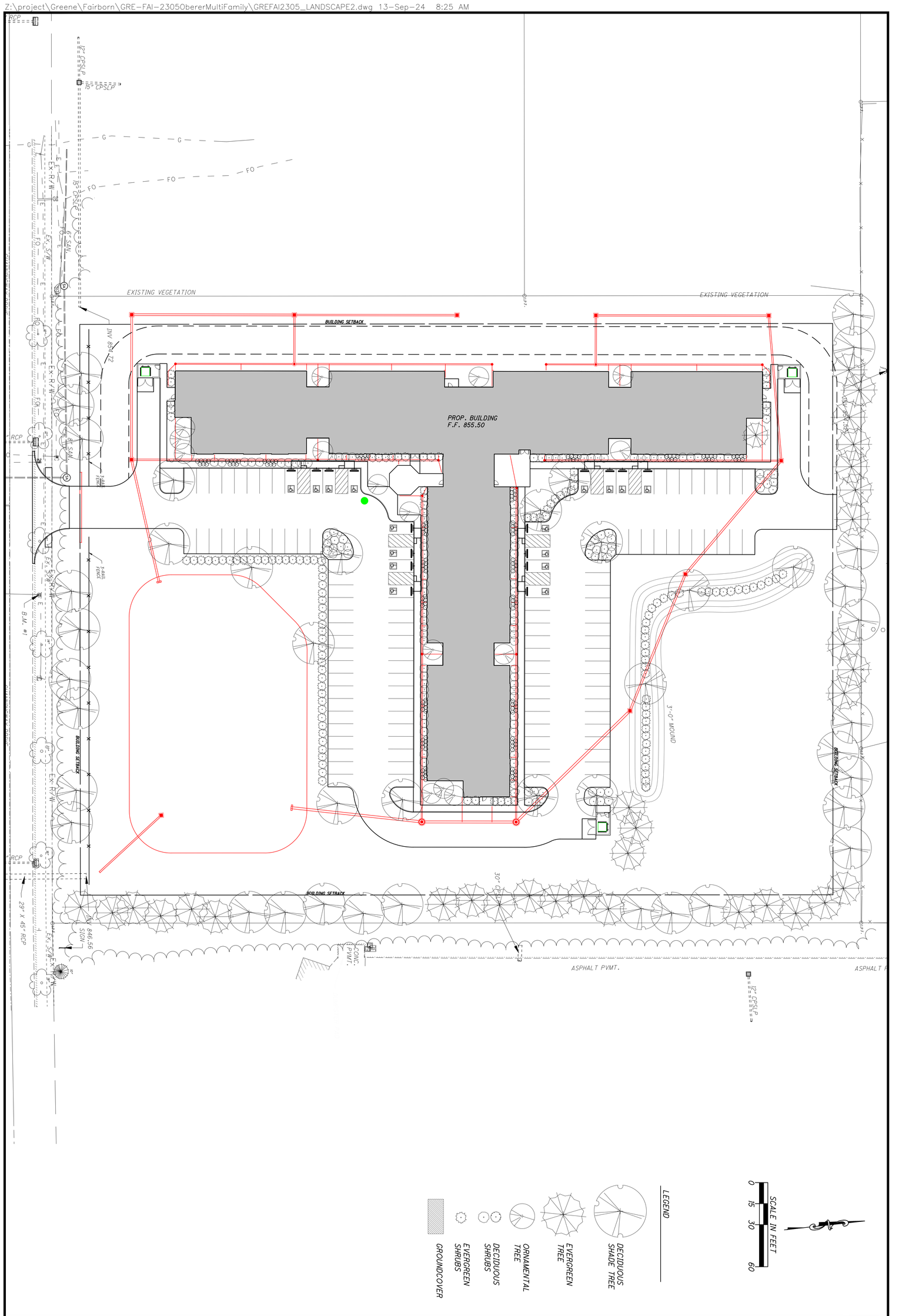

SHEET NUMBER	19 OF 26
DATE	9-13-2024
PROJECT No.	GREFAI2305
CHECKED BY	JSP
DRAWN BY	JMK
FILE NAME	LANDSCAPE
REVISIONS:	

VALLE GREENE SENIOR
CITY OF FAIRBORN
LANDSCAPE PLAN

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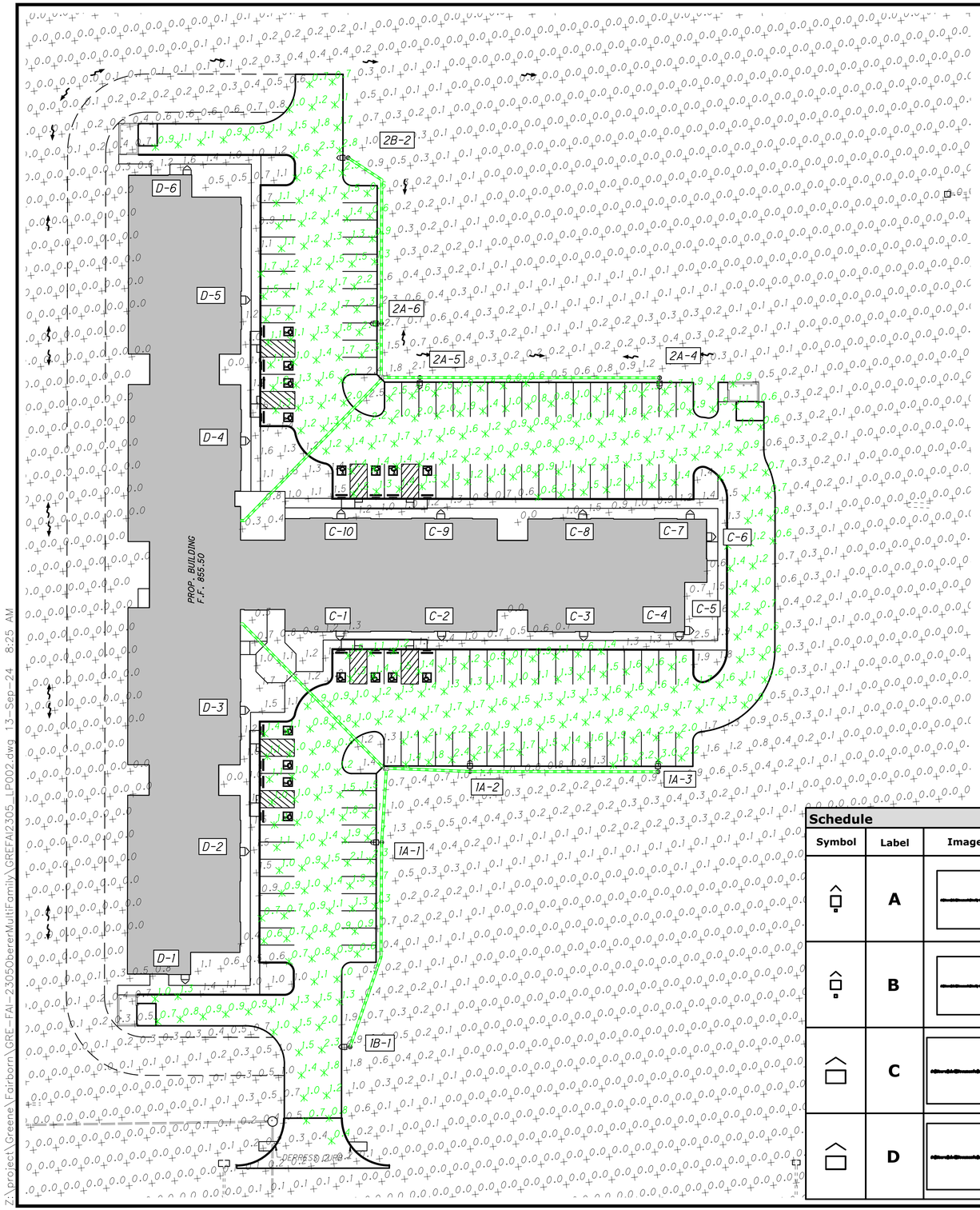

SCALE IN FEET

0 15 30 60

LEGEND

	X" CONDUIT
1A-1	POLE IDENTIFICATION NO. 1 = CIRCUIT A = POLE TYPE 1 = POLE NO.
	LIGHT POLE
	WALL PACK

Luminaire Locations

No.	Label	MH
1	A	20.00
2	A	20.00
3	A	20.00
4	A	20.00
5	A	20.00
6	A	20.00
1	B	20.00
2	B	20.00
1	C	17.00
2	C	17.00
3	C	17.00
4	C	17.00
5	C	17.00
6	C	17.00
7	C	17.00
8	C	17.00
9	C	17.00
10	C	17.00
1	D	17.00
2	D	17.00
3	D	17.00
4	D	17.00
5	D	17.00
6	D	17.00

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking Lot	+	1.4 fc	3.0 fc	0.4 fc	7.5:1	3.5:1

Schedule

Symbol	Label	Image	QTY	Manufacturer	Catalog	Description	Number Lamps	Lamp Output	LLF	Input Power
	A		6	Lithonia Lighting	DSX1 LED P2 40K T3M MVOLT	DSX1 LED P2 40K T3M MVOLT	1	8641	0.95	70
	B		2	Lithonia Lighting	DSX1 LED P2 40K T4M MVOLT	DSX1 LED P2 40K T4M MVOLT	1	8707	0.95	70
	C		10	Lithonia Lighting	WDGE2 LED P3 40K 70CRI TFTM	WDGE2 LED WITH P3 - PERFORMANCE PACKAGE, 4000K, 70CRI, TYPE FORWARD THROW MEDIUM OPTIC	1	3573	0.95	32.1375
	D		6	Lithonia Lighting	WDGE2 LED P3 40K 70CRI T3M	WDGE2 LED WITH P3 - PERFORMANCE PACKAGE, 4000K, 70CRI, TYPE 3 MEDIUM OPTIC	1	3629	0.95	32.1375

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VALLE GREENE SENIOR VILLAGE
CITY OF FAIRBORN
PHOTOMETRIC PLAN

REVISIONS:

FILE NAME LP002
DRAWN BY DWL
CHECKED BY BMW
PROJECT No. GREFAI2305
DATE 07-24-2024
SHEET NUMBER 1 OF 2

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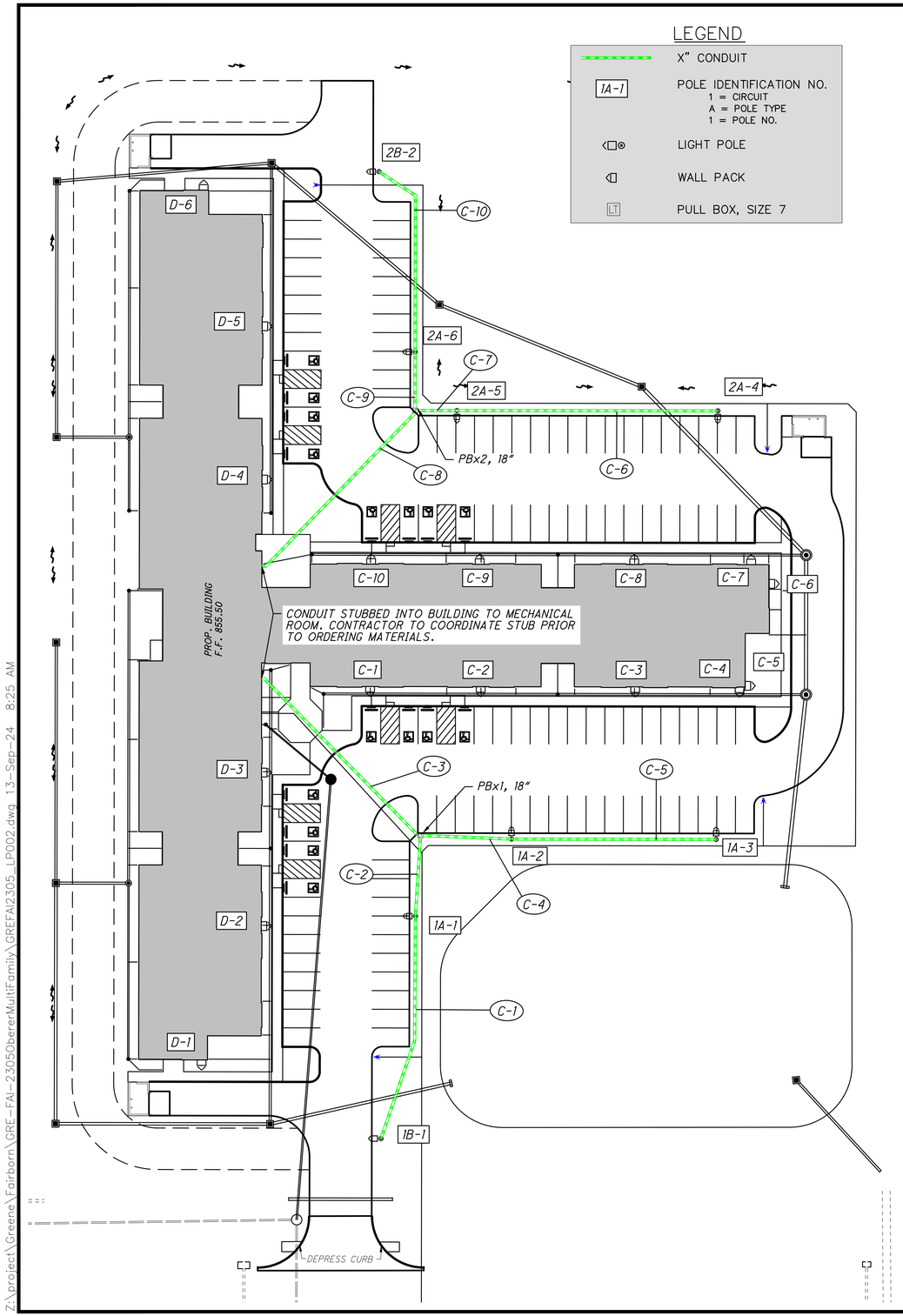

CONDUIT DETAILS

- C-1: 1" CONDUIT, 725.051 W/ (3)-1/C #10 AWG. (CKT. 1) IN TRENCH (110')
- C-2: 1" CONDUIT, 725.051 W/ (3)-1/C #10 AWG. (CKT. 1) IN TRENCH (39')
- C-3: 1" CONDUIT, 725.051 W/ (3)-1/C #10 AWG. (CKT. 1) IN TRENCH (110')
- C-4: 1" CONDUIT, 725.051 W/ (3)-1/C #10 AWG. (CKT. 1) IN TRENCH (44')
- C-5: 1" CONDUIT, 725.051 W/ (3)-1/C #10 AWG. (CKT. 1) IN TRENCH (99')
- C-6: 1" CONDUIT, 725.051 W/ (3)-1/C #10 AWG. (CKT. 2) IN TRENCH (126')
- C-7: 1" CONDUIT, 725.051 W/ (3)-1/C #10 AWG. (CKT. 2) IN TRENCH (20')
- C-8: 1" CONDUIT, 725.051 W/ (3)-1/C #10 AWG. (CKT. 2) IN TRENCH (107')
- C-9: 1" CONDUIT, 725.051 W/ (3)-1/C #10 AWG. (CKT. 2) IN TRENCH (28')
- C-10: 1" CONDUIT, 725.051 W/ (3)-1/C #10 AWG. (CKT. 2) IN TRENCH (97')

GENERAL LIGHTING NOTES

1) ALL LIGHT POLES SHALL BE MANUFACTURED BY LITHONIA LIGHTING AND SHALL BE PAINTED BLACK. POLES SHALL BE 18 FT. HIGH WITH 2' EXPOSED FOUNDATION.

2) LUMINAIRE MANUFACTURER: LITHONIA LIGHTING AS SPECIFIED IN THE LUMINAIRE SCHEDULE.

3) PROVIDE PHOTO ELECTRIC CONTROL AT EACH POWER SERVICE LOCATION AND MOUNTED ON OUTSIDE OF BUILDING. COORDINATE WITH BUILDING CONTRACTOR TO MOUNT NEAR TOP OF BUILDING AND FACING NORTH. THE LUMINAIRES SHALL INCLUDE DIMMING CONTROLS TO INDIVIDUALLY REDUCE OUTPUT OF A LUMINAIRE.

4) ALL ELECTRICAL WORK SHALL CONFORM WITH THE REQUIREMENTS OF THE MOST RECENT VERSION OF THE OHIO BUILDING CODE, THE N.E.C. AND N.F.P.A. STANDARD No. 70, AND IS SUBJECT TO THE APPROVAL OF THE AUTHORITY HAVING JURISDICTION.

5) LIGHT POLE FOUNDATIONS SHALL FOLLOW ODOT CMS 625.10 AND SCD HL-20.11 WITH THE EXCEPTION THAT THE POLE FOUNDATION SHALL EXTEND 2 FT. ABOVE FINISHED GRADE, BE NO LESS THAN 6' DEEP, AND SHALL BE FINISHED CIRCULAR CONCRETE. CONTRACTOR SHALL CONTACT THE POLE MANUFACTURER FOR BOLT CIRCLE DIMENSIONS. FAILURE TO VERIFY THE FOUNDATION WITH THE MANUFACTURER PRIOR TO ITS INSTALLATION WILL REQUIRE A CONTRACTOR TO RECONSTRUCT, OR RESET AT THE CONTRACTOR'S EXPENSE.

6) POWER SUPPLY TO LIGHTING SHALL BE 120 VOLTS.

7) POWER SERVICE SHALL BE LOCATED INSIDE THE BUILDING. THE CONTRACTOR SHALL CONTACT BUILDING CONTRACTOR BEFORE ORDERING ANY MATERIALS. ALL PERMITS AND INSPECTION FEES SHALL BE PAID BY THE CONTRACTOR.

8) ALL CONDUIT IS SCHEDULE 40 PVC.

9) ALL PULL BOXES SHALL BE PER ODOT SCD HL-30.11.

10) ELECTRICAL CONTRACTOR TO COORDINATE WITH BUILDING CONTRACTOR ON CONDUIT STUBS INTO BUILDING.

ELECTRICAL GENERAL NOTES

1) ALL ELECTRICAL WORK SHALL CONFORM WITH THE REQUIREMENTS OF THE MOST RECENT VERSION OF THE OHIO BUILDING CODE, THE N.E.C. AND N.F.P.A. STANDARD NO. 70, AND IS SUBJECT TO THE APPROVAL OF THE AUTHORITY HAVING JURISDICTION.

2) ALL NOTED MOUNTING HEIGHTS ARE FROM FINISHED FLOOR/GRADE OR GRADE TO CENTER OF DEVICE UNLESS OTHERWISE NOTED.

3) THREE No. 10 AWG. 600 VOLT DISTRIBUTION CABLES SHALL BE USED FOR SUPPLYING POWER TO THE POLES.

4) THREE No. 10 AWG. POLE AND BRACKET CABLES SHALL BE USED TO SUPPLY POWER TO THE LUMINAIRE.

POWER SERVICE AND CIRCUIT SCHEDULE		WATTS	CIRCUIT BREAKER SIZE AMPS
POWER SERVICE No. 1 (INSIDE MECHANICAL ROOM)			
CKT. 1 LUMINAIRES:	1A-1, 1A-2, 1A-3, 1B-1	272	15
CKT. 2 LUMINAIRES:	2A-4, 2A-5, 2A-6, 2B-2	272	15
	TOTAL	544	30

*ALL WALLPACKS TO BE WIRED INSIDE THE BUILDING AND CIRCUIT SCHEDULE TO BE DESIGNED BY OTHERS.

SYMBOL SCHEDULE

LABEL	LAMP TYPE	VOLTS	SOURCE AND WATTAGE BALLAST (LED DRIVER)	DESCRIPTION	MFR. AND CATALOG SERIES
A	LED	120–277	68 WATT (700mA)	LITHONIA D-SERIES SIZE 1 LED	LITHONIA D-SERIES SIZE 1 LED, SHORTING CAP, DIMMING CONTROLS WITH SQUARE STRAIGHT STEEL LIGHT POLE FIXTURE: DSX1 LED P2 40K 70CRI T3M MVOLT SPA PER7 DBLXD POLE: SSS 18 4C DM19AS DBLXD
B	LED	120–277	68 WATT (700mA)	LITHONIA D-SERIES SIZE 1 LED	LITHONIA D-SERIES SIZE 1 LED, SHORTING CAP, DIMMING CONTROLS WITH SQUARE STRAIGHT STEEL LIGHT POLE FIXTURE: DSX1 LED P2 40K 70CRI T4M MVOLT SPA PER7 DBLXD POLE: SSS 18 4C DM19AS DBLXD
C	LED	120–277	32 WATT (284mA)	LITHONIA WDGE2 LED WALL SCONCE	LITHONIA WDGE2 LED WALL SCONCE FIXTURE: WDGE2 LED P3 40K 70CRI TFTM MVOLT SRM DBLXD
D	LED	120–277	32 WATT (284mA)	LITHONIA WDGE2 LED WALL SCONCE	LITHONIA WDGE2 LED WALL SCONCE FIXTURE: WDGE2 LED P3 40K 70CRI T3M MVOLT SRM DBLXD
LT				CONCRETE BOX & COVER, OPEN BASE BOX, 30" DEPTH, LIGHTING LOGO	PULL BOX, 725.08, 18"

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VALLE GREENE SENIOR VILLAGE
CITY OF FAIRBORN
LIGHTING PLAN

REVISIONS:

FILE NAME LP002
DRAWN BY DWL
CHECKED BY BMW
PROJECT No. GREFAI2305
DATE 07-24-2024
SHEET NUMBER 2 OF 2

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VALLE GREENE SENIOR- SWPPP

CITY OF FAIRBORN
BATH TOWNSHIP
GREENE COUNTY, OHIO

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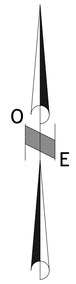
SWPPP SITE EROSION CONTROL PLAN	26



VICINITY MAP



SWPPP NOTE
THIS STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN PREPARED FOR OBERER COMPANIES FOR THE PERFORMANCE OF VALLE GREENE SENIOR VILLAGE BUILDING IN GREENE COUNTY, OHIO. ALL WORK SHALL BE PER AND COMPLY WITH THE OEPA CONSTRUCTION SITE STORM WATER GENERAL PERMIT, PERMIT #OHC000006. THIS INCLUDES FILING A CO-PERMITTEE NOI FORM WITH THE OEPA FOR ALL OPERATORS ENGAGED IN SITE WORK ON THE SITE. CONTRACTOR SHALL FOLLOW THE SPECIFICATIONS, INSTALLATION, MAINTENANCE AND REQUIREMENTS OF ODOT'S CURRENT SUPPLEMENTAL SPECIFICATION 832 "TEMPORARY SEDIMENT AND EROSION CONTROL." COMPLIANCE WITH SUPPLEMENTAL SPECIFICATION 832 SHALL INCLUDE THE STANDARD CONSTRUCTION DRAWING REFERENCES LISTED IN SECTION 832.03, BUT SHALL NOT INCLUDE SECTION 832.11 "INSPECTIONS AND SWPPP UPDATES." ALL INSPECTIONS AND SWPPP UPDATES SHALL BE PER THE OEPA CONSTRUCTION SITE STORM WATER GENERAL PERMIT, PERMIT #OHC000006. ALL WORK SHALL ALSO BE PER THE CURRENT ODOT CMS 107.19. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH LOCAL STORMWATER AND EROSION CONTROL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH AND INSTALLING ALL ITEMS NOTED AND AS REQUIRED BY OEPA AND LOCAL AUTHORITIES FOR MEETING ALL STORM WATER POLLUTION PREVENTION REQUIREMENTS. OBERER COMPANIES AND THE SELECTED CONTRACTOR SHALL BE THE RESPONSIBLE PARTY IN CHARGE OF THE SWPPP AND ASSOCIATED BMP'S.

SITE DATA
LOCATION SOIL TYPES_____SLOAN SILTY CLAY LOAM, OCKLEY/ELDEAN SILT LOAM
EARTH DISTURBED AREA_____5.53 ACRES
PROPOSED IMPERVIOUS AREA ADDED:_____2.36 ACRES
PRE-CONSTRUCTION RUNOFF COEFFICIENT:___0.30
POST-CONSTRUCTION RUNOFF COEFFICIENT:___0.70
DESCRIPTION OF PRIOR LAND USE_____WOODED LAND
EXISTING QUALITY OF DISCHARGE FROM SITE___UNTREATED PERVIOUS RUNOFF
IMMEDIATE RECEIVING WATERS:_____ON-SITE RETENTION BASIN
SUBSEQUENT RECEIVING WATERS:_____CITY STORM SEWER
LATITUDE 39.79066° LONGITUDE -83.996286°

WATERS EDGE NOTE
ALL MATERIAL AND EQUIPMENT STAGING OR STORAGE AREAS, DEWATERING AREAS, CONCRETE TRUCK WASH OUT AREAS, CONSTRUCTION ACCESS LOCATIONS, AND VEHICLE FUELING AND REFUELING LOCATIONS MUST BE LOCATED A MINIMUM OF 100' FROM ANY CREEK/RIVER/STREAM WATERS EDGE.

CLEAN STORM SYSTEM NOTE
IMMEDIATELY PRIOR TO FINAL COMPLETION OF THE PROJECT, CONTRACTOR SHALL ENSURE THE ENTIRE STORM SYSTEM, INCLUDING BUT NOT LIMITED TO, THE DETENTION/RETENTION BASIN(S), CATCH BASINS, MANHOLES, PIPING, UNDERDRAINS AND UNDERDRAIN TRENCHES ARE FREE FROM SEDIMENTATION AND OTHER POLLUTANTS AND FOREIGN MATERIALS AND ARE TO BE CLEANED AS NEEDED TO ENSURE MAXIMUM STORMWATER QUALITY AND FULL FUNCTIONALITY.

OFFSITE CONSTRUCTION ACTIVITIES
IT IS EXPECTED ALL CONSTRUCTION ACTIVITIES WILL TAKE PLACE ON SITE.

SPILL REPORTING REQUIREMENTS
IN THE EVENT OF A SMALL RELEASE (LESS THAN 25 GALLONS) OF PETROLEUM WASTE, SPECIAL HANDING PROCEDURES MUST BE USED. IN THE EVENT OF A LARGE RELEASE (25 GALLONS OR MORE) OF PETROLEUM WASTE, YOU MUST CONTACT THE OHIO EPA (AT 1-800-282-9378), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) WITHIN 30 MINUTES OF A SPILL OF 25 OR MORE GALLONS.

VEHICLE FUELING
VEHICLE FUELING AND MAINTENANCE WILL BE PERFORMED VIA A SMALL REFUEL TANK ON THE BACK OF A PICK-UP TRUCK.

OPEN BURNING NOTE
OPEN BURNING IS NOT PERMITTED IN THE CORPORATION LIMIT.

CONTACT INFORMATION
FACILITY SITE LOCATION: NORTH OF THE INTERSECTION OF SUCCESSFUL DRIVE AND CHANNINGWAY DRIVE, FAIRBORN, OHIO, 45324
OBERER COMPANIES, ROBERT HALL, 3445 NEWMARK DRIVE, MIAMISBURG, OH 45342, rhall@oberer.com
SWPPP CONTACT/CONTRACTOR CONTACT - TBD

SWPPP AND INSPECTION REPORTS LOCATION
NOTE: THE SWPPP AND INSPECTION REPORTS WILL BE KEPT ON-SITE IN THE JOB TRAILER/FOREMAN'S PICK-UP.

WASTE DISPOSAL NOTE
CONTAINERS (e.g. DUMPSTERS, DRUMS) MUST BE AVAILABLE FOR THE DISPOSAL OF DEBRIS, TRASH, HAZARDOUS MATERIAL AND PETROLEUM WASTES. ALL CONTAINERS MUST BE COVERED AND LEAK-PROOF.

CLEAN HARD FILL NOTE
NO CLEAN CONSTRUCTION WASTES SHALL BE DISPOSED OF INTO THE PROPERTY.

FUELING AND STAGING NOTE
CONTRACTOR'S STAGING AND STORAGE AREA WILL BE LOCATED WITHIN CONSTRUCTION LIMITS OF THE PROJECT. FUEL TANKS AND OTHER HAZARDOUS MATERIALS TO BE SAFELY STORED, PROTECTED, AND PROPERLY HANDLED BY CONTRACTOR. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ENSURE NO POLLUTANTS FROM THE STAGING/STORAGE AREA LEAVE THE SITE OR ENTER ADJACENT SURFACE WATERS OR THE STORM SYSTEM. CONTRACTOR SHALL CLEAN UP AND PROPERLY DISPOSE OF ANY WASTE MATERIALS.

SOIL STOCKPILE NOTE
CONTRACTOR'S SHALL LOCATE SOIL STOCKPILE AREAS WITHIN THE PROJECT AREA SO AS NOT TO BE WITHIN THE IMMEDIATE PROXIMITY OF ANY SURFACE WATERS OR STORM INLET STRUCTURES. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ENSURE NO POLLUTANTS FROM THE STOCKPILE AREA LEAVE THE SITE OR ENTER ADJACENT SURFACE WATERS OR THE STORM SYSTEM. THESE MEASURES MAY INCLUDE BUT SHALL NOT BE LIMITED TO INSTALLING FILTER FABRIC FENCE AROUND STOCKPILE, TEMPORARILY COVERING THE STOCKPILE AND/OR TEMPORARILY SEEDING THE STOCKPILE.

DEWATERING NOTE
PUMPING OF SEDIMENT LADEN WATER FROM TRENCHES OR ANY OTHER EXCAVATIONS DIRECTLY INTO ANY SURFACE WATERS, DITCH OR STREAM CORRIDORS, ANY WETLANDS OR STORM SEWERS IS PROHIBITED. ALL SUCH WATER SHALL BE PROPERLY FILTERED OR SETTLED TO REMOVE SOIL PARTICLES PRIOR TO ITS RELEASE. IF AN AREA OF THE SITE OR TRENCH NEEDS DEWATERED, IT SHOULD BE PUMPED FROM A SUMP PIT WITH A SOCK FILTER OR OTHER TYPE OF FILTERING DEVICE ON THE DISCHARGE OF THE HOSE. DO NOT ALLOW DISCHARGED WATER TO PASS OVER DISTURBED GROUND. IF THE DISCHARGE WATER IS BEING PUMPED INTO A SEDIMENT POND THEN NO FILTER IS REQUIRED AT THE END OF THE HOSE. IF THE GROUNDWATER MUST BE LOWERED, THE WATER MAY BE FREELY DISCHARGED AS LONG AS THE WATER REMAINS CLEAN. DO NOT CO-MINGLE CLEAN GROUND WATER WITH SEDIMENT LADEN WATER OR DISCHARGE IT BY ALLOWING IT TO PASS OVER DISTURBED GROUND.

LOG/DOCUMENTATION SHEETS
AS PART OF THE SWPPP, THE CONTRACTOR SHALL MAINTAIN LOG/DOCUMENTATION SHEETS FOR THE FOLLOWING:
1) A SIGNATURE LOG CONTAINING THE SIGNATURES OF ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED IN THE IMPLEMENTATION OF THE SWPPP AS PROOF ACKNOWLEDGING THAT THEY REVIEWED AND UNDERSTAND THE CONDITIONS AND RESPONSIBILITIES OF THE SWPPP.
2) A GRADING AND STABILIZATION LOG DOCUMENTING THE PROJECTS GRADING AND STABILIZATION ACTIVITIES AND
3) A SWPPP AMENDMENT LOG DOCUMENTING CHANGES/AMENDMENTS TO THE SWPPP, WHICH OCCUR AFTER CONSTRUCTION ACTIVITIES COMMENCE.

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SEPTEMBER 13, 2024

PROJECT DESCRIPTION
THIS PROJECT CONSISTS OF THE CONSTRUCTION A NEW BUILDING AND ASSOCIATED DRIVES AND PARKING. SITE WORK TO INCLUDE STORM SEWER, SANITARY SEWER, WATER, SITE GRADING, PAVEMENT WORK AND BUILDING CONSTRUCTION.

PROJECT WORK CONSTRUCTION DATES
START: FALL 2024
ESTIMATED COMPLETION: SUMMER 2025

EROSION CONTROL NOTES
A. INSTALL AND MAINTAIN FILTER FABRIC FENCE AND INLET PROTECTION WHERE SHOWN AND AS NEEDED TO MINIMIZE SEDIMENT LADEN WATER FROM LEAVING THE SITE OR ENTERING ANY STORM SYSTEM, ADJACENT DITCHES, STREAMS ETC. IF STORMWATER RUNOFF CONTAINING SEDIMENTS IS FOUND TO BE LEAVING THE PROJECT SITE IN AN AREA WHERE NO BMP/CONTROL MEASURE IS SHOWN OR IN PLACE, CONTRACTOR SHALL IMMEDIATELY INSTALL THE APPROPRIATE BMP/CONTROL MEASURE AS NEEDED TO REMEDY THE SITUATION (TYP. INLET PROTECTION, FILTER FABRIC FENCE, ETC.).

B. INSTALL INLET PROTECTION ON ALL STORM INLET STRUCTURES (YARD DRAINS, CATCH BASINS, MANHOLES WITH GRATED LIDS, ETC.) AND TO ANY EXISTING STORM STRUCTURES WITHIN THE PROJECT AREA WHICH MAY RECEIVE RUNOFF FROM THE CONSTRUCTION SITE AS NEEDED. INLET PROTECTION MAY CONSIST OF DEVICES SUCH AS SEDCAGE (WWW.SEDCATCH.COM), DANDY BAGS, SEDIGUARD FILTERS, FLEXSTORM INLET FILTERS, SEDIMENT FENCE OR OTHER DEVICES WHICH ARE EFFECTIVE AT MINIMIZING THE AMOUNT OF SEDIMENT ENTERING THE STRUCTURE.

C. CONTRACTOR IS RESPONSIBLE FOR IMMEDIATELY CLEANING UP ANY MUD, DIRT AND DEBRIS WHICH IS TRACKED OR SPILLED ONTO THE ROADWAYS.

D. PRE CONSTRUCTION - CONTRACTOR IS RESPONSIBLE TO INSTALL A CONSTRUCTION ENTRANCE AS NEEDED TO MINIMIZE ANY MUD, DIRT AND DEBRIS TRACKED ONTO THE ROADWAYS.

E. DURING CONSTRUCTION - THE CONTRACTOR MUST MAINTAIN EROSION CONTROL UNTIL AREA IS STABILIZED INCLUDING TEMPORARY SEEDING AS NEEDED. CONTRACTOR SHALL TEMPORARYILY SEED ALL CRITICAL EXPOSED SLOPES TO MINIMIZE SEDIMENT RUNOFF.

F. FINAL/POST CONSTRUCTION - CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS. CONTRACTOR SHALL ENSURE GRASS IS PERMANENTLY AND PROPERLY ESTABLISHED IN ALL AREAS WHERE GRASS IS SPECIFIED. ALL SEDIMENT AND EROSION CONTROL STRUCTURES, INCLUDING SEDIMENT FENCE, SHALL REMAIN IN PLACE UNTIL GRASS IS IN PLACE AND SITE IS STABILIZED. ONCE SITE IS STABILIZED AND ALL CONSTRUCTION IS COMPLETE, ALL SEDIMENT FENCE, INLET PROTECTION AND ANY OTHER TEMPORARY BMP'S SHALL BE REMOVED FROM THE SITE.

BMP NOTES
FOR ALL BMP'S INSTALLED, ENSURE THAT THE PONDING OF WATER BEHIND THE BMP WILL NOT DAMAGE PROPERTY OR POSE A SAFETY THREAT. IF PERIODIC INSPECTIONS OR OTHER INFORMATION INDICATES A CONTROL MEASURE/BMP HAS BEEN USED INAPPROPRIATELY, THE CONTRACTOR MUST REPLACE AND ADJUST THE CONTROL/BMP TO MEET SITE CONDITIONS AS REQUIRED. THE CONTRACTOR SHALL ADJUST THE SWPPP AND ITS CONTROLS/BMPS AND THEIR QUANTITIES TO MEET FIELD CONDITIONS AND THE OHIO EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION ACTIVITIES GENERAL PERMIT.

MAINTENANCE NOTE
THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO ENSURE ALL TEMPORARY AND PERMANENT CONTROL PRACTICES SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ENSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. ALL SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED IN A FUNCTIONAL CONDITION UNTIL ALL UP-SLOPE AREAS THEY CONTROL ARE PERMANENTLY STABILIZED. THE SWP3 SHALL BE DESIGNED TO MINIMIZE MAINTENANCE REQUIREMENTS. THE APPLICANT SHALL PROVIDE A DESCRIPTION OF MAINTENANCE PROCEDURES NEEDED TO ENSURE THE CONTINUED PERFORMANCE OF CONTROL PRACTICES.

SWPPP AND INSPECTION AVAILABILITY AND UPDATES NOTE
THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO ENSURE THE IMMEDIATE AVAILABILITY OF THE SWPPP AND INSPECTION REPORTS ON-SITE. THE CONTRACTOR SHALL ALSO BE SOLELY RESPONSIBLE TO PERFORM AND DOCUMENT ALL REQUIRED SWPPP INSPECTIONS AND ALL UPDATES AND AMENDMENTS TO THE SWPPP.

DOCUMENTATION AND GOVERNMENT INSPECTION NOTE
CONTRACTOR(S) SHALL PROVIDE THE OWNER'S REPRESENTATIVE A WRITTEN COPY OF THEIR CO-PERMITTEE APPLICATION AND ANY OTHER DOCUMENTATION THE CONTRACTOR(S) MAY SEND OR RECEIVE FROM THE OEPA OR ANY OTHER GOVERNING AUTHORITIES.

IF AN INSPECTOR OR REPRESENTATIVE FROM THE OEPA OR ANY OTHER GOVERNING AUTHORITY IS ON-SITE, THE CONTRACTOR SHALL IMMEDIATELY CONTACT AND NOTIFY THE OWNER'S REPRESENTATIVE.

ChoiceOne Engineering

VALLE GREENE SENIOR- SWPPP

REVISIONS:

FILE NAME	SWPPP COVER
DRAWN BY	JMK
CHECKED BY	JSP
PROJECT No.	GREFA12305
SHEET NUMBER	22 OF 26

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IMPLEMENTATION SCHEDULE (EROSION CONSTRUCTION SEQUENCE)

THE CONTRACTOR OR ITS APPOINTED REPRESENTATIVES WILL ASSUME RESPONSIBILITY FOR INSTALLATION, INSPECTION AND MAINTENANCE OF ALL SOIL EROSION CONTROL MEASURES DURING CONSTRUCTION. THE INSTALLATION OF THE SOIL EROSION CONTROL MEASURES WILL BE COMPLETED, AS FOLLOWS:

A. PRIOR TO ANY GRADING OR EARTHWORK:
A-1. SILT FENCE AND INLET PROTECTION (ON EX. STORM STRUCTURES) TO BE INSTALLED AS SHOWN ON SWPPP
A-2. INSTALL CONSTRUCTION ENTRANCE(S) IF NEEDED AS SHOWN ON SWPPP. INSTALLATION OF ALL OTHER EROSION AND SEDIMENT CONTROL MEASURES, E.G. ROCK CHECK DAMS, CONCRETE WASHOUT PIT, SEDIMENT BASIN, ETC.

B. PERFORM ROUGH GRADING, INSTALL UTILITIES, BUILDINGS, PAVEMENT:
B-1. CLEAR AND GRUB AREA AS NEEDED
B-2. PERFORM SITE GRADING. INSTALL BUILDINGS!
B-3. INSTALL SANITARY, STORM, WATER LINES, OTHER UTILITIES, GRAVEL BASE, AND CURB AND GUTTER, AS PER PLANS), INSTALL INLET PROTECTION ON ALL PROPOSED STORM INLET STRUCTURES AS INDICATED ON THE PLANS AS SOON AS THEY ARE INSTALLED.
B-4 PERFORM TEMPORARY SEEDING AS NEEDED ON ANY DISTURBED AREAS PER THE TIME REQUIREMENTS FOR TEMPORARY SEEDING SPECIFIED ON THIS DRAWING.
B-5 INSTALL PAVEMENT.

C. PERFORM FINAL GRADING:
C-1. PLACE TOPSOIL AND PERFORM FINAL RAKING AND GRADING ON ALL DISTURBED AREAS.
C-2. ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED (SEEDED AND/OR MULCHED).
C-3. CLEAN UP SITE, AND ONCE SITE HAS REACHED FINAL STABILIZATION REMOVE ALL TEMPORARY BMP'S.

NOTES. A) CARE WILL BE TAKEN NOT TO DISTURB ANY EXISTING NATURAL VEGETATION NOT INVOLVED IN THE CONSTRUCTION PROCESS, WHENEVER POSSIBLE. B) TIMELY INSPECTIONS OF THE EROSION CONTROL MEASURES WILL BE MADE, BY THE CONTRACTOR, EVERY 7 DAYS, AND/OR AFTER ANY RAINFALL OF AT LEAST 1/2" IN A 24-HOUR PERIOD. REPORTS MUST BE KEPT ON-SITE AND SUPPLIED TO THE GOVERNING AUTHORITY IF REQUESTED.

INSPECTION SCHEDULE

A. THE SITE WILL BE INSPECTED PER OHIO EPA PERMIT No. OHC000006:

PART III.G.2.:
INSPECTIONS. THE PERMITTEE SHALL ASSIGN QUALIFIED INSPECTION PERSONNEL TO CONDUCT INSPECTIONS TO ENSURE THAT THE CONTROL PRACTICES ARE FUNCTIONAL AND TO EVALUATE WHETHER THE SWP3 IS ADEQUATE AND PROPERLY IMPLEMENTED IN ACCORDANCE WITH THE SCHEDULE PROPOSED IN PART III.G.1.H OF THE OHC000006 PERMIT OR WHETHER ADDITIONAL CONTROL MEASURES ARE REQUIRED. AT A MINIMUM, PROCEDURES IN A SWP3 SHALL PROVIDE THAT ALL CONTROLS ON THE SITE ARE INSPECTED:
* AFTER ANY STORM EVENT GREATER THAN ONE-HALF INCH OF RAIN PER 24-HOUR PERIOD BY THE END OF THE NEXT CALENDAR DAY, EXCLUDING WEEKENDS AND HOLIDAYS UNLESS WORK IS SCHEDULED; AND
* ONCE EVERY SEVEN CALENDAR DAYS.

THE INSPECTION FREQUENCY MAY BE REDUCED TO AT LEAST ONCE EVERY MONTH FOR DORMANT SITES IF:
* THE ENTIRE SITE IS TEMPORARILY STABILIZED OR
* RUNOFF IS UNLIKELY DUE TO WEATHER CONDITIONS FOR EXTENDED PERIODS OF TIME IE.G. SITE IS COVERED WITH SNOW, ICE, OR THE GROUND IS FROZEN.

THE BEGINNING AND ENDING DATES OF ANY REDUCED INSPECTION FREQUENCY SHALL BE DOCUMENTED IN THE SWP3. ONCE A DEFINABLE AREA HAS ACHIEVED FINAL STABILIZATION, THE AREA MAY BE MARKED ON THE SWP3 AND NO FURTHER INSPECTION REQUIREMENTS SHALL APPLY TO THAT PORTION OF THE SITE.

FOLLOWING EACH INSPECTION, A CHECKLIST MUST BE COMPLETED AND SIGNED BY THE QUALIFIED INSPECTION PERSONNEL REPRESENTATIVE. AT A MINIMUM, THE INSPECTION REPORT SHALL INCLUDE:
i. THE INSPECTION DATE;
ii. NAMES, TITLES, AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION;
iii. WEATHER INFORMATION FOR THE PERIOD SINCE THE LAST INSPECTION (OR SINCE COMMENCEMENT OF CONSTRUCTION ACTIVITY IF THE FIRST INSPECTION) INCLUDING A BEST ESTIMATE OF THE BEGINNING OF EACH STORM EVENT, DURATION OF EACH STORM EVENT, APPROXIMATE AMOUNT OF RAINFALL FOR EACH STORM EVENT (IN INCHES), AND WHETHER ANY DISCHARGES OCCURRED;
iv. WEATHER INFORMATION AND A DESCRIPTION OF ANY DISCHARGES OCCURRING AT THE TIME OF THE INSPECTION;
v. LOCATION(S) OF DISCHARGES OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE;
vi. LOCATION(S) OF BMPS THAT NEED TO BE MAINTAINED;
vii. LOCATION(S) OF BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION;
viii. LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION; AND
ix. CORRECTIVE ACTION REQUIRED INCLUDING ANY CHANGES TO THE SWP3 NECESSARY AND IMPLEMENTATION DATES.

DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF OR THE POTENTIAL FOR POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE SWP3 SHALL BE OBSERVED TO ENSURE THAT THOSE ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE VEHICLE TRACKING.

THE PERMITTEE SHALL MAINTAIN FOR THREE YEARS FOLLOWING THE SUBMITTAL OF A NOTICE OF TERMINATION FORM, A RECORD SUMMARIZING THE RESULTS OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE SWP3 AND A CERTIFICATION AS TO WHETHER THE FACILITY IS IN COMPLIANCE WITH THE SWP3 AND THE PERMIT AND IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE. THE RECORD AND CERTIFICATION SHALL BE SIGNED IN ACCORDANCE WITH PART V.G. OF THIS PERMIT.

i. WHEN PRACTICES REQUIRE REPAIR OR MAINTENANCE, IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE IS IN NEED OF REPAIR OR MAINTENANCE, WITH THE EXCEPTION OF A SEDIMENT SETTLING POND, IT SHALL BE REPAIRED OR MAINTAINED WITHIN 3 DAYS OF THE INSPECTION. SEDIMENT SETTLING PONDS SHALL BE REPAIRED OR MAINTAINED WITHIN 10 DAYS OF THE INSPECTION.

ii. WHEN PRACTICES FAIL TO PROVIDE THEIR INTENDED FUNCTION. IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE FAILS TO PERFORM ITS INTENDED FUNCTION AND THAT ANOTHER, MORE APPROPRIATE CONTROL PRACTICE IS REQUIRED, THE SWP3 SHALL BE AMENDED AND THE NEW CONTROL PRACTICE SHALL BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION.

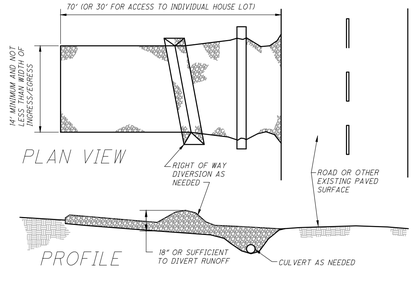
iii. WHEN PRACTICES DEPICTED ON THE SWP3 ARE NOT INSTALLED. IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE HAS NOT BEEN IMPLEMENTED IN ACCORDANCE WITH THE SCHEDULE CONTAINED IN PART III.G.1.H OF THIS PERMIT, THE CONTROL PRACTICE SHALL BE IMPLEMENTED WITHIN 10 DAYS FROM THE DATE OF THE INSPECTION. IF THE INSPECTION REVEALS THAT THE PLANNED CONTROL PRACTICE IS NOT NEEDED, THE RECORD SHALL CONTAIN A STATEMENT OF EXPLANATION AS TO WHY THE CONTROL PRACTICE IS NOT NEEDED.

B. VEGETATIVE PLANTINGS - SPRING PLANTINGS WILL BE CHECKED DURING SUMMER OR EARLY FALL.
C. REPAIRS - ANY EROSION CONTROL MEASURES, STRUCTURAL MEASURES, OR OTHER RELATED ITEMS IN NEED OF REPAIR WILL BE MADE WITHIN 7 DAYS.
D. MOWING - DRAINAGE WAYS, DITCHES, AND OTHER AREAS THAT SUPPORT A DESIGNED FLOW OF WATER WILL BE MOWED REGULARLY TO MAINTAIN THAT FLOW.
E. FERTILIZATION - SEEDED AREAS WHERE THE SEED HAS NOT PRODUCED A GOOD COVER WILL BE INSPECTED AND FERTILIZED AS NECESSARY.

CONSTRUCTION ENTRANCE

A. STONE SIZE - 2" STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.
B. LENGTH - THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS, BUT NOT LESS THAN 70' (EXCEPT ON SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH APPLIES).
C. THICKNESS - THE STONE LAYER SHALL BE AT LEAST 6" THICK.
D. WIDTH - THE ENTRANCE SHALL BE AT LEAST 10' WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
E. BEDDING - A GEOTEXTILE SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL HAVE A GRAB TENSILE STRENGTH OF AT LEAST 200 LBS. AND A MULLEN BURST STRENGTH OF AT LEAST 190 LBS.
F. CULVERT - A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE, IF NEEDED, TO PREVENT SURFACE WATER FLOWING ACROSS THE ENTRANCE FROM BEING DIRECTED OUT ONTO PAVED SURFACES (IF DRIVE IS PLACED ACROSS A DITCH).
G. WATER BAR - A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE, IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES (IF DRIVE IS PLACED ON A SLOPE).
H. MAINTENANCE - TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
I. CONSTRUCTION ENTRANCE SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFFSITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
J. CONSTRUCTION ENTRANCES ARE INSTALLED TO MINIMIZE OFFSITE TRACKING OF SEDIMENTS. A STONE ACCESS DRIVE SHOULD BE INSTALLED AT EVERY POINT WHERE VEHICLES ENTER OR EXIT THE SITE. EVERY INDIVIDUAL LOT SHOULD ALSO HAVE ITS OWN DRIVE ONCE CONSTRUCTION ON THE LOT BEGINS.

NOTE: ALTERNATIVE STABILIZATION METHODS FOR CONSTRUCTION ENTRANCE/EXIT SUCH AS MANUFACTURED STEEL PLATES, GRID PLATES, ETC. OR STEEL PIPES/GRATINGS WILL ALSO BE CONSIDERED BUT WILL REQUIRE WRITTEN APPROVAL FROM THE OWNER PRIOR TO THE USE OF SUCH ALTERNATIVE METHODS AS ON-SITE CONSTRUCTION ENTRANCES/EXIT. ANY PROPOSED ALTERNATIVE METHODS SHALL SHALL BE SHOWN TO EFFECTIVELY REMOVE MUD AND DEBRIS FROM VEHICLE WHEELS PRIOR TO EXITING THE SITE.



CONSTRUCTION ENTRANCE DETAIL

NON-SEDIMENT POLLUTION CONTROL

A. CONSTRUCTION PERSONNEL, INCLUDING SUBCONTRACTORS WHO MAY USE OR HANDLE HAZARDOUS OR TOXIC MATERIALS, SHALL BE MADE AWARE OF THE FOLLOWING GENERAL GUIDELINES:

DISPOSAL AND HANDLING OF HAZARDOUS AND OTHER CONSTRUCTION WASTE

DO:
* PREVENT SPILLS
* USE PRODUCTS UP
* FOLLOW LABEL DIRECTIONS FOR DISPOSAL
* REMOVE LIDS FROM EMPTY BOTTLES AND CANS WHEN DISPOSING IN TRASH
* RECYCLE WASTE WHENEVER POSSIBLE

DON'T
* DON'T POUR INTO WATERWAYS, STORM DRAINS, OR ONTO THE GROUND
* DON'T POUR DOWN THE SINK, FLOOR DRAIN, OR SEPTIC TANKS
* DON'T BURY CHEMICALS OR CONTAINERS
* DON'T BURN CHEMICALS OR CONTAINERS
* DON'T MIX CHEMICALS TOGETHER

B. CONTAINERS SHALL BE PROVIDED FOR COLLECTION OF ALL WASTE MATERIAL INCLUDING CONSTRUCTION DEBRIS, TRASH, PETROLEUM, AND ANY HAZARDOUS MATERIALS TO BE USED ON SITE. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THAT MATERIAL.

C. NO WASTE MATERIALS SHALL BE BURIED ON SITE. SITE PERSONNEL, INCLUDING SUBCONTRACTORS, SHALL BE NOTIFIED THAT NO CONSTRUCTION-RELATED MATERIALS ARE TO BE BURIED ON SITE.

D. MIXING, PUMPING, TRANSFERRING, OR OTHERWISE HANDLING CONSTRUCTION CHEMICALS SUCH AS FERTILIZER, LIME, ASPHALT, CONCRETE DRYING COMPOUNDS, AND ALL OTHER POTENTIALLY HAZARDOUS MATERIALS SHALL BE PERFORMED IN AN AREA AWAY FROM ANY WATERCOURSE, DITCH, OR STORM DRAIN.

E. EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES, DITCHES, OR STORM DRAINS, IN AN AREA DESIGNATED FOR THAT PURPOSE. THE DESIGNATED AREA SHALL BE EQUIPPED FOR RECYCLING OIL AND CATCHING SPILLS.

F. CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW TO STREAMS, DITCHES, STORM DRAINS, OR ANY OTHER WATER CONVEYANCE. A SUMP OR PIT SHALL BE CONSTRUCTED IF NEEDED TO CONTAIN CONCRETE WASH WATER.

G. IF HAZARDOUS SUBSTANCES SUCH AS OIL, DIESEL FUEL, HYDRAULIC FLUID, ANTIFREEZE, ETC. ARE SPILLED, LEAKED, OR RELEASED ONTO THE SOIL, THE SOIL SHOULD BE DUG UP AND DISPOSED OF WITH THE TRASH AT A LICENSED SANITARY LANDFILL (NOT A CONSTRUCTION/DEMOLITION DEBRIS LANDFILL). SPILLS ON PAVEMENT SHALL BE ABSORBED WITH SAWDUST OR KITTY LITTER AND DISPOSED OF WITH THE TRASH AT A LICENSED SANITARY LANDFILL. HAZARDOUS OR INDUSTRIAL WASTES SUCH AS MOST SOLVENTS, GASOLINE, OIL-BASED PAINTS, AND CEMENT CURING COMPOUNDS REQUIRE SPECIAL HANDLING. CONTACT OHIO EPA (1-800-282-9378).

H. SPILLS OF 25 GAL. OR MORE OF PETROLEUM PRODUCTS SHALL BE REPORTED TO OHIO EPA (1-800-282-9378), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MIN. OF THE DISCOVERY OF THE RELEASE.

I. STREETS NEED TO BE SWEPT AS OFTEN AS NECESSARY TO KEEP THEM CLEAN AND FREE FROM SEDIMENT. SEDIMENT TO BE SWEPT BACK ONTO THE LOT - NOT DOWN THE STORM SEWER.

J. STOCKPILES OF SOIL AND OTHER MATERIALS SHALL BE STORED AWAY FROM WATERCOURSES, DITCHES, OR STORM DRAINS, AND SHALL HAVE EROSION CONTROL MATERIALS PLACED AROUND THEM.

K. ALL STREAM CROSSINGS SHALL BE CONSTRUCTED ENTIRELY OF NON-ERODIBLE MATERIAL.

PROCESS WASTEWATER/LEACHATE MANAGEMENT NOTE

ALL PROCESS WASTEWATERS (e.g. EQUIPMENT WASHING, LEACHATE ASSOCIATED WITH ON-SITE WASTE DISPOSAL, AND CONCRETE WASH-OUTS) MUST BE COLLECTED AND DISPOSED OF PROPERLY (e.g. TO A PUBLICLY-OWNED TREATMENT WORKS). THE NPDES CONSTRUCTION STORM WATER GENERAL PERMIT ONLY AUTHORIZES THE DISCHARGE OF STORM WATER AND CERTAIN UNCONTAMINATED NON-STORM WATERS. THE DISCHARGE OF NON-STORM WATERS TO WATERS OF THE STATE MAY BE IN VIOLATION OF LOCAL, STATE, AND FEDERAL LAWS OR REGULATIONS.

HANDLING OF TOXIC OR HAZARDOUS MATERIALS NOTE

NO SOLID, SANITARY, OR TOXIC WASTE IS TO BE DISPOSED OF ON THE PROJECT SITE. RECYCLING OF USED OR UNUSED HAZARDOUS MATERIALS SHALL NOT OCCUR ON SITE EITHER. AREAS DESIGNATED FOR CEMENT TRUCK WASHOUTS, AND VEHICLE FUELING SHALL NOT TAKE PLACE ON PARKING LOT BASE.

CONSTRUCTION CHEMICAL COMPOUNDS NOTE

NO MIXING OR STORAGE OF CHEMICAL COMPOUNDS SUCH AS FERTILIZERS, LIME, ASPHALT, OR CONCRETE ARE PERMITTED TO TAKE PLACE ON-SITE. ALL MIXING SHALL TAKE PLACE BEFORE ENTERING THE SITE.

CONSTRUCTION & DEMOLITION DEBRIS NOTE

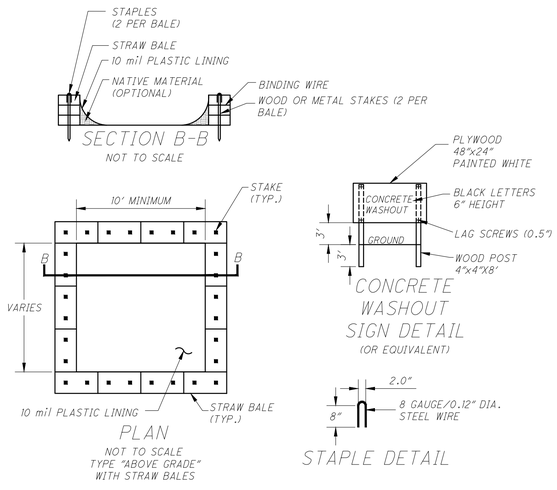
ALL CONSTRUCTION AND DEMOLITION DEBRIS (C&DD) WASTE SHALL BE DISPOSED OF IN AN OHIO EPA APPROVED C&DD LANDFILL AS REQUIRED BY OHIO REVISED CODE (ORC) 3714. MATERIALS WHICH CONTAIN ASBESTOS MUST COMPLY WITH AIR POLLUTION REGULATIONS (SEE OHIO ADMINISTRATIVE CODE 3745-20).

CONTAMINATED SOILS NOTE

SOILS CONTAMINATED BY PETROLEUM OR OTHER CHEMICAL SPILLS SHALL BE HANDLED AND DISPOSED OF PROPERLY. ALL CONTAMINATED SOILS MUST BE TREATED AND/OR DISPOSED OF IN AN OHIO EPA APPROVED SOLID WASTE MANAGEMENT FACILITY OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITY (TSDFs). IF CONTAMINATION HAPPENS TO OCCUR, TARPS ARE TO BE USED TO PREVENT STORM WATER FROM COMING INTO CONTACT WITH THE MATERIAL.

CONCRETE WASHOUT NOTE

CONCRETE WASHOUT OPERATIONS SHALL TAKE PLACE WITHIN THE PROPOSED PROJECT AREA UTILIZING THE CONTRACTOR'S PORTABLE CONCRETE WASHOUT CONTAINER OR WITHIN A BERMED/CONTAINED AREA. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ENSURE WASHOUT MATERIAL DOES NOT LEAVE THE WASHOUT AREA OR ENTER THE STORM SYSTEM. CONTRACTOR SHALL CLEAN UP AND PROPERLY DISPOSE OF ALL LEFTOVER WASHOUT MATERIAL.



CONCRETE WASHOUT DETAIL

DUST CONTROL

DUST CONTROL SHALL BE PROVIDED AS NEEDED TO PREVENT SEDIMENT FROM BECOMING AIRBORNE. MEASURES SHALL INCLUDE WATERING VIA A WATER TRUCK OR OTHER WATERING DEVICE AS NEEDED TO REDUCE AND/OR ELIMINATE AIRBORNE DUST CREATED BY CONSTRUCTION AND CONSTRUCTION RELATED ACTIVITIES.

CONSTRUCTION OF A FILTER BARRIER (SILT FENCE)

A. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.

B. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.

C. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.

D. WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.

E. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5' (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.

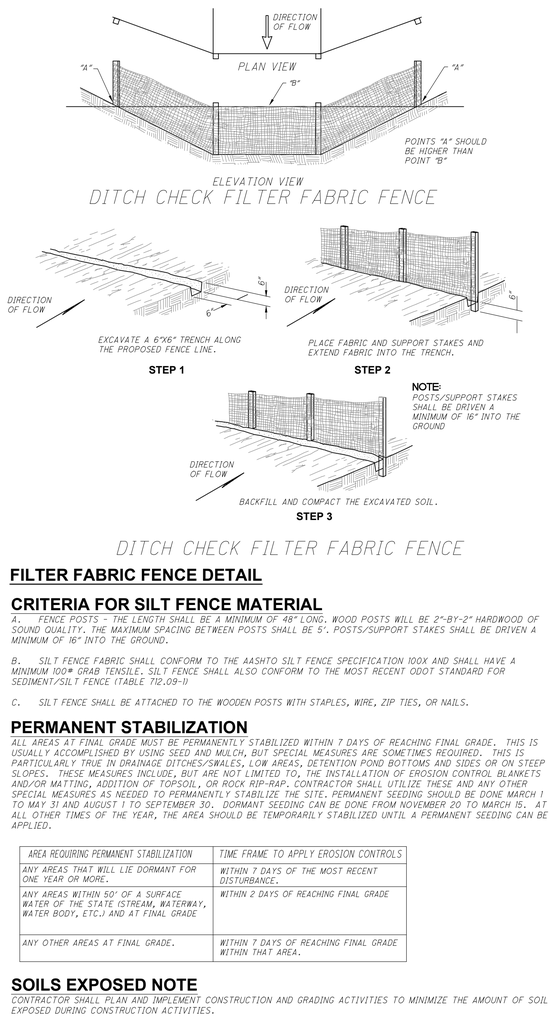
F. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16" ABOVE THE ORIGINAL GROUND SURFACE.

G. THE SILT FENCE SHALL BE PLACED IN A TRENCH CUT A MINIMUM OF 6" DEEP. THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.

H. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE AND SO THAT 8" OF CLOTH IS BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6" DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED.

I. SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL BE OVERLAPPED WITH THE END STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND.

J. MAINTENANCE - SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. ALL THE GAPS AND TEARS IN THE FENCE MUST BE ELIMINATED AND REPAIRED. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3) OTHER PRACTICES SHALL BE INSTALLED.



FILTER FABRIC FENCE DETAIL

CRITERIA FOR SILT FENCE MATERIAL

A. FENCE POSTS - THE LENGTH SHALL BE A MINIMUM OF 48" LONG. WOOD POSTS WILL BE 2"-BY-2" HARDWOOD OF SOUND QUALITY. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 5'. POSTS/SUPPORT STAKES SHALL BE DRIVEN A MINIMUM OF 16" INTO THE GROUND.

B. SILT FENCE FABRIC SHALL CONFORM TO THE AASHTO SILT FENCE SPECIFICATION 100X AND SHALL HAVE A MINIMUM 100# GRAB TENSILE. SILT FENCE SHALL ALSO CONFORM TO THE MOST RECENT ODOT STANDARD FOR SEDIMENT/SILT FENCE (TABLE 712.09-1)

C. SILT FENCE SHALL BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PERMANENT STABILIZATION

ALL AREAS AT FINAL GRADE MUST BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF REACHING FINAL GRADE. THIS IS USUALLY ACCOMPLISHED BY USING SEED AND MULCH, BUT SPECIAL MEASURES ARE SOMETIMES REQUIRED. THIS IS PARTICULARLY TRUE IN DRAINAGE DITCHES/SWALES, LOW AREAS, DETENTION POND BOTTOMS AND SIDES OR ON STEEP SLOPES. THESE MEASURES INCLUDE, BUT ARE NOT LIMITED TO, THE INSTALLATION OF EROSION CONTROL BLANKETS AND/OR MATTING, ADDITION OF TOPSOIL, OR ROCK RIP-RAP. CONTRACTOR SHALL UTILIZE THESE AND ANY OTHER SPECIAL MEASURES AS NEEDED TO PERMANENTLY STABILIZE THE SITE. PERMANENT SEEDING SHOULD BE DONE MARCH 1 TO MAY 31 AND AUGUST 1 TO SEPTEMBER 30. DORMANT SEEDING CAN BE DONE FROM NOVEMBER 20 TO MARCH 15. AT ALL OTHER TIMES OF THE YEAR, THE AREA SHOULD BE TEMPORARILY STABILIZED UNTIL A PERMANENT SEEDING CAN BE APPLIED.

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREAS THAT WILL LIE DORMANT FOR ONE YEAR OR MORE.	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE.
ANY AREAS WITHIN 50' OF A SURFACE WATER OF THE STATE (STREAM, WATERWAY, WATER BODY, ETC.) AND AT FINAL GRADE	WITHIN 2 DAYS OF REACHING FINAL GRADE
ANY OTHER AREAS AT FINAL GRADE.	WITHIN 7 DAYS OF REACHING FINAL GRADE WITHIN THAT AREA.

SOILS EXPOSED NOTE

CONTRACTOR SHALL PLAN AND IMPLEMENT CONSTRUCTION AND GRADING ACTIVITIES TO MINIMIZE THE AMOUNT OF SOIL EXPOSED DURING CONSTRUCTION ACTIVITIES.

TEMPORARY SEEDING SPECIES SELECTION			
SEEDING DATES	SPECIES	L.B./1000 SQ. FT.	PER ACRE
MARCH 1 TO AUGUST 15	OATS	3	4 BUSHELS
	TALL FESCUE	1	40 LBS.
	ANNUAL RYEGRASS	1	40 LBS.
	PERENNIAL RYEGRASS	1	40 LBS.
	TALL FESCUE	1	40 LBS.
	ANNUAL RYEGRASS	1	40 LBS.
AUGUST 16 TO NOVEMBER 1	RYE	3	2 BUSHELS
	TALL FESCUE	1	40 LBS.
	ANNUAL RYEGRASS	1	40 LBS.
	WHEAT	1	2 BUSHELS
	TALL FESCUE	1	40 LBS.
	ANNUAL RYEGRASS	1	40 LBS.
	PERENNIAL RYEGRASS	1	40 LBS.
	TALL FESCUE	1	40 LBS.
	ANNUAL RYEGRASS	1	40 LBS.
NOVEMBER 1 TO SPRING SEEDING	USE MULCH ONLY, SODDING PRACTICES OR DORMANT SEEDING		

NOTE: OTHER APPROVED SEED SPECIES MAY BE SUBSTITUTED.

SPECIFICATIONS FOR TEMPORARY SEEDING

A. TO MINIMIZE COSTS OF TEMPORARY STABILIZATION, LEAVE NATURAL COVER IN PLACE FOR AS LONG AS POSSIBLE. ONLY DISTURB AREAS YOU INTEND TO WORK WITHIN THE NEXT 14 DAYS.

B. STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF THE CONSTRUCTION SITE.

C. THE SEEDBED SHOULD BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. HOWEVER, TEMPORARY SEEDING SHALL NOT BE POSTPONED IF IDEAL SEEDBED PREPARATION IS NOT POSSIBLE.

D. SOIL AMENDMENTS - APPLICATIONS OF TEMPORARY VEGETATION SHALL ESTABLISH ADEQUATE STANDS OF VEGETATION WHICH MAY REQUIRE THE USE OF SOIL AMENDMENTS. SOIL TESTS SHOULD BE TAKEN ON THE SITE TO PREDICT THE NEED FOR LIME AND FERTILIZER.

E. SEEDING METHOD - SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY PLACED USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON SITE AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

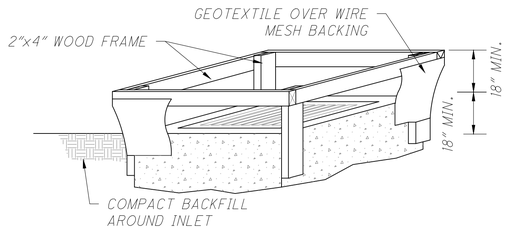
MULCHING TEMPORARY SEEDING

A. APPLICATIONS OF TEMPORARY SEEDING SHALL INCLUDE MULCH WHICH SHALL BE APPLIED DURING OR IMMEDIATELY AFTER SEEDING. SEEDINGS MADE DURING OPTIMUM SEEDING DATES AND WITH FAVORABLE SOIL CONDITIONS AND ON VERY FLAT AREAS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION.

B. MATERIALS:
- STRAW - IF STRAW IS USED, IT SHALL BE UNROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 2 TONS/ACRE OR 90 LBS./1,000 SQ. FT. (TWO TO THREE BALES). THE MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQ. FT. SECTIONS AND SPREAD TWO 45 LBS. BALES OF STRAW IN EACH SECTION.
- HYDROSEEDERS - IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2,000 LB/AC. OR 46 LBS./1,000 SQ. FT.
- OTHER - OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TONS/AC.
- STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINI

INLET PROTECTION FOR STORM STRUCTURES W/ GRATE

INLET PROTECTION MAY CONSIST OF SEDIMENT FENCE AND/OR DEVICES SUCH AS FLEX STORM INLET FILTERS, SEDCAGE (WWW.SEDCATCH.COM), DANDY BAGS, SEDIGUARD FILTERS, OR OTHER DEVICES (ALTERNATE PRODUCTS WHOSE PERFORMANCE IS EQUAL TO OR EXCEEDS THOSE LISTED) WHICH ARE EFFECTIVE AT MINIMIZING THE AMOUNT OF SEDIMENT ENTERING THE STRUCTURE . INSTALL INLET PROTECTION ON ALL PROPOSED YARD DRAINS, CATCH BASINS AND MANHOLES WITH GRATED LIDS AND TO ALL EXISTING STORM STRUCTURES WITH GRATED LIDS WITHIN THE PROJECT AREA WHICH MAY RECEIVE RUNOFF FROM THE CONSTRUCTION SITE.



NOTES

A. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.

B. THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH OF AT LEAST 18".

C. THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2" BY 4" CONSTRUCTION GRADE LUMBER. THE 2" BY 4" POST SHALL BE DRIVEN 1' INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2" BY 4" FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6" BELOW ADJACENT ROAD, IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.

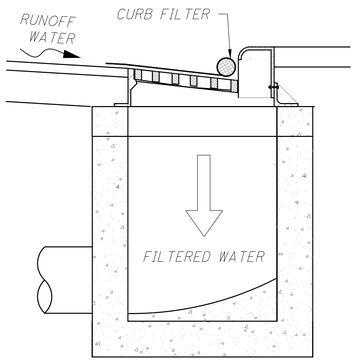
D. WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.

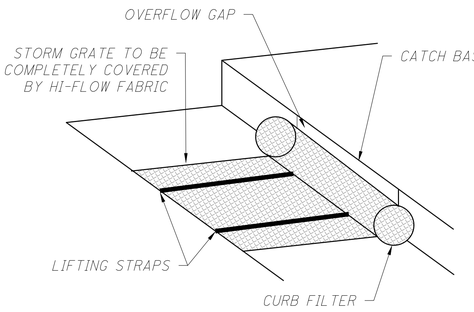
E. GEOTEXTILE SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20-40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY. IT SHALL EXTEND FROM THE TOP OF THE FRAME TO 18" BELOW THE INLET NOTCH ELEVATION. THE GEOTEXTILE SHALL OVERLAY ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.

F. BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6" LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.

G. A COMPACTED EARTH DIKE OR A CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION, AND IF RUNOFF BY PASSING THE INLET WILL NOT FLOW TO A SETTING POND, THE TOP OF EARTH DIKES SHALL BE AT LEAST 6" HIGHER THAN THE TOP OF THE FRAME.

INLET PROTECTION IN SWALES, DITCH LINES OR YARD INLETS





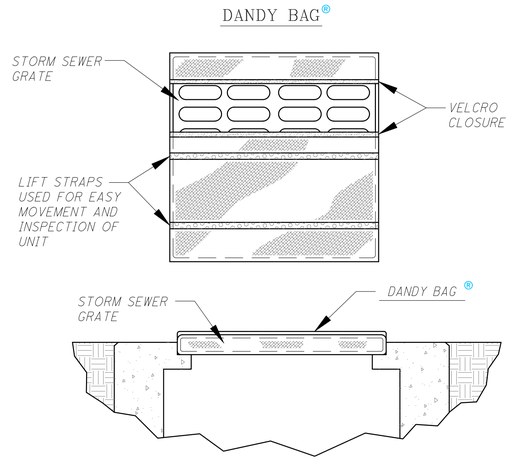
NOTES

A. DANDY CURB BAG, SEDIGUARDS, OR ALTERNATE PRODUCT WHOSE PERFORMANCE IS EQUAL TO OR EXCEEDS THOSE LISTED MAY BE USED.

B. REMOVE SEDIMENT FROM CURB INLET PROTECTION BEFORE IT HINDERS THE FILTERING CAPACITY.
- DANDY CURB BAG: LIFT GRATE AND REMOVE DANDY BAG, CLEAN ACCUMULATED SEDIMENT AND REPLACE BAG AS REQUIRED BY MANUFACTURER.
- SEDIGUARD: CLEAN SEDIGUARD ONCE IT IS DRY WITH A STIFF BROOM AFTER EVERY RAIN.
- ALTERNATE PRODUCTS: CLEAN AS REQUIRED PER MANUFACTURER'S RECCOMENDATIONS

C. INLET PROTECTION SHOULD NEVER INTERFERE WITH SAFETY OF ACTIVE TRAFFIC.

CURB INLET SEDIMENT FILTER DETAIL



DETAIL OF INLET SEDIMENT CONTROL DEVICE

DANDY BAG® SPECIFICATIONS

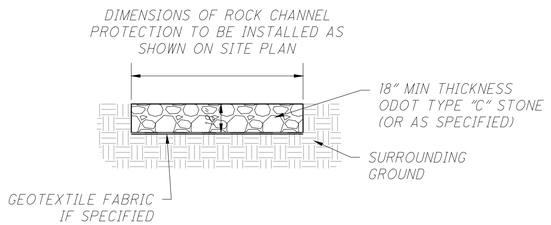
NOTE: THE DANDY BAG® WILL BE **MANUFACTURED IN THE U.S.A.** FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

HI-FLOW DANDY BAG® (SAFETY ORANGE)

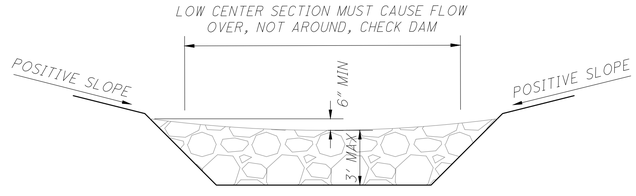
Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistence	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m²(gal/min/ft²)	5907 (145)
Permittivity	ASTM D 4491	Sec⁻¹	2.1

*Note: All Dandy Bags® can be ordered with optional oil absorbent pillows

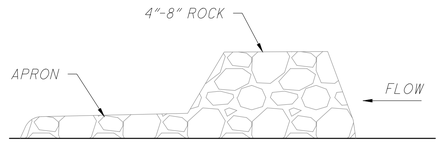
INLET PROTECTION - DANDY BAG



ROCK CHANNEL PROTECTION DETAIL FOR PIPE OUTLET



CROSS SECTION



PROFILE

NOTES

A. THE CHECK DAM SHALL BE CONSTRUCTED OF 4-8 INCH DIAMETER STONE, PLACED SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL. ODOT TYPE D STONE IS ACCEPTABLE, BUT SHOULD BE UNDERLAIN WITH A GRAVEL FILTER CONSISTING OF ODOT No. 3 OR 4 OR SUITABLE FILTER FABRIC.

B. MAXIMUM HEIGHT OF CHECK DAM SHALL NOT EXCEED 3.0 FEET.

C. THE MIDPOINT OF THE ROCK CHECK DAM SHALL BE A MINIMUM OF 6 INCHES LOWER THAN THE SIDES IN ORDER TO DIRECT ACROSS THE CENTER AND AWAY FROM THE CHANNEL SIDES.

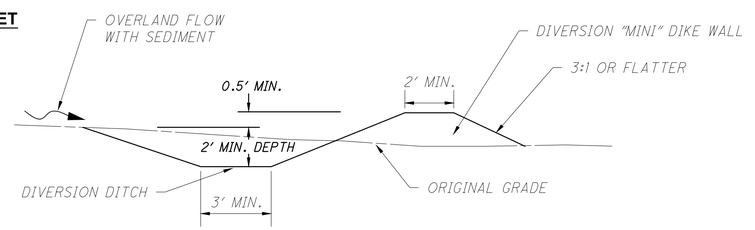
D. THE BASE OF THE CHECK DAM SHALL BE ENTRENCHED APPROXIMATELY 6 INCHES.

E. A STONE APRON SHALL BE CONSTRUCTED IMMEDIATELY DOWNSTREAM OF THE CHECK DAM TO PREVENT FLOWS FROM UNDERCUTTING THE STRUCTURE. THE APRON SHOULD BE 6 INCHES THICK AND ITS LENGTH TWO TIMES THE HEIGHT OF THE DAM.

F. STONE PLACEMENT SHALL BE PERFORMED EITHER BY HAND OR MECHANICALLY AS LONG AS THE CENTER OF CHECK DAM IS LOWER THAN THE SIDES AND EXTENDS ACROSS ENTIRE CHANNEL.

G. SIDE SLOPES SHALL BE A MINIMUM OF 2:1.

DITCH ROCK CHECK DAM



NOTES

A. BERM CAN BE CONSTRUCTED AS DITCH OR DIKE WALL

B. PLACE DITCH ON A GRADE TO DRAIN TO SEDIMENT BASIN.

CROSS SECTION OF A DIVERSION BERM

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VALLE GREENE SENIOR
CITY OF FAIRBORN
SWPPP - EROSION CONTROL NOTES AND DETAILS

REVISIONS:

FILE NAME: SWPPP NOTES 2
DRAWN BY: JMK
CHECKED BY: JSP
PROJECT No.: GREFAI2305
DATE: 9-13-2024
SHEET NUMBER: 24 OF 26

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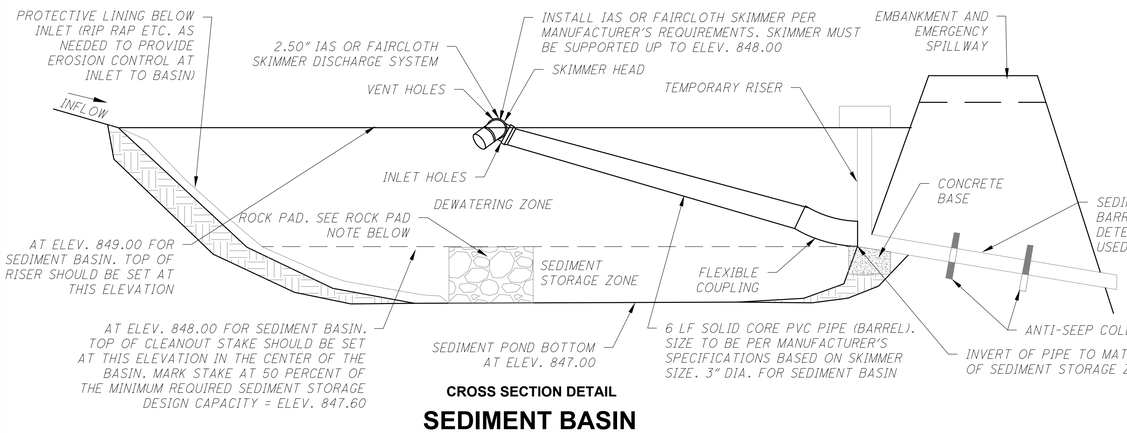
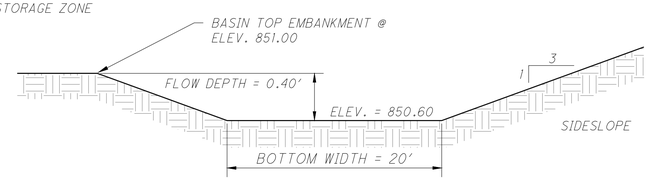


CROSS SECTION DETAIL

SEDIMENT BASIN

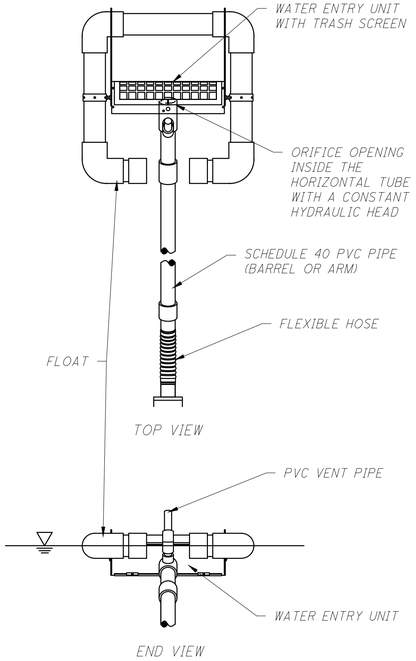


IAS SKIMMER
NTS



CROSS SECTION

EMERGENCY SPILLWAY
NTS



FAIRCLOTH SKIMMER
NTS

NOTES

A. SEDIMENT BASINS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE UPSLOPE LAND DISTURBANCE BEGINS.

B. SITE PREPARATION -THE AREA UNDER THE EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED AS NEEDED TO FACILITATE SEDIMENT CLEANOUT. GULLIES AND SHARP BREAKS SHALL BE SLOPED TO NO STEEPER THAN 1:1. THE SURFACE OF THE FOUNDATION AREA WILL BE THOROUGHLY SCARIFIED BEFORE PLACEMENT OF THE EMBANKMENT MATERIAL.

C. EMBANKMENT -THE FILL MATERIAL SHALL BE FREE OF ALL SOD, ROOTS, FROZEN SOIL, STONES OVER 6 IN. IN DIAMETER, AND OTHER OBJECTIONABLE MATERIAL. THE PLACING AND SPREADING OF THE FILL MATERIAL SHALL BE STARTED AT THE LOWEST POINT OF THE FOUNDATION AND THE FILL SHALL BE BROUGHT UP IN APPROXIMATELY 6 IN. HORIZONTAL LAYERS OR OF SUCH THICKNESS THAT THE REQUIRED COMPACTION CAN BE OBTAINED WITH THE EQUIPMENT USED. CONSTRUCTION EQUIPMENT SHALL BE OPERATED OVER EACH LAYER IN A WAY THAT WILL RESULT IN THE REQUIRED COMPACTION. SPECIAL EQUIPMENT SHALL BE USED WHEN THE REQUIRED COMPACTION CANNOT BE OBTAINED WITHOUT IT. THE MOISTURE CONTENT OF FILL MATERIAL SHALL BE SUCH THAT THE REQUIRED DEGREE OF COMPACTION CAN BE OBTAINED WITH THE EQUIPMENT USED. THE EMBANKMENTS OF THE SEDIMENT BASIN AND THE AREAS THAT LIE DOWNSTREAM OF THE POND MUST BE STABILIZED.

D. PIPE SPILLWAY -THE PIPE CONDUIT BARREL SHALL BE PLACED ON A FIRM FOUNDATION TO THE LINES AND GRADES SHOWN ON THE PLANS. CONNECTIONS BETWEEN THE RISER AND BARREL, THE ANTI-SEEP COLLARS AND BARREL AND ALL PIPE JOINTS SHALL BE WATERTIGHT. SELECTED BACKFILL MATERIAL SHALL BE PLACED AROUND THE CONDUIT IN LAYERS AND EACH LAYER SHALL BE COMPACTED TO AT LEAST THE SAME DENSITY AS THE ADJACENT EMBANKMENT. ALL COMPACTION WITHIN 2 FT. OF THE PIPE SPILLWAY WILL BE ACCOMPLISHED WITH HAND-OPERATED TAMPING EQUIPMENT.

E. RISER PIPE BASE -THE RISER PIPE SHALL BE SET A MINIMUM OF 6 IN. IN THE CONCRETE BASE.

F. TRASH RACKS -THE TOP OF THE RISER SHALL BE FITTED WITH TRASH RACKS FIRMLY FASTENED TO THE RISER PIPE.

G. SEED AND MULCH -THE SEDIMENT BASIN SHALL BE STABILIZED IMMEDIATELY FOLLOWING ITS CONSTRUCTION. IN NO CASE SHALL THE EMBANKMENT OR EMERGENCY SPILLWAY REMAIN BARE FOR MORE THAN 7 DAYS.

H. SEDIMENT CLEANOUT - ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT STORAGE ZONE ONCE IT EXCEEDS 50 PERCENT OF THE MINIMUM REQUIRED SEDIMENT STORAGE DESIGN CAPACITY AND PRIOR TO THE CONVERSION TO THE POST-CONSTRUCTION PRACTICE UNLESS SUITABLE STORAGE IS DEMONSTRATED BASED UPON OVER-DESIGN. THIS ELEVATION SHALL BE MARKED ON A CLEANOUT STAKE NEAR THE CENTER OF THE BASIN. SEDIMENT REMOVED FROM THE BASIN SHALL BE PLACED SO THAT IT WILL NOT ERODE.

I. FINAL REMOVAL - SEDIMENT BASINS SHALL BE REMOVED AFTER THE UPSTREAM DRAINAGE AREA IS STABILIZED OR AS INDICATED IN THE PLANS. DEWATERING AND REMOVAL SHALL NOT CAUSE SEDIMENT TO BE DISCHARGED. THE SEDIMENT BASIN SITE AND SEDIMENT REMOVED FROM THE BASIN SHALL BE STABILIZED.

OPERATIONS AND MAINTENANCE

SEDIMENT BASINS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT.
NECESSARY ACTIVITIES ARE SHOWN AS FOLLOWS:

A. ESTABLISH VEGETATIVE COVER AND FERTILIZE AS NECESSARY TO MAINTAIN A VIGOROUS COVER IN AND AROUND THE SEDIMENT BASIN.

B. REMOVE UNDESIRABLE VEGETATION PERIODICALLY TO PREVENT GROWTH OF TREES AND SHRUBS ON THE EMBANKMENT AND SPILLWAY AREAS.

C. PROMPTLY REPAIR ERODED AREAS. REESTABLISH VEGETATIVE COVER IMMEDIATELY WHERE SCOUR EROSION HAS REMOVED ESTABLISHED SEEDING.

D. PROMPTLY REMOVE ANY BURROWING RODENTS THAT MAY INVADE AREAS OF THE EMBANKMENT.

E. REMOVE TRASH AND DEBRIS THAT MAY BLOCK SPILLWAYS AND ACCUMULATE IN THE POND.

F. CHECK SPILLWAY OUTLETS AND POINTS OF INFLOW TO ENSURE DRAINAGE IS NOT CAUSING EROSION AND THAT OUTLETS ARE NOT CLOGGED. REPLACE DISPLACED RIPRAP IMMEDIATELY.

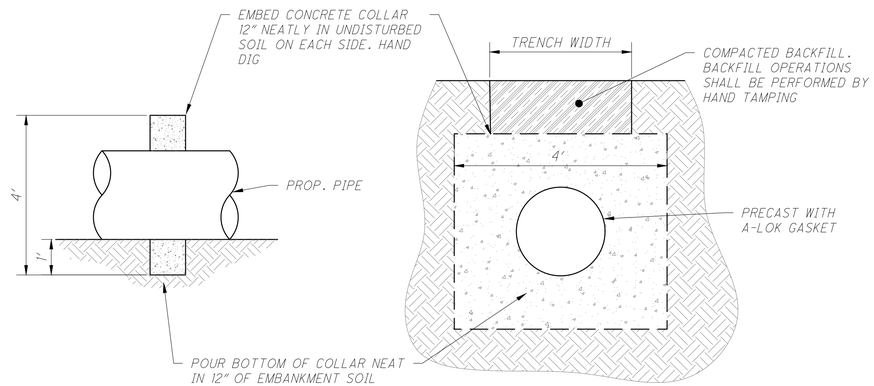
ROCK PAD NOTE

IT IS VERY IMPORTANT THAT A ROCK PAD BE CONSTRUCTED TO THE HEIGHT OF THE TOP OF THE SEDIMENT STORAGE ZONE. IF THIS IS NOT DONE OR IF THE PAD IS NOT BUILT TO THE SAME HEIGHT AS THE TOP OF THE SEDIMENT STORAGE ZONE, THE SKIMMER WILL NOT FUNCTION PROPERLY .

WHEN COMPLETE THE IAS FLEXIBLE COUPLING SHOULD BE LYING FLAT ON THE ROCK PAD. THE UNIT WILL BE TOUCHING AT TWO POINTS: THE TOP OF THE BARREL/MIDDLE OF THE SKIMMER HEAD AND THE POINT AT WHICH THE BARREL IS ATTACHED TO THE IAS FLEXIBLE COUPLING. SEE MANUFACTURER'S ASSEMBLY INSTRUCTIONS.

SEDIMENT BASIN CALCULATIONS

REQUIRED SEDIMENT STORAGE VOLUME = 37 C.Y./ACRE * 5.53 ACRES = 205 C.Y.
TOP OF SEDIMENT STORAGE ZONE ELEVATION =848.00 (627 C.Y.). SET CLEANOUT STAKE AT THIS ELEVATION.
REQUIRED DEWATERING ZONE VOLUME = 67 C.Y./ACRE * 7.96 ACRES = 533 C.Y.
DEWATERING ZONE VOLUME (BETWEEN 848.00 AND 849.00) = 695 C.Y.
TOTAL BASIN VOLUME REQUIRED TO TOP OF DEWATERING ZONE = 205 C.Y. + 533 C.Y. = 738 C.Y.
TOP OF DEWATERING ZONE ELEVATION = 849.00 (1,322 C.Y.)
TOTAL SEDIMENT BASIN VOLUME PROVIDED TO ELEV. 851.00 = 2,927 C.Y.
RISER AND BARREL: PROPOSED 12" DETENTION OUTLET AND TEMPORARY RISER ARE TO BE USED AS OUTLET FOR SEDIMENT BASIN.
EMERGENCY SPILLWAY: EMERGENCY SPILLWAY TO BE TRAPEZOIDAL WITH A BOTTOM WIDTH OF 20'.
DEWATERING TIME : 2.34 DAYS
533 C.Y. * 27 = 14,391 C.F. VOLUME TO BE DEWATERED
USING A FAIRCLOTH/IAS WATER QUALITY SKIMMER WITH A 2.5" SKIMMER SIZE, IT DISCHARGES 6,137 CF PER 24 HOURS THEREFORE IT WILL TAKE 2.34 DAYS TO DEWATER THIS SEDIMENT BASIN.



ANTI-SEEP COLLAR

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CITY OF FAIRBORN
SWPPP - EROSION CONTROL NOTES AND DETAILS

REVISIONS:

FILE NAME	SWPPP NOTES 3
DRAWN BY	JMK
CHECKED BY	JSP
PROJECT No.	GREFAI2305
DATE	9-13-2024
SHEET NUMBER	25 OF 26

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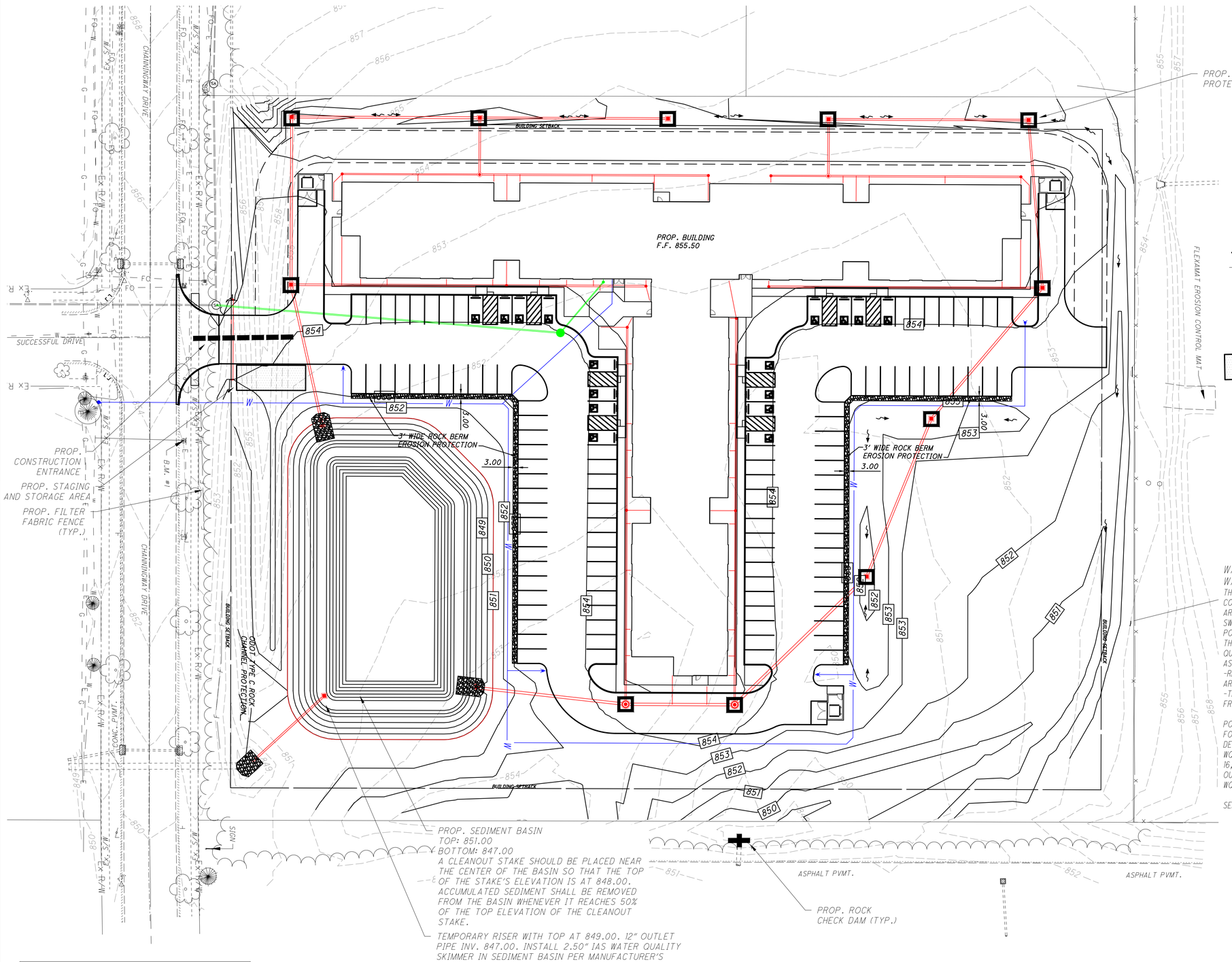

BENCHMARK #1 ELEV: 855.87 PT.#: 10256
BOLT AT TIP ARROW TOP FLANGE OF FIRE HYDRANT ON THE NORTH SIDE OF CHANNINGWAY DR JUST EAST OF SUCCESSFULL DR

WATER QUALITY AND POST CONSTRUCTION STORM WATER MANAGEMENT AND TREATMENT:

THE FIRST 0.90" OF STORMWATER RUNOFF FOR THE SITE WILL BE CONTROLLED VIA FILTRATION (AND SOME INFILTRATION) BY THE GRASSED AREAS IN AND AROUND THE PROPOSED IMPERVIOUS AREAS, GRASSED SWALES, AND GRASSED BOTTOM OF THE DETENTION BASIN. ADDITIONAL POLLUTANTS WILL ALSO SETTLE OUT OVER TIME IN THE DETENTION BASIN. THE ON-SITE DETENTION BASIN HAS BEEN DESIGNED TO TREAT THE WATER QUALITY VOLUME (WQv) USING A REDUCED SIZED ORIFICE FOR AN OUTLET AS FOLLOWS:
-RELEASE THE RUNOFF FROM A 0.90" RAIN EVENT ON THE SITE DRAINAGE AREA OVER 48 HOURS OR LONGER AND
-THE FIRST HALF OF THE TOTAL VOLUME GENERATED BY THE RUNOFF FROM A 0.90" RAIN EVENT IS RETAINED FOR GREATER THAN 16 HOURS.

POST-CONSTRUCTION STORM WATER MANAGEMENT WATER QUALITY VOLUME FOR DEVELOPMENT USING 0.90 INCHES OF RAIN:
DETENTION BASIN:
WQv=0.49*0.90*7.96/12=15,322 CU FT
16,944 CU FT PROVIDED TO ELEV. 848.00 THE DETENTION BASIN HAS AN OUTLET WITH A 2.90" DIA. ORIFICE THAT RELEASES APPROX. 33% OF THE WQv AT 8 HOURS AND APPROX. 98% AT 24 HOURS

SEE SEPARATE STORMWATER CALCS. FOR ADDITIONAL DETAILS IF NEEDED

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VALLE GREENE SENIOR
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SWPPP SITE EROSION CONTROL PLAN

REVISIONS:

FILE NAME	SWPPP SITE
DRAWN BY	JMK
CHECKED BY	JSP
PROJECT No.	GREFAI2305
DATE	9-13-2024
SHEET NUMBER	26 OF 26

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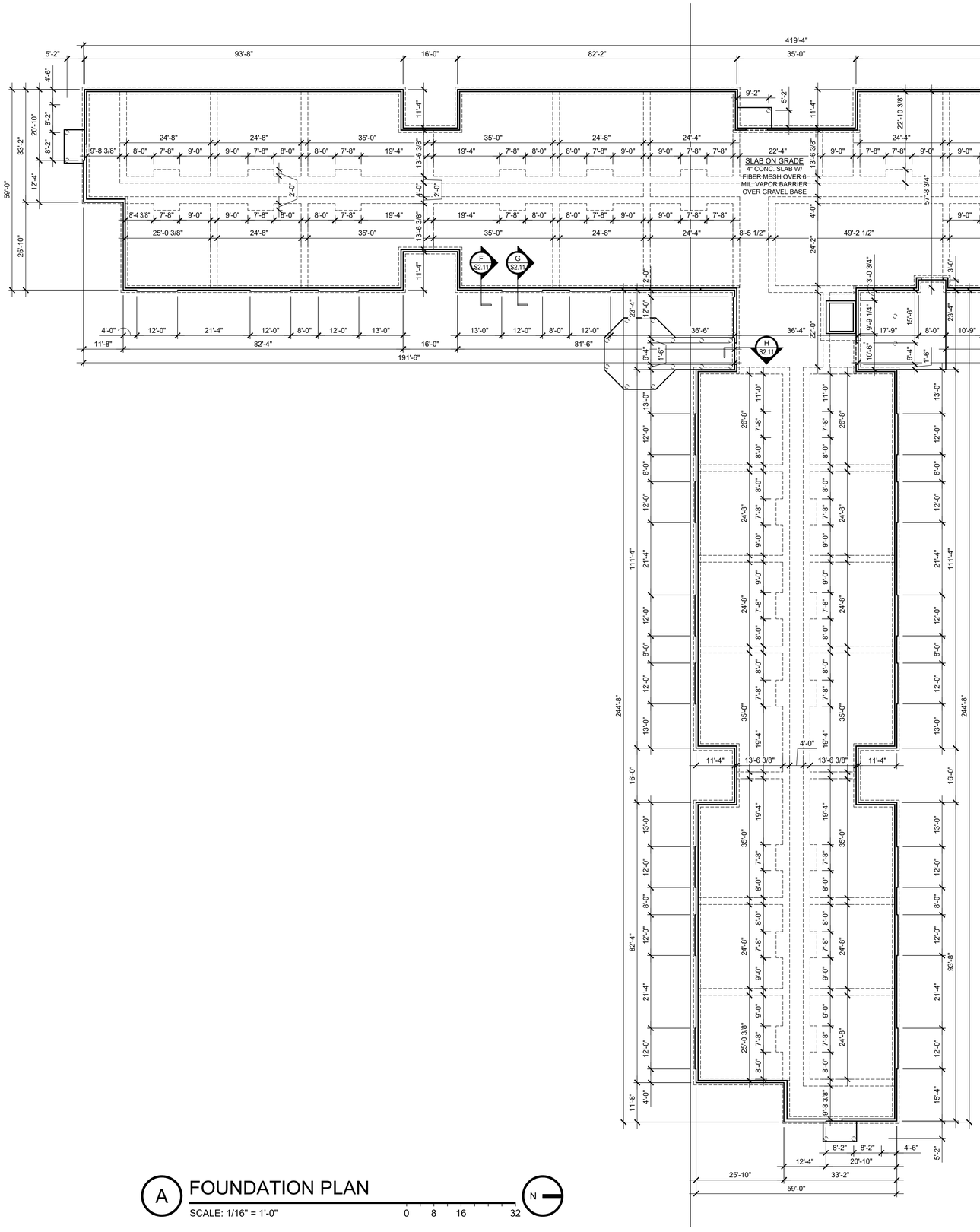

A FOUNDATION PLAN

SCALE: 1/16" = 1'-0"

0 8 16 32

N

F-1 FOOTING SCHEDULE

#	SIZE	DEPTH	REINFORCING		
			E.W.	S.W.	L.W.
F-1	24" CONT. FOOTING	12"	-	-	[3] #4
F-2	24" THICKENED SLAB	12"	-	-	[3] #4

H-1 BEAM/HEADER SCHEDULE

#	SIZE
H-1	(2) 2x10 SYP #2
H-2	(3) 2x10 SYP #2
H-3	(2) 1 3/4" x 11 1/4" LVL
H-4	(3) 1 3/4" x 11 1/4" LVL
H-5	(2) 1 3/4" x 9 1/4" LVL
H-6	(3) 1 3/4" x 9 1/4" LVL
H-7	
H-8	
H-9	
H-10	

DESIGN LIVE LOADS

LOBBIES, LAUNDRY ROOMS & CORRIDORS = 100 PSF
MECHANICAL ROOMS = 50 PSF
APARTMENTS = 40 PSF
ROOF LIVE LOAD = 20 PSF
GROUND SNOW LOAD [Pg] - 20 PSF
FLAT ROOF SNOW LOAD [Pf] = 20 PSF
SNOW EXPOSURE FACTOR [Ce] = 1.0
SNOW LOAD IMPORTANCE FACTOR [Is] = 1.0
THERMAL FACTOR [Ct] = 1.0
BASIC WIND SPEED = 115 MPH
WIND IMPORTANCE FACTOR [Iw] = 1.0
WIND EXPOSURE = C
INTERNAL PRESSURE COEFICIENT = ±0.18
COMPONENT & CLADDING WIND PRESSURE =
17.5 PSF AT INTERIOR ROOF PANELS
24.7 PSF AT EAVES & RIDGE
21.1 PSF AT INTERIOR WALL PANELS
25.5 PSF AT CORNERS
SEISMIC DESIGN PARAMETERS
SEISMIC OCCUPANCY CATEGORY = II
SEISMIC IMPORTANCE FACTOR [I] = 1.0
SPECTRAL RESPONSE COEFFICIENTS
SDS = 0.213
SD1 = 0.112
SITE CLASS = D
DESIGN CATEGORY = B
BASIC STRUCTURAL SYSTEM =
LIGHT FRAMED WALLS W/ WOOD STRUCTURAL PANELS
RESPONSE MODIFICATION FACTOR R = 6.5
DESIGN BASE SHEAR = 0.33W
ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE PROCEDURE

STATE OF OHIO
JONATHAN ROBERT SCHAAF
#14503
REGISTERED ARCHITECT
PRELIMINARY - NOT FOR CONSTRUCTION
Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025
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OBERER COMPANIES
3445 Newmark Drive
Miamisburg, Ohio 45342

New Multi-Family Building:
Senior Village at Valle Greene
1155 Channingway Drive
Fairborn, Ohio 45324
OHFA Tracking Number: 24-0087

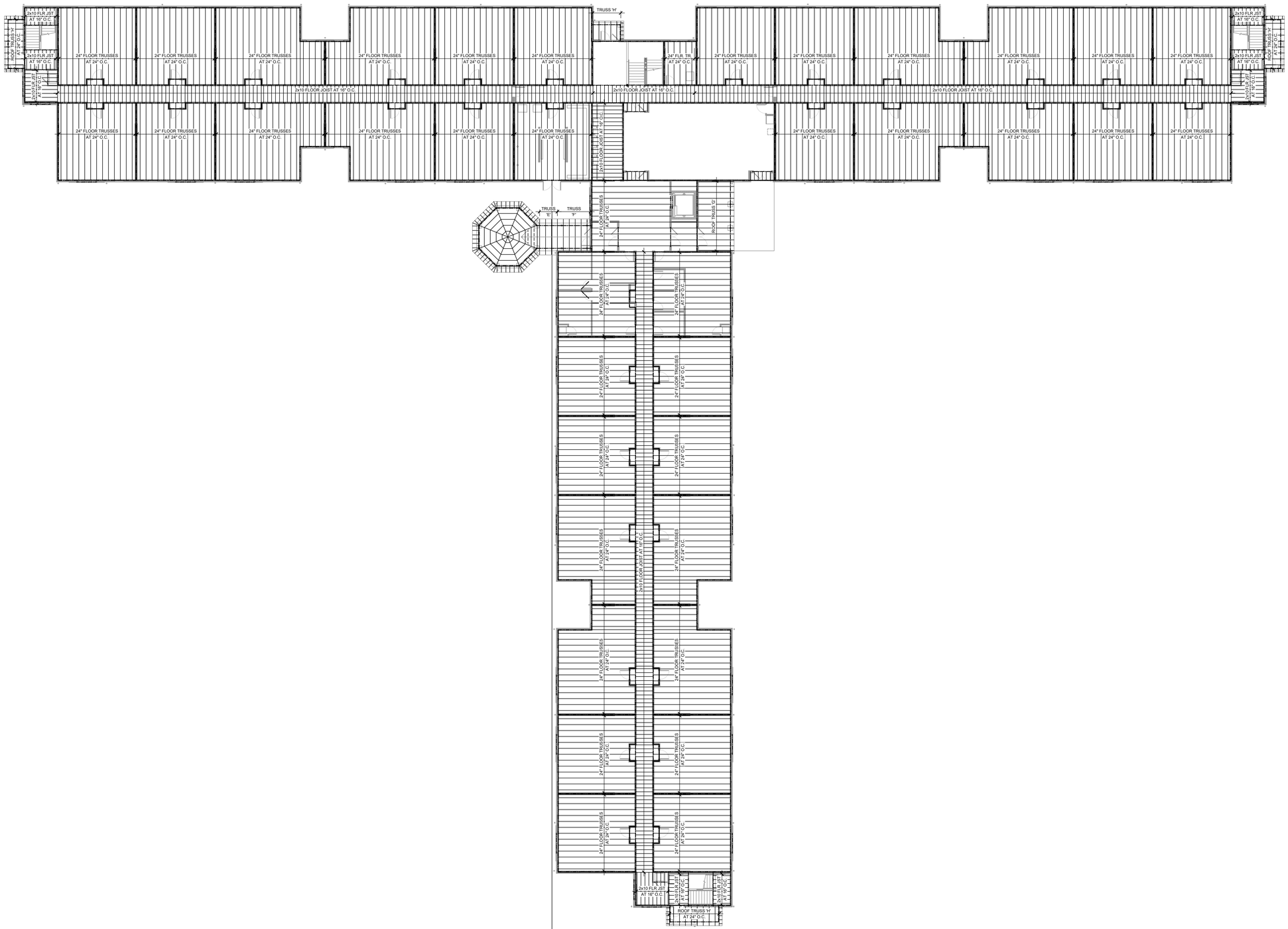
Project Number
2023-191

Date
September 13, 2024

Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
Foundation Plan

Sheet Number
S1.11



A SECOND FLOOR FRAMING PLAN

SCALE: 1/16" = 1'-0"

0 8 16 32

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STATE OF OHIO
JONATHAN ROBERT SCHAAF
REGISTERED ARCHITECT
PRELIMINARY NOT FOR CONSTRUCTION

Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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7662 PARAGON ROAD | DAYTON, OH 45459 | 937.610.3440

OBERER COMPANIES
3445 Newmark Drive
Miamisburg, Ohio 45342

New Multi-Family Building:
Senior Village at Valle Greene
1155 Channingway Drive
Fairborn, Ohio 45324
OHFA Tracking Number: 24-0087

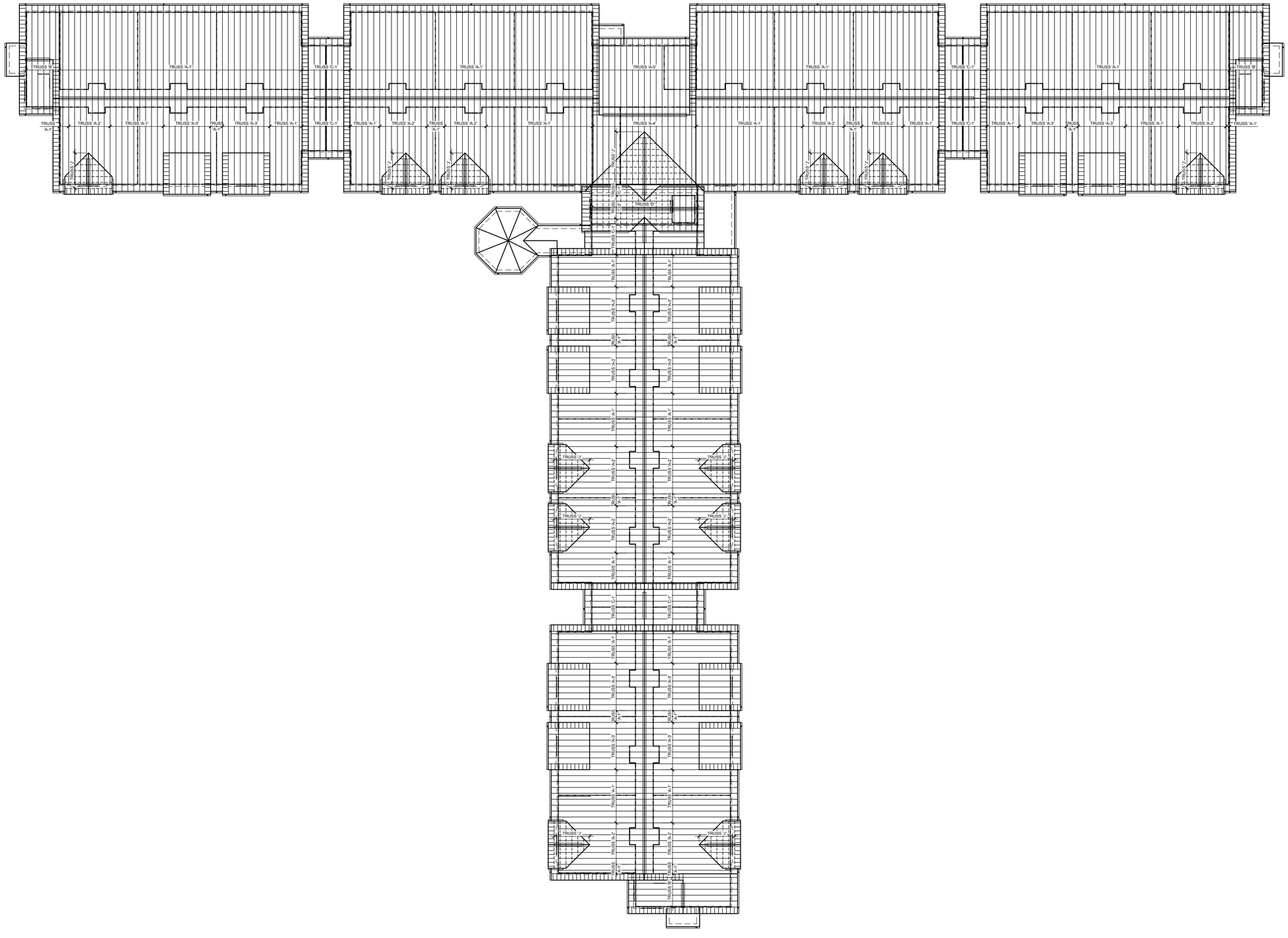
Project Number
2023-191

Date
September 13, 2024

Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
Second Floor Framing Plan

Sheet Number
S1.12



A ROOF FRAMING PLAN

SCALE: 1/16" = 1'-0"

0 8 16 32

N

STATE OF OHIO
JONATHAN ROBERT SCHAAF
14503
REGISTERED ARCHITECT
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Jonathan Robert Schaaf #14503
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OBERER COMPANIES
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Miamisburg, Ohio 45342

New Multi-Family Building:

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OHFA Tracking Number: 24-0087

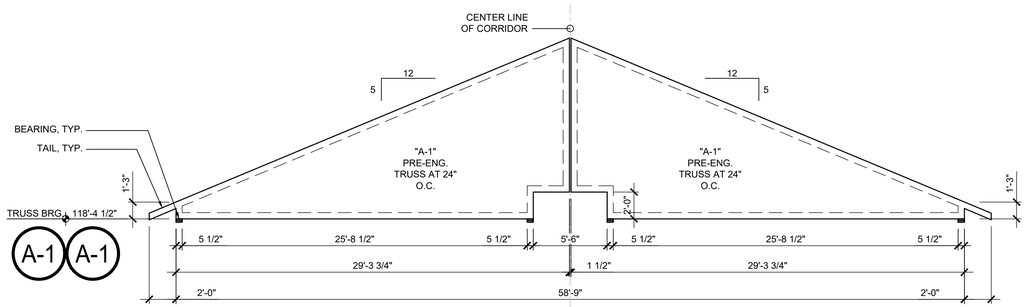
Project Number
2023-191

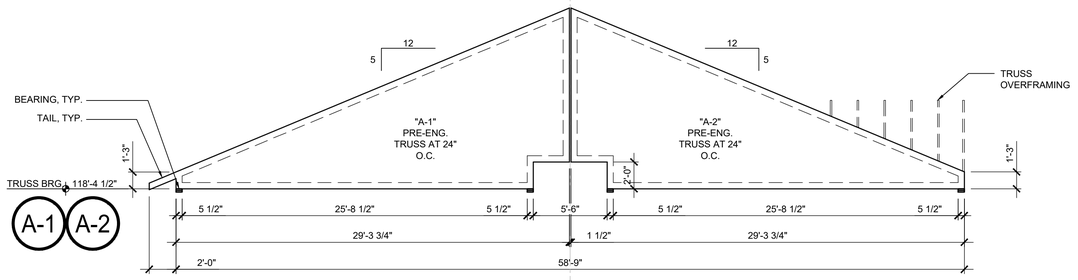
Date
September 13, 2024

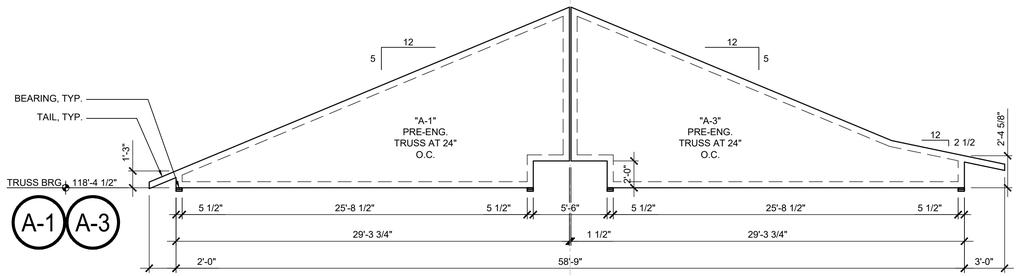
Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

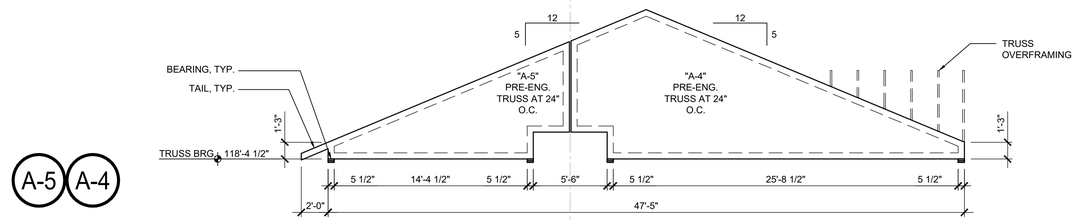
Sheet Title
Roof Framing Plan

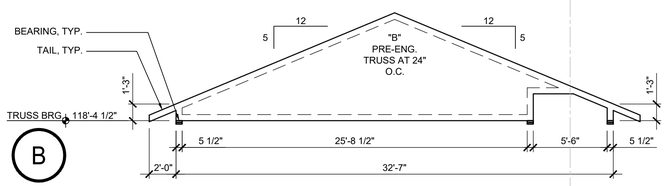
Sheet Number
S1.13

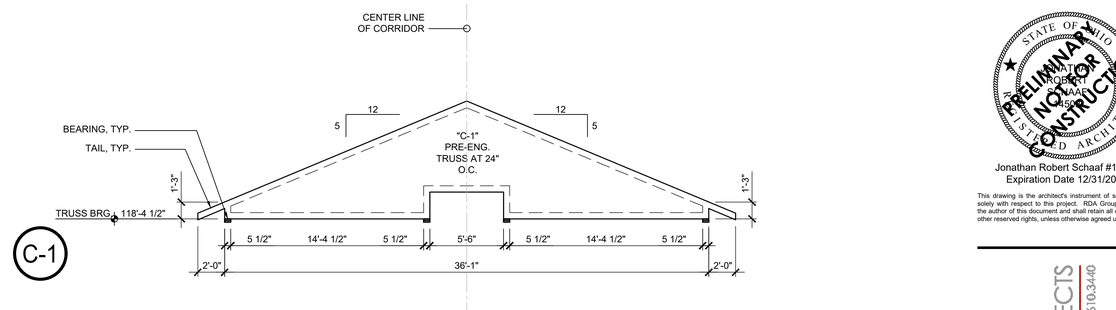


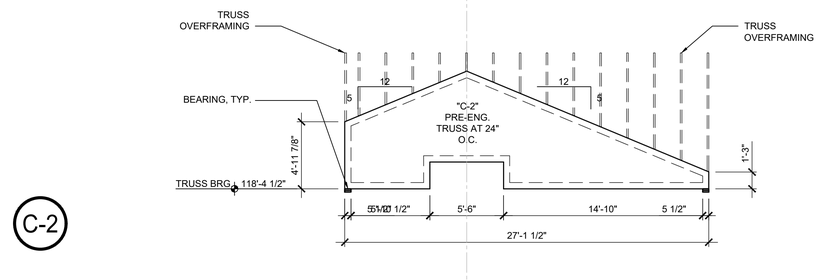


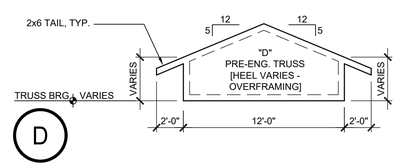


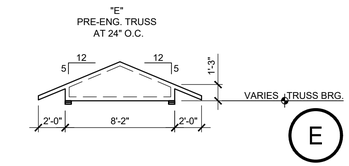


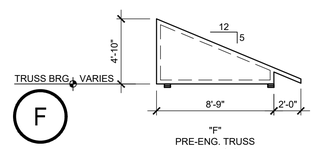


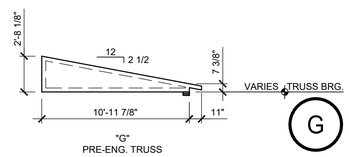


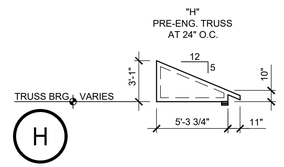


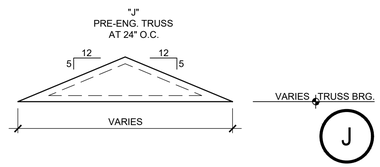












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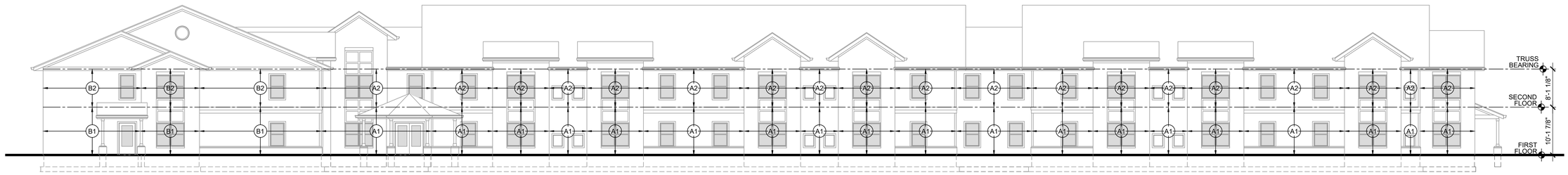
08.30.24	Progress Set
09.13.24	OHFA 80% Review

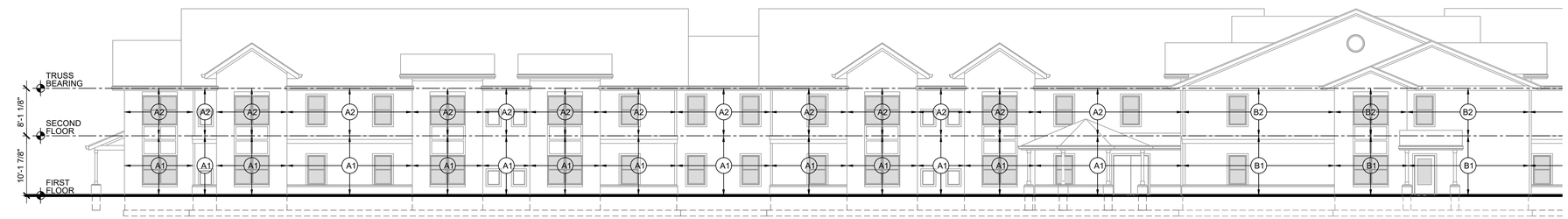
Sheet Title
Truss Profiles

Sheet Number
S1.21



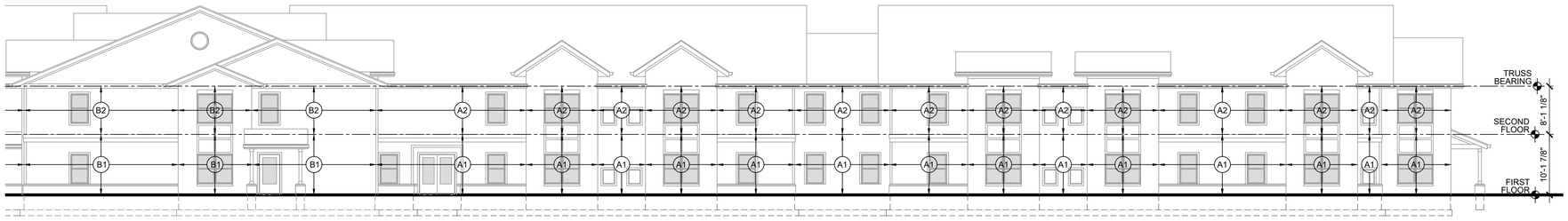
A SOUTH ELEVATION

SCALE: 3/32" = 1'-0" 0 6 12 24



B EAST ELEVATION - SOUTH

SCALE: 3/32" = 1'-0" 0 6 12 24



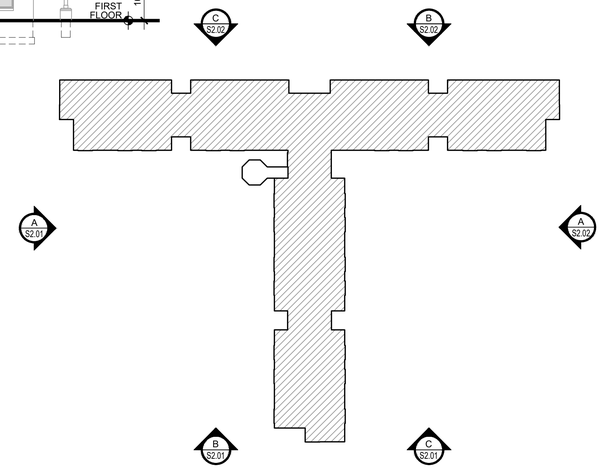
C EAST ELEVATION - NORTH

SCALE: 3/32" = 1'-0" 0 6 12 24

SHEAR WALL DIAPHRAGM SCHEDULE

#	PANEL EDGE NAILING	PANEL FIELD NAILING	PANEL	SILL PLATE ANCHORAGE
A2	8d AT 6" O.C.	8d AT 12" O.C.	1 1/2" INSULATED STRCUTURAL PANEL	16d AT 16" O.C.
A1	8d AT 6" O.C.	8d AT 12" O.C.	1 1/2" INSULATED STRCUTURAL PANEL	SIMPSON STRONGTIE TITAN HD 1/2" x 6" AT 48" O.C.
B2	8d AT 6" O.C.	8d AT 12" O.C.	1 1/2" INSULATED STRCUTURAL PANEL	16d AT 16" O.C.
B1	8d AT 6" O.C.	8d AT 12" O.C.	1 1/2" INSULATED STRCUTURAL PANEL	SIMPSON STRONGTIE TITAN HD 1/2" x 6" AT 48" O.C.
C2	8d AT 6" O.C.	8d AT 12" O.C.	7/16" OSB	16d AT 16" O.C.
C1	8d AT 6" O.C.	8d AT 12" O.C.	7/16" OSB	SIMPSON STRONGTIE TITAN HD 1/2" x 6" AT 48" O.C.

NOTES:
1. PROVIDE 8d AT 12" O.C. AT INTERMEDIATE STUDS.
2. PROVIDE 2x4 HORIZONTAL BLOCKING AT ALL PANEL HORIZONTAL JOINTS BETWEEN FLOOR AND ROOF LINE.
3. IF NAIL GUN NAILS ARE USED A MINIMUM SHANK DIAMETER OF 0.131" IS REQUIRED FOR 8d NAILS AND 0.162" WHERE 16d NAILS ARE SPECIFIED. DO NOT OVER DRIVE NAILS.



KEY PLAN

SCALE: N.T.S.

STATE OF OHIO
JONATHAN ROBERT SCHAAF
#14503
REGISTERED ARCHITECT
PRELIMINARY NOT FOR CONSTRUCTION

Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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OHFA Tracking Number: 24-0087

Project Number	2023-191
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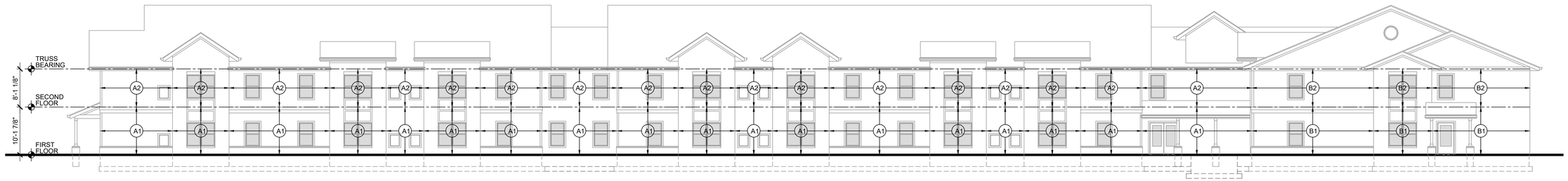
Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

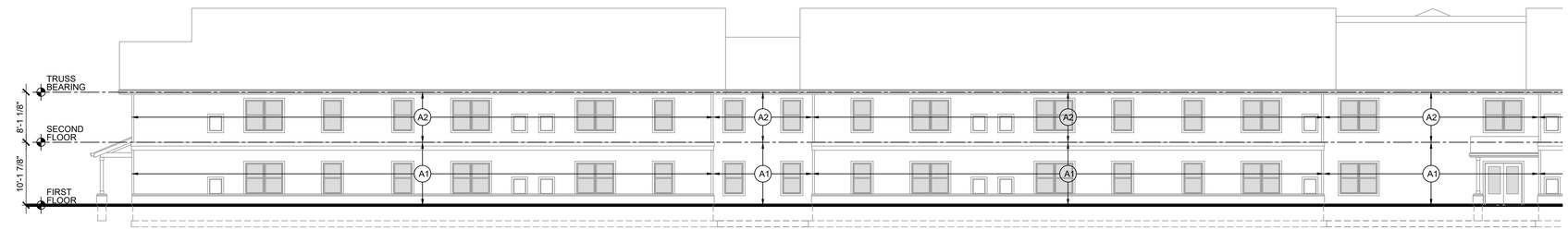
Sheet Title
SHEAR WALL DIAGRAMS

Sheet Number
S2.01



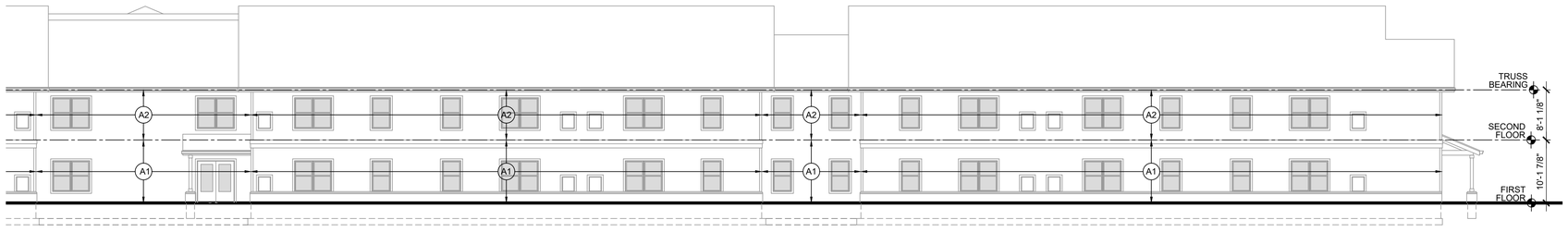
A NORTH ELEVATION

SCALE: 3/32" = 1'-0" 0 6 12 24



B WEST ELEVATION - NORTH

SCALE: 3/32" = 1'-0" 0 6 12 24



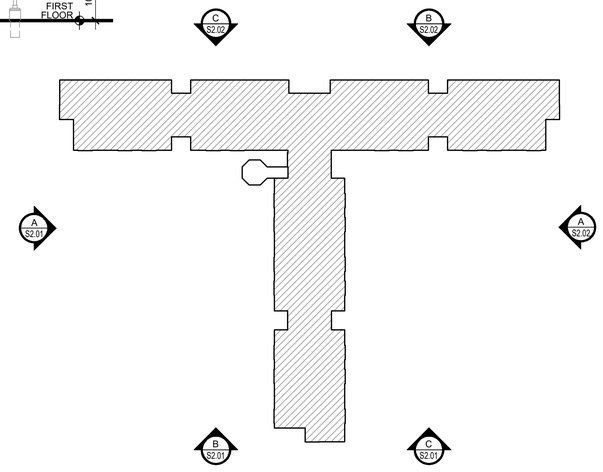
C WEST ELEVATION - SOUTH

SCALE: 3/32" = 1'-0" 0 6 12 24

SHEAR WALL DIAPHRAGM SCHEDULE

#	PANEL EDGE NAILING	PANEL FIELD NAILING	PANEL	SILL PLATE ANCHORAGE
A2	8d AT 6" O.C.	8d AT 12" O.C.	1 1/2" INSULATED STRCUTURAL PANEL	16d AT 16" O.C.
A1	8d AT 6" O.C.	8d AT 12" O.C.	1 1/2" INSULATED STRCUTURAL PANEL	SIMPSON STRONGTIE TITAN HD 1/2" x 6" AT 48" O.C.
B2	8d AT 6" O.C.	8d AT 12" O.C.	1 1/2" INSULATED STRCUTURAL PANEL	16d AT 16" O.C.
B1	8d AT 6" O.C.	8d AT 12" O.C.	1 1/2" INSULATED STRCUTURAL PANEL	SIMPSON STRONGTIE TITAN HD 1/2" x 6" AT 48" O.C.
C2	8d AT 6" O.C.	8d AT 12" O.C.	7/16" OSB	16d AT 16" O.C.
C1	8d AT 6" O.C.	8d AT 12" O.C.	7/16" OSB	SIMPSON STRONGTIE TITAN HD 1/2" x 6" AT 48" O.C.

NOTES:
1. PROVIDE 8d AT 12" O.C. AT INTERMEDIATE STUDS.
2. PROVIDE 2x4 HORIZONTAL BLOCKING AT ALL PANEL HORIZONTAL JOINTS BETWEEN FLOOR AND ROOF LINE.
3. IF NAIL GUN NAILS ARE USED A MINIMUM SHANK DIAMETER OF 0.131" IS REQUIRED FOR 8d NAILS AND 0.162" WHERE 16d NAILS ARE SPECIFIED. DO NOT OVER DRIVE NAILS.



KEY PLAN

SCALE: N.T.S.

STATE OF OHIO
JONATHAN ROBERT SCHAAF
6457
REGISTERED ARCHITECT
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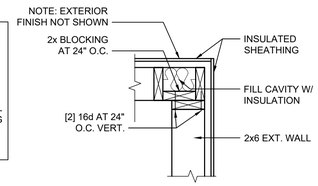
09.13.24	OHFA 80% Review

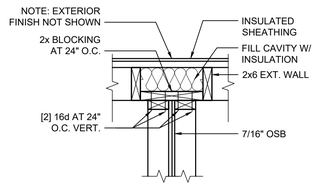
Sheet Title
SHEAR WALL DIAGRAMS

Sheet Number
S2.02

STRUCTURAL PANEL PROVIDES LOAD PATH FOR BOTH WIND UPLIFT AND SHEAR. CONTRACTOR HAS OPTION TO FURNISH AND INSTALL OSB OR INSULATED SHEATHING IN 8', 9' OR 10' LENGTHS, HORIZONTAL JOINT IS LOCATED AT FOUNDATION SILL PLATE & TOP PLATE. PROVIDE HORIZONTAL 2x4 BLOCKING AS REQUIRED TO PROVIDE 1 1/2" NAILING SURFACE FOR VERTICALLY JOINING OSB OR INSULATED SHEATHING PANELS. ATTACH 2x4 TO EACH TRUSS VERTICAL WITH (2) 16D NAILS. ATTACH OSB OR INSULATED SHEATHING PANELS WITH 8D NAILS SPACED 8" O.C. AT FIELD STUDS AND 6" O.C. AT PERIMETER STUDS, TOP/BOTTOM PLATES, SILL PLATE AND HORIZONTAL FRAMING AT JOINTS.



A DETAIL TYPICAL OUTSIDE CORNER
SCALE: 1" = 1'-0" 0 6" 1 2



B DETAIL TYPICAL INTERSECTING WALL
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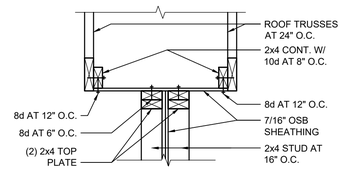
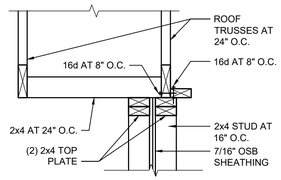
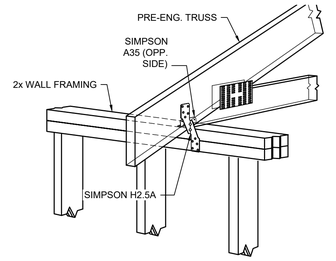


C DETAIL SHEAR WALL BETWEEN TRUSSES
SCALE: 1" = 1'-0" 0 6" 1 2



D DETAIL SHEAR WALL AT TRUSSES
SCALE: 1" = 1'-0" 0 6" 1 2



E TYPICAL UPLIFT STRAP DETAIL
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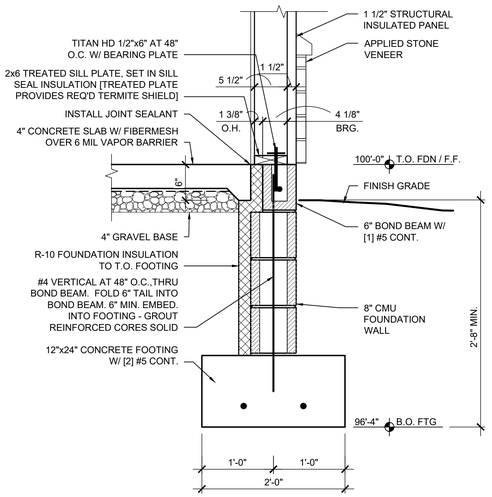
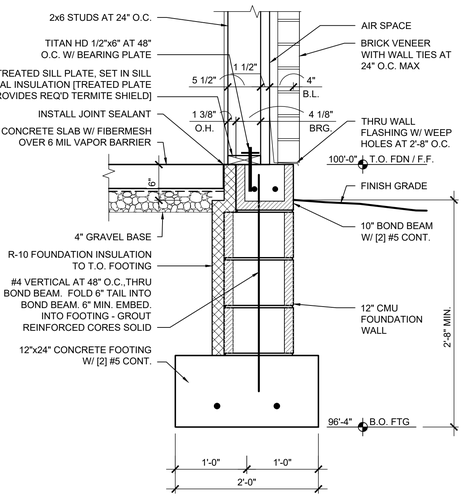
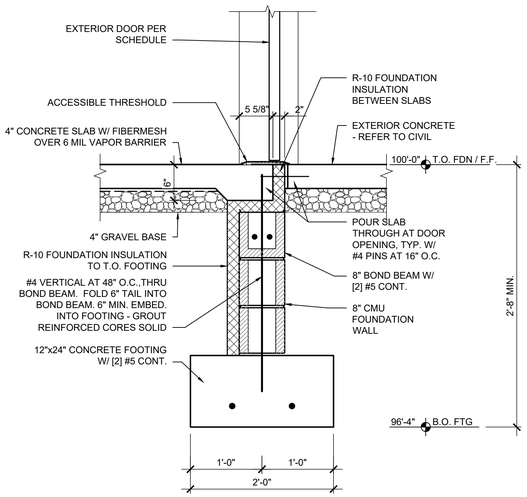


F TYPICAL EXT. WALL AT APPLIED STONE VENEER FOUNDATION SECTION
SCALE: 1" = 1'-0" 0 6" 1 2



G TYPICAL EXT. WALL AT BRICK VENEER FOUNDATION SECTION
SCALE: 1" = 1'-0" 0 6" 1 2



H TYPICAL EXT. WALL AT DOOR OPENING FOUNDATION SECTION
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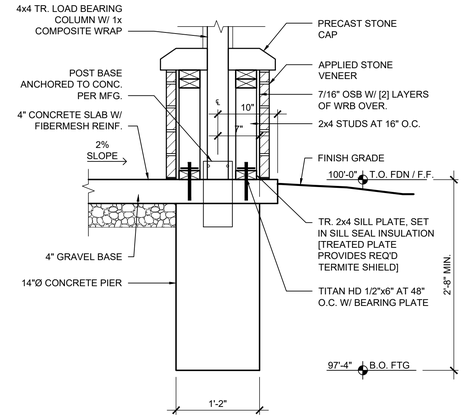

J TYPICAL EXT. COLUMN FOUNDATION SECTION
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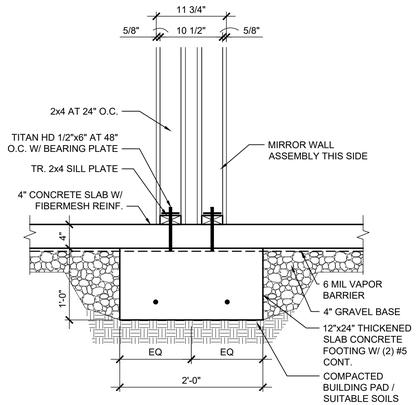

K THICKENED SLAB
SCALE: 1" = 1'-0" 0 6" 1 2

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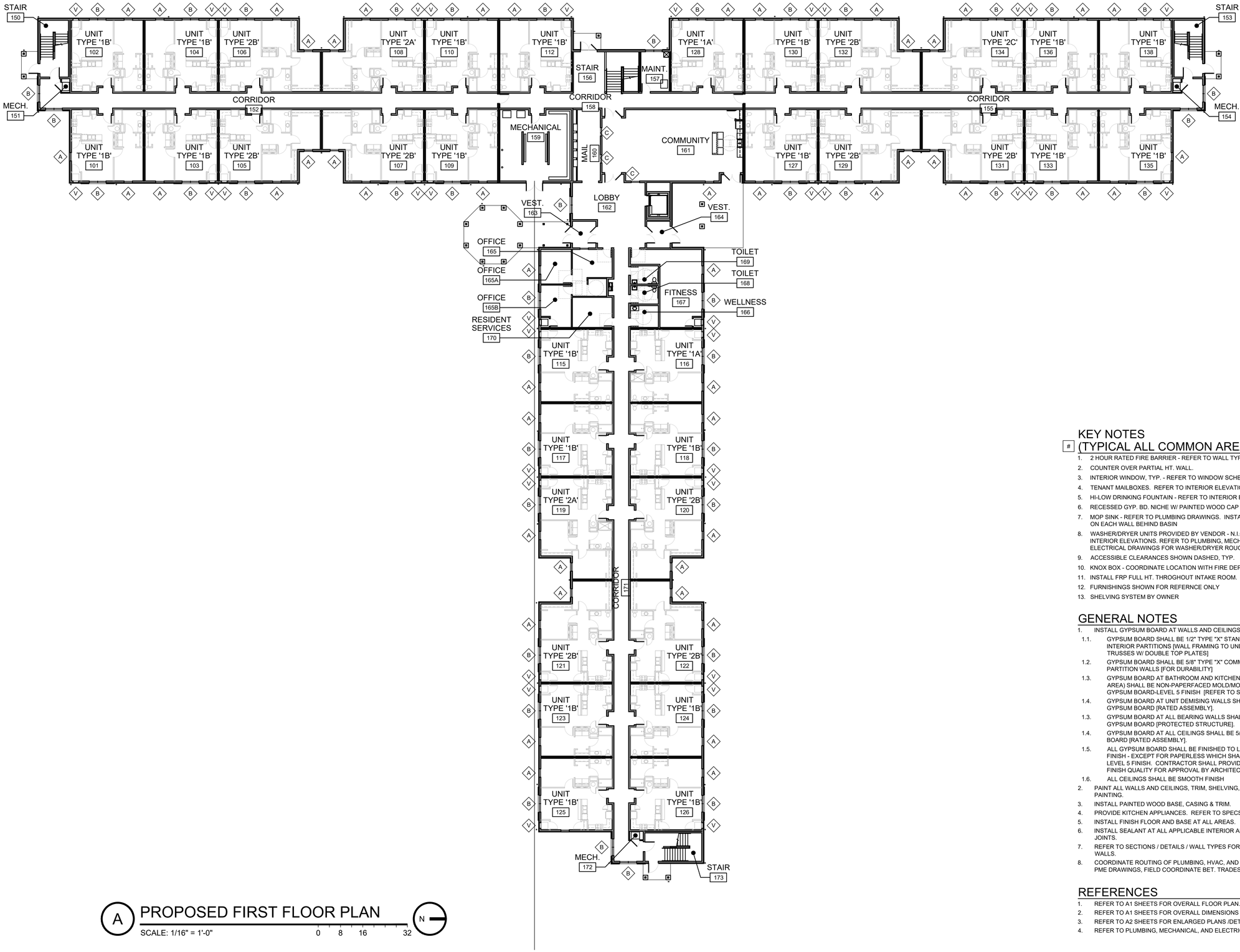
Sheet Title
STRUCTURAL DETAILS / STATEMENT OF SPECIAL INSPECTIONS

Sheet Number
S2.11



A PROPOSED FIRST FLOOR PLAN

SCALE: 1/16" = 1'-0" 0 8 16 32

N

KEY NOTES (TYPICAL ALL COMMON AREAS)

1. 2 HOUR RATED FIRE BARRIER - REFER TO WALL TYPES.
2. COUNTER OVER PARTIAL HT. WALL.
3. INTERIOR WINDOW, TYP. - REFER TO WINDOW SCHEDULE
4. TENANT MAILBOXES. REFER TO INTERIOR ELEVATIONS.
5. HI-LOW DRINKING FOUNTAIN - REFER TO INTERIOR ELEVATIONS
6. RECESSED GYP. BD. NICHE W/ PAINTED WOOD CAP ON BASE
7. MOP SINK - REFER TO PLUMBING DRAWINGS. INSTALL 48"x48" FRP ON ON EACH WALL BEHIND BASIN
8. WASHER/DRYER UNITS PROVIDED BY VENDOR - N.I.C. - REFER TO INTERIOR ELEVATIONS. REFER TO PLUMBING, MECHANICAL, ELECTRICAL DRAWINGS FOR WASHER/DRYER ROUGH-INS.
9. ACCESSIBLE CLEARANCES SHOWN DASHED, TYP.
10. KNOX BOX - COORDINATE LOCATION WITH FIRE DEPARTMENT.
11. INSTALL FRP FULL HT. THROGHOUT INTAKE ROOM.
12. FURNISHINGS SHOWN FOR REFERNCE ONLY
13. SHELVING SYSTEM BY OWNER

GENERAL NOTES

1. INSTALL GYPSUM BOARD AT WALLS AND CEILINGS:
   - 1.1. GYPSUM BOARD SHALL BE 1/2" TYPE "X" STANDARD AT UNIT INTERIOR PARTITIONS [WALL FRAMING TO UNDERSIDE OF TRUSSES W/ DOUBLE TOP PLATES]
   - 1.2. GYPSUM BOARD SHALL BE 5/8" TYPE "X" COMMON AREA PARTITION WALLS [FOR DURABILITY]
   - 1.3. GYPSUM BOARD AT BATHROOM AND KITCHEN (HIGH MOISTURE AREA) SHALL BE NON-PAPERFACED MOLD/MOISTURE RESISTANT GYPSUM BOARD-LEVEL 5 FINISH [REFER TO SPECIFICATIONS]
   - 1.4. GYPSUM BOARD AT UNIT DEMISING WALLS SHALL BE 5/8" TYPE "X" GYPSUM BOARD [RATED ASSEMBLY].
   - 1.3. GYPSUM BOARD AT ALL BEARING WALLS SHALL BE 5/8" TYPE "X" GYPSUM BOARD [PROTECTED STRUCTURE].
   - 1.4. GYPSUM BOARD AT ALL CEILINGS SHALL BE 5/8" TYPE "X" GYPSUM BOARD [RATED ASSEMBLY].
   - 1.5. ALL GYPSUM BOARD SHALL BE FINISHED TO LEVEL 4 QUALITY FINISH - EXCEPT FOR PAPERLESS WHICH SHALL BE FINISHED TO LEVEL 5 FINISH. CONTRACTOR SHALL PROVIDE A MOCKUP OF FINISH QUALITY FOR APPROVAL BY ARCHITECT / OWNER.
   - 1.6. ALL CEILINGS SHALL BE SMOOTH FINISH
2. PAINT ALL WALLS AND CEILINGS, TRIM, SHELVING, ETC. THAT REQUIRE PAINTING.
3. INSTALL PAINTED WOOD BASE, CASING & TRIM.
4. PROVIDE KITCHEN APPLIANCES. REFER TO SPECS.
5. INSTALL FINISH FLOOR AND BASE AT ALL AREAS.
6. INSTALL SEALANT AT ALL APPLICABLE INTERIOR AND EXTERIOR JOINTS.
7. REFER TO SECTIONS / DETAILS / WALL TYPES FOR RATED SEPARATION WALLS.
8. COORDINATE ROUTING OF PLUMBING, HVAC, AND ELECTRICAL WITH PME DRAWINGS, FIELD COORDINATE BET. TRADES.

REFERENCES

1. REFER TO A1 SHEETS FOR OVERALL FLOOR PLAN.
2. REFER TO A1 SHEETS FOR OVERALL DIMENSIONS AND WALL TYPES.
3. REFER TO A2 SHEETS FOR ENLARGED PLANS /DETAILS
4. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS.

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STATE OF OHIO
JONATHAN ROBERT SCHAAF
REGISTERED ARCHITECT

Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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OBERER COMPANIES
3445 Newmark Drive
Miamisburg, Ohio 45342

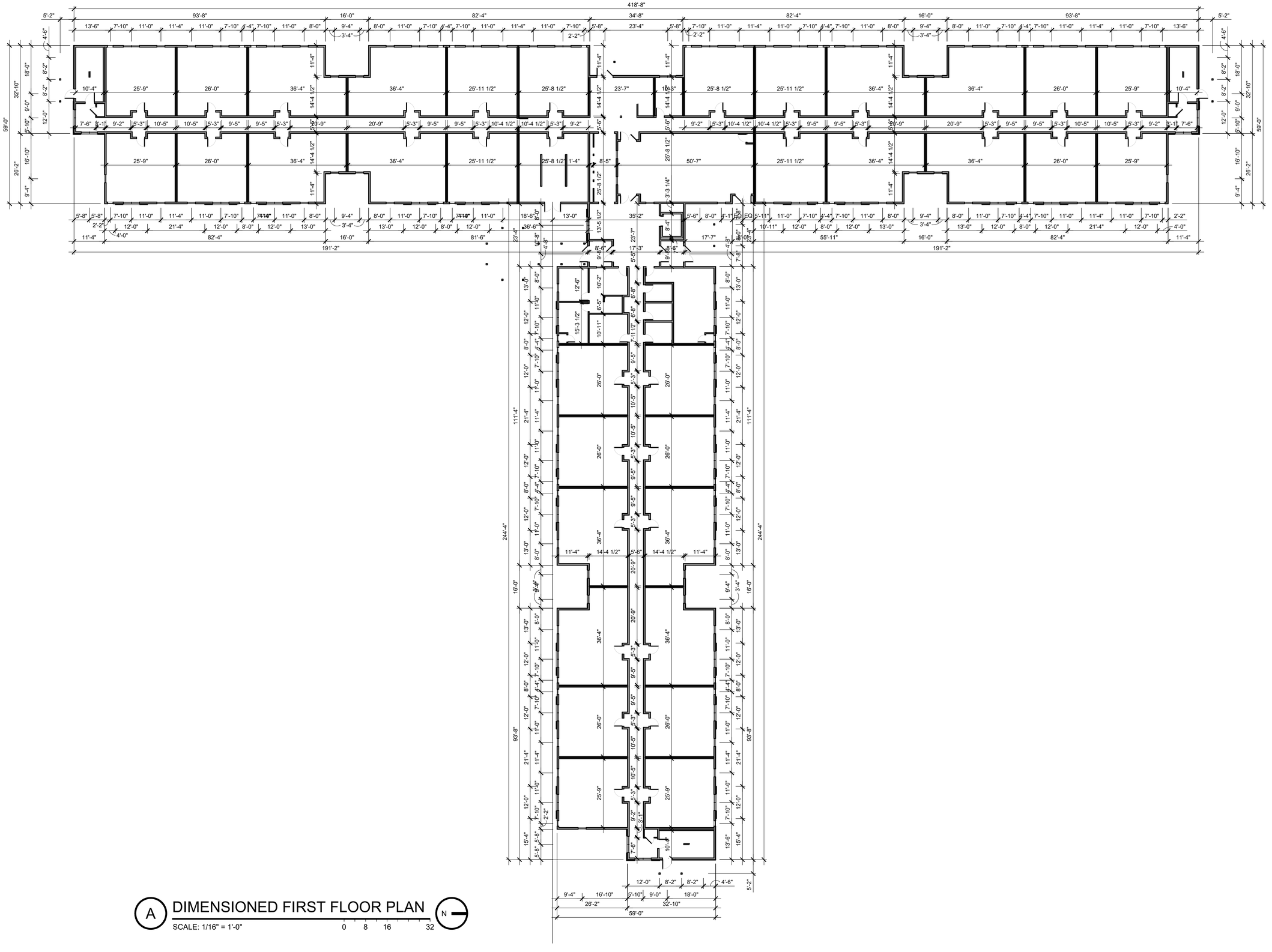
New Multi-Family Building:
Senior Village at Valle Greene
1155 Channingway Drive
Fairborn, Ohio 45324
OHFA Tracking Number: 24-0087

Project Number	2023-191
Date	September 13, 2024

Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
PROPOSED
FIRST FLOOR PLAN

Sheet Number
A1.11



A DIMENSIONED FIRST FLOOR PLAN

SCALE: 1/16" = 1'-0"

0 8 16 32

N

STATE OF OHIO
JONATHAN ROBERT SCHAAF
#14503
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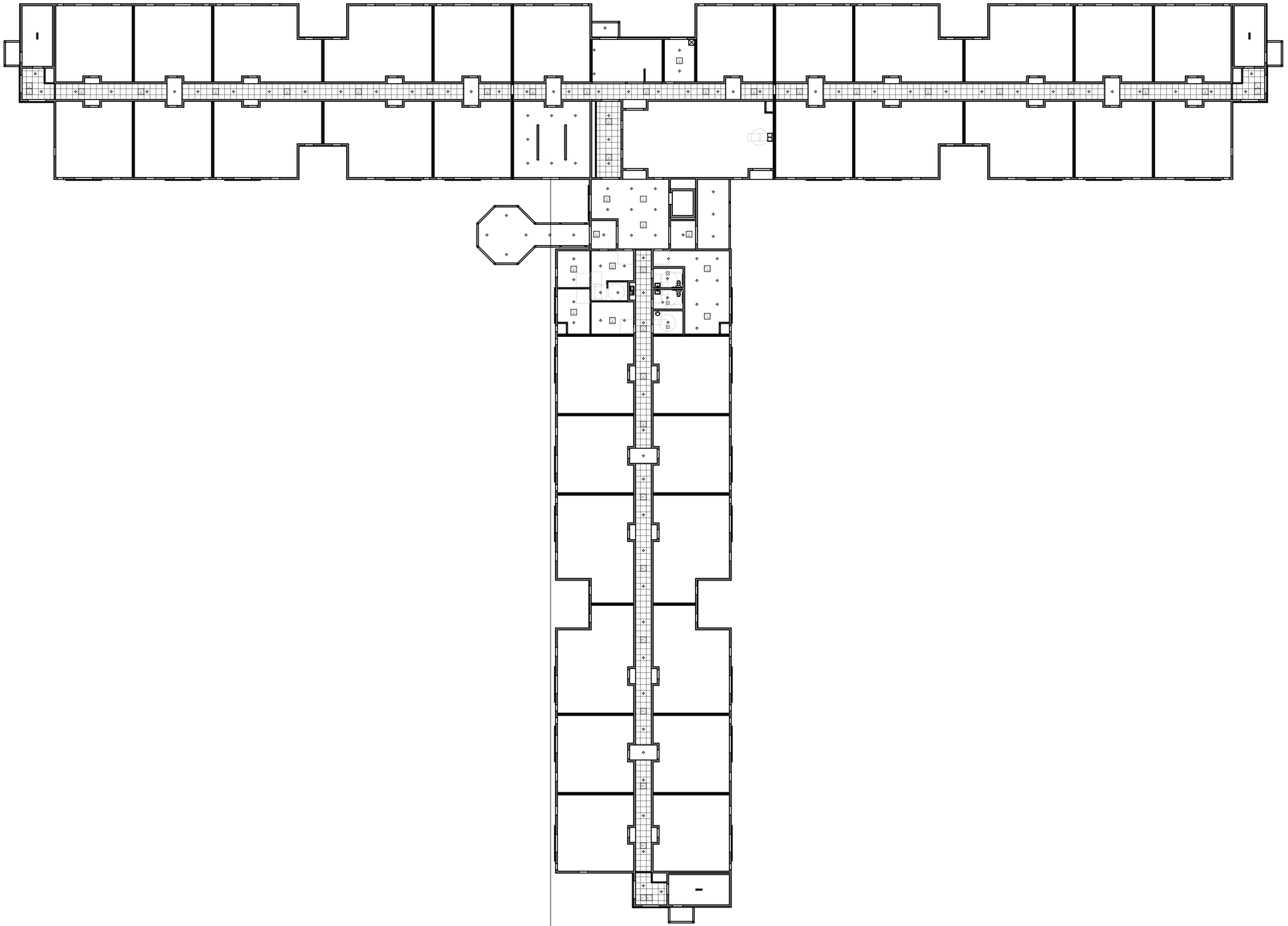
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
DIMENSIONED FIRST FLOOR PLAN

Sheet Number
A1.12



A FIRST FLOOR
REFLECTED CEILING PLAN
SCALE: 1/16" = 1'-0"
0 8 16 32
N

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14503
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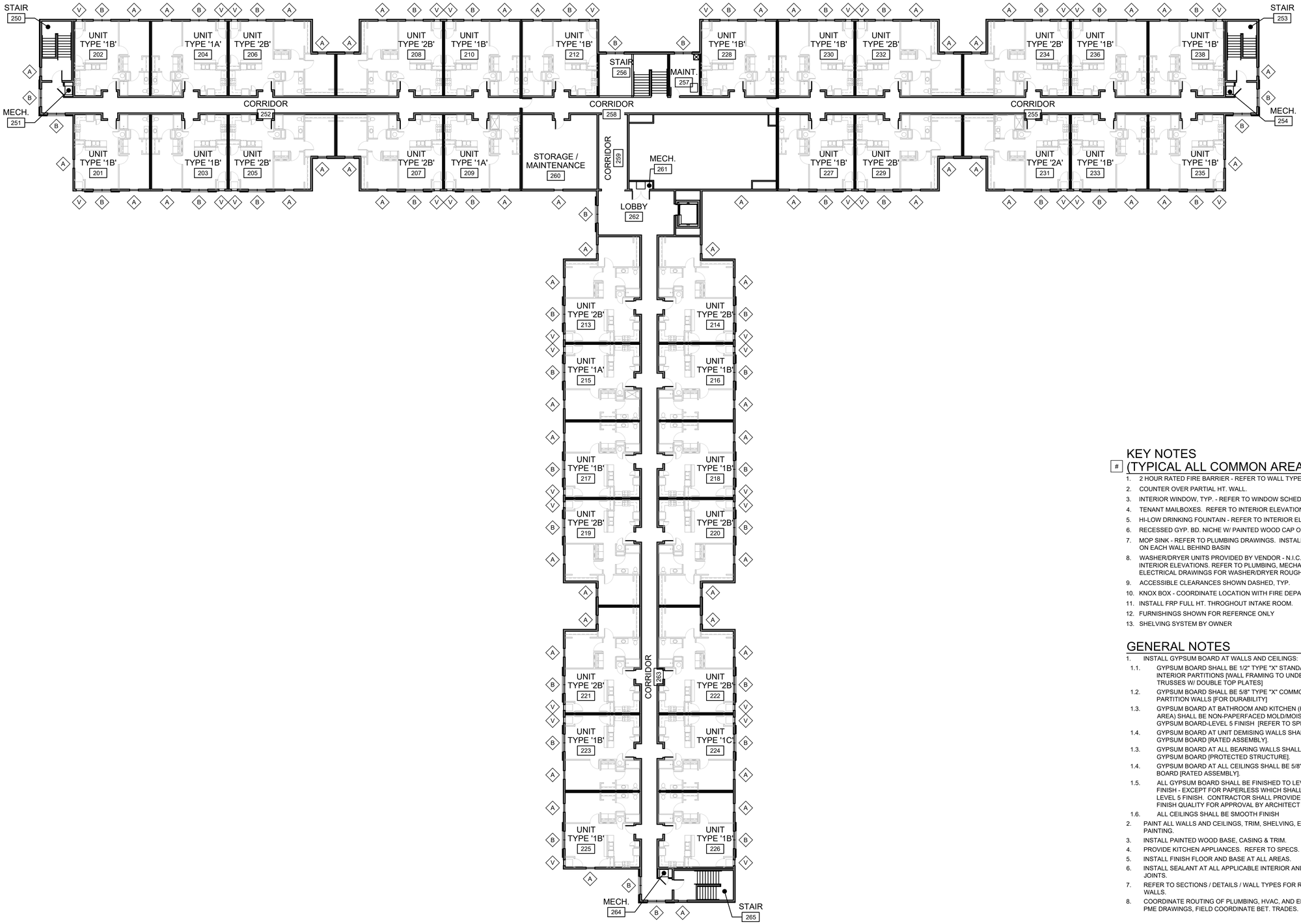
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
FIRST FLOOR
REFLECTED CEILING PLAN

Sheet Number
A1.13



A PROPOSED SECOND FLOOR PLAN

SCALE: 1/16" = 1'-0" 0 8 16 32

N

KEY NOTES (TYPICAL ALL COMMON AREAS)

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2. COUNTER OVER PARTIAL HT. WALL.
3. INTERIOR WINDOW, TYP. - REFER TO WINDOW SCHEDULE
4. TENANT MAILBOXES. REFER TO INTERIOR ELEVATIONS.
5. HI-LOW DRINKING FOUNTAIN - REFER TO INTERIOR ELEVATIONS
6. RECESSED GYP. BD. NICHE W/ PAINTED WOOD CAP ON BASE
7. MOP SINK - REFER TO PLUMBING DRAWINGS. INSTALL 48"x48" FRP ON ON EACH WALL BEHIND BASIN
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5. INSTALL FINISH FLOOR AND BASE AT ALL AREAS.
6. INSTALL SEALANT AT ALL APPLICABLE INTERIOR AND EXTERIOR JOINTS.
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2. REFER TO A1 SHEETS FOR OVERALL DIMENSIONS AND WALL TYPES.
3. REFER TO A2 SHEETS FOR ENLARGED PLANS /DETAILS
4. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS.

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14503
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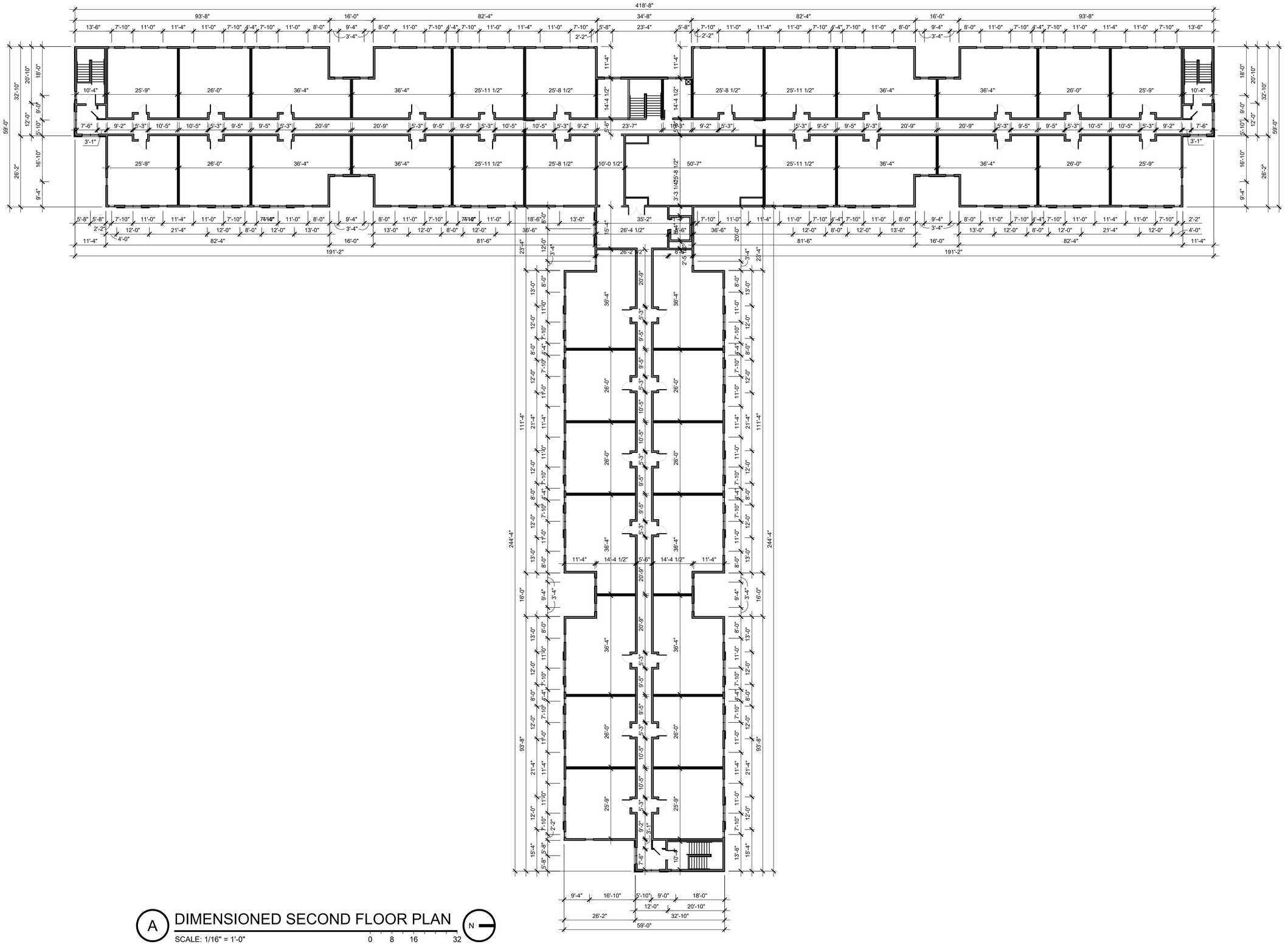
Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
PROPOSED SECOND FLOOR PLAN

Sheet Number
A1.21



A DIMENSIONED SECOND FLOOR PLAN

SCALE: 1/16" = 1'-0"

0 8 16 32

N

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08.30.24	Progress Set
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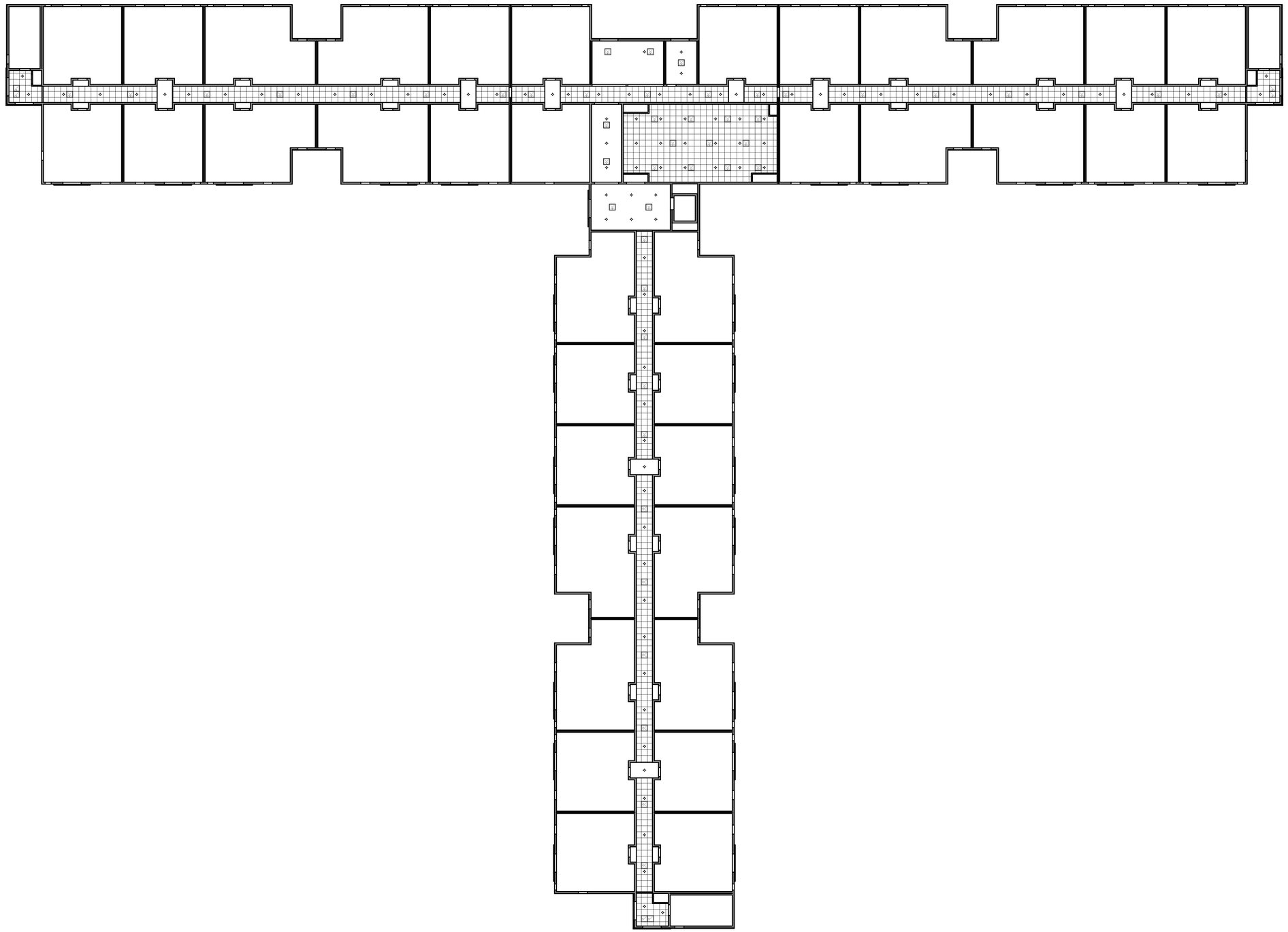
Sheet Title
DIMENSIONED SECOND FLOOR PLAN

Sheet Number
A1.22



A SECOND FLOOR
REFLECTED CEILING PLAN
SCALE: 1/16" = 1'-0"
0 8 16 32
N

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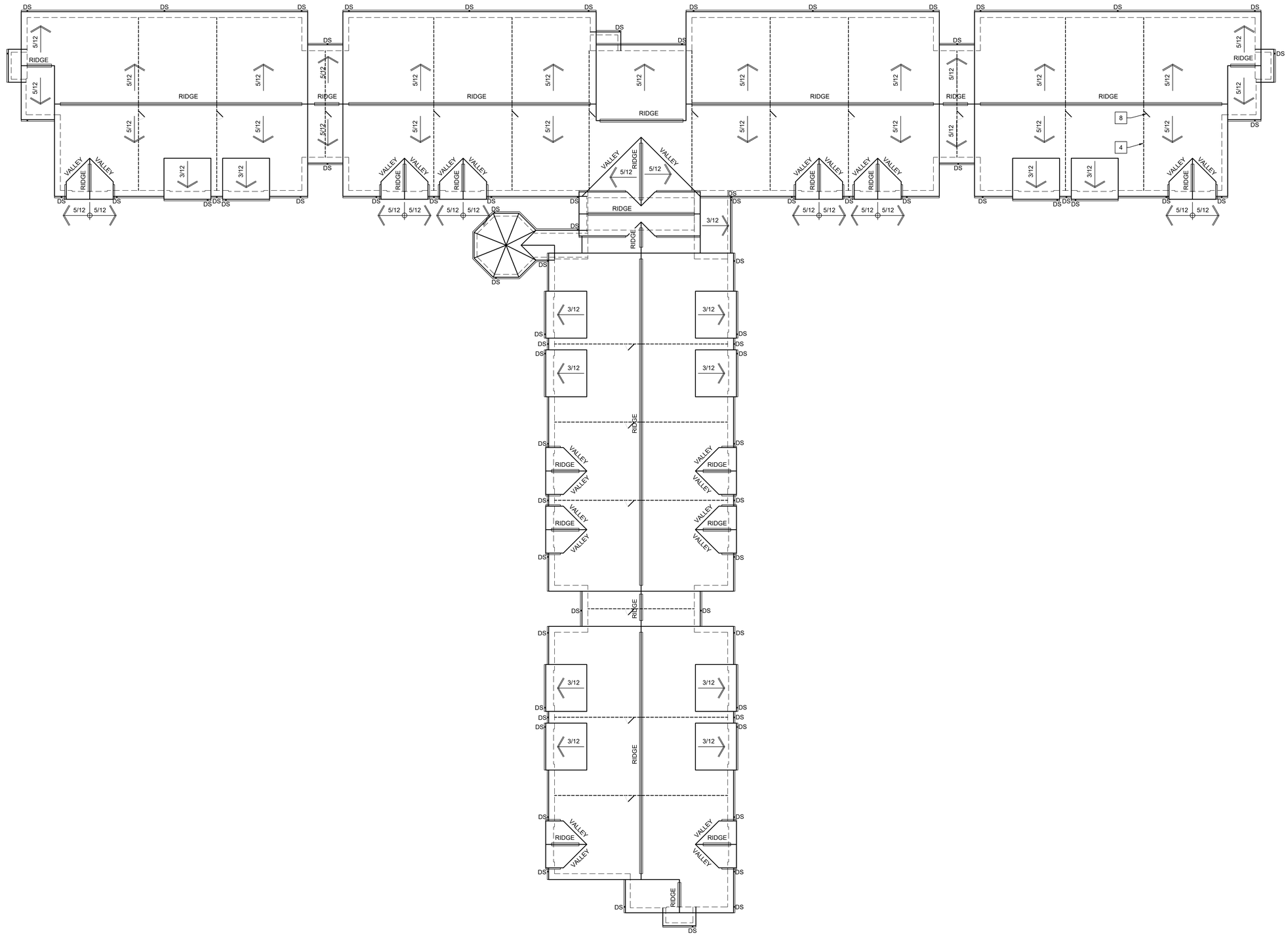
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
SECOND FLOOR
REFLECTED CEILING PLAN

Sheet Number
A1.23



A PROPOSED ROOF PLAN

SCALE: 1/16" = 1'-0" 0 8 16 32

N

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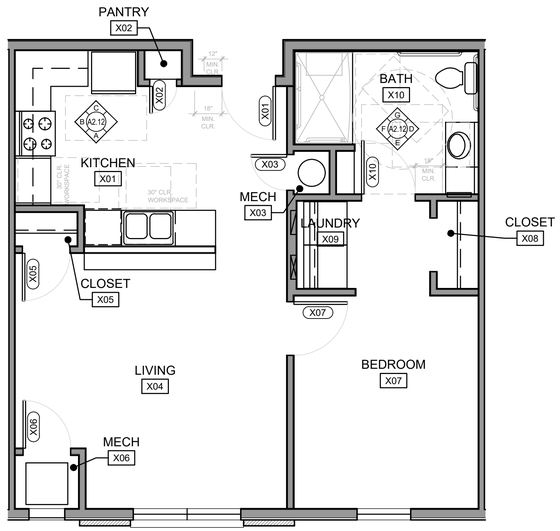
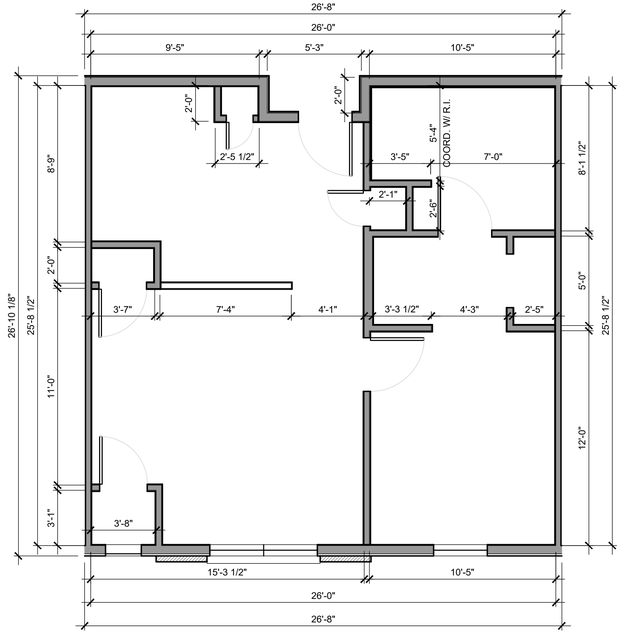
Sheet Title
PROPOSED ROOF PLAN

Sheet Number
A1.31



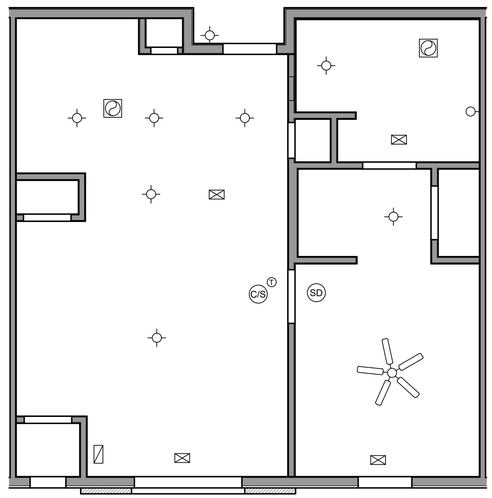
A UNIT TYPE '1A' FLOOR PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8



B UNIT TYPE '1A' DIMENSIONED PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8



C UNIT TYPE '1A' REFLECTED CEILING PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8

FLOOR PLAN KEY NOTES (TYPICAL ALL UNIT TYPES)

1. INTERIOR DOOR - REFER TO DOOR SCHEDULE
2. RATED EXTERIOR DOOR UNIT ENTRY - REFER TO DOOR SCHEDULE
3. 1 HOUR RATED TENANT DEMISING WALL - REFER TO WALL TYPES.
4. 1 HOUR RATED EXTERIOR WALL - REFER TO WALL TYPES.
5. WINDOW - REFER TO WINDOW SCHEDULE
6. PRE-MANUF. SHOWER AND SURROUND - REFER TO INTERIOR ELEVATIONS.
7. ACCESSIBLE PRE-MANUF. ROLL-IN SHOWER AND SURROUND - REFER TO INTERIOR ELEVATIONS
8. TUB WITH PRE-MANUF. SURROUND - REFER TO INTERIOR ELEVATIONS
9. KITCHEN CABINETS, COUNTERTOPS, AND APPLIANCES - REFER TO INTERIOR ELEVATIONS.
10. CLOSET ROD AND SHELF - MOUNT PER TYPICAL DETAILS.
11. SHELVING - MOUNT PER TYPICAL DETAILS.
12. PLUMBING FIXTURES AND ACCESSORIES - REFER TO INTERIOR ELEVATIONS.
13. [1] LAYER OF 1/2" GYPSUM BOARD OVER RATED WALL ASSEMBLY AT SURROUND. RATED WALL ASSEMBLY GYP. BD. EXTENDS BEHIND TUB/SHOWER
14. HVAC UNIT - REFER TO MECH. DRAWINGS.
15. WATER HEATER - REFER TO PLUMBING DRAWINGS
16. ELECTRIC LOAD CENTER - REFER TO ELECTRICAL DRAWINGS.
17. PARTIAL HT. WALL EXTENDS TO UNDERSIDE OF COUNTERTOP.
18. RECESSED MEDICINE CABINET - FRAME WALL TO ACCEPT.
19. WASHER/DRYER ROUGH-IN - REFER TO PLUMBING, MECHANICAL, ELECTRICAL DRAWINGS. WASHER/DRYER PROVIDED AND INSTALLED BY TENANT.
20. FLOOR DRAIN - REFER TO PLUMBING DWGS.
21. LOWER COUNTERTOP THIS AREA. SUPPORT W/ BRACKETS AT 36" 0.C.
22. ACCESSIBLE CLEARANCES SHOWN DASHED.
23. VOICE INTERACTIVE THERMOSTAT. REFER TO MECH. DRAWINGS.
24. AUDIBLE/VISUAL DOORBELL SYSTEM. REFER TO ELECT. DRAWING.
25. CONTRASTING COLOR PAINT SCHEME AS IDENTIFIED BY ARCHITECT.
26. PROVIDE STAINLESS STEEL ELECT. DEVICE COVERS WITH WHITE DEVICES.
27. INTAKE / EXHAUST LOUVER - REFER TO MECHANICAL DRAWINGS.

GENERAL NOTES

1. INSTALL GYPSUM BOARD AT WALLS AND CEILINGS:
   - 1.1. GYPSUM BOARD SHALL BE 1/2" STANDARD AT INTERIOR PARTITIONS (NON-RATED), UNLESS NOTED OTHERWISE.
   - 1.2. GYPSUM BOARD AT BATHROOM AND KITCHEN (HIGH MOISTURE AREA) SHALL BE PAPERLESS MOLD/MOISTURE RESISTANT GYPSUM BOARD-LEVEL 5 FINISH
   - 1.3. GYPSUM BOARD AT DEMISING WALLS SHALL BE 5/8" GYPSUM BOARD.
   - 1.4. ALL GYPSUM BOARD SHALL BE FINISHED TO LEVEL 4 QUALITY FINISH - EXCEPT FOR PAPERLESS WHICH SHALL BE FINISHED TO LEVEL 5 FINISH. CONTRACTOR SHALL PROVIDE A MOCKUP OF FINISH QUALITY FOR APPROVAL BY ARCHITECT / OWNER.
   - 1.5. ALL CEILING SHALL BE KNOCKDOWN STOMP FINISH - EXCEPT FOR BATHROOM (SMOOTH)
2. PAINT ALL WALLS AND CEILINGS, TRIM, SHELVING, ETC. THAT REQUIRE PAINTING.
3. INSTALL PAINTED WOOD BASE, CASING & TRIM.
4. PROVIDE KITCHEN APPLIANCES. REFER TO SPECS.
5. INSTALL FINISH FLOOR AND BASE AT ALL AREAS.
6. INSTALL SEALANT AT ALL APPLICABLE INTERIOR AND EXTERIOR JOINTS.
7. REFER TO SECTIONS / DETAILS / WALL TYPES FOR RATED SEPARATION WALLS.
8. COORDINATE ROUTING OF PLUMBING, HVAC, AND ELECTRICAL WITH PME DRAWINGS, FIELD COORDINATE BET. TRADES.

REFERENCES

1. REFER TO x FOR OVERALL FLOOR PLAN.
2. REFER TO x FOR OVERALL DIMENSIONS AND WALL TYPES.
3. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS.

CONFIRM LEFT/RIGHT CONFIGURATION WITH THE OVERALL FLOOR PLAN

REFER TO SHEET G1.04 FOR WALL TYPES.

REFER TO OVERALL FLOOR PLANS FOR WINDOW TYPES/LOCATION DIMS.

RCP KEY NOTES (TYPICAL ALL UNIT TYPES)

1. GYPSUM BOARD CEILING AT HEIGHT INDICATED.
2. EXHAUST FAN - REFER TO MECHANICAL DRAWINGS
3. SOFFIT THIS AREA TO CONCEAL DUCT FROM HOOD
4. LIGHT FIXTURE - REFER TO ELECTRICAL
5. INTERCONNECTED SMOKE DETECTORS. REFER TO ELECTRICAL DRAWINGS.
6. INTERCONNECTED SMOKE/CARBON MONOXIDE DETECTORS - REFER TO ELECTRICAL DRAWINGS
7. INTERCONNECTED AUDIBLE/VISUAL SMOKE DETECTORS. REFER TO ELECTRICAL DRAWINGS.
8. INTERCONNECTED AUDIBLE/VISUAL SMOKE/CARBON MONOXIDE DETECTORS - REFER TO ELECTRICAL DRAWINGS

REFLECTED CEILING PLAN - SYMBOL LEGEND

- SD — SMOKE DETECTOR - 120V W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- C/S — COMBINATION SMOKE/CO_2 DETECTOR - 120V W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXHAUST FAN - VENT DIRECT TO EXTERIOR - REFER TO MECHANICAL/ELECTRICAL DRAWINGS
- N — RETURN AIR DIFFUSER-CEILING MTD. - REFER TO MECHANICAL DRAWINGS
- N — SUPPLY AIR DIFFUSER-CEILING MTD. - REFER TO MECHANICAL DRAWINGS
- EMERGENCY LIGHT W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXIT SIGN / EMERGENCY LIGHT W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXIT SIGN W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- CEILING MTD. LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- WALL MTD. LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- CEILING FAN W/ LIGHT - REFER TO ELECTRICAL DRAWINGS

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7662 PARAGON ROAD | DAYTON, OH 45459 | 937.610.3440

OBERER COMPANIES
3445 Newmark Drive
Miamisburg, Ohio 45342

New Multi-Family Building:
Senior Village at Valle Greene
1155 Channingway Drive
Fairborn, Ohio 45324
OHFA Tracking Number: 24-0087

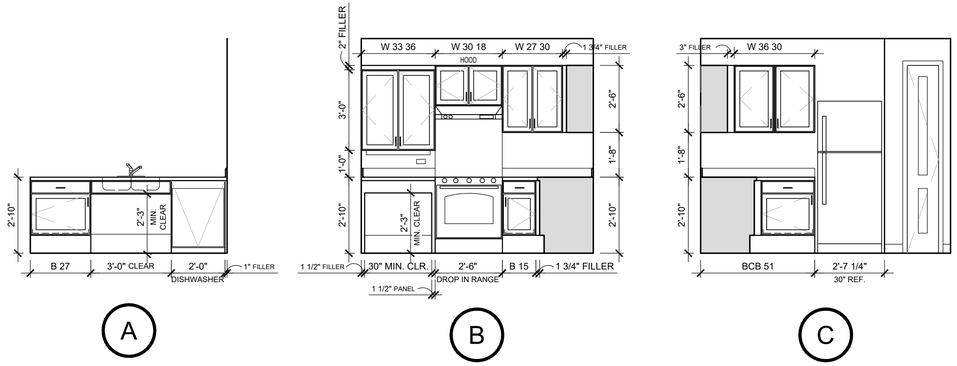
Project Number
2023-191

Date
September 13, 2024

Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
Unit Type '1A' Plans

Sheet Number
A2.11



INTERIOR ELEVATIONS

SCALE: 3/8" = 1'-0"

0 1 2 4

(#) INTERIOR ELEVATION KEY NOTES [TYPICAL ALL UNITS]

1. NON-PAPERFACED MOLD/MOISTURE/ABUSE RESISTANT GYP. BD. AT ALL WALLS AT ALL WALLS AND ENTIRE CEILING.
2. FIBERGLASS SHOWER BASE WITH CURB.
3. ACCESSIBLE FIBERGLASS ROLL IN SHOWER BASE.
4. FIBERGLASS SURROUND W/ INTEGRAL SOAP / SHAMPOO HOLDERS [GRAB BARS AS APPLICABLE].
5. WATER CLOSET
6. ACCESSIBLE WATER CLOSET. NOTE THAT LEVER SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.
7. BASE AS SCHEDULED.
8. BATHROOM ACCESSORIES, TYP. REFER TO SCHEDULE
9. ACCESSIBLE 22"DP. CULTURED MARBLE COUNTER W/ INTEGRAL BOWL SINK. MOUNTED ON FRAME/PRIVACY PANEL. LAVATORY FAUCET. ALL OUTSIDE CORNERS OF COUNTER TO BE RADISUED.
10. SLIDE BAR FOR HAND HELD SHOWER CONTROLS.
11. PRIVACY PANEL- FINISH GRADE STAINED WOOD PANEL TO MATCH KITCHEN CABINETS IN FINISH. REFER TO DETAILS
12. AREA FOR SHOWER CONTROLS.
13. STAINED WOOD PANEL, MATCH CABINETS.
14. DOOR-REFER TO DOOR SCHEDULE.
15. LIGHT FIXTURE-REFER TO ELECTRICAL DRAWINGS.
16. PROVIDE 2x8 BLOCKING WHERE AT ALL TOILET ACCESSORIES, TYPICAL. INCLUDING FUTURE GRAB BARS.
17. EXHAUST FAN/LIGHT/NIGHTLIGHT. REFER TO MECH./ELEC. DWG.
18. CULTURED MARBLE BACK/END SPLASH.
19. PAINTED GYPSUM BOARD WALL, TYP.
20. PLASTIC LAMINATE COUNTERTOP W/ 4" BACKSPLASH - ALL OUTSIDE CORNERS TO BE RADIUSED.
21. MICROWAVE / RANGE HOOD [RE-CIRC].
22. RANGE HOOD [RE-CIRC]
23. COUNTER TOP MICROWAVE UNIT. REFER TO SPECS.
24. RANGE WALL SPLASH PLATE AT WALL
25. STAINED TOE-KICK, MATCH CABINETS.
26. OPEN WORKSPACE. FINISH SIDES OF CABINET. PAINT GYP. BD. WALL AND INSTALL WOOD BASE BEYOND.
27. SLIDE OUT SHELVES AT ALL BASE CABINETS AND PANTRY CABINET.
28. RANGE - REFER TO SCHEDULE.
29. REFRIGERATOR - REFER TO SCHEDULE.
30. STAINED WOOD BASE AND WALL CABINETS, TYP.
31. WALL & BASE TILE
32. 48"X48" TACK BOARD
33. OPEN STORAGE SHELVING
34. COUNTERTOP SUPPORTS FINISHED TO MATCH CABINETS ON ALL EXPOSED FACES. SPACE AT 36" O.C. MAX.
35. BUILD PLATFORM, ETC. AS REQ'D FOR DROP IN RANGE.
36. DOUBLE BOWL STAINLESS STEEL SINK, FAUCET, SUPPLY/DRAIN PIPING. REFER TO PLUMBING DRAWINGS. F.V. DRAIN CONFIGURATION AS REQ'D FOR CLEARANCES.
37. 4" WIRE PULLS AT ALL DOORS/DRAWERS.
38. FINISH GRADE STAINED WOOD PRIVACY PANEL BELOW SINK TO CONCEAL SUPPLY AND DRAIN PIPING. CONFORM TO ADAAG REQUIREMENTS.
39. FINISH GRADE STAINED WOOD PANEL TO MATCH CABINETS.
40. SWITCH FOR RANGE HOOD CONTROLS. REFER TO ELECT. DWG.
41. CULTURED MARBLE COUNTER W/ INTEGRAL BOWL SINK MOUNTED ON STAINED WOOD VANITY. LAVATORY FAUCET.
42. FRONT LOAD MAILBOX UNIT.
43. FRP PANEL
44. ACCESSIBLE WALL HUNG LAVATORY WITH CONCEALED CARRIERS.
45. DRYER BOX, REFER TO MECHANICAL DRAWINGS.
46. WASHER BOX, REFER TO PLUMBING DRAWINGS.
47. SINGLE BOWL STAINLESS STEEL SINK, FAUCET, SUPPLY/DRAIN PIPING. REFER TO PLUMBING DRAWINGS. F.V. DRAIN CONFIGURATION AS REQ'D FOR CLEARANCES.
48. HIGH-LOW DRINKING FOUNTAIN W/ BOTTLE FILLER. REFER TO PLUMBING DRAWINGS.
49. WASHER - REFER TO SCHEDULE.
50. DRYER - REFER TO SCHEDULE.
51. RUBBER BASE
52. 1x PAINTED WOOD TRIM/CASING [4/6/8 AS APPLICABLE]
53. RECESSED GYP. BD. NICHE WITH WOOD CAP AT BASE
54. INTERIOR WINDOW - REFER TO SCHEDULE
55. UNIT SIGNAGE - REFER TO DETAIL
56. HAND HELD SHOWER CONTROL

STATE OF OHIO
JONATHAN ROBERT SCHAAF
#14503
REGISTERED ARCHITECT
PRELIMINARY NOT FOR CONSTRUCTION
Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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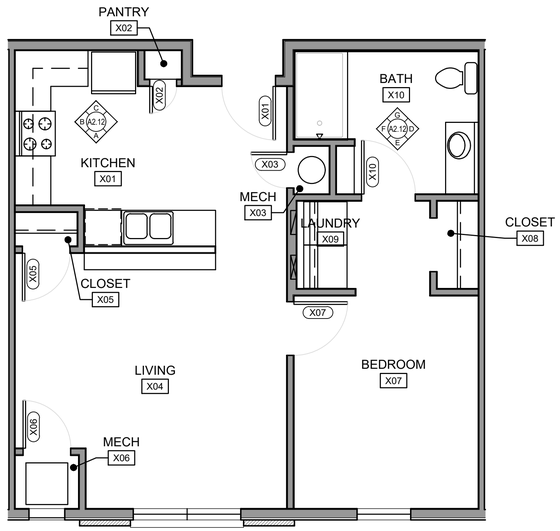
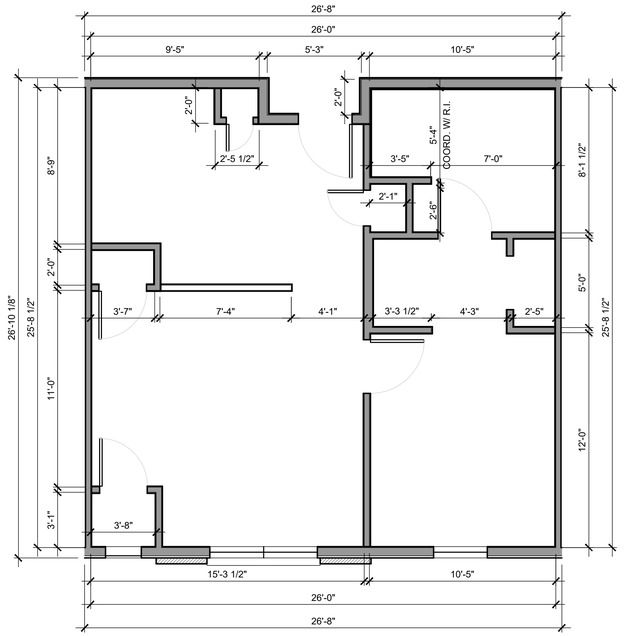
Sheet Title
Unit Type '1A'
Interior Elevations

Sheet Number
A2.12



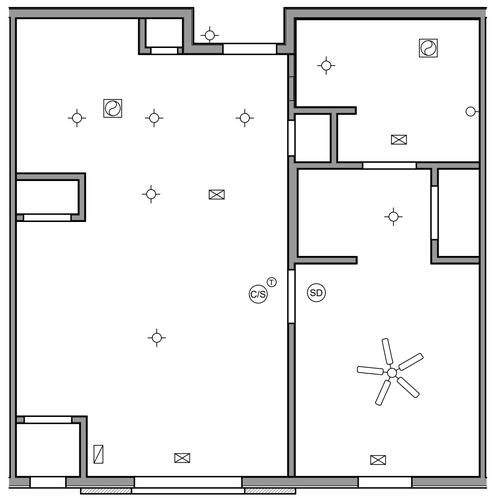
A UNIT TYPE '1B' FLOOR PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8



B UNIT TYPE '1B' DIMENSIONED PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8



C UNIT TYPE '1B' REFLECTED CEILING PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8

FLOOR PLAN KEY NOTES (TYPICAL ALL UNIT TYPES)

1. INTERIOR DOOR - REFER TO DOOR SCHEDULE
2. RATED EXTERIOR DOOR UNIT ENTRY - REFER TO DOOR SCHEDULE
3. 1 HOUR RATED TENANT DEMISING WALL - REFER TO WALL TYPES.
4. 1 HOUR RATED EXTERIOR WALL - REFER TO WALL TYPES.
5. WINDOW - REFER TO WINDOW SCHEDULE
6. PRE-MANUF. SHOWER AND SURROUND - REFER TO INTERIOR ELEVATIONS.
7. ACCESSIBLE PRE-MANUF. ROLL-IN SHOWER AND SURROUND - REFER TO INTERIOR ELEVATIONS
8. TUB WITH PRE-MANUF. SURROUND - REFER TO INTERIOR ELEVATIONS
9. KITCHEN CABINETS, COUNTERTOPS, AND APPLIANCES - REFER TO INTERIOR ELEVATIONS.
10. CLOSET ROD AND SHELF - MOUNT PER TYPICAL DETAILS.
11. SHELVING - MOUNT PER TYPICAL DETAILS.
12. PLUMBING FIXTURES AND ACCESSORIES - REFER TO INTERIOR ELEVATIONS.
13. [1] LAYER OF 1/2" GYPSUM BOARD OVER RATED WALL ASSEMBLY AT SURROUND. RATED WALL ASSEMBLY GYP. BD. EXTENDS BEHIND TUB/SHOWER
14. HVAC UNIT - REFER TO MECH. DRAWINGS.
15. WATER HEATER - REFER TO PLUMBING DRAWINGS
16. ELECTRIC LOAD CENTER - REFER TO ELECTRICAL DRAWINGS.
17. PARTIAL HT. WALL EXTENDS TO UNDERSIDE OF COUNTERTOP.
18. RECESSED MEDICINE CABINET - FRAME WALL TO ACCEPT.
19. WASHER/DRYER ROUGH-IN - REFER TO PLUMBING, MECHANICAL, ELECTRICAL DRAWINGS. WASHER/DRYER PROVIDED AND INSTALLED BY TENANT.
20. FLOOR DRAIN - REFER TO PLUMBING DWGS.
21. LOWER COUNTERTOP THIS AREA. SUPPORT W/ BRACKETS AT 36" 0.C.
22. ACCESSIBLE CLEARANCES SHOWN DASHED.
23. VOICE INTERACTIVE THERMOSTAT. REFER TO MECH. DRAWINGS.
24. AUDIBLE/VISUAL DOORBELL SYSTEM. REFER TO ELECT. DRAWING.
25. CONTRASTING COLOR PAINT SCHEME AS IDENTIFIED BY ARCHITECT.
26. PROVIDE STAINLESS STEEL ELECT. DEVICE COVERS WITH WHITE DEVICES.
27. INTAKE / EXHAUST LOUVER - REFER TO MECHANICAL DRAWINGS.

GENERAL NOTES

1. INSTALL GYPSUM BOARD AT WALLS AND CEILINGS:
   - 1.1. GYPSUM BOARD SHALL BE 1/2" STANDARD AT INTERIOR PARTITIONS (NON-RATED), UNLESS NOTED OTHERWISE.
   - 1.2. GYPSUM BOARD AT BATHROOM AND KITCHEN (HIGH MOISTURE AREA) SHALL BE PAPERLESS MOLD/MOISTURE RESISTANT GYPSUM BOARD-LEVEL 5 FINISH
   - 1.3. GYPSUM BOARD AT DEMISING WALLS SHALL BE 5/8" GYPSUM BOARD.
   - 1.4. ALL GYPSUM BOARD SHALL BE FINISHED TO LEVEL 4 QUALITY FINISH - EXCEPT FOR PAPERLESS WHICH SHALL BE FINISHED TO LEVEL 5 FINISH. CONTRACTOR SHALL PROVIDE A MOCKUP OF FINISH QUALITY FOR APPROVAL BY ARCHITECT / OWNER.
   - 1.5. ALL CEILING SHALL BE KNOCKDOWN STOMP FINISH - EXCEPT FOR BATHROOM (SMOOTH)
2. PAINT ALL WALLS AND CEILINGS, TRIM, SHELVING, ETC. THAT REQUIRE PAINTING.
3. INSTALL PAINTED WOOD BASE, CASING & TRIM.
4. PROVIDE KITCHEN APPLIANCES. REFER TO SPECS.
5. INSTALL FINISH FLOOR AND BASE AT ALL AREAS.
6. INSTALL SEALANT AT ALL APPLICABLE INTERIOR AND EXTERIOR JOINTS.
7. REFER TO SECTIONS / DETAILS / WALL TYPES FOR RATED SEPARATION WALLS.
8. COORDINATE ROUTING OF PLUMBING, HVAC, AND ELECTRICAL WITH PME DRAWINGS, FIELD COORDINATE BET. TRADES.

REFERENCES

1. REFER TO x FOR OVERALL FLOOR PLAN.
2. REFER TO x FOR OVERALL DIMENSIONS AND WALL TYPES.
3. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS.

CONFIRM LEFT/RIGHT CONFIGURATION WITH THE OVERALL FLOOR PLAN

REFER TO SHEET G1.04 FOR WALL TYPES.

REFER TO OVERALL FLOOR PLANS FOR WINDOW TYPES/LOCATION DIMS.

RCP KEY NOTES (TYPICAL ALL UNIT TYPES)

1. GYPSUM BOARD CEILING AT HEIGHT INDICATED.
2. EXHAUST FAN - REFER TO MECHANICAL DRAWINGS
3. SOFFIT THIS AREA TO CONCEAL DUCT FROM HOOD
4. LIGHT FIXTURE - REFER TO ELECTRICAL
5. INTERCONNECTED SMOKE DETECTORS. REFER TO ELECTRICAL DRAWINGS.
6. INTERCONNECTED SMOKE/CARBON MONOXIDE DETECTORS - REFER TO ELECTRICAL DRAWINGS
7. INTERCONNECTED AUDIBLE/VISUAL SMOKE DETECTORS. REFER TO ELECTRICAL DRAWINGS.
8. INTERCONNECTED AUDIBLE/VISUAL SMOKE/CARBON MONOXIDE DETECTORS - REFER TO ELECTRICAL DRAWINGS

REFLECTED CEILING PLAN - SYMBOL LEGEND

- SD — SMOKE DETECTOR - 120V W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- C/S — COMBINATION SMOKE/CO_2 DETECTOR - 120V W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXHAUST FAN - VENT DIRECT TO EXTERIOR - REFER TO MECHANICAL/ELECTRICAL DRAWINGS
- N — RETURN AIR DIFFUSER-CEILING MTD. - REFER TO MECHANICAL DRAWINGS
- N — SUPPLY AIR DIFFUSER-CEILING MTD. - REFER TO MECHANICAL DRAWINGS
- EMERGENCY LIGHT W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXIT SIGN / EMERGENCY LIGHT W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXIT SIGN W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- CEILING MTD. LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- WALL MTD. LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- CEILING FAN W/ LIGHT - REFER TO ELECTRICAL DRAWINGS

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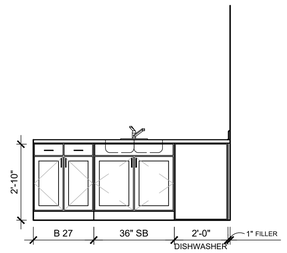

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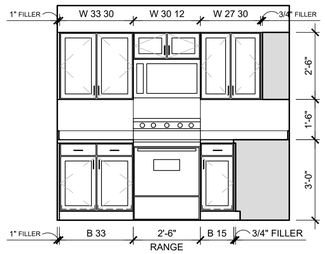

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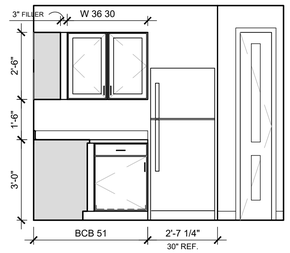

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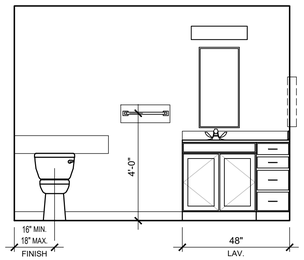

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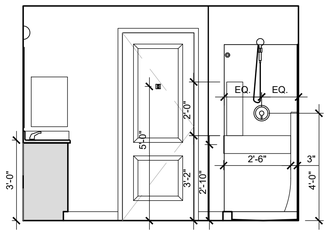

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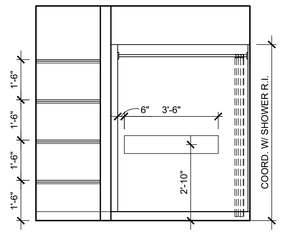

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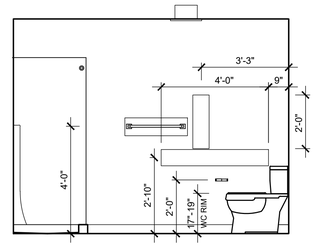

G

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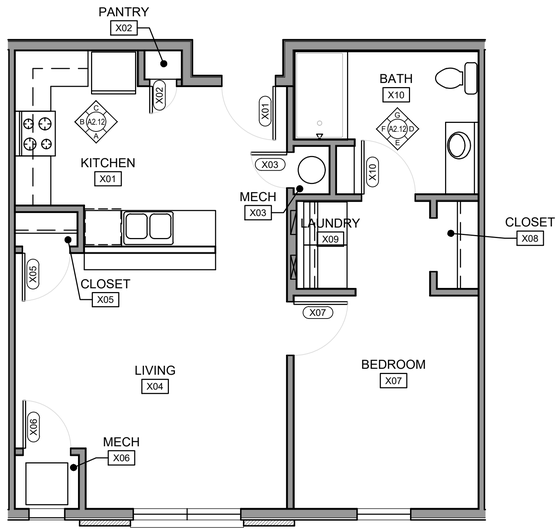
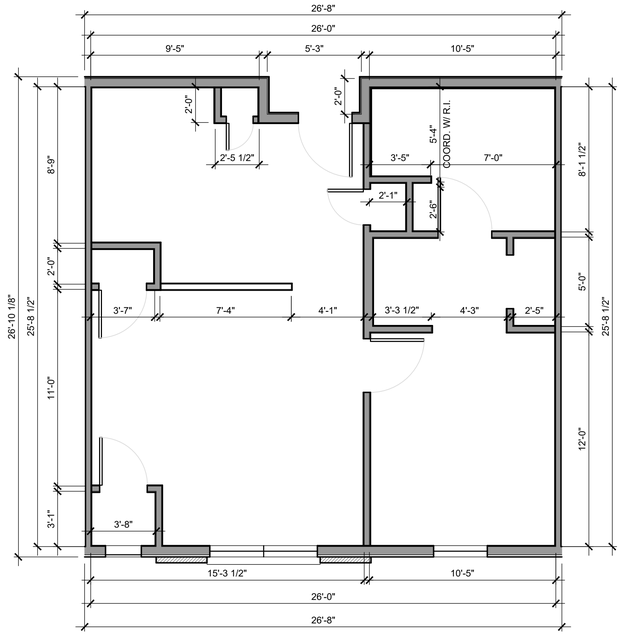


A UNIT TYPE '1C' FLOOR PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8



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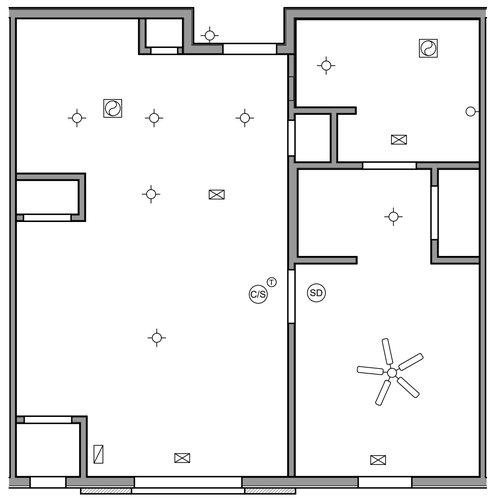

C UNIT TYPE '1C' REFLECTED CEILING PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8

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1. INTERIOR DOOR - REFER TO DOOR SCHEDULE
2. RATED EXTERIOR DOOR UNIT ENTRY - REFER TO DOOR SCHEDULE
3. 1 HOUR RATED TENANT DEMISING WALL - REFER TO WALL TYPES.
4. 1 HOUR RATED EXTERIOR WALL - REFER TO WALL TYPES.
5. WINDOW - REFER TO WINDOW SCHEDULE
6. PRE-MANUF. SHOWER AND SURROUND - REFER TO INTERIOR ELEVATIONS.
7. ACCESSIBLE PRE-MANUF. ROLL-IN SHOWER AND SURROUND - REFER TO INTERIOR ELEVATIONS
8. TUB WITH PRE-MANUF. SURROUND - REFER TO INTERIOR ELEVATIONS
9. KITCHEN CABINETS, COUNTERTOPS, AND APPLIANCES - REFER TO INTERIOR ELEVATIONS.
10. CLOSET ROD AND SHELF - MOUNT PER TYPICAL DETAILS.
11. SHELVING - MOUNT PER TYPICAL DETAILS.
12. PLUMBING FIXTURES AND ACCESSORIES - REFER TO INTERIOR ELEVATIONS.
13. [1] LAYER OF 1/2" GYPSUM BOARD OVER RATED WALL ASSEMBLY AT SURROUND. RATED WALL ASSEMBLY GYP. BD. EXTENDS BEHIND TUB/SHOWER
14. HVAC UNIT - REFER TO MECH. DRAWINGS.
15. WATER HEATER - REFER TO PLUMBING DRAWINGS
16. ELECTRIC LOAD CENTER - REFER TO ELECTRICAL DRAWINGS.
17. PARTIAL HT. WALL EXTENDS TO UNDERSIDE OF COUNTERTOP.
18. RECESSED MEDICINE CABINET - FRAME WALL TO ACCEPT.
19. WASHER/DRYER ROUGH-IN - REFER TO PLUMBING, MECHANICAL, ELECTRICAL DRAWINGS. WASHER/DRYER PROVIDED AND INSTALLED BY TENANT.
20. FLOOR DRAIN - REFER TO PLUMBING DWGS.
21. LOWER COUNTERTOP THIS AREA. SUPPORT W/ BRACKETS AT 36" 0.C.
22. ACCESSIBLE CLEARANCES SHOWN DASHED.
23. VOICE INTERACTIVE THERMOSTAT. REFER TO MECH. DRAWINGS.
24. AUDIBLE/VISUAL DOORBELL SYSTEM. REFER TO ELECT. DRAWING.
25. CONTRASTING COLOR PAINT SCHEME AS IDENTIFIED BY ARCHITECT.
26. PROVIDE STAINLESS STEEL ELECT. DEVICE COVERS WITH WHITE DEVICES.
27. INTAKE / EXHAUST LOUVER - REFER TO MECHANICAL DRAWINGS.

GENERAL NOTES

1. INSTALL GYPSUM BOARD AT WALLS AND CEILINGS:
   - 1.1. GYPSUM BOARD SHALL BE 1/2" STANDARD AT INTERIOR PARTITIONS (NON-RATED), UNLESS NOTED OTHERWISE.
   - 1.2. GYPSUM BOARD AT BATHROOM AND KITCHEN (HIGH MOISTURE AREA) SHALL BE PAPERLESS MOLD/MOISTURE RESISTANT GYPSUM BOARD-LEVEL 5 FINISH
   - 1.3. GYPSUM BOARD AT DEMISING WALLS SHALL BE 5/8" GYPSUM BOARD.
   - 1.4. ALL GYPSUM BOARD SHALL BE FINISHED TO LEVEL 4 QUALITY FINISH - EXCEPT FOR PAPERLESS WHICH SHALL BE FINISHED TO LEVEL 5 FINISH. CONTRACTOR SHALL PROVIDE A MOCKUP OF FINISH QUALITY FOR APPROVAL BY ARCHITECT / OWNER.
   - 1.5. ALL CEILING SHALL BE KNOCKDOWN STOMP FINISH - EXCEPT FOR BATHROOM (SMOOTH)
2. PAINT ALL WALLS AND CEILINGS, TRIM, SHELVING, ETC. THAT REQUIRE PAINTING.
3. INSTALL PAINTED WOOD BASE, CASING & TRIM.
4. PROVIDE KITCHEN APPLIANCES. REFER TO SPECS.
5. INSTALL FINISH FLOOR AND BASE AT ALL AREAS.
6. INSTALL SEALANT AT ALL APPLICABLE INTERIOR AND EXTERIOR JOINTS.
7. REFER TO SECTIONS / DETAILS / WALL TYPES FOR RATED SEPARATION WALLS.
8. COORDINATE ROUTING OF PLUMBING, HVAC, AND ELECTRICAL WITH PME DRAWINGS, FIELD COORDINATE BET. TRADES.

REFERENCES

1. REFER TO x FOR OVERALL FLOOR PLAN.
2. REFER TO x FOR OVERALL DIMENSIONS AND WALL TYPES.
3. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS.

CONFIRM LEFT/RIGHT CONFIGURATION WITH THE OVERALL FLOOR PLAN

REFER TO SHEET G1.04 FOR WALL TYPES.

REFER TO OVERALL FLOOR PLANS FOR WINDOW TYPES/LOCATION DIMS.

RCP KEY NOTES (TYPICAL ALL UNIT TYPES)

1. GYPSUM BOARD CEILING AT HEIGHT INDICATED.
2. EXHAUST FAN - REFER TO MECHANICAL DRAWINGS
3. SOFFIT THIS AREA TO CONCEAL DUCT FROM HOOD
4. LIGHT FIXTURE - REFER TO ELECTRICAL
5. INTERCONNECTED SMOKE DETECTORS. REFER TO ELECTRICAL DRAWINGS.
6. INTERCONNECTED SMOKE/CARBON MONOXIDE DETECTORS - REFER TO ELECTRICAL DRAWINGS
7. INTERCONNECTED AUDIBLE/VISUAL SMOKE DETECTORS. REFER TO ELECTRICAL DRAWINGS.
8. INTERCONNECTED AUDIBLE/VISUAL SMOKE/CARBON MONOXIDE DETECTORS - REFER TO ELECTRICAL DRAWINGS

REFLECTED CEILING PLAN - SYMBOL LEGEND

- SD — SMOKE DETECTOR - 120V W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- C/S — COMBINATION SMOKE/CO_2 DETECTOR - 120V W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXHAUST FAN - VENT DIRECT TO EXTERIOR - REFER TO MECHANICAL/ELECTRICAL DRAWINGS
- N — RETURN AIR DIFFUSER-CEILING MTD. - REFER TO MECHANICAL DRAWINGS
- N — SUPPLY AIR DIFFUSER-CEILING MTD. - REFER TO MECHANICAL DRAWINGS
- EMERGENCY LIGHT W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXIT SIGN / EMERGENCY LIGHT W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXIT SIGN W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- CEILING MTD. LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- WALL MTD. LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- CEILING FAN W/ LIGHT - REFER TO ELECTRICAL DRAWINGS

STATE OF OHIO · JONATHAN ROBERT SCHAAF · 14503 · REGISTERED ARCHITECT

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Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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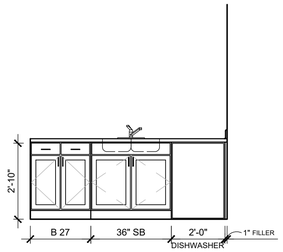
Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
Unit Type '1C' Plans

Sheet Number
A2.15



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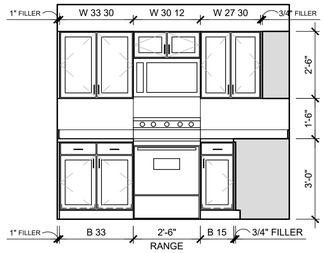

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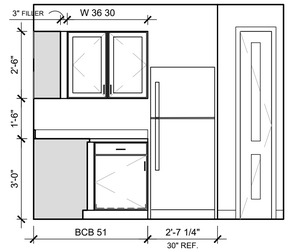
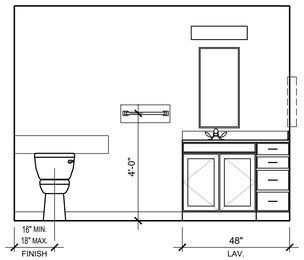


C

ADDITIONAL REQUIREMENTS	
1.1.	VOICE INTERACTIVE THERMOSTAT. REFER TO MECH. DRAWINGS.
1.2.	AUDIBLE/VISUAL DOORBELL SYSTEM. REFER TO ELECT. DRAWING.
1.3.	CONTRASTING COLOR PAINT SCHEME AS IDENTIFIED BY ARCHITECT.
1.4.	PROVIDE STAINLESS STEEL ELECT. DEVICE COVERS WITH WHITE DEVICES.



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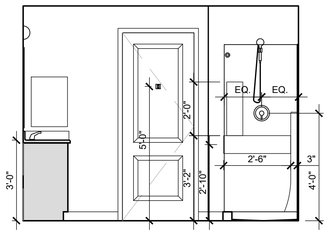

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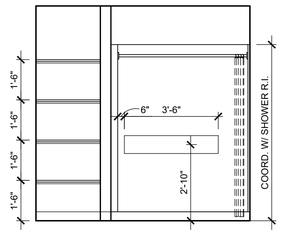

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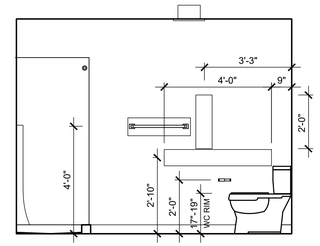

G

INTERIOR ELEVATIONS

SCALE: 3/8" = 1'-0"

0 1 2 4

(#) INTERIOR ELEVATION KEY NOTES [TYPICAL ALL UNITS]

1. NON-PAPERFACED MOLD/MOISTURE/ABUSE RESISTANT GYP. BD. AT ALL WALLS AT ALL WALLS AND ENTIRE CEILING.
2. FIBERGLASS SHOWER BASE WITH CURB.
3. ACCESSIBLE FIBERGLASS ROLL IN SHOWER BASE.
4. FIBERGLASS SURROUND W/ INTEGRAL SOAP / SHAMPOO HOLDERS [GRAB BARS AS APPLICABLE].
5. WATER CLOSET
6. ACCESSIBLE WATER CLOSET. NOTE THAT LEVER SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.
7. BASE AS SCHEDULED.
8. BATHROOM ACCESSORIES, TYP. REFER TO SCHEDULE
9. ACCESSIBLE 22"DP. CULTURED MARBLE COUNTER W/ INTEGRAL BOWL SINK. MOUNTED ON FRAME/PRIVACY PANEL. LAVATORY FAUCET. ALL OUTSIDE CORNERS OF COUNTER TO BE RADISUED.
10. SLIDE BAR FOR HAND HELD SHOWER CONTROLS.
11. PRIVACY PANEL- FINISH GRADE STAINED WOOD PANEL TO MATCH KITCHEN CABINETS IN FINISH. REFER TO DETAILS
12. AREA FOR SHOWER CONTROLS.
13. STAINED WOOD PANEL, MATCH CABINETS.
14. DOOR-REFER TO DOOR SCHEDULE.
15. LIGHT FIXTURE-REFER TO ELECTRICAL DRAWINGS.
16. PROVIDE 2x8 BLOCKING WHERE AT ALL TOILET ACCESSORIES, TYPICAL. INCLUDING FUTURE GRAB BARS.
17. EXHAUST FAN/LIGHT/NIGHTLIGHT. REFER TO MECH./ELEC. DWG.
18. CULTURED MARBLE BACK/END SPLASH.
19. PAINTED GYPSUM BOARD WALL, TYP.
20. PLASTIC LAMINATE COUNTERTOP W/ 4" BACKSPLASH - ALL OUTSIDE CORNERS TO BE RADIUSED.
21. MICROWAVE / RANGE HOOD [RE-CIRC].
22. RANGE HOOD [RE-CIRC]
23. COUNTER TOP MICROWAVE UNIT. REFER TO SPECS.
24. RANGE WALL SPLASH PLATE AT WALL
25. STAINED TOE-KICK, MATCH CABINETS.
26. OPEN WORKSPACE. FINISH SIDES OF CABINET. PAINT GYP. BD. WALL AND INSTALL WOOD BASE BEYOND.
27. SLIDE OUT SHELVES AT ALL BASE CABINETS AND PANTRY CABINET.
28. RANGE - REFER TO SCHEDULE.
29. REFRIGERATOR - REFER TO SCHEDULE.
30. STAINED WOOD BASE AND WALL CABINETS, TYP.
31. WALL & BASE TILE
32. 48"X48" TACK BOARD
33. OPEN STORAGE SHELVING
34. COUNTERTOP SUPPORTS FINISHED TO MATCH CABINETS ON ALL EXPOSED FACES. SPACE AT 36" O.C. MAX.
35. BUILD PLATFORM, ETC. AS REQ'D FOR DROP IN RANGE.
36. DOUBLE BOWL STAINLESS STEEL SINK, FAUCET, SUPPLY/DRAIN PIPING. REFER TO PLUMBING DRAWINGS. F.V. DRAIN CONFIGURATION AS REQ'D FOR CLEARANCES.
37. 4" WIRE PULLS AT ALL DOORS/DRAWERS.
38. FINISH GRADE STAINED WOOD PRIVACY PANEL BELOW SINK TO CONCEAL SUPPLY AND DRAIN PIPING. CONFORM TO ADAAG REQUIREMENTS.
39. FINISH GRADE STAINED WOOD PANEL TO MATCH CABINETS.
40. SWITCH FOR RANGE HOOD CONTROLS. REFER TO ELECT. DWG.
41. CULTURED MARBLE COUNTER W/ INTEGRAL BOWL SINK MOUNTED ON STAINED WOOD VANITY. LAVATORY FAUCET.
42. FRONT LOAD MAILBOX UNIT.
43. FRP PANEL
44. ACCESSIBLE WALL HUNG LAVATORY WITH CONCEALED CARRIERS.
45. DRYER BOX, REFER TO MECHANICAL DRAWINGS.
46. WASHER BOX, REFER TO PLUMBING DRAWINGS.
47. SINGLE BOWL STAINLESS STEEL SINK, FAUCET, SUPPLY/DRAIN PIPING. REFER TO PLUMBING DRAWINGS. F.V. DRAIN CONFIGURATION AS REQ'D FOR CLEARANCES.
48. HIGH-LOW DRINKING FOUNTAIN W/ BOTTLE FILLER. REFER TO PLUMBING DRAWINGS.
49. WASHER - REFER TO SCHEDULE.
50. DRYER - REFER TO SCHEDULE.
51. RUBBER BASE
52. 1x PAINTED WOOD TRIM/CASING [4/6/8 AS APPLICABLE]
53. RECESSED GYP. BD. NICHE WITH WOOD CAP AT BASE
54. INTERIOR WINDOW - REFER TO SCHEDULE
55. UNIT SIGNAGE - REFER TO DETAIL
56. HAND HELD SHOWER CONTROL

STATE OF OHIO
JONATHAN ROBERT SCHAAF
14503
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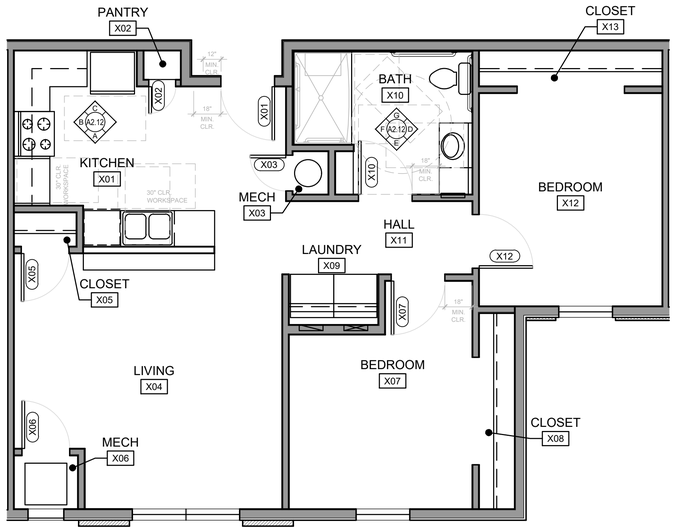
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

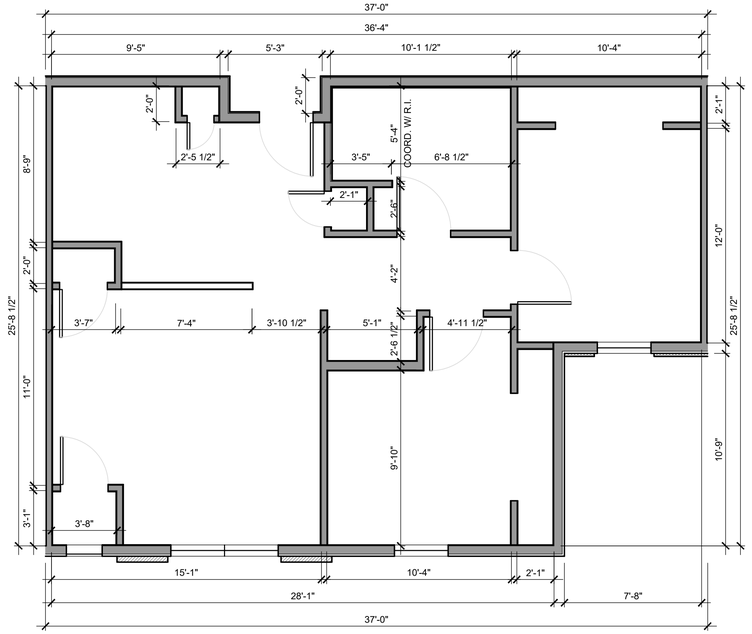
Sheet Title
Unit Type '1C'
Interior Elevations

Sheet Number
A2.16



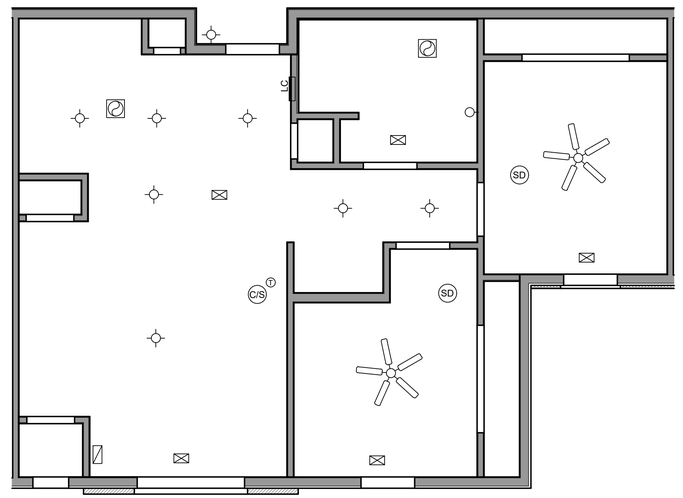
A UNIT TYPE '2A' FLOOR PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8



B UNIT TYPE '2A' DIMENSIONED PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8



C UNIT TYPE '2A' REFLECTED CEILING PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8

FLOOR PLAN KEY NOTES (TYPICAL ALL UNIT TYPES)

1. INTERIOR DOOR - REFER TO DOOR SCHEDULE
2. RATED EXTERIOR DOOR UNIT ENTRY - REFER TO DOOR SCHEDULE
3. 1 HOUR RATED TENANT DEMISING WALL - REFER TO WALL TYPES.
4. 1 HOUR RATED EXTERIOR WALL - REFER TO WALL TYPES.
5. WINDOW - REFER TO WINDOW SCHEDULE
6. PRE-MANUF. SHOWER AND SURROUND - REFER TO INTERIOR ELEVATIONS.
7. ACCESSIBLE PRE-MANUF. ROLL-IN SHOWER AND SURROUND - REFER TO INTERIOR ELEVATIONS
8. TUB WITH PRE-MANUF. SURROUND - REFER TO INTERIOR ELEVATIONS
9. KITCHEN CABINETS, COUNTERTOPS, AND APPLIANCES - REFER TO INTERIOR ELEVATIONS.
10. CLOSET ROD AND SHELF - MOUNT PER TYPICAL DETAILS.
11. SHELVING - MOUNT PER TYPICAL DETAILS.
12. PLUMBING FIXTURES AND ACCESSORIES - REFER TO INTERIOR ELEVATIONS.
13. [1] LAYER OF 1/2" GYPSUM BOARD OVER RATED WALL ASSEMBLY AT SURROUND. RATED WALL ASSEMBLY GYP. BD. EXTENDS BEHIND TUB/SHOWER
14. HVAC UNIT - REFER TO MECH. DRAWINGS.
15. WATER HEATER - REFER TO PLUMBING DRAWINGS
16. ELECTRIC LOAD CENTER - REFER TO ELECTRICAL DRAWINGS.
17. PARTIAL HT. WALL EXTENDS TO UNDERSIDE OF COUNTERTOP.
18. RECESSED MEDICINE CABINET - FRAME WALL TO ACCEPT.
19. WASHER/DRYER ROUGH-IN - REFER TO PLUMBING, MECHANICAL, ELECTRICAL DRAWINGS. WASHER/DRYER PROVIDED AND INSTALLED BY TENANT.
20. FLOOR DRAIN - REFER TO PLUMBING DWGS.
21. LOWER COUNTERTOP THIS AREA. SUPPORT W/ BRACKETS AT 36" 0.C.
22. ACCESSIBLE CLEARANCES SHOWN DASHED.
23. VOICE INTERACTIVE THERMOSTAT. REFER TO MECH. DRAWINGS.
24. AUDIBLE/VISUAL DOORBELL SYSTEM. REFER TO ELECT. DRAWING.
25. CONTRASTING COLOR PAINT SCHEME AS IDENTIFIED BY ARCHITECT.
26. PROVIDE STAINLESS STEEL ELECT. DEVICE COVERS WITH WHITE DEVICES.
27. INTAKE / EXHAUST LOUVER - REFER TO MECHANICAL DRAWINGS.

GENERAL NOTES

1. INSTALL GYPSUM BOARD AT WALLS AND CEILINGS:
   - 1.1. GYPSUM BOARD SHALL BE 1/2" STANDARD AT INTERIOR PARTITIONS (NON-RATED), UNLESS NOTED OTHERWISE.
   - 1.2. GYPSUM BOARD AT BATHROOM AND KITCHEN (HIGH MOISTURE AREA) SHALL BE PAPERLESS MOLD/MOISTURE RESISTANT GYPSUM BOARD-LEVEL 5 FINISH
   - 1.3. GYPSUM BOARD AT DEMISING WALLS SHALL BE 5/8" GYPSUM BOARD.
   - 1.4. ALL GYPSUM BOARD SHALL BE FINISHED TO LEVEL 4 QUALITY FINISH - EXCEPT FOR PAPERLESS WHICH SHALL BE FINISHED TO LEVEL 5 FINISH. CONTRACTOR SHALL PROVIDE A MOCKUP OF FINISH QUALITY FOR APPROVAL BY ARCHITECT / OWNER.
   - 1.5. ALL CEILING SHALL BE KNOCKDOWN STOMP FINISH - EXCEPT FOR BATHROOM (SMOOTH)
2. PAINT ALL WALLS AND CEILINGS, TRIM, SHELVING, ETC. THAT REQUIRE PAINTING.
3. INSTALL PAINTED WOOD BASE, CASING & TRIM.
4. PROVIDE KITCHEN APPLIANCES. REFER TO SPECS.
5. INSTALL FINISH FLOOR AND BASE AT ALL AREAS.
6. INSTALL SEALANT AT ALL APPLICABLE INTERIOR AND EXTERIOR JOINTS.
7. REFER TO SECTIONS / DETAILS / WALL TYPES FOR RATED SEPARATION WALLS.
8. COORDINATE ROUTING OF PLUMBING, HVAC, AND ELECTRICAL WITH PME DRAWINGS, FIELD COORDINATE BET. TRADES.

REFERENCES

1. REFER TO x FOR OVERALL FLOOR PLAN.
2. REFER TO x FOR OVERALL DIMENSIONS AND WALL TYPES.
3. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS.

CONFIRM LEFT/RIGHT CONFIGURATION WITH THE OVERALL FLOOR PLAN

REFER TO SHEET G1.04 FOR WALL TYPES.

REFER TO OVERALL FLOOR PLANS FOR WINDOW TYPES/LOCATION DIMS.

RCP KEY NOTES (TYPICAL ALL UNIT TYPES)

1. GYPSUM BOARD CEILING AT HEIGHT INDICATED.
2. EXHAUST FAN - REFER TO MECHANICAL DRAWINGS
3. SOFFIT THIS AREA TO CONCEAL DUCT FROM HOOD
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- EMERGENCY LIGHT W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXIT SIGN / EMERGENCY LIGHT W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXIT SIGN W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- CEILING MTD. LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- WALL MTD. LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- CEILING FAN W/ LIGHT - REFER TO ELECTRICAL DRAWINGS

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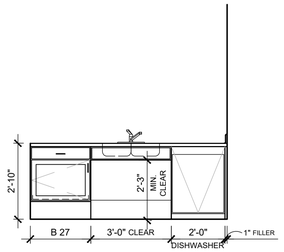
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
Unit Type '2A' Plans

Sheet Number
A2.21



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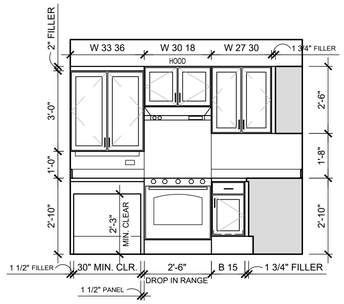

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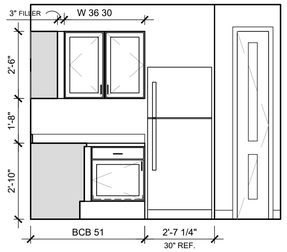

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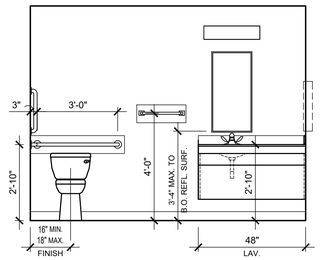

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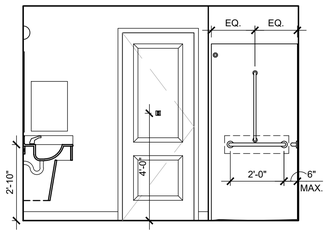

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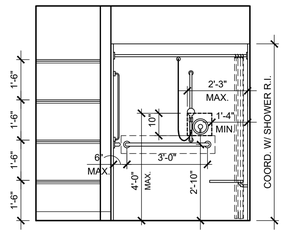

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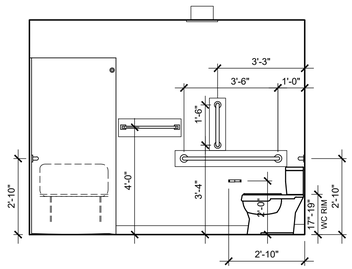

G

INTERIOR ELEVATIONS

SCALE: 3/8" = 1'-0"

0 1 2 4

(#) INTERIOR ELEVATION KEY NOTES [TYPICAL ALL UNITS]

1. NON-PAPERFACED MOLD/MOISTURE/ABUSE RESISTANT GYP. BD. AT ALL WALLS AT ALL WALLS AND ENTIRE CEILING.
2. FIBERGLASS SHOWER BASE WITH CURB.
3. ACCESSIBLE FIBERGLASS ROLL IN SHOWER BASE.
4. FIBERGLASS SURROUND W/ INTEGRAL SOAP / SHAMPOO HOLDERS [GRAB BARS AS APPLICABLE].
5. WATER CLOSET
6. ACCESSIBLE WATER CLOSET. NOTE THAT LEVER SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.
7. BASE AS SCHEDULED.
8. BATHROOM ACCESSORIES, TYP. REFER TO SCHEDULE
9. ACCESSIBLE 22"DP. CULTURED MARBLE COUNTER W/ INTEGRAL BOWL SINK. MOUNTED ON FRAME/PRIVACY PANEL. LAVATORY FAUCET. ALL OUTSIDE CORNERS OF COUNTER TO BE RADISUED.
10. SLIDE BAR FOR HAND HELD SHOWER CONTROLS.
11. PRIVACY PANEL- FINISH GRADE STAINED WOOD PANEL TO MATCH KITCHEN CABINETS IN FINISH. REFER TO DETAILS
12. AREA FOR SHOWER CONTROLS.
13. STAINED WOOD PANEL, MATCH CABINETS.
14. DOOR-REFER TO DOOR SCHEDULE.
15. LIGHT FIXTURE-REFER TO ELECTRICAL DRAWINGS.
16. PROVIDE 2x8 BLOCKING WHERE AT ALL TOILET ACCESSORIES, TYPICAL. INCLUDING FUTURE GRAB BARS.
17. EXHAUST FAN/LIGHT/NIGHTLIGHT. REFER TO MECH./ELEC. DWG.
18. CULTURED MARBLE BACK/END SPLASH.
19. PAINTED GYPSUM BOARD WALL, TYP.
20. PLASTIC LAMINATE COUNTERTOP W/ 4" BACKSPLASH - ALL OUTSIDE CORNERS TO BE RADIUSED.
21. MICROWAVE / RANGE HOOD [RE-CIRC].
22. RANGE HOOD [RE-CIRC]
23. COUNTER TOP MICROWAVE UNIT. REFER TO SPECS.
24. RANGE WALL SPLASH PLATE AT WALL
25. STAINED TOE-KICK, MATCH CABINETS.
26. OPEN WORKSPACE. FINISH SIDES OF CABINET. PAINT GYP. BD. WALL AND INSTALL WOOD BASE BEYOND.
27. SLIDE OUT SHELVES AT ALL BASE CABINETS AND PANTRY CABINET.
28. RANGE - REFER TO SCHEDULE.
29. REFRIGERATOR - REFER TO SCHEDULE.
30. STAINED WOOD BASE AND WALL CABINETS, TYP.
31. WALL & BASE TILE
32. 48"X48" TACK BOARD
33. OPEN STORAGE SHELVING
34. COUNTERTOP SUPPORTS FINISHED TO MATCH CABINETS ON ALL EXPOSED FACES. SPACE AT 36" O.C. MAX.
35. BUILD PLATFORM, ETC. AS REQ'D FOR DROP IN RANGE.
36. DOUBLE BOWL STAINLESS STEEL SINK, FAUCET, SUPPLY/DRAIN PIPING. REFER TO PLUMBING DRAWINGS. F.V. DRAIN CONFIGURATION AS REQ'D FOR CLEARANCES.
37. 4" WIRE PULLS AT ALL DOORS/DRAWERS.
38. FINISH GRADE STAINED WOOD PRIVACY PANEL BELOW SINK TO CONCEAL SUPPLY AND DRAIN PIPING. CONFORM TO ADAAG REQUIREMENTS.
39. FINISH GRADE STAINED WOOD PANEL TO MATCH CABINETS.
40. SWITCH FOR RANGE HOOD CONTROLS. REFER TO ELECT. DWG.
41. CULTURED MARBLE COUNTER W/ INTEGRAL BOWL SINK MOUNTED ON STAINED WOOD VANITY. LAVATORY FAUCET.
42. FRONT LOAD MAILBOX UNIT.
43. FRP PANEL
44. ACCESSIBLE WALL HUNG LAVATORY WITH CONCEALED CARRIERS.
45. DRYER BOX, REFER TO MECHANICAL DRAWINGS.
46. WASHER BOX, REFER TO PLUMBING DRAWINGS.
47. SINGLE BOWL STAINLESS STEEL SINK, FAUCET, SUPPLY/DRAIN PIPING. REFER TO PLUMBING DRAWINGS. F.V. DRAIN CONFIGURATION AS REQ'D FOR CLEARANCES.
48. HIGH-LOW DRINKING FOUNTAIN W/ BOTTLE FILLER. REFER TO PLUMBING DRAWINGS.
49. WASHER - REFER TO SCHEDULE.
50. DRYER - REFER TO SCHEDULE.
51. RUBBER BASE
52. 1x PAINTED WOOD TRIM/CASING [4/6/8 AS APPLICABLE]
53. RECESSED GYP. BD. NICHE WITH WOOD CAP AT BASE
54. INTERIOR WINDOW - REFER TO SCHEDULE
55. UNIT SIGNAGE - REFER TO DETAIL
56. HAND HELD SHOWER CONTROL

STATE OF OHIO
JONATHAN ROBERT SCHAAF
14503
REGISTERED ARCHITECT
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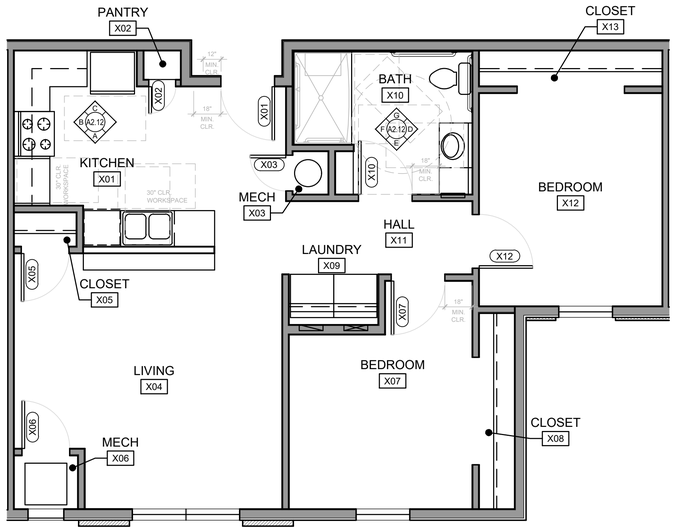
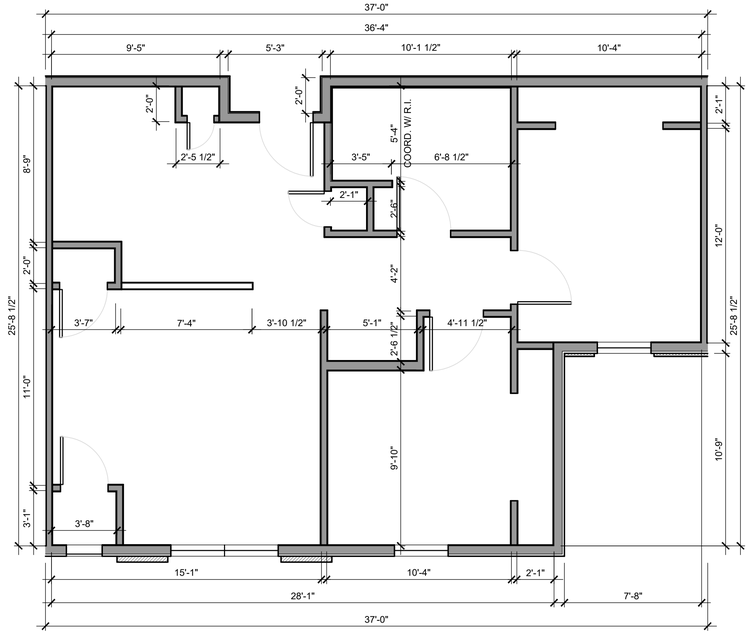
Sheet Title
Unit Type '2A'
Interior Elevations

Sheet Number
A2.22



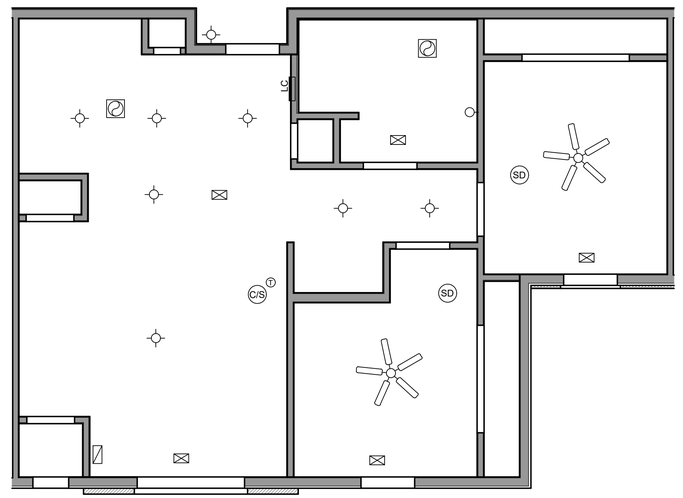
A UNIT TYPE '2B' FLOOR PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8



B UNIT TYPE '2B' DIMENSIONED PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8



C UNIT TYPE '2B' REFLECTED CEILING PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8

FLOOR PLAN KEY NOTES (TYPICAL ALL UNIT TYPES)

1. INTERIOR DOOR - REFER TO DOOR SCHEDULE
2. RATED EXTERIOR DOOR UNIT ENTRY - REFER TO DOOR SCHEDULE
3. 1 HOUR RATED TENANT DEMISING WALL - REFER TO WALL TYPES.
4. 1 HOUR RATED EXTERIOR WALL - REFER TO WALL TYPES.
5. WINDOW - REFER TO WINDOW SCHEDULE
6. PRE-MANUF. SHOWER AND SURROUND - REFER TO INTERIOR ELEVATIONS.
7. ACCESSIBLE PRE-MANUF. ROLL-IN SHOWER AND SURROUND - REFER TO INTERIOR ELEVATIONS
8. TUB WITH PRE-MANUF. SURROUND - REFER TO INTERIOR ELEVATIONS
9. KITCHEN CABINETS, COUNTERTOPS, AND APPLIANCES - REFER TO INTERIOR ELEVATIONS.
10. CLOSET ROD AND SHELF - MOUNT PER TYPICAL DETAILS.
11. SHELVING - MOUNT PER TYPICAL DETAILS.
12. PLUMBING FIXTURES AND ACCESSORIES - REFER TO INTERIOR ELEVATIONS.
13. [1] LAYER OF 1/2" GYPSUM BOARD OVER RATED WALL ASSEMBLY AT SURROUND. RATED WALL ASSEMBLY GYP. BD. EXTENDS BEHIND TUB/SHOWER
14. HVAC UNIT - REFER TO MECH. DRAWINGS.
15. WATER HEATER - REFER TO PLUMBING DRAWINGS
16. ELECTRIC LOAD CENTER - REFER TO ELECTRICAL DRAWINGS.
17. PARTIAL HT. WALL EXTENDS TO UNDERSIDE OF COUNTERTOP.
18. RECESSED MEDICINE CABINET - FRAME WALL TO ACCEPT.
19. WASHER/DRYER ROUGH-IN - REFER TO PLUMBING, MECHANICAL, ELECTRICAL DRAWINGS. WASHER/DRYER PROVIDED AND INSTALLED BY TENANT.
20. FLOOR DRAIN - REFER TO PLUMBING DWGS.
21. LOWER COUNTERTOP THIS AREA. SUPPORT W/ BRACKETS AT 36" 0.C.
22. ACCESSIBLE CLEARANCES SHOWN DASHED.
23. VOICE INTERACTIVE THERMOSTAT. REFER TO MECH. DRAWINGS.
24. AUDIBLE/VISUAL DOORBELL SYSTEM. REFER TO ELECT. DRAWING.
25. CONTRASTING COLOR PAINT SCHEME AS IDENTIFIED BY ARCHITECT.
26. PROVIDE STAINLESS STEEL ELECT. DEVICE COVERS WITH WHITE DEVICES.
27. INTAKE / EXHAUST LOUVER - REFER TO MECHANICAL DRAWINGS.

GENERAL NOTES

1. INSTALL GYPSUM BOARD AT WALLS AND CEILINGS:
   - 1.1. GYPSUM BOARD SHALL BE 1/2" STANDARD AT INTERIOR PARTITIONS (NON-RATED), UNLESS NOTED OTHERWISE.
   - 1.2. GYPSUM BOARD AT BATHROOM AND KITCHEN (HIGH MOISTURE AREA) SHALL BE PAPERLESS MOLD/MOISTURE RESISTANT GYPSUM BOARD-LEVEL 5 FINISH
   - 1.3. GYPSUM BOARD AT DEMISING WALLS SHALL BE 5/8" GYPSUM BOARD.
   - 1.4. ALL GYPSUM BOARD SHALL BE FINISHED TO LEVEL 4 QUALITY FINISH - EXCEPT FOR PAPERLESS WHICH SHALL BE FINISHED TO LEVEL 5 FINISH. CONTRACTOR SHALL PROVIDE A MOCKUP OF FINISH QUALITY FOR APPROVAL BY ARCHITECT / OWNER.
   - 1.5. ALL CEILING SHALL BE KNOCKDOWN STOMP FINISH - EXCEPT FOR BATHROOM (SMOOTH)
2. PAINT ALL WALLS AND CEILINGS, TRIM, SHELVING, ETC. THAT REQUIRE PAINTING.
3. INSTALL PAINTED WOOD BASE, CASING & TRIM.
4. PROVIDE KITCHEN APPLIANCES. REFER TO SPECS.
5. INSTALL FINISH FLOOR AND BASE AT ALL AREAS.
6. INSTALL SEALANT AT ALL APPLICABLE INTERIOR AND EXTERIOR JOINTS.
7. REFER TO SECTIONS / DETAILS / WALL TYPES FOR RATED SEPARATION WALLS.
8. COORDINATE ROUTING OF PLUMBING, HVAC, AND ELECTRICAL WITH PME DRAWINGS, FIELD COORDINATE BET. TRADES.

REFERENCES

1. REFER TO x FOR OVERALL FLOOR PLAN.
2. REFER TO x FOR OVERALL DIMENSIONS AND WALL TYPES.
3. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS.

CONFIRM LEFT/RIGHT CONFIGURATION WITH THE OVERALL FLOOR PLAN

REFER TO SHEET G1.04 FOR WALL TYPES.

REFER TO OVERALL FLOOR PLANS FOR WINDOW TYPES/LOCATION DIMS.

RCP KEY NOTES (TYPICAL ALL UNIT TYPES)

1. GYPSUM BOARD CEILING AT HEIGHT INDICATED.
2. EXHAUST FAN - REFER TO MECHANICAL DRAWINGS
3. SOFFIT THIS AREA TO CONCEAL DUCT FROM HOOD
4. LIGHT FIXTURE - REFER TO ELECTRICAL
5. INTERCONNECTED SMOKE DETECTORS. REFER TO ELECTRICAL DRAWINGS.
6. INTERCONNECTED SMOKE/CARBON MONOXIDE DETECTORS - REFER TO ELECTRICAL DRAWINGS
7. INTERCONNECTED AUDIBLE/VISUAL SMOKE DETECTORS. REFER TO ELECTRICAL DRAWINGS.
8. INTERCONNECTED AUDIBLE/VISUAL SMOKE/CARBON MONOXIDE DETECTORS - REFER TO ELECTRICAL DRAWINGS

REFLECTED CEILING PLAN - SYMBOL LEGEND

- SD — SMOKE DETECTOR - 120V W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- C/S — COMBINATION SMOKE/CO_2 DETECTOR - 120V W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXHAUST FAN - VENT DIRECT TO EXTERIOR - REFER TO MECHANICAL/ELECTRICAL DRAWINGS
- N — RETURN AIR DIFFUSER-CEILING MTD. - REFER TO MECHANICAL DRAWINGS
- N — SUPPLY AIR DIFFUSER-CEILING MTD. - REFER TO MECHANICAL DRAWINGS
- EMERGENCY LIGHT W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXIT SIGN / EMERGENCY LIGHT W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXIT SIGN W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- CEILING MTD. LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- WALL MTD. LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- CEILING FAN W/ LIGHT - REFER TO ELECTRICAL DRAWINGS

STATE OF OHIO — JONATHAN ROBERT SCHAAF — 14503 — REGISTERED ARCHITECT

PRELIMINARY NOT FOR CONSTRUCTION

Jonathan Robert Schaaf #14503
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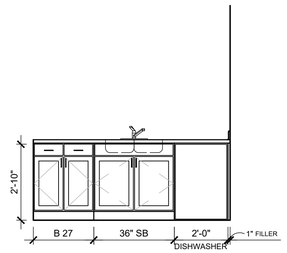
Sheet Title
Unit Type '2B' Plans

Sheet Number
A2.23



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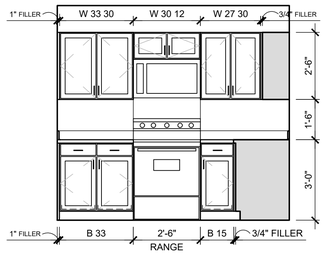

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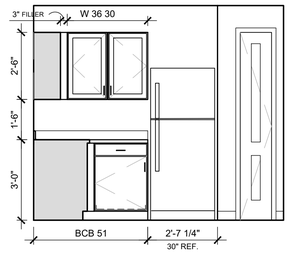

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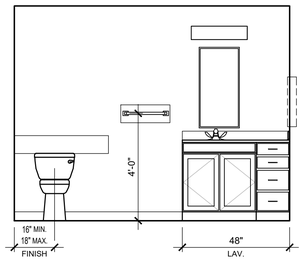

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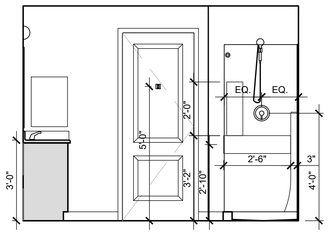

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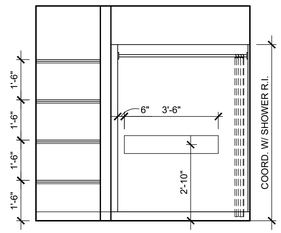

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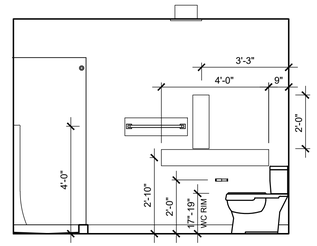

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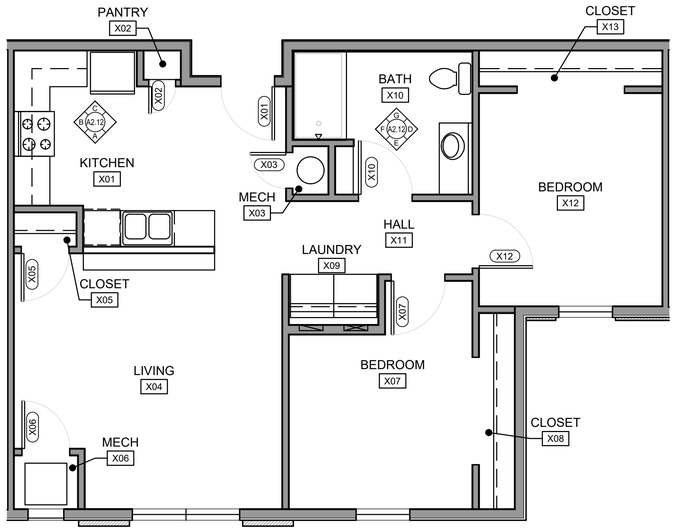
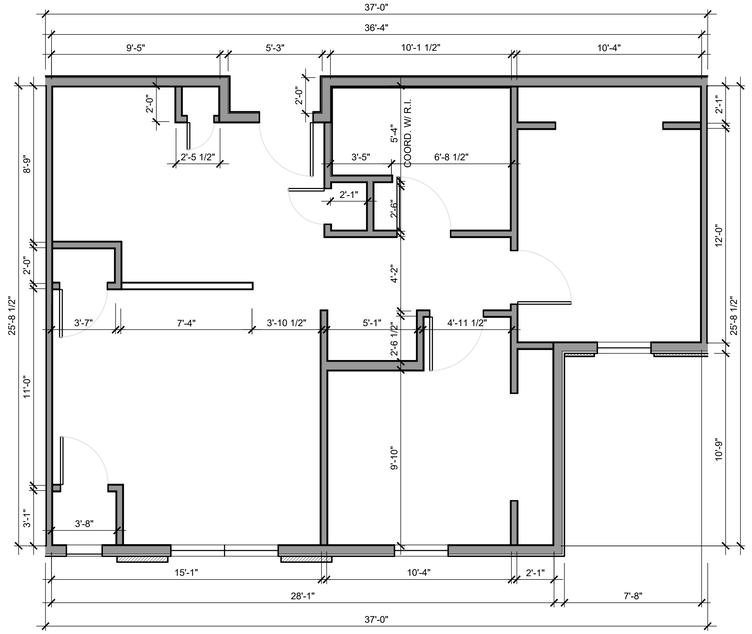
Sheet Number
A2.24



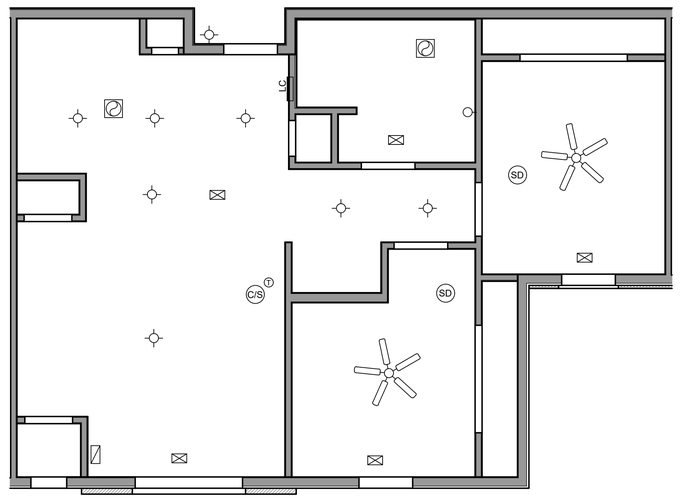
A UNIT TYPE '2C' FLOOR PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8



B UNIT TYPE '2C' DIMENSIONED PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8



C UNIT TYPE '2C' REFLECTED CEILING PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8

FLOOR PLAN KEY NOTES (TYPICAL ALL UNIT TYPES)

1. INTERIOR DOOR - REFER TO DOOR SCHEDULE
2. RATED EXTERIOR DOOR UNIT ENTRY - REFER TO DOOR SCHEDULE
3. 1 HOUR RATED TENANT DEMISING WALL - REFER TO WALL TYPES.
4. 1 HOUR RATED EXTERIOR WALL - REFER TO WALL TYPES.
5. WINDOW - REFER TO WINDOW SCHEDULE
6. PRE-MANUF. SHOWER AND SURROUND - REFER TO INTERIOR ELEVATIONS.
7. ACCESSIBLE PRE-MANUF. ROLL-IN SHOWER AND SURROUND - REFER TO INTERIOR ELEVATIONS
8. TUB WITH PRE-MANUF. SURROUND - REFER TO INTERIOR ELEVATIONS
9. KITCHEN CABINETS, COUNTERTOPS, AND APPLIANCES - REFER TO INTERIOR ELEVATIONS.
10. CLOSET ROD AND SHELF - MOUNT PER TYPICAL DETAILS.
11. SHELVING - MOUNT PER TYPICAL DETAILS.
12. PLUMBING FIXTURES AND ACCESSORIES - REFER TO INTERIOR ELEVATIONS.
13. [1] LAYER OF 1/2" GYPSUM BOARD OVER RATED WALL ASSEMBLY AT SURROUND. RATED WALL ASSEMBLY GYP. BD. EXTENDS BEHIND TUB/SHOWER
14. HVAC UNIT - REFER TO MECH. DRAWINGS.
15. WATER HEATER - REFER TO PLUMBING DRAWINGS
16. ELECTRIC LOAD CENTER - REFER TO ELECTRICAL DRAWINGS.
17. PARTIAL HT. WALL EXTENDS TO UNDERSIDE OF COUNTERTOP.
18. RECESSED MEDICINE CABINET - FRAME WALL TO ACCEPT.
19. WASHER/DRYER ROUGH-IN - REFER TO PLUMBING, MECHANICAL, ELECTRICAL DRAWINGS. WASHER/DRYER PROVIDED AND INSTALLED BY TENANT.
20. FLOOR DRAIN - REFER TO PLUMBING DWGS.
21. LOWER COUNTERTOP THIS AREA. SUPPORT W/ BRACKETS AT 36" 0.C.
22. ACCESSIBLE CLEARANCES SHOWN DASHED.
23. VOICE INTERACTIVE THERMOSTAT. REFER TO MECH. DRAWINGS.
24. AUDIBLE/VISUAL DOORBELL SYSTEM. REFER TO ELECT. DRAWING.
25. CONTRASTING COLOR PAINT SCHEME AS IDENTIFIED BY ARCHITECT.
26. PROVIDE STAINLESS STEEL ELECT. DEVICE COVERS WITH WHITE DEVICES.
27. INTAKE / EXHAUST LOUVER - REFER TO MECHANICAL DRAWINGS.

GENERAL NOTES

1. INSTALL GYPSUM BOARD AT WALLS AND CEILINGS:
   - 1.1. GYPSUM BOARD SHALL BE 1/2" STANDARD AT INTERIOR PARTITIONS (NON-RATED), UNLESS NOTED OTHERWISE.
   - 1.2. GYPSUM BOARD AT BATHROOM AND KITCHEN (HIGH MOISTURE AREA) SHALL BE PAPERLESS MOLD/MOISTURE RESISTANT GYPSUM BOARD-LEVEL 5 FINISH
   - 1.3. GYPSUM BOARD AT DEMISING WALLS SHALL BE 5/8" GYPSUM BOARD.
   - 1.4. ALL GYPSUM BOARD SHALL BE FINISHED TO LEVEL 4 QUALITY FINISH - EXCEPT FOR PAPERLESS WHICH SHALL BE FINISHED TO LEVEL 5 FINISH. CONTRACTOR SHALL PROVIDE A MOCKUP OF FINISH QUALITY FOR APPROVAL BY ARCHITECT / OWNER.
   - 1.5. ALL CEILING SHALL BE KNOCKDOWN STOMP FINISH - EXCEPT FOR BATHROOM (SMOOTH)
2. PAINT ALL WALLS AND CEILINGS, TRIM, SHELVING, ETC. THAT REQUIRE PAINTING.
3. INSTALL PAINTED WOOD BASE, CASING & TRIM.
4. PROVIDE KITCHEN APPLIANCES. REFER TO SPECS.
5. INSTALL FINISH FLOOR AND BASE AT ALL AREAS.
6. INSTALL SEALANT AT ALL APPLICABLE INTERIOR AND EXTERIOR JOINTS.
7. REFER TO SECTIONS / DETAILS / WALL TYPES FOR RATED SEPARATION WALLS.
8. COORDINATE ROUTING OF PLUMBING, HVAC, AND ELECTRICAL WITH PME DRAWINGS, FIELD COORDINATE BET. TRADES.

REFERENCES

1. REFER TO x FOR OVERALL FLOOR PLAN.
2. REFER TO x FOR OVERALL DIMENSIONS AND WALL TYPES.
3. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS.

CONFIRM LEFT/RIGHT CONFIGURATION WITH THE OVERALL FLOOR PLAN

REFER TO SHEET G1.04 FOR WALL TYPES.

REFER TO OVERALL FLOOR PLANS FOR WINDOW TYPES/LOCATION DIMS.

RCP KEY NOTES (TYPICAL ALL UNIT TYPES)

1. GYPSUM BOARD CEILING AT HEIGHT INDICATED.
2. EXHAUST FAN - REFER TO MECHANICAL DRAWINGS
3. SOFFIT THIS AREA TO CONCEAL DUCT FROM HOOD
4. LIGHT FIXTURE - REFER TO ELECTRICAL
5. INTERCONNECTED SMOKE DETECTORS. REFER TO ELECTRICAL DRAWINGS.
6. INTERCONNECTED SMOKE/CARBON MONOXIDE DETECTORS - REFER TO ELECTRICAL DRAWINGS
7. INTERCONNECTED AUDIBLE/VISUAL SMOKE DETECTORS. REFER TO ELECTRICAL DRAWINGS.
8. INTERCONNECTED AUDIBLE/VISUAL SMOKE/CARBON MONOXIDE DETECTORS - REFER TO ELECTRICAL DRAWINGS

REFLECTED CEILING PLAN - SYMBOL LEGEND

- SD — SMOKE DETECTOR - 120V W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- C/S — COMBINATION SMOKE/CO_2 DETECTOR - 120V W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXHAUST FAN - VENT DIRECT TO EXTERIOR - REFER TO MECHANICAL/ELECTRICAL DRAWINGS
- N — RETURN AIR DIFFUSER-CEILING MTD. - REFER TO MECHANICAL DRAWINGS
- N — SUPPLY AIR DIFFUSER-CEILING MTD. - REFER TO MECHANICAL DRAWINGS
- EMERGENCY LIGHT W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXIT SIGN / EMERGENCY LIGHT W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXIT SIGN W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- CEILING MTD. LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- WALL MTD. LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- CEILING FAN W/ LIGHT - REFER TO ELECTRICAL DRAWINGS

STATE OF OHIO — JONATHAN ROBERT SCHAAF — 14503 — REGISTERED ARCHITECT

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Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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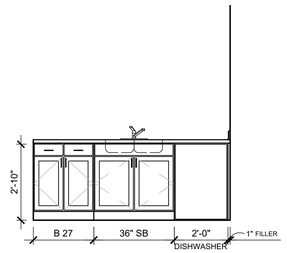
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
Unit Type '2C' Plans

Sheet Number
A2.25



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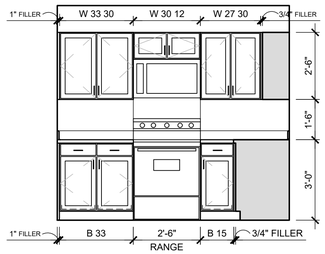

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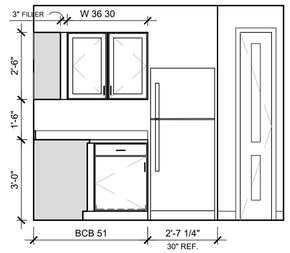

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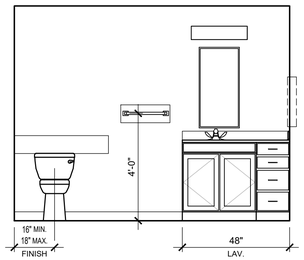

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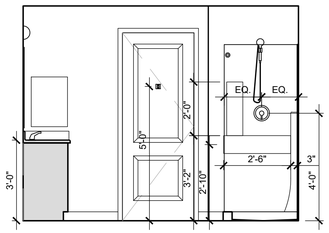

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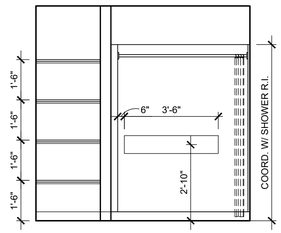

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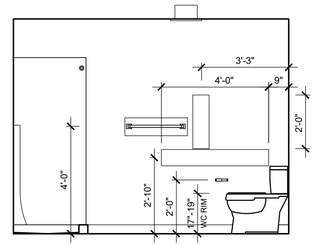

G

INTERIOR ELEVATIONS

SCALE: 3/8" = 1'-0"

0 1 2 4

(#) INTERIOR ELEVATION KEY NOTES [TYPICAL ALL UNITS]

1. NON-PAPERFACED MOLD/MOISTURE/ABUSE RESISTANT GYP. BD. AT ALL WALLS AT ALL WALLS AND ENTIRE CEILING.
2. FIBERGLASS SHOWER BASE WITH CURB.
3. ACCESSIBLE FIBERGLASS ROLL IN SHOWER BASE.
4. FIBERGLASS SURROUND W/ INTEGRAL SOAP / SHAMPOO HOLDERS [GRAB BARS AS APPLICABLE].
5. WATER CLOSET
6. ACCESSIBLE WATER CLOSET. NOTE THAT LEVER SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.
7. BASE AS SCHEDULED.
8. BATHROOM ACCESSORIES, TYP. REFER TO SCHEDULE
9. ACCESSIBLE 22"DP. CULTURED MARBLE COUNTER W/ INTEGRAL BOWL SINK. MOUNTED ON FRAME/PRIVACY PANEL. LAVATORY FAUCET. ALL OUTSIDE CORNERS OF COUNTER TO BE RADISUED.
10. SLIDE BAR FOR HAND HELD SHOWER CONTROLS.
11. PRIVACY PANEL- FINISH GRADE STAINED WOOD PANEL TO MATCH KITCHEN CABINETS IN FINISH. REFER TO DETAILS
12. AREA FOR SHOWER CONTROLS.
13. STAINED WOOD PANEL, MATCH CABINETS.
14. DOOR-REFER TO DOOR SCHEDULE.
15. LIGHT FIXTURE-REFER TO ELECTRICAL DRAWINGS.
16. PROVIDE 2x8 BLOCKING WHERE AT ALL TOILET ACCESSORIES, TYPICAL. INCLUDING FUTURE GRAB BARS.
17. EXHAUST FAN/LIGHT/NIGHTLIGHT. REFER TO MECH./ELEC. DWG.
18. CULTURED MARBLE BACK/END SPLASH.
19. PAINTED GYPSUM BOARD WALL, TYP.
20. PLASTIC LAMINATE COUNTERTOP W/ 4" BACKSPLASH - ALL OUTSIDE CORNERS TO BE RADIUSED.
21. MICROWAVE / RANGE HOOD [RE-CIRC].
22. RANGE HOOD [RE-CIRC]
23. COUNTER TOP MICROWAVE UNIT. REFER TO SPECS.
24. RANGE WALL SPLASH PLATE AT WALL
25. STAINED TOE-KICK, MATCH CABINETS.
26. OPEN WORKSPACE. FINISH SIDES OF CABINET. PAINT GYP. BD. WALL AND INSTALL WOOD BASE BEYOND.
27. SLIDE OUT SHELVES AT ALL BASE CABINETS AND PANTRY CABINET.
28. RANGE - REFER TO SCHEDULE.
29. REFRIGERATOR - REFER TO SCHEDULE.
30. STAINED WOOD BASE AND WALL CABINETS, TYP.
31. WALL & BASE TILE
32. 48"X48" TACK BOARD
33. OPEN STORAGE SHELVING
34. COUNTERTOP SUPPORTS FINISHED TO MATCH CABINETS ON ALL EXPOSED FACES. SPACE AT 36" O.C. MAX.
35. BUILD PLATFORM, ETC. AS REQ'D FOR DROP IN RANGE.
36. DOUBLE BOWL STAINLESS STEEL SINK, FAUCET, SUPPLY/DRAIN PIPING. REFER TO PLUMBING DRAWINGS. F.V. DRAIN CONFIGURATION AS REQ'D FOR CLEARANCES.
37. 4" WIRE PULLS AT ALL DOORS/DRAWERS.
38. FINISH GRADE STAINED WOOD PRIVACY PANEL BELOW SINK TO CONCEAL SUPPLY AND DRAIN PIPING. CONFORM TO ADAAG REQUIREMENTS.
39. FINISH GRADE STAINED WOOD PANEL TO MATCH CABINETS.
40. SWITCH FOR RANGE HOOD CONTROLS. REFER TO ELECT. DWG.
41. CULTURED MARBLE COUNTER W/ INTEGRAL BOWL SINK MOUNTED ON STAINED WOOD VANITY. LAVATORY FAUCET.
42. FRONT LOAD MAILBOX UNIT.
43. FRP PANEL
44. ACCESSIBLE WALL HUNG LAVATORY WITH CONCEALED CARRIERS.
45. DRYER BOX, REFER TO MECHANICAL DRAWINGS.
46. WASHER BOX, REFER TO PLUMBING DRAWINGS.
47. SINGLE BOWL STAINLESS STEEL SINK, FAUCET, SUPPLY/DRAIN PIPING. REFER TO PLUMBING DRAWINGS. F.V. DRAIN CONFIGURATION AS REQ'D FOR CLEARANCES.
48. HIGH-LOW DRINKING FOUNTAIN W/ BOTTLE FILLER. REFER TO PLUMBING DRAWINGS.
49. WASHER - REFER TO SCHEDULE.
50. DRYER - REFER TO SCHEDULE.
51. RUBBER BASE
52. 1x PAINTED WOOD TRIM/CASING [4/6/8 AS APPLICABLE]
53. RECESSED GYP. BD. NICHE WITH WOOD CAP AT BASE
54. INTERIOR WINDOW - REFER TO SCHEDULE
55. UNIT SIGNAGE - REFER TO DETAIL
56. HAND HELD SHOWER CONTROL

STATE OF OHIO
JONATHAN ROBERT SCHAAF
14503
REGISTERED ARCHITECT
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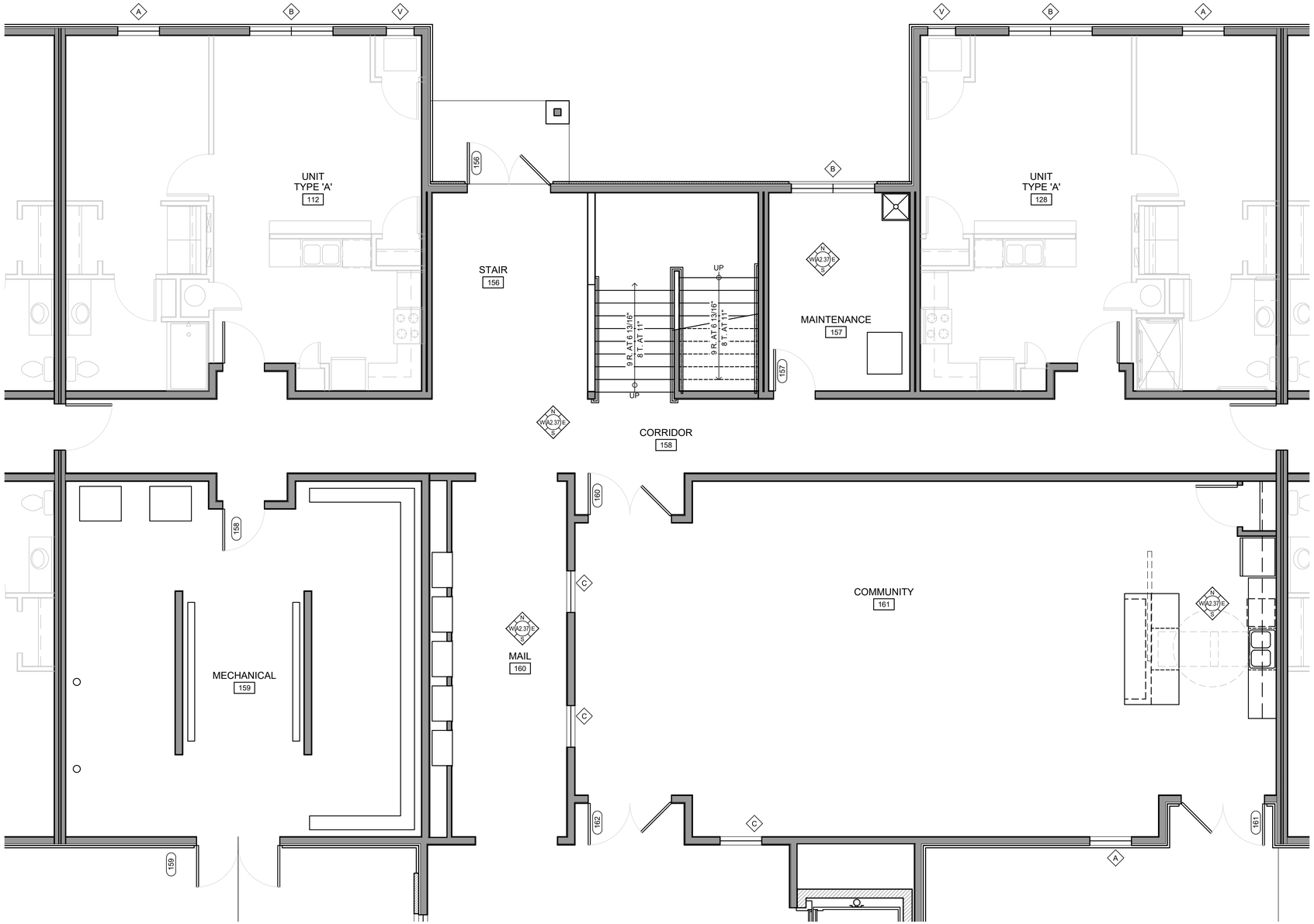
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
Unit Type '2C'
Interior Elevations

Sheet Number
A2.26



FIRST FLOOR - WEST
COMMON AREA
PROPOSED FLOOR PLAN

A — SCALE: 1/4" = 1'-0" 0 2 4 8

KEY NOTES
(TYPICAL ALL COMMON AREAS)

[#]

1. INTERIOR DOOR - REFER TO DOOR SCHEDULE
2. RATED EXTERIOR DOOR UNIT ENTRY - REFER TO DOOR SCHEDULE
3. 1 HOUR RATED DEMISING WALL - REFER TO WALL TYPES.
4. 1 HOUR RATED EXTERIOR WALL - REFER TO WALL TYPES.
5. WINDOW - REFER TO WINDOW SCHEDULE
6. TENANT MAILBOXES. REFER TO INTERIOR ELEVATIONS.
7. HI-LOW DRINKING FOUNTAIN - REFER TO INTERIOR ELEVATIONS
8. HVAC UNIT - REFER TO MECHANICAL DRAWINGS
9. WATER HEATER - REFER TO PLUMBING DRAWINGS
10. CASEWORK, CABINETS, COUNTERTOPS, AND APPLIANCES - REFER TO INTERIOR ELEVATIONS
11. WASHER/DRYER UNITS PROVIDED BY VENDOR - N.I.C. - REFER TO INTERIOR ELEVATIONS
12. PLUMBING FIXTURES AND ACCESSORIES - REFER TO INTERIOR ELEVATIONS.
13. MOP SINK - REFER TO PLUMBING DRAWINGS
14. SPRINKLER RISER - COORDINATE REQUIREMENTS WITH FIRE SUPPRESSION CONTRACTOR
15. ELECTRICAL CT CABINET AND MAIN SERVICE DISCONNECTS - REFER TO ELECTRICAL DRAWINGS.
16. GAS MAIN - REFER TO PLUMBING DRAWINGS
17. FIRE ALARM PANELS - REFER TO ELECTRICAL DRAWINGS
18. TELEPHONE BACKBOARD - REFER TO ELECTRICAL DRAWINGS
19. WASHER/DRYER ROUGH-IN - REFER TO PLUMBING, MECHANICAL, ELECTRICAL DRAWINGS.
20. PROVIDE INSULATED 2x BOX OUT AROUND RISER.
21. ELECTRIC LOAD CENTERS - REFER TO ELECTRICAL DRAWINGS.
22. ACCESSIBLE CLEARANCES SHOWN DASHED.
23. WATER MAIN - REFER TO PLUMBING DRAWINGS
24. THROUGH WALL RENT DROP BOX.
25. FIRE ALARM ANNUNCIATOR - REFER TO ELECTRICAL DRAWINGS
26. KNOX BOX - COORDINATE LOCATION WITH KETTERING FIRE DEPARTMENT.
27. SECURITY SYSTEM - DESIGN BY OTHERS. COORDINATE ROUGH-IN REQUIREMENTS WITH OWNER.
28. INTAKE / EXHAUST LOUVER - REFER TO MECHANICAL DRAWINGS.

GENERAL NOTES

1. INSTALL GYPSUM BOARD AT WALLS AND CEILINGS:
   - 1.1. GYPSUM BOARD SHALL BE 1/2" STANDARD AT INTERIOR PARTITIONS (NON-RATED), UNLESS NOTED OTHERWISE.
   - 1.2. GYPSUM BOARD AT BATHROOM AND KITCHEN (HIGH MOISTURE AREA) SHALL BE PAPERLESS MOLD/MOISTURE RESISTANT GYPSUM BOARD-LEVEL 5 FINISH
   - 1.3. GYPSUM BOARD AT DEMISING WALLS SHALL BE 5/8" GYPSUM BOARD.
   - 1.4. ALL GYPSUM BOARD SHALL BE FINISHED TO LEVEL 4 QUALITY FINISH - EXCEPT FOR PAPERLESS WHICH SHALL BE FINISHED TO LEVEL 5 FINISH. CONTRACTOR SHALL PROVIDE A MOCKUP OF FINISH QUALITY FOR APPROVAL BY ARCHITECT / OWNER.
   - 1.5. ALL CEILING SHALL BE KNOCKDOWN STOMP FINISH - EXCEPT FOR BATHROOM (SMOOTH)
2. PAINT ALL WALLS AND CEILINGS, TRIM, SHELVING, ETC. THAT REQUIRE PAINTING.
3. INSTALL PAINTED WOOD BASE, CASING & TRIM.
4. PROVIDE KITCHEN APPLIANCES. REFER TO SPECS.
5. INSTALL FINISH FLOOR AND BASE AT ALL AREAS.
6. INSTALL SEALANT AT ALL APPLICABLE INTERIOR AND EXTERIOR JOINTS.
7. REFER TO SECTIONS / DETAILS / WALL TYPES FOR RATED SEPARATION WALLS.
8. COORDINATE ROUTING OF PLUMBING, HVAC, AND ELECTRICAL WITH PME DRAWINGS, FIELD COORDINATE BET. TRADES.

REFERENCES

1. REFER TO x FOR OVERALL FLOOR PLAN.
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3. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS.

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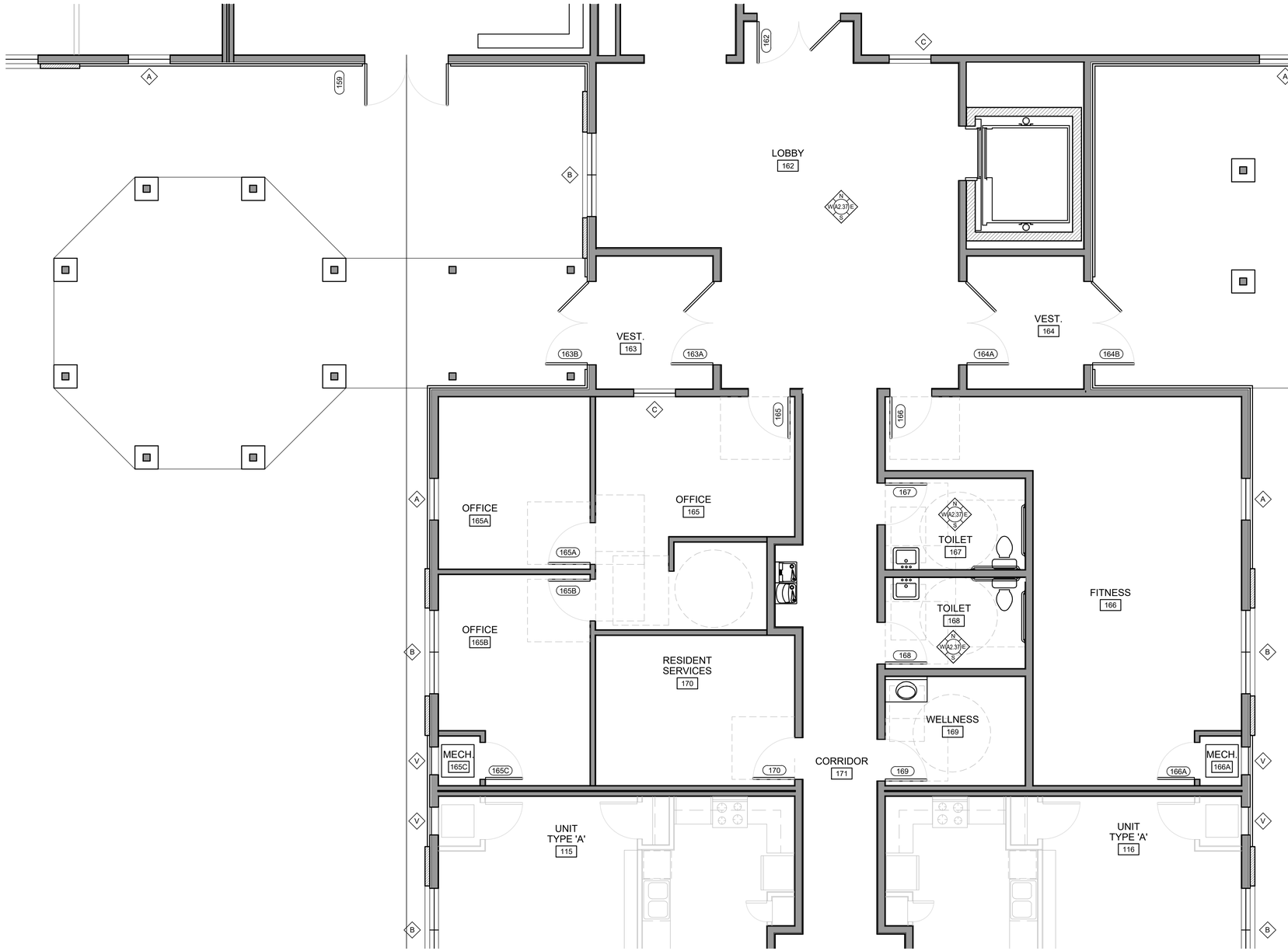
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title: First Floor - West Common Area Proposed Floor Plan

Sheet Number: A2.31



FIRST FLOOR - EAST COMMON AREA PROPOSED FLOOR PLAN

A

SCALE: 1/4" = 1'-0" 0 2 4 8

KEY NOTES (TYPICAL ALL COMMON AREAS)

1. INTERIOR DOOR - REFER TO DOOR SCHEDULE
2. RATED EXTERIOR DOOR UNIT ENTRY - REFER TO DOOR SCHEDULE
3. 1 HOUR RATED DEMISING WALL - REFER TO WALL TYPES.
4. 1 HOUR RATED EXTERIOR WALL - REFER TO WALL TYPES.
5. WINDOW - REFER TO WINDOW SCHEDULE
6. TENANT MAILBOXES. REFER TO INTERIOR ELEVATIONS.
7. HI-LOW DRINKING FOUNTAIN - REFER TO INTERIOR ELEVATIONS
8. HVAC UNIT - REFER TO MECHANICAL DRAWINGS
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13. MOP SINK - REFER TO PLUMBING DRAWINGS
14. SPRINKLER RISER - COORDINATE REQUIREMENTS WITH FIRE SUPPRESSION CONTRACTOR
15. ELECTRICAL CT CABINET AND MAIN SERVICE DISCONNECTS - REFER TO ELECTRICAL DRAWINGS.
16. GAS MAIN - REFER TO PLUMBING DRAWINGS
17. FIRE ALARM PANELS - REFER TO ELECTRICAL DRAWINGS
18. TELEPHONE BACKBOARD - REFER TO ELECTRICAL DRAWINGS
19. WASHER/DRYER ROUGH-IN - REFER TO PLUMBING, MECHANICAL, ELECTRICAL DRAWINGS.
20. PROVIDE INSULATED 2x BOX OUT AROUND RISER.
21. ELECTRIC LOAD CENTERS - REFER TO ELECTRICAL DRAWINGS.
22. ACCESSIBLE CLEARANCES SHOWN DASHED.
23. WATER MAIN - REFER TO PLUMBING DRAWINGS
24. THROUGH WALL RENT DROP BOX.
25. FIRE ALARM ANNUNCIATOR - REFER TO ELECTRICAL DRAWINGS
26. KNOX BOX - COORDINATE LOCATION WITH KETTERING FIRE DEPARTMENT.
27. SECURITY SYSTEM - DESIGN BY OTHERS. COORDINATE ROUGH-IN REQUIREMENTS WITH OWNER.
28. INTAKE / EXHAUST LOUVER - REFER TO MECHANICAL DRAWINGS.

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1. INSTALL GYPSUM BOARD AT WALLS AND CEILINGS:
   - 1.1. GYPSUM BOARD SHALL BE 1/2" STANDARD AT INTERIOR PARTITIONS (NON-RATED), UNLESS NOTED OTHERWISE.
   - 1.2. GYPSUM BOARD AT BATHROOM AND KITCHEN (HIGH MOISTURE AREA) SHALL BE PAPERLESS MOLD/MOISTURE RESISTANT GYPSUM BOARD-LEVEL 5 FINISH
   - 1.3. GYPSUM BOARD AT DEMISING WALLS SHALL BE 5/8" GYPSUM BOARD.
   - 1.4. ALL GYPSUM BOARD SHALL BE FINISHED TO LEVEL 4 QUALITY FINISH - EXCEPT FOR PAPERLESS WHICH SHALL BE FINISHED TO LEVEL 5 FINISH. CONTRACTOR SHALL PROVIDE A MOCKUP OF FINISH QUALITY FOR APPROVAL BY ARCHITECT / OWNER.
   - 1.5. ALL CEILING SHALL BE KNOCKDOWN STOMP FINISH - EXCEPT FOR BATHROOM (SMOOTH)
2. PAINT ALL WALLS AND CEILINGS, TRIM, SHELVING, ETC. THAT REQUIRE PAINTING.
3. INSTALL PAINTED WOOD BASE, CASING & TRIM.
4. PROVIDE KITCHEN APPLIANCES. REFER TO SPECS.
5. INSTALL FINISH FLOOR AND BASE AT ALL AREAS.
6. INSTALL SEALANT AT ALL APPLICABLE INTERIOR AND EXTERIOR JOINTS.
7. REFER TO SECTIONS / DETAILS / WALL TYPES FOR RATED SEPARATION WALLS.
8. COORDINATE ROUTING OF PLUMBING, HVAC, AND ELECTRICAL WITH PME DRAWINGS, FIELD COORDINATE BET. TRADES.

REFERENCES

1. REFER TO x FOR OVERALL FLOOR PLAN.
2. REFER TO x FOR OVERALL DIMENSIONS AND WALL TYPES.
3. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS.

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14503
REGISTERED ARCHITECT
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Jonathan Robert Schaaf #14503
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Miamisburg, Ohio 45342

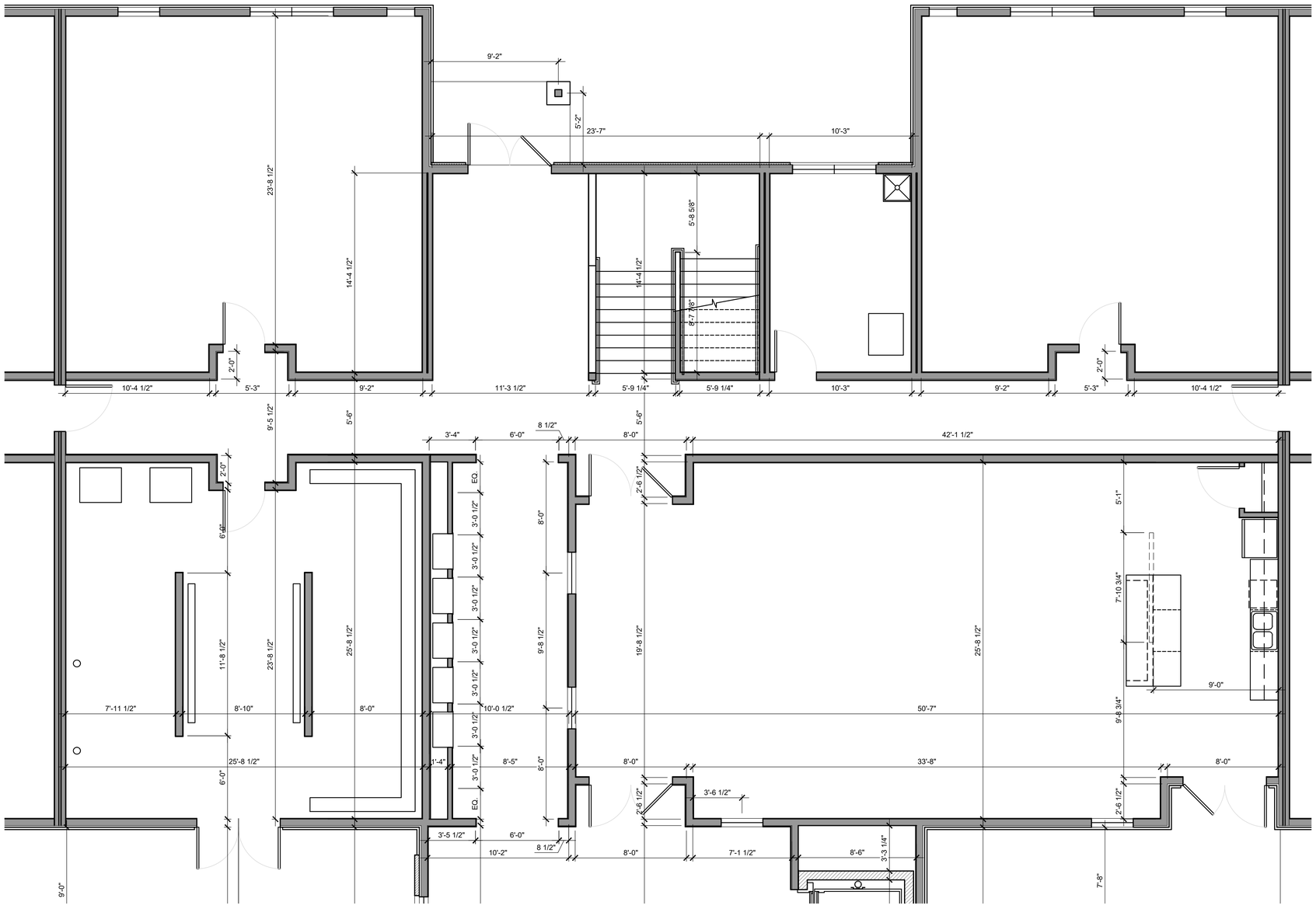
New Multi-Family Building:
Senior Village at Valle Greene
1155 Channingway Drive
Fairborn, Ohio 45324
OHFA Tracking Number: 24-0087

Project Number	2023-191
Date	September 13, 2024

Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title: First Floor - East Common Area Proposed Floor Plan

Sheet Number: A2.32



FIRST FLOOR - WEST
COMMON AREA
DIMENSIONED FLOOR PLAN

A

SCALE: 1/4" = 1'-0"

0 2 4 8

N

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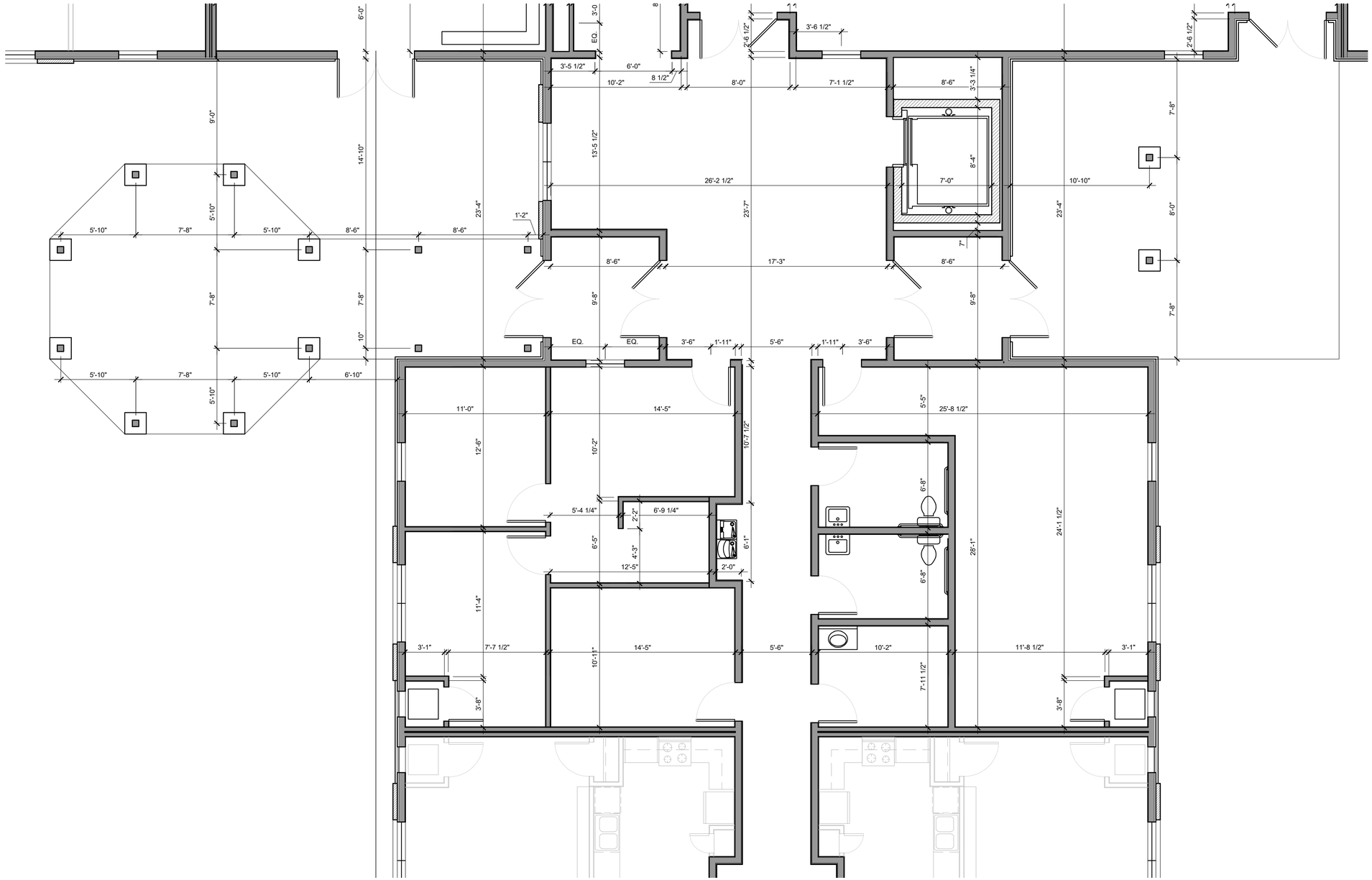
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
First Floor - West
Common Area
Dimensioned Floor Plan

Sheet Number
A2.33



FIRST FLOOR - EAST
COMMON AREA
DIMENSIONED FLOOR PLAN

A

SCALE: 1/4" = 1'-0"

0 2 4 8

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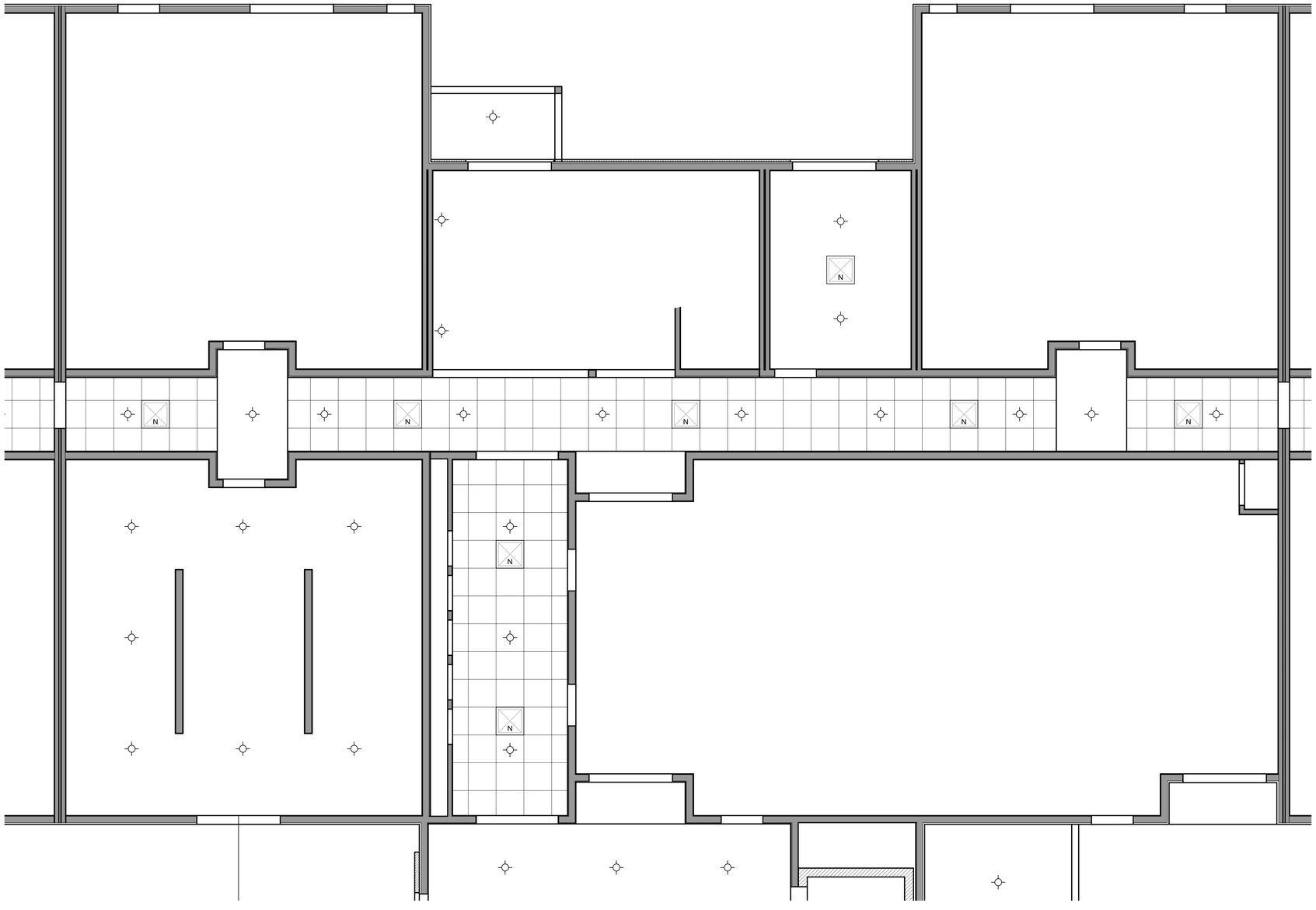
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
First Floor - East
Common Area
Dimensioned Floor Plan

Sheet Number
A2.34



FIRST FLOOR - WEST
COMMON AREA
REFLECTED CEILING PLAN

A

SCALE: 1/4" = 1'-0" 0 2 4 8

RCP KEY NOTES (TYPICAL ALL UNIT TYPES)

(#)

1. GYPSUM BOARD CEILING AT HEIGHT INDICATED.
2. EXHAUST FAN - REFER TO MECHANICAL DRAWINGS
3. SOFFIT THIS AREA TO CONCEAL DUCT FROM HOOD
4. LIGHT FIXTURE - REFER TO ELECTRICAL
5. INTERCONNECTED SMOKE DETECTORS. REFER TO ELECTRICAL DRAWINGS.
6. INTERCONNECTED SMOKE/CARBON MONOXIDE DETECTORS - REFER TO ELECTRICAL DRAWINGS
7. INTERCONNECTED AUDIBLE/VISUAL SMOKE DETECTORS. REFER TO ELECTRICAL DRAWINGS.
8. INTERCONNECTED AUDIBLE/VISUAL SMOKE/CARBON MONOXIDE DETECTORS - REFER TO ELECTRICAL DRAWINGS

REFLECTED CEILING PLAN - SYMBOL LEGEND

- SD — SMOKE DETECTOR - 120V W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- C/S — COMBINATION SMOKE/CO_2 DETECTOR - 120V W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXHAUST FAN - VENT DIRECT TO EXTERIOR - REFER TO MECHANICAL/ELECTRICAL DRAWINGS
- N — RETURN AIR DIFFUSER-CEILING MTD. - REFER TO MECHANICAL DRAWINGS
- N — SUPPLY AIR DIFFUSER-CEILING MTD. - REFER TO MECHANICAL DRAWINGS
- EMERGENCY LIGHT W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXIT SIGN / EMERGENCY LIGHT W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXIT SIGN W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- CEILING MTD. LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- WALL MTD. LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- CEILING FAN W/ LIGHT - REFER TO ELECTRICAL DRAWINGS

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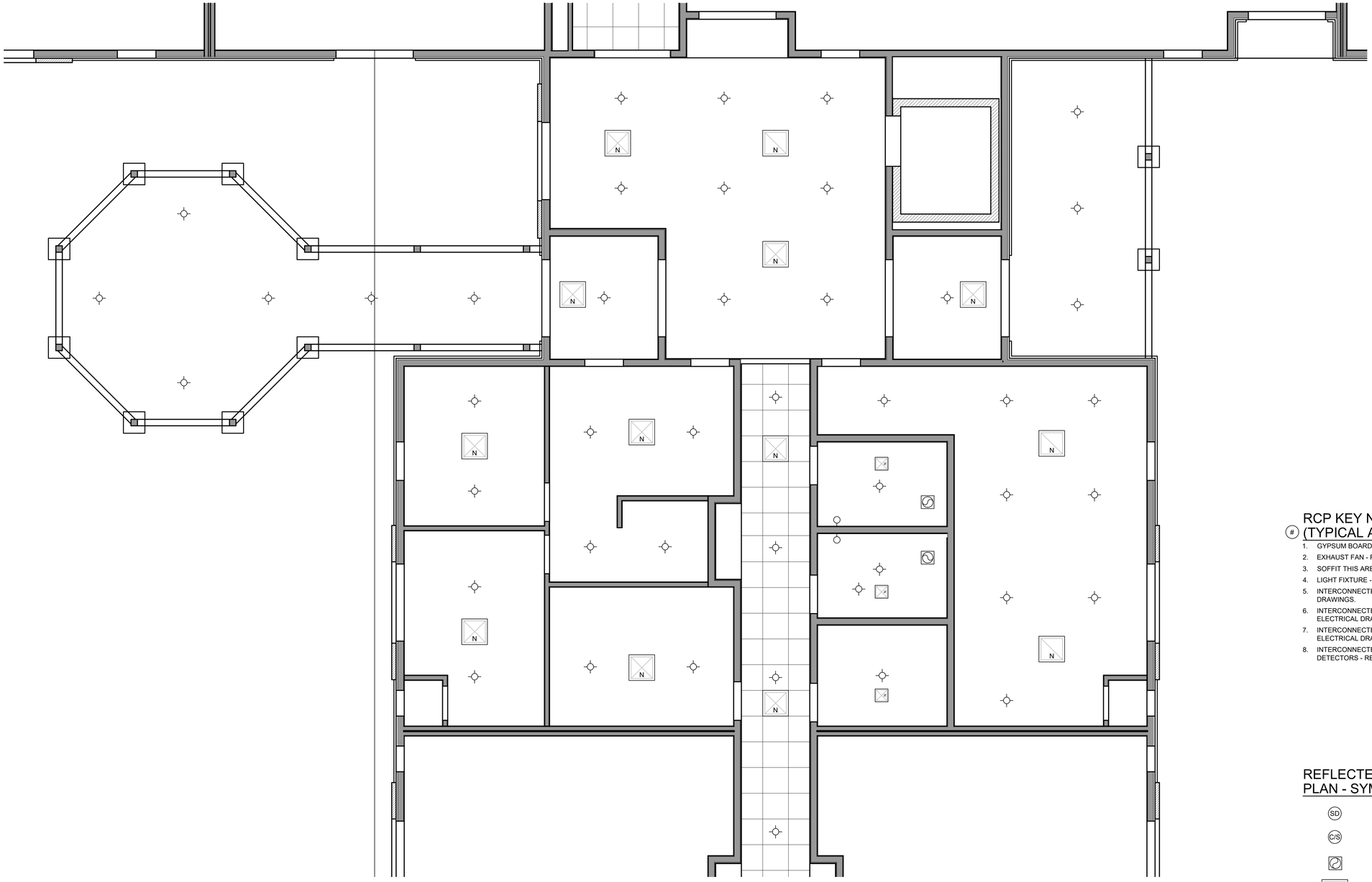
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
First Floor - West
Common Area
Reflected Ceiling Plan

Sheet Number
A2.35



A FIRST FLOOR - EAST COMMON AREA REFLECTED CEILING PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8

RCP KEY NOTES (TYPICAL ALL UNIT TYPES)

1. GYPSUM BOARD CEILING AT HEIGHT INDICATED.
2. EXHAUST FAN - REFER TO MECHANICAL DRAWINGS
3. SOFFIT THIS AREA TO CONCEAL DUCT FROM HOOD
4. LIGHT FIXTURE - REFER TO ELECTRICAL
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- CEILING FAN W/ LIGHT - REFER TO ELECTRICAL DRAWINGS

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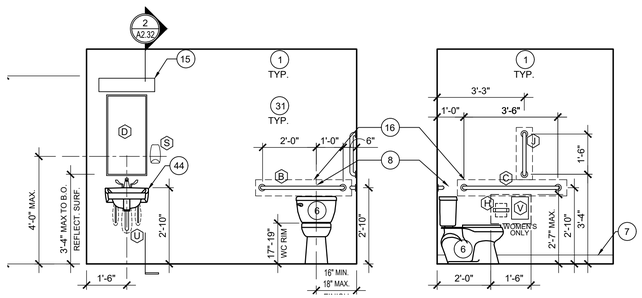
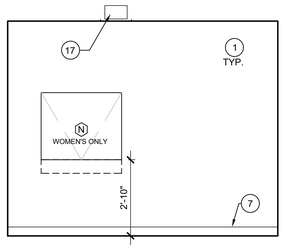
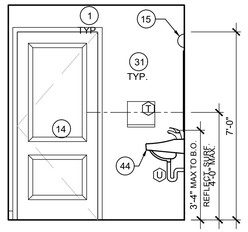
08.30.24	Progress Set
09.13.24	OHFA 80% Review

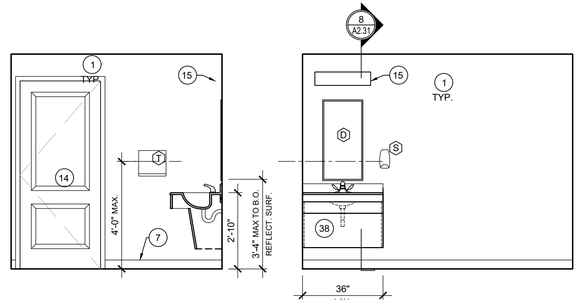
Sheet Title
First Floor - East
Common Area
Reflected Ceiling Plan

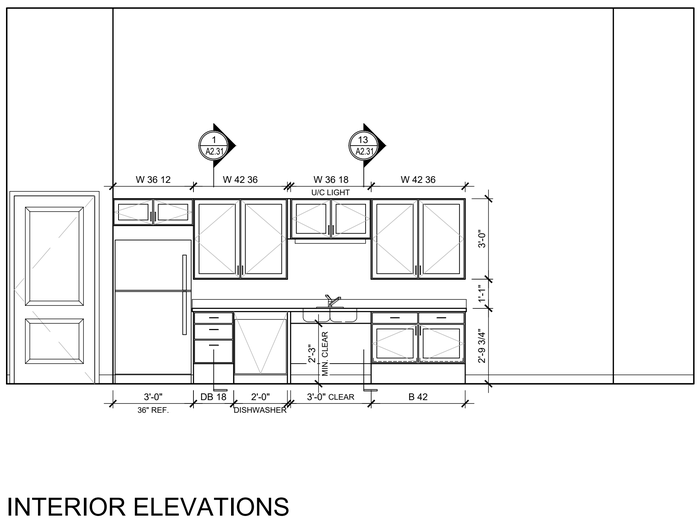
Sheet Number
A2.36

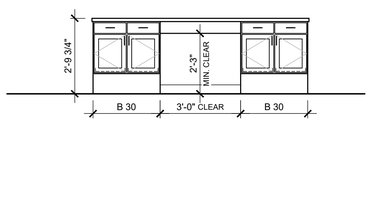


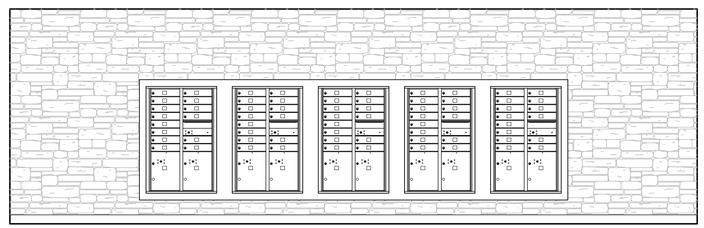












INTERIOR ELEVATIONS

SCALE: 3/8" = 1'-0"

0 1 2 4

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09.13.24	OHFA 80% Review

Sheet Title
First Floor Common Area Interior Elevations

Sheet Number
A2.37



SECOND FLOOR COMMON AREA PROPOSED FLOOR PLAN

A

SCALE: 1/4" = 1'-0" 0 2 4 8

KEY NOTES (TYPICAL ALL COMMON AREAS)

|
|---|
| 1. INTERIOR DOOR - REFER TO DOOR SCHEDULE |
| 2. RATED EXTERIOR DOOR UNIT ENTRY - REFER TO DOOR SCHEDULE |
| 3. 1 HOUR RATED DEMISING WALL - REFER TO WALL TYPES. |
| 4. 1 HOUR RATED EXTERIOR WALL - REFER TO WALL TYPES. |
| 5. WINDOW - REFER TO WINDOW SCHEDULE |
| 6. TENANT MAILBOXES. REFER TO INTERIOR ELEVATIONS. |
| 7. HI-LOW DRINKING FOUNTAIN - REFER TO INTERIOR ELEVATIONS |
| 8. HVAC UNIT - REFER TO MECHANICAL DRAWINGS |
| 9. WATER HEATER - REFER TO PLUMBING DRAWINGS |
| 10. CASEWORK, CABINETS, COUNTERTOPS, AND APPLIANCES - REFER TO INTERIOR ELEVATIONS |
| 11. WASHER/DRYER UNITS PROVIDED BY VENDOR - N.I.C. - REFER TO INTERIOR ELEVATIONS |
| 12. PLUMBING FIXTURES AND ACCESSORIES - REFER TO INTERIOR ELEVATIONS. |
| 13. MOP SINK - REFER TO PLUMBING DRAWINGS |
| 14. SPRINKLER RISER - COORDINATE REQUIREMENTS WITH FIRE SUPPRESSION CONTRACTOR |
| 15. ELECTRICAL CT CABINET AND MAIN SERVICE DISCONNECTS - REFER TO ELECTRICAL DRAWINGS. |
| 16. GAS MAIN - REFER TO PLUMBING DRAWINGS |
| 17. FIRE ALARM PANELS - REFER TO ELECTRICAL DRAWINGS |
| 18. TELEPHONE BACKBOARD - REFER TO ELECTRICAL DRAWINGS |
| 19. WASHER/DRYER ROUGH-IN - REFER TO PLUMBING, MECHANICAL, ELECTRICAL DRAWINGS. |
| 20. PROVIDE INSULATED 2x BOX OUT AROUND RISER. |
| 21. ELECTRIC LOAD CENTERS - REFER TO ELECTRICAL DRAWINGS. |
| 22. ACCESSIBLE CLEARANCES SHOWN DASHED. |
| 23. WATER MAIN - REFER TO PLUMBING DRAWINGS |
| 24. THROUGH WALL RENT DROP BOX. |
| 25. FIRE ALARM ANNUNCIATOR - REFER TO ELECTRICAL DRAWINGS |
| 26. KNOX BOX - COORDINATE LOCATION WITH KETTERING FIRE DEPARTMENT. |
| 27. SECURITY SYSTEM - DESIGN BY OTHERS. COORDINATE ROUGH-IN REQUIREMENTS WITH OWNER. |
| 28. INTAKE / EXHAUST LOUVER - REFER TO MECHANICAL DRAWINGS. |

GENERAL NOTES

1. INSTALL GYPSUM BOARD AT WALLS AND CEILINGS:
   - 1.1. GYPSUM BOARD SHALL BE 1/2" STANDARD AT INTERIOR PARTITIONS (NON-RATED), UNLESS NOTED OTHERWISE.
   - 1.2. GYPSUM BOARD AT BATHROOM AND KITCHEN (HIGH MOISTURE AREA) SHALL BE PAPERLESS MOLD/MOISTURE RESISTANT GYPSUM BOARD-LEVEL 5 FINISH
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4. PROVIDE KITCHEN APPLIANCES. REFER TO SPECS.
5. INSTALL FINISH FLOOR AND BASE AT ALL AREAS.
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REFERENCES

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2. REFER TO x FOR OVERALL DIMENSIONS AND WALL TYPES.
3. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS.

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08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
Second Floor
Common Area
Proposed Floor Plan

Sheet Number
A2.41



A SECOND FLOOR COMMON AREA DIMENSIONED FLOOR PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8

N

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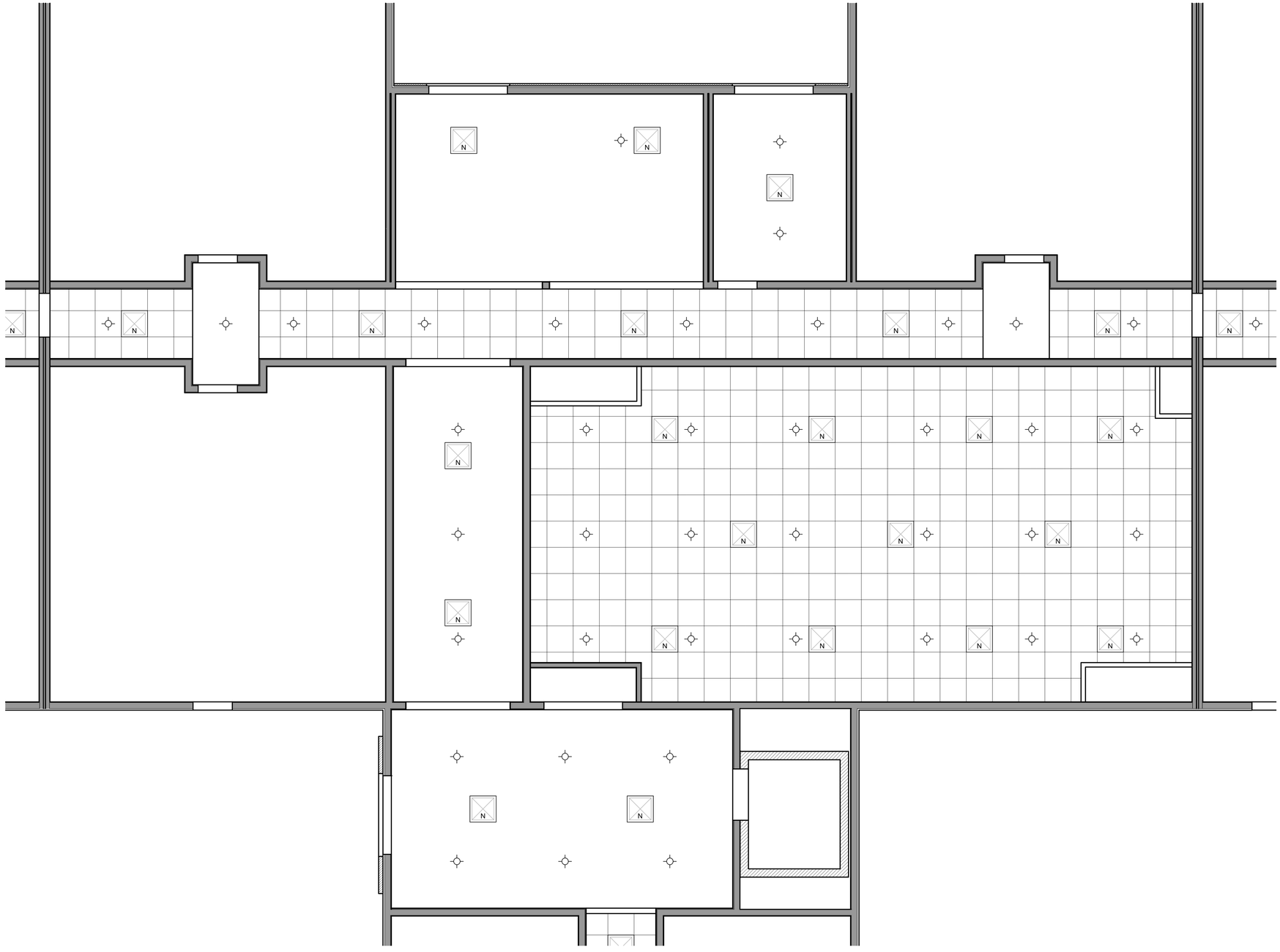
09.13.24	OHFA 80% Review

Sheet Title
Second Floor
Common Area
Dimensioned Floor Plan

Sheet Number
A2.42



RCP KEY NOTES (TYPICAL ALL UNIT TYPES)

(#)

1. GYPSUM BOARD CEILING AT HEIGHT INDICATED.
2. EXHAUST FAN - REFER TO MECHANICAL DRAWINGS
3. SOFFIT THIS AREA TO CONCEAL DUCT FROM HOOD
4. LIGHT FIXTURE - REFER TO ELECTRICAL
5. INTERCONNECTED SMOKE DETECTORS. REFER TO ELECTRICAL DRAWINGS.
6. INTERCONNECTED SMOKE/CARBON MONOXIDE DETECTORS - REFER TO ELECTRICAL DRAWINGS
7. INTERCONNECTED AUDIBLE/VISUAL SMOKE DETECTORS. REFER TO ELECTRICAL DRAWINGS.
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REFLECTED CEILING PLAN - SYMBOL LEGEND

- SD — SMOKE DETECTOR - 120V W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- C/S — COMBINATION SMOKE/CO_2 DETECTOR - 120V W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
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- EXIT SIGN / EMERGENCY LIGHT W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- EXIT SIGN W/ BATTERY BACKUP - REFER TO ELECTRICAL DRAWINGS
- CEILING MTD. LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- WALL MTD. LIGHT FIXTURE - REFER TO ELECTRICAL DRAWINGS
- CEILING FAN W/ LIGHT - REFER TO ELECTRICAL DRAWINGS

A — SECOND FLOOR COMMON AREA REFLECTED CEILING PLAN

SCALE: 1/4" = 1'-0" (0 2 4 8)

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7662 PARAGON ROAD | DAYTON, OH 45459 | 937.610.3440

OBERER COMPANIES
3445 Newmark Drive
Miamisburg, Ohio 45342

New Multi-Family Building:
Senior Village at Valle Greene
1155 Channingway Drive
Fairborn, Ohio 45324
OHFA Tracking Number: 24-0087

Project Number
2023-191

Date
September 13, 2024

Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
Second Floor
Common Area
Reflected Ceiling Plan

Sheet Number
A2.43

E TYPICAL CORRIDOR INTERIOR ELEVATION

SCALE: 1/4" = 1'-0"

0 2 4 8

STATE OF OHIO
JONATHAN ROBERT SCHAAF
REGISTERED ARCHITECT
PRELIMINARY NOT FOR CONSTRUCTION

Jonathan Robert Schaaf #14503
Expiration Date 12/31/2025

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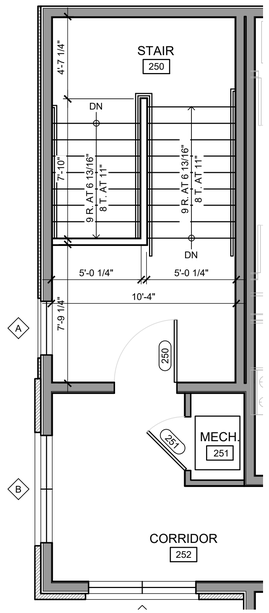
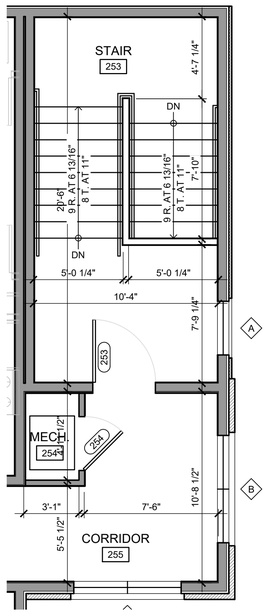
Sheet Title
Second Floor Common Area Interior Elevations

Sheet Number
A2.44



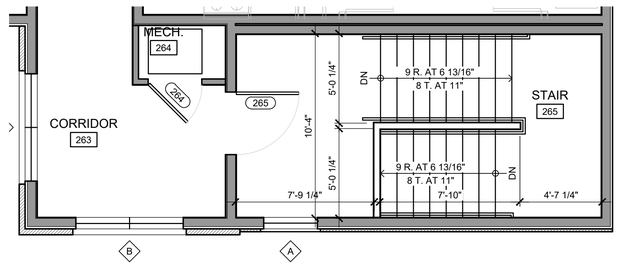
B ENLARGED SECOND FLOOR SOUTH STAIR FLOOR PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8



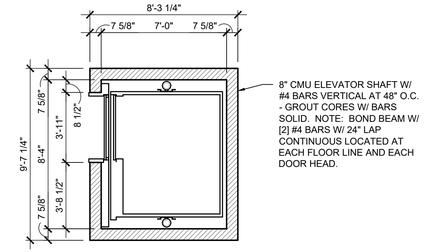
D ENLARGED SECOND FLOOR NORTH STAIR FLOOR PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8



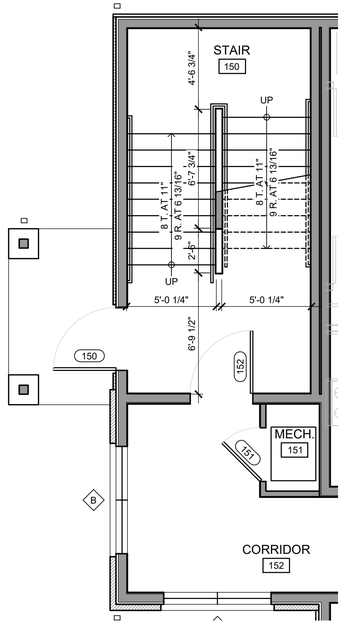
F ENLARGED SECOND FLOOR EAST STAIR FLOOR PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8



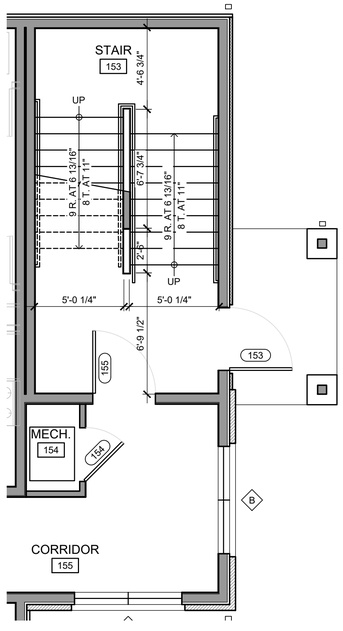
H ENLARGED ELEVATOR HOISTWAY PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8



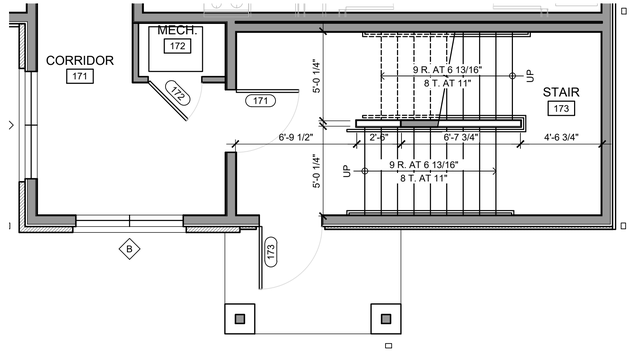
A ENLARGED FIRST FLOOR SOUTH STAIR FLOOR PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8



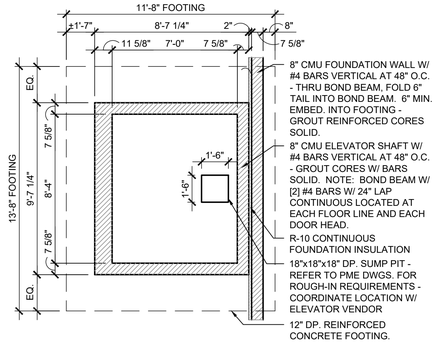
C ENLARGED FIRST FLOOR NORTH STAIR FLOOR PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8



E ENLARGED FIRST FLOOR EAST STAIR FLOOR PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8



G ENLARGED ELEVATOR FOUNDATION PLAN

SCALE: 1/4" = 1'-0" 0 2 4 8

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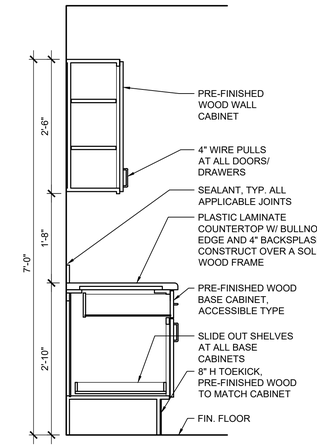
Sheet Title
Enlarged Stair Plans

Sheet Number
A2.51



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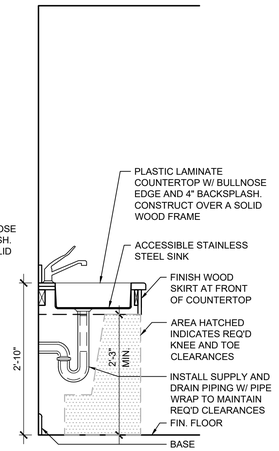

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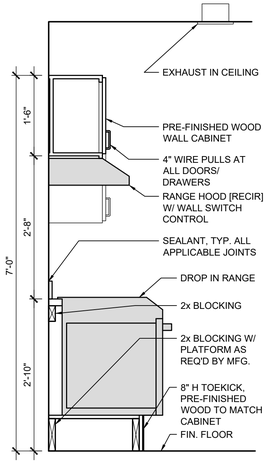

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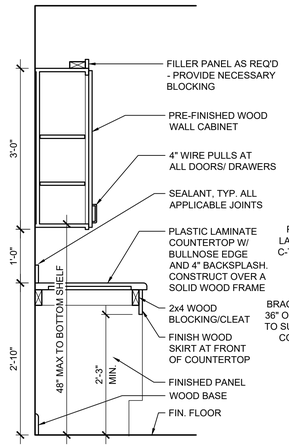
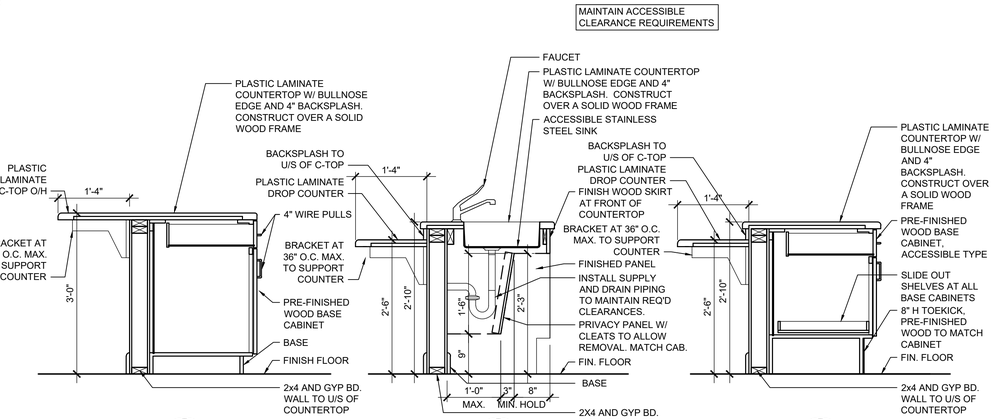


4

MAINTAIN ACCESSIBLE CLEARANCE REQUIREMENTS



5 6

7

8

9

10

11

12

13

14

MILLWORK SECTIONS

SCALE: 3/4" = 1'-0"

0 1 2

NOTE: ALL COUNTERTOPS TO HAVE BEVELED EDGES

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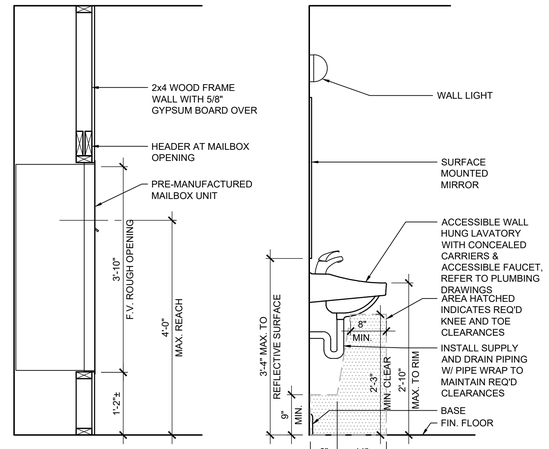
Sheet Title
Millwork Sections

Sheet Number
A2.61



1

2

MILLWORK SECTIONS

SCALE: 3/4" = 1'-0"

0 1 2

TYPICAL LINEN CLOSET

A

TYPICAL BEDROOM CLOSET

B

TYPICAL ACCESSIBLE CLOSET

C

TYPICAL CLOSET/SHELVING INTERIOR ELEVATIONS

SCALE: 1/2" = 1'-0"

0 1 2 4

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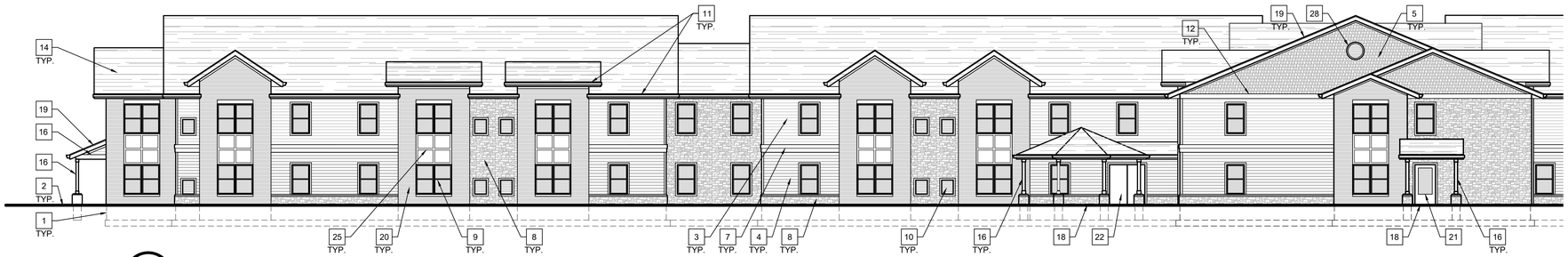
Sheet Title
Millwork Sections & Typical Interior Elevations

Sheet Number
A2.62



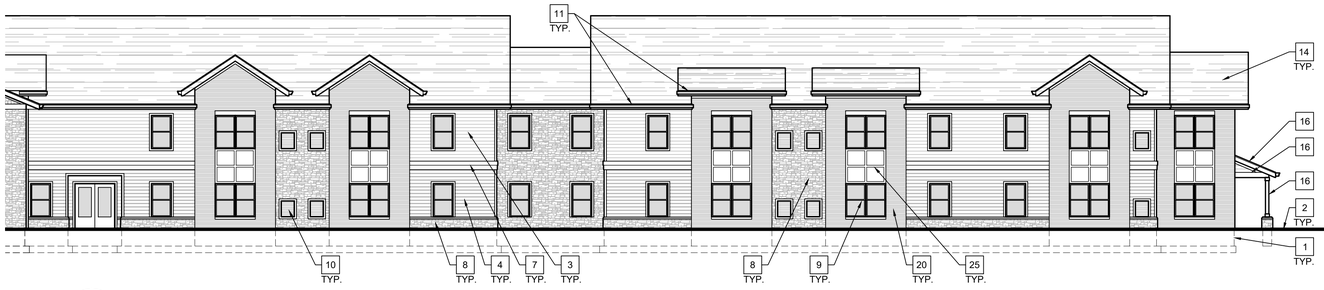
A SOUTH ELEVATION

SCALE: 3/32" = 1'-0" 0 6 12 24



B EAST ELEVATION - SOUTH

SCALE: 3/32" = 1'-0" 0 6 12 24



C EAST ELEVATION - NORTH

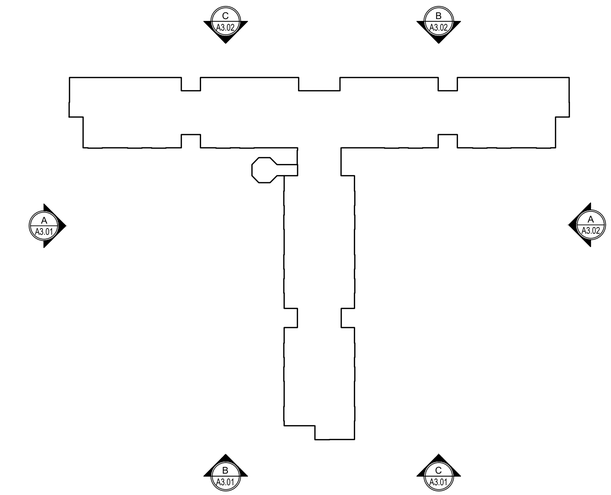
SCALE: 3/32" = 1'-0" 0 6 12 24

KEY NOTES (TYPICAL ALL COMMON AREAS)

1. FOUNDATION WALL/ FOOTING.
2. FINISH GRADE.
3. VINYL SIDING - COLOR "A".
4. VINYL SIDING - COLOR "B".
5. VINYL SHAKE SIDING - COLOR "C".
6. 4" FIBER CEMENT CORNER TRIM - COLOR "D".
7. 16" ALUM. WRAP TRIM BAND [2-PART]- COLOR "D".
8. CULTURED STONE VENEER WITH CAST STONE CAP.
9. VINYL WINDOWS - REFER TO SCHEDULE.
10. LOUVER/GRILLE - PAINT TO MATCH ADJACENT SIDING COLOR
11. ALUMINUM WRAP 2X10 FASCIA WITH 6" ALUMINUM GUTTER.
12. ALUM. WRAPPED FRIEZE.
13. VENTED VINYL SOFFITS.
14. 30 YR. ASPHALT SHINGLE ROOF SYSTEM.
15. CONTINUOUS RIDGE VENT.
16. COMPOSITE WRAPPED PORCH COLUMN ON CULTURED STONE WRAPPED BASE.
17. COMPOSITE WRAP BEAM.
18. CONCRETE SLAB FLUSH WITH FINISH FLOOR.
19. ALUMINUM WRAP 2X8 RAKE.
20. BRICK VENEER.
21. ENTRY DOOR - REFER TO SCHEDULE
22. SERVICE DOOR - REFER TO SCHEDULE
23. ADDRESS - RAISED METAL NUMBERS .
24. DOWNSPOUT.
25. FIBER CEMENT PANELS / TRIM - COLOR D
26. KNOX BOX
27. WALL MOUNTED SIGNAGE - REFER TO SIGN PACKAGE
28. DECORATIVE 30" DIA. VENT

GENERAL NOTES

1. INSTALL NEW SEALANT AT ALL APPLICABLE JOINTS IN EXTERIOR ENVELOPE. SEAL ALL PENETRATIONS OF ELECTRICAL/PLUMBING/MECHANICAL ITEMS, ETC.
2. FLASH ALL WINDOW AND DOOR OPENINGS AND INSTALL SEALANT AS APPLICABLE AGAINST ADJACENT BUILDING JOINTS.
3. PAINT ALL ROOF PENETRATIONS TO MATCH ROOF COLOR.
4. PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING.
5. PAINT ALL ELECTRICAL BOXES, CONDUITS, ETC. TO MATCH WALL.
6. DOWNSPOUTS DISCHARGE TO UNDERGROUND DRAINAGE.
7. COORDINATE LOCATIONS OF ALL THROUGH WALL PENETRATIONS PRIOR TO INSTALLATION.



D EXTERIOR ELEVATION KEY PLAN

SCALE: N.T.S.

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Sheet Title
Exterior Elevations

Sheet Number
A3.01



A NORTH ELEVATION

SCALE: 3/32" = 1'-0" 0 6 12 24



B WEST ELEVATION - NORTH

SCALE: 3/32" = 1'-0" 0 6 12 24



C WEST ELEVATION - SOUTH

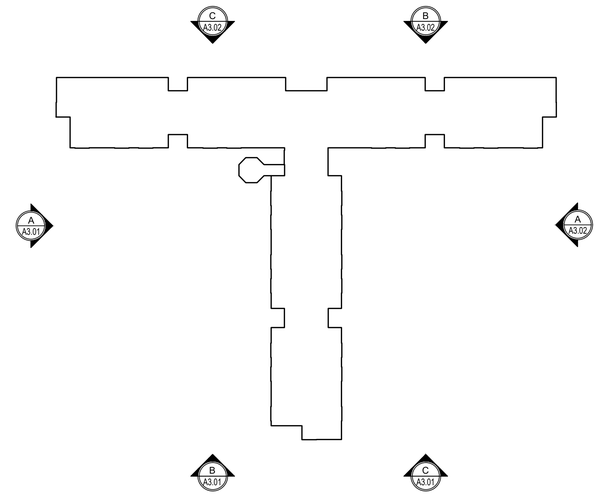
SCALE: 3/32" = 1'-0" 0 6 12 24

KEY NOTES (TYPICAL ALL COMMON AREAS)

1. FOUNDATION WALL/ FOOTING.
2. FINISH GRADE.
3. VINYL SIDING - COLOR "A".
4. VINYL SIDING - COLOR "B".
5. VINYL SHAKE SIDING - COLOR "C".
6. 4" FIBER CEMENT CORNER TRIM - COLOR "D".
7. 16" ALUM. WRAP TRIM BAND [2-PART]- COLOR "D".
8. CULTURED STONE VENEER WITH CAST STONE CAP.
9. VINYL WINDOWS - REFER TO SCHEDULE.
10. LOUVER/GRILLE - PAINT TO MATCH ADJACENT SIDING COLOR
11. ALUMINUM WRAP 2X10 FASCIA WITH 6" ALUMINUM GUTTER.
12. ALUM. WRAPPED FRIEZE.
13. VENTED VINYL SOFFITS.
14. 30 YR. ASPHALT SHINGLE ROOF SYSTEM.
15. CONTINUOUS RIDGE VENT.
16. COMPOSITE WRAPPED PORCH COLUMN ON CULTURED STONE WRAPPED BASE.
17. COMPOSITE WRAP BEAM.
18. CONCRETE SLAB FLUSH WITH FINISH FLOOR.
19. ALUMINUM WRAP 2X8 RAKE.
20. BRICK VENEER.
21. ENTRY DOOR - REFER TO SCHEDULE
22. SERVICE DOOR - REFER TO SCHEDULE
23. ADDRESS - RAISED METAL NUMBERS .
24. DOWNSPOUT.
25. FIBER CEMENT PANELS / TRIM - COLOR D
26. KNOX BOX
27. WALL MOUNTED SIGNAGE - REFER TO SIGN PACKAGE
28. DECORATIVE 30" DIA. VENT

GENERAL NOTES

1. INSTALL NEW SEALANT AT ALL APPLICABLE JOINTS IN EXTERIOR ENVELOPE. SEAL ALL PENETRATIONS OF ELECTRICAL/PLUMBING/MECHANICAL ITEMS, ETC.
2. FLASH ALL WINDOW AND DOOR OPENINGS AND INSTALL SEALANT AS APPLICABLE AGAINST ADJACENT BUILDING JOINTS.
3. PAINT ALL ROOF PENETRATIONS TO MATCH ROOF COLOR.
4. PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING.
5. PAINT ALL ELECTRICAL BOXES, CONDUITS, ETC. TO MATCH WALL.
6. DOWNSPOUTS DISCHARGE TO UNDERGROUND DRAINAGE.
7. COORDINATE LOCATIONS OF ALL THROUGH WALL PENETRATIONS PRIOR TO INSTALLATION.



D EXTERIOR ELEVATION KEY PLAN

SCALE: N.T.S.

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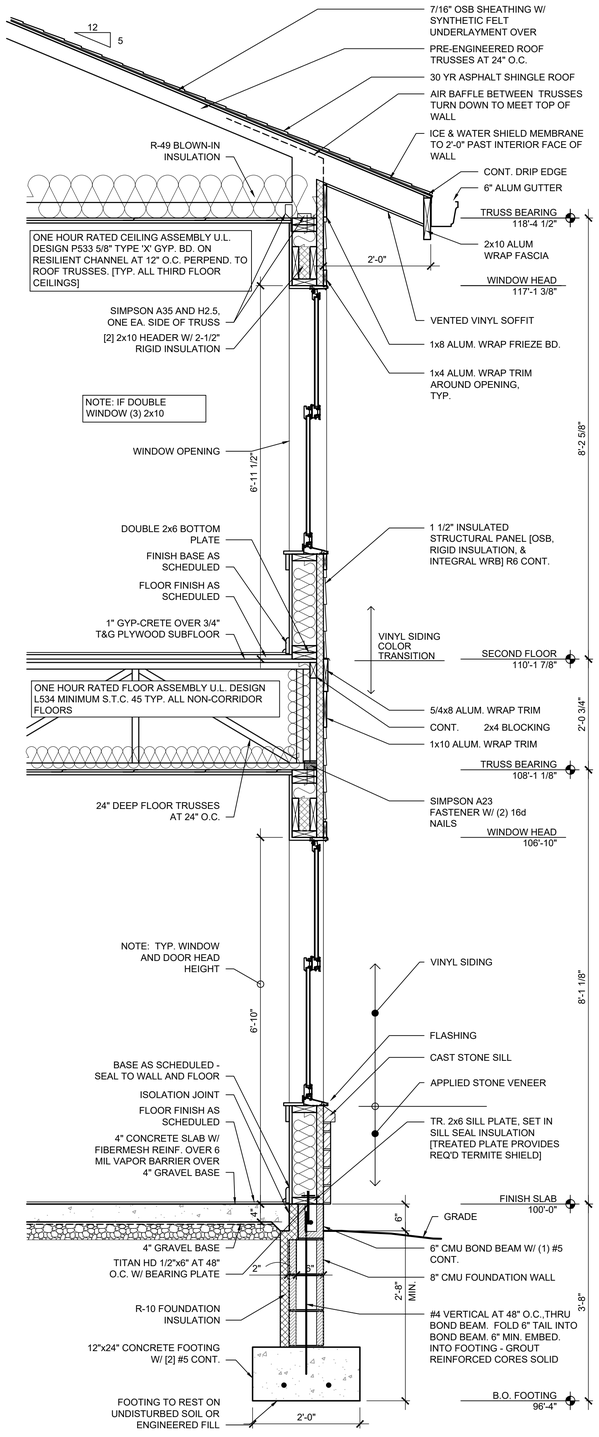
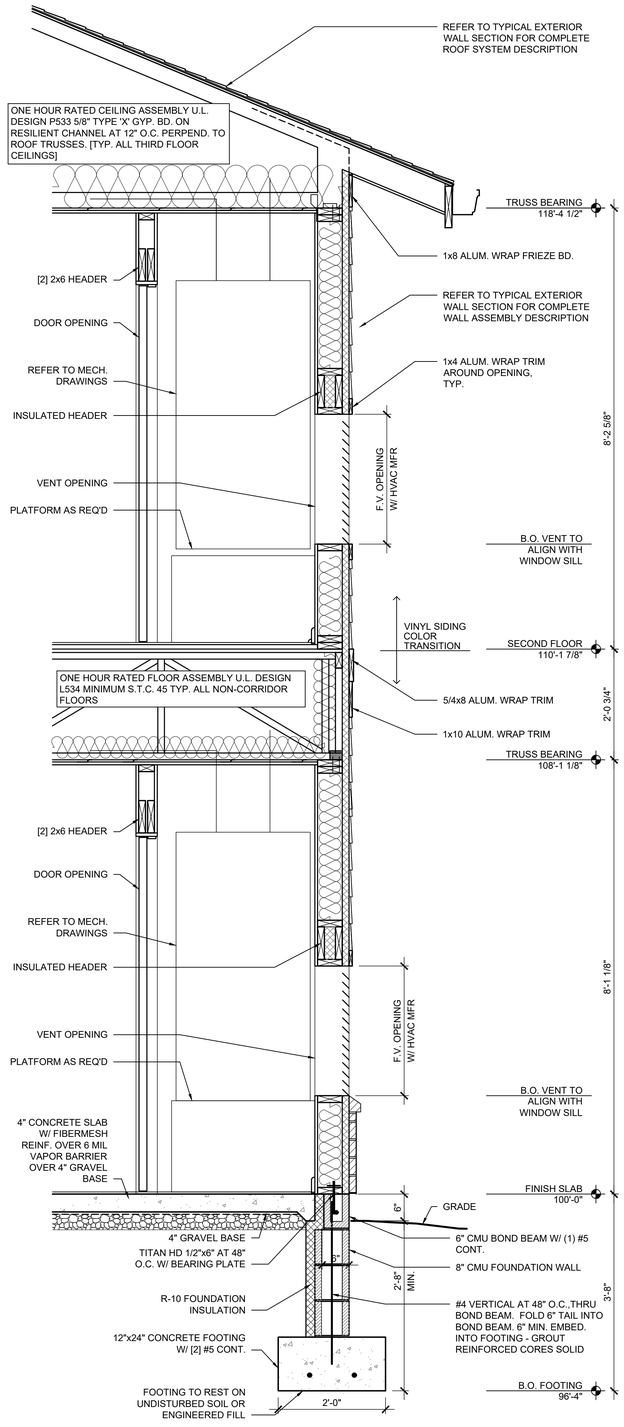
Sheet Title
Exterior Elevations

Sheet Number
A3.02



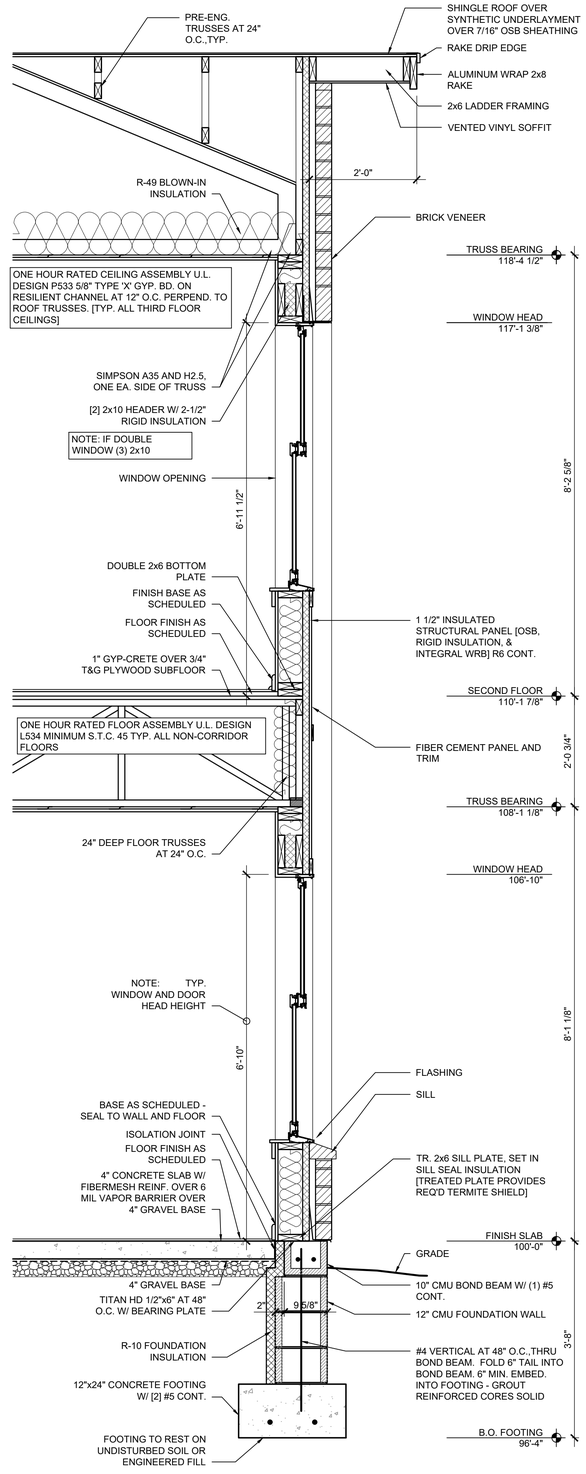
A TYPICAL EXTERIOR WALL SECTION

SCALE: 3/4" = 1'-0"



B TYPICAL EXTERIOR WALL SECTION AT MECH. CLOSET

SCALE: 3/4" = 1'-0"



C BUILDING PROJECTION GABLE WALL SECTION

SCALE: 3/4" = 1'-0"

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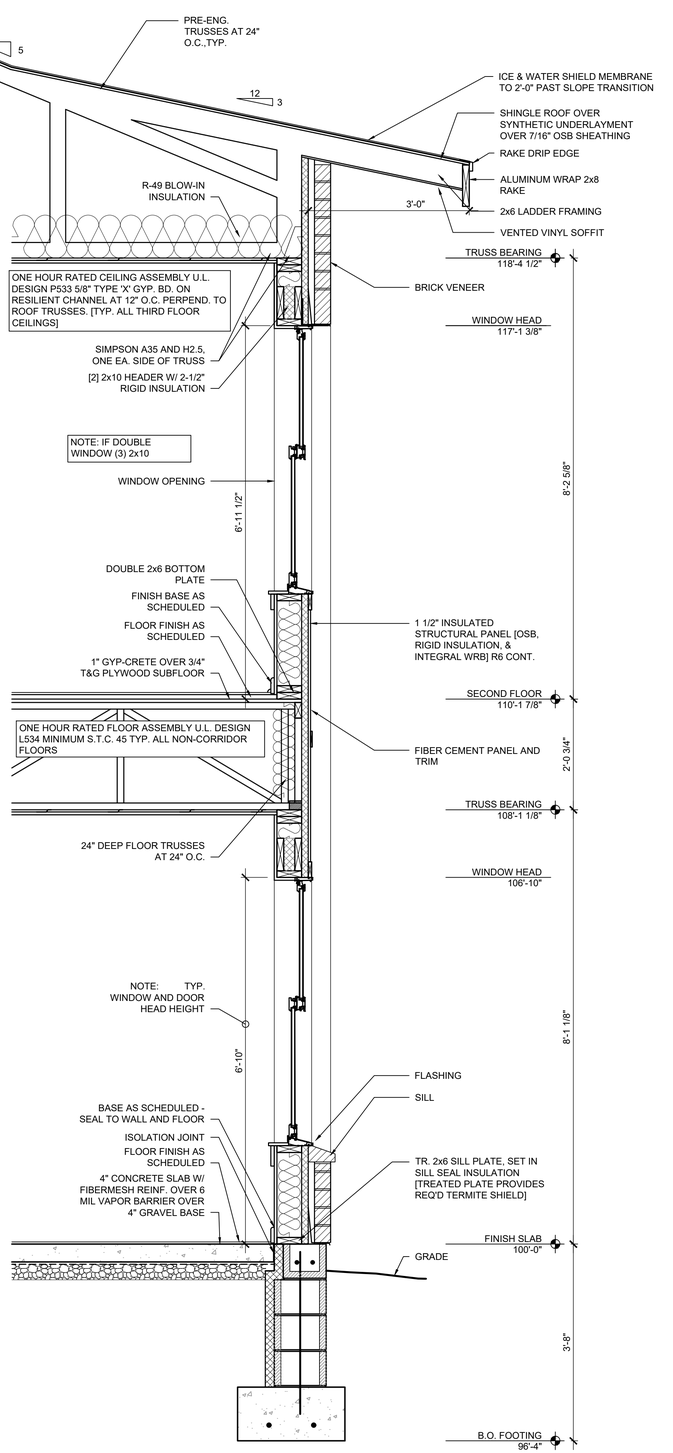
Sheet Title
Sections

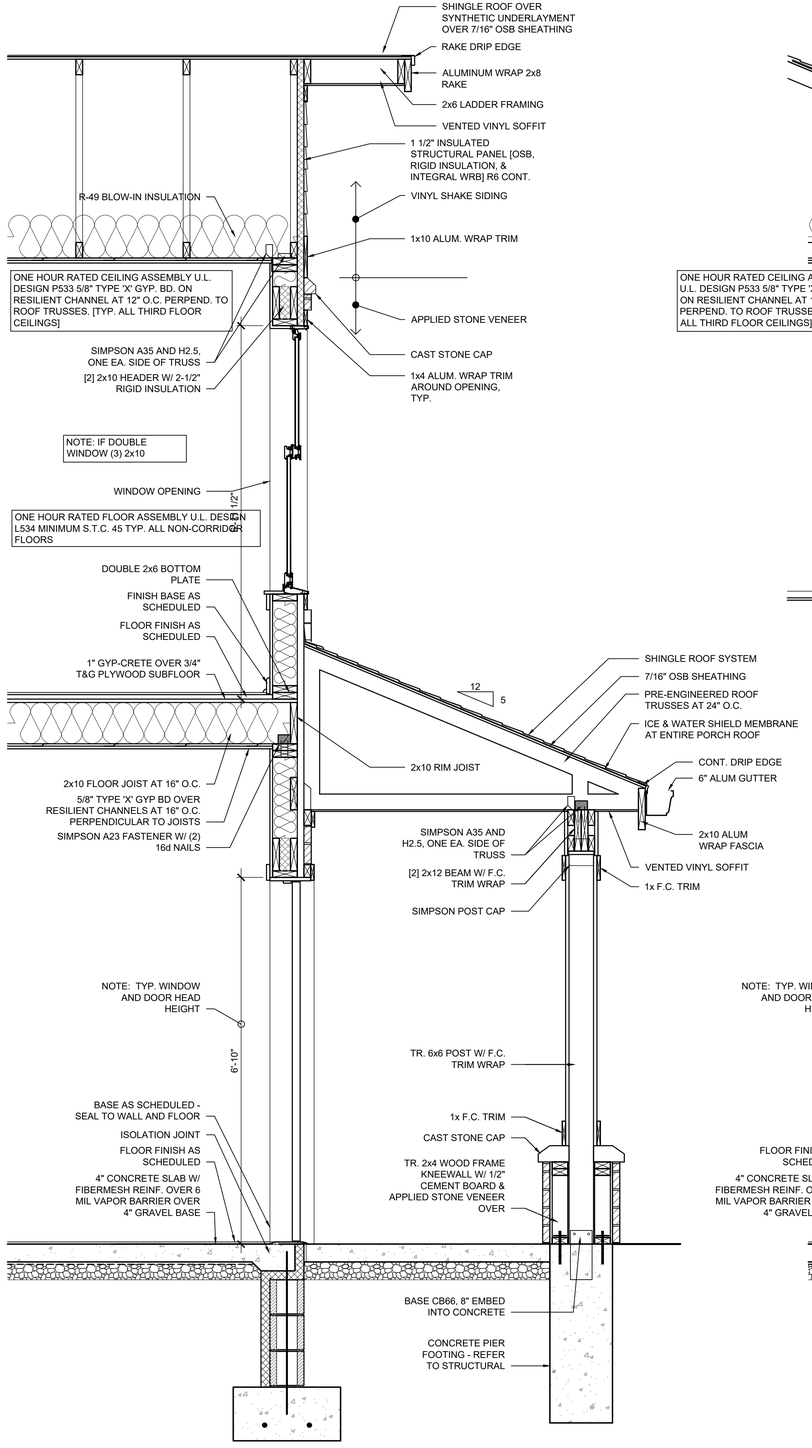
Sheet Number
A4.11



A

BUILDING PROJECTION SHED WALL SECTION

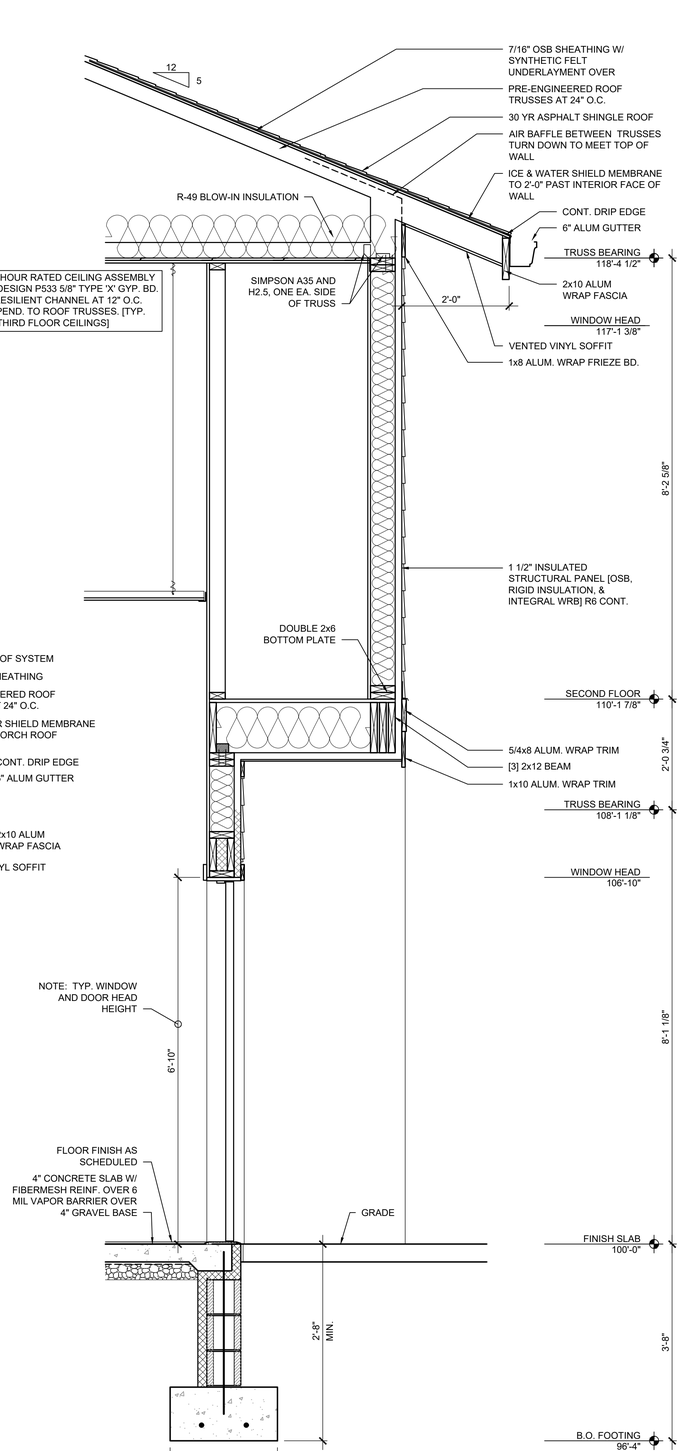
SCALE: 3/4" = 1'-0"



B

TYPICAL GABLE WALL SECTION AT COVERED PORCH

SCALE: 3/4" = 1'-0"



C

WALL SECTION AT RECESSED ENTRY

SCALE: 3/4" = 1'-0"

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Miamisburg, Ohio 45342

New Multi-Family Building:

Senior Village at Valle Greene

1155 Channingway Drive
Fairborn, Ohio 45324
OHFA Tracking Number: 24-0087

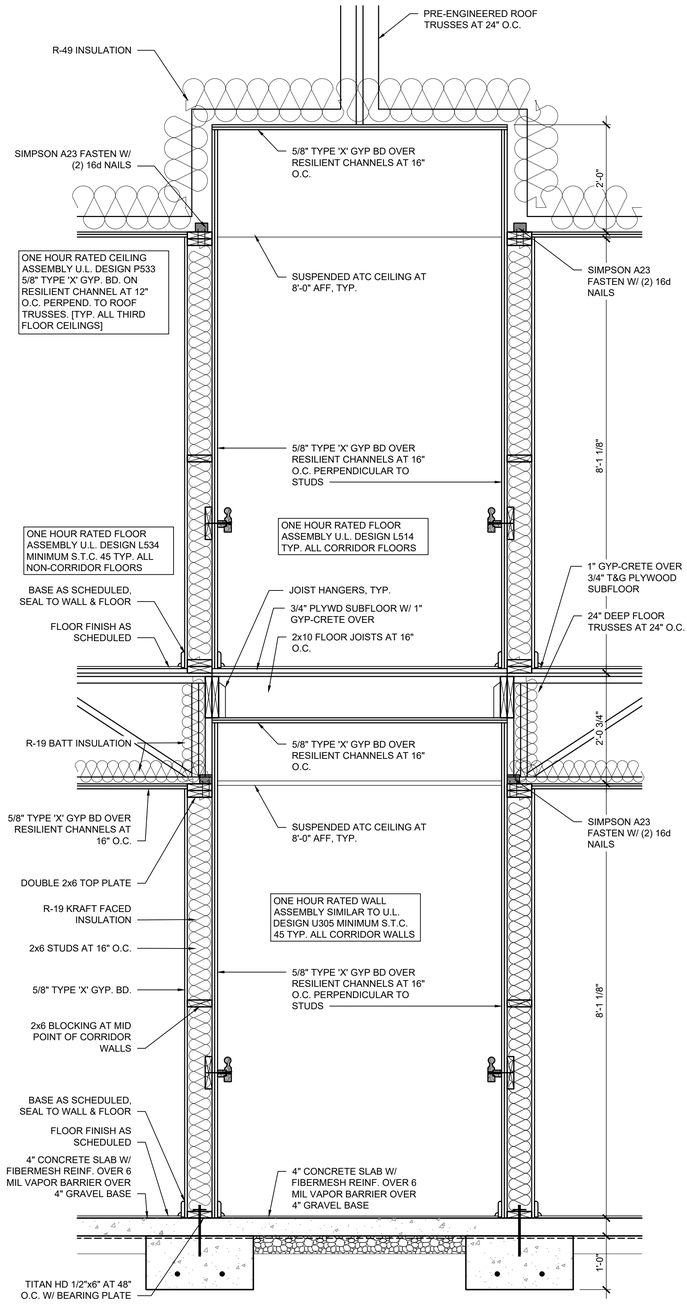
Project Number
2023-191

Date
September 13, 2024

Date	Issue
06.17.24	Progress
08.01.24	Progress Set
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

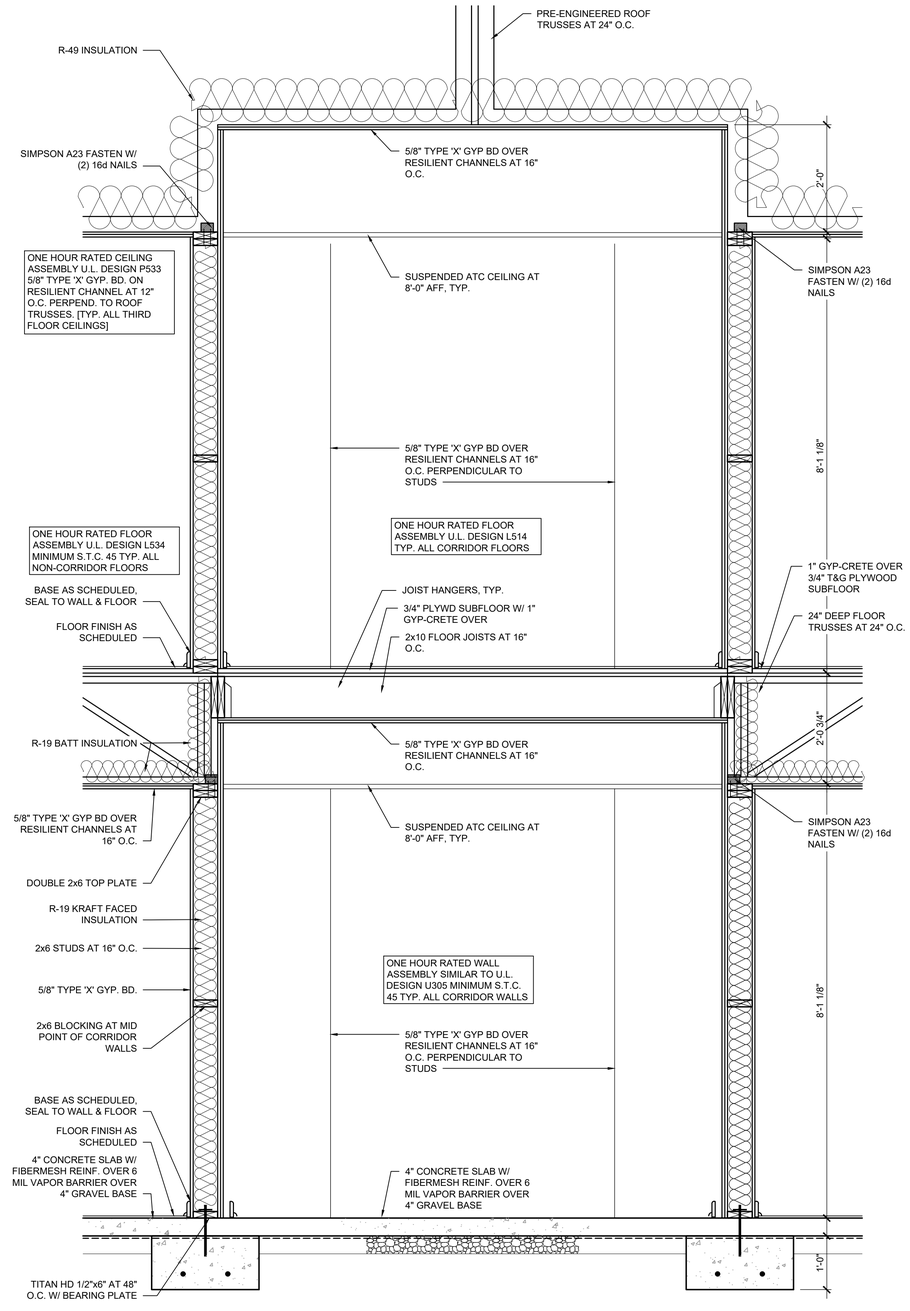
Sheet Title
Sections

Sheet Number
A4.12



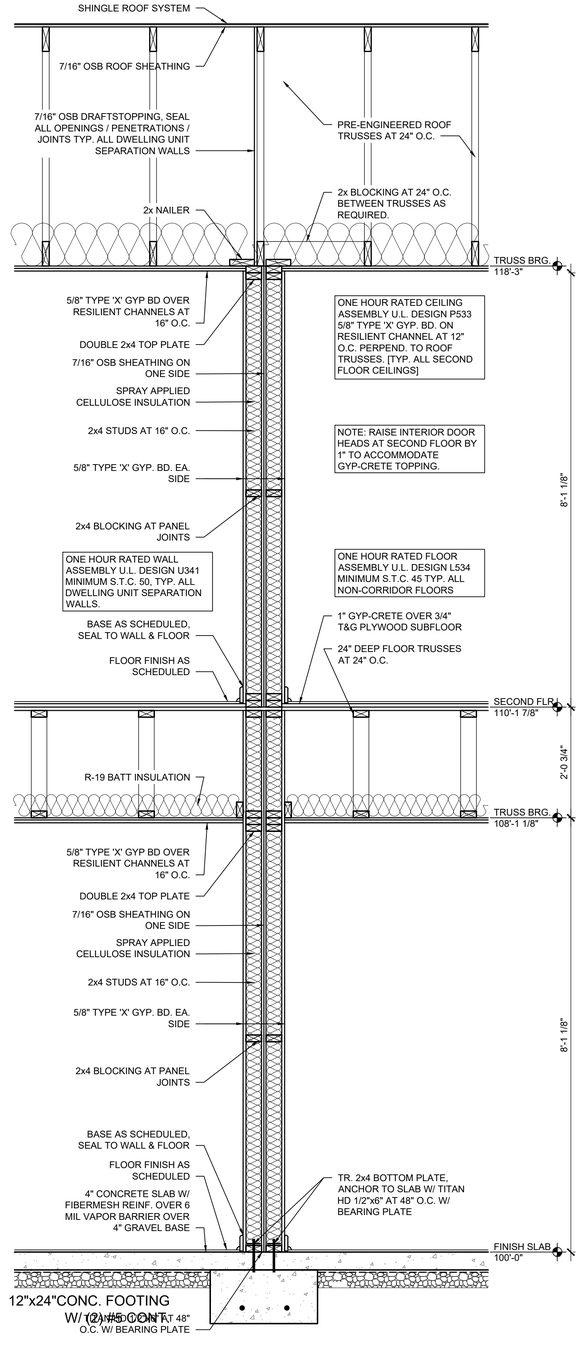
A TYPICAL CORRIDOR WALL SECTION

SCALE: 3/4" = 1'-0" 0 1 2



B TYPICAL CORRIDOR SECTION AT RECESSED UNIT ENTRY

SCALE: 3/4" = 1'-0" 0 1 2



C TYPICAL UNIT DEMISING WALL SECTION

SCALE: 3/4" = 1'-0" 0 1 2

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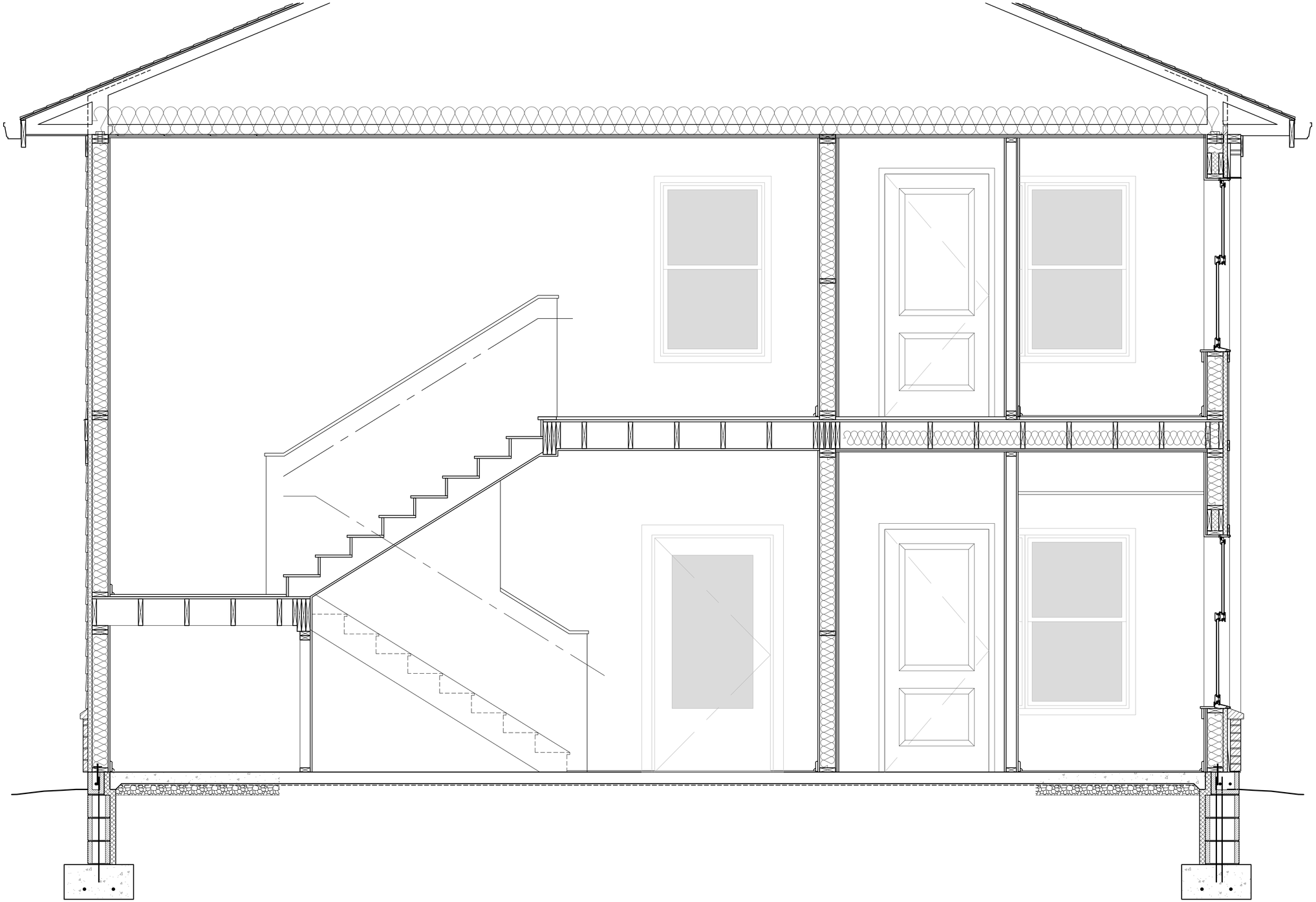
09.13.24	OHFA 80% Review

Sheet Title
Sections

Sheet Number
A4.13



A TYPICAL
STAIR WELL SECTION
SCALE: 3/4" = 1'-0"
0 1 2

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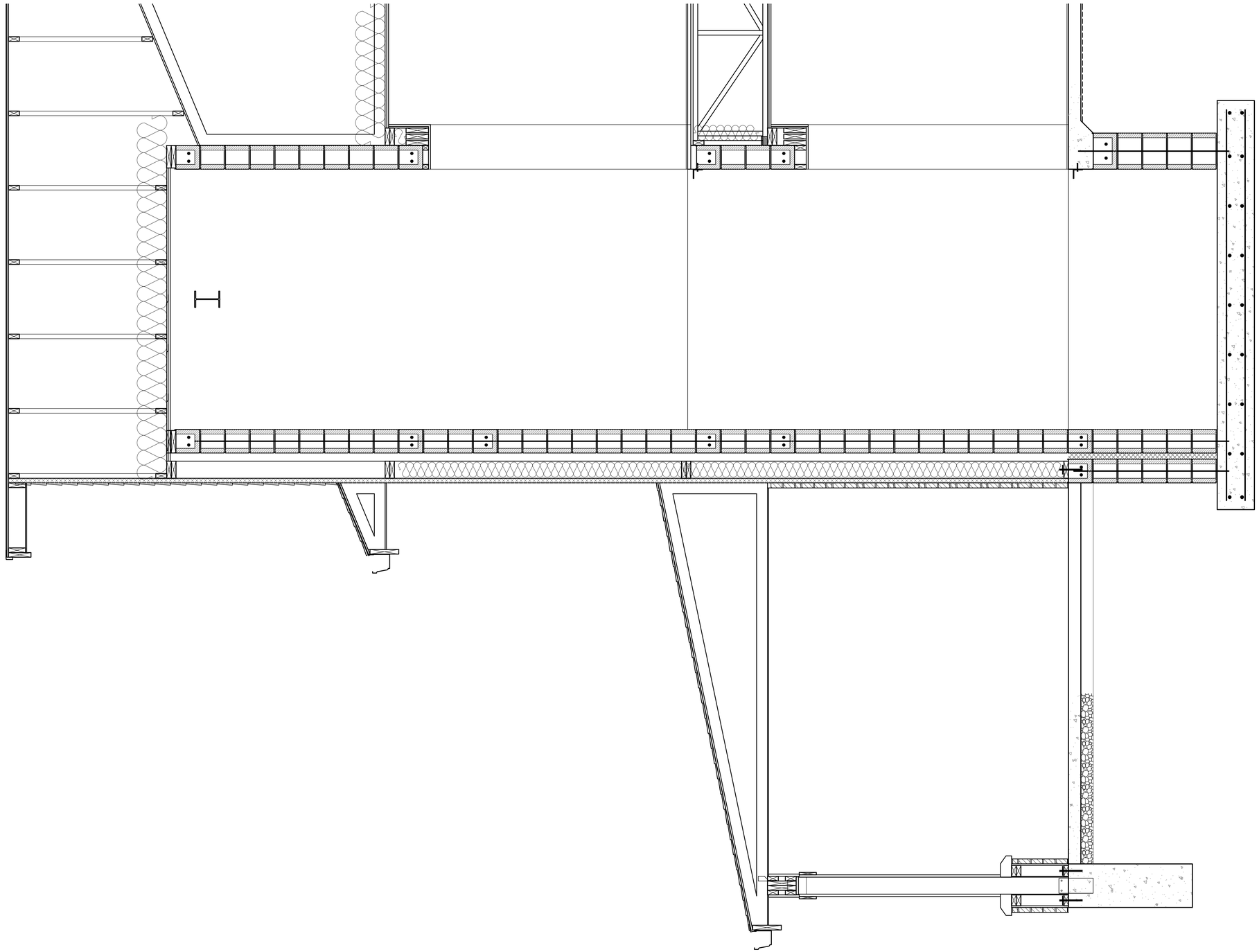
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
Sections

Sheet Number
A4.14



A ELEVATOR SECTION
SCALE: 3/4" = 1'-0"

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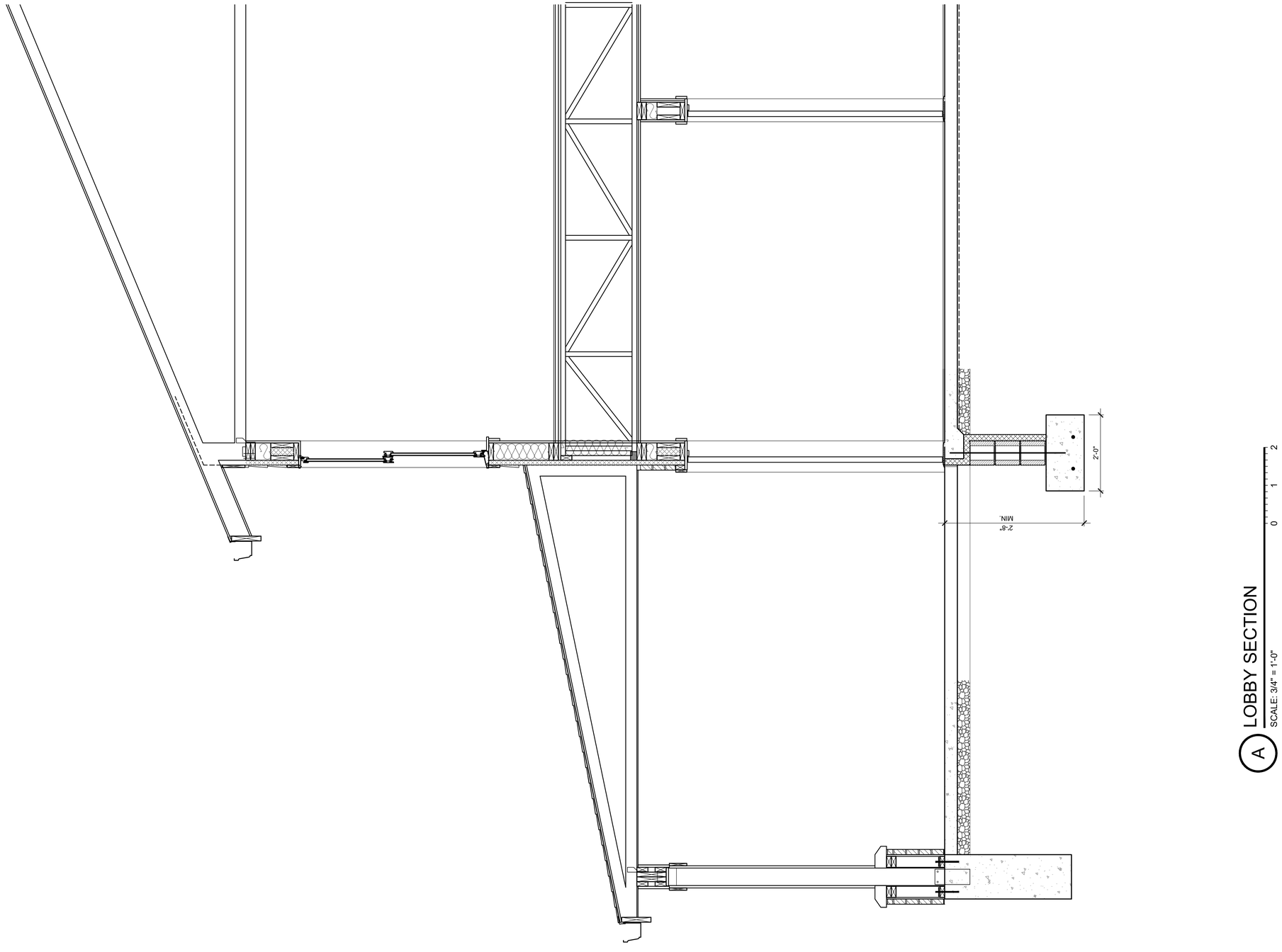
09.13.24	OHFA 80% Review

Sheet Title
Sections

Sheet Number
A4.15



A LOBBY SECTION
SCALE: 3/4" = 1'-0"

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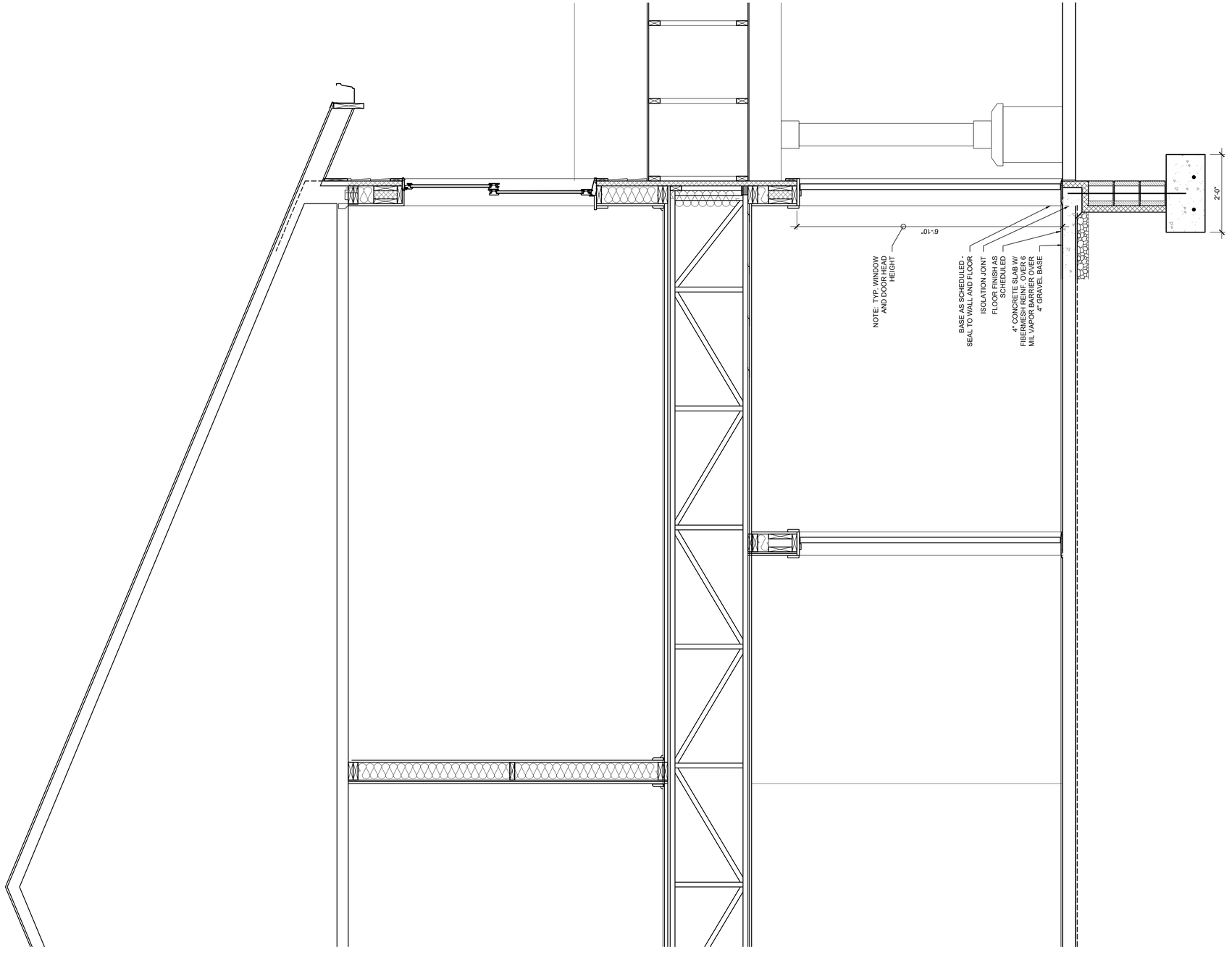
08.22.24	Progress Set
08.30.24	Progress Set
09.13.24	OHFA 80% Review

Sheet Title
Sections

Sheet Number
A4.16



A LOBBY SECTION
SCALE: 3/4" = 1'-0"

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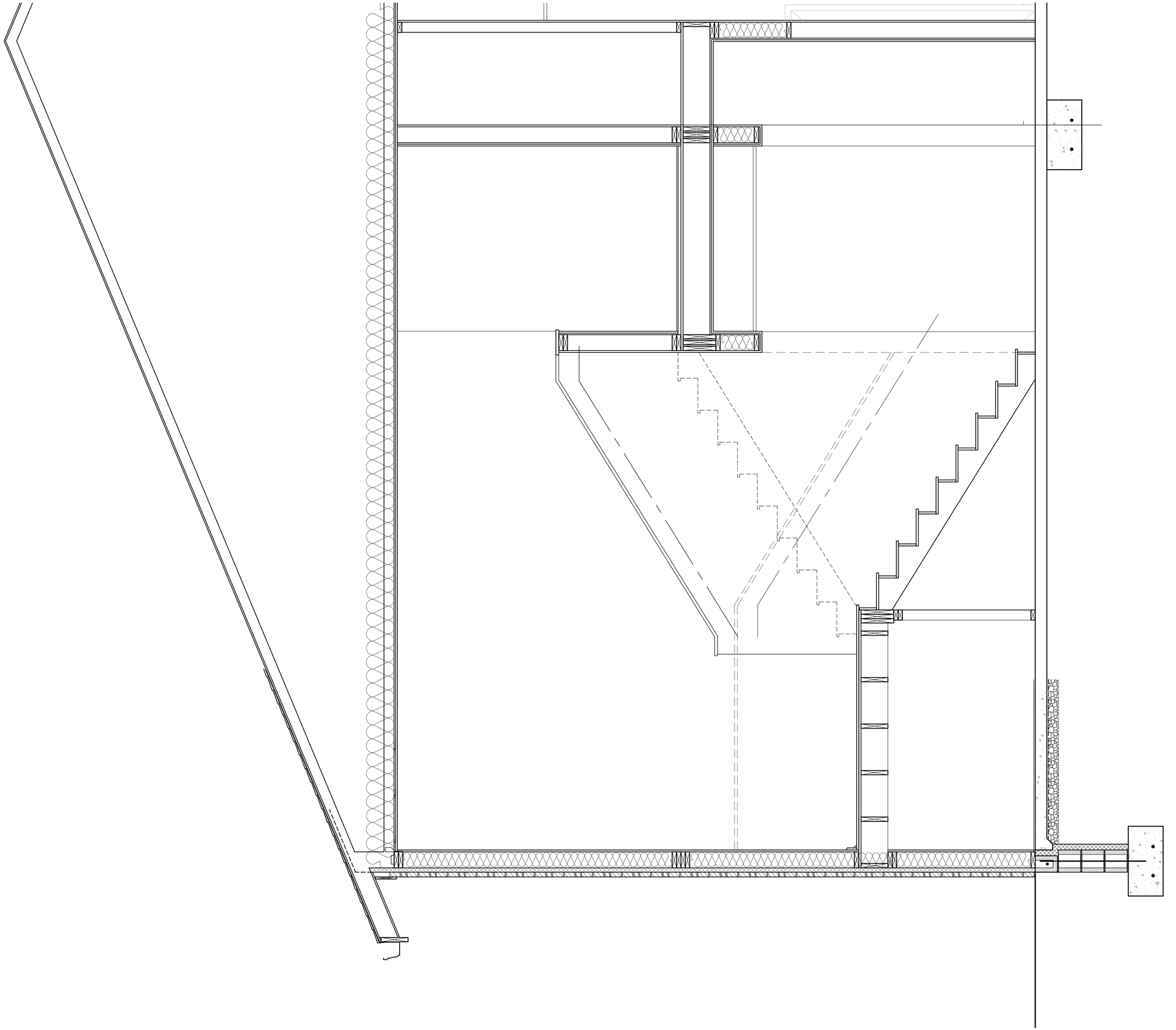
09.13.24	OHFA 80% Review

Sheet Title
Sections

Sheet Number
A4.17



A LOBBY SECTION
SCALE: 3/4" = 1'-0"

0 1 2

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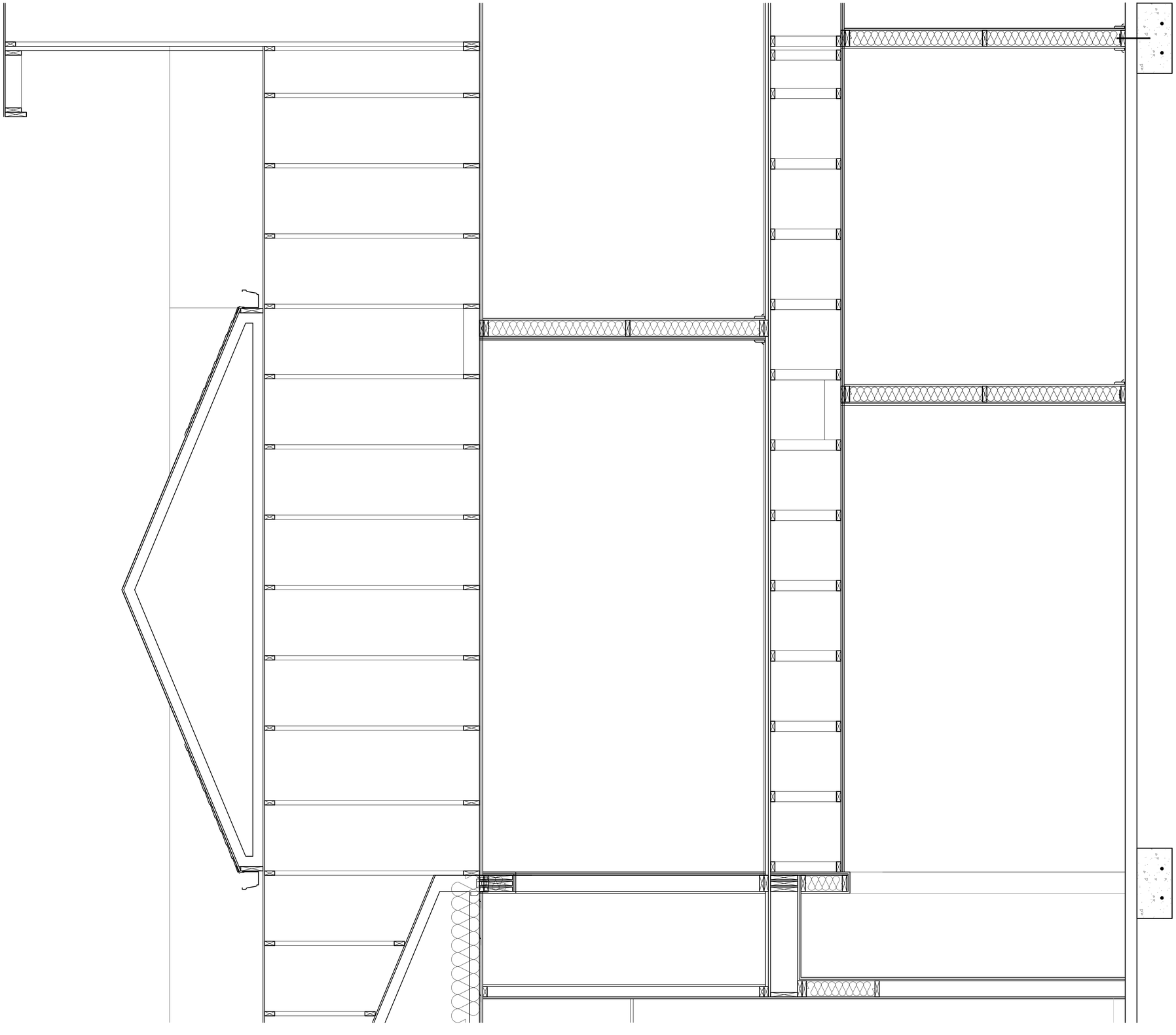
Sheet Title
Sections

Sheet Number
A4.18



A LOBBY SECTION
SCALE: 3/4" = 1'-0"

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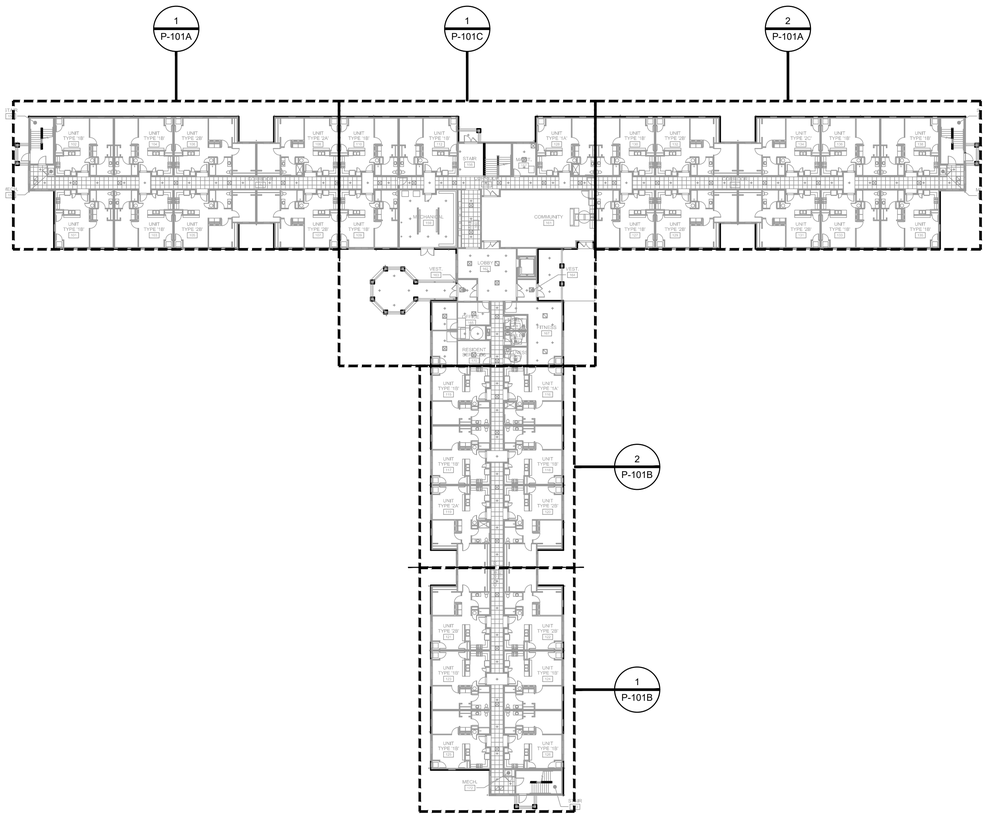
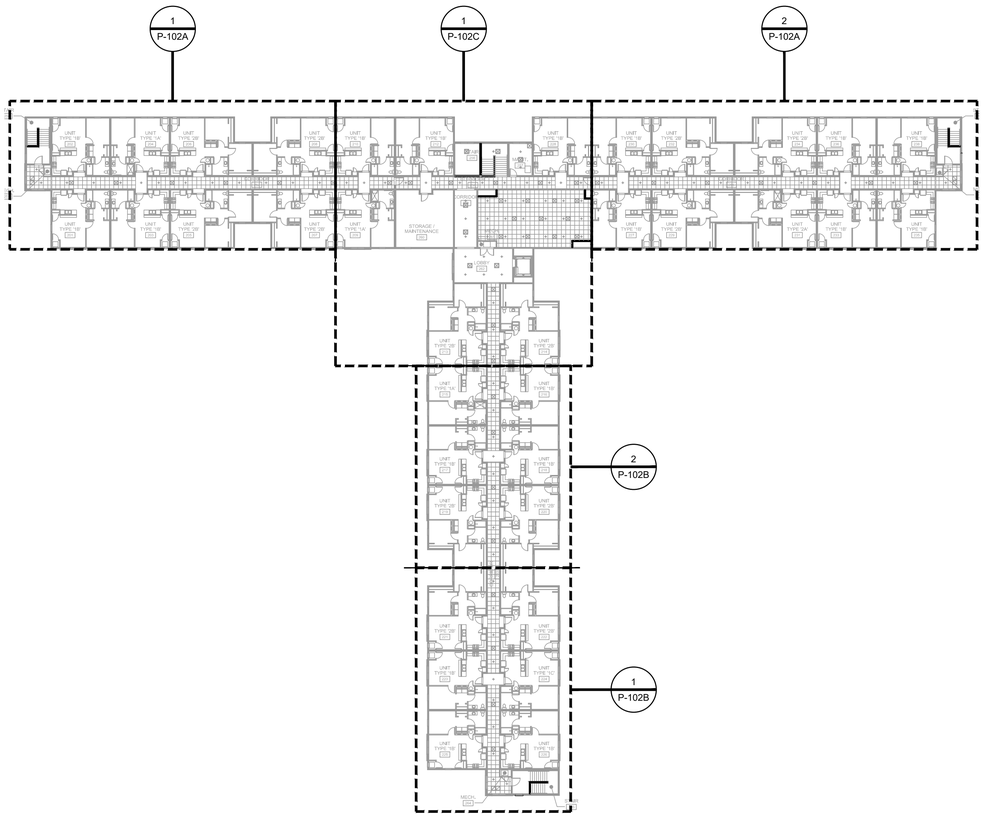
Sheet Title
Sections

Sheet Number
A4.19



1 P-100 PLUMBING OVERALL PLAN 1ST FLOOR
SCALE: 3/32" = 1'-0"
0' 4' 8' 20'



2 P-100 PLUMBING OVERALL PLAN 2ND FLOOR
SCALE: 3/32" = 1'-0"
0' 4' 8' 20'

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New Multi-Family Building:
Senior Village at Valle Green

Channingway Dr.
Fairborn, Ohio 45324

Project Number
E2M: 24175

Date
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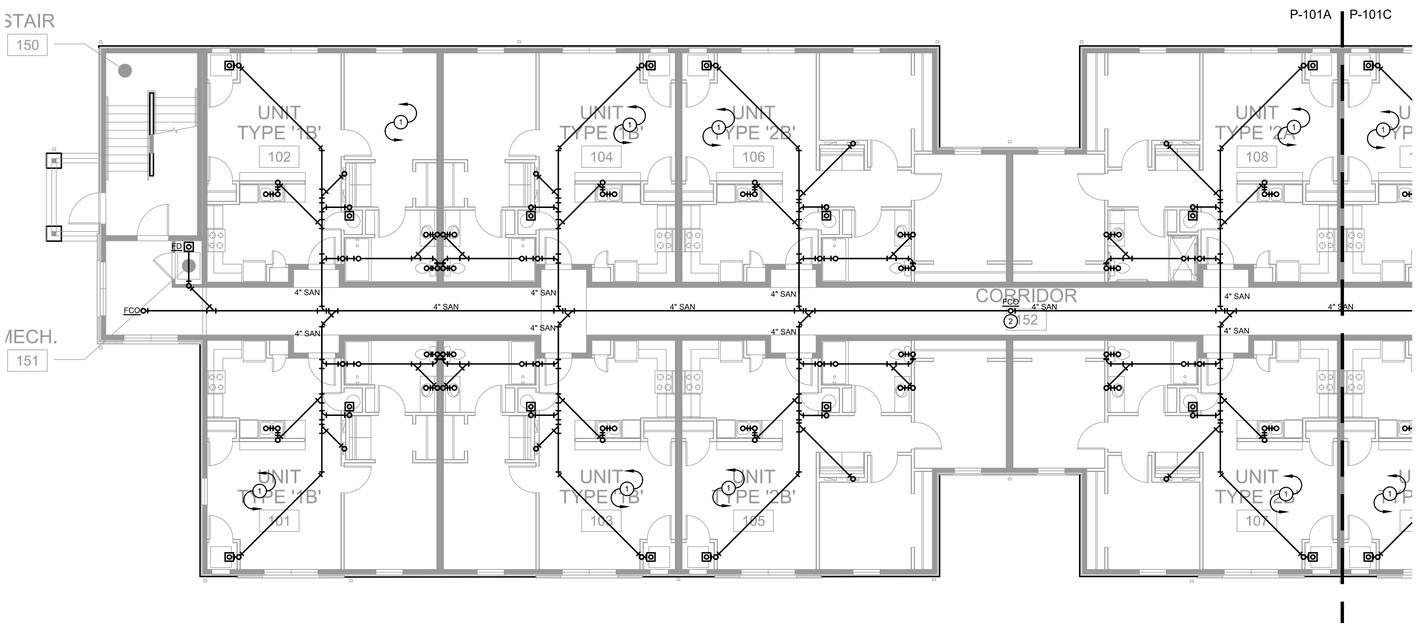
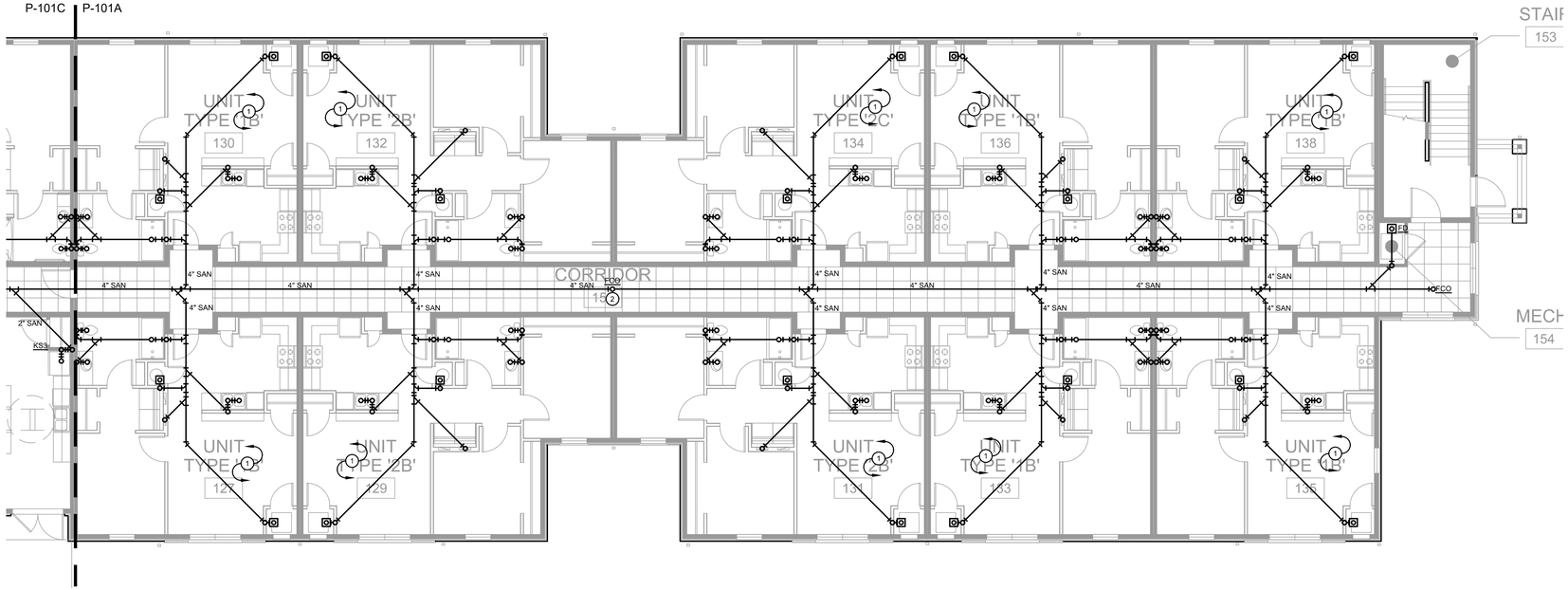
Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
PLUMBING OVERALL PLAN

Sheet Number
P-100

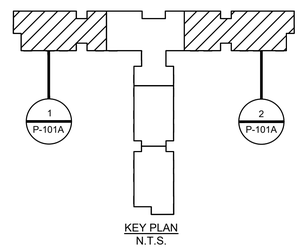


1 P-101A OVERALL 1ST FLOOR DWV PLUMBING PLAN SOUTH
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'



2 P-101A OVERALL 1ST FLOOR DWV PLUMBING PLAN NORTH
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

PLAN NOTES	
1	REFER TO P-103 FOR ENLARGED TYPICAL UNIT DWV PLUMBING PLAN.
2	INSTALL FLOOR CLEAN-OUT EVERY 100 FEET.



KEY PLAN
N.T.S.

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Project Number
E2M: 24175
Date
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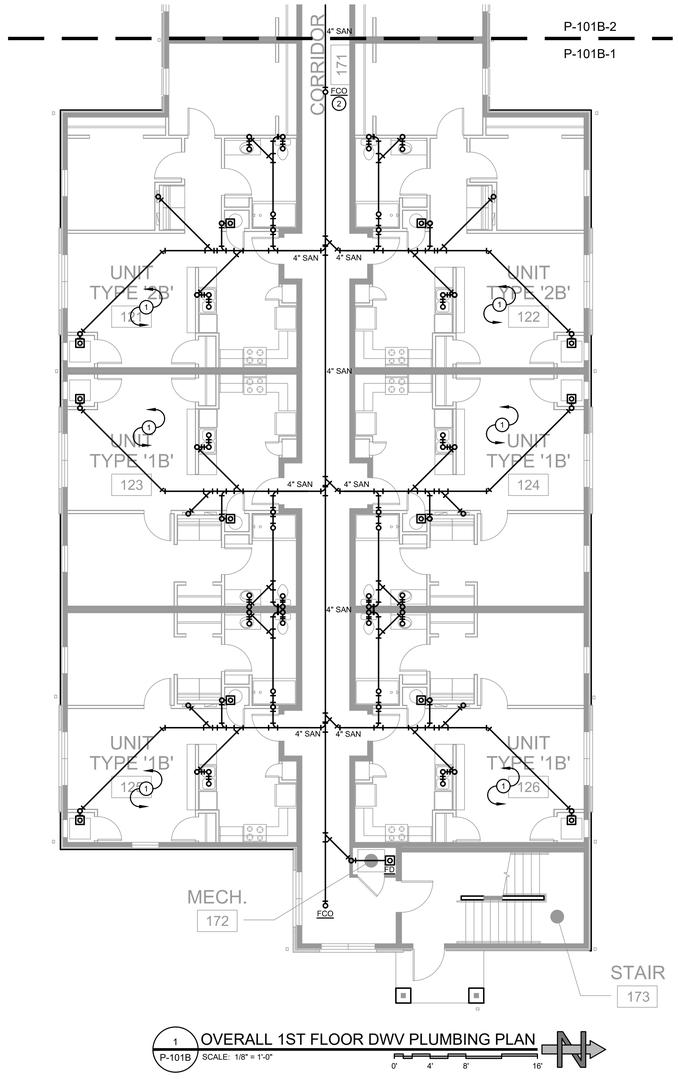
Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title

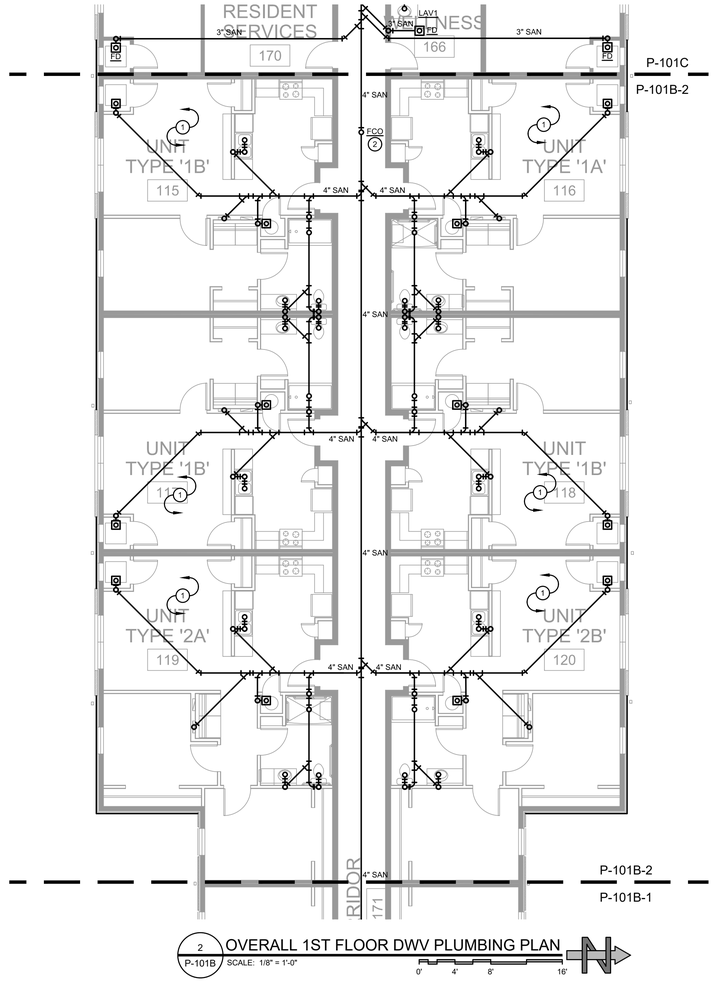
OVERALL 1ST FLOOR DWV PLUMBING PLAN

Sheet Number

P-101A

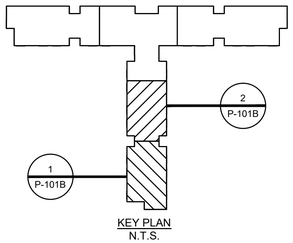


1 P-101B OVERALL 1ST FLOOR DWV PLUMBING PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'



2 P-101B OVERALL 1ST FLOOR DWV PLUMBING PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

PLAN NOTES	
1	REFER TO P-103 FOR ENLARGED TYPICAL UNIT DWV PLUMBING PLAN.



KEY PLAN
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Project Number
E2M: 24175

Date
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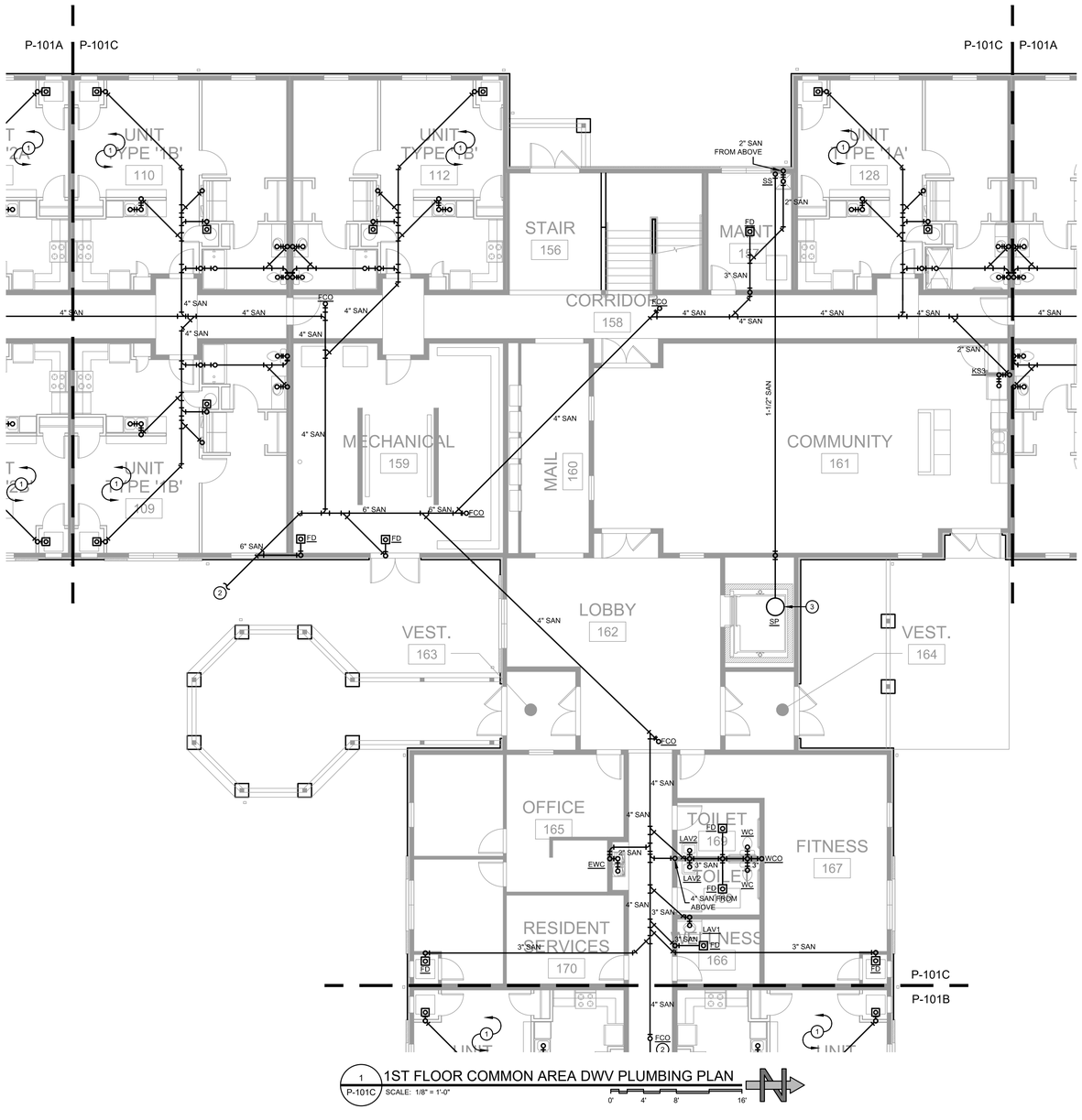
Date	Issue
9/13/24	OHFA 80% REVIEW

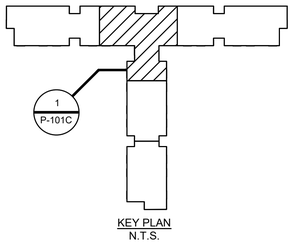
Sheet Title
OVERALL 1ST FLOOR DWV PLUMBING PLAN

Sheet Number
P-101B



1 P-101C 1ST FLOOR COMMON AREA DWV PLUMBING PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

PLAN NOTES	
1	REFER TO P-103 FOR ENLARGED TYPICAL UNIT DWV PLUMBING PLAN.
2	REFER TO CIVIL DRAWINGS FOR CONTINUATION OF SANITARY LINE.
3	INSTALL SUMP PUMP IN ELEVATOR SHAFT PER ELEVATOR MANUFACTURER'S INSTRUCTIONS. DISCHARGE SUMP PUMP WITH INDIRECT CONNECTION TO SS.



KEY PLAN
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E2M: 24175

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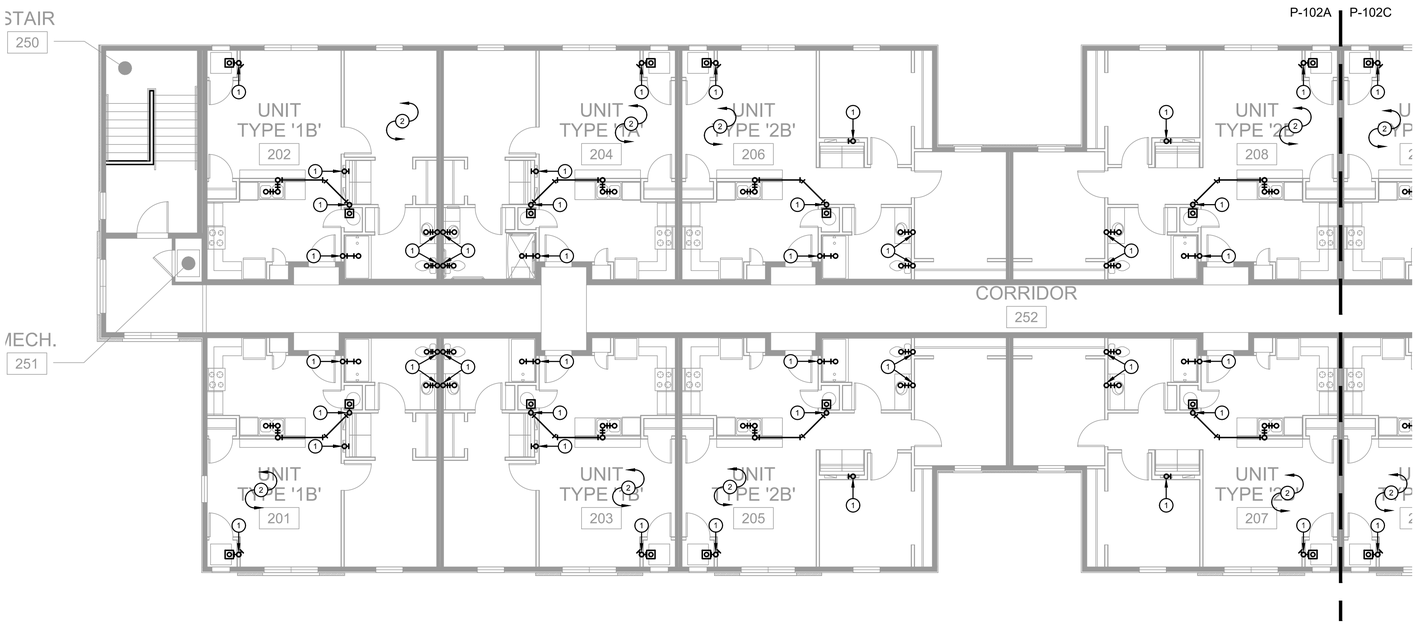
Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title

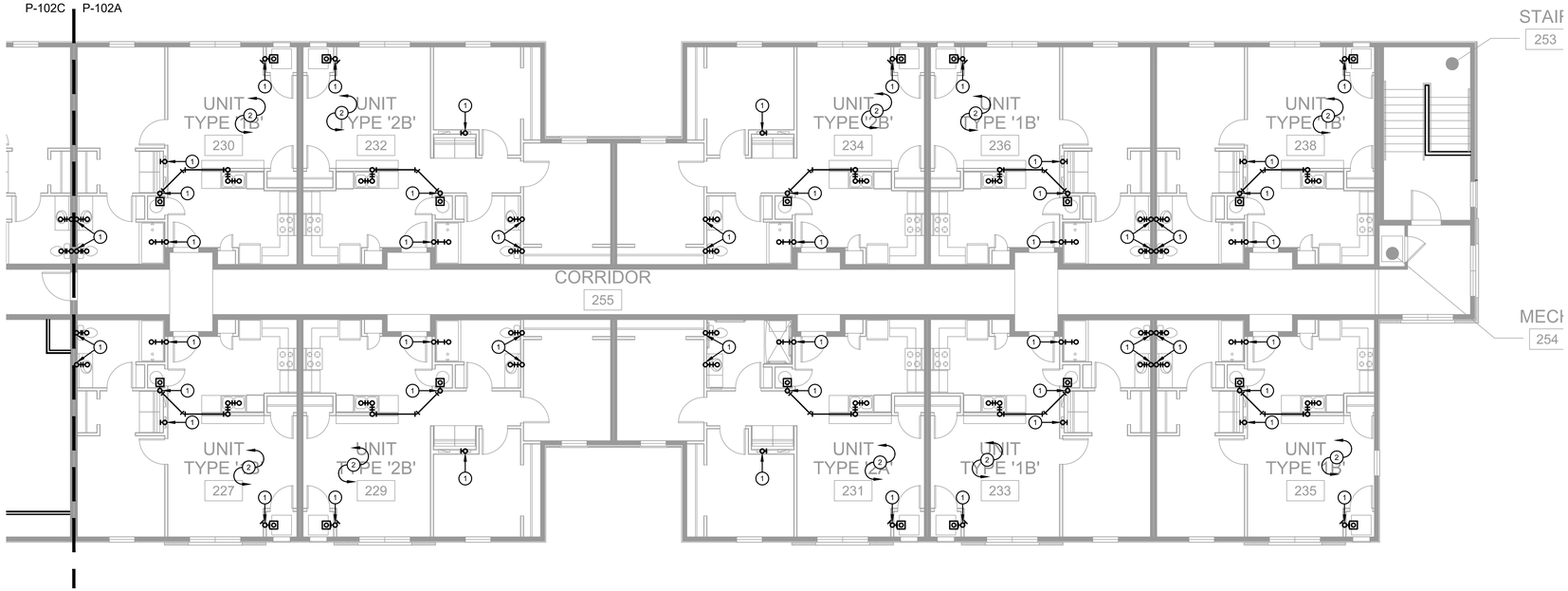
1ST FLOOR COMMON AREA DWV PLUMBING PLAN

Sheet Number

P-101C

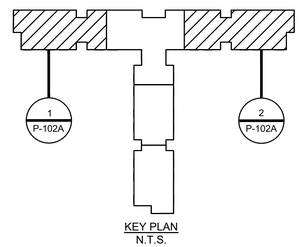


1 P-102A OVERALL 2ND FLOOR DWV PLUMBING PLAN SOUTH
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'



2 P-102A OVERALL 2ND FLOOR DWV PLUMBING PLAN NORTH
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

PLAN NOTES	
1	SANITARY LINE DOWN TO BELOW.
2	REFER TO P-103 FOR ENLARGED TYPICAL UNIT DWV PLUMBING PLANS.



KEY PLAN
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Date	Issue
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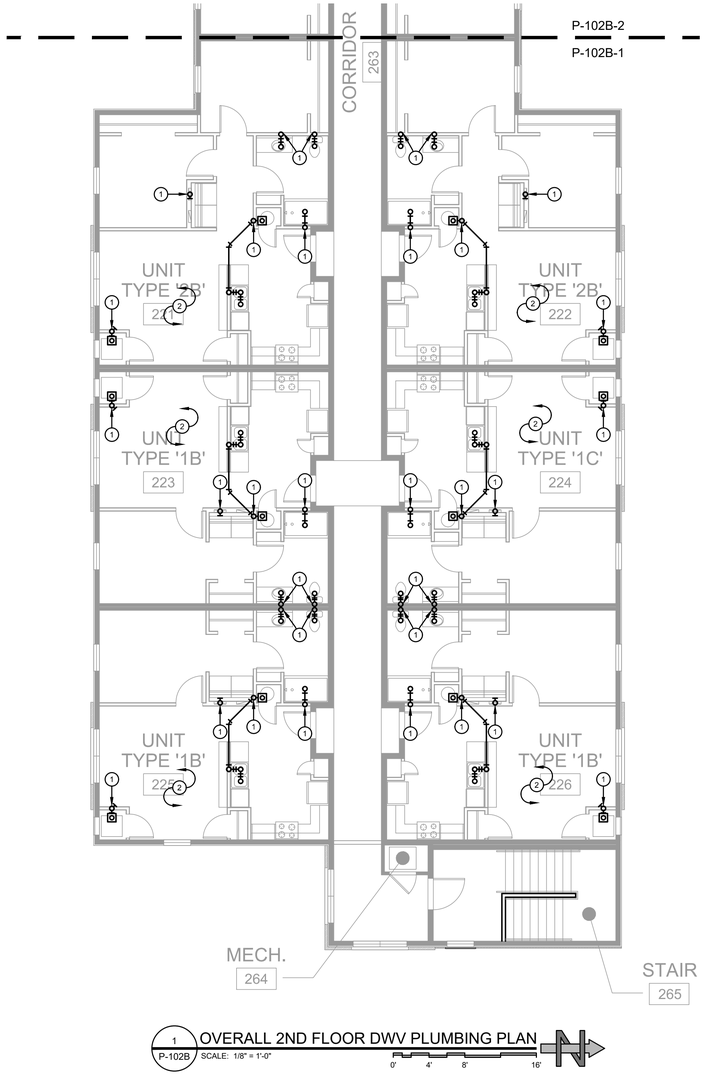
Sheet Title
OVERALL 2ND FLOOR DWV PLUMBING PLAN

Sheet Number
P-102A



1 P-102B OVERALL 2ND FLOOR DWV PLUMBING PLAN
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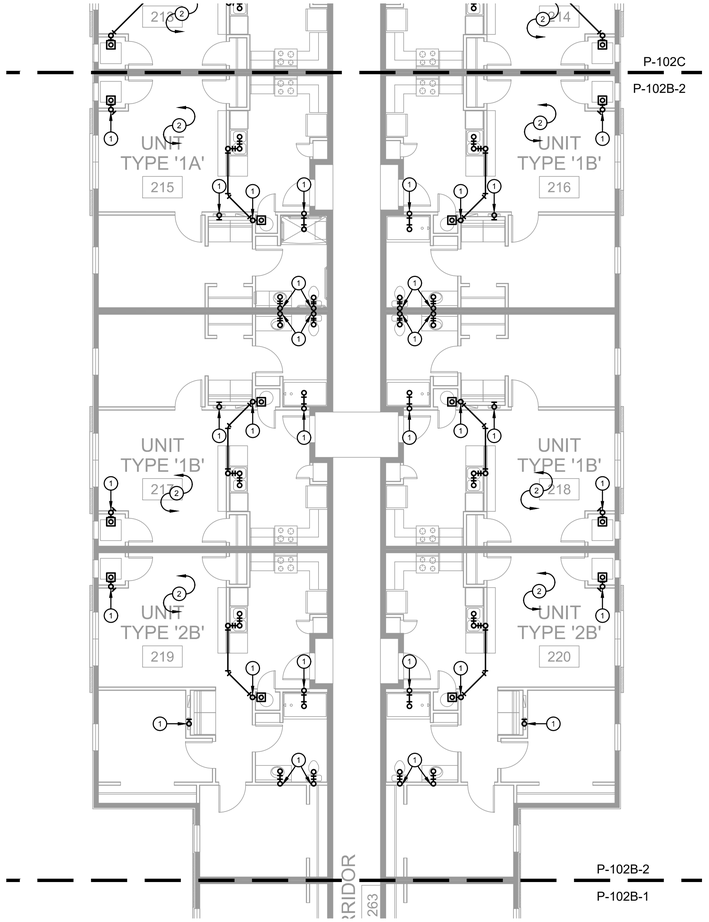
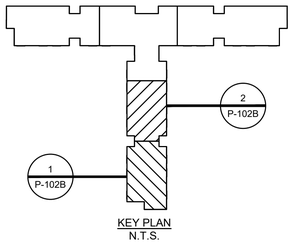
0' 4' 8' 16'



2 P-102B OVERALL 2ND FLOOR DWV PLUMBING PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

PLAN NOTES	
1	SANITARY LINE DOWN TO BELOW.
2	REFER TO P-103 FOR ENLARGED TYPICAL UNIT DWV PLUMBING PLANS.



KEY PLAN
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www.e2m-eng.com

New Multi-Family Building:
Senior Village at Valle Green

Channingway Dr.
Fairborn, Ohio 45324

Project Number
E2M: 24175

Date
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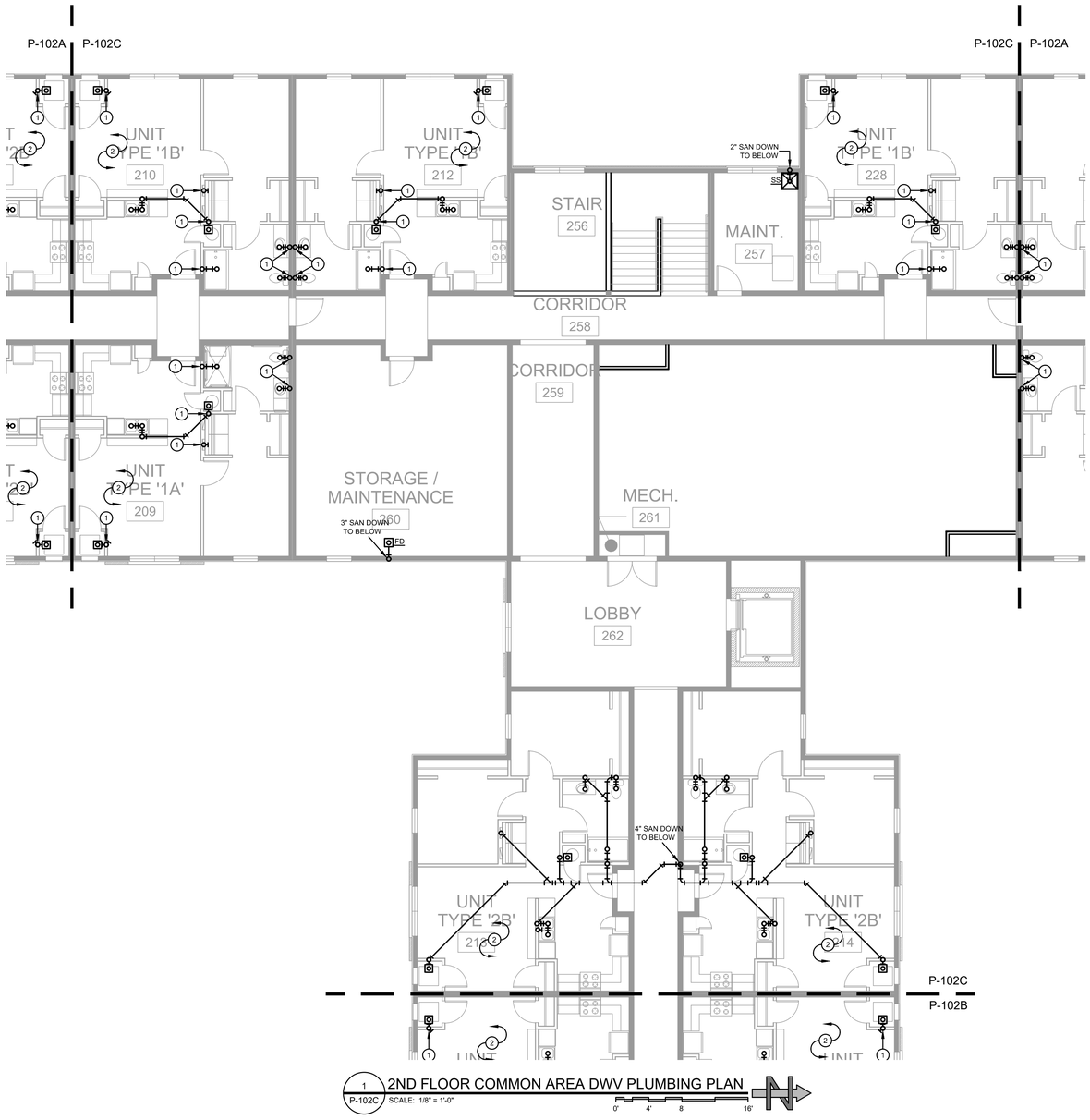
Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
OVERALL 2ND FLOOR DWV PLUMBING PLAN

Sheet Number
P-102B

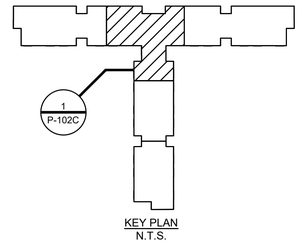


1 P-102C 2ND FLOOR COMMON AREA DWV PLUMBING PLAN

SCALE: 1/8" = 1'-0"

0' 4' 8' 16'

PLAN NOTES	
1	SANITARY LINE DOWN TO BELOW.
2	REFER TO P-103 FOR ENLARGED TYPICAL UNIT DWV PLUMBING PLANS.



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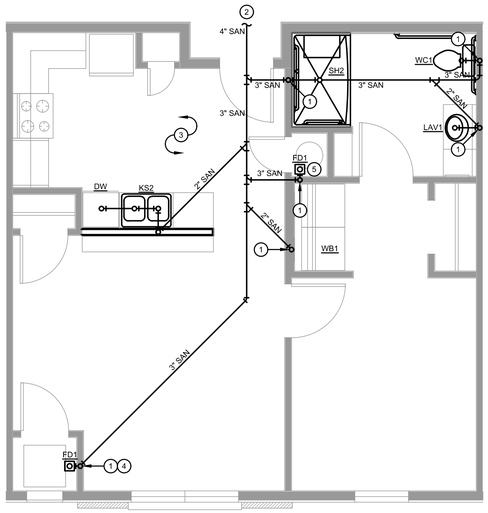
Date	Issue
9/13/24	OHFA 80% REVIEW

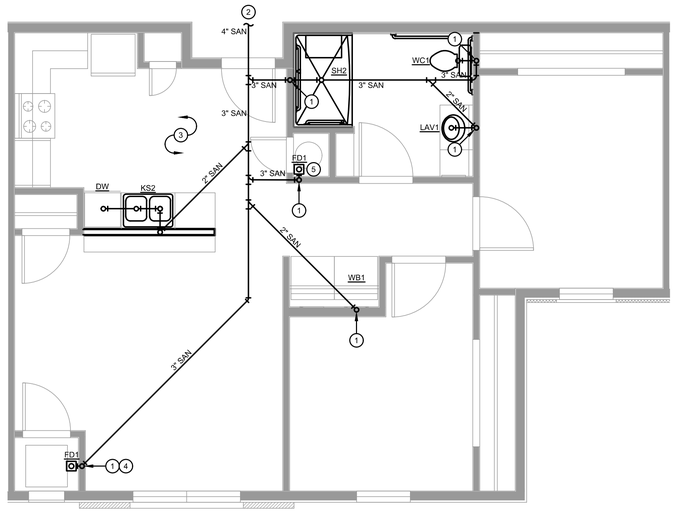
Sheet Title
2ND FLOOR COMMON AREA DWV PLUMBING PLAN

Sheet Number
P-102C

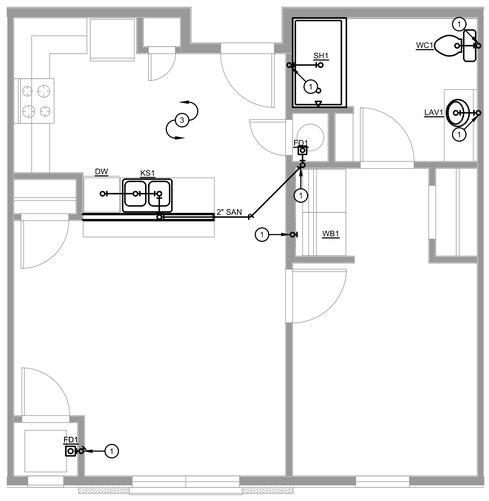
PLAN NOTES	
1	SANITARY STACK FOR 1ST AND 2ND FLOOR UNITS.
2	REFER TO OVERALL FLOOR PLANS FOR CONTINUATION.
3	TYPICAL UNITS TO HAVE FIXTURES SH1 & KS1. ADA UNITS TO HAVE ADA COMPLIANT FIXTURES SH2 & KS2. REFER TO P-501 FOR SPECIFICATIONS.
4	COORDINATE LOCATION OF FLOOR DRAIN WITH MECHANICAL EQUIPMENT AND MECHANICAL CONTRACTOR IN FIELD.
5	PROVIDE TRAP SEAL DEVICE IN FLOOR DRAIN.



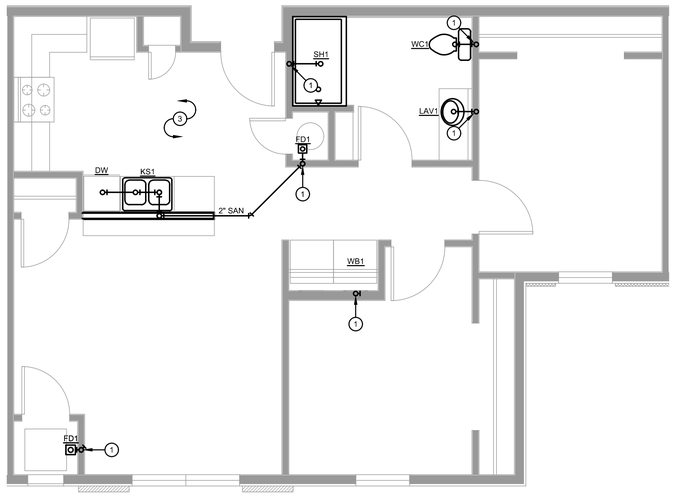
1 P-103 1ST FLOOR UNIT A - 1BR DWV PLAN
SCALE: 1/4" = 1'-0"
0' 2' 4' 8'



2 P-103 1ST FLOOR UNIT A - 2BR DWV PLAN
SCALE: 1/4" = 1'-0"
0' 2' 4' 8'



3 P-103 2ND FLOOR UNIT B - 1BR DWV PLAN
SCALE: 1/4" = 1'-0"
0' 2' 4' 8'



4 P-103 2ND FLOOR UNIT B - 2BR DWV PLAN
SCALE: 1/4" = 1'-0"
0' 2' 4' 8'

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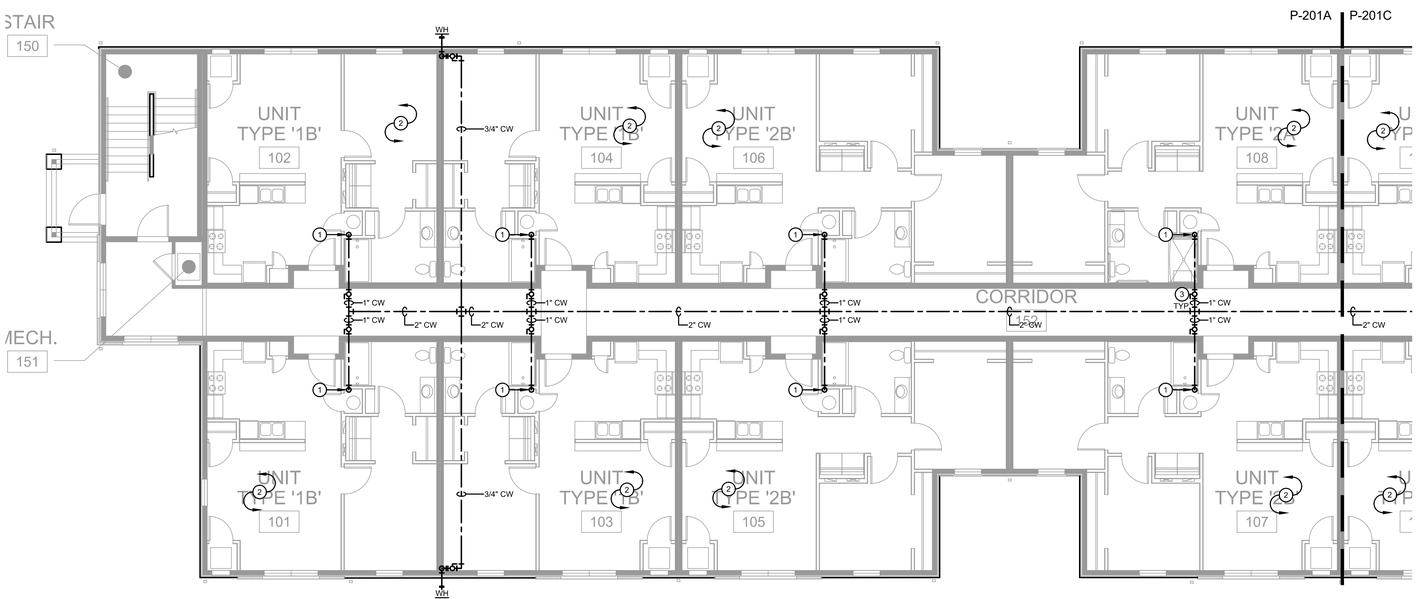
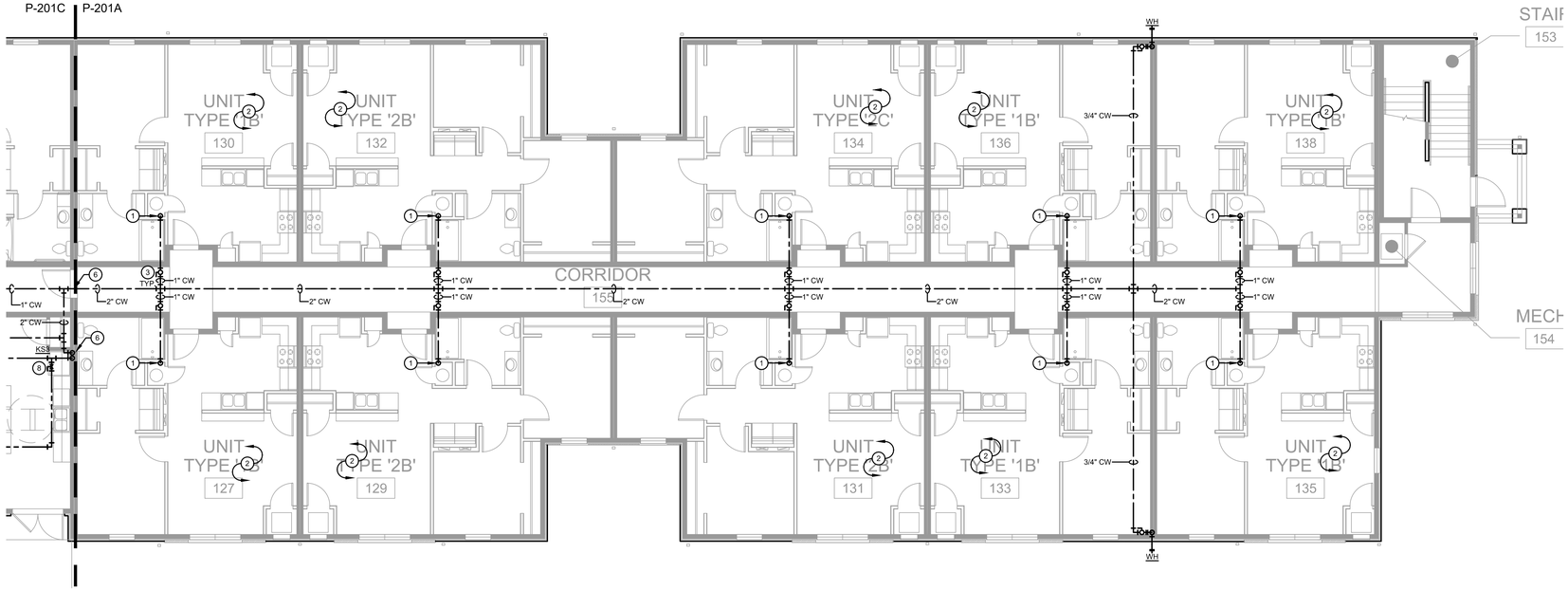
Sheet Title
TYPICAL UNITS DWV PLUMBING PLAN

Sheet Number
P-103

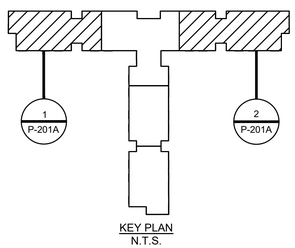


1 P-201A OVERALL 1ST FLOOR DOMESTIC PLUMBING PLAN SOUTH
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'



2 P-201A OVERALL 1ST FLOOR DOMESTIC PLUMBING PLAN NORTH
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

PLAN NOTES	
1	3/4" COLD WATER FOR 1ST FLOOR UNIT AND 3/4" COLD WATER UP TO 2ND FLOOR UNIT. SEE P-203 FOR CONTINUATION.
2	REFER TO P-203 FOR ENLARGED TYPICAL UNIT PLUMBING PLANS.
3	PROVIDE SHUTOFF VALVE ABOVE ACCESSIBLE CEILING. TYPICAL OF ALL UNIT STACKS.



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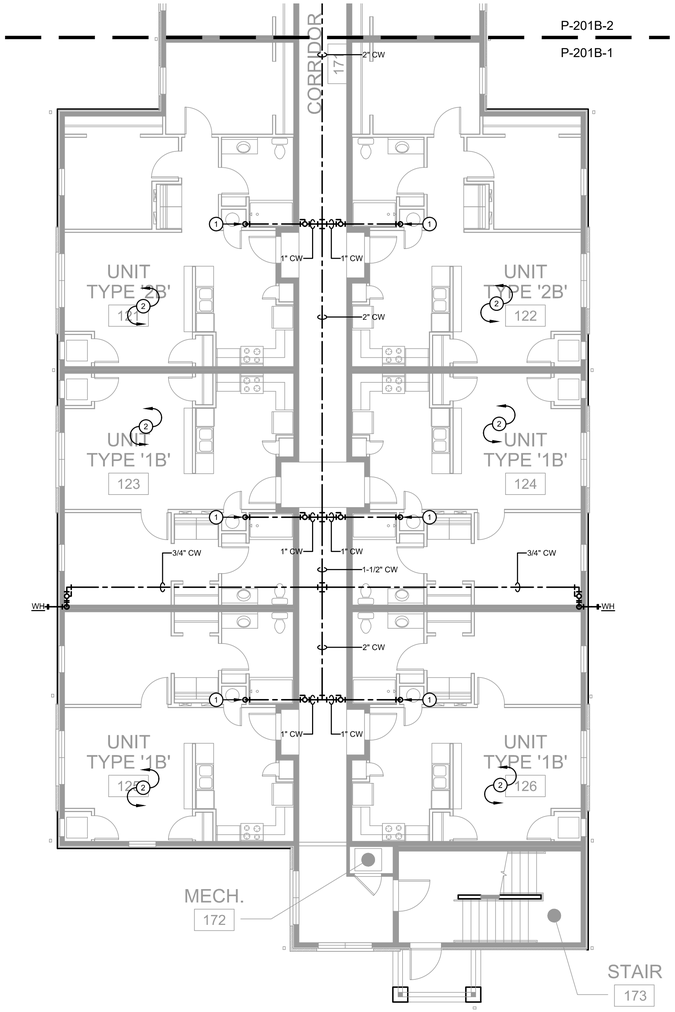
Sheet Title

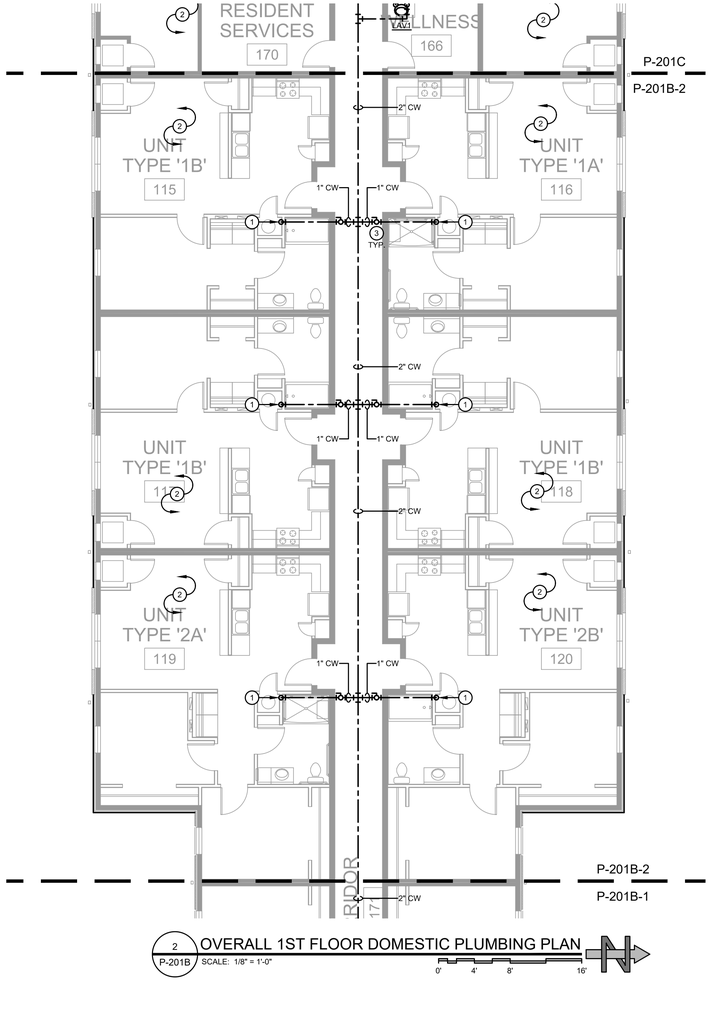
OVERALL 1ST FLOOR DOMESTIC PLUMBING PLAN

Sheet Number

P-201A

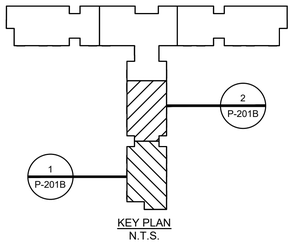


1 P-201B OVERALL 1ST FLOOR DOMESTIC PLUMBING PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'



2 P-201B OVERALL 1ST FLOOR DOMESTIC PLUMBING PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

PLAN NOTES	
1	3/4" COLD WATER FOR 1ST FLOOR UNIT AND 3/4" COLD WATER UP TO 2ND FLOOR UNIT. SEE P-203 FOR CONTINUATION.
2	REFER TO P-203 FOR ENLARGED TYPICAL UNIT PLUMBING PLANS.
3	PROVIDE SHUTOFF VALVE ABOVE ACCESSIBLE CEILING. TYPICAL OF ALL UNIT STACKS.



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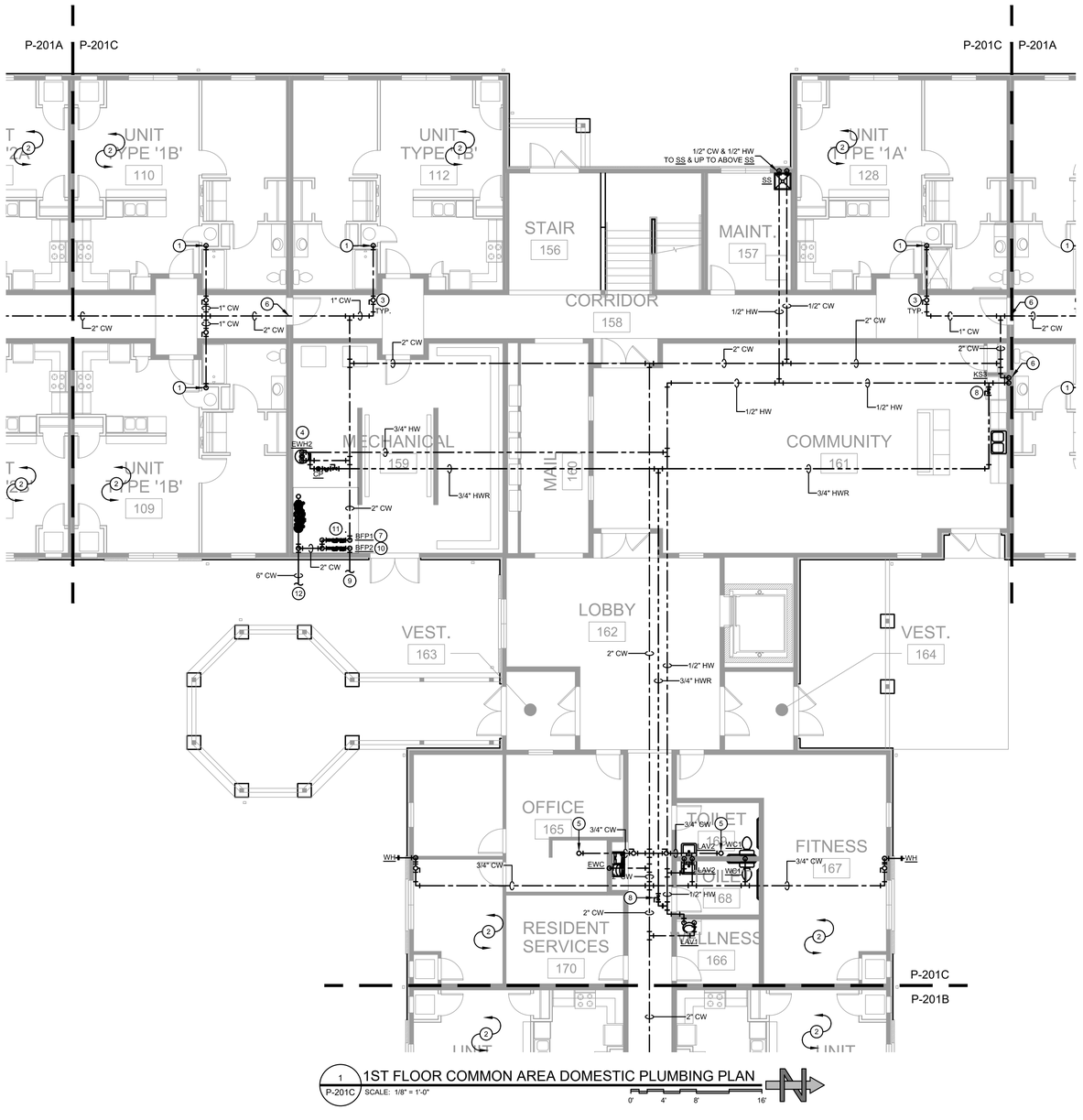
9/13/24	OHFA 80% REVIEW

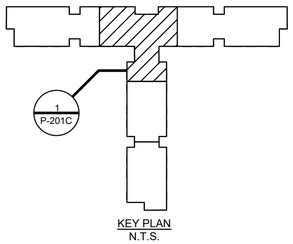
Sheet Title
OVERALL 1ST FLOOR DOMESTIC PLUMBING PLAN

Sheet Number
P-201B



PLAN NOTES

1	3/4" COLD WATER FOR 1ST FLOOR UNIT AND 3/4" COLD WATER UP TO 2ND FLOOR UNIT. SEE P-203 FOR CONTINUATION.
2	REFER TO P-203 FOR ENLARGED TYPICAL UNIT PLUMBING PLANS.
3	PROVIDE SHUTOFF VALVE ABOVE ACCESSIBLE CEILING. TYPICAL OF ALL UNIT STACKS.
4	PROVIDE AND INSTALL NEW ELECTRIC WATER HEATER. INSTALL PER MANUFACTURER'S INSTRUCTIONS. REFER TO P-501 FOR SPECIFICATIONS.
5	3/4" COLD WATER LINE UP TO 2ND FLOOR UNIT. SEE P-203 FOR CONTINUATION.
6	APPLY FIRE CAULK AT ANY AND ALL PENETRATIONS THAT OCCUR IN FIRE RATED WALLS.
7	NEW 2" BACKFLOW PREVENTER. REFER TO PLUMBING FIXTURE SCHEDULE ON P-501 FOR SPECIFICATIONS.
8	HOT WATER RETURN BALANCING VALVE.
9	EXTEND 1" IRRIGATION LINE INTO PLANTING AREA A MINIMUM OF OF 12" BELOW FINISHED GRADE. TERMINATE WITH FEMALE ADAPTER. COORDINATE EXACT LOCATION WITH IRRIGATION CONTRACTOR.
10	PROVIDE AND INSTALL NEW 1" REDUCED PRESSURE BACK FLOW PREVENTER FOR IRRIGATION. INSTALL PER MANUFACTURER'S INSTRUCTIONS. REFER TO P-501 FOR SPECIFICATIONS AND P-601 FOR DETAILS.
11	BACKFLOW PREVENTERS ARE TO BE STACKED VERTICALLY ON WALL. REFER TO WATER SERVICE DETAIL ON P-601.
12	INCOMING 6" DUAL WATER AND FIRE SERVICE. REFER TO CIVIL FOR CONTINUATION.



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E2M: 24175

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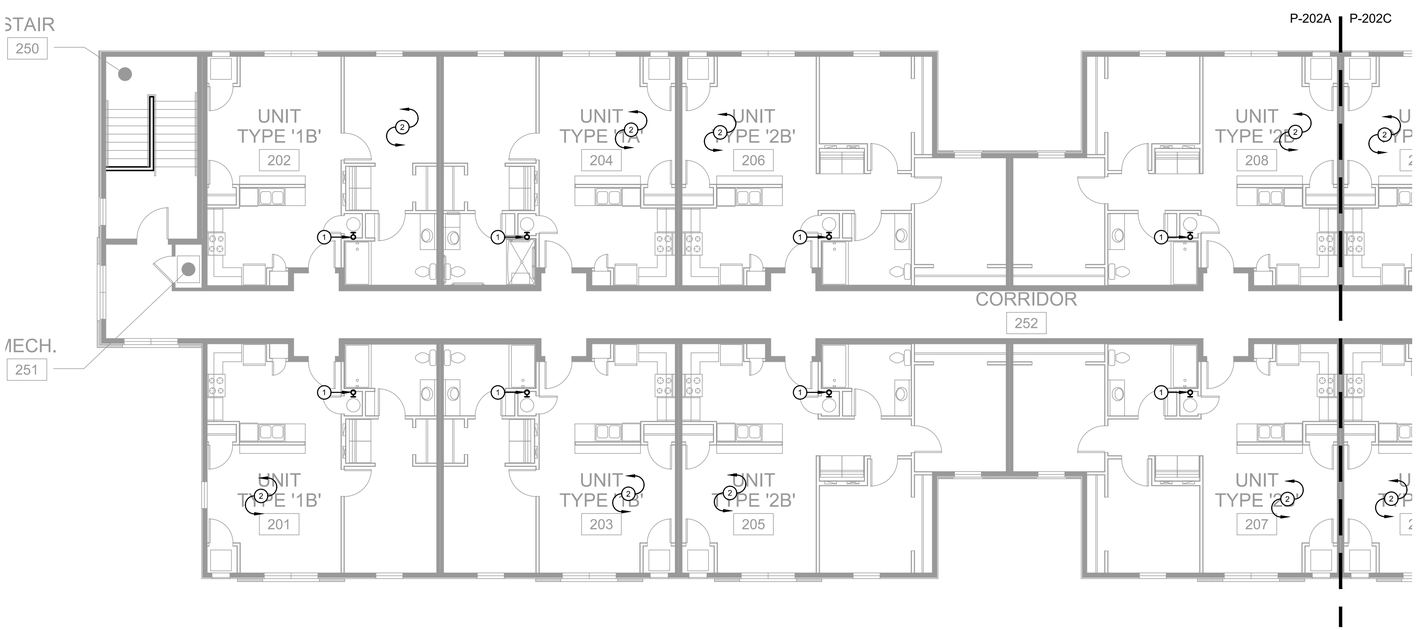
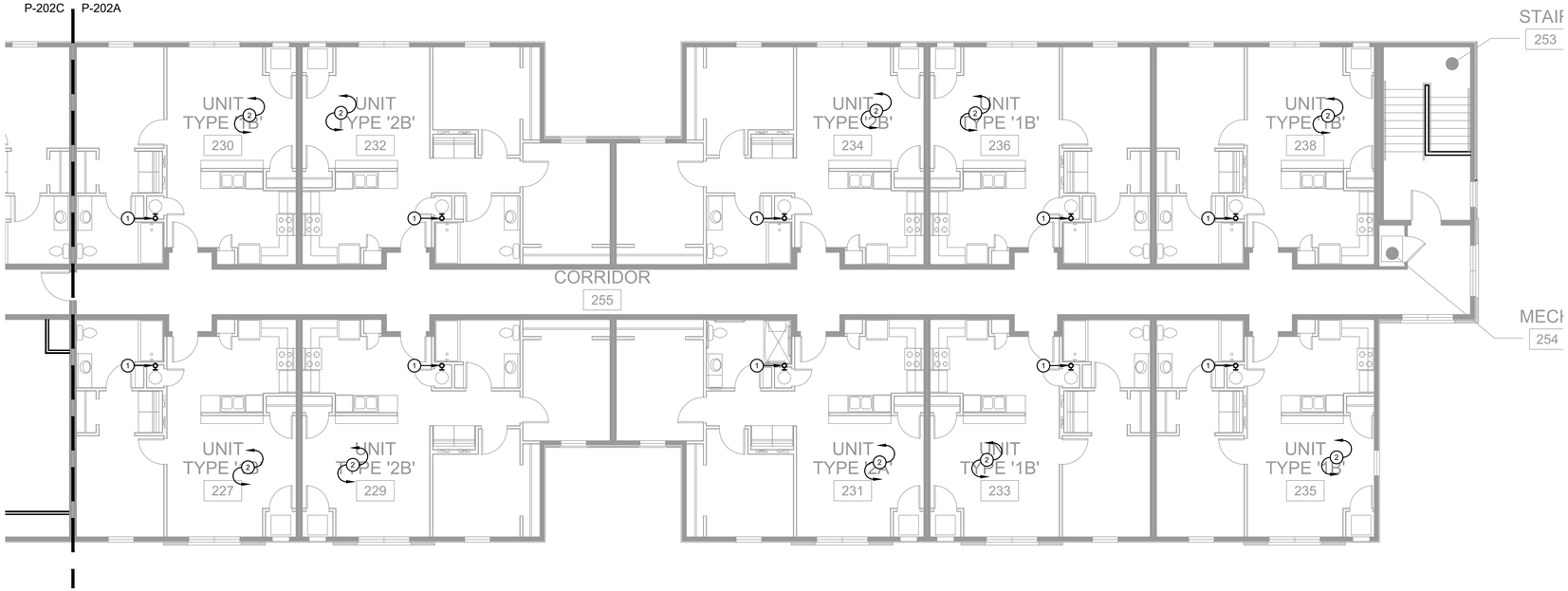
Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
1ST FLOOR COMMON AREA DOMESTIC PLUMBING PLAN

Sheet Number
P-201C

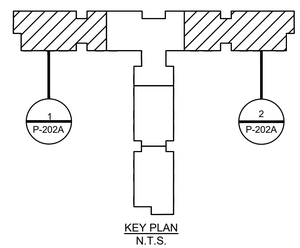


1 P-202A OVERALL 2ND FLOOR DOMESTIC PLUMBING PLAN SOUTH
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'



2 P-202A OVERALL 2ND FLOOR DOMESTIC PLUMBING PLAN NORTH
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

PLAN NOTES	
1	3/4" COLD WATER UP FROM BELOW. SEE P-203 FOR CONTINUATION.
2	REFER TO P-203 FOR ENLARGED TYPICAL UNIT PLUMBING PLANS.



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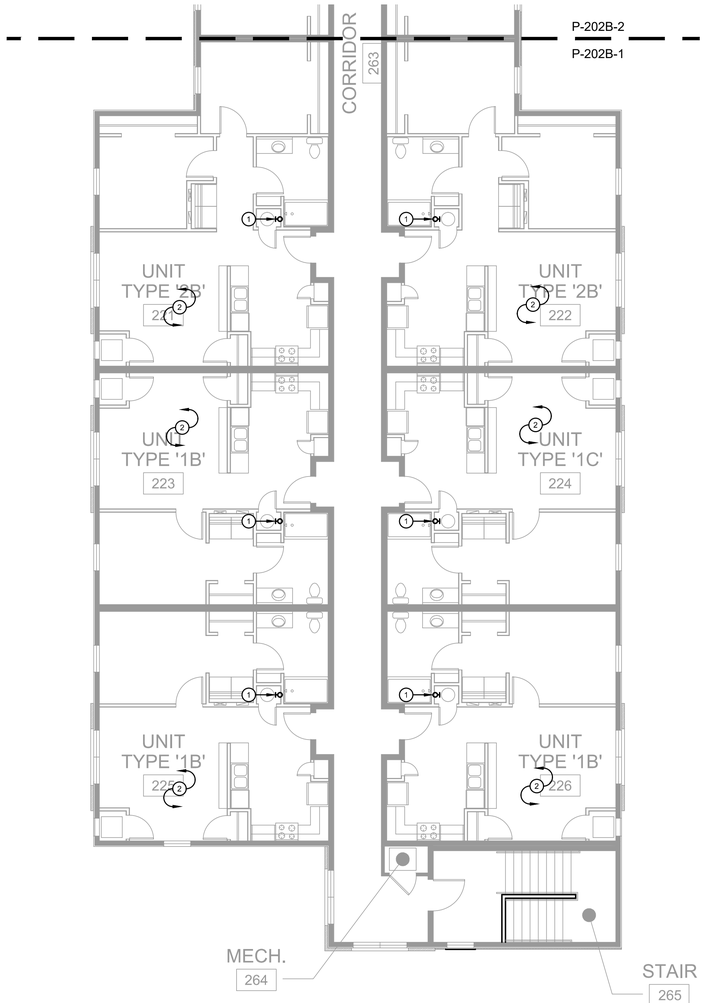
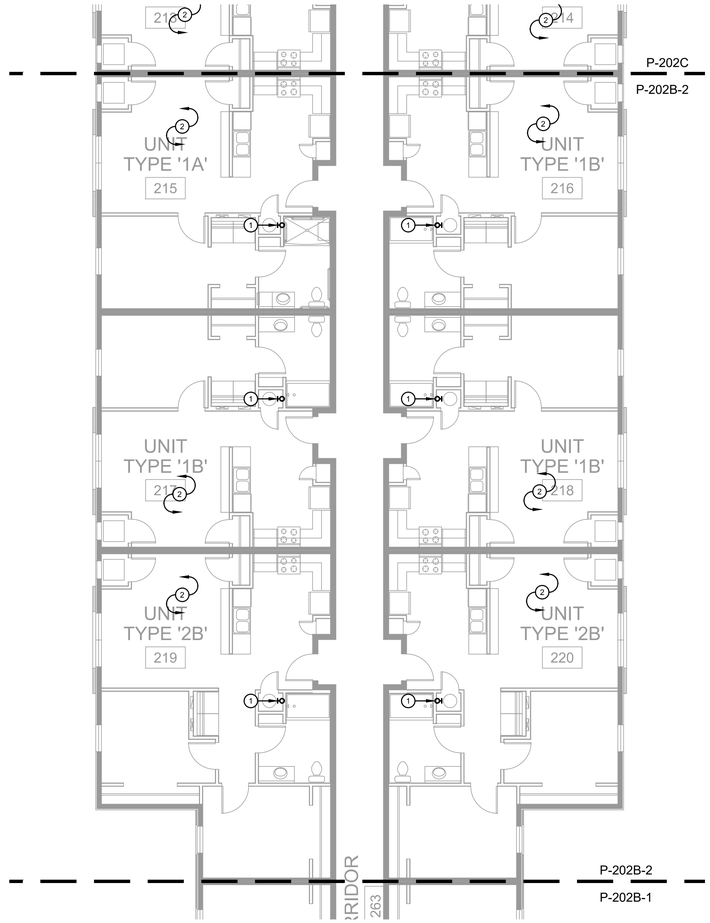
Sheet Title
OVERALL 2ND FLOOR DOMESTIC PLUMBING PLAN

Sheet Number
P-202A



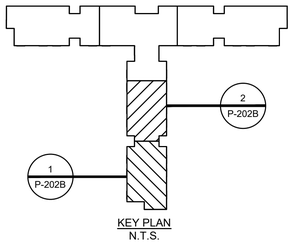
1 P-202B OVERALL 2ND FLOOR DOMESTIC PLUMBING PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'



2 P-202B OVERALL 2ND FLOOR DOMESTIC PLUMBING PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

PLAN NOTES

1	3/4" COLD WATER UP FROM BELOW. SEE P-203 FOR CONTINUATION.
2	REFER TO P-203 FOR ENLARGED TYPICAL UNIT PLUMBING PLANS.



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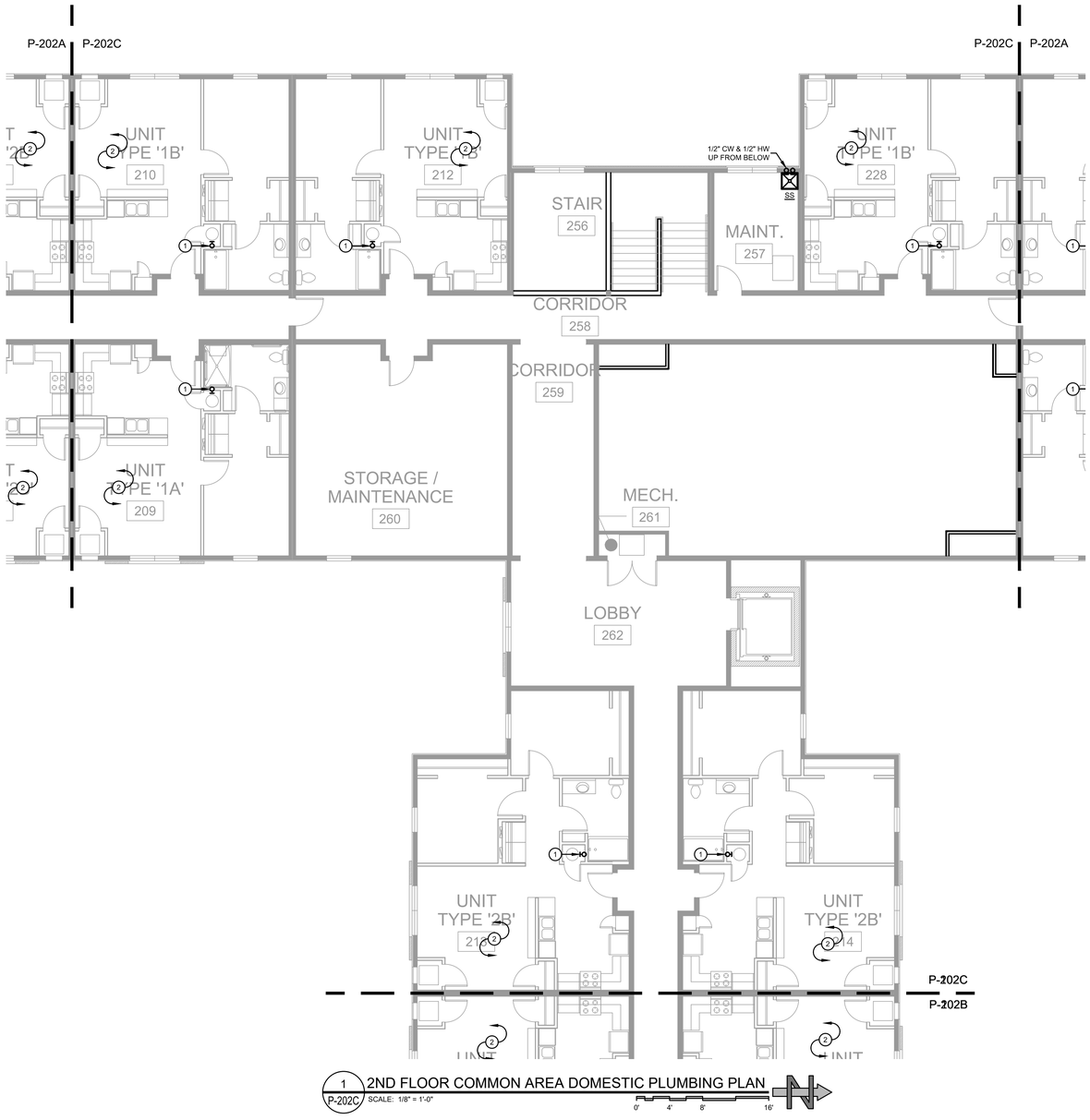
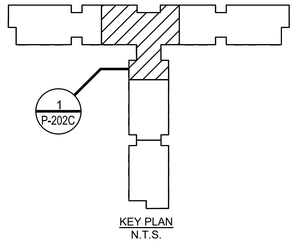


1 P-202C 2ND FLOOR COMMON AREA DOMESTIC PLUMBING PLAN

SCALE: 1/8" = 1'-0"

0' 4' 8' 16'

PLAN NOTES	
1	3/4" COLD WATER UP FROM BELOW. SEE P-203 FOR CONTINUATION.
2	REFER TO P-203 FOR ENLARGED TYPICAL UNIT PLUMBING PLANS.



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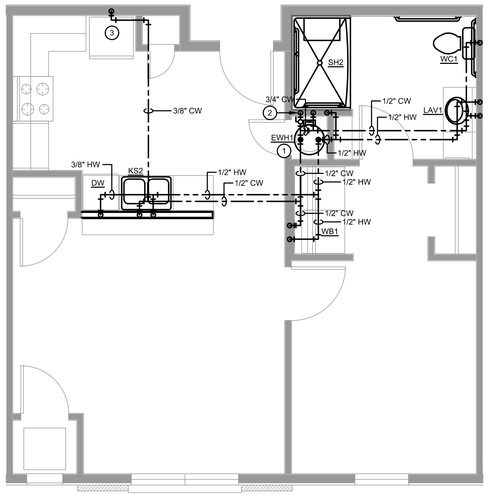
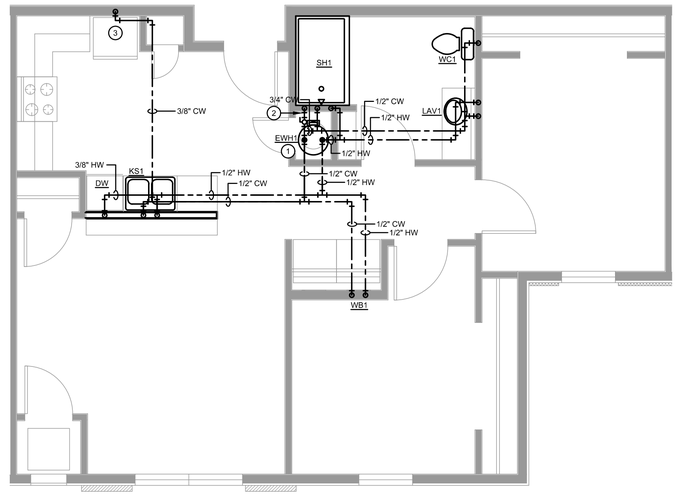
2ND FLOOR COMMON AREA DOMESTIC PLUMBING PLAN

Sheet Number
P-202C

PLAN NOTES	
1	PROVIDE AND INSTALL NEW ELECTRIC WATER HEATER. INSTALL PER MANUFACTURER'S INSTRUCTIONS. REFER TO P-501 FOR SPECIFICATIONS.
2	3/4" WATER LINE STUB FOR 1ST AND 2ND FLOOR UNITS.
3	EXTEND 3/8" COLD WATER SUPPLY LINE DOWN TO REFRIGERATOR WITH SHUT OFF VALVE ABOVE ACCESSIBLE CEILING.



1 P-203 UNIT A - 1BR DOMESTIC PLAN
SCALE: 1/4" = 1'-0"
0' 2' 4' 8'



2 P-203 UNIT B - 2BR DOMESTIC PLAN
SCALE: 1/4" = 1'-0"
0' 2' 4' 8'

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Sheet Title
TYPICAL UNITS DOMESTIC PLUMBING PLAN

Sheet Number
P-203

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

ID	DESCRIPTION	MANUFACTURER	MODEL NUMBER	SUPPLY		SANITARY		FLOW RATE (GPM)	REQ'D COMP	NOTES	WATERSENSE CERTIFIED
				HOT	COLD	WASTE	VENT				
BFP1	R.P.Z. BACK FLOW PREVENTER	WATTS	919	- - -	2"	- - -	- - -	- - -	- - -	- - -	NO
BFP2	R.P.Z. BACK FLOW PREVENTER	WATTS	919	- - -	1"	- - -	- - -	- - -	- - -	- - -	NO
EWC	ELECTRIC WATER COOLER ADA	OASIS	PG8ACSL	- - -	3/8"	1-1/4"	1-1/4"	0.13	9	3	NO
FCO	FLOOR CLEANOUT	J.R. SMITH	FIG 4031 SERIES	- - -	- - -	3"	- - -	- - -	- - -	- - -	- - -
FD1	FLOOR DRAIN	SIOUX CHIEF	832	- - -	- - -	3"	1-1/2"	- - -	- - -	1	- - -
HB	HOSE BIBB - ENCASED WITH KEY	ZURN	Z-1300-SS	- - -	3/4"	- - -	- - -	- - -	- - -	- - -	NO
KS1	KITCHEN SINK - DOUBLE BOWL	JUST	DL-2133-AGR	1/2"	1/2"	1-1/2"	1-1/2"	1.5	2	- - -	NO
KS2	KITCHEN SINK - DOUBLE BOWL ADA	JUST	DL-ADA-2133-AGR	1/2"	1/2"	1-1/2"	1-1/2"	1.5	2	3	NO
LAV1	LAVATORY - UNDERMOUNT ADA	TBD	TBD	1/2"	1/2"	1-1/2"	1-1/2"	0.5	1	4	YES
LAV2	LAVATORY - WALL HUNG	AMERICAN STANDARD	356.41	1/2"	1/2"	1-1/2"	1-1/2"	0.5	12	4	YES
MS1	MOP SINK	FIAT	MSB-2424	3/4"	3/4"	3"	1-1/2"	1.2	10	- - -	NO
SH1	SHOWER	AQUATIC	16030STTL	1/2"	1/2"	2"	1-1/2"	1.75	5	2,3	YES
SH2	ADA - ROLL IN SHOWER	CLARION	MP6333BF34	1/2"	1/2"	2"	1-1/2"	1.75	11	2,3	YES
WB1	WASHER BOX	OATEY	MODA	1/2"	1/2"	1-1/2"	1-1/2"	- - -	- - -	- - -	NO
WB2	WASHER BOX	TBD	TBD	1/2"	1/2"	1-1/2"	1-1/2"	- - -	- - -	- - -	NO
WC1	WATER CLOSET - TANK TYPE	AMERICAN STANDARD	215AB.104	- - -	1/2"	3"	1-1/2"	- - -	4	- - -	YES
TXT	THERMAL EXPANSION TANK	AMTROL	ST-5	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -

REQUIRED COMPONENTS AND SERVICES

1. DESCRIPTION: WHITE VITREOUS CHINA
   FAUCET: KOHLER: K15592-F
   DRAIN: DEARBORN: 760W-1
   ACCESSORIES: P-TRAP DEARBORN MODEL #505-1, ANGLED SUPPLY STOPS

2. MATERIAL: 18GA, TYPE 304 STAINLESS STEEL
   SIZE: DOUBLE BOWL 33" X 21"
   TYPE: SELF RIMMING
   FAUCET: MOEN: CA87480
   DRAIN: DEARBORN: 111A-1
   MISC: 1/2" SUPPLY STOPS, P-TRAP DEARBORN MODEL #509-1, STRAINER DEARBORN MODEL #6T
   DISPOSAL: INSINKERATOR BADGER 5

3. SHOWER TRIM: MOEN MODEL # T2903-EP
   VALVE: MOEN MODEL # 62370
   DRAIN: PROFLO MODEL # PF140NC
   MISC: PROVIDE WITH ALL COMPONENTS FOR COMPLETE WORKING SHOWER ASSEMBLY.

4. COLOR: WHITE VITREOUS CHINA
   TYPE: FLOOR MOUNTED WITH CHROME TRIP LEVER
   FLUSH: 1.28 GPF
   SEAT: ZURN: 25958SSEL
   MISC: ANGLED SUPPLY STOP

5. COLOR: WHITE
   FLOW RESTRICTOR: MOEN: 316711
   FAUCET: MOEN: UT2042EP

6. COLOR: WHITE VITREOUS CHINA
   TYPE: FLOOR MOUNTED WITH CHROME TRIP LEVER
   FLUSH: 1.1 GPF
   SEAT: ZURN: 25958SSEL
   MISC: ANGLED SUPPLY STOP, MOUNT AT ADA COMPLIANT HEIGHT

7. MATERIAL: 22GA, TYPE 300 STAINLESS STEEL
   SIZE: DOUBLE BOWL 33" X 22"
   TYPE: SELF RIMMING
   FAUCET: MOEN: 7425
   DRAIN: DEARBORN: 111A-1
   MISC: 1/2" SUPPLY STOPS, P-TRAP DEARBORN MODEL #509-1, P-TRAP COVER PROFLO #PF202WH, DEARBORN STRAINER MODEL #6T
   DISPOSAL: INSINKERATOR BADGER 5

8. DESCRIPTION: WHITE VITREOUS CHINA
   FAUCET: MOEN: L4601
   DRAIN: DEARBORN: 760W-1
   ACCESSORIES: OUTLET PLUG DEARBORN MODEL #760W-1, P-TRAP DEARBORN MODEL #505-1 WITH TRAP COVER PROFLO MODEL #PF202WH, ANGLED SUPPLY STOPS

9. P-TRAP: KOHLER: K-8998 1-1/4" CHROME P-TRAP

10. FAUCET: FIAT: 830-AA
    CHECK VALVES: PROVIDE CHECK VALVES ON CW AND HW SUPPLIES

11. COLOR: WHITE
    FAUCET: MOEN: 52224GBM15
    DRAIN: SIOUX CHIEF: 825
    MISC: PROVIDE ADA COMPLIANT FACTORY INSTALLED GRAB BARS, FOLDING SEAT, SOAP DISH, SHOWER ROD, AND MUST HAVE INTEGRAL STOPS.

12. DESCRIPTION: WHITE VITREOUS CHINA
    FAUCET: KOHLER: K15592-F
    DRAIN: DEARBORN: 760W-1
    ACCESSORIES: P-TRAP DEARBORN MODEL #505-1, ANGLED SUPPLY STOPS, ZURN WALL CARRIER

NOTES:
1. PLUMBING CONTRACTOR SHALL ADJUST HEIGHT,AND ROTATION (SQUARE WITH WALLS). TILE CONTRACTOR TO PROVIDE FINAL GROUT.
2. COORDINATE LEFT OR RIGHT HAND SEAT MOUNTING IN FIELD PRIOR TO ORDERING.
3. INSTALLATION SHALL COMPLY WITH ADA REQUIREMENTS.
4. PROVIDE WITH THERMOSTATIC MIXING VALVE HYDROGAURD MODEL #LFLM495-1

ELECTRIC WATER HEATER SCHEDULE

ITEM NO.	CAPACITY (GALLONS)	RECOVERY @ 90°F RISE	ELEMENT KW	VOLTAGE/ PHASE	THERMAL EFF.	WATER CONN.	MANUFACTURER AND MODEL	REMARKS
EWH1	40	21	4.5	208V/1Ø	95%	3/4"	A.O. SMITH ENT-40	SET OUTPUT FOR 120°
EWH2	40	21	4.5	208V/1Ø	95%	3/4"	A.O. SMITH ENT-40	SET OUTPUT FOR 120°

PLUMBING PIPE LEGEND

	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	SANITARY WASTE LINE
	VENT LINE
G	GAS LINE
	PIPE TURNED DOWN
	PIPE TURNED UP
	PIPE TEE DOWN
	PIPE TEE UP
	METER
	CLEAN OUT
	FLOOR DRAIN
	POINT OF CONNECTION TO EXISTING SYSTEM ELEMENTS.

PLUMBING ISOMETRIC LEGEND

X" VTR	VENT THRU ROOF
	TRAPPED FIXTURE
	NON-TRAPPED FIXTURE
	FLOOR DRAIN

PLUMBING FIXTURE ABBREVIATIONS

XXX — FIXTURE DESIGNATION. SEE PLUMBING FIXTURE SCHEDULE FOR EQUIPMENT SPECIFICATIONS.

AD	AREA DRAIN	RO	ROUGH ONLY
AFF	ABOVE FINISHED FLOOR	R&C	ROUGH AND CONNECT
BFP	BACK FLOW PREVENTER	RELOC	RELOCATED
C	CLOSET	S	SINK
CI	CAST IRON	SAN	SANITARY
CO	CLEAN OUT	SD	SHOWER DRAIN
CU	CONDENSING UNIT	SS	SCRUB SINK
DF	DRINKING FOUNTAIN	SH	SHOWER
DS	DOWNSPOUT	SPH	SPRINKLER HEAD
ELEV	ELEVATION	T	TUB
EWC	ELECTRIC WATER COOLER	TD	TRENCH DRAIN
FD	FLOOR DRAIN	TP	TRAP PRIMER
FP	FLOOR PORT	TV	TEMPERING VALVE
HB	HOSE BIBB	UR	URINAL
INV	INVERT	VTR	VENT THRU ROOF
JS	JANITOR SINK	WH	WALL HYDRANT
KS	KITCHEN SINK	WU	WASHER UNIT
LAV	LAVATORY	WC	WATER CLOSET
RD	ROOF DRAIN	WF	WASH FOUNTAIN

PROJECT GENERAL NOTES

1. THE DRAWINGS ARE DIAGRAMMATIC ONLY AND INDICATE THE GENERAL ARRANGEMENT OF THE SYSTEMS AND ARE TO BE FOLLOWED INSOFAR AS POSSIBLE. IF DEVIATIONS FROM THE LAYOUTS ARE NECESSITATED BY FIELD CONDITIONS, DETAILED LAYOUTS OF THE PROPOSED DEPARTURES SHALL BE SUBMITTED IN WRITING TO THE ENGINEER FOR REVIEW BEFORE PROCEEDING WITH THE WORK.

2. THE PLUMBING CONTRACTOR SHALL REVIEW ALL DRAWINGS IN DETAIL AS THEY MAY RELATE TO THEIR WORK.

3. EACH CONTRACTOR SHALL INSPECT THE SITE ON WHICH THE WORK IS TO BE PERFORMED, AND THE OBSTACLES THAT MAY BE ENCOUNTERED, AND ALL RELEVANT MATTERS CONCERNING THE WORK.

4. THE CONTRACTOR SHALL FILE ALL NECESSARY NOTICES, OBTAIN AND PAY FOR ALL PERMITS, FEES, AND OTHER COSTS INCLUDING UTILITY CONNECTIONS OR EXTENSION, IN CONNECTION WITH HIS WORK. AS NECESSARY, HE SHALL FILE ALL REQUIRED PLANS, PREPARE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS OF ALL UTILITY AND GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION.

5. IGNORANCE OF CODES, RULES, AND REGULATIONS, UTILITY COMPANY REQUIREMENTS, LAWS, ETC. SHALL NOT DIMINISH OR ABSOLVE CONTRACTOR'S RESPONSIBILITIES TO PROVIDE AND COMPLETE ALL WORK IN COMPLIANCE WITH SUCH.

6. ALL MATERIALS FURNISHED AND ALL WORK INSTALLED SHALL COMPLY WITH THE CURRENT EDITION OF THE OHIO BUILDING CODES, NATIONAL FIRE CODES OF THE NATIONAL FIRE PROTECTION ASSOCIATION AND WITH THE REQUIREMENTS OF ALL GOVERNMENTAL AGENCIES OR DEPARTMENTS HAVING JURISDICTION.

PLUMBING SPECIFICATIONS

1. SCOPE OF WORK

1.1. THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIALS, AND LABOR TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.

1.2. ALL WORK IS TO BE PERFORMED IN STRICT COMPLIANCE WITH THE NATIONAL STANDARD PLUMBING CODE (LATEST EDITION), ALL LOCAL CODES, AND ALL OTHER REGULATIONS GOVERNING WORK OF THIS NATURE.

1.3. THE CONTRACTOR SHALL, BEFORE SUBMITTING ANY PROPOSAL, EXAMINE THE PROPOSED SITE AND SHALL DETERMINE FOR HIMSELF THE CONDITIONS THAT MAY EFFECT THE WORK. NO ALLOWANCE SHALL BE MADE IF THE CONTRACTOR FAILS TO MAKE SUCH EXAMINATIONS.

1.4. ALL EQUIPMENT AND MATERIALS SHALL BE AS SPECIFIED OR "APPROVED EQUAL" BY ENGINEER OR ARCHITECT.

2. PERMITS

2.1. THE CONTRACTOR SHALL SECURE ALL PERMITS OR APPLICATIONS AND PAY ANY AND ALL FEES.

3. SHOP DRAWINGS

3.1. SUBMIT MATERIAL LIST AND SHOP DRAWINGS FOR MAJOR ALL EQUIPMENT/FIXTURES TO THE ARCHITECT OR ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL SUBMIT ELECTRONIC SHOP DRAWINGS AND THEY SHALL BE CLEARLY LABELED.

4. DOMESTIC WATER SUPPLY PIPING

4.1. UNDERGROUND: PROVIDE TYPE "K" SOFT DRAWN COPPER TUBING WITH BRAZED CONNECTIONS.

4.2. ABOVEGROUND: PROVIDE TYPE "L" HARD DRAWN COPPER TUBING WITH 125 PSI SOLDER JOINTS, COPPER OR BRASS FITTINGS. ALL SOLDER TO BE "NO LEAD" TYPE.

4.3. ALL HOT WATER PIPING TO BE INSULATED WITH 1" FIBERGLASS INSULATION.

4.4. ALL COLD WATER PIPING TO BE INSULATED WITH 1" FIBERGLASS INSULATION.

5. SANITARY/STORM DRAINAGE AND VENT PIPING

5.1. ABOVE GRADE: A. SCH. 40 GALV. STL. PIPE WITH SCREWED -2" AND BELOW; ENDS OR SCH. 40 PVC WITH SOLVENT JOINTS OR DWV COPPER WITH SOLDER JOINTS. ALL SOLDER TO BE "NO LEAD" TYPE.

5.2. 3" AND ABOVE: SERVICE WT. CAST IRON WITH NO-HUB OR BELL AND SPIGOT JOINTS; OR SCH. 40 PVC WITH SOLVENT JOINTS. SERVICE WT. CAST IRON WITH BELL AND

5.3. BELOW GRADE: B. SPIGOT JOINTS OR SCH. 40 PVC WITH SOLVENT JOINTS.

5.4. PVC PIPING SHALL NOT BE USED IN AIR PLENUM CEILINGS AND SHALL NOT CROSS FIRE RATED WALLS, CEILINGS, OR FLOORS.

5.5. DRAINAGE PIPING SHALL BE RUN AS STRAIGHT AS POSSIBLE AND SHALL HAVE LONG TURN FITTINGS.

5.6. DRAINAGE PIPING 3" SIZE AND SMALLER SHALL RUN AT A UNIFORM GRADE OF AT LEAST 1/4" PER FOOT, AND PIPING LARGER THAN 3" SHALL BE RUN AT A GRADE OF NO LESS THAN 1/8" PER FOOT.

5.7. ALL VENT PIPING SHALL BE SLOPED TO DRAIN BACK TO FIXTURES.

5.8. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FLASHING OF THE VENT PIPING RUN THROUGH THE ROOF.

5.9. ALL STUB-INS AND/OR SLAB OR WALL PENETRATION TO BE 6. PER NATIONAL STANDARD PLUMBING CODE. ALL PIPING PENETRATIONS OF BUILDING FOUNDATIONS OR FOOTINGS SHALL BE SLEEVED.

6. PIPE SUPPORTS

6.1. ABOVE GRADE

6.1.1. ALL PIPE SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE IN A NEAT AND WORKMANLIKE MANNER. THE USE OF WIRE AND PERFORMED METAL TO SUPPORT PIPES WILL NOT BE PERMITTED. SPACING OF PIPE SUPPORTS SHALL BE AS SPECIFIED IN CHAPTER 8 OF THE NATIONAL STANDARD PLUMBING CODE.

6.2. BELOW GRADE

6.2.1. EARTH SHALL BE EXCAVATED TO A MINIMUM DEPTH WITH AN EVEN SURFACE TO INSURE SOLID BEARING OF PIPE FOR ITS ENTIRE LENGTH.

6.2.2. INTERIOR: THE PIPE SHALL BE INSTALLED (UNLESS OTHERWISE SPECIFIED) A MINIMUM OF 4 INCHES BELOW THE BOTTOM OF THE SLAB AND SHALL NOT BE IN ANY DIRECT CONTACT WITH THE CONCRETE AT ANY POINT.

6.2.3. EXTERIOR: THE WATER PIPE SHALL HAVE A MINIMUM OF 42" OF COVER AND THE SANITARY WASTE PIPE SHALL HAVE A MINIMUM OF 24" OF COVER.

7. MISCELLANEOUS

7.1. COORDINATE INSTALLATION OF ALL ROOF FLASHING AT A. ROOF PENETRATION.

7.2. DO NOT SCALE THIS DRAWING FOR EXACT DIMENSIONS. VERIFY ALL FIGURES, CONDITIONS, AND DIMENSIONS AT THE JOB SITE.

7.3. THE PLUMBING PLANS ARE INTENDED TO BE DIAGRAMATIC AND ARE BASED ON ONE MANUFACTURE'S EQUIPMENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION. THE EXACT DIMENSIONS, OR ALL THE DETAILS OF THE EQUIPMENT.

7.4. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO ENSURE THAT THE EQUIPMENT WILL FIT IN THE AVAILABLE SPACE.

8. TESTING

8.1. PLUMBING SYSTEMS SHALL BE FLOW AND PRESSURE TESTED IN ACCORDANCE WITH STANDARD PRACTICE AND THE NATIONAL STANDARD PLUMBING CODE.

9. GUARANTEE

9.1. MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE(1) YEAR FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTED AT THIS CONTRACTOR'S EXPENSE.

9.2. FOR THE SAME PERIOD, THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED BY HIM.

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New Multi-Family Building:
Senior Village at Valle Green

Channingway Dr.
Fairborn, Ohio 45324

Project Number
E2M: 24175

Date
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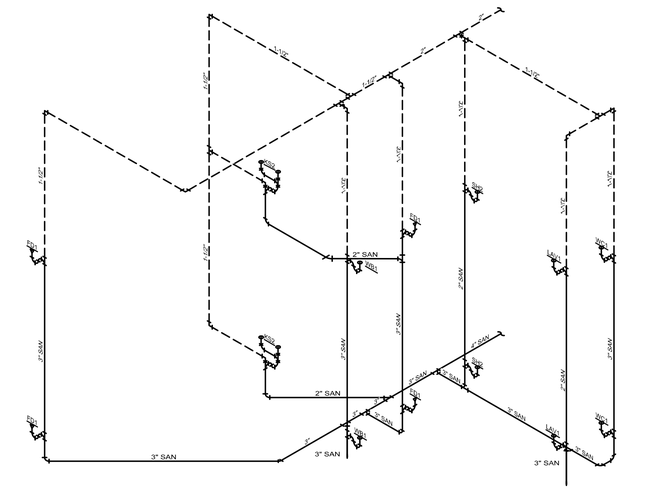
Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
PLUMBING SCHEDULES AND NOTES

Sheet Number
P-501

PLAN NOTES

1	4" SANITARY LINE FROM UNIT. SEE TYPICAL UNIT DETAIL 1 FOR CONTINUATION.
2	2" VENT LINE FROM UNIT. SEE TYPICAL UNIT DETAIL 1 FOR CONTINUATION.
3	SANITARY PIPING SERVICE ENTRANCE. REFER TO CIVIL FOR CONTINUATION.



1 P-502 TYPICAL UNIT STACK PLUMBING ISOMETRIC DIAGRAM
SCALE: NONE

2 P-502 COMMON AREA PLUMBING ISOMETRIC DIAGRAM
SCALE: NONE

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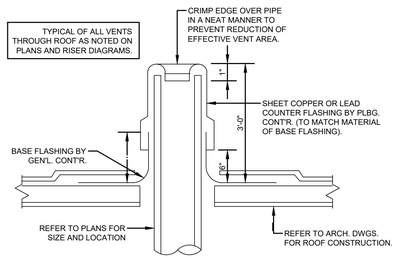
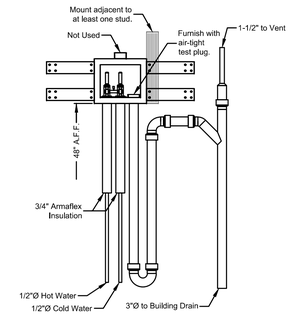
9/13/24	OHFA 80% REVIEW

Sheet Title
PLUMBING ISOMETRIC DIAGRAM

Sheet Number
P-502



D1 / P-601 PLUMBING VENT THROUGH ROOF DETAIL
SCALE: NONE



5 / P-601 WASHER BOX DETAIL
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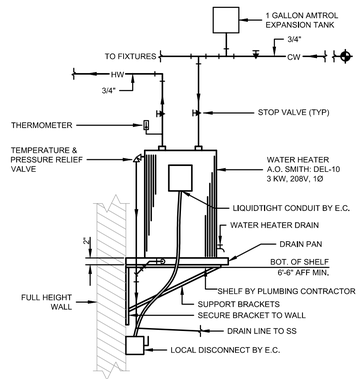
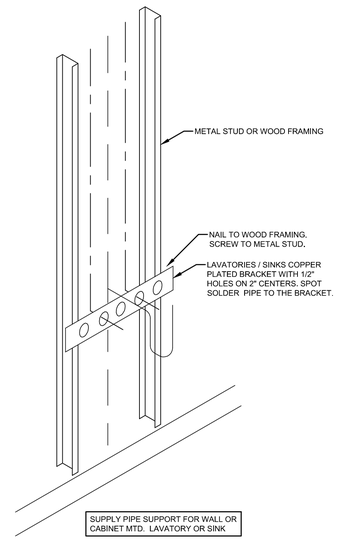
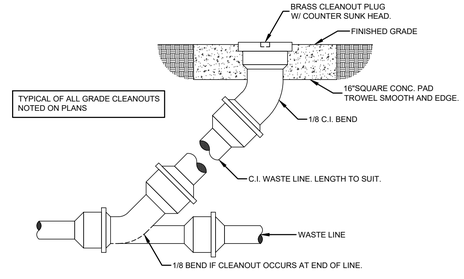


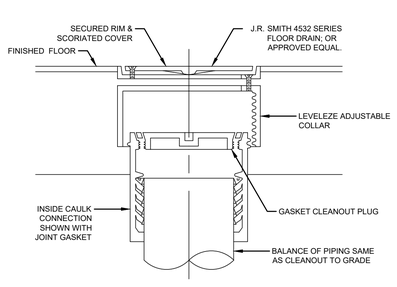
9 / P-601 SHELF MOUNTED WATER HEATER INSTALLATION DETAIL
SCALE: NONE



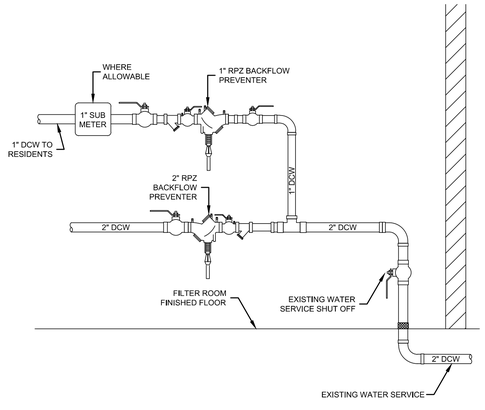
5 / P-601 LAVATORY / SINK PIPE SUPPORT DETAIL
SCALE: NONE



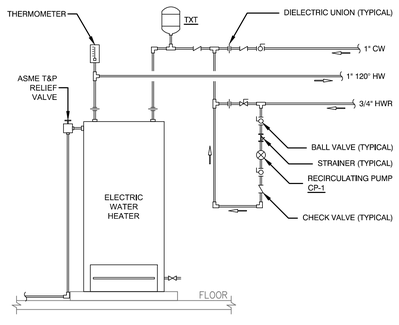
D4 / P-601 GRADE CLEANOUT DETAIL
SCALE: NONE



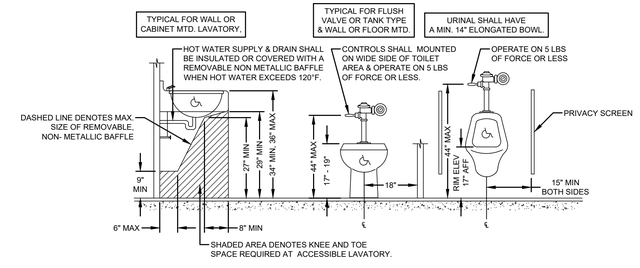
D5 / P-601 FLOOR CLEANOUT DETAIL
SCALE: NONE



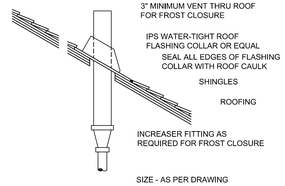
7 / P-601 BACK FLOW PREVENTER DETAIL
SCALE: NONE



A5 / P-601 WATER HEATER CIRCULATION PUMP DETAIL
SCALE: NONE



C5 / P-601 HANDICAP PLUMBING FIXTURE INSTALLATION DETAIL
SCALE: NONE



B5 / P-601 PLUMBING VENT THROUGH PITCHED ROOF DETAIL
SCALE: NONE

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Project Number
E2M: 24175

Date
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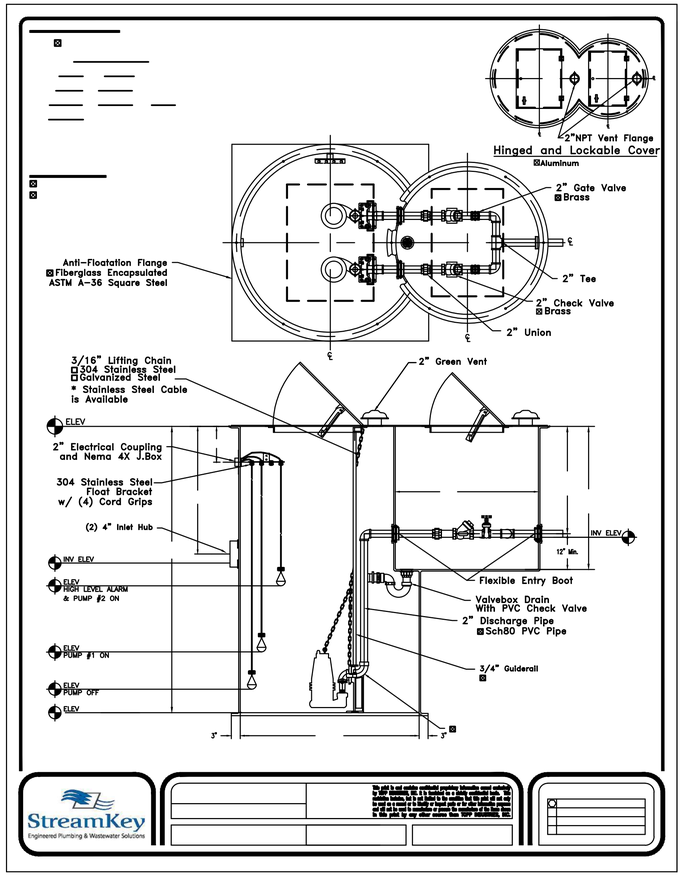
Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
PLUMBING DETAILS

Sheet Number
P-601



B3 LIFT STATION DETAIL
NTS

DUPLEX PREFAB GRINDER PUMP SYSTEM

- TWO (2) ZOELLER MODEL 7110; 208 VOLT THREE PHASE GRINDER PUMPS WITH 2" NPT VERTICAL DISCHARGE, 3.0 HP OIL FILLED MOTOR (17.3 FLA PER PUMP), DUCTILE IRON VORTEX IMPELLER, STAINLESS STEEL CUTTER AND PLATE, STAINLESS STEEL SHAFT WITH TANDEM MECHANICAL SEALS (LOWER SILICON CARBIDE/SILICON CARBIDE) INCLUDING MOISTURE PROBES, THERMAL PROTECTION WITH SENSORS, POWDER COATED EPOXY CAST IRON HOUSING, 25 FOOT POWER CORD; PUMP WEIGHT 245 LBS. DESIGN POINT: 60 GPM AT 70' TDH. ASSUMES, 6.5' DEEP INLET PIPE WITH 20' VERTICAL LIFT FROM BOTTOM OF BASIN AND 450' OF HORIZONTAL 2" DISCHARGE PIPING TO GRAVITY.
- TWO (2) 2" NPT BRASS CHECK VALVES AND TWO (2) 2" NPT BRASS GATE VALVES, FACTORY INSTALLED IN ATTACHED VALVEBOX.
- TWO (2) 2" GUIDE RAIL ASSEMBLIES INCLUDING BASE ELBOWS, QUICK DISCONNECT SLIDE ASSEMBLIES, UPPER SUPPORT BRACKETS AND STAINLESS STEEL LIFTING CABLES;
- ONE (1) CUSTOM CONTROLS TECHNOLOGY UL LISTED 230 VOLT THREE PHASE DUPLEX CONTROL PANEL WITH AN ELECTRO-MECHANICAL PUMP ALTERNATOR, H-O-A TOGGLE SWITCHES AND RUN INDICATOR LIGHTS FOR EACH PUMP, MOTOR PROTECTOR EACH PUMP, HIGH WATER ALARM WITH LIGHT, HORN AND SILENCE SWITCH, CONTROL CIRCUIT TRANSFORMER AND BREAKER, DRY ALARM CONTACTS, SEAL FAIL LIGHTS WITH ADJUSTABLE RELAYS, HEAT SENSOR FAIL LIGHTS, ELAPSED TIME METER AND CYCLE COUNTER PER PUMP, FLOAT INDICATOR LIGHTS ; ALL HOUSED IN A LOCKABLE NEMA 4X STAINLESS STEEL ENCLOSURE. INCLUDES THREE (3) 25' WEIGHTED, NORMALLY OPEN MECHANICAL FLOAT SWITCHES.
- ONE (1) 48" X 132" (11' DEEP) PREFABRICATED FIBERGLASS BASIN WITH 42" X 48" (4' DEEP) ATTACHED VALVEBOX INCLUDING ANTI-FLOTATION FLANGE, ¼" ALUMINUM COVER A HINGED ACCESS HATCH, ONE (1) 2" DISCHARGE CONNECTION STUBBED OUT THROUGH VALVE BOX SIDEWALL, ONE (1) 2" SCREENED MUSHROOM, ONE (1) 2" ELECTRICAL CONNECTION AND ONE (1) NEMA 4X JUNCTION BOX; ALL INTERNAL DISCHARGE PIPING (2" SCH. 80 PVC), VALVES, FITTINGS, GUIDE RAIL ASSEMBLIES, ETC. ARE FACTORY INSTALLED AND TWO (2) 4" CONNECTION FOR FIELD INSTALLATION OF INLET.
- INCLUDES FREIGHT AND START-UP BY A FACTORY REPRESENTATIVE ONCE INSTALLATION IS COMPLETE.
- ALL PIPING, WIRING, VALVES OTHER THAN LISTED, AND INSTALLATION BY OTHERS.

DOMESTIC WATER BOOSTER PUMP – VC SYSTEMS – PACEMAKER SERIES

A – General
Furnish and install Pacemaker Series/PMC model manufactured by VC Systems & Controls in Tampa, Florida. Refer to schedule for capacities and voltage. The system shall be UL QCZJ listed, UL508A listed, and NSF certified lead free. System fabrication, programming, and design shall all be done by the manufacturer in the USA.

B – Pumps
Pumps shall be vertical multistage with cast iron cases and 304 stainless steel impellers. Motor shall be a Baldor Premium Efficiency suitable for inverter duty. Motors shall be supplied with a 1.15 service factor. Mechanical seal will be cartridge type and will not require the motor to be removed for replacement.

C – Pipes, Valves, Fittings, and Accessories
All pipes, valves, and fittings 2' and over shall be flanged, full lug, or grooved design. The pump and discharge components shall be rated for the maximum working pressure of the system, shut off pressure plus maximum suction pressure.

1. Headers:
   i. Manifold piping shall be 304L stainless steel. Headers shall be double ended for flow in either direction. Connections shall be flanged.
   ii. Headers shall be sized not to exceed 10 FPS velocity.
2. Suction Isolation Valves:
   i. Full lug butterfly valves with 316 stainless steel disc. Suitable for 250 PSI.
3. Discharge Isolation Valves:
   i. Class 150 – Full lug butterfly valves with 316 stainless steel disc. Suitable for 250 PSI.
4. Check Valves:
   i. Class 150 – Flanged CLA-VAL 81-12 non-slam epoxy coated ductile iron suitable for 240 PSI.
5. Fittings & Accessories:
   i. Thermal Relief Valve – Each pump shall have an individual stainless steel mechanical temperature relief valve. The valve shall modulate open at 105 degrees and close at 95 degrees.
   ii. Pressure Transducers – The system shall come with three pressure transducers, all 316 stainless steel and 4-20ma.

The discharge will be equipped with two transducers to monitor discharge pressure and will be completely redundant in operation and alarms. The controller shall display both discharge pressure readings and reject a sensor if it skews out of range. The discharge sensors can be configured to be locally mounted on the header, remote mounted

In the building, or a combination of one local and one remote.
   iii. Vibration & Isolation - Systems will be supplied with manufacturer's choice of rubber in shear vibration isolators and single sphere rubber flex connectors if under 200 PSI working pressure. If over 200 PSI working pressure, all vibration and isolation will be supplied by the contractor.

D – Control Panel
The control panel shall be UL508A listed for industrial control panels and of the same manufacturer of the pump system. All programming shall be written and supported by the pump system manufacturer. The panel enclosure shall be powder coated steel, UL Type 4, and carry a NEMA 4 rating as an assembly.

1. Power Structure: Single Point Connection (A) – The control panel will have main disconnect with individual branch fuse blocks for single point connection. The entire panel as an assembly shall have a 5K AIC rating if fed from circuit breaker or 100K AIC if fed from fused disconnect.

2. Human Machine Interface & Features: The HMI will be a full color 4.3 touch screen with USB input and allow for backing up parameters and downloading the event log and trend data. The HMI & software shall have the following features:

   i. Meter Bar – Display of suction pressure, system pressure, PID speed, estimated flow, and alternation on ALL screens.
   ii. Status Bar – Displayed on the Home screen to show what the system is currently doing and display any active changes in operation.
   iii. Pump Status –Display for all pumps with run timers, run lights, and status indicator.
   iv. Alarm Bar – Display on ALL screens if any alarms are present.
   v. X-Y Trend –Display on X-Y trend of suction pressure, discharge pressure, and PID speed for no less than 60 days and retained if power is lost.
   vi. Event Log –Display and date alarms, user log ins, and parameter changes for no less than 180 days and retained if power is lost.
   vii. Alternation –Automatic and manual alternation. Alternation available for all control types from 1 to 3 pumps in any combination of variable speed, constant speed, jockey, or VFD with bypass and sequence them in groups running the most efficient pumps first always.
   viii. Dynamic Speed Control –Automatic configuration of all operational settings based on the incoming suction pressure to eliminate hunting, over shoot, and improper operation based on in coming suction pressure fluctuations.
   ix. PLC & Transducer Failure Circuit –In the event of a PLC failure, or transducer failure, the system shall remain operational and automatically run at a default safe speed until repairs can be made.
   x. Password Protection –All parameters and settings are password protected and has default levels of users with the ability to add more by the owner.
   xi. Sleep Mode –The system shall detect and shut the system down once no flow is confirmed.
   xii. ASHRAE 90.1 Compliant –The system is configured for either local or remote sensor. When using the local sensor, the system willautomatically adjust for friction loss by increasing the set point pressure in relationship to the flow demand.
   xiii. Pressure Recovery Mode –In the event of a power outage where system pressure drops substantially, the system will soft start and slowly fill the building and bring up to pressure before activating the PID.
   xiv. BAS Interfaces –The controller shall come with BACnet MS/TP, BACnet IP, and Modbus TCP interfaces and offer 28 individual data points.
   xv. Remote Disable/Generator Interlock –The panel will come with two contacts. Remote disable will allow the BAS to disable the system from running. The generator interlock can be used to limit the number of pumps that can run when the on emergency power.
   xvi. Alarms
      1. High System Pressure
      2. Low System Pressure
      3. Low Suction Pressure
      4. Pump Failed to Start
      5. Sensor Failure
      6. Form C Dry Contact for Common Alarm

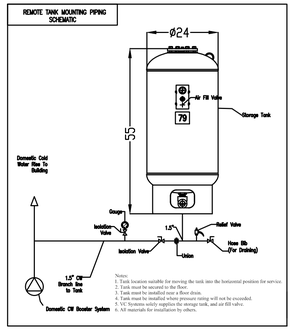
E – Variable Speed Drives
The drives shall be a microprocessor controlled PWM output drive for variable torque duty and supplied for the maximum full load amps produced by the motor. The drive shall be Series ACH580, UL Listed, and is a NEMA 1 self-contained enclosure. Each drive shall be furnished with a removable, digital keypad, to allow the operator flexibility and control. The keypad shall have a full graphical display with multiple display options and graphing. The keypad shall allow the operator to individually control each motor manually from digital keypad, without entering the control panel. Drive must be supplied with DC chokes with 5% max line impedance. The drive must include a variable speed cooling fan based on temperature. The drive must also self-modulate it's switching frequency to minimize audible noise. The drives shall be mounted external from the control panel to keep heat outside the panel cabinet and extend life cycle of electrical equipment. Drives shall be rated for a minimum of 100K AIC.

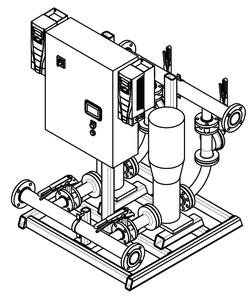
F – Fabrication
The base and frame shall be constructed of structural steel and coated with enamel primer and enamel paint. The panel stand shall be bolt-on and removable. The base shall extend to support the suction and discharge header rigidly from the base.

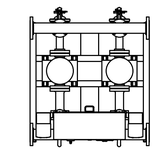
G – Bladder Tank
Provide a bladder tank with the pumping system and mount it remotely at the highest fixture nearest to a floor drain. See schedule for tank size.

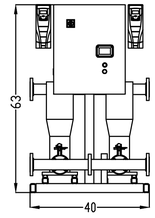
H – Factory Test & Start Up
The system shall be tested with the package and control panel as a complete system together, and run to the designed voltage and jobsite parameters. The start-up shall be done by a factory authorized representative. The package shall be UL listed as a system for its intended use as required by OSHA and National Electric Code (NEC) Article 90-7.

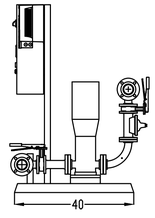
I – Warranty
The entire skid shall be warranted for two years from manufacturing date against defects in materials and workmanship.











NOTES:
Provide 18" clearance around the system for service, and NEC clearance in front of control panel.

SYSTEM CAPACITY:	90 GPM		SYSTEM PRESSURE:	70 PSI		PUMP SCHEDULE			
PUMP	MANUFACTURER	PUMP NO.	GPM	HEAD	HP	SPEED	POWER		
P-1	VC SYSTEMS	ESV15-3	90	127'	5	3500RPS	208-60-3		
P-2	VC SYSTEMS	ESV15-3	90	127'	5	3500RPS	208-60-3		
MIN SUCTION PRESSURE:	20 PSI	MAX SUCTION PRESSURE:	50 PSI	MODEL NO.		3VC-PMCG-5-252-208			
BLADDER TANK:	79 GALLON (VSMC)	ELECTRICAL:	34.0 FLA		40.3 MCA		5K AIC		

LISTED

B4 DOMESTIC WATER BOOSTER PUMP DETAIL
NTS

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9/13/24	OHFA 80% REVIEW

Sheet Title
BOOSTER PUMP DETAILS

Sheet Number
P-602

FIRE PROTECTION DESIGN CALCULATION

OCCUPANCY:	R-2, MULTIFAMILY RESIDENTIAL WITH SHARED EGRESS
HAZARD:	LIGHT HAZARD
DENSITY:	0.10 GPM/FT^2
AREA:	# FT^2
AREA PER HEAD:	# MAX FT^2
TYPE:	WET PIPE SYSTEM
FLOW:	TBD BY FIRE PROTECTION CONTRACTOR
TOTAL PSI REQUIRED:	TBD BY FIRE PROTECTION CONTRACTOR
FLOW TEST SATIC:	# PSI
FLOW TEST RESIDUAL:	# PSI

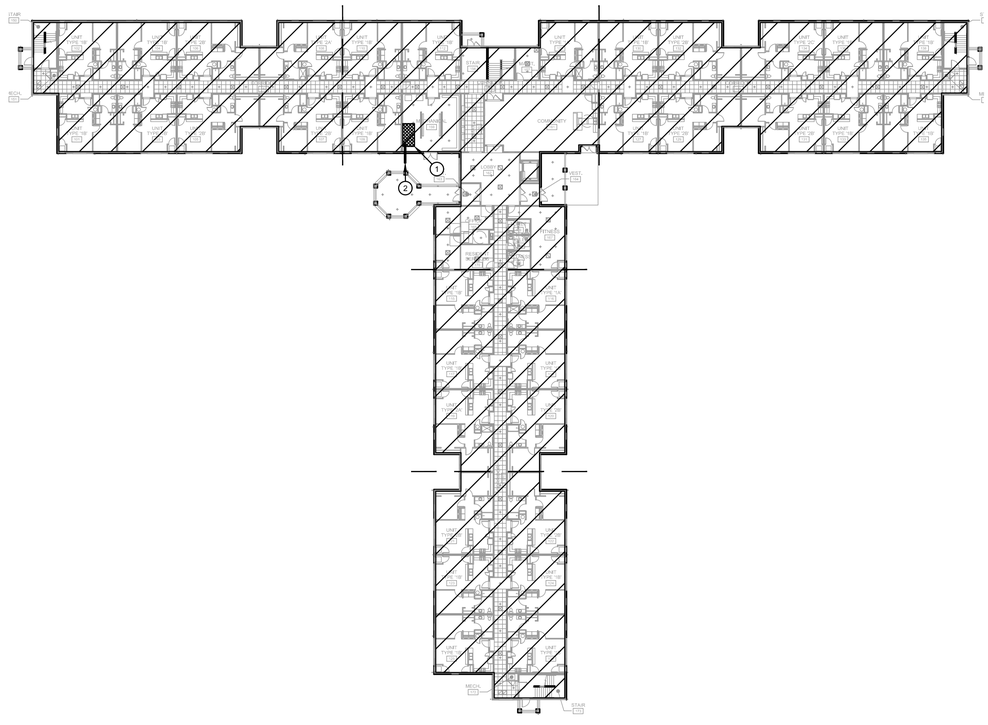
	LIGHT HAZARD OCCUPANCY - 0.10 GPM/FT^2

PLAN NOTES

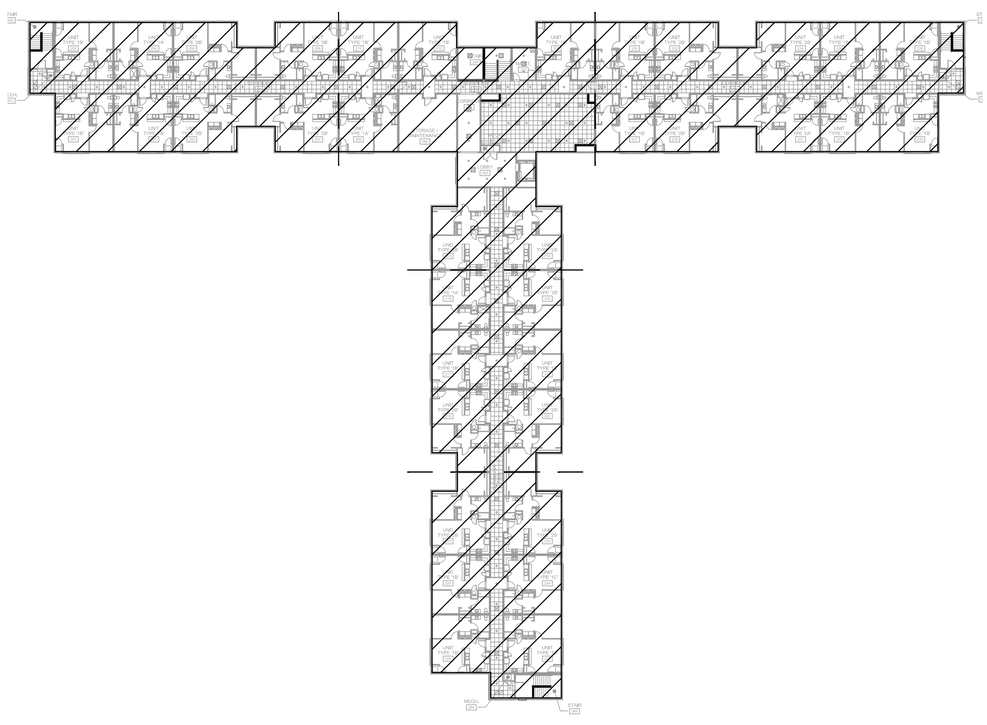
1	THIS AREA RESERVED FOR SUPPRESSION SERVICE ENTRANCE AND RISER. COORDINATE SERVICE ENTRANCE WITH PLUMBING CONTRACTOR.
2	SERVICE ENTRANCE LOCATION FOR #" FIRE SUPPRESSION LINE.

GENERAL NOTES

1. FIRE PROTECTION CONTRACTOR SHALL COORDINATE WITH ELECTRICAL, MECHANICAL, AND PLUMBING CONTRACTOR FOR ALL EXACT MOUNTING LOCATIONS PRIOR TO INSTALLATION. ALL REQUIRED CLEARANCES FOR ALL EQUIPMENT SHALL BE MAINTAINED.
2. ALL PIPING TO BE KEPT AT HIGHEST POSSIBLE ELEVATION.
3. FIRE SUPPRESSION CONTRACTOR TO PRODUCE PERMIT DRAWINGS AND SUBMIT TO LOCAL AUTHORITY HAVING JURISDICTION FOR APPROVAL. APPROVED PERMIT DRAWINGS TO BE SUBMITTED TO ENGINEER.



1 F-101 FIRE SUPRESSION PLAN 1ST FLOOR
SCALE: 1/32" = 1'-0"



2 F-101 FIRE SUPRESSION PLAN 2ND FLOOR
SCALE: 1/32" = 1'-0"

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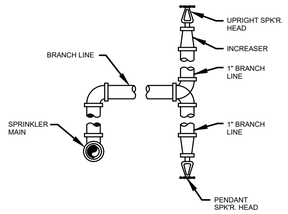
Sheet Title
FIRE SUPRESSION PLAN

Sheet Number
F-101

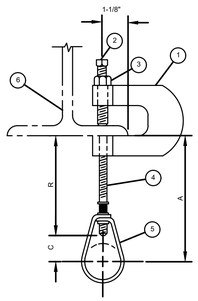


1 F-501 SPRINKLER HEAD VENTILATION DETAIL
SCALE: NONE

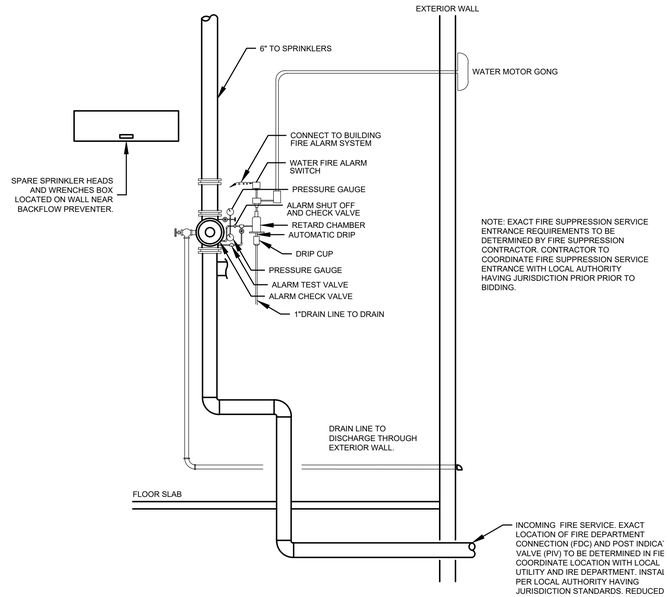
COMPONENTS:
1. C-CLAMP
2. SET SCREW
3. LOCK NUT
4. HANGER ROD
5. ADJUSTABLE HANGER RING
6. STEEL BEAM OR BAR JOIST

DESIGN DATA FOR C-CLAMP HANGER

NOM. PIPE SIZE	MINIMUM A DIMENSION INCHES	HANGER TAKEOUT INCHES	ROD DIAMETER INCHES
1/2	3 1/2	-1 1/4	3/8
3/4	3 1/2	-1 1/4	3/8
1	3 1/2	-1 1/4	3/8
1 1/4	3 3/4	-1 1/2	3/8
1 1/2	4	-1 1/2	3/8
2	4 1/4	-1 3/4	3/8
2 1/2	5	-2 1/4	3/8
3	5 1/2	-2 1/2	3/8
4	6	-3	3/8
5	6 3/4	-3 3/4	1/2
6	7 3/4	-4 1/2	1/2
8	9 1/4	-6	1/2



2 F-501 C-CLAMP PIPE HANGER
SCALE: NONE



3 F-501 FIRE SERVICE RISER DIAGRAM
SCALE: NONE

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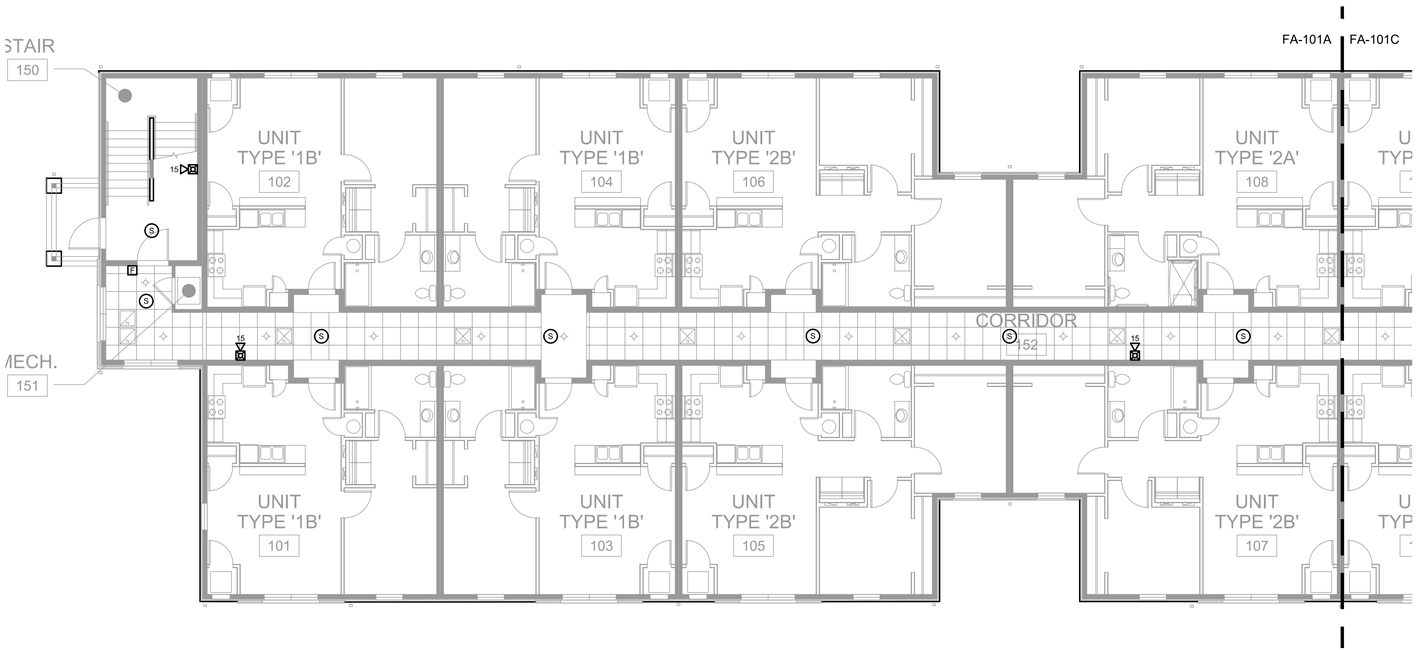
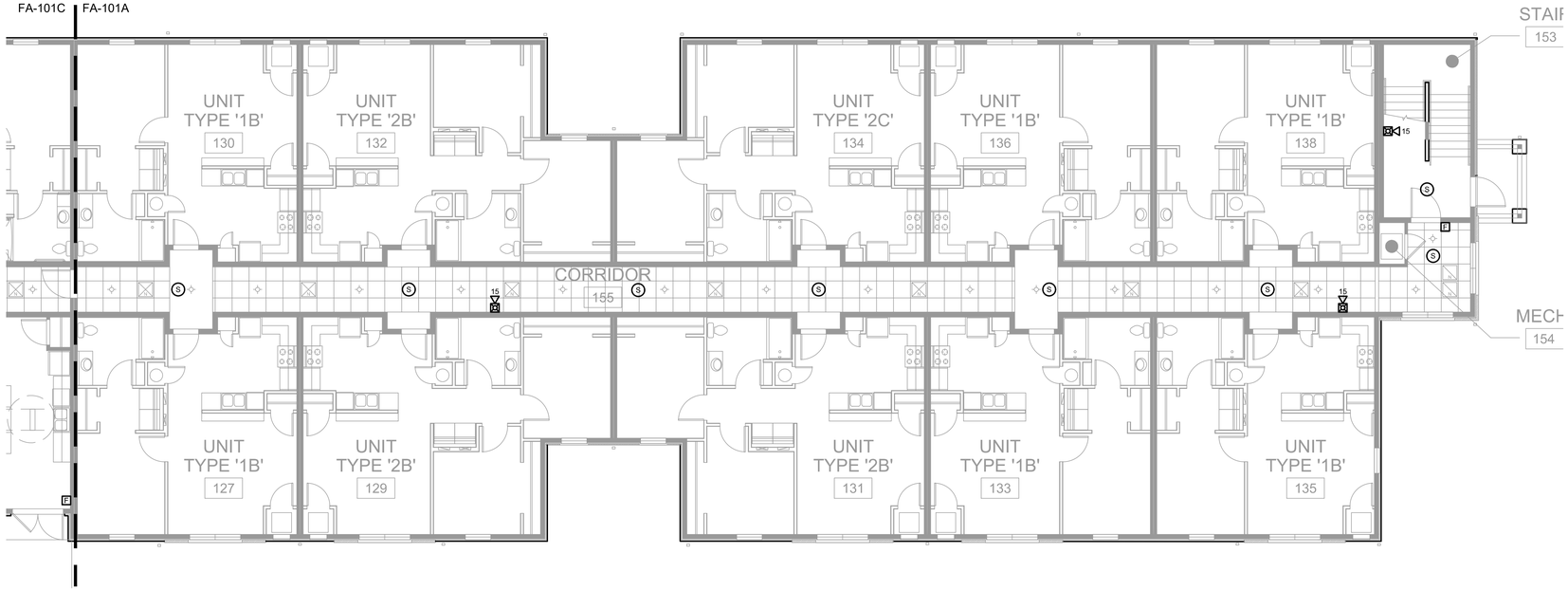
FIRE SUPRESSION DETAILS

Sheet Number
F-501

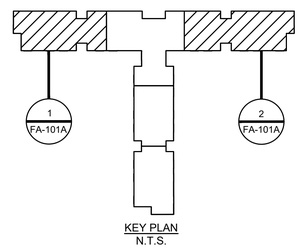


1 FA-101A OVERALL FIRST FLOOR FIRE ALARM PLAN SOUTH
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'



2 FA-101A OVERALL FIRST FLOOR FIRE ALARM PLAN NORTH
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

PLAN NOTES	
1	---



KEY PLAN
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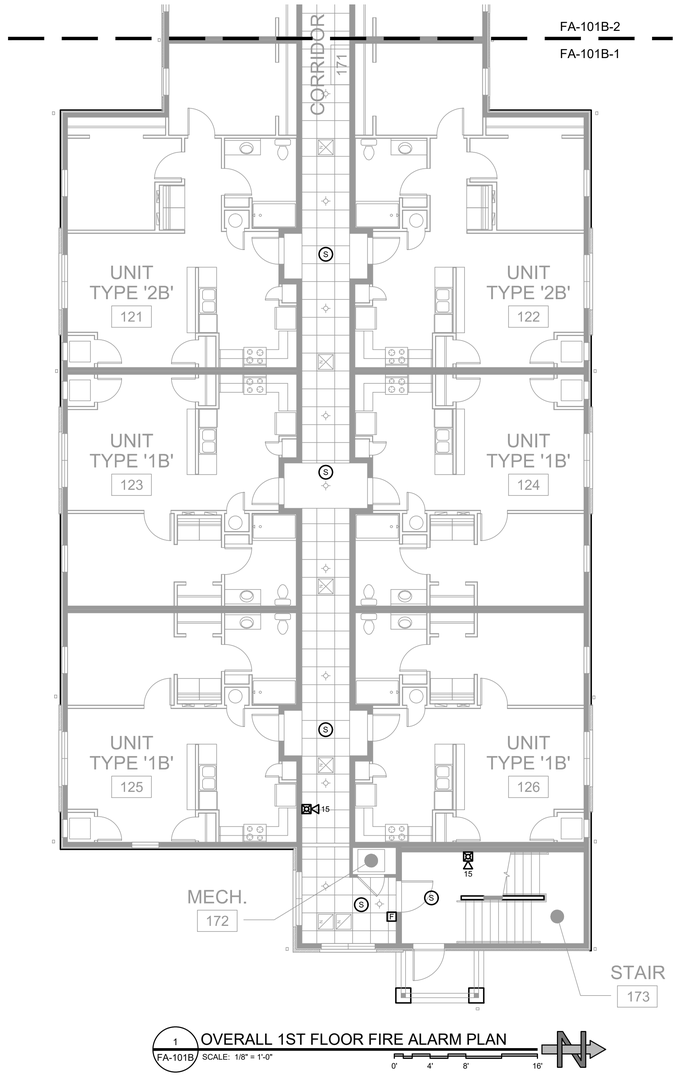
Sheet Title

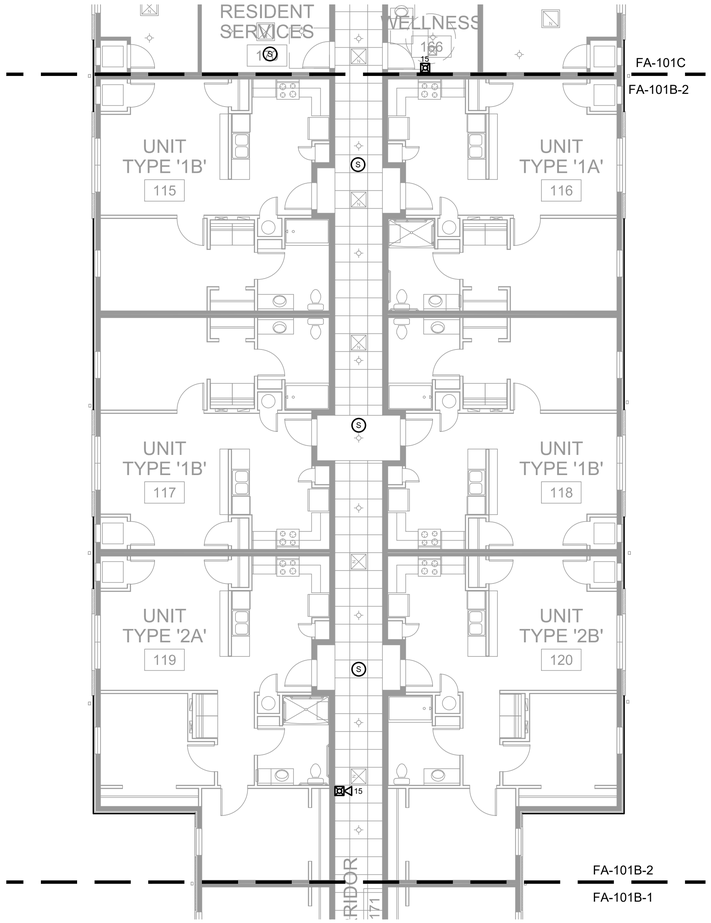
OVERALL FIRST FLOOR FIRE ALARM PLAN

Sheet Number

FA-101A

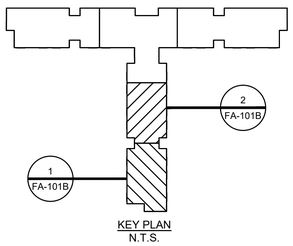


1 FA-101B OVERALL 1ST FLOOR FIRE ALARM PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'



2 FA-101B OVERALL 1ST FLOOR FIRE ALARM PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

PLAN NOTES	
1	---



KEY PLAN
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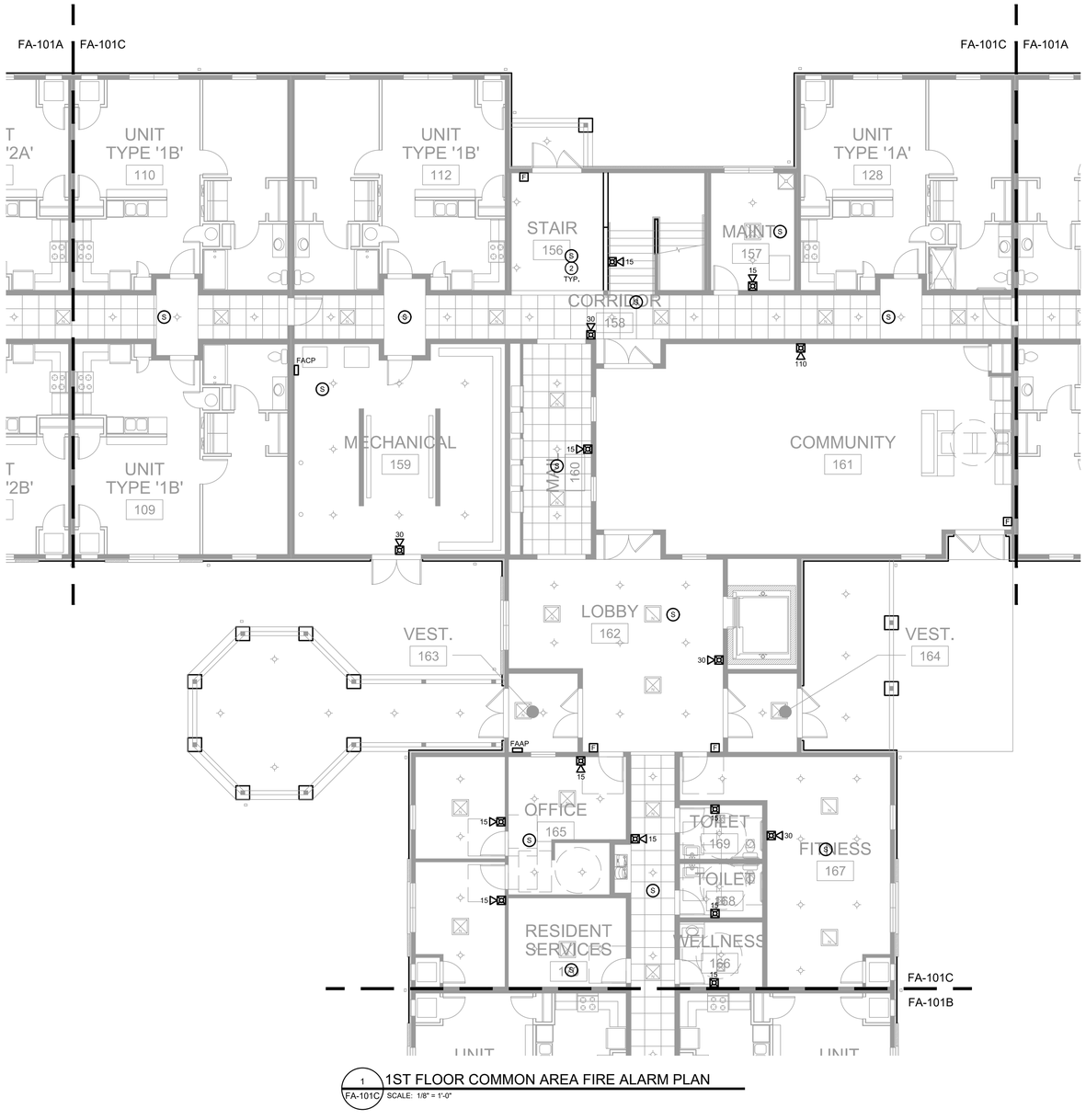
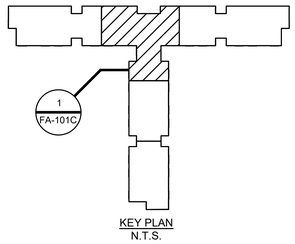
Sheet Title
OVERALL 1ST FLOOR FIRE ALARM PLAN

Sheet Number
FA-101B



1 FA-101C 1ST FLOOR COMMON AREA FIRE ALARM PLAN
SCALE: 1/8" = 1'-0"

PLAN NOTES	
1	--



KEY PLAN
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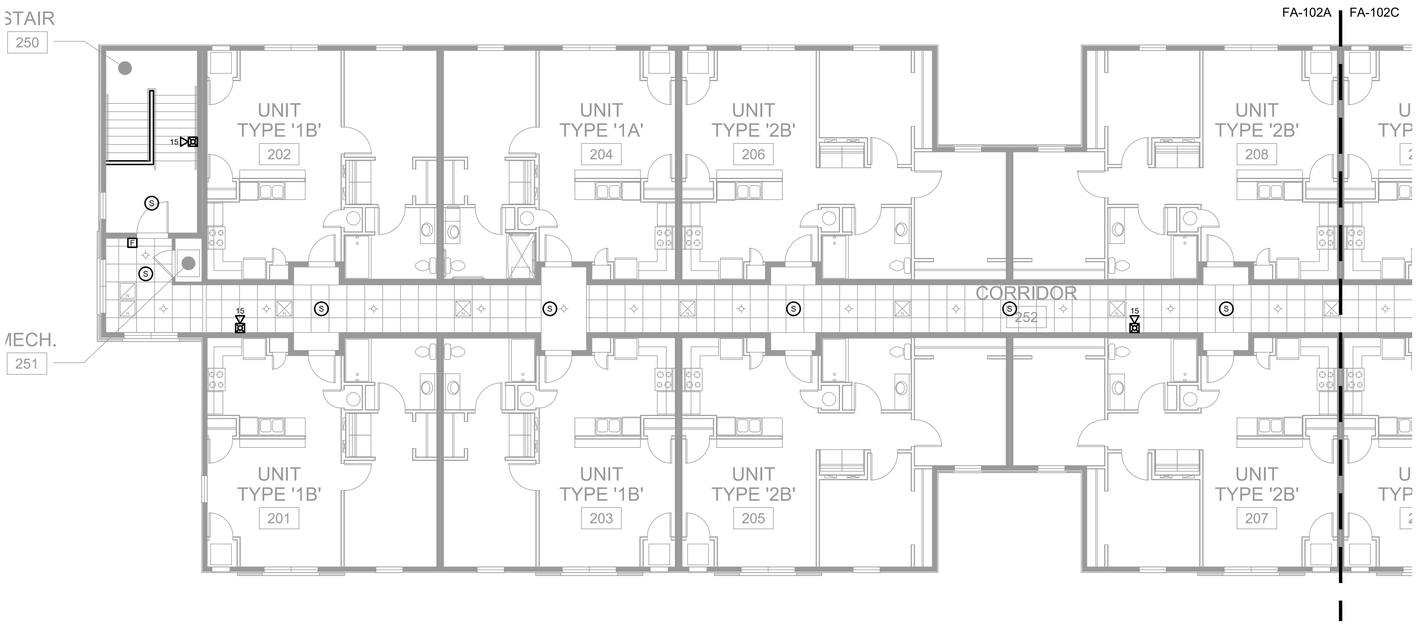
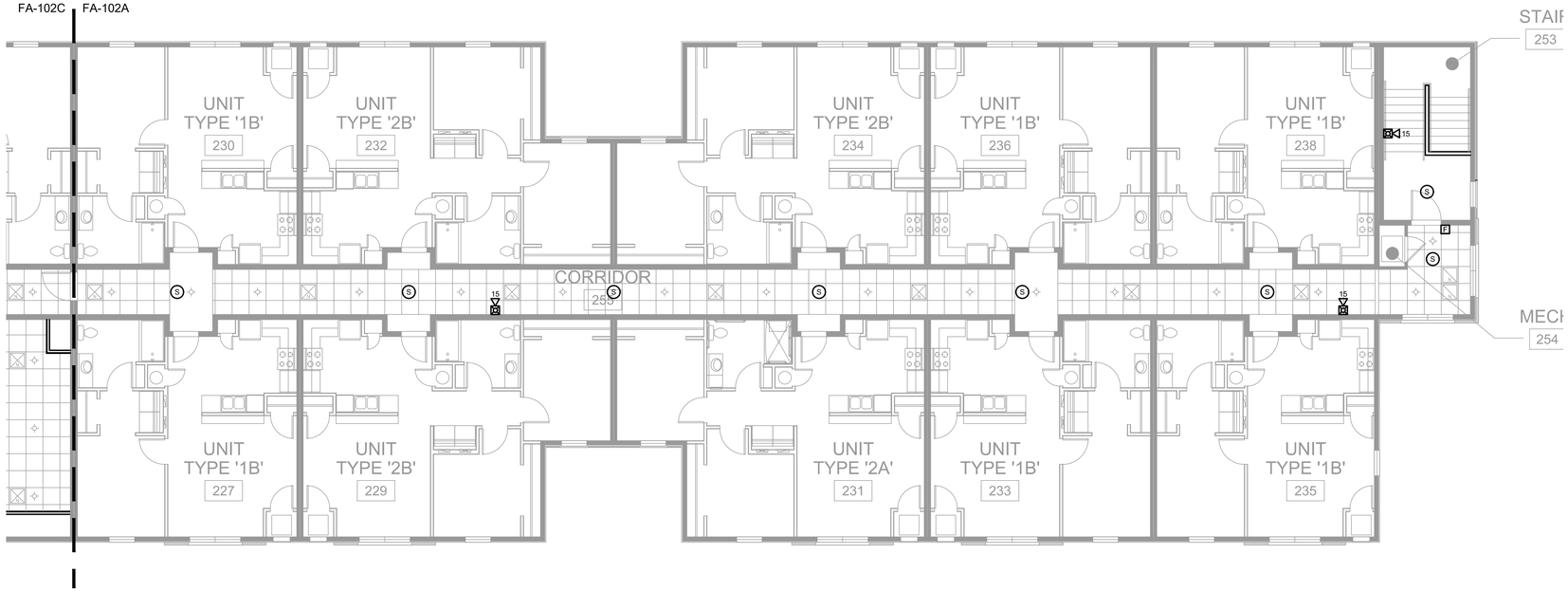
Sheet Title
1ST FLOOR COMMON AREA FIRE ALARM PLAN

Sheet Number
FA-101C

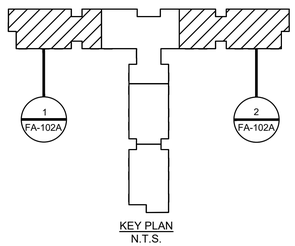


1 FA-102A OVERALL 2ND FLOOR FIRE ALARM PLAN SOUTH
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'



2 FA-102A OVERALL 2ND FLOOR FIRE ALARM PLAN NORTH
SCALE: 1/8" = 1'-0"

PLAN NOTES	
1	--



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New Multi-Family Building:
Senior Village at Valle Green

Channingway Dr.
Fairborn, Ohio 45324

Project Number
E2M: 24175

Date
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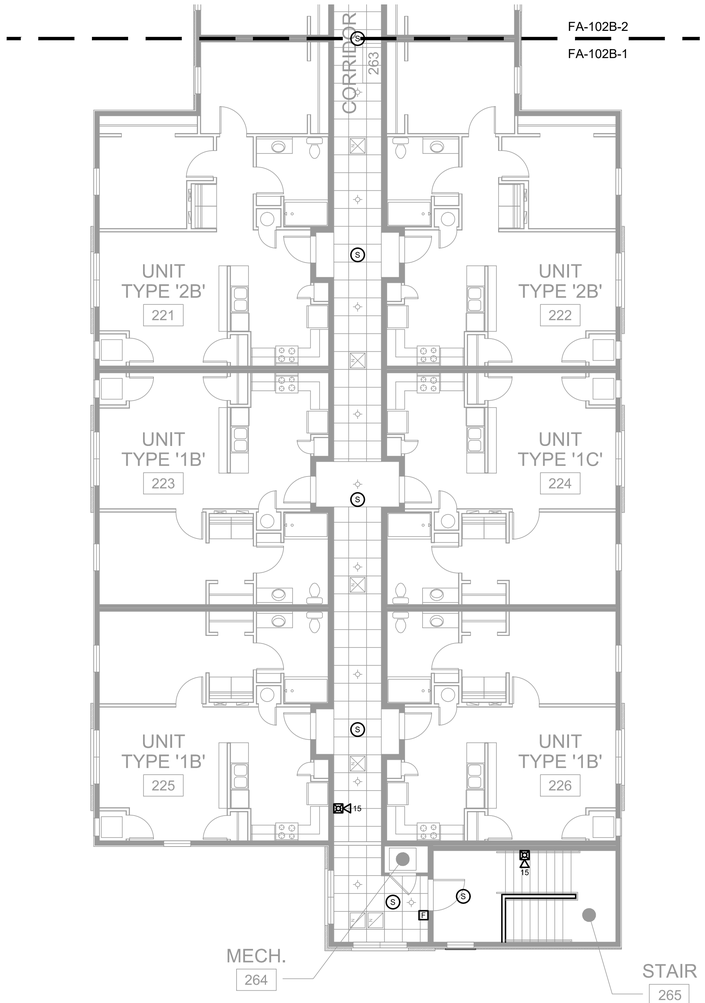
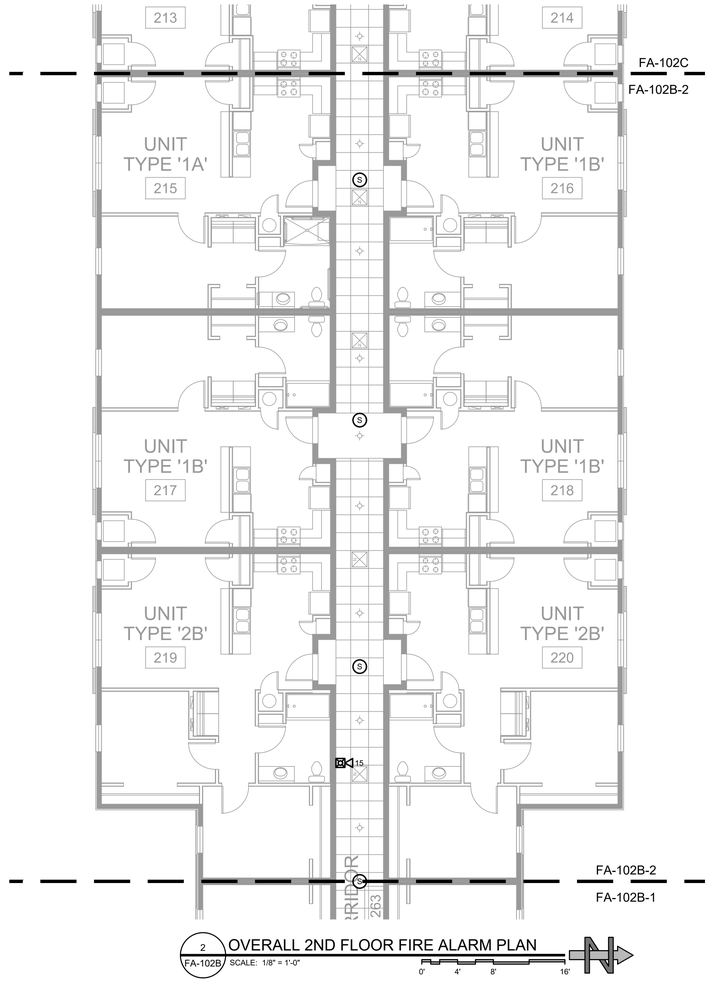
Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
OVERALL 2ND FLOOR FIRE ALARM PLAN

Sheet Number
FA-102A



1 FA-102B OVERALL 2ND FLOOR FIRE ALARM PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'



2 FA-102B OVERALL 2ND FLOOR FIRE ALARM PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

PLAN NOTES	
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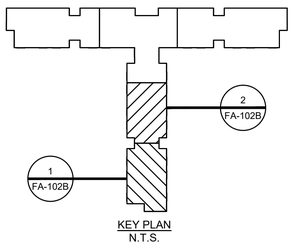

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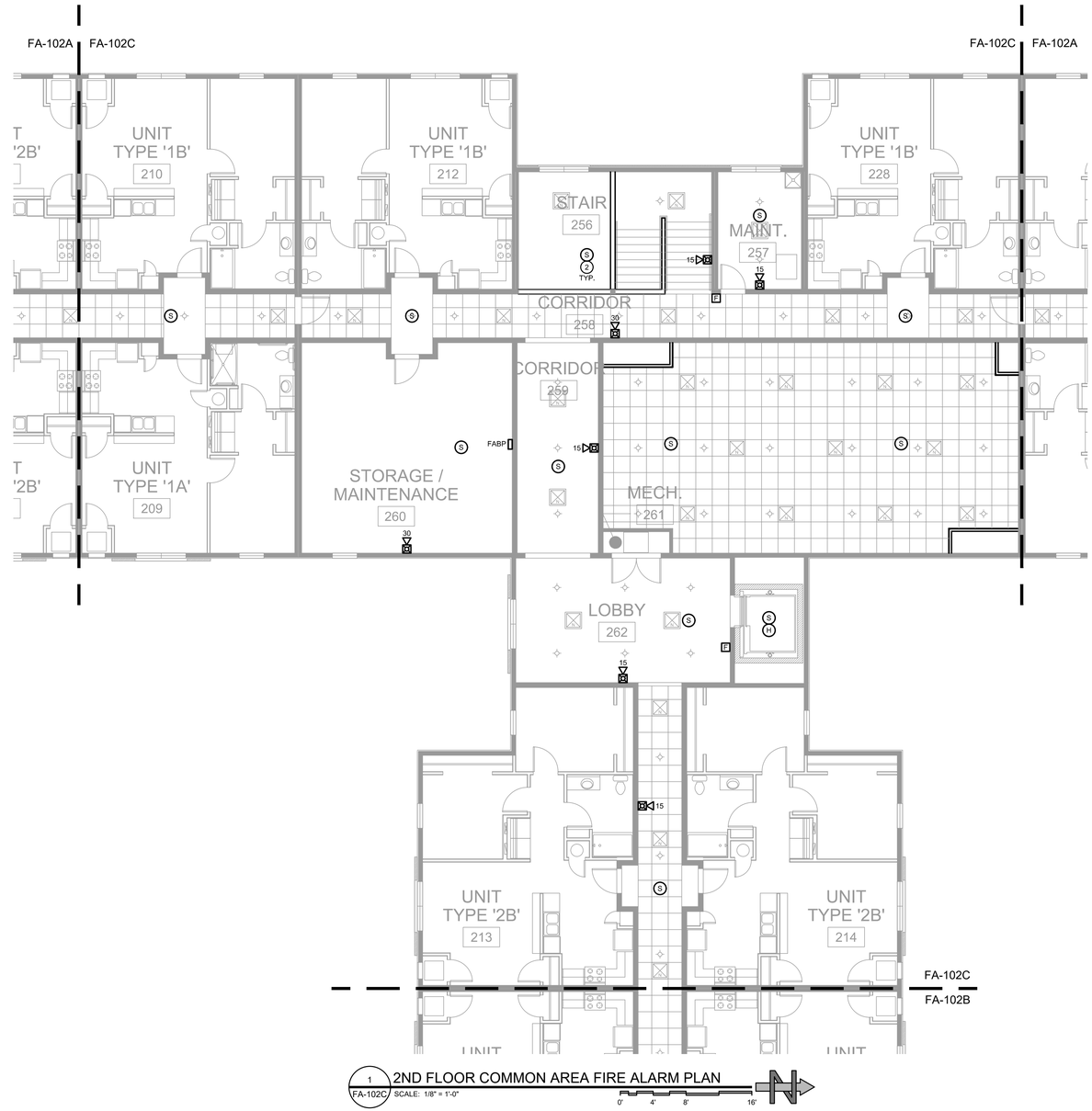
Sheet Title
OVERALL 2ND FLOOR FIRE ALARM PLAN

Sheet Number
FA-102B



PLAN NOTES	
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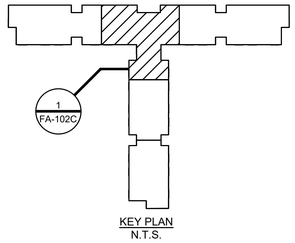

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Date	Issue
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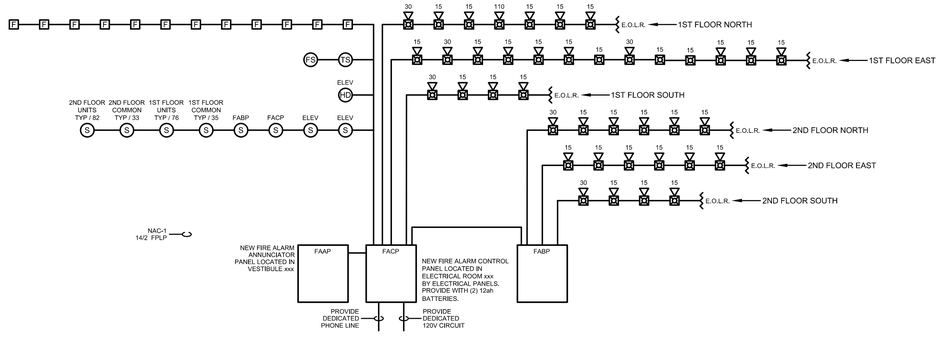
Sheet Title
2ND FLOOR COMMON AREA FIRE ALARM PLAN

Sheet Number
FA-102C



1 FA-501 FIRE ALARM RISER & NOTES

SCALE: NONE

FIRE ALARM RISER NOTES

1. PROVIDE A FIRE ALARM SYSTEM COMPLETE WITH SYSTEM EQUIPMENT, TECHNICAL SUPPORT, SYSTEM PROGRAMMING, FINAL CONNECTIONS AND SYSTEM TESTING PER NFPA AND MANUFACTURER. REFER TO GENERAL NOTE #1 ON DRAWING E-103 FOR ADDITIONAL INFO.

2. NOTIFY OWNER AND FIRE DEPARTMENT PRIOR TO ANY WORK BEING DONE ON THE FIRE ALARM SYSTEMS. THE CONTRACTOR SHALL NOT LEAVE THE FIRE ALARM SYSTEM IN "ALARM" OR "TROUBLE". THE CONTRACTOR SHALL BE RESPONSIBLE FOR ARMING/DISARMING THE FIRE ALARM SYSTEM AS REQUIRED BY THE WORK.

3. FIRE ALARM DEVICES INCLUDE MANUAL STATIONS, SMOKE DETECTORS, HEAT DETECTORS AND AUDIO/VISUAL NOTIFICATION EQUIPMENT. ALL DEVICES ARE NEW UNLESS OTHERWISE SHOWN. REFER TO FLOOR PLANS FOR ADDITIONAL QUANTITIES AND LOCATIONS OF FIRE ALARM DEVICES. DEVICES SHOWN ON THIS DRAWING ARE TYPICAL FOR SEVERAL OF THE SAME TYPE. WIRING IS SCHEMATIC. COORDINATE FINAL WIRING CONFIGURATIONS AND CONDUIT SIZING WITH THE SYSTEM VENDOR. IDENTIFY AND LABEL FIRE ALARM DEVICES WITH THE DEVICE NAME. LABEL REMOTE INDICATORS WITH THE APPROPRIATE DEVICE NAME.

4. COORDINATE LOCATIONS AND MOUNTING HEIGHTS FOR ALL DEVICES WITH THE ARCHITECTURAL DOCUMENTS. UNLESS OTHERWISE SHOWN, INSTALL NOTIFICATION APPLIANCES AT 96" ABOVE FINISHED FLOOR (AFF) OR 6" BELOW THE CEILING, WHICHEVER IS LOWER. PULL STATIONS SHALL BE MOUNTED AT 48" AFF. MEASUREMENTS ARE TO THE TOP OF THE BACKBOX.

5. ALL WIRING SHALL INSTALLED IN ACCORDANCE WITH ALL AUTHORITIES HAVING JURISDICTION.

6. WIRING FOR DEVICES SHALL BE AS FOLLOWS:

   STROBES/HORNS (SYNCHRONIZED): 4#14
   MANUAL STATIONS; HEAT DETECTORS; SMOKE DETECTORS: 2#14
   24VDC POWER: 2#14
   MISC. CONTROLS: 2#14 OR AS NOTED.

7. CONCEALED DETECTORS OR OTHER ALARM DEVICES: PROVIDE REMOTE INDICATOR LAMP AND TEST SWITCH, IN A VISIBLE LOCATION, i.e. ON SUSPENDED CEILING, WITHIN TWENTY FEET OF DETECTORS. COORDINATE FINAL LOCATION IN THE FIELD. LABEL REMOTE LAMP WITH DEVICE NAME.

8. PROVIDE AND SUBMIT ALL REQUIRED FIRE ALARM PLANS AND PRODUCT SPECIFICATION DATA TO ALL AUTHORITIES HAVING JURISDICTION INCLUDING LOCAL BUILDING DEPARTMENT AND FIRE DEPARTMENT FOR APPROVAL.

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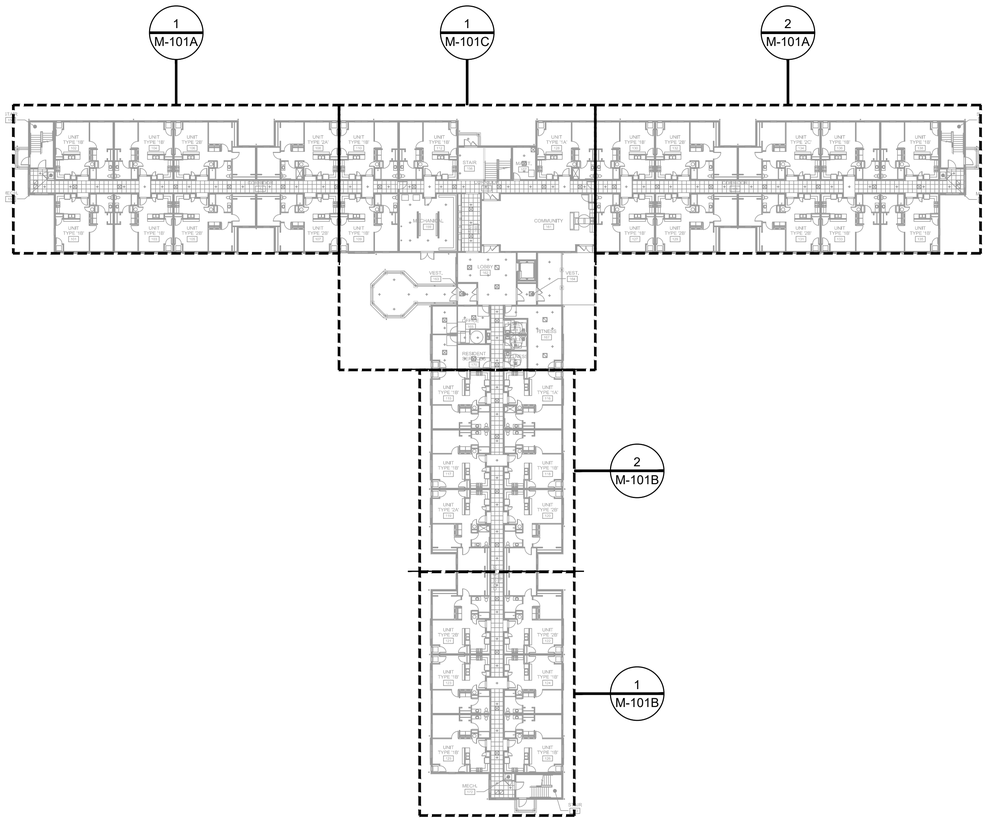
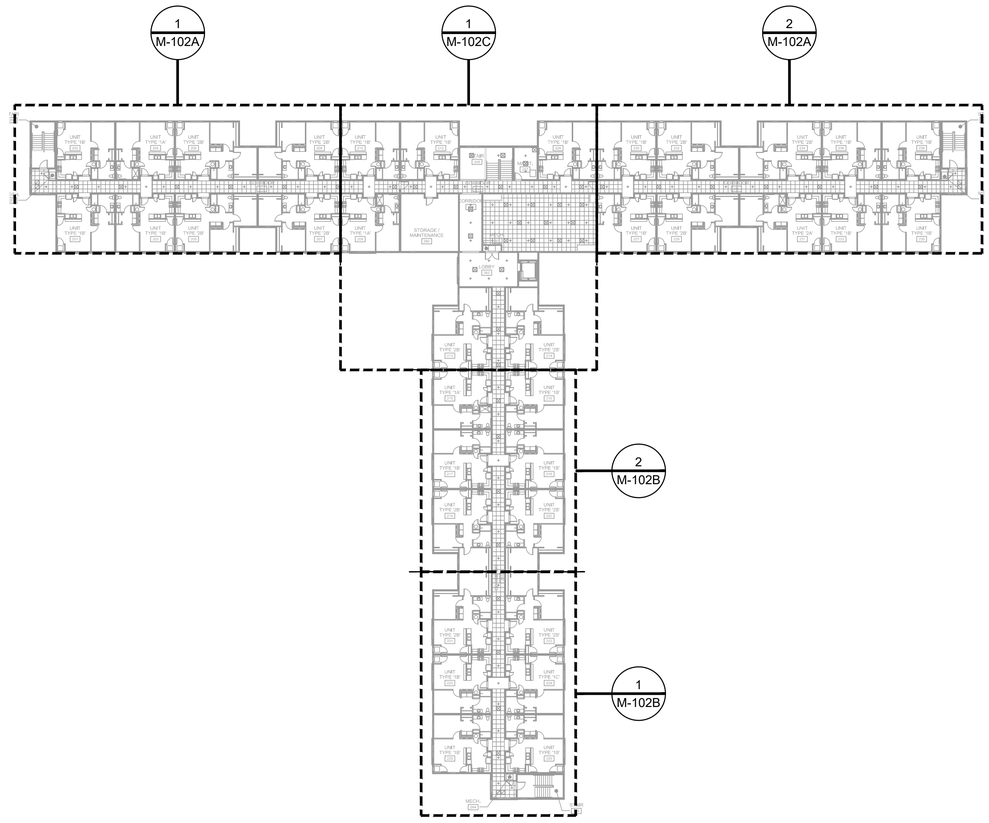
Sheet Title
FIRE ALARM RISER & NOTES

Sheet Number
FA-501



1 M-100 MECHANICAL OVERALL PLAN 1ST FLOOR
SCALE: 3/32" = 1'-0"
0' 4' 8' 20'



2 M-100 MECHANICAL OVERALL PLAN 2ND FLOOR
SCALE: 3/32" = 1'-0"
0' 4' 8' 20'

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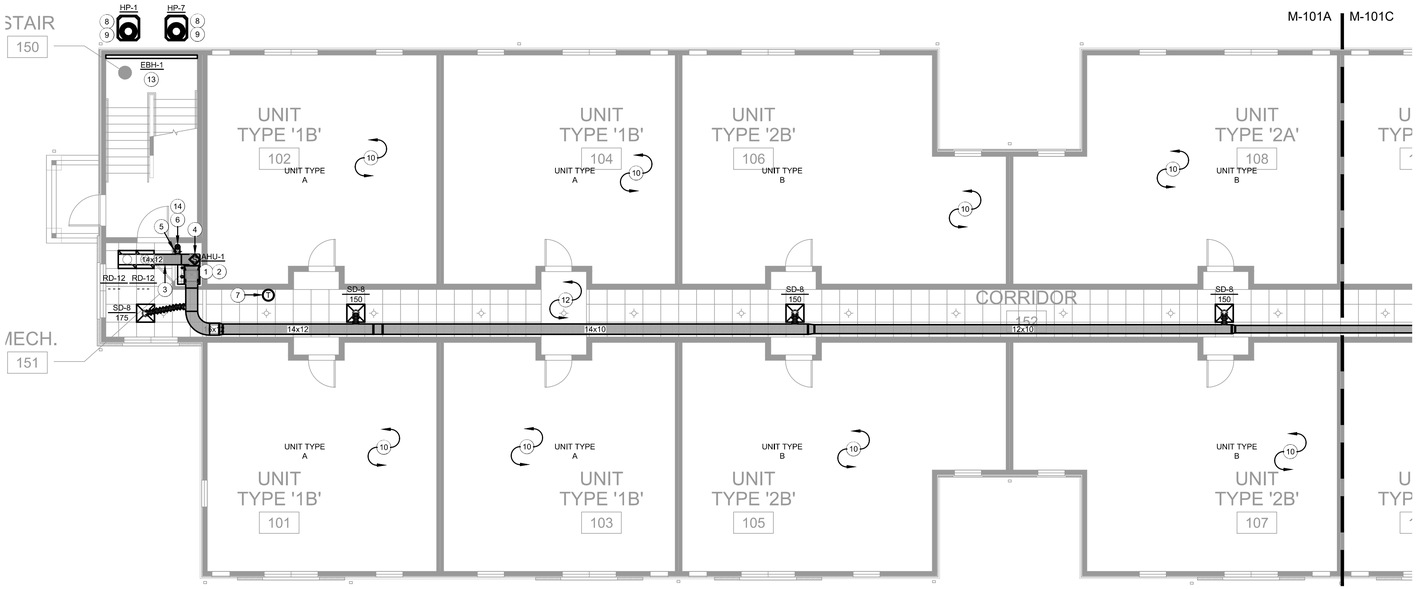
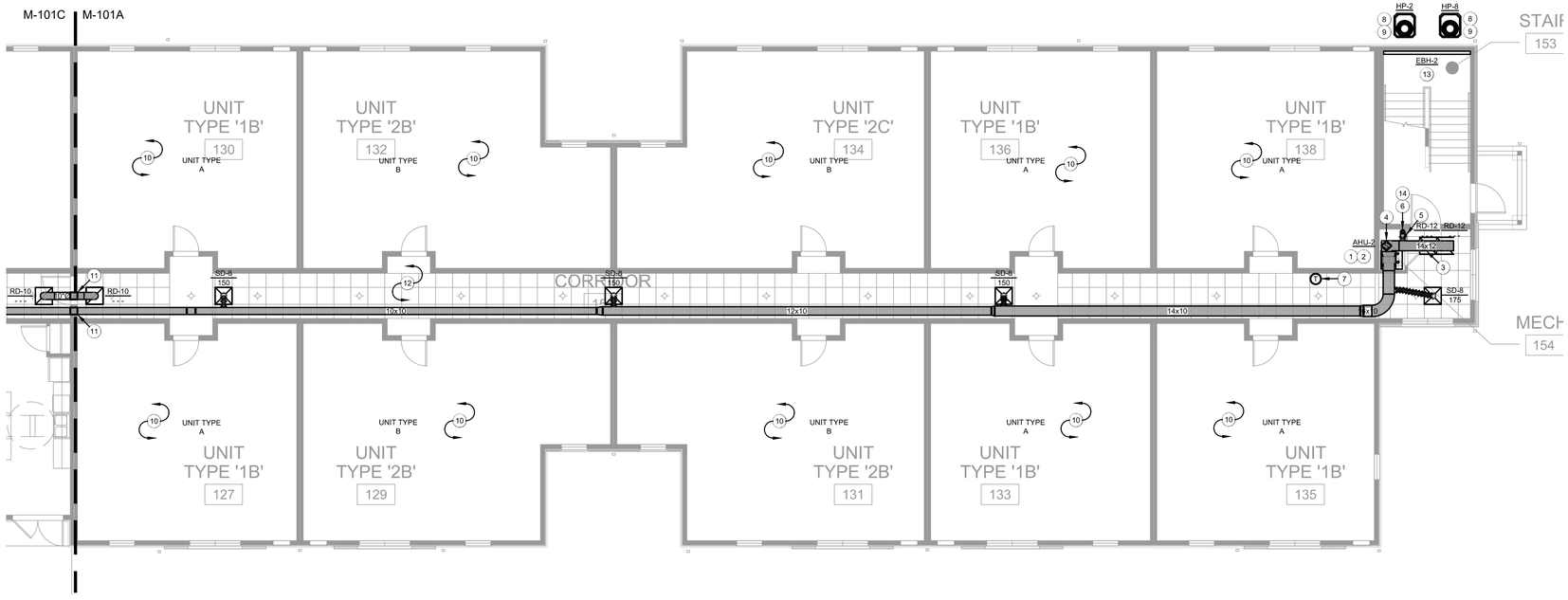
9/13/24	OHFA 80% REVIEW

Sheet Title
MECHANICAL OVERALL PLAN

Sheet Number
M-100



1 M-101A OVERALL 1ST FLOOR MECHANICAL PLAN SOUTH
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

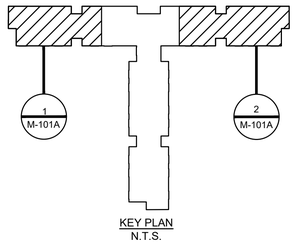


2 M-101A OVERALL 1ST FLOOR MECHANICAL PLAN NORTH
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

PLAN NOTES

1	PROVIDE AND INSTALL NEW ELECTRIC FURNACE PER MANUFACTURERS INSTRUCTIONS. PROVIDE WITH ALL REQUIRED MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
2	EXTEND 3/4" CONDENSATE PIPING TOP NEAREST FLOOR DRAIN.
3	PROVIDE AND INSTALL ACOUSTICAL DUCT LINER IN FIRST 10' OF RETURN AIR DUCT AHEAD OF COIL AND FILTER.
4	PROVIDE WITH DUCT SMOKE DETECTOR IN RETURN AIR DUCT. FIRE ALARM CONTRACTOR TO WIRE BACK TO FACP.
5	PROVIDE WITH DAMPER ON OUTDOOR AIR DUCT. BALANCE TO VALUES SHOWN ON M-502.
6	EXTEND OUTDOOR AIR DUCT UP TO FLOOR ABOVE. SEE M-102A, M-102B, AND M-102C FOR CONTINUATION. PROVIDE WITH A MINIMUM OF R6 DUCT WRAP ON ALL OUTDOOR AIR DUCT.
7	PROVIDE AND INSTALL NEW 7 DAY PROGRAMMABLE THERMOSTAT. PROVIDE ALL MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
8	PROVIDE AND INSTALL HEAT PUMP ON CONCRETE EQUIPMENT PAD PER MANUFACTURERS INSTRUCTIONS. PROVIDE ALL REQUIRED MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
9	ALL REFRIGERANT PIPING TO BE SIZED AND INSULATED PER MANUFACTURERS INSTRUCTIONS.
10	SEE M-103 FOR UNITS MECHANICAL PLAN.
11	PROVIDE AND INSTALL NEW FIRE DAMPER IN ALL DUCTS PENETRATING FIRE RATED WALLS. TYPICAL OF ALL.
12	ALL DIFFUSERS INSTALLED IN RATED CEILINGS TO BE PROVIDED WITH INTEGRAL CEILING RADIATION DAMPERS. SEE SPECIFICATIONS ON M-501.
13	PROVIDE AND INSTALL NEW ELECTRIC HATER PER MANUFACTURERS INSTRUCTIONS. PROVIDE WITH INTEGRAL THERMOSTAT AND ALL REQUIRED MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
14	PROVIDE FIRE DAMPERS WHERE OUTDOOR AIR DUCT PENETRATES FLOOR.

NOTE: NOT ALL NOTES MAY BE USED ON THIS SHEET



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Channingway Dr.
Fairborn, Ohio 45324

Project Number
E2M: 24175

Date
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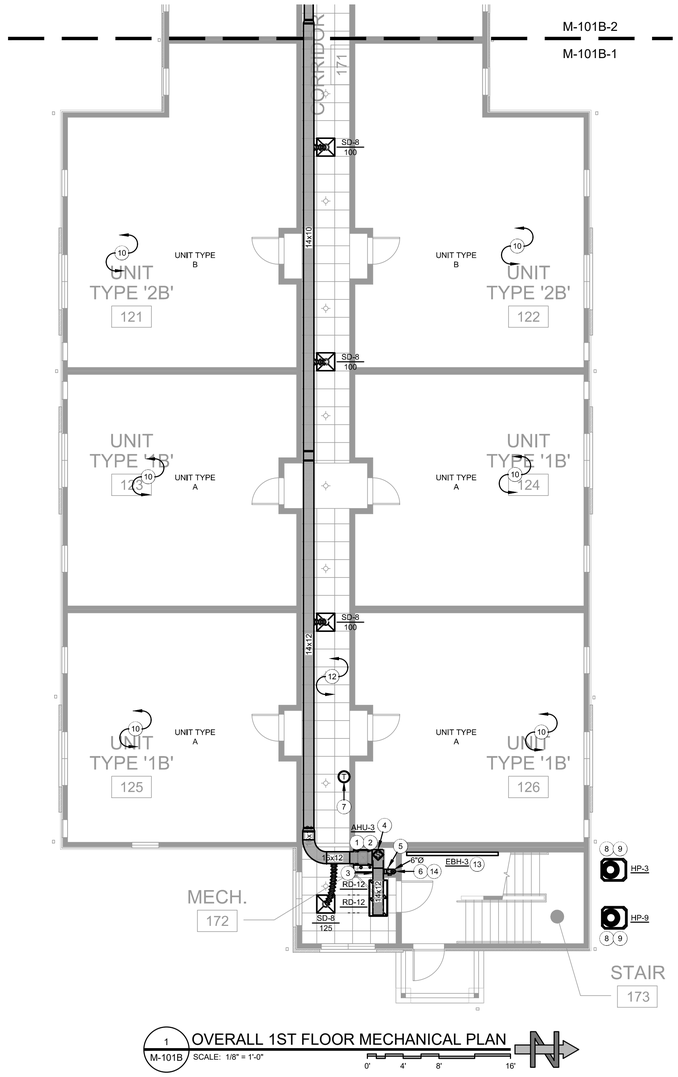
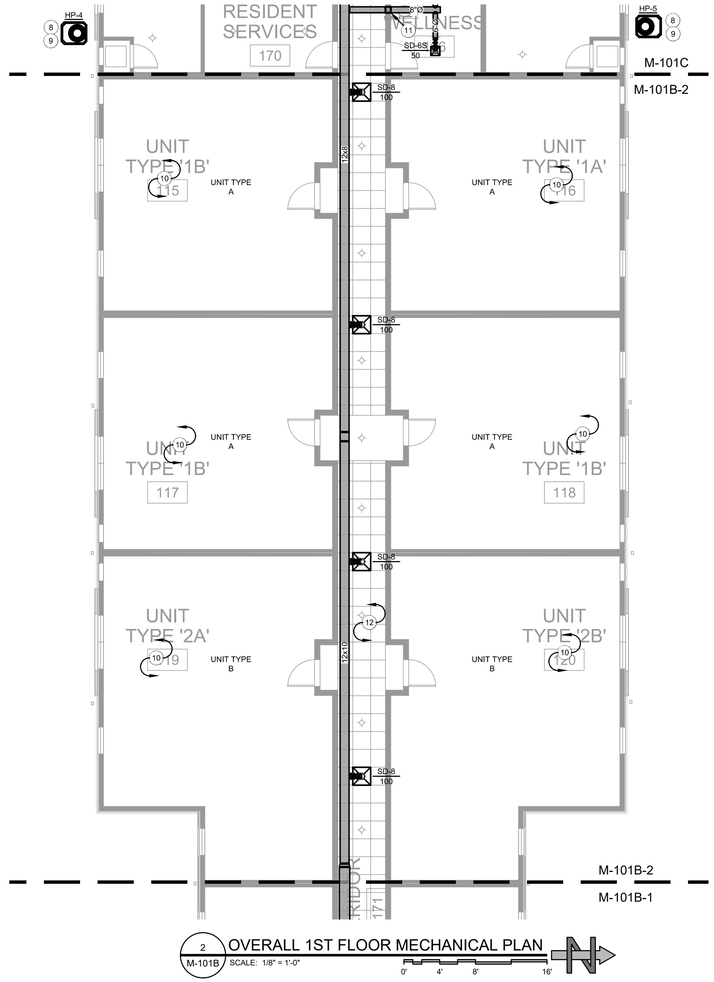
Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
OVERALL 1ST FLOOR MECHANICAL PLAN

Sheet Number
M-101A



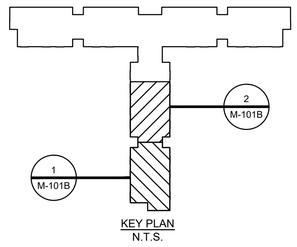
1 M-101B OVERALL 1ST FLOOR MECHANICAL PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'



2 M-101B OVERALL 1ST FLOOR MECHANICAL PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

PLAN NOTES	
1	PROVIDE AND INSTALL NEW ELECTRIC FURNACE PER MANUFACTURERS INSTRUCTIONS. PROVIDE WITH ALL REQUIRED MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
2	EXTEND 3/4" CONDENSATE PIPING TOP NEAREST FLOOR DRAIN.
3	PROVIDE AND INSTALL ACOUSTICAL DUCT LINER IN FIRST 10' OF RETURN AIR DUCT AHEAD OF COIL AND FILTER.
4	PROVIDE WITH DUCT SMOKE DETECTOR IN RETURN AIR DUCT. FIRE ALARM CONTRACTOR TO WIRE BACK TO FACP.
5	PROVIDE WITH DAMPER ON OUTDOOR AIR DUCT. BALANCE TO VALUES SHOWN ON M-502.
6	EXTEND OUTDOOR AIR DUCT UP TO FLOOR ABOVE. SEE M-102A, M-102B, AND M-102C FOR CONTINUATION. PROVIDE WITH A MINIMUM OF R6 DUCT WRAP ON ALL OUTDOOR AIR DUCT.
7	PROVIDE AND INSTALL NEW 7 DAY PROGRAMMABLE THERMOSTAT. PROVIDE ALL MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
8	PROVIDE AND INSTALL CONDENSING UNIT ON CONCRETE EQUIPMENT PAD PER MANUFACTURERS INSTRUCTIONS. PROVIDE ALL REQUIRED MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
9	ALL REFRIGERANT PIPING TO BE SIZED AND INSULATED PER MANUFACTURERS INSTRUCTIONS.
10	SEE M-103 FOR UNITS MECHANICAL PLAN.
11	PROVIDE AND INSTALL NEW FIRE DAMPER IN ALL DUCTS PENETRATING FIRE RATED WALLS. TYPICAL OF ALL.
12	ALL DIFFUSERS INSTALLED IN RATED CEILINGS TO BE PROVIDED WITH INTEGRAL CEILING RADIATION DAMPERS. SEE SPECIFICATIONS ON M-501.
13	PROVIDE AND INSTALL NEW ELECTRIC HATER PER MANUFACTURERS INSTRUCTIONS. PROVIDE WITH INTEGRAL THERMOSTAT AND ALL REQUIRED MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
14	PROVIDE FIRE DAMPERS WHERE OUTDOOR AIR DUCT PENETRATES FLOOR.

NOTE: SEE M-101A. NOT ALL NOTES MAY BE USED ON THIS SHEET.



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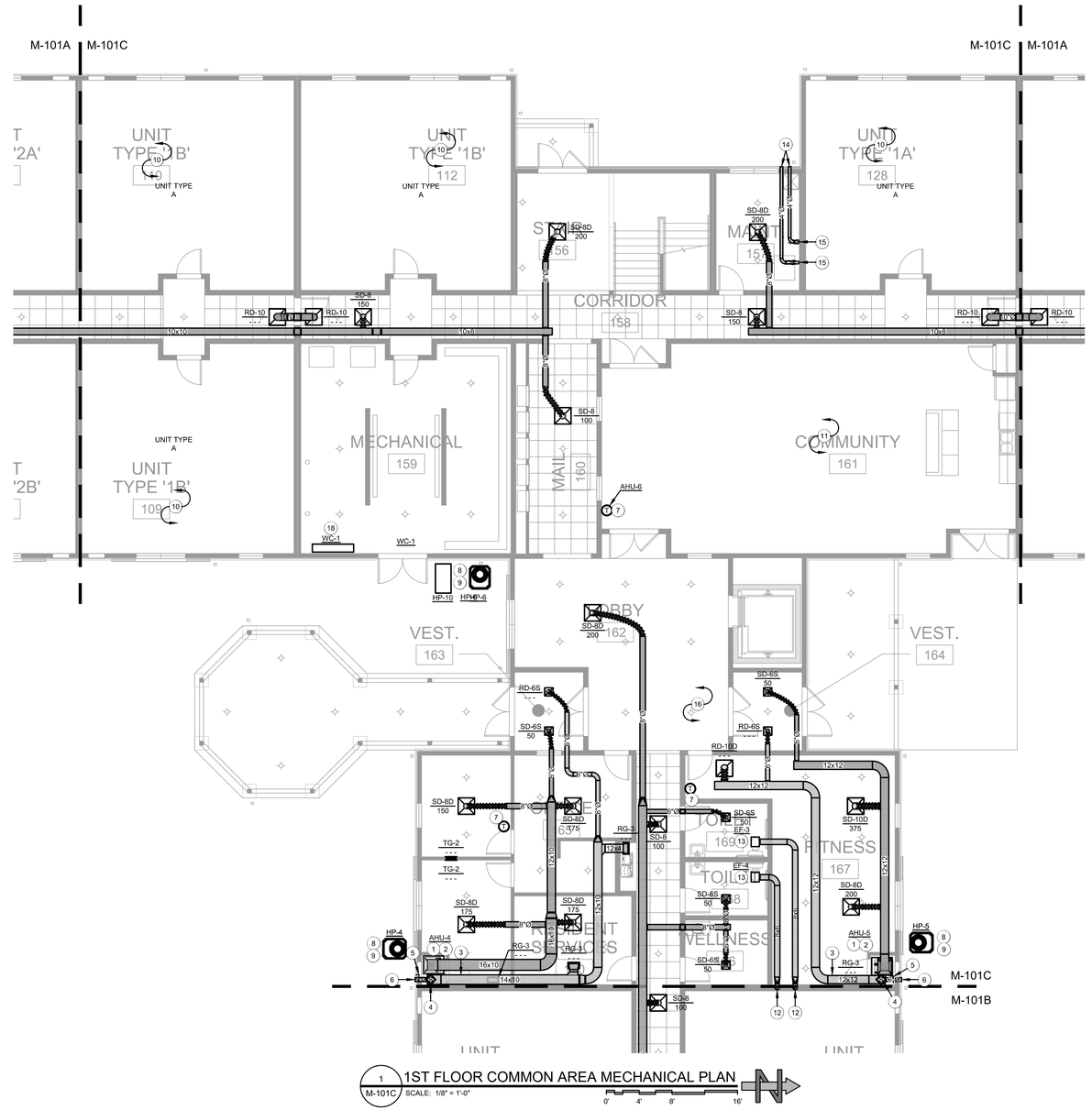
9/13/24	OHFA 80% REVIEW

Sheet Title
OVERALL 1ST FLOOR MECHANICAL PLAN

Sheet Number
M-101B



PLAN NOTES

1	PROVIDE AND INSTALL NEW ELECTRIC FURNACE PER MANUFACTURERS INSTRUCTIONS. PROVIDE WITH ALL REQUIRED MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
2	EXTEND 3/4" CONDENSATE PIPING TOP NEAREST FLOOR DRAIN.
3	PROVIDE AND INSTALL ACOUSTICAL DUCT LINER IN FIRST 10' OF RETURN AIR DUCT AHEAD OF COIL AND FILTER.
4	PROVIDE WITH DUCT SMOKE DETECTOR IN RETURN AIR DUCT. FIRE ALARM CONTRACTOR TO WIRE BACK TO FACP.
5	PROVIDE WITH DAMPER ON OUTDOOR AIR DUCT. BALANCE TO VALUES SHOWN ON M-502.
6	EXTEND OUTDOOR AIR DUCT OUT THROUGH EXTERIOR SIDEWALL. CAP WITH OUTDOOR AIR INTAKE CAP.
7	PROVIDE AND INSTALL NEW 7 DAY PROGRAMMABLE THERMOSTAT. PROVIDE ALL MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
8	PROVIDE AND INSTALL CONDENSING UNIT ON CONCRETE EQUIPMENT PAD PER MANUFACTURERS INSTRUCTIONS. PROVIDE ALL REQUIRED MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
9	ALL REFRIGERANT PIPING TO BE SIZED AND INSULATED PER MANUFACTURERS INSTRUCTIONS.
10	SEE M-103 FOR UNITS MECHANICAL PLAN.
11	PROVIDE AND INSTALL NEW FIRE DAMPER IN ALL DUCTS PENETRATING FIRE RATED WALLS. TYPICAL OF ALL.
12	EXTEND EXHAUST DUCT UP TO FLOOR ABOVE. SEE M-102C FOR CONTINUATION.
13	NEW CABINET EXHAUST FAN PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR AND WIRED TO LOCAL AREA LIGHTING CIRCUIT BY ELECTRICAL CONTRACTOR.
14	DRYER EXHAUST TO EXTEND OUT THROUGH EXTERIOR WALL AND BE CAPPED WITH DRYER EXHAUST CAP. INSTALL PER IMC 504.
15	EXTEND DRYER EXHAUST UP TO ABIVE FINISHED CEILING. PROVIDE AND INSTALL NEW ALUMINUM DRYERBOX FIRE STOP SYSTEM.
16	ALL DIFFUSERS INSTALLED IN RATED CEILINGS TO BE PROVIDED WITH INTEGRAL CEILING RADIATION DAMPERS. SEE SPECIFICATIONS ON M-501.
17	SPACE OPEN TO FLOOR ABOVE. SEE M-102C FOR CONTINUATION.
18	PROVIDE FIRE DAMPERS WHERE OUTDOOR AIR DUCT PENETRATES FLOOR.
19	PROVIDE AND INSTALL INDOOR WALL CASSETTE ON WALL IN MECHANICAL ROOM. EXTEND 3/4" CONDENSATE PIPING DOWN TO FLOOR DRAIN IN AREA. PROVIDE WITH ALL REQUIRED MATERIALS AND ACCESSORIES TO MAKE COMPLETE.

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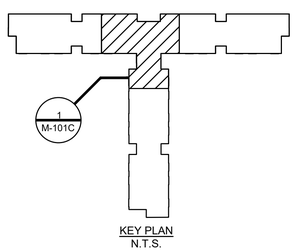

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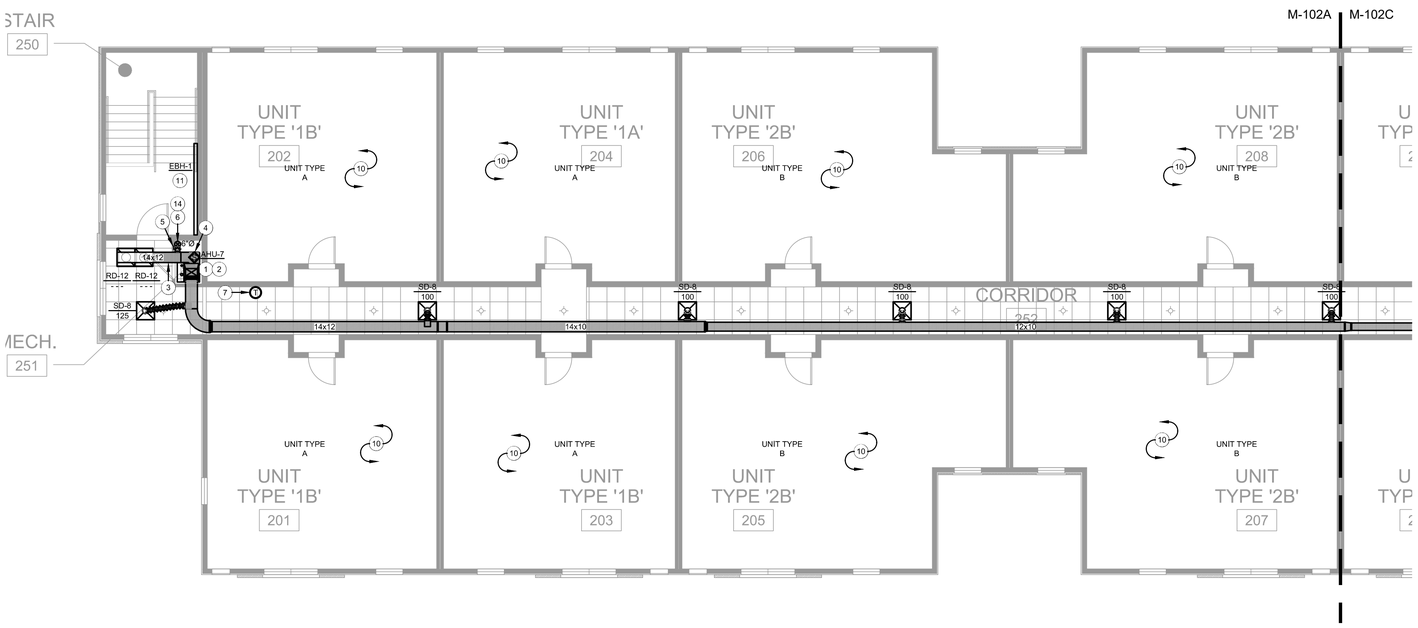
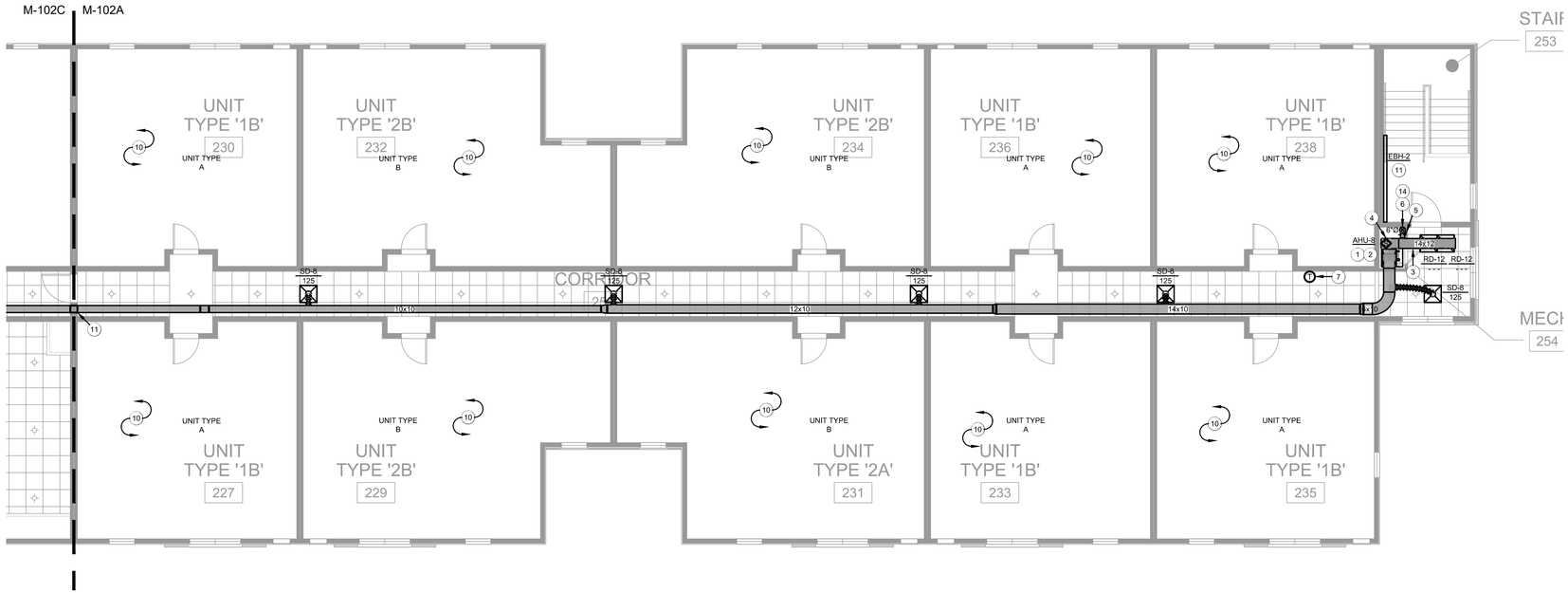
Sheet Title
1ST FLOOR COMMON AREA MECHANICAL PLAN

Sheet Number
M-101C



1 M-102A OVERALL 2ND FLOOR MECHANICAL PLAN SOUTH
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

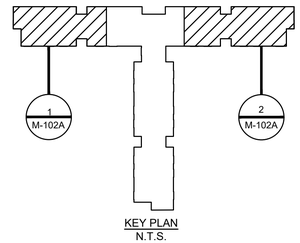


2 M-102A OVERALL 2ND FLOOR MECHANICAL PLAN NORTH
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

PLAN NOTES

1	PROVIDE AND INSTALL NEW ELECTRIC FURNACE PER MANUFACTURERS INSTRUCTIONS. PROVIDE WITH ALL REQUIRED MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
2	EXTEND 3/4" CONDENSATE PIPING TOP NEAREST FLOOR DRAIN.
3	PROVIDE AND INSTALL ACOUSTICAL DUCT LINER IN FIRST 10' OF RETURN AIR DUCT AHEAD OF COIL AND FILTER.
4	PROVIDE WITH DUCT SMOKE DETECTOR IN RETURN AIR DUCT. FIRE ALARM CONTRACTOR TO WIRE BACK TO FACP.
5	PROVIDE WITH DAMPER ON OUTDOOR AIR DUCT. BALANCE TO VALUES SHOWN ON M-502.
6	EXTEND OUTDOOR AIR DUCT UP TO ROOF ABOVE AND DOWN TO FLOOR BELOW. SEE M-101A, M-101B, AND M-101C FOR CONTINUATION. CAP ROOF DUCT THROUGH ROOF WITH GRAVITY INTAKE CAP.
7	PROVIDE AND INSTALL NEW 7 DAY PROGRAMMABLE THERMOSTAT. PROVIDE ALL MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
8	PROVIDE AND INSTALL CONDENSING UNIT ON CONCRETE EQUIPMENT PAD PER MANUFACTURERS INSTRUCTIONS. PROVIDE ALL REQUIRED MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
9	ALL REFRIGERANT PIPING TO BE SIZED AND INSULATED PER MANUFACTURERS INSTRUCTIONS.
10	SEE M-103 FOR UNITS MECHANICAL PLAN.
11	PROVIDE AND INSTALL NEW FIRE DAMPER IN ALL DUCTS PENETRATING FIRE RATED WALLS. TYPICAL OF ALL.
12	ALL DIFFUSERS INSTALLED IN RATED CEILINGS TO BE PROVIDED WITH INTEGRAL CEILING RADIATION DAMPERS. SEE SPECIFICATIONS ON M-501.
13	PROVIDE AND INSTALL NEW ELECTRIC HATER PER MANUFACTURERS INSTRUCTIONS. PROVIDE WITH INTEGRAL THERMOSTAT AND ALL REQUIRED MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
14	PROVIDE FIRE DAMPERS WHERE OUTDOOR AIR DUCT PENETRATES FLOOR.

NOTE: NOT ALL NOTES MAY BE USED ON THIS SHEET



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New Multi-Family Building:
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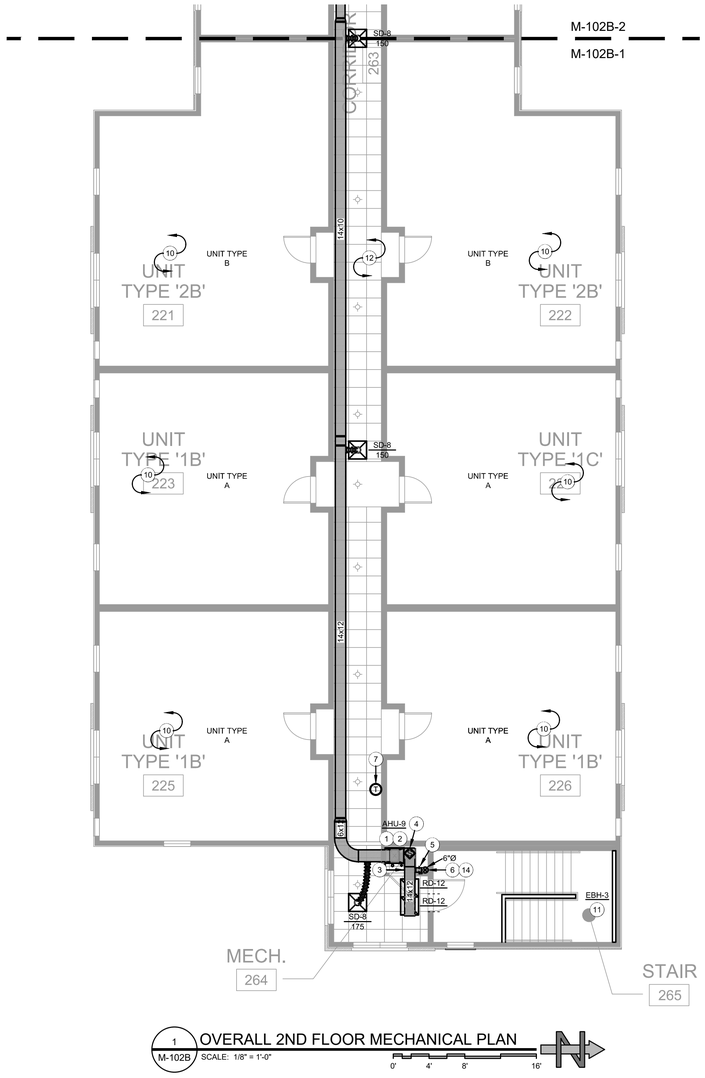
Channingway Dr.
Fairborn, Ohio 45324

Project Number
E2M: 24175
Date
--

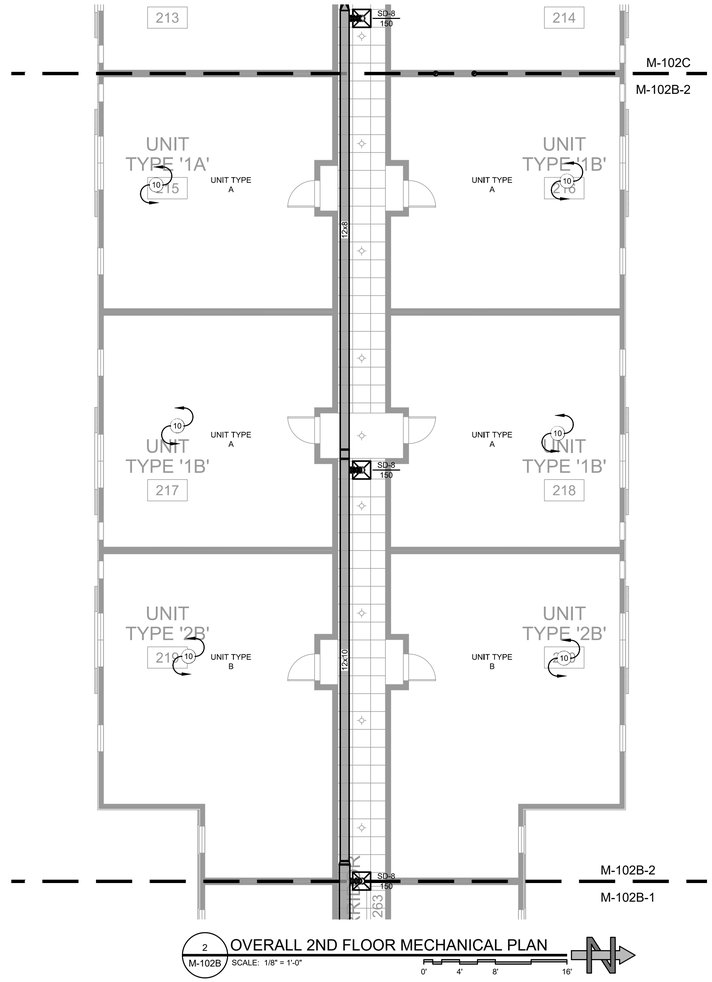
Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
OVERALL 2ND FLOOR MECHANICAL PLAN

Sheet Number
M-102A



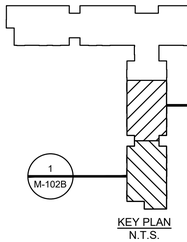
1 M-102B OVERALL 2ND FLOOR MECHANICAL PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'



2 M-102B OVERALL 2ND FLOOR MECHANICAL PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

PLAN NOTES	
1	PROVIDE AND INSTALL NEW ELECTRIC FURNACE PER MANUFACTURERS INSTRUCTIONS. PROVIDE WITH ALL REQUIRED MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
2	EXTEND 3/4" CONDENSATE PIPING TOP NEAREST FLOOR DRAIN.
3	PROVIDE AND INSTALL ACOUSTICAL DUCT LINER IN FIRST 10' OF RETURN AIR DUCT AHEAD OF COIL AND FILTER.
4	PROVIDE WITH DUCT SMOKE DETECTOR IN RETURN AIR DUCT. FIRE ALARM CONTRACTOR TO WIRE BACK TO FACP.
5	PROVIDE WITH DAMPER ON OUTDOOR AIR DUCT. BALANCE TO VALUES SHOWN ON M-502.
6	EXTEND OUTDOOR AIR DUCT UP TO ROOF ABOVE AND DOWN TO FLOOR BELOW. SEE M-101A, M-101B, AND M-101C FOR CONTINUATION. CAP ROOF DUCT THROUGH ROOF WITH GRAVITY INTAKE CAP.
7	PROVIDE AND INSTALL NEW 7 DAY PROGRAMMABLE THERMOSTAT. PROVIDE ALL MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
8	PROVIDE AND INSTALL CONDENSING UNIT ON CONCRETE EQUIPMENT PAD PER MANUFACTURERS INSTRUCTIONS. PROVIDE ALL REQUIRED MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
9	ALL REFRIGERANT PIPING TO BE SIZED AND INSULATED PER MANUFACTURERS INSTRUCTIONS.
10	SEE M-103 FOR UNITS MECHANICAL PLAN.
11	PROVIDE AND INSTALL NEW FIRE DAMPER IN ALL DUCTS PENETRATING FIRE RATED WALLS. TYPICAL OF ALL.
12	ALL DIFFUSERS INSTALLED IN RATED CEILINGS TO BE PROVIDED WITH INTEGRAL CEILING RADIATION DAMPERS. SEE SPECIFICATIONS ON M-501.
13	PROVIDE AND INSTALL NEW ELECTRIC HATER PER MANUFACTURERS INSTRUCTIONS. PROVIDE WITH INTEGRAL THERMOSTAT AND ALL REQUIRED MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
14	PROVIDE FIRE DAMPERS WHERE OUTDOOR AIR DUCT PENETRATES FLOOR.

NOTE: NOT ALL NOTES MAY BE USED ON THIS SHEET



KEY PLAN
N.T.S.

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Channingway Dr.
Fairborn, Ohio 45324

Project Number
E2M: 24175

Date
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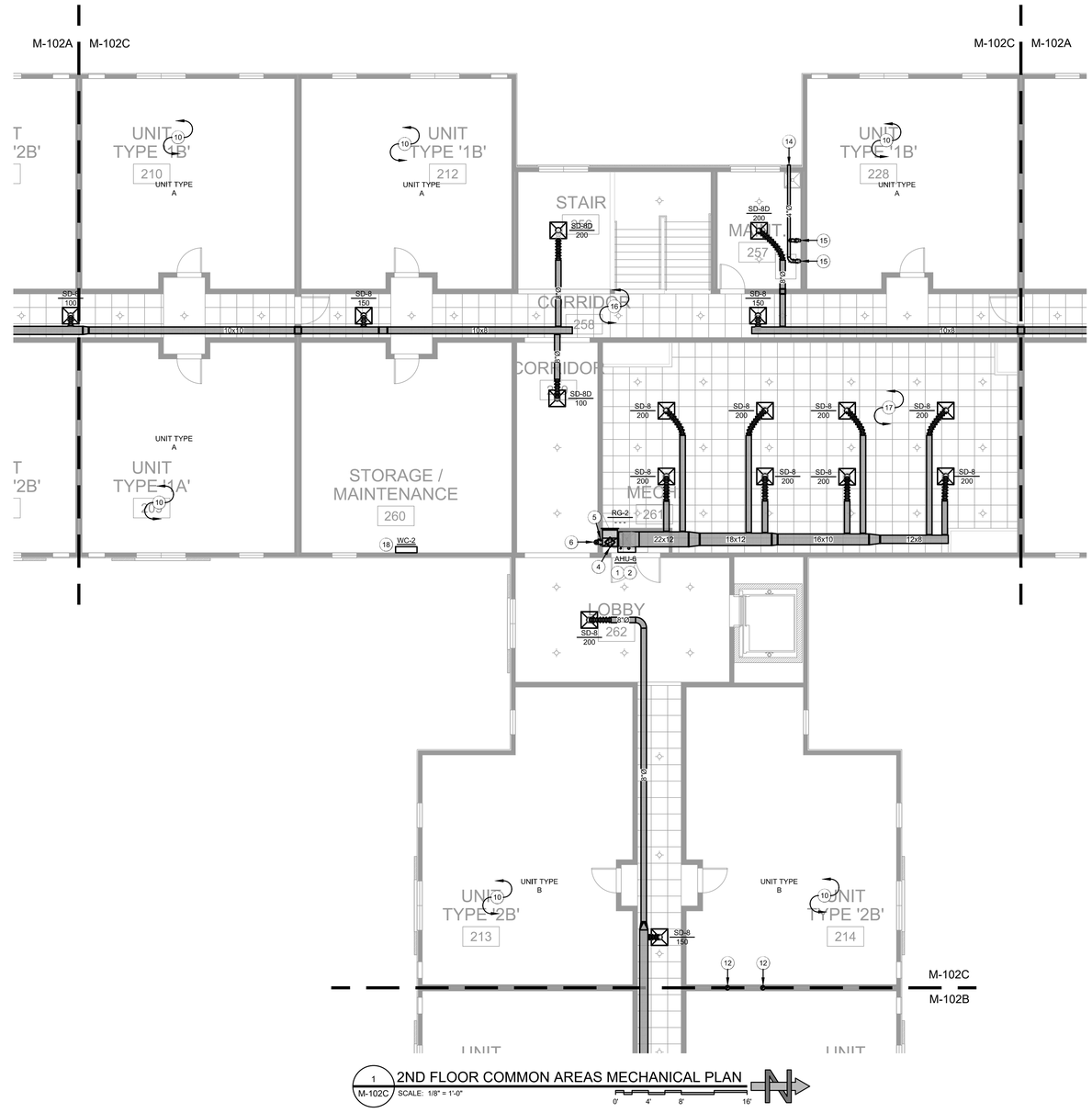
Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
OVERALL 2ND FLOOR MECHANICAL PLAN

Sheet Number
M-102B



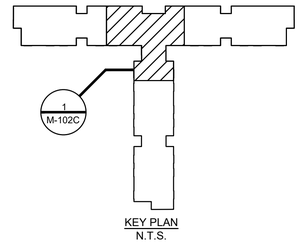
1 M-102C 2ND FLOOR COMMON AREAS MECHANICAL PLAN

SCALE: 1/8" = 1'-0"

0' 4' 8' 16'

PLAN NOTES	
1	PROVIDE AND INSTALL NEW ELECTRIC FURNACE PER MANUFACTURERS INSTRUCTIONS. PROVIDE WITH ALL REQUIRED MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
2	EXTEND 3/4" CONDENSATE PIPING TOP NEAREST FLOOR DRAIN.
3	PROVIDE AND INSTALL ACOUSTICAL DUCT LINER IN FIRST 10' OF RETURN AIR DUCT AHEAD OF COIL AND FILTER.
4	PROVIDE WITH DUCT SMOKE DETECTOR IN RETURN AIR DUCT. FIRE ALARM CONTRACTOR TO WIRE BACK TO FACP.
5	PROVIDE WITH DAMPER ON OUTDOOR AIR DUCT. BALANCE TO VALUES SHOWN ON M-502.
6	EXTEND OUTDOOR AIR DUCT UP TO ROOF ABOVE AND DOWN TO FLOOR BELOW. SEE M-101A, M-101B, AND M-101C FOR CONTINUATION. CAP ROOF DUCT THROUGH ROOF WITH GRAVITY INTAKE CAP. ALL OUTDOOR AIR DUCT TO BE INSULATED WITH A MINIMUM OF R6 DUCT WRAP.
7	PROVIDE AND INSTALL NEW 7 DAY PROGRAMMABLE THERMOSTAT. PROVIDE ALL MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
8	PROVIDE AND INSTALL CONDENSING UNIT ON CONCRETE EQUIPMENT PAD PER MANUFACTURERS INSTRUCTIONS. PROVIDE ALL REQUIRED MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
9	ALL REFRIGERANT PIPING TO BE SIZED AND INSULATED PER MANUFACTURERS INSTRUCTIONS.
10	SEE M-103 FOR UNITS MECHANICAL PLAN.
11	PROVIDE AND INSTALL NEW FIRE DAMPER IN ALL DUCTS PENETRATING FIRE RATED WALLS. TYPICAL OF ALL.
12	EXTEND EXHAUST DUCT UP THROUGH ROOF AND TERMINATE WITH ROOF EXHAUST CAP.
13	NEW CABINET EXHAUST FAN PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR AND WIRED TO LOCAL AREA LIGHTING CIRCUIT BY ELECTRICAL CONTRACTOR.
14	DRYER EXHAUST TO EXTEND OUT THROUGH EXTERIOR WALL AND BE CAPPED WITH DRYER EXHAUST CAP. INSTALL PER IMC 504.
15	EXTEND DRYER EXHAUST UP TO ABIVE FINISHED CEILING. PROVIDE AND INSTALL NEW ALUMINUM DRYERBOX FIRE STOP SYSTEM.
16	ALL DIFFUSERS INSTALLED IN RATED CEILINGS TO BE PROVIDED WITH INTEGRAL CEILING RADIATION DAMPERS. SEE SPECIFICATIONS ON M-501.
17	SPACE OPEN TO FLOOR BELOW. SEE M-101C FOR AHU-6 THERMOSTAT LOCATION.
18	PROVIDE FIRE DAMPERS WHERE OUTDOOR AIR DUCT PENETRATES FLOOR.
19	PROVIDE AND INSTALL INDOOR WALL CASSETTE ON WALL IN MECHANICAL ROOM. EXTEND 3/4" CONDENSATE PIPING DOWN TO FLOOR DRAIN IN AREA. PROVIDE WITH ALL REQUIRED MATERIALS AND ACCESSORIES TO MAKE COMPLETE.

NOTE: NOT ALL NOTES MAY BE USED ON THIS SHEET



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Project Number
E2M: 24175

Date
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Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
2ND FLOOR COMMON AREAS MECHANICAL PLAN

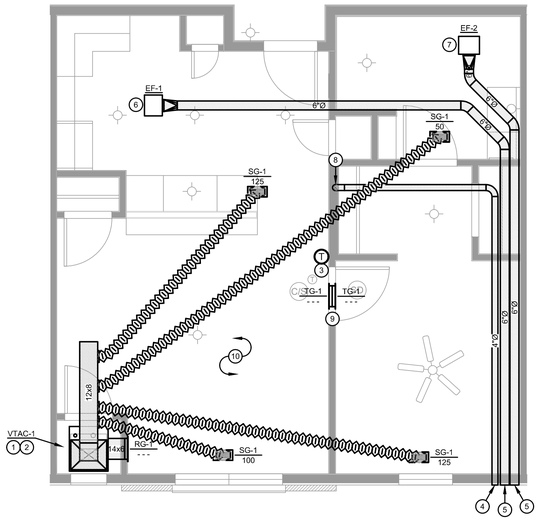
Sheet Number
M-102C

GENERAL NOTES

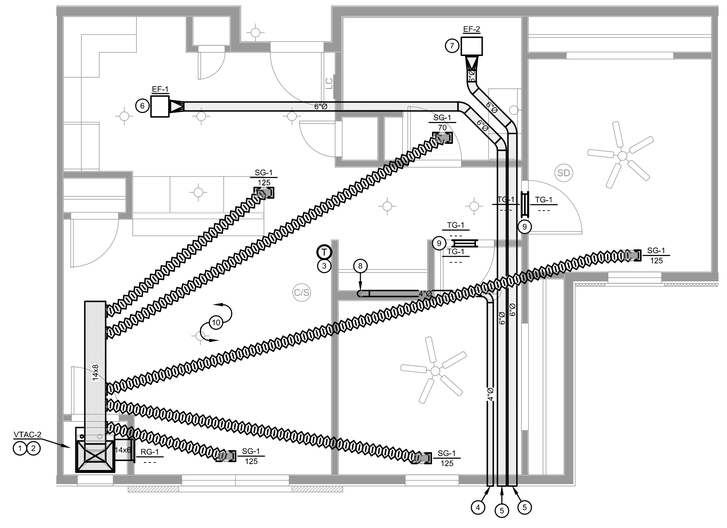
1. TYPE 'C' SENSORY UNITS TO BE PROVIDED WITH VOICE INTERACTIVE THERMOSTAT.

PLAN NOTES

1	PROVIDE AND INSTALL NEW VERTICAL TERMINAL AIR CONDITIONER UNIT (VTAC) PER MANUFACTURERS INSTRUCTIONS. PROVIDE WITH ALL REQUIRED MATERIALS AND ACCESSORIES TO MAKE COMPLETE.
2	ROUTE 3/4" CONDENSATE PIPE TO NEAREST FLOOR DRAIN.
3	PROVIDE NEW 7 DAY PROGRAMMABLE THERMOSTAT PER MANUFACTURERS INSTRUCTIONS.
4	PROVIDE HOODED WALL CAP WITH BACK DRAFT DAMPER WHERE DRYER VENT TERMINATES AT EXTERIOR WALL. COORDINATE EXACT TERMINATION LOCATION TO MAINTAIN A MINIMUM 3' FROM ALL OPENINGS PER OMC 504.
5	PROVIDE HOODED WALL CAP WITH BIRD/INSECT SCREEN WHERE EXHAUST DUCT PENETRATES EXTERIOR WALL.
6	PROVIDE AND INSTALL NEW KITCHEN EXHAUST FAN PER MANUFACTURERS INSTRUCTIONS.
7	NEW BATHROOM EXHAUST FAN PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR. FAN SHALL BE WIRED TO LOCAL SWITCH BY ELECTRICAL CONTRACTOR.
8	CLOTHES DRYER EXHAUST OUTLET BOX. ALL DRYER DUCT SHALL BE INSTALLED PER THE 2024 OMC SECTION 504.
9	TRANSFER AIR GRILLES ABOVE DOOR.
10	ALL FLEX DUCT SHALL ADHERE TO OMC 603.6.1.1



1 M-103 UNIT A - 1BR MECHANICAL PLAN
SCALE: 1/4" = 1'-0"
0' 2' 4' 8'



2 M-103 UNIT B - 2BR MECHANICAL PLAN
SCALE: 1/4" = 1'-0"
0' 2' 4' 8'

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Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
TYPICAL UNITS MECHANICAL PLAN

Sheet Number
M-103

SPLIT SYSTEM SCHEDULE

EQUIPMENT MARK	AHU-1	HP-1	AHU-2	HP-2	AHU-3	HP-3	AHU-4	HP-4	AHU-5	HP-5	AHU-6	HP-6
MANUFACTURER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER
MODEL #	FT4BNXC36L00	25TPB736A003	FT4BNXC36L00	25TPB736A003	FT4BNXC36L00	25TPB736A003	FT4BNXB24L00	25TPB724A003	FT4BNXB24L00	25TPB724A003	FJ5ANXA18L05	27SPA618A003
COOLING COIL MODEL#												
ENERGY EFFICIENCY RATIO (SEER2)		15.2		15.2		15.2		16		16		16
INDOOR FAN H.P.	1/2		1/2		1/2		1/2		1/2		1/2	
DESIGN CFM	1075		975		1075		725		650		1600	
EXTERNAL STATIC PRESSURE IN H2O	0 - 0.50		0 - 0.50		0 - 0.50		0 - 0.50		0 - 0.50		0 - 0.50	
CONDENSER AMBIENT CONDITIONS												
TEMPERATURE °F		95°F		95°F		95°F		95°F		95°F		95°F
COOLING DATA												
ENTERING AIR TEMP. db / wb °F	80/67		80/67		80/67		80/67		80/67		80/67	
TOTAL COOLING CAPACITY IN M.B.H.	33.44	33.44	33.44	33.44	33.44	33.44	22.81	22.81	22.81	22.81	44.80	44.80
SENSIBLE COOLING CAPACITY IN M.B.H.	25.63	25.36	25.63	25.36	25.63	25.36	17.48	17.48	17.48	17.48	34.48	34.48
REFRIGERANT TYPE	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
HEATING DATA												
GAS INPUT IN M.B.H. H/L												
GAS OUTPUT IN M.B.H. H/L												
HEATING EFFICIENCY (AFUE %)												
ELECTRIC RESISTANCE IN K.W. @ VOLT	11.3 KW @ 208V		11.3 KW @ 208V		15.0 KW @ 208V		7.5 KW @ 208V		7.5 KW @ 208V		15k @ 208V	
HEAT PUMP REVERSE CYCLE IN M.B.H.	34.58	34.58	34.58	34.58	34.58	34.58	23.26	23.26	23.26	23.26	47.63	47.63
HEATING STAGES	2		2		2		1		1		2	
HEATER MODEL #	KFFEH3101C15		KFFEH3101C15		KFFEH3301C20		KFFEH2601C10		KFFEH2601C10		KFFEH3301C20	
ELECTRICAL DATA												
VOLTS / PHASE/ HERTZ	208/1/60	208/1/60	208/1/60	208/1/60	208/1/60	208/1/60	208/1/60	208/1/60	208/1/60	208/1/60	208/1/60	208/1/60
MINIMUM CIRCUIT AMPS	49.5 / 22.3	25.2	49.5 / 22.3	25.2	51.6 / 44.5	25.2	49.5	14.1	49.5	14.1	51.6 / 44.5	33.5
MAX OVERCURRENT PROTECTION IN AMPS	60 / 25	40	60 / 25	40	60 / 45	40	60	25	60	25	60 / 45	50
PHYSICAL DATA												
UNIT WEIGHT IN POUNDS	146	273	146	273	146	273	124	255	124	255	168	324
ACCESSORIES	A-J	- - -	A-J	- - -	A-J	- - -	A-J	- - -	A-J	- - -	A-K	- - -

A. TRANSFORMER
B. THERMAL EXPANSION VALVE.
C. BOTTOM RETURN FILTER RACK.
D. INSULATED PLENUM COOLING COIL.
E. REFRIGERANT FILTER/ DRIER.
F. COMPRESSOR SHORT CYCLE CONTROL.
G. FURNANCE MOUNTING PAD
H. REFRIGERANT LINE SET
I. RETURN AIR PLENUM
J. 7 DAY PROGRAMMABLE THERMOSTAT
K. PROVIDE WITH NEEDLEPOINT IONIZATION DEVICE EQUAL TO GPS MODEL# GPS-FC48-AC

NOTES:
1. CONDENSING UNIT SHALL BE INSTALLED ON CONCRETE PAD.
2. AIR HANDLING UNIT TO HAVE ONE (1) 3/4" PVC CONDENSATE DRAIN LINES PIPED TO NEAREST FLOOR DRAIN.
3. INSTALL SYSTEMS PER MANUFACTURER'S INSTRUCTIONS.

SMACNA HVAC DUCTWORK SHEET METAL GAUGES

MAXIMUM DUCT DIMENSIONS	SMACNA PRESSURE CLASS											
	0.50 W.C.		1.00 W.C.		2.00 W.C.		3.00 W.C.		4.00 W.C.		6.00 W.C.		10.00 W.C.	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B
4" - 8"	24	-	24	-	24	-	24	24	24	24	24	24	22	24
9" - 10"	24	-	24	-	24	-	24	24	22	24	22	24	20	22
11" - 12"	24	-	24	-	24	-	24	24	22	24	20	24	18	22
13" - 14"	24	-	24	-	24	24	22	24	20	24	20	22	18	20
15" - 16"	24	-	24	-	24	24	22	24	20	24	18	22	16	20
17" - 18"	24	-	24	24	22	24	20	24	18	24	18	22	16	20
19" - 20"	24	24	24	24	20	24	18	24	18	24	16	22	-	18
21" - 22"	22	24	22	24	18	24	18	24	18	24	16	22	-	18
23" - 24"	22	24	22	24	18	24	18	24	18	22	16	22	-	18
25" - 26"	20	24	20	24	18	24	18	24	16	22	-	20	-	18
27" - 28"	18	24	18	24	18	24	18	22	16	22	-	20	-	18
29" - 30"	18	24	18	24	18	24	18	22	16	22	-	18	-	18
31" - 36"	18	24	18	24	16	24	16	20	-	20	-	18	-	16
37" - 42"	16	24	16	24	-	22	-	20	-	18	-	16	-	16
43" - 48"	16	24	16	22	-	22	-	18	-	18	-	16	-	16
49" - 54"	-	24	-	22	-	20	-	18	-	18	-	16	-	16
55" - 60"	-	24	-	22	-	20	-	18	-	16	-	16	-	16
61" -72"	-	22	-	18	-	18	-	16	-	16	-	16	-	16
73" -84"	-	22	-	18	-	16	-	16	-	16	-	16	-	16
85" -96"	-	20	-	18	-	16	-	16	-	16	-	16	-	16
97" -108"	-	18	-	16	-	16	-	16	-	16	-	16	-	16
109" -120"	-	16	-	16	-	16	-	16	-	16	-	16	-	16

NOTES:
1. THIS TABLE IS BASED ON THE FOLLOWING:
1.1. COLUMN A: DUCT GAUGE REQUIREMENT WITH NO REINFORCEMENT
1.2. COLUMN B: DUCT GAUGE WITH REINFORCEMENT AS INDICATED BELOW
1.2.1. 0.50" W.C. PRESSURE CLASS: 5 FEET REINFORCING SPACING FOR SPACING 19" - 120"
1.2.2. 1.00" W.C. PRESSURE CLASS: 5 FEET REINFORCING SPACING FOR SPACING 17" - 108" AND 4 FEET SPACING FOR 109" - 120"
1.2.3. 2.00" W.C. PRESSURE CLASS: 5 FEET REINFORCING SPACING FOR 13" - 84" AND 4 FEET SPACING FOR 85" - 108" AND 3 FEET SPACING FOR 109" - 120".
1.2.4. 3.00" W.C. PRESSURE CLASS: 5 FEET REINFORCING SPACING FOR G 4" - 84", 4 FEET SPACING FOR 85" - 96" AND 3 FEET SPACING FOR 97" - 120".
1.2.5. 4.00" W.C. PRESSURE CLASS: 5 FEET REINFORCING SPACING FOR 4" - 60", 4 FEET SPACING FOR 61" - 72" AND 3 FEET SPACING FOR 73" - 120".
1.2.6. 6.00" W.C. PRESSURE CLASS: 5 FEET REINFORCING SPACING FOR 4" - 48", 4 FEET SPACING FOR 49" - 60" AND 3 FEET SPACING FOR 61" - 120".
1.2.7. 10.00" W.C. PRESSURE CLASS: 5 FEET REINFORCING SPACING FOR 4" - 42", 4 FEET SPACING FOR 43" - 54", 3 FEET SPACING FOR 55" - 72" AND 2 FEET SPACING FOR 73" - 120".

HVAC NOTES

1. SCOPE OF WORK
1.1. THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIALS, AND LABOR TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.
1.2. ALL WORK IS TO BE PERFORMED IN STRICT COMPLIANCE WITH THE INTERNATIONAL MECHANICAL CODE 2024, ALL LOCAL CODES AND ALL OTHER REGULATION GOVERNING WORK OF THIS NATURE.
1.3. THE CONTRACTOR SHALL, BEFORE SUBMITTING ANY PROPOSAL, EXAMINE THE PROPOSED SITE AND SHALL DETERMINE FOR HIMSELF THE CONDITIONS THAT MAY EFFECT THE WORK. NO ALLOWANCE SHALL BE MADE IF THE CONTRACTOR FAILS TO MAKE SUCH EXAMINATIONS.
1.4. ALL EQUIPMENT AND MATERIALS SHALL BE AS SPECIFIED OR "APPROVED EQUAL" BY THE ENGINEER OR ARCHITECT.
2. SHOP DRAWINGS
2.1. SUBMIT MATERIAL LIST AND SHOP DRAWINGS FOR MAJOR EQUIPMENT TO THE ARCHITECT/ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL SUBMIT FIVE SETS OF SHOP DRAWINGS AND THEY SHALL BE CLEARLY LABELED.
3. FLEXIBLE TYPE DUCT
3.1. SHALL BE OF TWO ELEMENT SPIRAL CONSTRUCTION COMPOSED OF A CORROSION RESISTANT METAL SUPPORTING SPIRAL AND COATED FABRIC WITH A MINERAL BASE. FLEXIBLE DUCT CONNECTORS SHALL BE LISTED BY U.L., CLASS 1 DUCTS, AND SHALL HAVE A FLAME SPREAD RATING NOT EXCEEDING 25 AND A SMOKE DEVELOPED RATING NOT EXCEEDING 50. USE OF FLEXIBLE DUCTWORK SHALL BE LIMITED TO NO MORE THAN 5 LINEAR FEET PER RUN. CONTRACTOR SHALL BE CAREFUL SO AS NOT TO KINK OR COLLAPSE FLEXIBLE DUCT.
4. REFRIGERANT PIPING
4.1. CONTRACTOR SHALL PROVIDE AND INSTALL REFRIGERANT PIPING IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND IN SUCH A WAY AS TO BE INCONSPICUOUS AND FREE FROM ANY POSSIBLE CONDENSATION. INSULATE REFRIGERANT LINES WITH ARMOUR-FLEX TYPE INSULATION.
4.2. SHALL BE TYPE "K" COPPER TUBING, WITH WROUGHT COPPER SOLDER TYPE FITTINGS SUITABLE FOR CONNECTION WITH SILVER SOLDER DUCTWORK.
5. SHEET METAL DUCT WORK
5.1. THE DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "SMACNA" APPLICABLE MANUALS. ALL DUCTWORK SHALL BE THE LOW VELOCITY TYPE, UNLESS SPECIFIED OTHERWISE.
5.2. CONTRACTOR SHALL PROVIDE AND INSTALL APPROVED FIRE DAMPERS AND ACCESS PANELS IN ANY AND ALL DUCTWORK WHICH PENETRATES A HORIZONTAL OR VERTICAL FIRE PARTITION, OR AS OTHERWISE SHOWN ON DRAWINGS.
5.3. ALL BRANCH DUCTS TO HAVE VOLUME DAMPERS.
5.4. SMOOTH TURN RADIUS DUCTWORK OR TURNING VANES SHALL BE USED THROUGHOUT WHERE FLOW EXCEEDS 150 CFM.
5.5. ALL DUCT JOINTS TO BE SEALED IN ACCORDANCE WITH "SMACNA" STANDARDS AND ACCEPTED GOOD PRACTICE.
5.6. ALL DUCT DIMENSIONS SHOWN ARE NET INSIDE VALUES. DIMENSIONS MAY BE CHANGED SO LONG AS THE NET FREE FACE AREA IS MAINTAINED.
5.7. ALL CONCEALED DUCTWORK SHALL BE INSULATED WITH 1-1/2" FIBERGLASS INSULATING BLANKET WITH ALUMINUM FOIL FACING.
5.8. ALL SUPPLY AND RETURN DUCTWORK 15 FEET DOWNSTREAM OF THE HVAC UNIT SHALL BE INTERNALLY LINED WITH A 1/2" ACOUSTICAL DUCT LINER.
6. DRAINAGE PIPING (CONDENSATE)
6.1. SHALL BE SCHEDULE 40 PVC PIPE WITH SOLVENT JOINTS. PITCH HORIZONTAL LINES 1" IN 10'-0". CONDENSATE DRAINS SHALL BE ROUTED TO FLOOR DRAIN OR INDIRECT WASTE DRAIN.
7. HVAC CONTROLS
7.1. CONTRACTOR TO SUPPLY AND INSTALL ALL CONTROL WIRING AND THERMOSTATS AS REQUIRED.
8. ELECTRICAL
8.1. CONTRACTOR TO COORDINATE WITH ELECTRICAL CONTRACTOR FOR LOCATION OF WIRING FOR EACH HVAC UNIT.
9. PIPE SUPPORTS
9.1. ALL PIPE SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE IN A NEAT AND WORKMANLIKE MANNER. THE USE OF WIRE OR METAL STRAP TO SUPPORT PIPES WILL NOT BE PERMITTED. SPACING OF PIPE SUPPORTS SHALL NOT EXCEED 8 FEET FOR ALL PIPING. PLASTIC PIPING TO BE SUPPORTED EVERY 4 FEET.
10. MISCELLANEOUS
10.1. ALL EXTERIOR OPENINGS TO BE PROPERLY CAULKED AND SEALED WITH A SEALANT OF HIGH QUALITY AND LONG LIFE, TO PREVENT INFILTRATION OF OUTSIDE AIR INTO CONDITIONED SPACE.
10.2. COORDINATE INSTALLATION OF ALL ROOF FLASHING AT ROOF PENETRATION.
10.3. DO NOT SCALE THIS DRAWING FOR EXACT DIMENSIONS. VERIFY ALL FIGURES, CONDITIONS, AND DIMENSIONS AT THE JOB SITE.
10.4. THE MECHANICAL PLANS ARE INTENDED TO BE DIAGRAMMATIC AND ARE BASED ON ONE MANUFACTURE'S EQUIPMENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION, THE EXACT DIMENSIONS, OR ALL THE DETAILS OF THE EQUIPMENT. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO ENSURE THAT THE EQUIPMENT WILL FIT IN THE AVAILABLE SPACE.
11. TESTING AND BALANCING
11.1. THE HVAC SYSTEM SHALL BE TESTED AND BALANCED BY AN INDEPENDENT AGENCY, UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. A SEALED TYPE WRITTEN REPORT SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL.
12. GUARANTEE
12.1. MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE(1) YEAR FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTED AT THIS CONTRACTOR'S EXPENSE.
12.2. FOR THE SAME PERIOD, THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED BY HIM.

PROJECT GENERAL NOTES

1. THE DRAWINGS ARE DIAGRAMMATIC ONLY AND INDICATE THE GENERAL ARRANGEMENT OF THE SYSTEMS AND ARE TO BE FOLLOWED INSOFAR AS POSSIBLE. IF DEVIATIONS FROM THE LAYOUTS ARE NECESSITATED BY FIELD CONDITIONS, DETAILED LAYOUTS OF THE PROPOSED DEPARTURES SHALL BE SUBMITTED IN WRITING TO THE ENGINEER FOR REVIEW BEFORE PROCEEDING WITH THE WORK.
2. THE MECHANICAL CONTRACTOR SHALL REVIEW ALL DRAWINGS IN DETAIL AS THEY MAY RELATE TO THEIR WORK.
3. EACH CONTRACTOR SHALL INSPECT THE SITE ON WHICH THE WORK IS TO BE PERFORMED, AND THE OBSTACLES THAT MAY BE ENCOUNTERED, AND ALL RELEVANT MATTERS CONCERNING THE WORK.
4. THE CONTRACTOR SHALL FILE ALL NECESSARY NOTICES, OBTAIN AND PAY FOR ALL PERMITS, FEES, AND OTHER COSTS INCLUDING UTILITY CONNECTIONS OR EXTENSION, IN CONNECTION WITH HIS WORK. AS NECESSARY, HE SHALL FILE ALL REQUIRED PLANS. PREPARE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS OF ALL UTILITY AND GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION.
5. IGNORANCE OF CODES, RULES, AND REGULATIONS, UTILITY COMPANY REQUIREMENTS, LAWS, ETC. SHALL NOT DIMINISH OR ABSOLVE CONTRACTOR'S RESPONSIBILITIES TO PROVIDE AND COMPLETE ALL WORK IN COMPLIANCE WITH SUCH.
6. ALL MATERIALS FURNISHED AND ALL WORK INSTALLED SHALL COMPLY WITH THE CURRENT EDITION OF THE OHIO MECHANICAL CODES. NATIONAL FIRE CODES OF THE NATIONAL FIRE PROTECTION ASSOCIATION AND WITH THE REQUIREMENTS OF ALL GOVERNMENTAL AGENCIES OR DEPARTMENTS HAVING JURISDICTION.

PRELIMINARY NOT FOR CONSTRUCTION

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New Multi-Family Building:
Senior Village at Valle Green
Channingway Dr.
Fairborn, Ohio 45324

Project Number
E2M: 24175

Date
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Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
MECHANICAL SCHEDULE

Sheet Number
M-501

SPLIT SYSTEM SCHEDULE

EQUIPMENT MARK	AHU-7	HP-7	AHU-8	HP-8	AHU-9	HP-9
MANUFACTURER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER
MODEL #	FT4BNXC36L00	25TPB736A003	FT4BNXC36L00	25TPB736A003	FT4BNXC36L00	25TPB736A003
COOLING COIL MODEL#						
ENERGY EFFICIENCY RATIO (SEER2)		15.2		15.2		15.2
INDOOR FAN H.P.	1/2		1/2		1/2	
DESIGN CFM	1075		975		1075	
EXTERNAL STATIC PRESSURE IN H2O	0 - 0.50		0 - 0.50		0 - 0.50	
CONDENSER AMBIENT CONDITIONS						
TEMPERATURE °F		95°F		95°F		95°F
COOLING DATA						
ENTERING AIR TEMP. db / wb °F	80/67		80/67		80/67	
TOTAL COOLING CAPACITY IN M.B.H.	33.44	33.44	33.44	33.44	33.44	33.44
SENSIBLE COOLING CAPACITY IN M.B.H.	25.63	25.36	25.63	25.36	25.63	25.36
REFRIGERANT TYPE	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
HEATING DATA						
GAS INPUT IN M.B.H. H/L						
GAS OUTPUT IN M.B.H. H/L						
HEATING EFFICIENCY (AFUE %)						
ELECTRIC RESISTANCE IN K.W. @ VOLT	11.3 KW @ 208V		11.3 KW @ 208V		15.0 KW @ 208V	
HEAT PUMP REVERSE CYCLE IN M.B.H.	34.58	34.58	34.58	34.58	34.58	34.58
STAGES	2		2		2	
HEATER MODEL #	KFFEH3101C15		KFFEH3101C15		KFFEH3301C20	
ELECTRICAL DATA						
VOLTS / PHASE/ HERTZ	208/1/60	208/1/60	208/1/60	208/1/60	208/1/60	208/1/60
MINIMUM CIRCUIT AMPS	49.5 / 22.3	25.2	49.5 / 22.3	25.2	51.6 / 44.5	25.2
MAX OVERCURRENT PROTECTION IN AMPS	60 / 25	40	60 / 25	40	60 / 45	40
PHYSICAL DATA						
UNIT WEIGHT IN POUNDS	146	273	146	273	146	273
ACCESSORIES	A-J	- - -	A-J	- - -	A-J	- - -

A. TRANSFORMER
B. THERMAL EXPANSION VALVE.
C. BOTTOM RETURN FILTER RACK.
D. INSULATED PLENUM COOLING COIL.
E. REFRIGERANT FILTER/ DRIER.
F. COMPRESSOR SHORT CYCLE CONTROL.
G. FURNANCE MOUNTING PAD
H. REFRIGERANT LINE SET
I. RETURN AIR PLENUM
J. PROGRAMMABLE INFINITY THERMOSTAT

NOTES:
1. CONDENSING UNIT SHALL BE INSTALLED ON CONCRETE PAD.
2. AIR HANDLING UNIT TO HAVE ONE (1) 3/4" PVC CONDENSATE DRAIN LINES PIPED TO NEAREST FLOOR DRAIN.
3. INSTALL SYSTEMS PER MANUFACTURER'S INSTRUCTIONS.

Air Ionization Device Schedule

Zone Tag	Flow	S/A Flow	O/A Flow	GPS Model	GPS Quantity	Pressure Drop	Voltage (AC)	Watts	Mounting Location	Min Ion Density (ions/cc)	Notes
AHU-6	CV	1600	200	GPS-FC48-AC	1	0.05" W.C.	24-240	10.0	AHU	200 Million	1 to 8

1. Basis of Design: GPS Air: Approved equals by Airgenics and Bioxgen subject to specification compliance
2. Mount bi-polar ion generator where indicated on schedule
3. If contractor substitutes basis of design with another manufacturer, contractor shall coordinate all electrical and mechanical changes
4. Bi-polar ionization systems requiring replacement glass tubes are not acceptable
5. All manufacturers must pass UL-867-2007 ozone chamber testing by either UL or ETL
6. Provide with integral BAS alarm contacts
7. Provide with integral self-cleaning system. Systems without self-cleaning shall not be acceptable
8. Provide with rare earth magnets for ease of mounting

VERTICAL PACKAGE TERMINAL AIR CONDITIONER SCHEDULE (VTAC)

MARK	MANUFACTURER	MODEL	COOLING MBH	NOMINAL TONS	CFM	MIN EER	HP HEATING MBH @47 F	AUX. ELECTRIC HEAT	ELECTRICAL DATA			WEIGHT	NOTES
									VOLTS/PHASE/HERTZ	MCA	MOCP		
VTAC-1	FRIEDRICH	VHA12K	11.5	1	400	11	10.6	5.0 KW	208/1/60	29.6	30	202	1
VTAC-2	FRIEDRICH	VHA18K	18.4	1.5	550	11	16.7	7.5 KW	208/1/60	42.8	45	219	1

NOTES:
1. MECHANICAL CONTRACTOR PROVIDE AND INSTALL EQUIPMENT PLATFORM IN HVAC CLOSET PER MANUFACTURERS INSTRUCTIONS.
2. MECHANICAL CONTRACTOR TO PROVIDE AND INSTALL LOW LEAK MOTORIZED VENTILATION DAMPER WITH CONTROLLER KIT. DAMPER TO CLOSE WHEN UNIT CYCLES OFF.
3. PACKAGED VERTICAL HEAT PUMP MODEL WITH ELECTRIC HEAT KIT.
4. FIELD ADAPTABLE FREE RETURN AIR CONFIGURATION.
5. ECM CONSTANT TORQUE BLOWER MOTOR CAPABLE OF UP TO 1/2" WC EXTERNAL STATIC PRESSURE.
6. DEDICATED BLOWER SPEED TAPS FOR CONTINUATIONS FAN, COOLING, AND HEATING OPERATION.
7. PRIMARY CONDENSATE DRAIN PAN WITH ANTIMICROBIAL PROTECTION.
8. INDOOR DRAIN PAN OVERFLOW SWITCH WHICH MONITORS CONDENSATE LEVEL IN DRAIN PAN AND CYCLES UNIT OFF UPON DETECTION OH HIGH CONDENSATE LEVELS.
9. SECONDARY DRAIN PAN CONSISTING OF POLYPROPYLENE WALL SLEEVE BASE SPECIFICALLY DESIGNED TO DIRECT RAIN WATER OUT OF THE BUILDING.
10. HELIX WOUND NICHROME HEATING ELEMENTS.
11. MANUFACTURER APPROVED SEALED WALL SLEEVE AND EXTERIOR LOUVER. COORDINATED SLEEVE DEPTH WITH ARCHITECTURAL PLANS.
12. MANUFACTURER APPROVED IMPACT-RESISTANT ALUMINUM LOUVER CONSTRUCTED WITH 6063-T6 GRADE ALUMINUM. COORDINATE FINAL COLOR WITH ARCHITECT.
13. MANUFACTURER APPROVED FIELD-INSTALLED 24V DIGITAL/7-DAY PROGRAMMABLE THERMOSTAT WITH SINGLE STAGE COOLING, SINGLE STAGE HEAT PUMP, AND SINGLE STAGE AUXILIARY ELECTRIC HEAT CAPACITY.
14. EMBOSSED STEEL CABINET.
15. INDOOR SECTION OF CABINET FACTORY INSULATED WITH 1/2" DUAL DENSITY FIBERGLASS INSULATION.
16. OUTDOOR SECTION OF CABINET FACTORY INSULATED WITH 1/2" WEATHER RESISTANT POLYSTYRENE INSULATION.
17. EPOXY COATED INDOOR AND OUTDOOR COILS.
18. FIVER YEAR LIMITED PARTS WARRANTY ON COMPRESSOR. COORDINATE ANY ADDITIONAL EXTENDED WARRANTIES WITH OWNER.
19. PROVIDE MERV 13 FILTER KIT
20. PROVIDE WITH FRESHAIRE PURIFIER APWR1

EXHAUST FAN SCHEDULE

MARK	MARK	MANUFACTURER / MODEL #	FAN DATA			MOTOR DATA			BACKDRAFT DAMPER	NOTES
			CFM	SP	RPM	VOLTS	PHASE	WATTS / HP		
EF-1	TYP. KITCHEN	PANASONIC / FV-05-11VKS2	110	0.25	1205	120	1	17W	YES	2,4
EF-2	TYP. RESTROOM	PANASONIC / FV-05-11VKS1	0,30,40,50,80	0.25	1131	120	1	17W	YES	1,2,3,4
EF-3	PUB. RESTROOM	PANASONIC / FV-05-11VKS1	80	0.25	1112	120	1	17W	YES	2,4
EF-4	PUB. RESTROOM	PANASONIC / FV-05-11VKS1	80	0.25	1112	120	1	17W	YES	2,4

NOTES:
1. FAN SHALL RUN CONTINUOUSLY AT LOW SPEED (0/30/40/50 CFM) AND SHALL RAMP UP TO HIGH SPEED (50,80 CFM) WHEN SWITCH IS TURNED ON. PROVIDE ALL REQUIRED ACCESSORIES TO MAKE COMPLETE.
2. PROVIDE RADIATION DAMPER PC-RD05CS
3. PROVIDE FV-CSVK1 CONDENSATION SENSOR.
4. ENERGY STAR RATED.

ELECTRIC HEATER SCHEDULE

MARK	MANUFACTURER	MODEL	TYPE	CAPACITY		CFM	ELECTRIC DATA			NOTES
				WATTS	BTU		VOLTS	PHASE	HERTZ	
EBH-1	MARLEY	BDBSL10	CONVECTOR	1,250	4,266	NA	208	1	60	1,2,3
EBH-2	MARLEY	BDBSL10	CONVECTOR	1,250	4,266	NA	208	1	60	1,2,3
EBH-3	MARLEY	BDBSL10	CONVECTOR	1,250	4,266	NA	208	1	60	1,2,3

NOTES:
1. PROVIDED WITH WIRED WALL THERMOSTAT AND BACNET ADAPTER TO COMMUNICATE WITH BUILDING MANAGEMENT SYSTEM.
2. COLOR SELECTED BY ARCHITECT.
3. PROVIDE END CAPS AS NEEDED.
4. PROVIDE WIRED WALL THERMOSTAT.
5. MOUNT AT HIGHEST LOCATION POSSIBLE PER MANUFACTURER'S INSTRUCTIONS.

REGISTER, DIFFUSER AND GRILLE SCHEDULE

MARK	SD-6S	SD-8D,10D	SD-8	SG-1	RD-6S	RD-10D,12D	RG-1	RG-2	RG-3	TG-1	TG-2
MANUFACTURER	PRICE	PRICE	PRICE	HART AND COOLEY	PRICE	PRICE	HART AND COOLEY	PRICE	PRICE	HART AND COOLEY	PRICE
MODEL NUMBER	SPD-FR	SPD-FR	SPD	661	SPD-FR	SPD-FR	650	80FR/B12	80FR/B12	650	510FR/F/L/A/B12
TYPE	FLAT PLAQUE	FLAT PLAQUE	FLAT PLAQUE	LOUVERED	FLAT PLAQUE	FLAT PLAQUE	LOUVERED	EGGCRATE	EGGCRATE	LOUVERED	LOUVERED
DIRECTION	4-WAY	4-WAY	4-WAY	2-WAY	4-WAY	4-WAY	1-WAY	- - -	- - -	1-WAY	1-WAY
MOUNTING	DRYWALL	DRYWALL	LAY-IN	DRYWALL	DRYWALL	DRYWALL	DRYWALL	DRYWALL	DRYWALL	DRYWALL	DRYWALL
G / R / D	D	D	D	G	D	D	G	G	D	D	D
CFM	AS NOTED	AS NOTED	AS NOTED	AS NOTED	- - -	- - -	- - -	- - -	- - -	- - -	- - -
NECK SIZE	6"Ø	8"Ø,10"Ø	6"Ø,8"Ø,10"Ø	12"X6"	6"Ø	10"Ø,12Ø	12"X6"	24"X16"	12" X 4"	10"X10"	10"X10"
PANEL SIZE	12X12	20x20	24x24	14"X8"	12x12	20x20	14"X8"	26"X18"	14"X6"	12"X12"	12"X12"
MATERIAL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL	STEEL
FINISH	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE
DAMPER	YES	YES	YES	YES	NO	NO	YES	NO	YES	YES	YES
SOUND (NC)	<20	<20	<20	<20	<25	<25	<20	<25	<20	<20	<20
REMARKS / NOTES	1,2,3,4	1,2,3,4	1,2	2,3	1,2,3,4	1,2,3,4	2,3	2,3,4	2,4	2	2,4

NOTES:
1. DIFFUSERS SHALL BE 4-WAY FLOW UNLESS OTHERWISE NOTED
2. PROVIDE WITH DRYWALL WALL MOUNTING FRAME WHERE REQUIRED.
3. PROVIDE WITH T BAR LAY-IN FRAME WHERE REQUIRED.
4. DIFFUSER TO BE FIRE RATED ASSEMBLY UL AND ULC LISTED. MUST MEET NFPA 90A REQUIREMENTS.

Outdoor Air Calculations Per ASHRAE Standard 62.1

Room Number	Room Name	Room Area	System Number	Occupancy Category (Table 6.1)	Exhaust Occupancy Category (Table 6.4)	Minimum Ventilation Knows Occupancy			Minimum Ventilation Default Values				Minimum Exhaust Rate (Table 6.4)	Total Exhaust Rate	Breathing Zone Outdoor Air	Primary Outdoor Air Fraction (Zp)	System #1	Max Zp: 0.25	System #2	Max Zp: 0.12	System #3	Max Zp: 0.20	System #4	Max Zp: 0.12	System #5	Max Zp: 0.25	System #6	Max Zp: 0.25	System #7	Max Zp: 0.11	System #8	Max Zp: 0.12	System #9	Max Zp: 0.15
						CFM Per Person (Rp)	CFM per 1,000 FT² (Ra)	No. of People (Pz)	People per 1,000 FT (Pz)	CFM per 1,000 FT² (Ra)	CFM Per Person	Number of People					Supply	Outdoor Air	Supply	Outdoor Air	Supply	Outdoor Air	Supply	Outdoor Air	Supply	Outdoor Air	Supply	Outdoor Air	Supply	Outdoor Air	Supply	Outdoor Air	Supply	Outdoor Air
150	Stair	209 Ft²		General - Corridors			0.06								12.54																	
151	Mech	14 Ft²	1	Office Buildings - Dry Storage		5.00	0.06								0.84			1														
152	Corridor	1177 Ft²	1	General - Corridors			0.06								70.62	0.11	775	88														
153	Stair	209 Ft²		General - Corridors			0.06								12.54																	
154	Mech	14 Ft²	2	Office Buildings - Office Space		5.00	0.06								0.84					1												
155	Corridor	1229 Ft²	2	General - Corridors			0.06								73.74	0.12			775	92												
156	Stair	184 Ft²	1	General - Corridors			0.06								11.04	0.18	75	14														
157	Laundry	139 Ft²	2	Hotels - Motels - Resorts - Dormitories - Laundry Rooms					10.00	0.12	5.00	2.00			10.00	0.06	200	33														
158	Corridor	291 Ft²	1	General - Corridors			0.06								17.46	0.17	125	22														
159	Mechanical	644 Ft²	1	Office Buildings - Dry Storage					2.00	0.06	5.00	2.00			10.00			61														
160	Mail	277 Ft²	1	General - Corridors			0.06								16.62	0.21	100	21														
161	Community	1268 Ft²	6	General - Conference Meeting		50.00	0.06	5.00				64.00			329.00	0.25											1,600	495				
162	Lobby	542 Ft²	3	General - Corridors			0.06								32.52	0.20					200	41										
163	Vestibule	80 Ft²	4	General - Corridors			0.06								4.80	0.12							50	6								
164	Vestibule	80 Ft²	5	General - Corridors			0.06								4.80	0.12									50	6						
165	Office	198 Ft²	4	Office Buildings - Office Space					5.00	0.06	5.00	1.00			5.00	0.04							175	21								
165A	Office	128 Ft²	4	Office Buildings - Office Space					5.00	0.06	5.00	1.00			5.00	0.04							150	16								
165B	Office	145 Ft²	4	Office Buildings - Office Space					5.00	0.06	5.00	1.00			5.00	0.04							175	17								
165C	Mech	11 Ft²	4	Office Buildings - Dry Storage		5.00	0.06								0.66									1							
166	Fitness	317 Ft²	5	Sports and Entertainment - Health Club Weight Rooms					10.00	0.06	20.00	4.00			80.00	0.25									400	124						
167	Wellness	147 Ft²	5	Office Buildings - Office Space					5.00	0.06	5.00	1.00			5.00	0.03									200	17						
167A	Mech	11 Ft²	5	Office Buildings - Dry Storage		5.00	0.06								0.66											1					
168	Men	64 Ft²	3	Not Applicable - Exhaust Only	Toilets - Public									70.00							50										
169	Women	64 Ft²	3	Not Applicable - Exhaust Only	Toilets - Public									70.00							50										
170	Resident Services	199 Ft²	4	Office Buildings - Office Space					5.00	0.06	5.00	1.00			5.00	0.04							175	21								
171	Corridor	1416 Ft²	3	General - Corridors			0.06								84.96	0.14					775	106										
172	Mech	14 Ft²	3	Office Buildings - Dry Storage		5.00	0.06								0.84							1										
173	Stair	209 Ft²		General - Corridors			0.06								12.54																	
211	Maintenance	644 Ft²		Office Buildings - Dry Storage		5.00	0.06								38.64																	
250	Stair	209 Ft²		General - Corridors			0.06								12.54																	
251	Mech	15 Ft²		Office Buildings - Dry Storage		5.00	0.06								0.90																	
252	Corridor	1177 Ft²	7	General - Corridors			0.06								70.62	0.11													775	88		
253	Stair	209 Ft²		General - Corridors			0.06								12.54																	
254	Mech	15 Ft²		Office Buildings - Dry Storage		5.00	0.06								0.90																	
255	Corridor	1225 Ft²	8	General - Corridors			0.06								73.50	0.12															775	92
256	Stair	184 Ft²	7	General - Corridors			0.06								11.04	0.11													125	14		
257	Laundry	145 Ft²	8	Hotels - Motels - Resorts - Dormitories - Laundry Rooms					10.00	0.12	5.00	2.00			10.00	0.06															200	34
258	Corridor	173 Ft²	7	General - Corridors			0.06								10.38	0.07													175	13		
259	Janitor	35 Ft²	7	Office Buildings - Dry Storage		5.00	0.06								2.10															3		
260	Mech	35 Ft²	7	Office Buildings - Dry Storage		5.00	0.06								2.10															3		
261	Mech	21 Ft²		Office Buildings - Dry Storage		5.00	0.06								1.26																	
262	Lobby	395 Ft²	9	General - Corridors			0.06								23.70	0.15															200	30
263	Corridor	1394 Ft²	9	General - Corridors			0.06								83.64	0.13															775	105
264	Mech	14 Ft²	9	Office Buildings - Dry Storage		5.00	0.06								0.84																	1
265	Stair	209 Ft²		General - Corridors			0.06								12.54																	
Notes																	3.0 Ton System		2.0 Ton System		3.0 Ton System		2.0 Ton System		2.0 Ton System		4.0 Ton System		3.0 Ton System		3.0 Ton System	
																	17% Outdoor Air		16% Outdoor Air		12% Outdoor Air		10% Outdoor Air		18% Outdoor Air		35% Outdoor Air		10% Outdoor Air		11% Outdoor Air	
																	People: 2		People: 2		People: 0		People: 4		People: 5		People: 64		People: 0		People: 2	
																	System Efficiency: 0.80		System Efficiency: 1.00		System Efficiency: 0.80		System Efficiency: 1.00		System Efficiency: 0.80		System Efficiency: 1.00		System Efficiency: 1.00		System Efficiency: 1.00	
																	Occupant Diversity: 1.00		Occupant Diversity: 1.00		Occupant Diversity: 0.00		Occupant Diversity: 1.00		Occupant Diversity: 1.00		Occupant Diversity: 1.00		Occupant Diversity: 0.00		Occupant Diversity: 1.00	
																	207 CFM O.A. Required		127 CFM O.A. Required		148 CFM O.A. Required		82 CFM O.A. Required		148 CFM O.A. Required		495 CFM O.A. Required		120 CFM O.A. Required		120 CFM O.A. Required	

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VERSION 2.2 running ASHRAE 62.1-2016

Zone Tag	Facility Type	Zone Use	Zone Floor Area (square ft)	Zone Max Occupancy	Table 6.1 OA per Occupant		Table 6.1 cfm/ft2	Pz * Rp		Table 6.2 Effectiveness	Outdoor Air to Zone (CFM) with Ez correction (Vbz/Ez)
			Az	Pz	Rp		Ra	Pz * Rp	Az * Ra Ventilation	Ez	
AHU-6	Public Assembly Spaces Multipurpose Assembly		1,268.0	64.0	5.0		0.06	320	76	0.8	495
											OA required per VRP

Zone Height (feet)	18.0	Air Changes Per Hour	4.2
Desired Outside Air (Vo) IAQP (CFM)	200	Outside Air Per VRP	495 CFM
Supply Air (Vs) (CFM)	1,600	Outside Air Per IAQ	200 CFM
Return Air (V)	1400	Outside Air Savings	295 CFM
Recirc. Flow Factor (R)	0.88		
Ventilation Effectiveness (Ez)	0.8	OA Summer Drybulb	95.0
Level of Physical Activity	**Standing (desk work)**	OA Summer Wetbulb	82.0
Filter Location	B	Coil Leaving Air Drybulb (F)	55.0
HVAC Flow Type	Constant	Coil Leaving Air Wetbulb (F)	55.0
Outdoor Air Flow Type	Constant	OA MBH Saved Summer*	30.0
		OA Tons Saved Summer*	2.5



Indoor Contaminants	Maximum Threshold Value		Steady State (lb/ft3) Using the VRP*	Steady State (lb/ft3) Using the IAQ Method	Is Steady State Level Acceptable at Reduced	Contaminant Generation	Filtration Cognizant		Effectiveness Authority***
Generated By People & From Outdoors	Based on OSHA or NIOSH (PPM)		(Prescribed OA) Ionization Off	(Reduced OA) Ionization On	OA Levels?	Rate lb/person/min			
Acetaldehyde	100.0		4.3977E-09	2.0724E-09	Yes	1.9449E-08	50%	OSHA	
Acetone	250.0		3.1894E-08	1.9344E-08	Yes	1.9622E-07	50%	NIOSH	
Ammonia	25.00		7.4489E-07	4.5366E-07	Yes	4.6095E-06	50%	NIOSH	
Benzene	1.0		3.6132E-08	2.1774E-08	Yes	2.2052E-07	50%	OSHA	
2- Butanone (MEK)	200.0		2.1571E-06	1.3144E-06	Yes	1.3350E-05	50%	NIOSH	
Carbon dioxide**	5000		5.0961E-05	5.9872E-05	Yes	3.7290E-05	0%	NIOSH	
Chloroform	2.0		6.6784E-08	4.0664E-08	Yes	4.1292E-07	50%	NIOSH	
Dioxane	100.0		0.0000E+00	0.0000E+00	Yes	0.0000E+00	50%	OSHA	
Hydrogen Sulfide	10.0		0.0000E+00	0.0000E+00	Yes	0.0000E+00	50%	NIOSH	
Methane	NA		6.8698E-08	6.8698E-08	Yes	0.0000E+00	0%	NA	
Methanol	200.0		2.7240E-08	6.7432E-08	Yes	1.6858E-07	0%	NIOSH	
Methylene Chloride	25.0		1.9587E-06	1.1936E-06	Yes	1.2121E-05	50%	OSHA	
Propane	1000.0		1.1242E-09	1.1242E-09	Yes	0.0000E+00	0%	NIOSH	
Tetrachloroethane	5.0		0.0000E+00	0.0000E+00	Yes	0.0000E+00	50%	OSHA	
Tetrachloroethylene	100.0		2.2242E-06	1.3552E-06	Yes	1.3764E-05	50%	OSHA	
Toluene	100.0		6.8142E-09	3.5449E-09	Yes	3.4441E-08	50%	NIOSH	1 = NIOSH CO2 Limit
1,1,1 - Trichloroethane	350.0		9.3505E-05	5.6978E-05	Yes	5.7868E-04	50%	NIOSH	2 = CO2 Level at Ventilation Rate OA Flow Rate
Xylene	100.0		6.2423E-10	7.6865E-11	Yes	0.0000E+00	50%	OSHA	3 = CO2 Level at IAQ Procedure OA Flow Rate

Building materials and furnishings assumed to have no VOCs and off-gassing is complete

Is IAQ acceptable at reduced outside air levels? **Yes**

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Date	8/13/2024
Job Name	Senior Village at Valle Greene
Representative	Davey Allen
Engineer	Larry Ayer
Contractor	-

Ventilation Air Savings	
VRP OA CFM per person	7.7
IAQ OA CFM per person	3.1
Winter Heating Savings	
OA Winter Design DB (F)	7
Supply Air DB Setpoint (F)	74
MBH Saved Winter	21.5
KW Saved Winter	6.3

*OA = Outside Air
***OSHA, NIOSH & WHO most conservative values used
http://www.cdc.gov/niosh/topics/indoorair/pollutants/

**Carbon dioxide has been provided for reference only for gathering demand control ventilation (DCV) setpoints. The National Research Council was commissioned by the US Navy to prove CO2 is not a contaminant of concern when using air cleaning devices to control the other contaminants of concern, as found on submarines.

The University of Denmark conducted a study to confirm CO2 levels at 5,000 PPM had no impact on cognitive function. Zhang X, Wargocki P, Lian Z, Human Responses to Carbon Dioxide, a Follow-up Study at Recommended Exposure Limits in

IMC 2006 & later allows for ASHRAE 62 IAQP through the engineered exception found in Section 403.2
Exhaust flow rates may differ from Table 6.5 based on ASHRAE 62 IAQP via Section 6.5.2

DUCTLESS SPLIT SYSTEM SCHEDULE

SYSTEM	MARK	SERVES	MANUFACTURER	EXTERIOR MODEL NUMBER	INTERIOR MODEL NUMBER	COOLING CAP. (BTU)	HEATING CAP. (BTU)	CFM (HIGH)	ELECTRICAL OUTDOOR				ELECTRICAL INDOOR			SEER	NOTES	ACCESSORIES
									VOLTAGE	PHASE	HZ	MOCP	VOLTAGE	PHASE	HZ			
SYSTEM 1	WC-1/HP-1	MECH/ELEC	CARRIER	38MGHBQ24CA3	40MAHBQ12XA3	24,000	33,930	382	208	1	60	30A	POWERED FROM HP-1			21.1	1,2	1,2,3,4,5
	WC-2	MECH/ELEC	CARRIER	---	40MAHBQ12XA3	---	---	---	---	---	---	---	POWERED FROM HP-1			21.1	1,2	1,2,3,4,5

NOTES:
1. OUTDOOR UNIT SHALL BE MOUNTED ON EQUIPMENT PAD APPROVED THE MANUFACTURER.
2. CC-1 AND WC-1 SHALL BE POWERED AND SERVED BY HP-1

ACCESSORIES:
1. ISOLATION RELAY.
2. CRANKCASE HEATER
3. LOW AMBIENT CONTROL AND WINTER START
4. WIND BAFFLE
5. WIRED THERMOSTAT, 2-STAGE COOLING (STAGE 1: DS-1, STAGE 2: DS-2)

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Senior Village at Valle Green

Channingway Dr.
Fairborn, Ohio 45324

Project Number
E2M: 24175

Date
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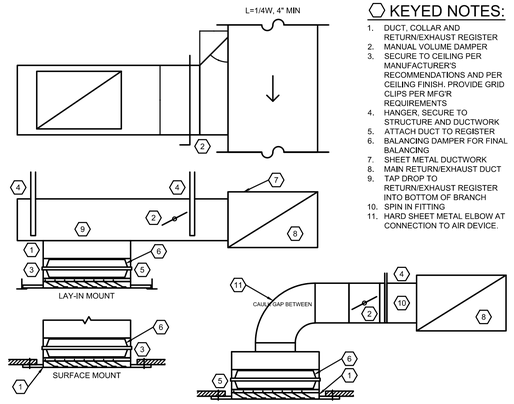
Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
OUTDOOR AIR CALCULATIONS

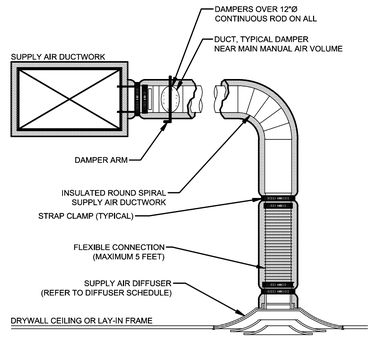
Sheet Number
M-502



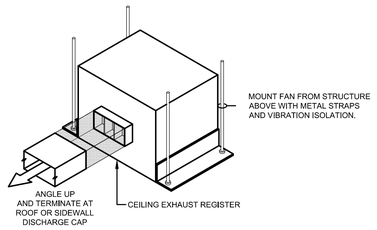
KEYED NOTES:

1. DUCT, COLLAR AND RETURN/EXHAUST REGISTER
2. MANUAL VOLUME DAMPER
3. SECURE TO CEILING PER MANUFACTURER'S RECOMMENDATIONS AND PER CEILING FINISH. PROVIDE GRID CLIPS PER MFGR REQUIREMENTS
4. HANGER, SECURE TO STRUCTURE AND DUCTWORK
5. ATTACH DUCT TO REGISTER
6. BALANCING DAMPER FOR FINAL BALANCING
7. SHEET METAL DUCTWORK
8. MAIN RETURN/EXHAUST DUCT
9. TAP DROP TO RETURN/EXHAUST REGISTER INTO BOTTOM OF BRANCH
10. SPIN IN FITTING
11. HARD SHEET METAL ELBOW AT CONNECTION TO AIR DEVICE.

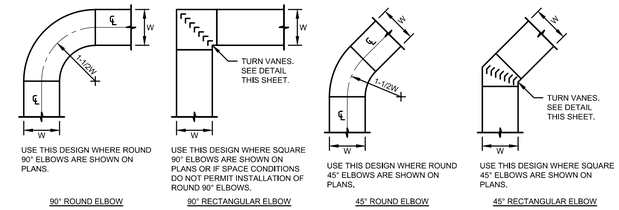
1 M-601 RETURN/EXHAUST REGISTER INSTALLATION DETAIL
SCALE: NONE

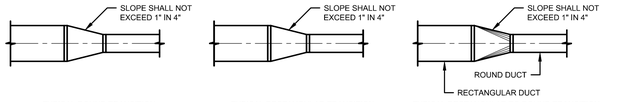


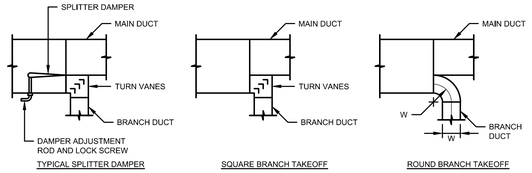
2 M-601 CEILING MOUNTED DIFFUSER DETAIL
SCALE: NONE



3 M-601 EXHAUST FAN INSTALLATION DETAIL
SCALE: NONE







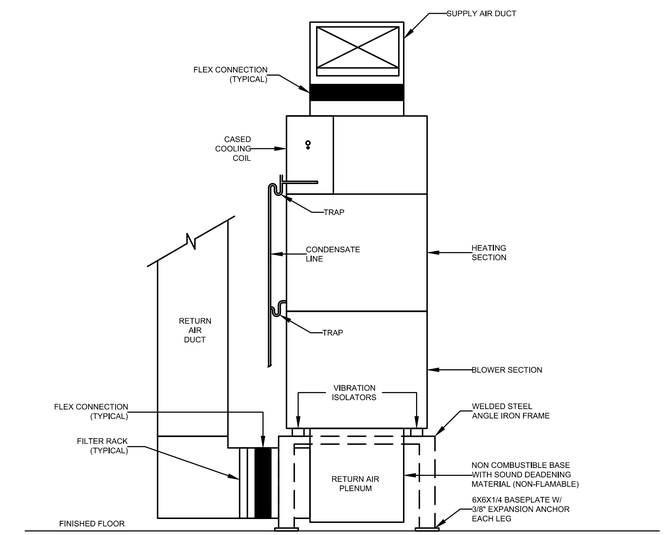
INSTALLATION NOTES

1. ALL DUCTS SHALL BE CONSTRUCTED AND ERECTED IN A NEAT AND WORKMANLIKE MANNER.
2. DUCTS SHALL BE CONSTRUCTED OF THE WEIGHTS, GAGES AND MATERIAL SHOWN IN THE SCHEDULE ON THESE DRAWINGS.
3. THE DIMENSION SHOWN FOR ALL DUCTS SHOWN IN PLAN GIVE THE WIDTH FIRST AND THEN THE HEIGHT.
4. DUCT RISERS SHOULD BE SUPPORTED BY ANGLES AT EVERY FLOOR.
5. AIR TURN SHALL BE INSTALLED IN ALL ABRUPT ELBOWS TO PREVENT TURBULENCE.
6. DUCTS SHALL BE SECURELY ATTACHED TO THE BUILDING CONSTRUCTION IN AN APPROVED MANNER.
7. DIVERGING TRANSITION PIECES SHALL BE MADE AS GRADUAL AS POSSIBLE
8. INSTALL FIRE DAMPERS IN ACCORDANCE WITH UL 555.
9. ACCESS PANELS SHOULD BE PLACED BEFORE AND/OR AFTER EQUIPMENT INSTALLED IN THE DUCT.
10. DUCT AREA SHOULD NOT BE DECREASED MORE THAN 10 PERCENT WHEN OBSTRUCTIONS CANNOT BE AVOIDED, AND THEN A STREAMLINED FITTING SHOULD BE USED.
11. FLEXIBLE FABRIC CONNECTIONS (OR EQUAL) SHOULD BE USED ON BOTH INLETS AND OUTLETS OF ALL FANS AND AIR HANDLING UNITS.
12. JOINTS AND SEAMS OF SUPPLY DUCTS SHALL BE FASTENED SECURELY AND MADE AIR TIGHT.

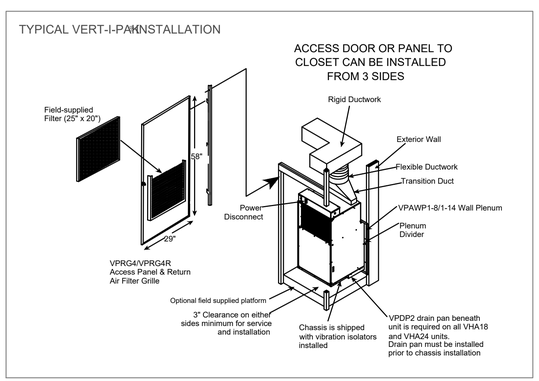
5 M-601 HEAT PUMP INSTALLATION DETAIL
SCALE: NONE

1	20 GAUGE DOUBLE SHEET METAL AIR FOIL FULL DEPTH OF MAIN DUCT UP TO 12" WIDE BRANCHES 18 GAUGE ON WIDER BRANCHES
2	MAIN DUCT
3	GALVANIZED 3/16" ROD
4	VENTLOCK NO. 600-3 DAMPER BLADE, BRACKET AND LOCKING BALL JOINT WITH 1/4"Ø GALVANIZED OPERATOR PAD
5	BRANCH DUCT
6	DOUBLE THICKNESS TURNING VANES (TYPICAL)
7	3" RADIUS MINIMUM

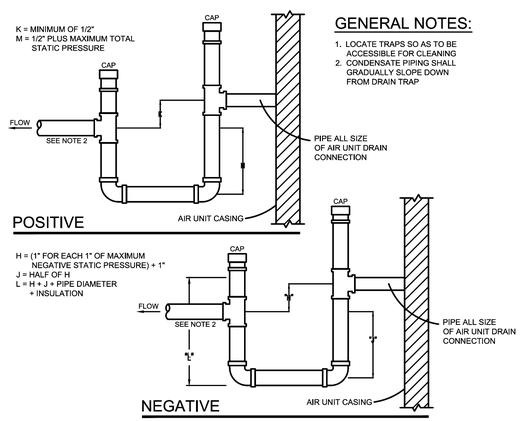
6 M-601 RECTANGULAR LOW PRESSURE BRANCH TAKEOFF DETAIL
SCALE: NONE



7 M-601 LOW VELOCITY DUCT INSTALLATION DETAILS
SCALE: NONE



8 M-601 VTAC DETAIL
SCALE: NONE



GENERAL NOTES:

1. LOCATE TRAPS SO AS TO BE ACCESSIBLE FOR CLEANING
2. CONDENSATE PIPING SHALL GRADUALLY SLOPE DOWN FROM DRAIN TRAP

9 M-601 CONDENSATE DRAIN TRAP DETAIL
SCALE: NONE

10 M-601 SPLIT SYSTEM FURNACE INSTALLATION DETAIL
SCALE: NONE

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Channingway Dr.
Fairborn, Ohio 45324

Project Number
E2M: 24175

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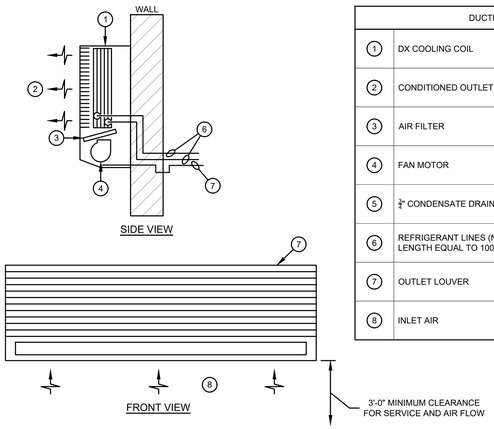
Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
MECHANICAL DETAILS

Sheet Number
M-601



DUCTLESS WALL SPLIT DETAIL NOTES	
1	DX COOLING COIL
2	CONDITIONED OUTLET AIR
3	AIR FILTER
4	FAN MOTOR
5	¾" CONDENSATE DRAIN WITH TRAP
6	REFRIGERANT LINES (NOT TO BE EXPOSED TO OCCUPANT). MAXIMUM PIPING LENGTH EQUAL TO 100'-0". MAXIMUM ELEVATION DIFFERENCE EQUAL TO 50'-0".
7	OUTLET LOUVER
8	INLET AIR

1 M-602 DUCTLESS SPLIT SYSTEM WALL CASSETTE DETAIL
SCALE: NONE

Lay-In Diffuser Applications

Lay-In Diffuser

- Lay-in diffuser installs directly into exposed Tee bar grid system.
- Ceiling damper attaches to the diffuser neck (see General Information, Connections).
- Thermal blanket required (see General Information, Thermal Blanket).
- If flexible duct is used,it shall be fastened to the diffuser neck with a steel clamp or #16 SWG minimum wire.(See General Information, System Components)

Note:

1) The flexible air duct shall not rest on the back surface of the ceiling grid or panels (provide a minimum of 4 in. of clearance).

2) The flexible air duct shall not interfere with the closing of the ceiling damper.

Models CRD-1, CRD-1LP, CRD-2, and CRD-60 may be installed as shown in **Figure 1** (Model CRD-2 illustrated)

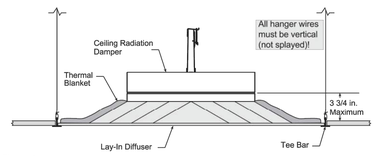
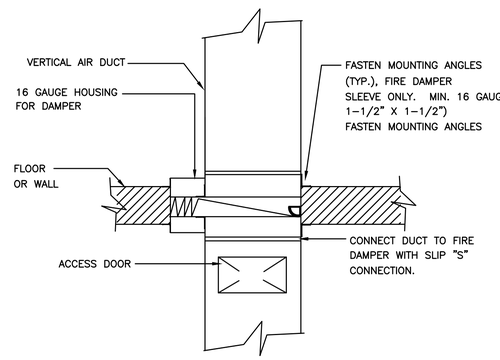


Figure 1

2 M-602 LAY-IN DIFFUSER DETAIL
SCALE: NONE



NOTES:
1. DAMPER ASSEMBLY INSTALLED IN AND FASTENED TO THE SLEEVE.
2. MAINTAIN FULL DUCT SIZE. DAMPER HOUSING SHALL NOT OBSTRUCT AIR FLOW, (TYPE "B").
3. MOUNTING SHOWN IS VERTICAL INSTALLATION, HORIZONTAL INSTALLATION IS SIMILIAR.

4 M-602 FIRE DAMPER INSTALLATION DETAIL
SCALE: NONE

Surface Mounted Air Inlet or Outlet Devices

- A maximum size of permitted opening equals maximum size of available listed ceiling radiation dampers.
- Opening in ceiling membrane (See General Information, Ceiling Penetrations) may be up to one inch larger than the nominal size of the ceiling radiation damper (i.e. 12 in. x 12 in. nominal ceiling radiation damper could have a maximum ceiling membrane opening of 13 in. x 13 in.).
- Connection of ceiling radiation damper, air device neck, and steel duct drop (see General Information, Connections) may be satisfied in two ways:
  1. Ceiling radiation damper and air device neck may be connected directly to the duct drop (see **Detail A, Figure 5**).
  2. Ceiling radiation damper may be connected directly to the air device neck and then the duct drop connected to the damper (see **Detail B, Figure 5**).

Non-Ferrous Air Devices - Air devices that have non-ferrous frames.

Ceiling membrane opening that utilize non-ferrous devices require one of the following:

1. The steel duct drop should extend to the bottom surface of the ceiling membrane and the opening in the ceiling membrane (see General Information, Ceiling Penetrations) should be equal to the outside of the duct drop (see **Detail C, Figure 5**).
2. A steel angle should be attached to the bottom of the ceiling radiation damper and span the gap from the ceiling radiation damper to the bottom of the ceiling membrane. the steel angle should overlap the ceiling membrane. The steel angle should overlap the ceiling membrane (see **Detail D, Figure 5**).

Models CRD-1, CRD-1LP, CRD-2, and CRD-60 may be installed as shown in **Figure 5** (Model CRD-1 & CRD-1LP illustrated).

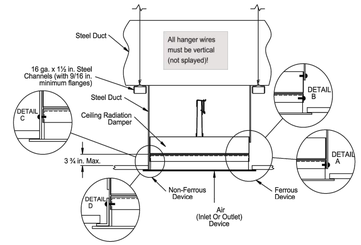
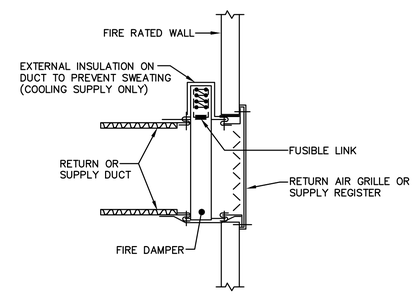


Figure 5

3 M-602 SURFACE MOUNTED AIR INLET OR OUTLET DEVICES DETAIL
SCALE: NONE



5 M-602 FIRE DAMPER AT SUPPLY REGISTER OR RETURN AIR GRILLE DETAIL
SCALE: NONE

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Sheet Title
MECHANICAL DETAILS

Sheet Number
M-602



1 E-001 SITE ELECTRIC PLAN
SCALE: 1" = 30'-0"

PLAN NOTES

1	COORDINATE NEW ELECTRIC SERVICE PRIMARY DROP WITH DUKE ENERGY PRIOR TO BID.
2	COORDINATE TELECOM SERVICE CONNECTIONS WITH LOCAL UTILITIES PRIOR TO BID.
3	PROVIDE TWO (2) 5" SCHEDULE 40 PVC CONDUITS FOR PRIMARY CONDUCTORS.
4	UNDERGROUND ELECTRIC SECONDARY CONDUITS AND WIRE. REFER TO SINGLE LINE DIAGRAM ON E-501 FOR MORE INFORMATION.
5	NEW PAD MOUNT TRANSFORMER WITH 480/277V SECONDARY AND PAD MOUNT METERING. PROVIDE PAD PER DUKE ENERGY SPECIFICATIONS.
6	PROVIDE TWO (2) 4" SCHEDULE 40 PVC CONDUITS FOR TELECOMMUNICATIONS SERVICE ENTRANCE WIRING. CONDUITS TO STUB UP IN MECHANICAL ROOM. REFER TO E-101C FOR EXACT LOCATION.
7	CONTRACTOR SHALL VERIFY WIRE SIZE IN FIELD BASED ON ROUTE. VOLTAGE DROP SHALL BE LESS THAN 3%. TYPICAL OF ALL LIGHTING WIRING.

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Senior Village at Valle Green

Channingway Dr.
Fairborn, Ohio 45324

Project Number
E2M: 24175

Date
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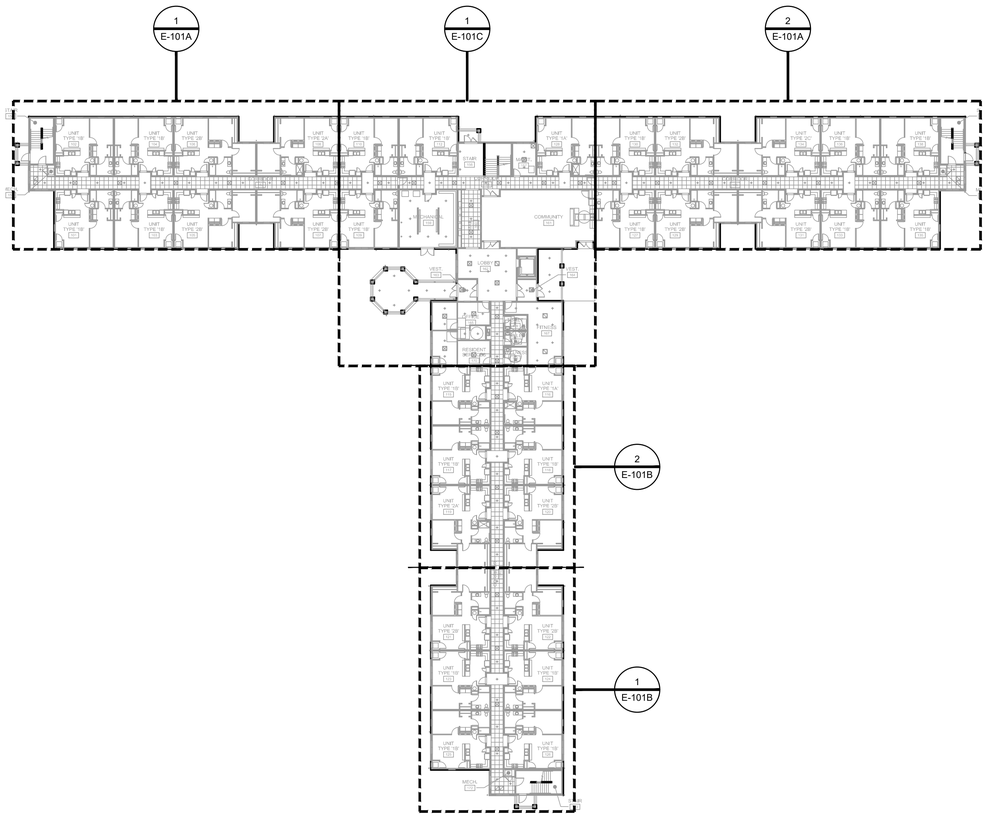
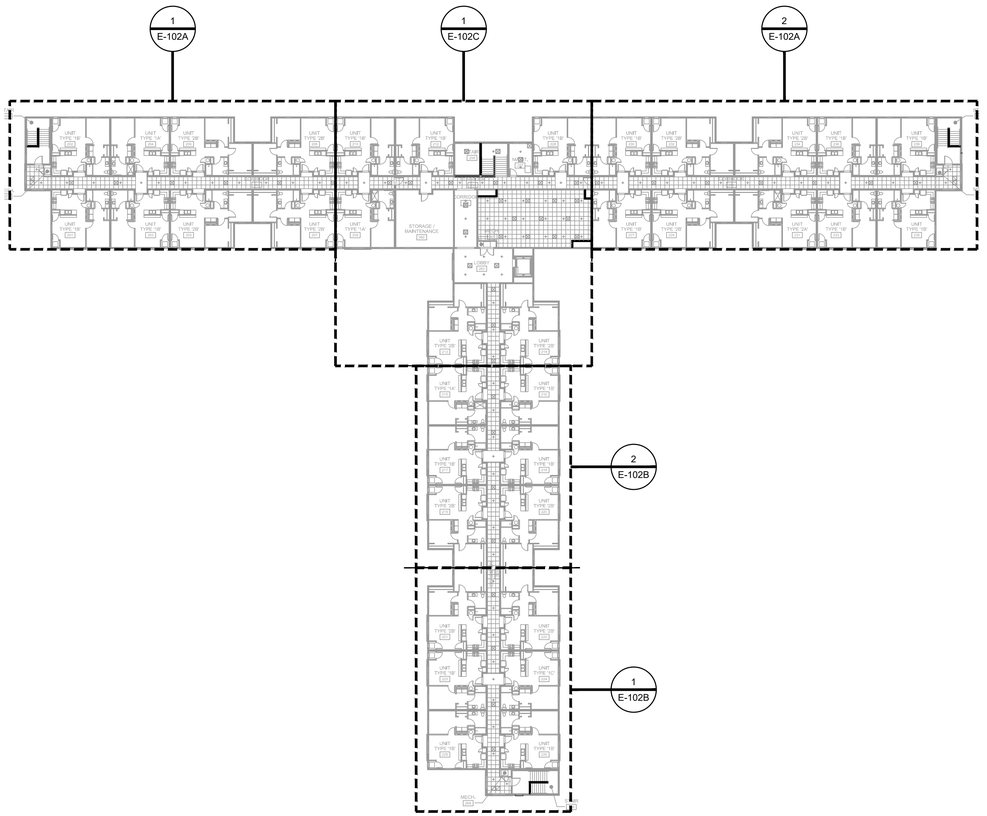
Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
SITE ELECTRIC PLAN

Sheet Number
E-001



1 E-100 ELECTRICAL OVERALL PLAN 1ST FLOOR
SCALE: 3/32" = 1'-0"
0' 4' 8' 20'



2 E-100 ELECTRICAL OVERALL PLAN 2ND FLOOR
SCALE: 3/32" = 1'-0"
0' 4' 8' 20'

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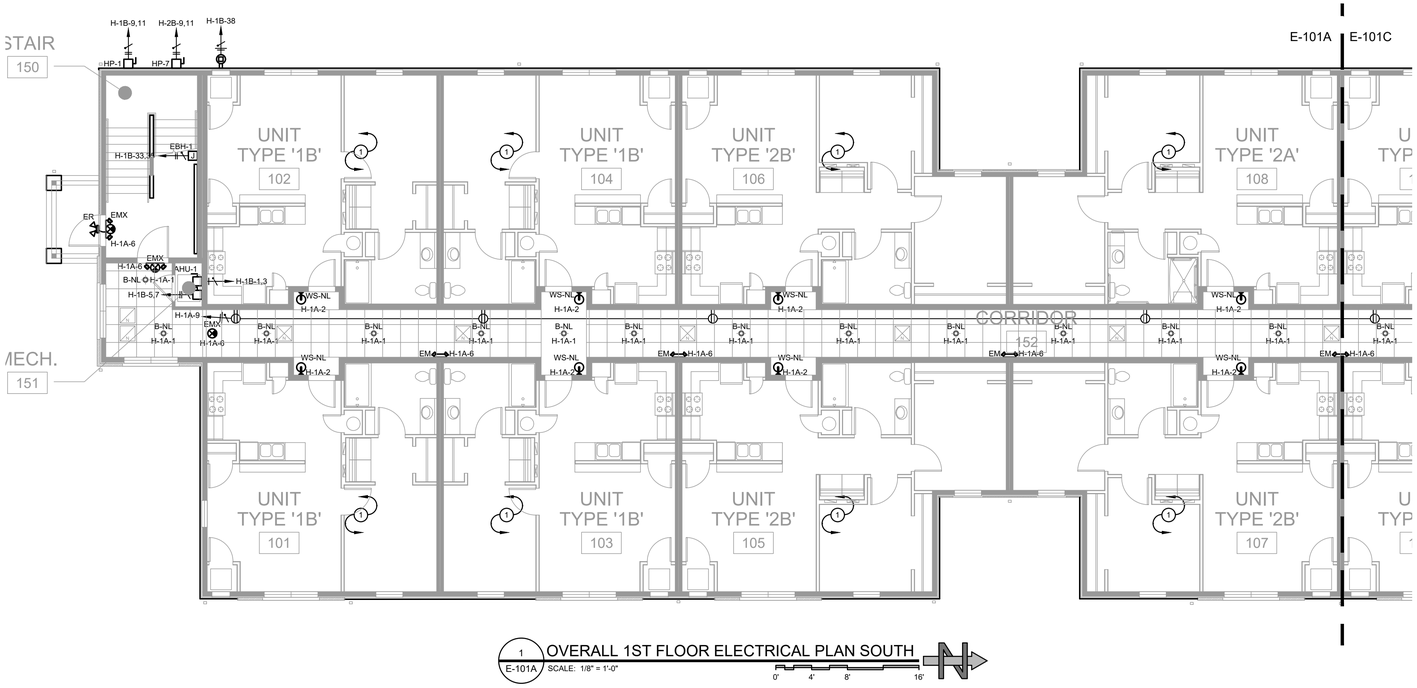
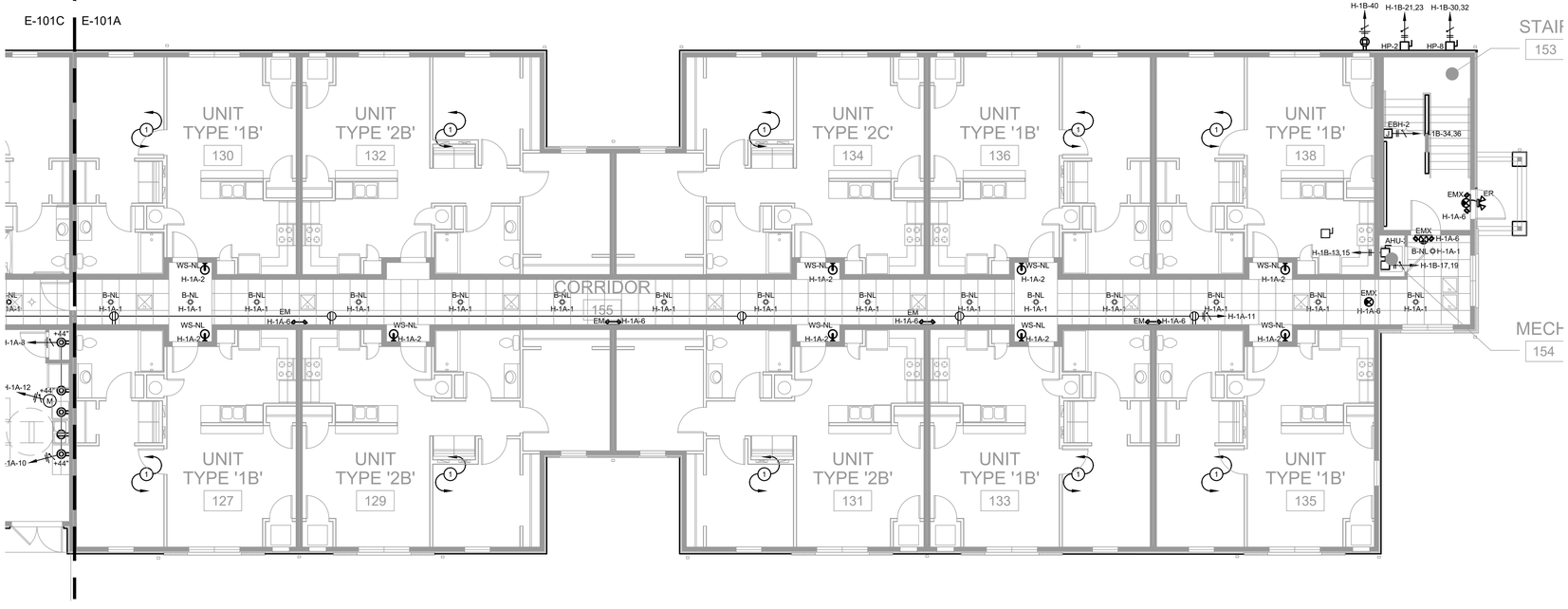
Sheet Title
ELECTRICAL OVERALL PLAN

Sheet Number
E-100

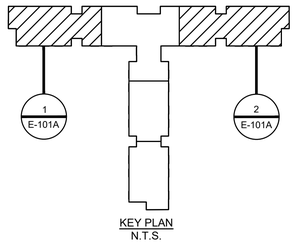


1 E-101A OVERALL 1ST FLOOR ELECTRICAL PLAN SOUTH
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'



2 E-101A OVERALL 1ST FLOOR ELECTRICAL PLAN NORTH
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

PLAN NOTES	
1	SEE E-103 FOR UNIT TYPICAL PLANS.
2	---
3	---



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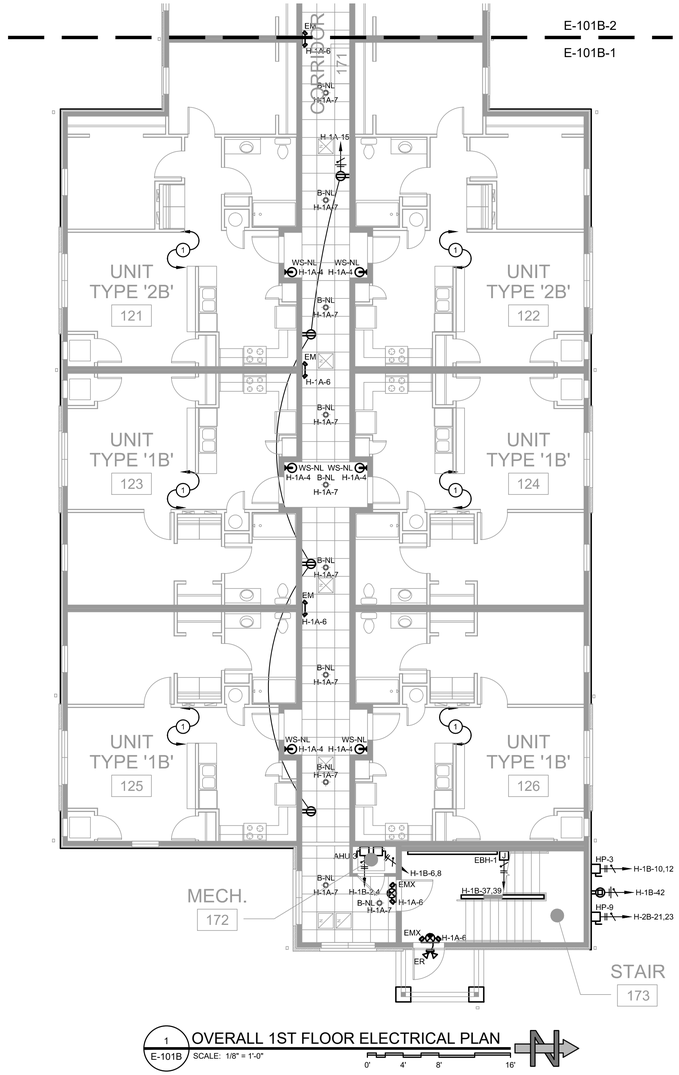
9/13/24	OHFA 80% REVIEW

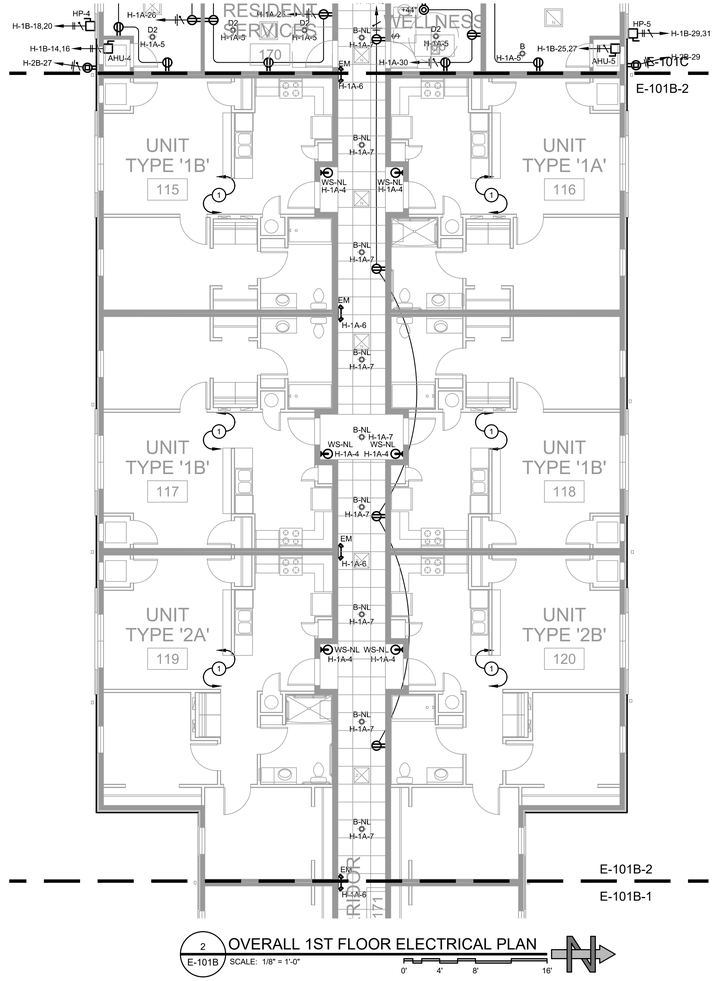
Sheet Title

OVERALL 1ST FLOOR ELECTRICAL PLAN

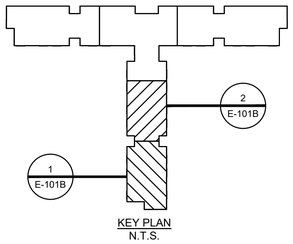
Sheet Number

E-101A





PLAN NOTES	
1	SEE E-103 FOR UNIT TYPICAL PLANS.
2	---
3	---



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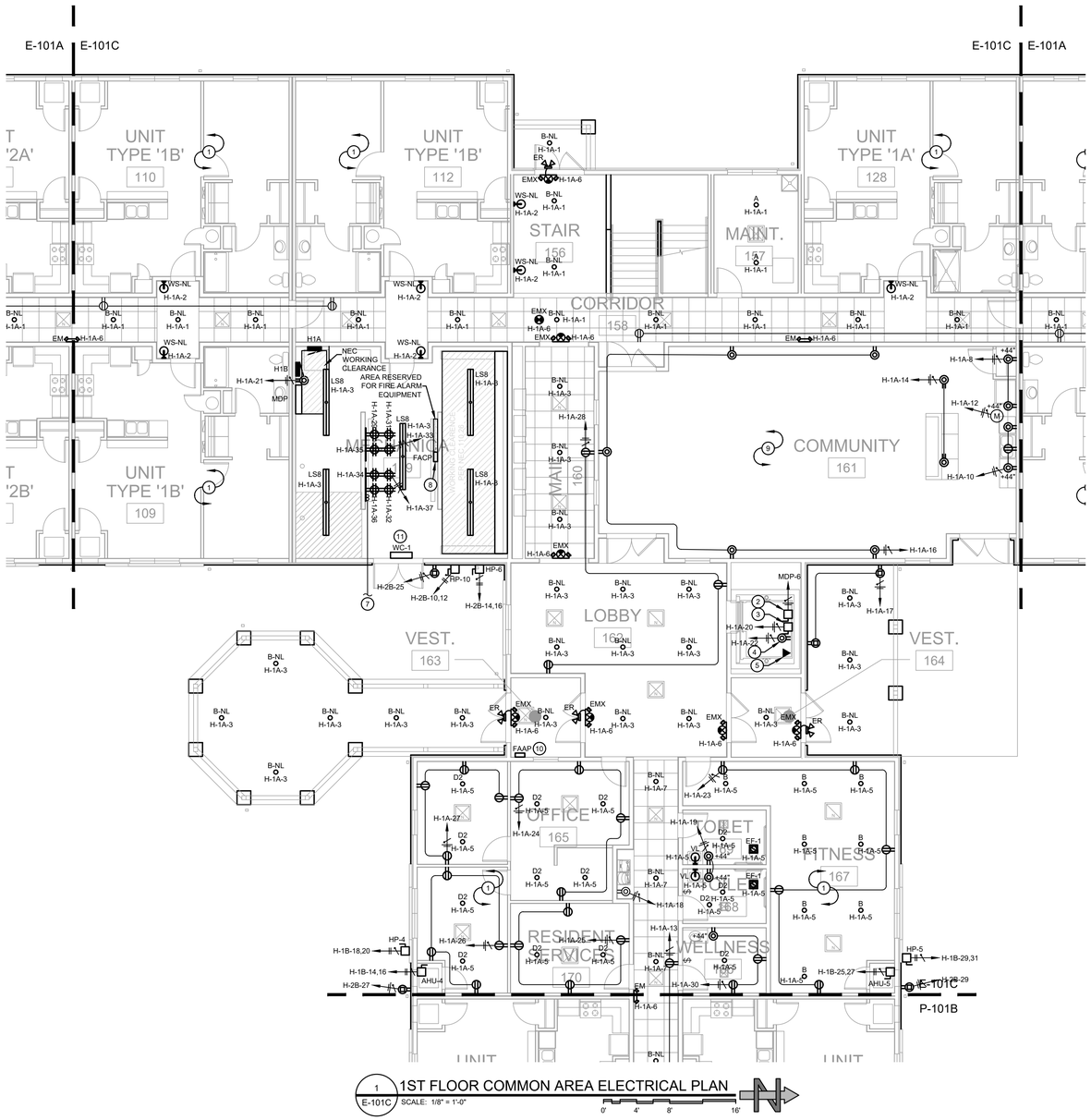
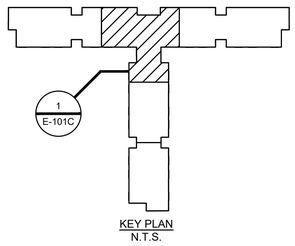
Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
OVERALL 1ST FLOOR ELECTRICAL PLAN

Sheet Number
E-101B



PLAN NOTES	
1	SEE E-103 FOR UNIT TYPICAL PLANS.
2	PROVIDE ELECTRICAL DISCONNECT TO ELEVATOR MOTOR. REFER TO E-501 FOR MORE INFORMATION.
3	PROVIDE DEDICATED 20A-1P CIRCUIT AND FUSIBLE DISCONNECT FOR ELEVATOR CAB LIGHTS.
4	PROVIDE DEDICATED 20A-1P CIRCUIT TO ELEVATOR CONTROLLER.
5	INSTALL (2) DATA LINES FOR ELECATOR.
6	PROVIDE DEDICATED SIMPLEX RECEPTACLE FOR SUMP PUMP IN ELEVATOR PIT. COORDINATE EXACT LOCATION IN FIELD WITH ELEVATOR VENDOR.
7	INCOMING TELECOM SERVICE. SEE E-001 FOR CONTINUATION.
8	FIRE ALARM CONTROL PANEL.
9	OPEN TO ABOVE. SEE E-102C FOR CONTINUATION.
10	FIRE ALARM ANNUNCIATOR PANEL.
11	DUCTLESS SPLIT SYSTEM INDOOR UNIT TO BE POWERED BY OUTDOOR UNIT.



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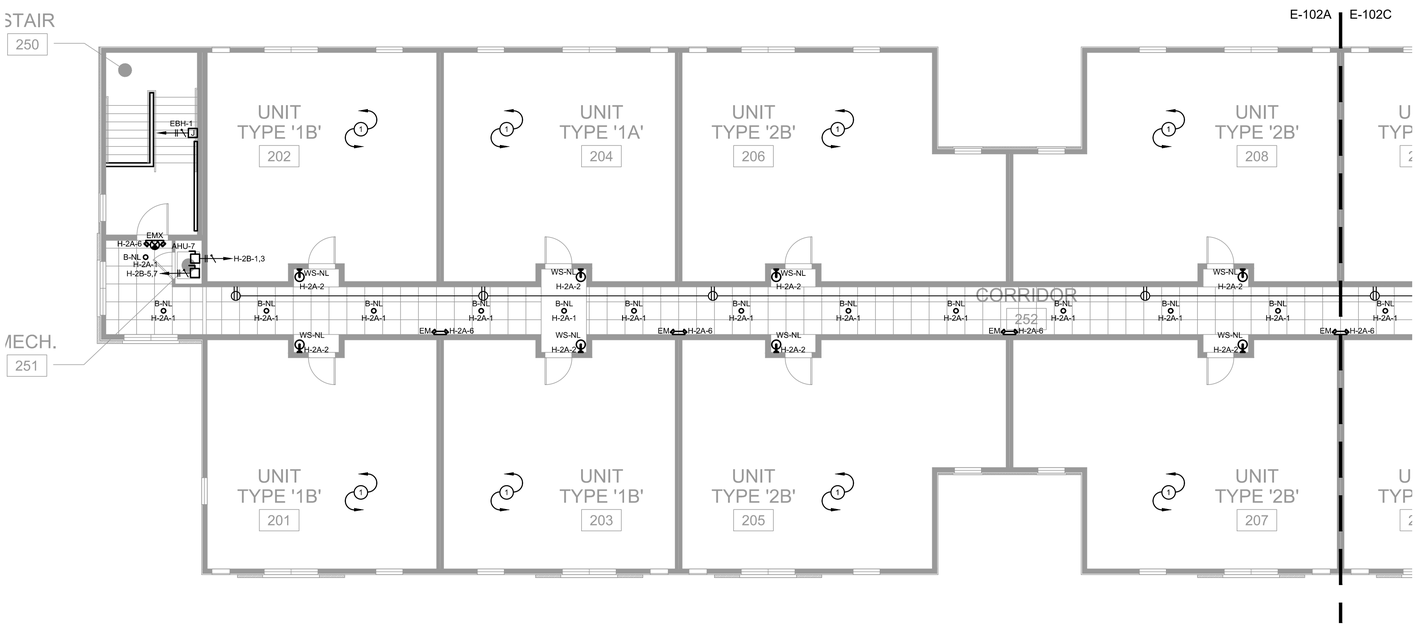
9/13/24	OHFA 80% REVIEW

Sheet Title

1ST FLOOR COMMON AREA ELECTRICAL PLAN

Sheet Number

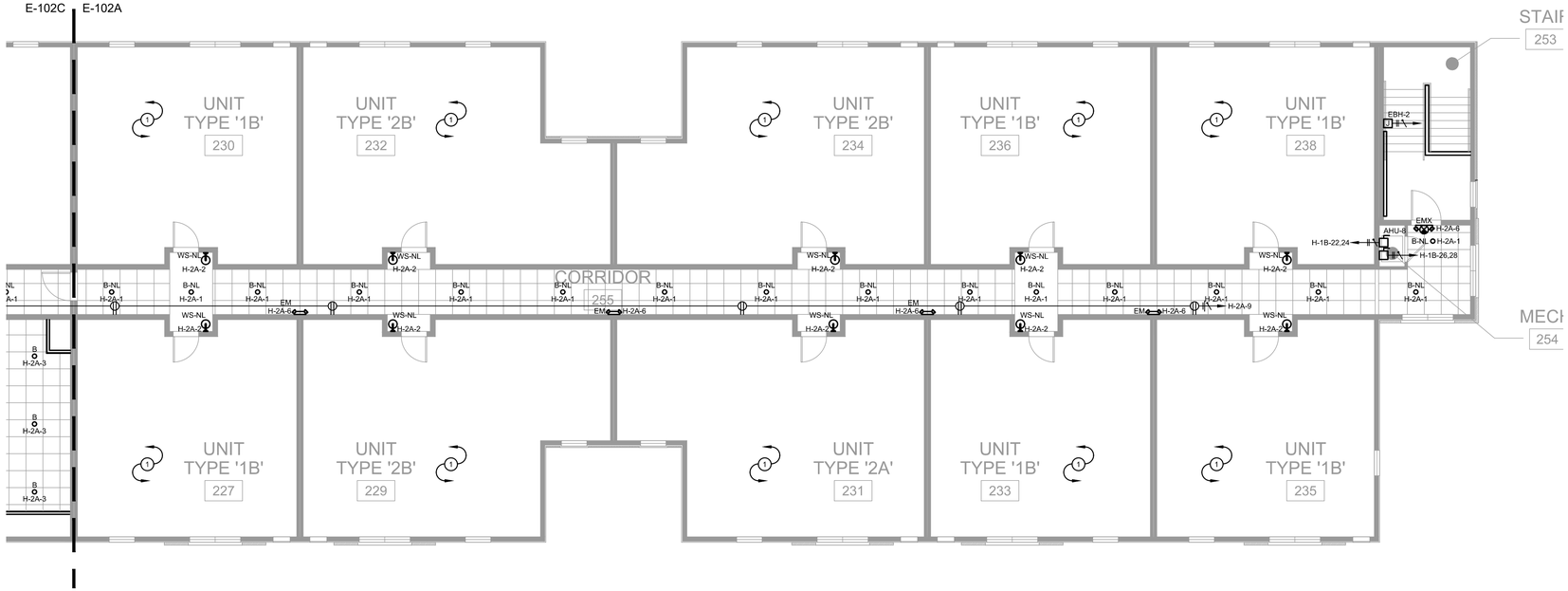
E-101C



1 E-102A OVERALL 2ND FLOOR ELECTRICAL PLAN SOUTH

SCALE: 1/8" = 1'-0"

0' 4' 8' 16'



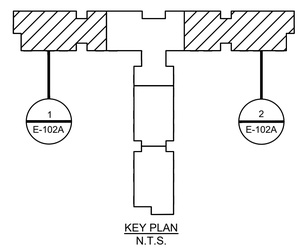
2 E-102A OVERALL 2ND FLOOR ELECTRICAL PLAN NORTH

SCALE: 1/8" = 1'-0"

0' 4' 8' 16'

PLAN NOTES

1	SEE E-103 FOR UNIT TYPICAL PLANS.
2	…
3	…



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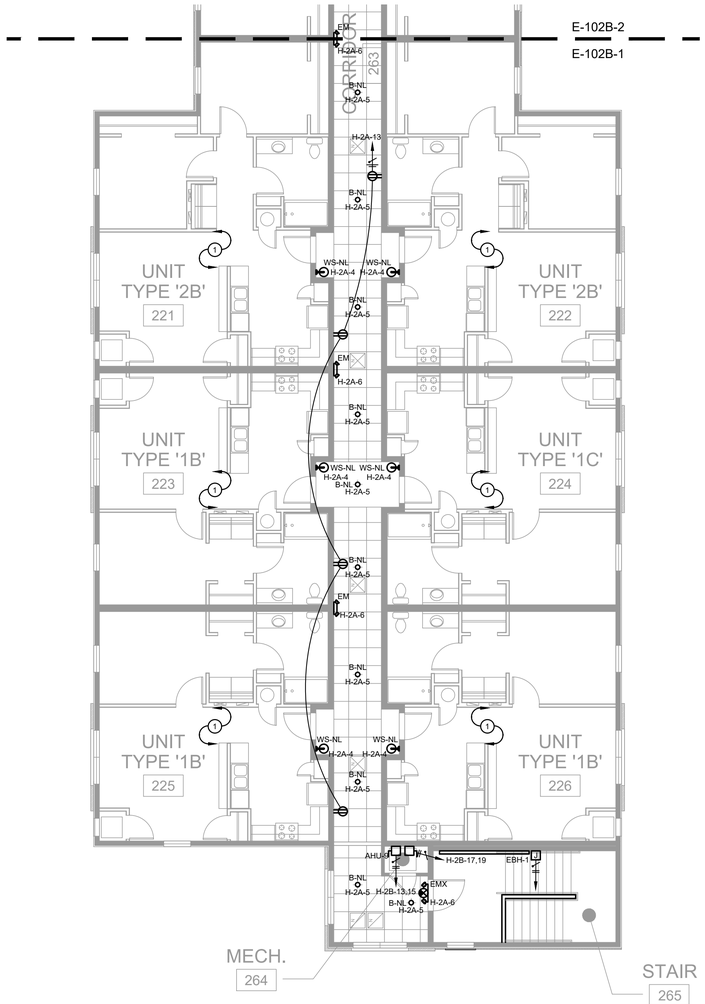
Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title

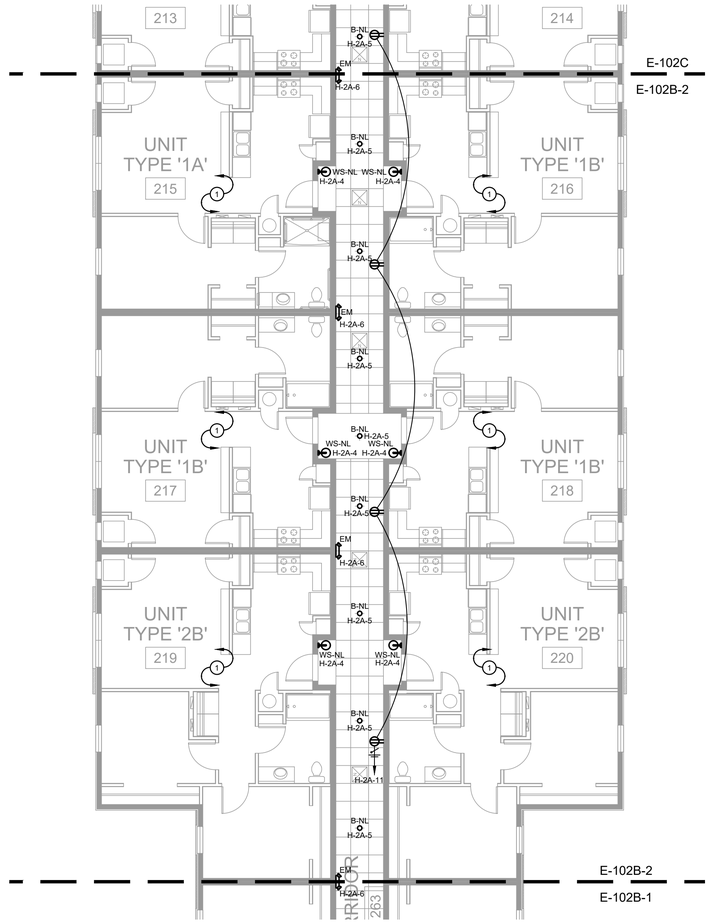
OVERALL 2ND FLOOR ELECTRICAL PLAN

Sheet Number

E-102A

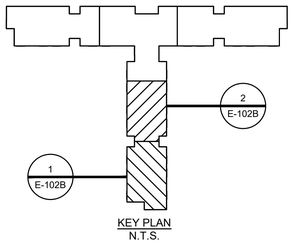


1 E-102B OVERALL 2ND FLOOR ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'



2 E-102B OVERALL 2ND FLOOR ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"
0' 4' 8' 16'

PLAN NOTES	
1	SEE E-103 FOR UNIT TYPICAL PLANS.
2	---
3	---



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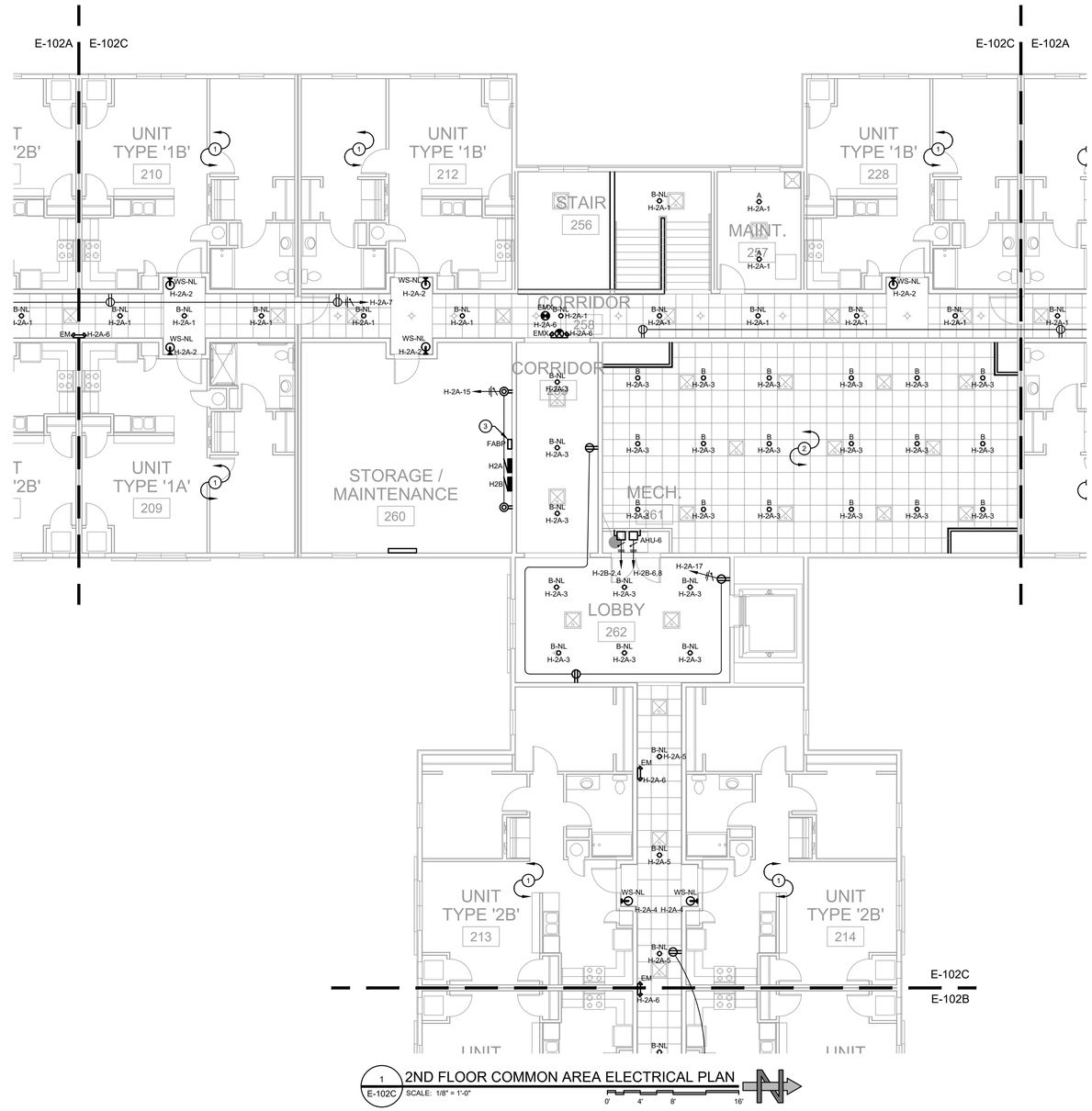
Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
OVERALL 2ND FLOOR ELECTRICAL PLAN

Sheet Number
E-102B



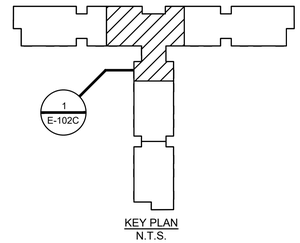
1 E-102C 2ND FLOOR COMMON AREA ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"

0' 4' 8' 16'

PLAN NOTES

1	SEE E-103 FOR UNIT TYPICAL PLANS.
2	OPEN TO BELOW. SEE E-101C FOR CONTINUATION.
3	FIRE ALARM BOOSTER PANEL.



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Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
2ND FLOOR COMMON AREA ELECTRICAL PLAN

Sheet Number
E-102C

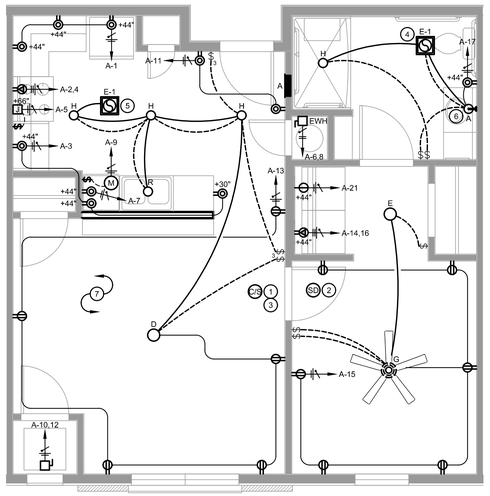
GENERAL NOTES

1. TYPE 'C' SENSORY UNITS TO BE PROVIDED WITH STAINLESS STEEL DEVICE COVERS WITH WHITE DEVICES AND AUDIBLE/VISUAL DOORBELL SYSTEM.

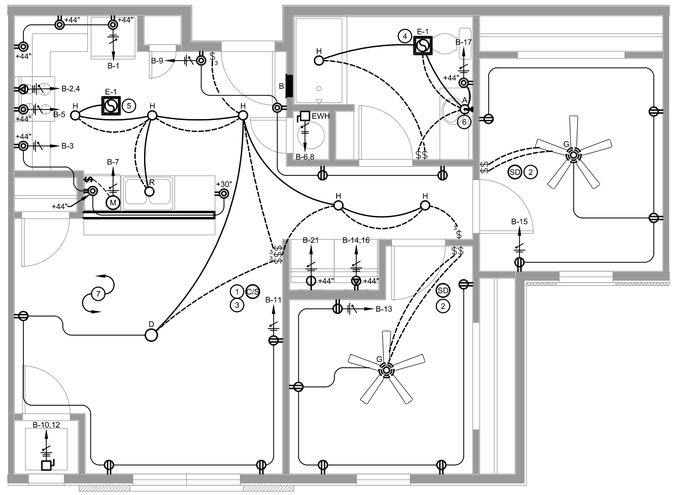
2. PROVIDE KEYED OVERRIDE SWITCH FOR AUDIBLE/VISUAL DOORBELL SYSTEM.

PLAN NOTES

1	PROVIDE WITH DUAL SENSING (PHOTOELECTRIC AND IONIZATION) SMOKE DETECTOR WITH CARBON MONOXIDE SENSOR AT THIS LOCATION. ALL SMOKE DETECTORS SHALL BE 120V HARD-WIRED AND INTERCONNECTED WITH BATTERY BACKUP.
2	PROVIDE DUAL SENSING (PHOTOELECTRIC AND IONIZATION) SMOKE DETECTOR AT THIS LOCATION. ALL SMOKE DETECTORS SHALL BE 120V HARD WIRED AND INTERCONNECTED WITH BATTERY BACKUP.
3	CONTRACTOR TO INSTALL MULTI-STATION SMOKE DETECTORS AND COMBINATION SMOKE/CARBON MONOXIDE DETECTORS IN ACCORDANCE WITH NFPA 72. TYPICAL OF ALL DEVICES.
4	EXHAUST FAN INSTALLED BY MECHANICAL CONTRACTOR AND WIRED BY ELECTRICAL CONTRACTOR. FAN TO BE WIRED TO LOCAL AREA LIGHTING CIRCUIT AND CONTROLLED BY SWITCH ON WALL.
5	EXHAUST FAN INSTALLED BY MECHANICAL CONTRACTOR AND WIRED BY ELECTRICAL CONTRACTOR. FAN TO BE WIRED TO LOCAL AREA LIGHTING CIRCUIT TO RUN CONTINUOUSLY.
6	MOUNT VANITY LIGHT ABOVE BATHROOM MIRROR. VERIFY EXACT HEIGHT IN FIELD.
7	ALL SWITCHES WITHIN ACCESSIBLE UNITS ARE TO BE MOUNTED AT 48" AFF FROM THE MIDDLE OF THE SWITCH IN COMPLIANCE WITH THE FAIR HOUSING ACT. ELECTRICAL PANELS WITHIN ACCESSIBLE UNITS ARE TO BE MOUNTED AT 48" AFF FROM THE MIDDLE OF THE PANEL.



1 E-103 UNIT A - 1BR ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"
0' 2' 4' 8'



2 E-103 UNIT B - 2BR ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"
0' 2' 4' 8'

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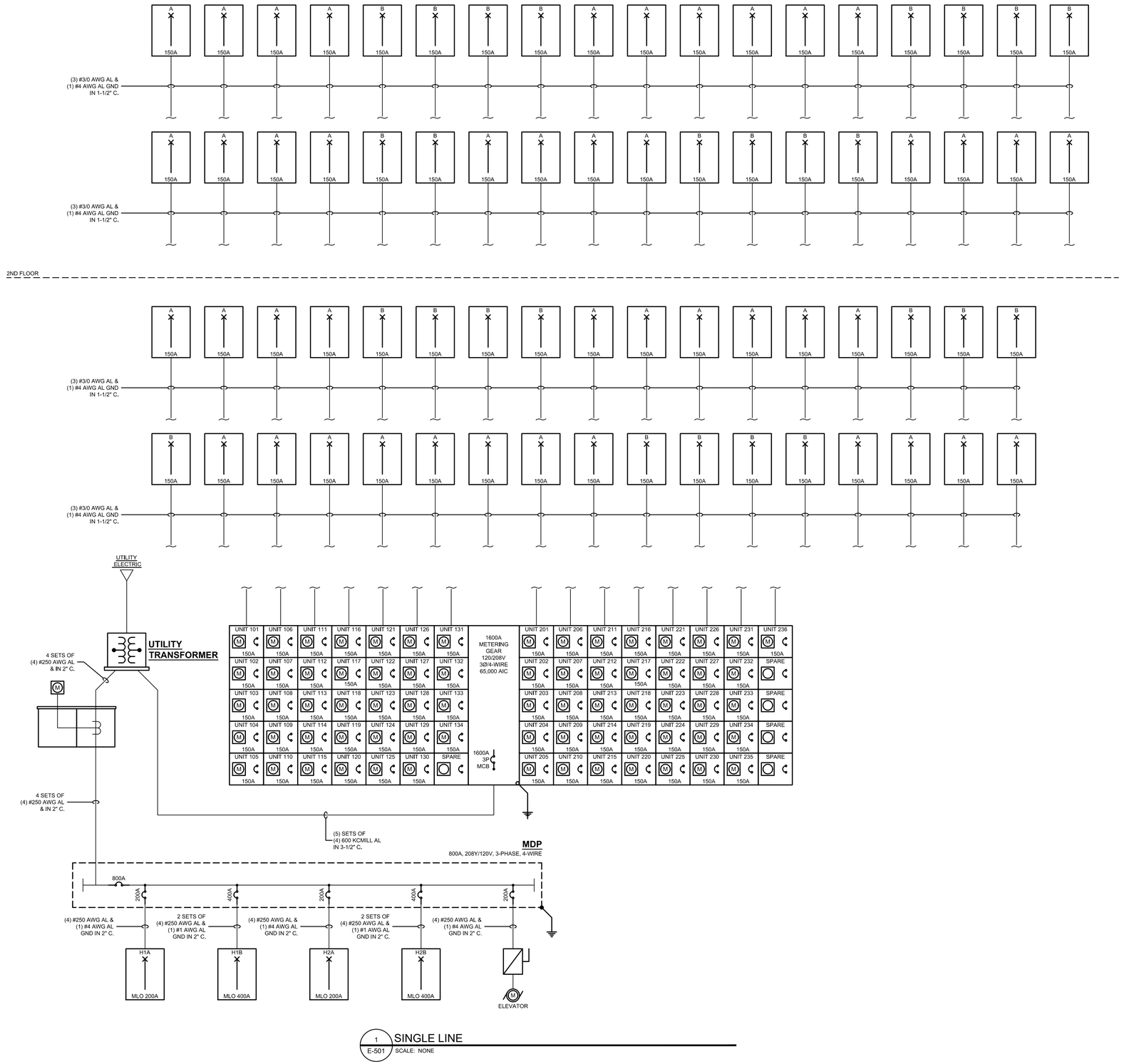
9/13/24	OHFA 80% REVIEW

Sheet Title
TYPICAL UNITS ELECTRICAL PLAN

Sheet Number
E-103



1 E-501 SINGLE LINE
SCALE: NONE

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Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
SINGLE LINE

Sheet Number
E-501

Electrical Panel Schedule H2A

Volts	Phase	Wire	Panel Type	Ampacity Provided	Mount	AIC	Fed From
208/120	3Ø	4	Main Lug Only	200 Amps	Surface	TBD	

Circuit #	Breaker	Poles	Notes	Description	A	B	C	A	B	C	Description	Notes	Poles	Breaker	Circuit #
1	20	1		Corridor Lighting	648			207			Corridor Wall Sconce		1	20	2
3	20	1		Corridor Lighting		486			126		Corridor Wall Sconce		1	20	4
5	20	1		Corridor Lighting			360			57	Emergency Lighting		1	20	6
7	20	1		Corridor Receptacles	1,080										8
9	20	1		Corridor Receptacles		1,080									10
11	20	1		Corridor Receptacles			720								12
13	20	1		Corridor Receptacles	720										14
15	20	1		Mechanical Receptacles		360									16
17	20	1		Elevator Lobby Receptacles			540								18
19	20	1													20
21	20	1													22
23	20	1													24
25															26
27															28
29															30
31															32
33															34
35															36
37															38
39															40
41															42

Total Connected Load Phase A:	2,655
Total Connected Load Phase B:	2,052
Total Connected Load Phase C:	1,677
Total Connected Load:	6,384 Watts

Load Description	Watts	Factor	Total
Receptacles < 10,000	4,500	100%	4,500
Receptacles > 10,000	0	50%	0
Lighting Loads	1,884	125%	2,355
Track Lighting	0Ft	75W/Ft	0
Motor Loads	0	100%	0
Largest Motor	0	125%	0
Cooling Loads	0	100%	0
Heating Loads	0	100%	0
Continuous Loads	0	125%	0
Non-Continuous Loads	0	100%	0
Kitchen Equipment Loads	0	100%	0
Existing Panel Demand		125%	0
		Sub-Total:	6,855
		Total Connected Ampacity:	19.03
		Total Connected Load %:	10%

Notes:

AF	Arc Fault Circuit Interrupter
GF	Ground Fault Circuit Interrupter
LO	Lock Out Breaker
ST	Shunt Trip
PNF	Provide new fuse in slot
REF	Re-use existing spare fusible switch
EX	Blank loads on panel are unknown and shall be calculated under the existing panel demand (or existing building peak demand) category in the load calculations section. Engineer offers no warranty as to the condition or load information on unknown circuit breakers.

Panel Schedule Notes:

New circuit breakers added to existing panels shall match panel manufacturer, voltage level, and fault current rating of existing protectives.

Identify main disconnects and all up and downstream disconnecting means for all circuits at panel.

Fill out branch circuit directory indicating circuit numbers, area(s) served, and load type. Index shall be neatly typed. Branch circuit directories shall be updated or replaced in all areas of alterations.

Black laminated phenolic nameplates shall be provided on all new and existing panel boards secured by #8-32 screws, lock washers, and nuts on each corner of nameplate.

Contractor may arrange circuits to suit field conditions, but loading between phases shall be +/1 10%.

Electrical Panel Schedule H2B

Volts	Phase	Wire	Panel Type	Ampacity Provided	Mount	AIC	Fed From
208/120	3Ø	4	Main Lug Only	400 Amps	Surface	TBD	MDP

Circuit #	Breaker	Poles	Notes	Description	A	B	C	A	B	C	Description	Notes	Poles	Breaker	Circuit #
1	60	2		AHU-7	5,148			5,366			AHU-8		2	60	2
3						5,148			5,366						4
5	25	2		AHU-7			2,319			4,628	AHU-6		2	45	6
7					2,319			4,628							8
9	40	2		HP-7							HP-6		2	50	10
11															12
13	60	2		AHU-9	5,148			2,548			HP-10		2	30	14
15						5,148			2,548						16
17	45	2		AHU-9			2,319			625	EHB-1		2	20	18
19					2,319			625							20
21	40	2		HP-9					625		EBH-2		2	20	22
23										625					24
25	20	1		Mechanical Receptacle	180			625			EBH-3		2	20	26
27	20	1		Mechanical Receptacle		180			625						28
29	20	1		Mechanical Receptacle			180								30
31															32
33															34
35															36
37															38
39															40
41															42

Total Connected Load Phase A:	28,906
Total Connected Load Phase B:	19,640
Total Connected Load Phase C:	10,696
Total Connected Load:	59,242 Watts

Load Description	Watts	Factor	Total
Receptacles < 10,000	540	100%	540
Receptacles > 10,000	0	50%	0
Lighting Loads	0	125%	0
Track Lighting	0Ft	75W/Ft	0
Motor Loads	0	100%	0
Largest Motor	0	125%	0
Cooling Loads	5,096	100%	5,096
Heating Loads	53,606	100%	53,606
Continuous Loads	0	125%	0
Non-Continuous Loads	0	100%	0
Kitchen Equipment Loads	0	100%	0
Existing Panel Demand		125%	0
		Sub-Total:	59,242
		Total Connected Ampacity:	164.44
		Total Connected Load %:	41%

Notes:

AF	Arc Fault Circuit Interrupter
GF	Ground Fault Circuit Interrupter
LO	Lock Out Breaker
ST	Shunt Trip
PNF	Provide new fuse in slot
REF	Re-use existing spare fusible switch
EX	Blank loads on panel are unknown and shall be calculated under the existing panel demand (or existing building peak demand) category in the load calculations section. Engineer offers no warranty as to the condition or load information on unknown circuit breakers.

Panel Schedule Notes:

New circuit breakers added to existing panels shall match panel manufacturer, voltage level, and fault current rating of existing protectives.

Identify main disconnects and all up and downstream disconnecting means for all circuits at panel.

Fill out branch circuit directory indicating circuit numbers, area(s) served, and load type. Index shall be neatly typed. Branch circuit directories shall be updated or replaced in all areas of alterations.

Black laminated phenolic nameplates shall be provided on all new and existing panel boards secured by #8-32 screws, lock washers, and nuts on each corner of nameplate.

Contractor may arrange circuits to suit field conditions, but loading between phases shall be +/1 10%.

Electrical Panel Schedule MDB

Volts	Phase	Wire	Panel Type	Ampacity Provided	Mount	AIC	Fed From
208/120	3Ø	4	Main Circuit Breaker	800 Amps	Surface	TBD	

Circuit #	Breaker	Poles	Notes	Description	A	B	C	A	B	C	Description	Notes	Poles	Breaker	Circuit #
1	200	3		Panel H1-A	6,053			2,655			Panel H2-A		3	200	2
						6,066			2,052						
3	400	3		Panel H1-B	43,900			24,928			Panel H2-B		3	400	4
						43,343			24,388						
5		3					29,259			17,992	Elevator		3	200	6
7		3											3		8

Total Connected Load Phase A:	77,536
Total Connected Load Phase B:	75,849
Total Connected Load Phase C:	55,811
Total Connected Load:	209,196 Watts

Load Description	Watts	Factor	Total
Receptacles < 10,000	10,000	100%	10,000
Receptacles > 10,000	11,160	50%	5,580
Lighting Loads	4,766	125%	5,958
Track Lighting	0Ft	75W/Ft	0
Motor Loads	0	100%	0
Largest Motor	0	125%	0
Cooling Loads	44,282	100%	44,282
Heating Loads	138,988	100%	138,988
Continuous Loads	0	125%	0
Non-Continuous Loads	0	100%	0
Kitchen Equipment Loads	0	100%	0
Existing Panel Demand		125%	0
		Sub-Total:	204,808
		Total Connected Ampacity:	568.49
		Total Connected Load %:	71%

Notes:

AF	Arc Fault Circuit Interrupter
GF	Ground Fault Circuit Interrupter
LO	Lock Out Breaker
ST	Shunt Trip
PNF	Provide new fuse in slot
REF	Re-use existing spare fusible switch
EX	Blank loads on panel are unknown and shall be calculated under the existing panel demand (or existing building peak demand) category in the load calculations section. Engineer offers no warranty as to the condition or load information on unknown circuit breakers.

Panel Schedule Notes:

New circuit breakers added to existing panels shall match panel manufacturer, voltage level, and fault current rating of existing protectives.

Identify main disconnects and all up and downstream disconnecting means for all circuits at panel.

Fill out branch circuit directory indicating circuit numbers, area(s) served, and load type. Index shall be neatly typed. Branch circuit directories shall be updated or replaced in all areas of alterations.

Black laminated phenolic nameplates shall be provided on all new and existing panel boards secured by #8-32 screws, lock washers, and nuts on each corner of nameplate.

Contractor may arrange circuits to suit field conditions, but loading between phases shall be +/1 10%.

Electrical Panel Schedule H1A

Volts	Phase	Wire	Panel Type	Ampacity Provided	Mount	AIC	Fed From
208/120	3Ø	4	Main Lug Only	200 Amps	Surface	TBD	

Circuit #	Breaker	Poles	Notes	Description	A	B	C	A	B	C	Description	Notes	Poles	Breaker	Circuit #
1	20	1		Corridor Lighting	648			207			Corridor Wall Sconce		1	20	2
3	20	1		Corridor Lighting		558			108		Corridor Wall Sconce		1	20	4
5	20	1		Corridor Lighting			396			87	Emergency Lighting		1	20	6
7	20	1		Corridor Lighting	378			360			Community Room Receptacles		1	20	8
9	20	1		Corridor Receptacles		1,080			360		Community Room Receptacles		1	20	10
11	20	1		Corridor Receptacles			1,080			500	Dishwasher		1	20	12
13	20	1		Corridor Receptacles	720			360			Community Room Receptacles		1	20	14
15	20	1		Corridor Receptacles		720			900		Community Room Receptacles		1	20	16
17	20	1		Exterior Receptacles			360			500	Corridor Water Cooler		1	20	18
19	20	1		Common Area Restroom	360			500			Elevator Cab Lighting		1	20	20
21	20	1		Mechanical Room Receptacle		180			180		Elevator Pit Receptacle		1	20	22
23	20	1		Fitness Room Receptacles			1,260			900	Office Receptacles		1	20	24
25	20	1		Resident Services Receptacles	720			720			Office Receptacles		1	20	26
27	20	1		Office Receptacles		720			540		Elevator Lobby Receptacles		1	20	28
29	20	1		Telecom Board Quad Rcpt			360			720	Wellness Room Receptacles		1	20	30
31	20	1		Telecom Board Quad Rcpt	360			360			Telecom Board Quad Rcpt		1	20	32
33	20	1		Telecom Board Quad Rcpt		360			360		Telecom Board Quad Rcpt		1	20	34
35	20	1		Telecom Board Quad Rcpt			360			360	Telecom Board Quad Rcpt		1	20	36
37	20	1		Telecom Board Quad Rcpt	360			280			North Lot Lights		1	20	38
39	20	1		South Wall Exterior Lights		256			256		North Wall Exterior Lights		1	20	40
41	20	1		South Lot Lights			280				Space				42

Total Connected Load Phase A:	6,333
Total Connected Load Phase B:	6,578
Total Connected Load Phase C:	7,163
Total Connected Load:	20,074 Watts

Load Description	Watts	Factor	Total
Receptacles < 10,000	10,000	100%	10,000
Receptacles > 10,000	6,120	50%	3,060
Lighting Loads	3,954	125%	4,943
Track Lighting	0Ft	75W/Ft	0
Motor Loads	0	100%	0
Largest Motor	0	125%	0
Cooling Loads	0	100%	0
Heating Loads	0	100%	0
Continuous Loads	0	125%	0
Non-Continuous Loads	0	100%	0
Kitchen Equipment Loads	0	100%	0
Existing Panel Demand		125%	0
		Sub-Total:	18,003
		Total Connected Ampacity:	49.97
		Total Connected Load %:	25%

Notes:

AF	Arc Fault Circuit Interrupter
GF	Ground Fault Circuit Interrupter
LO	Lock Out Breaker
ST	Shunt Trip
PNF	Provide new fuse in slot
REF	Re-use existing spare fusible switch
EX	Blank loads on panel are unknown and shall be calculated under the existing panel demand (or existing building peak demand) category in the load calculations section. Engineer offers no warranty as to the condition or load information on unknown circuit breakers.

Panel Schedule Notes:

New circuit breakers added to existing panels shall match panel manufacturer, voltage level, and fault current rating of existing protectives.

Identify main disconnects and all up and downstream disconnecting means for all circuits at panel.

Fill out branch circuit directory indicating circuit numbers, area(s) served, and load type. Index shall be neatly typed. Branch circuit directories shall be updated or replaced in all areas of alterations.

Black laminated phenolic nameplates shall be provided on all new and existing panel boards secured by #8-32 screws, lock washers, and nuts on each corner of nameplate.

Contractor may arrange circuits to suit field conditions, but loading between phases shall be +/1 10%.

Electrical Panel Schedule H1B

Volts	Phase	Wire	Panel Type	Ampacity Provided	Mount	AIC	Fed From
208/120	3Ø	4	Main Lug Only	400 Amps	Surface	TBD	MDP

Circuit #	Breaker	Poles	Notes	Description	A	B	C	A	B	C	Description	Notes	Poles	Breaker	Circuit #
1	60	2		AHU-1	5,148			5,366			AHU-3		2	60	2
3						5,148			5,366						4
5	25	2		AHU-1			2,319			4,628	AHU-3		2	45	6
7					2,319			4,628							8
9	40	2		HP-1							HP-3		2	40	10
11															12
13	60	2		AHU-2	5,148			5,148			AHU-4		2	60	14
15						5,148			5,148						16
17	25	2		AHU-2			2,319				HP-4		2	25	18
19					2,319										20
21	40	2		HP-2					5,148		AHU-8		2	60	22
23										5,148					24
25	60	2		AHU-5	5,148			2,319			AHU-8		2	25	26
27						5,148			2,319						28
29	25	2		HP-5							HP-8		2	40	30
31															32
33	20	2		EBH-1		625			625		EBH-2		2	20	34
35							625			625					36
37	20	2		EBH-3	625			180			Mech Receptacle		1	20	38
39						625			180		Mech Receptacle		1	20	40
41										180	Mech Receptacle		1	20	42

Total Connected Load Phase A:	38,348
Total Connected Load Phase B:	35,480
Total Connected Load Phase C:	15,844
Total Connected Load:	89,672 Watts

Load Description	Watts	Factor	Total
Receptacles < 10,000	540	100%	540
Receptacles > 10,000	0	50%	0
Lighting Loads	0	125%	0
Track Lighting	0Ft	75W/Ft	0
Motor Loads	0	100%	0
Largest Motor	0	125%	0
Cooling Loads	0	100%	0
Heating Loads	89,132	100%	89,132
Continuous Loads	0	125%	0
Non-Continuous Loads	0	100%	0
Kitchen Equipment Loads	0	100%	0
Existing Panel Demand		125%	0
		Sub-Total:	89,672
		Total Connected Ampacity:	248.90
		Total Connected Load %:	62%

Notes:

AF	Arc Fault Circuit Interrupter
GF	Ground Fault Circuit Interrupter
LO	Lock Out Breaker
ST	Shunt Trip
PNF	Provide new fuse in slot
REF	Re-use existing spare fusible switch
EX	Blank loads on panel are unknown and shall be calculated under the existing panel demand (or existing building peak demand) category in the load calculations section. Engineer offers no warranty as to the condition or load information on unknown circuit breakers.

Panel Schedule Notes:

New circuit breakers added to existing panels shall match panel manufacturer, voltage level, and fault current rating of existing protectives.

Identify main disconnects and all up and downstream disconnecting means for all circuits at panel.

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New Multi-Family Building:
Senior Village at Valle Green

Channingway Dr.
Fairborn, Ohio 45324

Project Number
E2M: 24175

Date
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Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
PANEL SCHEDULES

Sheet Number
E-502

Volts	Phase	Wire	Panel Type	Electrical Panel Schedule Unit A	Ampacity Provided	Mount	AIC	Fed From
120/208	1Ø	3	Main Lug Only		150 Amps	Flush	TBD	

Circuit #	Breaker	Poles	Notes	Description	A	B		A	B		Description	Notes	Poles	Breaker	Circuit #
1	20	1	AF/GF	Small Appliance							Range	AF/GF	2		2
3	20	1	AF/GF	Small Appliance											4
5	15	1	AF/GF	Range Hood							Water Heater		2	30	6
7	20	1	AF/GF	Microwave											8
9	20	1	AF/GF	Dishwasher							VTAC-1		2	30	10
11	15	1	AF/GF	Entryway											12
13	15	1	AF	Living Room							Dryer	AF/GF	2		14
15	15	1	AF	Bedroom											16
17	15	1	GF	Bathroom							Space				18
19	15	1	AF	Smoke Detectors							Space				20
21	20	1	AF/GF	Washing Machine							Space				22
23				Space							Space				24

Total Connected Load Phase A:	0
Total Connected Load Phase B:	0
Total Connected Load:	0 Watts

Load Description	Watts	Factor	Total
Receptacles < 10,000	0	100%	0
Receptacles > 10,000	0	50%	0
Lighting Loads	0	125%	0
Track Lighting	0Ft	75W/Ft	0
Motor Loads	0	100%	0
Largest Motor	0	125%	0
Cooling Loads	0	100%	0
Heating Loads	0	100%	0
Continuous Loads	0	125%	0
Non-Continuous Loads	0	100%	0
Kitchen Equipment Loads	0	100%	0
Existing Panel Demand		125%	0
		Sub-Total:	0
		Total Connected Ampacity:	0.00
		Total Connected Load %:	0%

Notes:

AF	Arc Fault Circuit Interrupter
GF	Ground Fault Circuit Interrupter
LO	Lock Out Breaker
ST	Shunt Trip
PNF	Provide new fuse in slot
REF	Re-use existing spare fusible switch
EX	Blank loads on panel are unknown and shall be calculated under the existing panel demand (or existing building peak demand) category in the load calculations section. Engineer offers no warranty as to the condition or load information on unknown circuit breakers.

Panel Schedule Notes:

New circuit breakers added to existing panels shall match panel manufacturer, voltage level, and fault current rating of existing protectives.

Identify main disconnects and all up and downstream disconnecting means for all circuits at panel.

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Black laminated phenolic nameplates shall be provided on all new and existing panel boards secured by #8-32 screws, lock washers, and nuts on each corner of nameplate.

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Volts	Phase	Wire	Panel Type	Electrical Panel Schedule Unit B	Ampacity Provided	Mount	AIC	Fed From
120/208	1Ø	3	Main Lug Only		150 Amps	Flush	TBD	

Circuit #	Breaker	Poles	Notes	Description	A	B		A	B		Description	Notes	Poles	Breaker	Circuit #
1	20	1	AF/GF	Small Appliance							Range	AF/GF	2		2
3	20	1	AF/GF	Small Appliance											4
5	20	1	AF/GF	Microwave							Water Heater		2	30	6
7	20	1	AF/GF	Dishwasher											8
9	15	1	AF	Entryway & Hallway							VTAC-1.5		2	45	10
11	15	1	AF	Living Room											12
13	15	1	AF	Bedroom 1							Dryer	AF/GF	2		14
15	15	1	AF	Bedroom 2											16
17	15	1	GF	Bathroom							Space				18
19	15	1	AF	Smoke Detectors							Space				20
21	20	1	AF/GF	Washing Machine							Space				22
23				Space							Space				24

Total Connected Load Phase A:	0
Total Connected Load Phase B:	0
Total Connected Load:	0 Watts

Load Description	Watts	Factor	Total
Receptacles < 10,000	0	100%	0
Receptacles > 10,000	0	50%	0
Lighting Loads	0	125%	0
Track Lighting	0Ft	75W/Ft	0
Motor Loads	0	100%	0
Largest Motor	0	125%	0
Cooling Loads	0	100%	0
Heating Loads	0	100%	0
Continuous Loads	0	125%	0
Non-Continuous Loads	0	100%	0
Kitchen Equipment Loads	0	100%	0
Existing Panel Demand		125%	0
		Sub-Total:	0
		Total Connected Ampacity:	0.00
		Total Connected Load %:	0%

Notes:

AF	Arc Fault Circuit Interrupter
GF	Ground Fault Circuit Interrupter
LO	Lock Out Breaker
ST	Shunt Trip
PNF	Provide new fuse in slot
REF	Re-use existing spare fusible switch
EX	Blank loads on panel are unknown and shall be calculated under the existing panel demand (or existing building peak demand) category in the load calculations section. Engineer offers no warranty as to the condition or load information on unknown circuit breakers.

Panel Schedule Notes:

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Project Number
E2M: 24175

Date
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Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
PANEL SCHEDULES

Sheet Number
E-503

LIGHT FIXTURE SCHEDULE

SYMBOL	ID	DESCRIPTION	FIXTURE INFORMATION		ELECTRIC INFORMATION		MISCELLANEOUS INFORMATION	
	A	VANITY FIXTURE	MAKE	EIKO	VOLTAGE	120V	MOUNTING	WALL
			MODEL	VANLX2-210-28W-9CCT3-120D-NI	LAMP QTY		HEIGHT	
			ALTERNATE		LAMP TYPE		NOTES	
			OTHER		WATTS	28W		
	A2	SURFACE MOUNT DISC	MAKE	AFX	VOLTAGE	120V	MOUNTING	SURFACE
			MODEL	AFX NIMBUS **(TBD)**	LAMP QTY		HEIGHT	
			ALTERNATE		LAMP TYPE		NOTES	
			OTHER		WATTS	18W		
	B	8" SURFACE MOUNT DISC	MAKE	EIKO	VOLTAGE	120V	MOUNTING	SURFACE
			MODEL	SSD-8-126-18W-830-UNV-WH	LAMP QTY		HEIGHT	
			ALTERNATE		LAMP TYPE		NOTES	
			OTHER		WATTS	18W		
	B-NL	8" SURFACE MOUNT DISC	MAKE	EIKO	VOLTAGE	120V	MOUNTING	SURFACE
			MODEL	SSD-8-126-18W-830-UNV-WH	LAMP QTY		HEIGHT	
			ALTERNATE		LAMP TYPE		NOTES	
			OTHER		WATTS	18W		
	D	14" SURFACE MOUNTED DOWNLIGHT	MAKE	RP LIGHTING	VOLTAGE	120V	MOUNTING	SURFACE
			MODEL	4326D-1-30-WH	LAMP QTY		HEIGHT	
			ALTERNATE		LAMP TYPE		NOTES	
			OTHER		WATTS	24W		
	D2	SURFACE MOUNTED DOWNLIGHT	MAKE	AFX	VOLTAGE	120V	MOUNTING	SURFACE
			MODEL	EGRF DISC	LAMP QTY		HEIGHT	
			ALTERNATE		LAMP TYPE		NOTES	
			OTHER		WATTS	22W		
	E	15" SURFACE MOUNTED DOWNLIGHT	MAKE	FEIT ELECTRIC	VOLTAGE	120V	MOUNTING	SURFACE
			MODEL	74212	LAMP QTY		HEIGHT	
			ALTERNATE		LAMP TYPE		NOTES	
			OTHER		WATTS	22.5W		
	G	FAN WITH LIGHT FIXTURE	MAKE	WESTINGHOUSE	VOLTAGE	120V	MOUNTING	SURFACE
			MODEL	7205100	LAMP QTY		HEIGHT	
			ALTERNATE		LAMP TYPE		NOTES	PROVIDE CEILING HUGGER / FLUSH MOUNT FIXTURE W/O DOWN ROD
			OTHER	LIGHT MAPLE BLADES	WATTS	60W		
	H	5" RECESSED CAN LIGHT	MAKE	ENVISION LED LIGHTING	VOLTAGE	120V	MOUNTING	SURFACE
			MODEL	LED0SLDSKR-5-10W-5CCT-WH	LAMP QTY		HEIGHT	
			ALTERNATE		LAMP TYPE		NOTES	
			OTHER		WATTS	10W		
	R	5" RECESSED CAN LIGHT	MAKE	CSL LIGHTING	VOLTAGE	120V	MOUNTING	RECESSED
			MODEL	ED5-AIC-30-90-50-30-S/ED5-R-F-ST-WT	LAMP QTY		HEIGHT	
			ALTERNATE		LAMP TYPE		NOTES	MUST BE ICAT RATED
			OTHER		WATTS	30W		
	WS-NL	WALL SCONCE	MAKE	AFX	VOLTAGE	120V	MOUNTING	WALL
			MODEL	WAS SERIES **(TBD)**	LAMP QTY		HEIGHT	
			ALTERNATE		LAMP TYPE		NOTES	
			OTHER		WATTS	9W		
	EM	EMERGENCY EGRESS LIGHT	MAKE	LSI	VOLTAGE	120V	MOUNTING	WALL
			MODEL	EAR LED UNV WHT	LAMP QTY		HEIGHT	
			ALTERNATE		LAMP TYPE		NOTES	
			OTHER		WATTS	3W		
	EMX	EMERGENCY / EXIT EGRESS LIGHT	MAKE	LSI	VOLTAGE	120V	MOUNTING	WALL
			MODEL	LPRX R U WH LD11	LAMP QTY		HEIGHT	
			ALTERNATE		LAMP TYPE		NOTES	
			OTHER		WATTS	3W		
	ER	EMERGENCY EGRESS REMOTE HEADS	MAKE	LSI	VOLTAGE	120V	MOUNTING	WALL
			MODEL	2PRLED SD2 WI	LAMP QTY		HEIGHT	
			ALTERNATE		LAMP TYPE		NOTES	
			OTHER		WATTS			
	P1	LED POLE LIGHT	MAKE	LITHONIA	VOLTAGE	120V	MOUNTING	POLE
			MODEL	DSX1 LED P2 40K T3M MVOLT	LAMP QTY		HEIGHT	20'-0"
			ALTERNATE		LAMP TYPE		NOTES	
			OTHER		WATTS	70W		
	P2	LED POLE LIGHT	MAKE	LITHONIA	VOLTAGE	120V	MOUNTING	POLE
			MODEL	DSX1 LED P2 40K T4M MVOLT	LAMP QTY		HEIGHT	20'-0"
			ALTERNATE		LAMP TYPE		NOTES	
			OTHER		WATTS	70W		
	WP1	LED WALL PACK	MAKE	LITHONIA	VOLTAGE	120V	MOUNTING	SURFACE
			MODEL	WDGE2 LED P3 40K 70CRI TFTM	LAMP QTY		HEIGHT	17'-0"
			ALTERNATE		LAMP TYPE		NOTES	
			OTHER		WATTS	32W		
	WP2	LED WALL PACK	MAKE	LITHONIA	VOLTAGE	120V	MOUNTING	SURFACE
			MODEL	WDGE2 LED P3 40K 70CRI T3M	LAMP QTY		HEIGHT	17'-0"
			ALTERNATE		LAMP TYPE		NOTES	
			OTHER		WATTS	32W		

NOTES
1. FIXTURES WITH THE SUFFIX "-EM" ATTACHED TO THE ID OR SHOWN HALF SHADED ARE EMERGENCY FIXTURES. SEE ELECTRICAL GENERAL NOTES FOR MORE INFORMATION.
2. FIXTURES WITH THE SUFFIX "-NL" ARE NIGHT LIGHTS. SEE ELECTRICAL GENERAL NOTES FOR MORE INFORMATION.

DESIGNATIONS
-N NEW
-E EXISTING
-D DEMO
-R RELOCATED

Load Calculations - NEC 2023 Example D2(a)

2 Bedroom Type B

Lighting & Receptacles	Square Feet	Watts/ft²		
Floor Area	882	3	2646	
	882	**Sub-total**	2646	W
General Loads			**Watts**	
Lighting & Receptacles			2,646	
(2) Small Appliance Circuits			3,000	
		Sub-total	5,646	W
Water, Range, & Laundry Loads				
Range	1.00	8,000	8,000	
Microwave	1.00	1,000	1,000	
Laundry Circuit	1.00	1,500	1,500	
Clothes Dryer	1.00	5,000	5,000	
Water Heater	1.00	4,500	4,500	
		Sub-total	20,000	W
First 10 Kva @ 100%	10,000	100%	10,000	
Remainder at 40%	15,646	40%	6,258	
		Sub-total	16,258	
HVAC Load	**Watts**	**Demand**	**Total**	
VTAC-1.5	8,902	1.00	8,902	
		Total Connected Load	8,902	W
All Loads	**Quantity**	**Watts**		
General Loads	1.00	16,258	16,258	
Heating Load	1.00	8,902	8,902	
		Total Connected Load	25,160	W
		Ampacity Required	105	A
		Ampacity Provided	150	A

Load Calculations - NEC 2023 Example D2(a)

1 Bedroom Type A

Lighting & Receptacles	Square Feet	Watts/ft²		
Floor Area	698	3	2,094	
	698	**Sub-total**	2,094	W
General Loads			**Watts**	
Lighting & Receptacles			2,094	
(2) Small Appliance Circuits			3,000	
		Sub-total	5,094	W
Water, Range, & Laundry Loads				
Range	1.00	8,000	8,000	
Microwave	1.00	1,000	1,000	
Laundry Circuit	1.00	1,500	1,500	
Clothes Dryer	1.00	5,000	5,000	
Water Heater	1.00	4,500	4,500	
		Sub-total	20,000	W
First 10 Kva @ 100%	10,000	100%	10,000	
Remainder at 40%	15,094	40%	6,038	
		Sub-total	16,038	W
HVAC Loads	**Watts**	**Demand**	**Total**	
VTAC-1	6,157	1.00	6,157	
		Total Connected Load	6,157	W
All Loads	**Quantity**	**Watts**		
General Loads	1.00	16,038	16,038	
HVAC Loads	1.00	6,157	6,157	
		Total Connected Load	22,195	W
		Ampacity Required	92	A
		Ampacity Provided	150	A

PROJECT GENERAL NOTES

1. THE DRAWINGS ARE DIAGRAMMATIC ONLY AND INDICATE THE GENERAL ARRANGEMENT OF THE SYSTEMS AND ARE TO BE FOLLOWED INSOFAR AS POSSIBLE. IF DEVIATIONS FROM THE LAYOUTS ARE NECESSITATED BY FIELD CONDITIONS, DETAILED LAYOUTS OF THE PROPOSED DEPARTURES SHALL BE SUBMITTED IN WRITING TO THE ENGINEER FOR REVIEW BEFORE PROCEEDING WITH THE WORK.
2. THE ELECTRICAL CONTRACTOR SHALL REVIEW ALL DRAWINGS IN DETAIL AS THEY MAY RELATE TO THEIR WORK.
3. EACH CONTRACTOR SHALL INSPECT THE SITE ON WHICH THE WORK IS TO BE PERFORMED, AND THE OBSTACLES THAT MAY BE ENCOUNTERED, AND ALL RELEVANT MATTERS CONCERNING THE WORK.
4. THE CONTRACTOR SHALL FILE ALL NECESSARY NOTICES, OBTAIN AND PAY FOR ALL PERMITS, FEES, AND OTHER COSTS INCLUDING UTILITY CONNECTIONS OR EXTENSION, IN CONNECTION WITH HIS WORK. AS NECESSARY, HE SHALL FILE ALL REQUIRED PLANS, PREPARE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS OF ALL UTILITY AND GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION.
5. IGNORANCE OF CODES, RULES, AND REGULATIONS, UTILITY COMPANY REQUIREMENTS, LAWS, ETC. SHALL NOT DIMINISH OR ABSOLVE CONTRACTOR'S RESPONSIBILITIES TO PROVIDE AND COMPLETE ALL WORK IN COMPLIANCE WITH SUCH.
6. ALL MATERIALS FURNISHED AND ALL WORK INSTALLED SHALL COMPLY WITH THE CURRENT EDITION OF THE KENTUCKY MECHANICAL CODES, NATIONAL FIRE CODES OF THE NATIONAL FIRE PROTECTION ASSOCIATION AND WITH THE REQUIREMENTS OF ALL GOVERNMENTAL AGENCIES OR DEPARTMENTS HAVING JURISDICTION.

PANEL SCHEDULE NOTES

1. NEW CIRCUIT BREAKERS ADDED TO EXISTING PANELS SHALL MATCH PANEL MANUFACTURER, VOLTAGE LEVEL AND FAULT CURRENT RATING OF EXISTING PROTECTIVES.
2. IDENTIFY MAIN DISCONNECTS AND ALL UP AND DOWNSTREAM DISCONNECTING MEANS FOR ALL CIRCUITS AT PANEL.
3. FILL OUT BRANCH CIRCUIT DIRECTORY INDICATING CIRCUIT NUMBERS, AREA(S) SERVED, AND LOAD TYPE. INDEX SHALL BE NEATLY TYPED. BRANCH CIRCUIT DIRECTORIES SHALL BE UPDATED OR REPLACED IN ALL AREAS OF ALTERATIONS.
4. BLACK LAMINATED PHENOLIC NAMEPLATES SHALL BE PROVIDED ON ALL NEW AND EXISTING PANEL BOARDS SECURED BY #8-32 SCREWS, LOCK WASHERS AND NUTS ON EACH CORNER OF NAMEPLATE.
5. CONTRACTOR MAY ARRANGE CIRCUITS TO SUIT FIELD CONDITIONS, BUT LOADING BETWEEN PHASES SHALL BE +/- 10%.

LIGHTING PLAN SYMBOL LEGEND

TYPICAL FIXTURE	LIGHTING FIXTURE EXISTING TO REMAIN
TYPICAL FIXTURE	LIGHTING FIXTURE TO BE REMOVED FROM LOCATION. SEE PLAN FOR NEW FIXTURE LOCATION (IF ANY).
TYPICAL FIXTURE	SHADING INDICATES THAT A FIXTURE IS WIRED TO A NIGHT LIGHT OR EMERGENCY TYPE CIRCUIT. FIXTURE SHALL BE WIRED IN ACCORDANCE WITH N.E.C. ARTICLE 700.
A-# TYPICAL FIXTURE X (a)	"X" = FIXTURE TYPE A-# = CIRCUIT NUMBER ab = SWITCH LEG
$	TOGGLE SWITCH
$3	THREE-WAY TOGGLE SWITCH
$O	OCCUPANCY SENSOR
$D	LOW VOLTAGE DIMMER
LRP	LIGHTING RELAY PANEL
OS	CEILING MOUNTED OCCUPANCY SENSOR

N = NEW E = EXISTING R = RELOCATED D = DEMO F = FUTURE
+0" = MOUNTING HEIGHT OF THE DEVICE ABOVE FINISHED FLOOR.

Building Service Calculations - NEC 2023 220.84

General Loads	Quantity	Watts		
1 Bed A	44	5,094	224,136	
2 Bed B	26	5,646	146,796	
		Total General Loads	370,932	W
Water, Range, & Laundry Loads	**Quantity**	**Watts**		
1 Bed A	44	20,000	880,000	
2 Bed B	26	20,000	520,000	
		Total Loads	1,400,000	W
HVAC Loads	**Quantity**	**Watts**		
1 Bed A	44	6,157	270,908	
2 Bed B	26	8,902	231,452	
		Total Loads	502,360	W
Total General Loads			370,932	
Total Water, Range, Laundry			1,400,000	
Total HAVC Loads			502,360	
		Total Dwelling Unit Loads	2,273,292	W
Dwelling Units Total				
Total Connect Load			2,273,292	
Demand Factor (220.84)			0.23	
		Total Dwelling Unit Loads	522,857	W
Totals				
Dwellings Units			522,857	
		Total Connected Load	522,857	W
		Ampacity Required	1,451	A
		Ampacity Provided	1,600	A

MDP Service Calculations - NEC 2023 220.84

General Loads	Quantity	Watts		
H-1A	1	28,223	28,223	
H-1B	1	129,362	129,362	
H-2A	1	19,855	19,855	
H-2B	1	77,416	77,416	
		Total General Loads	254,856	W
House Panels Total				
Total Connect Load			254,856	
Demand Factor (220.84)			1.00	
		Total House Panel Loads	254,856	W
Totals				
House Panels			254,856	
		Total Connected Load	254,856	W
		Ampacity Required	707	A
		Ampacity Provided	800	A

ELECTRICAL GENERAL NOTES

1. THE TERM "PROVIDE" SHALL MEAN CONTRACTOR SHALL FURNISH AND INSTALL ITEMS AND CONNECT AS REQUIRED TO OBTAIN A COMPLETE WORKING SYSTEM.
2. RECEPTACLES SHALL BE CIRCUITED WITH A SEPARATE GROUND WIRE. RECEPTACLES PROTECTED BY GROUND FAULT CIRCUIT INTERRUPTER DEVICES SHALL EACH HAVE A SEPARATE NEUTRAL WIRE PULLED FOR THAT CIRCUIT.
3. ALL CONDUIT SHALL BE RUN CONCEALED WHEREVER POSSIBLE ABOVE CEILINGS, INSIDE WALLS, OR UNDER FLOOR SLAB (ONLY WHERE SHOWN DASHED ON PLAN), UNLESS OTHERWISE NOTED ON PLAN. IN HIGH-BAY (NO CEILING) AREAS, RUN EXPOSED CONDUIT HIGH AS POSSIBLE. ALL CONDUIT SHALL BE RUN PARALLEL OR PERPENDICULAR TO NEARBY SURFACES OR STRUCTURAL MEMBERS AND FOLLOW THE SURFACE CONTOURS AS MUCH AS PRACTICAL. NO NONMETALLIC CONDUIT SHALL BE RUN IN AIR RETURN PLENUM.
4. FROM EACH TELEPHONE, CRT, TV, ETC., COMMUNICATION TYPE OUTLET, PROVIDE A (MIN.) 3/4-INCH CONDUIT (WITH PULL STRING) STUBBED ABOVE LAY-IN CEILING, UNLESS OTHERWISE NOTED.
5. TELEPHONE AND OTHER COMMUNICATIONS WIRING SHALL BE PLENUM RATED IF CONDUCTORS PASS THROUGH AN AIR RETURN PLENUM.
6. ELECTRICAL DRAWINGS SHALL BE COORDINATED WITH ASSOCIATED MECHANICAL DRAWINGS AND MECHANICAL CONTRACTOR FOR MOTORS, DEVICES, FIXTURES, ETC., FOR EXACT LOCATIONS BEFORE ROUGH-IN OF CONDUIT SYSTEM.
7. MINIMUM CONDUIT SIZE IS 3/4 INCH, MINIMUM WIRE SIZE IS #12 AWG, UNLESS OTHERWISE NOTED ON PLANS OR IN CIRCUIT REVIEWS.
8. MOUNTING HEIGHTS ABOVE FINISHED FLOOR (A.F.F.) ARE TO CENTER OF DEVICE UNLESS NOTED OTHERWISE.
9. ALL WIRING SHALL BE INSTALLED PER THE NATIONAL ELECTRIC CODE (NEC). ALL WIRING SHALL BE SECURED AND SUPPORTED PER NEC 300.11.
10. CONTRACTOR SHALL INCLUDE THE COST TO SECURE ALL APPLICABLE PERMITS IN BASE BID.
11. ALL RECEPTACLES IN THE KITCHEN/PREP AREA SHALL BE GFCI WHETHER SHOWN AS SUCH OR NOT.
12. ALL EXIT AND EMERGENCY LIGHTING SHALL BE WIRED EITHER AHEAD OF LOCAL SWITCHING ON THE LOCAL AREA CIRCUIT OR ON A DEDICATED EXIT/EMERGENCY CIRCUIT. THE METHOD CHOSEN SHALL MEET THE REQUIREMENTS OF N.E.C. ARTICLE 700 AND THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION.
13. ALL 120V AND 277V CIRCUITS SHALL HAVE A DEDICATED NEUTRAL. SHARING A NEUTRAL CONDUCTOR IS PROHIBITED.
14. ALL RECEPTACLES BEHIND VENDING MACHINES AND REFRIGERATORS TO BE GFCI WITH REMOTE AND OR ACCESSIBLE RESET.

POWER PLAN SYMBOL LEGEND

+0"	SIMPLEX RECEPTACLE MOUNT AT +18" A.F.F. UNLESS OTHERWISE NOTED
+0"	DUPLEX RECEPTACLE MOUNT AT +18" A.F.F. UNLESS OTHERWISE NOTED
+0"	SPECIAL USE DEDICATED RECEPTACLE MOUNT AT +18" A.F.F. UNLESS OTHERWISE NOTED REFER TO PANEL SCHEDULE FOR MORE INFORMATION
+0"	GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE MOUNT AT +18" A.F.F. UNLESS OTHERWISE NOTED
+0"	WEATHER PROOF RECEPTACLE MOUNT AT +18" A.F.F. UNLESS OTHERWISE NOTED
+0"	QUADRUPLEX RECEPTACLE MOUNT AT +18" A.F.F. UNLESS OTHERWISE NOTED
+0"	QUADRUPLEX GFCI RECEPTACLE MOUNT AT +18" A.F.F. UNLESS OTHERWISE NOTED
	SIMPLEX RECEPTACLE WITH SPECIAL MOUNTING REQUIREMENTS. CLG = CEILING MOUNTED, CORD = CORD DROP, BLANK = FLOOR MOUNTED.
	DUPLEX RECEPTACLE WITH SPECIAL MOUNTING REQUIREMENTS. CLG = CEILING MOUNTED, CORD = CORD DROP, BLANK = FLOOR MOUNTED.
	QUADRUPLEX RECEPTACLE WITH SPECIAL MOUNTING REQUIREMENTS. CLG = CEILING MOUNTED, CORD = CORD DROP, BLANK = FLOOR MOUNTED.
+0"	TELEPHONE JACK MOUNT AT +18" A.F.F. UNLESS OTHERWISE NOTED
+0"	DATA JACK MOUNT AT +18" A.F.F. UNLESS OTHERWISE NOTED
+0"	COMBINATION COMPUTER / PHONE JACK MOUNT AT +18" A.F.F. UNLESS OTHERWISE NOTED
+0"	TELEVISION JACK MOUNT AT +18" A.F.F. UNLESS OTHERWISE NOTED
FLOOR MOUNTED VOICE/DATA BASE POWER INPUT CONNECTION	WALL MOUNTED VOICE/DATA BASE POWER INPUT CONNECTION
	JUNCTION BOX
	NON-FUSED DISCONNECT
	FUSED DISCONNECT
	POWER POLE
	COMBINATION POWER/COMMUNICATIONS FLOOR BOX WITH DUPLEX RECEPTACLE AND (2) DATA JACKS.
FLOOR MOUNTED BASE POWER INPUT	WALL MOUNTED BASE POWER INPUT
M 1Ø MOTOR CONNECTION	M 3Ø MOTOR CONNECTION
A EXISTING A NEW	FLUSH MOUNTED PANEL A = PANEL DESIGATION
A EXISTING A NEW	SURFACE MOUNTED PANEL A = PANEL DESIGATION
	METER
A-B	HOME RUN A = PANEL DESIGATION B = CIRCUIT NUMBER

N = NEW E = EXISTING R = RELOCATED D = DEMO F = FUTURE
+0" = MOUNTING HEIGHT OF THE DEVICE ABOVE FINISHED FLOOR.

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682 TUXEDO PLACE
CINCINNATI, OH 45206
TEL: 513.587.0050
www.e2m-eng.com

New Multi-Family Building:
Senior Village at Valle Green

Channingway Dr.
Fairborn, Ohio 45324

Project Number
E2M: 24175

Date
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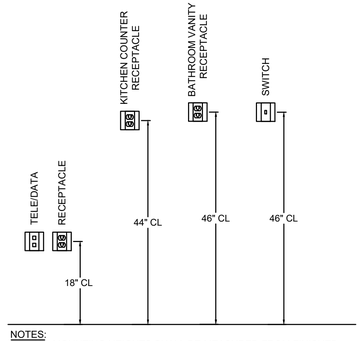
Date	Issue
9/13/24	OHFA 80% REVIEW

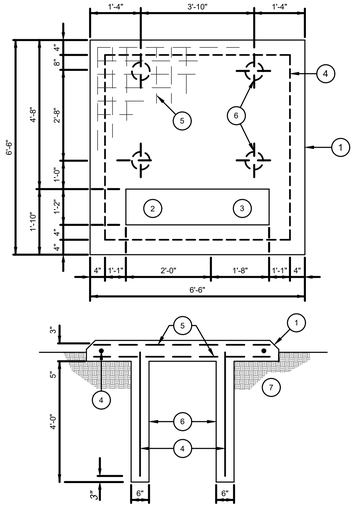
Sheet Title
ELECTRICAL NOTES AND SCHEDULES

Sheet Number
E-504



NOTES:
1. ALL MOUNTING HEIGHTS SHALL BE MEASURED FROM FINISHED FLOOR TO CENTERLINE OF DEVICE
2. DEVICES SHALL BE INSTALLED ON A COMMON VERTICAL LINE WHEREVER POSSIBLE
3. ALL DEVICES SHALL BE INSTALLED AT MOUNTING HEIGHTS AS INDICATED ON THIS DETAIL UNLESS NOTED OTHERWISE

3 / E-601 TYPICAL MOUNTING DETAIL
SCALE: NONE

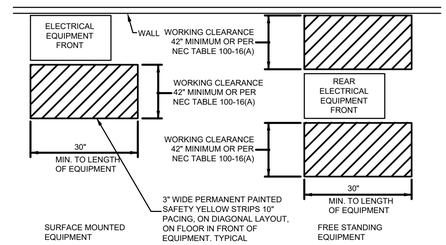


Notes:

1. CONCRETE PAD WITH MINUMUM STRENGTH OF 35,000 PSI AFTER 28 DAYS. CHAMFER ALL EDGES. NO JOINTS ARE ACCEPTABLE IN THE PAD. THE TOP SHALL BE LEVEL AND SMOOTH.
2. SECTION BOXED OUT FOR PRIMARY CABLES AND CONDUITS. TERMINATE CONDUITS WITH INSULATED BUSHINGS LEVEL WITH TOP OF PAD.
3. SECTION BOXED OUT FOR SECONDARY CABLES, METERING CABLES AND CONDUITS. TERMINATE CONDUITS WITH INSULATED BUSHINGS LEVEL WITH TOP OF PAD.
4. #4 REINFORCING ROD BENT TO EXTEND AROUND THE PERIMETER OF THE PAD. LOCATE 4" FROM SIDES OF PAD. NO BREAKERS IN REIFORCING SHALL BE ALLOWED IN FRONT HALF OF PAD.
5. TWO LAYERS OF REINFORCING MESH 6" X 6", NO. 4 WIRE TO 2" FROM ALL SIDES OR EDGES, TOP OR BOTTOM OF CONCRETE.
6. FOUR 6" DIAMETER FOOTINGS INTO UNDISTURBED EARTH. EACH FOOTING SHALL HAVE ONE #4 REINFORCING BAR EXTENDING WITHIN 3" OF THE BOTTOM OF THE FOOTING WITH AN ADDITIONAL 6" BEND INTO THE CONCRETE PAD.
7. WHERE EARTH UNDER THE CONCRETE PAD IS DISTURBED, BACKFILL WITH CLEAN DIRT HAVING NO ROCKS OR OTHER DEBRIS AND TAMP. SAND BACKFILL SHALL NOT BE ACCEPTABLE.

TRANSFORMER PAD DETAILS ARE FOR BIDDING ONLY. VERIFY EXACT REQUIREMENTS WITH UTILITY COMPANY.

2 / E-601 TRANSFORMER PAD DETAIL
SCALE: NONE



NOTES:
1. PAINTED AREAS (DENOTING NEC "WORKING CLEARANCE") REQUIRED IN MECHANICAL ROOMS, CLOSETS AND OTHER AREAS AS SHOWN ON THE DRAWINGS OR IN THE AREAS REQUESTED BY THE ENGINEER.
2. PAINTED AREAS NOT TO BE PROVIDED IN CORRIDORS, OFFICES AND FINISHED ROOMS.
3. PAINTING TO BE PROVIDED AS SOON AS FLOOR INSTALLATION ALLOWS. AREAS ARE TO BE RE-PAINTED BEFORE OCCUPANCY. 4. PAINT SHALL BE GLIDDEN URETHANE GLOSS ENAMEL, NO. 6000 SERIES OR APPROVED EQUAL.

1 / E-601 NEC WORKING CLEARANCE DETAIL
SCALE: NONE

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Project Number
E2M: 24175

Date
--

Date	Issue
9/13/24	OHFA 80% REVIEW

Sheet Title
ELECTRICAL DETAILS

Sheet Number
E-601

APPENDIX S
SIGNATURE PAGE

Signature of Responsible Individuals, Senior Village at Valle Greene

Determination of the Ohio Department of Development:

On the basis of the environmental assessment of the above project, I have made the following finding:

☐ Finding of No Significant Impact (FONSI) [24 CFR 58.40(g)(1); 40 CFR 1508.27]
The project will not result in a significant impact on the quality of the human environment.

☐ Finding of Significant Impact [24 CFR 58.40(g)(2); 40 CFR 1508.28]
The project may significantly affect the quality of the human environment.

CEO Name: Lydia L. Mihalik
Director, Ohio Department of Development

Address: 77 South High Street
Columbus, Ohio 43215

Signature: _____

Date: _____