

CITY OF AVON LAKE PLANNING COMMISSION 150 Avon Belden Road Avon Lake, Ohio 44012 (440) 930-4110

AGENDA Tuesday, August 5, 2025 7:00 PM City Council Chambers

Voting Order

- J. Leitch
- H. Ma
- S. Orille
- C. Raymond
- G. Smith
- M. Spaetzel
- R. Haas

ROLL CALL:

Mr. Haas, Mr. Leitch, Dr. Ma, Mr. Orille, Mrs. Raymond, Mr. Smith, Mayor Spaetzel, Director of Law Ebert, Engineer Howard, Community Development Director Esborn, and Planning and Zoning Manager La Rosa.

- 1. APPROVAL OF JULY 1, 2025, MEETING MINUTES
- 2. GENERAL CORRESPONDENCE/ANNOUNCEMENTS
- 3. COUNCIL REPORT
- 4. SWEARING IN PUBLIC COMMENTERS
- 5. TABLED CASES:

Case No. CPC-25-9, Pulte Homes of Ohio, LLC, Major Subdivision Preliminary Plat Approval for Harbor Crest Townhome Subdivision, located in the southeast corner of Walker Road and Avon-Belden Road (SR 83).

Applicable Code Sections: 1214.05: Major Subdivision and 1238: Subdivision Design Standards apply.

6. NEW CASES

Case No. CPC-25-11, Ford Motor Company, Ohio Assembly Plant, Site Plan Approval for the Construction of a New Vehicle Test Track and Installation of a New Stormwater Retention Basin.

Applicable Code Section: 1214.06 Site Plans apply.

- 7. OTHER BUSINESS
- 8. GENERAL PUBLIC COMMENT
- 9. ADJOURNMENT

The next regular meeting of the Planning Commission is Wednesday, September 3, 2025.

MINUTES OF THE AVON LAKE PLANNING COMMISSION MEETING July 1, 2025

A regular meeting of the Avon Lake Planning Commission was called to order on July 1, 2025, at 7:00 P.M. in Council Chambers with Chairperson Ma presiding.

ROLL CALL

Present for roll call were Mr. Haas, Dr. Ma, Mr. Leitch, Mr. Orille, Mrs. Raymond, Mr. Smith, Mayor Spaetzel, Director of Law Ebert, City Engineer Howard, Community Development Director Esborn, and Planning and Zoning Manager La Rosa.

APPROVAL OF MINUTES

Mr. Haas moved, and Mrs. Raymond seconded to approve the June 3, 2025, meeting minutes as presented. Motion carried (7-0).

GENERAL CORRESPONDENCE & ANNOUNCEMENTS

Email from Lori Glenn of 32069 Kossuth Drive objecting to the Handford Blvd extension, citing traffic, safety, and transparency concerns.

Email from Helen Zdrojewski of 621 Brust Drive regarding the unfulfilled MOU for gate installation at Handford Blvd, tied to the Port Side development.

No Planning Commission action is required; correspondence was included in the Commission's packets.

COUNCIL REPORT

Mr. Smith advised that the Avon Center Estates preliminary plat was approved, and the final plats for Sandridge and Port Side Townhomes had their first reading.

SWEARING IN PUBLIC COMMENTERS

Law Director Ebert administered the oath to all individuals providing public comments during the meeting.

Dr. Ma announced a procedural adjustment to enhance transparency and public participation. Beginning with this meeting, public comments for each case will be accepted after the Planning Commission's discussion and questions, but before any motion or vote.

Dr. Ma explained that under the previous format, public comment was reserved until the end of the meeting, which limited the public's ability to provide timely input on specific agenda items before decisions were made. By repositioning the public comment period within the order of business—following commissioner discussion but before action is taken—residents and stakeholders would have a more meaningful opportunity to contribute to the deliberation process. She emphasized that this change applies specifically to comments related to individual cases on the agenda, while general public comments would still be welcomed at the end of the meeting.

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NEW CASES

Case No. CPC-25-9, Pulte Homes of Ohio, LLC, Major Subdivision Preliminary Plat Approval for Harbor Crest Townhome Subdivision, located in the southeast corner of Walker Road and Avon-Belden Road (SR 83). Applicable Code Sections: 1214.05: Major Subdivision and 1238: Subdivision Design Standards apply.

James Sayler of The Henry G. Reitz Engineering Company, representing Pulte Homes of Ohio, presented the preliminary subdivision plat for the proposed Harbor Crest Townhomes, located at the southeast corner of Walker Road and Avon-Belden Road (SR 83). Mr. Sayler was accompanied by Keith Filipkowski from Pulte Homes and confirmed that both had been sworn in for testimony.

Mr. Sayler began by noting that this project was not new to the Planning Commission, having previously appeared in work session format and as part of a rezoning request. He explained that feedback received from both the Administration and the Commission during those earlier meetings was incorporated into the current preliminary plat. The plat presented maintained the same layout and unit count as the prior concept but included more detailed engineering and design documents.

Mr. Sayler described the project as a 73-unit townhome development that would be constructed in two phases. Phase 1 would begin from the Avon-Belden Road (SR 83) entrance and include lots 1 through 42. Phase 2 would extend south and connect to Walker Road. The lot numbering was updated to reflect the phasing sequence.

Mr. Sayler highlighted several plan features:

- **Drainage Improvements**: In response to concerns raised by adjacent property owner Mr. Wolfe, the plan includes enhanced drainage design near his property to prevent stormwater runoff from the new development.
- Recreational Space: A pocket park and hardscape gathering area, shown previously during the rezoning process, was now formally included in the plan.
- Traffic Analysis: A traffic study has been completed and reviewed by an independent consultant retained by the city. While the study noted no current conflicts, it suggested relocating the development's entrance on SR 83 to better align with Huntington Bank's northern curb cut. Mr. Sayler stated that shifting the entrance could negatively affect the design and reduce space available for stormwater detention and recommended retaining the current location.
- **Engineering Review:** Mr. Sayler acknowledged comments from City Engineer Howard, including a request to conduct an auto-turn analysis for safety vehicle access, a lot consolidation review, and feedback on the traffic study. He committed to providing additional information as needed during the improvement plan phase.
- **Zoning Comments:** Mr. Sayler addressed two outstanding items, including establishing an easement or access plan for potential future connectivity at the southern stub street and reconsideration of a second exit lane for left-turning vehicles onto Avon-Belden Road, which Pulte preferred not to include due to limited space and minimal traffic impact.
- Landscape and Assembly Plans: A landscape plan by the EDGE Group was submitted and included in the application. Mr. Sayler noted that the applicant had resubmitted an updated lot assembly plan for engineering review and was in the process of finalizing deeds for property consolidation before construction.

Mr. Sayler concluded by reaffirming Pulte's willingness to collaborate with the city to resolve outstanding technical details and respond to any further questions from staff or Commission members.

Planning Commission comments focused on the following:

- Entry Drive Alignment [Avon-Belden Road (SR 83) / Huntington Bank]: Concerns were raised about the proposed entrance on Avon-Belden Road (SR 83) not aligning with Huntington Bank's drive. It was noted that misaligned curb cuts could lead to future traffic conflicts, especially with left-turning vehicles entering or exiting either site. There was discussion about whether the entrance could be moved slightly south or otherwise to improve spacing and safety.
- Lack of Left-Turn Exit Lane [Avon-Belden Road (SR 83)]: The absence of a dedicated left-turn lane for vehicles exiting onto Avon-Belden Road (SR 83) was identified as a potential cause of traffic congestion and safety concerns. It was noted that this could result in delays, stacking, and future complaints from residents. Additionally, once construction is complete, the city may have limited options to mitigate these issues if a turn lane is not incorporated during development.
- Southern Stub Street Connection: Considerable discussion focused on whether the southern stub street should remain open for future interconnection or be closed. Concerns were raised about potential complications based on past experiences with unresolved or disputed private street connections. Some suggested that the stub be closed and landscaped, unless or until a formal agreement for future access is reached.
- Parking Availability and On-Street Parking Limitations: Concerns were expressed regarding limited guest parking, particularly near the Walker Road end of the site. Questions were posed regarding the potential for residents to improperly store vehicles in common areas, such as near the mailbox cluster. It was noted that the 22-foot-wide private streets do not accommodate on-street parking, further limiting available space.
- Comprehensive Plan Consistency / Mixed-Use Vision: Questions were raised about whether the proposal fully aligns with the city's Comprehensive Plan, which envisions a mixed-use, walkable Town Center. While the plan encourages increased housing diversity and density, it also emphasizes integration with retail or civic uses, elements not included in the Harbor Crest proposal. Director Esborn clarified the distinction between the general mixed-use land use designation and the formal Mixed Use Overlay District, which was not applied to this site.
- Stub Street Circulation / Waste Collection: Inquiries were made about how waste collection vehicles would service the units along the stub street and whether adequate turning space is provided. The applicant responded that no turnaround is proposed, noting this approach is consistent with how similar stub streets are currently serviced in Avon Lake.
- **Lighting Plan Details**: The Commission asked about the provision of street lighting along the private roads. Mr. Filipkowski stated that lighting would be coordinated with FirstEnergy and supplemented by coach lights on the exterior of each unit. However, a detailed photometric plan was not presented.
- Neighbor Coordination / Landscape Buffering: Inquiries were made about outreach to adjacent
 property owners, particularly those along the shared property lines. Mr. Filipkowski reported
 having positive communication with Mr. Wagner and a willingness to coordinate fence and
 landscaping placement. At the time of the meeting, no outreach occurred with the other nearby
 property owners.

- **Phasing and Infrastructure Timing**: Clarification was requested on the phasing plan and utility extensions. Mr. Sayler explained that the phasing reflects typical build-out timelines and noted that some infrastructure details would be addressed during final engineering.
- Clarification of Traffic Study Terminology: It was suggested that future traffic study submissions include a legend or key to clarify abbreviations and technical terms, making the documents easier to interpret.

William Zimmerman (resident) was in opposition to the plan, citing traffic and walkability concerns.

Mr. Haas moved, and Mr. Leitch seconded to table Case No. CPC-25-9, Pulte Homes of Ohio, LLC, for Preliminary Plat Approval of the Harbor Crest Townhome Subdivision, to allow the applicant time to revise and resubmit the plan. The Commission requests that the following items be addressed and presented at the next regular Planning Commission meeting:

- 1. A revised entry configuration at Avon-Belden Road (SR 83) that explores one or more of the following: aligning the development entrance with Huntington Bank's drive, shifting the curb cut further south to improve spacing from adjacent access points, or adding a left-turn exit lane to improve outbound vehicle circulation and minimize queueing.
- 2. Clarification regarding the proposed stub street connection at the southern end of the site, including whether it will remain open for future connection or be terminated with appropriate landscaping or buffering, and how this will be addressed in the HOA governing documents.
- 3. Confirmation that the applicant will meet with the Development Review Committee (DRC) before resubmission, to address staff and departmental concerns and ensure coordinated review of the revised plan.

Motion carried (7-0).

OTHER BUSINESS

Proposed Right-of-Way Vacations – Electric Boulevard:

A proposal to vacate portions of the Electric Boulevard right-of-way adjacent to properties owned by Anthony and Kimberly Calabrese and the Smugglers Cove Condominium Complex No. 4. The proposed vacation includes approximately 0.1505 acres (6,556 square feet) to be incorporated into the Calabrese property and approximately 0.1567 acres (6,824 square feet) to be incorporated into the Smugglers Cove parcel. Applicable Code Section: 1216.03 (c) Zoning District Map and District Boundaries, Vacation of Public Rights-of-Way applies.

The applicant, Anthony Calabrese, requested the vacation of an undeveloped portion of Electric Boulevard right-of-way, totaling approximately 0.3072 acres, to be split between his property and the adjacent Smugglers Cove Condominium Complex. Mr. Calabrese stated he intended to consolidate these parcels and build a single-family home for his family.

Director Esborn and Engineer Howard confirmed the right-of-way was unimproved and not needed for public access or utility purposes.

No opposition from other Commission members was recorded, and no additional technical concerns were raised by staff.

Mr. Smith disclosed that he had previously represented Mr. Calabrese and also owned property in Smugglers Cove. He recused himself from participating in or advising on this case.

Mr. Leitch moved, and Mayor Spaetzel seconded to approve Mr. Smith's request to abstain from voting

due to a potential conflict of interest. Motion carried: (6-0). Mr. Smith abstained from the vote.

Jennifer Fenderbosch (resident) raised a question about whether property owners seeking rights-of-way vacations should be required to pay the City for the land being vacated. She cited past examples during former Councilman Rob James's tenure where such compensation had been required and suggested that the City Clerk research historical precedent.

Amy Adams (Smugglers Cove resident) requested that, in addition to researching prior cases involving payment, a list showing instances where no compensation was required be provided to ensure a balanced view.

Mr. Haas moved, and Mr. Leitch seconded to vacate portions of the Electric Boulevard right-of-way adjacent to properties owned by Anthony and Kimberly Calabrese and the Smugglers Cove Condominium. Motion carried (6-0), with Mr. Smith abstaining.

Proposed Right-of-Way Vacation - Shields Avenue and Electric Boulevard

A proposal from Avon Lake Regional Water to vacate a 15.15-foot-wide portion of the Shields Avenue right-of-way and a portion of the Electric Boulevard right-of-way. The proposed vacation areas are intended to be incorporated into the Avon Lake Regional Water property for operational purposes. Applicable Code Section: 1216.03 (c) Zoning District Map and District Boundaries, Vacation of Public Rights-of-Way applies.

Director Esborn explained that this request was part of a minor subdivision and had been reviewed twice by the Development Review Committee. The land in question was formerly associated with the power plant property and was acquired by Avon Lake Regional Water for operational expansion. Engineer Howard confirmed the vacation involved paper streets not currently in use. He supported the request as a cleanup measure for the unused right-of-way. Mr. Haas asked whether the vacation would affect emergency access or connectivity. Director Esborn responded that fire and safety services had reviewed the proposal and expressed no concerns. No objections were raised by the other Commissioners. All acknowledged the vacation as appropriate for utility operations and not needed for future city infrastructure.

Jennifer Fenderbosch (resident) reiterated her earlier point from the Electric Boulevard vacation case, questioning whether the city should consider requiring payment or compensation when vacating public right-of-way, especially for large utility operators. She suggested that the Council Clerk could provide records of past vacations that involved reimbursement.

William Zimmerman (resident) requested a visual depiction of the exact area being vacated. Mr. Zimmerman was provided the map for clarification.

Mr. Haas moved, and Mr. Leitch seconded to vacate a 15.15-foot-wide portion of the Shields Avenue right-of-way and a portion of the Electric Boulevard right-of-way to property owned by Avon Lake Regional Water. Motion carried (7-0).

GENERAL PUBLIC COMMENTS

Ms. Debra Beal (resident) raised concerns during public comment about pedestrian safety at the intersection of Miller Road and Lake Road, particularly the lack of flashing lights or enhanced crosswalk features near the park. She also inquired about the demolition timeline of the Avon Lake Power Plant and whether the high-voltage power lines and the overpass/bridge would be removed.

Mayor Spaetzel stated that the City is aware of pedestrian safety concerns at this intersection. The Ohio Department of Transportation (ODOT) previously removed a traffic signal there, which limited options for installation. The City is currently working on a sidewalk improvement project in the area, sponsored by ODOT. Due to the timing and coordination with the state-funded project, the City cannot install flashing lights immediately but is considering improvements as part of the larger sidewalk project. The demolition of the power plant is progressing on schedule, with the main plant structure expected to be fully demolished by August 2025. The high-tension transmission lines and substations on the south side of the property are owned by FirstEnergy and will not be part of the demolition; they will remain in place. The overpass or bridge on the site is owned by Avon Lake Regional Water and will remain as well.

William Zimmerman (resident) praised the Planning Commission's decision to allow public comment before votes.

ADJOURNMENT

Mr. Leitch moved, and Mayor Spaetzel seconded to adjourn the meeting at 8:40 pm. Motion carrie				
Planning Commission	Recording Secretary			
Chairperson Ma	Kelly La Rosa			



Harbor Crest Townhouse Subdivision Preliminary Plat Alternatives

Supplemental Report

To: Avon Lake Planning Commission

From: Kelly La Rosa, Planning and Zoning Manager

Date: July 30, 2025

Re: Case No. CPC-25-9 Harbor Crest Townhouse Subdivision Preliminary Plat

Alternatives

Background

The Harbor Crest Townhouse Subdivision is a proposed 73-unit residential development by Pulte Homes, located on the east side of Avon Belden Road (SR 83), just south of Walker Road. The undeveloped site is adjacent to existing neighborhoods and commercial properties.

The applicant, represented by Jim Sayler of Henry G. Reitz Engineering Co., submitted a Preliminary Plat for Planning Commission review. During its July 1, 2025, meeting, the Commission expressed general support for the layout but requested alternative designs for two key elements:

- The ingress and egress on Avon Belden Road (SR 83), and
- The stub street connection at Audry Lane to the south.

This supplemental report presents those alternatives and includes updated input from safety forces, public works, and administrative staff to support the Planning Commission's final decision. These alternatives were not part of the original Development Review Committee (DRC) review, which evaluated only the initial configuration. Therefore, the departmental feedback in this report focuses specifically on the revised layouts and their potential impact on traffic flow, emergency access, and long-term planning goals.

Design Alternatives and DRC Comments

I. Avon Belden Road (SR 83) Ingress/Egress Alternatives

The original preliminary plat proposed a divided boulevard-style entrance on Avon Belden Road, slightly offset from the Huntington Bank driveway. This design allowed for a wide, deep retention



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basin that was both aesthetically pleasing and easy to maintain. In response to the Planning Commission's request to explore better alignment with the Huntington Bank entrance, Mr. Sayler presented two alternatives:

- Entry Alternate "1": Re-aligns the entry drive directly across from Huntington Bank and maintains one outbound lane.
- Entry Alternate "2": Similar to Alternate "1", but adds a dedicated left-turn lane, splitting outbound traffic movements.

These alternatives compress the stormwater basin, resulting in a reduction of the setback between the basin and the rear yards of the northern row of townhouses—from approximately 10 feet to 6 feet. Additionally, the basin's eastern portion is designed with a shallower profile, which may maintenance challenges over time, including increased potential for sediment accumulation and weed intrusion. While the overall layout remains functional, these changes may also impact emergency access along the rear of the units.

The following section summarizes the input provided by safety forces and city staff on the proposed ingress and egress alternatives.

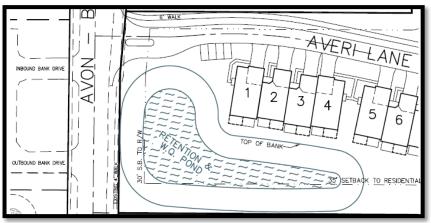


Figure 1: Excerpt Entry Original Layout Drawing

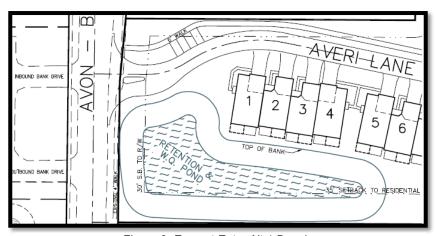


Figure 2: Excerpt Entry Alt 1 Drawing

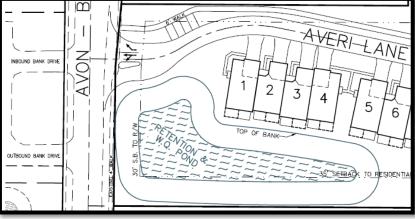


Figure 3: Excerpt Entry Alt 2 Drawing



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Fire Department

Fire Chief Betsa expressed concerns regarding the proposed alignment of the subdivision's entrance with the Huntington Bank driveway across Avon Belden Road. He indicated a preference for the original offset design, citing potential traffic safety risks associated with aligning two driveways at an uncontrolled intersection. Chief Betsa noted that if the bank's traffic pattern were to change in the future, such as allowing two-way access, the alignment could lead to dangerous, conflicting turning movements. He also opposed the inclusion of a center island at the entrance, stating it could obstruct emergency vehicle access, particularly for units approaching from the north. Additionally, he raised operational concerns about the reduced setback between the retention basin and the rear of the northern units, warning that the narrower space could limit fire personnel access or hose deployment during an emergency.

Police Department

Police Chief Robinson supported the traffic engineers' recommendation to align the development's entrance and exit with the bank's entry-only drive, expressing confidence in the technical analysis and its conclusion that this alignment would reduce overall traffic conflicts.

Public Works Department

Public Works Director Liskovec acknowledged the preference for aligning the driveway with the Huntington Bank entrance, as supported by the traffic study and past city practices. He noted that while the addition of a left-turn lane in Alternate "2" improves traffic flow, it offers limited vehicle storage—likely accommodating only two cars—which could result in queued vehicles blocking right-turn movements. Director Liskovec also expressed concern over the revised stormwater basin design, explaining that the narrower and shallower configuration, particularly along the eastern side, may pose long-term maintenance challenges due to increased sedimentation and vegetation growth. Although he did not express a strong preference between the alignment options, he emphasized the trade-offs involved, particularly for stormwater management, vehicle circulation, and emergency access.

Mayor

Mayor Spaetzel highlighted that aligning the subdivision's entrance with the Huntington Bank driveway supports both the traffic study's recommendations and the city's broader plan for coordinated access. He explained that this strategy is based on established traffic planning principles, but recognized Chief Betsa's concerns about possible turning conflicts at an uncontrolled intersection. Citing issues observed with offset driveways elsewhere in the city, Mayor Spaetzel emphasized the importance of carefully considering the traffic engineer's findings alongside departmental input to find a balance between traffic flow and public safety.

Zoning

Planning and Zoning Manager Austin Page expressed a preference for Entry Alt #2".



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II. Southeastern Stub Street at Audry Lane Alternatives

The southeastern portion of the subdivision includes a proposed stub street that would serve three units and potentially connect to undeveloped land to the south, currently owned by Mr. Hubert. The original plan features a 22-foot-long roadway extending to the southern property line to preserve the option for future interconnectivity. In response to concerns raised by the Planning Commission regarding potential neighborhood opposition to a future connection, two design alternatives were developed:

- Stub Alternate "A": reduces the length of the stub street from 22 feet to 18 feet and adds a landscaped mound at the end, reducing the number of guest parking spaces from three to two.
- Stub Alternate "B": introduces a bend in the stub street and uses angled parking to retain three guest spaces while visually discouraging future extension.

Although both alternatives are intended to soften the appearance of future roadway connections, they do not preclude it. A permanent prohibition would require a legal mechanism such as a deed restriction or recorded easement.

The proposed stub street layout and its potential for future interconnectivity were reviewed and discussed among members of DRC. While the visual alternatives aim to address immediate concerns about neighborhood impact, city staff emphasized the importance of long-term planning considerations, particularly regarding emergency access, street length, and the legal implications of future connections. The following section summarizes the input provided by safety forces and city staff on the stub street configuration.

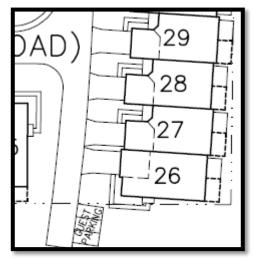


Figure 4: Excerpt Original Stub Layout

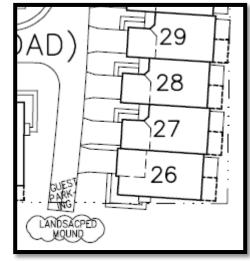


Figure 5: Excerpt Stub Alt "A"

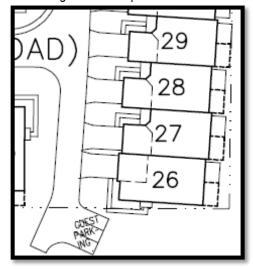


Figure 6: Excerpt Stub Alt "B"



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Fire Department

Chief Betsa supports maintaining the potential for future connectivity at the southeastern stub street, emphasizing its importance for emergency response access, even if the land nearby remains undeveloped for years. He recommends keeping the full 22-foot length of the stub to ensure safe passage for fire trucks and suggests adding a turnaround or widening the end to improve maneuverability and effectiveness during emergencies.

Police Department

Chief Robinson shares similar concerns about emergency access. He points out the risk of overflow parking on the street—especially during large events—that could block emergency vehicles, particularly if the street is narrow. He emphasizes the need for sufficient guest parking to reduce this risk and notes that enforcing parking rules on private streets is essential to maintaining clear access for safety personnel.

Public Works

Director Liskovec supports keeping the stub street's connectivity potential, aligning with the city's broader planning. He recommends maintaining the 22-foot pavement, noting that an earlier plan to reduce it to 18 feet would not support vehicle circulation or access effectively. Director Liskovec warns that visual changes—like landscaped mounds or curves—could discourage future connections, but they do not legally prohibit them.

Mayor

Mayor Spaetzel recognizes that some residents might oppose future connections but stresses that the Planning Commission must balance those concerns with the city's longstanding goal of fostering interconnectivity between developments. He points out that such connections have historically improved circulation and access, benefiting both routine traffic and emergency response.

Zoning

Manager Page expressed a preference for Stub Alt "B".

Planning Considerations and Conclusion

The Planning Commission is tasked with evaluating two key aspects of the Harbor Crest Preliminary Plat: the ingress/egress on Avon Belden Road (SR 83) and the stub street at Audry Lane. Each includes alternatives developed in response to previous feedback and departmental insights.

For the Avon Belden Road entrance, the original design includes a boulevard-style offset entry that supports a large stormwater basin with plenty of access for maintenance. Alternatives 1 and 2 align the entrance with the Huntington Bank driveway, consistent with the city's coordinated access goals. However, these options reduce the size of the retention basin, decreasing rear setbacks for the nearby townhouses and creating a shallower profile on the east side. While they



Planning Commission Case No. CPC-25-9 Harbor Crest Townhouse Subdivision Preliminary Plat Alternatives July 30, 2025 Page 6 of 6

retain the basic functionality, these changes could complicate long-term stormwater maintenance and emergency access.

For the Audry Lane stub street, the original plan preserves a 22-foot connection to the southern property line and includes three guest parking spaces, maintaining the potential for future interconnectivity. Stub Alternate A reduces the pavement length, adds a landscaped mound, and provides two guest spaces. Alternate B introduces a curved layout with angled parking to retain three guest spaces while visually discouraging future extension. While both alternatives soften the appearance of a connection, they do not legally prevent it. A deed restriction or recorded easement could permanently prevent extension.

In evaluating these options, the Planning Commission should consider:

- Emergency access and overall vehicle circulation;
- Maintenance challenges tied to any modified site geometry;
- The limited enforceability of visual-only design features;
- The city's long-standing policy of encouraging interconnectivity between adjacent developments.

While the applicant has not formally indicated a preference, the original design likely reflects their intent. The alternatives were developed in response to the Planning Commission's direction and are presented to support a balanced, well-informed decision

Attachments

• James Sayler's Letter dated July 7, 2025, includes site layout options for both ingress/egress and stub street scenarios.

THE HENRY G. REITZ ENGINEERING CO.

James T. Sayler, P.E., P.S., *President* Linda S. Rerko, *Sec.-Treas*.

Civil Engineers and Surveyors 4214 ROCKY RIVER DRIVE CLEVELAND, OHIO 44135-1948

July 7, 2025

Ms. Kelly La Rosa Avon Lake Planning & Zoning Manager 150 Avon Belden Road Avon Lake, OH 44012

Re: Harbor Crest Townhouse Subdivision Preliminary Plat

Dear Ms. LaRosa:

In response to the request of Planning Commission and your letter of July 2, 2025, please find the 6 attached drawings for review and comments at the next available D.R.C. meeting:

- a. Original Layout detail of intersection at Avon Belden Road
- b. Entry Alt. #1 shows a revised alignment for the intersection at Avon Belden Road where the exit from the project has been moved to be opposite the Huntington Bank inbound drive.
- c. Entry Alt. #2 shows a revised alignment for the intersection at Avon Belden Road where the exit from the project has been widened to provide a left turn lane which in a location opposite the Huntington Bank inbound drive.
- d. Original Layout detail of Southerly stub of Audry Lane.
- e. Stub Alt. "A" shows a revised method of terminating the Southerly stub with 2 guest parking spaces moved and a landscaped mound added to augment Planning Commission's proposal to eliminate the possibility of connecting to any future development to the South.
- f. Stub Alt. "B" shows a revised method of terminating the Southerly stub with 3 guest parking spaces moved and the street alignment angled to augment Planning Commission's proposal to eliminate the possibility of connecting to any future development to the South.

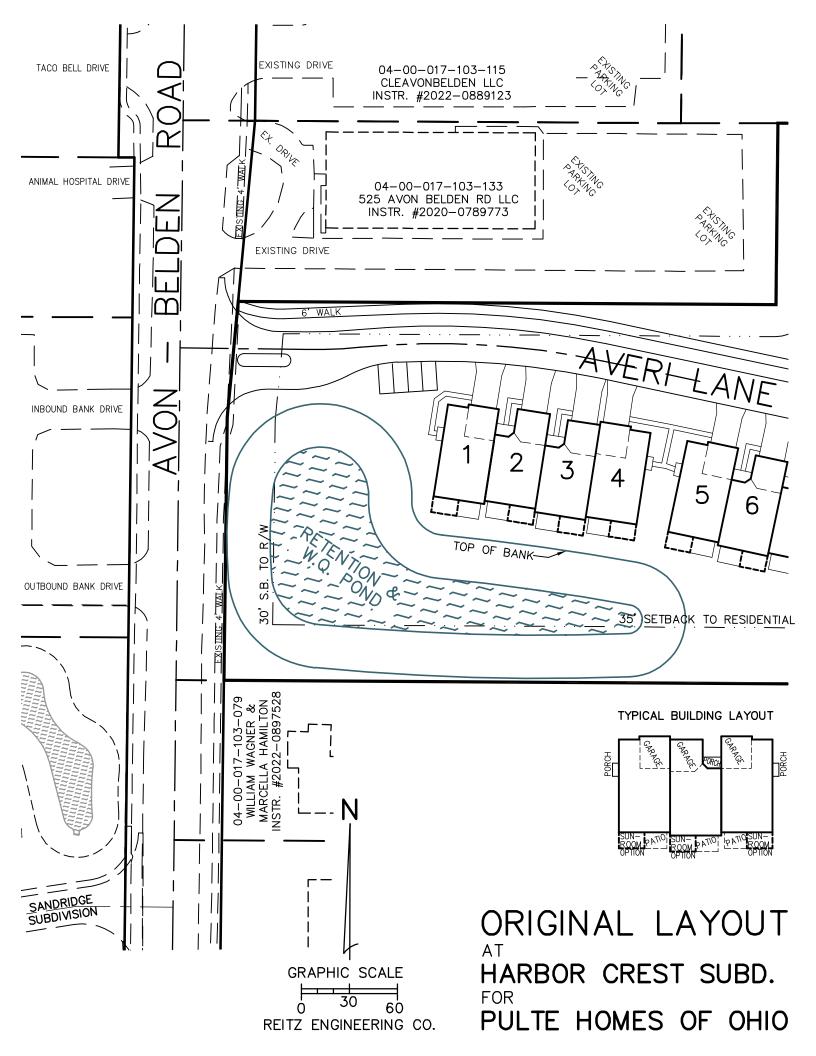
Either of the two entry alternatives would require the reshaping of the proposed retention basin as shown in order to provide the same retention volume. If it is the Planning Commission's preference to restrict against any future connection to the South, it could be accomplished either by a restriction in the homeowner association covenants and restrictions or as a deed restriction added when the land transfers to the homeowner association. The developer requests that D.R.C. provide feedback so that a motion can be considered at the August 5, 2025 Planning Commission meeting to approve either the original layout or any one or two of the above alternate layouts.

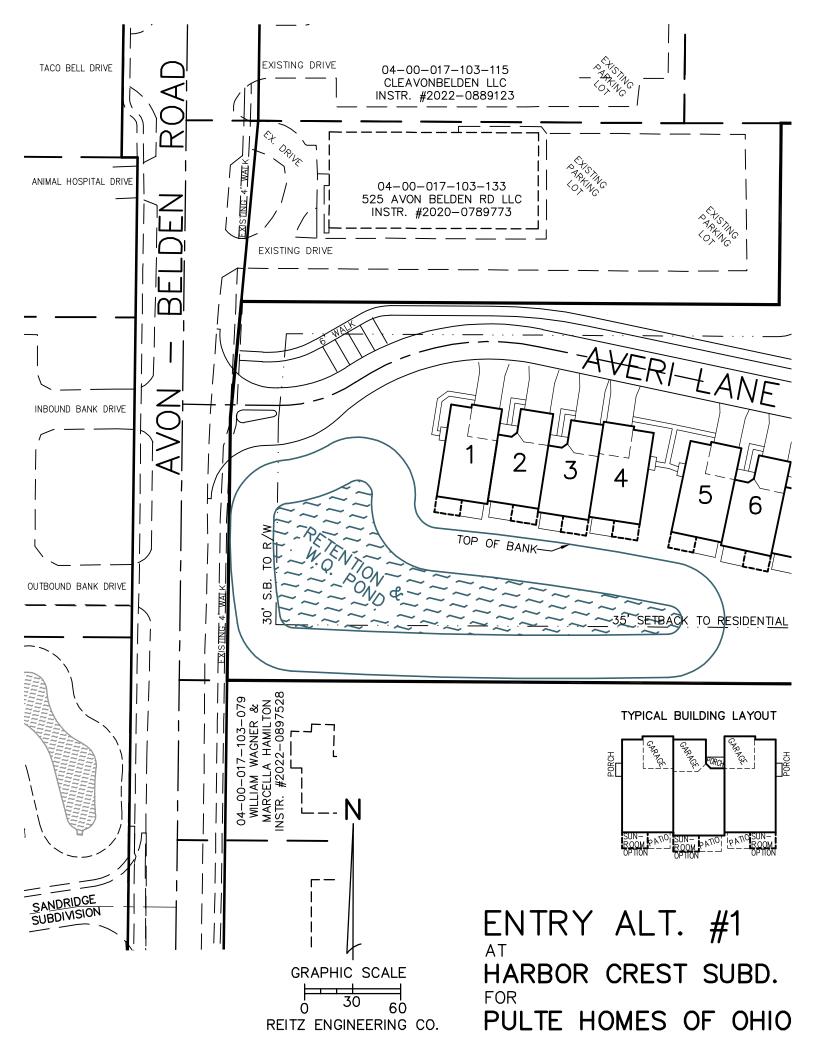
Very truly yours, THE HENRY G. REITZ ENGINEERING CO.

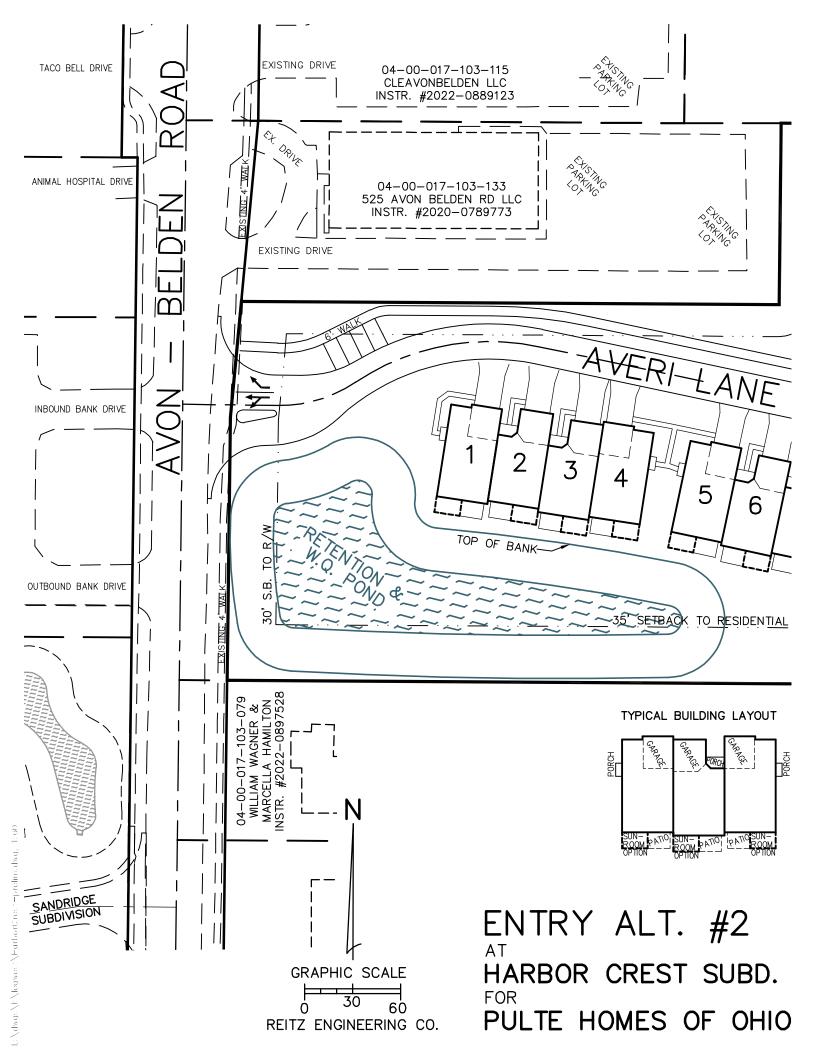
TELEPHONE: (216) 251-3033

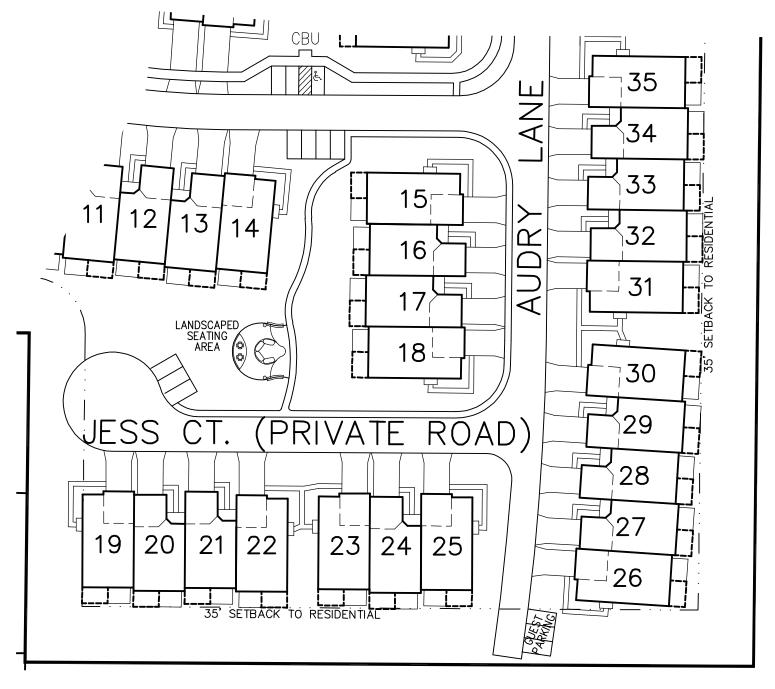
EMAIL: reitz@reitzeng.com

By James T. Sayler, President

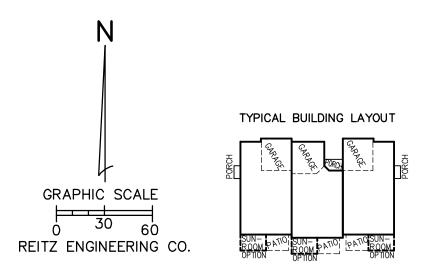








04-00-017-103-346 WILLIAM D. HUBERT INSTR. #2016-0605682

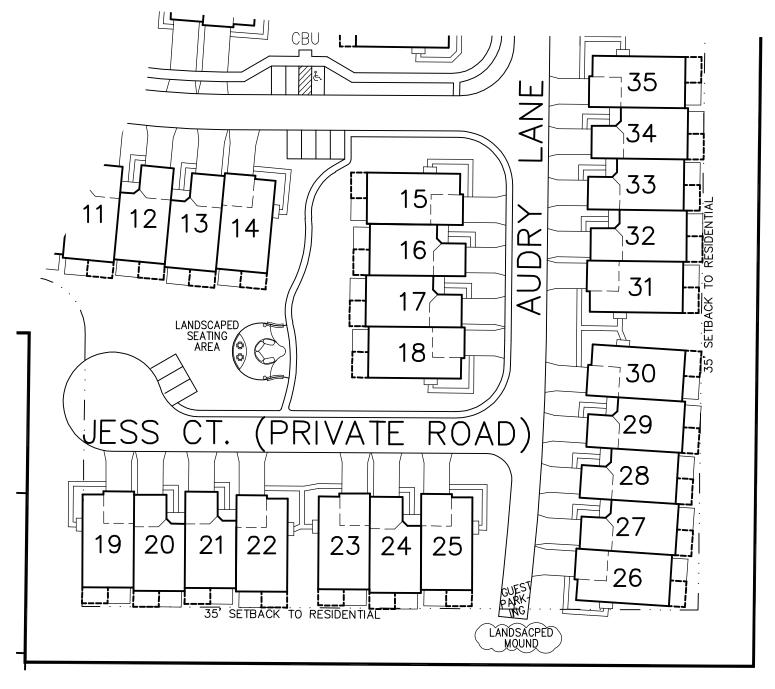


ORIGINAL LAYOUT

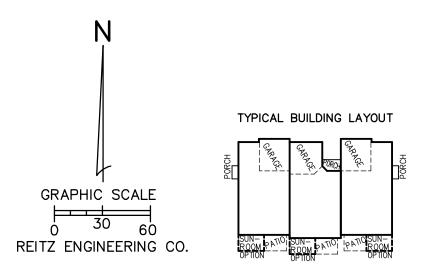
AT

HARBOR CREST SUBD.

FOR
PULTE HOMES OF OHIO



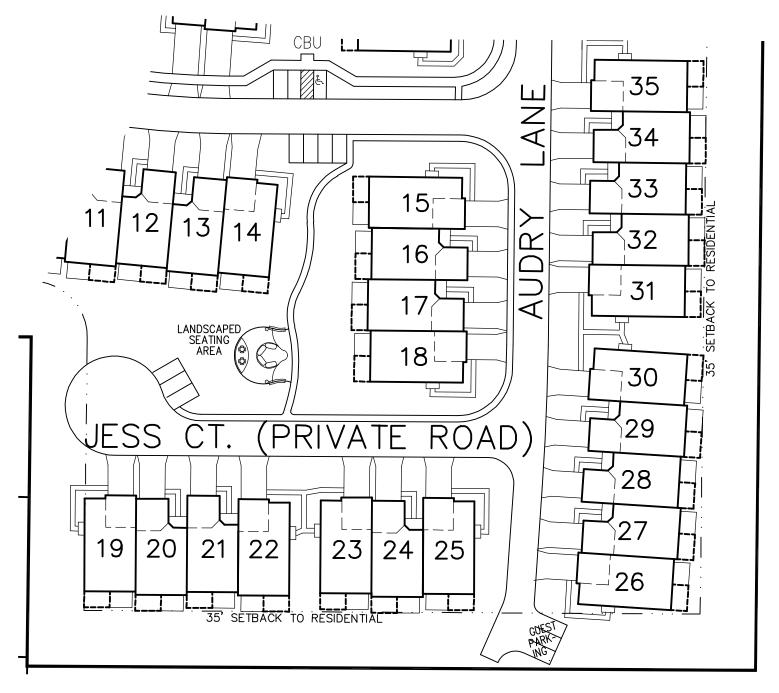
04-00-017-103-346 WILLIAM D. HUBERT INSTR. #2016-0605682



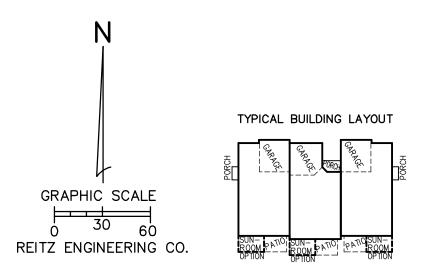
STUB ALT. "A"

HARBOR CREST SUBD.

FOR
PULTE HOMES OF OHIO



04-00-017-103-346 WILLIAM D. HUBERT INSTR. #2016-0605682



STUB ALT. "B"

HARBOR CREST SUBD.

FOR
PULTE HOMES OF OHIO



HARBOR CREST TOWNHOUSE SUBDIVISION - PRELIMINARY PLAT

Report

To: Planning Commission

From: Kelly La Rosa, Planning and Zoning Manager

Date: June 26, 2025

Re: Case No. CPC-25-9, Pulte Homes of Ohio, LLC, Major Subdivision Preliminary Plat

Approval for Harbor Crest Townhouse Subdivision, located in the southeast corner of

Walker Road and Avon-Belden Road (SR 83).

PROJECT OVERVIEW

Harbor Crest Townhouse Subdivision is a proposed residential development by Pulte Homes of Ohio, consisting of 73 townhouse units on individually owned (fee simple) footprint parcels with access provided by newly constructed private streets. The site was rezoned to R-3 Residential with a density restriction limiting the project to 73 units, upon recommendation from the Planning Commission on April 1, 2025 to the City Council.

Walker Road SiTE

PROJECT DESCRIPTION

Figure 1: Maps Data: Google Earth 6/2/2015

Owner: Pulte Homes of Ohio, LLC, 387 Medina Road, Medina

Applicant/Engineer: Henry G. Rietz Engineering Co., 4214 Rocky River Dr., Cleveland



Planning Commission Case No. CPC-25-9 Harbor Crest Townhouse Preliminary Plat June 26, 2025 Page 2 of 5

Location: The property is located at the southeast corner of Walker Road and Avon-Belden Road (State Route 83).

Approvals: The site was rezoned to R-3 Multi-Family Residential by the Planning Commission on April 1, 2025.

Current Zoning: R-3 Multi-Family Residential

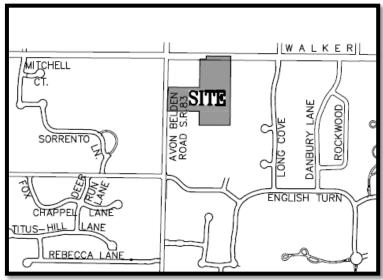


Figure 2: Vicinity Map

Surrounding Context:

The site is bordered by commercial properties to the north and west (B-2), with low-density residential areas to the south and east (R-1A). The Comprehensive Land Use Plan (CLUP) designates it as a prime location for mixed-use and higher-density residential development, encouraging walkability and connectivity with nearby commercial areas.



Figure 3: Excerpt from Avon Lake Zoning Map

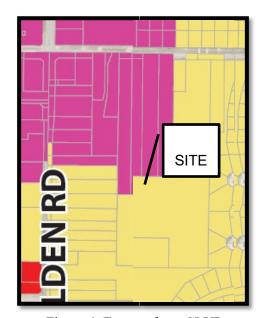


Figure 4: Excerpt from CLUP



APPLICABLE CODE SECTIONS

Section 1214.05: Major Subdivision

This section governs the review of major subdivisions, ensuring consistency with zoning regulations, thoroughfare planning, infrastructure requirements, and integration with existing documents.

Section 1238: Subdivision Design Standards

This section defines Subdivision Design Standards, including lot layout, block length, right-of-way configuration, utilities, sidewalks, landscaping, and connectivity.

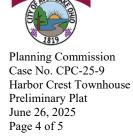
PROJECT ANALYSIS

Pulte Homes of Ohio proposes the development of Harbor Crest Townhouse Subdivision, a residential community consisting of 73 fee-simple townhome units located at the southeast corner of Walker Road and Avon-Belden Road (SR 83). The approximately 11.86-acre site was rezoned to R-3 Multi-Family Residential on April 1, 2025, with a specific density restriction limiting the development to no more than 73 units.

The proposed preliminary plat includes a network of private streets that provide internal circulation and access to all units. Each townhome will be constructed on individual parcels, with standard driveway lengths of 25 feet and consistent 22-foot street widths. The site has been carefully configured in response to feedback received during the rezoning process, resulting in improved vehicular access, pedestrian accommodations, aesthetic enhancements along Avon-Belden Road, and the inclusion of common open space.

SUSTAINABILITY CONSIDERATIONS

The Harbor Crest Townhome development has been designed with a strong emphasis on sustainability and responsible stormwater management. Following Avon Lake's stormwater and water quality regulations, the project includes a comprehensive system of retention basins to reduce flooding and minimize erosion. These basins are not only functional but also serve as visual and environmental amenities within the site design. In addition to stormwater retention, the development promotes groundwater replenishment through enhanced infiltration practices.



Additionally, construction-phase sediment and waste control measures will be implemented to protect surrounding ecosystems and limit off-site impacts. Post-construction, the project will feature water quality basins designed to capture and treat runoff, ensuring long-term environmental performance. These measures demonstrate the applicant's commitment to sustainable development practices that support ecosystem health, improve water quality, and contribute to the resilience of the built environment.

DEVELOPMENT REVIEW COMMITTEE

The Development Review Committee comprises representatives from Community Development, Engineering, Building, Public Works, Avon Lake Regional Water, Fire, and Police Departments. All responses received to date are included in the attachments. The preliminary Plat has been updated to reflect comments from the Community Development Department.

REVIEW AND RECOMMENDATION BY THE COMMISSION

To approve a major subdivision, the Commission must determine that the Preliminary Plat meets all applicable standards as outlined in Section 1214.05 of the Avon Lake Planning and Zoning Code. The following criteria shall be considered:

- That the major subdivision complies with all applicable provisions of this code;
- That the major subdivision does not conflict with other regulations, plans, or policies of the City;
- That it is designed to be harmonious with the existing immediate or surrounding area or in keeping with the intended character of such area;
- That it follows the Master Thoroughfare Plan and minimizes traffic congestion in public streets;
- That it will not adversely affect the delivery of governmental services;
- That comments from review agencies have been adequately considered and addressed
- That it conforms to the approved preliminary Plat if submitted and approved.

After reviewing the Preliminary Plat, the Commission shall determine whether to return it to the applicant for revisions or to forward a recommendation to the City Council for approval, approval with conditions, or denial. If recommending denial, the Commission must identify the specific review criteria that were not met and provide the reasoning behind that conclusion.



Potential Motions: The Commission must make a motion in the affirmative. At least four affirmative ("yes") votes are required to recommend approval, or four negative ("no") votes are required to recommend denial to the City Council. The sample motion provided below is for guidance only and does not imply a recommendation or predetermined outcome.

submitted Prelimina that the pr subdivision	recommend to by Pulte H ry Plat for Har roposed subdi- on regulations	omes of Oh bor Crest Tov vision compli and serves th	io LLC, Manhouse, be es with apple public inte	ajor Subd approved, i icable zoni	ivision finding
Or subject	to the follow	ing condition	c·		
Of subject	to the follow	ing condition	.5.		
	. to the follow				
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	to the follow	ing condition	3.		

SUBSEQUENT ACTION

Upon receiving approval from the Planning Commission, the Preliminary Plat will be forwarded to the City Council for final review and action. If the Planning Commission recommends denial, the applicant may not proceed with the related components of the subdivision until recommendations for approval are issued.

ATTACHMENTS

- Planning Commission Application
- DRC Comments
- Applicant's response
- TIS Review



CPC-25-9

Planning Commission Application Status: Active

Submitted On: 5/29/2025

Primary Location

32701 WALKER RD AVON LAKE, OH 44012

Owner

WOODCRAFT PROPERTIES LTD 32741 WALKER RD AVON LAKE, OH 44012

Applicant

James SaylerJ 216-251-3033@ reitz@reitzeng.com♠ 4214 Rocky River Dr.

Cleveland, OH 44135

Property or Parcel Information

Troperty of Faice information				
Zoning Classification @	Present Use*			
R-3	Vacant			
Type of Request*	Preliminary			
Major Subdivision - Preliminary Plat	\checkmark			
Final				
General Description of Project*				
Preliminary Plat for 73 unit townhouse developement on receive legal descriptions to create single ownership for land to be de at Lorain County prior to development.				
Have you had your meeting with the Development Review Committee?*				
Your application will not be reviewed until you have met with the Development Review Committee (DRC). Please submit the DRC application before submitting this application.				

Applicant Information

Applicant is the Property Owner or Property Owner's Designee.

Project Manager will be the person working closest with the plans and will be the main point of contact for the Planning Department's questions.

Applicant Role* Applicant Name*

Subdivider Reitz Engineering Co.

Address*

4214 Rocky River Dr.

City*

Cleveland

State*

ОН

Zip*

44135

Phone*

216-251-3033

Email*

jts@reitzeng.com

Project Manager

Pulte Homes, Keith Filipkowski

Project Manager Phone

261-308-1627

Project Manager Email

Keith.Filipkowski@Pulte.com

Property Owner Information

Name*

Various entities assoc. with Kopf Builders

Address*

420 Avon Belden Rd.

City*

Avon Lake

State*

ОН

Zip*

Phone*

44012

440-933-6908

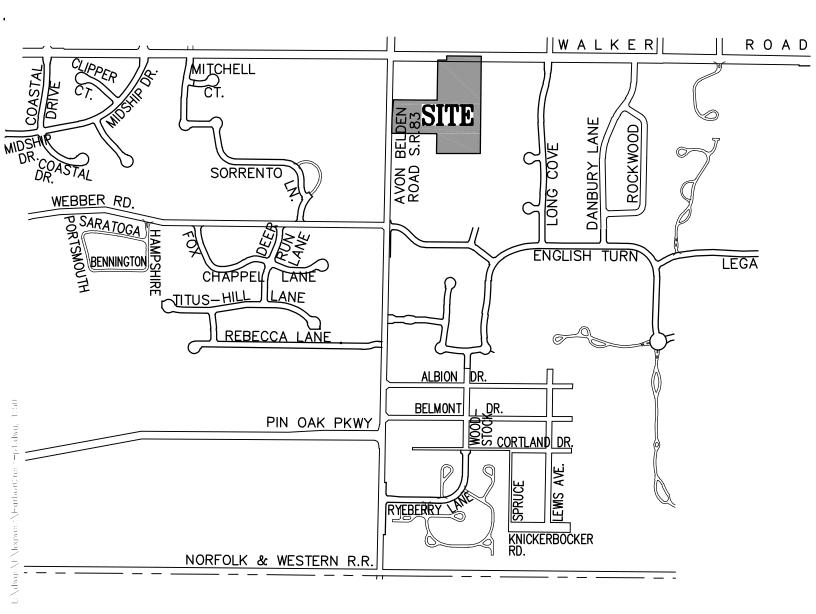
Signature

Applicant Signature*

James Sayler May 28, 2025

HARBOR CREST SUBDIVISION VICINITY MAP

BEING PART OF AVON TOWNSHIP SECTION NO. 17 NOW IN THE CITY OF AVON LAKE, COUNTY OF LORAIN, STATE OF OHIO



Harbor Crest Townhomes

Applicant: Pulte Homes of Ohio

Narrative update: May 28, 2025

The project is proposed to consist of 73 townhouse units on fee simple footprint parcels abutting new private streets. The project land has been granted a rezoning to R-3 with a density restriction to allow no more than the 73 units proposed.

The project layout follows the concept plan that accompanied the rezoning request that was approved at Planning Commission on April 1, 2025. It maintains the following features that were included in response to comments that had been received prior to the rezoning meeting:

- 1) The project limits were revised to eliminate a small, isolated area of land that was unsuitable for development and would have been difficult to access for any recreational uses.
- 2) The Avon-Belden Road entry was moved North to avoid conflict with Bank exit lanes across the street which had been identified as a potential problem area in the traffic study.
- 3) The aesthetics of the Avon-Belden Rd. frontage were improved and the project's density was moved away from the main route into the city by:
 - a. Shifting the majority of the retention volume away from the Walker Rd. entry which resulted in a more aesthetic pond being proposed at Avon Belden Rd.
 - b. Moving the divided entry so the landscaped island will be provided along Avon Belden Rd instead of Walker Rd.
- 4) The Southeast portion of the project was realigned to provide:
 - a. A more logical location for a future emergency access point for any future development to the South along the private street stub.
 - b. A better turnaround option for public safety and delivery vehicles.
 - c. Better access for an area that can be utilized for a pocket park.
 - d. Increased stub street width and driveway lengths to be consistent with the 22' width and 25' length found on the primary private streets.
- 5) Pedestrian access was improved by:
 - a. Moving the walk for the main loop off the edge of pavement to allow for a better streetscape with 4' to 18' wide tree-lawns.
 - b. Making the main loop sidewalk 6' wide pavement to improve its usefulness for multipurpose active uses.

Additional details were added to the surrounding properties and to show the topography and location of the proposed utilities, and hardscape for a 'pocket park' with a landscaped seating area was added in the Southeast portion of the project.

The Henry G. Reitz Engineering Co. by: James Sayler, President

The project will be designed in accordance with Avon Lake storm water management and storm water quality standards to promote ecosystem health through flood and erosion reduction provided by a storm water retention basins, ground water replenishment provided through enhanced infiltration practices, sediment control and waste management strategies provided by construction site storm water management controls and post-construction water quality enhancements provided by water quality features included in the design of the water quality basins.



Equal Opportunity • Affirmative Action Employer

June 23, 2025

Ted Esborn Community Development Director City of Avon Lake 150 Avon Belden Road Avon Lake, Ohio 44012

Reference:

Preliminary Plat

Harbor Crest Townhouse Subdivision

Mr. Esborn:

On behalf of the City of Avon Lake we have reviewed the Preliminary Plat submitted for Harbor Crest Townhouse Subdivision, as prepared by the Henry G. Reitz Engineering Company, and offer the following comments:

- 1. The TIS review, performed by Transystems dated April 22, 2025, recommended that consideration be given to realigning the Averi Lane access to SR 83 with the existing Huntington Bank entrance drive on the west side of SR 83.
- 2. Comments on the Proposed Lot Split/Consolidation have been provided.
- 3. The Applicant will need to provide Autoturn Exhibits for Fire Trucks at the Avon Belden Road (SR83) and Walker Road access points.

If you have any questions, please call.

Sincerely,

BRAMHALL ENGINEERING & SURVEYING CO.

City of Avon Lake Consulting Engineers

Christopher L. Howard, P.E., CPESC

City Engineer



Zoning Review - Austin

Record No.CPC-25-9

Status Completed Became Active June 4, 2025
Assignee Austin Page Due Date June 14, 2025

Primary Location

32701 WALKER RD AVON LAKE, OH 44012

Owner

WOODCRAFT PROPERTIES LTD 32741 WALKER RD AVON LAKE, OH 44012

Applicant

James Sayler

216-251-3033

@ reitz@reitzeng.com 4214 Rocky River Dr.

Cleveland, OH 44135

Messages

Austin Page June 17, 2025 at 2:01 pm

1.In the R-3 district, the maximum building height is 45′. Please add info to the site table and/or notes.

2.It is assumed but please add a note stating that the development HOA is responsible for the ownership and maintenance of the island on Averi Lane.

3.The end units (1, 24 & 73) will front on the private streets but have a secondary frontage-like appearance onto Avon Belden and Walker Road. The "sides" shall mimic a front facade to enhance the curb appeal and overall streetscape, rather than a big blank wall.

4.What is the plan for screening alongside the adjacent residential zoned properties? Please provide a landscape/screening plan. Or identify screening locations and type on the preliminary plan

5.Please add a note to the plan about a potential future connection at the southern end of Audry Lane (obviously it is assumed). It has become common for property owners near current stub-outs and connections to question these stub-outs, connections, etc. so a note would be nice for further transparency and any future issues.

6.The Averi Lane exit to Avon Belden Rd appears to be one lane. Any ideas to widen this for two lanes? One for left turn and one for the right. I understand the traffic study didn't call for any of these types of improvements, but I believe this could be beneficial based on the location. Huntington Bank, Taco Bell, Las Margaritas in the area have these two dedicated lanes. Totally understand the level of traffic will not be like these uses. Not required but recommended.

7.The CBU is shown off the street, with designated parking spaces. This helps to prevent vehicles from obstructing the roadway. Much appreciated.

8.Please depict any development signage locations.

9.Setback lines are depicted, and notes reference the distances. However, it would be beneficial to see the numerical value depicted (25', etc.) instead of having to look through the notes.

Austin PageJune 25, 2025 at 11:03 am

Per the response letter and plans dated 6/20, all of my comments have been addressed.

Thank you.

Austin PageJune 25, 2025 at 11:15 am

However, I have one new comment. Landscaping is shown out near the entrance/exit to Avon Belden Road. There are "small ornamental trees" depicted and want to make sure that these trees do not impede vehicle sight lines exiting the site looking south. Based on the "island" that is in place and where sidewalk and stop sign, it may be ok but please look at this to ensure there is no visual impairment caused by the landscaping.



ALRW Review - Jarod L.

Record No.CPC-25-9

Status Completed Became Active June 4, 2025
Assignee Jarod Larson Due Date June 14, 2025

Primary Location

32701 WALKER RD AVON LAKE, OH 44012

Owner

WOODCRAFT PROPERTIES LTD 32741 WALKER RD AVON LAKE, OH 44012

Applicant

James Sayler 216-251-3033

reitz@reitzeng.com4214 Rocky River Dr.

4214 Rocky River Cleveland, OH 44135

Messages

Jarod Larson June 9, 2025 at 7:41 am

 $ALRW\ will\ need to\ perform\ a\ detailed\ engineering\ review\ of\ the\ improvement\ plans\ once\ they\ are\ available.$

THE HENRY G. REITZ ENGINEERING CO.

James T. Sayler, P.E., P.S., *President* Linda S. Rerko, *Sec.-Treas*.

Civil Engineers and Surveyors 4214 ROCKY RIVER DRIVE CLEVELAND, OHIO 44135-1948

June 20, 2025

Ms. Kelly LaRosa Avon Lake Planning & Zoning Manager 150 Avon Belden Road Avon Lake, OH 44012

Re: Harbor Crest Townhouse Subdivision Preliminary Plat

Dear Ms. LaRosa:

The following revisions were made to the drawings in response to the Zoning Department review comments that we received. In addition, the lot numbering was revised in conjunction with a revision that splits the construction of the project into two phases. Twelve full sized hard copies will also be delivered to your office to be included in the packets being sent to planning commission members.

- 1. A line was added under "Notes" in the bottom center of the drawing that indicates that the typical building height is approximately 26'.
- 2. The seventh item under "Notes" in the bottom center of the drawing was edited to indicate that the HOA is responsible for the entry island maintenance.
- 3. A line was added under "Notes" in the bottom center of the drawing that indicates that the side walls of units 1, 43 & 73 are to have enhanced architectural details.
- 4. A landscape plan was prepared and will be uploaded to the OpenGov portal.
- 5. The developer is willing to consider making accommodations for extension of the stub street to the South after getting input from a discussion of the issue at Planning Commission.
- 6. The developer requests having only one exit lane from the project onto Avon Belden Road to minimize the visual impact of the amount of concrete at the main entry.
- 7. No revision required.
- 8. The main entry sign at Avon Belden Rd. and a secondary sign at Walker Rd. are shown in detail in the landscape plans and they were added to the preliminary plat.
- 9. The setback lines were labeled as requested.

Very truly yours, THE HENRY G. REITZ ENGINEERING CO.

TELEPHONE: (216) 251-3033

EMAIL: reitz@reitzeng.com

By James T. Sayler, President

TRANSYSTEMS

MEMORANDUM

400 W. Nationwide Blvd, Suite 225 Columbus, OH 43215 T 614-433-7800 F 614-583-3163

www.transystems.com

From: Aaron Grilliot, PE, PTOE

City of Avon Lake, Ohio TranSystems

Date: April 22, 2025 **Subject:** Harbor Crest Development TIS Review

Introduction

This memorandum addresses the review of the Proposed Harbor Crest Residential Development Traffic Impact Study (TIS) dated April 2, 2025. The review examined the study assumptions, methodology, and findings.

Review Comments

The assumptions, methodology, and findings in the above-referenced study were generally found to follow standard practice, with the following items specifically noted:

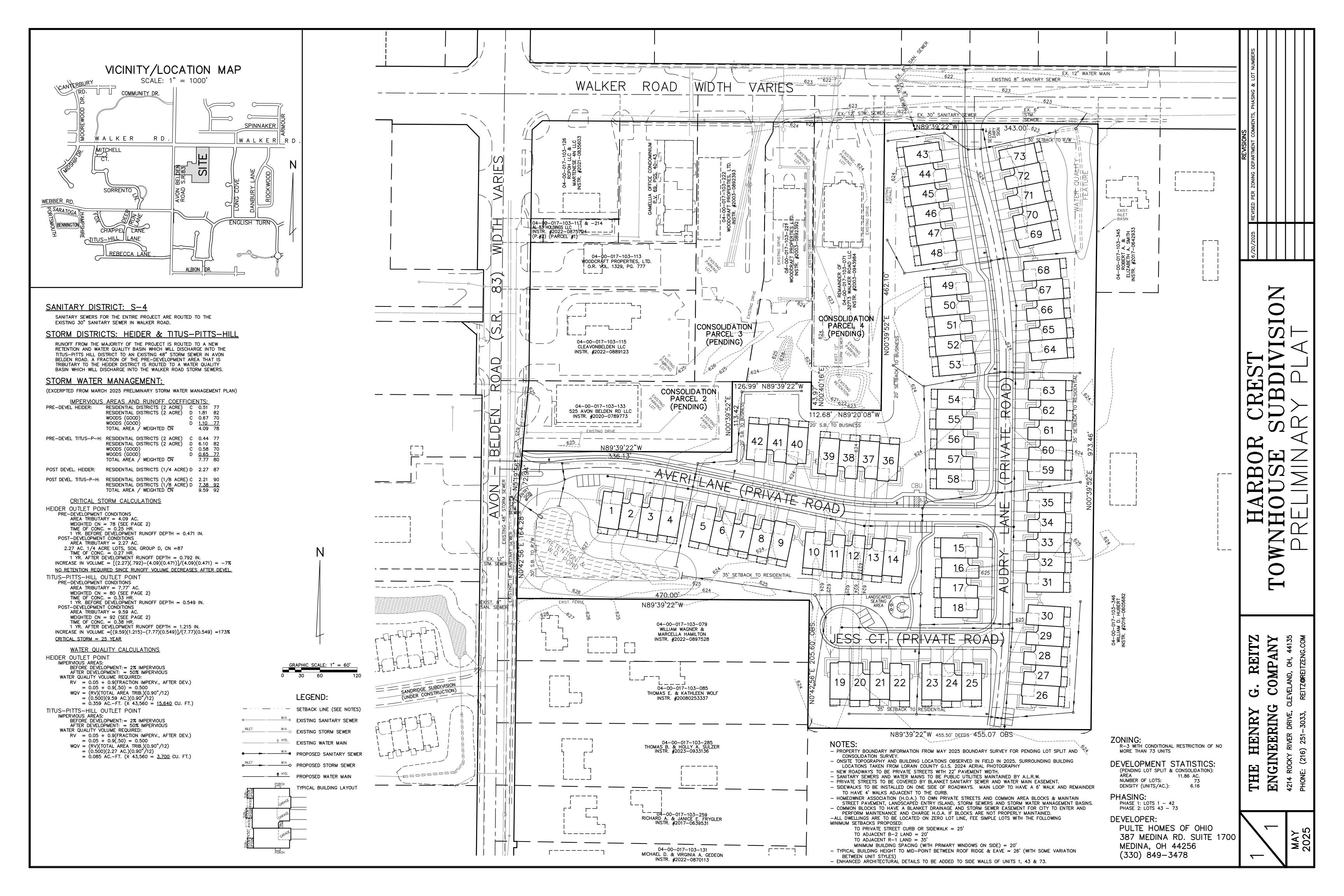
- While some minor adjustments to the geographic distribution of site traffic could be considered, the low volume of site-generated trips would not substantially alter the assignment of trips added to the background (No Build) traffic. The site is projected to generate less than one inbound and one outbound trip every two minutes on average during peak hours.
- The anticipated traffic volumes for the future Sandridge development (to the south) were added to
 the No Build condition, according to the narrative. However, no exhibits were provided which
 visually show the details of how these volumes were distributed, so the No Build volumes were not
 fully backchecked as part of the review. From the narrative description of the methodology, the No
 Build volumes appear to have been developed according to standard practice.
- The 0.5% background growth rate seems acceptable based on the TMFS report from ODOT's database for the area.
- Peak hours, DHV factors, and PHFs appear to be correct.
- Turn lane warrants were performed for the development entrances and no turn lanes appear to be warranted.
- The HCS calculation queue lengths do not show a need for extension of the existing dedicated turn lanes at the intersection of SR 83 and Walker Road. However, an Ohio Department of Transportation Location and Design Manual (ODOT L&D) turn lane calculation was not performed as part pf the study. TranSystems performed an independent ODOT L&D calculation and determined that the existing NB LT turn lane does not meet the ODOT turn lane length recommendations. It was also determined that the existing dedicated EB LT, SB LT, and SB RT turn lanes meet the ODOT turn lane length recommendations but are not long enough to prevent the through lane queues from blocking entry into the turn lanes based on the anticipated through movement queue lengths according to

the ODOT calculations. However, in all instances, the turn lane length deficiencies are present in the No Build condition. The Build condition volumes did not increase the required turn lane lengths per ODOT criteria; therefore, these storage length deficiencies would not be the responsibility of the developer.

- The PM peak at the proposed development access drive on SR 83 shows LOS E for WB traffic exiting the proposed development. However, this impacts only the development and does not affect traffic operations on SR 83.
- The HCS calculations at SR 83 and Walker Road do not currently include pedestrian walk or clearance times. These timings should be incorporated into the signal capacity analysis as there are crosswalks on all four legs of the intersection. However, it is not anticipated that these refinements will materially impact the outcome of the study or the need for improvements at the SR 83 and Walker Road intersection.
- A previous version of the study, dated March 5, 2025, was referenced to better understand the changes made in the latest revision to the study. The original study showed a significantly different development layout than the updated study dated in April 2025. The original study showed the proposed SR 83 access point for the residential development across from the bank exit drive. In the updated study, this had been modified to show the proposed development access drive across from the bank entrance location. This change resulted in the elimination of the LOS issues seen in the original study for the bank drive in the PM peak, which was caused by opposing side street vehicles competing for gaps in north-south traffic on SR 83.
- The original study showed that the presence of the new development drive would increase delays for the eastbound exiting vehicles from the bank, as both eastbound and westbound vehicles would compete for the same gaps in northbound/southbound traffic flows. A review of the analysis in the revised study showed that queues in all directions at the proposed SR 83 access point opposite the bank entrance would not be expected to exceed one vehicle in length. Therefore, while no calculations were provided for the bank exit drive in the updated study, the operations for the bank exit drive are not expected to be impacted if the proposed development access drive is placed to align with the entrance drive, rather than the exit drive.
- In both iterations of the study, the proposed development access drive is shown at an offset from the opposing bank drives. It is recommended generally that, if feasible, the new access drive should be aligned directly with the existing bank entrance drive. This is generally good practice to prevent conflicting turn movements. Because the bank drive currently permits entrance movements only, and because the proposed offset is in a direction that prevents overlap between NB LT and SB LT turn paths, this is less of an issue for this particular location. However, if the bank property is ever redeveloped in such a way that allows exiting traffic from this location, there may be turning movement conflicts between opposing exiting vehicles making lefthand turns onto SR 83. Direct alignment is also helpful for potential scenarios in which future development (onsite or offsite) creates a need for signalization at this location.

Recommendations

The Harbor Crest TIS generally followed standard practices and appears to have been based on realistic assumptions. TranSystems recommends that the HCS calculations at the intersection of SR 83 and Walker Road should be rerun with pedestrian walk and clearance times incorporated to confirm that no adverse impacts are created in the Build condition. Additionally, consideration should be given to realigning the proposed development access drive on SR 83 to directly align with the existing bank entrance drive.



GENERAL NOTES:

- 1. EACH CONTRACTOR IS TO VERIFY WITH OWNER AND UTILITY COMPANIES THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION, TO DETERMINE IN THE FIELD THE ACTUAL LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL CALL UTILITY PROTECTION SERVICE 72 HOURS PRIOR TO CONSTRUCTION
- 2. EXAMINE FINISH SURFACE, GRADES, TOPSOIL QUALITY AND DEPTH. DO NOT START ANY WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. VERIFY LIMITS OF WORK BEFORE STARTING.
- 3. CONTRACTOR RESPONSIBLE FOR COST OF REPAIRS TO EXISTING SITE CONDITIONS WHEN DAMAGED BY CONTRACTOR. REPAIR TO THE SATISFACTION OF THE OWNER.
- 4. ALL PLANT MASSES TO BE CONTAINED WITHIN 3" DEEP HARDWOOD MULCH BED WITH SMOOTH/CONTINUOUS SHOVEL/DUG EDGE WHEN NOT BOUND BY PAVEMENT.
- 5. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN LAWN AREAS.
- 6. FINE GRADE LAWN AREAS TO PROVIDE A SMOOTH AND CONTINUAL GRADE FREE OF IRREGULARITIES OR DEPRESSIONS.
- 7. CONTRACTOR SHALL SEED OR SOD ALL AREAS DISTURBED DURING CONSTRUCTION.
- 8. ALL PLANTS SHALL MEET OR EXCEED STANDARDS SET IN THE U.S.A. STANDARD FOR NURSERY
- 9. ALL PLANTING OPERATIONS SHALL ADHERE TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS.
- 10. QUANTITIES SHOWN ARE INTENDED TO ASSIST CONTRACTOR IN EVALUATING THEIR OWN TAKE OFFS AND ARE NOT GUARANTEED AS ACCURATE REPRESENTATIONS OF REQUIRED MATERIALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR BID QUANTITIES AS REQUIRED BY THE PLAN.
- 11. WHERE TREE LOCATIONS OCCUR UNDER EXISTING OVERHEAD UTILITIES OR CROWD EXISTING TREES, NOTIFY OWNER'S REPRESENTATIVE TO ADJUST TREE LOCATIONS.

PLANTING CONSTRUCTION NOTES:

- LAWN AREA, TOPSOIL TO BE FLUSH WITH ADJACENT PAVED SURFACES. SEED OR SOD TO BE PLACED AFTER PLANTING.
- 2 LANDSCAPE AREA, PLANT AS INDICATED AND MULCH ENTIRE AREA WITH HARDWOOD BARK MULCH AT 3" MIN.
- 6' HEIGHT VINYL PRIVACY FENCE. SEE DETAIL 3 ON SHEET L-5.

PLANT SCHEDULE OVERALL LANDSCAPE

DEC DEC

DECIDUOUS SHADE TREE TYP 1 66



DECIDUOUS SHADE TREE TYP 2 24



LG EVERGREEN TREE 27

35



SM EVERGREEN TREE



SM ORNAMENTAL TREE 27



LG DECIDUOUS SHRUB 47



PRELIMINARY
NOT FOR CONSTRUCTION



HARBOR CRE

OVERALL LANDSCAPE

OWNER:

Pulte
HOMES



LANDSCAPE
ARCHITECT:

The EDGE Group, Inc.
330 W Spring Street
Suite 350

Columbus, OH 43215 614-486-3343

Issue Date: June 3, 2025 Job #25014

SHEET -

(T)



REST HARBOR

ENLARGEMENTS

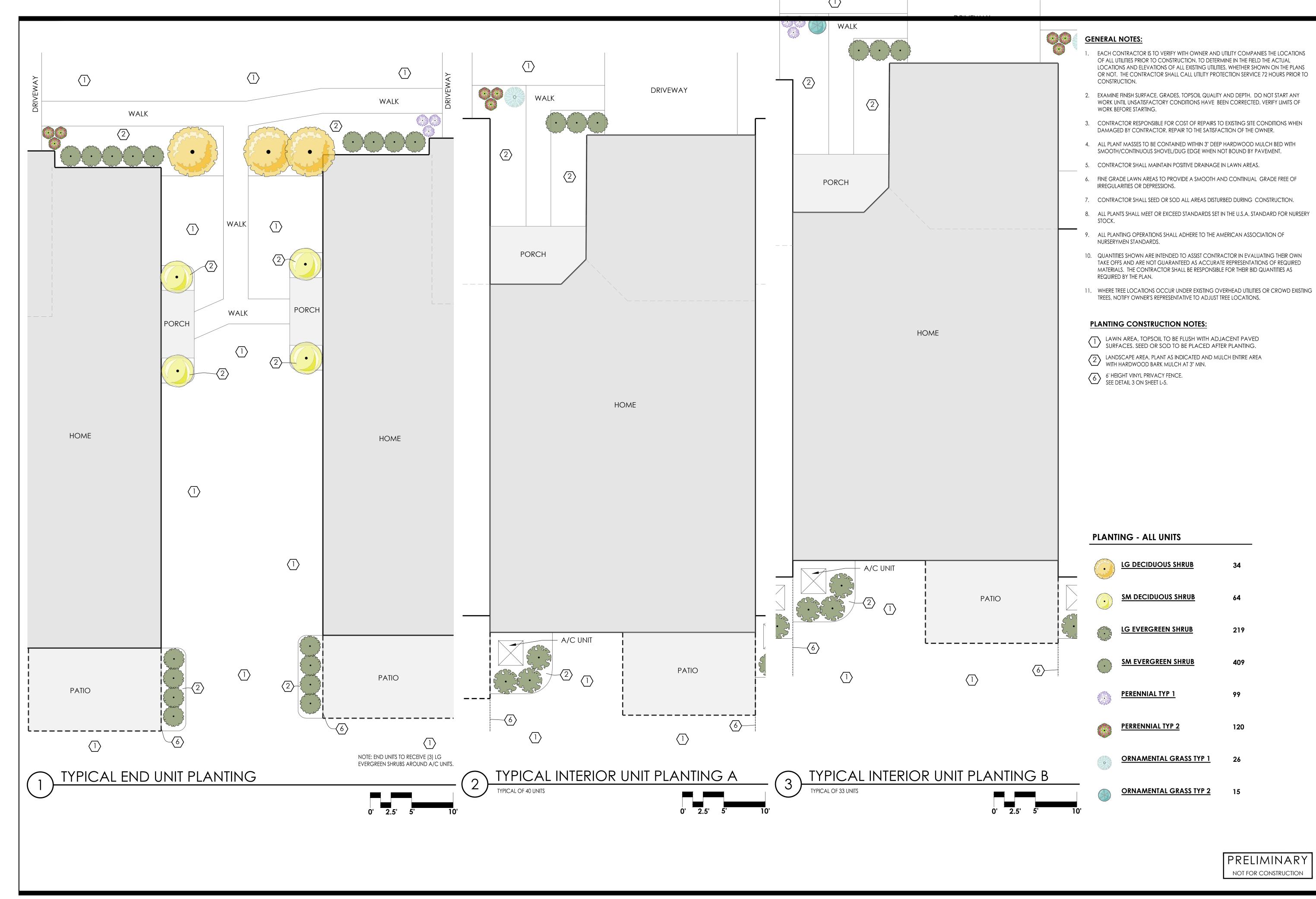
OWNER: Pulte Homes of



LANDSCAPE <u>ARCHITECT:</u> EDGE The EDGE Group, Inc 330 W Spring Street Suite 350 Columbus, OH 43215 614-486-3343

Issue Date: June 3, 2025 Job #25014

NOT FOR CONSTRUCTION



Www.edgela.com



HARBOR CREST

TYPICAL UNIT PLANTING

OWNER:

PUITE HOMES

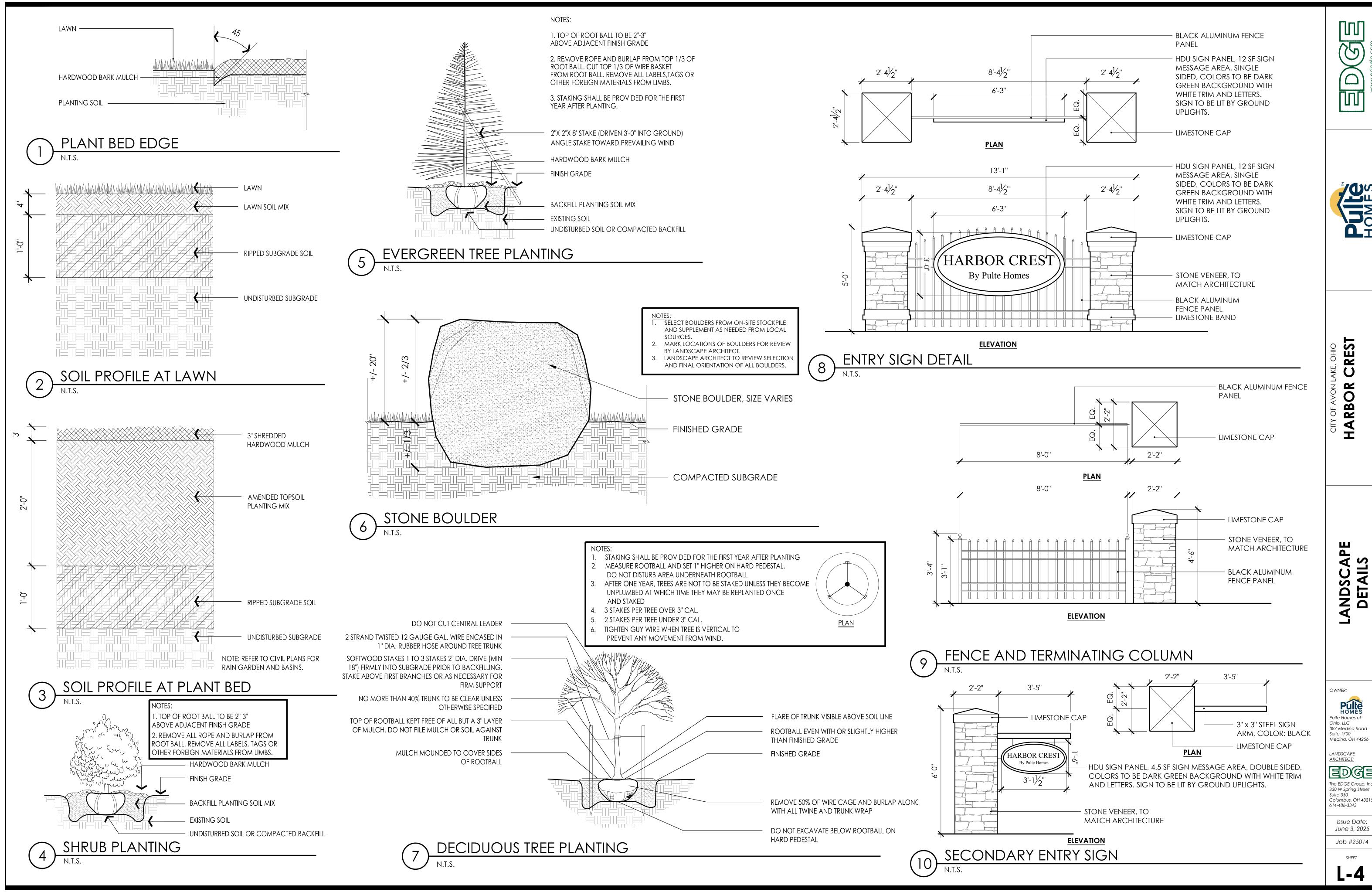
Pulte Homes of
Ohio, LLC
387 Medina Road
Suite 1700

LANDSCAPE
ARCHITECT:

The EDGE Group, Inc. 330 W Spring Street Suite 350 Columbus, OH 43215 614-486-3343

Issue Date: June 3, 2025

Job #25014 SHEET



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REST ARBOR

LANDSCAPE DETAILS

OWNER: Pulte Pulte Homes of Ohio, LLC 387 Medina Road Medina, OH 44256

LANDSCAPE ARCHITECT: EDGE The EDGE Group, Inc 330 W Spring Street

Issue Date: June 3, 2025

Job #25014

L-4

Medina, OH 44256 LANDSCAPE ARCHITECT: EDGE The EDGE Group, Inc

330 W Spring Street Columbus, OH 43215 614-486-3343 Issue Date:

June 3, 2025 Job #25014





PRODUCT: TREE TOP PRODUCTS - SUPERSAVER COMMERCIAL ROUND PICNIC TABLE OR OWNER APPROVED EQUAL.

PICNIC TABLES

PRODUCT: TREE TOP PRODUCTS - COMMERCIAL STEEL WASTE RECEPTACLE OR OWNER APPROVED EQUAL.

WASTE RECEPTACLE

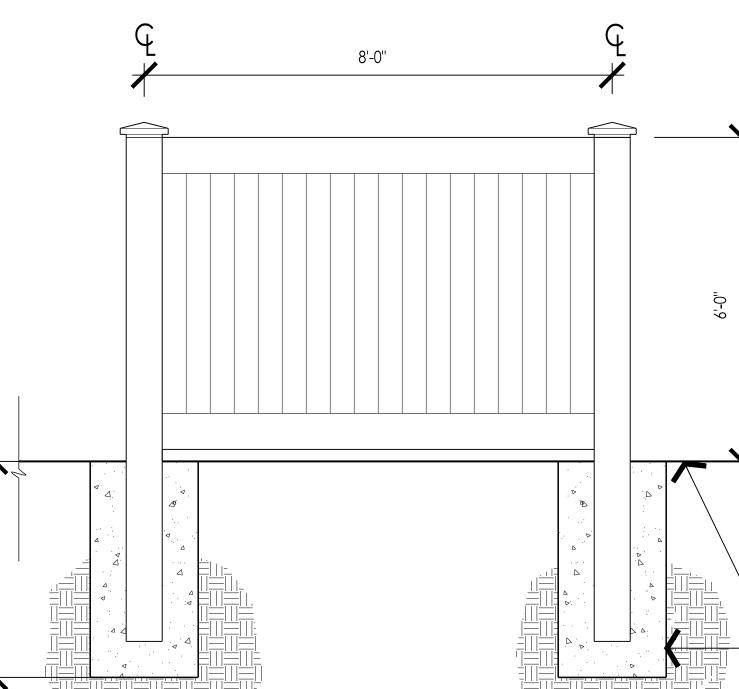
— FINISHED GRADE

CONCRETE FOOTING

UNDISTURBED EARTH

FENCE COLOR TO BE WHITE.

NOTE:



FORERUNNER SECTION

ECHELON II, EMBEDDED, BY AMERISTAR FENCE, 1555 N. MINGO RD., TULSA, OK 74116, OR APPROVED EQUAL. CONTRACTOR TO

PANEL STYLE: GENESIS (2-RAIL, FLAT TOPPED PICKET)

PRODUCT SPECIFICATION:

INDUSTRIAL ALUMINUM FENCE:

ADDITIONAL INFORMATION:

FINAL ALUMINUM FENCE PRODUCT MAY VARY PER OWNER APPROVAL.

COLOR: BLACK

SUBMIT SHOP DRAWINGS PRIOR TO ORDERING.

REINFORCED

WEBBED RAIL

- NO-MAR POLYESTER

- BASE MATERIAL

POWDER FINISH COAT

43-3/8" 57-3/8"

WRAP AROUND PANEL

POINT CONNECTION (TYP.)

BRACKETS WITH TWO

2 1/2" SQ. POST — REINFORCED WITH

INTERNAL RIB

28" 1570-12V2 ELEVATION: site 1 | MAILBOXES: 56 | PARCELS: 6 DRAWN BY: DATE: 10-20-2021 P.O. NO: QUOTE NO: SCALE: NONE DRAWING NO. SHEET 1 OF 1 WEB-202349

-----18-1/2" -----

PROJECT NAME: Parkway Phase 3 **FLORENCE ■**CORPORATION 5935 Corporate Drive • Manhattan, KS 66503 www.florencemailboxes.com = 800.275.1747 A GIBRALTAR INIDUSTRIES COMPANY

71-3/8"

6' HEIGHT VINYL PRIVACY FENCE

CLUSTER BOX UNIT DETAIL

PRELIMINARY NOT FOR CONSTRUCTION

- 1 3/4" SQ. FORERUNNER RAIL

WITH NO SCREWS OR RIVETS

(SEE SECTION)

- CONCRETE FOOTING (TYP.)

Overall w/ Recommended Clearance: 11' 5"

o 25

o 26

e 27

e 28

₉ 29

a 30

e 31

e 32

1570-16V2

Models Used:

(2) 1570-16V2

(2) 1570-12V2

DO NOT SCALE OFF DRAWING

1570-12V2

Door Sizes Used:

(56) 3" H Tenant

(2) 13-3/8" H Parcel

(4) 9-7/8" H Parcel

e 41

e 42

43

33

34

35

36

9 37

38

39

40

6 53

e 54

55 **e** 56

45

46

47

48

50

52

(MIN. 3,500 PSI)

-10" MIN.-

e 10

o 12

13

e 14

15

e 16

1570-16V2

Configuration Details:

3. Finish: Black

5. Door Id: Decals

1. Product Type: Cluster Box Units

2. Installation: Mounted on a pedestal

4. Locks: Standard Cam Lock, 3 keys

the final position of the engraving/decals.

VARY PER OWNER APPROVAL.

6. Master Door: Prepared for USPS Master Lock

Note: Number placement on drawing does not represent

FINAL CBU PRODUCT AND COLOR MAY

4' HEIGHT ALUMINUM FENCE

18

a 19

e 20

e 21 e 22

e 23

⊜ 24

3P

1" SQ. WALL PICKET

(0.065 THICKNESS)

1'-6''



FORD MOTOR COMPANY OHAP-SITE PLAN

Report

To: Avon Lake Planning Commission

From: Kelly La Rosa, Planning and Zoning Manager

Date: July 30, 2025

Re: Case No. CPC-25-11, Ford Motor Company, Ohio Assembly Plant, Site Plan

Approval for the Construction of a New Vehicle Test Track and Installation of a New

Stormwater Retention Basin.

PROJECT OVERVIEW

Ford Motor Company seeks site plan approval for two integrated infrastructure improvements at its Ohio Assembly Plant (OHAP): (1) the construction of a new vehicle test track and (2) the

installation of a new stormwater retention basin. Both components are located within the Avon Lake portion of the Ford campus, which straddles the Avon Lake/Sheffield Lake municipal boundary.

The proposed improvements are intended to enhance operational efficiency and reduce stormwater runoff burden on the existing internal system, which has historically been prone to flooding. These projects are located on a single parcel and are being submitted as one unified site plan application.



Figure 1: Maps Data: Google Earth 6/2/2015.



Ford Motor Company Ol Site Plan Approval July 30, 2025 Page 2 of 6

PROJECT DESCRIPTION

1. Test Track ("Clearvision Track")

The project includes the construction of an approximately 808-foot-long, 30-foot-wide concrete vehicle test track with a cul-de-sac-style turnaround. The track will be used for in-line production testing, particularly for verifying wheel alignment. The project will also include:

- Demolition of existing concrete and light poles
- Grading and site work
- Installation of stormwater structures, catch basins, and piping
- New lighting mounted on 20-foot poles with LED fixtures, directed to minimize light spill
- Installation of signage and approximately 300 linear feet of jersey barriers to segregate the test area from adjacent operations
- Pavement striping per Ford Motor Company standards

Since the proposed test track crosses the municipal boundary between Sheffield Lake and Avon Lake, Ford will request separate approvals from each jurisdiction. Avon Lake will only review the section within its limits.

2. Stormwater Retention Pond ("East Pond Project")

A new retention pond will be installed in the southeast corner of the plant. This improvement is part of a multi-phase strategy to address longstanding internal flooding issues by alleviating pressure on the A-line storm sewer system. This phase includes:

- Rerouting of roof drains to a new underground stormwater sewer system
- Construction of an approximately 40,000 square foot retention pond
- Installation of 1,400 linear feet of stormwater pipe, catch basins, manholes, a headwall, and an overflow structure
- Installation of new fencing and guardrails
- Future phases will incorporate a Biomatrix floating wetland to enhance water quality and provide ecological benefits.

This phase builds on prior work that rerouted parking lot stormwater directly to the Miller Road outlet. The retention pond will be connected to the same rerouted system.



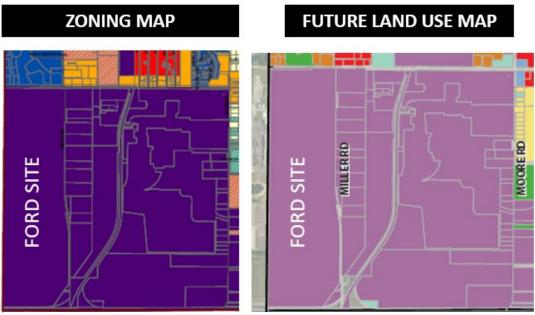


Figure 2: Excerpt from Avon Lake Zoning and Future Land Use Maps

Zoning Map: This property is in the I-2 General Industrial Zoning District. To the north, across the street, is an R-3 Multi-Family District. Another I-2 General Industrial area lies to the east, with Sheffield Village to the west and Avon to the south.

The I-2 District is intended for industrial uses that must be separated from residential areas due to potential impacts like noise, fumes, and traffic. These areas support essential city functions, including employment, and are located where the land, utilities, and transportation systems are best suited for industrial development.

Comprehensive Land Use Plan:

The Future Land Use Map identifies this site as Industrial and is intended for light industrial users that require space for wholesale, warehousing, clean manufacturing, packaging, repair, and related office functions.

Applicable Code Section: 1214.06 Site Plans apply.



PROJECT ANALYSIS

Zoning and Land Use

The site is located within the I-2 General Industrial District. The proposed improvements are consistent with permitted uses in this district and are in line with the intent of the zoning code to support ongoing industrial operations.

The Avon Lake Comprehensive Land Use Plan identifies this area as part of a long-term industrial corridor.

Sustainability Considerations

The proposed project incorporates several sustainability features that align with both operational efficiency and environmental stewardship goals.

For the test track, sustainability efforts include the installation of LED lighting, which will reduce energy consumption while maintaining adequate visibility and safety for vehicle testing. In addition, the project will improve stormwater management by redirecting existing swales to new storm structures, reducing surface runoff, and improving drainage in the immediate area.

The retention pond serves as a key stormwater mitigation strategy, capturing and holding runoff from rooftop drains. This approach will alleviate pressure on both the facility's internal storm system and the broader city stormwater infrastructure, particularly during heavy rainfall events. In future phases, the pond may be enhanced by the installation of a Biomatrix floating wetland, a vegetative system designed to improve water quality by naturally filtering stormwater.

Site preparation is expected to have minimal environmental impact, limited to grading and essential site work, with no significant vegetation removal anticipated. This limited environmental impact further supports the project's overall sustainability profile.

Development Review Committee

The Development Review Committee (DRC) comprises representatives from the Community Development, Building, Public Works, Avon Lake Regional Water, Fire, and Police Departments. During the review process, no objections were raised by any of the participating departments regarding the proposed improvements. However, the Engineering Department's review is still in progress, and a formal comment letter from the City Engineer is pending. This letter is expected to address the completeness and adequacy of the site's stormwater management design, among other technical considerations.



REVIEW AND RECOMMENDATION BY THE COMMISSION

The Commission shall review the application, and in reviewing the application, the Commission shall, at a minimum, consider the review criteria in Section 1214.06 (d).

Review Criteria

To approve a site plan, the Planning Commission shall determine that:

- (1) The proposed development is consistent with all the requirements of this code and other related codes and ordinances of the City;
- (2) The proposed development complies with the applicable zoning district regulations;
- (3) The proposed development complies with any established standards or requirements in the approved comprehensive land use plan or thoroughfare plan;
- (4) The proposed development meets all the requirements or conditions of any applicable development approvals (e.g., previously approved planned developments, conditional use approvals, variance approvals, etc.);
- (5) The development will result in a harmonious grouping of buildings within the proposed development and in relationship to existing and proposed uses on adjacent property;
- (6) The development will preserve and be sensitive to the natural characteristics of the site in a manner that complies with the applicable regulations outlined in this code;
- (7) Adequate provision is made for safe and efficient pedestrian and vehicular circulation within the site and to adjacent property;
- (8) The development will provide adequate lighting for safe and convenient use of the streets, walkways, driveways, and parking areas;
- (9) Upon review and recommendation of the Code Administrator, points of ingress/egress to the development shall be controlled and designed in such a manner as to minimize conflicts with adjacent properties and developments;
- (10) Adequate provision is made for emergency vehicle access and circulation; and
- (11) If the project is to be carried out in progressive stages, each stage shall be so planned that the foregoing criteria are complied with after each stage.

Following its review, the Commission will decide whether to approve, approve with conditions, or deny the application. If the Commission chooses to deny the application, it must cite the specific review criteria in Section 1214.06 (d) and explain why the application does not satisfy the criteria.

Potential Motion: A motion should be made favorably. At least four "yes" votes are required to approve or four "no" votes to deny the application. The language below is provided as a guide and is not meant to suggest any particular action by the Planning Commission.



	Ohio Assembly Plant Site Plan for the common of a New Vehicle Test Track and	
	n of a New Stormwater Retention Basin, a	
Or subject	t to the condition that	
Or subject	to the condition that	
		_

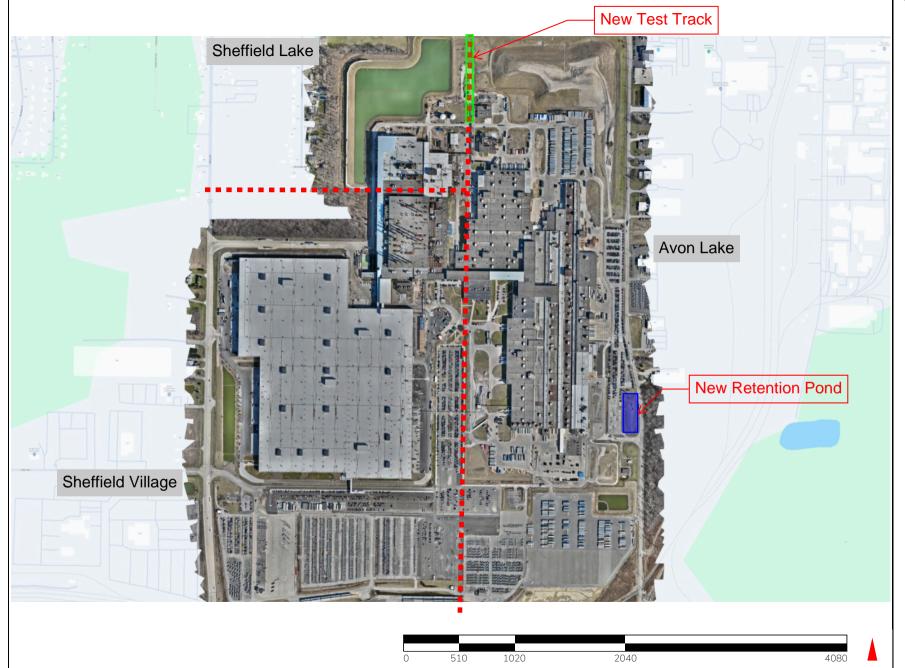
SUBSEQUENT ACTION

Based on approval from the Planning Commission, this plan may proceed to the Building Department for permit submission. If approved outright, no further action is needed. If approved with conditions, all specified conditions must be satisfactorily addressed before proceeding.

ATTACHMENTS

• Planning Commission Application





RUDOLPH LIBBE INC

Site: Ford OHAP (Avon Lake)

Survey: Mar 27, 2025

File created: Jun 11, 2025



■propeller



CPC-25-11

Planning Commission Application

Status: Active

Submitted On: 6/23/2025

Primary Location

650 MILLER RD AVON LAKE, OH 44012

Owner

FORD MOTOR COMPANY 650 MILLER RD AVON LAKE, OH 44012

Applicant

Patrick Carney 419-260-5701

patrick.carney@rlgbuilds.com

♠ 6494 Latcha Rd.
Walbridge, OH 43465

Property or Parcel Information

Zoning Classification Present Use*

I-2 Industrial

Type of Request*

Site Plan

General Description of Project*

Production vehicle test track installation and Stormsewer and retention pond installation.

Have you had your meeting with the Development Review Committee?*

Yes

Applicant Information

Applicant is the Property Owner or Property Owner's Designee.

Project Manager will be the person working closest with the plans and will be the main point of contact for the Planning Department's questions.

Applicant Role* Applicant Name*

Developer Rudolph Libbe Inc.

Address* City*

6494 Latcha Rd. Walbridge

State* Zip*

OH 43465

Phone* Email*

419.260.5701 Patrick.Carney@rlgbuilds.com

Project Manager

Project Manager Phone

Patrick Carney

Project Manager Email

Property Owner Information

Name* Address*

Ford Motor Company 650 Miller Rd.

City* State*

Avon Lake OH

Zip* Phone*

44012 NA

Signature

Applicant Signature*

Patrick Carney
Jun 23, 2025



Ford OHAP- Clearvision Track

To Whom it May Concern,

We are pleased to submit for your consideration our project narrative for the construction of the Ford OHAP Clearvision Track project.

Sustainability Narrative:

- Provide engineering and design for the test track and necessary civil and electrical work.
- Installation of a 30' wide x 808' long concrete track.
- Demo of existing concrete and light poles/bases.
- Site work and grading as necessary.
- Stormwater structures and piping including new headwalls and catch basin.
- Electrical:
 - o Installation of new lighting on 20' poles. Lighting to be defused/directed to the test track and limit surrounding light spill as much as possible.
 - o Existing electrical feeds to be reworked.
- Striping per FMC standards
- Installation of test track signage as required.
- Installation approx.. 300' of standard, non-ODOT jersey barriers to segregate the test track from other pavement areas.

Thank you for the opportunity to present this project for your consideration. If there are any questions, please feel free to contact me on my mobile at (419) 260-5701

Sincerely,

Patrick Carney

F.M. Ca

Project Manager



Ford OHAP- Clearvision Track Sustainability Statement

To Whom it May Concern,

We are pleased to submit for your consideration our sustainability statement for the Ford OHAP Clearvision Test Track project.

Sustainability Narrative:

- This project will incorporate stormwater mitigation through new structures and sewer pipe to redirect existing swales within the area of modification.
- The new track lighting with be accomplished with LED fixtures.
- No other sustainability measures are planned or deemed applicable for this project.

Thank you for the opportunity to present this project for your consideration. If there are any questions, please feel free to contact me on my mobile at (419) 260-5701

Sincerely,

Patrick Carney

F.m. Co

Project Manager



Ford OHAP- East Stormwater Management

To Whom it May Concern,

We are pleased to submit for your consideration our project narrative for the construction of the Ford OHAP East Stormwater Management project.

Sustainability Narrative:

- Provide engineering and design for a new retention pond, underground stormwater sewers and roof drain reroute.
- Installation of an approx. 40,000 SF retention pond with approx. 1400 LF of stormwater piping, catch basins, manholes, head wall and overflow structure.
- Installation of new fencing and guardrails
- Removal of electrical and vegetation as necessary

Thank you for the opportunity to present this project for your consideration. If there are any questions, please feel free to contact me on my mobile at (419) 260-5701

Sincerely,

Patrick Carney

F.m. Co

Project Manager



Ford OHAP- East Stormwater Management Sustainability Statement

To Whom it May Concern,

We are pleased to submit for your consideration our sustainability statement for the Ford OHAP East Stormwater Management project.

Sustainability Narrative:

- This project will redirect roof drains to new underground stormwater sewers and hold water in the new retention pond lessening the burden on the facility and city stormwater sewer system.
- In conjunction with another project in the planning stages, the retention pond would have a Biomatrix floating wetland installed.
- No other sustainability measures are planned or deemed applicable for this project.

Thank you for the opportunity to present this project for your consideration. If there are any questions, please feel free to contact me on my mobile at (419) 260-5701

Sincerely,

Patrick Carney

P.M. Cg

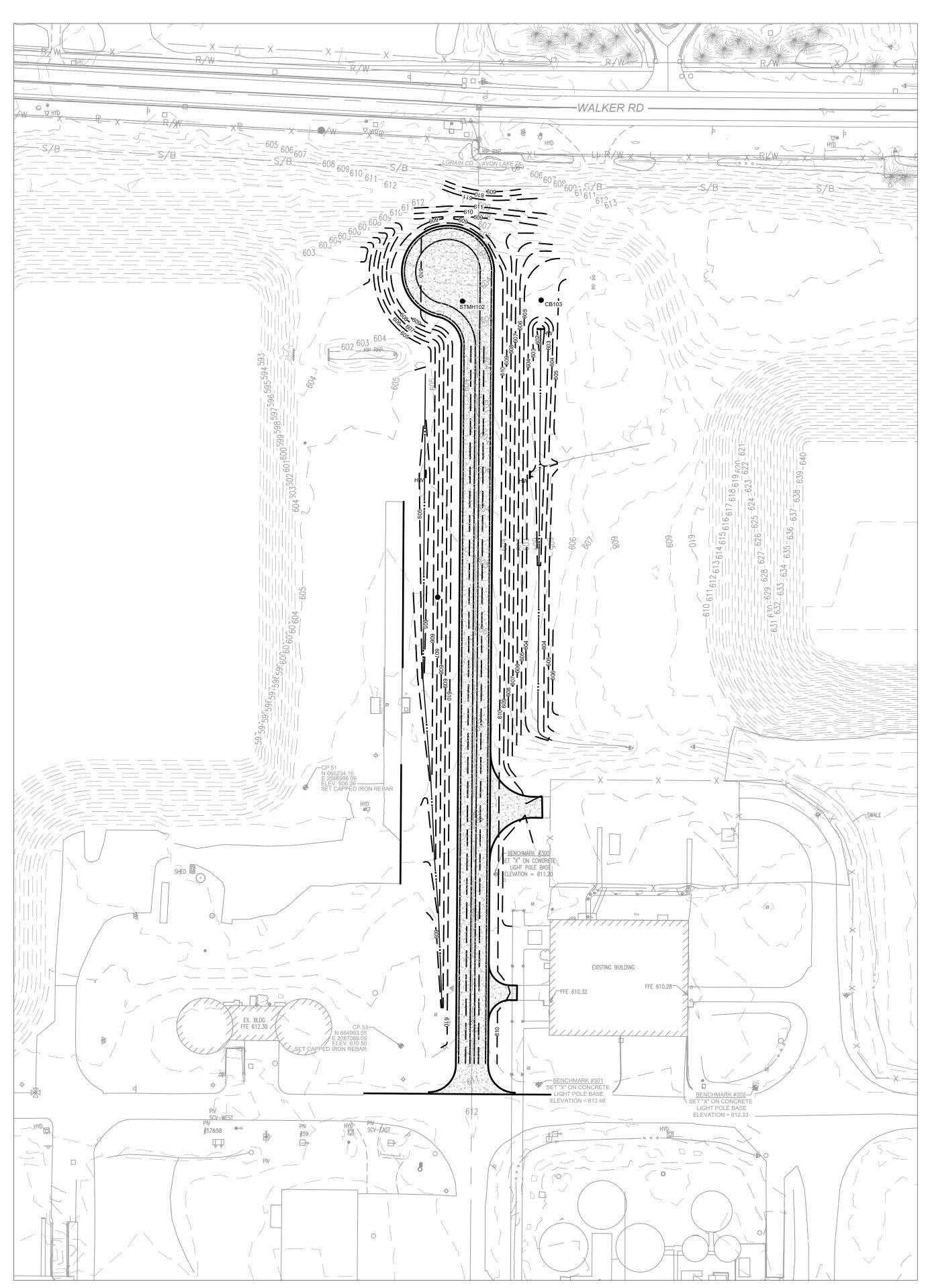
Project Manager

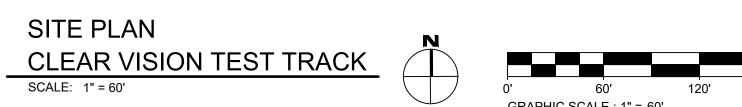
SITE PLAN - CLEAR VISION TEST TRACK

FORD OHIO ASSEMBLY PLANT
SHEFFIELD VILLAGE, SHEFFIELD LAKE, AVON LAKE, LORAIN COUNTY, OHIO

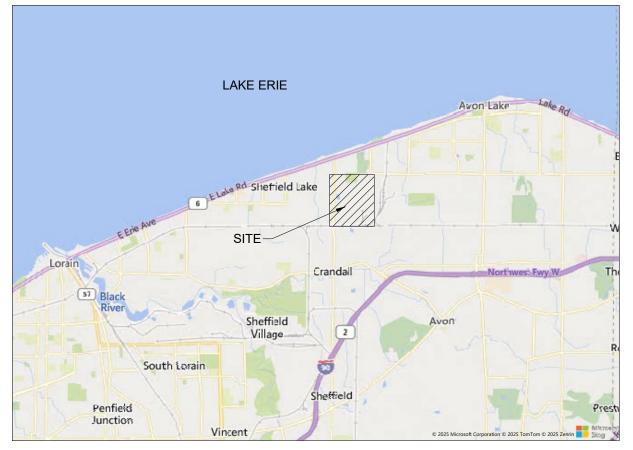
CIVIL LEGEND				
DESCRIPTION	PROPOSED	EXISTING		
BUILDING				
RIGHT-OF-WAY		R/W		
PROPERTY LINE		P.——P.——		
SETBACK	— S/B — —	— S/B — -		
EASEMENT				
FLOODWAY / FLOODPLAIN				
DITCH OR SWALE	• • • • • • • • • • • • • • • • • • • •			
FENCE	0 0	X — X		
GUIDE RAIL				
STORM SEWER	ST	ST		
SANITARY SEWER	s	S		
SANITARY SEWER FORCE MAIN	—— FM ———	FM		
POTABLE WATER				
MAKE UP WATER	MW	MW		
INDUSTRIAL WASTE	IW			
NATURAL GAS	G	G ———		
FIRE WATER	F	F		
BELOW GROUND TELEPHONE LINE	c	c		
ABOVE GROUND TELEPHONE LINE	<c></c>	<c></c>		
BELOW GROUND ELECTRICAL LINE	E	Е —		
ABOVE GROUND ELECTRICAL LINE	<e></e>	<e></e>		
MAJOR CONTOUR LINE		/ 00 _ /		
MINOR CONTOUR LINE		//		
ELEVATION		× 00.00		
BENCH MARK	*	₩		
CATCH BASIN/CURB INLET		Ø		
MANHOLE/JUNCTION BOX	•	0		
CLEANOUT	•	0		
HEADWALL	>			
FIRE HYDRANT	¥			
POST INDICATOR VALVE		ļ		
VALVE	•	⊗		
POWER POLE	•	¢		
GUY WIRE	C	(
LIGHT POLE	*	*		
TREE	£ + 3			

CIV	IL ABBREVIATIONS
ASPH	ASPHALT
ВС	BACK OF CURB
BLDG	BUILDING
BM	BENCH MARK
СВ	CATCH BASIN
CJ	CONSTRUCTION JOINT
CONC	CLEAN OUT CONCRETE
CP	CONTROL POINT
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DWG	DRAWINGS
Е	EXTERNAL DISTANCE
E	EAST
ELEV	ELEVATION
ES	END SECTION
EX	EXISTING
FFE FH	FINISHED FLOOR ELEVATION FIRE HYDRANT
FT	FOOT (FEET)
G	GUTTER
GP	GUIDE POST
GR	GUIDE RAIL
HDPE	HIGH DENSITY POLYETHYLENE
HP	HIGH POINT
HW	HEADWALL
IE	INVERT ELEVATION
ID	INSIDE DIAMETER
JB L	JUNCTION BOX CURVE LENGTH
LF	LINEAR FEET
LT	LEFT
MAX	MAXIMUM
ME	MATCH EXISTING
MH	MANHOLE
MIN	MINIMUM
N	NORTH
OD	OUTSIDE DIAMETER
PC PI	POINT OF CURVATURE POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
PS	POINT OF SWITCH
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RIM	RIM ELEVATION
RT S	RIGHT
SAN	SOUTH
SPEC	SPECIFICATION
ST	STORM
TC	TOP OF CURB
TE	TOP ELEVATION
TW	TOP OF WALL
TYP	TYPICAL
UD	UNDERDRAIN
W	WEST
YD	I YARD DRAIN





SURVEY CONTROL POINTS & BENCH MARK					
NO.	DESCRIPTION	NORTHING	EASTING	ELEVATION	
CP#51	SET CAPPED IRON REBAR	665234.10	2086999.09	606.36	
CP#53	SET CAPPED IRON REBAR	664993.55	2087088.05	610.50	
CP#55	SET CAPPED IRON REBAR	665120.68	2087228.81	608.75	
BM#300	SET "X" ON CONC. LIGHT POLE BASE			611.20	
BM#301	SET "X" ON CONC. LIGHT POLE BASE			613.48	
BM#302	SET "X" ON CONC. LIGHT POLE BASE			612.33	
COORDINA	COORDINATE SYSTEM: OH83-NF (NAD83 Ohio State Planes, North Zone, US Foot)				



SCALE: NONE

CIVIL-SITE DRAWING INDEX				
SHEET NUMBER	SHEET NAME	CURRENT DESCRIPTION	DATE	
SP-000	SITE COVER SHEET	SITE PLAN APPROVAL	2025-06-12	
SP-100	SITE LAYOUT, GRADING AND UTILITY PLAN	SITE PLAN APPROVAL	2025-06-12	

GEOTECHNICAL ENGINEER
PROFESSIONAL SERVICE INDUSTRIES, INC.
5555 CANAL ROAD
CLEVELAND, OH 44125
P: 216.447.1335

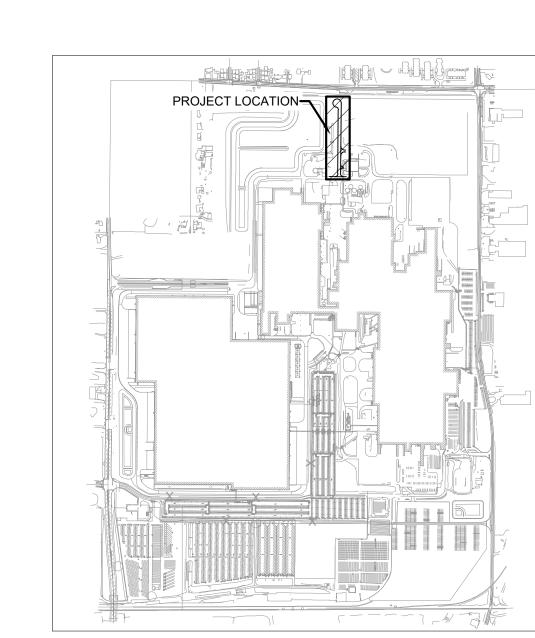
SURVEYOR
GARCIA SURVEYORS, INC.
1720 INDIAN WOOD CIRCLE, SUITE E
MAUMEE, OH 43537

P: 419.877.0400

VERTICAL DATUM:
VERTICAL DATUM IS BASED ON GEOID 12A AND '88 NAVD.

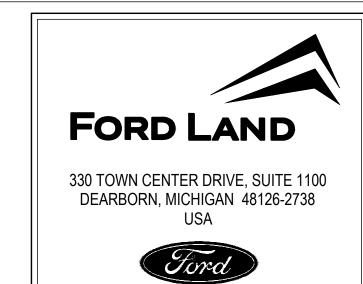
HORIZONTAL DATUM:
HORIZONTAL DATUM IS BASED ON OHIO STATE PLANE, NORTH ZONE (3401), GRS80, NAD83 (2011) AND U.S. SURVEY FEET.

UTILITIES NOTE:
THE UNDERGROUND UTILITIES SHOWN ON THIS SURVEY HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION, MARKING PROVIDED BY THE UTILITY COMPANIES AND/OR EXISTING DRAWINGS OBTAINED FROM UTILITY COMPANIES. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE OF ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN FACT THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM AVAILABLE









OHIO ASSEMBLY PLANT 650 MILLER ROAD AVON LAKE, OH

Ford OHAP Clear Vision Test Track

Civil Sitework

SHEEFIELD / AVON LAKE LODAIN

SHEFFIELD / AVON LAKE LORAIN O

ZE OF RECORD LOGO



OF RECORD REGISTRATION SEAL



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2025-06-12 SITE PLAN APPROVAL
DATE ISSUED FOR

A/E TEAM INFORMATION

IN CHARGE: M. STARR

DRAWN BY: D. GREENHILL

DESIGNED BY: D. WOLF

CHECKED BY: C. HARTMAN

APPROVED BY: M. STARR

A/E PROJECT NUMBER: 022-00543-04

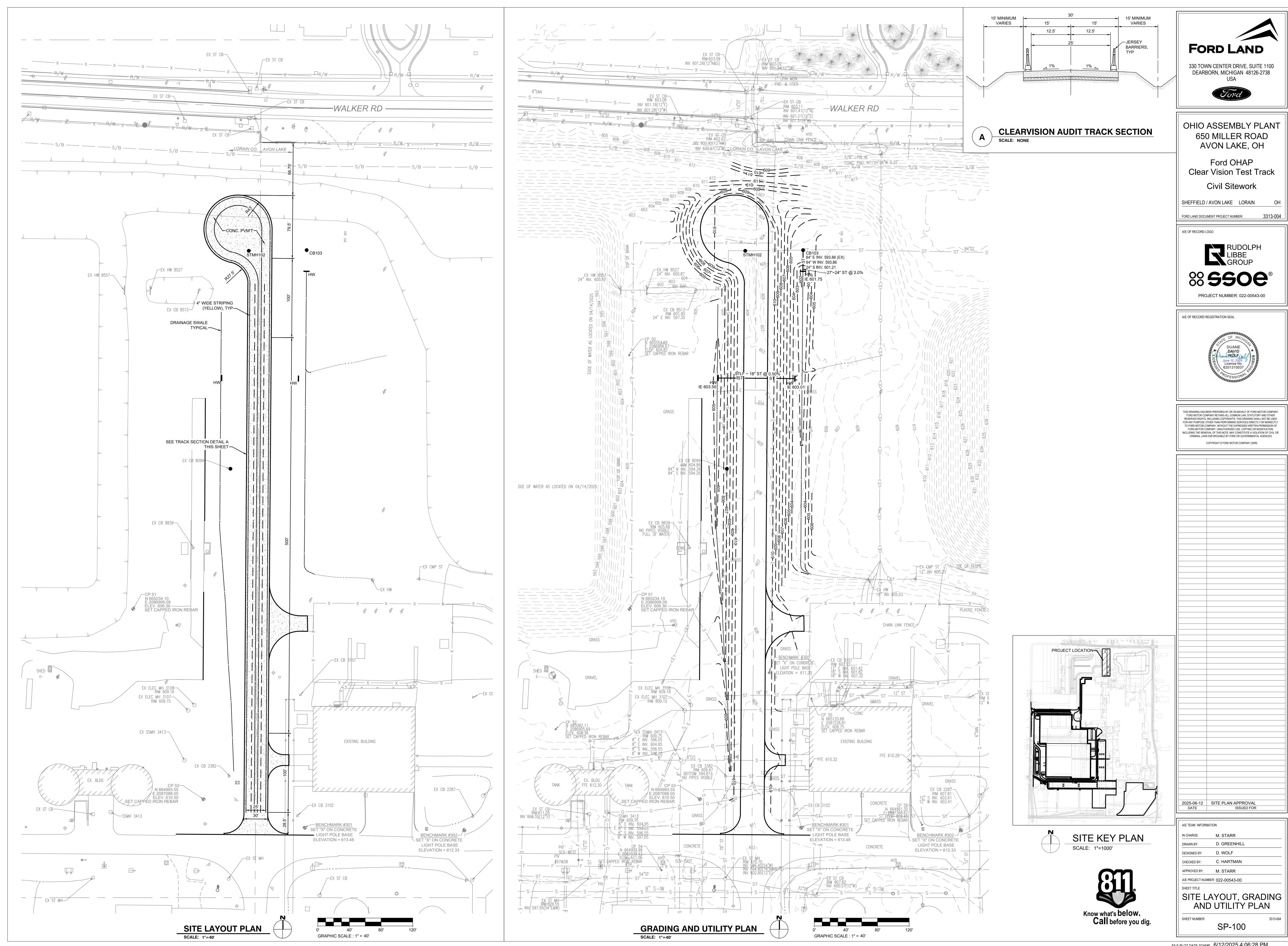
SHEET TITLE

SITE COVER SHEET

SHEET NUMBER 33

FILE PLOT DATE STAMP 6/12/2025 4:06:06 PM

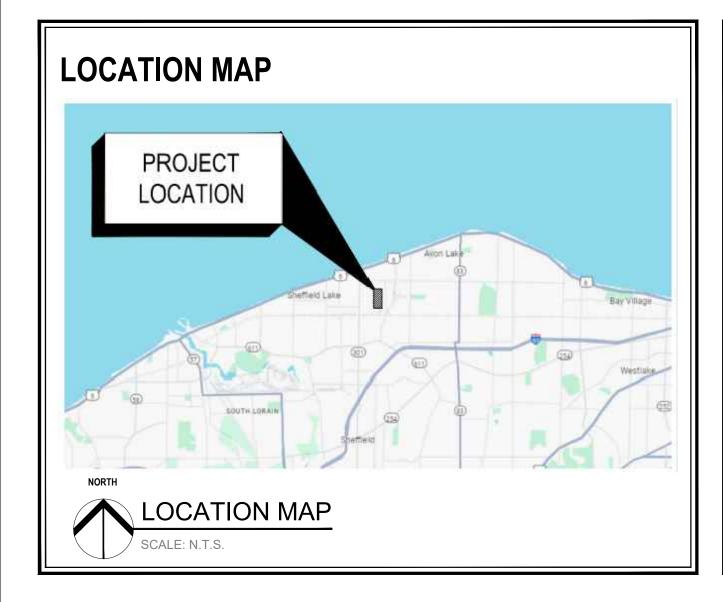
SP-000



FILE PLOT DATE STAMP 6/12/2025 4:06:28 PM







PROJECT DESCRIPTION

RETENTION POND DESIGN AND INTERCONNECTING
STORM SEWER REPLACEMENT PROJECT

FORD LAND DOCUMENT PROJECT NUMBER

LIST OF DEFERRED CITY SUBMITTALS

CITY SUBMITTALS

LIST OF CITY SUBMITTALS

PROJECT NAME AND ADDRESS

OHIO ASSEMBLY PLANT

AVON LAKE
650 MILLER ROAD AVON LAKE, OH 44012

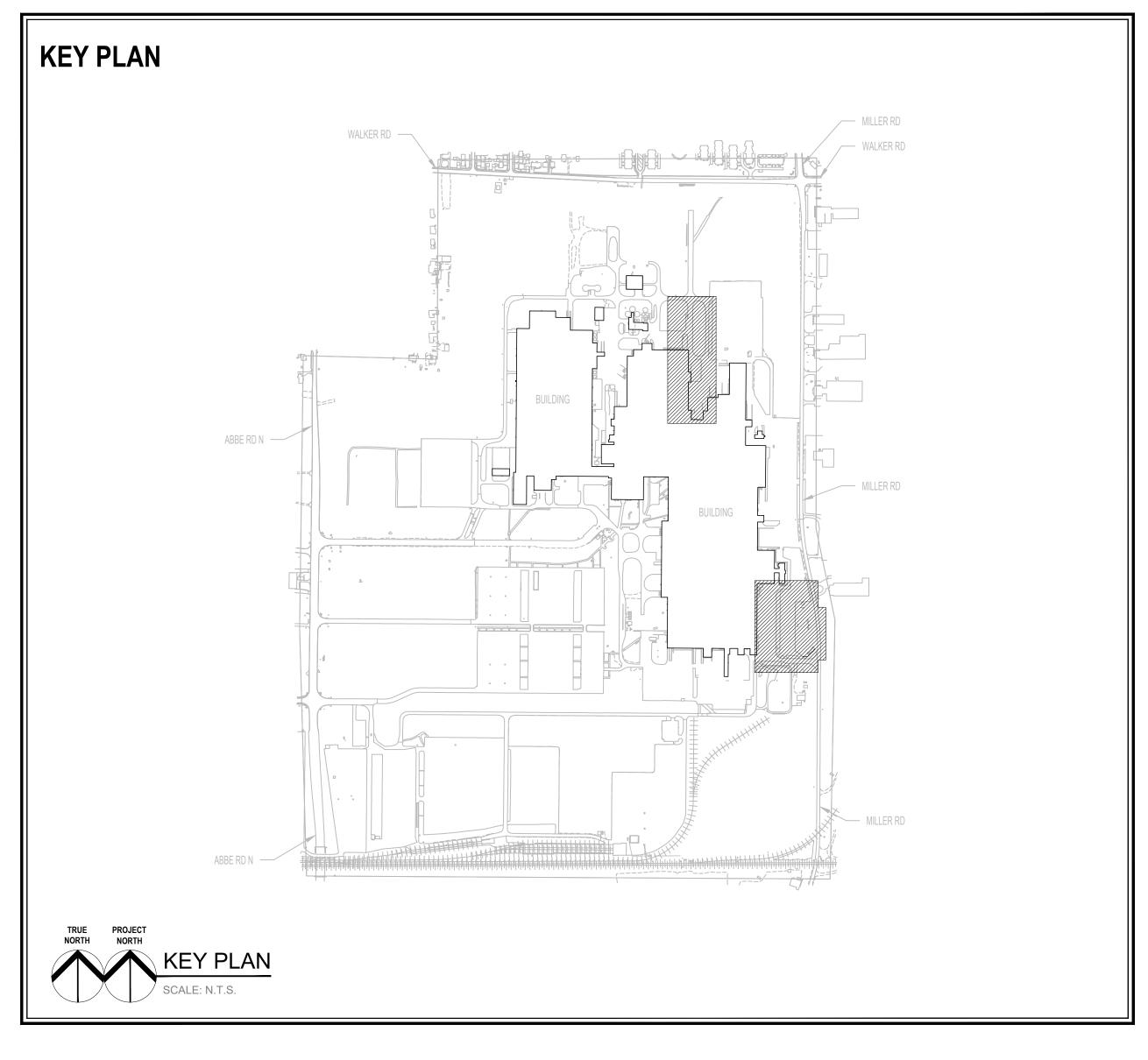
STORMWATER

MANAGEMENT

DESIGN

PROJECT TEAM

FORD KEY CONTACTS FORD LAND PROJECT MANAGER: "Ford Land PJM Name" "Ford Land PJM Phone Number" FORD LAND WORKPLACE STRATEGY MANAGER: "Ford Land WSM Name" "Ford Land WSM Phone Number" FORD LAND DCT PLANNING MANAGER: "Ford Land DCT PJM Name" "Ford Land DCT PJM Phone Number"



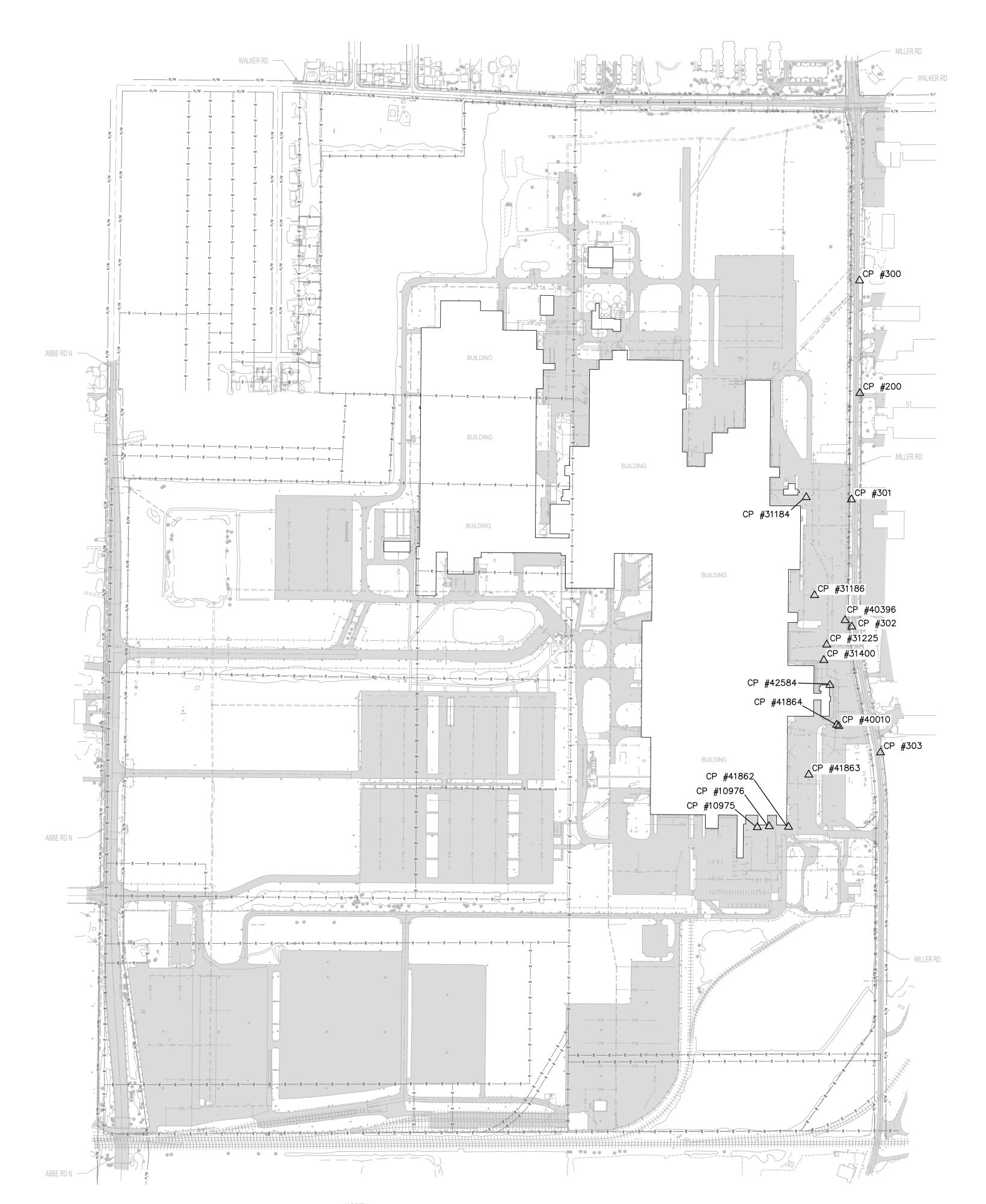
PROJECT IMAGE



A/E PROJECT INFORMATION

30203632 NOT FOR CONSTRUCTION APRIL 4TH, 2024







	INDEX OF DRAWINGS
	GENERAL
G-001	COVER SHEET
G-002	EXISTING SITE PLAN, ABBREVIATIONS, LEGEND, AND DRAWING INDEX
G-003	GENERAL NOTES
	CIVIL
C-001	OVERALL EXISTING SITE PLAN
C-002	NORTH SEWER EXISTING CONDITIONS PLAN AND PROFILE
C-003	NORTH SEWER PROPOSED PLANS AND PROFILE
C-004	ROOF DRAIN SEWER EXISTING CONDITIONS PLAN
C-005	ROOF DRAIN SEWER PROPOSED PLAN AND PROFILES
C-006	STORMWATER DETENTION POND EXISTING CONDITIONS PLAN
C-007	STORMWATER DETENTION POND GRADING PLAN
C-008	STORMWATER DETENTION POND OUTLET PARTIAL PLAN AND PROFILE
C-009	STORMWATER DETENTION POND SECTIONS
C-010	STORMWATER DETENTION POND DETAILS - I
C-011	STORMWATER DETENTION POND DETAILS - II
C-012	EROSION AND SEDIMENT CONTROL DETAILS
C-013	MISCELLANEOUS DETAILS - I
C-014	MISCELLANEOUS DETAILS - II

EXISTING SYMBOLS

(0	B	CATCH BASIN ROUND	$\overline{\phi}$	POWER TELEPHONE POLE
C	В	CATCH BASIN SQUARE		POWER POLE
(5	SA	SANITARY MANHOLE	Þ	LIGHT POLE
(5	ST)	STORM MANHOLE	•	GUY ANCHOR
(Ć	(0)	CLEANOUT	冲	YARD LITE
(((Ė)	GAS VALVE		ELECTRIC METER
	3	GAS METER	E	ELECTRIC PULL BOX
_	ł G	GAS LINE MARKER	(Ē)	ELECTRIC HAND HOLE
7	+	HYDRANT	0	BOLLARD/POST
()	<u>†</u> ₩)	WATER VALVE	£.}	TREE
		WATER METER		EVERGREEN TREE
	IJ.	UTILITY BOX	**************************************	BUSH/SHRUB
رَاِ	j)	UTILITY VALVE		STUMP
_	Δ	KS CONTROL POINT	-	SIGN
•		BENCH MARK		

PROPOSED SYMBOLS

CB CATCH BASIN ROUND
CB CATCH BASIN SQUARE
(ST) STORM MANHOLE

MONUMENT BOX

CONTROL POINTS					
Point #	ELEVATION	NORTHING	EASTING	DESCRIPTION	
200	609.80	664357.30	2088638.64	CNPT MAGS	
300	607.32	664942.93	2088636.94	CNPT IPINS	
301	612.41	663804.43	2088594.98	CNPT MAGS	
302	620.02	663143.20	2088596.36	CNPT MAGS	
303	623.83	662489.17	2088746.23	CNPT IPINS	
10975	620.28	662099.91	2088105.67	CNPT MAGS	
10976	620.34	662104.97	2088167.42	CNPT MAGS	
31184	613.89	663815.62	2088359.99	CNPT MAGS	
31186	617.24	663306.46	2088403.17	CNPT MAGS	
31225	620.01	663048.95	2088466.74	CNPT MAGS	
31400	621.30	662969.31	2088451.37	CNPT MAGS	
40010	622.12	662625.90	2088529.72	CNPT MAGS	
40396	619.23	663176.81	2088561.82	CNPT MAGS	
41862	620.46	662101.93	2088268.10	CNPT MAGS	
41863	621.50	662373.81	2088373.26	CNPT MAGS	
41864	622.04	662632.83	2088518.17	CNPT MAGS	
42584	621.86	662839.29	2088483.25	CNPT MAGS	

LEGEND

EXISTING MAJOR TOPOGRAPHIC CONTOURS EXISTING MINOR TOPOGRAPHIC CONTOURS LIMITS OF EXISTING ASPHALT PAVING EXISTING LIMITS OF TREELINE/ VEGETATION EXISTING TREE EXISTING STORM SEWER = = <u>18" STM</u> = = = EXISTING STORM SEWER (18" AND LARGER) PROPOSED STORM SEWER _ _ _18" STM_ _ _ = PROPOSED STORM SEWER (18" AND LARGER) EXISTING SANITARY SEWER ----- SAN ----- SAN -----EXISTING SANITARY SEWER (18" AND LARGER) EXISTING 6'-0" CHAINLINK FENCE PROPOSED 6'-0" CHAINLINK FENCE ____x ___x ___x ___ EXISTING GAS LINE EXISTING OVERHEAD ELECTRIC ----- OHE ------ OHE -----EXISTING WATER LINE EXISTING GAURDRAIL PROPOSED GAURDRAIL EXISTING RAILROAD TRACKS EXISTING PROPERTY LINE **EXISTING RIGHT OF WAY** PROPOSED RIPRAP

ABBREVIATIONS

ASPHALT

BOT. BOTTOM CATCH BASIN ROUND CATCH BASIN SQUARE CORRUGATED METAL PIPE CONCRETE CARBON STEEL C.S. **ELEVATION** ELECTRIC HIGH DENSITY POLYETHYLENE INSIDE DIAMETER MEDIUM PRESSURE OUTSIDE DIAMETER OVERHEAD ELECTRICAL LINE PLASTIC POWER POLE POLYVINYL CHLORIDE REINFORCED CONCRETE PIPE SANITARY LINE SANITARY MANHOLE STORM MANHOLE

STORM LINE

WATER LINE

TELEPHONE/POWER POLE

VITRIFIED CLAY PIPE



17000 ROTUNDA DR, 1ST FLOOR SOUTH DEARBORN, MICHIGAN 48120-1168 USA



OHIO ASSEMBLY PLANT AVON LAKE, OH 44012 650 MILLER ROAD

STORMWATER MANAGEMENT DESIGN

OHIO

3313-000

AVON LAKE LORAIN COUNTY

M LAKE LOKAIN GOOKI I

FORD LAND DOCUMENT PROJECT NUMBER:

F RECORD LOGO

ARCADIS

LEGAL ENTITY: ARCADIS U.S., INC.

A/E OF RECORD REGISTRATION SEAL

PRELIMINARY NOT FOR CONSTRUCTION

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N CHARGE:	F. LAST NAME
DRAWN BY:	M. WELSHANS
DESIGNED BY:	K. ASCHEMEIER
CHECKED BY:	K. ASCHEMEIER
APPROVED BY:	F. LAST NAME
A/E PROJECT NUMBER:	30203632

EX. SITE PLAN, ABBREVIATIONS,
LEGEND AND DRAWING INDEX

SHEET NUMBER

C-001

1" = 300' 0 150 300 600 Feet

GENERAL NOTES:

- 1. THE TERM "SITE", AS USED ON THESE DRAWINGS, REFERS TO THE FORD MOTOR COMPANY ASSEMBLY PLANT STORMWATER SYSTEM REHABILITATION IN AVON LAKE, OHIO. THE TERM "CONTRACTOR" SHALL REFER TO THE COMPANY OR COMPANIES CONTRACTED TO IMPLEMENT THE DESIGN. THE TERM "ENGINEER" SHALL REFER TO ARCADIS U.S., INC.
- 2. PRIOR TO CONTRACTOR MOBILIZATION, ALL CONTRACTOR PERSONNEL THAT WILL BE ON-SITE, INCLUDING ALL SUBCONTRACTORS, SHALL READ AND UNDERSTAND THE PROVISIONS OF THE CURRENT PROJECT HEALTH AND SAFETY PLAN (HASP) PROVIDED BY FORD. FURTHER, ALL PERSONNEL SHALL BE REQUIRED TO SIGN A CERTIFICATION STATEMENT INDICATING THAT THEY HAVE READ THE HASP. UNDERSTAND ITS CONTENTS, AND WILL ADHERE TO ALL PROCEDURES CONTAINED THEREIN.
- 3. ALL ON-SITE CONTRACTOR PERSONNEL SHALL COMPLETE ANY ADDITIONAL TRAINING REQUIRED BY FORD PRIOR TO COMMENCING WORK ON-SITE.
- 4. IN THE EVENT AN UNSAFE CONDITION IS DETECTED BY THE CONTRACTOR OR THE ENGINEER, ALL WORK IN THE AREA OF THE UNSAFE CONDITION SHALL BE STOPPED IMMEDIATELY. THE UNSAFE CONDITION SHALL BE RESOLVED BASED ON THE PROVISIONS OF THE HASP AND FORD GUIDELINES.
- 5. CONSTRUCTION PROGRESS MEETINGS SHALL BE HELD ON A WEEKLY BASIS TO DISCUSS WORK COMPLETED, ANTICIPATED ACTIVITIES FOR THE UPCOMING WEEK, COORDINATION WITH OTHER CONTRACTORS AND/OR SUBCONTRACTORS, ANY HEALTH AND SAFETY ISSUES, AND ANY OTHER ISSUES THAT DEVELOPED DURING THE PREVIOUS WEEK OR ARE ANTICIPATED IN THE UPCOMING WEEK AND APPROPRIATE RESOLUTION OF SUCH ISSUES. MEETING ATTENDEES SHALL INCLUDE KEY CONTRACTOR AND SUBCONTRACTOR PERSONNEL AND THE ENGINEER. A FORD REPRESENTATIVE MAY ALSO ATTEND THE PROGRESS MEETING.
- 6. FORD WILL OBTAIN ALL PERMITS (IF AND) NECESSARY FOR THE WORK SHOWN ON THESE DRAWINGS. PRIOR TO PERFORMING ANY WORK, THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER THAT THE APPROPRIATE PERMITS HAVE BEEN OBTAINED.
- 7. EXISTING SITE FEATURES THAT ARE DAMAGED OR DESTROYED (OTHER THAN THOSE FEATURES SPECIFICALLY INDICATED ON THESE DRAWINGS TO BE REMOVED OR ALTERED) BY THE CONTRACTOR DURING THE COURSE OF THE PROJECT SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF FORD AND THE ENGINEER.
- 8. CONTRACTOR RESPONSIBILITIES ARE OUTLINED IN SECTION 3.4 OF FORD LAND SPECIFICATIONS 01 91 13.

SURVEY

- 1. SITE SURVEY CONTROLS ARE PROVIDED ON DRAWINGS ENTITLED "EXISTING CONDITIONS", PREPARED BY KS ASSOCIATES ON MARCH 25, 2022. SURVEY IS TOPOGRAPHIC DATA AND GPS OBSERVATION. PROPERTY LINES ARE FROM AVAILABLE GIS AND ARE NOT REPRESENTATIVE OF A BOUNDARY SURVEY. EASEMENTS SHOWN HAVE BEEN PROVIDED WITHOUT A TITLE REPORT AND ARE NOT REPRESENTATIVE OF ALL EXISTING EASEMENTS. INTEGRITY AND ACCURACY OF SURVEY BENCHMARKS TO BE CONFIRMED
- 2. THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN ACCURATE SURVEY CONTROL TO ALLOW SUCCESSFUL COMPLETION AND DOCUMENTATION OF THE WORK, AS WELL AS TO SUPPORT MEASUREMENT AND PAYMENT.
- 3. THE CONTRACTOR SHALL SAFEGUARD ALL SURVEY POINTS AND BENCHMARKS. SHOULD ANY OF THESE POINTS BE DESTROYED, THE REPLACEMENT COST SHALL BE BORNE BY THE CONTRACTOR.
- 4. THE CONTRACTOR SHALL ASSUME THE ENTIRE EXPENSE OF RECTIFYING WORK IMPROPERLY CONSTRUCTED DUE TO FAILURE TO MAINTAIN AND PROTECT SURVEY BENCHMARKS AND/OR TO ADEQUATELY STAKE OR OTHERWISE CONTROL THE WORK.
- 5. GRADE CONTROL STAKES AND RECORD SURVEY SHOTS SHALL BE LOCATED AT CHANGES IN GRADE AND GENERALLY ON A 50-FOOT GRID.
- 6. HORIZONTAL CONSTRUCTION AND SURVEY TOLERANCES SHALL BE 0.05 FOOT UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
- 7. VERTICAL CONSTRUCTION AND SURVEY TOLERANCES SHALL BE 0.10 FOOT FOR GENERAL SITE GRADING UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.

PERMITTING NOTES:

- 1. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF ANY ISSUED PERMITS AND ANY APPLICABLE COUNTY, STATE, FEDERAL LAWS, AND REGULATIONS.
- 2. STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROLS SHALL BE IMPLEMENTED IN ACCORDANCE WITH THESE DRAWINGS AND THE PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWP3). REFER TO THE PROJECT SWP3 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- 3. THE LIMIT OF DISTURBANCE IS XX AC.
- 4. PROJECT MUST ADHERE TO SUBMITTAL AND GENERAL COMMISSION STANDARDS SET FORTH IN FORD LAND SPECIFICATIONS SECTION 01 91 13.

EROSION AND SEDIMENT CONTROL

- 1. ALL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE COMPLIANT WITH LOCAL AND STATE REGULATIONS.
- 2. CONTRACTOR SHALL INSTALL AND MAINTAIN ALL CONTROL MEASURES IN ACCORDANCE WITH THE DETAILS AND SPECIFICATIONS INCLUDED IN THIS PLAN, THE SWP3, AS RECOMMENDED BY THE PRODUCT MANUFACTURER, AND THE OHIO DEPARTMENT OF NATURAL RESOURCES RAINWATER AND LAND DEVELOPMENT MANUAL. CONFLICTS BETWEEN THE PLAN AND EITHER THE SWP3, MANUFACTURER RECOMMENDATIONS, OR THE LAND DEVELOPMENT MANUAL SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER.
- 3. TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED BEFORE OR UPON COMMENCEMENT OF PERMITTED EARTH DISTURBANCE ACTIVITIES AND THE MEASURES SHALL BE MAINTAINED ON A DAILY BASIS.
- 4. THE CONTRACTOR SHALL PRESERVE NATURAL VEGETATION BOTH ON AND OFF THE SITE, UNLESS THE VEGETATION HAS BEEN SPECIFICALLY IDENTIFIED FOR REMOVAL.
- 5. THE CONTRACTOR SHALL CONTAIN SEDIMENT-LADEN RUNOFF TO THE WORK AREA AND NOT ALLOW SEDIMENT TO COLLECT ON ANY OFF-SITE AREA OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STORM DRAINS, LAKES, PONDS, AND WETLANDS.
- 6. THROUGHOUT THE LIFE OF THE PROJECT, CONSTRUCTION LOGS SHALL RECORD MAJOR DATES OF GRADING, EXCAVATION, AND STABILIZATION. 7. THE CONTRACTOR SHALL CONTROL MUD TRACKING ON AND OFF THE CONSTRUCTION SITE AND REMOVE
- ALL MUD AND DIRT FROM ROADWAYS AFFECTED BY THE PERMITTED ACTIVITY BY THE END OF EACH 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL AND SHALL PROVIDE ALL EQUIPMENT AND MATERIAL TO KEEP DUST IN CHECK AT ALL TIMES. THE CONTRACTOR SHALL RESPOND
- IMMEDIATELY TO ANY AND ALL COMPLAINTS. 9. THE CONTRACTOR SHALL INSPECT ALL CONTROL MEASURES ACCORDING TO THE OHIO DEPARTMENT OF NATURAL RESOURCES RAINFALL AND LAND DEVELOPMENT MANUAL. THE CONTRACTOR SHALL
- IMMEDIATELY REPAIR OR REPLACE ANY MEASURE THAT IS FOUND TO BE OPERATING INEFFECTIVELY. 10.THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER WHEN A CHANGE IN SITE CONDITIONS
- REQUIRES MODIFICATION OF THE EXISTING PLAN AND CONTROL MEASURES.
- 11.THE CONTRACTOR SHALL REMOVE TEMPORARY CONTROL MEASURES AFTER PERMANENT MEASURES ARE INSTALLED AND THE AREAS ARE STABILIZED. "STABILIZED" MEANS THE ESTABLISHMENT OF VEGETATION OR THE PROPER PLACEMENT, GRADING, OR COVERING OF SOIL TO ENSURE ITS RESISTANCE TO SOIL EROSION, SLIDING, OR OTHER EARTH MOVEMENT.
- 12.THE CONTRACTOR SHALL COMPLETE ALL PERMANENT SOIL EROSION CONTROL MEASURES UPON COMPLETION OF THE FINAL EARTH DISTURBANCE. IF IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE THE EARTH DISTURBANCE, THEN THE CONTRACTOR SHALL MAINTAIN TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES UNTIL PERMANENT CONTROL MEASURES ARE IN PLACE AND THE
- 13.APPLY TEMPORARY STABILIZATION (E.G., TEMPORARY SEEDING AND MULCHING OR HYDROSEEDING) TO DISTURBED SOILS/EXPOSED SOIL WHERE ADDITIONAL WORK IS NOT SCHEDULED FOR MORE THAN 21 DAYS. SEEDING PERFORMED DURING HOT AND DRY SUMMER MONTHS SHALL BE WATERED AT A RATE OF 1 INCH PER WEEK. TEMPORARY SEEDING SHALL NOT BE APPLIED IF THE AREAS WILL BE IDLE FOR MORE THAN ONE YEAR. SEE THE OHIO DEPARTMENT OF NATURAL RESOURCES RAINWATER AND LAND DEVELOPMENT MANUAL FOR IN-DEPTH SPECIFICATIONS FOR TEMPORARY SEEDING AND MULCHING.
- 14.APPLY PERMANENT VEGETATION/STABILIZATION ON AREAS THAT WILL NOT BE RE-DISTURBED FOR PERIODS LONGER THAN 1 YEAR AND ARE AT FINAL GRADE. SEEDING SHOULD BE DONE MARCH 1 TO MAY 31, OR AUGUST 1 TO SEPTEMBER 30. IF SEEDING OCCURS OUTSIDE OF THE SPECIFIED DATES, ADDITIONAL MULCH AND IRRIGATION MAY BE REQUIRED. SEE THE OHIO DEPARTMENT OF NATURAL RESOURCES RAINWATER AND LAND DEVELOPMENT MANUAL FOR IN-DEPTH SPECIFICATIONS FOR PERMANENT SEEDING.
- 15.TRASH AND CONSTRUCTION-RELATED SOLID WASTES SHALL BE CONTAINERIZED AND PROPERLY DISPOSED OF IN ACCORDANCE WITH FORD'S STANDARDS AND APPLICABLE FEDERAL AND STATE REGULATIONS TO PREVENT CONTAMINATION OF SURFACE WATER AND/OR DISPERSAL BY WIND.
- 16.ALL CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED IN A MANNER WHICH PREVENTS THE RELEASE OF HAZARDOUS MATERIALS INCLUDING OILS, SOLVENTS, HYDRAULIC FLUIDS, AND FUEL. HAZARDOUS MATERIALS THAT MUST BE STORED ON-SITE SHALL BE STORED IN AN APPROPRIATE MANNER THAT IS ACCEPTABLE TO FORD AND THE ENGINEER. SPILLS SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR AND THE MATERIALS RESULTING FROM THE CLEANUP SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH FORD'S STANDARDS AND APPLICABLE FEDERAL AND STATE REGULATIONS.

TESTING AND INSPECTION SERVICES

1. UNLESS OTHERWISE NOTED, TESTING AND INSPECTION SHALL BE CARRIED OUT ACCORDING TO FORD LAND SPECIFICATIONS SECTION 01 45 23.

TEMPORARY FACILITIES AND CONTROLS

1. TEMPORARY FACILITIES AND CONTROLS ASSOCIATED WITH THE PROJECT AND ON SITE ARE TO ADHERE TO SECTIONS 01 50 00 OF FORD LAND SPECIFICATIONS.

UTILITY NOTES:

- 1. THE LOCATIONS AND ALIGNMENTS OF EXISTING UTILITIES SHOWN ON THE DESIGN DRAWINGS ARE APPROXIMATE AND BASED ON SURVEYED DATA. THE CONTRACTOR SHALL VERIFY THE PRESENCE AND LOCATION OF ALL OVERHEAD/UNDERGROUND SITE FEATURES AND UTILITIES RELEVANT TO THE WORK.
- 2. THE CONTRACTOR SHALL SUBMIT A UTILITY LOCATION REQUEST A MINIMUM OF 48 HOURS IN ADVANCE BUT NO MORE THAN 10 WORKING DAYS BEFORE EARTH DISTURBANCE ACTIVITIES COMMENCE. DISTURBANCE MAY NOT COMMENCE UNTIL ALL UTILITY OWNERS PROVIDE A RESPONSE AND UTILITIES PRESENT AT THE SITE HAVE BEEN MARKED. THE CONTRACTOR SHALL SUBMIT PROOF OF TICKET FILING AND RESPONSE TO THE ENGINEER FOR THE PROJECT RECORD.
- 3. THE CONTRACTOR IS RESPONSIBLE FOR SUBCONTRACTING/COORDINATING WITH AN APPROPRIATE PRIVATE UTILITY LOCATOR TO LOCATE AND IDENTIFY UNDERGROUND UTILITIES WITHIN PROPERTY LIMITS. OVERHEAD UTILITY LOCATIONS SHALL BE MARKED ON THE GROUND SURFACE. THE
- CONTRACTOR SHALL MAINTAIN ALL UTILITY MARKINGS FOR THE DURATION OF THE PROJECT. 4. DO NOT INTERRUPT ANY SERVICES TO FORD'S FACILITIES WITHOUT WRITTEN PERMISSION FROM FORD. 5. PROVIDE PROTECTION FROM DAMAGE FOR SUCH UTILITIES AND SERVICES. PROVIDE TEMPORARY
- SERVICES IF INTERRUPTION INTERFERES WITH OWNER'S OPERATIONS. 6. PROTECT UTILITIES OR SERVICES REMAINING IN SERVICE FROM DAMAGE. RE-ROUTE UTILITIES OR SERVICES ON A TEMPORARY BASIS AS NECESSARY TO ALLOW FORD'S OPERATIONS AS WELL AS THE OPERATIONS OF THE CONTRACT. RESTORE TO ORIGINAL LOCATIONS WHEN CONDITIONS ALLOW.
- FXPFNSF. 7. EXCEPT WHERE NOTED OR AS OTHERWISE INDICATED IN THE DESIGN, THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE AND PROTECTION OF ALL OVERHEAD/UNDERGROUND SITE

DAMAGES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S

- FEATURES AND UTILITIES THAT MAY BE AFFECTED BY THE WORK. ALL UTILITIES, UNLESS STATED OTHERWISE, SHALL REMAIN IN OPERATION FOR THE DURATION OF THE WORK. 8. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING/COORDINATING WITH THE APPROPRIATE UTILITY COMPANIES FOR THE TEMPORARY BRACING, REMOVAL, RELOCATION, AND/OR REPLACEMENT OF ANY
- UTILITIES, UTILITY POLES, OR GUY WIRES AS REQUIRED TO FACILITATE CONSTRUCTION. 9. THE CONTRACTOR SHALL COORDINATE WITH APPLICABLE UTILITY COMPANIES AS NECESSARY TO
- OBTAIN TEMPORARY UTILITY SERVICES TO SUPPORT CONSTRUCTION ACTIVITIES. 10.IF THE CONTRACTOR DAMAGES EXISTING UTILITY EQUIPMENT OR STRUCTURES, THE CONTRACTOR
- SHALL BE RESPONSIBLE FOR NOTIFYING THE UTILITY OWNER AND FULLY REPAIRING DAMAGES IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY OWNER.
- 11.IN THE EVENT OF A UTILITY STRIKE THAT CAUSES DAMAGE TO AN EXISTING UTILITY, THE CONTRACTOR MUST IMMEDIATELY STOP WORK UNTIL A FULL SOLUTION IS AGREED ON BY THE CONTRACTOR, ENGINEER, AND UTILITY OWNER. ANY SCHEDULE DELAYS RELAYED TO A UTILITY STRIKE MAY NOT BE CONSIDERED PART OF A LOST TIME CLAIM, AND NO EXTENSIONS OF THE SCHEDULE SHALL BE GRANTED TO THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS TO DAMAGED UTILITIES AT NO ADDITIONAL COST TO THE PROJECT.

MATERIALS/PRODUCTS

- a. ALL GEOTEXTILE MATERIAL SHALL MEET THE MINIMUM REQUIREMENTS OF A CLASS 1 GEOTEXTILE IN ACCORDANCE WITH AASHTO M288: GEOSYNTHETIC SPECIFICATION FOR HIGHWAY APPLICATIONS (LATEST EDITION)
- b. NON-WOVEN GEOTEXTILE SHALL HAVE A NOMINAL WEIGHT OF 8 OUNCES PER SQUARE YARD.
- c. PRIOR TO MATERIAL DELIVERY TO THE SITE, THE CONTRACTOR SHALL SUBMIT PRODUCT DATA SHEETS FOR GEOTEXTILE MATERIAL DEMONSTRATING CONFORMANCE WITH PROJECT SPECIFICATIONS.

2. GENERAL FILL:

a. NATURAL SAND FINE AGGREGATE MATERIAL FOR BEDDING AND BACKFILL SHALL CONFORM TO THE REQUIREMENTS FOR FINE AGGREGATE IN SECTION 6 OF ASTM C 33 PER FORD SPECIFICATION SECTION 31 00 00. MATERIAL SHALL BE NATURAL BANK RUN SAND.

3. CRUSHED STONE BEDDING

a. CRUSHED, ANGULAR, NATURAL STONE MATERIAL, MEETING THE REQUIREMENTS OF ASTM D 488 SIZE NO. 57. CRUSHED CONCRETE IS NOT ALLOWED. MATERIAL SHALL BE AT LEAST 95% CRUSHED PER FORD SPECIFICATION SECTION 31 00 00.

4. TOPSOIL

- a. TOPSOIL SHALL BE LOCALLY AVAILABLE (STRIPPED FROM ON-SITE DISTURBED AREAS, IF POSSIBLE), FERTILE, FRIABLE SOIL OF LOAMY CHARACTER, OBTAINED FROM WELL-DRAINED ARABLE LAND AND REASONABLY FREE FROM REFUSE, ROOTS, HEAVY OR STILL CLAY, LARGE STONES, COARSE SAND, STICKS, BRUSH, LITTER, AND OTHER DELETERIOUS SUBSTANCES.
- b. VEGETATIVE MATTER OTHER THAN BRUSH OR TREES MAY BE INCORPORATED INTO TOPSOIL.
- c. A MINIMUM OF TWO (2) AGRONOMIC TESTS SHALL BE CONDUCTED BY AN INDEPENDENT LABORATORY UNDER THE DIRECTION OF THE CONTRACTOR ON TOPSOIL MATERIAL PLANNER FOR USE/RE-USE IN VEGETATED AREAS. AT A MINIMUM, AGRONOMIC TEST REPORTS SHALL INDICATE TEXTURE, COLOR, PH, SALINITY, ORGANIC CONTENT, AND SOIL AMENDMENT RECOMMENDATIONS (E.G., LIME, FERTILIZER, ORGANICS) FOR SUCCESSFUL ESTABLISHMENT OF VEGETATED AREAS. d. CONTRACTOR SHALL APPLY TOPSOIL EVENLY TO A DEPTH OF AT LEAST 4 INCHES AND COMPACT
- SLIGHTLY TO IMPROVE CONTACT WITH SUBSOIL. 5. CAST-IN-PLACE CONCRETE (FORD LAND SPECIFICATION SECTION 03 30 00)
- a. PORTLAND CEMENT PER ASTM C 150. DO NOT USE SLAG CEMENT. CEMENT USED SHALL BE OF ONE
- BRAND, COLOR, AND SOURCE THROUGHOUT THE WORK.
- i. TYPE I OR II FOR STANDARD 28 DAY STRENGTH CONCRETE
- ii. TYPE II FOR MASS CONCRETE AND SULFATE RESISTANCE
- iii. TYPE III FOR 7 DAY HIGH EARLY STRENGTH CONCRETE
- b. COARSE AGGREGATE FOR NORMAL WEIGHT CONCRETE SHALL BE CRUSHED STONE, CRUSHED GRAVEL, OR WASHED GRAVEL PER ASTM C 33, INCLUDING TABLE 2 FOR GRADING REQUIREMENTS AND TABLE 3 FOR DELETERIOUS SUBSTANCES AND PHYSICAL PROPERTY REQUIREMENTS.
- c. FINE AGGREGATE SHALL BE NATURAL SAND PER ASTM C 33
- d. PROVIDE ASTM C33, SIZE NO. 467 AGGREGATE FOR CONCRETE SLABS ON GRADE

6. PRECAST CONCRETE

- a. PRECAST CONCRETE SHALL ADHERE TO VENDORS FROM OHIO DOT CERTIFIED PRECAST CONCRETE PRODUCERS IN ACCORDANCE WITH THE OHIO DOT SUPPLEMENT 1073.
- 7. EROSION CONTROL BLANKET
- a. EROSION CONTROL BLANKET SHALL BE INSTALLED IN ALL VEGETATED AREAS AS IDENTIFIED ON THE FINAL SITE PLAN.
- b. EROSION CONTROL MAT SHALL BE XXX OR APPROVED EQUIVALENT.
- 8. UTILITY PIPING (PER FORD SPECIFICATION SECTION 15408) a. FOR UNDERGROUND GRAVITY SEWERS, PVC PIPE SHALL BE USED. INSTALLATION AS DESCRIBED IN FORD SPECIFICATION SECTION 15408 PIPING - GRAVITY & PUMPED SEWERS.
- b. PIPE MATERIAL BASED ON PIPE DIAMETER TO FOLLOW SPECIFICATIONS SET FORTH IN SUBSECTION 2.2 OF FORD LAND SPECIFICATIONS SECTION 15408.

ASPHALT PAVING

a. BLENDED AGGREGATE SHALL CONFORM TO ASTM D692/D692M, ASTM D1073; AASTHO M 29.

ASTM D2027/D2027M, AND ASTM D2028/D2028M, AASHTO M 81 AND AASHTO M 82.

- b. MINERAL FILLER GRADATION SHALL CONFORM TO AASHTO M17.
- GRADED ASPHALT BINDER CONFORMING TO AASTHO M 320. d. LIQUID ASPHALT FOR USE IN PAVEMENT CONSTRUCTION SHALL CONFORM TO ASTM D2026/D2026M,

c. ASPHALT BINDER FOR USE IN PRODUCTION OF BITUMINOUS MIXTURES SHALL BE PERFORMANCE

- e. EMULSIFIED ASPHALT SHALL CONFORM TO ASTM D244.
- f. AGGREGATE BASE COURSE SHALL MEET THE REQUIREMENTS OF NO. 57, CRUSHED, ANGULAR STONE, PER ASTM D448

MATERIALS/PRODUCTS (CONTINUED)

- 10.NON-SHRINK GROUT SHALL BE PREMIXED, NON-SHRINK, NON-METALLIC, CONSISTING OF AGGREGATE BASE, PORTLAND CEMENT AND SAND, AND WITH NECESSARY PLASTICIZERS, DENSIFIERS, AND OTHER CONTROL INGREDIENTS:
- a. BASF "MASTERFLOW 713"
- b. EUCLID CHEMICAL COMPANY "HI-FLOW GROUT"
- c. FIVE STAR PRODUCTS INC. "FIVE STAR GROUT"
- d. L & M CONSTRUCTION CHEMICALS "CRYSTEX"
- e. SIKA CHEMICAL COMPANY "SIKA GROUT 212 HP"
- 11.CHAIN LINK FENCE (FORD LAND SPECIFICATIONS 32 10 00-2)
- a. CONTINUOUSLY BONDED VINYL COATING, WITH A FINISH COATING COMPLYING WITH ASTM F 668. b. FABRIC: TWO (2) INCH DIAMOND MESH, WITH NINE (9) GAUGE, STEEL WIRE. AT PROPERTY LINE USE SIX (6) GAUGE STEEL WIRE.
- c. ZINC-COATED STEEL FABRIC: ASTM A392 HOT DIPPED GALVANIZED BEFORE OR AFTER WEAVING (CLASS 1 - 1.2 OZ/SF).
- d. FABRIC SELVAGE TWIST AND BAR AT BOTH SELVAGES.
- e. FITTINGS
- i. TENSION AND BRACE BANDS: GALVANIZED STEEL COMPLYING WITH ASTM F 626
- ii. TERMINAL POST CAPS, LINE POST LOOP TOPS, RAIL AND BRACE ENDS, BOULEVARD CLAMPS, RAIL SLEEVES: IN COMPLIANCE WITH ASTM F 626
- iii. TRUSS ROAD ASSEMBLY IN COMPLIANCE WITH ASTM F 626
- iv. TENSION BARS IN COMPLIANCE WITH ASTM F 626
- v. BARBED WIRE ARMS IN COMPLIANCE WITH ASTM F 626
- f. TIE WIRE AND HOGS RINGS PER ASTM F 626
- g. FENCE FRAMEWORK: ROUND STEEL PIPE AND RAIL: ASTM F 1043 GROUP IA HEAVY INDUSTRIAL FENCE FRAMEWORK, SCHEDULE 40 GALVANIZED PIPE ER ASTM F 1083. EXTERIOR AND INTERIOR HOT DIPPED ZINC COATING MINIMUM AVERAGE 1.8 OZ/SF.
- h. GATE SPECIFICATIONS PER FORD LAND SPECIFICATIONS SECTION 32 21 00-1.

SITE PREPARATION AND DEMOLITION (FORD LAND SPECIFICATION SECTION 31 00 00)

- 1. PRIOR TO BEGINNING WORK, COMPLETE THE OWNER'S EXCAVATION PERMIT LOCATED AT THE FORMS SECTION OF THE MANUFACTURING ENGINEERING EQUIPMENT AND TOOLING SYSTEMS (MEETS)- FACILITY SPECIFICATIONS SITE.
- 2. PREPARE AND CLEAR THE SITE AS SHOWN AND REQUIRED FOR NEW CONSTRUCTION. CLEAR THE SITE. WITHIN THE WORK AREA LIMITS, AS REQUIRED FOR CONSTRUCTION OPERATIONS. REMOVE TREES, SHRUBS, AND OTHER VEGETATION NOT INDICATED TO REMAIN, AND DISPOSE OF OFF SITE.
- 3. ALTER, REMOVE, OR RELOCATE EXISTING SITE UTILITIES AND IMPROVEMENTS, TO THE EXTENTS INDICATED AND AS REQUIRED.
- 4. STRIP TOPSOIL FROM AREAS TO BE DISTURBED. STOCKPILE TOPSOIL ON THE SITE WHERE DIRECTED BY THE OWNER FOR LATER RE-USE IN GRADING OF LAWN AREAS. REMOVE EXCESSES STOCKPILED TOPSOIL FROM THE SITE AT COMPLETION OF THE PROJECT.

EARTHWORK (GENERAL):

- 1. THE CONTRACTOR SHALL ADHERE TO ALL APPLICABLE OSHA SAFETY REGULATIONS CONCERNING
- EXCAVATION SAFETY. 2. THE CONTRACTOR SHALL PROVIDE, INSTALL, AND OPERATE ALL REQUIRED EXCAVATION DEWATERING EQUIPMENT NECESSARY TO PROVIDE SUITABLE CONDITIONS TO PERFORM AND COMPLETE THE
- 3. UPON REQUEST FROM THE CONTRACTOR, THE ENGINEER MAY PROVIDE GRADE CONTROL INFORMATION TO ASSIST WITH SITE LAYOUT AND CONSTRUCTION. ALL DIGIT INFORMATION PROVIDED TO THE CONTRACTOR (OTHER THAN DIGIT COPIES OF THE DESIGN DRAWINGS) IS PROVIDED AS "FOR INFORMATION ONLY" AND SHALL NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE DESIGN DRAWINGS AND SPECIFICATIONS.
- 4. ALL GRADING WORK SHALL BE PERFORMED WITH ADEQUATE SURVEY CONTROL SO THAT CONSTRUCTED CONDITIONS ARE WITHIN SPECIFIED TOLERANCES. SURVEY CONTROL MAY CONSIST OF MULTIPLE GRADE STAKING AND SURVEY VERIFICATION EVENTS OR USE OF RECENTLY CALIBRATED MACHINE GRADE CONTROL SYSTEMS MOUNTED ON THE EARTHMOVING MACHINERY. FOR ANY APPROACH THE CONTRACTOR SHALL PERFORM FIELD SURVEYS ARE NEEDED TO VERIFY WORK PERFORMED IS CONSISTENT WITH THE DESIGN.
- 5. FIELD TESTING OF EARTHWORK SHALL COMPLY WITH SUBSECTION 3.12 OF FORD LAND SPECIFICATION
- 31 00 00. 6. ALL EARTHWORK IS TO BE PERFORMED ACCORDING TO FORD LAND SPECIFICATION SECTION 31 00 00.

EARTHWORK - EXCAVATING: (FORD LAND SPECIFICATION SECTION 31 00 00)

- 1. REMOVE, HAUL, AND DISPOSE OF MATERIALS AND OBSTRUCTIONS ENCOUNTERED. REMOVE OBSTRUCTIONS WITHIN THE LINES OF CONSTRUCTION, OR THAT WOULD INTERFERE WITH CONSTRUCTION. OBSTRUCTIONS CONSIST OF METALLIC, WOODEN, CONCRETE OR MASONRY DEBRIS,
- TREE ROOTS, AND SIMILAR ITEMS. 2. EXCAVATE TO LEVELS REQUIRED FOR BOTTOMS OF FOOTINGS, WALLS, SUBGRADE, UNDERFLOOR FILLS, SLABS LAID ON GROUND, STORAGE TANKS AND SIMILAR ITEMS, AS SHOWN. IN ALL CLASSES OF EXCAVATION WORK, EXCAVATE TO THE EXTENT NECESSARY TO PROVIDE EXCAVATION PROTECTION. PROVIDE ADEQUATE SPACE TO SAFELY PERMIT FORM PLACING, INSPECTION OF WORK, SUPPORT SYSTEM, AND OTHER UNDERGROUND WORK ADJACENT TO CONSTRUCTION, WHERE NATURE OF SOIL PERMITS, EXCAVATE TO THE FOOTING LINES, OTHERWISE, ALLOW FOR FORM PLACEMENT AND
- 3. UNDERGROUND OBSTRUCTIONS, WHICH ARE NOT DESIGNATED IN CONTRACT DOCUMENTS, OR CANNOT BE SEEN, EVIDENCED, OR REASONABLY ANTICIPATED BY EXAMINATION OF THE SITE, SHALL BE REMOVED
- AND PAID FOR AS DIRECTED BY THE OWNER. 4. IF, DURING THE PERFORMANCE OF THE WORK, A SUSPECTED HAZARDOUS MATERIAL OR CONTAMINATED SOIL CONDITION IS ENCOUNTERED, IMMEDIATELY NOTIFY THE OWNER, AND CEASE FURTHER EXCAVATION AND TRANSPORT OF EXCAVATED MATERIAL UNTIL INSPECTION AND ANALYSIS ARE
- 5. PROTECT ACTIVE UTILITIES WITHIN EXCAVATED AREAS. IMMEDIATELY NOTIFY THE OWNER OF ANY

PERFORMED AT THE DIRECTION OF THE OWNER.

- UTILITIES ENCOUNTERED THAT ARE NOT SHOWN OR SPECIFIED. 6. WHEN APPROVED BY THE OWNER, STORE ON THE PROJECT SITE WHERE SHOWN OR DIRECTED, ALL EXCAVATED MATERIAL SUITABLE AND APPROVED FOR BACKFILL, FILL, AND ROUGH GRADING. REMOVE UNSUITABLE MATERIAL AND EXCESS SUITABLE MATERIAL FROM THE PROJECT SITE. PROVIDE
- ADDITIONAL FILL MATERIAL IF REQUIRED. 7. EXCAVATE FOR ALL UNDERGROUND PIPING SYSTEMS AND UTILITY LINES, INCLUDING CIVIL, SITE,
- MECHANICAL, AND ELECTRICAL SYSTEMS. 8. TRENCH EXCAVATION SHALL FOLLOW SUBSECTION 3.04 OF FORD LAND SPECIFICATION SECTION 31 00 00
- 9. CONCRETE REMOVAL (FORD LAND SPECIFICATION SECTION 01035) a. WHEN REMOVING CONCRETE, BLADE-CUT MINIMUM 1 ½ INCH DEEP, UNLESS OTHERWISE NOTED, AT THE SURFACE TO ACHIEVE STRAIGHT LINE EDGES AND LEAVE THE EDGES SQUARE WITHOUT TAPER OR SLOPE. BREAK OUT CONCRETE EASILY HANDLED VOLUMES AND PROPERLY DISPOSE OF
- b. WHERE REQUIRED, LEAVE SUFFICIENT REINFORCING IN PLACE TO BOND TO NEW WORK; OTHERWISE CUT OFF FLUSH WITH FACE OF CONCRETE.

EARTHWORK - DEWATERING

1. DEWATERING METHODS SHALL COMPLY WITH SUBSECTION 3.05 OF FORD LAND SPECIFICATION SECTION 31 00 00.

1. PIPE BEDDING METHODS SHALL COMPLY WITH SUBSECTION 3.08 OF FORD LAND SPECIFICATION SECTION

EARTHWORK - PIPE BEDDING

SPECIFICATION SECTION 31 00 00.

31 00 00.

EARTHWOD - FILLING AND BACKFILLING

1. FILLING AND BACKFILLING METHODS SHALL COMPLY WITH SUBSECTIONS 3.09 AND 3.10 OF FORD LAND

EARTHWORK - VEGETATED AREA:

- 1. GENERAL FILL AND EXCESS MATERIAL GENERATED DURING SITE GRADING PLACE IN AREAS TO BE VEGETATED MAY BE PLACED TO A FIRM, NON-YIELDING CONDITION. IN-PLACE COMPACTION TESTING IS REQUIRED IN VEGETATED AREAS.
- 2. ROUGH GRADE LAWN AREAS. PLACE 6 INCHES, UNLESS OTHERWISE NOTED, OF TOPSOIL AND SMOOTH-FINISH GRADE TO REQUIRED ELEVATIONS. FINISH GRADING OTHER AREAS WITHIN THE WORK AREA LIMITS TO THE FINISHED GRADE ELEVATIONS SHOWN OR REQUIRED. GRADES NOT OTHERWISE INDICATED SHALL BE UNIFORM LEVELS OR SLOPES BETWEEN GIVEN POINTS OR BETWEEN GIVEN POINTS AND EXISTING GRADES. PROVIDE ROUNDINGS AT TOP AND BOTTOM OF BANKS AND AT OTHER BREAKS IN GRADES. ROUGH GRADE TO WITHIN 0.1 FOOT AND FINISH GRADE TO WITHIN 0.05 FOOT, OF REQUIRED SLOPES, GRADES, AND ELEVATIONS (SECTION 31 00 00).

EARTHWORK - SEEDING

1. AT DISTURBED LAWN AREAS, AFTER TOPSOILING, APPLY GRASS SEED, FERTILIZER, AND MULCH PER OHIO DEPARTMENT OF TRANSPORTATION SPECIFICATION 659.07.

EARTHWORK - SUBBASE

- 1. SUBBASE (UNDERNEATH CONCRETE SLABS, FOOTINGS, AND STRUCTURES) SHALL BE PLACED IN LOOSE LIFTS NOT TO EXCEED 8 INCHES. DO NOT PLACE SUBBASE ON FROZEN, SOFT, UNSTABLE, OR RUTTED SUBGRADE. DO NOT RUN OR DISTORT SUBBASE MATERIAL AFTER PLACEMENT.
- 2. SUBBASE MATERIAL SHALL BE COMPACTED TO 100 PERCENT MAXIMUM DRY DENSITY AS DETERMINED BY STANDARD PROCTOR (ASTM D698).
- 3. THE CONTRACTOR SHALL PROTECT COMPLETED SUBGRADE AREAS. IF PREPARED SUBGRADE AREAS BECOME RUTTED, DESICCATED, SATURATED, FROZEN, OR OTHERWISE DISTURBED, THE AFFECTED SUBGRADE SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT.
- 4. OHIO DOT RECOMMENDS A 6 INCH GRANULAR BASE FOR SUBBASE UNDER ALL CONCRETE PAVEMENTS. ELASTIC MODULUS OF THE SUBBASE FOR OHIO DOT MATERIAL ARE DESCRIBED IN SECTION 300 OF THE OHIO DOT REPAVEMENT DESIGN MANUAL.

EXECUTION - ASPHALT PAVING (FORD LAND SPECIFICATION SECTION 32 12 16)

- 1. FINE GRADE AND COMPACT EARTH SUBGRADES AND BRING TO REQUIRED ELEVATIONS AND CROSS-SECTIONS. REMOVE ALL DIRT, LOOSE MATERIALS, AND SOFT MATERIALS TO PROVIDE A SOUND, DRY SURFACE READY TO RECEIVE PAVING. BEFORE PLACING ANY OVERLYING MATERIALS. PROOFROLL THE COMPACTED SUBGRADE WITH A 10 TON ROLLER. REWORK ANY SOFT AREAS UNABLE TO SUPPORT THE ROLLER, UNTIL SUCH REWORKED SUBGRADE IS ACCEPTABLE TO THE TESTING AGENCY AND OWNER.
- 2. CONSTRUCT AGGREGATE BASE COURSE PER FORD LAND SPECIFICATION SECTION 31 00 00. COMPACT TO A MINIMUM OF 98 PERCENT MODIFIED PROCTOR PER ASTM DA1557. ANY AREAS OF IN-PLACE AGGREGATE BASE COURSE THAT ARE DAMAGED IN ANY WAY SHALL BE BROUGHT TO SATISFACTORY CONDITION AT NO ADDITIONAL COST TO THE OWNER.
- 3. AFTER THE AGGREGATE BASE COURSE IS IN PLACE, PRIME THE SURFACE AT THE RATE OF 0.30

GALLONS PER SQUARE YARD, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

- 4. PROVIDE A BOND COAT BETWEEN BITUMINOUS CONCRETE COURSES PER APPLIED UNIFORMLY AT A RATE OF 0.05 GALLONS PER SQUARE YARD.
- 5. BITUMINOUS BASE COURSE MIXTURES SHALL NOT BE PLACE IN LIFTS EXCEEDING THREE (3) INCHES, UNLESS OTHERWISE APPROVED BY THE ENGINEER. APPROVAL TO PLACE LIFTS GREATER THAN THREE INCHES WILL BE BASED ON THE ABILITY OF THE CONTRACTOR TO PLACE AND COMPACT THE BASE COURSE TO THE REQUIRED CROSS SECTION AND WITHIN THE SPECIFIED TOLERANCES.
- 6. ROLLING AND COMPACTING

SPECIFICATIONS SECTION 32 12 16.

- a. EACH LAYER OF BITUMINOUS MIXTURE SHALL BE COMPACTED WITH APPROVED ROLLERS.
- b. ROLLING OF MIXTURE SHALL BEGIN AS SOON AFTER PLACING WITHOUT UNDUE DISPLACEMENT, PICKING UP THE MAT, OR CRACKING.

c. SEE FORD LAND SPECIFICATIONS SECTION 32 12 16 FOR IN-DEPTH ROLLING, COMPACTING, AND

7. THE FINAL SURFACE FINISH SHALL BE UNIFORM, SMOOTH, FREE OF ROLLER MARKS, NOT SEGREGATED, AND PROVIDE POSITIVE DRAINAGE. SURFACE SMOOTHNESS SHALL MEET THE REQUIREMENTS OF ASTM E1703/E1703M.

8. TESTING OF ASPHALT PAVING AND ASSOCIATED MATERIALS SHALL COMPLY WITH FORD LAND

PAVEMENT DENSITY GUIDANCE AND SPECIFICATIONS.



17000 ROTUNDA DR, 1ST FLOOR SOUTH DEARBORN, MICHIGAN 48120-1168



OHIO ASSEMBLY PLANT **AVON LAKE, OH 44012** 650 MILLER ROAD

> STORMWATER **MANAGEMENT DESIGN**

> > OHIO

3313-000

AVON LAKE LORAIN COUNTY

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A/E TEAM INFORMATION F. LAST NAME IN CHARGE: M. WELSHANS P. OTIS DESIGNED BY P. OTIS F. LAST NAME 30203632 A/E PROJECT NUMBER: **GENERAL NOTES**

G-003

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OVERALL EXISTING SITE PLAN

LEGEND

----610--- EXISTING MAJOR TOPOGRAPHIC CONTOURS

EXISTING MINOR TOPOGRAPHIC CONTOURS

LIMITS OF EXISTING ASPHALT PAVING

EXISTING LIMITS OF TREELINE/ VEGETATION

EXISTING TREE

— STM — STM — EXISTING STORM PIPE

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EXISTING GAS LINE

EXISTING GAS LINE

EXISTING GAURDRAIL

EXISTING RAILROAD TRACKS

EXISTING RIGHT OF WAY

EXISTING PROPERTY LINE



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OHIO ASSEMBLY PLANT AVON LAKE, OH 44012 650 MILLER ROAD

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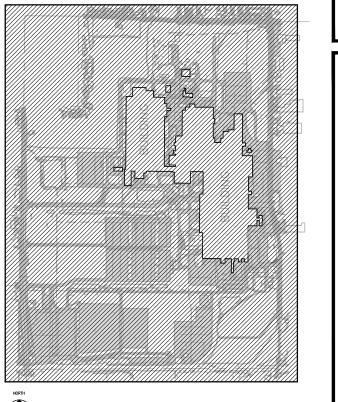
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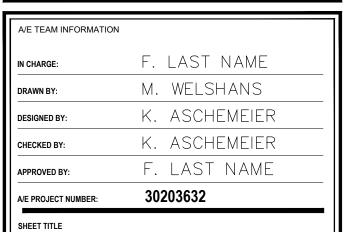
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OVERALL EXISTING SITE PLAN

C-001

1" = 300' 0 150 300 600 Feet

KEY PLAN

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OHIO ASSEMBLY PLANT

AVON LAKE, OH 44012

650 MILLER ROAD

STORMWATER MANAGEMENT DESIGN

AVON LAKE LORAIN COUNTY

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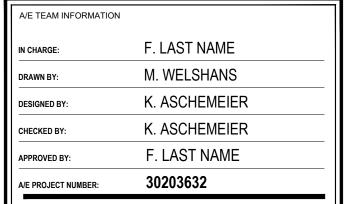
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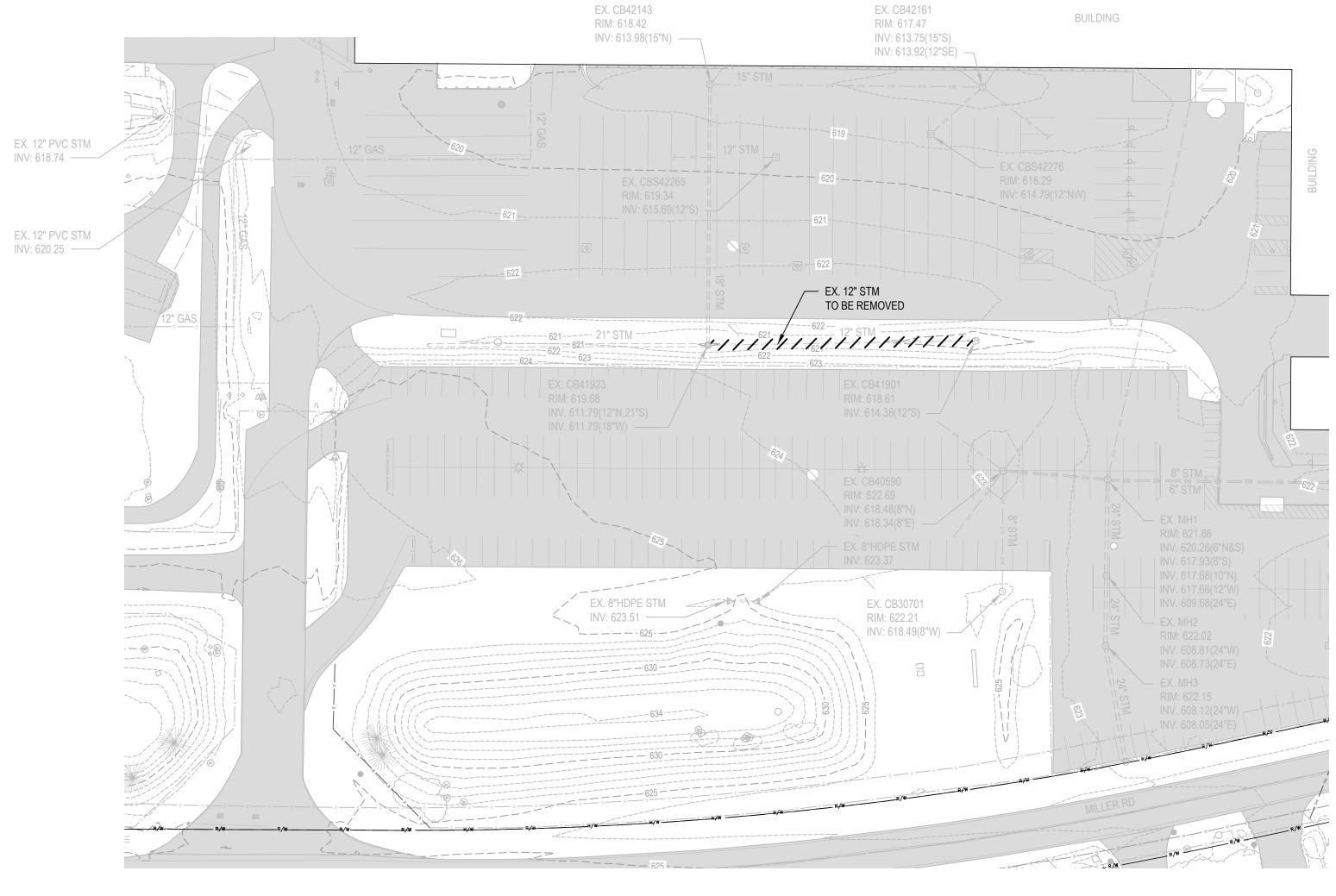
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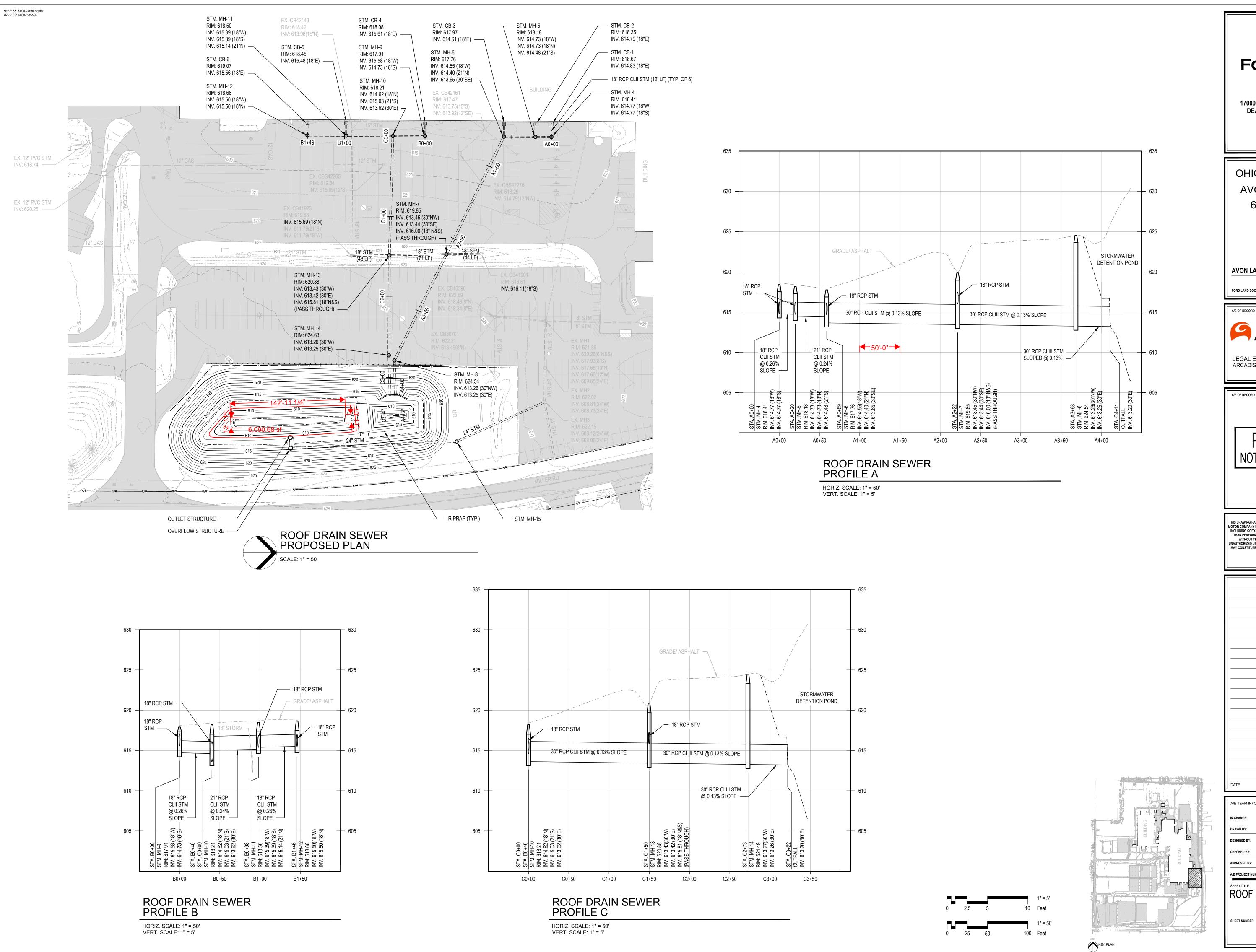
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NORTH KEY PLAN



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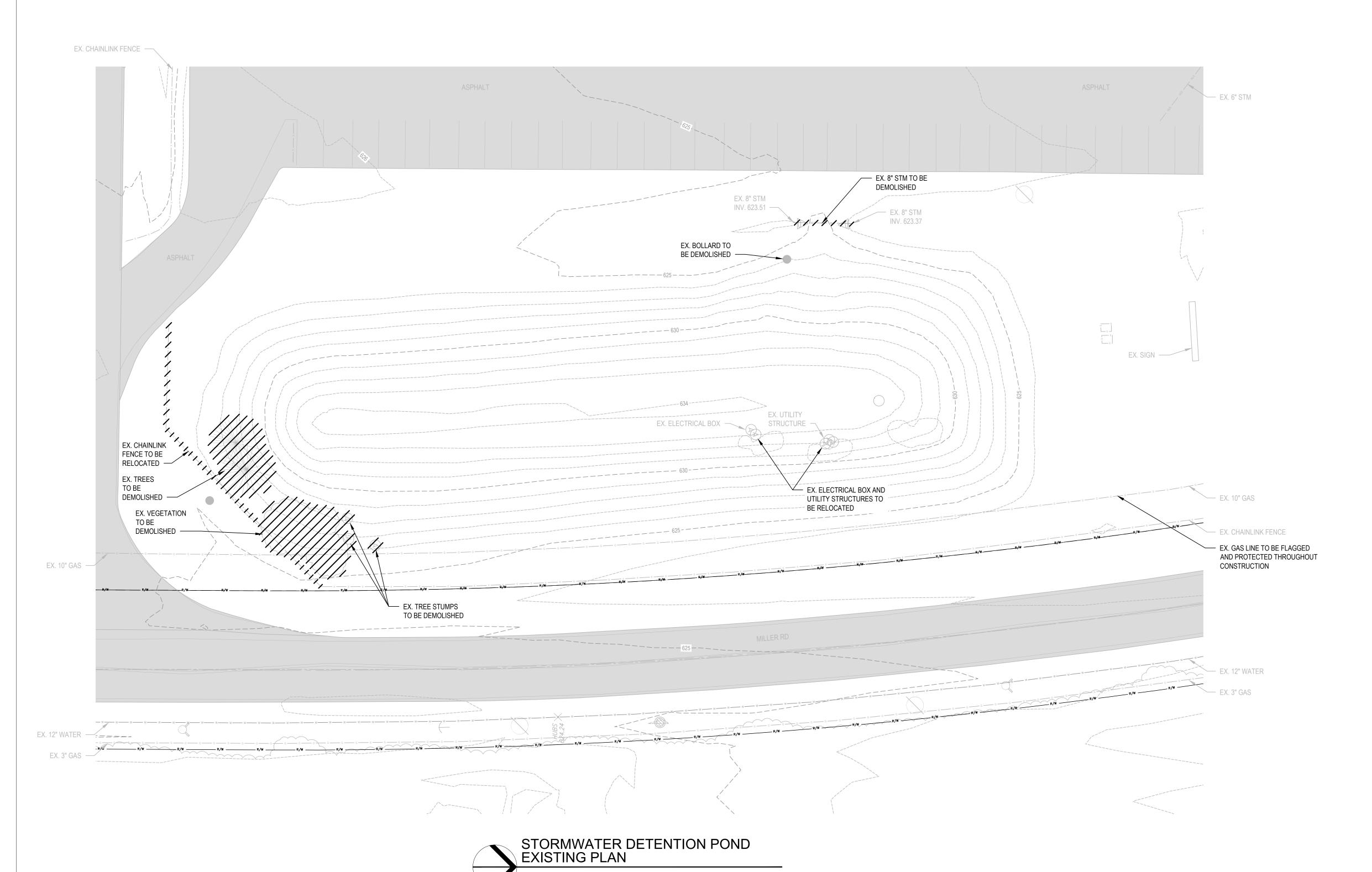
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IN CHARGE:	F. LAST NAME	
DRAWN BY:	M. WELSHANS	
DESIGNED BY:	K. ASCHEMEIER	
CHECKED BY:	K. ASCHEMEIER	
APPROVED BY:	F. LAST NAME	
A/E PROJECT NUMBER:	30203632	
SHEET TITLE		

ROOF DRAIN SEWER PROPOSED PLAN AND PROFILES

C-005



LEGEND

EXISTING MAJOR TOPOGRAPHIC CONTOURS

EXISTING MINOR TOPOGRAPHIC CONTOURS

LIMITS OF EXISTING ASPHALT PAVING

EXISTING LIMITS OF TREELINE/ VEGETATION

EXISTING STORM PIPE

ITEMS TO BE DEMOLISHED

EXISTING CHAINLINK FENCE

EXISTING GAS LINE

//////.



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IN CHARGE:	F. LAST NAME	
DRAWN BY:	M. WELSHANS	
DESIGNED BY:	P. OTIS	
CHECKED BY:	P. OTIS	
APPROVED BY:	F. LAST NAME	
A/E PROJECT NUMBER:	30203632	

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STORMWATER DETENTION POND
EXISTING CONDITIONS PLAN
SHEET NUMBER

C-006

NORTH KEY PLAN



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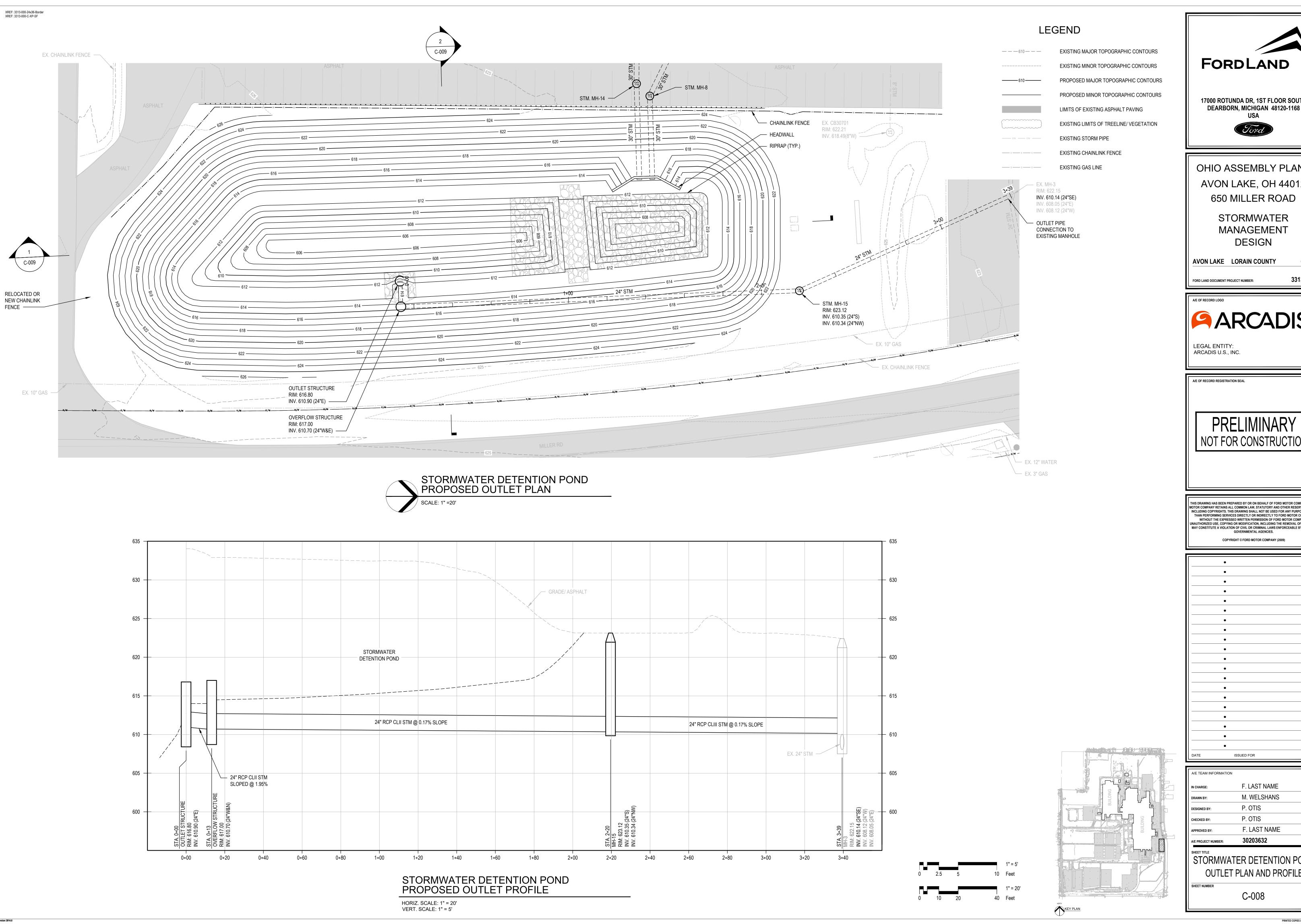
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A/E PROJECT NUMBER:	30203632
APPROVED BY:	F. LAST NAME
CHECKED BY:	P. OTIS
DESIGNED BY:	P. OTIS
DRAWN BY:	M. WELSHANS
IN CHARGE:	F. LAST NAME
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GRADING PLAN

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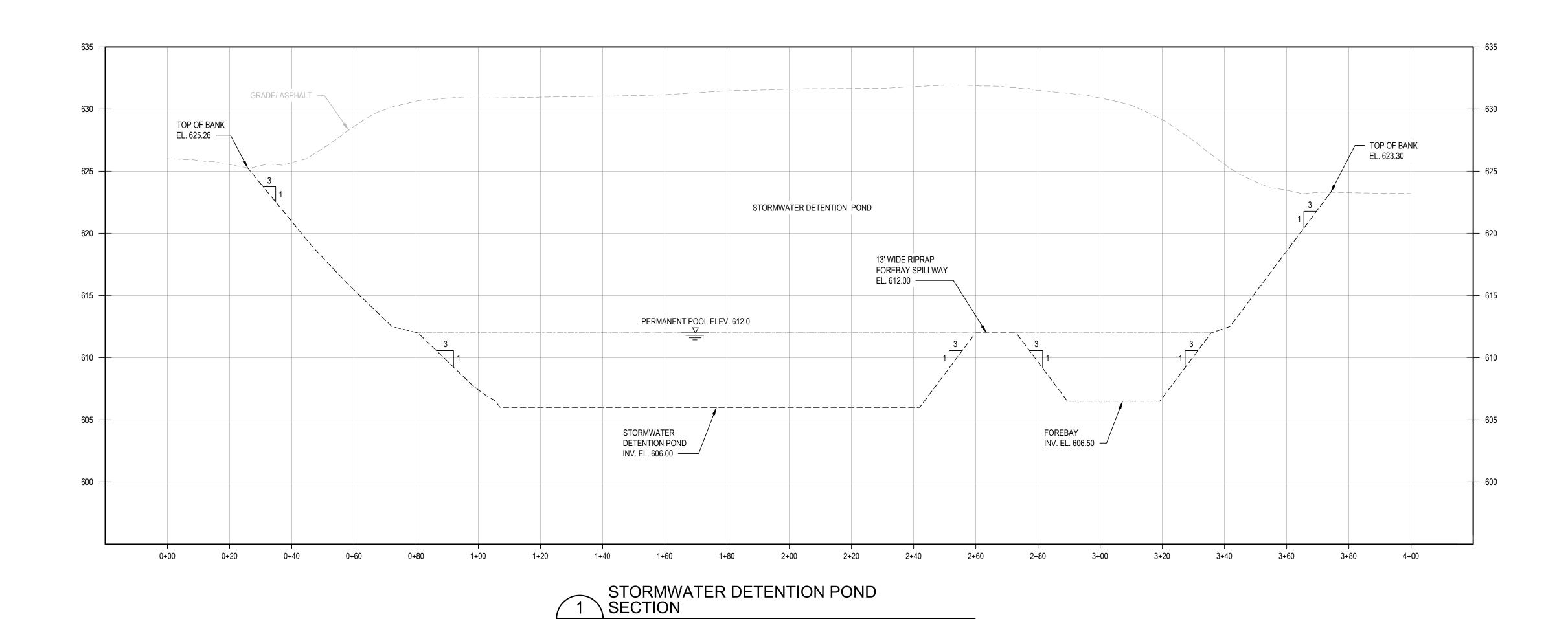
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DESIGNED BY:	P. OTIS	
CHECKED BY:	P. OTIS	
APPROVED BY:	F. LAST NAME	
A/E PROJECT NUMBER:	30203632	

STORMWATER DETENTION POND OUTLET PLAN AND PROFILE

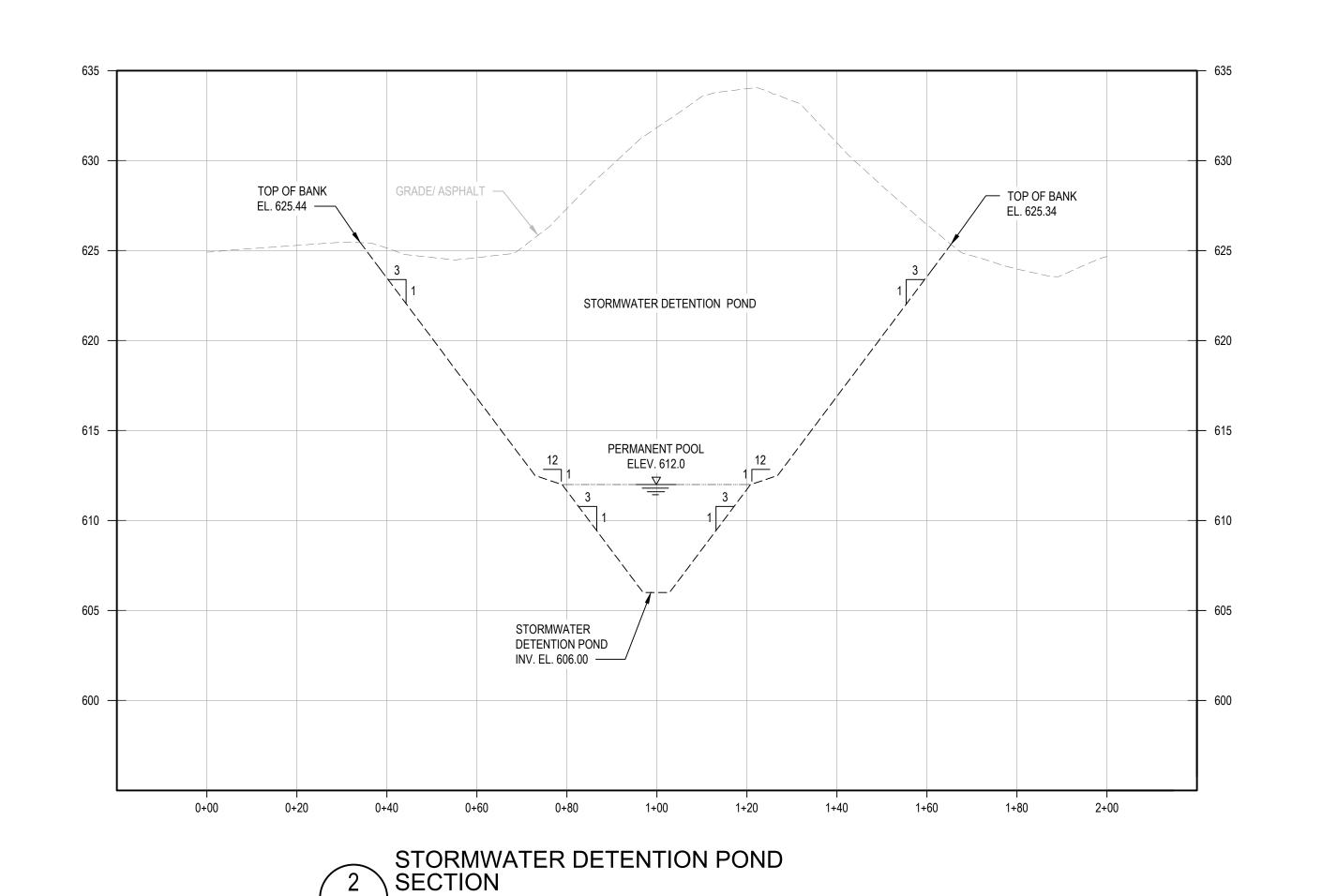
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OHIO ASSEMBLY PLANT AVON LAKE, OH 44012 650 MILLER ROAD

> STORMWATER **MANAGEMENT** DESIGN

AVON LAKE LORAIN COUNTY

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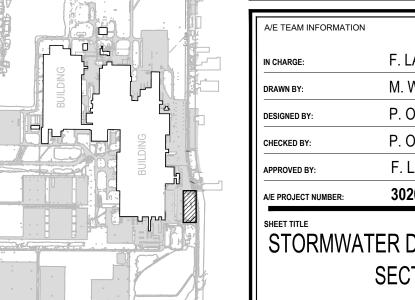
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KEY PLAN



F. LAST NAME M. WELSHANS P. OTIS P. OTIS F. LAST NAME 30203632

STORMWATER DETENTION POND

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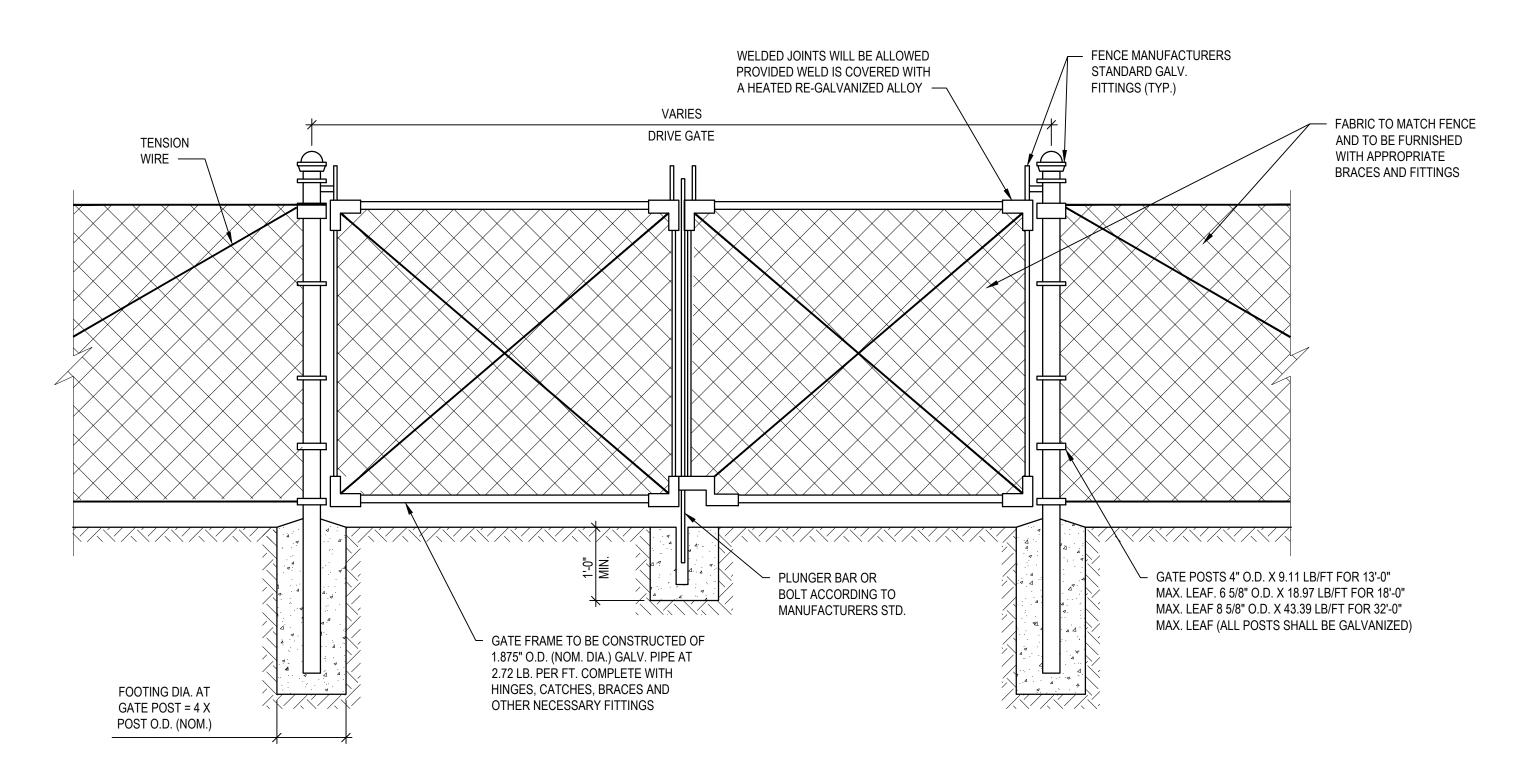
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CHAIN LINK FENCE DETAIL 1

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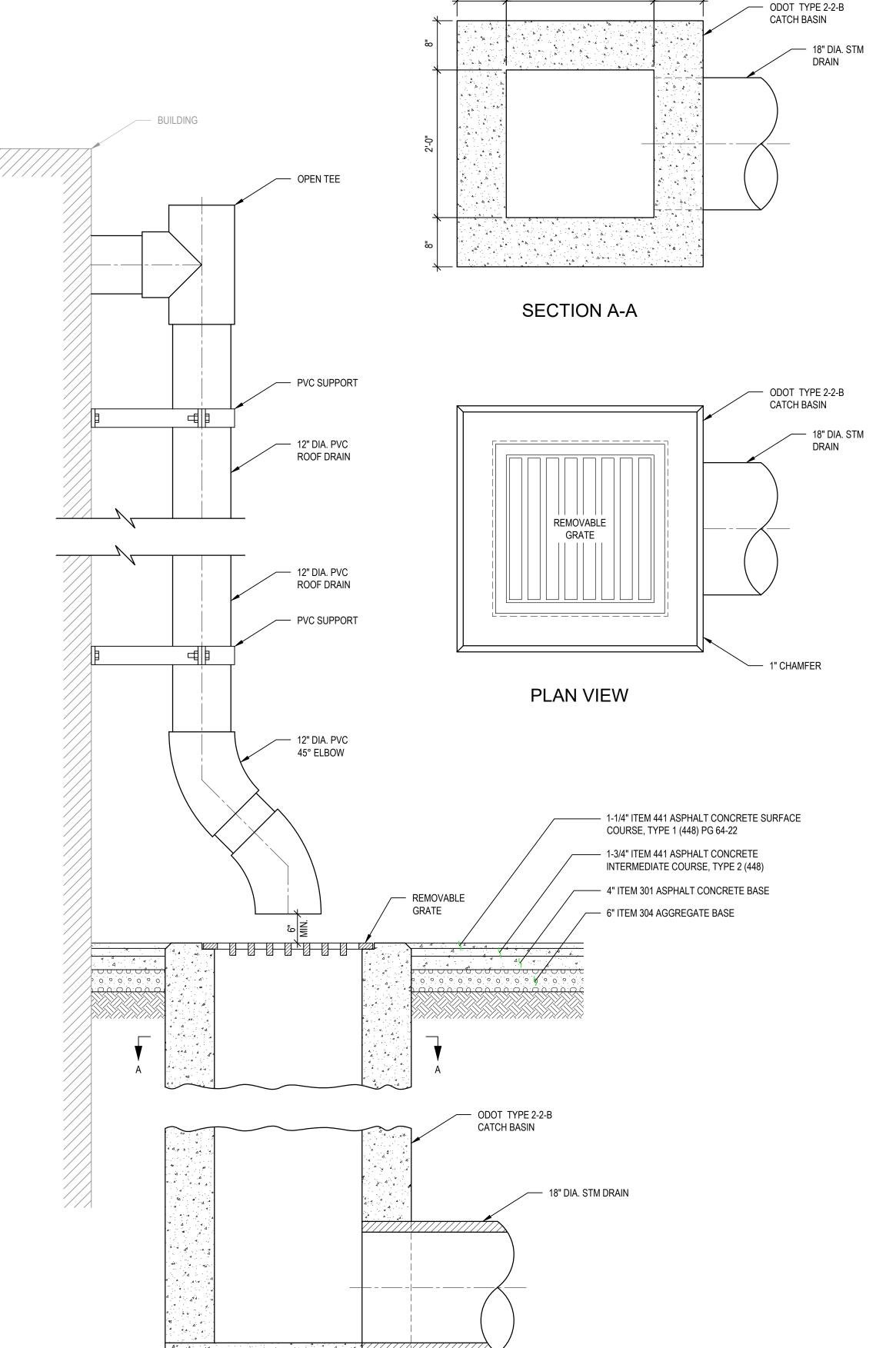
NOTES:

- 1. CONCRETE SHALL BE TAMPED AND RODDED IN PLACE.
- 2. FENCE FABRIC SHALL BE ZINC-COATED STEEL FABRIC. ASTM A392 HOT DIPPED GALVANIZED BEFORE OR AFTER WEAVING.
- 3. CONCRETE FOUNDATION ABOVE GRADE TO BE SLOPED OR DOMED AT THE TOP TO SHED WATER AWAY FROM THE POSTS.
- 4. SPECIFICATIONS PER FORD LAND SPECIFICATION SECTION 32 21 00-2



CHAIN LINK FENCE GATE DETAIL 3

NOT TO SCALE



CATCH BASIN

DETAIL 2

NOT TO SCALE

FORD LAND

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OHIO ASSEMBLY PLANT AVON LAKE, OH 44012 650 MILLER ROAD

> STORMWATER MANAGEMENT DESIGN

AVON LAKE LORAIN COUNTY OHIO

FORD LAND DOCUMENT PROJECT NUMBER: 3313-000

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A/E TEAM INFORMATION

IN CHARGE: F. LAST NAME

DRAWN BY: M. WELSHANS

DESIGNED BY: P. OTIS

CHECKED BY: P. OTIS

APPROVED BY: F. LAST NAME

A/E PROJECT NUMBER: 30203632

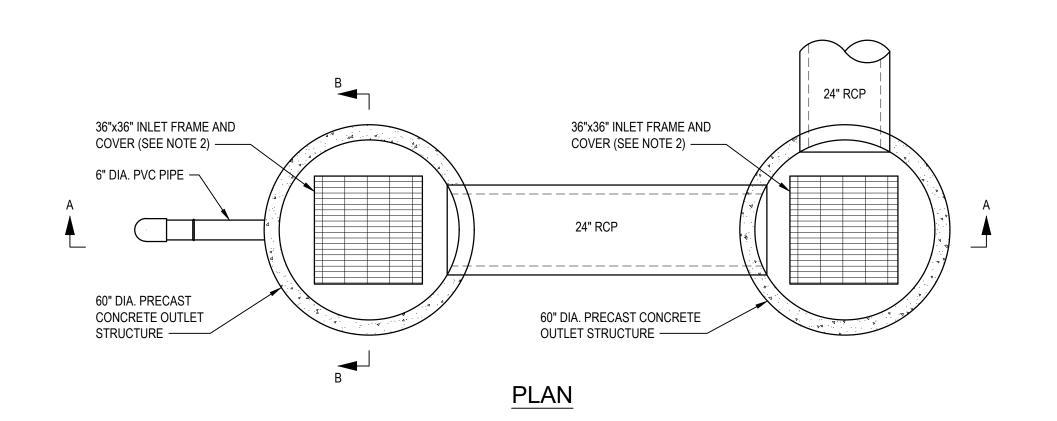
SHEET TITLE

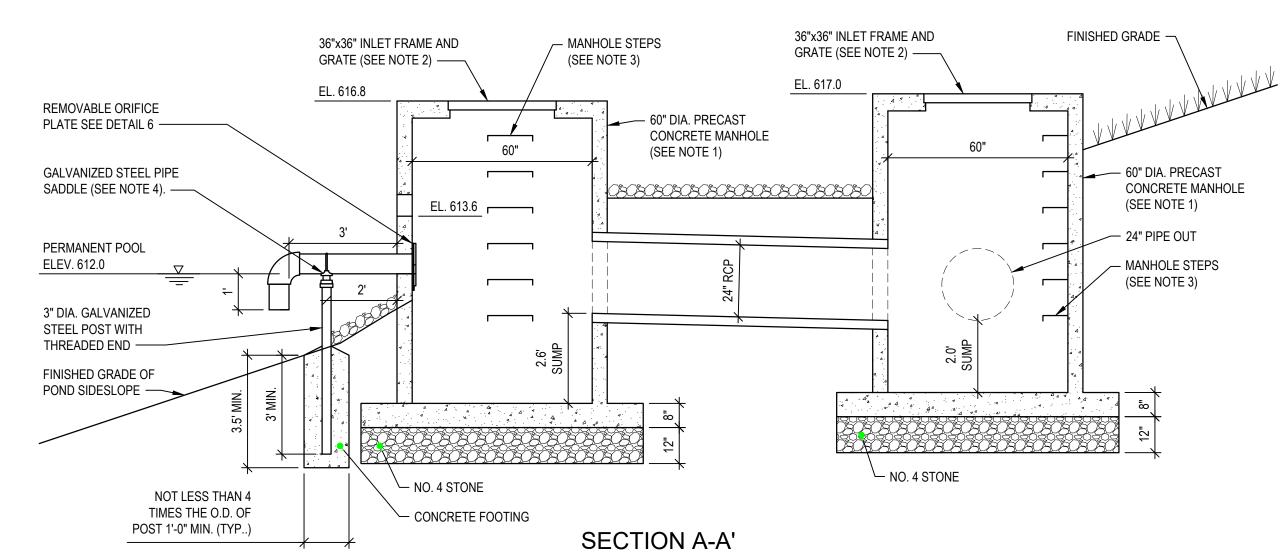
STORMWATER DETENTION POND

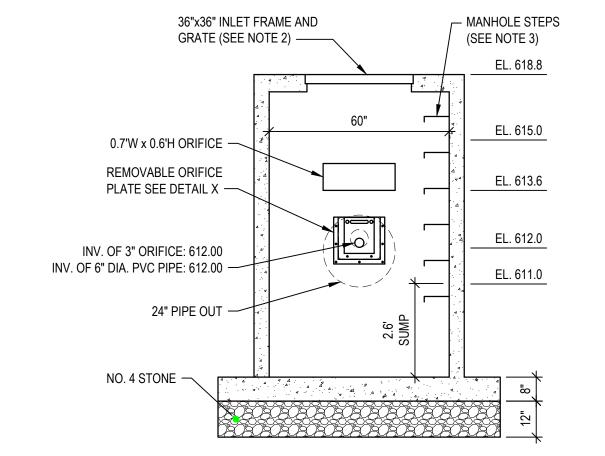
DETAILS - I

SHEET NUMBER

C-010





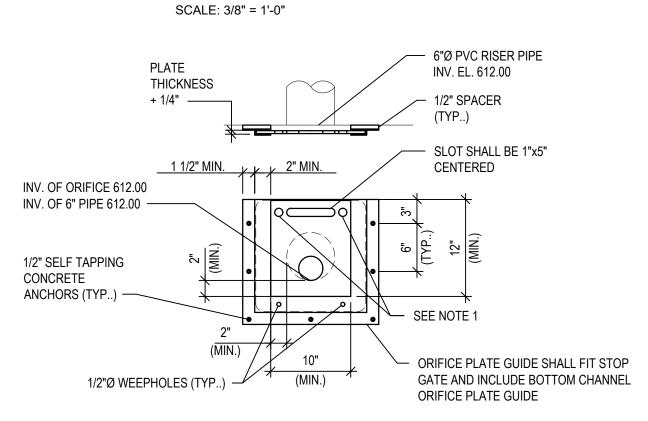


- NOTES:

 1. PRECAST REINFORCED CONCRETE MANHOLE SHALL CONFORM TO LATEST VERSION OF ASTM C478.
- 2. INLET FRAME AND GRATE SHALL BE MODEL R-3480 GRATE BY NEENAH FOUNDRY OR APPROVED EQUIVALENT.
- 3. MANHOLE STEPS SHALL BE PROVIDED FOR ALL MANHOLES EXCEEDING 3 FEET DEEP. MANHOLE STEPS SHALL MEET ASTM C478 AND OSHA STANDARDS.
- 4. GALVANIZED STEEL PIPE SADDLE TO BE SECURELY THREADED INTO TOP OF THREADED END OF 3" DIA. GALVANIZED STEEL POST. SUPPORTED INLET PIPE TO BE FASTENED WITH GALVANIZED STEEL U-BOLT ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

SECTION B-B'

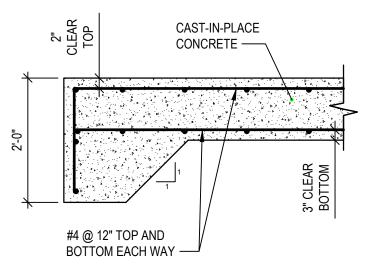
OUTLET CONTROL STRUCTURE DETAIL 4



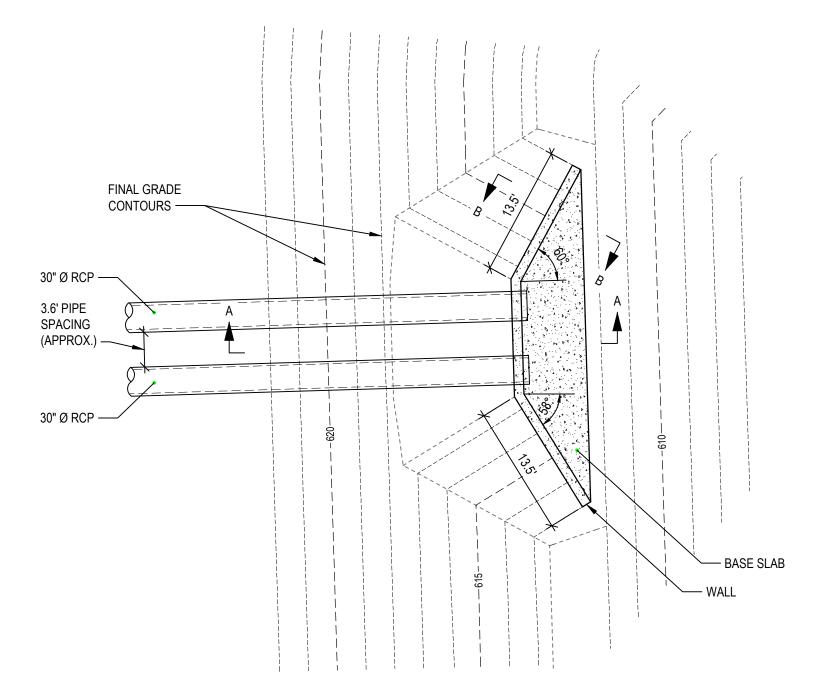
REMOVABLE ORIFICE PLATE DETAIL 6

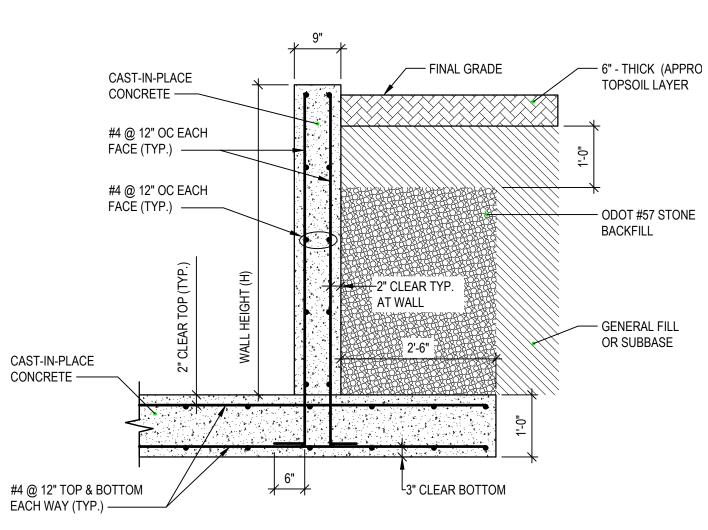
SCALE: 1" = 1'-0" NOTE:

1. 3/16" STAINLESS STEEL CHAIN OR CABLE ATTACHED TO ORIFICE PLATE AND STRUCTURE AS APPROVED. CHAIN OR CABLE SHALL BE SMALL ENOUGH TO ALLOW ORIFICE PLATE TO BE REMOVED FROM GUIDE. ORIFICE PLATE AND GUIDE TO BE MANUFACTURED FROM 1/2" HDPE OR 1/4" STAINLESS STEEL.

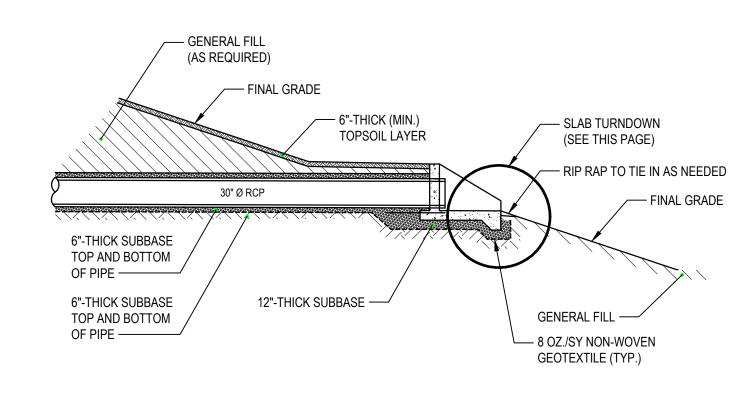


SLAB TURNDOWN





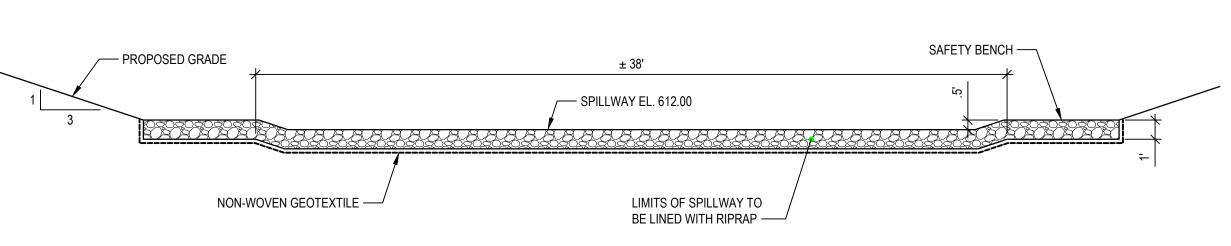
SECTION B-B



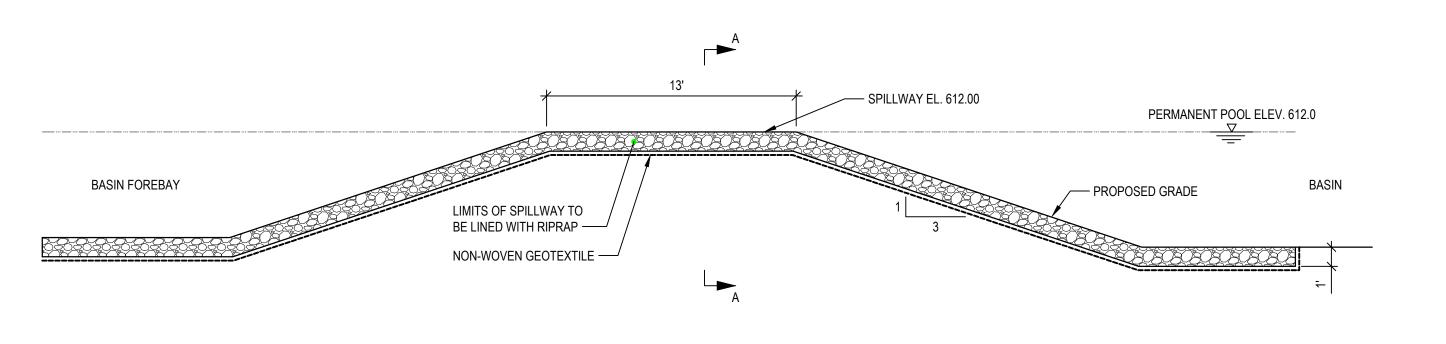
SECTION A-A

HEADWALL STRUCTURE DETAIL 5

NOT TO SCALE



SECTION A-A'



BASIN FOREBAY DETAIL 7

NOT TO SCALE



OHIO ASSEMBLY PLANT AVON LAKE, OH 44012 650 MILLER ROAD

> STORMWATER MANAGEMENT DESIGN

AVON LAKE LORAIN COUNTY OHIO

3313-000

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A/E TEAM INFORMATIO	N	
N CHARGE:	F. LAST NAME	
DRAWN BY:	M. WELSHANS	
DESIGNED BY:	P. OTIS	
CHECKED BY:	P. OTIS	
APPROVED BY:	F. LAST NAME	
A/E PROJECT NUMBER:	30203632	
SHEET TITLE	TER DETENTION POND DETAILS - II	

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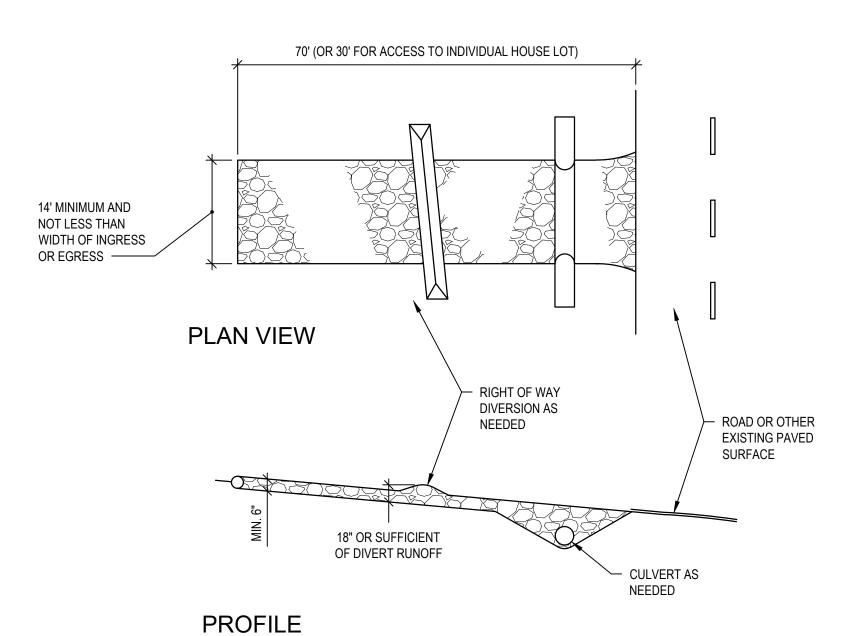
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EROSION CONTROL BLANKET - SLOPE APPLICATION

NOT TO SCALE

NOTES:

- 1. SEED AND SOIL AMENDMENTS SHALL BE APPLIED PRIOR TO INSTALLING THE BLANKET.
- 2. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS PRIOR TO PLACEMENT OF THE BLANKET.
- 3. BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.
- 4. BLANKETED AREAS SHALL BE INSPECTED WEEKLY UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 80% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED.
- 5. EROSION CONTROL BLANKET SHALL BE S150 AS MANUFACTURED BY NORTH AMERICAN GREEN OR APPROVED EQUAL.

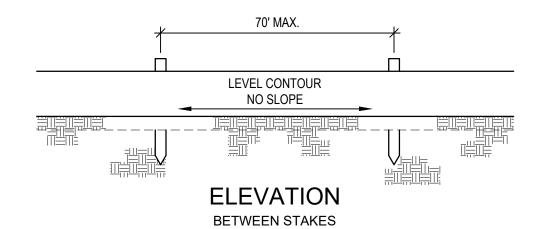


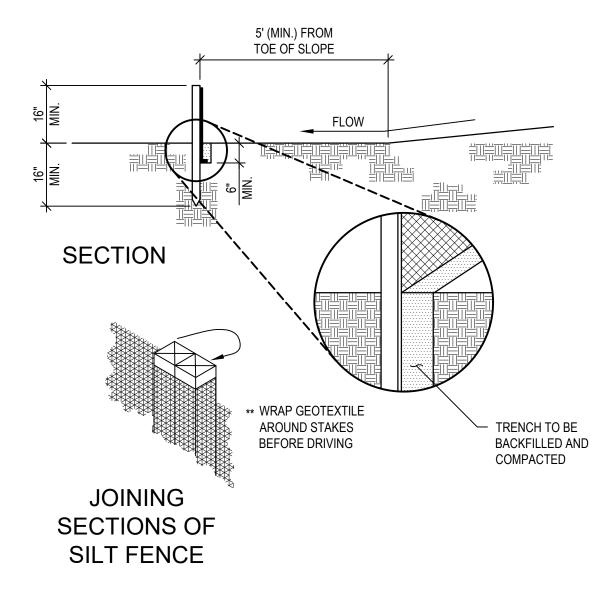
CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE

NOTES:

- 1. MIN. STONE THICKNESS FOR ROADS SUBJECT TO HEAVY DUTY LOADS IS 10".
- 2. SEE OHIO DNR RAINWATER AND LAND DEVELOPMENT MANUAL CHAPTER SEVEN FOR IN DEPTH DESIGN INFORMATION.





SILT FENCE DETAIL

NOT TO SCALE

NOTES:

1. SEE OHIO DNR RAINWATER AND LAND DEVELOPMENT MANUAL CHAPTER SIX FOR IN DEPTH DESIGN SPECIFICATIONS AND ALLOWABLE DRAINAGE AREAS.



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> STORMWATER **MANAGEMENT** DESIGN

AVON LAKE LORAIN COUNTY

3313-000 FORD LAND DOCUMENT PROJECT NUMBER:

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CONTROL DETAILS

C-012

1'-0" MIN

10 3/4"

1/2" GRADE 60 STEEL ROD —

DETAIL 10

NOT TO SCALE

PLAN VIEW

SECTION A-A

MANHOLE RUBBER

GRADE RING

DETAIL 12

NOT TO SCALE

SECTION A-A

PLAN VIEW

SECTION B-B

MANHOLE PRECAST CONCRETE GRADE RING

DETAIL 13

NOT TO SCALE

POLYPROPYLENE MANHOLE STEP

-RING MAY BE

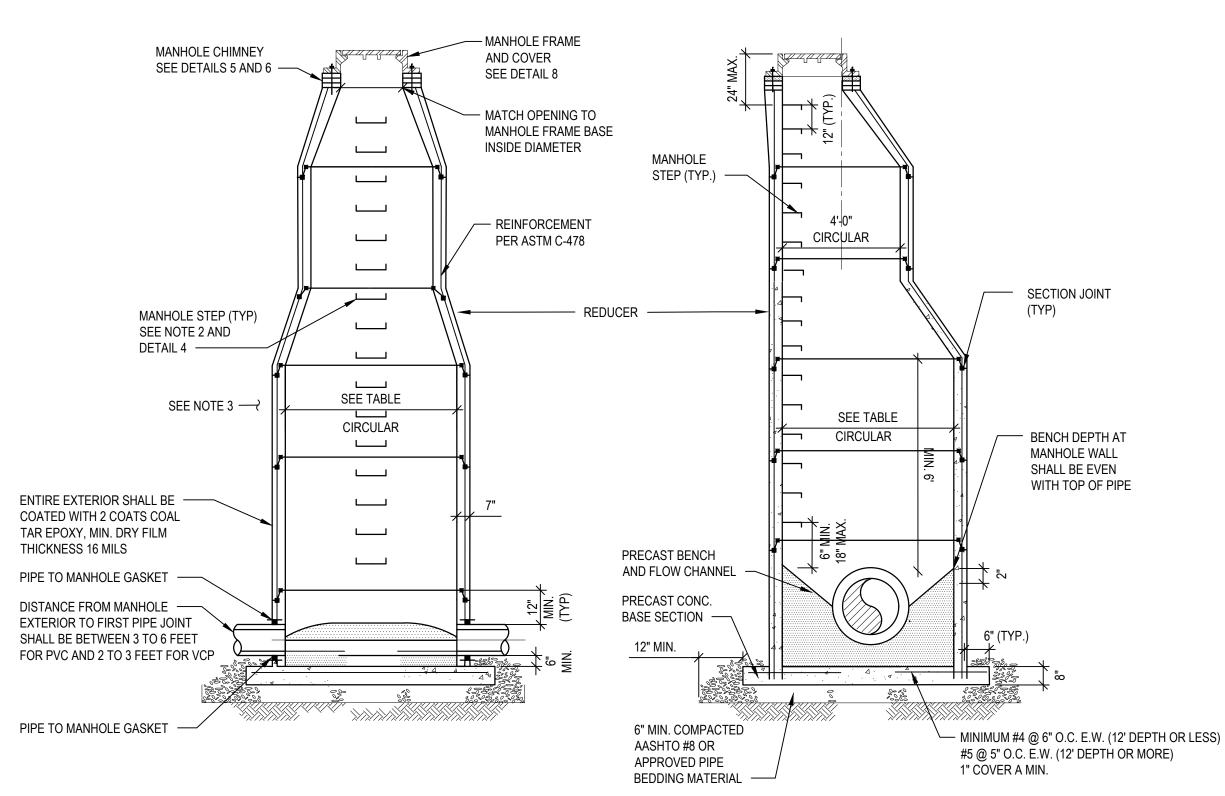
TAPERED OR FLAT

- SEE NOTE 1

MATCH CONE, CHIMNEY, AND FRAME INSIDE DIAMETER.

3. SELECT SIZE SO OUTSIDE DIAMETER EXTENDS TO OUTSIDE OF FRAME.

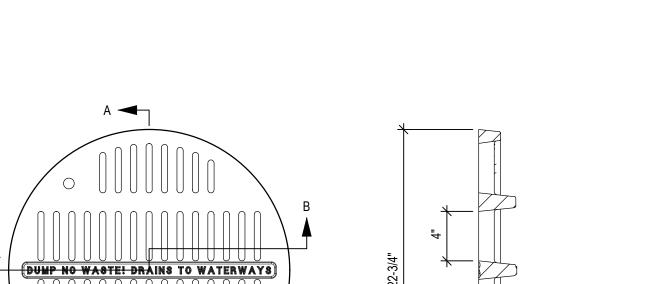
BEVEL GRADE RINGS TO MATCH GRADE.

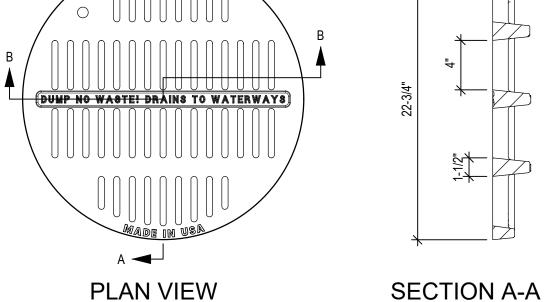


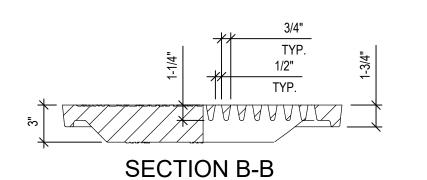
NEW 60" MANHOLE WITH CONE SECTIONS DETAIL 8

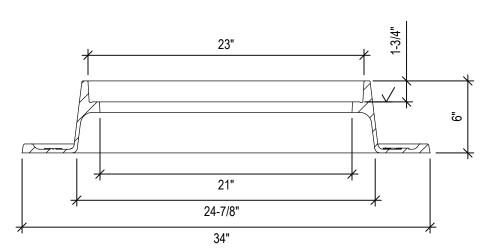
NOT TO SCALE

- MANHOLE CONES, RISERS, AND BASES SHALL BE PRECAST REINFORCED CONCRETE.
- MANHOLE STEPS SHALL BE SPACED AS SHOWN IN A SINGLE VERTICAL ALIGNMENT. PIPE BEDDING MATERIAL SHALL BE PLACED TO AN ELEVATION 6" ABOVE THE CROWN OF THE HIGHEST PIPE AROUND
- THE ENTIRE CIRCUMFERENCE OF THE MH. BACKFILL MATERIAL ABOVE THE STONE SHALL BE PLACED AS SHOWN ON THE BACKFILL DETAILS FOR BOTH PAVED AND UNPAVED AREAS.



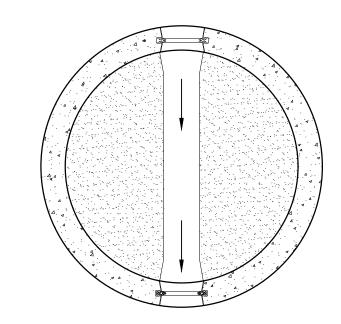




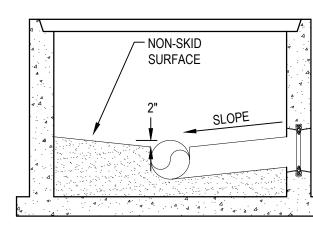


STORM MANHOLE FRAME AND COVER DETAIL 14

NOT TO SCALE



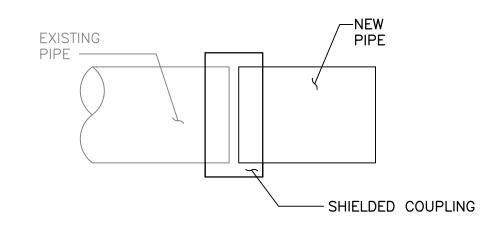
PLAN VIEW



CROSS SECTION

TYPICAL MANHOLE INVERT PLANS AND CROSS SECTION **DETAIL 9**

NOT TO SCALE



TYPICAL NEW PIPE CONNECTION TO EXISTING PIPE DETAIL 11

NOT TO SCALE

1-3/4" ITEM 441 ASPHALT CONCRETE 1-1/4" ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (448) PG 64-22 INTERMEDIATE COURSE, TYPE 2 (448) ----- 6" ITEM 304 AGGREGATE BASE SAW-CUT AND SEAL ALL JOINTS (TYP.) — — 4" ITEM 301 ASPHALT CONCRETE BASE EXISTING PAVEMENT - EXISTING PAVEMENT 12" MIN. 12" MIN. 12" MIN. 12" MIN. PIPE DETECTION TAPE SELECT FILL PLACED IN 12" LIFTS LOOSE MEASUREMENT PIPE IDENTIFICATION TAPE -FOR PIPE BEDDING SEE DETAIL 1

> BACKFILL AND RESTORATION IN PAVED AREAS FOR HOT MIX PAVEMENTS DETAIL 15

NOT TO SCALE

1. THIS DETAIL SHOWS THE FINAL CONDITION. PIPE TRENCHES IN ANY AREAS OF MILLING AND/OR RESURFACING SHALL BE CONSTRUCTED WITH ITEM 301 ASPHALT CONCRETE BASE UP TO THE LEVEL OF EXISTING PAVEMENT PRIOR TO MILLING. THICKNESS SHALL BE ADEQUATE TO PRODUCE THE ABOVE SHOWN FINAL CONDITION AFTER MILLING AND/ OR RESURFACING IS COMPLETE.



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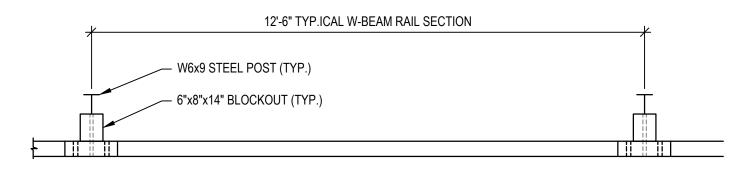
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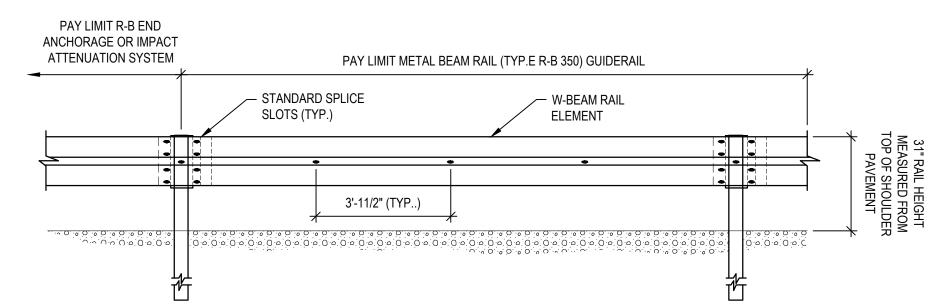
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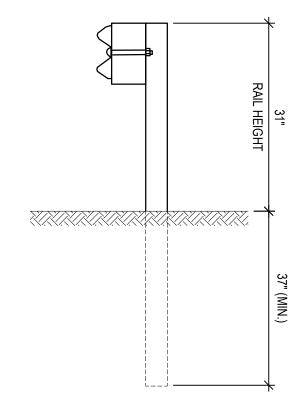
A/E TEAM INFORMATION F. LAST NAME IN CHARGE: M. WELSHANS DRAWN BY: K. ASCHEMEIER K. ASCHEMEIER CHECKED BY: F. LAST NAME APPROVED BY: 30203632 A/E PROJECT NUMBER: SHEET TITLE **MISCELLANEOUS DETAILS - I** SHEET NUMBER C-013



PLAN



ELEVATION

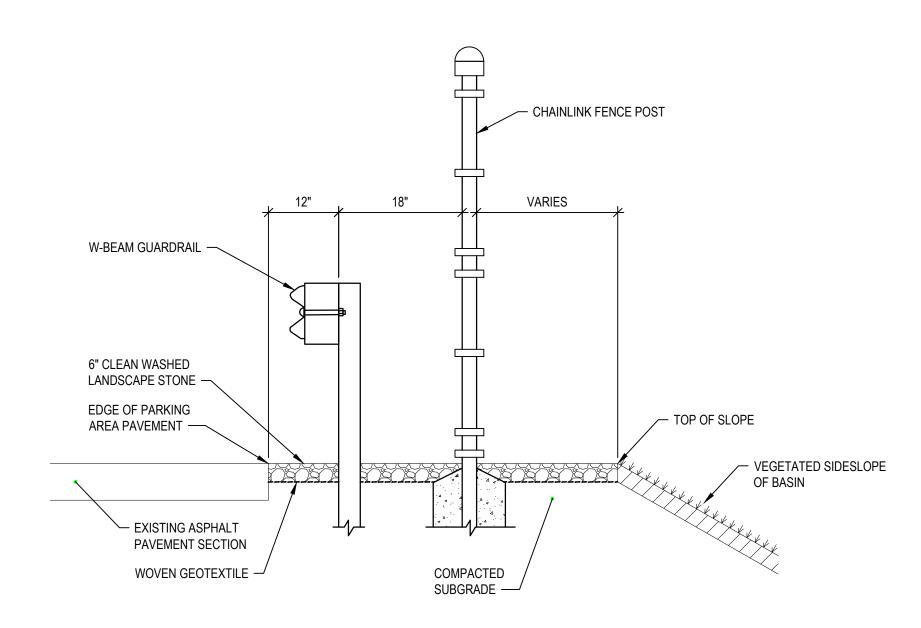


- 1. REFER TO OHIO DOT STANDARD CONSTRUCTION DRAWINGS, MIDWEST GUARDRAIL SYSTEM DETAILS SHEET MGS-1.1, FOR SPECIFICATIONS ON MATERIALS AND INSTALLATION.
- 2. REFER TO AASHTO M 180-12 FOR DIMENSIONAL DETAILS OF W-BEAM RAIL ELEMENTS, RELATED BUFFER AND END SECTIONS, BEAM SPLICES, POST AND SPLICE BOLTS, BUTS, AND TYP.E-1 W-BEAM TRANSITIONS.
- 3. UNLESS OTHERWISE SPECIFIED, W-BEAM RAIL IS 12-GUAGE STEEL WITH AN EFFECTIVE LENGTH OF 12'-6" WITH $\frac{29}{32}$ "x1 $\frac{1}{8}$ " SPLICE BOLT SLOTS, AND $\frac{3}{4}$ "x2 $\frac{1}{2}$ " POST BOLT SLOTS ON 3'-1 $\frac{1}{2}$ " CENTERS REGARDLESS OF POST SPACING.
- 4. FIELD PUNCH OR DRILL BOLT HOLES OR SLOTS FOR IRREGULARLY SPACED POSTS AS SPECIFIED IN CMS 606.04.
- 5. THE STANDARD POST LENGTH IS 6'-0". WOOD POSTS ARE PERMITTED INSTEAD OF STANDARD STEEL POSTS AS PER CMS 710.11.

SECTION

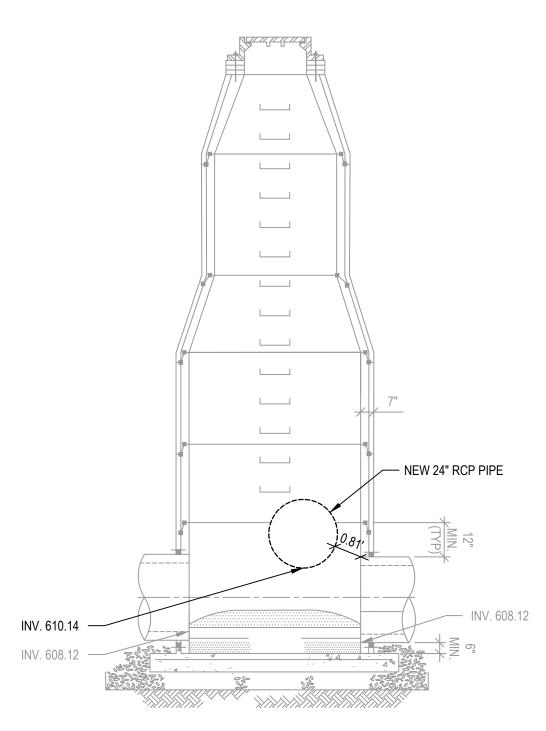
METAL BEAM GUARDRAIL (TYP. E R-B 350) DETAIL 16

NOT TO SCALE

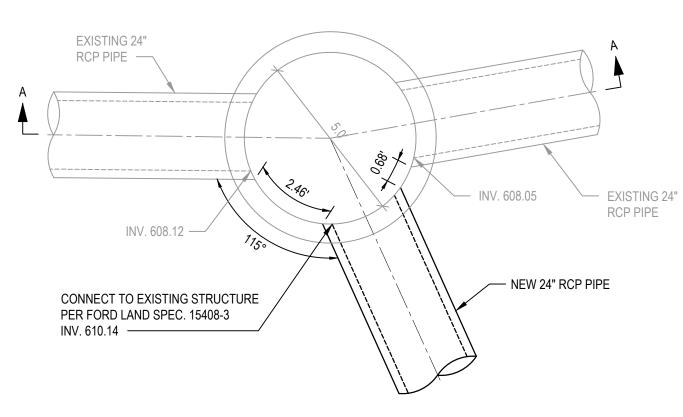


TYPICAL EDGE OF PARKING SECTION DETAIL 18

NOT TO SCALE



SECTION A-A'

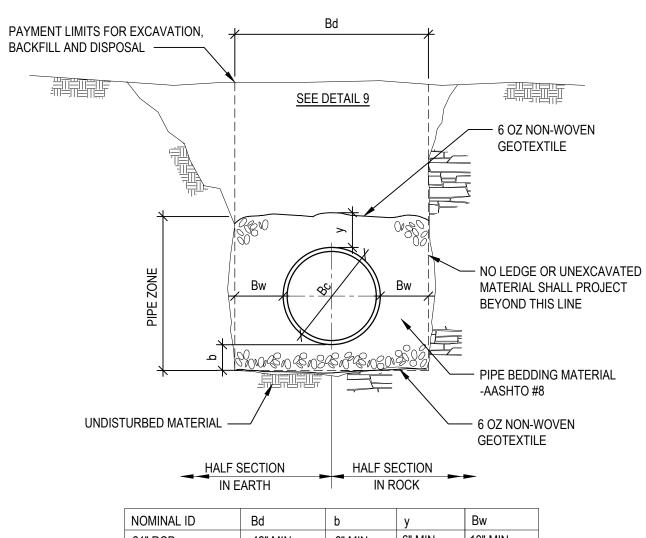


MH3 RETROFIT PLAN

MH-3 RETROFIT PLAN AND SECTION DETAIL 17

NOT TO SCALE

1. FOR IN-DEPTH MANHOLE DETAILS SEE DETAIL 8



NOMINAL ID	Bd	b	у	Bw
21" RCP	42" MIN	6" MIN	6" MIN	10" MIN
24" RCP	48" MIN	6" MIN	6" MIN	10" MIN
27" RCP	50" MIN	6" MIN	6" MIN	10" MIN
36" RCP	60" MIN	6" MIN	6" MIN	10" MIN
42" RCP	63" MIN	6" MIN	6" MIN	10" MIN

PIPE BEDDING DETAIL FOR RCP PIPE DETAIL 19

NOT TO SCALE



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ESIGNED BY:	P. OTIS	
HECKED BY:	P. OTIS	
PPROVED BY:	F. LAST NAME	
E PROJECT NUMBER:	30203632	
MISCELLANEOUS DETAILS - II		
HEET NUMBER	C-014	