

AGENDA



Planning Commission
Wednesday, April 8, 2026 ❖ 6:00 p.m.

LOCATION: Council Chamber
1827 N. Squirrel Road ❖ Auburn Hills, MI

PHONE: 248-364-6900 www.auburnhills.org
Meeting minutes are on file in the City Clerk's office.

1. MEETING CALLED TO ORDER

2. ROLL CALL OF PLANNING COMMISSION

Welcome, New Planning Commission Member Michelle Case

3. PERSONS WISHING TO BE HEARD (regarding items not on the agenda)

4. APPROVAL OF MINUTES – March 4, 2026

5. PETITIONERS

5a. City-Initiated Rezoning of 3077 Auburn Road

Public Hearing/Motion - Recommendation to City Council for approval of the Rezoning of 3077 Auburn Road from R-4, One-Family Residential District to D, Downtown District, or any other appropriate zoning district.

5b. River Bend Townhomes - 3180-3200 Auburn Road

Public Hearing/Motion - Recommendation to City Council for combined PUD Step One – Qualification / Step Two – Site Plan approval to facilitate the redevelopment of the property to allow the construction of a residential development with 32 townhomes.

5c. OCC CREST Center Building Addition and Renovations - 2900 Featherstone Road

Public Hearing/Motion - Recommendation to City Council for Special Land Use Permit, Site Plan, and Tree Removal Permit approval to allow for the expansion and renovation of the CREST Center, new maintenance building, and parking lot improvements.

5d. FANUC Service First Academy - Parking Lot Expansion - 2630 Featherstone Road

Public Hearing/Motion - Recommendation to City Council for Site Plan and Tree Removal Permit approval to implement the construction of previously approved landbanked parking spaces.

5e. Lear Corporation – 3600 Giddings Road

Public Hearing / Motion - Recommendation to City Council for combined PUD Step One – Qualification / Step Two – Site Plan and Tree Removal Permit approval to allow the redevelopment of the existing facility and operate an automotive seating assembly facility with associated outside storage of trailers.

5f. Sheetz Auburn Hills – 3880 Lapeer Road

Public Hearing / Motion - Recommendation to City Council for combined PUD Step One – Qualification / Step Two – Site Plan and Tree Removal Permit approval to facilitate the redevelopment of the property to allow the construction of a gas station with an associated convenience store and quick service restaurant.

6. UNFINISHED BUSINESS

7. NEW BUSINESS

8. COMMUNICATIONS

9. NEXT SCHEDULED MEETING – Wednesday, May 6, 2026 at 6:00 p.m. – Council Chamber

10. ADJOURNMENT

➤ **NOTE:** Anyone planning to attend the meeting who needs special assistance under the Americans with Disabilities Act (ADA) is asked to contact the City Clerk's Office at 248-370-9402 or the City Manager's Office at 248-370-9440 48 hours before the meeting. Staff will be pleased to make the necessary arrangements.

IMPORTANT NOTICE TO PETITIONERS

Items will be presented to the City Council on **Monday, April 20, 2026**. It will be necessary for you to have a representative present to answer any questions from the City Council. **CITY COUNCIL WILL NOT ACT ON YOUR ITEM IF YOU OR YOUR REPRESENTATIVE ARE NOT PRESENT.**



CITY OF AUBURN HILLS
PLANNING COMMISSION
MINUTES
NOT YET APPROVED

March 4, 2026

CALL TO ORDER: Chairperson Beidoun called the meeting to order at 6:00 p.m.

ROLL CALL: Present: **Carolyn Shearer, Darlene MacMillan, Jack Ferguson, Raymond Saelens, Dominick Tringali, Cynthia Pavlich, Dominic Patrus, Sam Beidoun**
Absent: None
Also Present: Director of Community Development Steve Cohen, Assistant to the Director of Community Development Devin Lang, DPW Director Stephen Baldante
Guests: 8

LOCATION: Council Chambers, 1827 N. Squirrel Road, Auburn Hills, MI 48326

3. PERSONS WISHING TO BE HEARD

4. APPROVAL OF MINUTES – February 4, 2026

Moved by Saelens to approve the minutes of February 4, 2026.

Second by Ferguson.

VOTE: Yes: Shearer, MacMillan, Saelens, Ferguson, Pavlich, Tringali, Patrus, Beidoun

No: None

Motion Carried (8-0)

5. PETITIONERS

Chairperson Beidoun shared the public hearing procedure and the steps the Commission will follow.

5a. Auburn Hills Downtown Municipal Parking Lots. (6:04 p.m.)

Part 1 - Public Hearing/Motion – Recommendation to City Council for approval of the rezoning of 3157 Auburn Road from B-2, General Business District to D, Downtown District, or any other appropriate zoning district.

Part 2 – Recommendation to City Council for Site Plan approval to construct municipal parking lots on the portion of 3157 Auburn Road immediately adjacent to Auburn Road and on vacant land located at the northeast corner of Churchill Road and Auburn Road.

Mr. Beidoun opened the public hearing at 6:05 p.m.

Mr. Cohen confirmed that the hearing documents are in order and that no written communications have been received regarding this petition.

Mr. Cohen stated that this is a City-initiated proposal to establish two new public parking lots to support Downtown Auburn Hills and Riverside Park.

He explained that Planning Commission consideration includes two separate but related actions:

1. A rezoning request, and
2. Site plan approval.

The first action is a request to rezone the former Farm Boy property at 3157 Auburn Road from B-2, General Business District, to D, Downtown District. This request is consistent with the City's Master Plan, which designates the property for Downtown Mixed Use. The proposed rezoning will align the zoning classification with the long-term vision for this area and further strengthen its integration into Downtown.

The second action involves approval of a site plan for a total of 111 public parking spaces. Of these, 91 spaces are proposed on the former Farm Boy property along Auburn Road, and 20 spaces are proposed on the vacant parcel at the northeast corner of Churchill Road and Auburn Road.

Mr. Cohen explained that the City has completed parking studies to assess both current and future needs in Downtown Auburn Hills. The findings demonstrated a clear need to expand public parking capacity to support the continued success of Downtown businesses and ensure a convenient, positive experience for residents and visitors. In response to these findings, the City Council strategically acquired the properties and directed staff to proceed with developing the proposed parking lots.

These parking lots have been thoughtfully designed as a western extension of Downtown Auburn Hills. The plan incorporates extensive landscaping and a decorative streetscape along Auburn Road to create an attractive, pedestrian-friendly environment that complements the character and quality of the Downtown.

The City's goal is to complete all or part of these improvements by the end of this year to address parking needs in a timely and proactive manner.

Mr. Cohen stated that the staff recommends approval of both the rezoning request and the site plan.

Andy Wiseman, Nowak and Fraus, 46777 Woodward Ave., Pontiac, MI 48342, who designed the project on behalf of the City, was available to answer any technical questions from the Commission.

The Commission asked about the following:

1. Sufficient capacity of the underground water detention system;
2. Necessity of oil separation in the detention system;
3. A physical barrier between the parking lot and the auto repair shop;
4. The walkway in front of the auto repair shop;
5. Potential that this will be paid parking.

Mr. Wiseman explained that the capacity of the underground water detention is sufficient and will be cleaned out regularly. This detention area does not require an oil separator. He stated that there will be a landscape barrier between the lot and the auto repair shop, but not a fence. Mr. Cohen explained that the sidewalk in front of the auto repair shop is not anticipated to be replaced until the property is redeveloped, but this improvement could be further evaluated as this project is implemented if the property owner is agreeable.

With respect to paid parking, Mr. Cohen explained that the City is exploring paid parking in certain high-traffic areas of Downtown, but at this time, it is not foreseen for these lots. There have been preliminary discussions about the City offering a paid residential permit or license for some of the spaces in the Farm Boy lot in the future, as part of a long-term plan to accommodate the existing residential units in the mixed-use developments within Downtown. Mr. Lang stated that an electronic gate is not planned for these lots.

Richard Lehto, 37 Churchill Road, who resides north of the Farm Boy lot, stated that while he supports additional Downtown parking lots, he is concerned about whether the lots will have posted hours. He also asked whether there will be a barrier or fence along the back (north) part of the parking lot, as well as concerns about people walking through the auto repair shop parking lot.

Mr. Cohen explained that it has not yet been determined whether the parking lots will have limited hours. He reiterated that some spaces may be permitted or licensed for use by nearby residential units in the Downtown. Mr. Cohen explained that there will be a decorative fence at the top of the retaining wall, except for a small area left open to pile the snow in the winter. Mr. Cohen felt confident that the City would work with the adjoining residents to ensure proper buffering and security on both sides of Churchill Road if trespass or nuisances became an issue after the lots were constructed and operational.

Ty White, 30 Churchill Road, also expressed a similar concern about the fencing. She thanked Mr. Cohen for speaking with her and for sending her information about the project prior to the meeting. She plans to demolish the existing home on her property and build a new one in the future. Mr. Cohen stated that the City is open to providing additional landscaping and, if needed, a decorative fence barrier for the Churchill lot adjacent to Ms. White's property.

There being no further public comments, Mr. Beidoun closed the public hearing at 6:19 p.m.

**Moved by Pavlich to recommend to City Council the approval of the rezoning of 3157 Auburn Road from B-2, General Business District to D, Downtown District.
Second by Shearer.**

VOTE:

Yes: MacMillan, Saelens, Pavlich, Tringali, Shearer, Patrus, Ferguson, Beidoun
No: None **Motion Carried (8-0)**

**Moved by Patrus to recommend to City Council approval of the Site Plan for the Auburn Hills Downtown Municipal Parking Lots subject to the conditions of the City’s Administrative Review Team.
Second by Saelens.**

VOTE:

Yes: Pavlich, Saelens, MacMillan, Shearer, Patrus, Tringali, Ferguson, Beidoun
No: None **Motion Carried (8-0)**

6. UNFINISHED BUSINESS – None.

7. NEW BUSINESS – None.

8. COMMUNICATIONS

8a. Board and Commission Member Training Session on Open Meetings Act and Roberts Rules of Order – Wednesday, March 25, 2026 at 6:00 p.m. in the Council Chambers.

Mr. Cohen reviewed the four items expected to be considered at the April 8, 2026 Planning Commission meeting.

9. NEXT SCHEDULED MEETING

The next scheduled meeting is on Wednesday, April 8, 2026 at 6:00 p.m. in the Auburn Hills Council Chambers.

10. ADJOURNMENT

There being no further business, Chairperson Beidoun adjourned the meeting at 6:34 p.m.

Submitted by:
Susan McCullough, MiPMC III, CMC
Recording Secretary



CITY OF AUBURN HILLS PLANNING COMMISSION AGENDA

MEETING DATE: APRIL 8, 2026

AGENDA ITEM NO 5a.

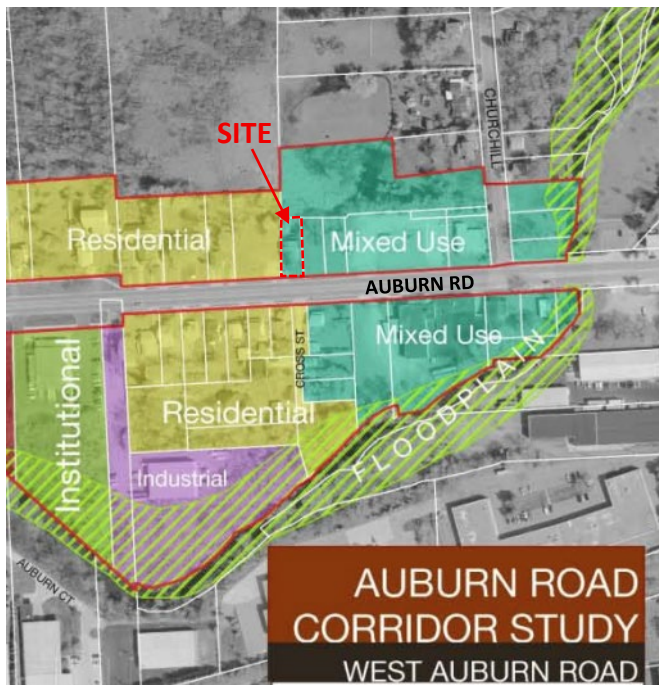
COMMUNITY DEVELOPMENT

To: Chairperson Sam Beidoun and the Planning Commission
From: Steven J. Cohen, AICP, Director of Community Development
Submitted: March 30, 2026
Subject: City-Initiated Rezoning – 3077 Auburn Road
 Public Hearing/Recommendation to City Council for approval of the Rezoning of 3077 Auburn Road from R-4, One-Family Residential District to D, Downtown District, or any other appropriate zoning district.

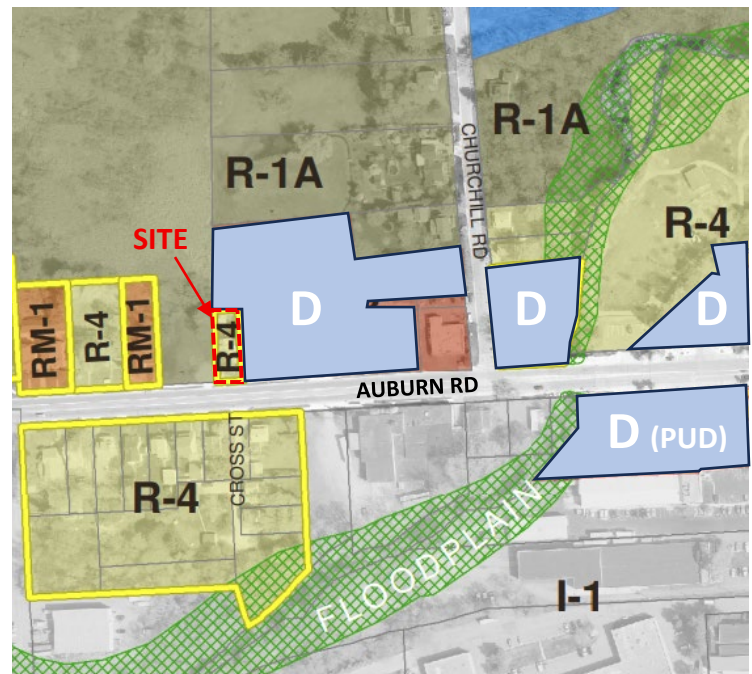
INTRODUCTION AND HISTORY

This is a request from the City of Auburn Hills to rezone 0.15 acres (Sidwell No. 14-25-351-023) from R-4, One-Family Residential District to D, Downtown District. The property is located at 3077 Auburn Road.

	Existing Land Uses	Master Plan Designation	Existing Zoning
North	Vacant	Non-Residential	D
West	Vacant	Residential	R-1A
East	Vacant (future municipal parking lot)	Non-Residential	D
South	Single-Family Homes	Residential	R-4



Master Plan



Zoning

The Adopted City of Auburn Hills Master Land Use Plan depicts the subject parcel as “Downtown Mixed Use.” Therefore, based on the Adopted Plan, we recommend Approval of the rezoning from R-4, One-Family Residential District, to D, Downtown District.

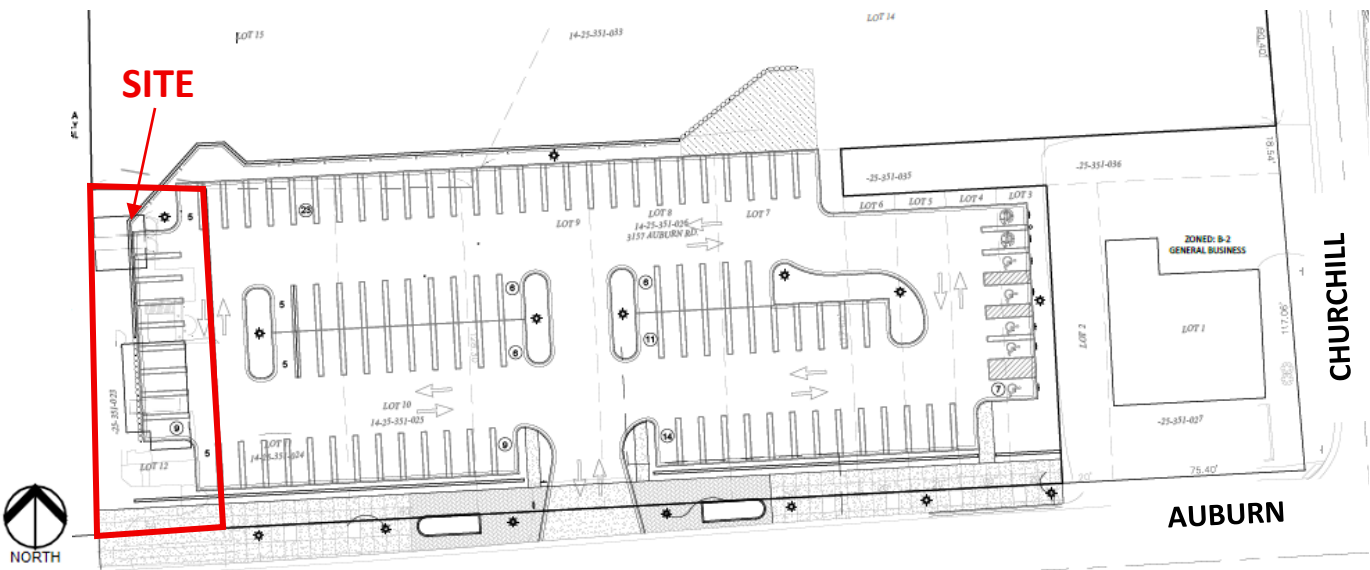
BACKGROUND

On March 16, 2026, the Auburn Hills City Council approved plans for a 91-space municipal parking lot on a portion of the former Farm Boy property along Auburn Road. This parking lot is intended to serve the Downtown area and Riverside Park. During the public review of that project, the owners of 3077 Auburn Road contacted the City to express interest in selling their property. The City Council and the property owners reached an agreement, and the City has entered into a purchase agreement to acquire the land.



Aerial photo of the property

If the proposed rezoning is approved, the City intends to extend the municipal parking lot onto this property, adding a net 20 additional parking spaces. This would increase the total size of the lot from 91 spaces to an estimated 111 spaces. The revision to the approved site plan to add 3077 Auburn Road will be reviewed administratively.



Initial concept showing the proposed parking lot extension utilizing the 3077 Auburn Road property

RECOMMENDED ACTION

Move to recommend to City Council approval of the Rezoning of 3077 Auburn Road from R-4, One-Family Residential District to D, Downtown District.



AUBURN HILLS
 MAR 17 2026
 COMMUNITY DEVELOPMENT

DEVELOPMENT APPLICATION

CITY USE ONLY

PLEASE CHECK YOUR REQUESTED REVIEW:

SITE PLAN

TREE REMOVAL PERMIT

SPECIAL LAND USE PERMIT(S)

LAND DIVISION LAND EXCHANGE

SUBDIVISION

PLAN UNIT DEVELOPMENT (STEP 1/STEP 2/ COMBINED)

REZONING R-4 TO D

ZBA VARIANCE OR INTERPRETATION

OTHER: _____

ADDRESS: 3077 AUBURN RD

DATE RECEIVED: 03/17/2026

FEES PAID: 0

SP #: _____

PUD#: _____

SLU #: _____

LD/LE/SUB#: _____

RZ#: 260002

ZBA #: _____

PTR#: _____

PROJECT NAME			
City-Initiated Rezoning of 3077 Auburn Road			
GENERAL PROJECT LOCATION			
3077 Auburn Road			
PARCEL SIZE	ZONING	BUILDING SIZE (SQ FT)	
0.146 A	R-4	2,500	
PROJECT DESCRIPTION			
Rezoning of property from R-4 to D			
SIDWELL NUMBER(S)			
14-25-351-023			
APPLICANT INFORMATION			
NAME		SIGNATURE	
Stephen Baldante		<i>Stephen Baldante</i>	
BUSINESS NAME		ADDRESS	
City of Auburn Hills		1500 Brown Road	
CITY	STATE	ZIP	PHONE #
Auburn Hills	MI	48326	(248) 391-3777
EMAIL ADDRESS			
sbaldante@auburnhills.org			
PROPERTY OWNER(S)			
NAME		SIGNATURE	
Tom Tanghe - City Manager		<i>Thomas A. Tanghe</i>	
BUSINESS NAME		ADDRESS	
City of Auburn Hills		1827 N. Squirrel Road	
CITY	STATE	ZIP	PHONE #
Auburn Hills	MI	48326	(248) 370-9440
EMAIL ADDRESS			
ttanghe@auburnhills.com			



Planning Commission Public Notice

Meeting Date, Time, and Location:	Wednesday, April 8, 2026 at 6:00 p.m. City of Auburn Hills - City Council Chambers 1827 N. Squirrel Road, Auburn Hills, MI 48326
Project Name:	City-Initiated Rezoning of 3077 Auburn Road
General Property Location:	3077 Auburn Road (Sidwell No.14-25-351-023)
Applicant:	City of Auburn Hills Thomas A. Tanghe, City Manager 248-370-9440
Nature of the Request:	Recommendation to City Council for approval of the rezoning of 3077 Auburn Road from R-4, One-Family Residential District to D, Downtown District, or any other appropriate zoning district.
City Staff Contact:	Steven J. Cohen, AICP, Director of Community Development 248-364-6941

Notice will be sent via U.S. Mail to properties within 1,000 feet of the site. The proposed application can be inspected before the meeting at the Community Development Department, located on the municipal campus at 1827 N. Squirrel Road, Auburn Hills, MI 48326, during regular City business hours.

Persons wishing to express their views may do so in person at the meeting or in writing addressed to the Planning Commission c/o Steven J. Cohen, AICP, Director of Community Development, at the above address.

Anyone planning to attend the meeting who needs special assistance under the Americans with Disabilities Act (ADA) is asked to contact the City Clerk's Office at 248-370-9402 or the City Manager's Office at 248-370-9440 48 hours before the meeting. Staff will be pleased to make the necessary arrangements.



LOCATION MAP



March 17, 2026

RE: **CITY-INITIATED REZONING OF 3077 AUBURN ROAD**

Dear Neighbor,

In accordance with the City of Auburn Hills Citizen Participation Ordinance, the City would like to inform you about a proposed zoning change for the property located at 3077 Auburn Road.

The City has initiated a request to rezone this property from R-4, One-Family Residential District to D, Downtown District. This change would allow the property to be used in a manner consistent with the City's long-term vision for the Downtown area.

As background, the City's Master Land Use Plan identifies this property, along with the neighboring former Farm Boy property at 3157 Auburn Road, as an area intended for Downtown Mixed-Use development.

Earlier this month, the Auburn Hills City Council approved plans for a 91-space municipal parking lot on a portion of the former Farm Boy property along Auburn Road. This parking lot is intended to serve the Downtown area and Riverside Park. During the public review of that project, the owners of 3077 Auburn Road contacted the City to express interest in selling their property. The City and the property owners reached an agreement, and the City has entered into a purchase agreement to acquire the land.

If the proposed rezoning is approved, the City intends to extend the previously approved municipal parking lot onto this property, adding approximately 20 additional parking spaces. This would increase the total size of the lot from 91 spaces to an estimated 111 spaces.

The previously approved parking lot and the proposed extension will include significant landscaping and decorative streetscape improvements along Auburn Road to create an attractive, pedestrian-friendly environment.

The Planning Commission will review this request on Wednesday, April 8, 2026. *Additional details about the public meeting are included in the public notice on the reverse side of this letter.*

If you have any questions or would like additional information, please feel free to contact me at (248) 364-6941 or Thomas A. Tanghe, City Manager, at (248) 370-9440.

Sincerely,

A handwritten signature in black ink, appearing to read 'Spuril', with a long horizontal line extending to the right.

Steven J. Cohen, AICP
Director of Community Development



Community Development Department
1827 N. Squirrel Road - Auburn Hills, MI 48326
Phone: (248) 364-6900
Website: www.auburnhills.org

MEMORANDUM

TO: Chairperson Beidoun and Members of the Planning Commission

FROM: Steven J. Cohen, AICP, Director of Community Development

DATE: April 1, 2026

RE: **CITY-INITIATED REZONING – 3077 Auburn Road**
Citizen Participation Response Letter

In accordance with the City of Auburn Hills Citizen Participation Ordinance, City staff mailed 145 notification letters, in addition to the required legal notice, to property owners and occupants within 1,000 feet of the proposed project on March 17, 2026. To date, the City has received a single response from a property owner who resides directly south of the site on Auburn Road, who expressed no objections to the rezoning.

**CITY OF AUBURN HILLS
COUNTY OF OAKLAND
STATE OF MICHIGAN
ORDINANCE NO. 26-949**

AN ORDINANCE TO AMEND ZONING ORDINANCE NO. 372

THE CITY OF AUBURN HILLS ORDAINS:

That Ordinance No. 372, being the City of Auburn Hills Zoning Ordinance, be amended as follows:

The City of Auburn Hills Ordinance No. 372, designated "City of Auburn Hills Zoning Ordinance," adopted December 16, 1985, and effective December 19, 1985, and the zoning district map attached thereto and made part thereof, are hereby amended by rezoning the following described property in the City of Auburn Hills, Oakland County, Michigan, from R-4, One-Family Residential District to D, Downtown District, as requested by the City of Auburn Hills:

Sidwell No.14-25-351-023
3077 Auburn Road
Auburn Hills, Michigan 48326



LOCATION MAP

SECTION II

The penalty for violation of this Ordinance shall be same as those penalties set forth in Article XX of the City of Auburn Hills Zoning Ordinance No. 372.

SECTION III

This Ordinance shall be published in a newspaper circulated within the City of Auburn Hills within fifteen (15) days following the adoption thereof. This Ordinance shall become effective immediately upon publication. All Ordinances in conflict herewith are hereby repealed.

AYES:
NAYS:
ABSENT:
ABSTENTIONS:

ORDINANCE 26-_____ (Vote)

STATE OF MICHIGAN)

)SS

COUNTY OF OAKLAND)

I, the undersigned, the duly qualified and appointed City Clerk of the City of Auburn Hills, Oakland County, Michigan, do hereby certify that the foregoing is a true and complete copy of Ordinance No. 26-949 adopted at a regular meeting of the City Council held on the 20th day of April 2026.

Eugene Hawkins, III, Mayor

Laura Pierce, City Clerk



City of Auburn Hills West Auburn Road - Neighborhood Master Plan Quick Summary

This study is the result of an informal request from folks who own property along both sides of Auburn Road, between I-75 and the Clinton River Bridge. In a nutshell, they told us that their zoning was “messed up” and they needed our help.

When we met with the neighborhood, we found that property owners felt like an “afterthought, in the shadow of the Downtown, and disconnected.” They told us they wanted to be transformed into a walkable neighborhood that complimented Downtown Auburn Hills.

Simply, the neighborhood has had the wrong zoning for 60+ years. The old vision for the land was flawed and out-of-date. The old plan envisioned this neighborhood going away and becoming an industrial park or a strip mall; but over the years redevelopment bypassed the area and occurred elsewhere.

During the planning process, we found that good quality homes (mostly built between 1930-1945) were located on properties classified as commercial or industrial on the Zoning Map. Since redevelopment never occurred as planned, property owners were left with non-conforming homes that they could not improve. Some homes were falling into disrepair because people did not want to invest in a neighborhood that was supposed to go away.

So, after a year of study, numerous meetings, and a lot of hard work – a new vision has been cast for the neighborhood. With unanimous support, the City Council authorized the Planning Commission to proceed with amending the master plan for the area.

The new vision has two primary goals:

1. Reclassify most of the parcels with homes on them from non-residential to residential use on the master plan. This would allow the zoning to be changed making these homes conforming with the Zoning Ordinance and allow property owners to reinvest and/or refinance.
2. Draft a “mixed use, Downtown-style” concept designed to provide a vision and spur redevelopment of the properties located at the east end of the study area near the Clinton River Bridge. This concept visually shows how the Downtown could expand into the neighborhood, as requested by those who participated in the planning process. *Note: This type of redevelopment would only occur when the existing property owners are ready and willing to sell their property.*



Entry feature designed as gateway into the Downtown area proposed near the US Post Office site.

Concept came out of the visioning meeting where the residents stated they wanted to be a part of the Downtown community and not an afterthought.

City of Auburn Hills
West Auburn Road - Neighborhood Master Plan
Exhibits



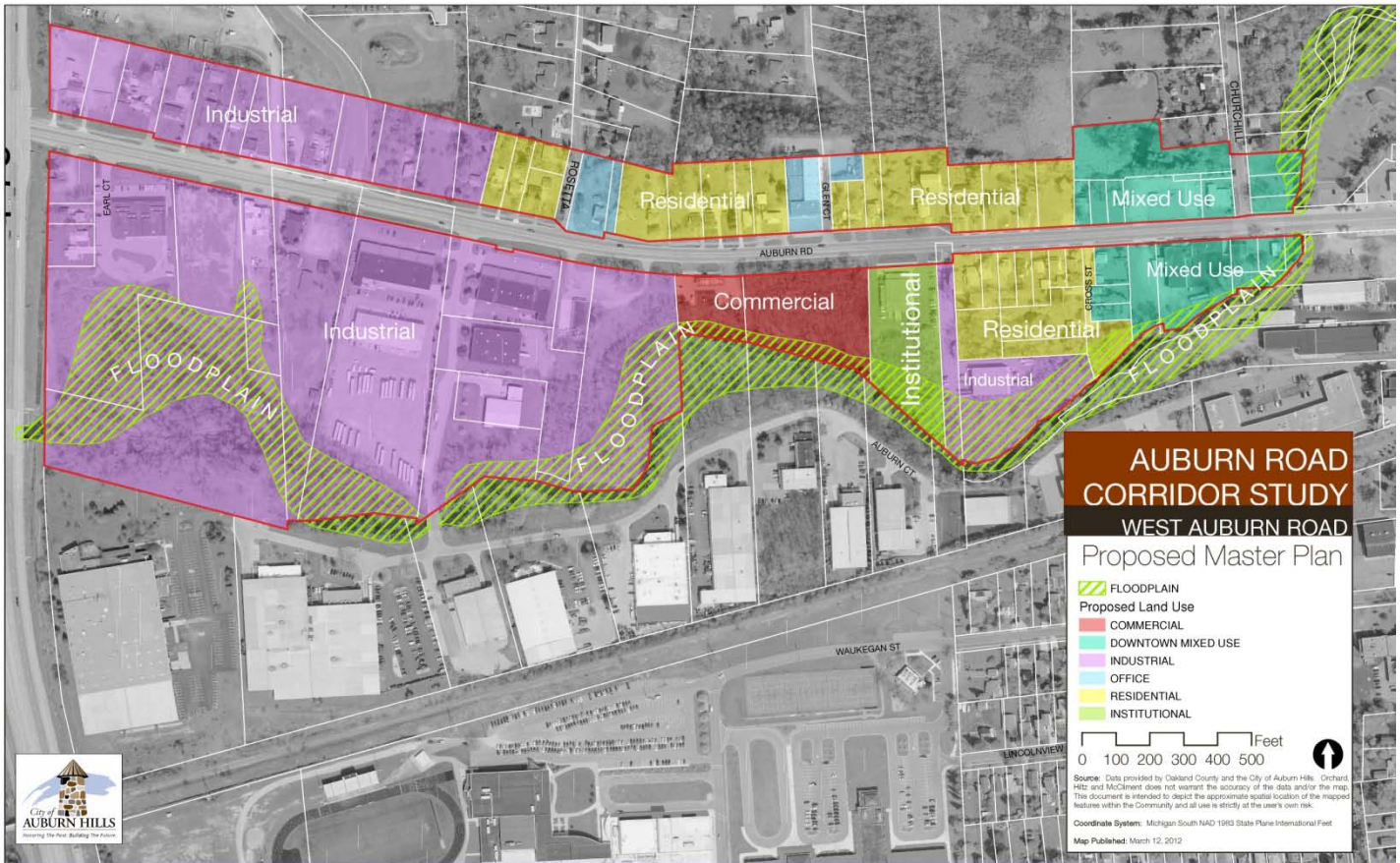
North Side of Auburn Road



South Side of Auburn Road



Mixed Use Concept





CITY OF AUBURN HILLS PLANNING COMMISSION AGENDA

MEETING DATE: APRIL 8, 2026

AGENDA ITEM NO 5b.

COMMUNITY DEVELOPMENT

To: Chairperson Sam Beidoun and the Planning Commission
From: Steven J. Cohen, AICP, Director of Community Development
Submitted: April 2, 2026
Subject: River Bend Townhomes - 3180-3200 Auburn Road
Public Hearing/Motion - Recommendation to City Council for combined PUD Step One – Qualification / Step Two – Site Plan approval to facilitate the redevelopment of the property to allow the construction of a residential development with 32 townhomes.

INTRODUCTION AND HISTORY

This is a request from Vesta Homes, Inc. for Planned Unit Development Option (PUD) approval to allow for the construction of a residential condominium development on a 2.08-acre parcel located south of Auburn Road and west of the Clinton River. The property is zoned I-1, Light Industrial District.

The proposed \$10 million development will consist of five townhouse-style buildings containing a total of 32 condominium units, all of which will be owner-occupied. Each unit will be approximately 1,594 square feet and will include a one-car garage, along with a 20-foot-deep driveway apron providing an additional parking space. The site plan also includes 24 off-street parking spaces designated for visitors. In total, the development provides 88 parking spaces, exceeding the 2.5 spaces per unit zoning requirement. This parking supply is expected to adequately accommodate residents and their guests while minimizing potential impacts on the City's public parking system. In addition, the development includes open-space amenities, including a gazebo and an internal sidewalk network, to serve future residents.

In February 2025, the City Council entered into a purchase agreement with Vesta Homes for the sale of 3180 Auburn Road (1.13 acres) to facilitate the development of high-quality, owner-occupied housing. Vesta Homes also owns the adjacent properties on both sides of the City-owned parcel, as well as a portion of the Clinton River, enabling a coordinated and comprehensive redevelopment of the overall site.



Aerial photo of the site location

PUD QUALIFICATION

- 1. Implementing the City's Vision.** The proposed project satisfies the qualification criteria for a Planned Unit Development (PUD) by advancing the goals of the Auburn Hills Downtown Economic Enhancement Strategy (2009) and the West Auburn Road Neighborhood Master Plan (2012). The development introduces additional housing opportunities near Downtown, supporting the City's long-standing objective of creating a walkable, mixed-use environment anchored by a stronger residential base.



West Auburn Road - Neighborhood Master Plan – Adopted June 26, 2012
(Residential vision for the redevelopment of this property)



Illustrated site plan for the proposed River Bend PUD

PUD QUALIFICATION (cont.)

2. **Creation of quality, owner-occupied housing to support the Downtown.** Consistent with the City's master plans, the City has prioritized the development of quality housing in and near Downtown as a foundational economic strategy, recognizing that existing traffic volumes alone are insufficient to attract significant commercial investment. Instead, creating a critical mass of residents is intended to support local businesses, enhance overall activity, and foster a greater sense of place. While this approach has required a long-term commitment, the City's consistent implementation is beginning to yield measurable results, as evidenced by the addition of new restaurants and retail. This project, with its inclusion of owner-occupied housing, represents a further step toward achieving these objectives.



Artist renderings of the proposed buildings viewed internal to the site

PUD QUALIFICATION (cont.)

Artist rendering of the proposed buildings as viewed from Auburn Road

3. **Removal of older industrial property.** The proposed redevelopment provides a significant net community benefit by transforming an underutilized, once-contaminated industrial property into a productive residential neighborhood that supports the continued growth and vitality of the Downtown. The removal of outdated industrial buildings and reinvestment in the site will enhance the area's visual character and improve compatibility with surrounding properties.



Aerial photo of the property looking southwest (Google Maps)

4. **Extension of the Downtown streetscape.** The project extends the Downtown streetscape west of the Clinton River across the subject property, helping to create a more cohesive and connected urban fabric. This extension strengthens pedestrian connectivity, encourages reinvestment in adjacent properties, and supports the long-term vision of expanding the Downtown area in accordance with the adopted plans.

KEY POINTS OF INTEREST

1. **Environmental clean-up of 3180 Auburn Road by the City.** In 2019, the City's Brownfield Redevelopment Authority (BRA) initiated environmental remediation efforts at 3180 Auburn Road, which is considered one of the more complex and critical projects undertaken in the community. After acquiring the land, an investigation of the site identified leaking underground storage tanks that had released petroleum contaminants into the surrounding soil.

The BRA worked closely with environmental consultants and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) to ensure the site was remediated in compliance with applicable environmental regulations. Grant funding was secured from EGLE in the amount of \$1 million, covering the bulk of the approximately \$1.2 million clean-up effort. Given the site's proximity to the Clinton River, the project was identified as a high priority to protect environmental quality and public health.

Following numerous years of investigation, remediation, and regulatory coordination, the BRA achieved site clean-up closure in May 2025. This designation indicates that EGLE has reviewed and approved the remediation efforts and determined that the property meets applicable long-term environmental compliance standards.



Photo of 3180 Auburn Road taken during the clean-up

2. **Plug-in electric vehicle-ready development.** Vesta Homes has committed to prep all the condominium garages with conduit and wiring for electric vehicle charging stations, along with upgraded electric panels in each unit (32 garages).
3. **Consideration of the adjacent neighborhood.** The site directly abuts two existing single-family homes to the west. Due to the presence of a large storm sewer and its associated easement along the shared property line, planting vegetation in this area is limited. To address screening, Vesta Homes will install an eight-foot-tall vinyl fence generally in the location of the existing green slatted fence. In addition, Vesta Homes has agreed to work with City staff to identify feasible locations for additional trees and shrubs within the 18-foot greenbelt near the fence at the time of detailed engineering review, provided such planting does not interfere with the storm sewer or its maintenance.

KEY POINTS OF INTEREST (cont.)

As shown in the photo below, numerous existing trees on the adjacent single-family property will also help buffer the two properties.



Photo showing the western property line of the development

STAFF RECOMMENDATION

This project has been reviewed by the City's Administrative Site Plan Review Team and has received a recommendation for approval. The applicant has met all applicable requirements to seek concurrent approvals for PUD Step One and Step Two.

We recommend Approval of the PUD Step One – Concept Plan and offer the following discretionary findings of fact:

1. The project is eligible for the PUD option because it provides a recognizable net public benefit to the health, safety, and welfare of the residents of the City of Auburn Hills and accomplishes the following:
 - a. Permits flexibility in the regulation of land development.
 - b. Encourages innovation in land use and variety in design, layout, and type of structures constructed.
 - c. Achieves economy and efficiency in the use of land, natural resources, energy, and the provision of public services and utilities.
 - d. Encourages useful open space.
 - e. Provides better housing opportunities suited to the needs of the residents of the City of Auburn Hills.
2. The concept plan contains sufficient basic information required for a recommendation.
3. The PUD Concept Plan promotes the land use goals and objectives of the City of Auburn Hills.
4. There are adequate means of disposing of sanitary sewage and of supplying the development with water.
5. The road system and stormwater drainage system are adequate.

STAFF RECOMMENDATION (cont.)

We recommend Conditional Approval of the PUD Step Two - Site Plan and offer the following discretionary findings of fact:

1. The Site Plan contains sufficient basic information required by the Zoning Ordinance for a recommendation.
2. The requirements of Section 1815, Items 7A-7E of the Zoning Ordinance can be met as follows:
 - A. All requirements and standards of the Zoning Ordinance, and other City Ordinances, can be met.
 - B. Safe, convenient vehicular and pedestrian ingress/egress has been depicted; primary access will be to Auburn Road.
 - C. Traffic circulation features within the site avoid common traffic problems and can promote safety.
 - D. A satisfactory and harmonious relationship will exist between the proposed development and surrounding area.
 - E. The proposed use will not have an unreasonable, detrimental or injurious effect upon the natural characteristics of the subject parcel, or the adjacent area.
3. One-car garages are provided for each unit, along with a single space behind each garage. 24 visitor parking spaces are provided. All driveways for the units shall be concrete.
4. Building and parking setback requirements will be consistent with Downtown standards.
5. Greenbelts will be provided.
6. Landscape requirements will be met, and calculations have been submitted.
7. No light poles are proposed, except along the Auburn Road streetscape. Details for the streetscape poles and building lights shall be provided on detailed engineering and building construction plans and shall meet City standards and zoning requirements.
8. A note indicates that parking spaces shall be double striped.
9. A note indicates that signs shall meet the requirements of the Zoning Ordinance. No development identification sign has been proposed at this time.
10. Ground-mounted transformers and roof-mounted mechanical equipment will be screened.
11. Complete Streets considerations were made as part of the site design, with the development's sidewalk network connecting to existing sidewalks on Auburn Road.
12. An Administrative Tree Removal Permit is required - 5 replacement trees are required, and 55 trees are proposed.

Conditions

1. Development Agreement. Vesta Homes shall enter into a Development Agreement with the City that outlines the conditions for Planned Unit Development (PUD) approval.
2. Screen Fence and Additional Vegetation. Vesta Homes has agreed to install a new eight-foot-tall vinyl fence along the western property line of the development. In addition, Vesta Homes will coordinate with City staff and consultants to identify potential locations for planting additional shrubs and trees within the storm sewer easement between the western property line and parking areas at the time of project implementation, where feasible.
3. Plug-in Electric Vehicle Garage Infrastructure. Vesta Homes has committed to prep all housing unit garages for future electric vehicle charging stations.
4. Extension of the Downtown Streetscape. Vesta Homes will extend the Downtown streetscape along its Auburn Road frontage. All streetscape shall meet City requirements and be consistent with existing materials throughout the Downtown, including street tree types, mulch area sizes, and contrasting pavement types. Fencing in front of each unit shall be black powder-coated aluminum consistent with the existing fence throughout the Downtown. Stone columns shall be incorporated into the fence utilizing the same/similar stone as the existing street planters throughout the Downtown.
5. Condominium Documents. Vesta Homes shall be responsible for drafting the Condominium By-Laws / Master Deed for review and final approval by the City Attorney.
6. Performance Guarantees. Vesta Homes shall comply with the requirements of Section 2007. Performance Guarantees of the Zoning Ordinance.

STAFF RECOMMENDATION (cont.)

7. Conformance with Approved Plans and Representations. Approval of the project is based on the representations made by Vesta Homes, as documented in this staff report, submitted materials, and the public meeting minutes. The development shall remain in conformance with these representations.
8. Project Completion Timeline. Vesta Homes has committed to start construction within one year of City Council approval, with a completion deadline of two years after commencement.

RECOMMENDED ACTION

Move to recommend to City Council approval of the combined PUD Step One – Concept Plan and PUD Step Two – Site Plan for River Bend Townhomes subject to the conditions of the City’s Administrative Review Team.



Development Application

Project Name: River Bend Condominiums

General Project Location: Auburn Rd
 nearest cross street- S Squirrel Rd

Parcel Size: 90,443 sq ft **Zoning:** I-1 currently

Sidwell Number(s): 02-14-36-102-005, 006, 007, 008, 010

Project Description: 5 buildings totaling
32 condominium units

Building Size (sq. ft.): 17,408 total

City Use Only

Address: 3180 Auburn Rd

Date Received: 9/23/25

Fees Paid: \$7,130.00

SP #: _____

SLU #(s): _____

LD/LE/SUB #: _____

RZ #: _____


PUD #: 250003

ZBA #: _____

Check requested review(s)

- | | |
|---|---|
| <input type="checkbox"/> Site Plan | <input type="checkbox"/> Subdivision |
| <input checked="" type="checkbox"/> Tree Removal Permit | <input checked="" type="checkbox"/> Planned Unit Development - Step 1/Step 2/Combined |
| <input type="checkbox"/> Special Land Use Permit(s) _____ | <input type="checkbox"/> Rezoning _____ to _____ |
| _____ | <input type="checkbox"/> ZBA Variance or Interpretation
(see supplemental application) |
| <input type="checkbox"/> Land Division | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Land Exchange | |

Applicant

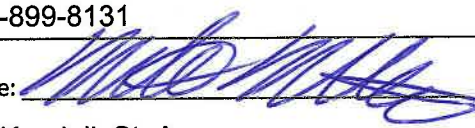
Name: Michele (Mike) Mattera Signature: 

Business Name and Address: Vesta Companies Inc - 31400 Kendall, Ste A

City: Fraser State: MI Zip Code: 48026 Phone Number: 586-899-8130

Property Owner(s)

Fax Number: 586-279-3885 Alt. Phone Number(s): 586-899-8131

Name: Michele (Mike) Mattera Signature: 

Business Name and Address: Hampton South LLC 31400 Kendall, Ste A

City: Fraser State: MI Zip Code: 48026 Phone Number: 586-899-8130

(Provide additional sheet if necessary for multiple property owners)

Please contact the City of Auburn Hills Community Development Department,
 1827 N. Squirrel Road, Auburn Hills, MI 48326 / Phone: 248-364-6900 Fax: 248-364-6939
 www.auburnhills.org



Planning Commission Public Notice

Meeting Date, Time, and Location:	Wednesday, April 8, 2026 at 6:00 p.m. City of Auburn Hills - City Council Chambers 1827 N. Squirrel Road, Auburn Hills, MI 48326
Project Name:	River Bend Townhomes
General Property Location:	3180, 3198, 3200 Auburn Road Property generally located south of Auburn Road, west of the Clinton River (Sidwell Nos.14-36-102-005,006,007,008,010).
Applicant:	Mike Mattera – 586-899-8130
Nature of the Request:	Recommendation to City Council for combined PUD Step One – Qualification / Step Two – Site Plan and Tree Removal Permit approval to facilitate the redevelopment of the property to allow the construction of a residential development with 32 townhomes.
City Staff Contact:	Steven J. Cohen, AICP Director of Community Development - 248-364-6941

Notice will be sent via U.S. Mail to properties within 1,000 feet of the site. The proposed application can be inspected before the meeting at the Community Development Department, located on the municipal campus at 1827 N. Squirrel Road, Auburn Hills, MI 48326, during regular City business hours.

Persons wishing to express their views may do so in person at the meeting or in writing addressed to the Planning Commission c/o Steven J. Cohen, AICP, Director of Community Development, at the above address.

Anyone planning to attend the meeting who needs special assistance under the Americans with Disabilities Act (ADA) is asked to contact the City Clerk's Office at 248-370-9402 or the City Manager's Office at 248-370-9440 48 hours before the meeting. Staff will be pleased to make the necessary arrangements.



LOCATION MAP

April 1, 2026

Mr. Steven Cohen, AICP
Director of Community Development
CITY OF AUBURN HILLS
1827 North Squirrel Road
Auburn Hills, Michigan 48326

RE: River Bend Townhomes
Site Plan Review

Dear Mr. Cohen:

We have completed the site plan review for the above referenced project with respect to grading, paving, storm drainage/detention, and availability of municipal utilities to serve the site. The site plan, received by this office on March 30, 2026, was prepared by Community Civil Engineering and Surveying. The review comments are noted below.

PERMITS/EASEMENTS:

Various permits will be required for this site, including but not limited to the following:

- Soil erosion permit form O.C.W.R.C.
- Water main extension permit from E.G.L.E.
- Sanitary sewer extension permit from E.G.L.E.
- Joint permit from E.G.L.E. for fill/work within the floodplain
- Floodplain Letter of Map Change from F.E.M.A.

GENERAL:

The site is located on the south side of Auburn Road and west of South Squirrel Road in Section 26 of the City of Auburn Hills. The applicant is proposing to construct five (5) buildings composed of a total of 32 attached townhomes that are approximately 1,600 sq. ft. with two (2) bedrooms and an attached single-car garage. The applicant is also proposing a private park including barbecues and benches for residents on the southeast side of the site. The site is currently in the Light Industrial (I-1) zoning district; however, the applicant is proposing to rezone the site as Multiple Family (Low Rise) (RM-2). Properties to the west are zoned One Family Residential (R-4). It has been noted on the plans that a parcel combination will be required. A complete legal description of the existing parcels is shown on the plans; however, a complete legal description of the proposed parcel has not been included on the plans. Note that additional right-of-way (ROW) for Auburn Road will be dedicated to the City as part of this project, resulting in 43-foot ½-width ROW. Survey and conveyance documents will need to be prepared by the applicant and accepted by the City for this dedication. The City of Auburn Hills Standard Notes and Fire Department Notes are included on the plans. A landscape plan was included in the plan set. If feasible, trees shall be located outside the influence of utilities and any public easements. Additional shrubs/plants should be installed in the greenbelt along the west side of the property, and the landscape plan updated accordingly. The City of Auburn Hills Standard Details were not included in the plan set and will need to be included in the engineering review submittal.



Furthermore, a soil erosion and sedimentation control plan and a demolition plan is needed for the engineering review.

MUNICIPAL UTILITIES:

There is existing 16-inch water main that extends along the north side of Auburn Road to the southwest corner of Churchill Road, then south across Auburn Road onto the site continuing east along the north side of the site. An existing 8-inch water main stub was installed from the Auburn Road main across the road to provide service to this site. The applicant is proposing to extend 8-inch water main from the existing 16-inch water main south and through the site to create a looped connection. The proposed water main shall be connected to the existing 8-inch stub instead of crossing Auburn Road, which can be updated for the engineering review. The connection to the existing 16-inch main near Churchill shall also be updated during the engineering review. Additional gate valve and wells may be required to meet City standards. A 2-inch HDPE domestic water service lead has been provided for each building. No fire suppression lines are provided on the plan. Three (3) fire hydrants are proposed on the plan, which may need to be adjusted to provide adequate coverage per Fire Department requirements. The hydrant proposed in the northeast corner of the site should be relocated along the south side of River Bends Drive. A profile for the 8-inch water main shall be provided at engineering review. The material type shall be labeled for engineering review. A 12-foot-wide easement is shown for the proposed public water main.

There is existing 10-inch water main that extends along the north side of Auburn Road and along the east side of Churchill Road. There is an existing 6-inch sanitary sewer that extends south from the southwest corner of Auburn Road and Churchill Road across Auburn Road to an existing building on the site. The applicant is proposing to remove the existing 6-inch sanitary sewer lead and install 10-inch sanitary sewer south across Auburn Road and onto the site. A 6-inch PVC SDR 23.5 lead with a minimum slope of 1% has been provided for Building 1, 2, 3, and 5. The sanitary lead for Building 4 will need to be indicated on the plan. A profile for the 10-inch sanitary sewer shall be provided at engineering review. The material type, length, and slope shall be labeled for engineering review. A 20-foot-wide easement shall be shown centered on the 10-inch sanitary sewer.

STORM SEWER AND DETENTION:

Stormwater runoff for the site will be collected via a series of catch basins and routed to an underground detention system located underneath the drive aisles throughout the site. The underground detention system will then outlet to existing 30-inch storm sewer on the west side of the site before ultimately discharging to the Clinton River. The existing City storm system includes a storm water treatment unit prior to discharge to the Clinton River. Since the proposed site connection is upstream of this unit, additional storm water treatment on the site will not be required, however the applicant should consider pre-treatment prior to the underground detention for ongoing maintenance. Preliminary underground detention calculations were provided on the plan. The underground detention system is currently sized for Oakland County's 100-year volume utilizing a maximum discharge rate of 0.150 cfs/acre. Per OCWRC standards, any development under 5 acres shall use an initial time of concentration of 10 minutes. Additional detention may be required based on the updated time of concentration and will be verified at engineering review. A note has been provided on the plans indicating that onsite drainage will be restricted and detained, the resulting discharge will be approximately 0.40 cfs. Additional information on the proposed storm sewer and underground detention system (i.e., material, slope, profile, calculations, outlet control details, etc.) will be required for the engineering review. In addition, locations of roof drains shall be indicated on the plan and piped to the storm sewer system. This can be addressed during the engineering review.

PAVING:

There are currently two (2) existing drive approaches and multiple curb cuts located off Auburn Road; however, the applicant is proposing to remove those approaches and construct two (2) new drive approaches. Parking is provided to residents by driveways with additional parking for visitors east of Building 4 and along the west side of the site. The plans indicate concrete curb and gutter with 3-inch asphalt pavement proposed for the proposed private drives, River Bends Drive and West Drive. A pavement cross-section has been provided on the plan. Per City standards,



One Family Residential zoned sites shall have a minimum asphalt pavement of 4-inch asphalt on 8-inch aggregate base. The plans should be updated to clearly indicate the proposed unit driveways are to be concrete pavement. In addition, the drive approaches from Auburn Road within the ROW shall be 9-inch concrete pavement. Cross section details shall be included on the plan for these concrete driveways in future submittals.

The applicant is proposing 32 garage parking spaces, 32 driveway parking spaces, and 24 off street parking spaces for a total of 88 parking spaces including two (2) barrier free accessible parking spaces. A 5-foot-wide concrete sidewalk has been provided around River Bends Drive with connections to the proposed streetscape along Auburn Road matching Downtown. The applicant is also proposing a mail kiosk along River Bends Drive at the southeast corner of the site.

The plans indicate proposed streetscape improvements along Auburn Road as part of the project. These improvements are to be consistent with the existing streetscape within the Downtown area. Streetscape shall include concrete sidewalk from the back of road curb, brick paver areas and curbed planter beds adjacent to driveways, street trees, street lighting, and irrigation. The street tree areas shall be revised to be 6-feet by 6-feet mulch area consistent with those along Auburn Road. Details shall be included in the plan for all of the proposed streetscape, including details and cross-sections for sidewalk, brick pavers w/concrete base course, lighting details, etc. Additional details on streetscape construction, including electrical and irrigation, will be required for the engineering review.

GRADING:

Existing grades are shown with contours and spot elevations while proposed grades are shown with spot elevations. The site is sloped towards the south side of the site. Perimeter site slopes shall match into existing contours prior to all abutting property lines. Pavement slopes are mostly consistent with City standards and are to remain between 1% and 6% for drive areas and between 1% and 4% for parking areas. Grades for the proposed concrete sidewalk and streetscape shall meet ADA requirements.

A timber retaining wall is proposed along the south and east side of the site adjacent to the Clinton River. A retaining wall is also proposed at the southwest corner of the site. A generic timber retaining wall detail has been included on the plan. The proposed retaining walls shall be constructed of stone, block, concrete or other durable material. The wall details shall be updated accordingly on future submittals. Design details and computations (sealed by a licensed engineer) will need to be submitted and approved during the engineering review for walls greater than one (1) foot in height. Wall calculations will need to account for global stability of the bank slope as well as interaction from adjacent building foundation. Any retaining walls over 2.5 feet in height are required to be fenced. The retaining wall detail shall include a fence at engineering review.

RECOMMENDATIONS:

The site plan is in substantial compliance with City of Auburn Hills requirements and has been stamped "Approved as Noted" by our office. We ask that the site plan approval acknowledge the following:

1. Proposed retaining walls shall be constructed of stone, block, concrete, or other durable materials and fencing shall be provided.
2. Proposed asphalt pavement section shall be updated to a minimum of 4 inches of HMA per City requirements. Driveways shall be clearly indicated as concrete and concrete pavement cross-section details provided on the plan.
3. Details shall be included in the plan for all of the proposed streetscape, including cross-sections for sidewalk, brick pavers w/concrete base course, lighting details, etc. All streetscape improvements shall meet City requirements and be consistent with existing materials throughout the Downtown.
4. The site improvement plan, designed in accordance with Ordinance No. 806, shall be submitted to the City for review and approval prior to construction. A detailed cost estimate for the improvements shall be submitted with the plans signed and sealed by the design engineer.



5. The developer must post a performance guarantee, in accordance with the City's requirements as set forth in the City of Auburn Hills Ordinance No. 372, Section 2007, Performance Guarantees. The estimate of the guarantee shall be submitted with the site improvement plan and must reflect all costs for site improvements, including but not limited to mass grading, roadways, lighting, utilities, pathways, sidewalks, screening, landscaping, driveways, retaining walls, parking lots, drainage, stormwater retention basins, and other similar features.

If you have any questions or are in need of any further information, please feel free to contact our office.

Sincerely,
OHM Advisors

A handwritten signature in black ink that reads "MaryKate Kirksey".

MaryKate Kirksey for Hannah Driesenga, P.E.

Transmitted via e-mail to Steven Cohen: April 1, 2026
cc: File

P:\0101_0125\SITE_AUBURNHILLSCITY\2025\0120251010_3180 AUBURN DEVELOPMENT\RIVER BEND TOWNHOMES_SITE REV_APPAN.DOCX



POLICE DEPARTMENT
1899 North Squirrel Road
Auburn Hills, MI 48326

MEMORANDUM

TO: Steve Cohen, Director of Community Development
FROM: Michelle Hesse, Lieutenant
DATE: March 30, 2026
SUBJECT: **River Bend PUD**

I have reviewed the site plan for the River Bend Townhouse units. The police department has no objections to the project as presented in the site plan.



AUBURN HILLS FIRE DEPARTMENT



Official Memorandum

To: Steve Cohen, City Planner/Director of Community Development
From: Fred Solomon, Fire Inspector
Date: March 30, 2026
Re: Site Plan Review

PROJECT: River Bend, 3180 Auburn Rd

XXX	Approved	
	Approved	Subject to the following revisions:
	Denied	

No Comments

Fred Solomon
Fire Inspector
Auburn Hills Fire Department

April 1, 2026

Steve Cohen, Director Community Development
City of Auburn Hills, Community Development Department
1827 North Squirrel Road
Auburn Hills, MI 48326

Subject: River Bend project, 3180 Auburn Road, Auburn Hills, MI

Dear Mr. Cohen,

The submittals regarding the above-mentioned project have been reviewed and site conditions verified. The Woodlands Ordinance may be satisfied by planting according to the proposed plans, and according to two 'conditions.'

'First condition,' the planting detail for trees must be updated to remove the use of 'rubber hose' for staking material to instead use 'flexible, non-abrasive strapping'.

'Second condition,' the invasive Japanese Knotweed growing in the southwest corner of the site must be eradicated.

Further, the streetscape along Auburn road is to compliment the new city streetscape on the north side of Auburn road. The design plan intentions meet this expectation and must be clarified during construction engineering details.

See tree detail chart below for tree inventory, removal and replacement tree requirements.

TREE DATA TABLE

DESCRIPTION	TOTAL TREES	Required/REPLACEMENT TREES
Total Trees Surveyed		
Removed Regulated Trees	5	5
Non-regulated/Dead Trees Removed	15	0
Removed Landmark Trees	0	0
TOTAL Required Replacement Trees		5 Trees

There are 5 regulated trees to be removed for the development of this project, none are Landmark trees. The landscape plans provide 55 trees and satisfies City Ordinances' replacement requirements for regulated & removed trees.

This project is approved based on two conditions noted above, the submitted tree inventory and the accompanying landscape plans.

Best regards,



Julie Stachecki
City of Auburn Hills Woodland Consultant



VESTA HOMES INC

31400 Kendal
Fraser, MI 48026
586-899-8130

March 17, 2026

RE: **CITIZEN PARTICIPATION LETTER**
River Bend Townhomes

Dear Neighbor,

In accordance with the City of Auburn Hills Citizen Participation Ordinance, we are notifying you that our company has submitted a development application to the City for the redevelopment of approximately two acres of land located on the south side of Auburn Road, west of the Clinton River.

Last year, we entered into an agreement with the City of Auburn Hills to purchase the former industrial site at 3180 Auburn Road, which is now vacant. When combined with the properties we own on both sides, the site will accommodate the development of five townhouse-style buildings totaling 32 units. Each unit will be approximately 1,594 square feet and will include an attached one-car garage. All Townhomes will be owner-occupied.

The project has been carefully designed to create a high-quality residential community and an inviting western gateway to Downtown Auburn Hills. The architecture and site layout place a strong emphasis on walkability and outdoor amenities for the development's homeowners, including internal sidewalks and a gazebo gathering area. Many of the Townhomes are also oriented to provide views of the Clinton River, allowing homeowners to enjoy the natural beauty of this unique riverfront setting.

Included with this letter is a preliminary site layout and building elevations that illustrate the proposed design.

We believe River Bend Townhomes will be a positive and well-designed addition to Downtown Auburn Hills and the surrounding community.

The Planning Commission will review this request on Wednesday, April 8, 2026. If you have any questions or would like additional information, please feel free to contact me at 586-899-8130. If you wish to speak with a City representative, please contact Steve Cohen, Director of Community Development, at 248-364-6941.

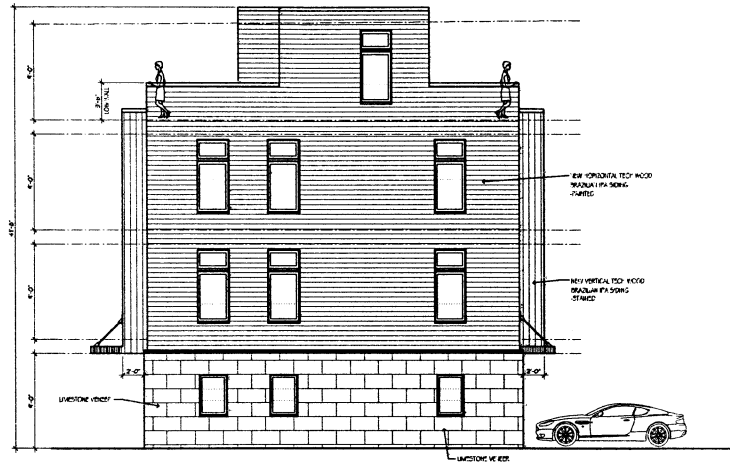
Sincerely,



Mike P. Mattera

4-PLEX

ARC
 DESIGN SERVICES, INC.
 20836 Hall Road - Suite 234
 Clinton Township, MI 48038
 586.457.6186
 arcdesignservicesinc@gmail.com



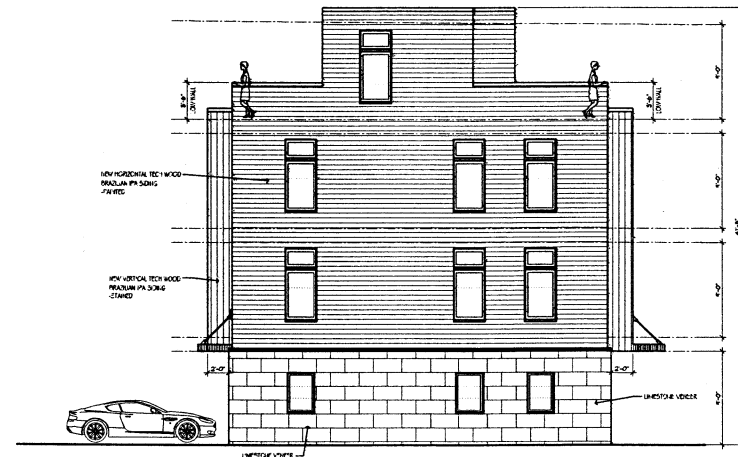
SIDE ELEVATION
 SC 3/12" = 1/8"



FRONT ELEVATION
 SC 3/8" = 1/8"



REAR ELEVATION
 SC 3/16" = 1/8"



SIDE ELEVATION
 SC 3/16" = 1/8"

project:
 PROPOSED
 RIVER BEND TOWNHOUSES
 AUBURN HILLS, MICH.

general contractor:
 VESTA BUILDING COMPANY
 P.O. BOX 26048
 FRASER, MI 48026

project coordinator:
 MIKE MATTERA
 586.899.8130
 MIKEMATTERA@YAHOO.COM

Note:
 While every effort is made to achieve accuracy in the preparation of these plans, we cannot disavow human error; therefore, no guarantee or warranty is made unless FULL SUPERVISION by the designer is retained during construction.

All contractors shall verify and coordinate all dimensions on drawings, as well as review and coordinate items with existing building elevations, sections and details before commencing with the work. If dimensional errors or conflicts occur between plans, building elevations, sections and details, it shall be brought to the attention of the architect before proceeding with the work. Contractors who fail to verify, review and coordinate the work and contractors who rely on drawings to determine placement or quantity of the work, shall bear full responsibility for any errors or omissions or construction.

DO NOT SCALE - USE POLARIZED DIMENSIONS
 TOL. 1/8"

As Issued - see figure dimensions

<input checked="" type="checkbox"/>	preliminary
<input type="checkbox"/>	title & permit
<input type="checkbox"/>	construction
<input type="checkbox"/>	record

date:
 9/14/25 preliminary
 9/22/25 revised
 10/6/25 revised
 2/20/26 revised
 3/5/26 revised

project no. 250916
sheet no. A-2

From: [Mike Mattera](#)
To: [Iolanda McNamara](#); [Cohen, Steve](#)
Cc: [Matteo Ferro](#)
Subject: Citizen Participation Response Letter- River Bend
Date: Tuesday, March 31, 2026 8:10:22 AM
Attachments: [image001.png](#)

Steve, good morning

Update on Citizen's response mailing

1- We mailed 258 letters on Tuesday March the 17th, 2026

2- I have received two calls so far

a- Donna Cobb who indicated owned a building in downtown Auburn Hills for 35 years, now rents a to candled shop, loved the project wonder if I was building a ranch home anywhere near by

b- David Steuer, he indicated he had built townhouse for rent nearby, loved the project was looking to see if I would cross market

PLANNED UNIT DEVELOPMENT AGREEMENT
FOR RIVER BEND

Entered into between:

Auburn Hills, a Michigan municipal corporation

and

Hampton South, LLC, a Michigan limited liability company

Dated: _____, 2026

**PLANNED UNIT DEVELOPMENT AGREEMENT FOR
RIVER BEND**

THIS AGREEMENT (“Agreement”) is made and entered into this ____ day of _____, 2026 (“Effective Date”), by and between The City of Auburn Hills (“City”) a Michigan municipal corporation, with offices located at 1827 N. Squirrel Road, Auburn Hills, Michigan 48326, and Hampton South, LLC (“Developer”), a Michigan Limited Liability Company, with offices located at 31400 Kendall, Fraser, MI 48026.

Project Developer: Hampton South, LLC
Attn: Mr. Michele Mattera
31400 Kendall
Fraser, MI 48026

Project Engineer: _____

RECITALS

The purpose and intent of this Agreement is to establish a community theme and regulate the placement of units within the property described in **Exhibit A** attached (“Property”), which is owned by Developer.

The Developer intends to develop the Property into a residential project consisting of thirty-two (32) townhouse units. The units (“Units”) shall be known as River Bend (the “Project”).

The Project will be a benefit to the community. Some of the benefits of the Project include the following as further described in this Agreement and the PUD Plan (as defined below).

NOW, THEREFORE, it is hereby agreed as follows:

1. SUMMARY DESCRIPTION OF THE PROJECT

The Project covers an area comprising approximately 2.076 acres. The site is located on Auburn Road in Auburn Hills, Michigan. Developer is proposing to develop the Project which is generally consistent with the character of the surrounding area and the City’s Master Plan. The proposed use is as follows:

A. The Project will contain thirty-two (32) residential condominium townhouse-style units in five (5) buildings. As used herein, the term “owner occupied” shall mean that the residential condominium units shall not be rented by anyone, including the owners of condominium units, and shall not be occupied except by the owners of such units, subject to the following agreements:

- i. The Developer nor any future owner shall offer any units for Lease. No Unit within the Project shall be leased, rented, or otherwise occupied by any person other than the owner of record of the Unit, except as expressly permitted in this Section. The offering of any Unit for lease, rental, or similar occupancy arrangement is prohibited.
- ii. The restriction on leasing and rental set forth in this Section shall be incorporated into the Master Deed and Bylaws of the condominium established for the Project pursuant to the Michigan Condominium Act, Act 59 of 1978, as amended. Such restriction shall: (a) run with the land; (b) bind all present and future Unit owners, tenants, occupants, mortgagees, successors, and assigns; and be enforceable by the Association and the City. The Developer shall ensure that the Master Deed and Bylaws recorded for the Project contain provisions substantially consistent with this Section.
- iii. The Developer and any future condominium association created for the Project (the "Association") shall be responsible for the monitoring and enforcement of the owner-occupancy restriction set forth in this Agreement and the Condominium Documents.
- iv. The Developer will not market Units as investments. Each Purchase agreement will contain the following statement:

Purchaser warrants and represents that he/she is acquiring the Unit with the intention of occupying the Unit and understands that the renting of the unit is severely restricted under the terms of the Development Agreement as amended, between Developer and the City of Auburn Hills.
- v. To the extent authorized under law, a Unit shall be deemed owner occupied where the Unit is occupied by the owner together with members of the owner's immediate family or guests, or where the Unit is occupied without the payment of rent by the owner's parent, child, spouse, or the owner's boyfriend, girlfriend, or significant other. A Unit shall also be deemed owner occupied where the Unit has been transferred to a family member or heir for estate planning purposes, provided that the original owner retains the right to occupy the Unit during the original owner's lifetime. Notwithstanding the foregoing limited circumstances, no Unit shall be leased, rented, or otherwise occupied by any third party in exchange for consideration.
- vi. A Unit occupied by the owner of the Unit together with owner family members and guests shall be deemed to be owner occupied. A Unit occupied without rent payments by the mother, father, son or daughter of the owner shall be deemed to be owner occupied.

- vii. A violation of the owner-occupancy restriction shall constitute a violation of this Agreement. In addition, a violation of the restriction against renting in the Agreement may be enforced by injunction or by a cease-and-desist order.
- viii. The owner-occupancy restriction established by this Section is a material condition of approval of the PUD and shall remain in effect in perpetuity unless amended by the City through a formal amendment to this Agreement approved by the City Council and recorded with the Oakland County Register of Deeds.
- ix. The owner-occupancy restrictions contained in this PUD shall not apply to a lender in possession of a Unit following default of a first mortgage, foreclosure or deed or other arrangement in lieu of foreclosure.

2. **ADHERENCE TO REQUIREMENTS FOR DEVELOPMENT**

The Property shall be developed and improved in full compliance with the following (“Development Documents”):

All Ordinances and Codes of the City of Auburn Hills, including the Fire Code, as may be amended, subject to any deviation or waiver in respect thereof set forth in this Agreement or any other provision hereof (“City Code and Ordinances”). For each phase of the Development, the applicable Ordinances and Codes of the City of Auburn Hills shall vest as of the date a Building Permit is pulled for that Phase. Notwithstanding the foregoing, any amendments to health and safety codes including fire codes, building codes, and other public safety regulations implemented to address threats to health and safety shall apply to the Development regardless of the vesting date for that Phase.

- a. The Plans for River Bend, prepared by Community E.S., Inc. (the “PUD Plan”).
- b. Conditions imposed on the Project by the motion recommending approval to the City Council.
- c. This Agreement and any conditions imposed herein.
- d. Any and all conditions of the PUD Plan as approved by the Auburn Hills City Council pertaining to the Project and reflected in the official minutes of said meetings (“PUD Plan”). Once the PUD Plan is approved, the PUD Plan on file with the Community Development Department and minutes of the Planning Commission and City Council meetings on file with the Community Development Department shall be attached.
- e. The City of Auburn Hills Engineering Design Standards and any other reasonable conditions which might be required by the City’s Engineer.

Furthermore, all development and improvement of the Property by Developer and all use of the Property shall be subject to and in accordance with all applicable City Code and Ordinances, and shall also be subject to and in accordance with all other approvals and permits required under applicable City Code and Ordinances, the PUD Plan, and state laws for the respective components of the Project. To the extent that there are conflicts or discrepancies between respective provisions of the PUD Plan, or between provisions of this Agreement and City Code and Ordinances, the terms and conditions of Agreement shall apply. In the event this Agreement is silent on any matters otherwise covered by the PUD Plan, or City Code and Ordinances, the PUD Plan shall apply. To the extent this Agreement is silent on any issue, the PUD Plan shall control.

This Agreement shall run with the Property and all future owner(s) of the Property shall be bound by the terms of this Agreement and the Developer's authority and responsibilities stated herein. Heirs, successors, assigns and transferees shall take interest in the Property subject to this Agreement and all references to "Developer" in this Agreement shall include the heirs, successors, and assigns of the Developer. The City shall require that all other developers, present or future, of any portion of this Agreement or any amendment thereto, as the same may be expanded by the City and their respective successors in title comply with the City Code and Ordinances and regulations. Except in relation to the assignment of this Agreement to the Association established to operate and manage the Condominium as set forth in Section 3 below, any assignment of this Agreement by the Developer or any other party shall be subject to the City's prior written approval, which such approval shall not be unreasonably withheld or delayed.

3. **INTENT OF PROJECT**

The Project will consist of 32 residential condominium townhouse-style units in five (5) buildings, landscaping, internal sidewalks, a gazebo, and a private drive as depicted on the site plan. Until such time that formal control over Project passes to the association created to operate and manage the affairs of the condominium ("Association") in accordance with the Michigan Condominium Act, Act 59 of 1978 (the "Act"), Developer shall be responsible for the general common elements as described in the master deed and bylaws ("Condominium Documents") for the condominium, including, but not limited to any open space areas as described in the PUD Plan. Once formal control passes to the Association, the Association shall be responsible for the maintenance of the general common elements and additional areas as identified in the Condominium Documents.

4. **ADHERENCE TO ORDINANCES**

Developer shall comply with the City Code and Ordinances, except where modified by this Agreement. Developer acknowledges that certain provisions of this Agreement may exceed the requirements of the City Code and Ordinances, and the City acknowledges that items shown in the Plan may be less than the requirements of the City Code and Ordinances. Developer shall fully comply with all engineering and other local, state and federal codes and regulations in effect at the time of development of the Project, unless superseded or otherwise covered in this Agreement and PUD Plan. Permitted uses shall be limited to residential and all accessory uses thereof as regulated by the City Code and Ordinances.

Building elevation materials and colors will consist of high-quality materials as shown on the PUD Plan.

Development standards shall conform to the PUD Plan. The Project shall meet the requirements under the City Code and Ordinances.

5. **PERMITS AND AUTHORIZATIONS**

A. The City shall grant to Developer and its contractors and subcontractors all City permits and authorizations necessary to modify the existing utilities including electric, telephone, gas, cable television, water, storm and sanitary sewer to the Property and to otherwise develop and improve the Property in accordance with the PUD Plan, provided the Developer has first made all requisite applications for permits, complied with the requirements for said permits, and paid all required fees. Any applications for permits from the City will be processed in the customary manner. The City will cooperate with Developer in connection with Developer's applications for any necessary county, state, federal or utility company approvals, permits or authorizations to the extent that such applications and/or discussions are consistent with the PUD Plan and this Agreement.

6. **PHASING/TIMING REQUIREMENTS**

Time is of the essence to this Agreement. The PUD Plan anticipates all construction to be completed in one (1) phase. The Developer shall commence construction no later than one (1) year after the issuance of all permits required to begin construction (the "Commencement Deadline"). The date on which physical construction actually begins shall be the "Commencement Date." All construction shall be fully completed within twenty-four (24) months of the Commencement Date (the "Completion Date"). The Developer may request extensions of the Commencement Deadline or the Completion Date for good cause; each requested extension may be for a period not to exceed two (2) additional years and must be approved by the Auburn Hills City Council, such approval not to be unreasonably withheld. This Agreement and the approvals granted hereunder shall be rendered null and void upon the expiration of the Completion Date, unless otherwise determined by the City Council in accordance with this Section.

7. **WATER AND SANITARY SEWER SYSTEMS**

Developer shall, at its sole expense, construct and install all connections tying into the municipal water and sanitary sewer systems to serve the Project and that are identified as "must be built" utilities in the Condominium Documents under the Act.

8. **ROADS, DRIVES AND PARKING LOTS**

Developer shall, at its sole expense, construct and install all the internal roads to serve the Project.

9. **LANDSCAPING, LIGHTING, AND ARCHITECTURAL STANDARDS**

Developer shall cause the completion of remaining construction of the Project which are identified as “must be built” in the Condominium Documents and under the Act, in full compliance with the PUD Plan.

Developer shall install underground irrigation sufficient for survivability of all planted materials located within the general common elements and within the Condominium Units as identified in the Condominium Documents (Master Deed and Bylaws) and provide that the Association shall be responsible for future maintenance of the irrigation and landscaping within the Project following the transitional control date.

10. **OPEN SPACE AND NATURAL FEATURES**

The open spaces shall be designed and landscaped to create natural areas that add to the overall open space system and aesthetics of the Project. For the purpose of insuring long-term preservation of open space and natural features within the Project, all open space shall be perpetually preserved as unimproved areas (other than improvements installed in accordance with the Development) by way of provisions contained in the Condominium Documents. The Condominium Documents shall also provide for the continued maintenance of general common elements as described in the Condominium Documents, including any underground drainage and retention facilities installed in relation to Property.

11. **CONDOMINIUM DOCUMENTS**

Developer shall record a Master Deed, Bylaws and Condominium Subdivision Plans for the Project and provide to the City those documents that establish the condominium in accordance with the PUD Plan for the Project.

12. **ACCESS TO PROPERTY**

In all instances in which the City, pursuant to this Agreement, utilizes the proceeds of a financial assurance given to secure completion or maintenance of improvements, and at any time throughout the period of development and construction of any part of the Project, the City, its contractors, representatives, consultants and agents, shall be permitted, and are hereby granted authority, to enter upon all or any portion of the Property for the purpose of inspecting and or completing the respective improvements, and for the purposes of inspecting for compliance with and enforcement of the PUD Plan and this Agreement.

13. **RECOGNIZABLE BENEFITS**

In connection with its development of the Project, the City has requested and the Developer has agreed to provide the following, which constitute recognizable net public benefits of the Project as defined in Sec. 1830 of the City’s Zoning Ordinance: the provision of new residential housing in the downtown area, thereby supporting increased density and economic vitality; the redevelopment and productive reuse of an underutilized and irregularly shaped site through efficient site design and consolidation; the inclusion of public-facing amenities, including a gazebo

and pedestrian walking paths, to enhance community accessibility and open space; the construction of streetscape improvements along Auburn Road to improve pedestrian connectivity and access to the downtown; and the advancement and implementation of the City's adopted Downtown Master Plan vision; the addition of an eight foot tall vinyl fence along the western property to provide a buffer between the neighboring single-family homes and the development providing improved compatibility and harmony between the housing densities; and the preparation of all the 32 condominium garages with conduit and wiring for electric vehicle charging stations, along with upgraded electric panels in each unit to support the future charging stations so as to support the City's goal to expedite the establishment of a convenient, cost-effective electric vehicle infrastructure network in the community.

14. **MISCELLANEOUS**

a. **Binding Effect**

This Agreement shall be binding upon and inure to the benefit of the parties and their heirs, successors and assigns. The rights and obligations contained in this Agreement shall run with the Property.

b. **Authority**

This Agreement has been duly authorized by all necessary action of Developer and the City. By the execution of this Agreement, the parties each warrant that they have the authority to execute this Development Agreement and bind the Property in its respective entities to its terms and conditions.

c. **PUD Plan Approval and Minor Changes**

There may be a need in the future to make minor changes to any approved PUD Plan for the Property, and Developer may request such changes. For purposes of expediency, minor changes to such site plans shall be reviewed by City Staff, and City Consultants at Developer's cost, and approved by the City's Director of Community Development, provided that the height, density and location of buildings and uses as permitted under the PUD Plan shall not be modified by City except as otherwise provided herein. It is within the City Director of Community Development sole discretion to determine whether a change is minor and appropriate to be approved by the City Director of Community Development or is a minor or major modification that is appropriate to be approved by the City Planning Commission and/or City Council. However, any proposed change that is not in conformance with the City Zoning Ordinance shall be considered a major modification requiring Planning Commission and City Council approval. Minor changes may include the following: (a) a reduction in the size of any building; (b) an increase in the size of any building, provided that the size of other building(s) is decreased so that all buildings within the Project do not exceed the density limitation set forth in this Agreement; (c) landscaping materials identified in the attached plan may be replaced by similar types of landscaping materials of better or like quality; (d) changes in floor plans which do not alter the character of the use; (e) internal rearrangement of parking lots that do not reduce the total number of approved parking spaces; (f) correcting non material errors; and (g) changes requested by the

City, County, or State for safety reasons. Any minor or major modifications sought that exceeds the authority granted to City Staff and Director of Community Development in this Section, in the judgment of City Staff and Director of Community Development, shall be submitted to the Planning Commission for review and approval, with Developer having the right to appeal the Planning Commission's determination to City Council. Any changes which are not minor, as defined above, will be considered either a minor or a major modification requiring amendment to the PUD. The determination that a change is not a minor change is completely within the discretion of the City and a decision that the change is major is not appealable.

d. **Other Governmental Approvals**

It is understood that construction of some of the improvements included in the Project will require the approval of other governmental agencies. Developer shall construct improvements in accordance with the approval of such agencies.

e. **Amendment**

This Agreement may only be amended pursuant to an instrument executed by the City and the Developer after mutual consent of the parties. Any amendment shall be recorded in the Oakland County Records. Developer shall have the right to delegate its rights and obligations under this Agreement to its successors and assigns with written permission from the City. Until the rights and responsibilities under this Agreement are transferred to Developer's Successor and Assign, Developer and the City shall be entitled to amend, modify, replace, or terminate this Agreement, without requiring the consent of any person or entity whatsoever, regardless of whether such person has any interest in the Property, including unit owners, mortgagees, and others. Notwithstanding anything contained herein to the contrary, City expressly agrees to the assignment of this Agreement to the Association as of the Transitional Control Date (as defined in the Act) without any further consent on the part of the City, or written assignment of this Agreement executed by the Developer and Association.

f. Notice.

Unless later information is provided, notices under this Agreement will be provided to:

To Developer:

Hampton South, LLC
Attn: Mr. Michele Mattera
31400 Kendall
Fraser, MI 48026

With a Required Copy to:

To City of Auburn Hills:

City of Auburn Hills
Attn: Clerk
1827 N. Squirrel Road
Auburn Hills, Michigan 48326

g. **Integration/Amendments**

This Agreement and its Exhibits (which are made a part of and incorporated herein in their entirety), set forth the entire agreement between the parties relative to the subject matter hereof. No prior or contemporaneous oral or written representations, statements, promises, agreements or undertakings made by either party or agent of either party that are not contained in this Agreement shall be valid or binding. This Agreement may not be amended except in writing signed by the parties and recorded in the same manner as this Agreement. Actual final building plans and elevations will be provided to the City at the time building permit applications are submitted for the various phases.

h. **Severability**

It is understood and agreed by the parties that if any part, term or provision of this Agreement is held by the courts to be illegal or in conflict with any statute, ordinance, rule, regulation or other applicable law, the validity of the remaining portions or provisions of this Agreement shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if this Agreement did not contain the particular part, term or provisions held to be invalid. In the event any changes in applicable federal, state, or local laws or regulations enacted after the date of this Agreement operate to prevent compliance with parts of this Agreement, or render compliance impractical or unreasonably difficult, the inconsistent provisions of this Agreement shall be modified, deleted or suspended as necessary to conform to such changes in federal or state law.

i. **Governing Law**

This Agreement shall be governed by the laws of the State of Michigan, both as to interpretation and performance. This Agreement shall be governed, interpreted and enforced by the laws of the State of Michigan, excluding Michigan's conflict of laws principles. Any action brought to enforce, interpret or decide any provision of this Agreement or any claim arising under this Agreement shall be brought in the Sixth Judicial Circuit Court of the State of Michigan, the 50th District Court of the State of Michigan, or the United States District Court for the Eastern District of Michigan, Southern Division, as dictated by the applicable jurisdiction of the Court. Except as otherwise required by law, venue is proper in the Courts set forth above.

j. **Waiver**

No waiver of any breach of this Agreement shall be held to be a waiver of any other or subsequent breach.

k. **Default.**

In the event there is a failure to timely perform any obligation or undertaking required under or in accordance with the Site Plan or this Agreement, the City may serve written notice upon Developer setting forth such deficiencies and a demand that the deficiencies be cured within a stated reasonable time period, but in no event less than thirty (30) days, and if not cured, the date, time, and place for a hearing before the City Council, or such other board, body, or official delegated by the City Council, for the purpose of allowing the Developer to be heard as to why the City should not proceed with the correction of the deficiency or obligation which has not been undertaken or properly fulfilled. At any such hearing, the time for curing and the hearing itself may be extended and/or continued to a date certain at the discretion of the City Council. If, following the hearing described above, the City Council, or such other board, body, or official designated to conduct the hearing, shall determine that the obligation has not been fulfilled or failure corrected within the time specified in the notice, the City shall thereupon have the power and authority to take one or more of the following actions:

- i. If the default relates Developer's failure to timely complete the improvements as shown in the Site Plan, the City may draw the funds from the Developer's posted Performance Guarantee and enter upon the Property through its officials, employees, agents, and/or contractors and either complete the improvements as shown on the Site Plan or restore and secure the Property to a safe condition. In such event, all reasonable costs and expenses incurred, shall be paid from the proceeds of the funds drawn on the Performance Guarantee, including an administrative fee equal to twenty-five percent (25%) of the total costs incurred to cover the City's overhead, coordination, and administrative expenses. Any amounts of unused proceeds of the Performance Guarantee shall be returned to Developer, or otherwise be credited, as the case may be. Developer shall be obligated to act and work in cooperation with the City to bring about completion of the site improvements or restore and secure the Property to a safe condition. To the extent the City enters the Property to perform work as set forth in this Section, the City shall defend, hold harmless and indemnify Developer in relation to any claims which arise as a result of the City's, or its employees, agents and consultants entering the Property and performing work as set forth herein.
- ii. The City may issue a stop work order as to any or all aspects of the Project, deny the issuance of any requested building permit or Certificate of Occupancy, and suspend further inspections of any or all aspects of the Project until such time as Developer has remedied such default.

- iii. In the event of breach of this Agreement, the City may also cite the Developer for any applicable violation of the City's Zoning Ordinance or other local ordinances, which shall be enforceable through the City's standard municipal civil infraction procedures.
- iv. Notwithstanding the foregoing, in the event of an uncured default, the City Council may consider termination of the Planned Unit Development (PUD) approvals; provided, however, that prior to any such termination, the City Council shall conduct a public hearing upon not less than fourteen (14) days' written notice to Developer, which notice shall state the time, place, and purpose of the hearing. At such public hearing, Developer shall be afforded an opportunity to be heard and present evidence. Following the close of the public hearing, the City Council may, in its discretion, adopt a resolution terminating the PUD approvals.
- v. In addition to the foregoing remedies, the City shall be entitled to pursue any other rights or remedies available to it at law or in equity, including, but not limited to, actions for specific performance, injunctive relief, or damages. The remedies set forth herein are cumulative and not exclusive.

No party shall be deemed in default of this Agreement for any delay or failure to fulfill any obligation so long as and to the extent to which any delay or failure in the fulfillment of such obligation is prevented or delayed as a consequence of circumstances of force majeure (i.e. any event outside of the reasonable control of the party delayed). In the event of any such delay, the time for performance of such shall be extended for a period equal to the time lost by reason of the delay. A party claiming the benefit of this provision shall, as soon as reasonably practicable after the occurrence of any such event, (a) provide written notice to the other party of the nature and extent of any such force majeure condition; and (b) use commercially reasonable efforts to remove any such causes and resume performance under this Agreement as soon as reasonably practicable.

1. **Inconsistency**

Notwithstanding anything herein to the contrary, the City Ordinances applicable to any respective phase shall be those in effect on the date a permit is pulled for that phase. To the extent that this Agreement, PUD Plan or its Exhibits conflict with City Ordinances or Zoning Ordinance requirements, the terms of this Agreement, the PUD Plan and its Exhibits will control. Any clerical errors or mistakes in this Agreement or its Exhibits may be corrected by any of the parties, and all parties agree to cooperate in making such corrections in order to effectuate the intent of the parties in entering into this Agreement. Remedial amendments to correct errors and omissions may be approved and executed by the City Manager so long as they are consistent with the spirit and intent of this Agreement, in the Director of Community Development's reasonable judgment. In all events any reference to the City Ordinances, Zoning Ordinances, Sign Ordinances, Codes and PUD Ordinance, shall mean the existing Ordinances and Codes of the City as of the date of this Agreement.

m. **Limitation of City's Liability**

This Project is a private undertaking, and the parties understand and agree that: (a) this Project is a private development; (b) the City has no interest or responsibilities for or duty to third parties concerning any improvements on the Property except and only until such time that the City accepts any public improvements pursuant to this Agreement and the PUD Plan; (c) the Developer shall have full and exclusive control of the Property subject to the limitations and obligations of the Developer under this Agreement; and (d) the contractual relationship between the City and the Developer is such that Developer is not an agent, partner or joint venture of or with the City.

15. **BINDING EFFECT**

This Agreement shall become effective upon execution by all parties. The Agreement shall be recorded in the office of the Oakland County Register of Deeds by the Developer and a certified copy of the recorded Agreement shall be delivered to the City. This Agreement shall run with the Property and bind the parties, their heirs, successors, and assigns. It is also understood that the members of the City Council, Planning Commission, Zoning Board of Appeals, or the City departments may change, but the City shall nonetheless remain bound by this Agreement.

[remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties have caused this Development Agreement to be executed on the day and year recited above.

CITY OF AUBURN HILLS,
a Michigan municipal corporation

By: _____

Its:

ACKNOWLEDGEMENT

STATE OF MICHIGAN)
) ss
COUNTY OF OAKLAND)

The foregoing Agreement was acknowledged before me by _____, the
_____ of the City of Auburn Hills, on the _____ day of _____, 2026,
on behalf of the City.

_____, Notary Public
Oakland County, Michigan
My Commission Expires: _____
Acting in Oakland County

(Signatures continued on next page)

HAMPTON SOUTH, LLC
a Michigan limited liability company

By: Michele Mattera
Michele Mattera
Its: Managing Member

ACKNOWLEDGEMENT

STATE OF MICHIGAN)
) ss
COUNTY OF MACOMB)

The foregoing Agreement was acknowledged before me by Michele Mattera, Managing Member of Hampton South, LLC, a Michigan limited liability company, on the 15TH day of APRIL, 2026, on behalf of the company.

Jolanda Monahan, Notary Public
MACOMB County, Michigan
My Commission expires: 1/19/2030
Acting in MACOMB County

Drafted by:
Brittney K. Ellis, Esq.
The Kelly Firm PLC
512 E. Eleven Mile Road
Royal Oak, MI 48067

When Recorded Return to:
City of Auburn Hills
Attn: Clerk
1827 N. Squirrel Road
Auburn Hills, Michigan 48326

Table of Exhibits

Exhibit A: Property Legal Description

Exhibit B: PUD Plan

Exhibit A

Property Legal Description

Land situated in the City of Auburn Hills, County of Oakland, State of Michigan, described as follows:

LEGAL DESCRIPTION: PARCEL 02-14-36-102-005

PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., CITY OF AUBURN HILLS. BEING MORE PARTICULARLY DESCRIBED AS LOT 11 OF SUPERVISOR'S PLAN NO. 9, ALSO THAT PART OF LOT 9 OF SUPERVISOR'S PLAN NO. 9 LYING EASTERLY OF LOT 11 EXTENDED SOUTHERLY ACROSS LOT 9.

LEGAL DESCRIPTION: PARCEL 02-14-36-102-006

(PER TITLE COMMITMENT ISSUED BY SEAVER TITLE AGENCY, COMMITMENT #63-15435043, DATED SEPTEMBER 21, 2018)

A PARCEL OF LAND SITUATED IN THE NORTH 1/2 OF THE NW 1/4 OF SECTION 36, TOWN 3N., RANGE 10 EAST, CITY OF AUBURN HILLS, OAKLAND COUNTY MICHIGAN, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

LOTS 12, 13, 14, ALSO PART OF LOT 16 LYING BETWEEN THE WEST LINE OF LOT 12 AND THE EAST LINE OF LOT 14 AS EXTENDED TO RIVER, "SUPERVISOR'S FLAT NO. 8", AS RECORDED IN LIBER 52 OF PLATS, PAGE 34, OAKLAND COUNTY RECORDS. SUBJECT TO ALL EASEMENTS AND RESTRICTIONS, IF ANY.

LEGAL DESCRIPTION: PARCEL 02-14-36-102-007

PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., CITY OF AUBURN HILLS. BEING MORE PARTICULARLY DESCRIBED AS LOT 15, ALSO PART OF LOT 16 OF SUPERVISOR'S PLAN NO. 9, BEGINNING AT THE NORTHEAST CORNER OF LOT 15, THENCE EAST 27.30', THENCE SOUTH 100', THENCE WEST TO THE WEST LINE OF LOT 15 OF SUPERVISOR'S PLAN NO. 9, EXTENDED SOUTHERLY TO THE SOUTHWEST CORNER OF LOT 15, THENCE NORTHERLY ALONG LOT LINE TO THE POINT OF BEGINNING.

LEGAL DESCRIPTION: PARCEL 02-14-36-102-008

PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., CITY OF AUBURN HILLS. BEING MORE PARTICULARLY DESCRIBED AS BEING PART OF LOT 16 OF SUPERVISOR'S PLAN NO. 9, BEGINNING AT A POINT DISTANT EAST 27.30' FROM THE NORTHEAST CORNER OF LOT 15, THENCE EAST 80', THENCE SOUTH 100', THENCE WEST 80', THENCE NORTH 100' TO THE POINT OF BEGINNING, EXCEPT THAT PART RETAINED IN M-59 HIGHWAY.

LEGAL DESCRIPTION: PARCEL 02-14-36-102-010

PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., CITY OF AUBURN HILLS. BEING MORE PARTICULARLY DESCRIBED AS LOT 16 OF THE SUPERVISOR'S PLAN NO. 9.

EXCEPT BEGINNING AT THE NORTHEAST CORNER OF LOT 15, THENCE EAST 107.30', THENCE SOUTH 100', THENCE WEST TO THE EAST PROPERTY LINE OF LOT 15, THENCE NORTHEASTERLY ALONG THE LOT LINE TO THE POINT OF BEGINNING.

ALSO EXCEPT BEGINNING AT THE SOUTHWEST CORNER OF LOT 17, THENCE SOUTHERLY ALONG THE LOT LINE TO THE SOUTHWEST CORNER OF LOT 17, THENCE N89°58'09"W 312' TO THE EASTERLY LINE OF THE CLINTON RIVER, THENCE ALONG THE EASTERLY LINE OF THE CLINTON RIVER N56°54'52"E 130.43' AND N00°08'42"W 75', THENCE S89°58'09"E ALONG THE NORTH LINE OF LOT 16 TO THE NORTHWEST CORNER OF LOT 17, THENCE SOUTHERLY ALONG THE LOT LINE TO THE SOUTHWEST CORNER OF LOT 17.

ALSO EXCEPT BEGINNING AT THE SOUTHWEST CORNER OF LOT 20, THENCE WEST ALONG THE SOUTH LINE OF LOT 20 TO THE EASTERLY BANK OF THE CLINTON RIVER, THENCE NORTHEASTERLY ALONG SAID EASTERLY BANK TO THE EXTENSION OF THE NORTH LINE OF THE SOUTH 50' OF LOT 19, THENCE EASTERLY ALONG SAID NORTH LINE TO THE WEST LINE OF LOT 19, THENCE SOUTHERLY ALONG THE WESTERLY LINE OF LOTS 19 AND 20 TO THE POINT OF BEGINNING, ALSO EXCEPT THAT PART OF LOT 16 IN PARCEL BEGINNING AT THE NORTHEAST CORNER OF LOT 19, THENCE S06°24'00"E 121.06', THENCE WESTERLY 680' MORE OR LESS TO THE EDGE OF THE CLINTON RIVER, THENCE NORTHEASTERLY 275' TO THE EASTERLY EXTENSION OF THE NORTH LINE OF LOT 19, THENCE EASTERLY 295.66', THENCE NORTHERLY 4', THENCE EASTERLY 136.35' TO THE BEGINNING.

ALSO EXCEPT BEGINNING AT A POINT DISTANT S89°49'00"W 548.67' FROM THE NORTHEAST CORNER OF LOT 21, THENCE S78°32'00"W 154.82', THENCE S89°48'20"W 173.07', THENCE S69°01'10"W 195.93' TO A POINT S38°40'05"E 31' FROM THE CENTER LINE OF THE CLINTON RIVER, THENCE N38°40'05"W 31', THENCE ALONG THREAD OF SAID RIVER NORTHEASTERLY 180', THEN CE N89°48'00"E 32', THENCE N89°49'00"E 346.23' TO THE POINT OF BEGINNING.

Exhibit B

**PUD Plan dated _____ is on File with the City of Auburn Hills
Community Development Department**

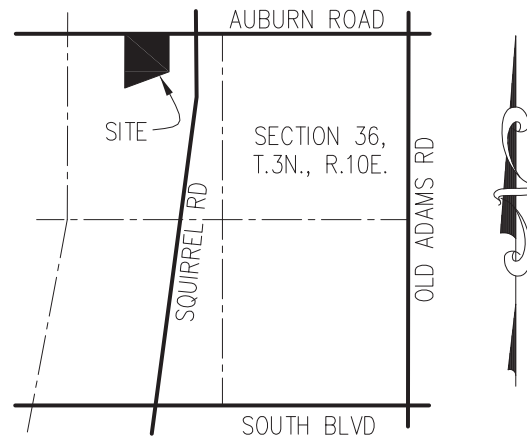




”RIVER BEND”

PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E.,
AUBURN HILLS, OAKLAND COUNTY, MICHIGAN.

PROPOSED: 32 TOWNHOUSE UNITS



LOCATION MAP

4" = 1 MILE

DRAWING INDEX

CIVIL PLANS	
1	COVER SHEET
2	TOPOGRAPHIC SURVEY & TREE INVENTORY
2A	TREE LIST
3	DIMENSIONAL SITE PLAN
4	ENGINEERING PLAN
5	LANDSCAPE PLAN
ARCHITECTURAL PLANS	
1	PROJECT NO. 250916, 3/5/2026
2	PROJECT NO. 250916, 3/5/2026

NOT FOR
CONSTRUCTION

ARCHITECT:
ARC DESIGN SERVICES, INC.
ANDY CHUDZIK
ARC DESIGN
(586) 457-6186
ARCDESIGN7@SBCGLOBAL.NET

PROPRIETOR:
MIKE MATTERA
VESTA HOMES
31400 KENDAL
FRASER, MI 48026
(586) 899-8130
MIKEPMATTERA@YAHOO.COM

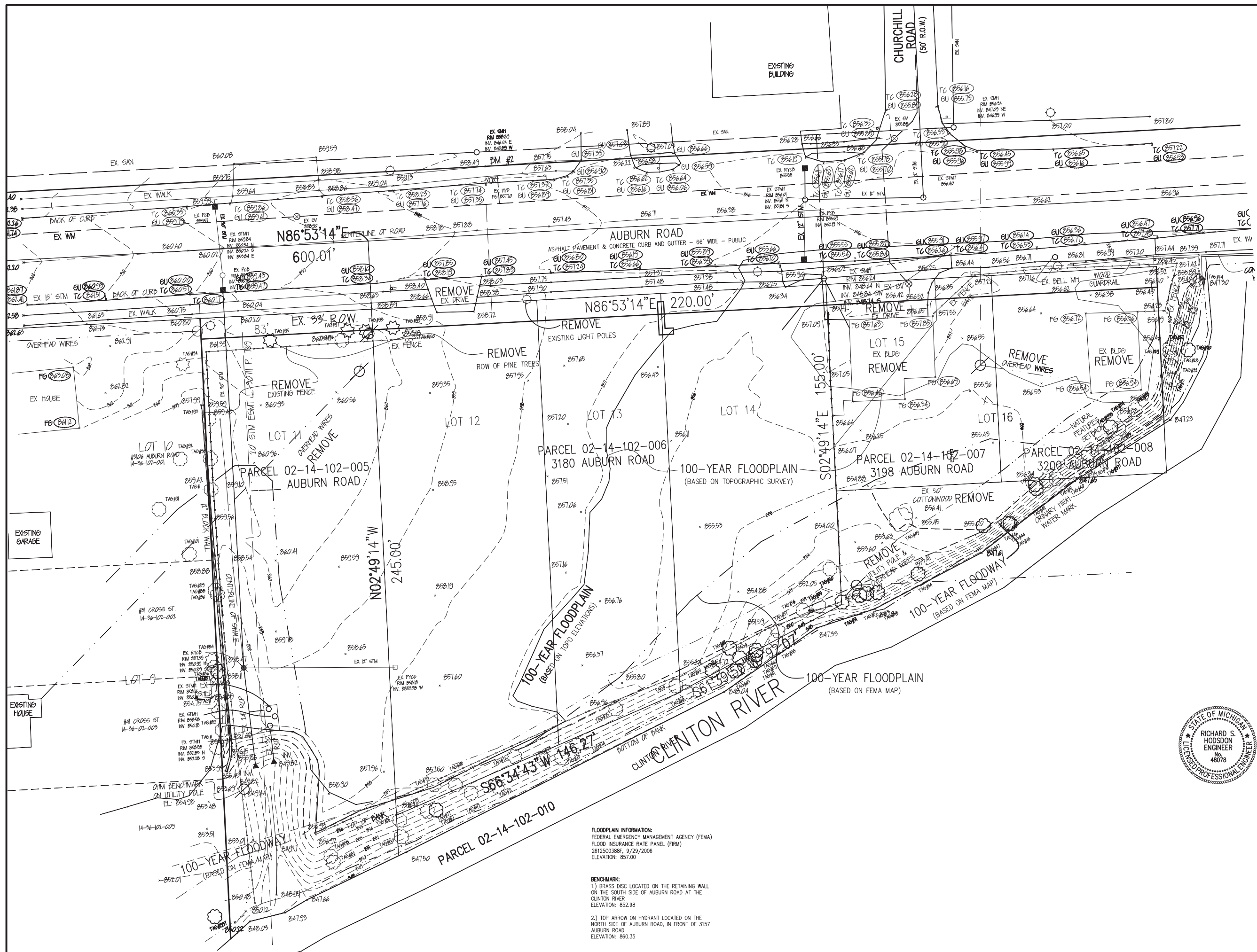
PREPARED BY:
COMMUNITY E.S., INC.
C/O RICHARD HODSDON, P.E. #48078
5805 24 MILE ROAD, STE. B
SHELBY TWP., MI 48316
PH: (586) 677-4081
E-MAIL: RICH@COMMUNITYENG.COM



REV. 3/30/2026 LS PLAN
REV. 3/27/2026 LS DETAILS
REV. 3/8/2026
REV. 9/23/2025 LANDSCAPE



<small>Civil Engineering and Surveying 5805 24 Mile Road, Suite B Shelby Twp., Michigan 48316 Telephone (586) 677-4081 www.communityeng.com</small>		RIVER BEND PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., AUBURN HILLS, OAKLAND COUNTY, MICHIGAN.	
DATE Sept. 18, 2025	SCALE 1" = 20'		
DRAWN BY R.S.H.	SHEET 1 OF 5		
CHECKED BY R.S.H.	DRAWING Z-25-178		
COVER SHEET			



- LEGEND**
- △ CONTROL POINT
 - XIX FIRE HYDRANT
 - ⊗ GATE WELL OR D-BOX
 - MANHOLE AS NOTED
 - ◻ PAVEMENT CATCH BASIN
 - ⊕ UTILITY POLE
 - ▲ GUY WIRE BASE
 - ^ SIGN
 - LIGHT POLE
 - FOUND IRON (F.I.) OR FOUND PIPE (F.P.)
 - EXISTING FENCE
 - CL ROAD OR DITCH AS NOTED
 - TREE/BRUSH LINE
 - EA= EDGE OF ASPHALT
 - EC= EDGE OF CONCRETE
 - TC= TOP OF CURB
 - GU= GUTTER
 - TB= TOP OF BANK
 - THIS TEXT TYPE (HAND) DENOTES EXISTING

PREPARED FOR:
MIKE MATTERA
VESTA HOMES
31400 KENDALL
FRASER, MI 48026
(586) 899-8130
MIKEMATTERA@YAHOO.COM

PREPARED BY:
COMMUNITY E.S., INC.
C/O RICHARD HODSDON, P.E. #48078
5805 24 MILE ROAD, STE. B
SHELBY TWP., MI 48316
PH: (586) 677-4081
E-MAIL: RICH@COMMUNITYENG.COM

© 2025 - COMMUNITY E.S., INC. ALL RIGHTS RESERVED. THESE PLANS AND DRAWINGS ARE OWNED BY AND THE SOLE PROPERTY OF COMMUNITY E.S., INC. ANY REPRODUCTION, COPYING, REUSE OR DISTRIBUTION OF THESE PLANS AND DRAWINGS IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF COMMUNITY E.S., INC.



REV. 3/30/2026 LS PLAN
REV. 3/27/2026 LS DETAILS
REV. 3/8/2026
REV. 9/23/2025 LANSCAPE



COMMUNITY E.S.
CIVIL ENGINEERING & SURVEYING

RIVER BEND
PART OF THE NORTHWEST 1/4 OF
SECTION 36, T.3N., R.10E.,
AUBURN HILLS,
OAKLAND COUNTY, MICHIGAN.

DATE Sept. 18, 2025 SCALE 1" = 20'
DRAWN BY R.S.H. SHEET 2 OF 5
CHECKED BY R.S.H. DRAWING Z-25-178

EXISTING CONDITIONS

FLOODPLAIN INFORMATION:
FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)
FLOOD INSURANCE RATE PANEL (FIRM)
26125C0388F, 9/29/2006
ELEVATION: 857.00

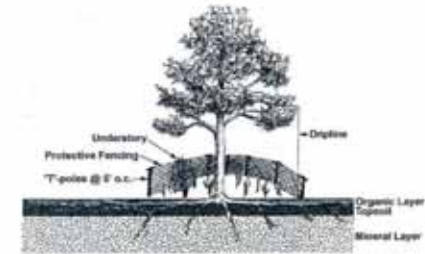
BENCHMARK:
1.) BRASS DISC LOCATED ON THE RETAINING WALL ON THE SOUTH SIDE OF AUBURN ROAD AT THE CLINTON RIVER
ELEVATION: 852.98
2.) TOP ARROW ON HYDRANT LOCATED ON THE NORTH SIDE OF AUBURN ROAD, IN FRONT OF 3157 AUBURN ROAD.
ELEVATION: 860.35

NOT FOR CONSTRUCTION

TAG #	SIZE AND COMMON NAME	GENUS	SPECIES	CONDITION	COMMENTS	REGULATED	LANDMARK
100	15" SCOTS PINE	PINUS	SYLVESTRIS	FAIR	REMOVE FOR DEVELOPMENT PURPOSES	YES	
99	15" SCOTS PINE	PINUS	SYLVESTRIS	FAIR	REMOVE FOR DEVELOPMENT PURPOSES	YES	
98	16" SCOTS PINE	PINUS	SYLVESTRIS	FAIR	REMOVE FOR DEVELOPMENT PURPOSES	YES	
97	18" SCOTS PINE	PINUS	SYLVESTRIS	FAIR	REMOVE FOR DEVELOPMENT PURPOSES	YES	
96	8"X4 SIBERIAN ELM	ULMUS	PUMILA	FAIR	REMOVE FOR DEVELOPMENT PURPOSES	NO	
95	16" BLACK PINE	PINUS	NEGRA	FAIR	REMOVE FOR DEVELOPMENT PURPOSES	YES	
94	19" SCOTS PINE	PINUS	SYLVESTRIS	FAIR	OFFSITE	YES	
91	11" RED MAPLE	ACER	RUBRUM	FAIR	OFFSITE	YES	
92	20" RED MAPLE	ACER	RUBRUM	FAIR	OFFSITE	YES	
93	17" SIBERIAN ELM	ULMUS	NEGRA	FAIR	OFFSITE	NO	
90	9" SIBERIAN ELM	ULMUS	NEGRA	FAIR	OFFSITE	NO	
1998	9" SIBERIAN ELM	ULMUS	NEGRA	FAIR	OFFSITE	NO	
101	12" COTTONWOOD	POPULUS	DELTOIDES	FAIR	OFFSITE	YES	
89	9" SIBERIAN ELM	ULMUS	NEGRA	POOR	GROWING IN FENCE - REMOVE	NO	
88	8" SIBERIAN ELM	ULMUS	NEGRA	POOR	GROWING IN FENCE - REMOVE	NO	
87	8" SIBERIAN ELM	ULMUS	NEGRA	FAIR	GROWING IN FENCE - REMOVE	NO	
84	15" SPRUCE	PICEA	GLAUCA	GOOD	OFFSITE - TO BE SAVED	YES	
83	12" SLIPPERY ELM	ULMUS	RUBRA	GOOD		YES	
	23" RED ELM	ULMUS	RUBRA	FAIR		YES	
82	17" SLIPPERY ELM	ULMUS	RUBRA	GOOD		YES	
25	RED ELM	ULMUS	RUBRA	FAIR		YES	
1997	35" COTTONWOOD	POPULUS	DELTOIDES	GOOD	OFFSITE	YES	
81	32" COTTONWOOD	POPULUS	DELTOIDES	GOOD	RIVERBANK	YES	
80	16" COTTONWOOD	POPULUS	DELTOIDES	POOR	RIVERBANK	YES	
79	18" RED ELM	ULMUS	RUBRA	FAIR	RIVERBANK	YES	
77	18" RED ELM	ULMUS	RUBRA	FAIR	RIVERBANK	YES	
67	24" RED ELM	ULMUS	RUBRA	GOOD	RIVERBANK	YES	
78	12" RED ELM	ULMUS	RUBRA	FAIR	RIVERBANK	YES	
76	8" BUCKTHORN	RHAMNUS	CATHARTICA	POOR	REMOVE - INVASIVE	NO	
68	37" COTTONWOOD	POPULUS	DELTOIDES	GOOD	RIVERBANK	YES	
69	32" COTTONWOOD	POPULUS	DELTOIDES	FAIR	RIVERBANK	YES	
70	8" RED ELM	ULMUS	RUBRA	FAIR	RIVERBANK	YES	
71	7" RED ELM	ULMUS	RUBRA	FAIR	RIVERBANK	YES	
72	8" MULBERRY	MORUS	ALBA	FAIR	RIVERBANK	YES	
73	12" SIBERIAN ELM	ULMUS	PUMILA	FAIR	RIVERBANK	NO	
74	35" COTTONWOOD	POPULUS	DELTOIDES	POOR	RIVERBANK	YES	
75	10" MULBERRY	MORUS	ALBA	FAIR	RIVERBANK	YES	
	8" BUCKTHORN	RHAMNUS	CATHARTICA	POOR	REMOVE - INVASIVE	NO	
66	8" SIBERIAN ELM	ULMUS	PUMILA	FAIR	RIVERBANK	NO	
65	12" SIBERIAN ELM	ULMUS	PUMILA	POOR	RIVERBANK	NO	
64	7"X2 BOX ELDER	ACER	NEGUNDO	POOR	RIVERBANK	NO	
63	10" MULBERRY	MORUS	ALBA	FAIR	RIVERBANK	NO	
62	10" SIBERIAN ELM	ULMUS	PUMILA	FAIR	RIVERBANK	NO	
61	8" SIBERIAN ELM	ULMUS	PUMILA	FAIR	RIVERBANK	NO	
60	9" SIBERIAN ELM	ULMUS	PUMILA	FAIR	RIVERBANK	NO	
59	11" BOX ELDER	ACER	NEGUNDO	POOR	RIVERBANK	NO	
57	20" MULBERRY	MORUS	ALBA	FAIR	RIVERBANK	YES	
58	21" RED ELM	ULMUS	PUMILA	FAIR	RIVERBANK	YES	
56	8" BOX ELDER	ACER	NEGUNDO	POOR	RIVERBANK	NO	
55	11" MULBERRY	MORUS	ALBA	POOR	RIVERBANK	YES	
50	24" MULBERRY	MORUS	ALBA	FAIR	RIVERBANK	YES	
51	7" MULBERRY	MORUS	ALBA	FAIR	RIVERBANK	YES	
52	8" RED ELM	ULMUS	RUBRA	FAIR	RIVERBANK	YES	
53	10" RED ELM	ULMUS	RUBRA	FAIR	RIVERBANK	YES	
54	10" BOX ELDER	ACER	NEGUNDO	POOR	RIVERBANK	NO	
49	48" COTTONWOOD	POPULUS	DELTOIDES	GOOD	REMOVE FOR DEVELOPMENT PURPOSES	YES	
48	22" MULBERRY	MORUS	ALBA	FAIR	RIVERBANK	YES	
47	11" TREE OF HEAVEN	AILANTHUS	ALTISSIMA	FAIR	REMOVE - INVASIVE	NO	
46	17" TREE OF HEAVEN	AILANTHUS	ALTISSIMA	FAIR	REMOVE - INVASIVE	NO	
44	6" TREE OF HEAVEN	AILANTHUS	ALTISSIMA	FAIR	REMOVE - INVASIVE	NO	
45	6" TREE OF HEAVEN	AILANTHUS	ALTISSIMA	FAIR	REMOVE - INVASIVE	NO	
41	20" BOX ELDER	ACER	NEGUNDO	FAIR	RIVERBANK - TO BE SAVED	NO	
43	10" TREE OF HEAVEN	AILANTHUS	ALTISSIMA	FAIR	REMOVE - INVASIVE	NO	
42	8" TREE OF HEAVEN	AILANTHUS	ALTISSIMA	FAIR	REMOVE - INVASIVE	NO	
40	8" TREE OF HEAVEN	AILANTHUS	ALTISSIMA	FAIR	REMOVE - INVASIVE	NO	
39	8" BOX ELDER	ACER	NEGUNDO	POOR	RIVERBANK - TO BE SAVED	NO	
36	30" SIBERIAN ELM	ULMUS	PUMILA	POOR	RIVERBANK - TO BE SAVED	NO	
37	17" MULBERRY	MORUS	ALBA	FAIR	RIVERBANK - TO BE SAVED	YES	
38	18"X3 MULBERRY	MORUS	ALBA	FAIR	RIVERBANK - TO BE SAVED	YES	
35	27"X2 TREE OF HEAVEN	AILANTHUS	ALTISSIMA	FAIR	REMOVE - INVASIVE	NO	
34	8" BOX ELDER	ACER	NEGUNDO	FAIR	RIVERBANK - TO BE SAVED	NO	
33	10" TREE OF HEAVEN	AILANTHUS	ALTISSIMA	FAIR	REMOVE - INVASIVE	NO	
32	28" BOX ELDER	ACER	NEGUNDO	POOR	RIVERBANK - TO BE SAVED	NO	
31	11" SIBERIAN ELM	ULMUS	PUMILA	FAIR	RIVERBANK - TO BE SAVED	NO	
30	7" ASH	FRAXINUS	PENSIVANICA	POOR	RIVERBANK - TO BE SAVED	NO	
28	8" BOX ELDER	ACER	NEGUNDO	DEAD	REMOVE	NO	
29	12" BOX ELDER	ACER	NEGUNDO	POOR	RIVERBANK - TO BE SAVED	NO	
27	8" BLACK LOCUST	ROBINIA	PSEUDOACACIA	FAIR	RIVERBANK - TO BE SAVED	NO	
1995	12" SIBERIAN ELM	ULMUS	NEGRA	FAIR	RIVERBANK - TO BE SAVED	NO	

Place Verbatim on Engineering Tree Protection Plan

TREE PROTECTION DETAIL



TREE PROTECTION NOTES

- Identify on site all trees or areas of trees which are being proposed to be preserved with fluorescent orange spray paint (dull base) or by red flagging tape.
- Erect barriers of four (4) foot high fencing staked with metal "T-posts" five (5) feet on center or all such trees or groups of trees proposed to remain.
- Protective barriers are to be erected prior to any clearing or grubbing on the site, and barriers are to remain in tact until approved by the City to be removed, or when a Certificate of Occupancy is issued.
- Keep clear all debris or fuel, equipment, and material from within the required protective barrier.
- During construction, the owner, developer, or agent shall not cause or permit any activity within the fence line of any protected tree or group of trees, including, but not limited to, the storage of equipment, dumpsters, boulders, dirt, and excavated material, building or waste material, or any other material harmful to the life of a tree.
- No damaging attachment, wires (other than cable wires for trees), signs, or permits may be fastened to any tree protected by this Ordinance.

Place Verbatim on Landscape Plan

LANDSCAPE/TREE REPLACEMENT NOTES

- All installed trees are to have a straight trunk.
- All installed trees are to be northern grown.
- All installed trees are to be State Department of Agriculture Nursery Grade No. 1 or better.
- All replacement trees are considered protected regardless of size.
- All trees shall be guaranteed for a minimum of two years.
- All landscaped areas shall be irrigated with an underground sprinkler system.

PREPARED FOR:
MIKE MATTERA
VESTA HOMES
31400 KENDALL
FRASER, MI 48026
(586) 899-8130
MIKEMATTERA@YAHOO.COM

PREPARED BY:
COMMUNITY E.S., INC.
C/O RICHARD HODSDON, P.E. #48078
5805 24 MILE ROAD, STE. B
SHELBY TWP., MI 48316
PH: (586) 677-4081
E-MAIL: RICH@COMMUNITYENG.COM

© 2025 - COMMUNITY E.S., INC. ALL RIGHTS RESERVED. THESE PLANS AND DRAWINGS ARE OWNED BY AND THE SOLE PROPERTY OF COMMUNITY E.S., INC. ANY REPRODUCTION, COPYING, REUSE OR DISTRIBUTION OF THESE PLANS AND DRAWINGS IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF COMMUNITY E.S., INC.



REV. 3/30/2026 LS PLAN
REV. 3/27/2026 LS DETAILS
REV. 3/8/2026
REV. 9/23/2025 LANDSCAPE



COMMUNITY E.S.
CIVIL ENGINEERING & SURVEYING

Civil Engineering and Surveying
5805 24 Mile Road, Suite B
Shelby Twp., Michigan 48316
Telephone (586) 677-4081
www.communityeng.com

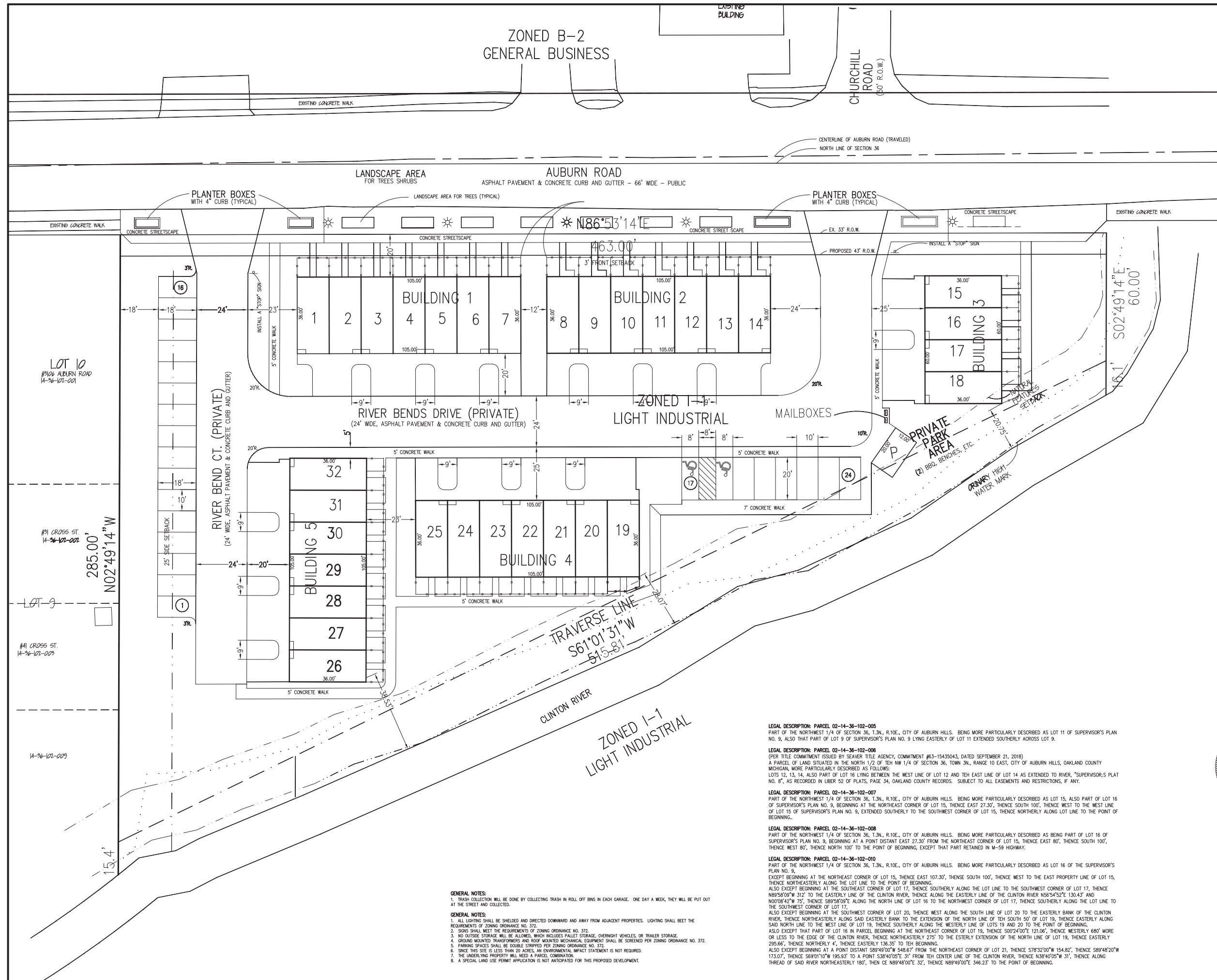
RIVER BEND
PART OF THE NORTHWEST 1/4 OF
SECTION 36, T.3N., R.10E.,
AUBURN HILLS,
OAKLAND COUNTY, MICHIGAN.

DATE Sept. 18, 2025 SCALE 1"=50'
DRAWN BY R.S.H. SHEET 2A OF 5
CHECKED BY R.S.H. DRAWING Z-25-178

TREE LIST

NOT FOR CONSTRUCTION

ZONED B-2
GENERAL BUSINESS



- SITE DATA:**
- EXISTING SITE INFORMATION:
PART OF PARCEL NO.
14-36-102-005
14-36-102-006
14-36-102-007
14-36-102-008
14-36-102-010
2.076 ACRES GROSS - 1.970 ACRES NET
 - EXISTING ZONING: I-1
PROPOSED USE: RM-2
 - SETBACKS: REQUIRED PROVIDED
FRONT: 30' 15'
SIDE: 20' 25'+
REAR: 40' 16'
 - BUILDING SUMMARY:
EACH 36'x14' BUILDING PAD IS A ONE FAMILY STRUCTURE.
 - PARKING:
2.5 SPACES / 2-BEDROOM UNIT
2.5 SPACES X 32 UNITS = 80 PARKING SPACES
85 SPACES REQUIRED
32 GARAGE PARKING SPACES
32 DRIVEWAY PARKING SPACES
24 OFF STREET PARKING SPACES
88 SPACES PROVIDED
 - IMPERVIOUS SURFACES:
BUILDINGS 17,408 SQUARE FEET
ROADS/WALKS/DRIVES 30,740 SQUARE FEET
100-YEAR DETENTION REQUIREMENT BASED ON THE OAKLAND COUNTY WATER RESOURCES COMMISSION'S REQUIREMENTS:
15,716 CUBIC FEET
 - UNIT AREAS:
GARAGE FLOOR 256 SQUARE FEET
FIRST FLOOR 588 SQUARE FEET
SECOND FLOOR 588 SQUARE FEET
LOFT 162 SQUARE FEET
TOTAL LIVING SPACE 1,594 SQUARE FEET

PREPARED FOR:
MIKE MATTERA
VESTA HOMES
31400 KENDALL
FRASER, MI 48026
(586) 899-8130
MIKEMATTERA@YAHOO.COM

PREPARED BY:
COMMUNITY E.S., INC.
C/O RICHARD HODSDON, P.E. #48078
5805 24 MILE ROAD, STE. B
SHELBY TWP., MI 48316
PH: (586) 677-4081
E-MAIL: RICH@COMMUNITYENG.COM

© 2025 - COMMUNITY E.S., INC. ALL RIGHTS RESERVED. THESE PLANS AND DRAWINGS ARE OWNED BY AND THE SOLE PROPERTY OF COMMUNITY E.S., INC. ANY REPRODUCTION, COPYING, REUSE OR DISTRIBUTION OF THESE PLANS AND DRAWINGS IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF COMMUNITY E.S., INC.



REV. 3/30/2026 LS PLAN
REV. 3/27/2026 LS DETAILS
REV. 3/8/2026
REV. 9/23/2025 LANSCAPE



COMMUNITY E.S.
CIVIL ENGINEERING & SURVEYING

Civil Engineering and Surveying
5805 24 Mile Road, Suite B
Shelby Twp., Michigan 48316
Telephone (586) 677-4081
www.communityeng.com

RIVER BEND
PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., AUBURN HILLS, OAKLAND COUNTY, MICHIGAN.

DATE **Sept. 18, 2025** SCALE **1" = 20'**

DRAWN BY **R.S.H.** SHEET **3** OF **5**

CHECKED BY **R.S.H.** DRAWING **Z-25-178**

DIMENSIONAL SITE PLAN

- GENERAL NOTES:**
- TRASH COLLECTION WILL BE DONE BY COLLECTING TRASH IN ROLL OFF BINS IN EACH GARAGE. ONE DAY A WEEK, THEY WILL BE PUT OUT AT THE STREET AND COLLECTED.
 - ALL LIGHTING SHALL BE SHIELDED AND DIRECTED DOWNWARD AND AWAY FROM ADJACENT PROPERTIES. LIGHTING SHALL MEET THE REQUIREMENTS OF ZONING ORDINANCE NO. 372.
 - SIGNS SHALL MEET THE REQUIREMENTS OF ZONING ORDINANCE NO. 372.
 - NO OUTSIDE STORAGE WILL BE ALLOWED, WHICH INCLUDES PALLET STORAGE, OVERNIGHT VEHICLES, OR TRAILER STORAGE.
 - GROUND MOUNTED TRANSFORMERS AND ROOF MOUNTED MECHANICAL EQUIPMENT SHALL BE SCREENED PER ZONING ORDINANCE NO. 372.
 - PARKING SPACES SHALL BE DOUBLE STRIPPED PER ZONING ORDINANCE NO. 372.
 - SINCE THIS SITE IS LESS THAN 20 ACRES, AN ENVIRONMENTAL IMPACT STATEMENT IS NOT REQUIRED.
 - THE UNDERLYING PROPERTY WILL NEED A PARCEL COMBINATION.
 - A SPECIAL LAND USE PERMIT APPLICATION IS NOT ANTICIPATED FOR THIS PROPOSED DEVELOPMENT.

LEGAL DESCRIPTION: PARCEL 02-14-36-102-005
PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., CITY OF AUBURN HILLS. BEING MORE PARTICULARLY DESCRIBED AS LOT 11 OF SUPERVISOR'S PLAN NO. 9, ALSO THAT PART OF LOT 9 OF SUPERVISOR'S PLAN NO. 9 LYING EASTERLY OF LOT 11 EXTENDED SOUTHERLY ACROSS LOT 9.

LEGAL DESCRIPTION: PARCEL 02-14-36-102-006
(PER TITLE COMMITMENT ISSUED BY SEAFER TITLE AGENCY, COMMITMENT #63-15435043, DATED SEPTEMBER 21, 2018)
A PARCEL OF LAND SITUATED IN THE NORTH 1/2 OF THE NW 1/4 OF SECTION 36, TOWN 3N., RANGE 10 EAST, CITY OF AUBURN HILLS, OAKLAND COUNTY MICHIGAN, MORE PARTICULARLY DESCRIBED AS FOLLOWS:
LOTS 12, 13, 14, ALSO PART OF LOT 16 LYING BETWEEN THE WEST LINE OF LOT 12 AND THE EAST LINE OF LOT 14 AS EXTENDED TO THE RIVER, SUPERVISOR'S PLAN NO. 9, AS RECORDED IN LIBER 52 OF PLATS, PAGE 34, OAKLAND COUNTY RECORDS. SUBJECT TO ALL EASEMENTS AND RESTRICTIONS, IF ANY.

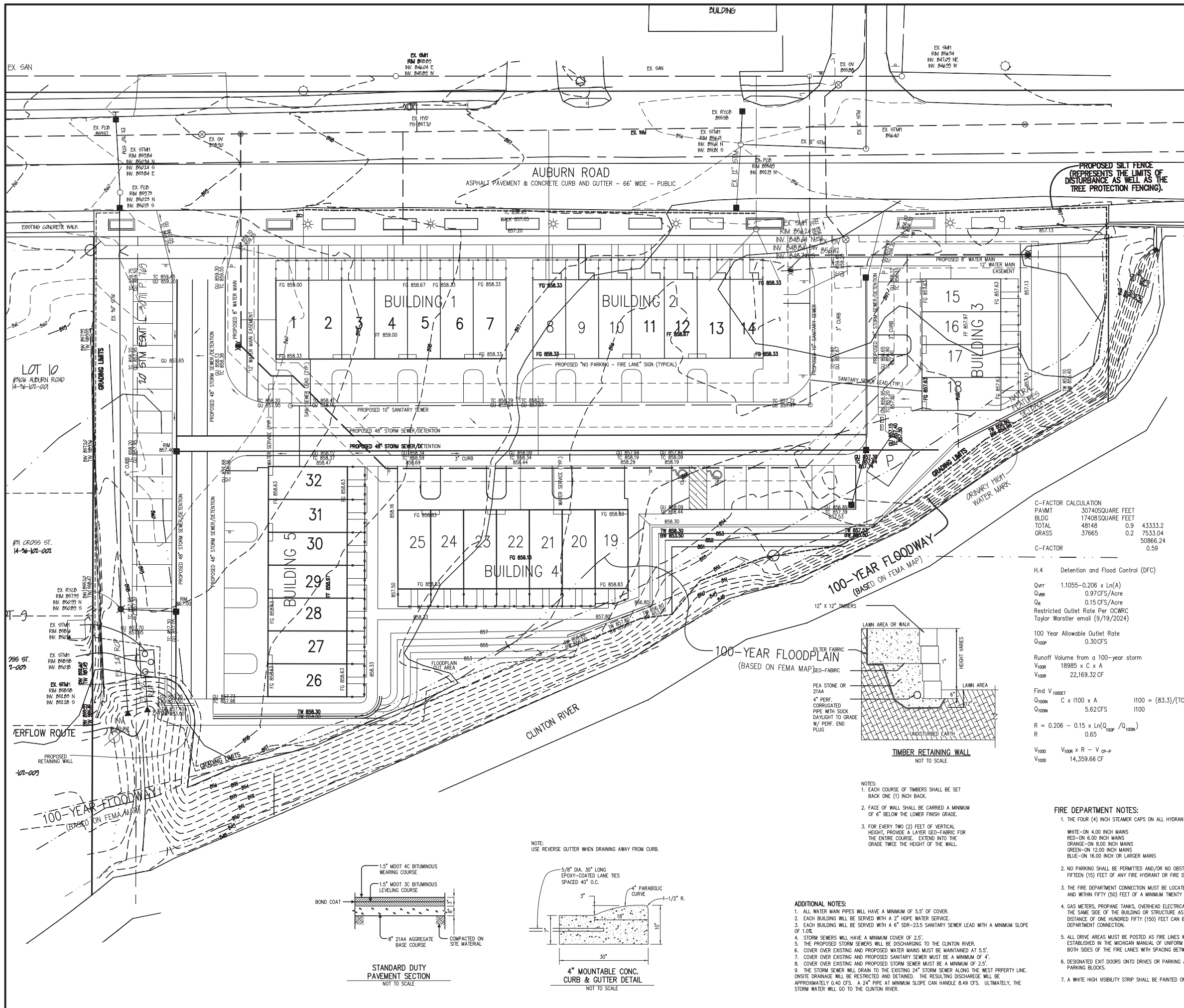
LEGAL DESCRIPTION: PARCEL 02-14-36-102-007
PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., CITY OF AUBURN HILLS. BEING MORE PARTICULARLY DESCRIBED AS LOT 15, ALSO PART OF LOT 16 OF SUPERVISOR'S PLAN NO. 9, BEGINNING AT THE NORTHEAST CORNER OF LOT 15, THENCE EAST 27.30', THENCE SOUTH 100', THENCE WEST TO THE WEST LINE OF LOT 15 OF SUPERVISOR'S PLAN NO. 9, EXTENDED SOUTHERLY TO THE SOUTHWEST CORNER OF LOT 15, THENCE NORTHERLY ALONG LOT LINE TO THE POINT OF BEGINNING.

LEGAL DESCRIPTION: PARCEL 02-14-36-102-008
PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., CITY OF AUBURN HILLS. BEING MORE PARTICULARLY DESCRIBED AS BEING PART OF LOT 16 OF SUPERVISOR'S PLAN NO. 9, BEGINNING AT A POINT DISTANT EAST 27.30' FROM THE NORTHEAST CORNER OF LOT 15, THENCE EAST 80', THENCE SOUTH 100', THENCE WEST 80', THENCE NORTH 100' TO THE POINT OF BEGINNING, EXCEPT THAT PART RETAINED IN M-59 HIGHWAY.

LEGAL DESCRIPTION: PARCEL 02-14-36-102-010
PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., CITY OF AUBURN HILLS. BEING MORE PARTICULARLY DESCRIBED AS LOT 16 OF THE SUPERVISOR'S PLAN NO. 9, EXCEPT BEGINNING AT THE NORTHEAST CORNER OF LOT 15, THENCE EAST 107.30', THENCE SOUTH 100', THENCE WEST TO THE EAST PROPERTY LINE OF LOT 15, THENCE NORTHEASTERLY ALONG THE LOT LINE TO THE POINT OF BEGINNING.
ALSO EXCEPT BEGINNING AT THE SOUTHWEST CORNER OF LOT 17, THENCE SOUTHERLY ALONG THE LOT LINE TO THE SOUTHWEST CORNER OF LOT 17, THENCE N89°58'09"W 312' TO THE EASTERLY LINE OF THE CLINTON RIVER, THENCE ALONG THE EASTERLY LINE OF THE CLINTON RIVER S85°45'2"E 130.43' AND N00°08'42"W 75', THENCE S89°58'09"E ALONG THE NORTH LINE OF LOT 16 TO THE NORTHEAST CORNER OF LOT 17, THENCE SOUTHERLY ALONG THE LOT LINE TO THE SOUTHWEST CORNER OF LOT 17.
ALSO EXCEPT BEGINNING AT THE SOUTHWEST CORNER OF LOT 20, THENCE WEST ALONG THE SOUTH LINE OF LOT 20 TO THE EASTERLY BANK OF THE CLINTON RIVER, THENCE NORTHEASTERLY ALONG SAID EASTERLY BANK TO THE EXTENSION OF THE NORTH LINE OF TEN SOUTH 50' OF LOT 19, THENCE EASTERLY ALONG SAID NORTH LINE TO THE WEST LINE OF LOT 19, THENCE SOUTHERLY ALONG THE WESTERLY LINE OF LOTS 19 AND 20 TO THE POINT OF BEGINNING, ALSO EXCEPT THAT PART OF LOT 16 IN PARCEL BEGINNING AT THE NORTHEAST CORNER OF LOT 19, THENCE S002°40'00"E 121.06', THENCE WESTERLY 680' MORE OR LESS TO THE EDGE OF THE CLINTON RIVER, THENCE NORTHEASTERLY 275' TO THE EASTERLY EXTENSION OF THE NORTH LINE OF LOT 19, THENCE EASTERLY 295.66', THENCE NORTHERLY 4', THENCE EASTERLY 136.35' TO THE POINT OF BEGINNING.
ALSO EXCEPT BEGINNING AT A POINT DISTANT S89°49'00"W 548.67' FROM THE NORTHEAST CORNER OF LOT 21, THENCE S78°32'00"W 154.82', THENCE S89°48'20"W 173.07', THENCE S69°01'10"W 195.93' TO A POINT S38°40'05"E 31' FROM THE CENTER LINE OF THE CLINTON RIVER, THENCE N38°40'05"W 31', THENCE ALONG THEAD OF SAID RIVER NORTHEASTERLY 180', THEN CE N89°48'00"E 32', THENCE N89°49'00"E 346.23' TO THE POINT OF BEGINNING.

NOT FOR
CONSTRUCTION





CITY OF AUBURN HILLS STANDARD NOTES:
 CONSTRUCTION SHALL CONFORM TO CURRENT CITY OF AUBURN HILLS' STANDARDS.
 NO WORK SHALL BE PERFORMED WITHOUT INSPECTION.
 A PERMIT FROM THE DPW IS REQUIRED FOR ALL CONSTRUCTION WITHIN CITY ROW. NO EQUIPMENT OR MATERIAL STORAGE WILL BE PERMITTED IN THE ROW.
 ALL CITY STREETS MUST BE MAINTAINED DURING CONSTRUCTION. STREETS SHALL BE KEPT FREE OF MUD, DIRT, CONSTRUCTION DEBRIS, DUST AND THE LIKE. IF CLEAN-UP IS NOT PERFORMED WITHIN 24 HOURS OF NOTIFICATION, THE CITY RESERVES THE RIGHT TO PERFORM THE WORK AND CHARGE THE DEVELOPER ACCORDINGLY.
 WORKING HOURS (INCLUDING RUNNING OF ANY MACHINERY) SHALL BE RESTRICTED TO MONDAY THROUGH SATURDAY, 7:00 AM TO 7:00 PM; SUNDAY TO SUNDOWN; WHICHEVER IS LESS. CONSTRUCTION OPERATIONS BEYOND THE PERIODS MENTIONED ABOVE SHALL BE PERMITTED ONLY AFTER WRITTEN APPROVAL OF THE CITY MANAGER OR HIS DESIGNEE.
 ALL MATERIALS AND MANUFACTURERS SHALL CONFORM TO STANDARD DETAILS.
 UTILITY STRUCTURES SHALL NOT BE LOCATED IN DRIVEWAYS AND WHERE POSSIBLE, SHALL NOT BE LOCATED IN PAVED AREAS.
 THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN ACCORDANCE WITH THE ACT 53 OF P.A. 00 1974 AND ALSO CONTACT OAKLAND COUNTY UTILITY AND PROTECTION SERVICE (MISS DIG 1-800-482-7171) THREE (3) WORKING DAYS BEFORE THE START OF ANY CONSTRUCTION.
 THE CONTRACTOR SHALL PROVIDE NECESSARY SIGNS, BARRICADES AND LIGHTS TO PROTECT TRAFFIC AND THE WORK AS DIRECTED BY THE ENGINEER. SUCH DEVICES SHALL BE PLACED PRIOR TO STARTING WORK IN AFFECTED AREAS.
 ALL SOIL EROSION AND SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE OAKLAND COUNTY STANDARDS AND DETAILS. THE CONTRACTOR SHALL FOLLOW LOCAL RULES AND REGULATIONS FOR SOIL EROSION AND SEDIMENTATION CONTROL FOR ALL MATERIALS THAT ARE DISPOSED OFF OF THE PROJECT SITE.
 ALL SOIL EROSION MEASURES MUST BE PROPERLY PLACED PRIOR TO GRADING OR OTHER CONSTRUCTION ACTIVITIES.
 FIELD CHANGES TO THE APPROVED PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE INSPECTOR ON SITE, WHO WILL DETERMINE WHETHER THE CHANGE IS CONSIDERED "SIGNIFICANT." "SIGNIFICANT" FIELD CHANGES SHALL BE SUBMITTED TO THE CITY BY THE DESIGN ENGINEER. THE CITY SHALL NOT BE HELD RESPONSIBLE FOR DELAYS IN APPROVAL OF CHANGES TO THE APPROVED SITE IMPROVEMENT (ENGINEER) PLAN.
 WHERE POSSIBLE, PUBLIC UTILITIES SHALL NOT BE PLACED UNDER PAVEMENT. THE CITY OF AUBURN HILLS SHALL NOT BE RESPONSIBLE FOR PAVEMENT, CURB, OR OTHER RESTORATION OF PERMANENT FACILITIES LOCATED WITHIN THE MUNICIPAL EASEMENT.
 3 WORKING DAYS PRIOR TO STARTING CONSTRUCTION, CONTACT THE CONSTRUCTION DEPARTMENT OF ORCHARD, HILTZ & McCLINT, INC. AT (734) 466-4539 TO SCHEDULE INSPECTION. OHM SHALL INSPECT ALL SITE IMPROVEMENTS INCLUDING UNDERGROUND UTILITY INSTALLATION, EARTHWORK OPERATIONS, RETAINING WALLS, PAVEMENT IN CITY R.O.W., ALL SIDEWALKS OR SAFETY PATHS IN ANY PUBLIC R.O.W., AND ANY ADDITIONAL ITEMS NOTED DURING REVIEW OR AT THE PRE-CONSTRUCTION MEETING. FINAL OCCUPANCY MAY BE AFFECTED IF PROCEDURES ARE NOT FOLLOWED FOR PROPER INSPECTION.
 PERMANENT STRUCTURES OF ANY TYPE, INCLUDING BUT NOT LIMITED TO, TREES, LIGHT POLES, DRAINAGE STRUCTURES, SANITARY STRUCTURES, BENCHES, TRASH RECEPTACLES, ETC., WILL NOT BE ALLOWED WITHIN THE INFLUENCE OF THE PUBLIC WATER MAIN OR SANITARY SEWER EASEMENTS.

NOTE: SEE SHEET 2A FOR TREE PROTECTION FENCE DETAIL.

C-FACTOR CALCULATION

PAVMT	30740	SQUARE FEET	
BLDG	17408	SQUARE FEET	
TOTAL	48148	0.9	43333.2
GRASS	37665	0.2	7533.04
			50866.24
C-FACTOR			0.59

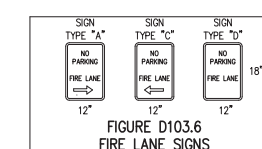


FIGURE D103.6 FIRE LANE SIGNS

H.4 Detention and Flood Control (DFC)

$Q_{vrr} = 1.1055 - 0.206 \times \ln(A)$
 $Q_{vrr} = 0.97 \text{ CFS/Acre}$
 $Q_a = 0.15 \text{ CFS/Acre}$
 Restricted Outlet Rate Per OCWRC
 Taylor Warstler email (9/19/2024)

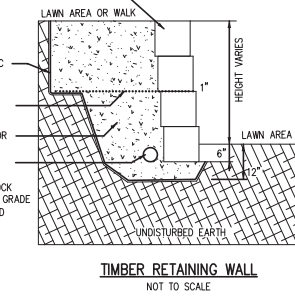
100 Year Allowable Outlet Rate
 $Q_{100p} = 0.30 \text{ CFS}$

Runoff Volume from a 100-year storm
 $V_{100r} = 18985 \times C \times A$
 $V_{100r} = 22,169.32 \text{ CF}$

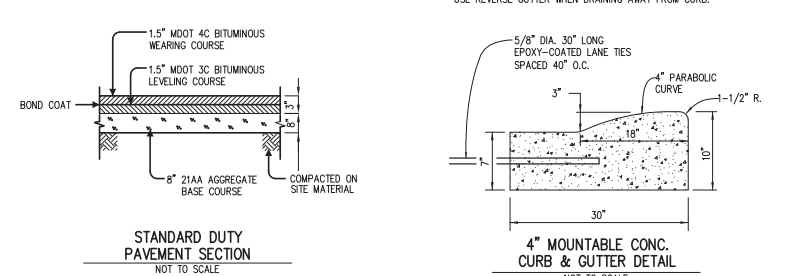
Find V_{100DET}
 $Q_{100DN} = C \times 1100 \times A$ $1100 = (83.3) / (TC + 9.17)^{0.81}$
 $Q_{100DN} = 5.62 \text{ CFS}$ $1100 = 4.81 \text{ in/hr}$

$R = 0.206 - 0.15 \times \ln(Q_{100p} / Q_{100DN})$
 $R = 0.65$

$V_{100D} = V_{100r} \times R - V_{100p}$
 $V_{100D} = 14,359.66 \text{ CF}$

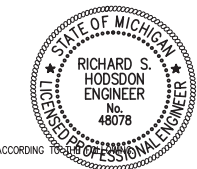


- NOTES:**
- EACH COURSE OF TIMBERS SHALL BE SET BACK ONE (1) INCH BACK.
 - FACE OF WALL SHALL BE CARRIED A MINIMUM OF 6" BELOW THE LOWER FINISH GRADE.
 - FOR EVERY TWO (2) FEET OF VERTICAL HEIGHT, PROVIDE A LAYER GEO-FABRIC FOR THE ENTIRE COURSE. EXTEND INTO THE GRADE TWICE THE HEIGHT OF THE WALL.



- ADDITIONAL NOTES:**
- ALL WATER MAIN PIPES WILL HAVE A MINIMUM OF 5.5' OF COVER.
 - EACH BUILDING WILL BE SERVED WITH A 2" HOPE WATER SERVICE.
 - EACH BUILDING WILL BE SERVED WITH A 6" SDR-23.5 SANITARY SEWER LEAD WITH A MINIMUM SLOPE OF 1.0%.
 - STORM SEWERS WILL HAVE A MINIMUM COVER OF 2.5'.
 - THE PROPOSED STORM SEWERS WILL BE DISCHARGING TO THE CLINTON RIVER.
 - COVER OVER EXISTING AND PROPOSED WATER MAINS MUST BE MAINTAINED AT 5.5'.
 - COVER OVER EXISTING AND PROPOSED SANITARY SEWER MUST BE A MINIMUM OF 4'.
 - COVER OVER EXISTING AND PROPOSED STORM SEWER MUST BE A MINIMUM OF 2.5'.
 - THE STORM SEWER WILL DRAIN TO THE EXISTING 24" STORM SEWER ALONG THE WEST PROPERTY LINE. ON-SITE DRAINAGE WILL BE RESTRICTED AND DETAINED. THE RESULTING DISCHARGE WILL BE APPROXIMATELY 0.40 CFS. A 24" PIPE AT MINIMUM SLOPE CAN HANDLE 8.49 CFS. ULTIMATELY, THE STORM WATER WILL GO TO THE CLINTON RIVER.

NOT FOR CONSTRUCTION



PREPARED FOR:
 MIKE MATTERA
 VESTA HOMES
 31400 KENDALL
 FRASER, MI 48026
 (586) 899-8130
 MIKEPMATTERA@YAHOO.COM

PREPARED BY:
 COMMUNITY E.S., INC.
 C/O RICHARD HODSDON, P.E. #48078
 5805 24 MILE ROAD, STE. B
 SHELBY TWP., MI 48316
 PH: (586) 677-4081
 E-MAIL: RICH@COMMUNITYENG.COM

© 2025 - COMMUNITY E.S., INC. ALL RIGHTS RESERVED. THESE PLANS AND DRAWINGS ARE OWNED BY AND THE SOLE PROPERTY OF COMMUNITY E.S., INC. ANY REPRODUCTION, COPYING, REUSE OR DISTRIBUTION OF THESE PLANS AND DRAWINGS IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF COMMUNITY E.S., INC.

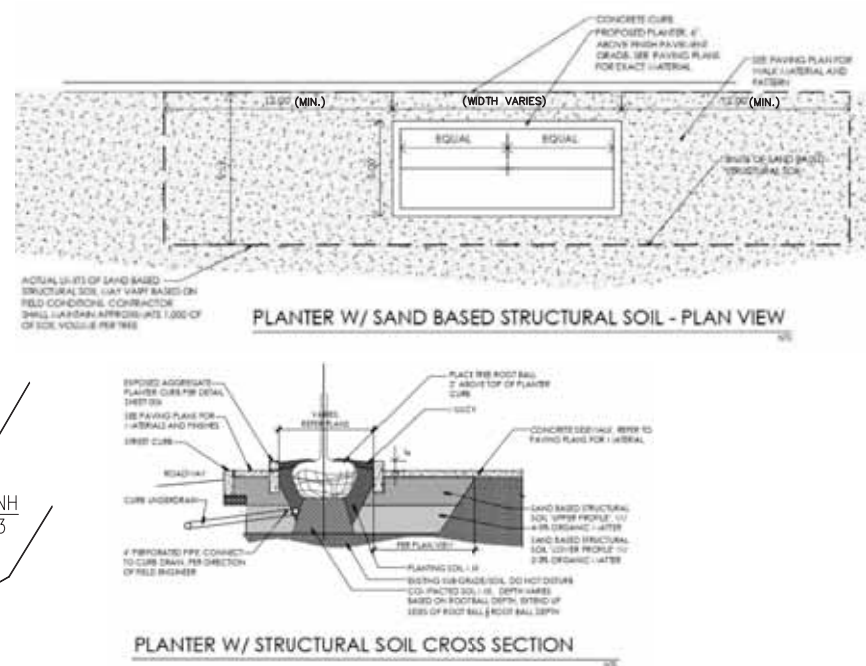
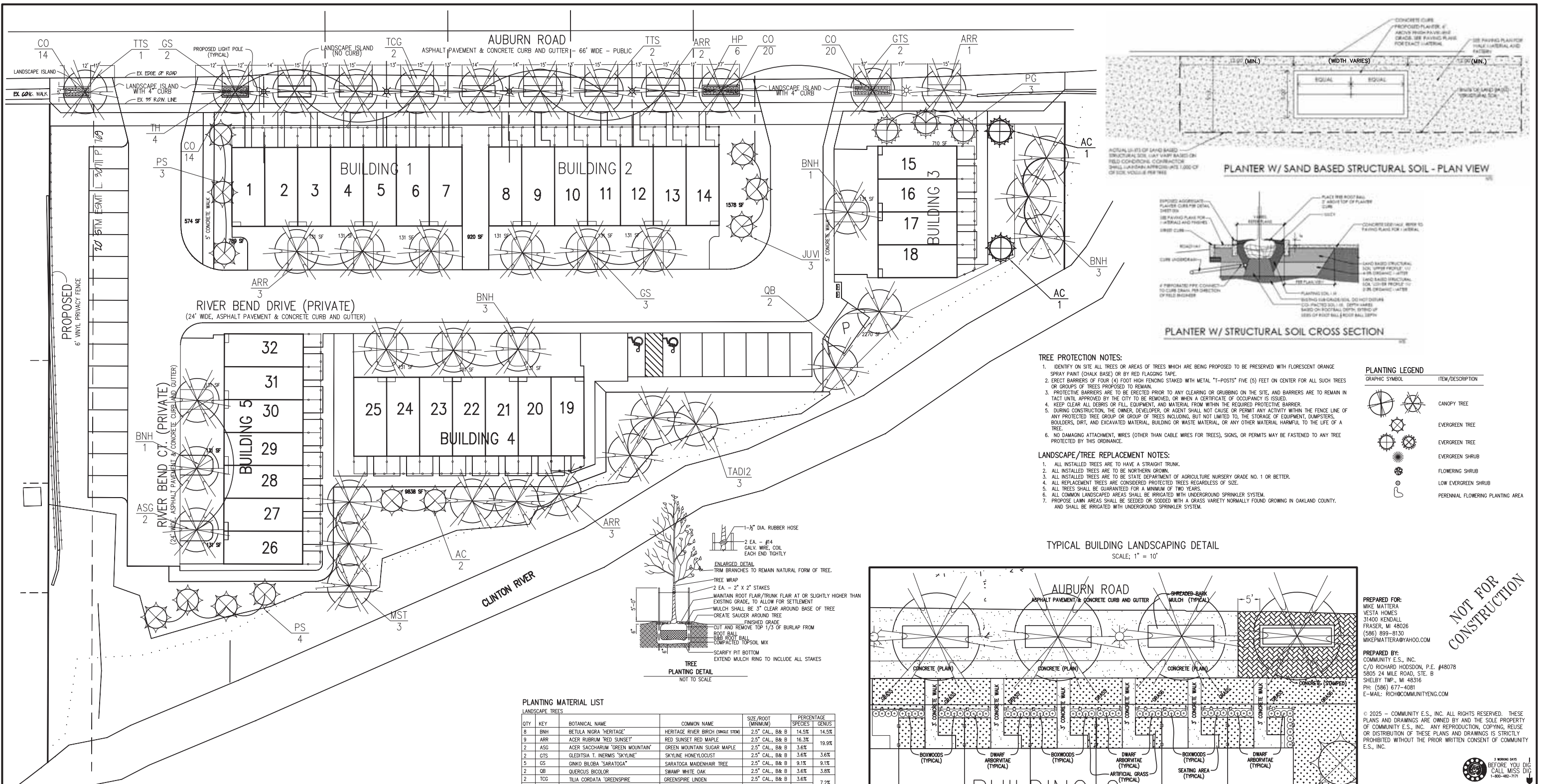
REV. 3/30/2026 LS PLAN
 REV. 3/27/2026 LS DETAILS
 REV. 3/8/2026
 REV. 9/23/2025 LANSCAPE

COMMUNITY E.S. CIVIL ENGINEERING & SURVEYING

RIVER BEND
 PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., AUBURN HILLS, OAKLAND COUNTY, MICHIGAN.

DATE Sept. 18, 2025 SCALE 1" = 20'
 DRAWN BY R.S.H. SHEET 4 OF 5
 CHECKED BY R.S.H. DRAWING Z-25-178

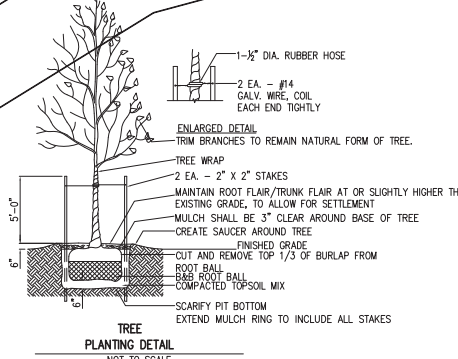
ENGINEERING PLAN



PLANTING LEGEND

GRAPHIC SYMBOL	ITEM/DESCRIPTION
	CANOPY TREE
	EVERGREEN TREE
	EVERGREEN SHRUB
	FLOWERING SHRUB
	LOW EVERGREEN SHRUB
	PERENNIAL FLOWERING PLANTING AREA

TYPICAL BUILDING LANDSCAPING DETAIL
SCALE: 1" = 10"



PLANTING MATERIAL LIST

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE/ROOT (MIN/MAX)	PERCENTAGE SPECIES	GENUS
8	BNH	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH (SMALL STIM)	2.5' CAL., B&B	14.5%	14.5%
9	ARR	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2.5' CAL., B&B	16.3%	16.3%
2	ASG	ACER SACCHARUM 'GREEN MOUNTAIN'	GREEN MOUNTAIN SUGAR MAPLE	2.5' CAL., B&B	3.6%	19.9%
2	GTS	GLEDITSIA T. INERMIS 'SKYLINE'	SKYLINE HONEYLOCUST	2.5' CAL., B&B	3.6%	3.6%
5	GS	GINKO BILOBA 'SARATOGA'	SARATOGA MAIDENHAIR TREE	2.5' CAL., B&B	9.1%	9.1%
2	QB	QUERCUS BICOLOR	SWAMP WHITE OAK	2.5' CAL., B&B	3.6%	3.8%
2	TCG	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	2.5' CAL., B&B	3.6%	7.2%
2	TTS	TILIA TOMENTOSA 'STERLING SILVER'	STERLING SILVER LINDEN	2.5' CAL., B&B	3.6%	7.2%
4	AC	ABIES CONCOLOR	WHITE FIR	8' HT., B&B	7.3%	7.3%
3	PG	PICEA GLAUCA	WHITE SPRUCE	8' HT., B&B	5.5%	5.5%
3	TAD2	TAXODIUM DISTICHUM	BALD CYPRESS	8' HT., B&B	5.5%	5.5%
3	MST	MALUS 'SUGAR TIME'	SUGAR TIME CRABAPPLE	2' CAL., B&B	4.5%	5.0%
3	JUVI	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	8' HT., B&B	5.5%	5.5%
7	PS	PINUS STROBUS	EASTERN WHITE PINE	8' HT., B&B	12.7%	12.7%
55			TOTAL LANDSCAPE TREES			

QTY	EA	COMMON NAME	CONTAINER	
10	EA	EUNYMOMUS ALATUS 'COMPACTUS'	COMPACT BURNINGBUSH	24" HGT., CONTAINER
4	TH	TAXUS MEDIA 'HICKSII'	HICKS YEW	24" HGT., CONTAINER
6	HP	HYDRANGEA PANDICULATA	LITTLE LIME HYDRANGEA	NO. 3 CONTAINER
68	CO	COREOPSIS	LIL BANG 'ENCHANTED EVE'	1 GAL. CONT. 18" ON CENTER
78			TOTAL LANDSCAPE SHRUBS	

NOTE:
-DEPENDING ON AVAILABILITY, PLANT MATERIALS MAY BE SUBSTITUTED WITH ANY TREES THAT ARE LISTED UNDER THE SELECTED TREE LIST FOR LANDSCAPE AND REPLACEMENT TREES. ALL SUBSTITUTIONS MUST BE APPROVED BY THE CITY OF AUBURN HILLS.
-ERADICATE ALL TRACES OF JAPANESE KNOTWOOD IN THE SW CORNER OF THE SITE. SEE OAKLAND COUNTY OSMA OR JAPANESE KNOTWOOD BEST CONTROL PRACTICES FOR HERBICIDE RECOMMENDATIONS OR TIPS ON WHAT NOT TO DO THAT ENCOURAGES SPREAD/GROWTH.



TOTAL SITE AREA: 2.076 ACRES GROSS - 1.970 ACRES NET

REQUIREMENT	REQUIRED	PROVIDED
NET LANDSCAPE AREA	20% OF THE SITE AREA SHALL BE LANDSCAPED: 1,970 ACRES X 20% = 17,162 SQUARE FEET	18,382 SQUARE FEET
SITE AREA LANDSCAPING	APPROXIMATE 50/50 MIX OF EVERGREEN AND DECIDUOUS TREES FOR EACH 1,000 SQUARE FEET OF REQUIRED LANDSCAPE AREA: 17,162 SQUARE FEET / 1,000 = 17 TREES	20 TREES PROVIDED
FRONTAGE LANDSCAPING	1 TREE FOR EVERY 30 LINEAL FEET OF GREENBELT LENGTH ALONG PUBLIC OR PRIVATE ROADS: 463 LINEAL FEET / 30 FEET = 16 TREES	16 TREES PROVIDED
PARKING INTERIOR LANDSCAPING	1 TREE FOR EVERY 20 SPACES IN A ROW. THE LONGEST ROW OF PARKING SPACES IS 18, THIS RULE DOES NOT APPLY.	13 TREES PROVIDED
TOTAL LANDSCAPE TREES:	33 TREES REQUIRED	55 TREES PROVIDED
TOTAL REPLACEMENT TREES:	15 NON-REGULATED TREES REMOVED 0 LANDMARK TREES REMOVED 5 REGULATED TREES REMOVED	0 REPLACEMENT TREES 0 REPLACEMENT TREES 5 REPLACEMENT TREES

PREPARED FOR:
MIKE MATTERA
VESTA HOMES
31400 KENDALL
FRASER, MI 48026
(586) 859-8130
MIKEMATTERA@YAHOO.COM

PREPARED BY:
COMMUNITY E.S., INC.
C/O RICHARD HODSDON, P.E. #48078
5805 24 MILE ROAD, STE. B
SHELBY TWP., MI 48316
PH: (586) 677-4081
E-MAIL: RICH@COMMUNITYENG.COM

© 2025 - COMMUNITY E.S., INC. ALL RIGHTS RESERVED. THESE PLANS AND DRAWINGS ARE OWNED BY AND THE SOLE PROPERTY OF COMMUNITY E.S., INC. ANY REPRODUCTION, COPYING, REUSE OR DISTRIBUTION OF THESE PLANS AND DRAWINGS IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF COMMUNITY E.S., INC.

REV. 3/30/2026 LS PLAN
REV. 3/27/2026 LS DETAILS
REV. 3/8/2026
REV. 9/23/2025 LANDSCAPE



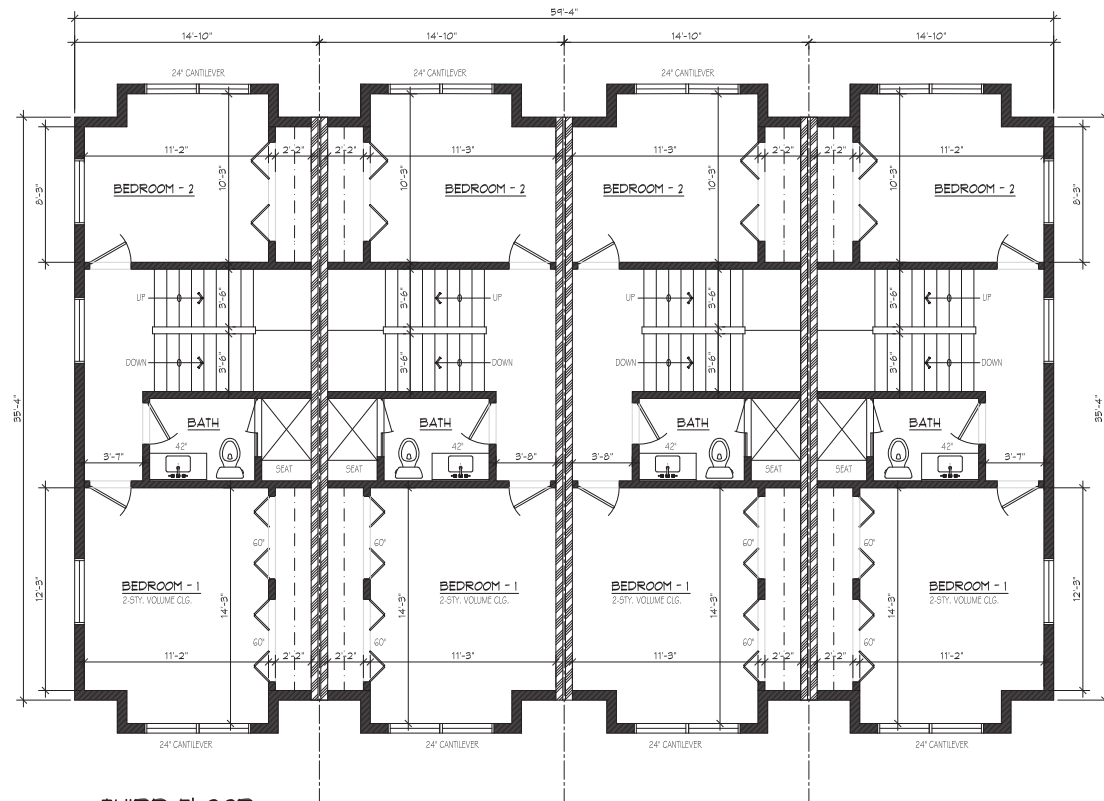
DATE Sept. 18, 2025 SCALE 1" = 20'
DRAWN BY R.S.H. SHEET 5 OF 5
CHECKED BY R.S.H. DRAWING Z-25-178

LANDSCAPE PLAN

NOT FOR CONSTRUCTION

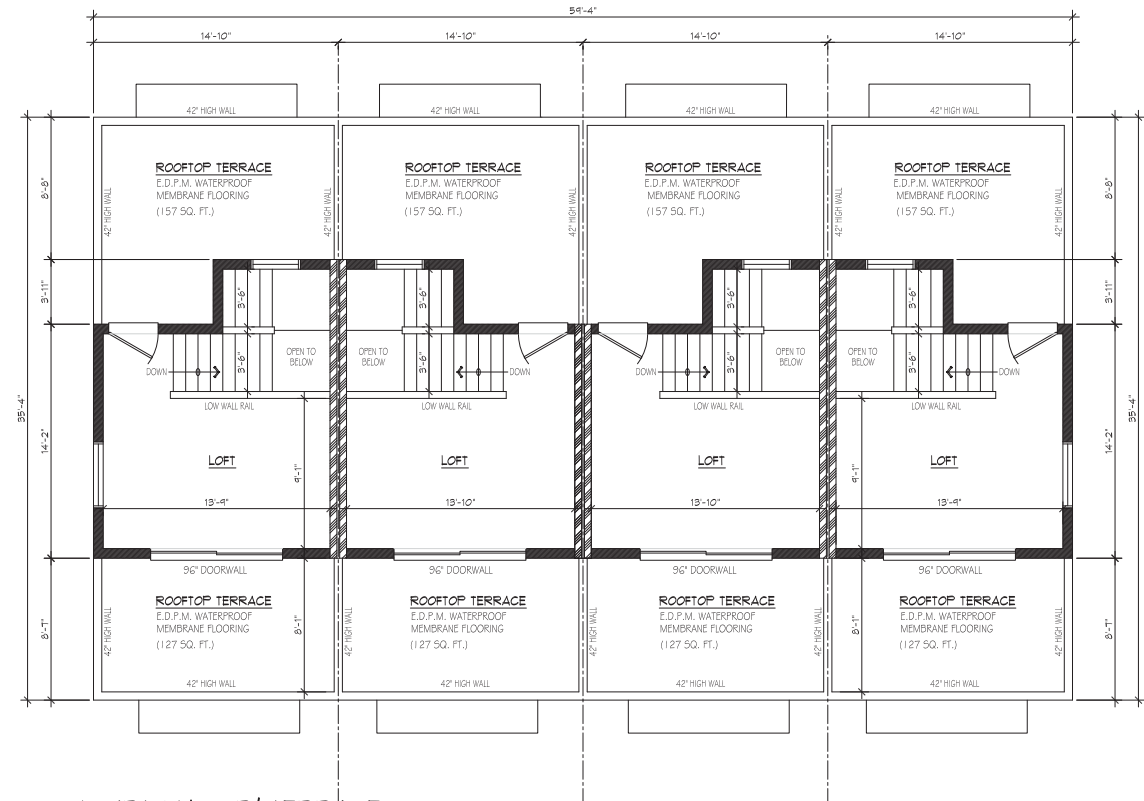


4-PLEX



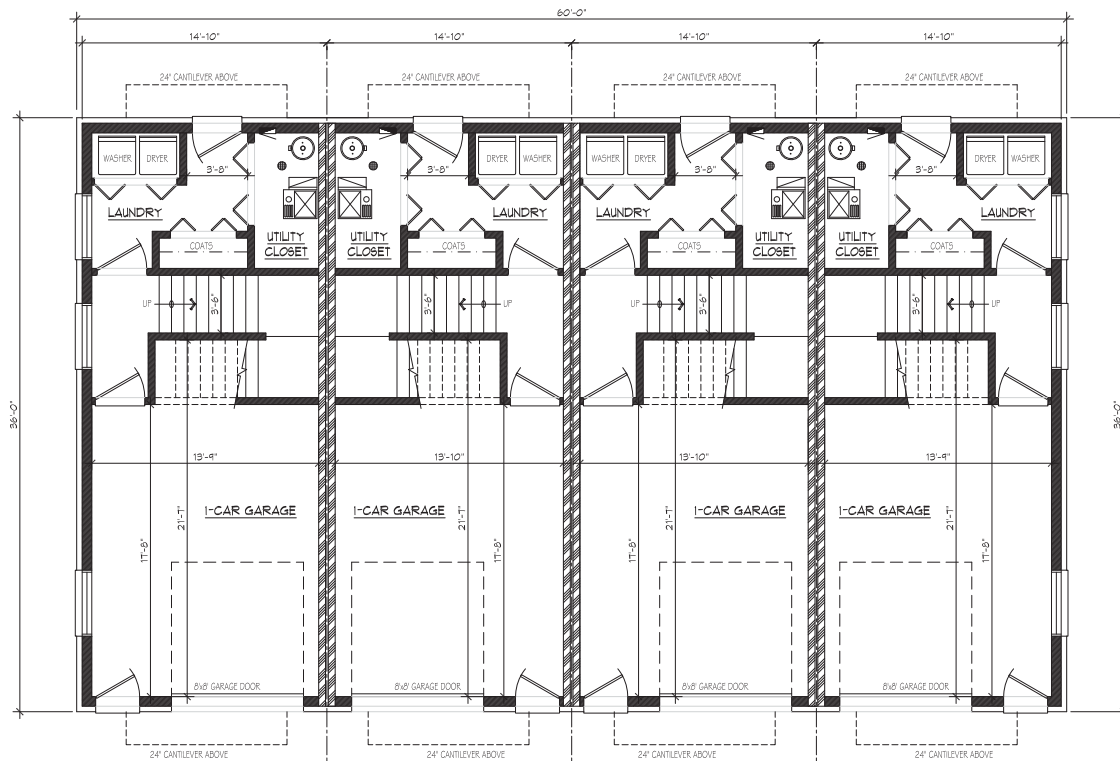
THIRD FLOOR

SC: 3/16" = 1'-0"
APPROX.: 563 SQ. FT.



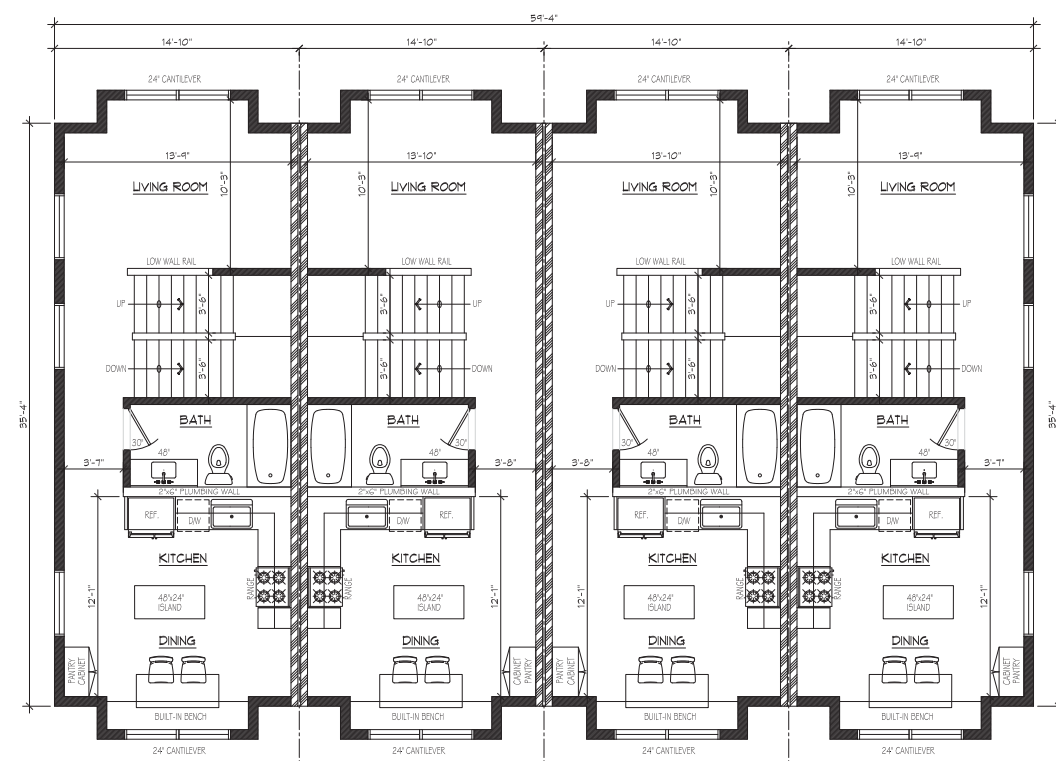
FOURTH FLOOR/ TERRACE

SC: 3/16" = 1'-0"
LOFT: 160 SQ. FT.
TERRACES: 284 SQ. FT.



GROUND LEVEL

SC: 3/16" = 1'-0"
APPROX.: 264 SQ. FT.



SECOND FLOOR

SC: 3/16" = 1'-0"
APPROX.: 563 SQ. FT.

project:

PROPOSED
RIVER BEND TOWNHOUSES
AUBURN HILLS, MICH.

general contractor:

VESTA BUILDING COMPANY
P.O. BOX 26048
FRASER, MI 48026

project coordinator:

MIKE MATTERA
586.899.8130
MIKEPMATTERA@YAHOO.COM

Note:
While every attempt is made to achieve accuracy in the preparation of these plans, we cannot eliminate human error, therefore, no guarantee or warranty is made unless FULL SUPERVISION by the designer is retained during construction.

All contractors shall verify and coordinate all dimensions on drawings, as well as review and coordinate plans with exterior building elevations, sections and details before commencing with the work. If dimensional errors or conflicts occur between plans, building elevations, sections and details, it shall be brought to the attention of the architect before proceeding with the work. Contractors who fail to verify, review and coordinate the work and contractors who scale drawings to determine placement of parts(s) of the work shall take full responsibility should that portion of the work be improperly located or constructed.

DO NOT SCALE - USE FIGURED DIMENSIONS
Tot no.

do not scale - use figured dimensions

- preliminary
- bids & permit
- construction
- record

date: 9/16/25 issue: preliminary
9/22/25 revised
10/6/25 revised
2/24/26 revised
3/5/26 revised

project no.

250916

sheet no.

A-1

4-PLEX

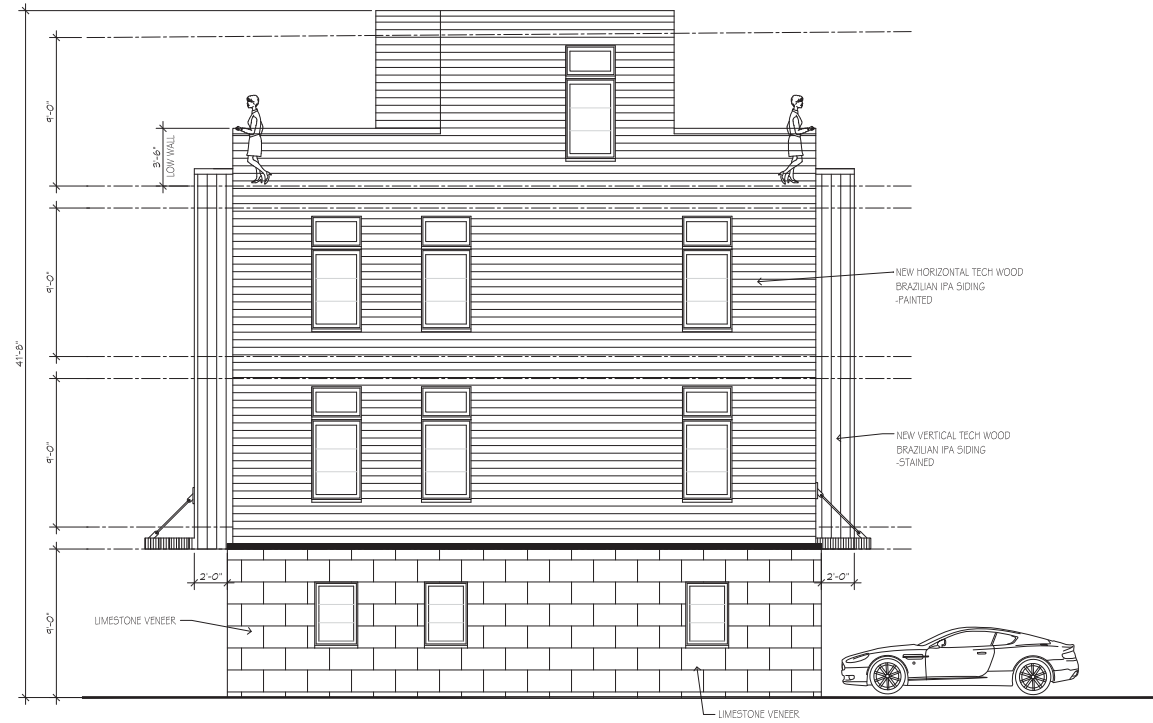


DESIGN SERVICES, INC.

20836 Hall Road - Suite 234
Clinton Township, MI 48038

586.457.6186

arcdesignservicesinc@gmail.com



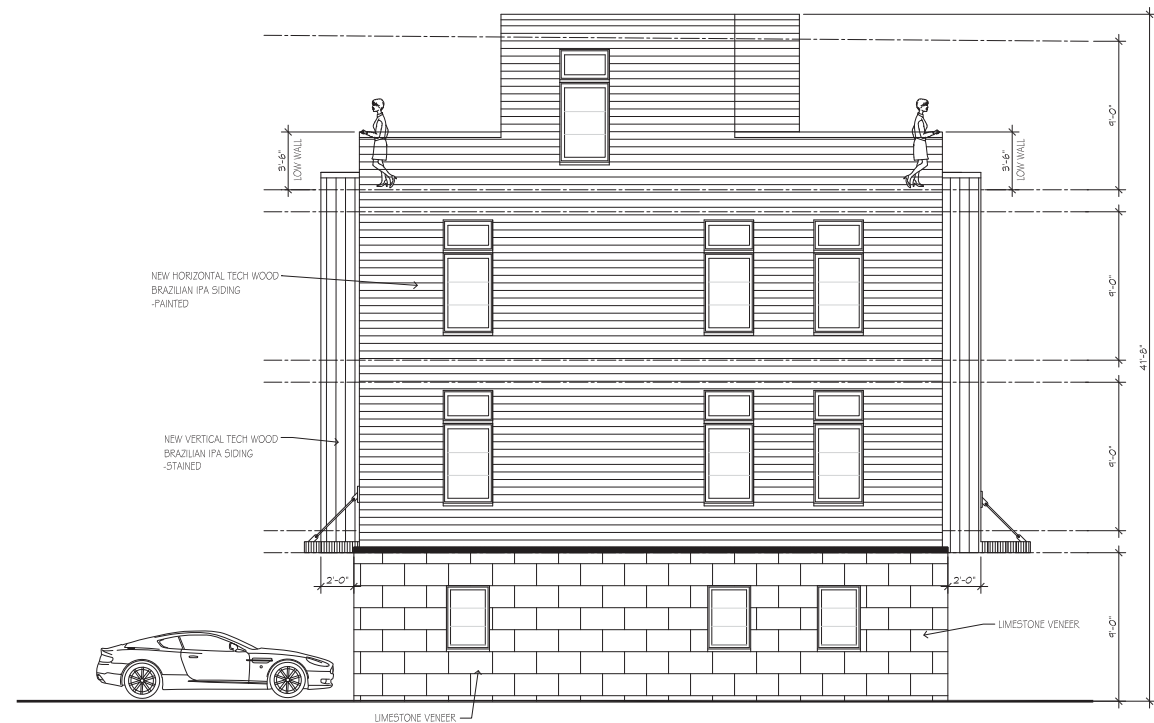
SIDE ELEVATION
SC: 3/16" = 1'-0"



FRONT ELEVATION
SC: 3/16" = 1'-0"



REAR ELEVATION
SC: 3/16" = 1'-0"



SIDE ELEVATION
SC: 3/16" = 1'-0"

project:
PROPOSED
RIVER BEND TOWNHOUSES
AUBURN HILLS, MICH.

general contractor:
VESTA BUILDING COMPANY
P.O. BOX 26048
FRASER, MI 48026

project coordinator:
MIKE MATTERA
586.899.8130
MIKEPMATTERA@YAHOO.COM

Note:
While every attempt is made to achieve accuracy in the preparation of these plans, we cannot eliminate human error, therefore, no guarantee or warranty is made unless FULL SUPERVISION by the designer is retained during construction.

all contractors shall verify and coordinate all dimensions on drawings, as well as review and coordinate plans with exterior building elevations, sections and details before commencing with the work, if dimensional errors or conflicts occur between plans, building elevations, sections and details, it shall be brought to the attention of the architect before proceeding with the work, contractors who fail to verify, review and coordinate the work and contractors who scale drawings to determine placement of parts(s) of the work shall take full responsibility should that portion of the work be improperly located or constructed.

DO NOT SCALE - USE FIGURED DIMENSIONS
lot no.

do not scale - use figured dimensions
 preliminary
 bids & permit
 construction
 record
 date: 9/16/25 issue: preliminary
 9/22/25 revised
 10/6/25 revised
 2/20/26 revised
 3/5/26 revised

project no. 250916
sheet no. A-2



CITY OF AUBURN HILLS PLANNING COMMISSION AGENDA

MEETING DATE: APRIL 8, 2026

AGENDA ITEM NO 5c.

COMMUNITY DEVELOPMENT

To: Chairperson Sam Beidoun and the Planning Commission
From: Steven J. Cohen, AICP, Director of Community Development
Submitted: April 2, 2026
Subject: OCC CREST Center Building Addition and Renovations - 2900 Featherstone Road
Public Hearing/Motion - Recommendation to City Council for Special Land Use Permit, Site Plan, and Tree Removal Permit approval to allow for the expansion and renovation of the CREST Center, new maintenance building, and parking lot improvements.

INTRODUCTION AND HISTORY

This is a request from Oakland Community College (OCC) for Special Land Use Permit, Site Plan, and Tree Removal Permit approval to expand and renovate the Combined Regional Emergency Services Training Center (CREST) located on a 31-acre parcel zoned I-1, Light Industrial District. The site is located at 2900 Featherstone Road.



Rendering of the expanded CREST Center training building

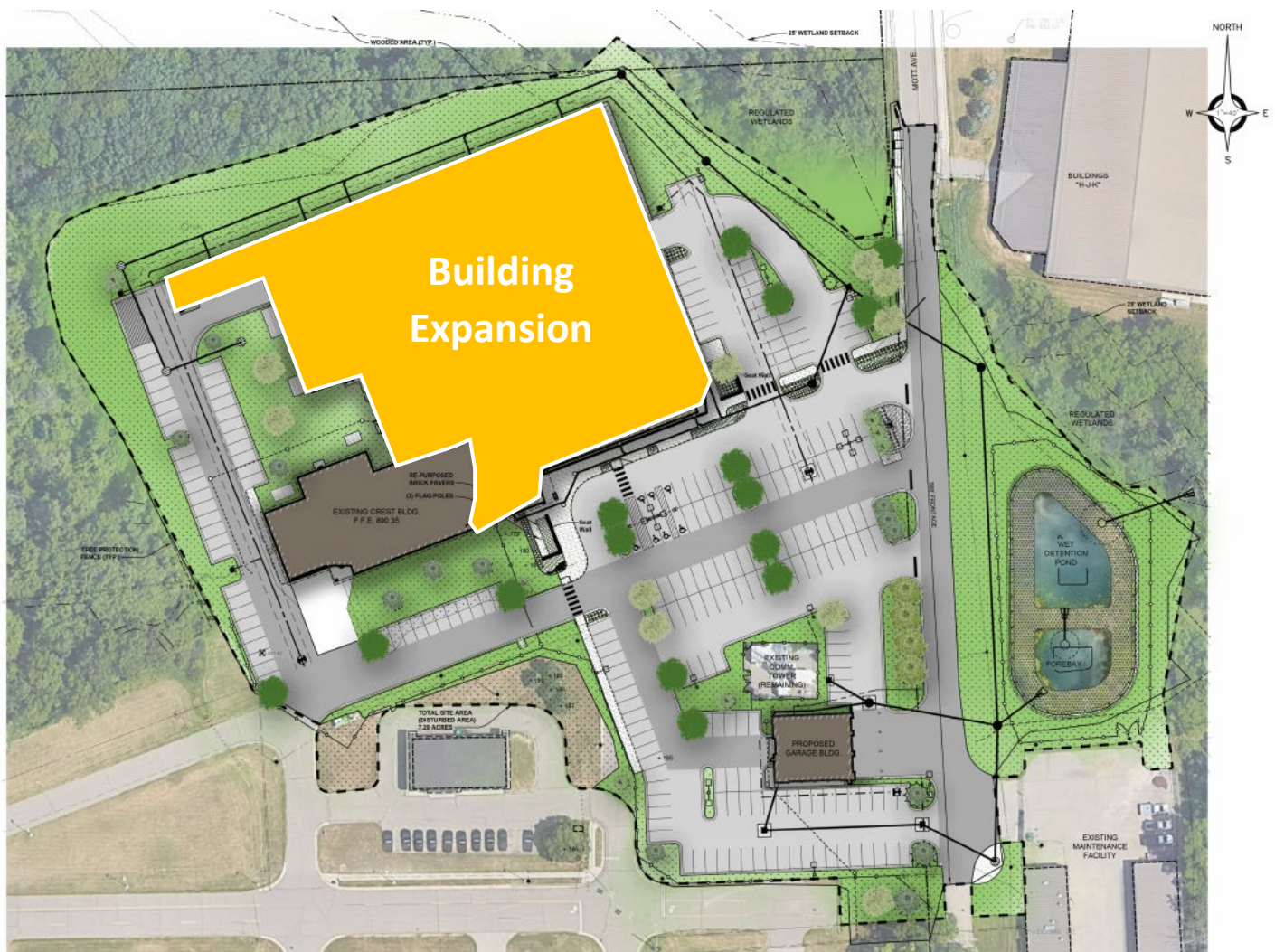
OCC has provided emergency services training for over 50 years, serving police, fire, EMS, and emergency dispatch personnel. The CREST facility is a training "city" that simulates emergency situations faced by law enforcement, fire/EMS departments, and civilian first responders in controlled, live-scenario environments. This training facility first opened in 2004 as a national model for emergency services and anti-terrorism preparedness.



Aerial photo of the site location

INTRODUCTION AND HISTORY (cont.)

The proposed \$51.3 million project consists of renovating and expanding the existing building to 78,784 square feet, creating a modern indoor training facility. The project will provide additional administrative and instructional space while enhancing overall operational efficiency. The indoor facility is designed to coordinate with the existing outdoor simulated “city” training environment, which includes residential structures, a motel, a bank, and a five-story fire training tower. Collectively, these indoor and outdoor components provide a comprehensive, scenario-based training environment.

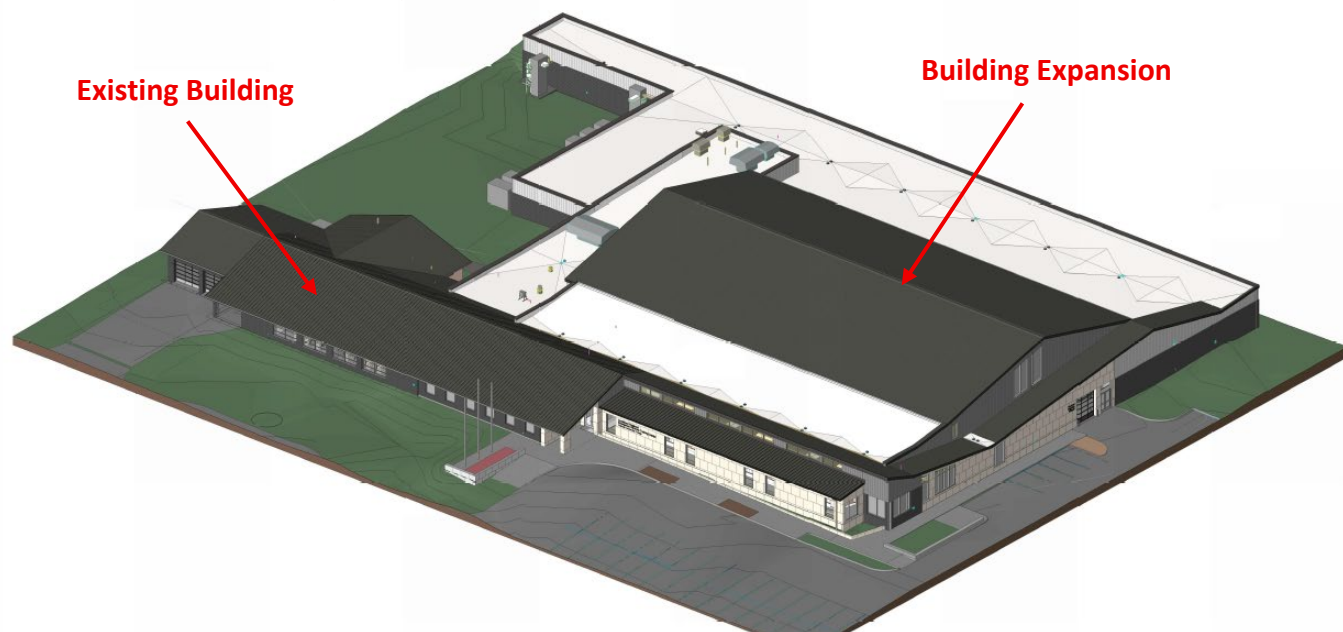


Illustrated site plan

The building expansion will include a new indoor training facility designed to simulate real-world emergency situations. The space will feature realistic one- and two-story structures, such as a school, office, restaurant, and convenience store, allowing for repeated hands-on training exercises like forced entry and emergency response. The project also includes a 15-lane indoor firearms training range, including five lanes designed to accommodate rifle training distances. Overall, the facility is intended to bridge the gap between classroom instruction and real-world application, giving emergency personnel the opportunity to immediately apply what they’ve learned in a live, hands-on training environment.

The project is anticipated to begin construction this summer, with an estimated construction duration of approximately two years.

INTRODUCTION AND HISTORY (cont.)



3-D view of the expanded CREST Center training building



Renderings of the large group instructional classroom (above) and restaurant tactical training area (below)

INTRODUCTION AND HISTORY (cont.)

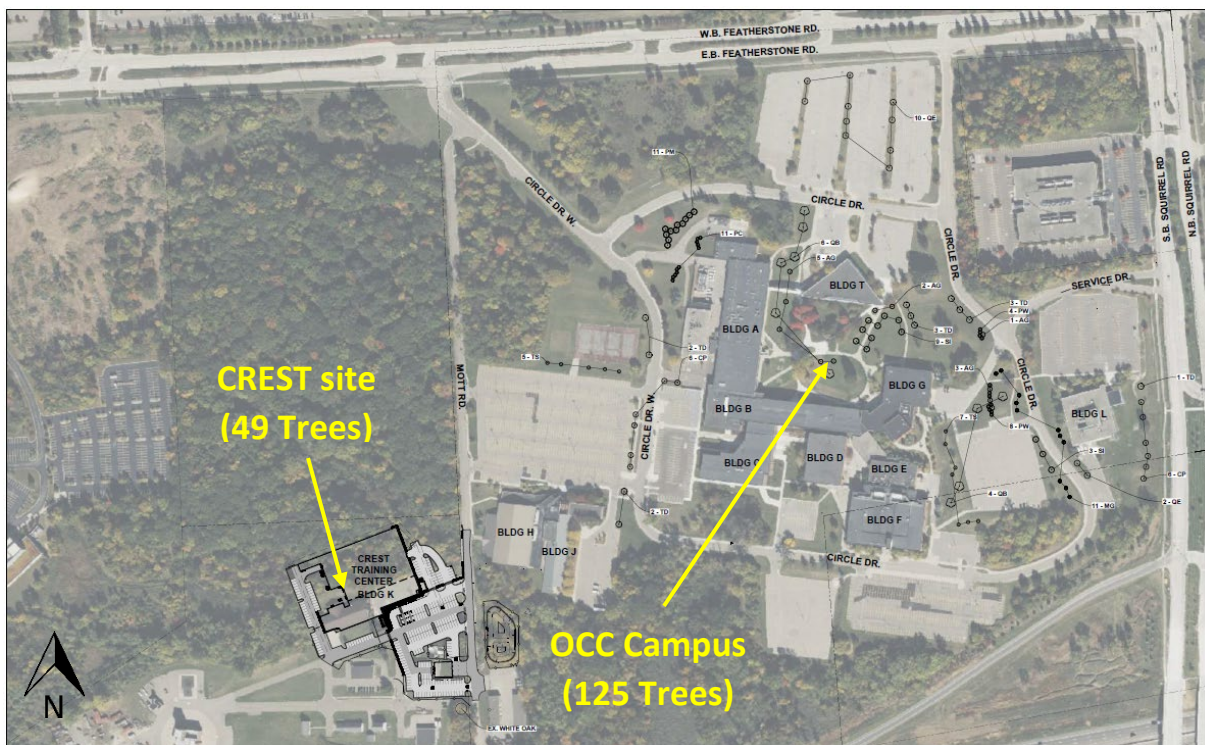
A mezzanine is provided in the new building expansion to allow instructors to observe the training of the emergency response personnel in tactical exercise areas, such as a school, restaurant, office building, and retail store.



Renderings of a school classroom tactical training area

KEY ISSUE

- 1. Replacement Trees.** The project requires a total of 174 replacement trees. The landscape plan provides for the on-site planting of 49 trees located around the building expansion and new parking areas. Due to limited space in the immediate vicinity of the CREST facility, staff worked with OCC to develop a plan to plant the remaining 125 replacement trees at appropriate locations throughout the campus.



Master plan for the planting of the 125 trees throughout OCC's campus (black circles)

STAFF RECOMMENDATION

Please be advised that the City's Administrative Site Plan Review Team has reviewed this project and recommends approval.

We recommend Approval of the Special Land Use Permit request to allow for the expansion of the existing training facility use and offer the following discretionary findings of fact:

1. The location of the use will not negatively impact adjacent areas, which include non-residential zoned property.
2. The land will be used in accordance with its immediate character, which is planned and zoned for non-residential development.
3. The requirements of Section 1818 in the City's Zoning Ordinance will be met.
4. The use will promote the purpose and intent of the City's Zoning Ordinance.
5. The use will be consistent with the health, safety, and general welfare of the City of Auburn Hills and the purpose and intent of the City's Zoning Ordinance.
6. The requirements of Section 1301, Item 22, will be met.

We recommend Conditional Approval of the Site Plan and Tree Removal Permit and offer the following discretionary findings of fact:

1. The Site Plan contains sufficient basic information required by the Zoning Ordinance for a recommendation.
2. The requirements of Section 1815, Items 7A-7E of the Zoning Ordinance can be met as follows:
 - a) All requirements and standards of the Zoning Ordinance and other City Ordinances can be met.
 - b) Safe, convenient vehicular and pedestrian ingress/egress has been depicted; primary access will be to Mott Road, which outlets to Featherstone Road.
 - c) Traffic circulation features within the site and the location of parking areas avoid common traffic problems and can promote safety.
 - d) A satisfactory and harmonious relationship will exist between the proposed development and the surrounding area.
 - e) The proposed use will not have an unreasonable, detrimental or injurious effect upon the natural characteristics of the subject parcel, or the adjacent area.
3. Based on the project's total square footage, 233 parking spaces are required, and 233 parking spaces are depicted.
4. The proposed parking layout meets minimum requirements and includes eight barrier-free parking spaces, exceeding the required seven. Of these, two spaces are designated as van accessible.
5. Building and parking setback requirements will be met.
6. Greenbelts will be provided.
7. Landscape requirements will be met, and calculations have been submitted.
8. A note indicates that exterior lighting shall meet the requirements of the Zoning Ordinance. Pole and wall-mounted lighting shall be shielded and directed downward. Lamp bulbs and lenses shall not extend below the light fixture shields. Light poles are designed to be 27.5 feet in height from the finished grade.
9. A note indicates that signs shall meet the requirements of the Zoning Ordinance.
10. A note indicates that parking spaces shall be double-striped.
11. Ground-mounted transformers and roof-mounted mechanical equipment will be screened.
12. A note indicates that outside storage, including pallet storage, overnight vehicles, and trailer storage, will not be permitted.
13. A Tree Removal Permit is required. 174 replacement trees are required, and 174 replacement trees are provided. 49 trees will be planted on-site and 125 trees will be planted in designated locations on OCC's campus.

STAFF RECOMMENDATION (cont.)

14. Two electric vehicle charging station spaces will be provided. OCC will install a dual Level 2 charging station to serve the two spaces.
15. The project includes the construction of an accessory garage building, which meets all applicable ordinance standards.

Conditions:

1. Performance Guarantees. OCC shall comply with the requirements of Section 2007. Performance Guarantees of the Zoning Ordinance.
2. Conformance with Approved Plans and Representations. Approval of the project is based on the representations made by OCC, as documented in this staff report, submitted materials, and the public meeting minutes. The development shall remain in conformance with these representations.

RECOMMENDED ACTION

Move to recommend to City Council approval of the Special Land Use Permit, Site Plan, and Tree Removal Permit for OCC CREST Center Building Addition and Renovations subject to the conditions of the City's Administrative Review Team.



Development Application

Project Name: CREST Center Addition and Renovations

General Project Location: OCC Campus

Parcel Size: 31.22 acres **Zoning:** I-1

Sidwell Number(s): 14-26-226-007

Project Description: _____
Building addition and renovations for CREST Center, new maintenance building and parking lot

Building Size (sq. ft.): CREST Center: 78,784 sf
Maintenance Garage: 2,999 sf

Check requested review(s)

- Site Plan
- Tree Removal Permit
- n/a Special Land Use Permit(s) _____
- n/a Land Division
- n/a Land Exchange
- n/a Subdivision
- n/a Planned Unit Development - Step 1/Step 2/Combined
- n/a Rezoning _____ to _____
- ZBA Variance or Interpretation (see supplemental application)
- Other _____

City Use Only

Address: 2900 Featherstone Rd

Date Received: 3/6/26

Fees Paid: \$7,362

SP #: 150023

SLU #(s): 250006

LD/LE/SUB #: _____

RZ #: _____

PUD #: _____

ZBA #: _____

PTR #: 250007

Applicant

Name: Juli Sala Signature: *Juli Sala*

Business Name and Address: Anderson, Eckstein and Westrick, Inc

City: Shelby Twp. State: MI Zip Code: 48315 Phone Number: 248-434-7572

Fax Number: _____ Alt. Phone Number(s): jsala@aeWINC.com

Property Owner(s)

Name: Bob Kelly Signature: *Bob Kelly* Owner's Authorized Agent

Business Name and Address: Oakland Community College - 2900 Featherstone Dr.

City: Auburn Hills State: MI Zip Code: 48326 Phone Number: 586-610-4881

(Provide additional sheet if necessary for multiple property owners)

Please contact the City of Auburn Hills Community Development Department,
1827 N. Squirrel Road, Auburn Hills, MI 48326 / Phone: 248-364-6900 Fax: 248-364-6939
www.auburnhills.org



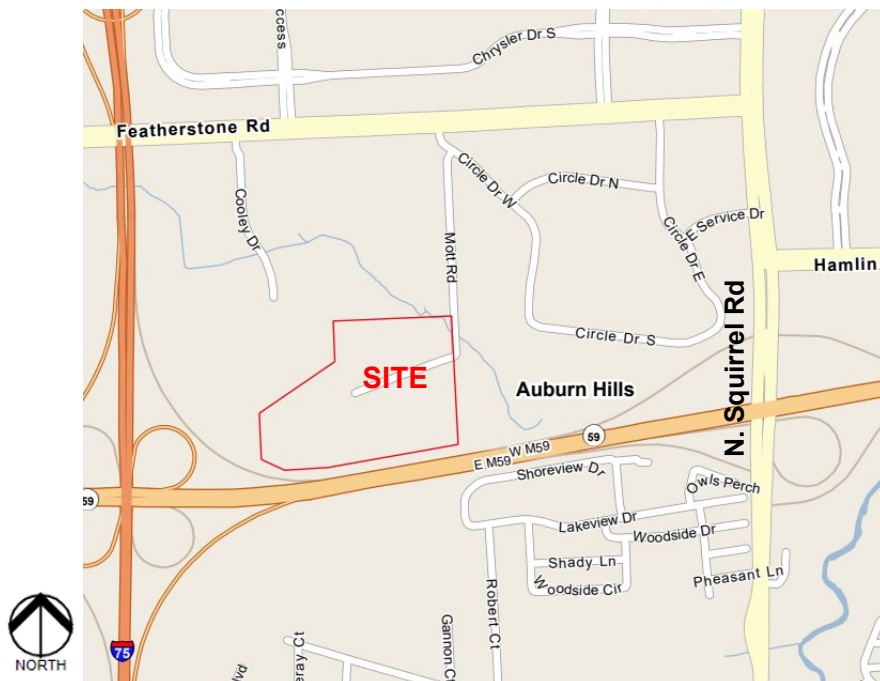
Planning Commission Public Notice

Meeting Date, Time, and Location:	Wednesday, April 8, 2026 at 6:00 p.m. City of Auburn Hills - City Council Chambers 1827 N. Squirrel Road, Auburn Hills, MI 48326
Project Name:	OCC CREST Center Building Addition and Renovations
General Property Location:	2900 Featherstone Road (Sidwell No. 14-26-226-007)
Applicant:	Juli Sala – 248-434-7572
Nature of the Request:	Recommendation to City Council for Special Land Use Permit, Site Plan, and Tree Removal Permit approval to allow for the expansion and renovation of the CREST Center, new maintenance building, and parking lot improvements.
City Staff Contact:	Steven J. Cohen, AICP Director of Community Development - 248-364-6941

Notice will be sent via U.S. Mail to properties within 1,000 feet of the site. The proposed application can be inspected before the meeting at the Community Development Department, located on the municipal campus at 1827 N. Squirrel Road, Auburn Hills, MI 48326, during regular City business hours.

Persons wishing to express their views may do so in person at the meeting or in writing addressed to the Planning Commission c/o Steven J. Cohen, AICP, Director of Community Development, at the above address.

Anyone planning to attend the meeting who needs special assistance under the Americans with Disabilities Act (ADA) is asked to contact the City Clerk's Office at 248-370-9402 or the City Manager's Office at 248-370-9440 48 hours before the meeting. Staff will be pleased to make the necessary arrangements.



LOCATION MAP

March 20, 2026

Mr. Steven Cohen, AICP
Director of Community Development
CITY OF AUBURN HILLS
1827 North Squirrel Road
Auburn Hills, Michigan 48326

RE: OCC Crest Center Addition
Site Plan 1st Review

Dear Mr. Cohen:

We have completed the site plan review for the above referenced project with respect to grading, paving, storm drainage/detention, and availability of municipal utilities to serve the site. The site plan, received by this office on March 12, 2026, was prepared by Anderson, Eckstein & Westrick, Inc. The review comments are noted below.

PERMITS:

Various permits will be required for this site, including but not limited to the following:

- Soil erosion permit from O.C.W.R.C.
- N.P.D.E.S. permit from E.G.L.E.
- Water main extension permit from E.G.L.E.
- Wetland construction permit from E.G.L.E.

GENERAL:

The site is located on the west side of Mott Avenue, south of Featherstone Road and west of North Squirrel Road, at the Oakland Community College (O.C.C.) Auburn Hills Campus in Section 26 of the City of Auburn Hills. The applicant is proposing to construct an addition to the existing Crest Training Center for a total building size of 78,784 sq. ft. The addition consists of a tactical village, range, classroom, and office space. The applicant is also proposing to construct 2,999 sq. ft. maintenance garage building to the southeast adjacent to the existing wireless phone tower. The proposed parcel along with the adjacent property to the west is zoned Technology & Research (T&R). A complete legal description of the parcel is shown on the plan. The City of Auburn Hills Standard Notes and Fire Department Notes are included on the plans. A landscape plan has been included in the plan set. If feasible, trees and plantings shall be located outside the influence of utilities and any public easements. The City of Auburn Hills Standard Details were not included in the plan set and will need to be in the engineering review submittal. Furthermore, a demolition plan and a soil erosion and sedimentation control plan are needed for the engineering review.

MUNICIPAL UTILITIES:

It should be noted that this development is served by private water system operated by O.C.C. and not the City of Auburn Hills. An existing 8-inch private water main extends north-south along the east side of the site, and an existing 8-inch private water main extends west from this main and continues along the north side of the existing private drive. The applicant is proposing to tap the existing 8-inch private water main along the private drive and extend new 8-inch water main along the building addition to create a looped connection. Existing and proposed fire



suppression line and domestic water service for the Crest Training Center are not shown on the plan. A 2-inch domestic water service lead for the proposed garage building has been provided on the plan. Three (3) fire hydrants are proposed to provide adequate coverage. A profile for the proposed 8-inch water main shall be provided at engineering review. The size and material type of the proposed water main shall be labeled for engineering review.

There is existing 10-inch sanitary sewer that extends east-west along the south side of the site. An existing 12-inch sanitary sewer extends north from the 10-inch sanitary sewer and continues along the west side of the site. An existing sanitary sewer lead extends northwest from the 12-inch sanitary to the existing Crest Training Center. The applicant is proposing to tap the existing sanitary sewer lead and extend new 6-inch PVC SDR 23.5 north and east to the building addition. The applicant is also proposing to tap the existing 10-inch sanitary sewer and extend a new 6-inch sanitary sewer lead north to the proposed garage building.

STORM SEWER AND DETENTION:

The site has a maximum allowable discharge rate of 0.20 cfs/acre. Storm water runoff for the site will be collected via a series of catch basins and routed to a new detention basin located on the east side of the site. The detention basin outlets to existing wetlands on site which ultimately outlet to the Clinton River via the M-59 right-of-way. Preliminary detention calculations were provided on the plan and the 100-year storm calculations shall be updated for the maximum discharge rate for the site. Additional detention may be required due to the updated calculations. A forebay is proposed for the pre-treatment of storm water prior to entering the detention pond. Additional information on the proposed storm sewer and detention basin (i.e., material, slope, profile, calculations, etc.) will be required for the engineering review.

PAVING/TRAFFIC:

Access to the site is provided through one (1) existing approach off Mott Avenue and existing approaches off the private drive south of the existing Crest Training Center. The applicant is proposing to reconstruct a portion of the private drive and utilize it as a drive aisle in the expanded parking lot between the Crest Training Center and proposed garage building. The plans indicate concrete curb and gutter with standard duty asphalt for the parking areas and heavy-duty asphalt for the drive aisles and loading/unloading area. Per City standards, loading/unloading areas shall be a minimum of 8-inch concrete on an approved base. Pavement cross-sections for the site have been provided on the plans. Per City standards, Technology & Research zoned sites shall have a minimum heavy-duty asphalt pavement of 6-inch asphalt on 8-inch aggregate base.

The applicant is proposing 233 parking spaces including 8 barrier free parking spaces. The parking spaces on the west and southwest side of the Crest Training Center are accessible via motorized sliding gates with a keypad entry and Knox Box. A trash enclosure has not been shown on the plans. A 1,892 sq. ft loading/unloading area is proposed at the southwest corner of the existing building and a 1,087 sq. ft loading/unloading area is proposed at the northwest corner of the building addition. A loading area is not proposed for the proposed garage building. A concrete walk has been provided along the west side of Mott Avenue connecting to the east and south sides of the building addition.

GRADING:

Existing grades are shown with contours while proposed grades are shown with spot elevations. The site slopes towards the south side of the parcel. Perimeter site slopes shall meet the requirement of 1:4 max and match into existing contours prior to all abutting property lines. A fence has been provided around the detention pond due to slopes exceeding 1:6. Pavement slopes are mostly consistent with City standards and are to remain between 1% and 6% for drive areas and between 1% and 4% for parking areas. Sidewalk and pathway grades shall meet ADA requirements. No retaining walls are currently proposed on the site.

RECOMMENDATIONS:

The site plan is in substantial compliance with City of Auburn Hills requirements and has been stamped "Approved as Noted" by our office. We ask that the site plan approval acknowledge the following:



1. The site improvement plan, designed in accordance with Ordinance No. 806, shall be submitted to the City for review and approval prior to construction. A detailed cost estimate for the improvements shall be submitted with the plans signed and sealed by the design engineer.
2. The developer must post a performance guarantee, in accordance with the City's requirements as set forth in the City of Auburn Hills Ordinance No. 372, Section 2007, Performance Guarantees. The estimate of the guarantee shall be submitted with the site improvement plan and must reflect all costs for site improvements, including but not limited to mass grading, roadways, lighting, utilities, pathways, sidewalks, screening, landscaping, driveways, retaining walls, parking lots, drainage, stormwater retention basins, and other similar features.
3. Recorded sanitary sewer easements for existing sanitary sewer on the Oakland Community College properties will be required prior to issuance of final occupancy.

If you have any questions or are in need of any further information, please feel free to contact our office.

Sincerely,
OHM Advisors

MaryKate Kirksey for Hannah Driesenga, P.E.

Transmitted via e-mail to Steve Cohen: March 20, 2026

cc: File

P:\0101_0125\SITE_AUBURNHILLSCITY\2026\0120261040_OCC CREST CENTER ADDITION\OCC CREST CENTER ADDITION_SITE REV#1_APPAN.DOCX



POLICE DEPARTMENT
1899 North Squirrel Road
Auburn Hills, MI 48326

MEMORANDUM

TO: Steve Cohen, Director of Community Development
FROM: Brandon Hollenbeck, Lieutenant
DATE: March 18, 2026
SUBJECT: **OCC Campus - CREST**

I have reviewed the site plan for the CREST expansion at Oakland Community College on Featherstone Road. We have no objections to the project as presented in the site plan.



AUBURN HILLS FIRE DEPARTMENT



Official Memorandum

To: Steve Cohen, City Planner/Director of Community Development
From: Fred Solomon, Fire Inspector
Date: March 30, 2026
Re: Site Plan Review

PROJECT: OCC CREST, 2900 Featherstone

XXX	Approved	
	Approved	Subject to the following revisions:
	Denied	

No Comments

Fred Solomon
Fire Inspector
Auburn Hills Fire Department

March 27, 2026

Steve Cohen, Director Community Development
City of Auburn Hills, Community Development Department
1827 North Squirrel Road
Auburn Hills, MI 48326

Subject: Oakland community College CREST Building, Parking Lot & Campus Project, Featherstone Road, Auburn Hills, MI

Dear Mr. Cohen,

The submittals regarding the above-mentioned project have been reviewed and site conditions verified at the CREST building and across the OCC campus. See tree detail chart below for tree inventory and replacement tree requirements.

TREE DATA TABLE

DESCRIPTION	TOTAL TREES	Required/REPLACEMENT TREES
Total Trees Surveyed	238	n/a
Trees Saved	28 Regulated	0
Removed Regulated Trees	165	165
Removed Landmark Trees	3 (93.5")	9
TOTAL Required Replacement Trees		174 Trees

There are 165 regulated trees to be removed for the development of this project, plus 3 Landmark trees. The removed Landmark trees = 93.5" = 9 replacement trees. Therefore, the total required number of replacement trees is 174. The landscape plans provide 49 trees at the CREST Building and 125 trees planted throughout the OCC Campus, all with hydration mats for enhanced survivability.

Note, at least one dead, hazardous cottonwood tree north of building A and south of Circle Drive must be removed. To satisfy City Woodland Preservation Ordinance for replacement tree requirements, 174 trees are to be planted. This project is approved based on site conditions and accompanying landscape plans for tree planting and at least one cottonwood removal.

Best regards,



Julie Stachecki
City of Auburn Hills Woodland Consultant



Site Specific, Inc.

JULIE STACHECKI, ISA Certified Arborist MI-0650, TRAQ, MI Oak Wilt Qualified
Howell, MI 48843 ♦ 810.599.0343 ♦ stachec1@me.com



OAKLAND COMMUNITY COLLEGE
Excellence *Empowered.*



March 11, 2026

Re: Citizens Participation Letter
Oakland Community College- CREST Expansion
2900 Featherstone Road

Dear Neighbor:

In accordance with the City of Auburn Hills' Citizens Participation Ordinance, Oakland Community College is notifying you that it has applied for City approval to expand its CREST Emergency Service Center, within the confines of its Auburn Hills campus. CREST stands for the Combined Regional Emergency Services Training center. The CREST center is a recognized and exemplary police, fire, and emergency management (EMS) training center. It provides education for students seeking a career in public safety and offers state-of-the-art training for certified police officers, fire fighters, and EMS workers throughout the state.

In response to increasing public safety needs, the College has partnered with local Police, Fire, and EMS agencies, to design an expanded CREST facility. This new facility will feature realistic two-story buildings, including a school, office, restaurant, and convenience store. These spaces will connect seamlessly with the existing outdoor simulated city, which features homes, a motel, a bank, and a five-story fire training tower.

The existing indoor and outdoor facilities, along with a future design expansion project awaiting approval from the City of Auburn Hills, will allow OCC to offer leading-edge emergency services academies. This development will also provide public safety agencies with a full range of industry-leading, scenario-based training options that mirror real-life challenges faced by emergency responders.

The expansion will be located at OCC's Auburn Hills campus and will be accessible via Featherstone and N. Squirrel Roads. It will be designed to blend with the existing CREST facility and the college campus. As noted, the expansion will be completely contained within OCC's Auburn Hills campus. The College is excited and honored to continue supporting Michigan's public safety community.

Attached are illustrations for your review.

The City of Auburn Hills Planning Commission is scheduled to review the College's application at its April 8, 2026 meeting. If you have any questions, concerns, or comments, please contact Steve Cohen, City of Auburn Hills Director of Community Development at 248-364-6900.

Sincerely,

Bob Kelly

Bob Kelly
Executive Director of Facilities Operations
Oakland Community College





March 31, 2026

Steve Cohen, AICP
Director of Community Development
City of Auburn Hills
Via email: scohen@auburnhills.org

Dear Steve:

Please consider this letter as confirmation that the attached Citizens Participation Letter regarding OCC's CREST expansion was mailed to thirty-one residents on Wednesday, March 11, 2026. The mailing address labels were provided by your office and were picked up on March 9, 2026.

As of this date, no residents have contacted Bob Kelly, Executive Director of Facilities Operations or his office, with any questions and/or comments.

Thank you,

Cindy

Cindy Chiara
Legal Assistant
Oakland Community College
2900 Featherstone Road
Auburn Hills, MI 48326
cfchiara@oaklandcc.edu

c: E. Rae
B. Kelly

AUBURN HILLS CAMPUS CREST CENTER ADDITION AND RENOVATIONS

OAKLAND COMMUNITY COLLEGE

IDS PROJECT NUMBER: 23118-1000

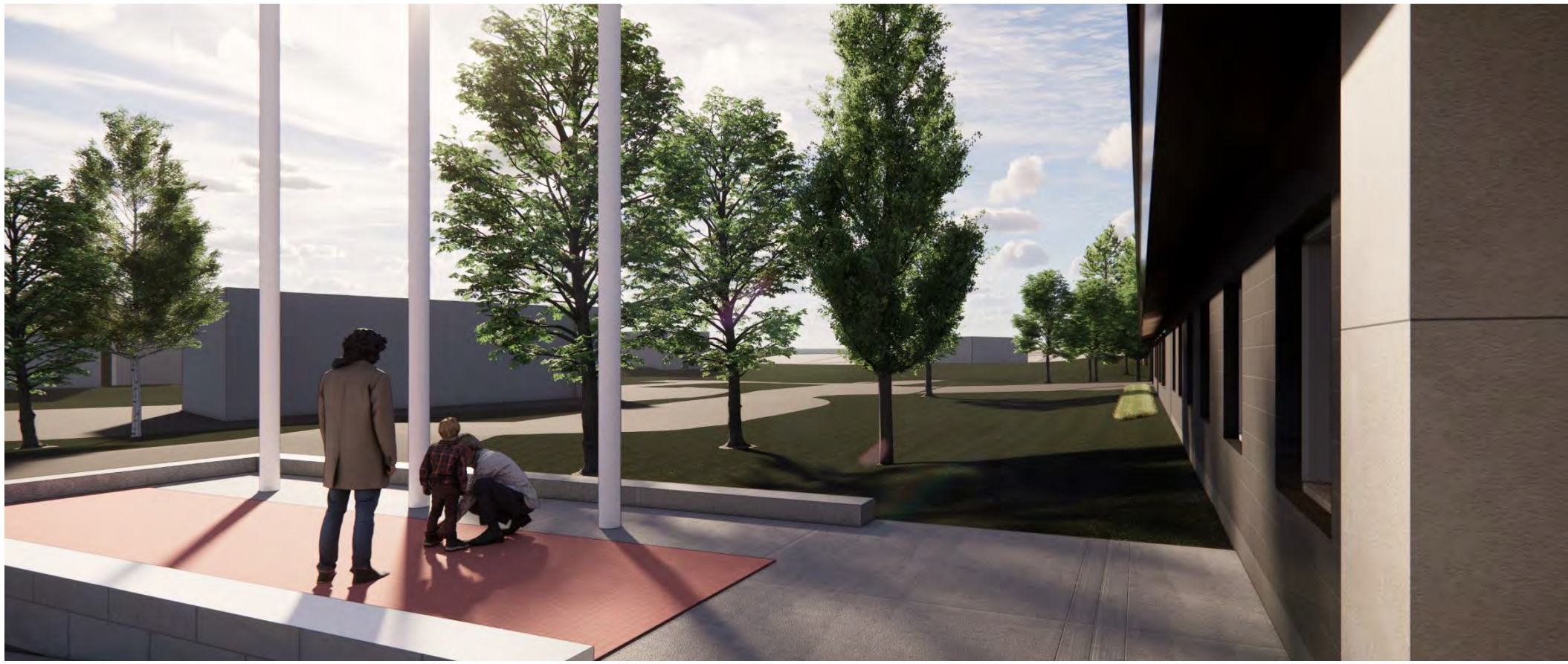
EXTERIOR



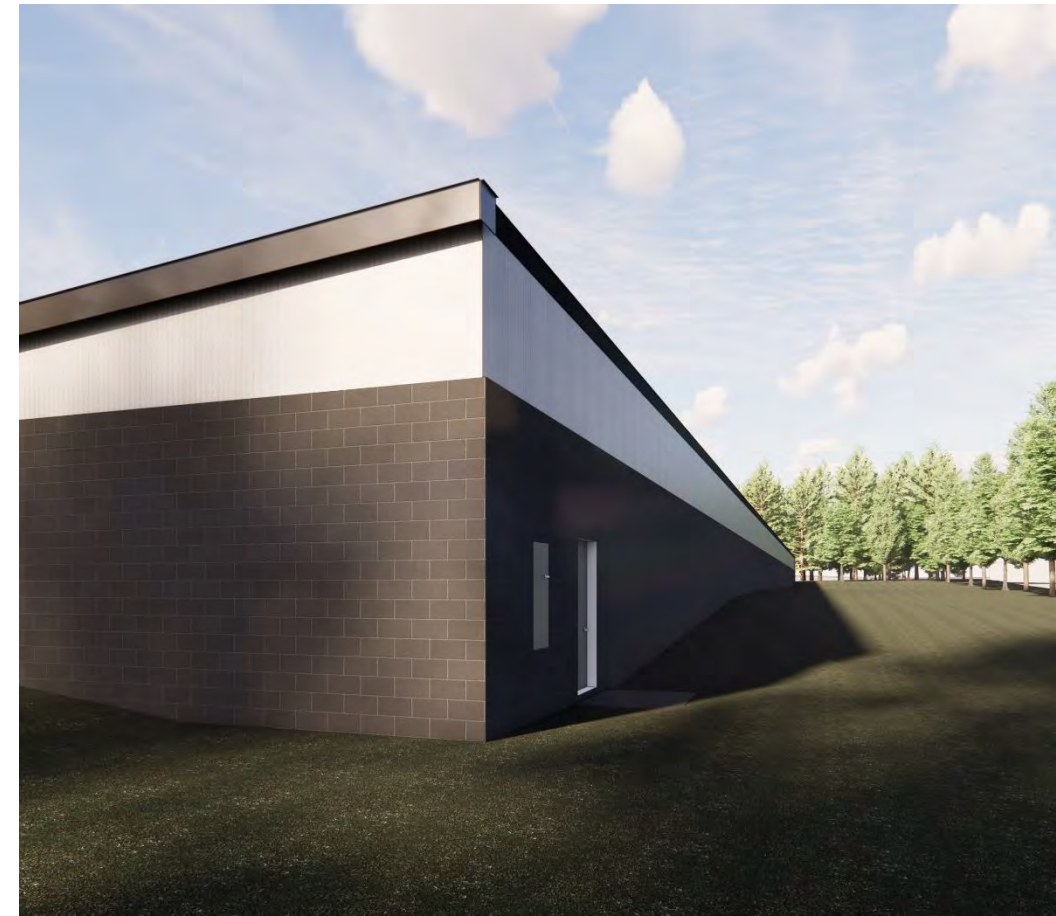
APPROACH WELCOMED WITH SAFE DROP OFF, OUTDOOR GATHERING & MEMORIAL PLAZA



WELCOMING SOCIAL ZONES SEEN FILLED WITH ACTIVITY



SOUTH MEMORIAL PLAZA & GATEWAY TO OUTDOOR TACTICAL TRAINING



SERVICE YARD AND NORTH WOODLANDS

OAKLAND COMMUNITY COLLEGE | AH | CREST CENTER ADDITION & RENOVATIONS

12.02.2024

6





DIRECT & DISCREET INDOOR TACTICAL ENTRY

OAKLAND COMMUNITY COLLEGE | AH | CREST CENTER ADDITION & RENOVATIONS

12.02.2024

7

iDS

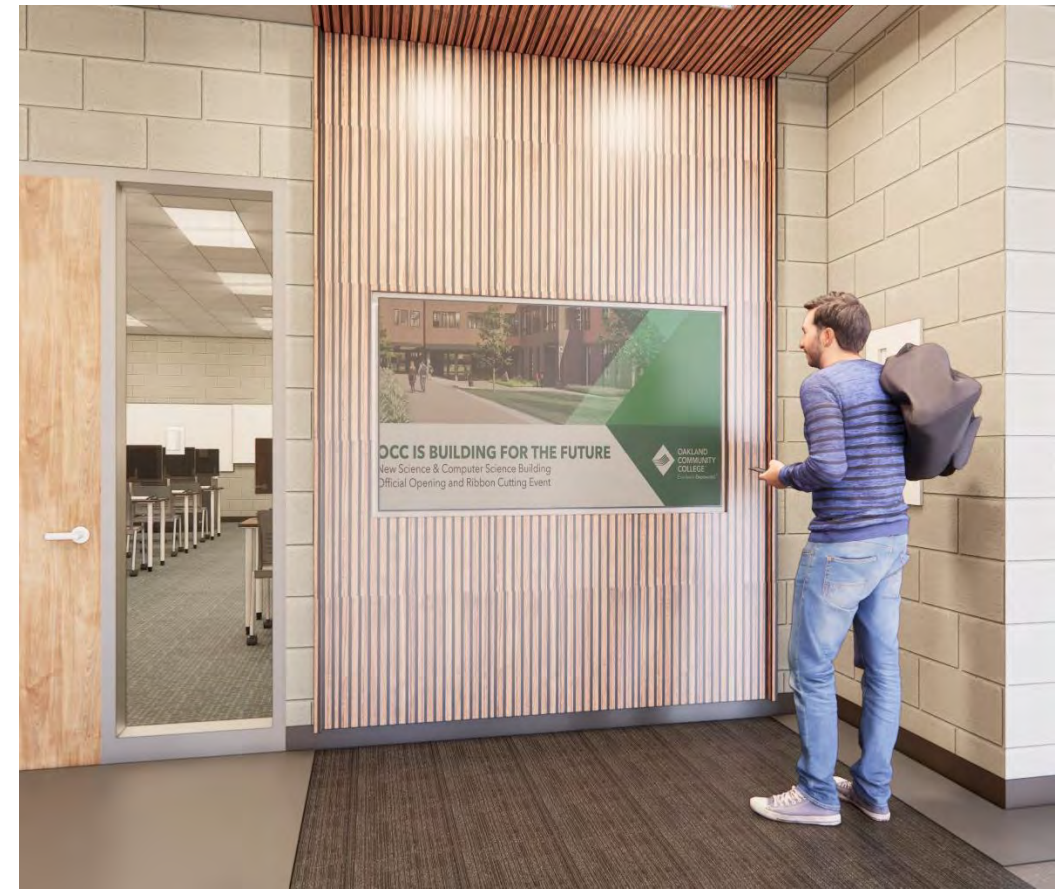


FORMAL IDENTIFICATION AT MAIN ENTRY

INTERIOR COMMON SPACES



ENTRY VESTIBULE WITH DISPLAY CASE AND WAYFINDING



MAIN RECEPTION WITH SECURITY OVERSIGHT



CLASSROOM PREFUNCTION AND PERSONAL LOCKER STORAGE



FLEXIBLE LARGE CLASSROOM ASSEMBLY



GROUP INSTRUCTION AND TESTING LAB

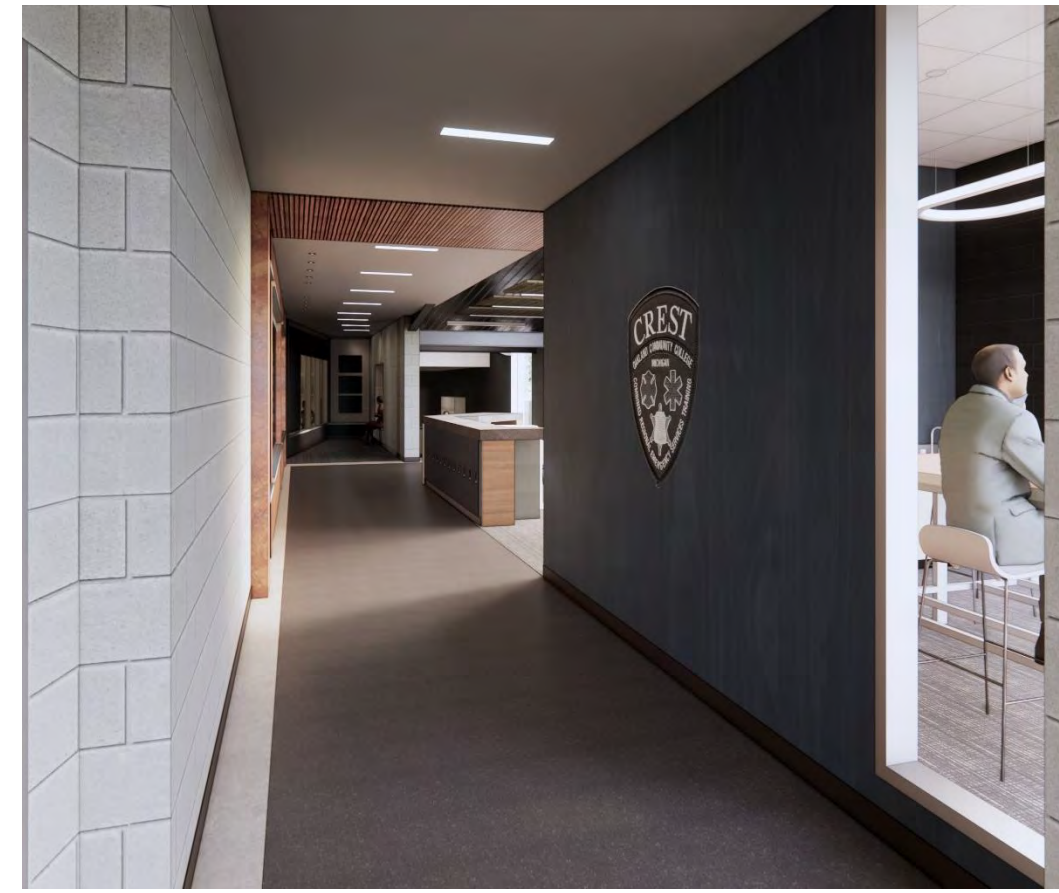
OAKLAND COMMUNITY COLLEGE | AH | CREST CENTER ADDITION & RENOVATIONS



MULTIFUNCTION FLEX LOUNGE



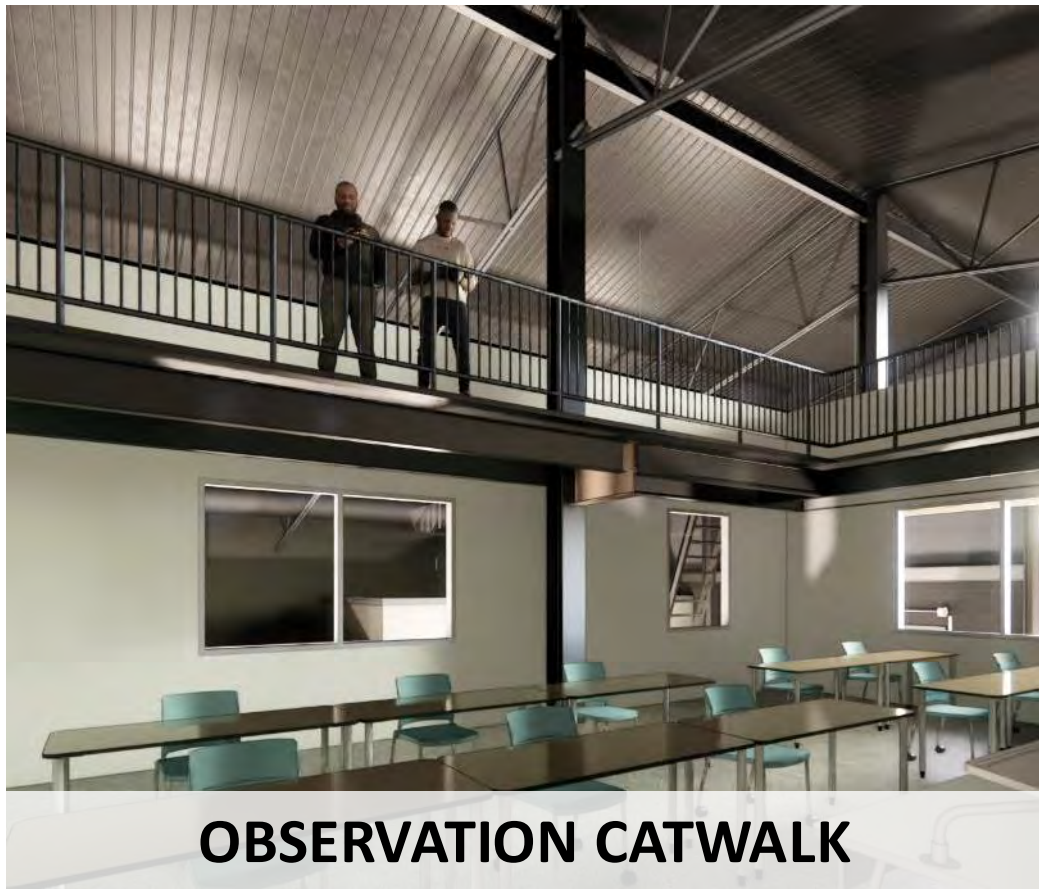
MULTIFUNCTION FLEX LOUNGE & DISPLAYS



FLEX STUDY & CONFERENCE ROOM

OAKLAND COMMUNITY COLLEGE | AH | CREST CENTER ADDITION & RENOVATIONS

TACTICAL VILLAGE



OBSERVATION CATWALK



TACTICAL CLASSROOM



TACTICAL SCHOOL



OBSERVATION CATWALK



TACTICAL OFFICE CORRIDOR

TACTICAL OFFICE



TACTICAL RESTAURANT

OAKLAND COMMUNITY COLLEGE | AH | CREST CENTER ADDITION & RENOVATIONS

12.02.2024

21



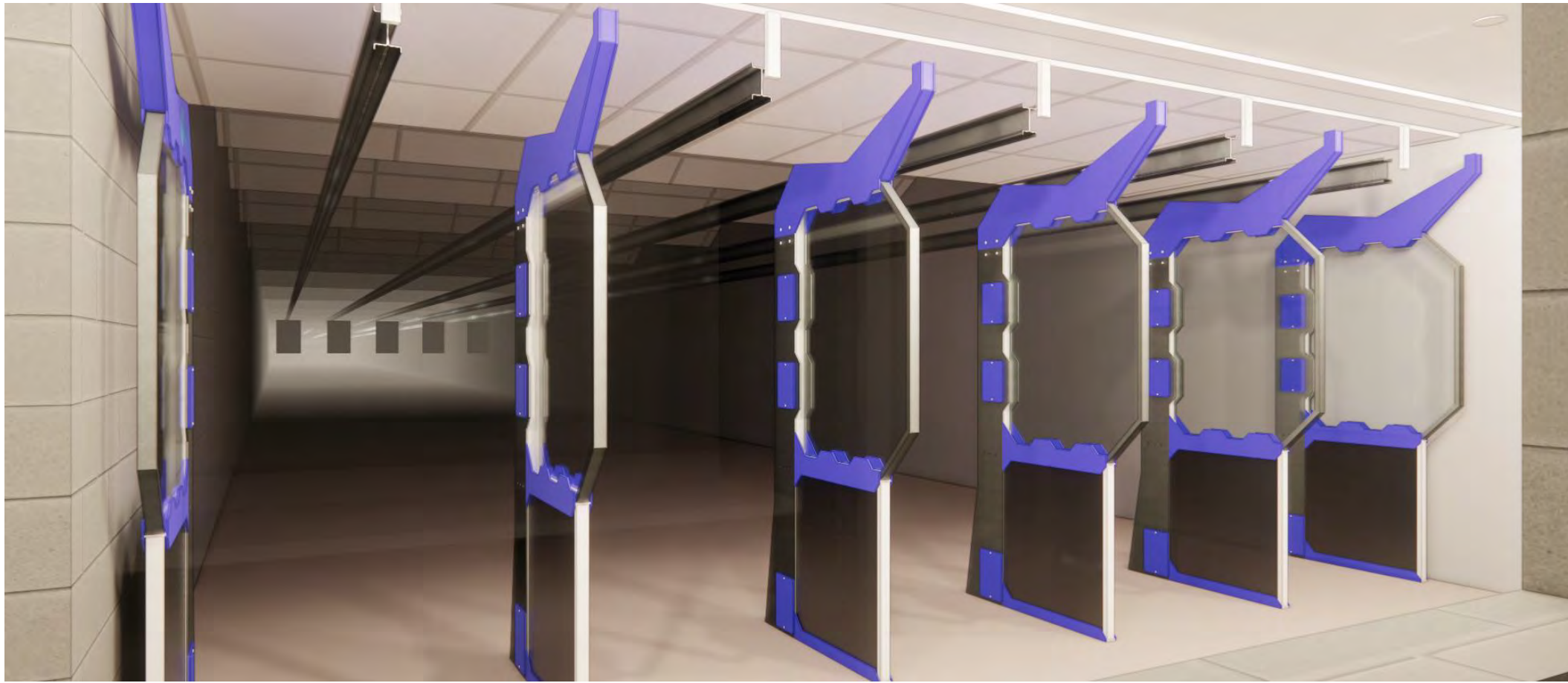


STORE INTERIOR



TACTICAL STORE

SHOOTING RANGE

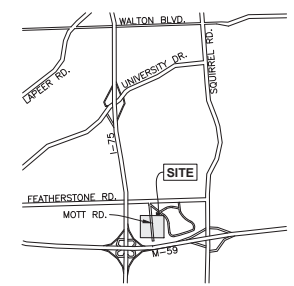
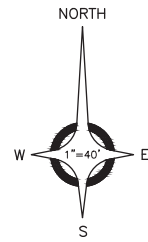


SHOOTING RANGE CONCEPTUAL VIEWS

MAINTENANCE GARAGE



MAINTENANCE GARAGE EXTERIOR VIEWS



iDS
 INTEGRATED design SOLUTIONS
 architecture engineering interiors & technology
 1441 West Long Lake, Suite 200
 Troy, Michigan 48068
 5211 Cascade Road SE, Suite 300
 Grand Rapids, Michigan 49546
 248.823.2100
 www.ids-michigan.com

LOCATION MAP
 NOT TO SCALE

NOTES

FLOODPLAIN
 SITE IS WITHIN ZONE X - OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN - PER FEMA FIRM PANEL 26125C0388F EFFECTIVE 09-29-2006

WETLANDS
 WETLANDS ARE PRESENT ON-SITE AND ARE INDICATED AS SHOWN PER WETLAND DELINEATIONS BY ASTI ENVIRONMENTAL REPORTS DATED 05-15-2023 AND 01-09-2024

CONSTRUCTION MANAGER
 BARTON MALOW
 26500 American Drive
 Southfield, Michigan 48034
 248.436.5000
 www.bartonmalow.com

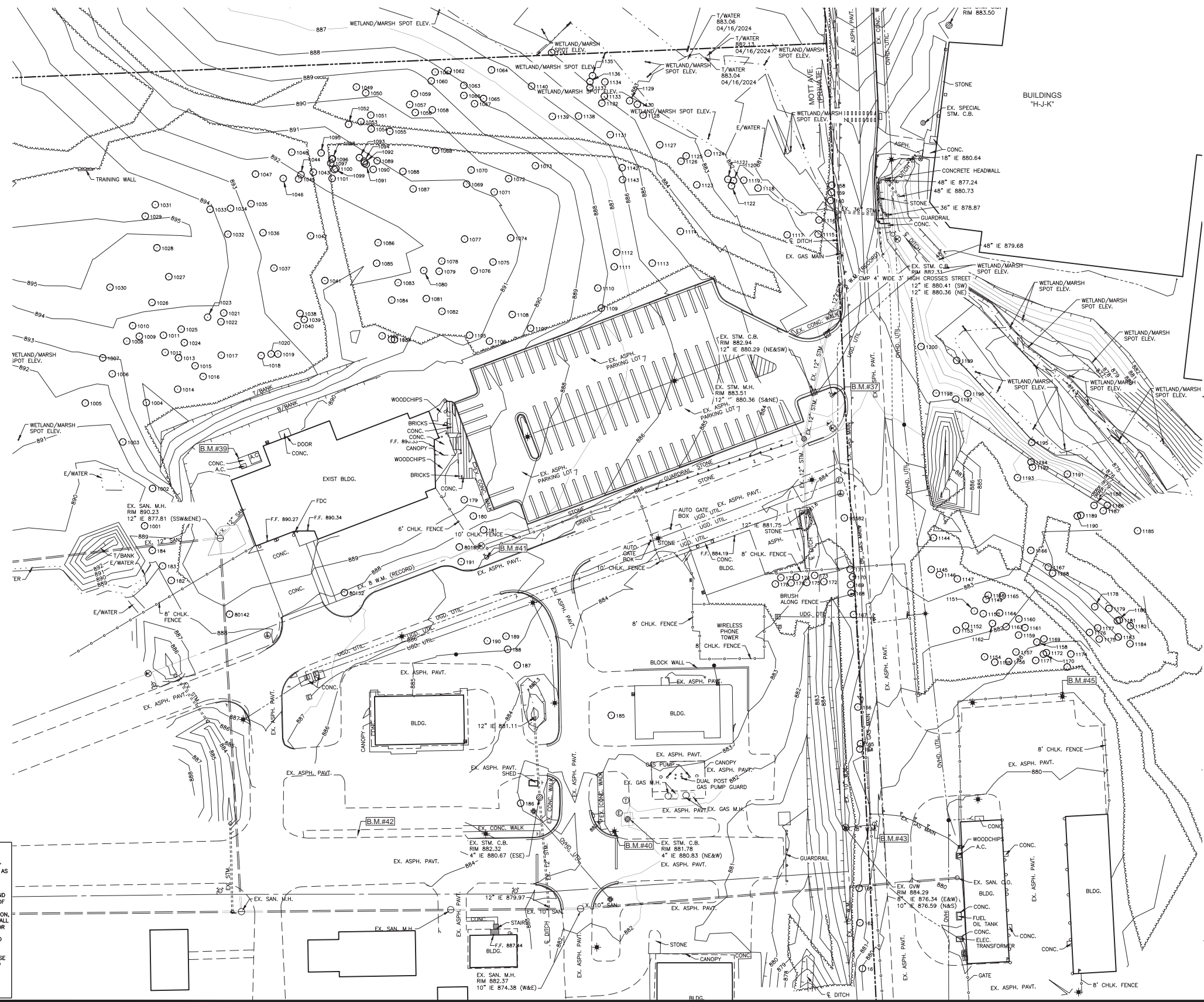
STRUCTURAL ENGINEER
 STRUCTURAL DESIGN INCORPORATED
 275 East Liberty Street
 Ann Arbor, Michigan 48104
 734.213.6091
 www.sdsstructures.com

CIVIL ENGINEER
 ANDERSON, ECKSTEIN & WESTRICK, INC
 51301 Schienherr Rd.,
 Shelby Township, Michigan 48315
 586.726.1234
 www.aewinc.com

RANGE DESIGN CONSULTANT
 ACTION TARGET
 3411 Mountain Vista Pkwy
 Provo, UT 84606
 801.396.1226
 www.actiontarget.com

BENCH MARKS (NAVD88 DATUM)

- BENCH MARK NO. 36
 CHISELED "I" IN WEST OF LIGHT POLE BASE AT SOUTHWEST CORNER OF PHYSICAL ED. PARKING LOT CORNER.
 ELEVATION: 892.22
- BENCH MARK NO. 37
 TOP OF HYDRANT AT SOUTHEAST CORNER OF PARKING LOT FOR CREST BUILDING.
 ELEVATION: 885.60
- BENCH MARK NO. 39
 CHISELED SQUARE ON NORTHWEST CORNER OF CONCRETE PAD FOR CREST BUILDING.
 ELEVATION: 890.64
- BENCH MARK NO. 40
 CHISELED SQUARE ON THE NORTH FACE OF LIGHT POLE AT NORTHEAST CORNER OF RICHARD THOMPSON AVE. AND CONSUMERS ENERGY FOUNDATION.
 ELEVATION: 884.82
- BENCH MARK NO. 41
 TOP OF HYDRANT AT NORTH SIDE OF AUCH RD. AND RICHARD THOMPSON AVE.
 ELEVATION: 888.68
- BENCH MARK NO. 42
 CHISELED SQUARE ON NORTH FACE OF LIGHT POLE ON NORTH SIDE OF CONSUMERS ENERGY FOUNDATION AND AT WEST EDGE BUILDING EXTENDED.
 ELEVATION: 887.54
- BENCH MARK NO. 43
 TOP OF HYDRANT ON WEST SIDE OF MOTT RD. DUE WEST OF NORTHWEST CORNER OF MAINTENANCE BUILDING.
 ELEVATION: 883.48
- BENCH MARK NO. 44
 MAG NAIL IN NORTH FACE OF UTILITY POLE ON EAST SIDE OF MOTT RD. 40' SOUTHWEST CORNER OF MAINTENANCE BUILDING.
 ELEVATION: 880.74
- BENCH MARK NO. 45
 CHISELED SQUARE IN SOUTH OF LIGHT POLE BASE AT NORTHEAST CORNER OF MAINTENANCE FENCE AREA.
 ELEVATION: 883.11



LEGEND

- CENTERLINE DITCH/SWALE
- SPOT ELEVATION ("+" INDICATES ELEVATION LOCATION UNLESS OTHERWISE INDICATED)
- SIGN
- DOUBLE SIGN
- BOLLARDS
- TRAFFIC LIGHT
- PHONE MANHOLE
- PHONE PEDESTAL
- LIGHT POLE
- POWER POLE
- ELECTRICAL OUTLET
- ELECTRICAL MANHOLE
- ELECTRICAL CONTROL PANEL
- ELECTRICAL PEDESTAL
- SANITARY CLEAN OUT
- SANITARY MANHOLE
- SANITARY SEWER
- HYDRANT
- GATE VALVE & WELL
- FIRE HOSE CONNECTION
- VALVE BOX
- WATER MAIN
- STORM END SECTION
- STORM CATCH BASIN (PAVT.)
- STORM CATCH BASIN (FIELD)
- STORM MANHOLE
- STORM SEWER
- GAS METER
- GAS MAIN
- UDG. UTIL.
- OVHD. UTIL.
- UTILITY MARKER

UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING UTILITIES ONLY, AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.

PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF THESE PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. DURING THE CONSTRUCTION, THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE ENCOUNTERED. (ALL COSTS FOR UTILITY LOCATION VERIFICATION, SUPPORT AND PROTECTION SHALL BE INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH THAT UTILITY).

DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

**3 WORKING DAYS BEFORE YOU DIG
 CALL MISS DIG 811 TOLL FREE**

Project Title

OAKLAND COMMUNITY COLLEGE
 Oakland Community College

CREST Center
 Addition and Renovations
 Project Address:
 2900 Featherstone Rd.
 Auburn Hills, MI 48326

Key Plan

Project Administrator	V. Grant
Project Designer	J. Sala
Project Architect / Engineer	J. Sala
Drawn By	J. King
Q.M. Review	J. Sala
Approved	J. Sala
Drawing Scale	1" = 40'
Issued for	Issue Date
Planning Commission Review	03-13-2026

Tree Survey / Existing Conditions

© 2025 ANDERSON, ECKSTEIN AND WESTRICK, INC
 AEW Drawing Title

AEW PROJECT NUMBER
0369-0085

T03 Project Number
23118-1000

OCC PROJECT NUMBER
AH-23-013

Drawing Number
C0.10

Table 1 Oakland Community College, East Center, 2000 Featherstone Road, Auburn Hills, Oakland Co. (ASTI #A2S-1566.00)

Tree Tag#	Common Name	Scientific Name	DBH1 (inches)	DBH2 (inches)	DBH3 (inches)	Condition	Lat	Long	Landmark	Non-Protected	Comments	Surv (S/Remove)(Y)	Max POOP	Vert Prec (feet)	Horz Prec (feet)	Northing (international feet)	Easting (international feet)
1001	White Willow	<i>Salix alba</i>	35.0	0.0	0.0	Good	No			NP		S	5.9	5.3	3.8	419103.57	1342853.72
1002	Black Walnut	<i>Juglans nigra</i>	8.1	0.0	0.0	Good	No					S	2.8	5.8	4.2	419132.95	1342859.92
1003	Black Walnut	<i>Juglans nigra</i>	14.5	0.0	0.0	Good	No				Overgrown with vines.	x	2.8	2.1	1.4	419198.744	1342900.18
1004	Black Walnut	<i>Juglans nigra</i>	10.3	9.1	0.0	Good	No				Overgrown with vines. Bore	x	2.8	2.1	1.4	419199.316	1342925.1
1005	Green Ash	<i>Fraxinus pennsylvanica</i>	8.0	0.0	0.0	Fair	No			NP	Damage	S	3.7	3.5	2.8	419188.987	1342877.86
1006	Bur Oak	<i>Quercus macrocarpa</i>	7.6	2.5	0.0	Good	No					S	3.7	2.5	1.9	419221.63	1342886.61
1007	Green Ash	<i>Fraxinus pennsylvanica</i>	6.0	0.0	0.0	Fair	No			NP	NP	x	3.7	4.3	3.2	419234.012	1342891.21
1008	Green Ash	<i>Fraxinus pennsylvanica</i>	7.5	0.0	0.0	Poor	No			NP	Significant bore damage	x	2.8	2.2	1.9	419347.024	1342909.9
1009	Black Walnut	<i>Juglans nigra</i>	9.5	0.0	0.0	Good	No					x	3.1	2.3	2.1	419251.769	1342879.64
1010	Black Walnut	<i>Juglans nigra</i>	7.0	0.0	0.0	Good	No					x	3	2.1	1.7	419258.012	1342914.43
1011	Green Ash	<i>Fraxinus pennsylvanica</i>	6.7	0.0	0.0	Poor	No			NP	Significant bore damage	x	5.8	3.4	2.6	419251.613	1342908.37
1012	Green Ash	<i>Fraxinus pennsylvanica</i>	6.6	0.0	0.0	Poor	No			NP	Significant bore damage	x	4.4	2.3	1.9	419238.296	1342909.89
1013	Green Ash	<i>Fraxinus pennsylvanica</i>	7.2	0.0	0.0	Good	No			NP		x	3	3.4	2.8	419234.119	1342890.04
1014	American Elm	<i>Ulmus americana</i>	6.5	0.0	0.0	Good	No					x	3	1.8	1.5	419209.7	1342894.42
1015	Pin Oak	<i>Quercus palustris</i>	11.5	0.0	0.0	Good	No					x	3.3	1.9	1.4	419227.832	1342932.93
1016	Green Ash	<i>Fraxinus pennsylvanica</i>	7.5	7.0	0.0	Poor	No			NP	Significant bore damage	x	3	2.1	1.7	419191.611	1342899.97
1017	Box-elder	<i>Acer negundo</i>	15.7	0.0	0.0	Fair	No			NP	Excessive leaning	x	3	2	1.7	419231.111	1342893.29
1018	Black Walnut	<i>Juglans nigra</i>	7.3	0.0	0.0	Good	No					x	3.8	3	2.2	419232.815	1342914.24
1019	Black Walnut	<i>Juglans nigra</i>	9.6	0.0	0.0	Good	No					x	2.7	1.6	1.4	419237.038	1342927.28
1020	Apple	<i>Malus pumila</i>	6.1	0.0	0.0	Good	No					x	3.1	2.4	1.8	419237.055	1342921.94
1021	Hawthorn	<i>Crataegus spp.</i>	7.7	0.0	0.0	Good	No					x	2.8	2.6	2.9	419238.918	1342895.95
1022	Red Maple	<i>Acer rubrum</i>	14.8	8.5	0.0	Good	No					x	3.4	7.9	5.6	419232.032	1342893.02
1023	Black Cherry	<i>Prunus serotina</i>	12.3	0.0	0.0	Good	No					x	2.7	4.5	3.1	419235.628	1342972.89
1024	American Elm	<i>Ulmus americana</i>	10.5	0.0	0.0	Good	No					x	2.7	2.7	2.4	419245.523	1342954.59
1025	American Elm	<i>Ulmus americana</i>	12.5	0.0	0.0	Fair	No				Deadwood in limbs.	x	3.3	2.6	3	419236.389	1342952.14
1026	Green Ash	<i>Fraxinus pennsylvanica</i>	10.0	0.0	0.0	Good	No			NP		x	2.7	3.8	2.9	419277.087	1342959.46
1027	Green Ash	<i>Fraxinus pennsylvanica</i>	11.9	0.0	0.0	Good	No			NP		x	2.9	3.9	3.3	419297.001	1342942.52
1028	Red Oak	<i>Quercus rubra</i>	6.4	0.0	0.0	Good	No					x	2.8	1.8	1.6	419159.51	1342893.31
1029	Red Maple	<i>Acer rubrum</i>	10.6	0.0	0.0	Good	No					x	2.9	2.1	2.3	419344.028	1342894.22
1030	Shagbark Hickory	<i>Carya ovata</i>	7.2	0.0	0.0	Good	No					x	3	1.6	1.4	419288.846	1342899.84
1031	Bur Oak	<i>Quercus macrocarpa</i>	10.6	0.0	0.0	Good	No					S	2.9	3.8	3.6	419303.021	1342932.03
1032	Black Walnut	<i>Juglans nigra</i>	15.5	0.0	0.0	Good	No					x	2.7	2.8	2.6	419330.128	1342898.38
1033	Red Oak	<i>Quercus rubra</i>	14.7	0.0	0.0	Good	No					x	4.8	6.1	5.5	419340.384	1342974.58
1034	Black Cherry	<i>Prunus serotina</i>	7.7	0.0	0.0	Fair	No				Excessive leaning	x	2.2	2.1	2.1	419350.194	1342900.0
1035	Bur Oak	<i>Quercus macrocarpa</i>	7.0	0.0	0.0	Good	No					x	2.8	2.8	2.4	419355.756	1342930.37
1036	Bur Oak	<i>Quercus macrocarpa</i>	6.1	0.0	0.0	Good	No					x	3	1.8	1.7	419331.213	1342915.86
1037	American Elm	<i>Ulmus americana</i>	9.5	0.0	0.0	Good	No					x	5.7	4.8	4.9	419303.781	1342934.2
1038	American Elm	<i>Ulmus americana</i>	8.5	0.0	0.0	Good	No					x	2.8	2.3	1.9	419288.531	1342904.4
1039	Red Oak	<i>Quercus rubra</i>	33.0	0.0	0.0	Good	No			L		x	3	3.5	3.4	419293.8	1342907.73
1040	Black Cherry	<i>Prunus serotina</i>	12.0	0.0	0.0	Good	No					x	2.8	2.1	1.9	419296.967	1342902.34
1041	Red Maple	<i>Acer rubrum</i>	15.7	0.0	0.0	Good	No					x	6.2	9.8	3	419294.077	1342903.72
1042	Red Oak	<i>Quercus rubra</i>	15.3	0.0	0.0	Good	No					x	2.9	1.9	1.7	419329.8	1342902.1
1043	Shagbark Hickory	<i>Carya ovata</i>	7.6	0.0	0.0	Good	No					x	2.7	5.1	4.9	419379.232	1342904.74
1044	Shagbark Hickory	<i>Carya ovata</i>	8.0	0.0	0.0	Good	No					x	2.9	2.4	2.5	419375.274	1342904.15
1045	Red Oak	<i>Quercus rubra</i>	18.7	0.0	0.0	Good	No					x	3.5	2.5	2.8	419372.982	1342904.33
1046	Shagbark Hickory	<i>Carya ovata</i>	6.3	0.0	0.0	Good	No					x	2.9	2	1.8	419373.408	1342903.38
1047	Red Oak	<i>Quercus rubra</i>	18.5	15.2	0.0	Good	No					x	2.9	1.8	1.8	419376.782	1342909.83
1048	Red Oak	<i>Quercus rubra</i>	12.8	0.0	0.0	Good	No					x	2.6	2.6	2.1	419383.776	1342937.98
1049	Red Oak	<i>Quercus rubra</i>	15.5	0.0	0.0	Good	No					x	3.3	2.1	2.1	419444.388	1342908.2
1050	Black Cherry	<i>Prunus serotina</i>	7.6	0.0	0.0	Good	No					x	2.7	1.5	1.5	419438.872	1342905.44
1051	Shagbark Hickory	<i>Carya ovata</i>	7.0	0.0	0.0	Good	No					x	3	5	4.2	419422.669	1342909.34
1052	Bur Oak	<i>Quercus macrocarpa</i>	9.4	0.0	0.0	Good	No					x	10.8	2.6	2.5	419415.433	1342909.11
1053	Black Oak	<i>Quercus velutina</i>	10.3	0.0	0.0	Good	No					x	3.1	2.3	2.2	419417.476	1342931.74
1054	American Elm	<i>Ulmus americana</i>	6.0	0.0	0.0	Good	No					x	2.9	2.3	2	419411.78	1342909.88
1055	Black Oak	<i>Quercus velutina</i>	16.3	0.0	0.0	Good	No					x	3.2	6.2	5.1	419409.95	1342914.16
1056	Black Cherry	<i>Prunus serotina</i>	9.0	0.0	0.0	Fair	No				Deadwood in trunk.	x	4.1	3.4	3	419424.595	1342913.93
1057	American Elm	<i>Ulmus americana</i>	21.7	0.0	0.0	Good	No					x	3.5	6.2	5.9	419430.788	1342929.55
1058	Red Oak	<i>Quercus rubra</i>	12.3	0.0	0.0	Good	No					x	3	2.8	2.7	419429.689	1342917.15
1059	Red Oak	<i>Quercus rubra</i>	22.0	0.0	0.0	Good	No					x	3	4.2	3.5	419438.288	1342913.31
1060	American Elm	<i>Ulmus americana</i>	9.0	0.0	0.0	Good	No					x	2.8	1.8	1.9	419446.124	1342914.36
1061	Basswood	<i>Tilia americana</i>	7.6	0.0	0.0	Good	No					x	2.9	2.3	1.9	419456.045	13429149.36
1062	Black Cherry	<i>Prunus serotina</i>	12.2	0.0	0.0	Good	No					x	3.6	2	2	419457.12	13429159.42
1063	Basswood	<i>Tilia americana</i>	17.5	7.0	0.0	Good	No					x	5.7	3.1	3.2	419446.675	13429171.04
1064	Basswood	<i>Tilia americana</i>	19.7	14.5	0.0	Good	No					x	3.8	2.8	2.3	419457.617	1342919.11
1065	Red Oak	<i>Quercus rubra</i>	21.7	0.0	0.0	Good	No					x	2.9	1.8	1.7	419455.419	13429186.8
1066	Ironwood	<i>Casahuate virginiana</i>	6.2	0.0	0.0	Good	No					x	2.5	2	1.7	419453.833	13429171.65
1067	Red Oak	<i>Quercus rubra</i>	17.0	0.0	0.0	Good	No					x	3.2	2.2	1.7	419431.423	1342919.83
1068	American Elm	<i>Ulmus americana</i>	10.1	0.0	0.0	Good	No					x	7.8	2	1.8	419365.077	13429149.73
1069	Black Cherry	<i>Prunus serotina</i>	12.5	0.0	0.0	Good	No					x	4.1	1.9	1.4	419368.96	13429173.79
1070	Black Cherry	<i>Prunus serotina</i>	10.0	0.0	0.0	Fair	No				Overgrown with vines.	x	2.6	2	1.8	419379.925	13429177.31
1071	American Elm	<i>Ulmus americana</i>	11.0	0.0	0.0	Good	No					x	3	2.6	1.9	419382.894	13429195.2
1072	Black Cherry	<i>Prunus serotina</i>	20.1	0.0	0.0	Good	No					x	6	4.5	4.7	419379.181	1342928.48
1073	Silver Maple	<i>Acer saccharinum</i>	16.0	0.0	0.0	Good	No					x	2.9	3.8</			



CREST Center
 Addition and Renovations
 Project Address:
 2900 Featherstone Rd.
 Auburn Hills, MI 48326

Key Plan



Project Administrator
 V. Grant
 Project Designer
 J. Sala
 Project Architect / Engineer
 J. Sala
 Drawn By
 J. King
 Q.M. Review
 Approved
 J. Sala
 Drawing Scale
 1" = 40'
 Issued for
 Planning Commission Review
 Issue Date
 03-13-2026

Dimensional Site Plan

AEW PROJECT NUMBER
 0369-0085
 OCC PROJECT NUMBER
 AH-23-013
 Drawing Number
 23118-1000
C0.20



LOCATION MAP
 NOT TO SCALE

LEGAL DESCRIPTION

PARCEL 14-26-226-007
 SITE ADDRESS: 2900 FEATHERSTONE, AUBURN HILLS, MI 48326
 T3N, R10E, SEC 26 PART OF NE 1/4 BEG AT PT DIST S 02-34-14 E 1542.51 FT FROM NE SEC COR, TH S 03-19-50 E 1002.62 FT, TH S 79-59-16 W 1030.18 FT, TH S 84-50-43 W 339.61 FT, TH N 61-52-23 W 200.70 FT, TH N 02-29-33 W 360.07 FT, TH N 55-42-55 E 712.36 FT, TH N 02-26-36 W 316.19 FT, TH N 87-33-03 E 912.86 FT TO BEG 31.22 A 7-16-18 FR 005

FROM TAX RECORDS ONLY, NO FIELD SURVEY PERFORMED.

PARKING SUMMARY

CREST BUILDING	
MAX. OCCUPANCY	679
1 SPACE / 3 PERSONS x MAX. OCCUPANCY (1804.12.2.L)	227
MAINTENANCE GARAGE	
2 SPACES / BAY + 1 SPACE/GAS PUMP (1804.12.3.H)	6
TOTAL PARKING REQUIRED	233
PAVED PARKING PROVIDED	233
ADA PARKING REQUIRED	7
ADA PARKING PROVIDED	8

BUILDING AREA SUMMARY

	TOTAL FLOOR AREA (SF)	USABLE FLOOR AREA (SF)
CREST BUILDING	78,784	69,474
MAINT. GARAGE	2,999	2,897

LOADING AREA SUMMARY

BUILDING FRONTAGE (LF)	233.6
LOADING AREA REQUIRED (10 SF PER BLDG. FRONTAGE LF)	2336
LOADING AREA PROVIDED (SF)	6230
LOADING LENGTH REQUIRED (LF)	50
LOADING LENGTH PROVIDED (LF)	275.2

BUILDING SETBACK SUMMARY

FRONT (TO R.O.W.)	50
SIDE (LEAST ONE SIDE)	20
SIDE (TOTAL)	40
REAR	15

IMPERVIOUS AREA SUMMARY

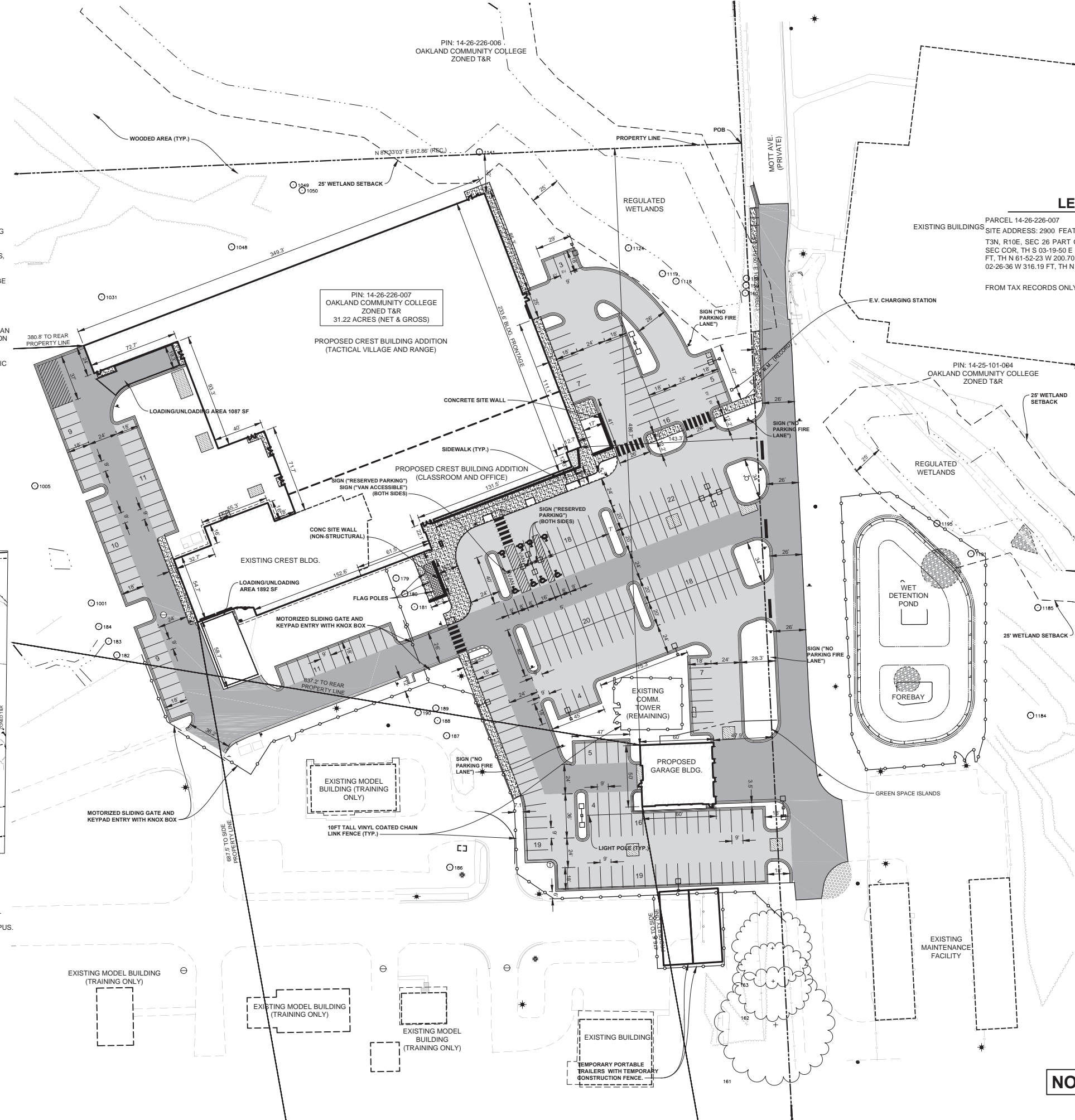
TOTAL DISTURBED AREA (AC)	7.12
IMPERVIOUS AREA REMOVED (AC)	1.67
IMPERVIOUS AREA PROPOSED (AC)	4.42
NET IMPERVIOUS AREA INCREASE (AC)	2.75

PROPOSED LEGEND

- STANDARD DUTY BIT. PAVT.
- HEAVY DUTY BIT. PAVT.
- CONC. PAVT.
- CONCRETE SIDEWALK W/ CURB FACED WALK
- GRAVEL SURFACE
- CONC. CURB & GUTTER
- STORM SEWER
- SANITARY SERVICE LEAD
- WATER SERVICE LEAD
- WATER MAIN
- VINYL COATED, CHAIN LINK FENCE
- LIGHT POLE
- HYDRANT

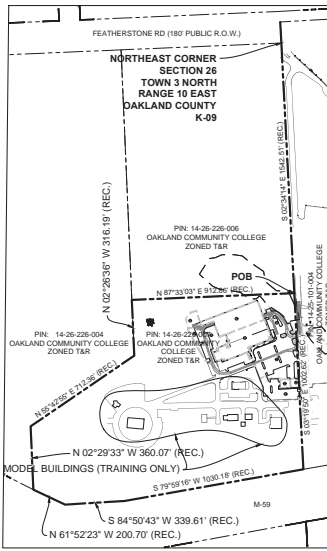
NOT FOR CONSTRUCTION

PIN: 14-26-226-007



GENERAL NOTES

- ALL LIGHTING SHALL BE SHIELDED AND DIRECTED DOWNWARD AND AWAY FROM ADJACENT PROPERTIES. LIGHTING SHALL MEET THE REQUIREMENTS OF ZONING ORDINANCE NO. 372.
- SIGNS SHALL MEET THE REQUIREMENTS OF ZONING ORDINANCE NO. 372.
- NO OUTSIDE STORAGE WILL BE ALLOWED, WHICH INCLUDES PALLET STORAGE, OVERNIGHT VEHICLES, OR TRAILER STORAGE.
- GROUND-MOUNTED TRANSFORMERS AND ROOF-MOUNTED MECHANICAL EQUIPMENT SHALL BE SCREENED PER ZONING ORDINANCE NO. 372.
- PARKING SPACES SHALL BE DOUBLE-STRIPED PER ZONING ORDINANCE NO. 372.
- NO ALTERATIONS, AMENDMENTS, MODIFICATIONS, OR REVISIONS SHALL BE MADE TO THE APPROVED SITE PLAN DURING ENGINEERING AND BUILDING PLAN SUBMITTAL AND REVIEW OR DURING CONSTRUCTION WITHOUT PRIOR APPROVAL FROM COMMUNITY DEVELOPMENT.
- THE DEVELOPER HAS AGREED TO INSTALL ELECTRIC VEHICLE CHARGING STATIONS AND RUN CONDUIT FROM THE POWER SOURCE TO THE STATIONS. THE SPACES ARE DESIGNATED WITH EV ON THE PLAN AND WILL BE POSTED WHEN CHARGING STATIONS ARE INSTALLED.
- MAXIMUM LIGHT POLE HEIGHT SHALL BE 27.5 FEET.



SURROUNDING PARCELS
 SCALE: 1" = 500'

SITE NOTES

- ALL TRASH IS COLLECTED FOR EACH INDIVIDUAL BUILDING AND IS TRANSPORTED TO A CENTRAL TRASH COLLECTION FACILITY ON THE OCC CAMPUS. NO TRASH RECEPTACLE PROPOSED.

UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING UTILITIES ONLY, AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.

PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF THESE PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. DURING THE CONSTRUCTION, THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE ENCOUNTERED. ALL COSTS FOR UTILITY LOCATION VERIFICATION, SUPPORT AND PROTECTION SHALL BE INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH THAT UTILITY).

DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

3 WORKING DAYS BEFORE YOU DIG APPROXIMATE LOCATIONS AND TYPES OF EXISTING UTILITIES ONLY, AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.

UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING UTILITIES ONLY, AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.



**CITY OF AUBURN HILLS
STANDARD NOTES**

CONSTRUCTION SHALL CONFORM TO CURRENT CITY OF AUBURN HILLS' STANDARDS.

NO WORK SHALL BE PERFORMED WITHOUT INSPECTION.

A PERMIT FROM THE DPW IS REQUIRED FOR ALL CONSTRUCTION WITHIN CITY ROW. NO EQUIPMENT OR MATERIAL STORAGE WILL BE PERMITTED IN THE ROW.

ALL CITY STREETS MUST BE MAINTAINED DURING CONSTRUCTION. STREETS SHALL BE KEPT FREE OF MUD, DIRT, CONSTRUCTION DEBRIS, DUST AND THE LIKE. IF CLEAN-UP IS NOT PERFORMED WITHIN 24 HOURS OF NOTIFICATION, THE CITY RESERVES THE RIGHT TO PERFORM THE WORK AND CHARGE THE DEVELOPER ACCORDINGLY.

WORKING HOURS (INCLUDING RUNNING OF ANY MACHINERY) SHALL BE RESTRICTED TO MONDAY THROUGH SATURDAY, 7:00 AM TO 7:00 PM, SUNDAY TO SUNDOWN; WHICHEVER IS LESS. CONSTRUCTION OPERATIONS BEYOND THE PERIODS MENTIONED ABOVE SHALL BE PERMITTED ONLY AFTER WRITTEN APPROVAL OF THE CITY MANAGER OR HIS DESIGNEE.

ALL MATERIALS AND MANUFACTURERS SHALL CONFORM TO THE STANDARD DETAILS.

UTILITY STRUCTURES SHALL NOT BE LOCATED IN DRIVEWAYS, AND WHERE POSSIBLE, SHALL NOT BE LOCATED IN PAVED AREAS.

THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN ACCORDANCE WITH ACT 53 OF P.A. OF 1974 AND ALSO CONTACT OAKLAND COUNTY UTILITY AND PROTECTION SERVICE (MISS DIG 1-800-482-7171) THREE (3) WORKING DAYS BEFORE THE START OF ANY CONSTRUCTION.

THE CONTRACTOR SHALL PROVIDE NECESSARY SIGNS, BARRICADES AND LIGHTS TO PROTECT TRAFFIC AND THE WORK AS DIRECTED BY THE ENGINEER. SUCH DEVICES SHALL BE PLACED PRIOR TO STARTING WORK IN AFFECTED AREAS.

ALL SOIL EROSION AND SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE OAKLAND COUNTY STANDARDS AND DETAILS. THE CONTRACTOR SHALL FOLLOW LOCAL, RULES AND REGULATIONS FOR SOIL EROSION AND SEDIMENTATION CONTROL FOR ALL MATERIALS THAT ARE DISPOSED OF OFF OF THE PROJECT SITE.

ALL SOIL EROSION MEASURES MUST BE PROPERLY PLACED PRIOR TO GRADING OR OTHER CONSTRUCTION ACTIVITIES.

FIELD CHANGES TO THE APPROVED PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE INSPECTOR ON SITE, WHO WILL DETERMINE WHETHER THE CHANGE IS CONSIDERED "SIGNIFICANT". "SIGNIFICANT" FIELD CHANGES SHALL BE SUBMITTED TO THE CITY BY THE DESIGN ENGINEER. THE CITY SHALL NOT BE HELD RESPONSIBLE FOR DELAYS IN APPROVAL OF CHANGES TO THE APPROVED SITE IMPROVEMENT (ENGINEERING) PLAN.

WHERE POSSIBLE, PUBLIC UTILITIES SHALL NOT BE PLACED UNDER PAVEMENT. THE CITY OF AUBURN HILLS SHALL NOT BE RESPONSIBLE FOR PAVEMENT, CURB, OR OTHER RESTORATION OF PERMANENT FACILITIES LOCATED WITHIN THE MUNICIPAL EASEMENT.

3 WORKING DAYS PRIOR TO STARTING CONSTRUCTION, CONTACT THE CONSTRUCTION DEPARTMENT OF ORCHARD, HILTZ & McCLIMENT, INC. AT (734) 466-4539 TO SCHEDULE INSPECTION. OHM SHALL INSPECT ALL SITE IMPROVEMENTS INCLUDING UNDERGROUND UTILITY INSTALLATION, EARTHWORK OPERATIONS, RETAINING WALLS, PAVEMENT IN CITY R.O.W., ALL SIDEWALKS OR SAFETY PATHS IN ANY PUBLIC R.O.W., AND ANY ADDITIONAL ITEMS NOTED DURING REVIEW OR AT THE PRE-CONSTRUCTION MEETING. FINAL OCCUPANCY MAY BE AFFECTED IF PROCEDURES ARE NOT FOLLOWED FOR PROPER INSPECTION.

PERMANENT STRUCTURES OF ANY TYPE, INCLUDING BUT NOT LIMITED TO, TREES, LIGHT POLES, DRAINAGE STRUCTURES, SANITARY STRUCTURES, BENCHES, TRASH RECEPTACLES, ETC., WILL NOT BE ALLOWED WITHIN THE INFLUENCE OF THE PUBLIC WATER MAIN OR SANITARY SEWER EASEMENTS.

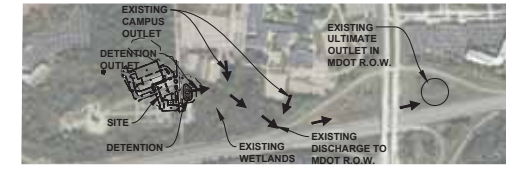
UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING FACILITIES ONLY, AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.

PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF THESE PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. DURING THE CONSTRUCTION, THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE ENCOUNTERED. (ALL COSTS FOR UTILITY LOCATION VERIFICATION, SUPPORT AND PROTECTION SHALL BE INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH THAT UTILITY).

DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

3 WORKING DAYS BEFORE YOU DIG
CALL MISS DIG 811 TOLL FREE

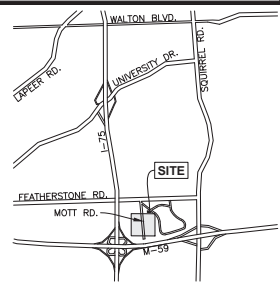
- NOTES**
- COVER OVER EXISTING AND PROPOSED WATER MAIN MUST BE MAINTAINED AT 5.5'
 - COVER OVER EXISTING AND PROPOSED SANITARY SEWER MUST BE A MINIMUM OF 4'
 - COVER OVER EXISTING AND PROPOSED STORM SEWER MUST BE A MINIMUM OF 2.5'
 - THE ULTIMATE STORM SEWER OUTLET IS AN ON-SITE WATERCOURSE



ULTIMATE DETENTION OUTLET
SCALE: 1" = 1000'

DETENTION POND

Elevation	Depth (ft)	Area (sq ft)		Volume (cu ft)		Volume (cu ft)		
		Forebay	Basin	Forebay	Basin	Forebay	Basin	
876.45	0.45	0	15,365	15,365	8,789	8,789	48,389	53,772
876	1.00	0	14,492	14,492	0	13,762	4,430	38,823
877	1.00	0	12,880	12,880	0	11,967	4,430	33,241
876	1.00	0	11,104	11,104	1,210	8,144	4,430	13,874
875	1.00	3,644	8,356	8,100	3,210	4,947	3,210	4,947
874	0.50	3,864	4,408	2,213	1,306	2,074	3,376	0
873.5	0.50	2,490	2,802	8,310	0	0	0	0



LOCATION MAP
NOT TO SCALE

DETENTION CALCULATIONS

Part A. Determination of Surface Runoff

Total Site Area: 4.26 ac
 Runoff Coefficient: 0.85
 Time of Concentration: 18.88 min
 Rational Return Period: 1 yr
 Rational Depth: 3.45 in
 Rational Intensity (Eq. 9-1): 4.30 in/hr
 Peak Runoff (Eq. 9-1): 0.37 cfs
 Volume (Eq. 9-1): 10,380 cu ft

Part C. Channel Protection Volume Control

Required CPVC Volume (Eq. 9-4): 34,382 cu ft
 Provided CPVC Volume: 47,170 cu ft

Part D. Water Quality Control

Required Water Quality Volume (Eq. 9-1): 16,716 cu ft
 Provided Water Quality Volume: 47,170 cu ft

Part E. Channel Protection Rate Control, Extended Detention

Required Extended Detention Volume (Eq. 9-2): 28,434 cu ft
 Provided Extended Detention Volume: 47,170 cu ft

Part F. Detention and Flood Control Facilities

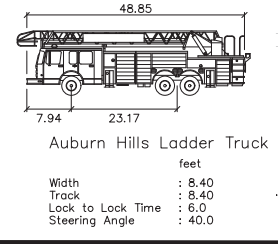
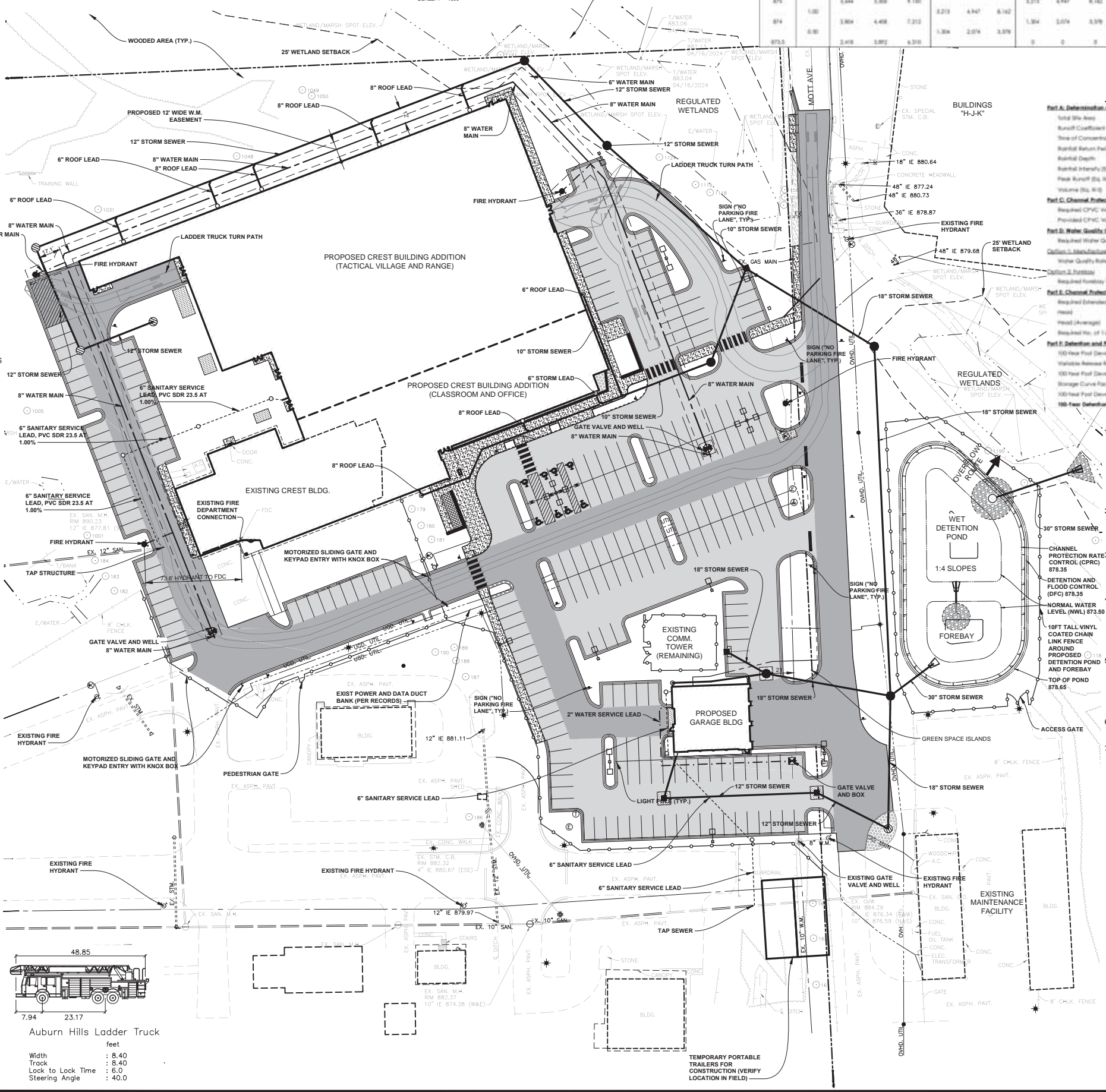
100 Year Flood Development Peak Rate (Eq. 9-2): 0.37 cfs
 Volume Release Rate (Eq. 9-2): 0.73 cfs
 100 Year Flood Development Peak Discharge: 0.37 cfs
 Storage Curve Factor (Eq. 9-2): 0.8
 100 Year Flood Development Peak Volume (Eq. 9-2): 10,380 cu ft
 100 Year Detention Volume (Eq. 9-2): 48,389 cu ft

FIRE DEPARTMENT NOTES

- THE FOUR (4) INCH STEAMER CAPS ON ALL HYDRANTS WILL BE PAINTED ACCORDING TO THE FOLLOWING:
 WHITE-ON 4.00 INCH MAINS
 RED-ON 6.00 INCH MAINS
 ORANGE-ON 8.00 INCH MAINS
 GREEN-ON 12.00 INCH MAINS
 BLUE-ON 16.00 INCH OR LARGER MAINS
- NO PARKING SHALL BE PERMITTED AND/OR NO OBSTRUCTIONS SHALL BE PLACED OR CONSTRUCTED WITHIN FIFTEEN (15) FEET OF ANY FIRE HYDRANT OR FIRE DEPARTMENT CONNECTION, PUBLIC OR PRIVATE.
- THE FIRE DEPARTMENT CONNECTION MUST BE LOCATED WITHIN ONE HUNDRED (100) FEET OF A FIRE HYDRANT AND WITHIN FIFTY (50) FEET OF A MINIMUM TWENTY (20) FOOT WIDE PAVED DRIVEWAY OR STREET.
- GAS METERS, PROPANE TANKS, OVERHEAD ELECTRICAL SERVICE AND TRANSFORMERS MUST NOT BE LOCATED ON THE SAME SIDE OF THE BUILDING OR STRUCTURE AS THE FIRE DEPARTMENT CONNECTION UNLESS A CLEAR DISTANCE OF ONE HUNDRED FIFTY (150) FEET CAN BE MAINTAINED BETWEEN UTILITIES AND THE FIRE DEPARTMENT CONNECTION.
- ALL DRIVE AREAS MUST BE POSTED AS FIRE LANES WITH UNIFORM SIGNS IN KEEPING WITH THE STANDARD ESTABLISHED IN THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. SIGNS MUST BE ERRECTED ON BOTH SIDES OF THE FIRE LANES WITH SPACING BETWEEN SIGNS NOT TO EXCEED ONE HUNDRED (100) FEET.
- DESIGNATED EXIT DOORS ONTO DRIVES OR PARKING AREAS MUST BE PROTECTED WITH GUARD POSTS OR PARKING BLOCKS.
- A WHITE HIGH VISIBILITY STRIP SHALL BE PAINTED ON THE UPPER FLANGE OF ALL FIRE HYDRANTS.

PROPOSED LEGEND

- STANDARD DUTY BIT. PAVT.
- HEAVY DUTY BIT. PAVT.
- CONC. PAVT.
- CONCRETE SIDEWALK W/ CURB FACED WALK
- GRAVEL SURFACE
- CONC. CURB & GUTTER
- STORM SEWER
- SANITARY SERVICE LEAD
- WATER SERVICE LEAD
- WATER MAIN
- VINYL COATED, CHAIN LINK FENCE
- CATCH BASIN
- STORM MANHOLE
- LIGHT POLE
- HYDRANT
- GATE VALVE IN BOX (SERVICE LINE SHUTOFF)



Auburn Hills Ladder Truck

	feet
Width	: 48.40
Track	: 8.40
Lock to Lock Time	: 6.0
Steering Angle	: 40.0

iDS
 INTEGRATED design SOLUTIONS
 architecture engineering interiors & technology
 1441 West Long Lake, Suite 200
 Troy, Michigan 48068
 5211 Cascade Road SE, Suite 300
 Grand Rapids, Michigan 49546
 248.823.2100
 www.ids-michigan.com

CONSTRUCTION MANAGER
 BARTON MALOW
 26500 American Drive
 Southfield, Michigan 48034
 248.436.5000
 www.bartonmalow.com

STRUCTURAL ENGINEER
 STRUCTURAL DESIGN INCORPORATED
 275 East Liberty Street
 Ann Arbor, Michigan 48104
 734.213.6091
 www.sdistructures.com

CIVIL ENGINEER
 ANDERSON, ECKSTEIN & WESTRICK, INC
 51301 Schienherd Rd.,
 Shelby Township, Michigan 48315
 586.726.1234
 www.aewinc.com

RANGE DESIGN CONSULTANT
 ACTION TARGET
 3411 Mountain Vista Pkwy
 Provo, UT 84606
 801.396.1226
 www.actiontarget.com

OAKLAND COMMUNITY COLLEGE
 Oakland Community College

CREST Center
 Addition and Renovations
 Project Address:
 2900 Featherstone Rd.
 Auburn Hills, MI 48326

Key Plan

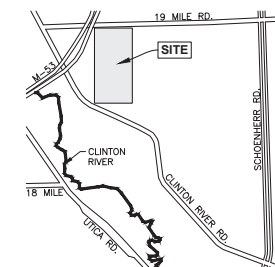
Project Administrator: V. Grant
 Project Designer: J. Sala
 Project Architect / Engineer: J. Sala
 Drawn By: J. King
 Q.M. Review: J. Sala
 Approved: J. Sala
 Drawing Scale: 1" = 40'
 Issued for: Planning Commission Review
 Issue Date: 03-13-2026

© 2025 ANDERSON, ECKSTEIN AND WESTRICK, INC
 AEW Drawing Title

Engineering Site Plan - Utilities

AEW PROJECT NUMBER: 0369-0085
 Project Number: 23118-1000
 OCC PROJECT NUMBER: AH-23-013

Drawing Number: **C0.30**



LOCATION MAP
NOT TO SCALE

iIDS
INTEGRATED design SOLUTIONS
architecture engineering interiors & technology
1441 West Long Lake, Suite 200
Troy, Michigan 48068
5211 Cascade Road SE, Suite 300
Grand Rapids, Michigan 49546
248.823.2100
www.iids-michigan.com

CONSTRUCTION MANAGER
BARTON MALOW
26500 American Drive
Southfield, Michigan 48034
248.436.5000
www.bartonmalow.com

STRUCTURAL ENGINEER
STRUCTURAL DESIGN INCORPORATED
275 East Liberty Street
Ann Arbor, Michigan 48104
734.213.6091
www.sdsstructures.com

CIVIL ENGINEER
ANDERSON, ECKSTEIN & WESTRICK, INC
51301 Schienherd Rd.,
Shelby Township, Michigan 48315
586.726.1234
www.aewinc.com

RANGE DESIGN CONSULTANT
ACTION TARGET
3411 Mountain Vista Pkwy
Provo, UT 84606
801.396.1226
www.actiontarget.com

Project Title



OAKLAND COMMUNITY COLLEGE
Oakland Community College

CREST Center
Addition and Renovations
Project Address:
2900 Featherstone Rd.
Auburn Hills, MI 48326



Key Plan

Project Administrator

V. Grant

Project Designer

J. Sala

Project Architect / Engineer

J. Sala

Drawn By

J. King

Q.M. Review

Approved

J. Sala

Drawing Scale

Issued for

Issue Date

Planning Commission Review 03-13-2026

© 2025 ANDERSON, ECKSTEIN AND WESTRICK, INC
AEW Drawing Title

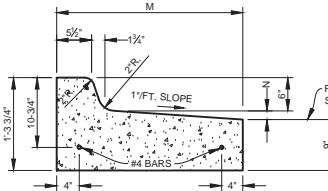
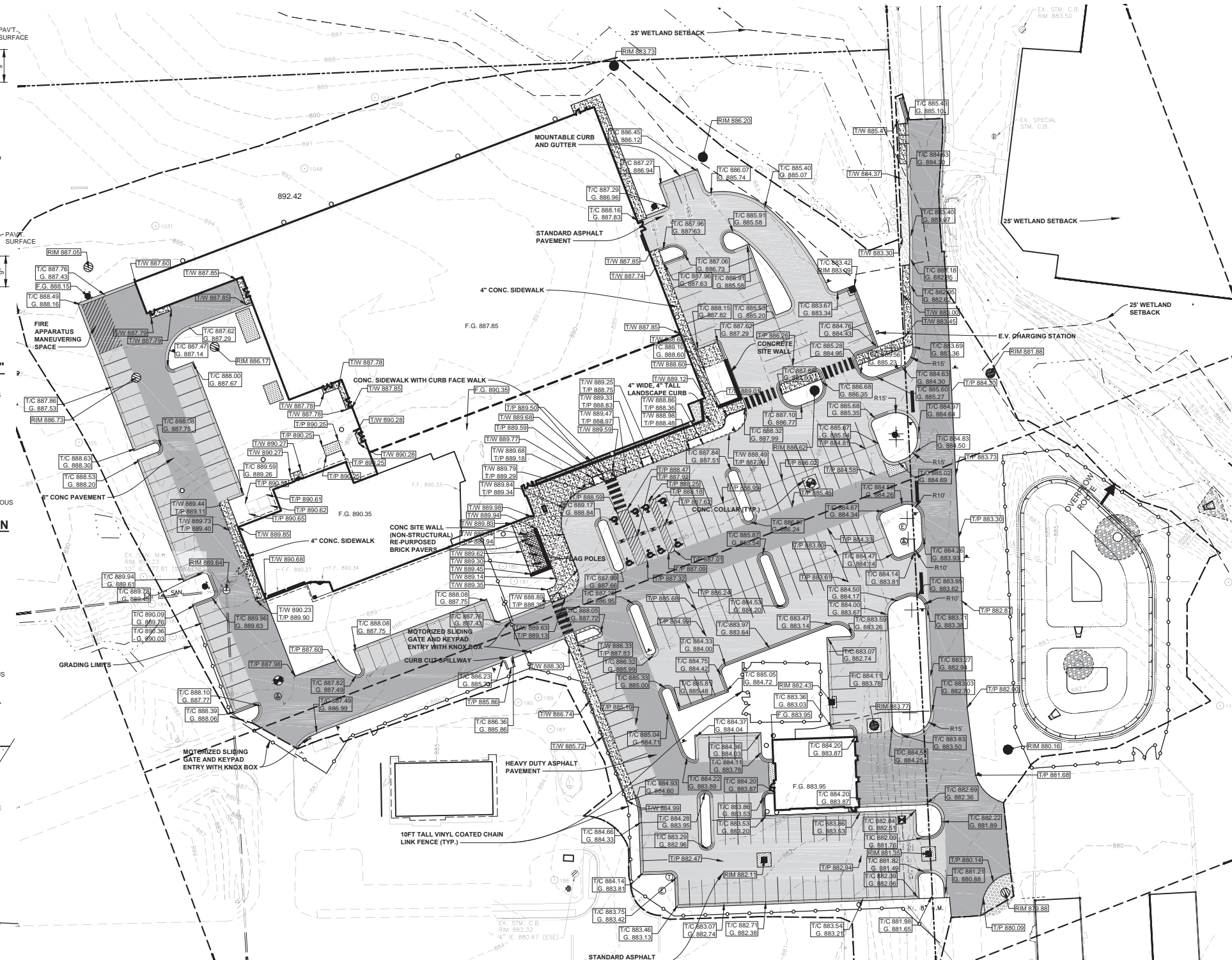
Engineering Site Plan - Grading

AEW PROJECT NUMBER
0369-0085
103 Project Number
23118-1000
OCC PROJECT NUMBER
AH-23-013

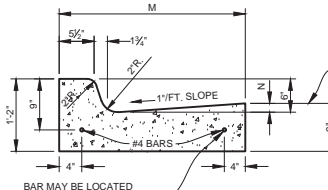
Drawing Number
C0.31

PAVING LEGEND

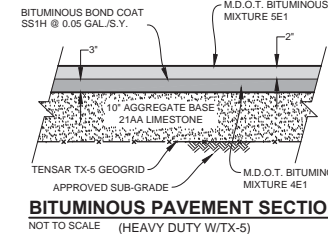
	HEAVY DUTY BITUMINOUS PAVT.
	STANDARD DUTY BITUMINOUS PAVT.
	CONCRETE SIDEWALK
	CONC. PAVT.
	CONCRETE SIDEWALK W/ CURB FACED WALK
	MOUNTABLE CONC. CURB & GUTTER
	GRASS AREA
	EXISTING CONTOUR
	PROPOSED CONTOUR
	PROPOSED DITCH
	PROPOSED GRADE
	EXIST. GRADE
	T/C TOP CONC. CURB
	T/W TOP CONC. WALK
	G. TOP CONC. GUTTER
	T/P TOP PAVEMENT



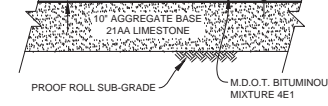
CONCRETE CURB DETAIL "F4" (MODIFIED)
NOT TO SCALE



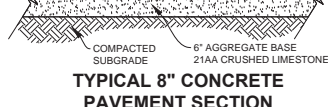
CONCRETE CURB DETAIL "F4"
NOT TO SCALE



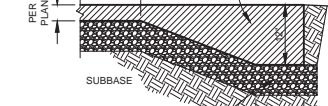
BITUMINOUS PAVEMENT SECTION
NOT TO SCALE (HEAVY DUTY W/TX-5)



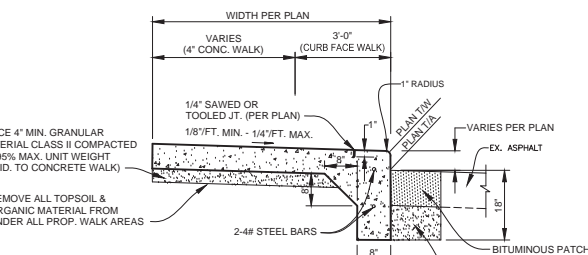
BITUMINOUS PAVEMENT SECTION
NOT TO SCALE (STANDARD DUTY)



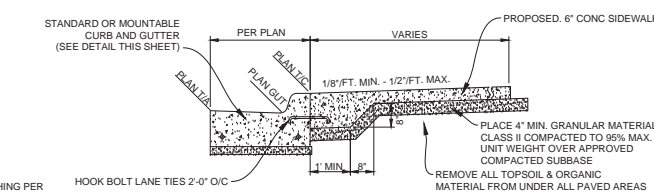
TYPICAL 8" CONCRETE PAVEMENT SECTION
NOT TO SCALE



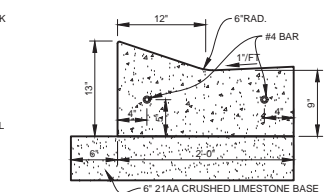
THICKENED EDGE HMA PAVT
NOT TO SCALE



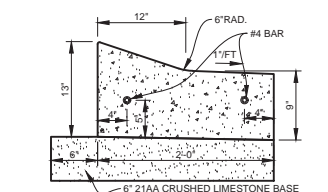
TYPICAL CONCRETE WALK WITH STANDARD CONCRETE CURB FACE
NOT TO SCALE



PINNED SIDEWALK / CURB & GUTTER
NOT TO SCALE



4" MOUNTABLE CURB
NOT TO SCALE



4" MOUNTABLE CURB (MODIFIED)
NOT TO SCALE

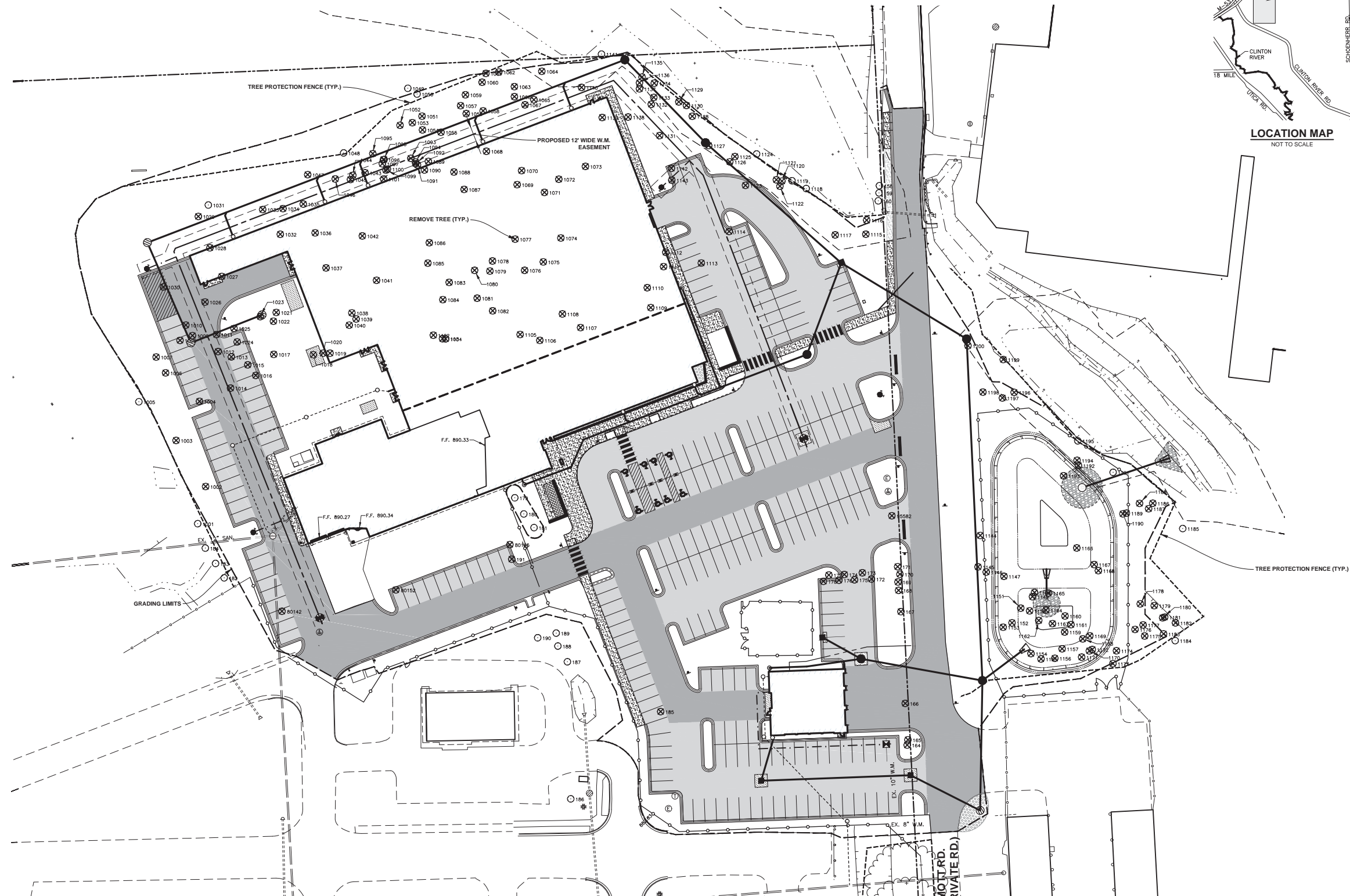
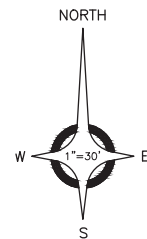
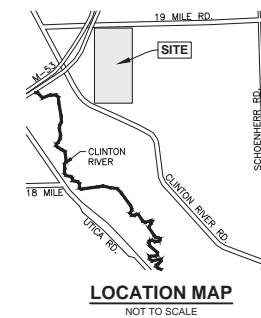
M:\WORK\309-007\AWG\CAL\309-007.TBK.DWG LAYOUT: Mod48 10/18/2023 2:30:30 PM

UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING FACILITIES ONLY, AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.

PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF THESE PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD, DURING THE CONSTRUCTION. THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE ENCOUNTERED. (ALL COSTS FOR UTILITY LOCATION VERIFICATION, SUPPORT AND PROTECTION SHALL BE INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH THAT UTILITY).

DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

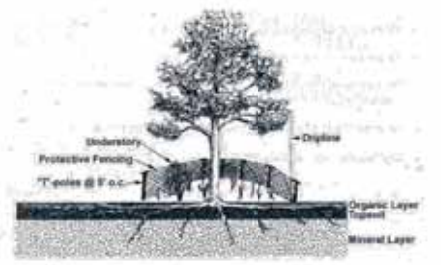
3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 811 TOLL FREE



TREE PROTECTIONS NOTES

- IDENTIFY ON SITE ALL TREES OR AREAS OF TREES WHICH ARE BEING PROPOSED TO BE PRESERVED WITH FLUORESCENT ORANGE SPRAY PAINT (CHALK BASE) OR BY RED FLAGGING TAPE.
- ERECT BARRIERS OF FOUR (4) FOOT HIGH FENCING STAKED WITH METAL "T-POSTS" FIVE (5) FEET ON CENTER OR ALL SUCH TREES OR GROUPS OF TREES PROPOSED TO REMAIN PROTECTIVE BARRIERS ARE TO BE ERRECTED PRIOR TO ANY CLEARING OR GRUBBING ON THE SITE, AND BARRIERS ARE TO REMAIN IN TACT UNTIL APPROVED BY THE CITY TO BE REMOVED, OR WHEN A CERTIFICATE OF OCCUPANCY IS ISSUED.
- KEEP CLEAR ALL DEBRIS OR FILL, EQUIPMENT, AND MATERIAL FROM WITHIN THE REQUIRED PROTECTIVE BARRIER.
- DURING CONSTRUCTION, THE OWNER, DEVELOPER, OR AGENT SHALL NOT CAUSE OR PERMIT ANY ACTIVITY WITHIN THE FENCE LINE OF ANY PROTECTED TREE OR GROUP OF TREES, INCLUDING, BUT NOT LIMITED TO, THE STORAGE OF EQUIPMENT, DUMPSTERS, BOULDERS, DIRT, AND EXCAVATED MATERIAL, BUILDING OR WASTE MATERIAL, OR ANY OTHER MATERIAL HARMFUL TO THE LIFE OF A TREE.
- NO DAMAGING ATTACHMENT, WIRES (OTHER THAN CABLE WIRES FOR TREES), SIGNS, OR PERMITS MAY BE FASTENED TO ANY TREE PROTECTED BY THIS ORDINANCE.

TREE PROTECTION DETAIL



UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING FACILITIES ONLY, AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.

PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF THESE PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. DURING THE CONSTRUCTION, THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE ENCOUNTERED. (ALL COSTS FOR UTILITY LOCATION VERIFICATION, SUPPORT AND PROTECTION SHALL BE INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH THAT UTILITY).

DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

**3 WORKING DAYS BEFORE YOU DIG
CALL MISS DIG 811 TOLL FREE**

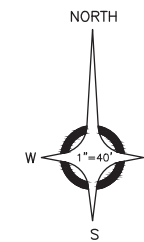


CREST Center
Addition and Renovations
Project Address:
2900 Featherstone Rd.
Auburn Hills, MI 48326

Key Plan

Project Administrator	V. Grant
Project Designer	J. Sala
Project Architect / Engineer	J. Sala
Drawn By	J. King
Q.M. Review	
Approved	J. Sala
Drawing Scale	

Issued for	Issue Date
Planning Commission Review	03-13-2026
Planning Commission Review	03-31-2026



LOCATION MAP
NOT TO SCALE

NOTES:

- ALL EVERGREEN TREES WILL BE PLANTED TOGETHER IN MULCH BEDS.
- TREES WILL HAVE TREE DIAPHERS.

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
TREES						
(Symbol)	AG	5	Amelanchier x grandiflora	Autumn Brilliance	2.5" Cal.	Multi-Stemmed
(Symbol)	CP	5	Celtis occidentalis	Hackberry	2.5" Cal.	B&B
(Symbol)	SI	5	gymnocladus dioicus	Kentucky Coffeetree	2.5" Cal.	B&B
(Symbol)	MG	5	Metasequoia glyptostroboides	Dawn Redwood	8' Ht.	B&B
(Symbol)	PC	5	Picea abies	Norway Spruce	8' Ht.	B&B
(Symbol)	PW	5	Pinus strobus	White Pine	8' Ht.	B&B
(Symbol)	QE	5	Quercus x 'Crimscmidt'	Crimson Spire™ Oak	2.5" Cal.	B&B
(Symbol)	TS	5	Taxodium distichum	Bald Cypress	8' Ht.	B&B
(Symbol)	PM	4	Thuja x 'Green Giant'	Green Giant Arborvitae	8' Ht.	B&B
(Symbol)	TD	5	Tilia americana	American Linden	2.5" Cal.	B&B
SHRUBS						
(Symbol)	CK	68	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	1 gal.	POT
(Symbol)	CT2	20	Coreopsis verticillata 'Grandiflora'	Threadleaf Tickseed	1 gal.	POT
(Symbol)	NW	115	Nepeta x faassenii 'Walker's Low'	Walker's Low Catmint	1 gal.	POT
(Symbol)	PH	140	Pennisetum alopecuroides 'Hameln'	Hameln Fountain Grass	1 gal.	POT
(Symbol)	SH	84	Sporobolus heterolepis	Prairie Dropseed	1 gal.	POT

TEMPORARY COVER CROP SEED MIX
15 pounds per acre Michigan Wildflower Farm

Scientific Name	Common Name	Oz./Acre
Anova sativa	Seed Oats	
Lolium multiflorum	Annual Rye	

DETENTION BASIN SEED MIX
6 pounds per acre Michigan Wildflower Farm

Scientific Name	Common Name	Oz./Acre
FORBS		
Anemone canadensis	Canada Anemone	38
Angelica atropurpurea	Angelica	
Asclepias incarnata	Swamp Milkweed	
Eupatorium maculatum	Joe-Pye Weed	
Eupatorium perfoliatum	Boneset	
Helenium autumnale	Sneezeweed	
Hibiscus moscheutosus	Swamp Rose Mallow	
Iris virginica	Southern Blue Flag	
Liatris spicata	Marsh Blazing Star	
Lobelia siphilitica	Great Blue Lobelia	
Rudbeckia fulgida	Sweet Black-eyed Susan	
Solidago graminifolia	Grass-leaved Goldenrod	
Symphoricarpon puniceum	Swamp Aster	
Verbena hastata	Blue Vervain	
Vernonia missouriica	Ironweed	

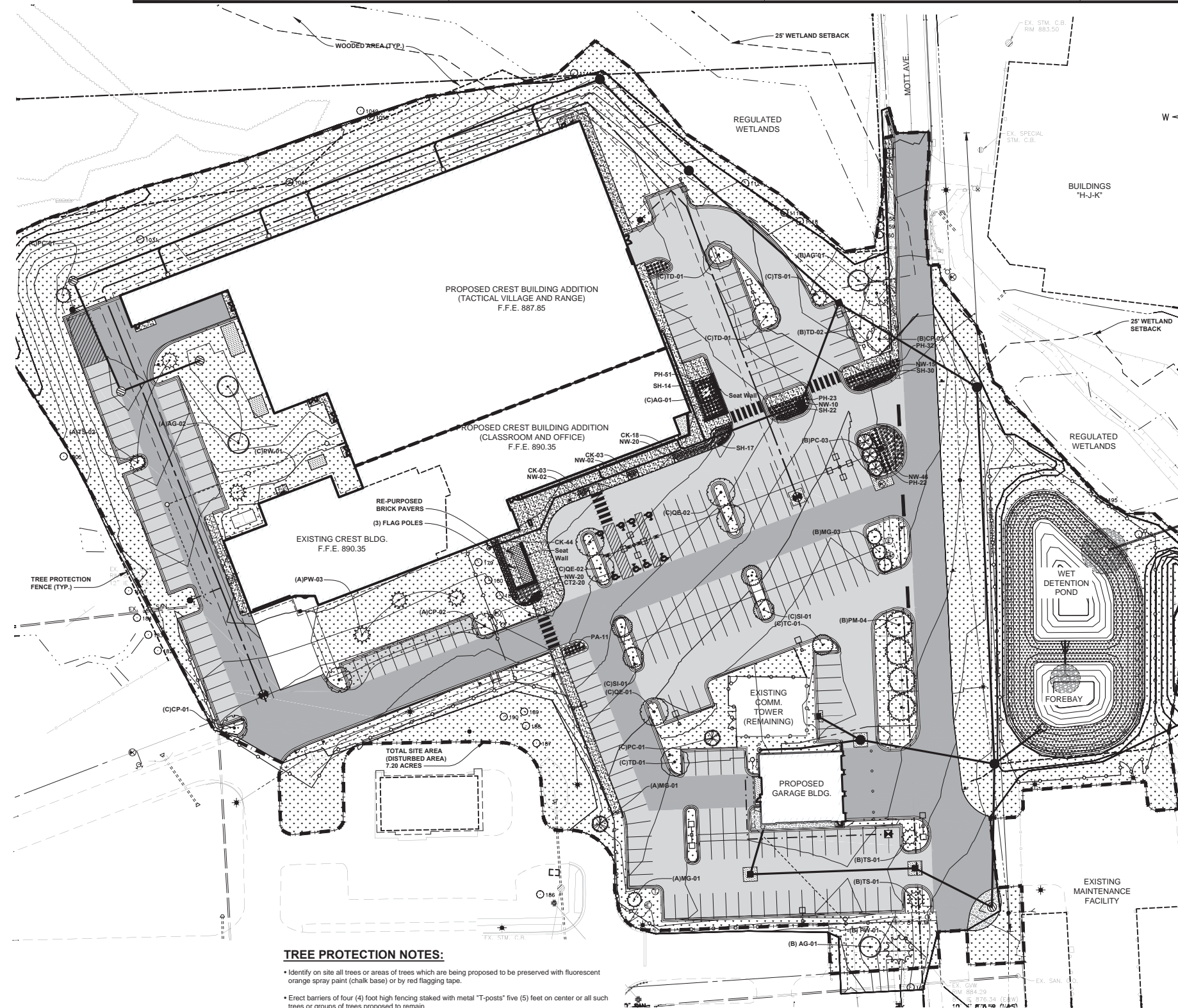
Scientific Name	Common Name	Oz./Acre
GRASSES		
Carex spp.	Carex species	58
Elymus virginicus	Virginia Wild Rye	
Scirpus spp.	Scirpus species	
Sparganium eurycarpum	Common Bur Reed	

LAWN SEED MIX NOTE:

- Rhino MDOT Highway Class A Grass Seed mix (per pound)
- 40% CREEPING RED FESCUE
- 30% PERENNIAL RYEGRASS
- 30% KENTUCKY BLUEGRASS
- Mixes 5-7 lbs. per 1,000 sq. ft.
- Premier grass seed for along roadways 6-7 lbs./1000 sq. ft.
- If overseeding, 2-3 lbs./1000 sq. ft.

LANDSCAPE/TREE REPLACEMENT NOTES:

- All installed trees are to have a straight trunk.
- All installed trees are to be northern grown.
- All installed trees are to be State Department of Agriculture Nursery Grade No. 1 or better.
- All replacement trees are considered protected regardless of size.
- All trees shall be guaranteed for a minimum of two years.
- All landscaped areas shall be irrigated with an underground sprinkler system



LANDSCAPE SUMMARY

Total Site Area (Disturbed Area)		7.20 acres
REQUIREMENT	REQUIRED	PROVIDED
Net Landscape Area	20% of Net Area, including 50% wetland area credit toward landscaping calculation: 7.20 acres x 0.2 = 1.44 acres	2.34 acres
Site Area Landscaping	1 tree (mix) / 1,000 s.f. required Landscape Area: 62,726 s.f. / 1,000 = 63 trees	2 trees (A)
Frontage Landscaping	1 tree (mix) / 30 l.f. of required Greenbelt length: 568 feet / 30 = 19 trees	19 trees (B)
Parking Interior Landscaping	1 tree (deciduous) / 20 spaces in a row: 233 spaces in a row = 12 trees	12 trees (C)
Total Landscape Trees Provided	49 trees	49 trees
Total Replacement Trees	174 trees Required total	125 trees needed
Trees Provided Campus Plan		125 trees provided

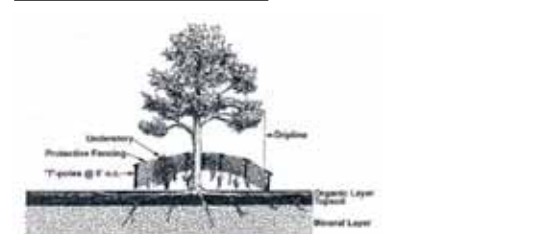
TREE REPLACEMENT SUMMARY

DESCRIPTION	SURVEYED TREES	REPLACEMENT TREES
Non-Regulated (Protected) Trees	42	0
Removed - Landmark Trees (93.5')	3	9
Removed - Regulated Trees	165	165
Saved Trees (Regulated)	28	0
Total	238	174

TREE PROTECTION NOTES:

- Identify on site all trees or areas of trees which are being proposed to be preserved with fluorescent orange spray paint (chalk base) or by red flagging tape.
- Erect barriers of four (4) foot high fencing staked with metal "T-posts" five (5) feet on center or all such trees or groups of trees proposed to remain
- Protective barriers are to be erected prior to any clearing or grubbing on the site, and barriers are to remain in tact until approved by the City to be removed, or when a Certificate of Occupancy is issued.
- Keep clear all debris or fill, equipment, and material from within the required protective barrier.
- During construction, the owner, developer, or agent shall not cause or permit any activity within the fence line of any protected tree or group of trees, including, but not limited to, the storage of equipment, dumpsters, boulders, dirt, and excavated material, building or waste material, or any other material harmful to the life of a tree.
- No damaging attachment, wires (other than cable wires for trees), signs, or permits may be fastened to any tree protected by this Ordinance.

TREE PROTECTION DETAIL:

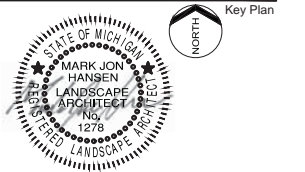


UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING FACILITIES ONLY, AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.

PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF THESE PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. DURING THE CONSTRUCTION, THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE ENCOUNTERED. ALL COSTS FOR UTILITY LOCATION VERIFICATION, SUPPORT AND PROTECTION SHALL BE INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH THAT UTILITY).

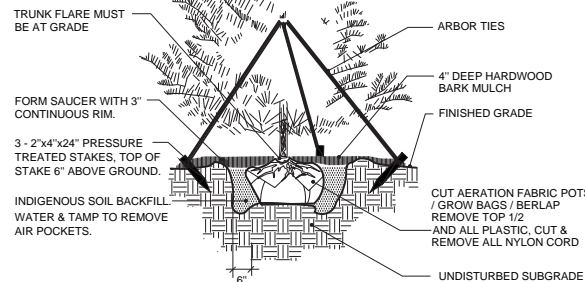
DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

**3 WORKING DAYS BEFORE YOU DIG
CALL MISS DIG 811 TOLL FREE**

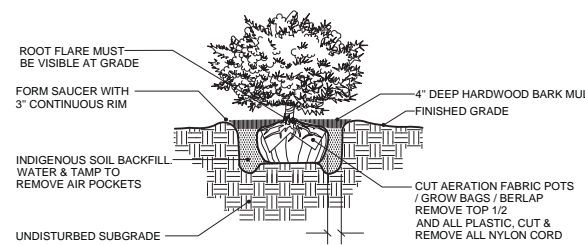


NOTES:

- PLANT SO THAT TOP OF ROOT BALL IS EVEN WITH THE FINISHED GRADE.
- DO NOT MULCH OVER THE ROOT FLARE.
- FLAG STAYS WITH SURVEYOR TAPE, ONE PER STAY.



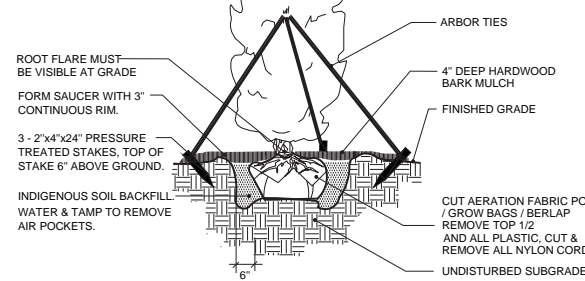
EVERGREEN TREE PLANT DETAIL
NO SCALE



SHRUBS PLANTING DETAIL
NO SCALE

NOTES:

- PLANT SO THAT TOP OF ROOT BALL IS EVEN WITH THE FINISHED GRADE.
- DO NOT MULCH OVER THE ROOT FLARE.
- ONLY STAKE IF IN WINDY AREA
- ONLY STAKE IF IN WINDY AREA



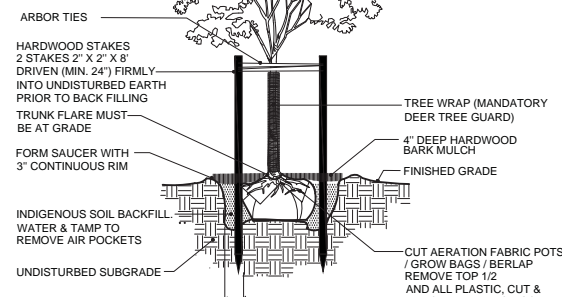
EVERGREEN HEDGE PLANTING DETAIL
NO SCALE

ANTI-DESICCANT SPRAY GUIDE:

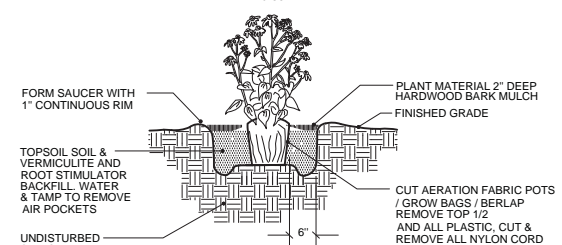
- SPRAY IN LATE NOVEMBER OR EARLY DECEMBER AFTER EVERGREENS HAVE GONE DORMANT.
- MONITOR THE FORECAST FOR RAIN. YOU DON'T WANT TO SPRAY ANTI-DESICCANTS BEFORE IT RAINS.
- SPRAY ON A CLEAR DAY WITH TEMPERATURES ABOVE FREEZING, AROUND THE 40S OR 50S.
- COVER LEAVES THOROUGHLY WITH THE ANTI-DESICCANT SPRAY.

NOTES:

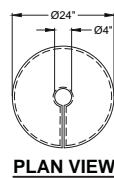
- PLANT SO THAT TOP OF ROOT BALL IS EVEN WITH THE FINISHED GRADE.
- DO NOT MULCH OVER THE ROOT FLARE.
- STAKE ABOVE FIRST BRANCHES OR AS NECESSARY FOR FIRM SUPPORT



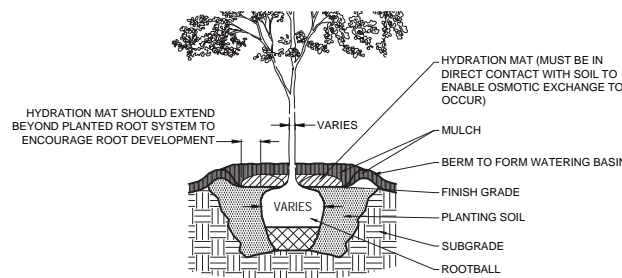
DECIDUOUS TREE PLANT DETAIL
NO SCALE



PERENNIAL PLANTING DETAIL
NO SCALE



PLAN VIEW



SECTION VIEW
TYPICAL INSTALL

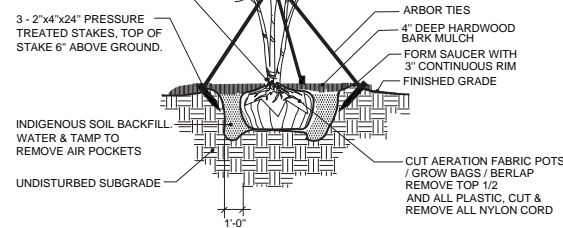
NOTES:

- ALWAYS PLACE THE MAT WITH THE DARKER BLACK WOVEN SIDE FACING UP.
- DO NOT PLACE ANY SOIL, DIRT, FINE SAND, COMPOST, IRON-BASED STAKES, OR TOMATO CAGES ON TOP OF TREEDIAPER® PRODUCT.
- DIRECT CONTACT OF SOME TYPES OF FERTILIZERS WITH THE MATERIAL IN USE OR IN STORAGE MAY ALSO TEMPORARILY OR PERMANENTLY AFFECT THE PERFORMANCE OF THE PRODUCT.
- DO NOT POKE TREEDIAPER PRODUCTS WITH STICKS.
- TREEDIAPER IS DESIGNED TO HAVE LIGHT TO MEDIUM MULCH TO COVER UNIT AFTER INSTALLATION OF TREE.
- INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

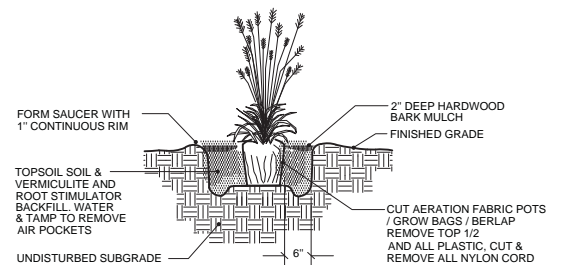
TREE DIAPER DETAIL
NO SCALE

NOTES:

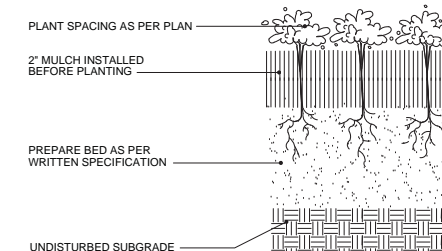
- PLANT SO THAT TOP OF ROOT BALL IS EVEN WITH THE FINISHED GRADE.
- DO NOT MULCH OVER THE ROOT FLARE.
- TRUNK FLARE MUST BE VISIBLE AT GRADE



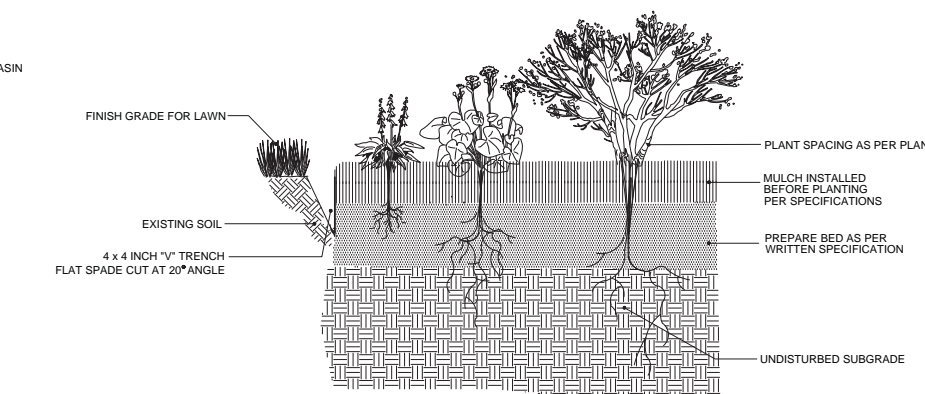
MULTI-STEM TREE PLANT DETAIL
NO SCALE



ORNAMENTAL GRASS PLANTING DETAIL
NO SCALE



GROUNDCOVER PLANTING DETAIL
NO SCALE



LANDSCAPE BED TYP. EDGING DETAIL
NO SCALE

GENERAL LANDSCAPE NOTES:

- CONTRACTOR SHALL SUBMIT PLANT AND SEED MIX MATERIALS LIST TO OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION. ANY SUBSTITUTIONS OF PLANT MATERIAL OR ALTERATION IN PLANT SIZES OR SPECIFICATION TO BE APPROVED BY THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL SUBMIT STONE AND MULCH MATERIAL SAMPLES TO OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION.
- ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF LOCAL ORDINANCES.
- INSTALLATION OF PLANT MATERIAL SHALL BE IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK.
- ALL CONSTRUCTION AND PLANT MATERIAL LOCATION SHALL BE ADJUSTED ON SITE IF NECESSARY AS APPROVED BY THE OWNER'S REPRESENTATIVE.
- ALL PLANTING AREAS SHALL BE FREE OF WEEDS, PREPARED WITH APPROPRIATE SOIL MIXTURES, AND FERTILIZED PRIOR TO PLANT INSTALLATION.
- PROVIDE CLEAN BACKFILL SOIL, USING MATERIAL STOCKPILED ON SITE. SOIL SHALL BE SCREENED AND FREE OF ANY DEBRIS, FOREIGN MATERIAL, AND STONE.
- PLANTS SHALL BE FULL, WELL-BRANCHED, AND IN HEALTHY VIGOROUS GROWING CONDITION FREE OF DISEASE AND INSECTS OR THEIR EGGS.
- REMOVE ALL TWINE, WIRE, AND BURLAP FROM TREE AND SHRUB EARTH BALLS, AND FROM TREE TRUNKS.
- DIG SHRUB PITS 1' LARGER THAN SHRUB ROOT BALLS AND TREE PITS 2' LARGER THAN ROOT BALL. BACK FILL WITH ONE PART TOP SOIL AND ONE PART SOIL FROM EXCAVATED PLANTING HOLE.
- TRUNK FLARE OF ALL WOODY MATERIAL SHALL BE EXPOSED.
- PLANT MATERIAL, ESPECIALLY EVERGREENS, SHALL BE PLANTED HIGHER THAN NORMAL WHEN HEAVY SOIL CONDITIONS (CLAY, ETC.) PREVAIL.
- PLANTS SHALL BE WATERED BEFORE AND AFTER PLANTING IS COMPLETE.
- ALL LARGE TREES AND EVERGREENS SHALL BE STAKED, GUYED, AND WRAPPED PER DETAILS SHOWN ON PLAN.
- NO TREES OR EVERGREENS SHALL BE INSTALLED OVER ANY PROPOSED OR EXISTING UTILITY LINES AS SHOWN ON THE OVERALL LANDSCAPE PLAN. SEE UTILITY PLAN FOR EXACT LOCATION AND DETAILS.
- ALL PLANT BEDS SHALL BE DRESSED WITH MINIMUM 4" DEPTH ORGANIC DOUBLE SHREDDED HARDWOOD MULCH.
- DETENTION BASIN SEED MIX AREA SHALL INCLUDE TEMPORARY COVER CROP SEED MIX.

UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING FACILITIES ONLY, AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.

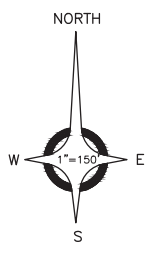
PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF THESE PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. DURING THE CONSTRUCTION, THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE ENCOUNTERED. (ALL COSTS FOR UTILITY LOCATION VERIFICATION, SUPPORT AND PROTECTION SHALL BE INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH THAT UTILITY).

DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

3 WORKING DAYS BEFORE YOU DIG
CALL MISS DIG 811 TOLL FREE



LOCATION MAP
NOT TO SCALE



INTEGRATED design SOLUTIONS
architecture engineering interiors & technology
1441 West Long Lake, Suite 200
Troy, Michigan 48098
5211 Cascade Road SE, Suite 300
Grand Rapids, Michigan 49546
248.823.2100
www.ids-michigan.com

CONSTRUCTION MANAGER
BARTON MALOW
26500 American Drive
Southfield, Michigan 48034
248.436.5000
www.bartonmalow.com

STRUCTURAL ENGINEER
STRUCTURAL DESIGN INCORPORATED
275 East Liberty Street
Ann Arbor, Michigan 48104
734.213.6091
www.sdistructures.com

CIVIL ENGINEER
ANDERSON, ECKSTEIN & WESTRICK, INC
51301 Schienherr Rd.,
Shelby Township, Michigan 48315
586.726.1234
www.aewinc.com

RANGE DESIGN CONSULTANT
ACTION TARGET
3411 Mountain Vista Pkwy
Provo, UT 84606
801.396.1226
www.actiontarget.com

Project Title



Oakland Community College

CREST Center Addition and Renovations

Project Address:
2900 Featherstone Rd.
Auburn Hills, MI 48326

Key Plan



Project Administrator
V. Grant

Project Designer
J. Sala

Project Architect / Engineer
J. Sala

Drawn By
J. King

Q.M. Review

Approved
J. Sala

Drawing Scale
1" = 150'

Issued for
Planning Commission Review

Issue Date
03-13-2026

© 2025 ANDERSON, ECKSTEIN AND WESTRICK, INC
AEW Drawing Title

Campus Landscape Plan for Replacement Trees

AEW PROJECT NUMBER
0369-0085
Project Number
23118-1000
OCC PROJECT NUMBER
AH-23-013
Drawing Number
C0.50

LANDSCAPE SUMMARY

REQUIREMENT	REQUIRED	PROVIDED	7.20 acres
Total Site Area (Disturbed Area)			7.20 acres
Net Landscape Area	20% of Net Area, including 50% wetland area credit toward landscaping calculation: 7.20 acres x 0.2 = 1.44 acres	2.34 acres	
Site Area Landscaping	1 tree (mix) / 1,000 s.f. required Landscape Area: 62,726 s.f. / 1,000 = 63 trees	2 trees (A)	
Frontage Landscaping	1 tree (mix) / 30 l.f. of required Greenbelt length: 568 feet / 30 = 19 trees	19 trees (B)	
Parking Interior Landscaping	1 tree (deciduous) / 20 spaces in a row: 233 spaces in a row = 12 trees	12 trees (C)	
Total Landscape Trees Provided		49 trees	
Total Replacement Trees	174 trees Required total	125 trees needed	
Trees Provided Campus Plan		125 trees provided	

TREE REPLACEMENT SUMMARY

DESCRIPTION	SURVEYED TREES	REPLACEMENT TREES
Non-Regulated (Protected) Trees	35	0
Removed - Landmark Trees (93.5')	3	9
Removed - Regulated Trees	165	165
Saved Trees (Regulated)	11	0
Total	206	174

NOTES:
1. ALL EVERGREEN TREES WILL BE PLANTED TOGETHER IN MULCH BEDS.
2. TREES WILL HAVE TREE DIAPERS.

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
TREES						
	AG	11	Amelanchier x grandiflora	Autumn Brilliance	2.5' Cal.	Multi-Stemmed
	CP	12	Celtis occidentalis	Hackberry	2.5' Cal.	B&B
	SI	12	gymnocladus dioicus	Kentucky Coffeetree	2.5' Cal.	B&B
	MG	11	Metasequoia glyptostroboides	Dawn Redwood	8' HL.	B&B
	PC	11	Picea abies	Norway Spruce	8' HL.	B&B
	PW	12	Pinus strobus	White Pine	8' HL.	B&B
	QB	10	Quercus bicolor	Swamp White Oak	2.5' Cal.	B&B
	QE	12	Quercus x 'Crimschmidt'	Crimson Spire™ Oak	2.5' Cal.	B&B
	TS	12	Taxodium distichum	Bald Cypress	8' HL.	B&B
	PM	11	Thuja x 'Green Giant'	Green Giant Arborvitae	8' HL.	B&B
	TD	11	Tilia americana	American Linden	2.5' Cal.	B&B

10/18/2023 3:35:30 PM LAYOUT: Mark4

UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING FACILITIES ONLY, AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.
PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF THESE PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. DURING THE CONSTRUCTION, THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE ENCOUNTERED. ALL COSTS FOR UTILITY LOCATION VERIFICATION, SUPPORT AND PROTECTION SHALL BE INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH THAT UTILITY).
DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.
3 WORKING DAYS BEFORE YOU DIG
CALL MISS DIG 811 TOLL FREE

CONSTRUCTION MANAGER

BARTON MLOW
26500 Americal Drive
Southfield, MI 48034
248.431.5000
www.bartonmlow.com

STRUCTURAL ENGINEER

STRUCTURAL DESIGN INCORPORATED
375 E LIBERTY ST
ANN ARBOR, MICHIGAN 48104
734.231.6091
www.sdstructures.com

CIVIL ENGINEER

ANDERSON, ECKSTEIN & WESTRICK, INC.
81301 Springbush Road
Shelby Township, MI 48315-2733
586.728.1234
www.aewtrc.com

RANGE DESIGN CONSULTANT

ACTION TARGET
3411 Mountain Vista Pkwy,
Provo, UT 84606
801.394.1226
www.actiontarget.com



Oakland Community College

CREST Center Renovation and Addition

2900 Featherstone Road,
Auburn Hills, MI 48326

Key Plan

Project Administrator

V Grant

Project Designer

K. Asterink

Project Architect / Designer

K. Reynolds

Drawn By

K. Reynolds

Q.M. Review

N. LaForest/C. Alick

Approved

B. Sundberg

Drawing Scale

AsNoted

Issued for

Issue Date

Design Development 12-11-2024

Quality Management Review 04-11-2025

Bids 10-21-2025

Planning Commission Review 03-11-2026

BUILDING INFORMATION - CREST

MEAN USE AND OCCUPANCY NONDEPARTMENTS

Type of Construction	Steel Reinforced Concrete	MBC 18	NFPA 100
Occupancy Group	Other	NA	NA
Total Allowable Area - Unlimited Area Building (UBI)		UNLIMITED	30% story
Project Floor Area	Existing: 10,773 SF Proposed: 46,100 SF Mechanical: 1,210 SF Disaster Relief: 0 SF Subtotal: 10,773 SF	Level 2 Elevator: 4,187 SF Level 3 Elevator: 4,187 SF	Total: 50,821 SF 7,313 SF 461 SF 15,784 SF
Table: Minimum Building Height (MBC Table 504.2) Table: Story Limitations (MBC Table 504.4)		MBC 70 Feet 7 Stories above grade plane	
Project Building Height		70 Feet	
Project Number of Stories above grade plane		7 Stories above grade plane	

LIFE SAFETY SYSTEMS

High-Rise Building

Applicability	Yes
Area 4, 5, 6, 7 or 8 High-Rise	No
MBC Section 907.1	
Lowest Level of Fire Department Vehicle Access	0.00 feet
Highest Occupiable Floor	0.00 feet
Fire Protection System Requirements	Full
Automatic Sprinkler Systems	None
MBC Section 903	
NFPA - See Occupancy Chapter 8.17.1	
Standpipe Systems	Not Required
MBC Section 905	
NFPA - See Occupancy Chapter 8.17.4	
Fire Pumps	Not Required
Fire Hazard Occupancy	Light (Low)
	Ordinary (Moderate)
	Extra (High)
Portable Fire Extinguishers	Required
MBC Section 906	
ICC Section 906	
NFPA - See Occupancy Chapter 8.17.4	
Special Hazard Areas Only	
Fire Alarm and Detection System	Required
Manual Fire Alarm System	Not Required
MBC Section 907	
NFPA - See Occupancy Chapter 8.17.6	
Emergency Visual Alarm Communication System	Required
MBC Section 907.2.1.1	
MBC Section 907.2.2	

FIRE RATINGS AND SEPARATIONS

Primary Structural Frame	MBC 5	1 hr	MBC 5	1 hr	NFPA 220/NFPA 500 7.2.1.1
Bearing Walls	0	1 hr	0	1 hr	MBC 501
Interior	0	1 hr	0	1 hr	MBC 501
Nonbearing Walls and Partitions	0	1 hr	0	1 hr	MBC 501
Interior	0	1 hr	0	1 hr	MBC 501
Exterior	0	1 hr	0	1 hr	MBC 501
10' Fire Separation Distance	0	1 hr	0	1 hr	MBC 501
Floor Construction and Associated Secondary Members	0	1 hr	0	1 hr	MBC 501
Roof Construction and Associated Secondary Members	0	1 hr	0	1 hr	MBC 501
Separation of Occupancies	NA	1 hr	NA	1 hr	See Occupancy Chapter
Allowable Area Separations (Fire Walls)	2	1 hr	NA	1 hr	Section 8.17.3
Fire Area Separations (Fire Barriers)	2	1 hr	NA	1 hr	Section 8.17.3
Corridors (Fire Partitions)	NA	1 hr	NA	1 hr	See Occupancy Chapter
Smoke Compartments (Smoke Barriers)	1	1 hr	1	1 hr	Section 8.4
Incidental Use Areas	MBC Section 508		NFPA See Occupancy Chapter		
Furnace Room	Sprinklered or Sprinklered or	1	1	1	1
Boiler Room	Sprinklered or	1	1	1	1
Refrigerant Machinery Room	Sprinklered or	1	1	1	1
Hydrogen Cooled Room	Sprinklered AND	2	2	2	2
Incinerator Room	Sprinklered AND	2	2	2	2
Plant Shops	Sprinkled 1 Hr or	1	1	1	1
Laboratories and Vocational Shops	Sprinkled or	1	1	1	1
Laundry Room >100sf	Sprinkled or	1	1	1	1
Waste and Linen Collection Room	Sprinkled or	1	1	1	1
Stationary storage battery systems	Sprinkled or	2	2	2	2

INTERIOR FINISH REQUIREMENTS

Interior Wall and Ceiling Finish Requirements	MBC Table 901.11	NFPA 101, 103.3
Interior and stairways, ramps and passageways	B	A
Corridors and exit access stairways and ramps	S	B
Plenums and Enclosed Spaces	C	C
Interior Floor Finish Requirements	MBC Section 904	NFPA See Occupancy Chapter
	Class II	ASTM D 2599

MEANS OF EGRESS

Assembly Occupancy (Sprinklered)	MBC 100	1 hr	NFPA 100	100	1 hr	MPCES
Exit Access Travel Distance	75	1 hr	75	1 hr	75	1 hr
Common Path of Egress Travel	20	1 hr	20	1 hr	20	1 hr
Dead End Corridor	NA	1 hr	NA	1 hr	NA	1 hr
Business Occupancy (Sprinklered)	MBC 100	1 hr	NFPA 100	100	1 hr	MPCES
Exit Access Travel Distance	75	1 hr	75	1 hr	75	1 hr
Common Path of Egress Travel	20	1 hr	20	1 hr	20	1 hr
Dead End Corridor	NA	1 hr	NA	1 hr	NA	1 hr
Storage Occupancy	MBC 100	1 hr	NFPA 100	100	1 hr	MPCES
Exit Access Travel Distance	75	1 hr	75	1 hr	75	1 hr
Common Path of Egress Travel	20	1 hr	20	1 hr	20	1 hr
Dead End Corridor	NA	1 hr	NA	1 hr	NA	1 hr
Egress with per occupant	MBC 1.1	1 hr	NFPA 1.1	1 hr	1.1	1 hr
Stairways	1.1	1 hr	1.1	1 hr	1.1	1 hr
Other Egress Components	1.1	1 hr	1.1	1 hr	1.1	1 hr
Maximum Floor Area Allowances for Occupant	MBC 100	1 hr	NFPA 100	100	1 hr	MPCES
Accessory storage areas, mechanical equipment	NA	1 hr	NA	1 hr	NA	1 hr
Boiling Center (Range Area)	7	1 hr	7	1 hr	7	1 hr
Business areas	100	1 hr	100	1 hr	100	1 hr
Locker Rooms	100	1 hr	100	1 hr	100	1 hr
Exercise Rooms	100	1 hr	100	1 hr	100	1 hr
Parking Garages	200	1 hr	NA	1 hr	NA	1 hr
Assembly (Unconventional)	15	1 hr	NA	1 hr	NA	1 hr
Table: Occupant Loads						
First Floor	678					
Total	678					

PLUMBING FIXTURE REQUIREMENTS

Exit Egress Capacity	Quantity	Width	MBC Capacity	NFPA Capacity
First Floor	Stairs: 1, 2	44"	1,000	1,000
	Stairs: 1, 2	44"	0	0
	Total		1,000	1,000
First Floor	Men: 1 per 120	Women: 1 per 65	Men: 1 per 200	Women: 1 per 120
Business Occupancy	Men: 1 per 120 for first 50 then 1 per 55	Women: 1 per 40 for first 50 then 1 per 80	Men: 0.63	Women: 0.63
Total Occupancy	Men: 3.88	Women: 5.84	Men: 2.26	Women: 2.26
Total Required Fixtures	Men: 4	Women: 6	Men: 3	Women: 3
Total Building Occupancy and Related Fixtures	Men: 4	Women: 6	Men: 3	Women: 3
Proposed Fixtures	Men: 4	Women: 6	Men: 3	Women: 3

CODE INFORMATION

APPLICABLE CONSTRUCTION CODES AND STANDARDS

Jurisdiction Authority	Michigan Bureau of Construction Codes (BCC)	Year	2021	Enacting Agency	AH
	Michigan Bureau of Fire Services (BFS)		2016		BFS
	Local: Auburn Hills				
	Other:				
Zoning Ordinance	Municipality: Auburn Hills				
	Classification: Technology & Research				
Building Codes	Michigan Building Code (MBC)				
	Michigan Rehabilitation Code for Existing Buildings (MRCB)				
	Fire Safety Rules to Schools, Colleges and Universities				
	NFPA 101 2012 Edition				
Barrier Free	Michigan Barrier Free Code (A117.1)		2017		AH
	Uniform Federal Accessibility Standards				
	Americans with Disabilities Act				
Structural	Michigan Building Code		2021		AH
Mechanical	Michigan Mechanical Code		2021		AH
Plumbing	Michigan Plumbing Code		2021		AH
Fire Protection	NFPA 13, Sprinkler Systems		2019		BFS
Electrical	Michigan Electrical Code		2023		AH
Fire Alarm	NFPA 72, National Fire Alarm Code		2019		BFS

BUILDING INFORMATION - GARAGE

TABLE USE AND OCCUPANCY

Type of Construction	MBC 1B	MFR	1.0000
Occupancy Group	3.0		
Tower Building Area (MBC Table 508.2.1.1)	10,000 SF		
Non-sprinkled Fully Systemed	17,000 SF		
Project Floor Area			
Floor Plate	0 SF	2,000 SF	2,000 SF
Sub-area	0 SF	2,000 SF	2,000 SF
Tower Minimum Building Height (MBC Table 508.2.1.2)	10' 0"		
Tower Story Limitation (MBC Table 508.4)	1		
Project Building Height			
Project Number of Stories above grade plane			

LEGEND

LIFE SAFETY
NOTE: NOT ALL SYMBOLS MAY BE USED

EXIT	EXIT CAPACITY / TABULAR OCCUPANT LOAD
000000	1-HR FIRE-RATED PARTITION
----	3-HR FIRE-RATED PARTITION
----	3-HR FIRE-RATED PARTITION
----	SMOKE TIGHT PARTITION
----	1-HR FIRE RATED CEILING CONSTRUCTION
----	TACTICAL VILLAGE EXTENTS - TOTAL OCCUPANTS INCLUDED IN ROOM 20
FE	FIRE EXTINGUISHER CABINET
FE	BRACKET MOUNTED FIRE EXTINGUISHER



INTEGRATED design SOLUTIONS
architecture engineering interiors & technology
1441 west long lake, suite 200
troy, michigan 48068
5211 cascade road SE, suite 300
grand rapids, michigan 49546
248.821.2100
www.ids-michigan.com

CONSTRUCTION MANAGER
BARTON MLOW
26500 Americal Drive
Southfield, MI 48034
248.431.5000
www.bartonmalow.com

STRUCTURAL ENGINEER
STRUCTURAL DESIGN INCORPORATED
375 E LIBERTY ST
ANN ARBOR, MICHIGAN 48104
734.231.6091
www.sdstructures.com

CIVIL ENGINEER
ANDERSON, ECKSTEIN & WESTRICK, INC.
31301 Somerset Road
Shelby Township, MI 48315-2733
586.728.1234
www.aewtrc.com

RANGE DESIGN CONSULTANT
ACTION TARGET
3411 Mountain Vista Pkwy.
Provo, UT 84606
801.398.1226
www.actiontarget.com



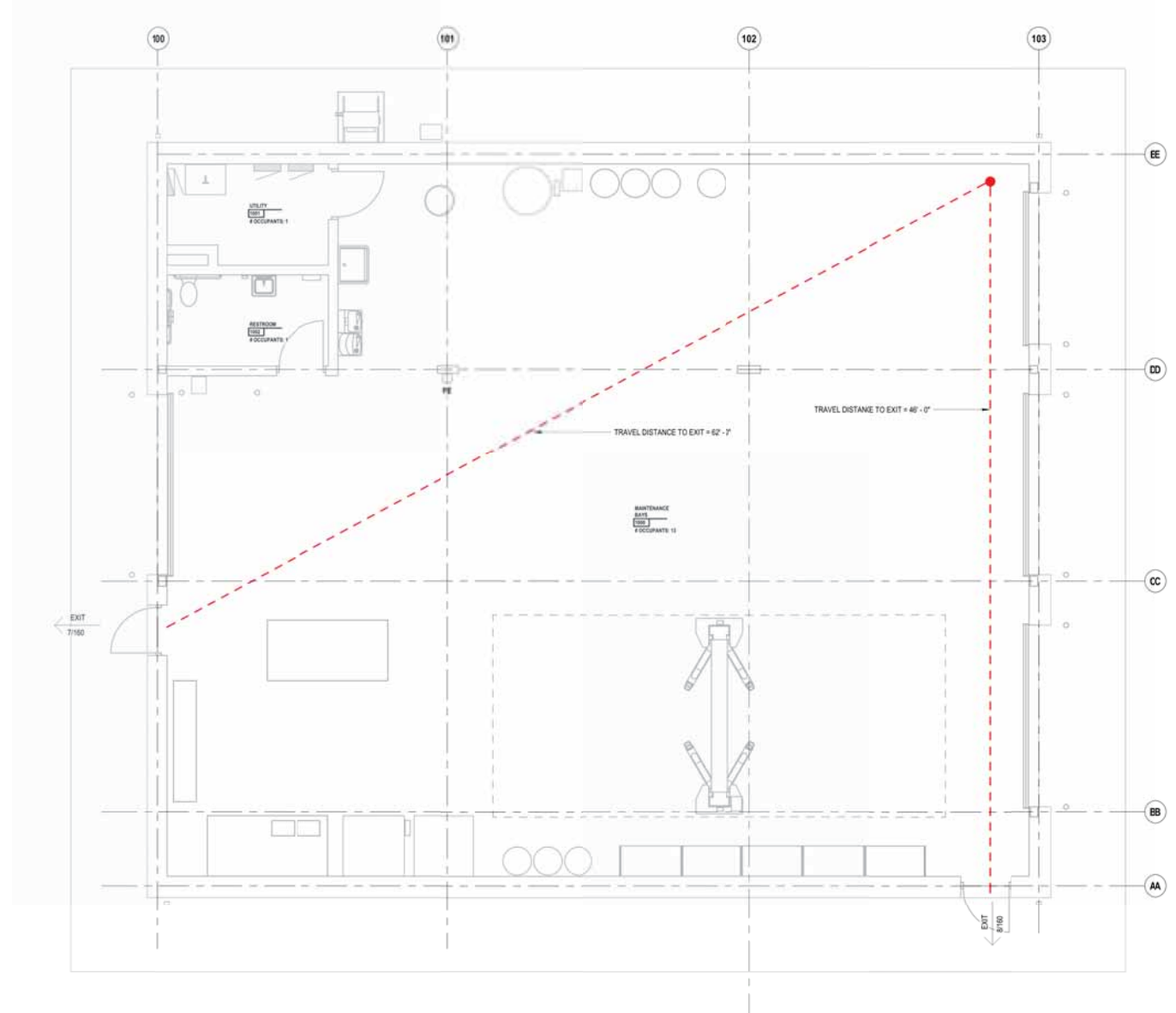
CREST Center Renovation and Addition
2900 Featherstone Road,
Auburn Hills, MI 48326



Project Administrator	V Grant
Project Inspector	K. Aslerink
Project Architect / Engineer	K. Reynolds
Drawn By	K. Reynolds
Q.M. Review	G.M. Review
Approved	N. LaForest/C. Alick
Approved	B. Sundberg
Drawing Scale	1/4" = 1'-0"
Issued for	Issue Date
Design Development	12-1-2024
Quality Management Review	04-1-2025
Bids	10-2-2025
Planning Commission Review	03-1-2026

© 2025 INTEGRATED design SOLUTIONS, LLC
IDS Drawing Title

Maintenance Garage Life Safety Plan



3/12/2025 10:37:24 AM - Autodesk Docs | Oakland Community College | 23118-1000-CC | AH23-013

101 Project Number
23118-1000
OCC Project Number
AH23-013

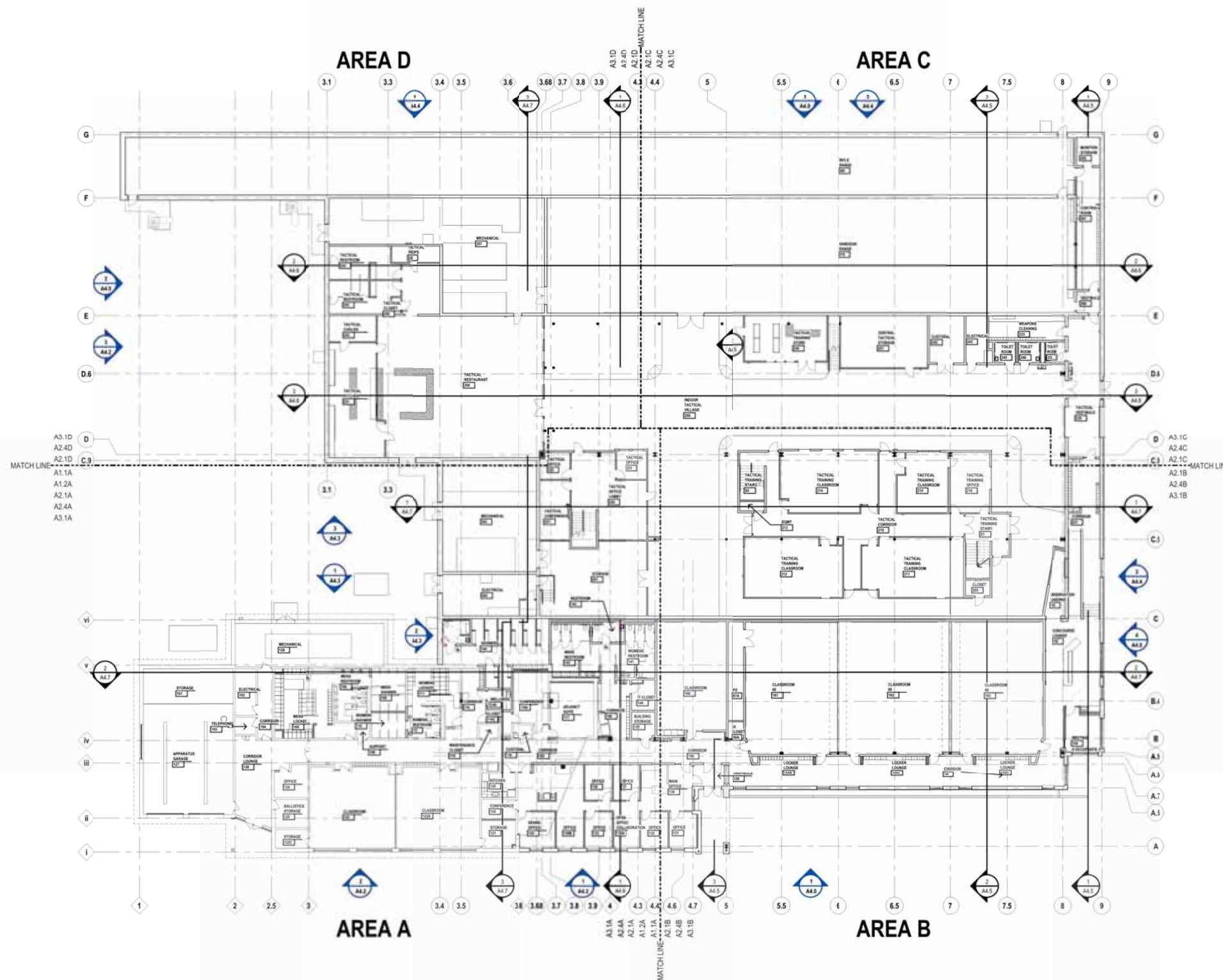
Drawing Number
LS0.4



CREST Center Renovation and Addition
 2900 Featherstone Road,
 Auburn Hills, MI 48326

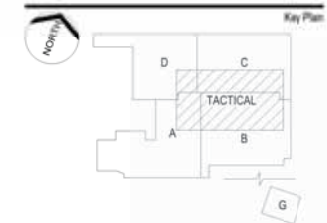


Project Administrator	V Grant
Project Designer	K. Aslerink
Project Architect / Engineer	K. Reynolds
Drawn By	K. Reynolds
Q.M. Review	G.M. Review
Approved	N. LaForest/C. Allick
Checked	B. Sundberg
Drawing Scale	1/16" = 1'-0"
Issued for	Issue Date
Design Development	12-1-2024
Quality Management Review	04-1-2025
Bids	10-2-2025
Planning Commission Review	03-1-2026

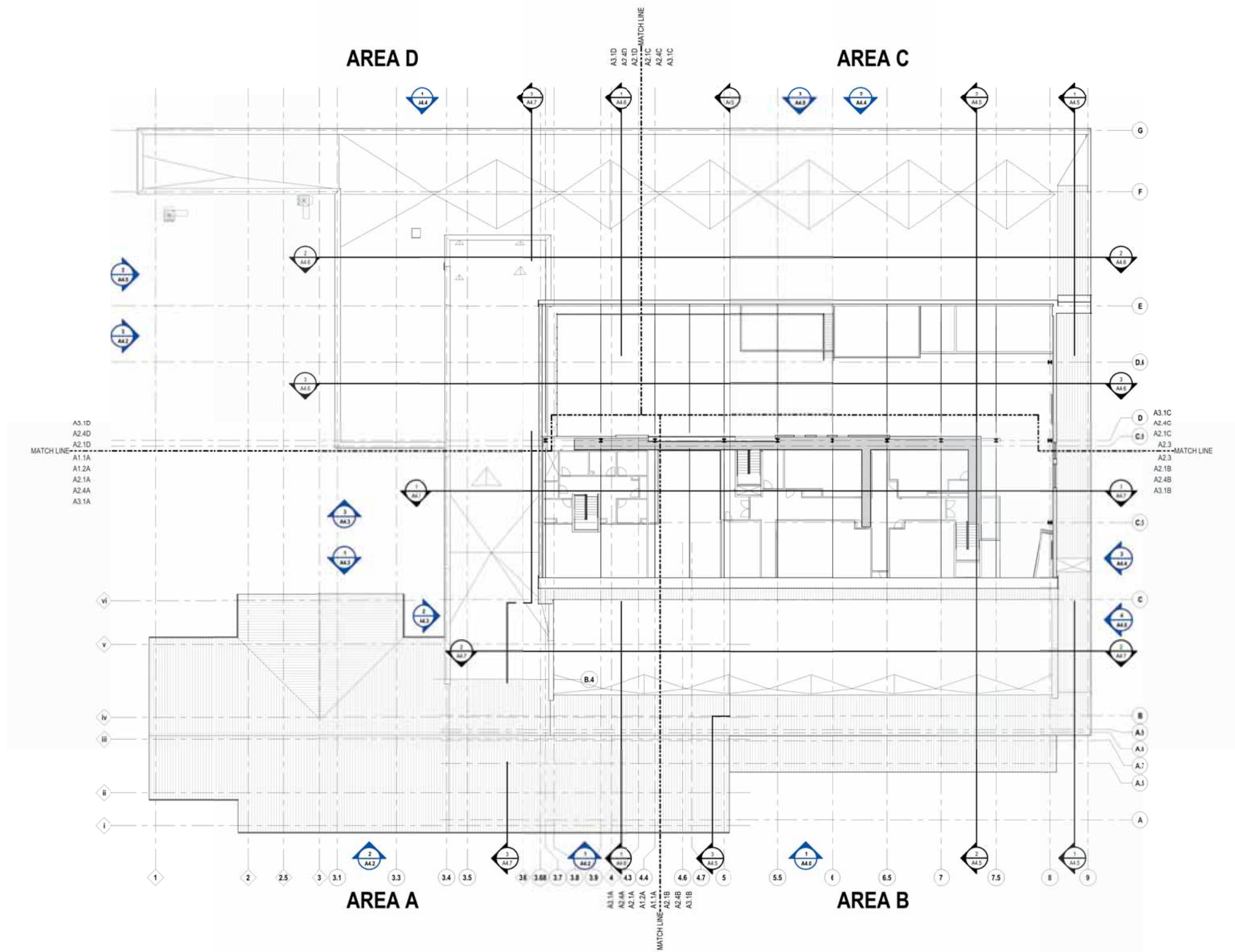


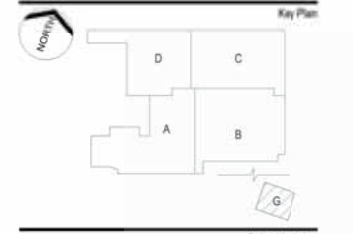


CREST Center Renovation and Addition
 2900 Featherstone Road,
 Auburn Hills, MI 48326



Project Administrator	V Grant
Project Designer	K. Aslerink
Project Architect / Engineer	K. Reynolds
Drawn By	G.M. Review
Approved	N. LaForest/C. Allick
Drawn By	B. Sundberg
Drawing Scale	1/16" = 1'-0"
Issued for	Issue Date
Design Development	12-1-2024
Quality Management Review	04-1-2025
Bids	10-2-2025
Planning Commission Review	03-1-2026





Project Administrator	V. Grant
Project Designer	K. Asterink
Project Architect / Engineer	K. Reynolds
Drawn By	K. Reynolds
Q.M. Review	G.M. Review
Approved	N. LaForest/C. Allick
Drawn Scale	B. Sunberg
AsNoted	AsNoted
Issued for	Issue Date
Design Development	12-11-2024
Quality Management Review	04-11-2025
Bids	10-21-2025
Planning Commission Review	03-11-2026

GENERAL NOTES

- NEW WORK PLAN**
- REFER TO SHEET A02 FOR DOOR SCHEDULE AND COLORS.
 - REFER TO SHEET A01 FOR FINISH SCHEDULE AND COLORS.
 - REFER TO LIFE SAFETY PLANS FOR PARTITION RATINGS.
 - PARTIAL WALL POCHING IS SHOWN THROUGHOUT THIS PLAN AND THE TERMINATION OF SAME SHALL NOT BE CONSTRUED TO REPRESENT A CHANGE IN WALL MATERIAL. VERIFY WALL MATERIALS WITH PARTITION TYPES AND SCHEDULES.
 - PATCH AND/OR REPAIR ALL EXISTING FLOOR, WALL AND/OR CEILING FINISHES AS REQUIRED TO MATCH EXISTING OR TO ACCEPT NEW FINISHES AS SCHEDULED AT ALL AREAS AFFECTED BY THE DEMOLITION WORK. REFER TO MECHANICAL AND ELECTRICAL SHEETS FOR ADDITIONAL SCOPE OF WORK.
 - INFILL ALL OPENINGS IN EXISTING WALLS ABOVE CEILING THAT ARE THE RESULT OF MECHANICAL OR ELECTRICAL DEMOLITION. OPENINGS IN MASONRY WALLS SHALL BE FILLED WITH MASONRY OF SIMILAR TYPES AND THICKNESS AS EXISTING. OPENINGS IN OTHER TYPES OF WALL CONSTRUCTION SHALL MATCH EXISTING MATERIALS, FINISHES AND WALL THICKNESS. REFER TO MECHANICAL AND ELECTRICAL SHEETS FOR SCOPE OF WORK.
 - PROVIDE POSITIVE SLOPE TO ALL FLOOR DRAINS WHILE KEEPING FLOOR LEVEL AT WALL BASE.
 - COORDINATE SIZE AND LOCATION OF ALL ACCESS DOORS WITH TRADES REQUIRING SAME. QUANTITIES SHOWN DO NOT NECESSARILY REPRESENT ALL ACCESS DOORS REQUIRED FOR ACCESSIBILITY.

LEGEND

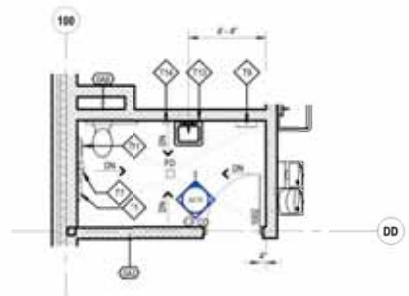
- NEW WORK PLAN**
NOTE: NOT ALL SYMBOLS MAY BE USED
- EXISTING CONSTRUCTION**
- NEW CONSTRUCTION**
- PARTITION TYPE - REFER TO PARTITION DETAILS SHEET A04
 - SHALL COMPLY WITH BARRIER FREE REQUIREMENTS
 - XXXX CASEWORK/ MILLWORK TAG
 - XXXX SIGN NUMBER - NOT UMB
 - XXXX 10 150 VISUAL DISPLAY SURFACE MxM MARKERBOARD, TV-TACKBOARD XXXX INDICATES BOARD SIZE
 - XXXX NOT UMB
 - WT-1 12 2413 ROLLER WINDOW SHADE
 - L CORNER GIMBD

KEYNOTES

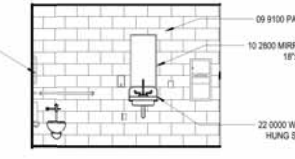
- NEW WORK FLOOR PLAN**
SHADED ITEMS HAVE BEEN REVISED FROM PREVIOUS NOTE: NOT ALL KEYNOTES MAY BE USED
- LEGEND SYMBOL INDICATOR
- A4 APPROXIMATE LOCATION OF EXISTING SLAB EDGE - VIF
 - A5 CLERESTORY WINDOWS ABOVE - SILL HEIGHT 7'-4" AFF
 - A6 CLERESTORY WINDOWS ABOVE - SILL HEIGHT 10'-0" AFF
 - A7 05 5313 METAL CATALIX - COORDINATE EXTENTS WITH STRUCTURAL
 - A8 05 5000 ROOF LADDER
 - A10 10 4413 RECESSED FIRE EXTINGUISHER CABINET
 - A11 10 4413 WALL MOUNTED FIRE EXTINGUISHER CABINET
 - A12 05 5000 STEEL PIPE BOLLARD
 - A13 10 5113 METAL LOCKERS
 - A20 EXTERIOR HOUSEKEEPING PAD, COORDINATE WITH CIVIL DOCUMENTS, FINAL EQUIPMENT SIZE
 - A21 26 0533 PROVIDE GROMMETS FOR WIRING
 - A22 TACTICAL PROP CASEWORK - FOR REFERENCE ONLY - NOT IN CONTRACT
 - A23 22 3000 TACTICAL PROP TOILET - BOLTED TO FLOOR - BOLT SHLF - DO NOT PLUMB
 - A24 03 3000 HOUSEKEEPING PAD
 - A25 EXISTING FLOOR DRAIN - REFER TO MECHANICAL
 - A26 07 7100 DOWNSPOT - REFER TO MECHANICAL FOR BOOT
 - A27 22 0000 DRINKING FOUNTAIN - PROVIDE ADA APRON - REFER TO MECH
 - A28 22 0000 OIL INTERCEPTOR COVER - REFER TO MECH
 - A29 03 3000 FROST BLOK - REFER TO STRUCTURAL
 - A30 22 0000 WATER METER - REFER TO MECHANICAL
 - A31 11 6723 CLEARING TRAP - REFER TO RANGE DESIGN DRAWINGS
 - A32 23 0000 CONDENSER - REFER TO MECHANICAL
 - A33 14 4513 VEHICLE SERVICE LIFT - COORDINATE CONCRETE FLOOR SLOPE WITH MOUNTING REQUIREMENTS
 - A34 06 3455 BALLISTIC SLIDING DOOR - DEFAULT CLOSED POSITION
 - A35 STRUCTURE (OVERHEAD)
 - A36 FULLY GROUTED CRU WALL - REFER TO STRUCTURAL DRAWINGS
 - A37 06 5600 BREACHING WINDOW
 - A38 11 6723 DUST COLLECTION UNIT
 - A39 AREAS REQUIRING CROSS BRACING TO CEILING - REFER TO STRUCTURAL
 - A40 STORAGE SHELVING - N.I.C.
 - A41 GARAGE EQUIPMENT, REFER TO MECH & ELEC FOR INFRASTRUCTURE
 - A42 WORK BENCH, N.I.C.
 - A43 EXISTING HOUSEKEEPING PAD, VERIFY DIMENSIONS IN FIELD

LEGEND

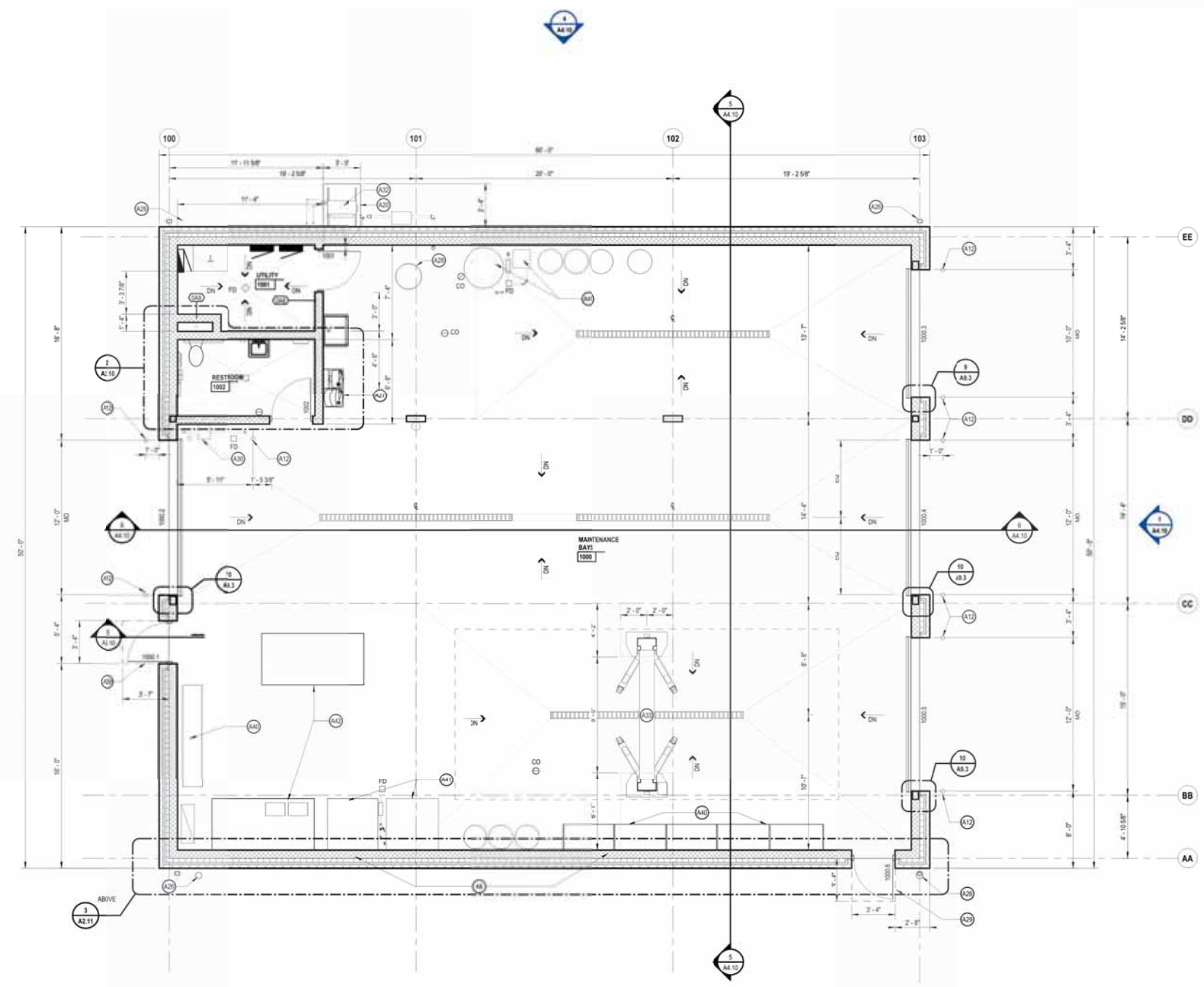
- TOILET ACCESSORIES**
SHADED ITEMS HAVE BEEN REVISED FROM PREVIOUS NOTE: NOT ALL KEYNOTES MAY BE USED
- REFER TO SPECIFICATION SECTION 10 2800 FOR ADDITIONAL INFORMATION ALL TOILET ACCESSORIES ARE CONTRACTOR FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE. OWNER FURNISHED/OWNER INSTALLED (O/F/O). OWNER FURNISHED/CONTRACTOR INSTALLED (O/F/C). OWNER FURNISHED/CONTRACTOR INSTALLED REFER TO DRAWING OR FOR TYPICAL MOUNTING HEIGHTS
- LEGEND SYMBOL INDICATOR
- T1 GRAB BAR SET (1) GRAB BAR TYPE 1, (1) GRAB BAR TYPE 2, (1) GRAB BAR TYPE 3
 - T7 TOILET PAPER DISPENSER, O/F/C
 - T9 PAPER TOWEL DISPENSER AND WASTE RECEPTACLE, O/F/C
 - T10 PAPER TOWEL DISPENSER AND WASTE RECEPTACLE, O/F/C
 - T11 SANITARY NAPKIN DISPOSAL
 - T12 ELECTRIC HAND DRYER
 - T13 MIRROR
 - T14 SOAP DISPENSER, W/C
 - T20 SHOWER CURTAIN AND ROD
 - T21 TOWEL HOOK
 - T23 DIAPER CHANGING STATION



2 GARAGE RESTROOM CALLOUT
A2.10 1/8" = 1'-0"



3 RESTROOM
A2.10 1/8" = 1'-0"



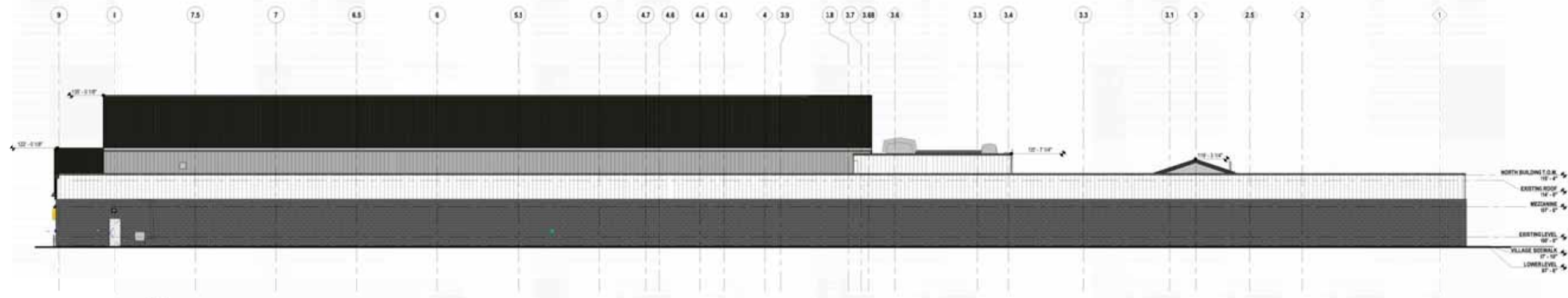
1 MAINTENANCE GARAGE FLOOR PLAN
A4.10 1/8" = 1'-0"

EXTERIOR MATERIAL KEY

	57 4212 FORMED METAL WALL PANEL
	57 4213 FORMED METAL WALL PANEL
	34 2089 DARK ACCENT CONCRETE MASONRY FACADE
	57 4244 NATURAL STONE COMPOSITE WALL PANEL SYSTEM
	57 4113 STANDING SEAM METAL ROOF
	58 8888 COLORED GLAZING (31.28-IND GL-28)



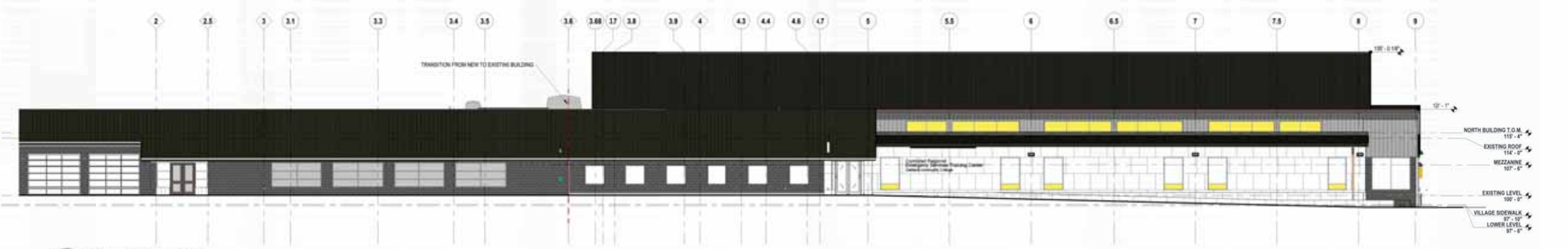
4 EAST ELEVATION
 A0.1 3/32" = 1'-0"



3 NORTH ELEVATION
 A0.1 3/32" = 1'-0"



2 WEST ELEVATION
 A0.1 3/32" = 1'-0"



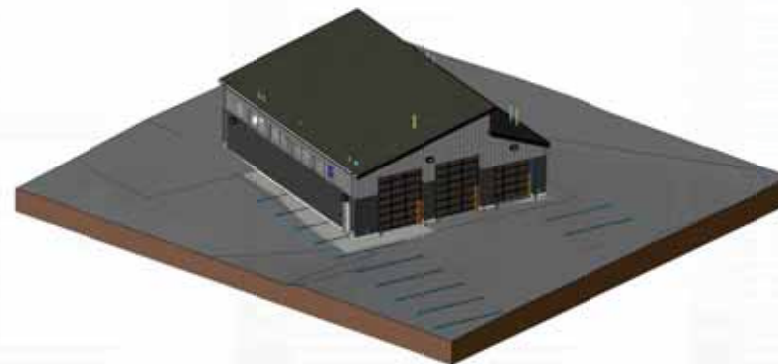
1 SOUTH ELEVATION
 A0.1 3/32" = 1'-0"

Project Administrator	V Grant
Project Designer	K. Aslerink
Project Architect / Designer	K. Reynolds
Drawn By	K. Reynolds
Q.M. Review	G.M. Review
Approved	N. LaForest/C. Allick
Approved	B. Sundberg
Drawing Scale	As Noted
Issued for	Issue Date
Design Development	12-11-2024
Quality Management Review	04-11-2025
Bids	10-21-2025
Planning Commission Review	03-11-2026

3/12/2025 10:38:10 AM Autodesk Docs\Oakland Community College\23118\OCC AH 02E17-A4.0.rvt



1 3D OVERALL VIEW



2 3D VIEW - MAINTENANCE GARAGE

EXTERIOR MATERIAL KEY

	07 4213 FORMED METAL WALL PANEL
	07 4213 FORMED METAL WALL PANEL
	04 2000 DARK ACCENT CONCRETE MASONRY FACADE
	07 4244 NATURAL STONE COMPOSITE WALL PANEL SYSTEM
	07 4113 STANDING SEAM METAL ROOF
	06 8000 COLORED GLAZING, GL-2A AND GL-2B



INTEGRATED design SOLUTIONS
 architecture engineering interiors & technology
 1441 west long lake, suite 200
 Troy, Michigan 48068
 5211 cascade road SE, suite 300
 Grand Rapids, Michigan 49546
 248.821.2100
 www.ids-michigan.com

CONSTRUCTION MANAGER
 BARTON MLOW
 26500 Americal Drive
 Southfield, MI 48034
 248.431.5000
 www.bartonmalow.com

STRUCTURAL ENGINEER
 STRUCTURAL DESIGN INCORPORATED
 375 E LIBERTY ST
 ANN ARBOR, MICHIGAN 48104
 734.231.6091
 www.sdstructures.com

CIVIL ENGINEER
 ANDERSON, ECKSTEIN & WESTRICK, INC.
 81301 Schoenfisher Road
 Shelby Township, MI 48315-2733
 586.728.1234
 www.aewtrc.com

RANGE DESIGN CONSULTANT
 ACTION TARGET
 3411 Mountain Vista Pkwy.
 Provo, UT 84606
 801.398.1226
 www.actiontarget.com



CREST Center Renovation and Addition
 2900 Featherstone Road,
 Auburn Hills, MI 48326

Key Plan

Project Administrator
 V Grant
 Project Designer
 K. Asderink
 Project Architect / Engineer
 K. Reynolds
 Drawn By
 K. Reynolds
 Q.M. Review
 N. LaForest/C. Allick
 Approved
 B. Sundberg
 Drawing Scale
 NTS

Issued for Issue Date
 Design Development 12-11-2024
 Quality Management Review 04-11-2025
 Bids 10-21-2025
 Planning Commission Review 03-11-2026

© 2025 INTEGRATED design SOLUTIONS, LLC
 IDS Drawing Title

3D Views

Project Number
23118-1000
 OCC Project Number
 AH23-013

Drawing Number
A4.1

Project Title



CREST Center Renovation and Addition
 2900 Featherstone Road,
 Auburn Hills, MI 48326

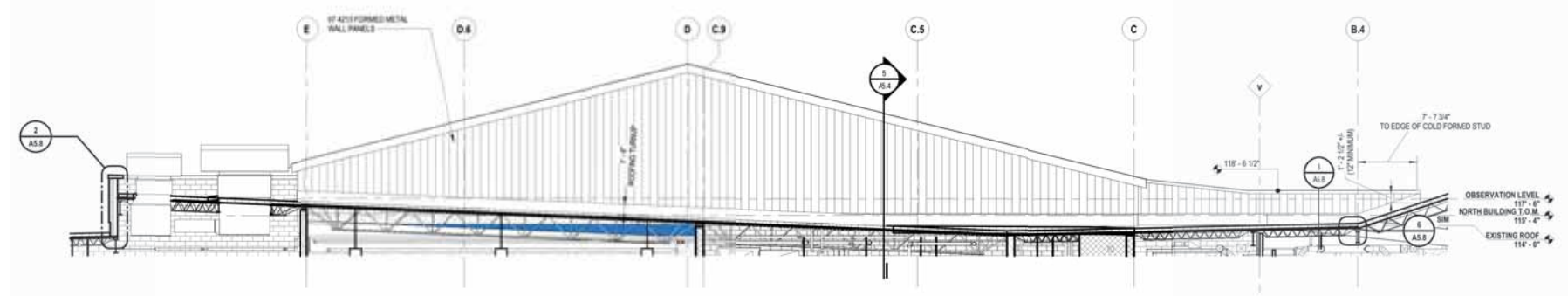


Project Administrator	V Grant
Project Inspector	K. Asderink
Project Architect / Engineer	K. Reynolds
Drawn By	K. Reynolds
Q.M. Review	G.M. Review
Approved	N. LaForest/C. Allick
Drawn By	B. Sundberg
Drawing Scale	As Noted

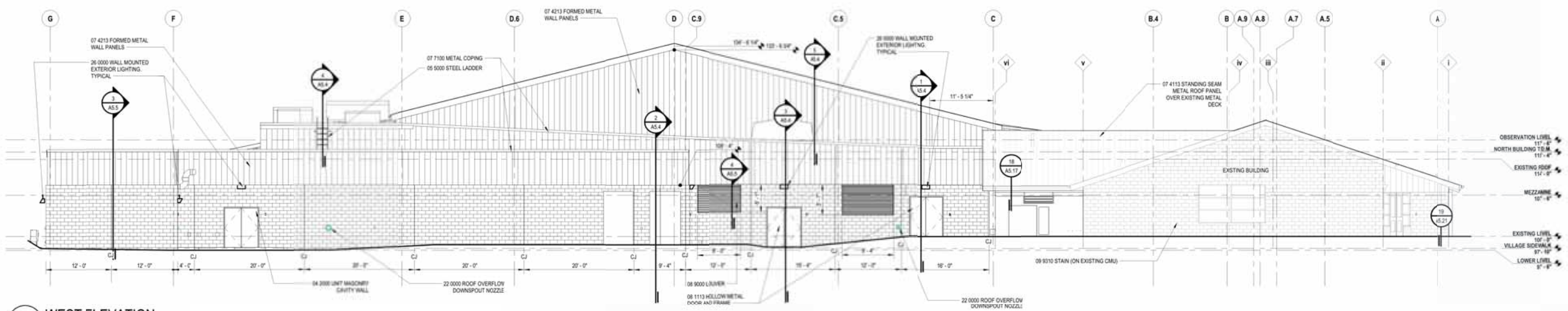
Issued for	Issue Date
Design Development	12-11-2024
Quality Management Review	04-11-2025
Bids	10-21-2025
Planning Commission Review	03-11-2026

© 2025 INTEGRATED design SOLUTIONS, LLC
 IDS Drawing Title

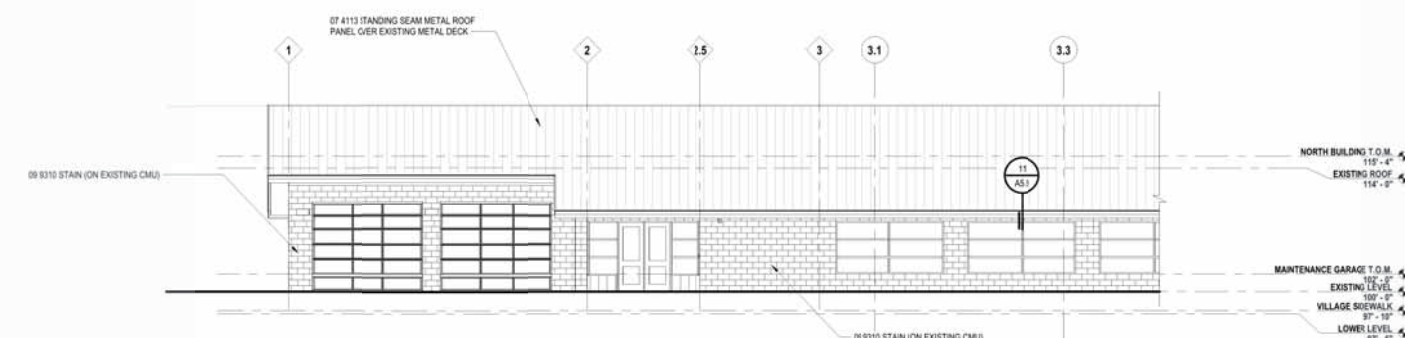
Exterior Elevations



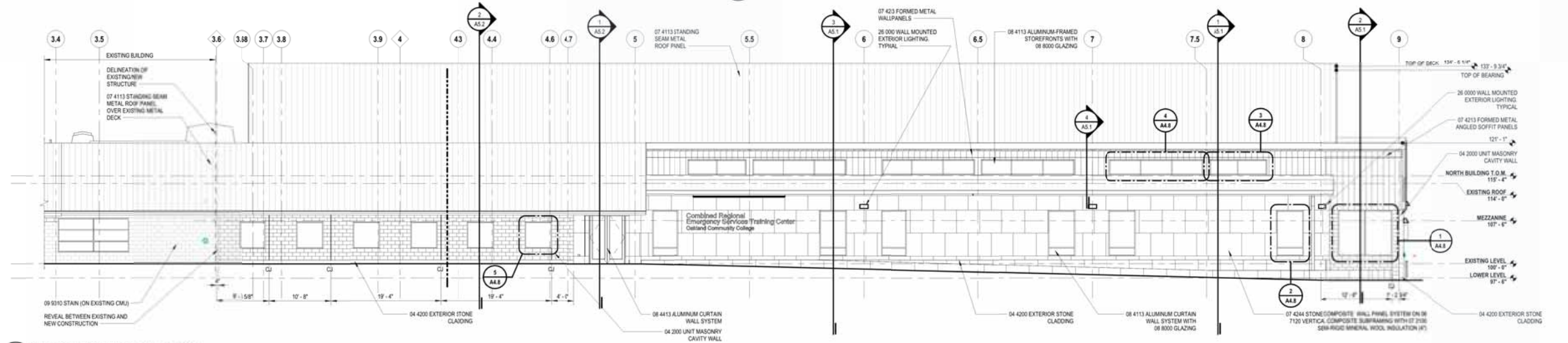
4 WEST ELEVATION - UPPER ROOF
 A0.4 1/8" = 1'-0"



3 WEST ELEVATION
 A0.1 1/8" = 1'-0"



2 SOUTH ELEVATION (WEST) - EXISTING PORTION OF BUILDING
 A0.1 1/8" = 1'-0"

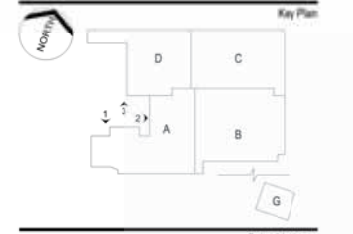


1 SOUTH ELEVATION (EAST)
 A0.1 1/8" = 1'-0"

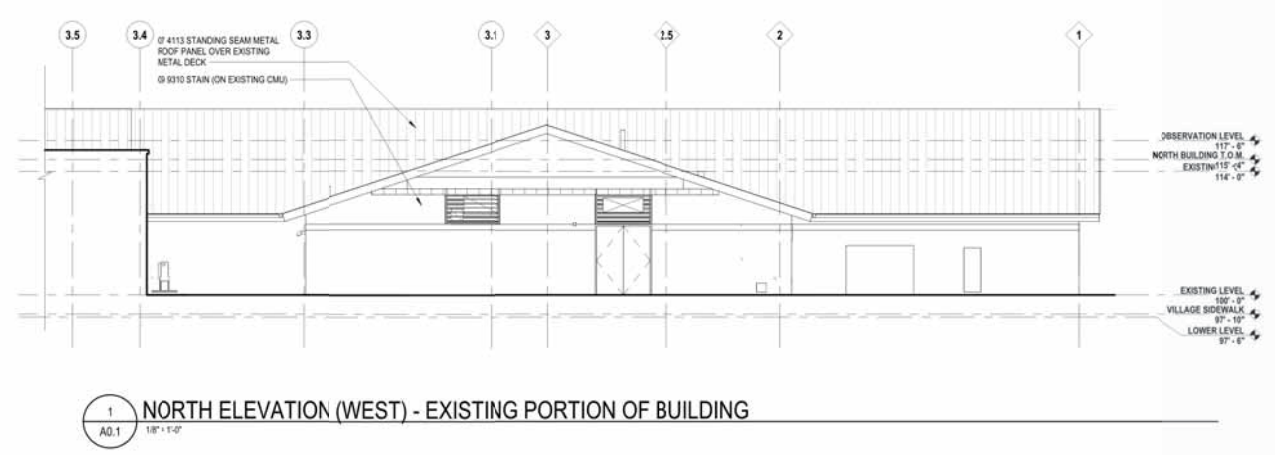
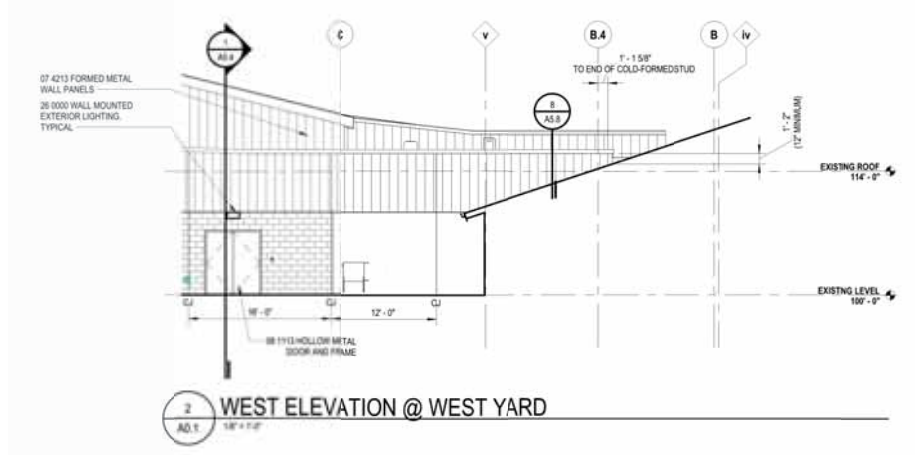
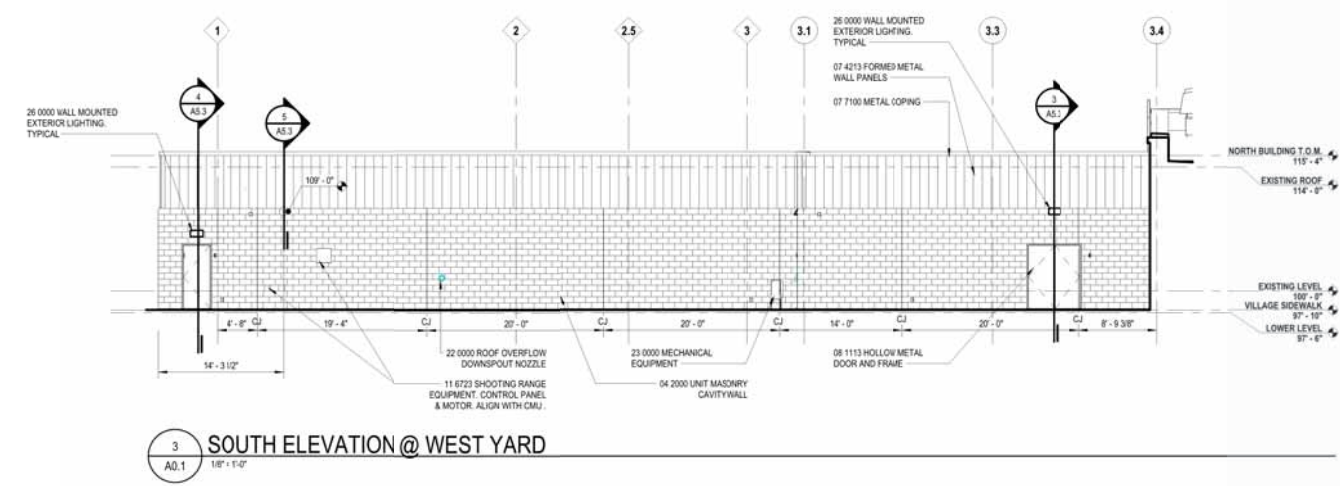
3/12/2025 10:42:27 AM Autodesk Docs | Oakland Community College | 23118-1000 | JAI | 08/25/24 | JAI



CREST Center Renovation and Addition
 2900 Featherstone Road,
 Auburn Hills, MI 48326



Project Administrator	V Grant
Project Designer	K. Asterink
Project Architect / Engineer	K. Reynolds
Drawn By	K. Reynolds
Q.M. Review	N. LaForest/C. Alick
Approved	B. Sunberg
Drawing Scale	As Noted
Issued for	Issue Date
Design Development	12-11-2024
Quality Management Review	04-11-2025
Bids	10-21-2025
Planning Commission Review	03-11-2026

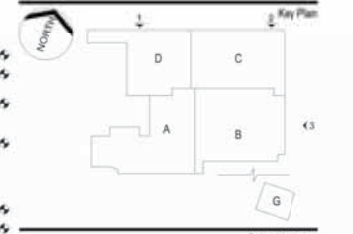


Project Title



Oakland Community College

CREST Center Renovation and Addition
 2900 Featherstone Road,
 Auburn Hills, MI 48326



Project Administrator

V Grant

Project Designer

K. Asterink

Project Architect / Designer

K. Reynolds

Drawn By

K. Reynolds

Q.M. Review

N. LaForest/C. Alick

Approved

B. Sundberg

Drawing Scale

As Noted

Issued for

Issue Date

Design Development 12-11-2024

Quality Management Review 04-11-2025

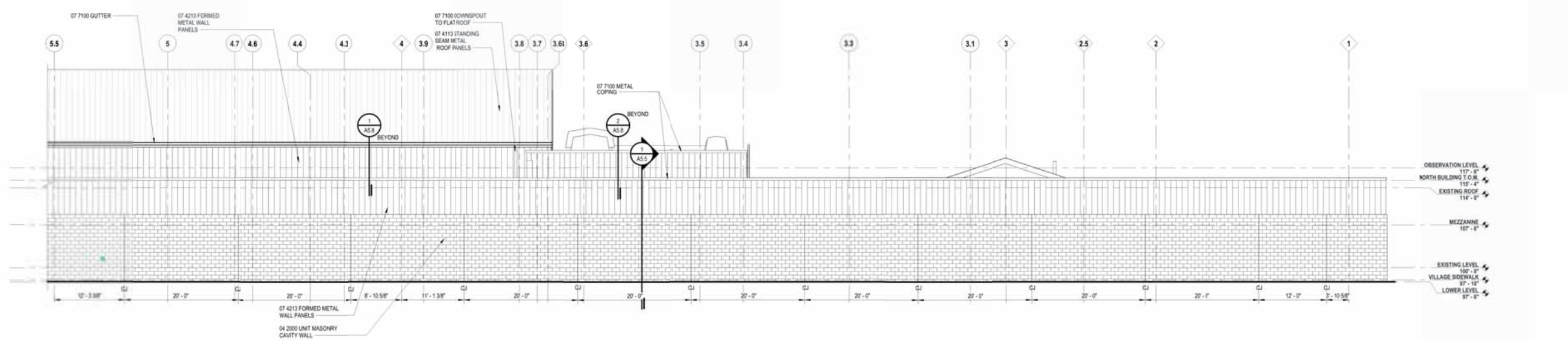
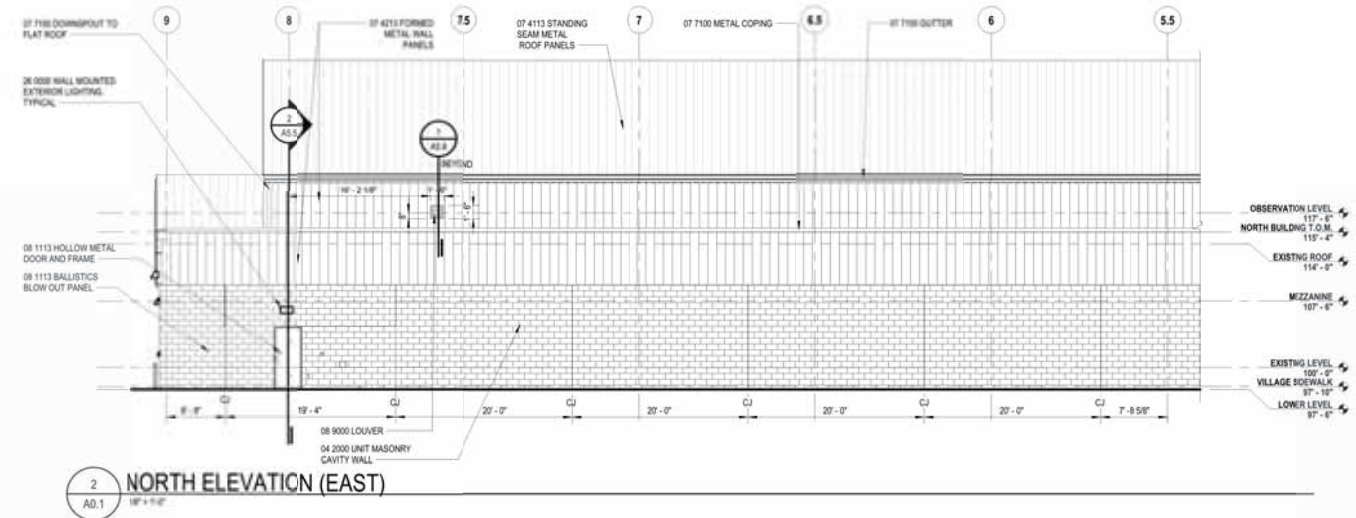
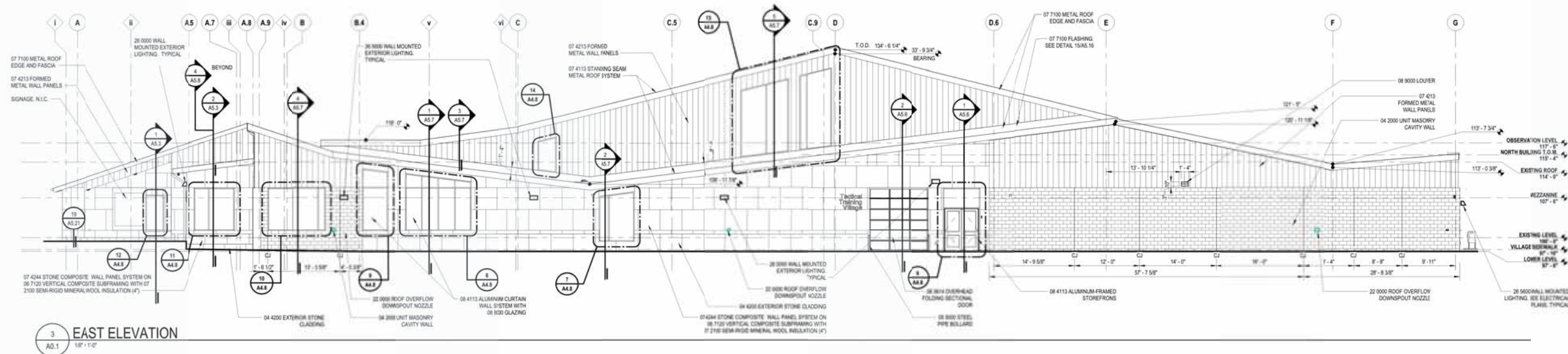
Bids 10-21-2025

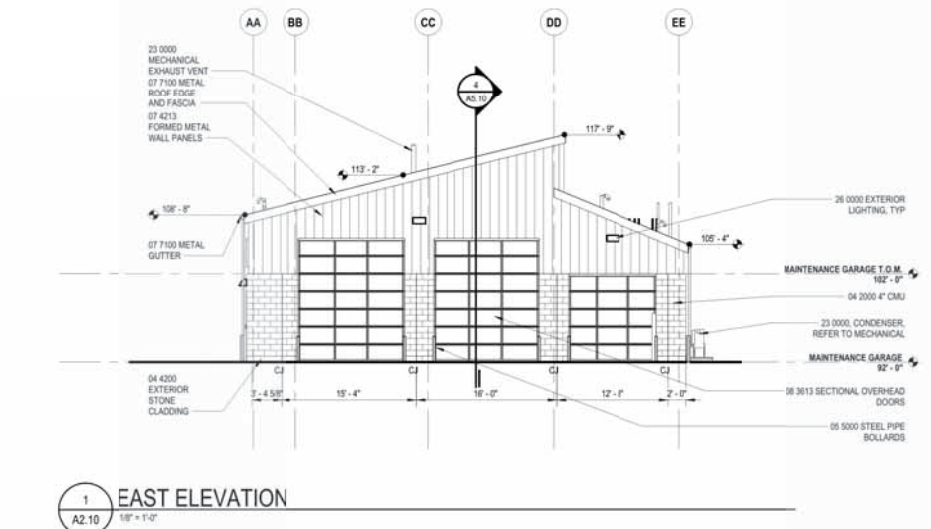
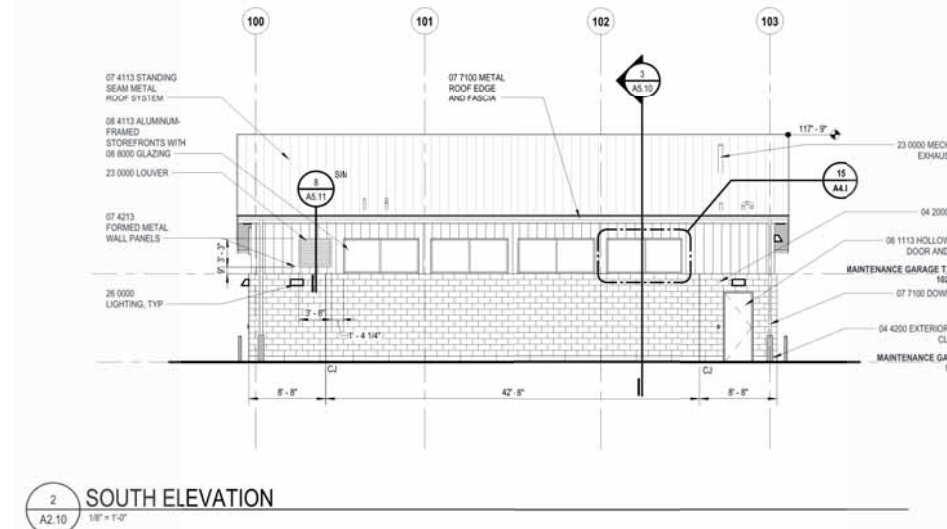
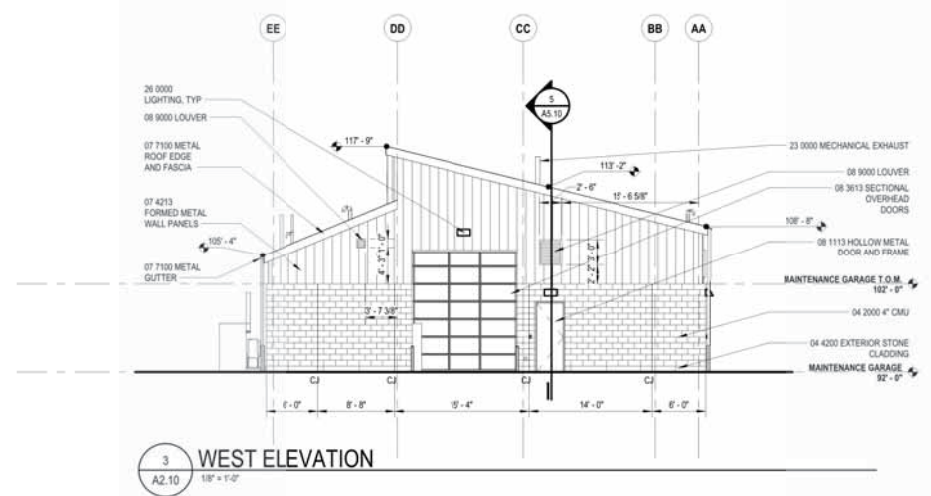
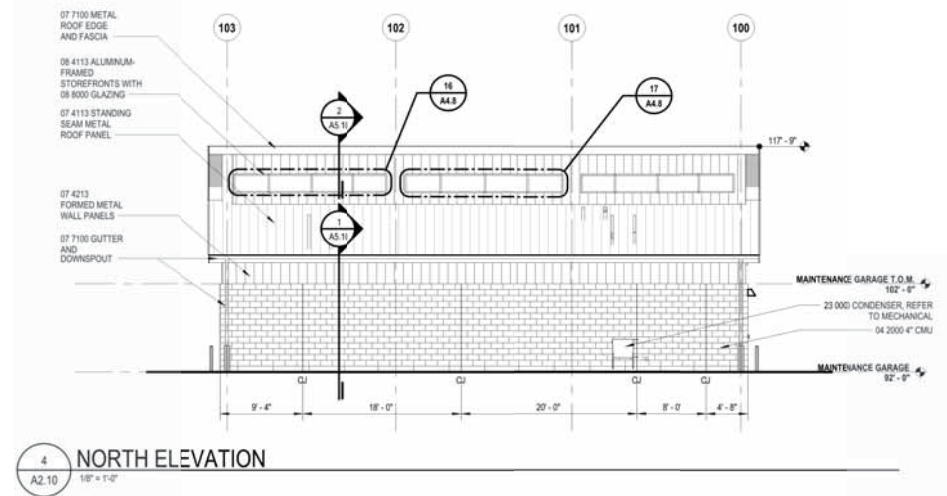
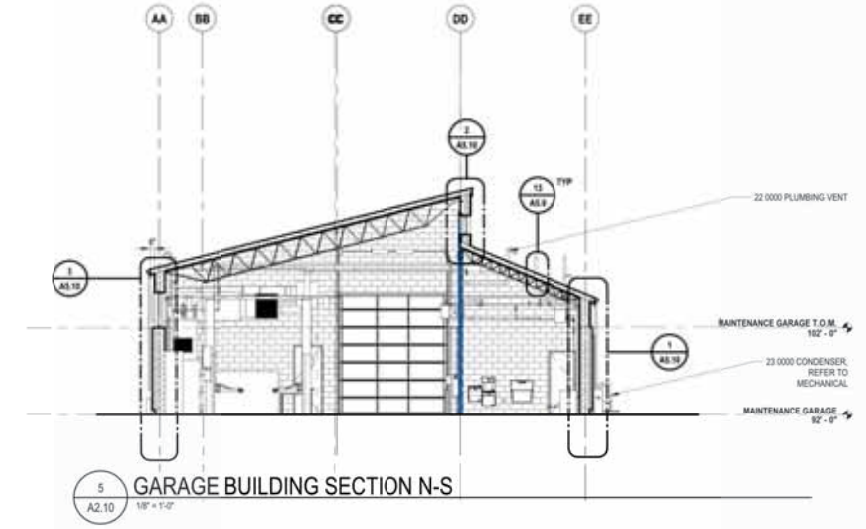
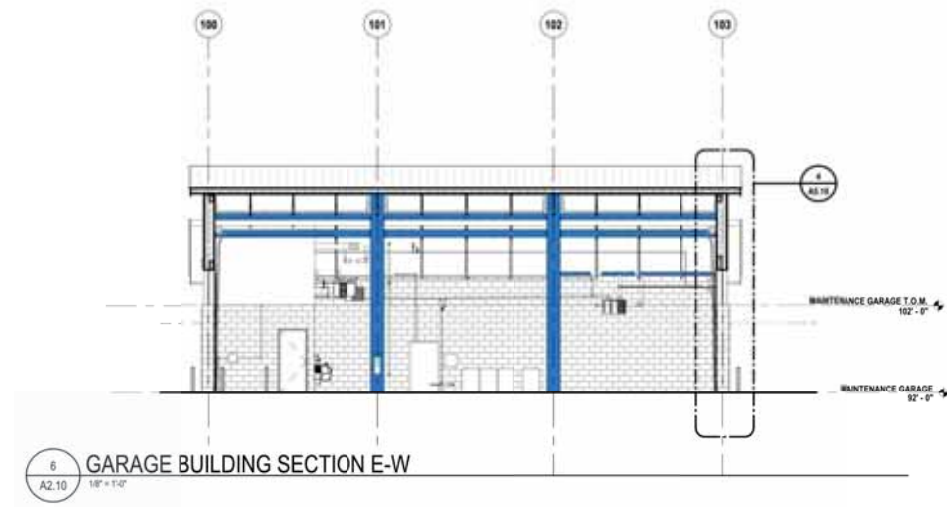
Planning Commission Review 03-11-2026

© 2025 INTEGRATED design SOLUTIONS, LLC

IDS Drawing Title

Exterior Elevations







CITY OF AUBURN HILLS PLANNING COMMISSION AGENDA

MEETING DATE: APRIL 8, 2026

AGENDA ITEM NO 5d.

COMMUNITY DEVELOPMENT

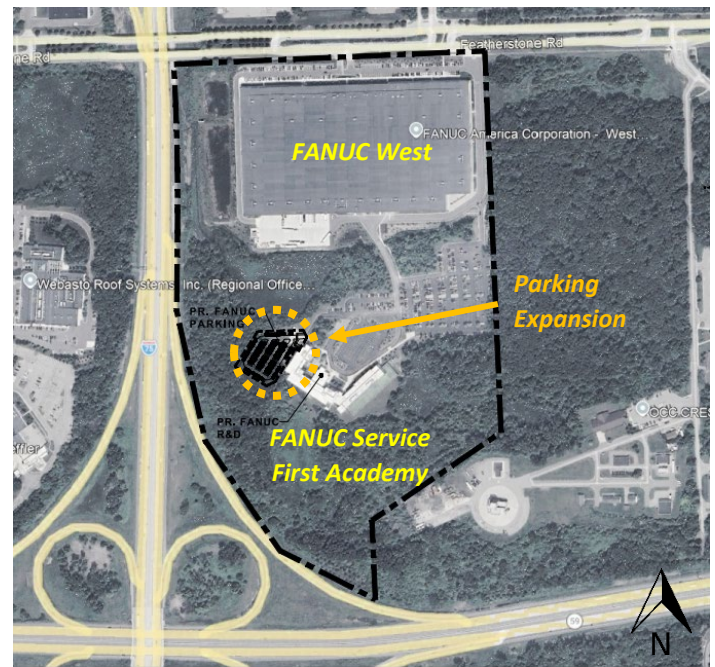
To: Chairperson Sam Beidoun and the Planning Commission
From: Steven J. Cohen, AICP, Director of Community Development
Submitted: April 1, 2026
Subject: FANUC Service First Academy - Parking Lot Expansion - 2630 Featherstone Road
Public Hearing/Motion - Recommendation to City Council for Site Plan and Tree Removal Permit approval to implement the construction of previously approved landbanked parking spaces.

INTRODUCTION AND HISTORY

This is a request from FANUC America Corporation for Site Plan and Tree Removal Permit approval to construct a 205-space parking lot expansion on a portion of a 67-acre parcel zoned T&R, Technology and Research District. The site is located at 2630 Featherstone Road.

The proposed project would increase total parking on FANUC's West Campus to 1,000 spaces. Parking is shared between the two buildings on the property. This parking area was previously landbanked as part of the West Campus approval in 2022 and is now being developed/implemented to support current operational needs.

Specifically, the additional parking is intended to accommodate FANUC's reuse of the former Western Michigan University Cooley Law School building as the FANUC Service First Academy, which is currently undergoing renovations.



Location Map



Concept renderings of the interior renovations currently underway to create the \$18 million FANUC Service First Academy

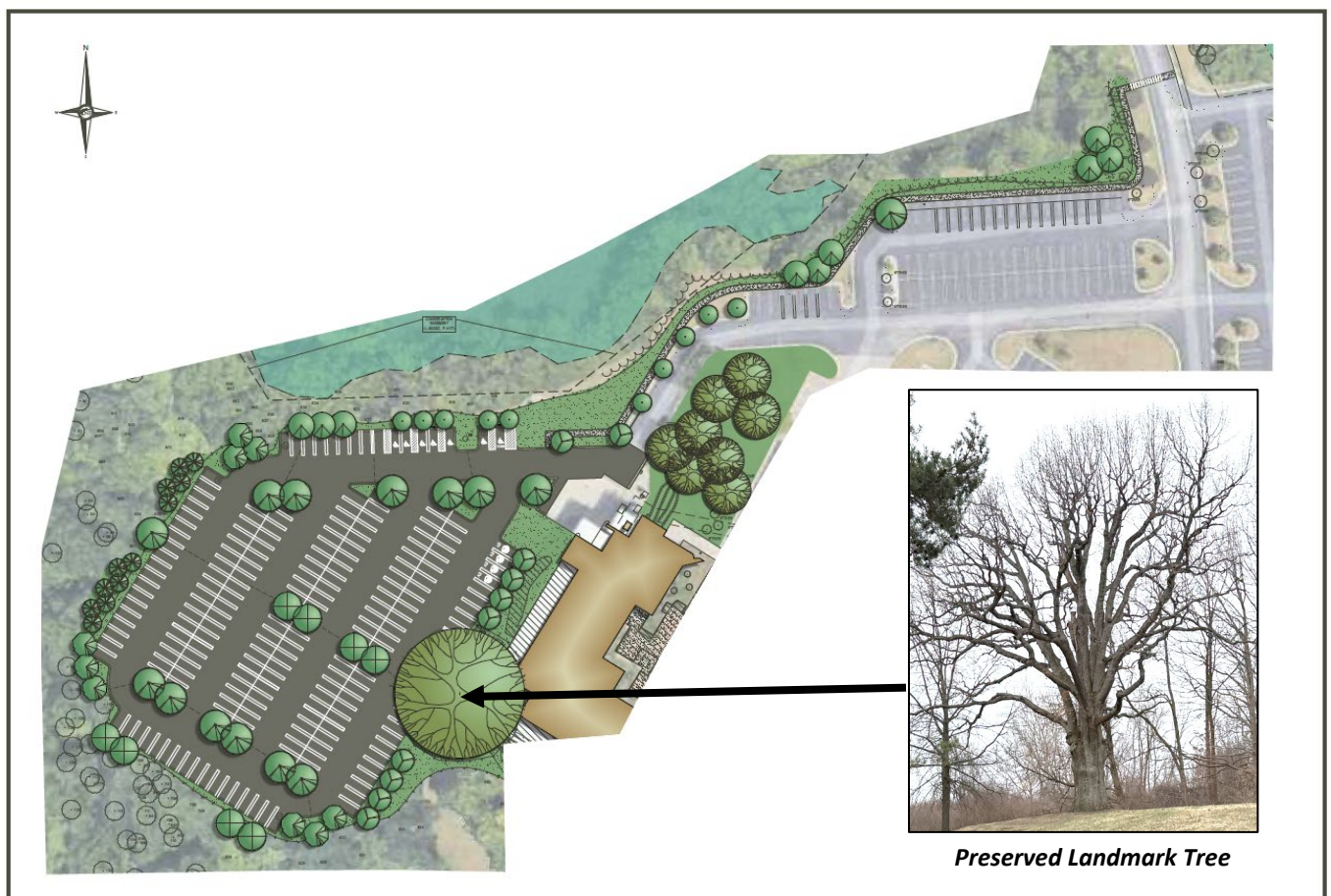
The FANUC Service First Academy is planned to support up to 344 students and will serve as the home of the company's Service First business segment, which includes both its call center and training operations.

KEY ISSUE

1. **Replacement Trees.** The project requires 130 replacement trees. The landscape plan provides for the on-site planting of 73 replacement trees surrounding the new parking lot. The inability to accommodate the full number of required replacement trees on-site is primarily due to the heavily wooded nature of the property. The proposed landscape plan has been designed to ensure appropriate spacing and soil conditions, supporting a healthy growing environment and improving the long-term survival of the trees to be planted.

To address the remaining tree replacement requirement, FANUC proposes to contribute to the City's Tree Fund in lieu of planting the remaining 57 trees. A payment of \$21,660 (57 trees at \$380 per tree) will be made prior to the mass grading of the site.

Staff commends FANUC and its consultant, Nowak & Fraus, for coordinating with the City's Woodland consultant to shift the parking lot design to the west to preserve a 51-inch diameter White Oak tree by maintaining grading activities outside of the tree's critical root zone.



Illustrated Site Plan

STAFF RECOMMENDATION

We recommend Conditional Approval of the Site Plan and Tree Removal Permit and offer the following discretionary findings of fact:

1. The Site Plan contains sufficient basic information required by the Zoning Ordinance for a recommendation.
2. The requirements of Section 1815, Items 7A-7E of the Zoning Ordinance can be met as follows:
 - a) All requirements and standards of the Zoning Ordinance and other City Ordinances can be met.

STAFF RECOMMENDATION (cont.)

- b) Safe, convenient vehicular and pedestrian ingress/egress has been depicted; primary access will be to Featherstone Road.
 - c) Traffic circulation features within the site and the location of parking areas avoid common traffic problems and can promote safety.
 - d) A satisfactory and harmonious relationship will exist between the proposed development and the surrounding area.
 - e) The proposed use will not have an unreasonable, detrimental or injurious effect upon the natural characteristics of the subject parcel, or the adjacent area.
3. 205 parking spaces are depicted within the expanded parking area.
 4. The parking layout for the expanded area meets minimum requirements, and barrier-free parking spaces are provided (seven are required, and seven are provided). One space is van accessible.
 5. Building and parking setback requirements will be met.
 6. Greenbelts will be provided.
 7. Landscape requirements will be met, and calculations have been submitted.
 8. A note indicates that exterior lighting shall meet the requirements of the Zoning Ordinance. Pole and wall-mounted lighting shall be shielded and directed downward. Lamp bulbs and lenses shall not extend below the light fixture shields. Light poles will be installed to match the height and style of the existing light poles on the property.
 9. A note indicates that signs shall meet the requirements of the Zoning Ordinance.
 10. A note indicates that parking spaces shall be double-striped.
 11. Ground-mounted and roof-mounted mechanical equipment will be screened.
 12. A note indicates that outside storage, including pallet storage, overnight vehicles, and trailer storage, will not be permitted.
 13. A Tree Removal Permit is required. 130 replacement trees are required, and 73 replacement trees are provided. The equivalent of 57 replacement trees will be paid in the City's Tree Fund.
 14. FANUC has agreed to prep the parking lot for four electric vehicle charging stations. They will install electrical stubs at planned station locations and run a conduit from the power source to the stubs during construction to support the future installation of the charging stations when needed.

Conditions:

1. Payment to City's Tree Fund. FANUC shall make a payment of \$21,660 (57 trees at \$380 per tree) to the City's Tree Fund prior to the start of construction.
2. Performance Guarantees. FANUC shall comply with the requirements of Section 2007. Performance Guarantees of the Zoning Ordinance.
3. Conformance with Approved Plans and Representations. Approval of the project is based on the representations made by FANUC, as documented in this staff report, submitted materials, and the public meeting minutes. The development shall remain in conformance with these representations.

RECOMMENDED ACTION

Move to recommend to City Council approval of the Site Plan and Tree Removal Permit for FANUC Service First Academy - Parking Lot Expansion subject to the conditions of the City's Administrative Review Team.



DEVELOPMENT APPLICATION

PLEASE CHECK YOUR REQUESTED REVIEW:

SITE PLAN

TREE REMOVAL PERMIT

SPECIAL LAND USE PERMIT(S)

LAND DIVISION LAND EXCHANGE

SUBDIVISION

PLAN UNIT DEVELOPMENT (STEP 1/STEP 2/ COMBINED)

REZONING _____ TO _____

ZBA VARIANCE OR INTERPRETATION

OTHER: _____

CITY USE ONLY

ADDRESS: 2630 Featherstone

DATE RECEIVED: 2/13/26

FEES PAID: \$5,641

SP #: 260002

PUD#: _____

SLU #: _____

LD/LE/SUB#: _____

RZ#: _____

ZBA #: _____

PTR#: 260001

PROJECT NAME FANUC Landbank Parking Lot Development			
GENERAL PROJECT LOCATION Southeast corner of Featherstone Rd. ad I-75			
PARCEL SIZE 1.56 Ac. Disturbed	ZONING T & R	BUILDING SIZE (SQ FT) N/A	
PROJECT DESCRIPTION Construct 207 parking spaces, detention and install fire hydrant			
SIDWELL NUMBER(S) #14-26-226-004			
APPLICANT INFORMATION			
NAME Patrick Williams		SIGNATURE 	
BUSINESS NAME Nowak & Fraus Engineers		ADDRESS 46777 Woodward Ave.	
CITY Pontiac	STATE MI	ZIP 48342	PHONE # 248.332-7931
EMAIL ADDRESS pwilliams@nfe-engr.com			
PROPERTY OWNER(S)			
NAME Brad Nowacki		SIGNATURE 	
BUSINESS NAME FANUC America Corporation		ADDRESS 2600 Featherstone Road	
CITY Auburn Hills	STATE MI	ZIP 48326	PHONE #
EMAIL ADDRESS brad.nowacki@fanucamerica.com			



FANUC America Corporation
3900 W. Hamlin Road
Rochester Hills, MI 48309-3253

Telephone: (248) 377-7000
Facsimile: (248) 377-7066

Brad Nowacki
3900 West Hamlin Road
Rochester Hills, MI

2/27/2026

City of Auburn Hills
1827 N. Squirrel Road
Auburn Hills, MI 48326

Community Development Staff,

In 2024 FANUC completed construction on our 650,000 square foot facility in Auburn Hills. As part of that land acquisition, FANUC also acquired the former Cooley Law School. Working in phases, FANUC is now in the process of renovating that building into a new home for our training and service teams which operate under the name Service First. We are doing this construction in phases with our Training Academy wing first which will be completed in July of 2026. This wing will have capacity for 344 students amongst a variety of classrooms hands on laboratories. Along with that 40 training instructors and administration will be in this location. The second phase involves a cafeteria, kitchen, restroom addition, and some auxiliary rooms used as conference spaces and storage. This project is currently in review with Auburn Hills, but with hopes to complete by 9/1 or sooner. The third phase will be relocating our call center and service support staff. At this time, this project is not budgeted for but could possibly start in 2027. With all 3 of these phases and our operation at 2600 Featherstone, FANUC has identified a parking capacity concern. This was concern was known in the civil work of our 650,000 square foot facility in which we added some land bank parking to the drawings which we would like to seek approval to proceed on. To summarize the parking concern, I pulled together the following to illustrate the need.

Max Students Capacity	344
Service First Employees	96
2600 Featherstone Visitors	30
2600 Featherstone Employees	442
Total Potential Vehicles	912
Total Campus Parking	795
Expansion	205
Total Parking	1000

FANUC America thanks you for your continued support of our expansion within Auburn Hills and consideration of this project.

Sincerely,

Brad Nowacki
Director of Facilities



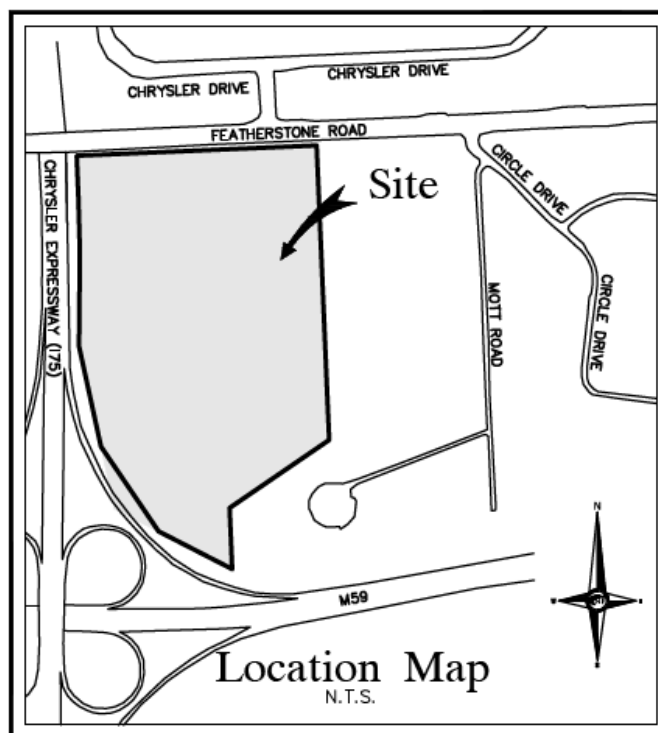
Planning Commission Public Notice

Meeting Date, Time, and Location:	Wednesday, April 8, 2026 at 6:00 p.m. City of Auburn Hills - City Council Chambers 1827 N. Squirrel Road, Auburn Hills, MI 48326
Project Name:	FANUC Service First Academy - Parking Lot Expansion
General Property Location:	2630 Featherstone Road (Sidwell No. 14-26-226-004)
Applicant:	Patrick Williams – 248-332-7931
Nature of the Request:	Recommendation to City Council for Site Plan and Tree Removal Permit approval to implement the construction of previously approved landbanked parking spaces.
City Staff Contact:	Steven J. Cohen, AICP Director of Community Development - 248-364-6941

Notice will be sent via U.S. Mail to properties within 1,000 feet of the site. The proposed application can be inspected before the meeting at the Community Development Department, located on the municipal campus at 1827 N. Squirrel Road, Auburn Hills, MI 48326, during regular City business hours.

Persons wishing to express their views may do so in person at the meeting or in writing addressed to the Planning Commission c/o Steven J. Cohen, AICP, Director of Community Development, at the above address.

Anyone planning to attend the meeting who needs special assistance under the Americans with Disabilities Act (ADA) is asked to contact the City Clerk's Office at 248-370-9402 or the City Manager's Office at 248-370-9440 48 hours before the meeting. Staff will be pleased to make the necessary arrangements.



March 20, 2026

Mr. Steven Cohen, AICP
Director of Community Development
CITY OF AUBURN HILLS
1827 North Squirrel Road
Auburn Hills, Michigan 48326

RE: FANUC America Parking Addition
Site Plan 1st Review

Dear Mr. Cohen:

We have completed the site plan review for the above referenced project with respect to grading, paving, storm drainage/detention, and availability of municipal utilities to serve the site. The site plan, received by this office on March 18, 2026, was prepared by Nowak and Fraus Engineers. The review comments are noted below.

PERMITS/EASEMENTS:

Various permits will be required for this site, including but not limited to the following:

- Soil erosion permit form O.C.W.R.C.
- Water main extension permit from E.G.L.E.
- Storm water maintenance agreement for the underground detention system

GENERAL:

The site is located on the south side of Featherstone Road, east of I-75 and west of Mott Road, in Section 26 of the City of Auburn Hills. The applicant is proposing to expand the parking to accommodate the redevelopment of the former Cooley Law School building into the FANUC America facility by adding a parking lot on the west side of the site. The site, along with the adjacent parcel to the east, is zoned Technology & Research (T&R) while the parcel to the southeast is zoned Light Industrial (I-1). A complete legal description of the parcel is shown on the plans. The Fire Department Notes are included in the plan. A landscape plan was included in the plan set. If feasible, trees and plantings shall be located outside the influence of utilities. The City of Auburn Hills Standard Notes were not included in the plan and will need to be included at engineering review. The City of Auburn Hills Standard Details were included in the plan set and shall remain for the engineering plan.

MUNICIPAL UTILITIES:

There is existing 8-inch water main that extends along the east side of Cooley Drive. An existing 8-inch water main extends west from the 8-inch water main and then southwest towards the west side of the FANUC America facility to an existing fire hydrant. There is also an existing 8-inch water main that extends south from the east-west water main towards the FANUC America facility. The applicant is proposing to relocate the existing fire hydrant and extend the 8-inch water main southwest. One (1) additional fire hydrant will be installed to provide adequate coverage for the parking lot. A twelve-foot-wide public water main easement has been centered on the new water main. Additional details including the material type, size, and profile shall be provided at engineering review.



There is existing 10-inch sanitary sewer that extends west from the OCC Crest Center, east of the site, before transitioning to 8-inch sanitary sewer then 6-inch servicing the FANUC America facility. At this time, the applicant is not proposing any changes to the existing sanitary sewer as part of this project.

STORM SEWER AND DETENTION:

Storm water runoff for the FANUC America facility is currently collected via a series of catch basins and routed to existing wetlands on the southeast side of the site. As part of the parking lot addition, the applicant is proposing an underground detention system near the north side of the parking lot addition. Preliminary detention volume calculations have been provided on the plan and appear to meet City and OCWRC standards. The applicant is utilizing a discharge rate of 0.150 cfs/acre which is more restrictive than the maximum allowable discharge of 0.20 cfs/acre for the site. A mechanical pretreatment unit has been provided for the runoff prior to entering the underground detention system. Conveyance calculations have been provided on the plan and will need to be verified at engineering review. Additional details of the stormwater management system will be needed for the engineering review including profiles and hydraulic grade lines. The size, material, and slope of the storm sewer shall be labeled for engineering review. Calculations showing that the existing detention area has enough capacity for the proposed development shall be provided on the plans for engineering review. Additional details shall be provided for engineering review.

PAVING/TRAFFIC:

There are currently two (2) existing drive approaches located off Featherstone Road. The applicant is not proposing any changes to the existing drive approaches. Access to the parking lot addition will be through Cooley Drive and the existing northern parking lot for FANUC America. Parking is currently located on the north side of the building with an additional parking lot available on the east side of Cooley Drive. The plans indicate concrete curb and gutter along the new parking lot expansion with 6-inch asphalt pavement. Pavement cross-sections have been provided on the plans and appears to meet City standards.

The applicant is proposing to install 205 parking spaces including seven (7) barrier free accessible parking spaces and four (4) electric vehicle spaces. With the proposed improvements, the entire site will have a total of 1,000 parking spaces including 26 barrier free accessible parking spaces and 10 electric vehicle spaces. The applicant is proposing a 5-foot-wide concrete sidewalk connection from the parking lot addition to the existing parking lot on the east side of Cooley Drive.

GRADING:

Existing grades are shown with contours and spot elevations while proposed grades are shown with spot elevations. The site is sloped towards the north and perimeter site slopes shall match into existing contours prior to all abutting property lines. If site slopes exceed 1:4, protective guardrail and/or fencing will be required. Pavement slopes are mostly consistent with City standards and are to remain between 1% and 6% for drive areas and between 1% and 4% for parking areas. Grades for the proposed sidewalk shall meet ADA standards.

There is an existing boulder retaining wall on the west side of the building. The applicant is proposing to extend the boulder retaining wall along the east side of the parking lot addition. Design details and computations (sealed by a licensed engineer) will need to be submitted and approved during the engineering review for walls greater than one (1) foot in height. Any retaining walls over 2.5 feet in height are required to be fenced. A generic dry-laid boulder wall detail has been included on the plan. The boulder wall detail shall include a fence if necessary at engineering review.

RECOMMENDATIONS:

The site plan is in substantial compliance with City of Auburn Hills requirements and has been stamped "Approved" by our office. We ask that the site plan approval acknowledge the following:



1. The site improvement plan, designed in accordance with Ordinance No. 806, shall be submitted to the City for review and approval prior to construction. A detailed cost estimate for the improvements shall be submitted with the plans signed and sealed by the design engineer.
2. The developer must post a performance guarantee, in accordance with the City's requirements as set forth in the City of Auburn Hills Ordinance No. 372, Section 2007, Performance Guarantees. The estimate of the guarantee shall be submitted with the site improvement plan and must reflect all costs for site improvements, including but not limited to mass grading, roadways, lighting, utilities, pathways, sidewalks, screening, landscaping, driveways, retaining walls, parking lots, drainage, stormwater retention basins, and other similar features.

If you have any questions or are in need of any further information, please feel free to contact our office.

Sincerely,
OHM Advisors

A handwritten signature in black ink that reads "MaryKate Kirksey". The signature is written in a cursive, flowing style.

MaryKate Kirksey for Hannah Driesenga, P.E.

Transmitted via e-mail to Steven Cohen: March 20, 2026
cc: File

P:\0101_0125\SITE_AUBURNHILLSCITY\2026\0120261020_FANUC AMERICA PARKING ADDITION\FANUC PARKING ADDITION_SITE REV#1_APP.DOCX



POLICE DEPARTMENT
1899 North Squirrel Road
Auburn Hills, MI 48326

MEMORANDUM

TO: Steve Cohen, Director of Community Development
FROM: Brandon Hollenbeck, Lieutenant
DATE: March 19, 2026
SUBJECT: **OCC Campus - CREST**

I have reviewed the site plan for the FANUC America Parking Lot Expansion on Featherstone Road. We have no objections to the project as presented in the site plan.



AUBURN HILLS FIRE DEPARTMENT



Official Memorandum

To: Steve Cohen, Director of Community Development
From: Fred Solomon, Fire Inspector
Date: March 19, 2026
Re: Site Plan Review

PROJECT: Fanuc Parking Lot Expansion, 2630 Featherstone

XXX	Approved	
	Approved	Subject to the following revisions:
	Denied	

No Comments

Fred Solomon
Fire Inspector
Auburn Hills Fire Department

Cc: Devin Lang

March 23, 2026

Steve Cohen, Director Community Development
City of Auburn Hills, Community Development Department
1827 North Squirrel Road
Auburn Hills, MI 48326

Subject: FANUC Parking Development, 2600 Featherstone Road, Auburn Hills, MI

Dear Mr. Cohen,

The submittals regarding the above-mentioned project have been reviewed and site verification performed. This Woodland Consultant appreciates the shift in parking lot position to preserve the 51" diameter Landmark white oak. As such, this woodland consultant requests to confirm the appropriateness of tree protection on site prior to soil disturbance.

The Woodlands Ordinance will be satisfied by planting according to the proposed plans and paying into the city's Tree Fund. See tree detail chart below for tree inventory and replacement tree requirements.

TREE DATA TABLE

DESCRIPTION	TOTAL TREES	Required/REPLACEMENT TREES
Total Trees Surveyed	301	n/a
Trees Saved	75 regulated; 1 regulated Landmark; 46 Non-regulated =	0
Removed Regulated Trees	124	124
Removed Non-regulated Trees	53	0
Removed Landmark Trees	2 (58.2")	6
TOTAL Required Replacement Trees		130 Trees

There are 124 regulated trees to be removed for the development of this project, plus 2 Landmark trees. The removed Landmark trees = 58.4" = 6 replacement trees. Therefore, the total required number of replacement trees is 130. The landscape plans provide 73 trees.


To satisfy City Woodland Preservation Ordinance for replacement tree requirements, 73 trees will be planted and the equivalent of 57 trees will be paid into the City's Tree Fund (57 x \$380/tree = \$21,660).

Continued

Please note, along the south side of existing wetland NE of this project's disruption area, there are dead standing trees. The dead trees within striking distance of existing parking spaces should be removed to mitigate risk of impacts.

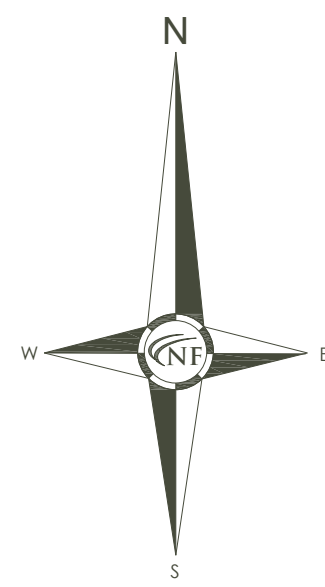
This project is approved based on site conditions, accompanying landscape plans and forthcoming, in-field tree protection approval once erected.

Best regards,



Julie Stachecki
City of Auburn Hills Woodland Consultant





CONSERVATION EASEMENT
(L. 60082, P. 417)

6'TREE
6'TREE

6'TREE
8'TREE
8'TREE
6'TREE

6'TREE
6'TREE

900

950

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

833

834

831

825

826

832

Owner / Developer

FANUC America Corporation
2600 Featherstone Road
Auburn Hills, MI 48326

Contact: Brad Nowacki
Phone: 248.377.7239
Email: brad.nowacki@fanucamerica.com

Architect

HED
123 West 5th Street
Royal Oak, MI 48067

Contact: Scott Robach
Phone: 248.233.0202
Email: srobach@hed.com

Civil Engineer

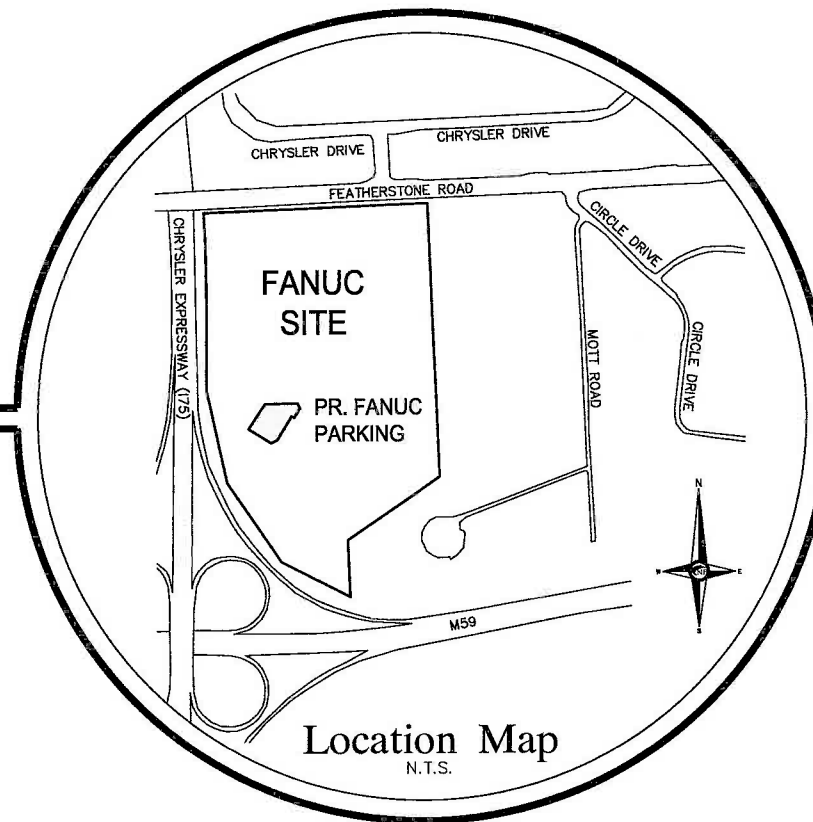
NOWAK & FRAUS ENGINEERS
46777 Woodward Ave.
Pontiac, MI 48342-5032
Tel. (248) 332-7931
Fax. (248) 332-8257

Contact: Andrew Wiseman
awiseman@nfe-engr.com

Tel. (248) 332-7931
Fax. (248) 332-8257

City of Auburn Hills, Oakland County, Michigan LANDBANKED PARKING DEVELOPMENT For: FANUC America

Part of the NE 1/4 of Section 26
T.3N , R.10E,
City of Auburn Hills,
Oakland County, Michigan



LEGAL DESCRIPTION

SIDWELL NUMBER: 14-26-226-004
LAND IN THE CITY OF AUBURN HILLS, OAKLAND COUNTY, MI, DESCRIBED AS FOLLOWS:
PART OF THE NORTHEAST 1/4 OF SECTION 26, TOWN 3 NORTH, RANGE 10 EAST, CITY OF AUBURN HILLS, OAKLAND COUNTY, MICHIGAN, MORE PARTICULARLY DESCRIBED AS: COMMENCING AT THE NORTHEAST CORNER OF SECTION 26; THENCE SOUTH 88 DEGREES 19 MINUTES 17 SECONDS WEST, 909.78 FEET ALONG THE NORTH LINE OF SECTION 26; THENCE SOUTH 01 DEGREES 40 MINUTES 43 SECONDS EAST, 120.00 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 01 DEGREES 40 MINUTES 43 SECONDS EAST, 1,738.76 FEET; THENCE SOUTH 56 DEGREES 29 MINUTES 04 SECONDS WEST, 712.57 FEET; THENCE SOUTH 01 DEGREES 40 MINUTES 43 SECONDS EAST, 360.00 FEET; THENCE NORTH 62 DEGREES 11 MINUTES 33 SECONDS WEST, 488.66 FEET; THENCE NORTH 33 DEGREES 24 MINUTES 30 SECONDS WEST, 605.16 FEET; THENCE NORTH 11 DEGREES 37 MINUTES 22 SECONDS WEST, 606.35 FEET; THENCE NORTH 01 DEGREES 21 MINUTES 38 SECONDS EAST, 367.08 FEET; THENCE ALONG A CURVE TO THE LEFT, 755.90 FEET, SAID CURVE HAVING A RADIUS OF 11,568.16 FEET, CENTRAL ANGLE OF 03 DEGREES 44 MINUTES 38 SECONDS AND CHORD BEARING OF NORTH 00 DEGREES 30 MINUTES 41 SECONDS WEST, 755.77 FEET; THENCE NORTH 88 DEGREES 19 MINUTES 17 SECONDS EAST, 1,418.84 FEET TO THE POINT OF BEGINNING.

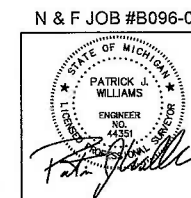
SHEET INDEX

- SP-00 Cover Sheet
 - SP-01 Boundary / Topographic / Tree Survey
 - SP-02 Surveyed Tree List
 - SP-03 Overall Image
 - SP-04 Dimensional Site Plan
 - SP-05 Engineering Site Plan
 - SP-06 ADS underground Detention Chamber Details
 - SP-07 Soil Erosion & Sedimentation Control Plan
-
- L-1 Tree Preservation Plan
 - L-2 Landscape Plan

City of Auburn Hills Standard Details
OCWRC Soil Erosion Control Details

NOT FOR CONSTRUCTION DRAWINGS
SIDWELL # 14-26-226-004

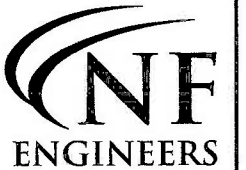
Project Name
**FANUC
America**



CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NOWAKFRAUS.COM

N & F JOB #B096-02



CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
4677 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NOWAKFRAUS.COM

SEAL



PROJECT
Fauc America -
Proposed Parking Lot

CLIENT
Fauc America
3900 W. Hamlin Road
Rochester Hills, MI 48309

Contact: Brad Nowacki
Phone: 248.377-7239
Email: brad.nowacki@
faucamerica.com

PROJECT LOCATION
Part of the NE 1/4
of Section 26
T.3N, R.10E,
City of Auburn Hills,
Oakland County, Michigan
Sidwell No: 14-26-226-004

SHEET
Boundary / Topographic /
Tree Survey



Know what's below
Call before you dig.

DATE ISSUED/REVISED
03-28-26 Rev. per City Review

DRAWN BY:
D. McConkey

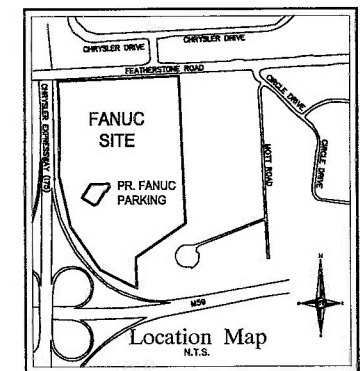
DESIGNED BY:

APPROVED BY:
P. Williams

DATE:
12-23-2025

SCALE: 1" = 30'

NFE JOB NO. SHEET NO.
B096-02 SP-01



LEGAL DESCRIPTION
SIDWELL NUMBER: 14-26-226-004
LANDS IN THE CITY OF AUBURN HILLS, OAKLAND COUNTY, MI,
DESCRIBED AS FOLLOWS:
PART OF THE NORTHEAST 1/4 OF SECTION 26, TOWN 3 NORTH,
RANGE 10 EAST, CITY OF AUBURN HILLS, OAKLAND COUNTY,
MICHIGAN, MORE PARTICULARLY DESCRIBED AS: COMMENCING AT
THE NORTHEAST CORNER OF SECTION 26; THENCE SOUTH 88
DEGREES 19 MINUTES 17 SECONDS WEST, 909.78 FEET ALONG THE
NORTH LINE OF SECTION 26; THENCE SOUTH 01 DEGREES 40
MINUTES 43 SECONDS EAST, 120.00 FEET TO THE POINT OF
BEGINNING; THENCE SOUTH 01 DEGREES 40 MINUTES 43 SECONDS
EAST, 1738.76 FEET; THENCE SOUTH 58 DEGREES 29 MINUTES 04
SECONDS WEST, 712.57 FEET; THENCE SOUTH 01 DEGREES 40
MINUTES 43 SECONDS EAST, 360.00 FEET; THENCE NORTH 82
DEGREES 11 MINUTES 33 SECONDS WEST, 488.66 FEET; THENCE
NORTH 33 DEGREES 24 MINUTES 30 SECONDS WEST, 805.16 FEET;
THENCE NORTH 11 DEGREES 37 MINUTES 22 SECONDS WEST,
808.35 FEET; THENCE NORTH 01 DEGREES 21 MINUTES 30
SECONDS EAST, 367.08 FEET; THENCE ALONG A CURVE TO THE
LEFT, 756.90 FEET, SAID CURVE HAVING A RADIUS OF 11,568.18
FEET, CENTRAL ANGLE OF 03 DEGREES 44 MINUTES 38 SECONDS
AND CHORD BEARING OF NORTH 00 DEGREES 30 MINUTES 41
SECONDS WEST, 755.77 FEET; THENCE NORTH 88 DEGREES 19
MINUTES 17 SECONDS EAST, 1,418.64 FEET TO THE POINT OF
BEGINNING.

DTE DISCLAIMER NOTE
PLEASE NOTE THAT DTE HAS NEW REGULATIONS THAT MAY
IMPACT DEVELOPMENT OUTSIDE THEIR EASEMENT OR THE PUBLIC
RIGHT OF WAY. CLIENT SHALL CONTACT DTE TO DETERMINE THE
NEED STRUCTURES AND POWER LINE REQUIREMENTS AS THEY
MAY APPLY TO ANY FUTURE BUILDING OR RENOVATION OF A
STRUCTURE. DTE ENERGY CAN BE CONTACTED AT 800-477-4747

BASIS OF BEARING NOTE
THE BASIS OF BEARING FOR THIS SURVEY WAS ESTABLISHED BY
THE RECORD DESCRIPTION AS SHOWN IN THE PLAT REFERENCED
HEREON.

FLOOD HAZARD NOTE
THE PROPERTY DESCRIBED ON THIS SURVEY DOES NOT LIE WITHIN
A SPECIAL FLOOD HAZARD AREA AS DEFINED BY THE FEDERAL
EMERGENCY MANAGEMENT AGENCY; THE PROPERTY LIES WITHIN
ZONE X OF THE CURRENT AVAILABLE FLOOD INSURANCE RATE MAP
IDENTIFIED AS MAP NO. 26125C0386F BEARING AN EFFECTIVE DATE OF
08-29-2006.

MISS DIG / UTILITY DISCLAIMER NOTE
A MISS DIG TICKET NUMBER 202502200085, PURSUANT TO
MICHIGAN PUBLIC ACT 174 WAS ENTERED FOR THE SURVEYED
PROPERTY. DUE TO THE EXTENDED REPORTING PERIOD FOR
UNDERGROUND FACILITY OWNERS TO PROVIDE THEIR RECORDS, THE
SURVEY MAY NOT REFLECT ALL THE UTILITIES AT THE TIME THE
SURVEY WAS ISSUED ON 07-11-2025. THE SURVEY ONLY REFLECTS
THOSE UTILITIES WHICH COULD BE OBSERVED BY THE SURVEYOR IN
THE FIELD OR AS DEPICTED BY THE UTILITY COMPANY RECORDS
FURNISHED PRIOR TO THE DATE THIS SURVEY WAS ISSUED. THE
CLIENT AND/OR THEIR AUTHORIZED AGENT SHALL VERIFY WITH THE
FACTILITY OWNERS AND/OR THEIR AUTHORIZED AGENTS, THE
COMPLETENESS AND EXACTNESS OF THE UTILITIES LOCATION.

TOPOGRAPHIC SURVEY NOTES
ALL ELEVATIONS ARE EXISTING ELEVATIONS, UNLESS OTHERWISE
NOTED.
UTILITY LOCATIONS WERE OBTAINED FROM MUNICIPAL OFFICIALS AND
RECORDS OF UTILITY COMPANIES, AND NO GUARANTEE CAN BE
MADE TO THE COMPLETENESS, OR EXACTNESS OF LOCATION.
THIS SURVEY MAY NOT SHOW ALL EASEMENTS OF RECORD UNLESS
AN UPDATED TITLE POLICY IS FURNISHED TO THE SURVEYOR BY
THE OWNER.

LEGEND

MANHOLE	EXISTING SANITARY SEWER
HYDRANT	EXISTING SAN. CLEAN OUT
MANHOLE	EXISTING WATER MAIN
UTILITY POLE	EXISTING STORM SEWER
UTILITY POLE	EX. R.Y. CATCH BASIN
UTILITY POLE	EXISTING BURIED CABLES
UTILITY POLE	OVERHEAD LINES
UTILITY POLE	LIGHT POLE
UTILITY POLE	SIGN
UTILITY POLE	EXISTING GAS MAIN

SURVEYOR'S CERTIFICATE
I HEREBY CERTIFY THAT I HAVE SURVEYED THE PROPERTY
HEREIN DESCRIBED.
Kevin Navaroli
KEVIN NAVAROLI, P.S. NO. 480103503
DATE OF PLAT OR MAP: 07-11-2025



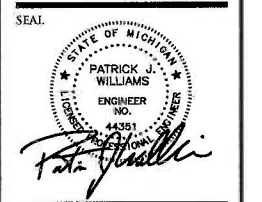
Tag#	Comment	Landmark	Unregulated	Scientific Name	Common Name	DIB (inches)	Add DIB	Cond.	Comments	Tag#	Comment	Landmark	Unregulated	Scientific Name	Common Name	DIB (inches)	Add DIB	Cond.	Comments
604	remove			Quercus alba	White oak	6.0		Good		745	remove			Fraxinus americana	White ash	8.4		Good	
605	remove			Ulmus americana	American elm	6.2		Fair	Asymmetric crown, bent trunk; heavy vine	746	remove			Fraxinus americana	White ash	6.6		Good	
606	remove			Juglans nigra	Black walnut	6.0		Fair	Asymmetric crown	747	remove			Fraxinus americana	White ash	6.6		Good	
607	remove			Ulmus americana	American elm	6.0		Fair	Asymmetric crown	748	remove			Fraxinus americana	White ash	10.9		Good	
608	remove			Quercus rubra	Red oak	6.0		Fair	Asymmetric crown, crowded	749	remove			Juglans nigra	Black walnut	14.1		Good	
609	remove			Juglans nigra	Black walnut	7.0		Good		750	save			Juglans nigra	Black walnut	6.5		Fair	Asymmetric crown; crowded; heavy vine
610	save			Rhus glabra	White pine	6.2		Fair	Trunk wound, landscaped	751	save			Juglans nigra	Black walnut	16.4		Good	
611	remove			Ulmus americana	American elm	11.8		Good		752	remove			Juglans nigra	Black walnut	16.1		Good	
612	save			Quercus macrocarpa	Bur oak	14.3		Good	Slight asymmetric crown; forest edge	753	remove			Fraxinus americana	White ash	7.7		Good	
613	save			Ulmus americana	American elm	12.5		Good	Slight asymmetric crown; forest edge	754	remove			Juglans nigra	Black walnut	12.2		Fair	Co-dominant trunks; asymmetric crown; heavy vine
614	save			Ulmus americana	American elm	11.5		Fair	Asymmetric crown; forest edge; heavy vine	755	remove			Quercus velutina	Black oak	16.8		Good	
615	save			Ulmus americana	American elm	13.3		Good	Vine present	756	remove			Quercus velutina	Black oak	14.0		Good	
616	save		yes	Populus deltoides	Eastern cottonwood	13.5		Good	Vine present	757	remove			Carya ovata	Shagbark hickory	9.0		Good	
617	save			Ulmus americana	American elm	13.1		Fair	Several broken or dead branches; heavy vine	758	remove			Quercus velutina	Black oak	12.3		Fair	Asymmetric crown; twisted or bent trunk
618	save		yes	Fraxinus pennsylvanica	Green ash	20.1	11.2	Poor	Main trunk dead; other crown partially dead	759	remove			Quercus alba	White oak	8.2		Good	
619	remove			Populus deltoides	Eastern cottonwood	20.9		Good		760	remove			Fraxinus americana	White ash	6.1		Fair	Co-dominant trunks; heavy vine
620	save		yes	Fraxinus pennsylvanica	Green ash	7.2		Fair	Several broken or dead branches; heavy vine	761	remove			Quercus velutina	Black oak	7.4		Fair	Asymmetric crown; significant lean; crowded
621	save			Juglans nigra	Black walnut	16.2	14.0	Fair	Co-dominant trunks	762	remove			Quercus velutina	Black oak	12.7		Fair	Asymmetric crown; significant lean; crowded
622	save			Juglans nigra	Black walnut	13.0		Good	Vine present	763	remove			Quercus velutina	Black oak	6.4		Good	
623	save			Ulmus americana	American elm	11.4		Fair	Twisted or bent trunk; heavy vine	764	remove			Carya ovata	Shagbark hickory	9.5		Fair	Asymmetric crown; crowded
624	save			Juglans nigra	Black walnut	22.5		Good	Several broken or dead branches	765	remove		yes	Quercus velutina	Black oak	30.4	24.2	Fair	Co-dominant trunks; several broken or dead branches
625	remove			Juglans nigra	Black walnut	10.3		Good	Vine present	766	remove		yes	Juglans nigra	Black walnut	17.5	12.7	Fair	Co-dominant trunks; asymmetric crown; crowded
626	remove			Juglans nigra	Black walnut	10.5		Fair	Twisted or bent trunk; heavy vine	767	remove		yes	Fraxinus americana	White ash	7.7	6.3	Good	Two of same species, same condition, in close proximity
627	remove			Juglans nigra	Black walnut	7.9		Good		768	remove			Juglans nigra	Black walnut	11.5		Good	
628	save			Juglans nigra	Black walnut	18.5		Good	Vine present	769	remove			Carya ovata	Shagbark hickory	6.2		Good	
629	save			Juglans nigra	Black walnut	8.2		Fair	Asymmetric crown	770	remove			Quercus alba	White oak	12.5		Good	
630	save			Juglans nigra	Black walnut	8.5		Fair	Asymmetric crown; significant lean; heavy vine	771	remove			Quercus alba	White oak	16.1		Good	
631	save			Juglans nigra	Black walnut	12.2		Good		772	remove			Juglans nigra	Black walnut	10.6		Good	
632	remove		yes	Fraxinus pennsylvanica	Green ash	6.5		Fair	Asymmetric crown; twisted or bent trunk; crowded	773	remove		yes	Fraxinus americana	White ash	6.2		Fair	Twisted or bent trunk; several broken or dead branches
633	remove			Juglans nigra	Black walnut	6.1		Fair	Asymmetric crown; crowded	774	remove			Juglans nigra	Black walnut	11.9		Good	
634	remove			Ulmus americana	American elm	8.1		Fair	Asymmetric crown; crowded	775	remove			Juglans nigra	Black walnut	8.7		Good	
635	save			Juglans nigra	Black walnut	18.9		Good		776	remove			Juglans nigra	Black walnut	13.6		Good	
636	save			Juglans nigra	Black walnut	11.5		Good		777	remove			Juglans nigra	Black walnut	11.4		Good	
637	save			Juglans nigra	Black walnut	10.2		Good	Asymmetric crown	778	remove			Juglans nigra	Black walnut	14.2		Good	
638	save		yes	Fraxinus pennsylvanica	Green ash	7.4		Poor	Significant bark pest; crown partially dead; suckers	779	remove			Juglans nigra	Black walnut	10.1		Good	
639	save			Juglans nigra	Black walnut	7.3		Fair	Asymmetric crown; significant lean	780	remove			Juglans nigra	Black walnut	8.1		Good	
640	save			Ulmus americana	American elm	7.7		Fair	Asymmetric crown; twisted or bent trunk; significant lean	781	remove			Juglans nigra	Black walnut	13.3		Good	
641	save			Juglans nigra	Black walnut	9.0		Good		782	remove		yes	Fraxinus americana	White ash	6.5		Fair	Asymmetric crown; crowded
642	save			Juglans nigra	Black walnut	12.6		Fair	Asymmetric crown	783	remove		yes	Fraxinus americana	White ash	6.8		Fair	Asymmetric crown; crowded
643	save			Ulmus americana	American elm	19.5		Good		784	remove		yes	Fraxinus americana	White ash	12.7		Good	
644	save			Juglans nigra	Black walnut	6.9		Fair	Asymmetric crown; crowded; heavy vine	785	remove			Fraxinus americana	White ash	6.8		Good	
645	remove		yes	Fraxinus pennsylvanica	Green ash	8.3		Good		786	save		yes	Fraxinus americana	White ash	7.4		Good	
646	remove		yes	Acer saccharinum	Silver maple	8.5	7.1	Poor	Co-dominant; main trunk dead	787	save		yes	Fraxinus americana	White ash	8.2		Good	
647	remove		yes	Fraxinus pennsylvanica	Green ash	7.8		Good	Vine present	788	save		yes	Fraxinus americana	White ash	8.8		Good	
648	remove			Quercus macrocarpa	Bur oak	11.8		Good		789	remove			Juglans nigra	Black walnut	8.5		Good	Crowded
649	remove			Fraxinus pennsylvanica	Green ash	8.3		Good		790	remove		yes	Fraxinus americana	White ash	7.3		Fair	Asymmetric crown; crowded
650	remove		yes	Populus deltoides	Eastern cottonwood	11.5		Good	Vine present	791	remove			Juglans nigra	Black walnut	6.5		Fair	Asymmetric crown; crowded
651	remove		yes	Fraxinus pennsylvanica	Green ash	7.3		Good		792	remove			Juglans nigra	Black walnut	10.6		Good	
652	remove			Quercus macrocarpa	Bur oak	8.8		Good		793	remove		yes	Fraxinus americana	White ash	7.8		Fair	Co-dominant trunks
653	remove			Ulmus americana	American elm	6.8		Good	Vine present	794	remove			Juglans nigra	Black walnut	6.9		Good	Co-dominant trunks; twisted or bent trunk; crowded; vine
654	remove		yes	Fraxinus pennsylvanica	Green ash	7.4		Good	Suckers	795	remove			Juglans nigra	Black walnut	15.3		Good	
655	remove			Prunus serotina	Black cherry	10.2		Good	Twisted or bent trunk	796	remove		yes	Fraxinus americana	White ash	6.5		Fair	Vine choking trunk; heavy vine
656	remove		yes	Fraxinus pennsylvanica	Green ash	7.2		Good		797	remove		yes	Fraxinus americana	White ash	8.0		Good	
657	remove		yes	Fraxinus pennsylvanica	Green ash	7.2		Good		798	remove			Fraxinus americana	White ash	7.2		Good	Heavy vine
658	remove		yes	Fraxinus pennsylvanica	Green ash	7.7		Good		799	remove		yes	Prunus serotina	Black cherry	17.5		Good	
659	remove			Pinus strobus	Scots pine	16.3		Good		800	remove		yes	Fraxinus americana	White ash	8.5		Good	
660	remove			Quercus macrocarpa	Bur oak	10.8		Good		801	save			Juglans nigra	Black walnut	16.3		Good	
661	remove			Quercus rubra	Red oak	7.3		Good	Vine present	802	remove		yes	Fraxinus americana	White ash	6.1		Good	
662	remove		yes	Fraxinus pennsylvanica	Green ash	6.3		Fair	Asymmetric crown; crowded; heavy vine	803	save		yes	Fraxinus americana	White ash	8.5		Good	
663	remove		yes	Fraxinus pennsylvanica	Green ash	6.7		Good	Vine present	804	save		yes	Fraxinus americana	White ash	8.0		Good	
664	remove			Juglans nigra	Black walnut	17.7		Fair	Asymmetric crown; twisted or bent trunk	805	save		yes	Fraxinus americana	White ash	8.0		Fair	Bark pest; heavy vine
665	remove			Juglans nigra	Black walnut	18.6		Good		806	save			Ulmus americana	American elm	12.7		Good	
666	remove			Ulmus americana	American elm	8.4		Fair	Asymmetric crown; twisted or bent trunk; heavy vine	807	save			Ulmus americana	American elm	9.8		Good	Bark pest; several broken or dead branches
667	remove			Juglans nigra	Black walnut	13.9		Good		808	save		yes	Fraxinus americana	White ash	7.4		Fair	
668	remove		yes	Fraxinus pennsylvanica	Green ash	9.3		Good		809	save			Juglans nigra	Black walnut	10.8		Good	
669	remove		yes	Fraxinus pennsylvanica	Green ash	8.0		Fair	Twisted or bent trunk	810	save			Prunus serotina	Black cherry	9.4		Poor	Co-dominant; 1 crown partially dead; twisted / bent trunk; trunk rot
670	remove			Quercus velutina	Black oak	8.8		Poor	Shore crown break off	811	save			Prunus serotina	Black cherry	11.3		Good	Vine present
671	remove			Juglans nigra	Black walnut	17.7		Good		812	save			Acer platanoides	Norway maple	15.1		Good	
672	remove			Juglans nigra	Black walnut	6.4		Fair	Asymmetric crown; crowded; significant lean	813	save		yes	Fraxinus americana	White ash	7.6		Good	Vine present
673	remove			Quercus rubra	Red oak	12.4		Good		814	save			Ulmus americana	American elm	6.2		Good	Vine present
674	remove			Quercus alba	White oak	10.1		Good		815	save		yes	Fraxinus americana	White ash	6.6		Fair	Bark pest
675	remove			Quercus velutina	Black oak	12.0		Good	Vine present	816	save		yes	Fraxinus americana	White ash	12.2		Good	Vine present
676	remove			Juglans nigra	Black walnut	8.7		Good		817	save		yes	Fraxinus americana	White ash	6.6		Good	Vine present
677	remove			Ulmus americana	American elm	6.5		Fair	Twisted or bent trunk; heavy vine	818	save		yes	Fraxinus americana	White ash	9.0		Good	
678	remove			Juglans nigra	Black walnut	19.7		Good		819	save			Juglans nigra	Black walnut	17.6		Good	Vine present
679	remove			Quercus alba	White oak	7.5		Good		820	save			Ulmus americana	American elm	6.2		Good	Vine present
680	remove			Juglans nigra	Black walnut	20.4		Good		821	save		yes	Fraxinus americana	White ash	10.1		Good	
681	remove			Quercus velutina	Black oak	13.2		Good		822	save			Ulmus americana	American elm	10.5		Good	
682	remove			Juglans nigra	Black walnut	9.3		Good		823	save			Carya ovata	Shagbark hickory	9.5		Good	
683	remove			Quercus alba	White oak	12.5		Good		824	save		yes	Fraxinus americana	White ash	8.0		Fair	Bark pest; trunk wound; heavy vine
684	remove			Quercus alba	White oak	6.5		Good		825	save		yes	Fraxinus americana	White ash	6.0		Good	
685	remove			Quercus alba	White oak	10.7		7.3	Co-dominant trunks	826	save		yes	Fraxinus americana	White ash	6.0		Good	
686	remove			Quercus alba	White oak	8.9		Good		827	save		yes	Fraxinus americana	White ash	6.4		Good	
687	remove			Quercus alba	White oak	13.6		Fair	Asymmetric crown	828	save			Milvus sp.	Crowsapple	9.5		9.1, 8.5, 8.1	Multiple trunks
688	remove			Ulmus americana	American elm	6.6		Fair	Asymmetric crown; twisted or bent trunk	829	save		yes	Fraxinus americana	White ash	7.5		Good	
689	remove			Juglans nigra	Black walnut	22.6	17.1	Fair	Asymmetric crown; weak union	830	save		yes	Fraxinus americana	White ash	6.4		Good	
690	remove			Juglans nigra	Black walnut	11.8		Good		831	save		yes	Robinia pseudoacacia	Black locust	20.0		Good	
691	remove			Ulmus americana	American elm	12.2		Fair	Twisted or bent trunk	832	save		yes	Robinia pseudoacacia	Black locust	15.2		Good	Same near
692	remove		yes	Fraxinus pennsylvanica	Green ash	6.7		Good		833	save		yes	Rhamnus callitriche	Common buckthorn	7.0		6.9	Co-dominant trunks
693</																			



NF ENGINEERS

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NOWAKFRAUS.COM



PROJECT
Fanuc America -
Proposed Parking Lot

CLIENT
Fanuc America
3900 W. Hamlin Road
Rochester Hills, MI 48309

Contact: Brad Nowacki
Phone: 248.377-7239
Email: brad.nowacki@
fanucamerica.com

PROJECT LOCATION
Part of the NE 1/4
of Section 26
T.3N, R.10E,
City of Auburn Hills,
Oakland County, Michigan
Sidwell No: 14-26-226-004

SHEET
Overall Image



DATE ISSUED/REVISED
03-26-26 Rev. per City Review

DRAWN BY:
A. Wiseman
DESIGNED BY:
A. Wiseman
APPROVED BY:
P. Williams
DATE:
02-10-2026

SCALE 1" = 30'

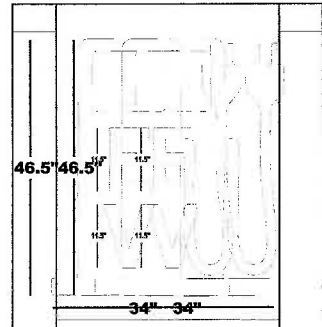
NFE JOB NO. SHEET NO.
B096-02 SP-03



EV PARKING SIGN DETAIL
N.T.S.



EV PARKING SIGN DETAIL
N.T.S.

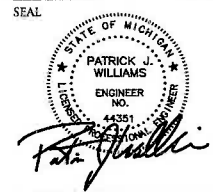


EV PARKING DRIVEWAY MARKING DETAIL
N.T.S.



CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
4677 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL (248) 332-7931
FAX (248) 332-8257
WWW.NOWAKFRAUS.COM



PROJECT
Fanuc America -
Proposed Parking Lot

CLIENT
Fanuc America
3900 W. Hamlin Road
Rochester Hills, MI 48309

Contact: Brad Nowacki
Phone: 248.377-7239
Email: brad.nowacki@fanucamerica.com

PROJECT LOCATION
Part of the NE 1/4
of Section 26
T.3N, R.10E,
City of Auburn Hills,
Oakland County, Michigan
Sidwell No: 14-26-226-004

SHEET
Dimensional Site Plan



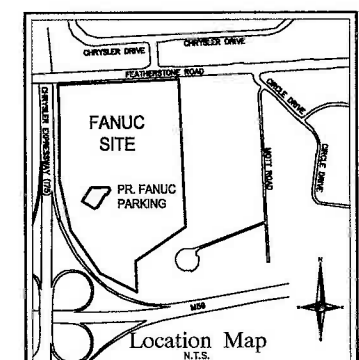
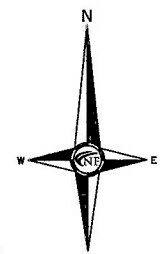
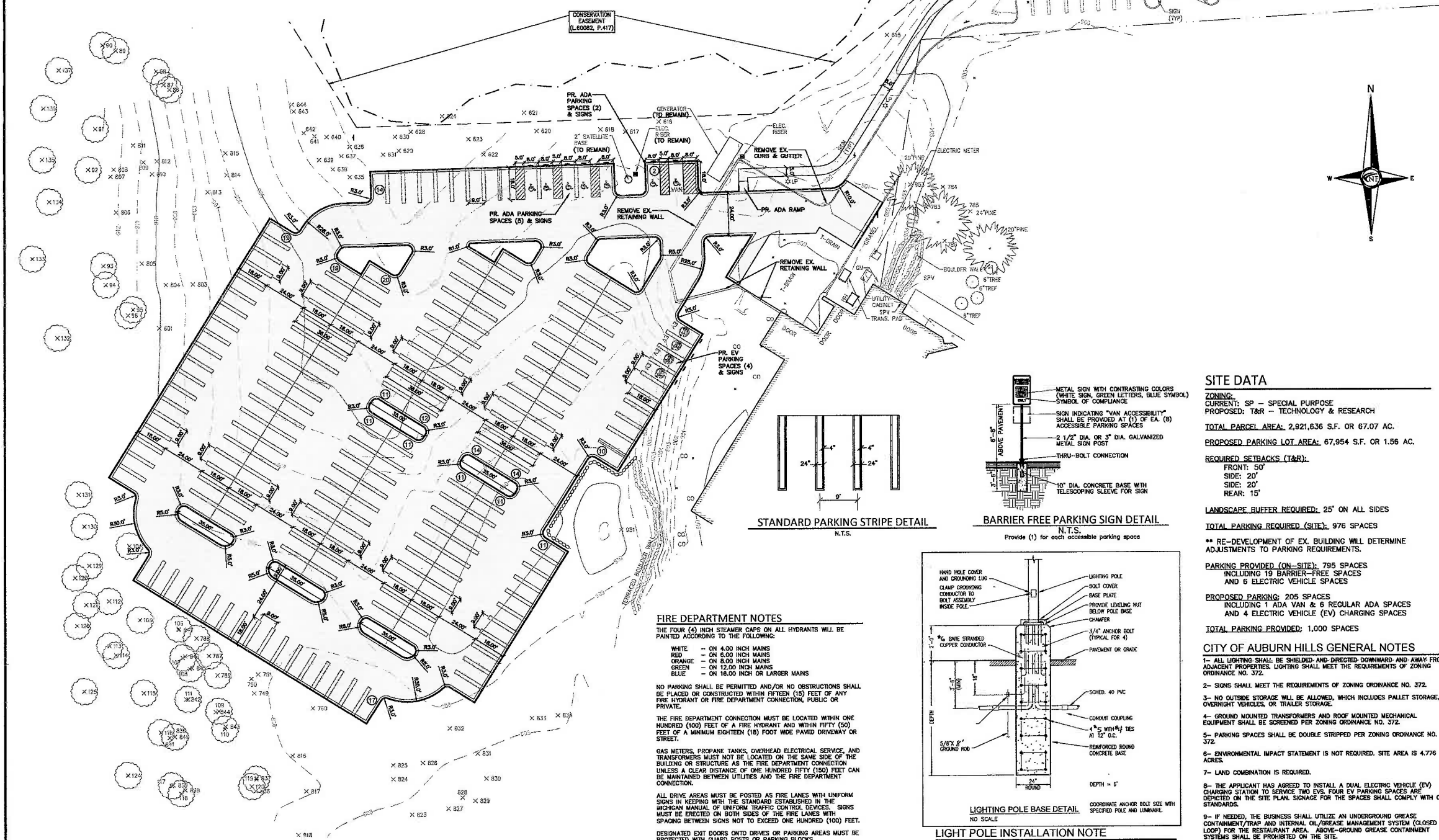
DATE ISSUED/REVISED
03-26-26 Rev. per City Review

DRAWN BY:
A. Wiseman
DESIGNED BY:
A. Wiseman
APPROVED BY:
P. Williams

DATE:
02-10-2026

SCALE: 1" = 30'

NFE JOB NO. SHEET NO.
B096-02 SP-04

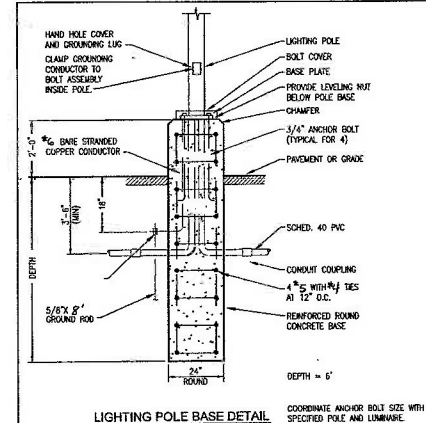
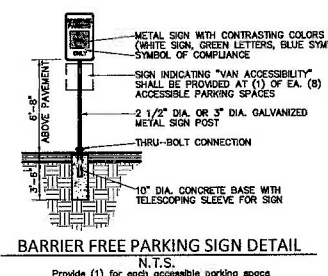
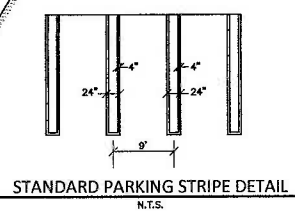


PAVING LEGEND

[Symbol]	PROPOSED CONCRETE PAVEMENT
[Symbol]	PROPOSED ASPHALT PAVEMENT

LEGAL DESCRIPTION
SIDWELL NUMBER: 14-26-226-004
LAND IN THE CITY OF AUBURN HILLS, OAKLAND COUNTY, MI, DESCRIBED AS FOLLOWS:
PART OF THE NORTHEAST 1/4 OF SECTION 26, TOWN 3 NORTH, RANGE 10 EAST, CITY OF AUBURN HILLS, OAKLAND COUNTY, MICHIGAN, MORE PARTICULARLY DESCRIBED AS: COMMENCING AT THE NORTHEAST CORNER OF SECTION 26; THENCE SOUTH 88 DEGREES 19 MINUTES 17 SECONDS WEST, 909.78 FEET ALONG THE NORTH LINE OF SECTION 26; THENCE SOUTH 01 DEGREES 40 MINUTES 43 SECONDS EAST, 120.00 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 01 DEGREES 40 MINUTES 43 SECONDS EAST, 1,706.78 FEET; THENCE SOUTH 50 DEGREES 29 MINUTES 04 SECONDS WEST, 712.57 FEET; THENCE SOUTH 01 DEGREES 40 MINUTES 43 SECONDS EAST, 300.00 FEET; THENCE NORTH 62 DEGREES 11 MINUTES 33 SECONDS WEST, 484.66 FEET; THENCE NORTH 33 DEGREES 24 MINUTES 30 SECONDS WEST, 605.16 FEET; THENCE NORTH 11 DEGREES 37 MINUTES 22 SECONDS WEST, 806.35 FEET; THENCE NORTH 01 DEGREES 21 MINUTES 38 SECONDS EAST, 267.08 FEET; THENCE ALONG A CURVE TO THE LEFT, 725.90 FEET, SAID CURVE HAVING A RADIUS OF 11,588.18 FEET, CENTRAL ANGLE OF 80 DEGREES 44 MINUTES 38 SECONDS AND CHORD BEARING OF NORTH 00 DEGREES 30 MINUTES 41 SECONDS WEST, 755.77 FEET; THENCE NORTH 88 DEGREES 19 MINUTES 17 SECONDS EAST, 1,418.84 FEET TO THE POINT OF BEGINNING.

SITE DATA
ZONING:
CURRENT: SP - SPECIAL PURPOSE
PROPOSED: T&R - TECHNOLOGY & RESEARCH
AS FOLLOWS:
TOTAL PARCEL AREA: 2,921,636 S.F. OR 67.07 AC.
PROPOSED PARKING LOT AREA: 67,954 S.F. OR 1.56 AC.
REQUIRED SETBACKS (T&R):
FRONT: 50'
SIDE: 20'
REAR: 15'
LANDSCAPE BUFFER REQUIRED: 25' ON ALL SIDES
TOTAL PARKING REQUIRED (SITE): 976 SPACES
** RE-DEVELOPMENT OF EX. BUILDING WILL DETERMINE ADJUSTMENTS TO PARKING REQUIREMENTS.
PARKING PROVIDED (ON-SITE): 795 SPACES INCLUDING 19 BARRIER-FREE SPACES AND 6 ELECTRIC VEHICLE SPACES
PROPOSED PARKING: 205 SPACES INCLUDING 1 ADA VAN & 6 REGULAR ADA SPACES AND 4 ELECTRIC VEHICLE (EV) CHARGING SPACES
TOTAL PARKING PROVIDED: 1,000 SPACES
CITY OF AUBURN HILLS GENERAL NOTES
1- ALL LIGHTING SHALL BE SHIELDED AND DIRECTED DOWNWARD AND AWAY FROM ADJACENT PROPERTIES. LIGHTING SHALL MEET THE REQUIREMENTS OF ZONING ORDINANCE NO. 372.
2- SIGNS SHALL MEET THE REQUIREMENTS OF ZONING ORDINANCE NO. 372.
3- NO OUTSIDE STORAGE WILL BE ALLOWED, WHICH INCLUDES PALLET STORAGE, OVERNIGHT VEHICLES, OR TRAILER STORAGE.
4- GROUND MOUNTED TRANSFORMERS AND ROOF MOUNTED MECHANICAL EQUIPMENT SHALL BE SCREENED PER ZONING ORDINANCE NO. 372.
5- PARKING SPACES SHALL BE DOUBLE STRIPPED PER ZONING ORDINANCE NO. 372.
6- ENVIRONMENTAL IMPACT STATEMENT IS NOT REQUIRED. SITE AREA IS 4.776 ACRES.
7- LAND COMBINATION IS REQUIRED.
8- THE APPLICANT HAS AGREED TO INSTALL A DUAL ELECTRIC VEHICLE (EV) CHARGING STATION TO SERVICE TWO EVs. FOUR EV PARKING SPACES ARE DEDICATED ON THE SITE PLAN. SIGNAGE FOR THE SPACES SHALL COMPLY WITH CITY STANDARDS.
9- IF NEEDED, THE BUSINESS SHALL UTILIZE AN UNDERGROUND GREASE CONTAINMENT/TRAP AND INTERNAL OIL/BREASE MANAGEMENT SYSTEM (CLOSED LOOP) FOR THE RESTAURANT AREA. ABOVE-GROUND GREASE CONTAINMENT SYSTEMS SHALL BE PROHIBITED ON THE SITE.



FIRE DEPARTMENT NOTES
THE FOUR (4) INCH STEAMER CAPS ON ALL HYDRANTS WILL BE PAINTED ACCORDING TO THE FOLLOWING:
WHITE - ON 4.00 INCH MAINS
RED - ON 6.00 INCH MAINS
ORANGE - ON 8.00 INCH MAINS
GREEN - ON 12.00 INCH MAINS
BLUE - ON 16.00 INCH OR LARGER MAINS
NO PARKING SHALL BE PERMITTED AND/OR NO OBSTRUCTIONS SHALL BE PLACED OR CONSTRUCTED WITHIN FIFTEEN (15) FEET OF ANY FIRE HYDRANT OR FIRE DEPARTMENT CONNECTION, PUBLIC OR PRIVATE.
THE FIRE DEPARTMENT CONNECTION MUST BE LOCATED WITHIN ONE HUNDRED (100) FEET OF A FIRE HYDRANT AND WITHIN FIFTY (50) FEET OF A MINIMUM EIGHTEEN (18) FOOT WIDE PAVED DRIVEWAY OR STREET.
GAS METERS, PROPANE TANKS, OVERHEAD ELECTRICAL SERVICE AND TRANSFORMERS MUST NOT BE LOCATED ON THE SAME SIDE OF THE BUILDING OR STRUCTURE AS THE FIRE DEPARTMENT CONNECTION UNLESS A CLEAR DISTANCE OF ONE HUNDRED FIFTY (150) FEET CAN BE MAINTAINED BETWEEN UTILITIES AND THE FIRE DEPARTMENT CONNECTION.
ALL DRIVE AREAS MUST BE POSTED AS FIRE LANES WITH UNIFORM SIGNS IN KEEPING WITH THE STANDARD ESTABLISHED IN THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. SIGNS MUST BE ERRECTED ON BOTH SIDES OF THE FIRE LANES WITH SPACING BETWEEN SIGNS NOT TO EXCEED ONE HUNDRED (100) FEET. DESIGNATED EXIT DOORS ONTO DRIVES OR PARKING AREAS MUST BE PROTECTED WITH GUARD POSTS OR PARKING BLOCKS.
A WHITE HIGH VISIBILITY STRIP SHALL BE PAINTED ON THE UPPER FLANGE OF ALL FIRE HYDRANTS.

REQUIRED DETENTION VOLUME CALCULATIONS

100 Year Post-Development Detention Volume

Name of Project: FANUC Parking
 Location of Project: Auburn Hills 4806-02
 Contributing Area (A_c): 1.587 ac
 Weighted Runoff Coefficient (C_w): 0.92
 Time of Concentration (T_c): 10.06 min

- Calculate Required Water Quality Volume (W_q) (1" Rainfall Event)
 $W_q = 3630(C)A$
 5,300 cft
- Calculate Required Water Quality Rate (Q_w)
 $Q_w = [C]A[30.20(T_c + 9.17)]^{0.81}$
 4.03 cfs
- Calculate Required Channel Protection Volume (V_{cp}) (1.5" Rainfall Event)
 $V_{cp} = 4719(C)A$
 6,890 cft
- Calculate Required Extended Detention Volume (V_{ed}) (1.5" Rainfall Event)
 $V_{ed} = 692(C)A$
 10,070 cft
- Calculate Extended Detention Outlet Rate (Q_{ed}) (48 hour discharge)
 $Q_{ed} = V_{ed} / [(48 \text{ hr})(60 \text{ min})(60 \text{ sec})] = V_{ed} / 172800$
 0.06 cfs
- Calculate 100-year Rainfall Intensity (I₁₀₀)
 $I_{100} = 83.3 / [T_c + 9.17]^{0.81}$
 7.62 in/hr
- Calculate 100-year Storm Inlet Rate (Q_{100-in})
 $Q_{100-in} = C[100]A$
 11.12 cfs
- Determine the Variable Release Rate (Q_{vrr})
 $Q_{vrr} =$ Restricted Outlet rate per local municipality
 0.130 cfs
- Calculate Allowable 100-year Storm Outlet Rate (Q_{100R})
 $Q_{100R} = (Q_{100-in}) - Q_{vrr}$
 0.24 cfs
- Calculate Storage Curve Factor (R)
 $R = 0.205 - (0.15) / (Q_{100R} / 100 - in)$
 0.783
- Calculate Required 100-year Storm Volume (V_{100R})
 $V_{100R} = 18,385(C)A$
 27,719 cft
- Calculate 100-year Storm Detention Storage Volume (V_{100D})
 $V_{100D} = (V_{100R})(R)$
 21,693 cft
- Calculate 100-year Storm Detention Storage Volume (V_{100D})
 $V_{100D} = (V_{100R})(R)$
 21,693 cft

TOTAL DETENTION VOLUME REQUIRED: 21,693 cft

T_c = 15 Minutes
 $I = 30.20p^{0.32} / (T_c + 9.17)^{0.81}$
 n (Conc.) = 0.013
 n (Pvc) = 0.013

City of Auburn Hills, Oakland County, Michigan
 Storm Sewer Calculations

Drainage Area	From No.	To No.	Drainage Area (Acres)	Runoff Coefficient (C)	Equivalent Area (C * A)	Total Area (Sum C * A)	Time of Concentration (Minutes)	Rainfall Intensity (Inches/Hr.)	Actual Discharge (CFS)	Pipe Size (Inches)	Pipe Slope (% Slope)	Pipe Length (Feet)	Flow Velocity (Ft/Sec)	Time of Travel (Minutes)	Full Pipe Capacity (CFS)	H. G. Elevation (Feet)	H. G. Elevation (Feet)	H. G. Slope (% Slope)	Theoretical Velocity (Ft/Sec)	Ground Elevation (Upper) (Feet)	Invert Elevation (Upper) (Feet)	Invert Elevation (Lower) (Feet)	Upper Rim (Feet)	
C	9	6	0.177	0.91	0.161	0.161	15.00	3.798	0.612	12	0.32	147	2.566	0.95	2.015	904.37	904.33	0.029	0.78	908.00	0.47	904.00	902.53	3.63
A	8	7	0.245	0.92	0.225	0.225	15.00	3.798	0.656	12	0.32	144	2.566	0.94	2.015	900.17	900.09	0.058	1.09	902.75	0.46	899.75	899.29	2.58
D	7	6	0.155	0.92	0.143	0.368	15.94	3.683	1.355	12	0.32	100	2.566	0.65	2.015	898.81	898.67	0.145	1.73	906.50	0.32	899.19	898.87	6.69
B	5	4	0.438	0.91	0.399	0.560	15.00	3.798	2.126	12	0.36	41	2.722	0.25	2.138	900.55	900.40	0.395	2.71	902.75	0.15	899.75	899.60	2.20
B	4	3	0.000	0.92	0.000	0.860	15.25	3.769	2.106	12	0.35	96	2.722	0.59	2.138	900.38	900.04	0.350	2.68	903.50	0.35	899.59	899.24	3.12
G	3	2	0.126	0.92	0.116	0.676	15.84	3.694	2.496	12	0.50	62	3.208	0.32	2.519	899.94	899.63	0.481	3.18	903.00	0.31	899.14	898.83	3.06
F	2	1	0.153	0.94	0.144	0.819	16.16	3.656	2.996	15	0.24	84	2.079	0.54	3.165	899.71	899.53	0.215	2.44	905.75	0.20	898.73	898.53	8.04
E	6	1	0.293	0.92	0.270	0.789	16.58	3.608	2.891	15	0.24	35	2.579	0.22	3.165	899.75	899.69	0.199	2.35	905.50	0.08	898.77	898.69	5.75
E	1	E	0.000	0.92	0.000	1.616	16.81	3.582	5.796	18	0.32	23	3.383	0.11	5.942	899.68	899.61	0.304	3.28	906.15	0.07	898.49	898.41	6.47

Detention Outlet Pipe

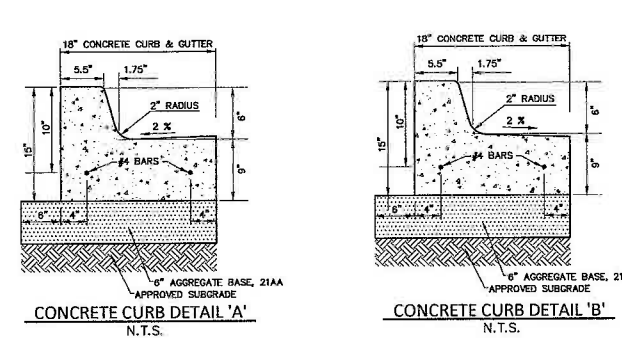
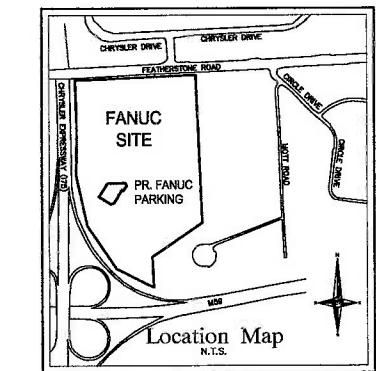
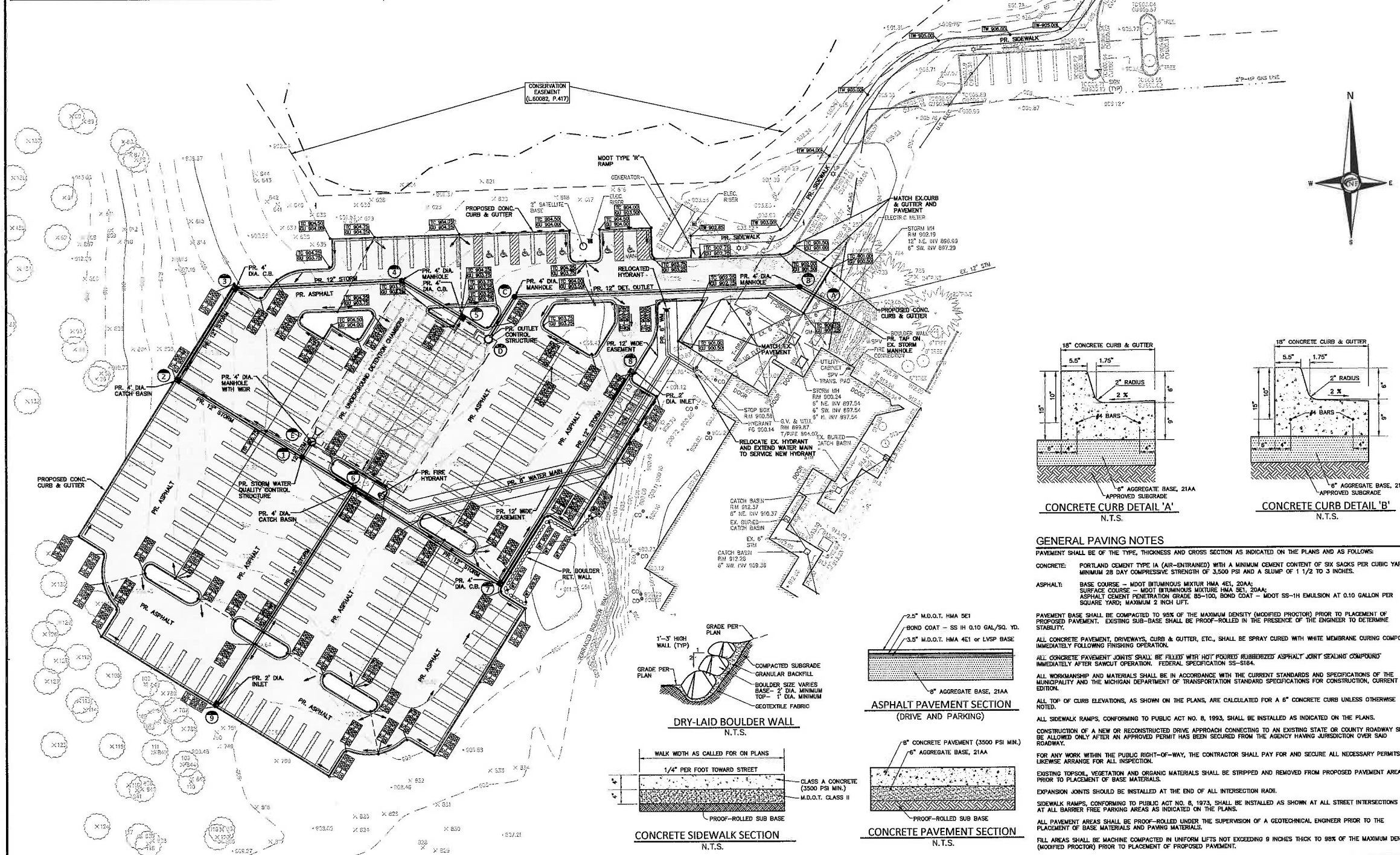
Drainage Area	From No.	To No.	Drainage Area (Acres)	Runoff Coefficient (C)	Equivalent Area (C * A)	Total Area (Sum C * A)	Time of Concentration (Minutes)	Rainfall Intensity (Inches/Hr.)	Actual Discharge (CFS)	Pipe Size (Inches)	Pipe Slope (% Slope)	Pipe Length (Feet)	Flow Velocity (Ft/Sec)	Time of Travel (Minutes)	Full Pipe Capacity (CFS)	H. G. Elevation (Feet)	H. G. Elevation (Feet)	H. G. Slope (% Slope)	Theoretical Velocity (Ft/Sec)	Ground Elevation (Upper) (Feet)	Invert Elevation (Upper) (Feet)	Invert Elevation (Lower) (Feet)	Upper Rim (Feet)	
-	E	D	0.000	0.91	0.000	0.000	15.00	3.798	0.200	45	0.10	96	3.462	0.47	38.242	901.27	901.27	0.000	0.02	903.50	0.10	898.37	898.27	2.23
-	D	C	0.000	0.91	0.000	0.000	15.00	3.798	0.200	12	0.32	27	2.566	0.18	2.015	898.89	898.89	0.003	0.25	903.50	0.09	898.17	898.09	4.61
-	C	B	0.000	0.92	0.000	0.000	15.18	3.776	0.200	12	0.32	164	2.566	1.07	2.015	898.27	898.26	0.003	0.25	903.25	0.52	897.99	897.46	4.98
-	B	A	0.000	0.92	0.000	0.000	16.24	3.647	0.200	12	0.32	24	2.566	0.15	2.015	898.09	898.08	0.003	0.25	901.00	0.08	897.36	897.28	2.91

Land Use Summary

Characteristic	Existing Conditions	Proposed Conditions
Total Development Area (ac):	1.56	1.56
Impervious Area (ac):	0.025	1.47
Pervious Area (ac):	1.535	0.09

Area Breakdown Cover Type	Existing Conditions	Proposed Conditions
Meadow/fallow/natural areas (non-cultivated)	1.560	0.000
Predominant NRCS Soil Type (A, B, C, or D)	C	C
Improved areas (turf grass, landscape, row crops) (ac)	0.000	0.090
Predominant NRCS Soil Type (A, B, C, or D)	C	C
Wooded Areas	1.316	0.000
Predominant NRCS Soil Type (A, B, C, or D)	C	C
Calculated CPVC Volume (C.F.)		6,773
CPVC Volume Provided (C.F.)		0
CPVC Volume Deficit (C.F.)		6,773

NOTE: USDA website states soil type 23B are present on site, actual infiltration testing has not been performed but the well drained, sandy loam soils, will provide CPVC infiltration.



GENERAL PAVING NOTES

PAVEMENT SHALL BE OF THE TYPE, THICKNESS AND CROSS SECTION AS INDICATED ON THE PLANS AND AS FOLLOWS:

CONCRETE: PORTLAND CEMENT TYPE IA (AIR-ENTRAINED) WITH A MINIMUM CEMENT CONTENT OF SIX SACKS PER CUBIC YARD, MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,500 PSI AND A SLUMP OF 1 1/2 TO 3 INCHES.

ASPHALT: BASE COURSE - MDOT BITUMINOUS MIXTURE HMA 4E1, 20AA; SURFACE COURSE - MDOT BITUMINOUS MIXTURE HMA 5E1, 20AA; ASPHALT CEMENT PENETRATION GRADE 85-100, BOND COAT - MDOT SS-1H EMULSION AT 0.10 GALLON PER SQUARE YARD; MAXIMUM 2 INCH LIFT.

PAVEMENT BASE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT. EXISTING SUB-BASE SHALL BE PROOF-ROLLED IN THE PRESENCE OF THE ENGINEER TO DETERMINE STABILITY.

ALL CONCRETE PAVEMENT, DRIVEWAYS, CURBS & GUTTER, ETC., SHALL BE SPRAY CURED WITH WHITE MEMBRANE CURING COMPOUND IMMEDIATELY AFTER SAWCUT OPERATION. FEDERAL SPECIFICATION SS-5164.

ALL CONCRETE PAVEMENT JOINTS SHALL BE FILLED WITH HOT FUSED RUBBERIZED ASPHALT JOINT SEALING COMPOUND IMMEDIATELY AFTER SAWCUT OPERATION. FEDERAL SPECIFICATION SS-5164.

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY AND THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, CURRENT EDITION.

ALL TOP OF CURB ELEVATIONS, AS SHOWN ON THE PLANS, ARE CALCULATED FOR A 6" CONCRETE CURB UNLESS OTHERWISE NOTED.

ALL SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1993, SHALL BE INSTALLED AS INDICATED ON THE PLANS.

CONSTRUCTION OF A NEW OR RECONSTRUCTED DRIVE APPROACH CONNECTING TO AN EXISTING STATE OR COUNTY ROADWAY SHALL BE ALLOWED ONLY AFTER AN APPROVED PERMIT HAS BEEN SECURED FROM THE AGENCY HAVING JURISDICTION OVER SAID ROADWAY.

FOR ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL PAY FOR AND SECURE ALL NECESSARY PERMITS AND LICENSES ARRANGE FOR ALL INSPECTION.

EXISTING TOPSOIL, VEGETATION AND ORGANIC MATERIALS SHALL BE STRIPPED AND REMOVED FROM PROPOSED PAVEMENT AREA PRIOR TO PLACEMENT OF BASE MATERIALS.

EXPANSION JOINTS SHOULD BE INSTALLED AT THE END OF ALL INTERSECTION RADII.

SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1993, SHALL BE INSTALLED AS SHOWN AT ALL STREET INTERSECTIONS AND AT ALL BARBER FREE PARKING AREAS AS INDICATED ON THE PLANS.

ALL PAVEMENT AREAS SHALL BE PROOF-ROLLED UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF BASE MATERIALS AND PAVING MATERIALS.

FILL AREAS SHALL BE MACHINE COMPACTED IN UNIFORM LIFTS NOT EXCEEDING 9 INCHES THICK TO 98% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT.

ESTIMATED QUANTITIES

DESCRIPTION	QUANTITY	UNITS
4" ASPHALT ON 6" 21AA BASE	7,315	S.Y.
4" CONCRETE SIDEWALK	3,350	S.F.
6" CONCRETE CURB & GUTTER	2,012	L.F.

DESCRIPTION	QUANTITY	UNITS
12" G-76 GLASS IV SEWER PIPE	947	L.F.
4" DIA. MANHOLE	4	EA.
4" DIA. CATCH BASIN W/ 2' SUMP	3	EA.
2" DIA. INLET	1	EA.
STORM OUTLET CONTROL STRUCTURE	1	EA.
STORM WATER QUALITY CONTROL STRUCTURE	1	EA.
UNDERGROUND DETENTION CHAMBER SYSTEM	1	L.S.

DESCRIPTION	QUANTITY	UNITS
6" CL. 54 DUCTILE IRON PIPE	43	L.F.
6" CL. 54 DUCTILE IRON PIPE	198	L.F.
6" HYDRANT ASSEMBLY	1	EA.

PAVING LEGEND

[Symbol]	PROPOSED CONCRETE PAVEMENT
[Symbol]	PROPOSED ASPHALT PAVEMENT

LEGEND

[Symbol]	MANHOLE	[Symbol]	EXISTING SANITARY SEWER
[Symbol]	HYDRANT	[Symbol]	SAN. CLEAN OUT
[Symbol]	GATE VALVE	[Symbol]	EXISTING WATERMAIN
[Symbol]	MANHOLE CATCH BASIN	[Symbol]	EXISTING STORM SEWER
[Symbol]	UTILITY POLE	[Symbol]	EX. R. Y. CATCH BASIN
[Symbol]	GUY WIRE	[Symbol]	EXISTING BURIED CABLES
[Symbol]	OVERHEAD LINES	[Symbol]	EXISTING GAS MAIN
[Symbol]	PR. WATER MAIN	[Symbol]	PR. SANITARY SEWER
[Symbol]	PR. STORM SEWER	[Symbol]	PR. WATER MAIN
[Symbol]	PR. R. Y. CATCH BASIN	[Symbol]	PR. STORM SEWER
[Symbol]	PROPOSED LIGHT POLE	[Symbol]	PR. R. Y. CATCH BASIN
[Symbol]	PR. TOP OF CURB ELEVATION	[Symbol]	PR. TOP OF WALK ELEVATION
[Symbol]	PR. GUTTER ELEVATION	[Symbol]	PR. TOP OF P.W.M. ELEVATION
[Symbol]	PR. TOP OF WALK ELEVATION	[Symbol]	FINISH GRADE ELEVATION

NF ENGINEERS

CIVIL ENGINEERS
 LAND SURVEYORS
 LAND PLANNERS

NOWAK & FRAUS ENGINEERS
 4677 WOODWARD AVE.
 PONTIAC, MI 48342-5032
 TEL. (248) 332-7931
 FAX. (248) 332-8257
 WWW.NOWAKFRAUS.COM

SEAL

PATRICK J. WILLIAMS
 ENGINEER NO. 48351

PROJECT
 Fanuc America - Proposed Parking Lot

CLIENT
 Fanuc America
 3900 W. Hamlin Road
 Rochester Hills, MI 48309

Contact: Brad Nowacki
 Phone: 248.377-7239
 Email: brad.nowacki@fanucamerica.com

PROJECT LOCATION
 Part of the NE 1/4
 of Section 26
 T.3N, R.10E,
 City of Auburn Hills,
 Oakland County, Michigan
 Sidwell No: 14-26-226-004

SHEET
 Engineering Site Plan

811
 Know what's below
 Call before you dig.

DATE ISSUED/REVISED
 03-26-28 Rev. per City Review

DRAWN BY:
 A. Wiseman

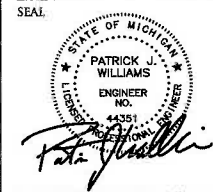
DESIGNED BY:
 A. Wiseman

APPROVED BY:
 P. Williams

DATE:
 02-10-2026

SCALE: 1" = 30'

NFE JOB NO. SHEET NO.
 B096-02 SP-05



PROJECT
 Fanuc America -
 Proposed Parking Lot

CLIENT
 Fanuc America
 3900 W. Hamlin Road
 Rochester Hills, MI 48309

Contact: Brad Nowacki
 Phone: 248.377.7239
 Email: brad.nowacki@fanucamerica.com

PROJECT LOCATION
 Part of the NE 1/4
 of Section 26
 T.3N., R.10E,
 City of Auburn Hills,
 Oakland County, Michigan
 Sidwell No: 14-26-226-004

SHEET
 ADS Underground
 Detention Chamber Details



DATE ISSUED/REVISED
 03-26-26 Rev. per City Review

DRAWN BY:
 A. Wiseman
 DESIGNED BY:
 A. Wiseman
 APPROVED BY:
 P. Williams

DATE:
 02-10-2026

SCALE: N.T.S.

NFE JOB NO. SHEET NO.
 B096-02 SP-06

PROPOSED LAYOUT	PROPOSED ELEVATIONS	PART TYPE	ITEM ON LAYOUT	DESCRIPTION	INVERT ABOVE BASE OF CHAMBER	MAX FLOW
117 STORMTECH MC-3500 CHAMBERS	MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED)	051.00				
118 STORMTECH MC-3500 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)	051.50				
119 STONE ABOVE (S)	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)	052.50				
120 STONE BELOW (B)	MINIMUM ALLOWABLE GRADE (TOP OF READY CONCRETE PAVEMENT)	053.50				
20 STONE Voids	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)	053.50				
22491 INSTALLED SYSTEM VOLUME (C)	TOP OF STONE	053.50				
(PERIMETER STONE INCLUDED)	TOP OF MC-3500 CHAMBER	053.50				
(COVER STONE INCLUDED)	TOP OF MANHOLE INVERT	053.50				
(BASE STONE INCLUDED)	TOP OF ISOLATOR ROW PLUS INVERT	053.50				
6441 SYSTEM DRAIN (D)	TOP OF ISOLATOR ROW PLUS INVERT	053.50				
3430 SYSTEM PERIMETER (S)	TOP OF CONCRETE STRUCTURE	053.50				
	TOP OF MC-3500 CHAMBER	053.50				
	TOP OF CONCRETE STRUCTURE	053.50				
	UNDERDRAIN INVERT	053.50				
	UNDERDRAIN	053.50				
	UNDERDRAIN	053.50				
	UNDERDRAIN	053.50				

NOTES

- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- NOT FOR CONSTRUCTION: THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

StormTech Chamber System
 ADS
 SHEET 2 OF 5

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT

- INSPECTION PORTS (IF PRESENT)
- REMOVE OPEN LID ON HYDROPLAST INLINE DRAIN
- REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
- USING A FLASHLIGHT AND STADA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
- LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
- IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS

- A FRIED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- APPLY MULTIPLE PHASES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- VACUUM STRUCTURE SLUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS, RECORD OBSERVATIONS AND ACTIONS

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION, ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACUUMING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

StormTech Chamber System
 ADS
 SHEET 4 OF 5

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRENGTH MATERIAL AND PREPARATION REQUIREMENTS.
C INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE (3" LAYER) TO 2" (50 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'C' LAYER.	GRANULAR WELL-SORTED SOIL/AGGREGATE MIXTURES, <5% FINES OR MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M45* A-1, A-2.4, A-3 OR AASHTO M63* 3, 3.57, 4, 4.67, 5, 5.6, 5.7, 6, 6.7, 6.8, 7, 7.8, 8, 8.9, 9, 10	BEGIN COMPACTIONS AFTER 3" (75 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 90% PROCTOR DENSITY FOR WELL-SORTED MATERIALS, AND 90% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ON LAYERS TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE	AASHTO M45* 3, 3.57, 4, 4.67, 5, 5.6, 5.7	NO COMPACTION REQUIRED.
A FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT BOTTOM OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE	AASHTO M45* 3, 3.57, 4, 4.67, 5, 5.6, 5.7	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

PLEASE NOTE:

- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR, FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M45) STONE"
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 3" LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 1" (25 mm) (MAX) LIFTS USING TWO FULL COVERSAGES WITH A VIBRATORY COMPACTOR.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY BRANING OR DISBRANING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
- ONCE LAYER 'D' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
- WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".

NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x70 DESIGNATIONS.
- MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2707 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. REFERENCE STORMTECH DESIGN MANUAL FOR BEARING CAPACITY GUIDANCE.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTERNAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT². THE ARC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND 3) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

StormTech Chamber System
 ADS
 SHEET 3 OF 5

UNDERDRAIN DETAIL

MC-3500 TECHNICAL SPECIFICATION

NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	CHAMBER STORAGE	MINIMUM INSTALLED STORAGE*	WEIGHT
77.0" x 45.0" x 88.0" (1956 mm x 1143 mm x 2184 mm)	189.8 CUBIC FEET (5.11 m ³)	175.0 CUBIC FEET (4.90 m ³)	134 lbs. (60.8 kg)

NOMINAL END CAP SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	END CAP STORAGE	MINIMUM INSTALLED STORAGE*	WEIGHT
75.0" x 45.0" x 22.2" (1905 mm x 1143 mm x 564 mm)	14.8 CUBIC FEET (0.42 m ³)	45.1 CUBIC FEET (12.8 m ³)	49 lbs. (22.2 kg)

*ASSUMES 12" (300 mm) STONE ABOVE, 6" (226 mm) STONE FOUNDATION, 6" SPACING BETWEEN CHAMBERS, 6" (152 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY

MC-SERIES END CAP INSERTION DETAIL

STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B" SURFS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T" END CAPS WITH A PRE-FABRICATED WELDED STUB END WITH "W" END CAPS WITH A PRE-FABRICATED WELDED STUB END WITH "W"

PART #	STUB	B	C
MC3500EP1P00T	6" (150 mm)	33.31" (844 mm)	0.68" (17 mm)
MC3500EP1P00B	6" (150 mm)	31.16" (791 mm)	0.61" (15 mm)
MC3500EP1P00T	8" (200 mm)	31.16" (791 mm)	0.61" (15 mm)
MC3500EP1P00B	8" (200 mm)	29.04" (738 mm)	0.53" (14 mm)
MC3500EP1P10T	10" (250 mm)	29.04" (738 mm)	0.53" (14 mm)
MC3500EP1P10B	10" (250 mm)	26.38" (670 mm)	0.45" (11 mm)
MC3500EP1P12T	12" (300 mm)	26.38" (670 mm)	0.45" (11 mm)
MC3500EP1P12B	12" (300 mm)	23.30" (594 mm)	0.37" (9 mm)
MC3500EP1P14T	14" (350 mm)	23.30" (594 mm)	0.37" (9 mm)
MC3500EP1P14B	14" (350 mm)	20.33" (518 mm)	0.29" (7 mm)
MC3500EP1P16T	16" (400 mm)	20.33" (518 mm)	0.29" (7 mm)
MC3500EP1P16B	16" (400 mm)	17.77" (450 mm)	0.25" (6 mm)
MC3500EP1P18T	18" (450 mm)	17.77" (450 mm)	0.25" (6 mm)
MC3500EP1P18B	18" (450 mm)	14.48" (368 mm)	0.20" (5 mm)
MC3500EP1P20T	20" (500 mm)	14.48" (368 mm)	0.20" (5 mm)
MC3500EP1P20B	20" (500 mm)	11.82" (300 mm)	0.16" (4 mm)
MC3500EP1P22T	22" (550 mm)	11.82" (300 mm)	0.16" (4 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL

StormTech Chamber System
 ADS
 SHEET 5 OF 5

GENERAL SOIL EROSION CONTROL NOTES

CUTTING, FILLING AND GRADING SHALL BE MINIMIZED AND THE NATURAL TOPOGRAPHY OF THE SITE SHALL BE PRESERVED TO THE MAXIMUM POSSIBLE EXTENT, EXCEPT WHERE SPECIFIC FINDINGS DEMONSTRATE THAT MAJOR ALTERATIONS WILL STILL MEET THE PURPOSES AND REQUIREMENTS OF THIS ORDINANCE.

DEVELOPMENT SHALL BE STAGED TO KEEP THE EXPOSED AREAS OF SOIL AS SMALL AS PRACTICABLE.

SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED BETWEEN THE DISTURBED AREA AND ANY WATERCOURSES, INCLUDING RIVERS, STREAMS, CREEKS, LAKES, PONDS AND OTHER WATERCOURSES, WETLANDS, OR ROADWAYS OR NEAR THE SITE.

SEDIMENT RESULTING FROM ACCELERATED SOIL EROSION SHALL BE REMOVED FROM RUNOFF WATER BEFORE THAT WATER LEAVES THE SITE.

TEMPORARY AND PERMANENT SOIL EROSION CONTROL MEASURES DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF WATER AROUND, THROUGH, OR AWAY FROM THE SITE SHALL BE DESIGNED TO LIMIT THE WATER FLOW TO A NON-EROSIVE VELOCITY.

TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE REMOVED AFTER PERMANENT SOIL EROSION CONTROL MEASURES HAVE BEEN IMPLEMENTED. ALL SITES SHALL BE STABILIZED WITH PERMANENT SOIL EROSION CONTROL MEASURES.

IF LAKES, PONDS, CREEKS, STREAMS, OR WETLANDS ARE LOCATED ON OR NEAR THE SITE, EROSION CONTROL MEASURES WHICH DIVERT RUNOFF AND TRAP SEDIMENT MUST BE PROVIDED AT STRATEGIC LOCATIONS. STRAW BALE BERMS MAY BE USED AS TEMPORARY STORMWATER DIVERSION STRUCTURES, BUT WILL NOT BE CONSIDERED SUFFICIENT FOR TRAPPING SEDIMENT. THE USE OF SEDIMENT BASINS, FILTER FABRIC, VEGETATED BUFFER STRIPS, AND ROCK FILTERS IN LIEU OF STRAW BALE BERMS SHALL BE STRONGLY ENCOURAGED. OTHER MEASURES MAY BE REQUIRED IF REASONABLY DETERMINED TO BE NECESSARY TO PROTECT A WATERCOURSE OR WETLAND.

WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER AN EARTH CHANGE HAS BEEN COMPLETED OR WHEN SIGNIFICANT EARTH CHANGE ACTIVITY CEASES, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED.

PERMANENT EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 15 (FIFTEEN) CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED.

VEGETATED BUFFER STRIPS SHALL BE CREATED OR RETAINED ALONG THE EDGES OF ALL LAKES, PONDS, CREEKS, STREAMS, OTHER WATERCOURSES, OR WETLANDS.

EROSION AND SEDIMENTATION CONTROL MEASURES SHALL RECEIVE REGULAR MAINTENANCE TO ASSURE PROPER FUNCTIONING.

ALL GRADING PLANS AND SPECIFICATIONS, INCLUDING EXTENSIONS OF PREVIOUSLY APPROVED PLANS, SHALL INCLUDE PROVISIONS FOR EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH, BUT NOT LIMITED TO, THE STANDARDS CONTAINED IN THE "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", PUBLISHED BY THE OAKLAND SOIL CONSERVATION DISTRICT.

SOIL EROSION SEQUENCE OF CONSTRUCTION

INSTALL CRUSHED CONCRETE ACCESS DRIVE AND TEMPORARY CULVERTS AT THE SITE ENTRANCE (IF REQUIRED) AS INDICATED ON THE PLANS.

INSTALL SILT FENCE OR SIMILAR APPROVED SILT BARRIER ALONG PROPERTY LINES AND AROUND SENSITIVE NATURAL FEATURES AS INDICATED ON THE PLANS.

EXCAVATE A SHALLOW SWALE/DITCH AROUND PERIMETER OF SITE IF WARRANTED, THEN GRADE THE TEMPORARY SWALE TO AN EXISTING DRAINAGE FACILITY. PLACE OUTLET FILTER IN EXISTING UPSTREAM STORM SEWER FACILITIES.

IF INDICATED ON CONSTRUCTION PLANS, SEDIMENTATION BASINS, DETENTION POND, ETC., SHALL BE CONSTRUCTED PRIOR TO THE INSTALLATION OF ANY OTHER WORK.

STRIP EXISTING TOPSOIL, VEGETATION AND ORGANIC MATTER FROM BUILDING PAD AND PARKING AREAS. COMMENCE LAND BALANCE AND MASS GRADING OPERATIONS. MAINTAIN A MINIMUM BUFFER OF 15' OF EXISTING VEGETATION WHEREVER POSSIBLE AROUND SITE PERIMETER. STOCK PILES SHOULD BE LOCATED AWAY FROM EXISTING DRAINAGE FACILITIES.

EXCAVATE AND INSTALL UNDERGROUND UTILITIES. INSTALL PEASTONE INLET FILTERS AROUND ALL NEW STORM SEWER FACILITIES AS INDICATED ON THE PLANS. EXISTING AND PROPOSED STORM SEWER FACILITIES SHALL BE PROTECTED FROM EROSION AND SEDIMENT INFILTRATION AT ALL TIMES.

COMMENCE FINAL GRADING AND TRIMMING OPERATIONS. PREPARE SUBGRADE FOR INSTALLATION OF PROPOSED PAVEMENT.

SEED AND MULCH ALL DISTURBED SITE AREAS AND INSTALL SITE LANDSCAPING.

REMOVE CONSTRUCTION BERMS AND JET WAG NEWLY INSTALLED STORM SEWER SYSTEM AS REQUIRED BY THE MUNICIPALITY.

REMOVE ALL REMAINING TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ONCE PERMANENT MEASURES ARE ESTABLISHED.

WHENEVER POSSIBLE, THE SITE SHALL BE GRADED TO WITHIN SIX INCHES (6") OF THE PROPOSED FINISH GRADE PRIOR TO INSTALLATION OF UNDERGROUND FACILITIES.

STAGING OF PROPOSED WORK SHALL BE COMPLETED BY THE CONTRACTOR AS REQUIRED TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED AREAS.

SOIL EROSION MAINTENANCE

ALL SOIL EROSION SHALL BE CONTAINED ON SITE.

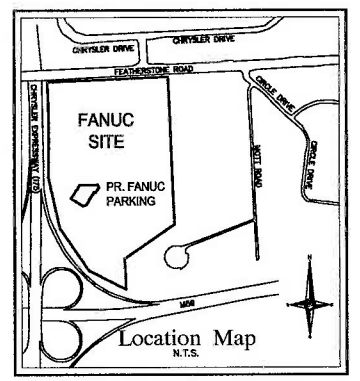
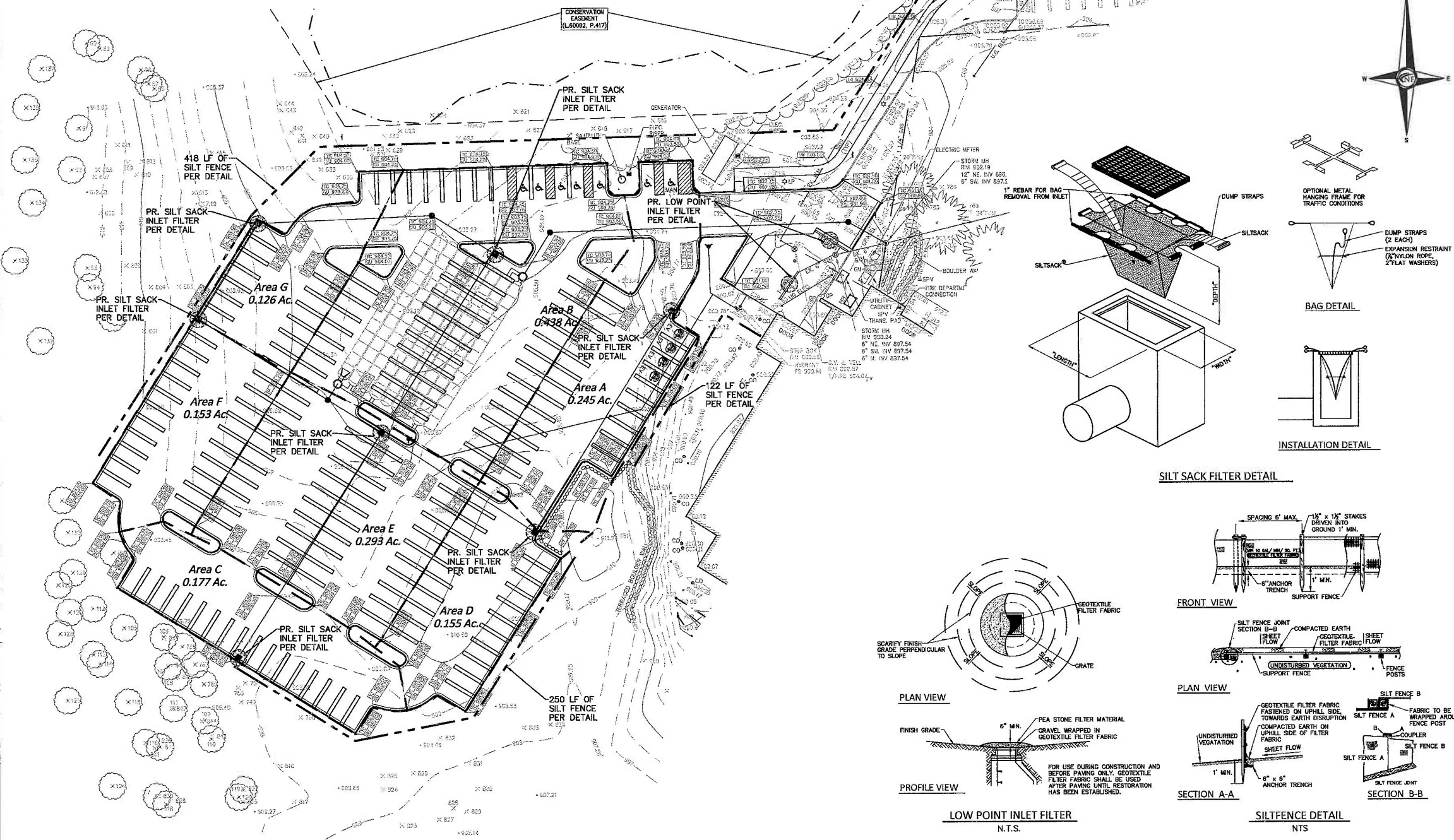
THE OWNER SHALL CAUSE TO HAVE PERIODIC REMOVAL OF DEBRIS AND SEDIMENT BUILD-UP FROM EROSION CONTROL MEASURES DURING CONSTRUCTION.

ANY EROSION CONTROL MEASURES DAMAGED BY THE CONTRACTORS OPERATION SHALL BE REPLACED THE SAME WORKING DAY.

THE OWNER SHALL OBTAIN OR CAUSE HIS CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS, PAY ALL PERMIT FEES AND POST ALL BONDS TO EACH AND ALL GOVERNMENT AGENCIES HAVING JURISDICTION OVER EROSION CONTROL MEASURES ON THIS PROJECT.

UNTIL ALL DISTURBED AREAS HAVE BEEN RE-ESTABLISHED WITH VEGETATION, THE DEVELOPER IS RESPONSIBLE FOR INSPECTING AND MAINTAINING ALL SOIL EROSION CONTROL MEASURES AFTER EACH STORM EVENT.

UPON COMPLETION OF EACH STORM STRUCTURE, THE CONTRACTORS SHALL INSTALL THE REQUIRED SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLAN.



ESTIMATED QUANTITIES

DESCRIPTION	QUANTITY	UNITS
SILT FABRIC FENCING	1,350	L.F.
LOW POINT INLET FILTER	2	EA.
SILT SACK INLET FILTER	7	EA.

LEGEND

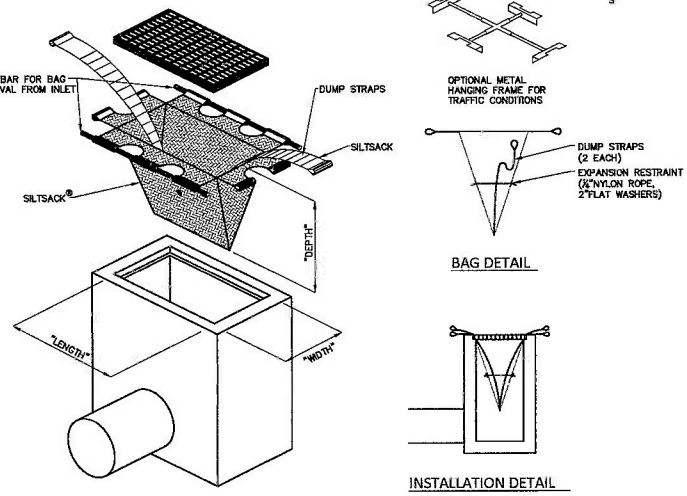
- INDICATES LIMITS OF SILT FABRIC FENCE AND LIMITS OF DISTURBANCE.
- INDICATES LOW POINT INLET FILTER ON REAR YARD DRAINAGE STRUCTURES
- INDICATES SILT SACK OR EQUAL ON CURB & GUTTER DRAINAGE STRUCTURE

PAVING LEGEND

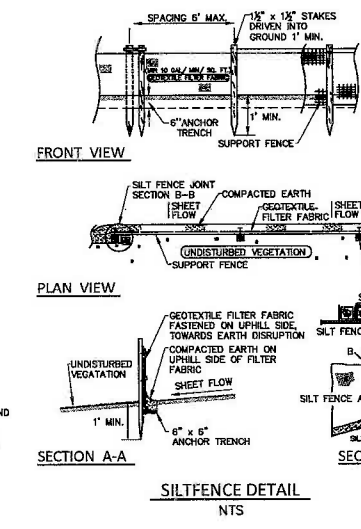
- ▭ PROPOSED CONCRETE PAVEMENT
- ▭ PROPOSED ASPHALT PAVEMENT

LEGEND

- MANHOLE
- HYDRANT
- MANHOLE CATCH BASIN
- UTILITY POLE
- GUY WIRE
- SIGN
- EXISTING GAS MAIN
- PR. SANITARY SEWER
- PR. WATER MAIN
- PR. STORM SEWER
- PR. R. Y. CATCH BASIN
- PROPOSED LIGHT POLE
- PR. TOP OF CURB ELEVATION
- PR. GUTTER ELEVATION
- PR. TOP OF WALK ELEVATION
- PR. TOP OF PAVT. ELEVATION
- FINISH GRADE ELEVATION



SILT SACK FILTER DETAIL



LOW POINT INLET FILTER
N.T.S.

SILT FENCE DETAIL
N.T.S.

NF ENGINEERS
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
4677 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NOWAKFRAUS.COM

SEAL

STATE OF MICHIGAN
PATRICK J. WILLIAMS
ENGINEER NO. 14351
Patrick Williams

PROJECT
Fanuc America - Proposed Parking Lot

CLIENT
Fanuc America
3900 W. Hamlin Road
Rochester Hills, MI 48309

Contact: Brad Nowacki
Phone: 248.377-7239
Email: brad.nowacki@fanucomerica.com

PROJECT LOCATION
Part of the NE 1/4 of Section 26
T.3N, R.10E,
Oakland County, Michigan
Sidwell No: 14-26-226-004

SHEET
Soil Erosion & Sedimentation Control Plan

811
Know what's below
Call before you dig.

DATE ISSUED/REVISED
03-28-26 Rev. per City Review

DRAWN BY:
A. Wiseman

DESIGNED BY:
A. Wiseman

APPROVED BY:
P. Williams

DATE:
02-10-2026

SCALE: 1" = 30'

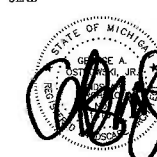
NFF JOB NO. SHEET NO.
B096-02 SP-07



CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
4677 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257

SEAL



PROJECT
Fanuc America -
Proposed Parking Lot

CLIENT
Fanuc America
3900 W. Hamlin Road
Rochester Hills, MI 48309

Contact: Brad Nowacki
Phone: 248.377-7239
Email: brad.nowacki@fanucamerica.com

PROJECT LOCATION
Part of the NE 1/4
of Section 26
T.3N., R.10E,
City of Auburn Hills,
Oakland County, Michigan
Sidwell No: 14-26-226-004

SHEET
Tree Preservation Plan



Know what's below
Call before you dig.

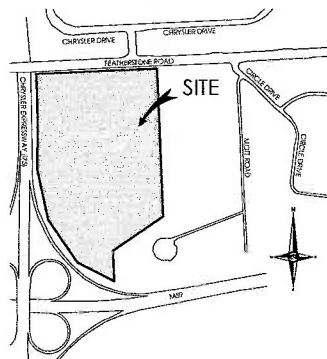
REVISIONS
2026-03-26 REVISED PER CITY REVIEW

DRAWN BY:
G. Ostrowski
DESIGNED BY:
G. Ostrowski
APPROVED BY:
G. Ostrowski

DATE:
01/20/2026

SCALE: 1" = 30'

NFE JOB NO. SHEET NO.
B096-02 L1



LOCATION MAP
N.T.S.

REPLACEMENT TREE NOTES

- ALL REPLACEMENT TREES SHALL HAVE A STRAIGHT TRUNK
- ALL REPLACEMENT TREES ARE TO BE NORTHERN GROWN
- ALL REPLACEMENT TREES ARE TO BE STATE DEPARTMENT OF AGRICULTURE GRADE NO 1 OR BETTER
- ALL REPLACEMENT TREES ARE CONSIDERED PROTECTED REGARDLESS OF SIZE
- ALL TREE SHALL BE GUARANTEED FOR A MINIMUM OF TWO YEARS
- ALL LANDSCAPED AREAS SHALL BE IRRIGATED WITH AN UNDERGROUND SPRINKLER SYSTEM

CITY TREE PROTECTION NOTES

- IDENTIFY ON SITE ALL TREES OR AREAS WHICH ARE BEING PROPOSED TO BE PRESERVED WITH FLUORESCENT ORANGE SPRAY PAINT (CHALK BASE) OR BY RED FLAGGING TAPE.
- ERECT BARRIERS OF FOUR (4) FEET HIGH FENCING STAKED WITH METAL T-POSTS FIVE (5) FEET ON CENTER OR ALL SUCH TREES OR GROUPS OF TREES PROPOSED TO REMAIN.
- PROTECTIVE BARRIERS ARE TO BE ERRECTED PRIOR TO CLEARING OR GRUBBING ON THE SITE, AND BARRIERS ARE TO REMAIN IN TACT UNTIL APPROVED BY THE CITY TO BE REMOVED, OR WHEN A CERTIFICATE OF OCCUPANCY IS ISSUED.
- KEEP CLEAR ALL DEBRIS OR FILL, EQUIPMENT, AND MATERIAL FROM WITHIN THE REQUIRED PROTECTIVE BARRIER.
- DURING CONSTRUCTION THE OWNER, DEVELOPER, OR AGENT SHALL NOT CAUSE OR PERMIT ANY ACTIVITY WITHIN THE DRIP LINE OF ANY PROTECTED TREE OR GROUP OF TREES INCLUDING, BUT NOT LIMITED TO, THE STORAGE OF EQUIPMENT, DUMPSTERS, DIRT, AND EXCAVATED MATERIAL, BUILDING WASTE OR MATERIAL, OR ANY OTHER MATERIAL HARMFUL TO THE LIFE OF A TREE.
- NO DAMAGING ATTACHMENT, WIRES (OTHER THAN CABLES FOR TREES), SIGNS, OR PERMITS MAY BE FASTENED TO ANY TREE PROTECTED BY THIS ORDINANCE.

ENVIRONMENTAL NOTES

- TREE PROTECTION FENCING SHALL BE PLACED AT THE LIMITS OF TREE DRIP LINE TYPICAL. ALL UNDERSTORY VEGETATION SHALL BE PRESERVED WITHIN THE LIMITS OF THE PROTECTED AREA.
- ALL TREES TO BE REMOVED SHALL BE REPLACED PER THE CITY OF AUBURN HILLS WOODLANDS PRESERVATION ORDINANCE NO. 483. ALL PROPOSED REPLACEMENT TREES SHALL BE GUARANTEED FOR AT LEAST TWO (2) YEARS.
- PROTECTIVE BARRIERS SHALL REMAIN IN PLACE UNTIL THE CITY AUTHORIZES REMOVAL, OR ISSUES A FINAL CERTIFICATE OF OCCUPANCY, WHICHEVER OCCURS FIRST
- ALL TREES BEING RETAINED WILL BE IDENTIFIED BY PAINTING, TAGGING, OR FLAGGING.

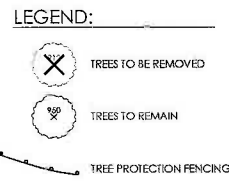
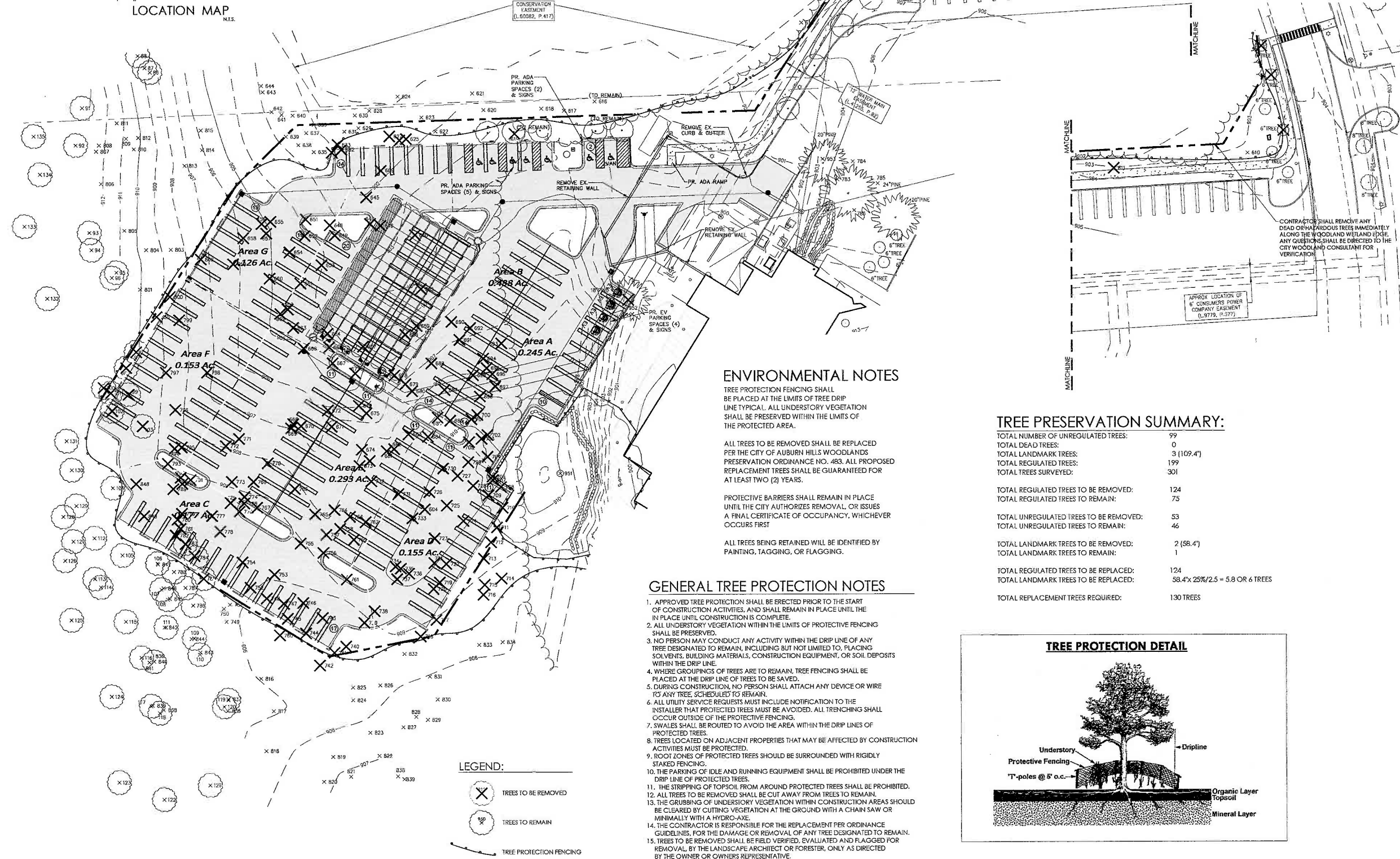
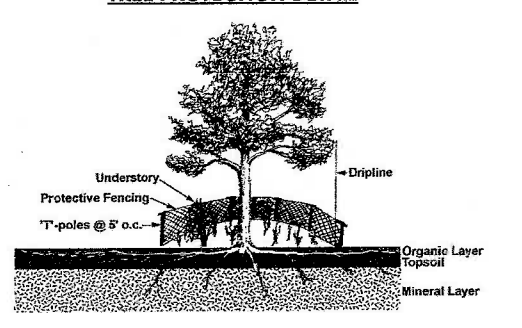
GENERAL TREE PROTECTION NOTES

- APPROVED TREE PROTECTION SHALL BE ERRECTED PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, AND SHALL REMAIN IN PLACE UNTIL THE IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
- ALL UNDERSTORY VEGETATION WITHIN THE LIMITS OF PROTECTIVE FENCING SHALL BE PRESERVED.
- NO PERSON MAY CONDUCT ANY ACTIVITY WITHIN THE DRIP LINE OF ANY TREE DESIGNATED TO REMAIN, INCLUDING BUT NOT LIMITED TO, PLACING SOLVENTS, BUILDING MATERIALS, CONSTRUCTION EQUIPMENT, OR SOIL DEPOSITS WITHIN THE DRIP LINE.
- WHERE GROUPINGS OF TREES ARE TO REMAIN, TREE FENCING SHALL BE PLACED AT THE DRIP LINE OF TREES TO BE SAVED.
- DURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY DEVICE OR WIRE TO ANY TREE SCHEDULED TO REMAIN.
- ALL UTILITY SERVICE REQUESTS MUST INCLUDE NOTIFICATION TO THE INSTALLER THAT PROTECTED TREES MUST BE AVOIDED. ALL TRENCHING SHALL OCCUR OUTSIDE OF THE PROTECTIVE FENCING.
- SWALES SHALL BE ROUTED TO AVOID THE AREA WITHIN THE DRIP LINES OF PROTECTED TREES.
- TREES LOCATED ON ADJACENT PROPERTIES THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITIES MUST BE PROTECTED.
- ROOT ZONES OF PROTECTED TREES SHOULD BE SURROUNDED WITH RIGIDLY STAKED FENCING.
- THE PARKING OF IDLE AND RUNNING EQUIPMENT SHALL BE PROHIBITED UNDER THE DRIP LINE OF PROTECTED TREES.
- THE STRIPPING OF TOPSOIL FROM AROUND PROTECTED TREES SHALL BE PROHIBITED.
- ALL TREES TO BE REMOVED SHALL BE CUT AWAY FROM TREES TO REMAIN.
- THE GRUBBING OF UNDERSTORY VEGETATION WITHIN CONSTRUCTION AREAS SHOULD BE CLEARED BY CUTTING VEGETATION AT THE GROUND WITH A CHAIN SAW OR MINIMALLY WITH A HYDRO-AXE.
- THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT PER ORDINANCE GUIDELINES, FOR THE DAMAGE OR REMOVAL OF ANY TREE DESIGNATED TO REMAIN.
- TREES TO BE REMOVED SHALL BE FIELD VERIFIED, EVALUATED AND FLAGGED FOR REMOVAL, BY THE LANDSCAPE ARCHITECT OR FORESTER, ONLY AS DIRECTED BY THE OWNER OR OWNERS REPRESENTATIVE.

TREE PRESERVATION SUMMARY:

TOTAL NUMBER OF UNREGULATED TREES:	99
TOTAL DEAD TREES:	0
TOTAL LANDMARK TREES:	3 (109.4%)
TOTAL REGULATED TREES:	199
TOTAL TREES SURVEYED:	301
TOTAL REGULATED TREES TO BE REMOVED:	124
TOTAL REGULATED TREES TO REMAIN:	75
TOTAL UNREGULATED TREES TO BE REMOVED:	53
TOTAL UNREGULATED TREES TO REMAIN:	46
TOTAL LANDMARK TREES TO BE REMOVED:	2 (58.4%)
TOTAL LANDMARK TREES TO REMAIN:	1
TOTAL REGULATED TREES TO BE REPLACED:	124
TOTAL LANDMARK TREES TO BE REPLACED:	58.4% x 25%/2.5 = 5.8 OR 6 TREES
TOTAL REPLACEMENT TREES REQUIRED:	130 TREES

TREE PROTECTION DETAIL



SEAL



PROJECT
**Fanuc America -
 Proposed Parking Lot**

CLIENT
**Fanuc America
 3900 W. Hamlin Road
 Rochester Hills, MI 48309**

Contact: Brad Nowacki
 Phone: 248.377.7239
 Email: brad.nowacki@fanucamerica.com

PROJECT LOCATION
 Part of the NE 1/4
 of Section 26
 T.3N, R.10E,
 City of Auburn Hills,
 Oakland County, Michigan
 Sidwell No: 14-26-226-004

SHEET
Landscape Plan



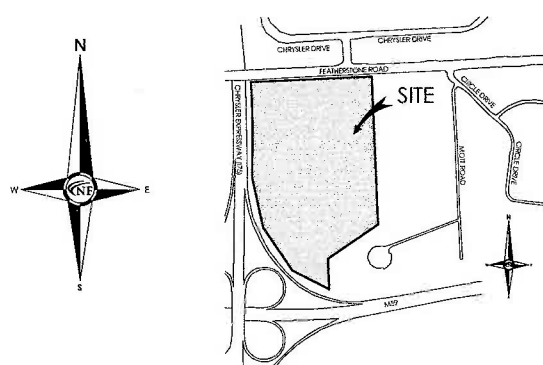
REVISIONS
 2026-03-26 REVISED PER CITY REVIEW

DRAWN BY:
G. Ostrowski
 DESIGNED BY:
G. Ostrowski
 APPROVED BY:
G. Ostrowski

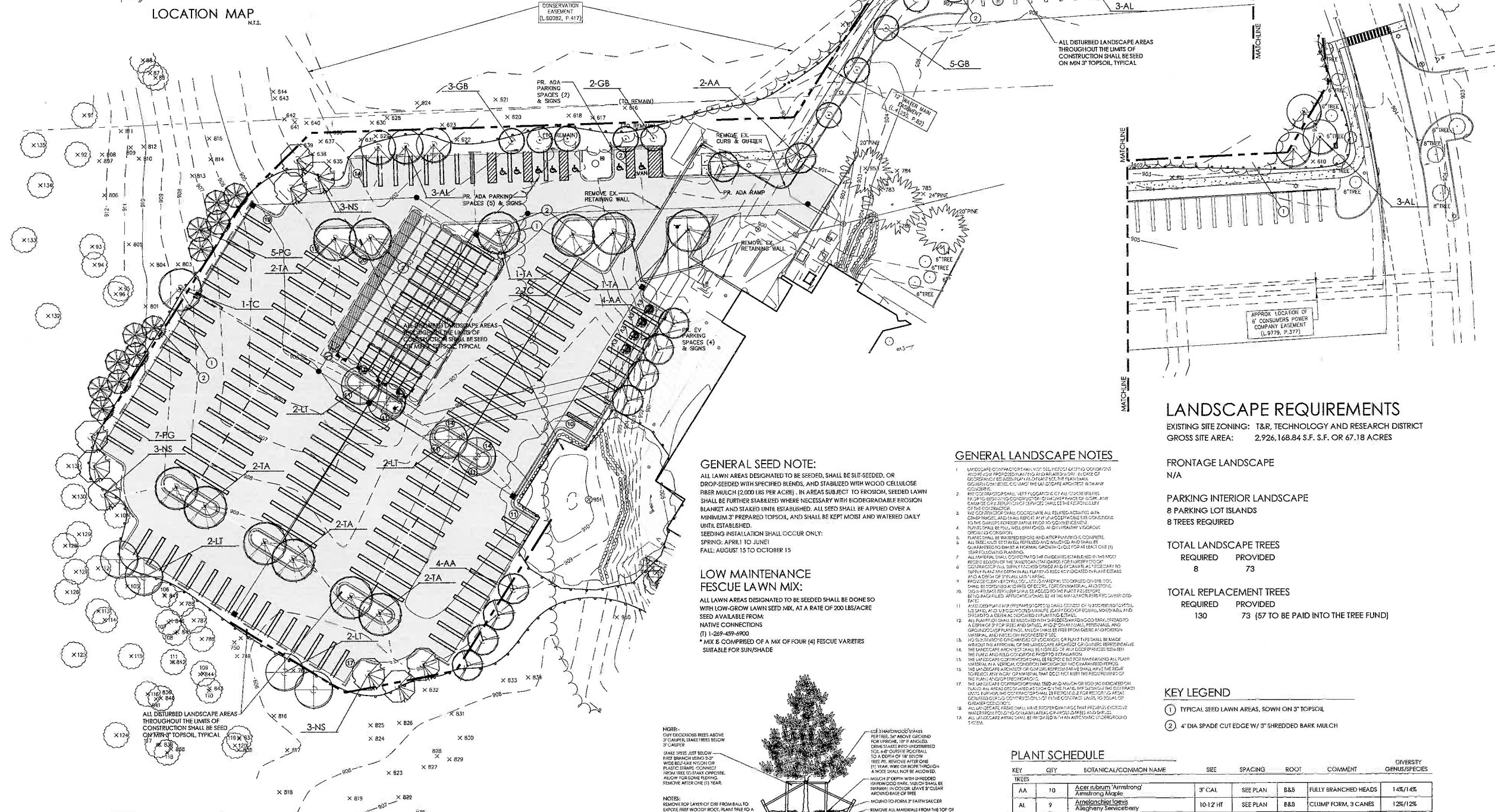
DATE:
01/20/2026

SCALE: 1" = 30'

SEE JOB NO. SHEET NO.
B096-02 L2



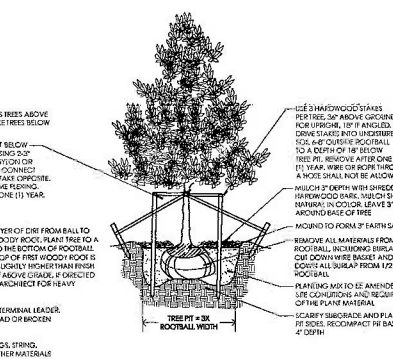
IRRIGATION NOTE:
 ALL LANDSCAPE AREAS, INCLUDING THOSE WITHIN THE R.O.W. SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM. THE SYSTEM SHALL OPERATE IN COMPLIANCE WITH LOCAL STANDARDS AND SEASONAL RESTRICTIONS. SEPARATE ZONES SHALL BE PROVIDED FOR LAWN AREAS AND PLANTING BEDS. IRRIGATION SHALL BE DESIGNED IN THE MOST EFFICIENT MANNER NECESSARY TO FULLY IRRIGATE ALL PLANTING AREAS.



GENERAL SEED NOTE:
 ALL LAWN AREAS DESIGNATED TO BE SEED, SHALL BE SEED, OR DROP SEEDS WITH SPECIFIED BLENDS, AND STABILIZED WITH WOOD CELLULOSE FIBER MULCH (2,000 LBS PER ACRE). IN AREAS SUBJECT TO EROSION, SEEDED LAWN SHALL BE FURTHER STABILIZED WHERE NECESSARY WITH 8 DEGRADABLE EROSION BLANKET AND STAKED UNTIL ESTABLISHED. ALL SEED SHALL BE APPLIED OVER A MINIMUM 3" PREPARED TOPSOIL, AND SHALL BE KEPT MOIST AND WATERED DAILY UNTIL ESTABLISHED.
 SEEDING INSTALLATION SHALL OCCUR ONLY:
 SPRING: APRIL 15 TO JUNE 1
 FALL: AUGUST 15 TO OCTOBER 15

LOW MAINTENANCE FESCUE LAWN MIX:
 ALL LAWN AREAS DESIGNATED TO BE SEED SHALL BE DONE SO WITH LOW-GROW LAWN SEED MIX, AT A RATE OF 200 LBS/ACRE
 SEED AVAILABLE FROM:
 NATIVE CONNECTIONS
 (7) 1-269-459-9900
 * MIX IS COMPOSED OF A MIX OF FOUR (4) FESCUE VARIETIES SUITABLE FOR SUN/SHADE

- GENERAL LANDSCAPE NOTES**
- LANDSCAPE CONTRACTOR SHALL VERIFY SOIL TYPES AND CONDITIONS PRIOR TO ANY PLANTING AND PROVIDE A REPORT TO THE LANDSCAPE ARCHITECT. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO ANY PLANTING.
 - ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S SPECIFICATIONS AND THE CITY OF AUBURN HILLS LANDSCAPE STANDARDS.
 - ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S SPECIFICATIONS AND THE CITY OF AUBURN HILLS LANDSCAPE STANDARDS.
 - ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S SPECIFICATIONS AND THE CITY OF AUBURN HILLS LANDSCAPE STANDARDS.
 - ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S SPECIFICATIONS AND THE CITY OF AUBURN HILLS LANDSCAPE STANDARDS.
 - ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S SPECIFICATIONS AND THE CITY OF AUBURN HILLS LANDSCAPE STANDARDS.
 - ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S SPECIFICATIONS AND THE CITY OF AUBURN HILLS LANDSCAPE STANDARDS.
 - ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S SPECIFICATIONS AND THE CITY OF AUBURN HILLS LANDSCAPE STANDARDS.
 - ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S SPECIFICATIONS AND THE CITY OF AUBURN HILLS LANDSCAPE STANDARDS.
 - ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S SPECIFICATIONS AND THE CITY OF AUBURN HILLS LANDSCAPE STANDARDS.
 - ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S SPECIFICATIONS AND THE CITY OF AUBURN HILLS LANDSCAPE STANDARDS.
 - ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S SPECIFICATIONS AND THE CITY OF AUBURN HILLS LANDSCAPE STANDARDS.
 - ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S SPECIFICATIONS AND THE CITY OF AUBURN HILLS LANDSCAPE STANDARDS.
 - ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S SPECIFICATIONS AND THE CITY OF AUBURN HILLS LANDSCAPE STANDARDS.
 - ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S SPECIFICATIONS AND THE CITY OF AUBURN HILLS LANDSCAPE STANDARDS.

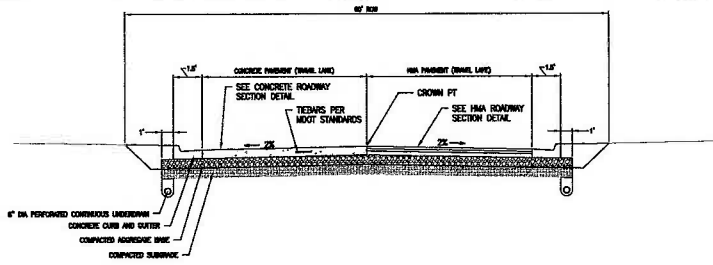


DECIDUOUS TREE PLANTING DETAIL

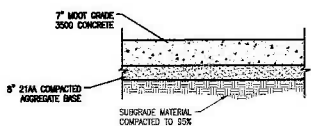
PLANT SCHEDULE

KEY	QTY	BOTANICAL/COMMON NAME	SIZE	SPACING	ROOT	COMMENT	DIVERSITY GENUS/SPECIES
AA	10	Acer rubrum 'Armstrong'	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	14%/14%
AL	9	Amelanchier alnifolia	10-12 HT	SEE PLAN	B&B	CLUMP FORM, 3 CANES	12%/12%
GB	10	Ginkgo biloba 'Princeton Sentry'	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	14%/14%
LI	9	Liquidambar styraciflua	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	12%/12%
NS	9	Nyssa sylvatica 'Green Gable'	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	12%/12%
PG	12	Picea canadensis 'Black Tupelo'	10' HT	SEE PLAN	B&B	FULLY BRANCHED HEADS	14%/14%
TA	10	Tilia americana 'Boulevard'	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	14%/14%
TC	4	Tilia cordata 'Bailey'	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	5%/5%
TOTAL	73						

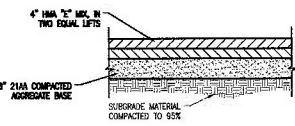
N11°37'22"W GDB 35'



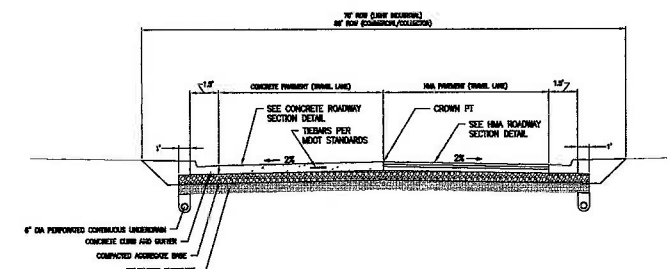
**TYPICAL CROSS SECTION
RESIDENTIAL ROAD PAVEMENT**
NOT TO SCALE



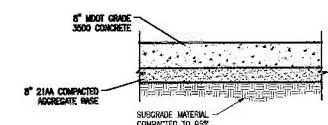
**TYPICAL CONCRETE ROADWAY
SECTION FOR RESIDENTIAL ROAD**
NOT TO SCALE



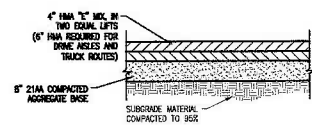
**TYPICAL HMA ROADWAY SECTION FOR
RESIDENTIAL ROAD**
NOT TO SCALE



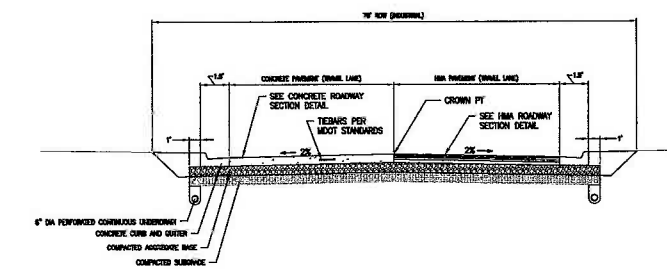
**TYPICAL CROSS SECTION
COMMERCIAL/LIGHT INDUSTRIAL ROAD PAVEMENT**
NOT TO SCALE



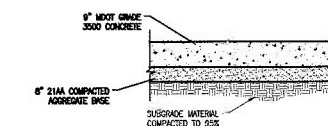
**TYPICAL CONCRETE ROADWAY SECTION FOR
COMMERCIAL/LIGHT INDUSTRIAL ROAD**
NOT TO SCALE



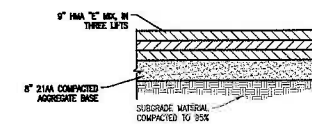
**TYPICAL HMA ROADWAY SECTION FOR
COMMERCIAL/LIGHT INDUSTRIAL ROAD**
NOT TO SCALE



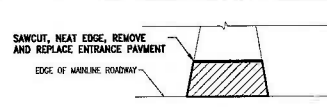
**TYPICAL CROSS SECTION
INDUSTRIAL ROAD PAVEMENT**
NOT TO SCALE



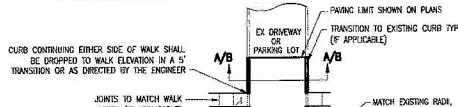
**TYPICAL CONCRETE ROADWAY
SECTION FOR INDUSTRIAL ROAD**
NOT TO SCALE



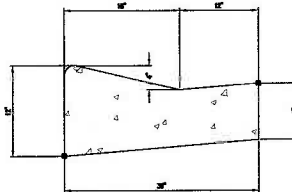
**TYPICAL HMA ROADWAY SECTION FOR
INDUSTRIAL ROAD**
NOT TO SCALE



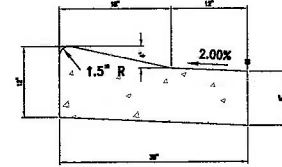
RESIDENTIAL DRIVEWAY APPROACH
NOT TO SCALE



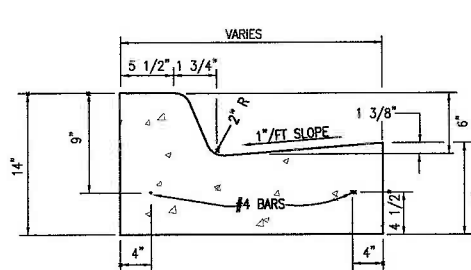
COMMERCIAL DRIVE APPROACH



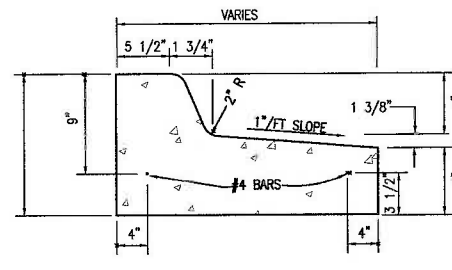
4" MOUNTABLE CURB
NOT TO SCALE



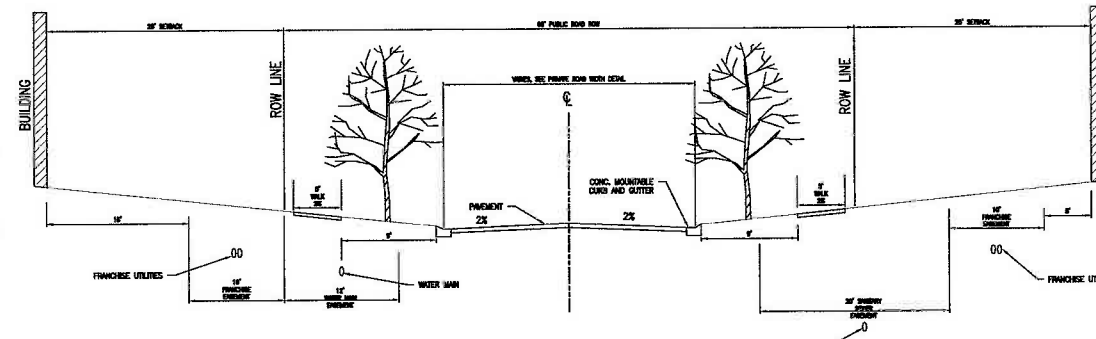
4" REVERSE CURB & GUTTER
NOT TO SCALE



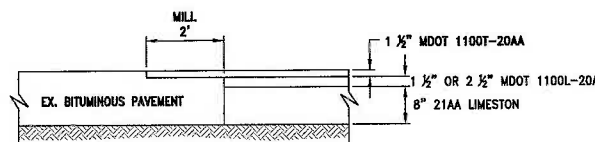
6" CONCRETE CURB AND GUTTER DETAIL
NOT TO SCALE
NOTE: DIMENSIONS VARY. FOLLOW MDT STANARD DETAIL SERIES R-30



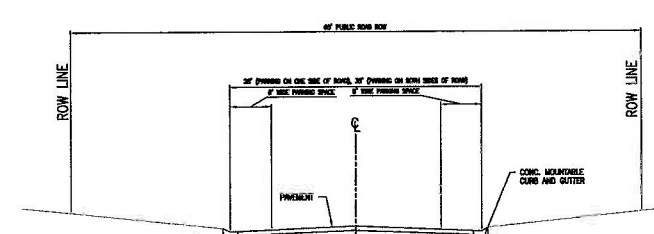
6" REVERSE CONCRETE CURB AND GUTTER DETAIL
NOT TO SCALE
NOTE: DIMENSIONS VARY. FOLLOW MDT STANARD DETAIL SERIES R-30



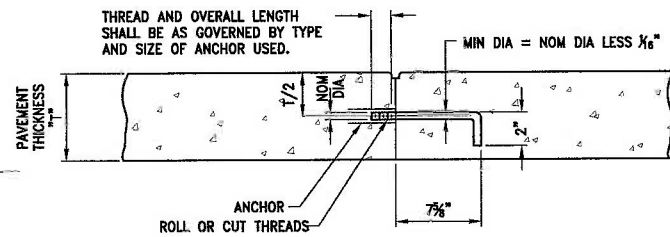
**TYPICAL ROAD CORRIDOR
(SINGLE FAMILY RESIDENTIAL)**
NOT TO SCALE



2" BITUMINOUS BUTT JOINT DETAIL
NOT TO SCALE



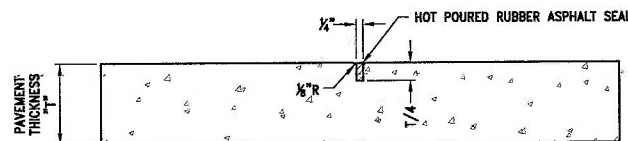
**TYPICAL ROAD WIDTHS WITH PARKING
(PRIVATE ROAD)**
NOT TO SCALE



THIS JOINT SHALL BE CONSTRUCTED ACCORDING TO STANDARD FOR LONGITUDINAL BULKHEAD CONSTRUCTION JOINT EXCEPT THAT THE "FIRST POUR" IS AN EXISTING PAVEMENT.
SPACING CENTER TO CENTER SHALL BE AS SHOWN IN THE FOLLOWING TABLE:

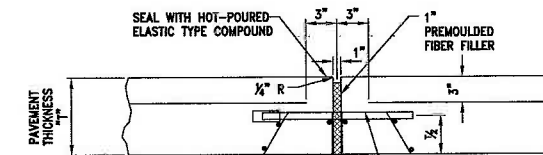
DIAMETER	5/8"	3/4"	7/8"
SELF-DRILLING FLUSH TYPE	24"	32"	48"
TORQUE - TYPE	40"	40"	---

LONGITUDINAL BULKHEAD JOINT
NOT TO SCALE



TRANSVERSE WEAKNESS PLANE JOINTS SHALL BE CONSTRUCTED IMMEDIATELY AFTER THE FINISHING OPERATION HAS BEEN COMPLETED. A GROOVE SHALL BE FORMED IN THE CONCRETE WITH METAL FORMING STRIP TO THE DEPTH SHOWN. THE PRE-MOLDED FILLER STRIP SHALL BE PLACED IN GROOVE FORMED BY THE METAL STRIP, FROM A BRIDGE OPERATING ON THE PAVEMENT FORMS. THE CONCRETE SHALL BE HAND FLOATED AGAINST THE SIDES OF THE FILLER AND THE JOINT EDGE TO THE RADIUS SHOWN. THESE JOINTS SHALL BE PLACED AT APPROXIMATE 20' INTERVALS BETWEEN TRANSVERSE EXPANSION JOINTS.

TRANSVERSE WEAKENED PLANE JOINT
NOT TO SCALE



WITH LOAD TRANSFER - SYMBOL (E)
WITHOUT LOAD TRANSFER - SYMBOL (E)
SEAL WITH COLD
NOT TO SCALE

TRANSVERSE EXPANSION JOINT "E"
NOT TO SCALE

GENERAL PAVING NOTES

- All construction shall conform to the current standards and specifications of the City of Auburn Hills and the Road Commission for Oakland County (R.C.O.C.) where applicable. All public pavement construction shall have full-time inspection directed by a professional engineer provided by, or caused to be provided by, the City of Auburn Hills.
- Three (3) working days prior to construction, the Contractor shall telephone MISS DIG (1-800-482-7171) for underground facilities locations.
- Existing topsoil, vegetation and organic materials shall be stripped and removed from proposed pavement area prior to placement of base materials. Tree roots shall be completely removed.
- Prior to placement of base material or pavements, the contractor shall preproof the subgrade in the presence of a geotechnical engineer and remove any unsuitable material observed. The pavement subgrade shall be compacted to 95% of the maximum dry density prior to placement of the proposed pavement. The final subgrade shall be preproofed in the presence of a geotechnical engineer.
- Concrete and asphalt testing is required for all projects. A copy of the test results shall be provided to the City.
- If the inspector/engineer determine that field conditions warrant additional testing, the contractor/developer shall arrange for and pay for all required additional testing.
- For any work within the public right-of-way, the contractor shall secure all necessary permits and arrange for all required inspection.
- Fill areas shall be machine compacted in uniform lifts to 95% of the maximum dry density prior to placement of the proposed pavement.
- All aggregate base material shall be compacted to 95% of the maximum dry density prior to placement of the proposed pavement. Aggregate base shall extend a minimum of 2 feet beyond the back of curb or the paved edge.
- 6" underdrain shall be installed on both sides of all roadways in geotextile wrapped trench.
- Prior to street acceptance, the full cross section must be installed per the approved plans and any repairs to the pavement and curb must be completed at the direction of the City Engineer. The full pavement cross section shall be paved in a continuous process without delay between separate courses.

CONCRETE PAVEMENT NOTES

- Concrete shall be MDT Grade 3500 (3500 psi) with a slump of 1-1/2" to 3".
- All concrete pavement, drive openings, curb and gutter, etc. shall be spray cured with white membrane curing compound immediately following finishing operation.
- No concrete paving shall be allowed prior to May 1, or after November 1 (unless approved by the City).
- Do not place concrete when precipitation is imminent or when moisture on existing surface will prevent satisfactory curing. Unless otherwise approved by the City Engineer in writing, temperature and seasonal requirements for placing concrete will be according to the current MDT Standard Specifications. Paving will not be allowed below these minimum temperatures, nor when frost is on or in the grade or on the existing surface.
- All mix designs require review and approval by the geotechnical engineer.

ASPHALT PAVEMENT NOTES

- Asphalt shall be of the mix specified on the standard details herein and shall conform to all MDT Standard Specifications.
- All bituminous material shall be compacted to a density of 95% of the field control density as determined by the theoretical maximum density.
- A bond coat of SS-1H emulsion is required between all courses of asphalt immediately prior to placement of each course of pavement. The bond coat shall be applied in a uniform manner over the surface at a rate of 0.10 gallon/sq. yd. between leveling courses & 0.05 gallon/sq. yd. between wearing and leveling course.
- Do not place HMA or apply bond coat when precipitation is imminent or when moisture on existing surface will prevent satisfactory curing. Unless otherwise approved by the City Engineer in writing, temperature and seasonal requirements for placing concrete will be according to the current MDT Standard Specifications. Paving will not be allowed below these minimum temperatures, nor when frost is on or in the grade or on the existing surface.
- All mix designs require review and approval by the geotechnical engineer.



ARCHITECTS ENGINEERS PLANNERS

3400 PLYMOUTH RD
LIVONIA, MI 48150
P: (734) 522-6711

OHM-ADVISORS.COM

REVISOR:

DATE:

SCALE:

CITY/TOWNSHIP:

COUNTY:

PROJECT:

DATE:

PROJ. NO.:

DATE:

PROJ. NO.:

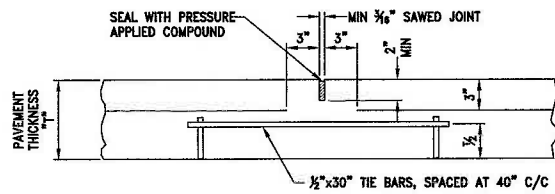
DATE:

PROJ. NO.:

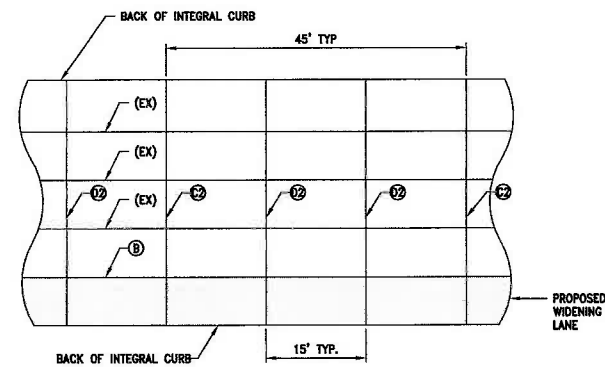
CITY OF AUBURN HILLS
PAVING STANDARD DETAILS

DRAWING PATH: P:\0101_012501\0125010330_Auburn_Hills_Standards_Update\Drawings\Civil\Drawings\CAH\ROAD\ROAD DET.dwg, Jul 13, 2022, 2:21pm

COPYRIGHT 2017 OHM. ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF OHM AND THE SAME MAY NOT BE DUPLICATED, DISTRIBUTED, OR DISCLOSED WITHOUT PRIOR WRITTEN CONSENT OF OHM.

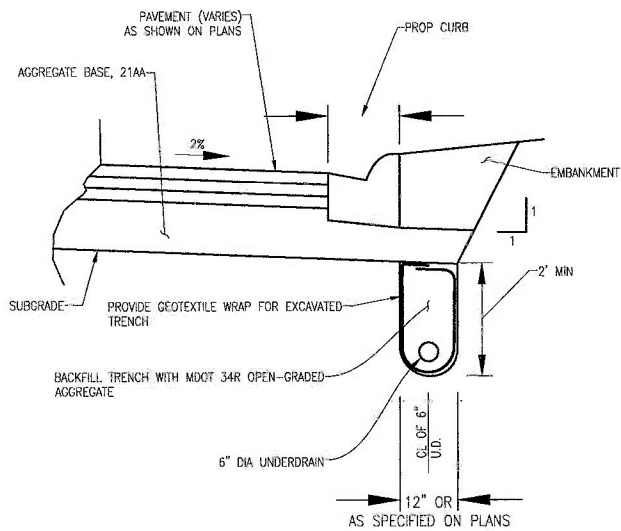


LONGITUDINAL LANE TIE JOINT "D"
NOT TO SCALE



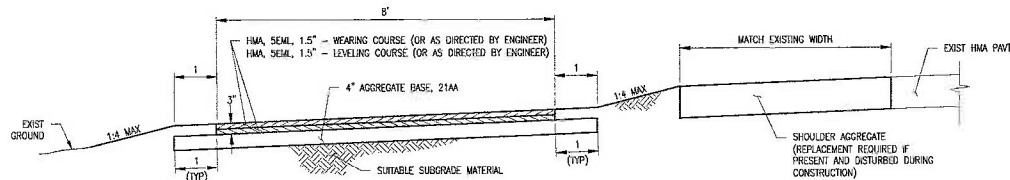
- | | |
|---|--|
| JOINTS TO BE PAID FOR SEPARATELY | JOINTS INCLUDED IN THE COST OF CONCRETE |
| C2 (MOD.) TRANSVERSE CONTRACTION JOINT | LONGITUDINAL BULKHEAD JOINT |
| E2 (MOD.) EXPANSION JOINT | LONGITUDINAL LANE TIE JOINT |
| D2 (MOD.) PLANE OF WEAKNESS JOINT | EXISTING |
| JOINTS PAVEMENT | |
| B (MOD.) | |
| D (MOD.) | |
| (EX) | |

TYPICAL JOINT LAYOUT
NOT TO SCALE



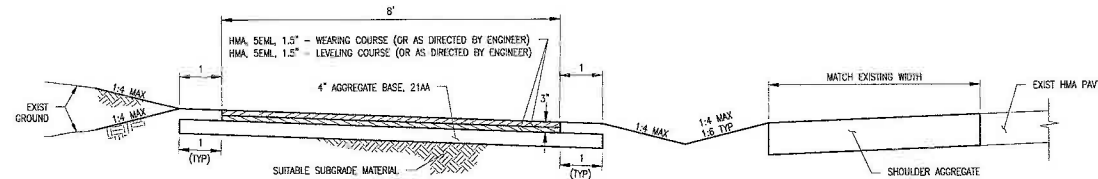
TYPICAL UNDERDRAIN ALONG ROADWAY CURB AND GUTTER SECTION

NOT TO SCALE



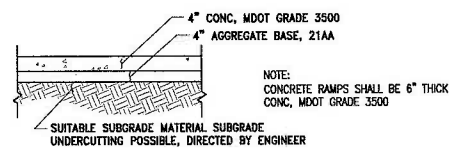
TYPICAL PATHWAY CROSS SECTION

NOT TO SCALE
REVERSE DETAIL FOR GRADE RIGHT



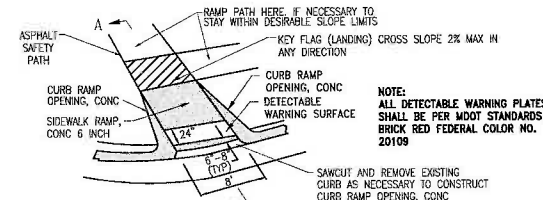
TYPICAL PATHWAY CROSS SECTION

NOT TO SCALE
REVERSE DETAIL FOR GRADE LEFT



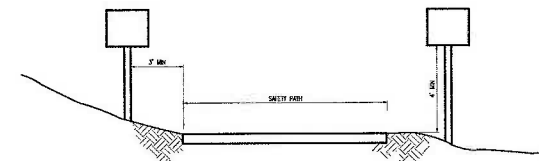
TYPICAL CONCRETE SIDEWALK CROSS-SECTION

NOT TO SCALE



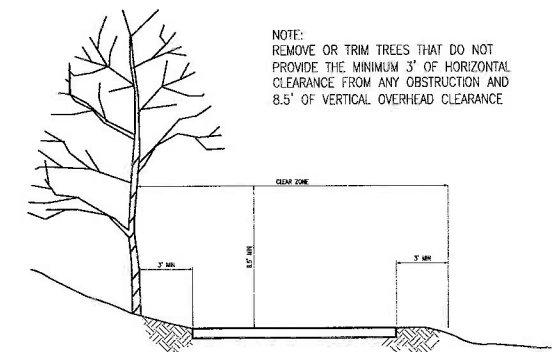
SAFETY PATH RAMP WITH CURB

NOT TO SCALE



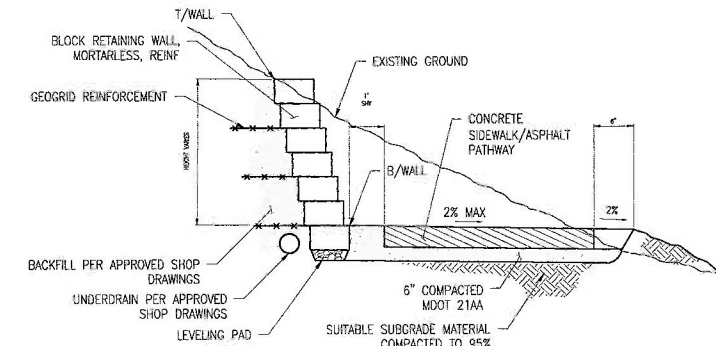
SIGN PLACEMENT ON SHARED USE PATH

NOT TO SCALE



TREE CLEARANCE

NOT TO SCALE



TYPICAL WALL SECTION

NTS

DETAIL FOR INFORMATION ONLY. WALL MANUFACTURER RESPONSIBLE FOR SITE SPECIFIC DETAILS.

NON-MOTORIZED PATHWAY AND SIDEWALK NOTES

- All pathway shall be constructed per the current version of MDOT standard plan R-28 series and shall follow all current ADA guidelines.
- All pathway shall be constructed to the City of Auburn Hills Standard Details.
- Maximum pathway cross slope is 2%. Design cross slope shall be 1.25% to 1.5%.
- ADA ramps shall be provided at all intersections and street crossings. Detectable warning surfaces shall be provided for all ADA ramps and shall extend the full width of the curb ramp.
- A clean saw cut joint shall be provided wherever new pavement matches existing pavement.
- Utility structures in the pathway pavement shall be adjusted to proposed plan grade. Where possible, utility structures shall be outside of the pathway alignment.
- Pathway and sidewalk shall be free of standing water prior to final acceptance.



ARCHITECTS ENGINEERS PLANNERS

34000 PLYMOUTH RD
LIVONIA, MI 48150
P: (734) 522-6711

OHM-ADVISORS.COM

REVISIONS

HORIZONTAL

SCALE

CITY/TOWNSHIP

COUNTY

CAD

PROJECT

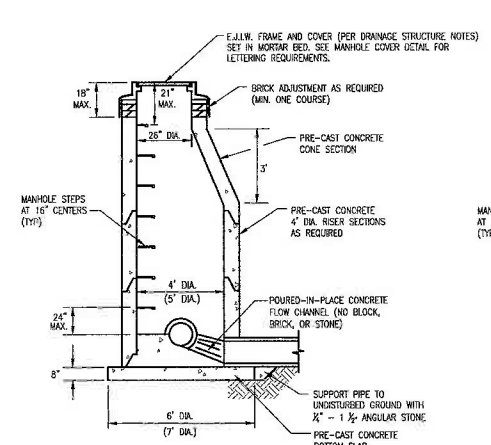
DATE

SHEET

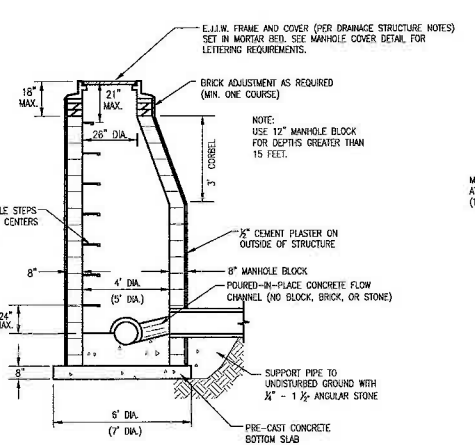
CITY OF AUBURN HILLS
PAVING STANDARD DETAILS

DRAWING PATH: P:\0101_01251012200330_Auburn_Hills_Standards_Update\Drawings\Civil\Details\AH-ROAD DET.dwg, Jul 13, 2022, 3:21pm

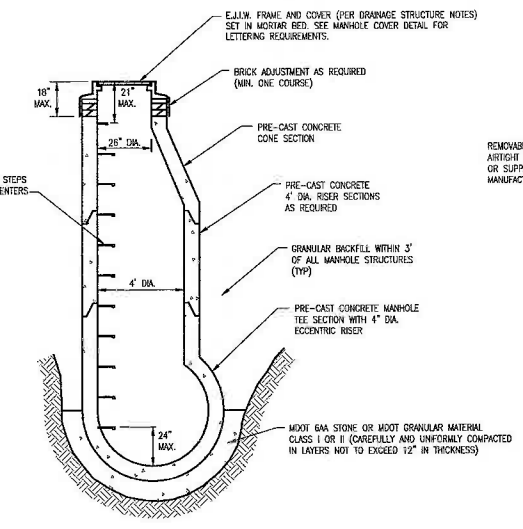
COPYRIGHT 2017 OHM ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF OHM AND THE SAME MAY NOT BE DUPLICATED, DISTRIBUTED, OR DISCLOSED WITHOUT PRIOR WRITTEN CONSENT OF OHM



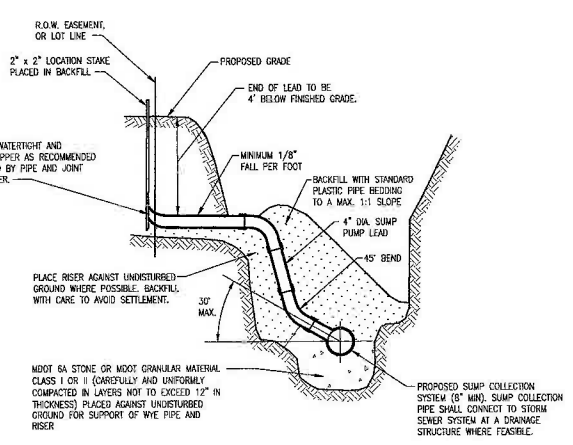
PRE-CAST MANHOLE



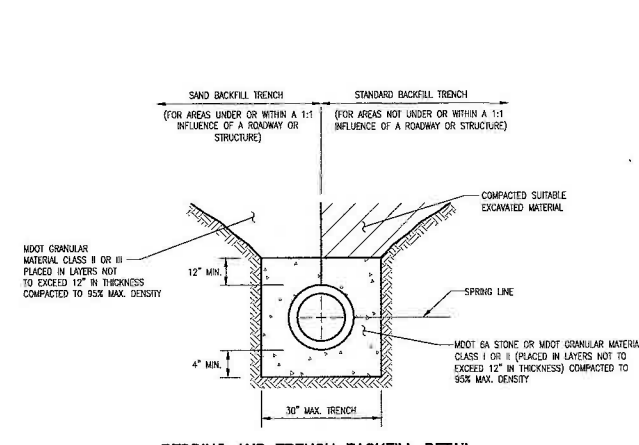
BLOCK MANHOLE



PRE-CAST TEE MANHOLE DETAIL

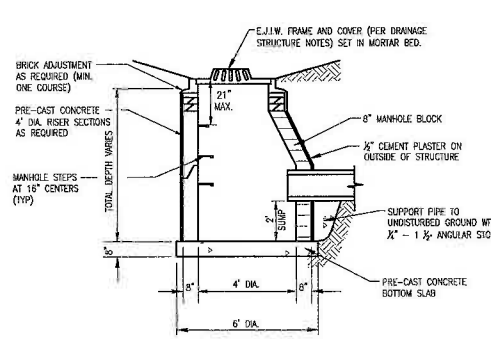


HOUSE LEAD DETAIL FOR 4" DIA. PLASTIC SUMP PUMP LEADS

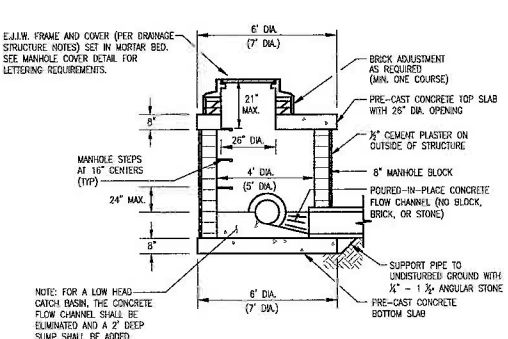


BEDDING AND TRENCH BACKFILL DETAIL FOR 18" DIAMETER AND SMALLER PIPE (PVC AND HDPE PIPE)

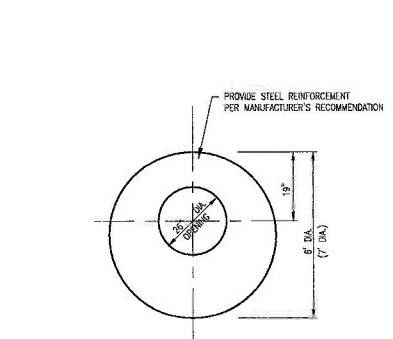
STANDARD MANHOLE DETAILS



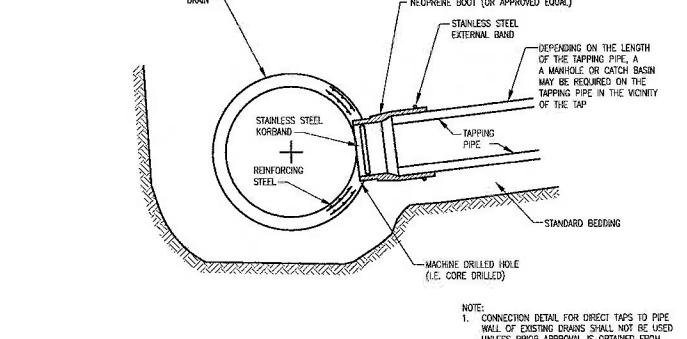
CATCH BASIN DETAIL



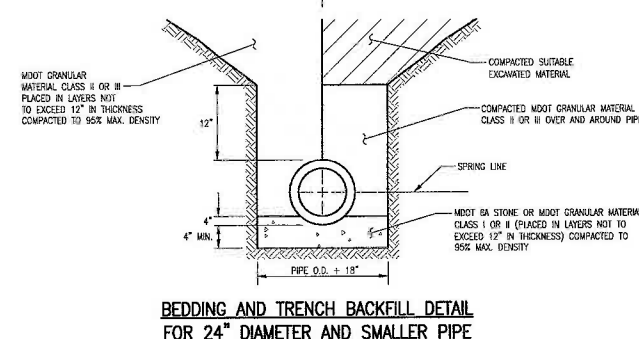
LOW HEAD MANHOLE AND CATCH BASIN DETAIL



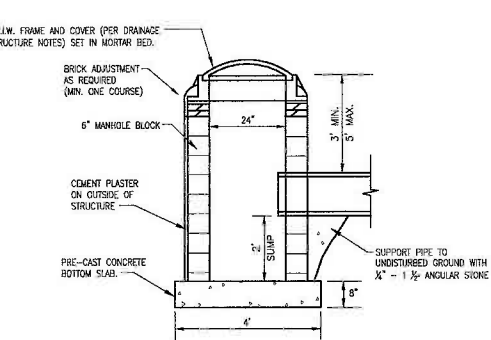
PRE-CAST CONCRETE TOP SLAB DETAIL, 8" THICK



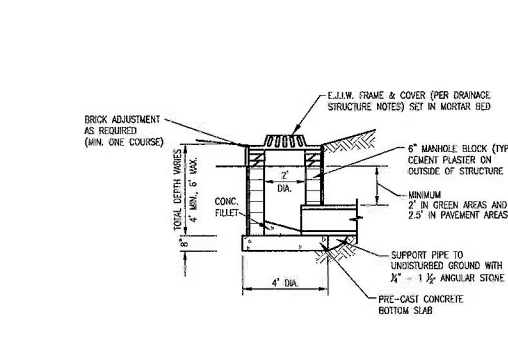
KOR-N-TEE TAP FOR CONCRETE PIPE



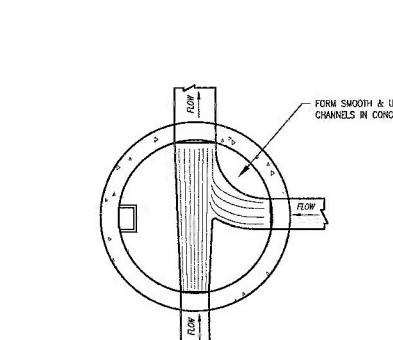
BEDDING AND TRENCH BACKFILL DETAIL FOR 24" DIAMETER AND SMALLER PIPE (CONCRETE AND METAL PIPE)



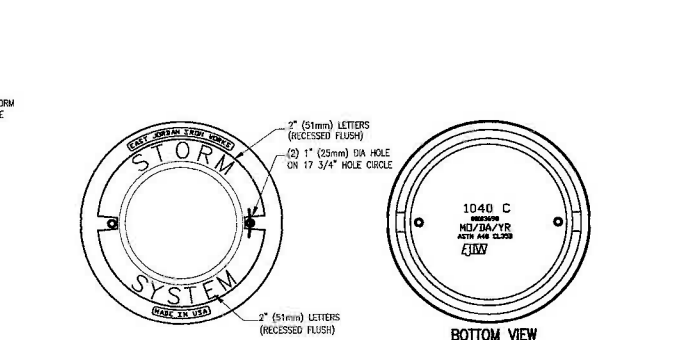
2" DIA. CATCH BASIN DETAIL



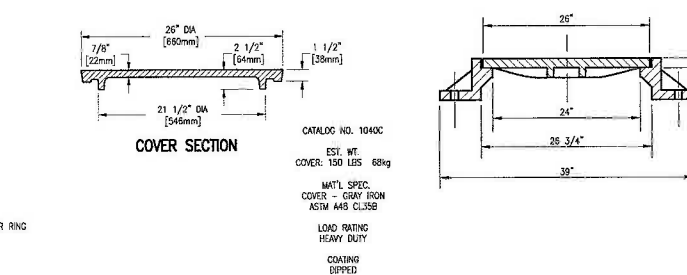
2" DIA. INLET DETAIL



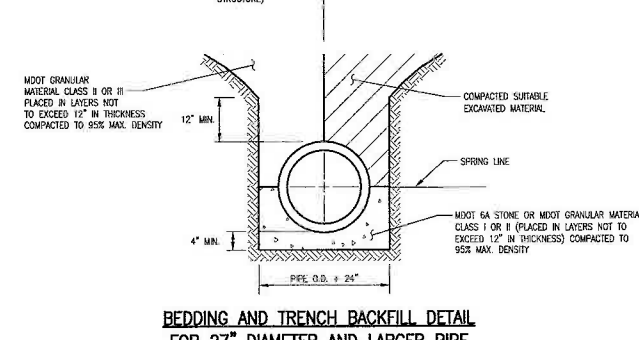
CHANNEL DETAIL



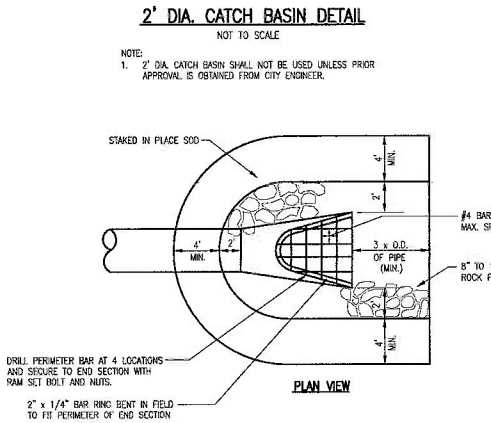
CAST IRON MANHOLE COVER E.J.L.W. 1040



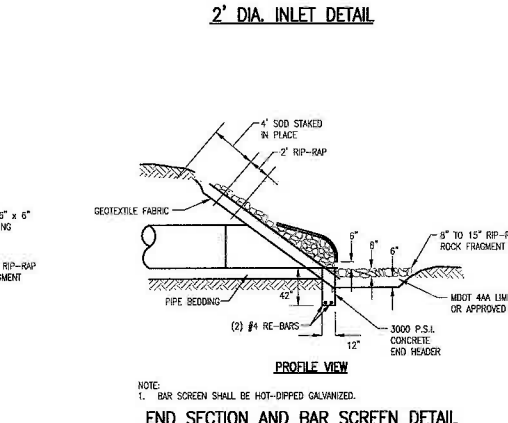
COVER SECTION



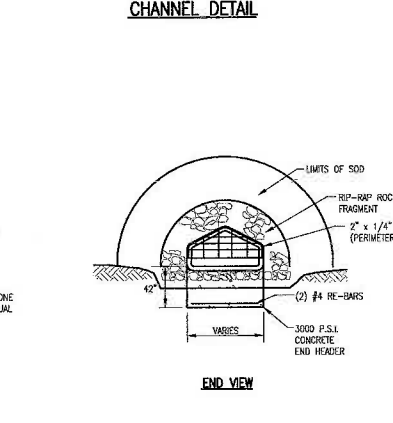
BEDDING AND TRENCH BACKFILL DETAIL FOR 27" DIAMETER AND LARGER PIPE (CONCRETE AND METAL PIPE)



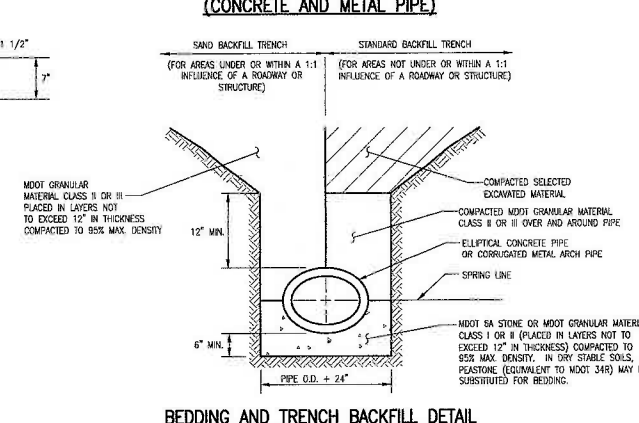
PLAN VIEW



END SECTION AND BAR SCREEN DETAIL



END VIEW



BEDDING AND TRENCH BACKFILL DETAIL FOR ELLIPTICAL CONCRETE PIPE OR CORRUGATED METAL ARCH PIPE

DRAWING PATH: P:\0101_01250120200330_Auburn Hills Standards Update\Drawings\Civil\Detail\STM-DET.dwg Jul 13, 2022 - 3:22pm

STORM SEWER CONSTRUCTION NOTES

GENERAL NOTES:

- All materials and workmanship shall be in accordance with the standards and specifications of the City of Auburn Hills.
- No storm sewer is to be installed without the City's inspector present.
- Notify MISS DIG (1-800-482-7171) at least three working days prior to the start of construction.
- Trenches that are to be left open overnight shall be enclosed with suitable fencing and lighted barricades, unless otherwise approved by the city.
- All end sections 18" and larger shall be provided with a galvanized bar screen.
- Hinged bar grates will be required for headwalls per O.C.W.R.C. or MDOT standards, whichever is stricter.
- All vertical and horizontal bars shall be lock-welded to the angle frame.
- The bar grate screen shall be hot-dipped galvanized after fabrication is complete.
- The design engineer shall furnish the City of Auburn Hills with PDF "Record Drawings" of the water main plans as well as a GIS file or AutoCAD file, upon job completion. Plans shall locate all storm sewer and structures.
- The materials specified below may be substituted with an approved equal as determined by the City. It is at the sole discretion of the City to determine if a material is acceptable and can be utilized. Written authorization must be obtained prior to ordering or installing the approved equal.
- Tracing wire shall be provided for all storm sewer, regardless of pipe material. Wire shall be copper, 12-gauge strand, green insulated per City requirements. Wire shall be brought through each structure and connected to the top step. All wire exposed above ground surface shall be encased in 1/2" metal conduit. The conduit shall extend 6" below the ground surface. Conductivity shall be tested by the City prior to acceptance of the sewer. All splices shall be made using a gel-cap product which provides a water proof seal, such as 3M's Direct Bury Splice Kit #P054007/09964 or approved equal.

STORM SEWER NOTES:

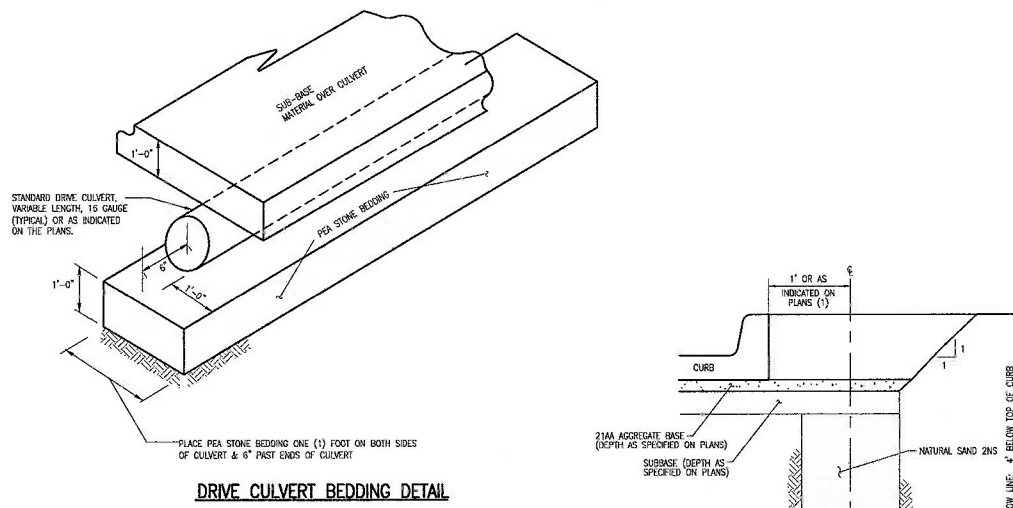
- Type and class of pipe shall be as specified on plans.
- Concrete Pipe Requirements:
 - The contractor shall provide reinforced concrete pipe as specified on the plans.
 - All round reinforced concrete pipe shall meet the requirements of ASTM C76, Standard Specifications for Reinforced Concrete Culvert, Storm Drain and Sewer Pipe, with modified groove tongue and rubber gasket meeting the requirements of ASTM C443, Standard Specifications for Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets.
 - All elliptical reinforced concrete pipe shall meet the requirements of ASTM C507, Standard Specifications for Reinforced Concrete Elliptical Culvert Storm Drain and Sewer Pipe, with tongue and groove joints with bituminous (DeWitt #10) joint material meeting the requirements of C443. Elliptical concrete pipe joints shall also be wrapped per ASTM C877, Standard Specification for External Sealing Bands for Concrete Pipe, Manholes and Precast Box Sections. In addition, elliptical concrete pipe of 42" equivalent size and larger shall require inside concrete pointing.
 - The inside joint of pipe over 27" diameter shall be pointed with mortar upon completion of backfilling operations.
- Plastic Pipe Requirements:
 - Per City standards, the maximum allowable pipe size for plastic storm sewer is 12" diameter. Larger diameter plastic storm sewer may be approved by the City, depending on site conditions.
 - All plastic storm sewer pipe shall have a smooth interior.
 - PVC pipe shall meet the requirements of ASTM F949, Standard Specification for Poly (Vinyl Chloride) (PVC) Corrugated Sewer Pipe with a Smooth Interior and Fittings, with push-on type joints meeting the requirements of ASTM D3212, Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals, and F477, Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
 - HDPE pipe shall meet the requirements of AASHTO M294 and ASTM D3350, Standard Specification for Polyethylene Plastics Pipe and Fittings Materials, with push-on type joints meeting the requirements of ASTM D3212 and F477.
- Bedding Requirements:
 - Bedding shall be used as called for on the details.
 - Where unstable ground conditions are encountered, stone bedding shall be used as directed by the Engineer in order to provide a stable foundation for pipe and manholes.
 - All pipes entering or leaving a manhole shall be adequately supported with 1/4"-1 1/2" angular stone fill from undisturbed earth to springline.
 - Bedding shall extend a minimum of 4" below pipe, unless otherwise noted on construction plans. Bedding shall be uniform in grade. However, if the existing native soils meet the requirements for MDOT granular material class II (minimum 4" thick), then the storm sewer may be laid directly on the compacted native subgrade soils.
- Backfill Requirements:
 - Backfill as indicated on construction drawings. Trench backfill shall be of a suitable material and shall be free of any organic materials and rocks larger than 3" in size. Backfill shall be ramped into trench and compacted with a small dozer or other approved methods.
 - Where trench is within a 1:1 influence of streets, alleys, sidewalks, driveways and parking areas, sand backfill shall be used which shall consist of MDOT granular material Class II or III compacted in layers not to exceed 12" in thickness to a density of 95%.
 - All backfill placed within a 1:1 influence of structures shall be approved sand, placed in 12" layers and compacted.
 - No frozen material shall be buried more than 4' below the final elevation of the ground.

DRAINAGE STRUCTURE REQUIREMENTS:

- Contractor shall construct manholes with precast reinforced concrete in lieu of concrete, brick and block manholes in accordance with the following conditions:
- Precast reinforced concrete section with modified groove tongue joint shall conform to ASTM C-478, Standard Specification for Precast Reinforced Concrete Manhole Sections, with rubber gasket.
 - No openings shall be made in precast units which would leave less than 12" of undisturbed precast structure wall between pipes (as measured between outside pipe walls) or would remove more than 40% of the circumference along any horizontal plane.
 - Precast riser placed on the concrete base shall be set in a full bed of mortar. All joints & liffholes shall be pointed up with mortar on the outside and inside.
 - Structures for sewers larger than 18", or those not meeting the opening requirements, may be built of block or brick up to a minimum of 8" above the top of sewer, with precast units being used above this point. Where precast units rest on the block or brick, the groove in the precast unit shall be filled with mortar.
 - Block used for standard catch basins and manholes shall be 8" (for 0'-15" deep) and 12" (for 15'-25" deep). Block used for 2' diameter inlets and catch basins shall be 6".
 - All vertical openings in concrete block structure walls shall be completely filled with mortar. All vertical wall joints shall be cement pointed.
 - Plaster all outside masonry surfaces with 1-2 1/2" masonry cement (type II) 1/2" thick.
 - All manholes and catch basins shall be 4' or 5' in diameter unless otherwise indicated on construction drawings. Larger diameter drainage structures (5', 7', 8', 10', 12' diameter) may be needed for large storm sewer pipe or for situations where the angles between entering pipes require a larger diameter structure in order to maintain at least 1" of structure wall between the pipes. 2' diameter catch basins and inlets may be used where approved by the City Engineer.
 - Manhole steps shall be steel, encased with polypropylene plastic or approved equivalent to M.A. Industries, Inc., PS-1 for brick, or PS-1B for block, East Jordan Iron Works 8503 (or approved equal). Manhole steps shall be placed at 16" centers.
 - Catch basin steps shall be East Jordan Iron Works 8503 plastic coated (or approved equal).
 - Manhole frame and cover shall be East Jordan Iron Works 1040, type "C" solid cover or as per construction drawings.
 - Catch Basin and inlet frame and cover shall be:
 - East Jordan Iron Works 5105, type "M1" cover (with trout logo) with straight face curb and gutter (or approved equal).
 - East Jordan Iron Works 5105, type "M1" cover (with trout logo) with mountable curb and gutter and integral curb and gutter (or approved equal).
 - East Jordan Iron Works 1040, type "O2" cover (beehive) to be used on open ditches and swales, rear yard catch basin (or approved equal). If within 8' of road, type "N" cover (low beehive) shall be used. East Jordan Iron Works 1040, type "A" cover to be used on all 2' cleanouts and structures not located at storm water collection points (or approved equal).
 - Frames shall be set in full bed of mortar and the side shall be overlapped to prevent leakage.
 - A minimum of one course of brick must be used and a maximum of 5 courses of brick can be used to adjust a structure. All bricks and blocks used for adjustment shall be concrete.
 - A proper channel shall be constructed within the existing manhole or other structure at which the connection is to be made to direct the flow to the existing outlet in a manner that will tend to create the least amount of turbulence. The channel shall be constructed to the same size as the inside diameter of the existing pipes, and shall be built to height of 1/3 the existing pipe diameter with a minimum of 2% slope on the benches.
 - Concrete base for manhole, catch basin, and inlet shall be MDOT grade 30P (Min.), 8" thick, 3000 psi.
 - When tapping into an existing structure a brick collar shall be placed 12" thick around the pipe and extended 12" beyond the opening. If pre-cut section is topped, bend mesh and use as reinforcement with brick collar.

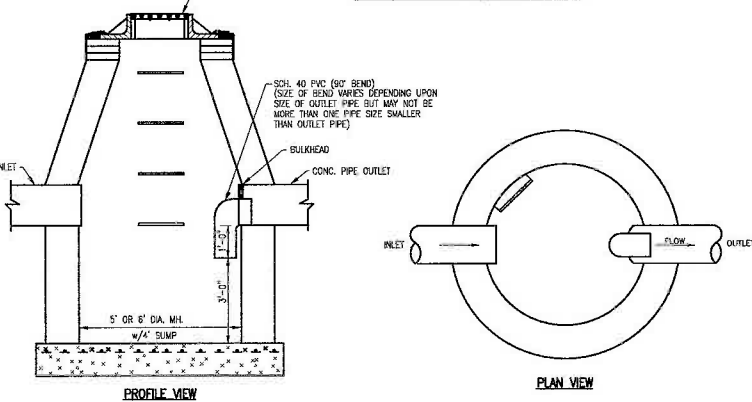
SUMP PUMP LEAD REQUIREMENTS:

- All sump pump leads connected to a drain shall be pre-manufactured.
- Sump pump leads shall be (1) SDR 35, non-perforated, solid wall PVC, (2) ARMOO Truss Pipe, or (3) approved equal, with premium joints.
- Sump collection system pipes shall be connected at drainage structures. However, if approved by the engineer, taps to 12" storm sewer may be made with a Fernco EZ Tap or approved equal. Taps to other size storm sewer may be made with a Romac saddle, KOR-N-TEE lateral connector for concrete pipe, or approved equal.
- Ends of all 4" sump pump leads shall be temporarily capped and their location staked, witnessed and recorded.
- All sump pump leads are to be taken to the property line, easement line or as indicated on the plan.
- Sump pump cleanouts shall be a minimum inside diameter of 24" and be constructed at changes of alignment ends of sump pump mains or as indicated on the plan.



- NOTES:**
- LOCATION MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
 - ALL UNDERDRAIN SHALL BE APPROVED PLASTIC PIPE PER MDOT SECTION 909.07. METAL PIPE SHALL NOT BE USED.
 - ALL UNDERDRAIN SHALL OUTLET TO DRAINAGE STRUCTURE.
 - UNDERDRAIN CONNECTIONS (AT LOW POINTS) SHALL BE MADE AS CLOSE TO THE STRUCTURE INVERT AS PRACTICAL, WITH A SPIRAL WRAP OF THE STRUCTURE USED TO MAKE THE TRANSITION FROM THE REQUIRED FLOW LINE DEPTH TO STRUCTURE INVERT.

SUBGRADE UNDERDRAIN, 6"

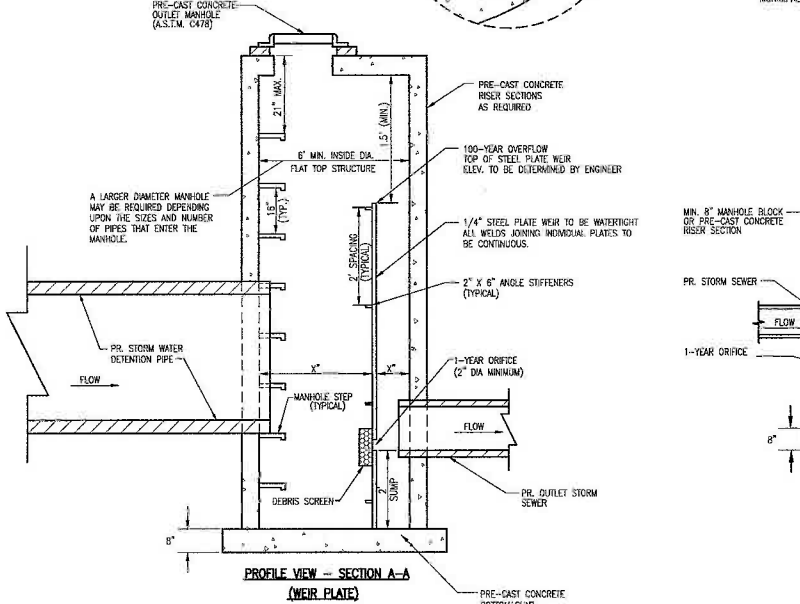
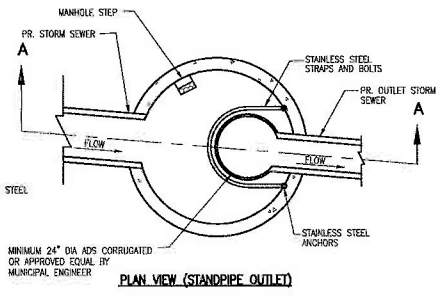
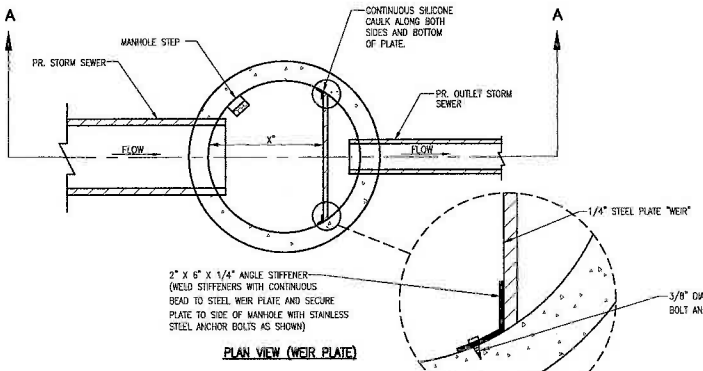
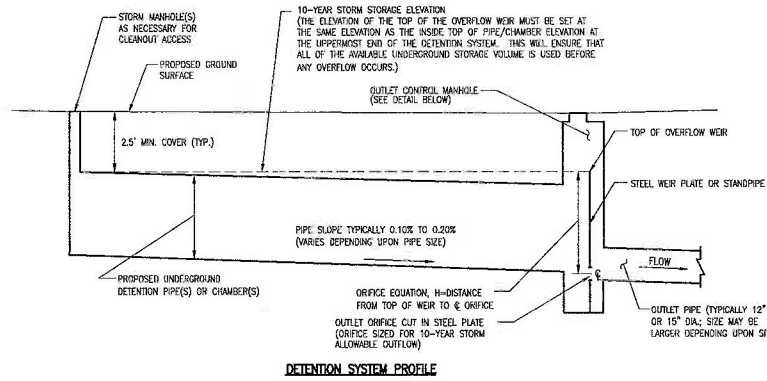
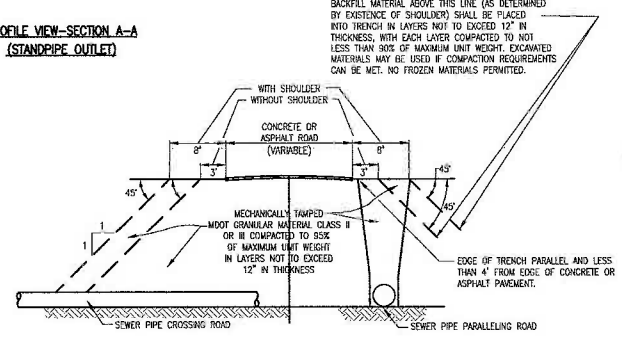


RESTORATION REQUIREMENTS:

- All disturbed areas within the right-of-way shall be restored as follows, unless otherwise noted on construction drawings: Finish Grade. Place 3" thickness of "quality" topsoil acceptable to the engineer. Apply sod or seed and fertilizer as follows:

LOCATION	SODDING/ SEEDING REQUIREMENTS	FERTILIZER REQUIREMENT
Slopes & ditch banks, etc.	MDOT "Roadside" mix (20% Perennial Rye, 10% Kentucky Blue, 40% Red Fescue, 30% Hard Fescue) applied at 220 lbs/acre	240 lbs/acre of chemical fertilizer nutrients in equal proportions of Nitrogen, Phosphoric Acid and Potash. (Must be a slow-release fertilizer)
Other areas	MDOT "Class A" mix (20% Perennial Rye, 30% Kentucky Blue, 50% Red Fescue) applied at 220 lbs/acre	240 lbs/acre of chemical fertilizer nutrients in equal proportions of Nitrogen, Phosphoric Acid and Potash. (Must be a slow-release fertilizer)
 - Ditch bottoms, slopes exceeding 3:1, and at structures
 - 3" Topsoil with Class A Sod
- Apply straw mulch at the rate of 2-3 bales/1000 square feet.
 - The contractor shall be responsible to insure the growth of all seeded areas, and shall re-seed as necessary to accomplish this.

SAND OR GRAVEL BACKFILL DETAILS FOR SEWERS UNDER CONCRETE OR ASPHALT PAVEMENTS, SIDEWALKS, DRIVEWAYS AND PARKING AREAS



DRAWING PATH: P:\0101_012501200303_Auburn Hills Standards_Updated\Drawings\CH\Drawings\44-STM DET.dwg Jul 13, 2022, 3:22pm

OHM
ARCHITECTS ENGINEERS PLANNERS

34000 PLYMOUTH RD
LIVONIA, MI 48150
P: (734) 522-8711

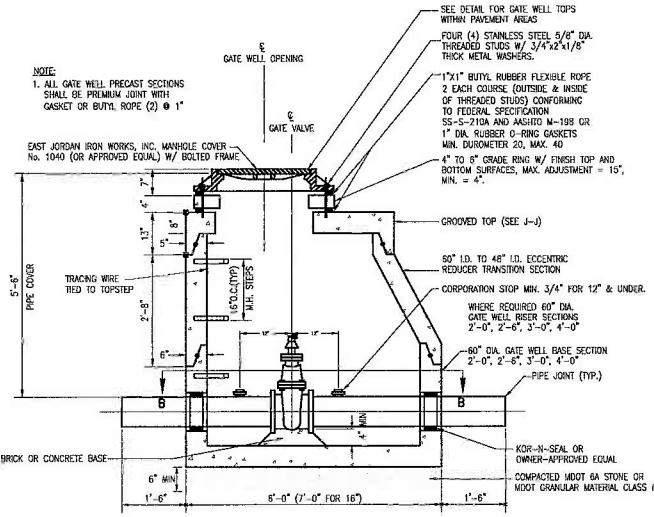
OHM-ADVISORS.COM

REVISED STANDARDS UPDATE 6/2021

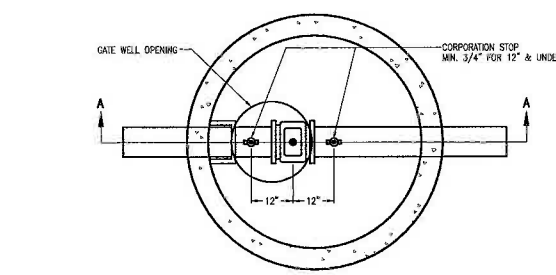
CITY OF AUBURN HILLS
STORM SEWER STANDARD DETAILS

2 OF 2

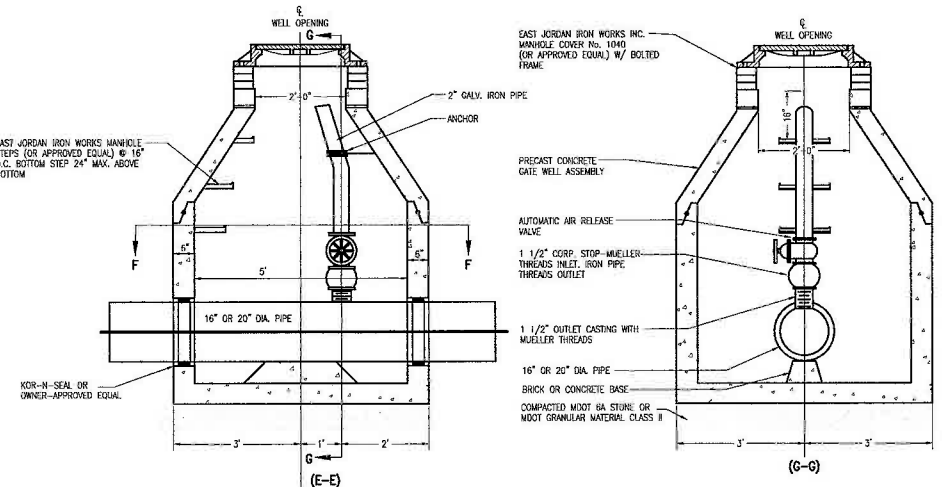
DRAWING PATH: P:\0101_01250120200330_Auburn_Hills_Standard\UpdatedDrawings\CHD\03a1AH-WM-DET.dwg Jul 13, 2022 - 3:22pm



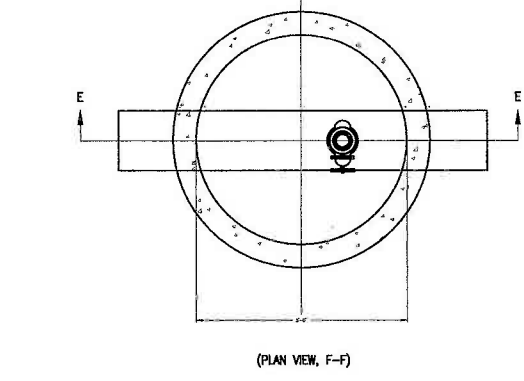
6, 8, 12 AND 16" GATE WELL (A-A)



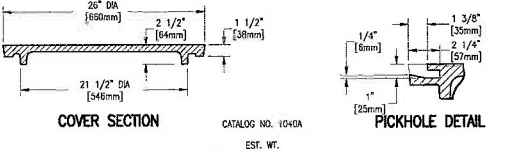
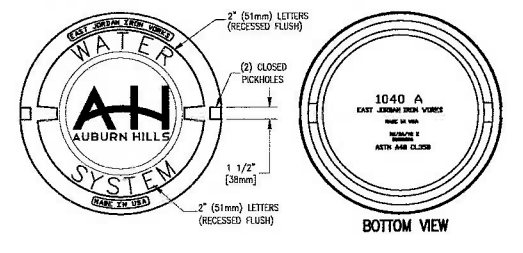
6, 8, 12 AND 16" GATE WELL TYPICAL (PLAN VIEW, B-B)



STANDARD AIR RELEASE VALVE & WELL FOR 16" & 20" WATER MAIN

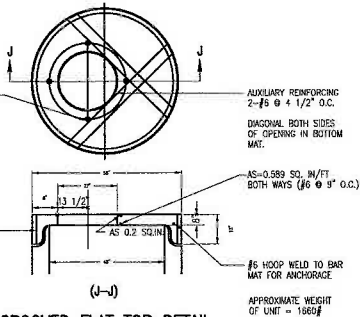


(PLAN VIEW, F-F)

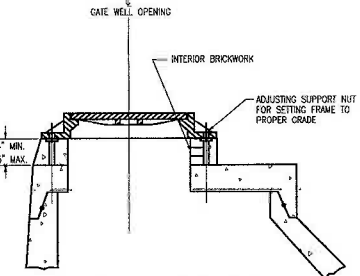


CATALOG NO. 1040A
EST. WT. COVER: 150 LBS
68#
MATERIAL SPEC. COVER - GRAY IRON ASTM A8 C135
LOAD RATING HEAVY DUTY
COATING DIPPED

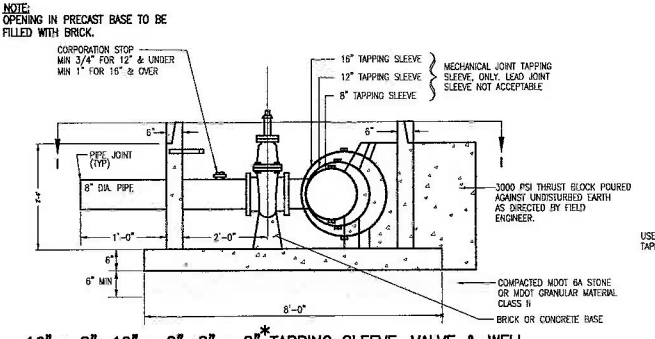
CAST IRON GATE WELL COVER AND GRADE RING



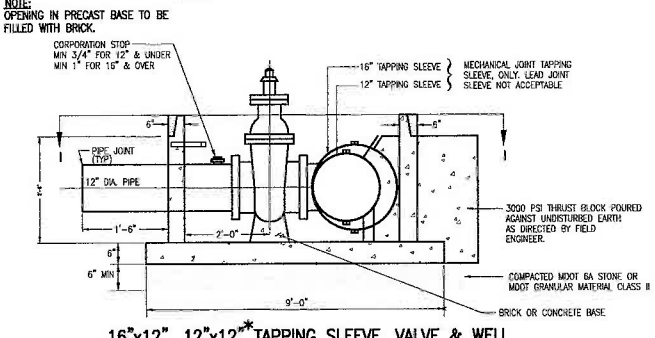
GROOVED FLAT TOP DETAIL (SEE A-A)



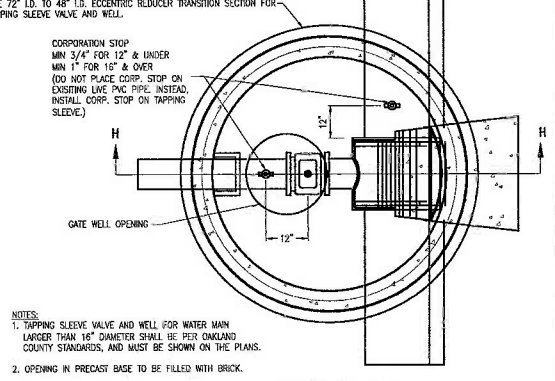
GATE WELL TOPS WITHIN PAVEMENT AREAS



16" x 8", 12" x 8", 8" x 8" TAPPING SLEEVE VALVE & WELL (H-H)



16" x 12", 12" x 12" TAPPING SLEEVE VALVE & WELL (H-H)



TAPPING SLEEVE VALVE & WELL TYPICAL (PLAN VIEW, I-I)

GENERAL WATER MAIN NOTES

GENERAL NOTES:

- All construction procedures and materials used on all water main projects shall conform to American Water Works Association (AWWA), Great Lakes Water Authority (GLWA) and The City of Auburn Hills current Standards and Specifications.
- No water main is to be installed without the City's inspector present.
- Notify MISS DIG (1-800-482-7171) at least three (3) working days prior to start of construction.
- Where work is to be performed in the vicinity of a GLWA water main, contractor shall notify the GLWA Field Office (833-4892) 3 working days prior to the start of construction and request job site inspection where necessary.
- All pipe and all pipe fittings shall be made in the U.S.A. and shall comply with AWWA C111 and/or AWWA C115.
- Unless otherwise specified on plans, top of all water mains shall be 5.5 ft. below existing or proposed road centerline, or 5.5 ft. below existing or proposed ground, whichever results in lower elevation.
- An 18" minimum vertical clearance between storm or sanitary shall be maintained.
- All required cross connection devices shall be installed as required by the local plumbing inspector and in accordance with the standards of the Michigan Department of Public Health.
- Tracing wire shall be provided for all water main, regardless of pipe material. When PVC is installed for a service line, tracing wire shall be run from the meter setup to the curb box. Wire shall be copper, 12-gauge stranded, blue insulated per City requirements. Connection is required at all service leads, hydrants, and gate wells. Wire shall be brought through each gate well and connected to the top step. All wire exposed above ground surface shall be enclosed in 1/2" metal conduit. The conduit should extend 6" below the ground surface. Conductivity shall be tested by the City prior to acceptance of the main. All splices shall be made using a gel-cap product which provides a water proof seal, such as 3M's Direct Bury Splice kit #P054007/09964 or approved equal. In addition, underground marking tape shall be placed 1" above the top of PVC or HDPE water main. Underground marking tape shall be Magnetech 3" wide, foil-backed tape, #31-022 by Empire Level Manufacturing Corp., or approved equal.
- Polywrap shall be placed as required by the City.
- Connection to an existing water main shall be made only after pressure and bacteriological test have been successfully completed. The city engineer must be present for the test and review the results. Testing and disinfection procedures shall meet the requirements of AWWA-C600/C651.
- When temporary water main jumpers are used during water main construction, a dual check valve backflow preventer (A.S.S.E. Std. # 1024) shall be placed on the jumper hose that is connected to the new water main. Contact the City of Auburn Hills (248-391-3777) before the water main jumper is installed for inspection.
- Where water main is located under pavement, the City shall not be responsible for repairing pavement within the easement in the event that maintenance or repairs to the water main become necessary.
- The design engineer shall furnish the City of Auburn Hills with PDF "Record Drawings" of the water main plans as well as a GIS file or AutoCAD file. Plans shall locate all water mains, hydrants, and gate valves and wells.
- The materials specified below may be substituted with an approved equal as determined by the City. It is at the sole discretion of the City to determine if a material is acceptable and can be utilized. Written authorization must be obtained prior to ordering or installing the approved equal.

TESTING:

- Pressure testing of water main including standard fire suppression leads and riser into the building will be conducted by OHM witnessing on behalf of the municipality. Water main testing shall be per AWWA. Notify OHM (site coordinator) of schedule (3 working days prior to test). Prior to any utility testing, the remaining escrow amount will be reviewed to verify that there is enough escrow to complete the project.
- Pressure testing of remote FDC's and fire suppression lines extending between buildings will be conducted by Auburn Hills Fire Department. Water main testing shall be per NFPA 13 2016. Notify the Fire Department for the City of Auburn Hills at 248-370-9461 of schedule (3 working days prior to test).
- Prior to chlorinating the water main, the main shall be filled with potable water to eliminate air pockets and flushed to remove particulates. The flushing velocity in the main shall not be less than 3.0 ft/sec per AWWA C600-17. The main shall be disinfected per AWWA C651-14 and then flushed following chlorination.
- Bacteriological testing shall be conducted per AWWA C651-14. No bacterial tests will be performed until pressure tests have been passed. Two sets of bacteria samples (two consecutive days, at least 24 hours apart) will be obtained by a licensed testing agency, with the contractor and OHM inspector witnessing. Contractor shall contact Jerry Ashburn (734) 891-1450 for scheduling. Cost of the sampling/testing is the responsibility of the contractor/developer. Hard copy results must be on file at OHM prior to any tie-in. Contractor shall have the samples taken and analyzed at a Michigan Department of Environment, Great Lakes, and Energy (EGLE) approved lab. Two current local labs are:

AquaTest Laboratories
9165 Highland Road
White Lake, MI 48386
248-698-9500

Brighton Analytical, LLC
2105 Pless Drive
Brighton, MI 48114
248-229-7575

3400 PLYMOUTH RD
LIVONIA, MI 48150
P: (734) 522-8711
OHM-ADVISORS.COM

REVISIONS:
REVISED (CASTING LOGO UPDATED) 01/09
REVISED STANDARDS UPDATE 02/2021

CITY OF AUBURN HILLS
WATER MAIN STANDARD DETAILS

DATE: DEC 2007
PROJ NUMBER: 010101250120200330
PROJ NAME: Auburn Hills Standard
SHEET: 1 OF 3

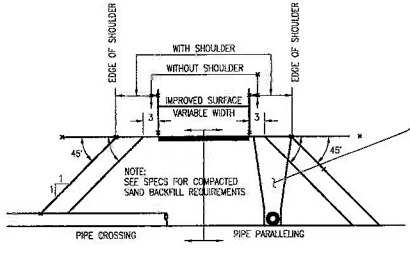
COPYRIGHT 2017 OHM ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF OHM AND THE SAME MAY NOT BE REPRODUCED, DISTRIBUTED, OR DISCLOSED WITHOUT PRIOR WRITTEN CONSENT OF OHM

WATER MAIN NOTES

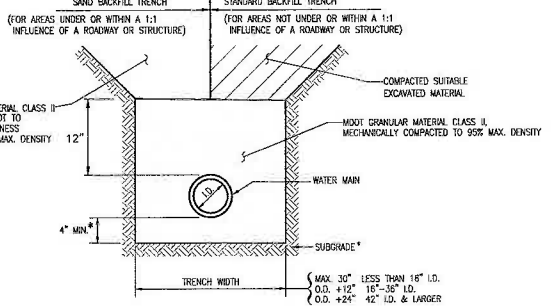
- WATER MAIN NOTES:**
- All water main shall be ductile iron. Concrete, HDPE or PVC water main may be permitted upon city approval. Water main shall be per the following specification.
 - Ductile iron pipe shall be ANSI 1-A21.51 (AWWA-C151) std. wall thickness, cement lined with bituminous seal coat Class 54 for sizes 3" through 16" and Class 55 for 20" through 24" pipe. All 6" pipe MUST be ductile iron.
 - Pre-stressed Concrete Cylinder pipe (P.C.C.P.) shall be AWWA C-301 specification for sizes larger than 24".
 - Polyvinyl Chloride (PVC) pipe shall meet the requirements of ANSI/AWWA C909-98 (including any appendices) as amended for the pressure class of 200 psi (SDR 14). PVC may only be used for 8" or 12" mains or 2" water services. All fittings for PVC shall be ductile iron, as specified in ANSI 1-A21.10 (AWWA-C110) as amended. PVC pipe shall only be used when approved by the City of Auburn Hills.
 - High Density Polyethylene (HDPE) pipe shall meet the requirements of AWWA C906 (SDR 11) with blue shell or blue stripe.
 - Water services up to 2" shall be either Type K soft copper or PVC with tracing wire meeting the requirements of AWWA for a pressure class of 200 psi. If PVC is used, a tracing wire shall be run from the meter stop to the curb box (See General Notes, Item #9 for tracing wire requirements). All water services greater than 2" shall follow the standards listed in Water Main Note #1.
 - The maximum allowable deflection at joints for ductile iron water main shall be per manufacturers standards (i.e. 4" - 36" water main - 5" per 20').
 - Polywrap may be required by the city and shall be placed around the water main.
 - Mega lugs shall be placed at all valves, bends, tees, plugs, hydrants and mechanical fittings. Surrounding joints shall be restrained using field lock gaskets or approved equal and shall be per the manufacturer's joint restraining schedule.
 - All bolts on all flanged and mechanical joint fittings shall be domestic origin high strength, low alloy COR-BLUE steel bolts or approved equal. These bolts shall meet the current provisions of American National Standard ANSI/AWWA C111/A21.11-90 for rubber gasket joints for ductile iron pressure pipes and fittings. Bolt manufacturer's certificate of compliance must accompany each shipment.
 - Backfill shall be compacted above pipe as indicated on construction drawings. Trench backfill shall be a suitable material and shall be free of any organic materials and rocks larger than 3" in size. Under road surfaces, pavement, sidewalks, curbs, driveways and areas where trench is within a 1:1 influence of the pavement, sand backfill shall be used which shall consist of MDOT granular material Class II or III and shall be compacted in layers not to exceed 12" in thickness to a density of 95% as determined by AASHTO T99. Where water main is to be placed on fill material, all fill material below the pipe must also be compacted to 95% maximum unit density. All backfill placed with a 1:1 influence of structures shall be approved sand, placed in 1' layers and compacted. Trenches that are to be left open overnight shall be enclosed with suitable fencing and lighted barricades, unless otherwise approved by the City.
 - PVC Installation Specifications:
 - Where pipe must be cut, machine beveling shall be provided as specified by the manufacturer, unless the cut end will be butted against a fitting with an approved bolt-type joint. The factory beveled end of the spigot must be removed when the spigot will be butted against a fitting.
 - All PVC pipe deflections shall be made using mechanical fittings. PVC pipe shall not be placed or connected by "breaking" or "opening" joints (0' deflection). Physically bending the pipe is not allowed either. Each individual length of PVC pipe shall be placed in a straight line.
 - PVC water main shall not be exposed to sunlight for more than one (1) week. The contractor shall provide an opaque covering to shield all parts of pipe. Such pipe that is not adequately protected will be rejected.
 - PVC water main shall not be installed when temperatures are below zero (0) degrees Fahrenheit.
 - Pipe shall be joined per the manufacturer's recommendation. Push-on type joints shall not be installed past the "home" mark on the pipe, or otherwise disrupt the required elastomeric gasket.
 - PVC water main shall not be used in areas where any petroleum products are found or suspected to exist in the soils or surrounding area.
 - Extreme care must be used when attaching fittings. Mechanical joints to PVC pipe must distribute the loading evenly to avoid damage and potential breaks or weak points in the pipe. A uniform annular space must be created to eliminate any potential point loading on the pipe. Point loading and pipe movement at the structure joint can cause the pipe to split.
 - Rubber "boots" or "sleeves" are required for pipes entering structures (similar to sanitary sewer "boots").
 - Taps shall not be made on PVC water main that is bent, or otherwise in tension.
 - A Ford or McDonald double-banded brass tapping saddle shall be provided for all taps to PVC water main.
 - All taps shall be made with a sharp bit and high speed tap, as recommended by the manufacturer.

- VALVE & SLEEVE NOTES:**
- Gate Valves shall be ductile iron body, fully bronze mounted, E.J.L.W. resilient wedge, non-rising stem, opening counterclockwise conforming to AWWA or C515, E.J. Flow Master or approved equal.
 - All gate valves 6" or larger shall be placed in a well; curb stops and boxes are required for water main 2" or smaller. A valve shall be placed in a well for all water main larger than 2" and smaller than 6" when a tapping sleeve will be utilized; otherwise, a valve may be placed in a box for water main larger than 2" and smaller than 6".
 - All gate valves with operating nuts at a distance greater than 5' below ground surface shall be provided with an extension stem. The length of the extension shall be such that it will be within 5' of ground surface when an extension stem is used. It shall be held in place by two extension stem guide assemblies. Each assembly shall be comprised of a "J" bracket and "L" bracket supplied by E.J.L.W. The stem guides shall be located opposite from each other, and shall be suitably fastened to the wall of the gate well. In addition, a "stop" shall be welded to the extension stem and method of installation shall be approved by the engineer prior to installation.
 - All pre cast concrete gate well sections shall be manufactured to conform with ASTM C478, standard specifications for precast reinforced concrete manhole sections, except wall thickness shall be as shown on these details. All joints for precast concrete gate well sections shall be "modified grooved tongue" with gasket manufactured to conform with ASTM C443, standard specification for joints for circular concrete sewer and culvert pipe using rubber gaskets.
 - All gate well covers shall be E.J.L.W. #1040A with bolted frame and have the Auburn Hills Logo imprinted on it (see detail on sheet 1), or approved equal. All cover bolts shall be stainless steel.
 - Tapping sleeves shall be mechanical joint with E.J. SERIES Mechanical Joint Tapping Gate Valve. Lead joint sleeves shall not be used. Like size tapping sleeves can only be used when the existing main is ductile iron and must be a mechanical tapping sleeve.
 - All tongue and groove joints on wells shall be cement tuck-pointed inside and out.

- HYDRANT NOTES:**
- All hydrants shall be E.J.L.W. #5BR-250-Traffic Model and shall conform to AWWA Spec. C-502 as amended, and shall have a minimum 5 1/4" valve opening that closes with the water pressure. Hydrants shall be traffic style with breakable flange and coupling.
 - Hydrants shall have a swivel flange to allow bonnet to be turned 360 degrees without removing the bonnet, and barrel flanges shall be integrally cast with the barrel. Inlet shoe shall have a bronze valve seal, which can be removed without digging.
 - Inlet connection shall be 6" mechanical joint, ASA-A21-11. Stem threads shall be sealed with double "O" rings and shall be permanently lubricated with all weather grease.
 - Hose connections: Two (2) 4 1/2" pumper nozzles, one (1) with Harrington Integral Hydrant Storz nozzle (part# 946081/ELW# 54036D) and one (1) with City of Detroit Fire Department (DFD) threads. The Storz nozzle shall have a brass metal face seal and hard anodized aluminum Storz ramps and lugs. The aluminum's finish shall be hardcoat anodized to Mil-A-8825F, Type 3 dark gray. The adapter shall be made of forged or extruded 6061-T6 aluminum. The blind cap shall have hard anodized aluminum Storz ramps and lugs, made of forged or extruded 6061-T6 aluminum. The center cap shall be equipped with a suction seal. The cap shall be connected to the adapter or the hydrant with a 0.125" vinyl coated aircraft cable.
 - Operating Nut: (1) 1 1/2" P-F pentagon, open left. 5.5" cover or specified on plans. A suitable nozzle lock shall be in place to prevent inadvertent nozzle removal. Wedge locks and/or ductile iron retainer rings to secure nozzles shall not be allowed.
 - Hydrants shall be painted red above the ground and black below, with a finish coat of Glamortex 501 enamel, color 314 vermillion, or approved equal. Top flange shall be painted with JDL Industries (305) 599-2022, Bright White Reflective paint, color No.1460 or topped with 3M Scotchlite High Intensity Reflective Tape #3870. Nozzle cap shall be painted per Auburn Hills Fire Dept. requirements: White - 4" mains, Red - 6" mains (Point #4431-01), Orange - 8" mains (Point #4431-24), Green - 12" mains (Point #4431-10), Blue - 16" or larger mains (Point #4431-12). Point can be obtain at Tractor Supply Company using the associated Point Numbers. DO NOT paint Storz nozzle.



BACKFILL IN THE AREA OF STREETS, ALLEYS, SIDEWALKS, DRIVES & PARKING LOTS



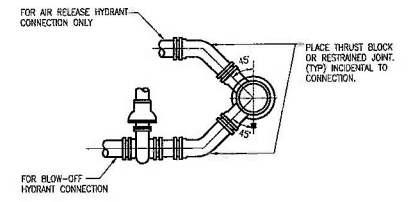
STANDARD BEDDING AND TRENCH BACKFILL DETAIL FOR WATER MAIN

FOR PLUGS

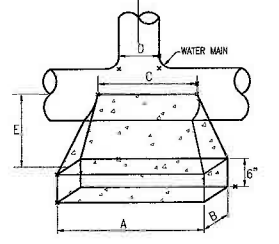
D	A	B	C	E MIN.
20"	7"	5"	2.5"	3"
16"	4'-10"	4'-10"	2"	3"
12"	4'-4"	3"	1'-9"	3"
10"	3"	2"	1'-6"	3"
8"	2'-10"	2'-6"	1'-6"	3"
6"	1'-6"	1'-5"	3"	3"

FOR TEES AND TAPPING SLEEVES

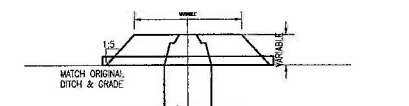
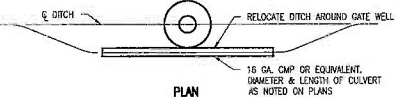
D	A	B	C	E MIN.
20"	8.5"	4.5"	3.5"	3"
16"	4'-8"	4'-8"	2.5"	2.75"
12"	4"	3"	2.5"	2.5"
10"	3"	2"	2"	2.25"
8"	2'-5"	2"	2"	2.25"
6"	2"	2"	2"	2.25"



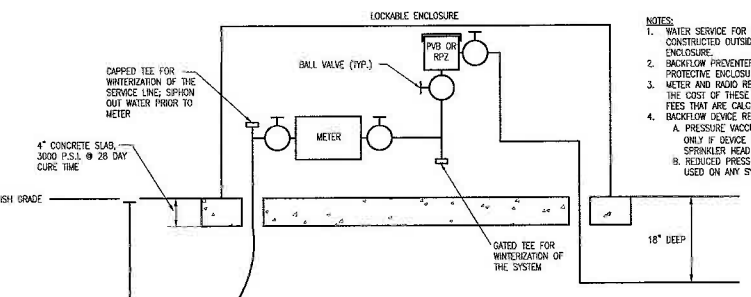
HYDRANT AIR RELEASE AND BLOW-OFF CONNECTION



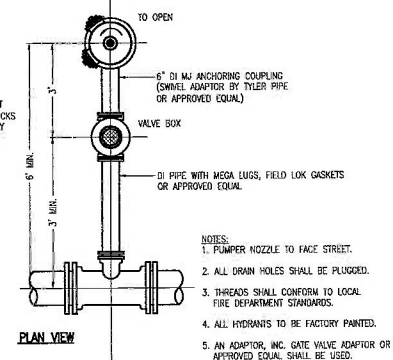
THRUST BLOCK DETAILS



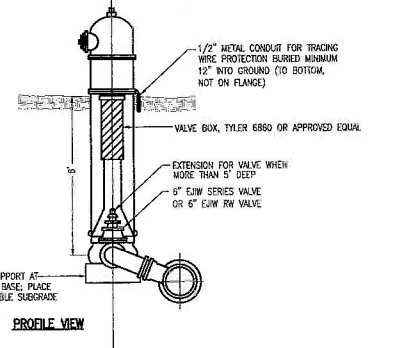
DITCH ENCLOSURE AT GATE WELL OR HYDRANT



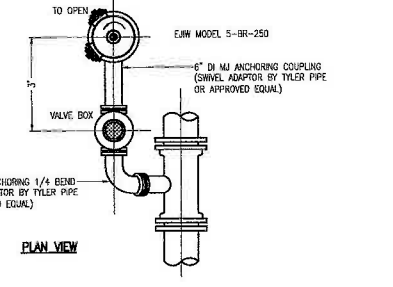
SEPARATE OUTDOOR IRRIGATION METER (NON-RESIDENTIAL)



PLAN VIEW

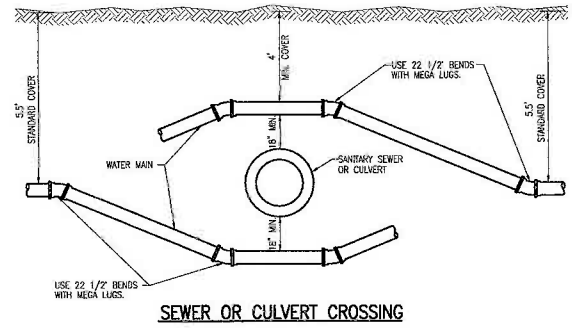


PROFILE VIEW

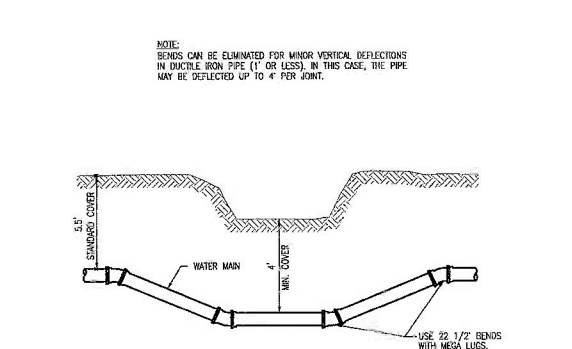


PLAN VIEW

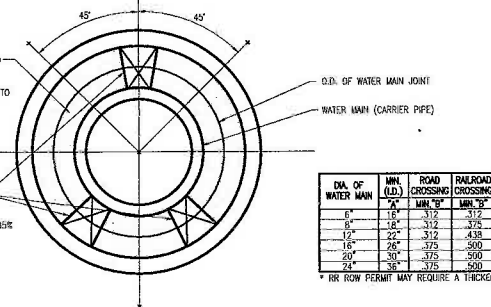
DETAIL OF HYDRANT SETTINGS



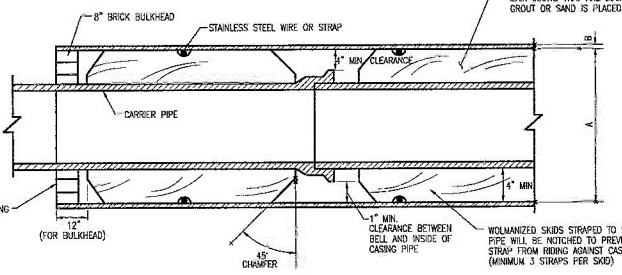
SEWER OR CULVERT CROSSING



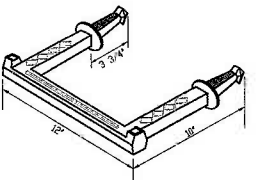
DITCH OR STREAM CROSSING



PIPE BARREL SUPPORT FOR WATER MAIN CONSTRUCTED IN CASING PIPE



STANDARD CASING SECTION



MANHOLE STEP

ROAD CROSSING CROSSING*

DIA. OF WATER MAIN (D.O.D.)	MIN. D.O.D.	MIN. ROAD CROSSING	MIN. ROAD CROSSING
6"	18"	312"	312"
8"	24"	312"	312"
12"	24"	312"	438"
16"	24"	375"	500"
20"	30"	375"	500"
24"	36"	375"	500"

* RR ROW PERMIT MAY REQUIRE A THICKER WALL SECTION.

PLACE vulcanized skid along the top of the carrier pipe in order to prevent the carrier pipe from rolling over or floating. IF THE CONTROLLING AGENCY PERMIT REQUIREMENTS INDICATE THAT SAND OR GROUT MUST BE PLACED BETWEEN THE CASING PIPE AND CARRIER PIPE, THEN THE SAND OR GROUT SHALL BE PLACED IN ACCORDANCE WITH THE PERMIT SPECIFICATIONS. UNLESS OTHERWISE INDICATED BY THE ENGINEER, RESTRAINED JOINTS SHALL BE REQUIRED FOR WATER MAIN JOINTS THAT ARE LOCATED INSIDE THE CASING PIPE. IN THE EVENT THAT NO GROUT OR SAND IS PLACED BETWEEN THE CASING PIPE AND CARRIER PIPE.

- NOTE:**
- CASING SHALL BE SPIRAL WELDED STEEL PIPE A.S.T.M. A-252, GR. 2.
 - 4" MINIMUM CLEARANCE BETWEEN MAX. O.D. AT A JOINT OF THE PIPE AND THE I.D. OF THE CASING PIPE FOR THE TOP 90° OF THE CASING.
 - THE CONTRACTOR SHALL SUBMIT IN WRITING THE DETAILS OF THE APPROPRIATE PIPE CASING INSTALLATION FOR THE REVIEW AND APPROVAL BY THE ENGINEER BEFORE INSTALLATION OF ANY CASING STARTS.
 - IF THE CONTROLLING AGENCY PERMIT REQUIREMENTS INDICATE THAT SAND OR GROUT MUST BE PLACED BETWEEN THE CASING PIPE AND CARRIER PIPE, THEN THE SAND OR GROUT SHALL BE PLACED IN ACCORDANCE WITH THE PERMIT SPECIFICATIONS.

OHM
ARCHITECTS ENGINEERS PLANNERS
3400 PLYMOUTH RD
LYONIA, MI 48150
P: (734) 522-6711
OHM-ADVISORS.COM

REVISED (WATER MAIN NOTE #6, CASING PIPE (MINIMUMS))
REVISED (HYDRANT NOTE #6) 04/30/09
REVISED STANDARDS UPDATE 6/22/21

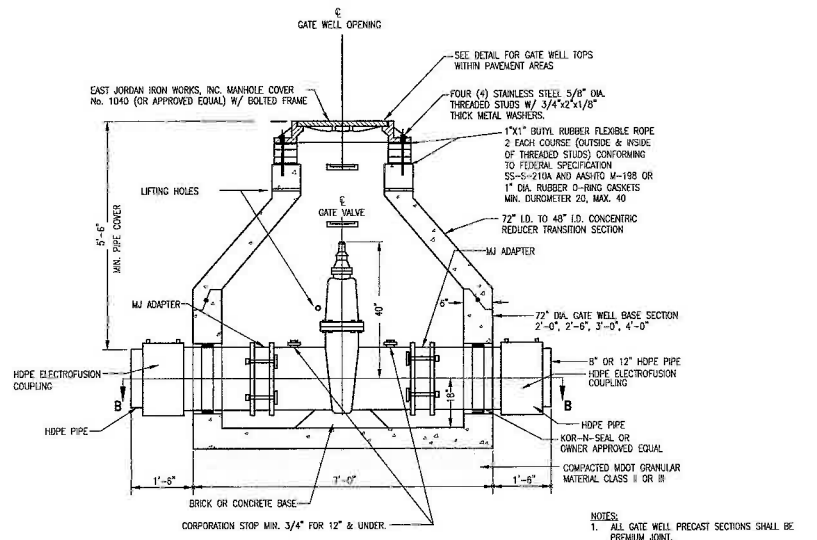
CITY OF AUBURN HILLS
WATER MAIN STANDARD DETAILS

DATE: DEC-2007
PROJECT NUMBER: ESR
PROJECT: ESR
COUNTY: OAKLAND
CITY: AUBURN HILLS
SCALE: 1/4" = 1'-0"
SHEET: 2 OF 3

REVISED STANDARDS UPDATE 6/22/2021

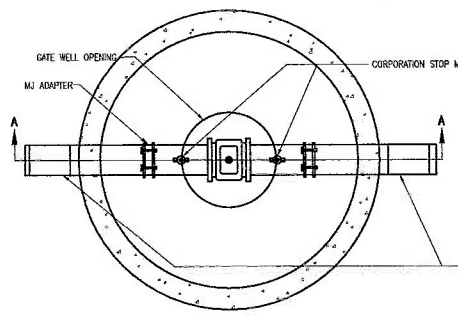
CITY OF AUBURN HILLS
AUBURN HILLS, MI 48324

CITY OF AUBURN HILLS
WATER MAIN STANDARD DETAILS

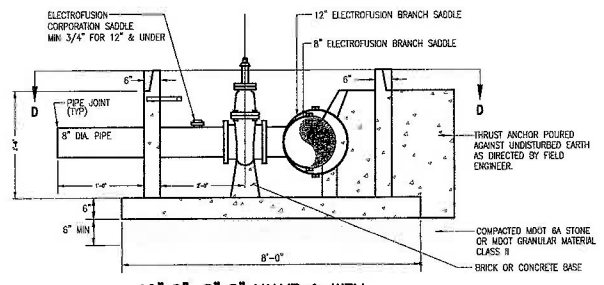


8" AND 12" GATE WELL FOR HDPE WATER MAIN (A-A)

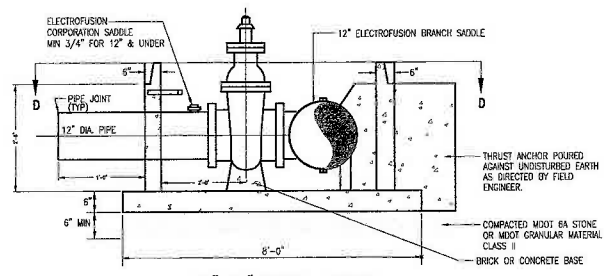
- NOTES:
1. ALL GATE WELL PRECAST SECTIONS SHALL BE PREMIUM JOINT.
 2. LIFT HOLES SHALL BE FILLED WITH CONCRETE.
 3. FOR WATER MAIN LARGER THAN 16" DIAMETER, A 16" GATE VALVE SHALL BE USED. REDUCERS SHALL BE INSTALLED ON THE WATER MAIN OUTSIDE OF THE GATE WELL.
 4. USE A 5" DIAMETER GATE WELL FOR 8" HDPE ASSEMBLY AND USE A 6" DIAMETER GATE WELL FOR A 12" HDPE ASSEMBLY.



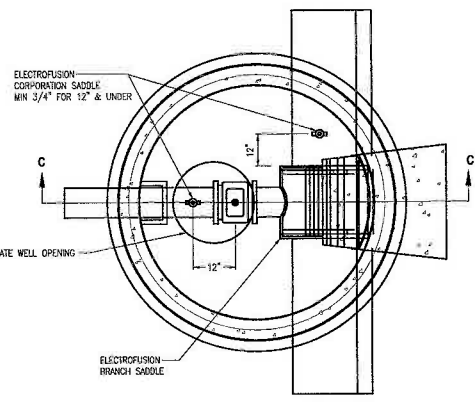
8" AND 12" GATE WELL TYPICAL FOR HDPE WATER MAIN (PLAN VIEW, B-B)



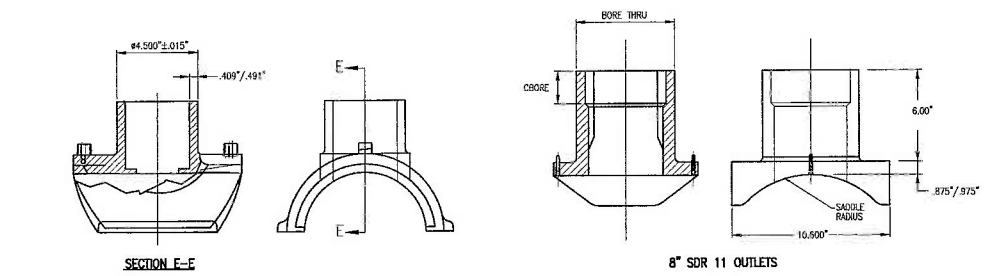
12"x8" 8"x8" VALVE & WELL (C-C)



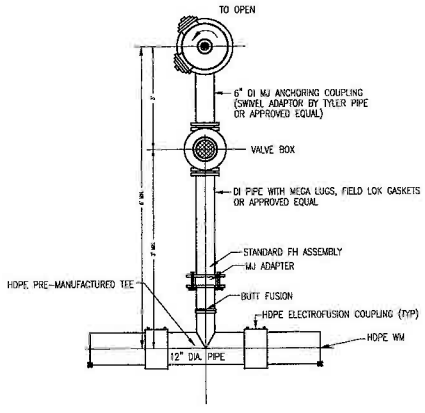
12"x12" VALVE & WELL (C-C)



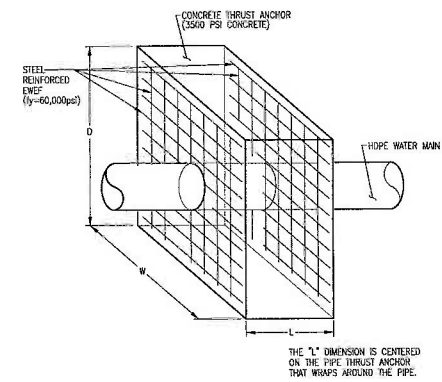
VALVE & WELL TYPICAL (PLAN VIEW, D-D)



ELECTROFUSION BRANCH SADDLE DETAILS



FIRE HYDRANT ASSEMBLY WITH HDPE PRE-MANUFACTURED TEE



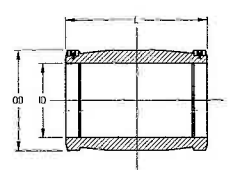
CONCRETE THRUST ANCHOR FOR HDPE PIPE

EQUIVALENT DUCTILE IRON PIPE SIZES (DIPS)		
NOMINAL PIPE SIZE (DIPS)	O.D. SIZE (INCHES)	MIN WALL THICKNESS (INCHES)
8"	8.50	0.597
8"	8.55	0.623
10"	10.10	1.062
12"	13.20	1.200
16"	17.40	1.582
20"	21.60	1.964
24"	25.60	2.345

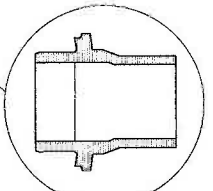
PIPE SIZE	THRUST BLOCK SIZE (W x D x L)	REINFORCEMENT
8"	2' x 2' x 12"	85 # 12" EWF*
8"	2'5" x 2'5" x 12"	85 # 12" EWF*
12"	4' x 4' x 20"	85 # 12" EWF*
16"	5' x 5' x 20"	85 # 12" EWF*
20"	6'5" x 6'5" x 30"	87 # 12" EWF*
24"	8' x 8' x 30"	85 # 12" EWF*

* EWF = EACH WAY, EACH FACE

NOTE: VARIATIONS TO THE W AND D DIMENSIONS CAN BE MADE ON A CASE BY CASE BASIS DEPENDING ON THE DEPTH REQUIREMENTS FOR WATER MAIN FOR THAT PARTICULAR PROJECT. IF CHANGES ARE MADE TO THE SIZE, THE DESIGN ENGINEER WILL BE REQUIRED TO SUBMIT CALCULATIONS SUPPORTING THE REVISED SIZE, INCLUDING ANY CHANGES TO THE REINFORCING STEEL.



HDPE WATER MAIN JOINT RESTRAINT (FOR CONNECTING HDPE PIPE TO DUCTILE IRON PIPE)



MJ ADAPTER

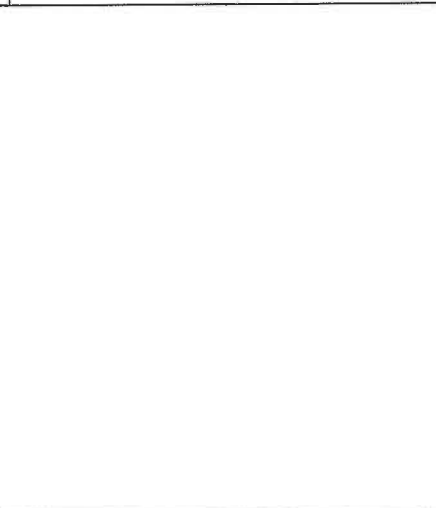
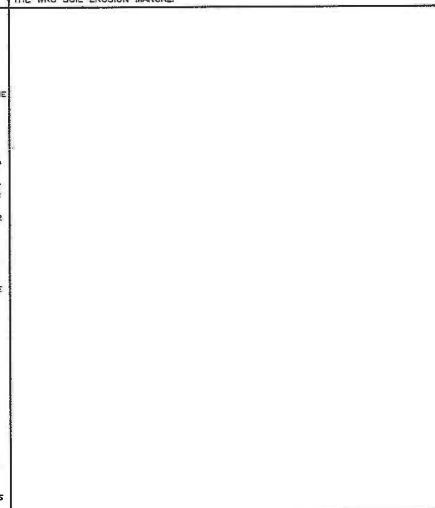
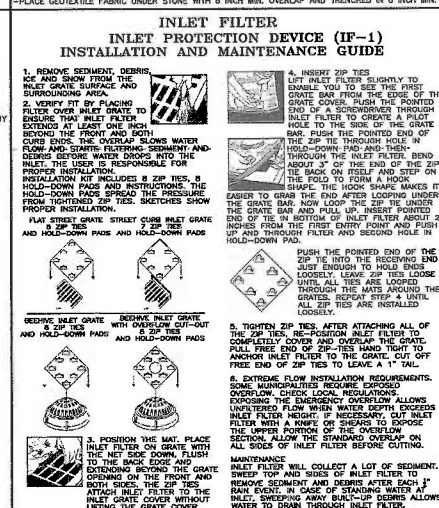
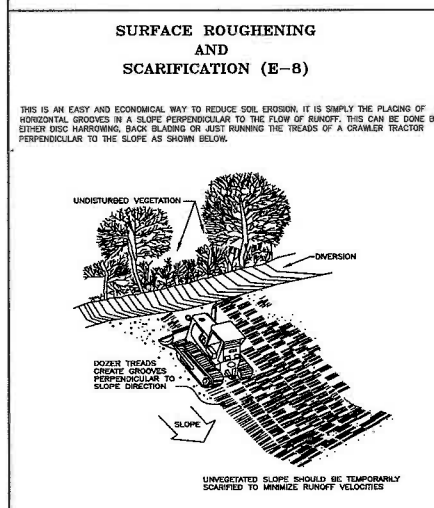
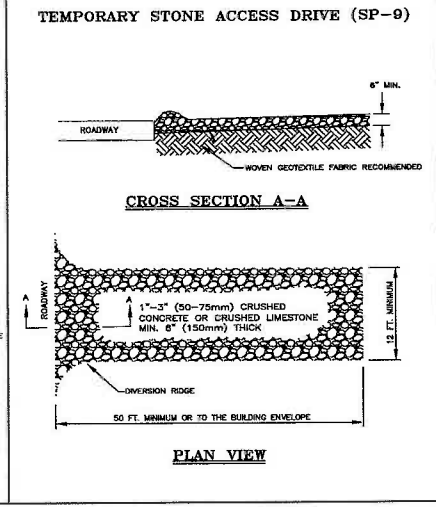
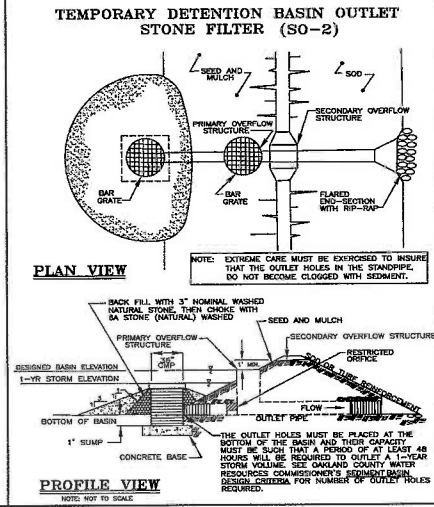
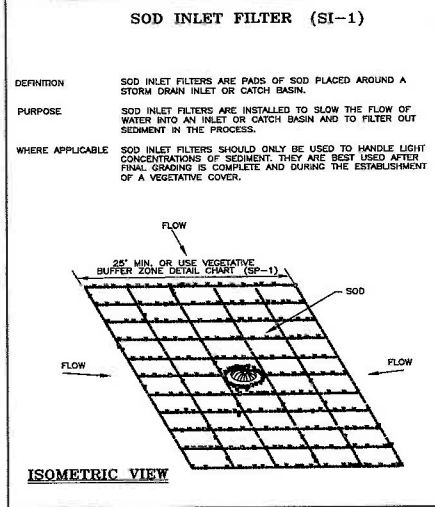
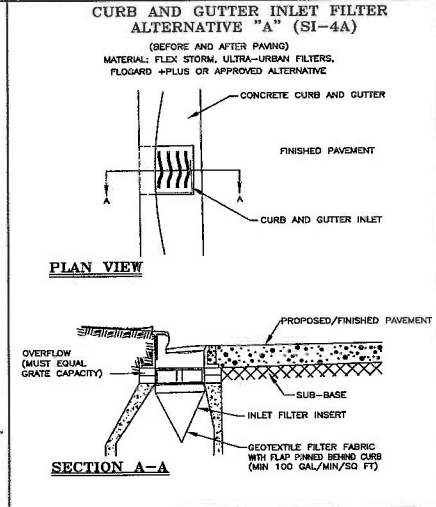
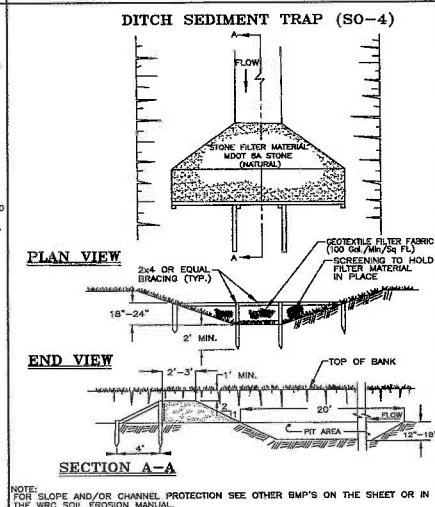
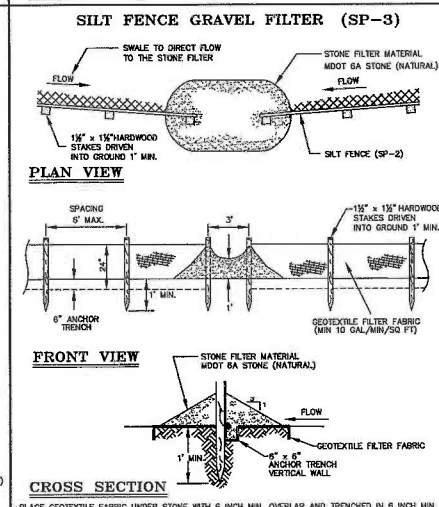
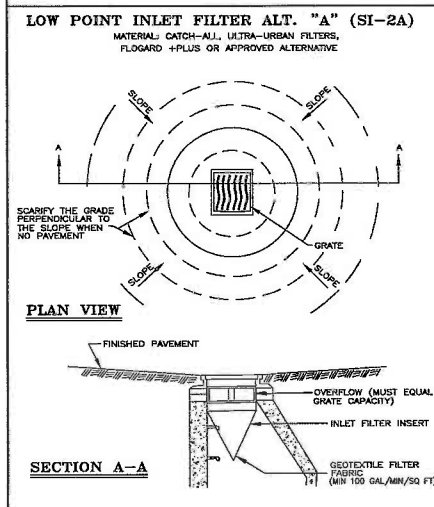
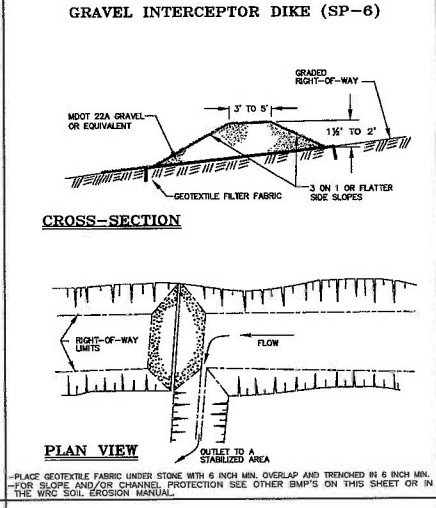
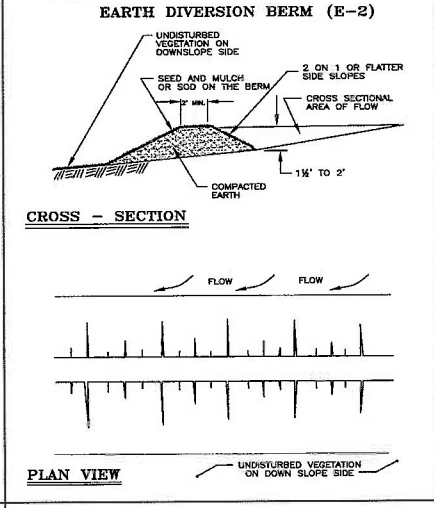
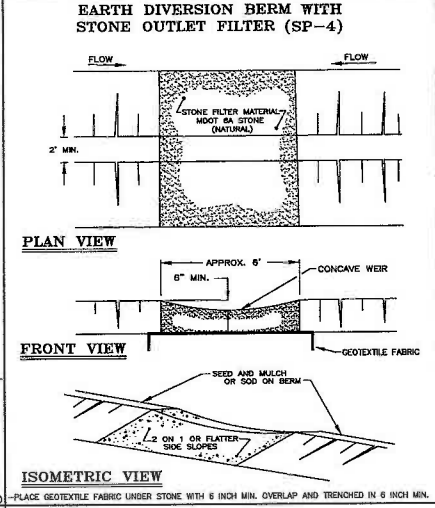
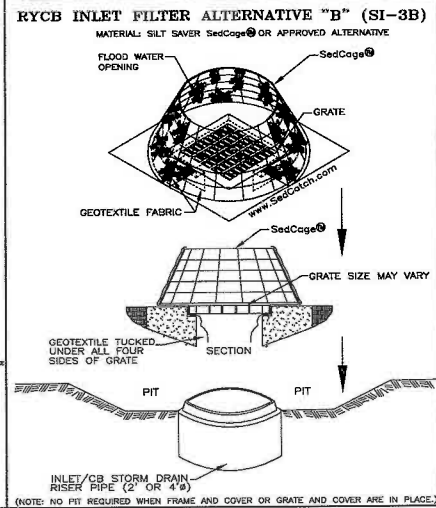
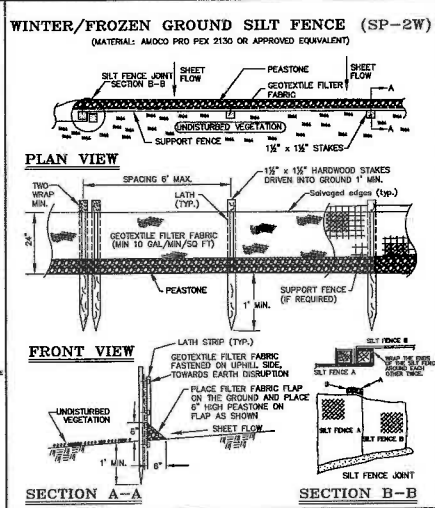
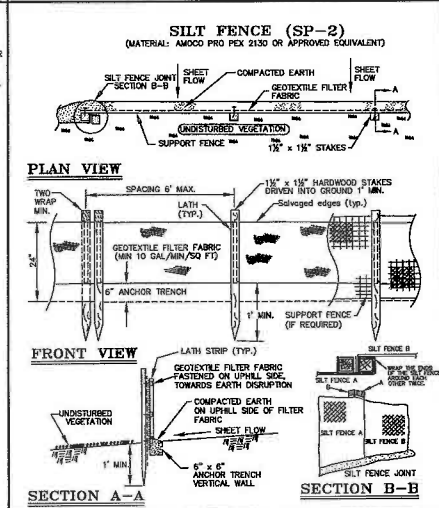
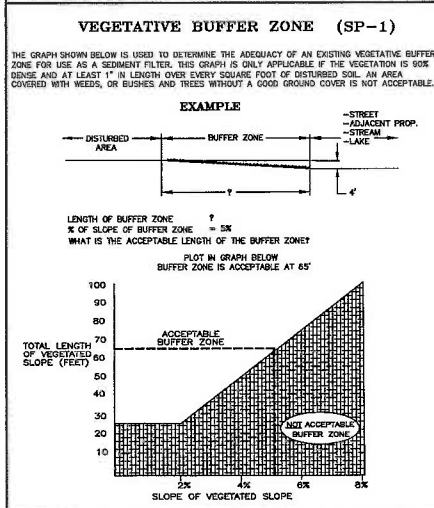
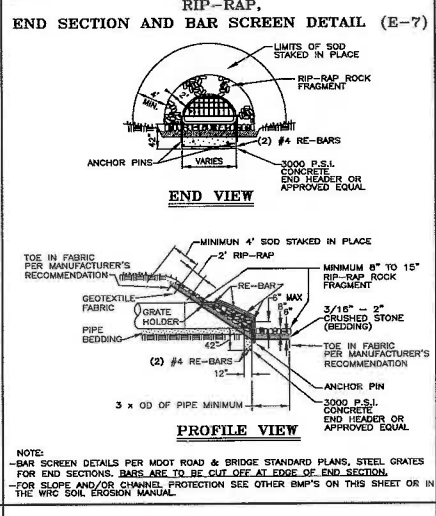
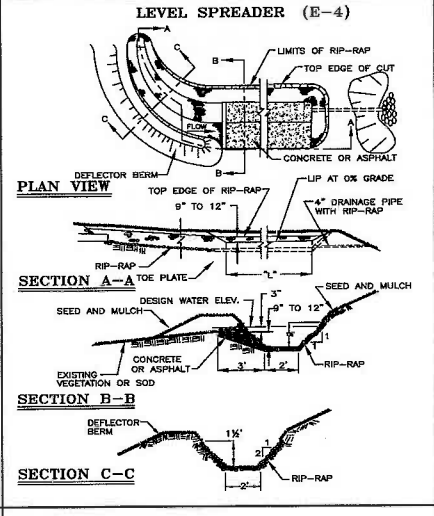
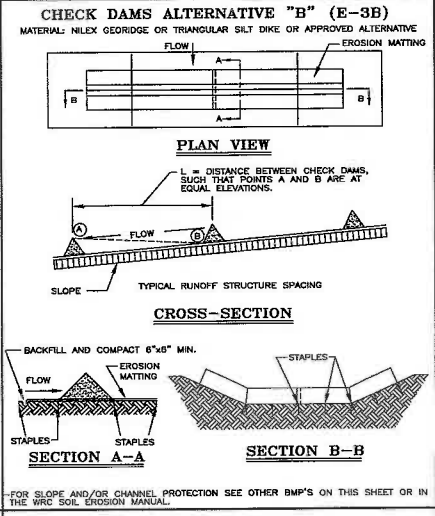
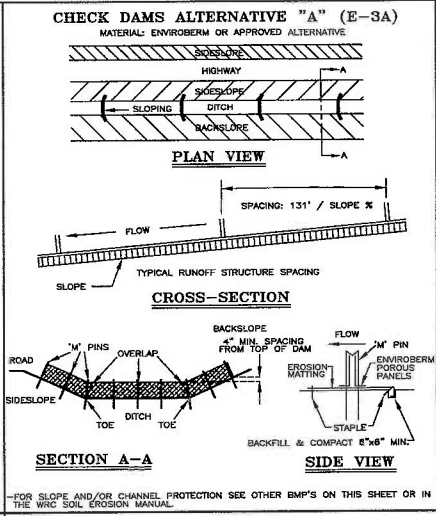
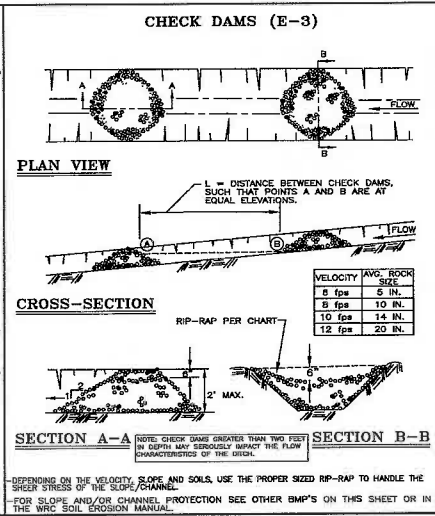
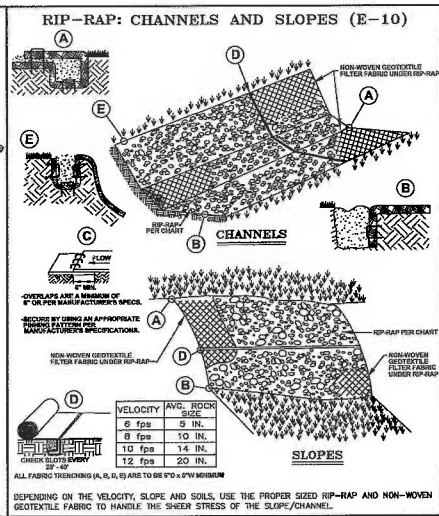
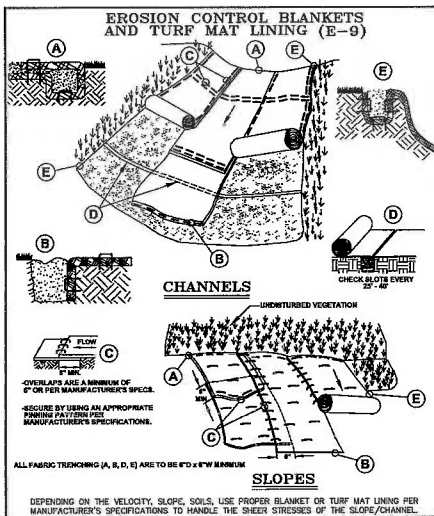
DIAMETER DIPS	DR	OVERALL LENGTH	BOLT LENGTH REQUIRED	WEIGHT
6"	11	8.25"	4 1/2"	4.4
8"	11	8.25"	5"	7.3
10"	11	8.75"	5"	11.3
12"	11	8.75"	5"	15.8
16"	11	9.67"	6"	33.0
20"	11	10.22"	6"	31.0
24"	11	10.22"	8 1/2"	71.7

NOMINAL SIZE	INSIDE DIA (MAX) ID	INSIDE DIA (MIN) ID	OUTSIDE DIA (NOMINAL) OD	OVERALL LENGTH (NOMINAL) L
4"	4.54	4.810	6.06	6.83
5"	6.36	6.910	8.74	8.19
8"	9.13	9.069	11.14	9.53
10"	11.15	11.14	13.66	11.02
12"	13.29	13.25	16.22	13.07

ELECTROFUSION DIPS COUPLINGS

DRAWING PATH: P:\0101_01250120200330_Auburn_Hills_Standards_Update\Drawings\Civil\Details\A4\WM_DET.dwg Jul 13, 2022, 3:22pm

COPYRIGHT 2017 OHM ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF OHM AND THE SAME MAY NOT BE DUPLICATED, DISTRIBUTED, OR DISCLOSED WITHOUT PRIOR WRITTEN CONSENT OF OHM



NOTE:
The Oakland County Water Resources Soil Erosion and Sedimentation Control standard details cannot be modified, reduced, edited, or changed in any way. Any deviation from these standard details must be approved in writing by the Oakland County Water Resources Commissioner. Changes otherwise made are in violation of Part 91 of Act 451 of 1994, the Natural Resources and Environmental Protection Act.

SOIL EROSION AND SEDIMENTATION CONTROL DETAILS

WRC WATER RESOURCES COMMISSIONER

DESIGNED BY: WRC

DRAWN BY: M. J. ...

SCALE: NONE

ORIG. DATE: 01/10/11

ONE PUBLIC WORKS DRIVE, BLDG 89 WEST WATERFORD, MICHIGAN 48384-1607

SHEET NO: 1 of 1