SUPERIOR CHARTER TOWNSHIP PLANNING COMMISSION
SUPERIOR TOWNSHIP HALL
3040 N. PROSPECT, SUPERIOR TOWNSHIP, MI 48198
AGENDA
October 28, 2026 - 7:00 PM

1. CALL TO ORDER
2. ROLL CALL
3. DETERMINATION OF QUORUM
4. ADOPTION OF AGENDA
5. APPROVAL OF MINUTES
   A. Approval of July 22, 2026, Regular Meeting Minutes
6. CITIZEN PARTICIPATION
7. CORRESPONDENCE
8. PUBLIC HEARINGS, DELIBERATIONS AND ACTIONS
   A. STPC #26-06 Conditional Use Permit Application: Trinity Health Workforce Housing Facility at the Towsley Health Building
   B. STPC #26-07 Rezoning Petition from Planned Community (PC) District to Medical Services (MS) District: 5485 Huron River Drive
9. OLD BUSINESS
10. NEW BUSINESS
    A. STPC #26-09: Meadows at Hawthorne Mill Phase 2 Final Site Plan Application
    B. STPC #26-05: Timber Creek Flats Preliminary Site Plan Application
    C. STPC #26-10: Schultz Farms Planned Community – Concept Presentation (Discussion)
11. POLICY DISCUSSION
12. REPORTS
    A. July, August, and September Planning & Zoning Report to the Board of Trustees
13. ADJOURNMENT

Thomas Brennan III, Commission Secretary
Michelle Marin, Planning & Zoning Administrator
3040 N. Prospect, Ypsilanti, MI 48198
734-482-6099

SUPERIOR CHARTER TOWNSHIP

Planning Commission
Regular Meeting Minutes - DRAFT
July 22, 2026, 7:00 PM
Township Hall - 3040 North Prospect
Superior Township, MI 48198

1. CALL TO ORDER

Chair Gardner called the regular meeting to order at 7:00 p.m.

2. ROLL CALL

Present: Jay Gardner, Chair
Curt Wolf
Nahid Sanii-Yahyai
Thomas Brennan, Secretary
Patrick McGill
Brenda McKinney, Board Representative

Absent: Dr. Robert Steele, Vice Chair

Also Present: Planning Consultant – Ben Carlisle, Carlisle Wortman Associates; Engineering Consultant – Claire Martin, OHM

3. DETERMINATION OF QUORUM

A quorum was present.

4. ADOPTION OF AGENDA

MOTION by Brennan, supported by Sanii-Yahyai, to adopt the July 22, 2026, agenda as amended.

Motion passed unanimously by voice vote.

5. APPROVAL OF MEETING MINUTES

MOTION by Sanii-Yahyai, supported by Brennan, to adopt the June 24, 2026, regular meeting minutes as amended.

Motion passed unanimously by voice vote.

6. CITIZEN PARTICIPATION

None.

7. CORRESPONDANCE

None.

8. PUBLIC HEARINGS, DELIBERATIONS AND ACTIONS

None.

9. REPORTS

Carlisle summarized the June Planning & Zoning Report to the Board.

Motion by Brennan, Support by Sanii-Yahyai to accept the Planners' report.

Motion passed unanimously by voice vote.

10. OLD BUSINESS

A. STPC #25-02 Conditional Use Permit/Preliminary Site Plan – DTE Grenada Substation Expansion

DTE Representative Zach Wiacek summarized the most recent site plan submittal and the applicant's responses to the Planning Commission's prior direction. DTE reported that the project footprint had been reduced, existing mature trees would be preserved where practicable, additional landscaping and screening would be installed, lighting would be limited to emergency nighttime use, and the requested environmental, noise, and electromagnetic-field studies had been completed. DTE also stated that the requested 12-foot evergreen trees were available and that additional replacement trees would be provided for trees potentially affected by construction.

Carlisle reviewed the conditional-use standards applicable to the request and noted that, although the applicant had addressed most prior comments, the Planning Commission still needed to determine whether the proposal was compatible with surrounding residential uses. Martin summarized OHM's independent review of the environmental, noise, and electromagnetic-field studies and stated that the submitted information was satisfactory.

Commissioners discussed the projected noise level at the property line and the adequacy of visual screening. The Township's nighttime noise limit adjacent to residential property was identified as 50 dBA, reduced to 45 dBA for a consistent tone. Commissioners also questioned whether the applicant's renderings demonstrated that the transformers would be screened from public view at the time of installation, particularly from adjacent residences and elevated viewpoints.

Several nearby residents commented on the independence of the technical reviews, potential noise and property-value impacts, the number and size of replacement trees, the residential zoning of the site, the prior condition that the substation not be expanded, and the proposed facility's compatibility with surrounding and future residential uses.

The Commission discussed requiring a masonry barrier in addition to the proposed landscaping. DTE indicated that a roofed enclosure was not feasible but that walls around the individual transformers could be considered. The Commission directed that the walls be

designed at a residential scale, be tall enough to screen the transformers from public view from all directions, and be reviewed with the final site plan.

MOTION by Brennan, supported by McKinney, to adopt a resolution approving STPC #25-02, the Conditional Use Permit and Preliminary Site Plan for the DTE Grenada Substation Expansion, subject to the following conditions:

1. Development shall be constructed in substantial conformance with the June 6, 2026 plans submitted to the Township;
2. Prior to final site plan approval, the applicant shall address outstanding technical comments identified by the Township planner, Township engineer, OHM Advisors, Washtenaw County Water Resources Commissioner, and other agencies with jurisdiction;
3. Trees identified for replacement due to critical root-zone impacts shall be replaced in accordance with the approved landscape plan;
4. Mitigation measures identified in the environmental impact statement and incorporated into the approved plans shall be implemented during construction and maintained thereafter as applicable;
5. Landscaping, screening, lighting, grading, and stormwater improvements shall be maintained in compliance with the approved plans and Township ordinances;
6. Substantial modifications to the approved plans shall require further Planning Commission review in accordance with the Zoning Ordinance; and
7. Brick/masonry walls shall encircle the individual transformers, screen them from public view from all directions, address sound, and be architecturally compatible with the surrounding residential area.

Roll Call Vote:
Ayes – Gardner, Sanii-Yahyai, Brennan, McGill, McKinney.
Nays – None.
Absent – Wolf, Steele.

Motion carried 5-0.

B. STPC #25-09 Area Plan Amendment – Clay Hill Farm and Market (PC District)

T.C. Collins and Andrew O'Connor summarized the revised area plan and the work completed since the Commission's prior review. The applicant reported that additional environmental testing found no additional soil contamination beyond previously identified areas, that soil erosion and sedimentation-control approval had been obtained, and that other county approvals were nearing completion. The applicant also reported that prior engineering comments had been addressed and described USDA grant funding and community volunteer support for future farm improvements.

Carlisle explained that the current request was limited to a recommendation on the revised area plan amendment, which had been reduced in scope following Township Board direction. Phase 1 included limited improvements on the Harris Road and MacArthur Road parcels, while a future phase would include additional farm-related structures, composting, classroom space,

landscaping, beehives, and parking. Carlisle noted that, following Township Board approval of the area plan, the applicant would return to the Planning Commission for site plan review.

Commissioners discussed the applicant's work schedule, site maintenance and cleanup, soil in the existing raised beds, and the time limits for obtaining final site plan approval. The applicant stated that contaminated soil in a raised bed had been removed and replaced with compost. Carlisle clarified that the area plan would expire if required site plan approvals were not obtained within the applicable time period.

MOTION by Brennan, supported by Sanii-Yahyai, to recommend approval to the Township Board of STPC #25-09, the proposed Area Plan Amendment for Clay Hill Farm and Market, finding that the revision substantially complies with the intent of the original plan.

Roll Call Vote:
Ayes – Gardner, Sanii-Yahyai, Brennan, McGill.
Nays – McKinney.
Absent – Wolf, Steele.

Motion carried 4-1.

11. NEW BUSINESS

None.

12. POLICY DISCUSSION

None.

13. ADJOURNMENT – *next regularly scheduled meeting on August 26, 2026.*

MOTION by Brennan, supported by McKinney, to adjourn.

Motion passed unanimously by voice vote.
The meeting was adjourned at approximately 8:29 p.m.

Meeting Minutes Respectfully submitted,

Thomas Brennan III, Planning Commission Secretary
Michelle Marin, Recording Secretary
3040 N. Prospect, Ypsilanti, MI 48198, 734-482-6099

Carlisle | Wortman
ASSOCIATES, INC.
117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: October 23, 2026

Conditional Use Review
For
Superior Township, Michigan

Applicant: Trinity Health Michigan

Project Name: Trinity Health Workforce Housing

Location: Towsley Medical Center - Trinity Health Campus

Zoning: MS – Medical Services District

Action Requested: Conditional Use Permit

PROJECT DESCRIPTION

The applicant is requesting a conditional use permit to convert underutilized space on the second floor of the west wing of the Towsley Medical Center into workforce housing for eligible Trinity Health Ann Arbor and Livingston employees. The subject property, 5361 McAuley Drive (parcel ID J-10-31-350-065), is part of the Trinity Health campus and is zoned MS, Medical Services. The proposal includes 15 co-living units consisting of single- and double-occupancy rooms with shared living spaces. The program is intended to provide affordable, on-campus housing for hospital employees and includes support related to education and career advancement, financial literacy, and transition to long-term housing. All proposed work is interior; no change to the building footprint, exterior, access, parking areas, or other site improvements is proposed.

PROCESS

The proposed workforce housing is most appropriately classified as a managed residential facility under Article 4.0 (Land Use Table). This use may be approved in the MS District through the conditional use process and is subject to Section 5.206 (Multiple-Family Housing). The Planning Commission must also make the findings required by Section 11.05.C. Because the application proposes interior renovation and a change in use without

Benjamin R. Carlisle, *President* John L. Enos, *Vice President*
Paul Montagno, *Principal* Megan Masson-Minock, *Principal* Laura Kreps, *Principal* Brent Strong, *Principal*
David Scurto, *Principal* Sally M. Elmiger, *Principal* Craig Strong, *Principal* Douglas J. Lewan, *Principal*
Richard K. Carlisle, *Past President/Senior Principal* R. Donald Wortman, *Past Principal*

exterior site alterations, the applicant did not submit a site plan. However, they did supply supplemental information and site maps to demonstrate how the proposed conditional use will function on the property.

Figure 1 - Aerial Image of Subject Site



ZONING AND LAND USE

The Towsley Medical Center and associated parking are located within the eastern portion of the Trinity Health campus, which is developed with hospital, medical, senior housing, supportive housing, and related institutional uses. The workforce housing would occupy existing second-floor space within the Towsley building. No exterior construction or disturbance of natural features is proposed. As indicated in Table 1, surrounding land is within the MS District and is occupied by compatible campus uses or open space.

Table 1. Zoning and uses of subject site and vicinity

DIRECTION	ZONING	LAND USE
Subject Parcel	MS, Medical Services	Towsley Medical Center; medical offices and proposed workforce housing
North	MS, Medical Services	Senior housing and related campus facilities
South	MS, Medical Services	Campus recreation areas and medical uses
East	MS, Medical Services	Open space and Huron River corridor
West	MS, Medical Services	Hospital parking and materials center

Figure 2 – Zoning Map

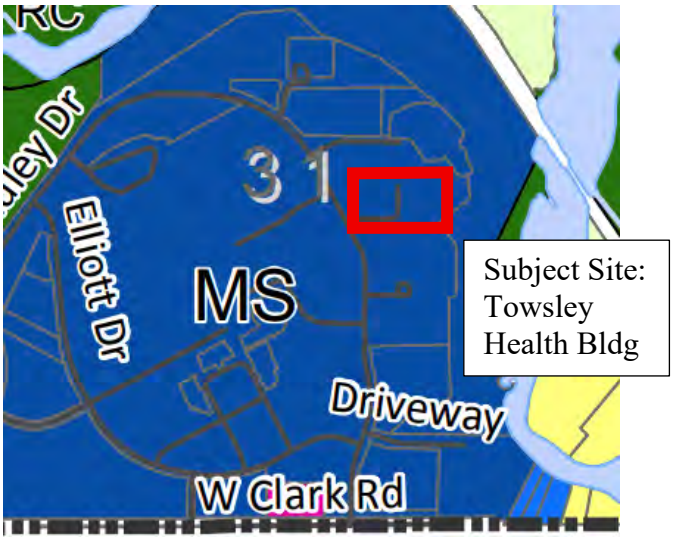


Figure 3 - Future Land Use Map



Items to be addressed: *None.*

MASTER PLAN

The Future Land Use Map designates the subject site and surrounding properties as the Hospital Sub-Area. The Growth Management Plan anticipates uses that complement the hospital campus, including multiple-family dwellings and uses serving medical-center employees. Workforce housing restricted to Trinity Health employees directly supports the Hospital Sub-Area and the MS District purpose in Section 2.116, which expressly encourages facilities and services for employees of the medical center, efficient use of land and public services, and reduced traffic burdens. Reuse of existing on-campus space may also reduce employee commuting.

Items to be addressed: *None.*

OPERATIONS

The proposed program consists of 15 co-living units with a mix of single- and double-occupancy rooms and shared living spaces. The program will serve a maximum of 25 residents with a maximum stay of 18 months. Eligibility is limited to Trinity Health Ann Arbor or Livingston employees who have worked for Trinity Health for at least six months, are employed full-time, and are in good standing; priority would be given to certain operational and clinical support positions.

A third-party operator will manage the program. Residents will enter into individual occupancy agreements, and Trinity Health will verify employee eligibility at enrollment and periodically thereafter. A dedicated Trinity Health staff member will provide program

oversight and resident support. Overnight guests will be prohibited, and visitors will be limited to designated hours.

Residents, visitors, and staff will utilize existing parking in Lot E. The applicant indicates that sufficient parking is available to accommodate one space per resident and staff member, with visitor parking managed through guest passes. The applicant has also provided a campus map identifying pedestrian connections to parking and other campus destinations. However, the total parking supply and available capacity in Lot E have not been documented.

Items to be addressed: *(1) The applicant shall indicate the existing parking supply and available capacity in Lot E to demonstrate that sufficient parking is available for residents, visitors, and program staff.*

WORKFORCE HOUSING AFFORDABILITY

The monthly rent is less than $700 per resident. Based on 2026 Washtenaw County income limits, this rental rate would be affordable to an individual earning approximately 29% of Area Median Income (AMI), assuming housing expenses do not exceed 30% of gross household income. This corresponds approximately to the 30% AMI affordability level and represents a relatively affordable housing option for eligible employees.

The proposed program is intended to provide temporary, below-market-rate housing for eligible Trinity Health employees rather than income-restricted affordable housing. Although the proposed rental rate corresponds approximately to the 30% AMI affordability level, the program does not establish income eligibility requirements tied to AMI. Accordingly, the proposed housing should be characterized as employer-sponsored workforce housing rather than income-restricted affordable housing.

Item to be Addressed: *(1) The applicant should clarify whether the proposed rent includes utilities and other mandatory housing expenses. (2) The applicant should describe how rental rates will be established and adjusted throughout the operation of the workforce housing program.*

SUPPLEMENTAL REGULATIONS

Section 5.206 applies to managed residential facilities. The proposal reuses one existing building, so the inter-building separation standards do not appear to be implicated by the interior change in use.

The applicant has provided a site map identifying pedestrian connections between the workforce housing entrance, parking, and other campus destinations, addressing Section 5.206.A.2. Regarding Section 5.206.A.3, the applicant identifies walking paths, trails, basketball courts, and outdoor green space available to residents throughout the 340-acre campus. These amenities provide opportunities for passive and active recreation consistent

with the requirements of this section. Based on the supplemental information, both previously identified items have been addressed.

Items to be addressed: *None*.

CONDITIONAL USE STANDARDS

The Planning Commission has the authority to approve a Conditional Use Permit if the proposed use complies with Section 11.05.C (Standards for Conditional Use Permit Approval) as follows:

a) The proposed use will be harmonious, and in accordance with the objectives, intent, and purposes of this Ordinance;

b) The proposed use will be compatible with the natural environment and existing and future land uses in the vicinity;

c) The proposed use will be compatible with the Growth Management Plan;

d) The proposed use will be served adequately by essential public facilities and services, such as highways, streets, police and fire protection, drainage ways and structures, refuse disposal, or that the persons or agencies responsible for the establishment of the proposed use shall be able to provide adequately for any such services;

e) The proposed use will not be detrimental, hazardous, or disturbing to existing or future neighboring uses, persons, property, or the public welfare; and

f) The proposed use will not create additional requirements at public cost for public facilities and services that will be detrimental to the economic welfare of the community.

g) The proposed use complies with all applicable standards of this Ordinance, including Article 5.0 (Use Standards).

h) The proposed use complies with all applicable regulations of federal, state, regional, and county agencies with jurisdiction.

Based on the information submitted, the proposed Trinity Health workforce housing can meet the standards for Conditional Use Permit approval. The use is harmonious with the MS District because it would provide housing and supportive services for hospital employees within an existing campus building. The interior-only project would not disturb natural features or alter the exterior relationship between the Towsley building and surrounding

uses. The site is already served by public utilities, emergency services, campus roads, pedestrian facilities, and parking. Restricting occupancy to eligible Trinity Health employees and maintaining appropriate management would reduce the potential for impacts on surrounding uses. Final affirmative findings should be conditioned on resolution of the operational, parking, pedestrian-access, recreation, and minor-site-plan items identified in this review, together with confirmation of all outside-agency approvals.

CONDITIONS

In granting a Conditional Use Permit, the Planning Commission may impose conditions that it deems necessary to ensure that:

a) *Public services and facilities affected by a proposed conditional use will be capable of accommodating increased service and facility loads caused by the proposed conditional use;*
b) *The natural environment will be protected and natural resources and energy conserved;*
c) *The proposed use is compatible with adjacent land uses; and*
d) *The proposed use promotes the use of land in a socially and economically desirable manner.*

Conditions imposed shall meet the following requirements:

a) *The conditions shall be designed to protect natural resources, the health, safety, and welfare and the social and economic well being of those who will use the proposed land use or activity, residents and landowners immediately adjacent to the proposed conditional use, and the community as a whole.*
b) *The conditions shall be related to the valid exercise of the police power of the Township, and purposes that are affected by the proposed conditional use.*
c) *The conditions imposed shall be necessary to meet the intent and purpose of the Ordinance, shall be related to the standards established in the Ordinance for conditional uses, and shall be necessary to ensure compliance with those standards.*

RECOMMENDATION

Overall, we are supportive of the proposed Trinity Health Workforce Housing program. Additional information may be needed before the Planning Commission can determine whether the Conditional Use Permit standards have been satisfied and make an informed decision on the application. We recommend that the applicant address the following items prior to Planning Commission action on the conditional use application:

1. Indicate the existing parking supply and available capacity in Lot E to demonstrate that sufficient parking is available for residents, visitors, and program staff.

2. Clarify whether the proposed rent includes utilities and other mandatory housing expenses.

3. Describe how rental rates will be established and adjusted throughout the operation of the workforce housing program.

Based on the information currently available, potential conditions of approval may include:

1. Occupancy shall be limited to no more than 15 co-living units and the maximum resident occupancy documented in the approved operating plan.

2. Residents shall remain eligible Trinity Health Ann Arbor or Livingston employees in accordance with the approved program criteria.

3. The use shall be operated in substantial conformance with the approved application, detailed description, minor site plan, and operating plan.

4. The applicant shall document sufficient parking, an accessible pedestrian route, and resident access to recreation areas consistent with Section 5.206.

5. All required building, fire, occupancy, and other outside-agency approvals shall be obtained before occupancy.

6. Any material change in occupancy, eligibility, operator, or program character shall be subject to Township review under Section 11.06.C.

Sincerely,

CARLISLE/WORTMAN ASSOC., INC.
Benjamin R. Carlisle, AICP, LEED AP

CARLISLE/WORTMAN ASSOC., INC.
Michelle Marin, AICP

#351-2603
cc: Emily Dabish Yahkind, Township Supervisor
Angela Robinson, Township Clerk
Bill Balmes, Building Official

CONDITIONAL USE PERMIT APPLICATION

(This application must be typewritten or printed. ALL questions must be answered.)

Request is hereby made for permission to obtain a conditional use permit for the property described below, for the following use: workforce housing for Trinity Health Ann Arbor Colleagues

Applicant Name Trinity Health Michigan

Applicant Address 5301 E. Huron River Dr., Ann Arbor, MI 48106

Telephone [redacted] Fax N/A Email [redacted]

Is the property owned by the applicant? ☑ YES ☐ NO

If "NO", what is the applicant's interest in the property? _____

Name, address and telephone number of owner(s): Trinity Health Michigan 5301 E. Huron River Dr., Ann Arbor, MI 48106, 734-712-4208

DESCRIPTION OF THE PREMISES:

1. Location of property 5361 McAuley Dr, Ypsilanti, MI 48197
2. Zoning classification of property M-S
3. Adjoining land uses & zoning classifications Medical Services District, M-S
4. Tax code number Parcel ID Number: J -10-31-350-065
5. Size of property or lot located on Main Hospital 178.15 Ac See attached MCI Parcel Information 1994
6. Size of proposed building or addition (if any) 105,656 Square Feet
7. Use of existing building (if any) and property Former location of TH Nursing Home, current location of TH IHA Internal Medicine Clinic, TH Pulmonary Re

   If a new building is proposed, has the Building Inspection department examined the plans for the proposed building? ☐ YES ☐ NO

   Has the department refused a permit? ☐ YES ☐ NO
8. Has there been any previous land use application involving this property?

   ☐ YES ☑ NO If YES, state date of filing, character of appeal and disposition of same:

The following items are attached as part of the Conditional Use Permit Application:

1. A scaled and accurate survey drawing, correlated with the legal description and showing all existing buildings, drives and other improvements.

   ☑ CHECK IF ATTACHED

2. A letter of authority, or power of attorney, in case the appeal is made by a person other than the actual owner of the property.

   ☐ CHECK IF ATTACHED

3. Complete legal description of the premises (as stated on your deed or tax bills available in the Treasurer's Office).

   ☑ CHECK IF ATTACHED

4. A detailed description of the proposed use.

   ☑ CHECK IF ATTACHED

5. A site plan, either a.or b.

   a. A site plan, meeting all the requirements of a preliminary site plan as set forth in Article 10 of the Superior Charter Township Ordinance.

      ☐ CHECK IF ATTACHED

      OR

   b. A site plan, meeting all the requirements of a minor site plan as set forth in Article 10 of the Superior Charter Township Zoning Ordinance.

      ☑ CHECK IF ATTACHED

6. A signed copy of the *Applicant's Acknowledgment.* (See attachment)

   ☑ CHECK IF ATTACHED

NOTICE TO APPLICANT: You are hereby advised to refer to the Superior Charter Township Zoning Ordinance for a description of your property's zoning classification, as well as Article 11 (Conditional Uses) and Article 10 (Site Plan Review); and any other sections of the Zoning Ordinance which may be applicable.

APPLICANT AFFIDAVIT

The applicant(s) represents that he/she/they are the owner(s) of the subject property or are acting on behalf of the above listed owner.

I hereby depose and certify that all information contained in this application, all accompanying plans and all attachments are complete and accurate to the best of my knowledge.

APPLICANT'S PRINTED NAME: Alonzo Lewis

APPLICANT'S SIGNATURE Alonzo T. Lewis DATE _____
Alonzo T. Lewis (Sep 2, 2026 18:36:36 EDT)

PROPERTY OWNER'S PRINTED NAME Michael Gusho

PROPERTY OWNER'S SIGNATURE Michael P. Gusho
Michael P. Gusho (Sep 4, 2026 10:35:17 EDT)

****

To be filled in by Township Clerk (or designated Township Officer/Personnel)

I hereby state that this petition was properly received and filed on _____(date)

Signature of Clerk (or designee)

_____

Fee paid_____

Conditional Use Permit- Trinity Health Ann Arbor

RECOMMENDATION

Overall, we are supportive of the proposed Trinity Health Workforce Housing program. Additional information may be needed before the Planning Commission can determine whether the Conditional Use Permit standards have been satisfied and make an informed decision on the application. We recommend that the applicant submit additional materials addressing the outstanding items identified in this review.

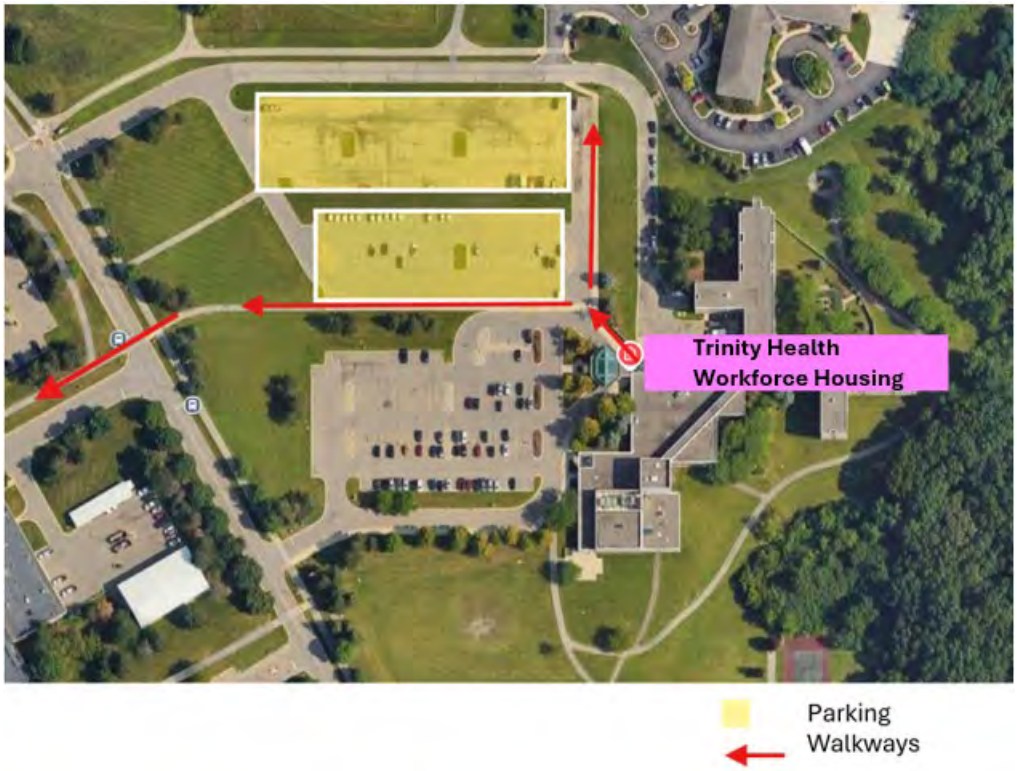
1. The applicant shall clarify the maximum number of residents, anticipated length of stay, tenancy structure, rent or affordability terms, third-party operator, staffing and on-site management, guest policies, and procedures for verifying and maintaining employee eligibility.

- The proposed workforce housing program will serve a maximum of 25 residents, with a maximum stay of 18 months. Rent will remain affordable at less than $700 per month.
- Trinity Health is currently finalizing the selection of a third-party operator to manage day-to-day operations. In partnership with the operator, Trinity Health will verify employee eligibility at enrollment and conduct ongoing reviews to ensure continued compliance with program requirements. Trinity Health will also have a dedicated staff member involved in program oversight and resident support.
- The housing will operate under an individual tenancy structure, with each resident entering into a sub-lease or occupancy agreement directly with the third-party operator and being responsible for their own rent and compliance with program requirements.
- To maintain a safe and supportive living environment, overnight guests will not be permitted. Visitors will be allowed during designated visiting hours in accordance with program policies.

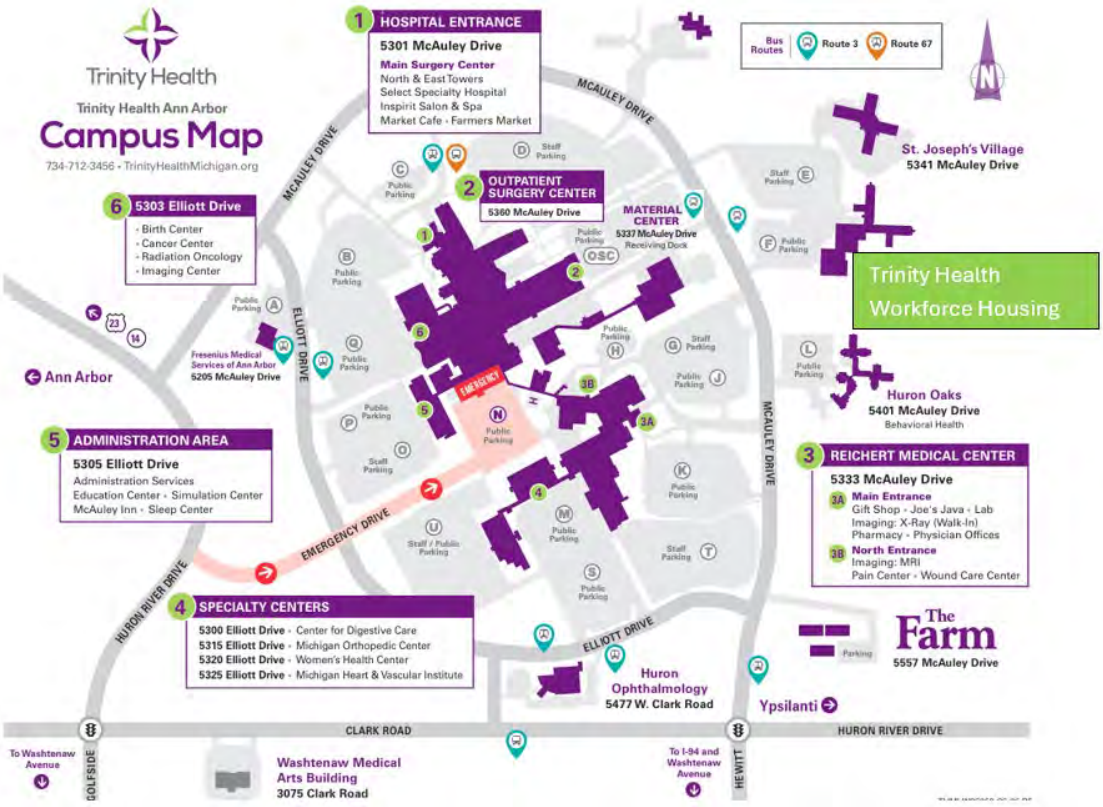
2. The applicant shall provide a parking demand estimate and identify the parking spaces available to residents, visitors, and program staff.

- Residents, program staff, and visitors will have access to Lot E, which provides ample parking to accommodate the needs of the program. Each resident and staff member will have access to a parking space, and residents will be provided with a visitor pass for guests during approved visiting hours. Based on the available capacity in Lot E, Trinity Health does not anticipate any parking limitations or operational concerns related to resident, visitor, or staff parking.

3. The applicant shall provide a property map should be provided to identify the accessible pedestrian route from the workforce housing entrance to parking and other applicable destinations.



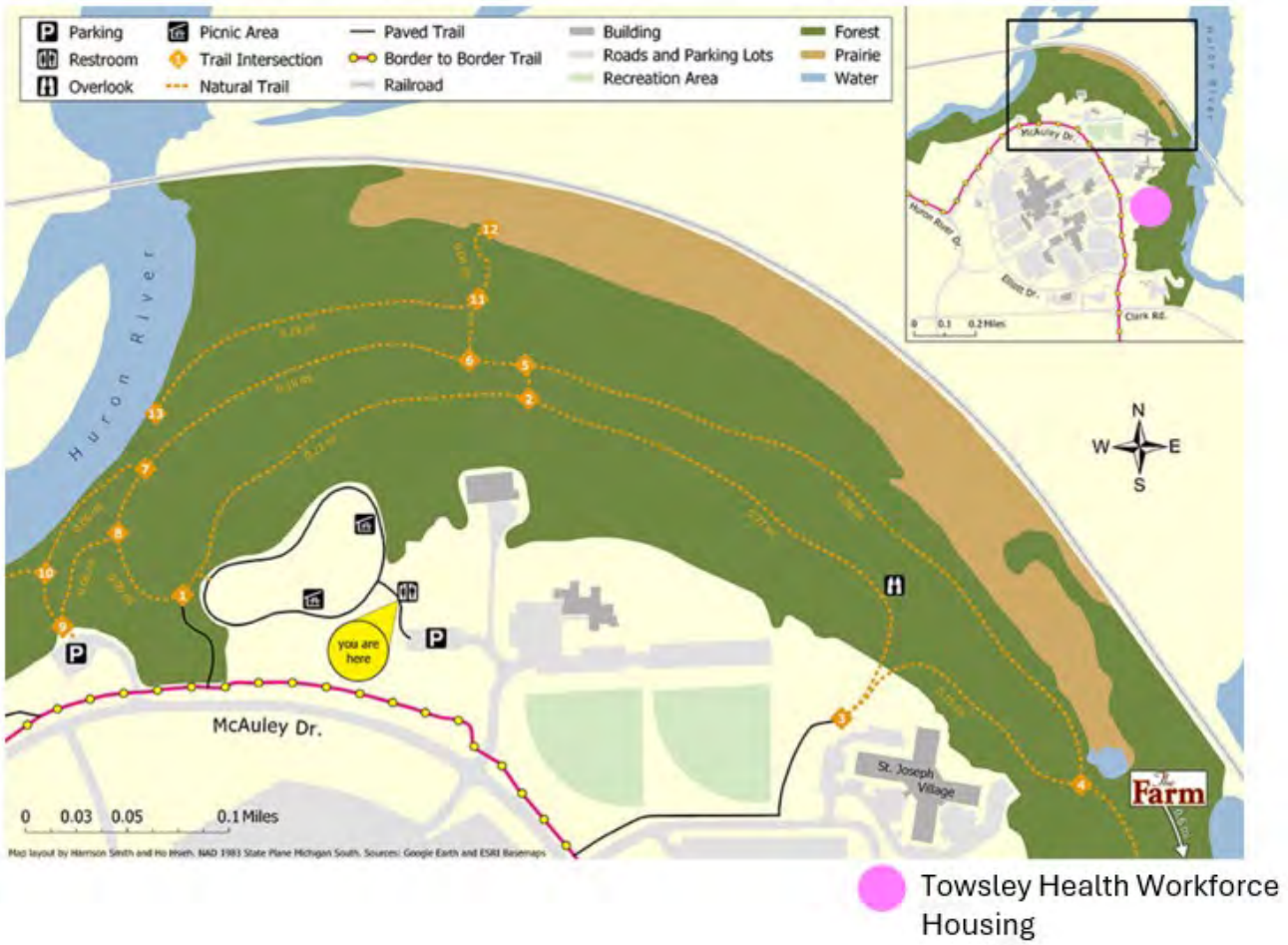
Overall Campus Map



4. The applicant shall identify the passive or active recreation areas and amenities available to residents and demonstrate compliance with Section 5.206.A.3.

- Residents will have access to a variety of passive and active recreational amenities located on and around the Trinity Health campus. The 340-acre campus includes walking paths and trails, basketball courts, and outdoor green space for recreation and gathering. These amenities are available to residents and support opportunities for physical activity, wellness, and community engagement.

- Campus Natural Areas Map:




SENIOR CENTER
SENIOR HEALTH
MATERIALS CENTER
BASEBALL DIAM.
SAND VOLLEYBALL COURT
TENNIS AND BASKETBALL COURT
GROUND OBSCURED
ST MH
r-182d
r-182c
r-182b
r-182a
r-181b
r-455
r-754
r-753
r-752
r-456
s-71
r-457
s-70
r-458
r-459
r-506
r-187
r-182
s-64c
s-64a
s-64b
r-632c
r-632b
r-632a
r-632
r-631
r-956
r-682
r-647
r-646a
r-646
r-645
r-954
r-955
r-960
r-959
r-958
r-401
r-402
r-902
r-903
r-403
r-680
r-640
r-641
r-642
r-644
r-643
r-633
r-404
r-405
r-661
r-664
r-662
r-663
r-665
s-83
r-676
r-675
r-674
r-673
r-672
r-671
r-652
r-653
r-654
r-651
s-82
s-82370
r-667
r-668
r-669
r-407
r-408
s-64
s-63
s-62
s-61
s-60
s-90
s-100
s-101
s-102
r-183b
r-183d
r-183a
r-183c
r-183
r-3462
r-624
r-345
r-331
r-332
r-498
r-499
r-500
r-495
r-497
r-496
r-596
r-598
r-592
r-591
r-594
r-517
r-596
r-595
r-410
r-409
r-494
r-493
r-1027
r-1004a
r-1004
r-1007
r-1008
r-1009
r-1002
r-174
r-313
r-174a
r-174b
r-536
r-526
r-521
r-534
r-537
r-538
hyd-41
hyd-22
hyd-23
hyd-25
hyd-26
hyd-24
hyd-31
O.L.P.
U.P.



NON-TAXABLE PROPERTY

TAX CODE # SUPERIOR

1A	MAIN HOSPITAL	178.15 AC. ±
1B	NUNS' RESIDENCE & FARM HOUSE	9.97 AC. ±
	TOTAL NON-TAXABLE	188.12 AC. ±

UNBUILDABLE PROPERTY

TAX CODE # SUPERIOR

4A	EAST & NORTH SIDE	82.96 AC. ±
4B	WEST SIDE	1.67 AC. ±
	TOTAL UNBUILDABLE	84.63 AC. ±

CHILD CARE

TAX CODE # SUPERIOR

6	CHILD CARE	2.29 AC. ±

REICHERT HEALTH BUILDING

TAX CODE # SUPERIOR

5	R.H.B.	1.97 AC. ±

PRIVATE PROPERTY

TAX CODE # SUPERIOR

2	M.H.V.I.	1.12 AC. ±
7	B.M.A.	1.12 AC. ±
8	M.O.C.	0.75 AC. ±
	TOTAL PRIVATE	2.99 AC. ±

UNDEVELOPED PROPERTY

TAX CODE # SUPERIOR

3A	MIDDLE SOUTH	3.66 AC. ±
3B	SOUTHWEST	24.05 AC. ±
3C	WEST	6.08 AC. ±
3D	WEST	2.76 AC. ±
3E	EAST	6.85 AC. ±
3F	SOUTHEAST	6.34 AC. ±
3G	NORTHEAST	5.67 AC. ±
3H	NORTHWEST	1.17 AC. ±
3I	NORTHEAST	3.96 AC. ±
	TOTAL UNDEVELOPED	60.54 AC. ±

TOTAL SITE ACREAGE 340.54 AC. ±

SCALE: 1" = 200'

0 200 400 600

Catherine McAuley Health System
5301 E. Huron River Drive
P.O.Box 995
Ann Arbor, Michigan 48106
(313)712-3456

MIDWESTERN CONSULTING
Civil, Environmental and Transportation Engineers
3815 Plaza Drive
Ann Arbor, Michigan 48108
313.995.0200 Fax 313.995.0599

JOB No. 94026	DATE: 1-25-94
	SHEET 1 OF 1
REVISIONS:	BY: HCC/DES
REVISED PARCEL 2-7-94	FILE: R:\CMHS\AA\
REVISED ACREAGE TABLE 2-8-94	TAXABLE.DWG
REVISED ACREAGE TABLE 12-1-94	JOB: R:\CMHS\AA\ \94026\CDGO\ 9402601.JOB

F:\MASTERD\SJMHSITE\TAXMAP.dwg

Carlisle | Wortman
ASSOCIATES, INC.
117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

September 29, 2026

Land Use and Zoning Analysis
for
Superior Charter Township, Michigan

Applicant: MRC Huron River Drive

Location: 5485 Huron River Drive

Current Zoning: PC – Planned Community

Action Requested: Rezoning from PC – Planned Community to MS – Medical Services

Required Information: As noted in the following review.

PETITION

The applicant requests rezoning of 5485 Huron River Drive from PC – Planned Community to MS – Medical Services District to allow conversion of the former Chase Bank building to a medical office. The surrounding medical uses and the 2024 Master Plan's Hospital Sub-Area policies support the requested rezoning. The required Special District review and the items identified below must be completed before a final approval recommendation.

SITE DESCRIPTION AND CURRENT USE

The 2.6-acre property contains a former Chase Bank building that the applicant intends to convert to a medical office. The approved 1976 site plan depicts a one-story building with 2,600 square feet of floor area. Existing improvements include covered drive-through lanes south of the building and 27 parking spaces. Access is provided by a divided, two-way driveway from West Clark Road to the south and a secondary drive connecting to the Trinity Health property to the east and McAuley Drive. The current building area should be confirmed with the conversion plans.

This rezoning review evaluates the requested zoning classification; it does not establish compliance of the existing building or site with MS development standards.

If the rezoning is approved, site plan approval will be required for the change of use, even if renovations are limited to the building's interior. That review will assess compliance with applicable requirements, including parking and access. For example, the off-street parking requirement for medical or dental offices, clinics, laboratories, massage therapists, and physical therapy facilities is one space per employee plus one space per examination room. The applicant will need to provide employee and examination room counts to demonstrate that sufficient parking is available.

Benjamin R. Carlisle, *President* John L. Enos, *Vice President*
Paul Montagno, *Principal* Megan Masson-Minock, *Principal* Laura Kreps, *Principal* Brent Strong, *Principal*
David Scurto, *Principal* Sally M. Elmiger, *Principal* Craig Strong, *Principal* Douglas J. Lewan, *Principal*
Richard K. Carlisle, *Past President/Senior Principal* R. Donald Wortman, *Past Principal*

Under Section 8.02.C.9 of the proposed 2026 Zoning Ordinance, the conversion may qualify for administrative approval if the Zoning Administrator determines that the medical office is a similar or less intense use and does not require significant changes to existing site improvements.

Figure 1. Aerial view of subject site and vicinity



Medical uses zoned MS surround the property to the north, west, and east. The requested district would extend that established zoning pattern to the former bank site. The land use and zoning to the south should be confirmed on the application's vicinity map.

Location	Zoning	Existing use
Subject site	PC	Former Chase Bank
North	MS	Medical uses
West	MS	Medical uses
East	MS	Medical uses
South (Ypsilanti Twp and City of Ypsilanti)	RM – LD (Multiple-family low density) EMU	Multiple family residential, EMU parking lot

MASTER PLAN

The 2024 Comprehensive Master Plan identifies this location within the Hospital Sub-Area. Pages 56–58 recognize the Trinity Health hospital campus, opportunities to reuse existing facilities, and the importance of compatible development. Medical offices are expressly identified among the intended uses. The Plan also favors infill served by existing infrastructure and calls for landscaping, parking screening, managed access, and pedestrian connections.

Converting the closed bank to a medical office is consistent with this land use direction and would reinforce the existing medical setting. The proposal offers an opportunity to return an existing building to productive use without relying on development of an undeveloped site. Any proposed site changes should advance the Plan's design and access policies.

DEVELOPMENT POTENTIAL

Current Zoning

The zoning ordinance establishes PC as a planned development district accommodating a coordinated mix of uses. The site was developed as a bank in its current configuration in 1978, following the 1976 site plan approval. It does not appear that there are any continuing obligations within the original PC approval. A medical use at the site could also warrant consideration through a PC area plan amendment; however, the planning basis for an MS district designation is its relationship to the adjoining medical district and the planned future land use established in the Master Plan.

Proposed Zoning

The zoning ordinance establishes MS for a hospital complex and supporting facilities, with planned development, public water and sewer, and adequate drainage. Article 4 identifies medical offices as permitted uses in MS. The MS district also accommodates a broader range of hospital, laboratory, office, and supporting uses; approval should account for that range of potential uses. The list of uses permitted by right or by conditional use permit in the MS district is indicated below.

Permitted principal uses

1. Senior housing—assisted living facilities.
2. Senior housing—dependent, nursing, or rehabilitative care.
3. Hospital or urgent care center.
4. Medical office, clinic, or laboratory, regardless of size.
5. Professional offices, regardless of size.
6. Pharmacies, drugstores, and medical supply stores.
7. Research and development facilities, technical centers, and laboratories.
8. Government offices.
9. Police, fire, and ambulance stations.
10. Stormwater management impoundments, drainageways, and related improvements.
11. Temporary structures for construction purposes.
12. Utility transmission and distribution lines and pipelines in existing easements or rights-of-way.

Uses requiring conditional use approval (C)

1. Dormitory living units.
2. Multiple-family housing, townhouse or stacked flat.
3. State-licensed and other managed residential facilities not otherwise listed in the table.
4. Banks, credit unions, and similar financial services.
5. Private recreational facilities, excluding sportsman's clubs and ranges.
6. Public recreational facilities, excluding sportsman's clubs and ranges.
7. Wireless communications facilities.
8. Coffee and tea shops.
9. Drive-through facilities for financial institutions and government offices.
10. Hotel or inn.
11. Parking lots as a principal use.
12. Utility transmission and distribution lines and pipelines not in existing easements or rights-of-way.

Permitted accessory uses (A)

1. Personal services.
2. Health club or fitness center.
3. Institutional uses.
4. General retail sales.
5. Restaurants and food service establishments.
6. Building-mounted solar energy systems.
7. Accessory structures and uses.

All uses remain subject to applicable ordinance standards and approval procedures.

Figure 2. Current Zoning Map



Figure 3. Future Land Use Map



ZONING AMENDMENT PROCEDURE

As set forth in the Zoning Ordinance, the Planning Commission holds a public hearing and forwards findings and a recommendation to the Township Board, which takes final action. Required county review must also be completed before final Township action. Findings must be included in the public record. This is a conventional rezoning request, and the stated intended medical office use is not an enforceable condition of approval.

FINDINGS FOR REZONING

The following proposed findings address the five factors required for rezonings.

A. Whether or not the requested zoning change is justified by a change in conditions since the original Ordinance was adopted, or by an error in the original Ordinance.

CWA: Closure of the Chase Bank is a change in the property's use that creates an opportunity for reuse. The 2024 Master Plan provides current direction supporting medical offices in this area, and medical uses zoned MS are established on three sides of the site. Together, these circumstances support reconsidering the parcel's classification. There is no evidence of an error in the original zoning, and no claim is made that the neighboring uses were established after PC approval. The closure alone would not justify rezoning; the stronger basis is the fit between MS, the surrounding development pattern, and the Master Plan.

B. The precedents, and the possible effects of such precedents, that might result from approval or denial of the petition

CWA: Approval would support reuse of a developed property within an established medical district. It would not introduce a disconnected medical zoning district into an unrelated setting. The parcel's location in the Hospital Sub-Area, adjoining MS zoning, and existing building provide specific reasons for the change. These findings would not support automatic rezoning of other closed banks or PC properties. Denial would retain PC zoning and its applicable approvals; it would not necessarily prevent all reuse but would leave the parcel outside the surrounding MS classification.

C. The capacity of Superior Township or other government agencies to provide any services, facilities, and/or programs that might be required if the petition were approved.

CWA: Reuse of an existing building in the hospital area appears appropriate for an urban service setting. However, existing development does not establish available water, sewer, drainage, road, or emergency service capacity for every MS use. As part of any future site plan review, utility and engineering confirmation will be needed, together with Fire Department review.

D. Effect of approval of the petition on the condition and/or value of property in Superior Township or in adjacent municipalities.

CWA: Reoccupation of the former bank could support continued maintenance and reduce the likelihood of prolonged vacancy. Medical office activity would be compatible with the medical uses

to the north, west, and east. These circumstances support a finding that the requested classification is not likely to adversely affect surrounding property conditions. No appraisal or market analysis was provided, and we do not assign a specific effect on property values. The southern interface and any changes to lighting, access, parking, or outdoor equipment should be reviewed before finalizing this finding.

E. Relation of the petition to the Township's adopted Master Plan, and of other government units where applicable.

CWA: The request implements the Hospital Sub-Area's stated support for medical office uses and reuse of existing facilities. MS is a reasonable district for this location because it corresponds to the adjoining medical uses and zoning. The omission of MS from Table 9 should be expressly recognized, with the finding based on the Plan's substantive land use policies rather than a claimed table equivalency. The Area Plan should also demonstrate compatible site design and safe connections. No conflicting plan of an adjoining municipality has been identified in the information reviewed.

RECOMMENDATIONS

It appears that the proposed rezoning would allow for development that is consistent with the development pattern in the area, provides the opportunity to reuse the former bank building, is compatible with the Hospital Sub-Area of the future land use plan, and is a logical extension of the adjacent Trinity Health campus. Any constraints of the site to support redevelopment, such as service capacity, will be assessed as part of any site plan review process.

Sincerely,

CARLISLE/WORTMAN ASSOC., INC.
Benjamin R. Carlisle, AICP, LEED AP

CARLISLE/WORTMAN ASSOC., INC.
Michelle Marin, AICP

#351-2604
cc: Emily Dabish Yahkind, Township Supervisor
Angela Robinson, Township Clerk
Bill Balmes, Building Official

ZONING DISTRICTAMENDMENT APPLICATION

(This application must be typewritten or printed. ALL questions must be answered.)

APPLICANT INFORMATION

Name: MRC Huron River Drive

Address: 25230 Michigan Ave.

City: Dearborn State: MI Zip: 48124

Telephone: [redacted] Alternate: _____

E-Mail: [redacted]

PROPERTY OWNER INFORMATION

Name: Dr. Asheesh Tewari

Address: 1949 Valleyview Drive

City: Ann Arbor State: MI Zip: 48105

Telephone: [redacted] Alternate: _____

E-Mail: [redacted]

PROPERTY DESCRIPTION

Address: 5485 Huron River Drive, Ypsilanti, MI 48197

Tax Parcel Number: J-10-31-400-004

ZONING DISTRICT

Current PC Proposed: MS

DRAWING OF PROPERTY: Attach a scaled drawing of the property in this petition, showing lot line dimensions, bearings, section corner reference, and the use and Zoning District of each adjacent parcel of land. Requests for PC, PM or VC Districts require a site plan that complies with the requirements in Article 7 of the Superior Township Zoning Ordinance.

REASONS FOR THE PROPOSED ZONING DISTRICT AMENDMENT

Applicant Intends to convert the former bank branch to medical office use and establish a new location for Applicant's retinal care practice.

Attached hereto and made a part of this application are submitted the following:

- Drawings, all on sheets 11 inches by 8 ½ inches in size, drawn to scale, and correlated with the legal description; vicinity map clearly showing location of property, adjacent land uses and zoning classifications.
- A letter of authority or power of attorney in the event the petition is made by a person other than the owner of the property, signed by the owner.
- Complete legal description of the premises, including street address (if applicable.)
- Any additional information or documentation required by the Zoning Ordinance for petition review (for example site plans as required when a rezoning petition is for a Special District such as Planned Community).

I hereby depose and say that all the above statements and statements made in the papers and documents submitted herewith are true and correct. I also hereby acknowledge and understand what is required of a petitioner under Article 18 of the Superior Township Zoning Ordinance before consideration of a zoning district amendment.

Signature of Applicant _____

Signature of Owner (s) _____

Sworn to before me this 24th day of September 2026

My commission expires 2/17/2032

(Notary Public, Washtenaw County, Michigan)



To be filled in by Township Clerk or Designee: I hereby state that this application was properly received and filed on _____. Signature _____


Zoning Code: MS (Superior Charter Township)
Total length: 455.32 ft
Total length: 274.08 ft
Total length: 256.79 ft
Total length: 455.32 ft
McAuley Dr
W Clark Rd
Zoning Code: RM-LD (Charter Township of Ypsilanti)
Zoning Code: Eastern Michigan University (City of Ypsilanti)

5485 HURON RIVER DR

YPSILANTI, MI 48197
Parcel #J -10-31-400-004
Property Owner: CHASE BANK

Owner and Taxpayer Information

Owner	CHASE BANK INDUSTRY CONSULTING GROUP INC PO BOX 8265 WICHITA FALLS, TX 76307-8265
Taxpayer	SEE OWNER INFORMATION

General Information for Tax Year 2026

Property Class	201 COMMERCIAL-IMPROVED
School District	YPSILANTI SCHOOL DISTRICT
MAP #	J-9
NUMERIC	0
DESCRIPTION	*Not Available*
INSPECTION	*Not Available*
Historical District	*Not Available*
MISC	*Not Available*
Unit	J SUPERIOR TOWNSHIP
Assessed Value	$355,600
Taxable Value	$259,186
State Equalized Value	$355,600
Date of Last Name Change	12/05/2022
Notes	*Not Available*
Census Block Group	*Not Available*
Exemption	*No Data to Display*

Principal Residence Exemption Information

Effective Date	*No Data to Display*

Principal Residence Exemption	June 1st	Fina
2026	0.0000%	-
2025	0.0000%	0.0000%

Previous Year Information

Year	MBOR Assessed	Final SEV	Final Taxable
2025	$333,900	$333,900	$252,372
2024	$308,100	$308,100	$244,784
2023	$271,600	$271,600	$233,128

Land Information

Zoning Code	P-C
Land Value	$243,100
Renaissance Zone	No
ECF Neighborhood	COMMERCIAL
Lot Dimensions/Comments	*Not Available*
Total Acres	2.600
Land Improvements	$0

How can I help you today?
protected by reCAPTCHA

Renaissance Zone Expiration Date	*No Data to Display*
Mortgage Code	*No Data to Display*
Neighborhood Enterprise Zone	No

Lot(s)	Frontage	Depth
Lot 1	256.00 ft	347.00 ft
	Total Frontage: 256.00 ft	Average Depth: 347.00 ft

Legal Description

CORRECT LEGAL SU 31-8C COM AT S 1/4 COR OF SEC, TH N 87-25-00 E 374.18 FT IN S/L OF SEC, TH N 00-50-30 W 60.03 FT FOR POB, TH S 87-25-00 W 374.17 FT, TH S 88-07-45 W 66.01 FT, TH N 00-50-30 W 264.00 FT, TH S 89-09-30 W 440.03 FT, TH S 00-50-30 E 251.34 FT TO POB. PT OF SE & SW 1/4 SEC 31, T2S-R7E. 2.60 AC.

Land Division Act Information

Date of Last Split/Combine	*No Data to Display*
Date Form Filed	*No Data to Display*
Date Created	*No Data to Display*
Acreage of Parent	0.00
Split Number	0
Parent Parcel	*No Data to Display*
Number of Splits Left	0
Unallocated Div.s of Parent	0
Unallocated Div.s Transferred	0
Rights Were Transferred	*Not Available*
Courtesy Split	*Not Available*

Sale History

Sale Date	Sale Price	Instrument	Grantor	Grantee	Terms of Sale	Liber/Page
No sales history found.						

Building Information - 2963 sq ft Banks - Central (Commercial)

Floor Area	2,963 sq ft
Occupancy	Banks - Central
Estimated TCV	$468,182
Class	C
Stories Above Ground	1
Basement Wall Height	*Not Available*
Year Built	1978
Percent Complete	100%
Physical Percent Good	58%
Economic Percent Good	100%
Average Story Height	10 ft
Identical Units	*Not Available*
Year Remodeled	*No Data to Display*
Heat	Zoned A.C. Warm & Cooled Air
Functional Percent Good	100%
Effective Age	36 yrs

How can I help you today?

Carlisle | Wortman
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: June 12, 2026
Revised: September 18, 2026

Final Site Plan Review Phase 2
For
Superior Township, Michigan

Applicant:	Pulte Homes of Michigan, LLC
Project Name:	The Meadows at Hawthorne Mill
Location:	SE Corner of Leforge Road and Geddes Road
Plan Date: **Revised:**	**May 29, 2026** **August 19, 2026**
Zoning:	PC, Planned Community
Action Requested:	Final Site Plan Approval

PROJECT DESCRIPTION

The applicant has submitted a revised Final Site Plan for Phase 2 of a residential site condominium. The site received area plan approval in October 2020. The total development was approved with 215 single-family homes on approximately 71 acres, developed in five phases. The revised Phase 2 boundary includes 60 homes, bringing the combined total for Phases 1 and 2 to 110 homes. The applicant is seeking final site plan approval for Phase 2. Future phases will be reviewed under separate final site plan reviews.

The site off Geddes Road is just west of Prospect Point West. The site is being designed with private roads that provide two (2) access points to Geddes Road. The site connects at two points with the adjacent Prospect Pointe West Development. In addition, there is a road stub for future development to the south. The site includes 0.85 acres of regulated wetlands and 0.36 acres of non-regulated wetlands.

Benjamin R. Carlisle, *President* Douglas J. Lewan, *Executive Vice President* John L. Enos, *Vice President*
David Scurto, *Principal* Sally M. Elmiger, *Principal* R. Donald Wortman, *Principal*
Paul Montagno, *Principal,* Megan Masson-Minock, *Principal,* Laura Kreps, *Senior Associate*
Richard K. Carlisle, *Past President/Senior Principal*

This parcel was previously approved for a similar residential development in 2004, but construction and all of the previous entitlements and permits have since expired. The layout and total number of units remain consistent with the approved Area Plan and preliminary site plan. The revised plans shift the boundary between Phases 2 and 3 but do not change the approved 215-unit total or overall layout.

The proposed development will be serviced with public utilities. A sewer will connect from Leforge Road and the Prospect Pointe Development, and water will be looped throughout the development from Geddes Road. Stormwater management will be handled with four (4) proposed detention ponds located throughout the development.

Aerial Photograph

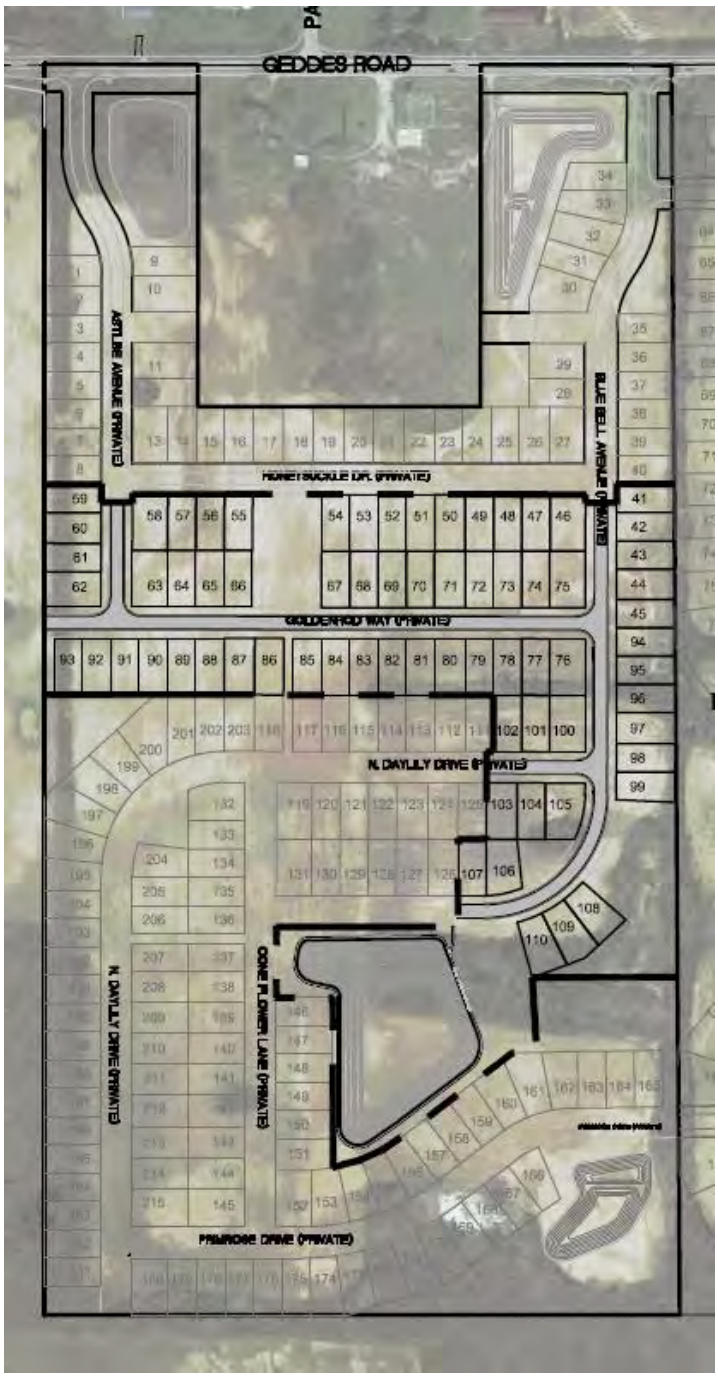


Items to be Addressed: *None.*

PHASING

Phase 2 includes 60 units, with two points of connection to Phase 1. Site grading for the entire site will occur as part of Phase 1, but road, utility, and home construction will occur by phases as

shown on the revised plans. As set forth in the zoning ordinance, a phase shall not be dependent upon subsequent phases for safe and convenient vehicular and pedestrian access, adequate utility services, or open spaces and recreation facilities, and shall be capable of substantial occupancy, operation, and maintenance upon completion of construction and development. We defer to the Township Engineer regarding grading, road, and utility construction phasing.



Because the development phases are delineated on the approved Area Plan and preliminary site plan, the proposed shift of the boundary between Phases 2 and 3 constitutes a change to those

approved plans. Because the proposed adjustment does not change the approved lots, unit count, density, circulation, utilities, or open space, it may reasonably be considered a minor variation in layout that does not warrant additional approvals.

Items to be Addressed: *Confirm with Township Engineer grading, road, and utility construction phasing.*

AREA, WIDTH, HEIGHT, SETBACKS

The following table summarizes the density, placement, and height regulations for the site plan associated with this use. The table will use the typical or smallest dimensions provided for any lot.

Density, Placement, and Height Regulations

	Required	Provided	Compliance
Lot Area Per Dwelling Unit	7,200 Square Feet	7,200 Square Feet	Complies
Lot Width	60 Feet	60 Feet	Complies
Front Setback	25 Feet	25 Feet	Complies
Side Setback	6 Feet and 16 Total	6 Feet and 16 Feet Total	Complies
Rear Setback	35 Feet	35 Feet	Complies
Ground Floor Coverage	25% Max	Confirmed through building permit review	Confirmed through building permit review
Floor area Ratio	40% Max	Confirmed through building permit review	Confirmed through building permit review
Maximum Net Dwelling Unit Density	4	3.03	Complies
Building Height	35 Feet/2.5 Stories	Confirmed through building permit review	Confirmed through building permit review

The plan meets the dimensional standards from Section 3.101 of the Zoning Ordinance.

Items to be Addressed: *None*

PRELIMINARY SITE PLAN APPROVAL

The preliminary site plan for all phases of the development was approved by the Township Planning Commission on October 28, 2020. Please see our October 15, 2020 memo for a detailed review of the preliminary site plan. At the October 28, 2020, meeting the Planning Commission approved the preliminary site plan with the following items to be submitted as part of the final site plan:

1. Detailed grading plan

The applicant has submitted a detailed grading plan that shows site grading for the entire site. We defer to the Township Engineer regarding the review of the grading plan.

2. Detailed tree inventory and mitigation

The site includes woodlands. The applicant has provided a tree survey and woodland replacement for the developmental impacts.
Onsite Mitigation Requirements:

For the total site, the applicant will remove 187 regulated trees, and 32 landmark trees, requiring a total of 956 replacement trees.

TREE REMOVAL/REPLACEMENT CALCULATION			
REGUALTED 8"-12" TREES REMOVED	**137**	:	**137** REPLACEMENT TREES REQUIRED
REGUALTED 12.1"-16" TREES REMOVED	**42**	:	**126** REPLACEMENT TREES REQUIRED
REGUALTED 16.1" & GREATER TREES REMOVED	**8**	:	**48** REPLACEMENT TREES REQUIRED
TOTAL NUMBER OF REGULATED TREES REMOVED	**187**	:	**311** REPLACEMENT TREES REQUIRED
TOTAL NUMBER OF LANDMARK TREES REMOVED	**32**		
TOTAL LANDMARK DBH REMOVED (INCHES)	**644.5**	:	**644.5** REPLACEMENT TREES REQUIRED
TOTAL NUMBER OF REPLACEMENT TREES	**955.5**	TREES	
TOTAL NUMBER OF REGULATED TREES ONSITE	372		
TOTAL NUMBER OF REGULATED TREES REMOVED	219		
TOTAL NUMBER OF REGULATED TREES PRESERVEI	153		
PERCENTAGE OF REGULATED TREES PRESERVED	41%		

The revised final site plan includes a Phase 2 landscape plan and planting schedules. The plan provides 309 trees, consisting of 127 street trees and 182 buffer/open-space trees. The applicant indicates that these plantings satisfy the Phase 2 replacement requirement and provide sufficient excess credit to support release of the supplemental bond for 166 replacement trees posted with Phase 1. A separate landscape cost opinion estimates the Phase 2 improvements at $162,441. The Township should approve the required Phase 2 landscape performance guarantee and any release or adjustment of the Phase 1 supplemental tree-replacement bond before the bond is modified.

3. Detailed lighting plan

The applicant notes that they are not proposing any site lighting.

4. Building floor plans and elevations

The resubmittal includes elevation and facade-material exhibits for the Aspire, Crisfield, Hampton, and Oakdale models previously approved for Phase 1. The submitted calculations indicate that each elevation limits vinyl, aluminum, or steel materials to less than 50 percent of the exposed front and side facade area. The response letter also proposes a new Mitchell model for Phases 1 and 2. The Planning Commission should expressly determine whether the Mitchell model may be added to the Phase 1 approval in addition to the Phase 2 approval.

5. Outside agency approvals including Water Resource Commission, Road Commission, and EGLE

All required outside agency approvals have been obtained.

6. All comments noted in Township Engineer, OHM, October 21, 2020, review memo

The applicant submitted a September 2, 2026, response to the Township Engineer's latest review comments. We defer to the Township Engineer to confirm that all engineering comments have been satisfactorily addressed and that required permits and performance guarantees are in place.

SUMMARY

We recommend approval of the Phase 2 final site plan, subject to the following conditions:

1. The Township Engineer confirms that all engineering comments, including grading, road, utility, stormwater, and construction phasing, have been satisfactorily addressed.
2. Use of the Mitchell model in Phases 1 and 2 is subject to express Township approval.
3. The Township approves the Phase 2 landscape performance guarantee and any release or adjustment of the supplemental Phase 1 tree-replacement bond.

CARLISLE/WORTMAN ASSOC., INC.
Benjamin R. Carlisle, AICP, LEED AP
Principal

CARLISLE/WORTMAN ASSOC., INC.
Michelle Marin, AICP
Associate Planner

cc: Emily Dabish Yahkind, Township Supervisor
Angela Robinson, Township Clerk
Dan Kimball, Fire Marshal
Bill Balmes, Building Official
George Tsakoff and Claire Martin, Township Engineers

ARCHITECTS. ENGINEERS. PLANNERS.

OHM Advancing Communities®

October 9, 2026

CHARTER TOWNSHIP OF SUPERIOR
3040 N. Prospect Road
Ypsilanti, MI 48198

Attention: **Emily Dabish Yahkind, Township Supervisor**

Regarding: **The Meadows at Hawthorne Mill – Phase 2**
Final Site Plan – Review No. 3
OHM Job No. 0140-20-1010

Dear Ms. Dabish Yahkind,

On behalf of the Township, we have reviewed the Final Site Plan submittal for Phase 2 on the above-referenced project, dated September 22, 2026, and submitted to the Township on September 29, 2026. All plan comments in our September 16, 2026, review letter have been addressed at this time. In our opinion, this plan is ready for consideration by the Planning Commission at the next regular meeting regarding Final Site Plan approval.

The site plan materials are for Phase 2 of a new single-family residential development with associated site improvements, which include a total of 70 lots (215 lots are proposed for the full development). Phase 2 of the development is comprised of construction of the roads and infrastructure items to directly serve those units. Phase 1 of the development is currently under construction. An Engineering Review of the overall site, which included Phase 2, was completed in 2023 prior to Final Site Plan approval of Phase 1 in order to advance permit submittals. An Engineering Review of the final construction plans for Phase 2 will be completed should the Final Site Plan be approved. The site is in the northwest quarter of Section 33 on the south side of Geddes Road, east of LeForge Road, directly west of the proposed Prospect Point West Site Condominium development.

Permits and Other Agency Approvals

1. A Part 303 Wetland Permit from the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for disturbance of regulated wetlands for the full development has been approved and was issued on December 6, 2022, expiring on December 6, 2027.

2. A Part 41 Permit for Construction of Wastewater Systems (sanitary sewers) for the full development was initially approved and issued by EGLE on October 3, 2023, expiring on October 3, 2025. A permit extension was issued on October 2, 2025. As construction of the permitted sanitary sewer system commenced with Phase 1 of the development this permit will not expire.

3. A Public Act 399 Permit for Water Supply Systems (water mains) construction was initially approved and issued by EGLE for the full development on January 10, 2024, expiring on January 10, 2026. A permit extension was issued on November 5, 2025. As construction of the permitted water system commenced with Phase 1 of the development this permit will not expire.

4. A right-of-way permit from the Washtenaw County Road Commission (WCRC) for construction of

the private road connections to Geddes Road and improvements within the Geddes Road right-of-way was issued prior to the start of construction of Phase 1. A separate WCRC permit for mitigation measures required by the WCRC at the intersection of Geddes Road and Prospect Road east of the development was also issued prior to the start of Phase 1 construction. No additional approvals from WCRC are required for the remaining phases of the development.

5. The stormwater management design plans dated June 5, 2023, for the full development were reviewed by the Washtenaw County Water Resources Commission (WCWRC) and found to be technically correct as noted in their review letter dated June 28, 2023. Detention Basins A and C are currently being constructed with Phase 1. Detention Basin B and the storm sewer out-letting to the basin is to be installed with Phase 2. Review and approval of the Phase 2 on-site stormwater management facilities is required by the WCWRC prior to construction and is reasonably assured.

6. A soil erosion and sedimentation control (SESC) permit for the full development has been approved and was issued by WCWRC on March 12, 2026. A separate SESC permit for the Geddes/Prospect Intersection Improvements was approved and issued by WCWRC on March 5, 2026.

If you have any questions regarding our review, please feel free to contact me at (734) 466-4592.

Sincerely,
OHM Advisors

_____
Claire Martin, P.E.
Senior Project Manager

Cc: Angela Robinson, Township Clerk
Bill Balmes, Building Dept
Ben Carlisle, CWA, Township Planner
Michelle Marin, CWA, Township Planner/Township Zoning Administrator
George Tsakoff, OHM Advisors
Mariah Cummings, OHM Advisors
Paul Schyck, Pulte Homes of Michigan
Jared Kime, Atwell LLC
File

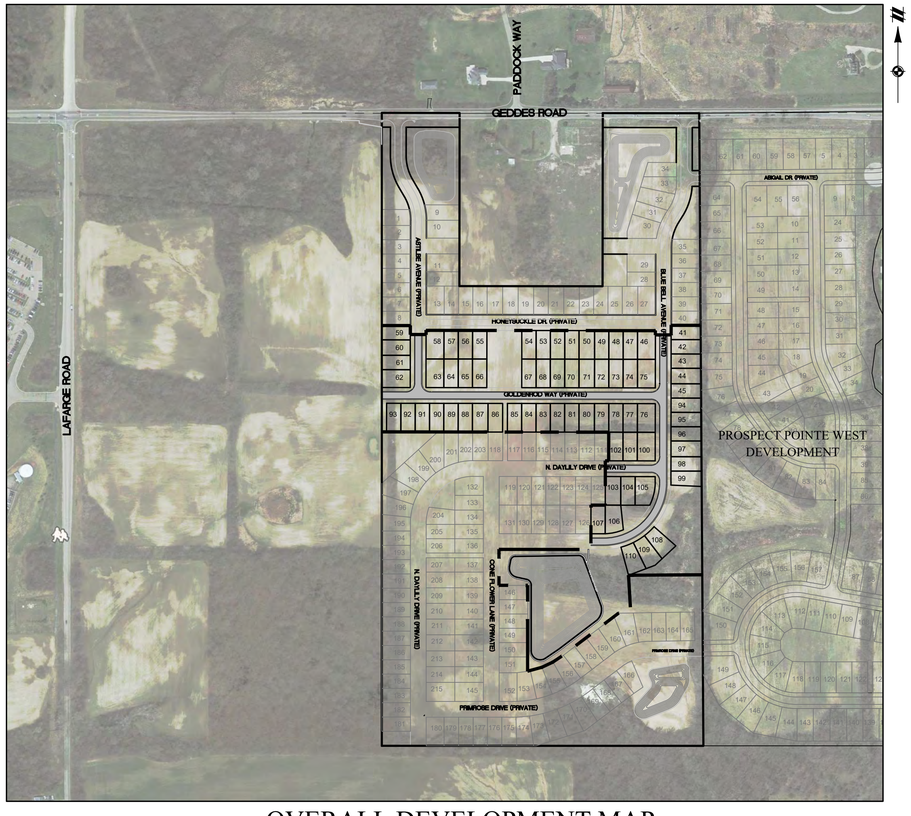
THE MEADOWS

AT HAWTHORNE MILL

A SINGLE FAMILY DEVELOPMENT

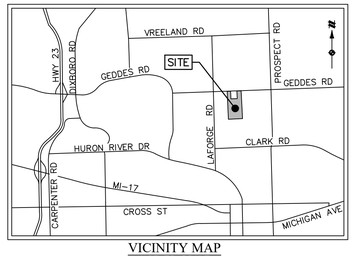
SUPERIOR TOWNSHIP, WASHTENAW COUNTY, MICHIGAN

FINAL SITE PLANS - PHASE 2



OVERALL DEVELOPMENT MAP

SCALE: 1" = 300'



VICINITY MAP
NOT TO SCALE

PROJECT CONTACTS

OWNER/DEVELOPER / APPLICANT

PULTE HOMES OF MICHIGAN, LLC
2800 LIVERNIOS ROAD
BUILDING D, SUITE 320
TROY, MI 48083
CONTACT: PAUL SCHYCK
EMAIL: PAUL.SCHYCK@PULTEGROUP.COM
PHONE: (248) 988-5087

CIVIL ENGINEER

ATWELL, LLC
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MICHIGAN 48076
CONTACT: JARED KIME
EMAIL: JKIME@ATWELL.COM
PHONE: (248) 447-2000

LEGAL DESCRIPTION

EXHIBIT "A" PROPERTY DESCRIPTION PER COMMITMENT FOR TITLE INSURANCE ISSUED BY WFG NATIONAL TITLE INSURANCE COMPANY, ISSUING AGENT: DIVERSIFIED NATIONAL TITLE AGENCY, LLC, COMMITMENT NUMBER: 19-4464, COMMITMENT DATE: 12/11/2019:

PROPERTY 17:
A PART OF THE NORTHWEST 1/14 OF SECTION 33, TOWN 2 SOUTH, RANGE 7 EAST, SUPERIOR TOWNSHIP, WASHTENAW COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS: COMMENCING AT THE NORTH 1/4 CORNER OF SAID SECTION 33 FOR A POINT OF BEGINNING; THENCE SOUTH 00 DEGREES 19 MINUTES 48 SECONDS EAST 2659.09 FEET ALONG THE NORTH AND SOUTH 1/4 LINE TO THE CENTER OF SAID SECTION 33; THENCE NORTH 89 DEGREES 55 MINUTES 54 SECONDS WEST 1344. 77 FEET ALONG THE EAST AND WEST 1/4 LINE OF SAID SECTION 33; THENCE NORTH 00 DEGREES 01 MINUTE 27 SECONDS WEST 2657.44 FEET ALONG THE WEST LINE OF THE EAST 112 OF THE NORTHWEST 1/14 TO THE NORTH LINE OF SAID SECTION 33; THENCE EAST 326.30 FEET ALONG THE NORTH LINE OF SAID SECTION 33; THENCE SOUTH 00 DEGREES 00 MINUTES 29 SECONDS EAST 725.92 FEET; THENCE NORTH 89 DEGREES 59 MINUTES 45 SECONDS EAST 599.99 FEET; THENCE NORTH 00 DEGREES 00 MINUTES 10 SECONDS WEST 725.88 FEET (PREVIOUSLY RECORDED NORTH 726.00 FEET) TO THE NORTH LINE OF SAID SECTION 33; THENCE EAST 404.20 FEET ALONG THE NORTH LINE OF SAID SECTION 33 TO THE POINT OF BEGINNING.

ALSO DESCRIBED BY SURVEY AS FOLLOWS:
BEGINNING AT THE NORTH 114 CORNER OF SECTION 33, TOWN 2 SOUTH, RANGE 7 EAST, SUPERIOR TOWNSHIP, WASHTENAW COUNTY, MICHIGAN; THENCE SOUTH 02 DEGREES 42 MINUTES 24 SECONDS EAST 2652.38 FEET (RECORDED AS SOUTH OO DEGREES 19 MINUTES 48 SECONDS EAST 2659.09 FEET) ALONG THE NORTH-SOUTH 1/4 LINE OF SAID SECTION; THENCE SOUTH 87 DEGREES 41 MINUTES 15 SECONDS WEST 1348.00 FEET (RECORDED AS SOUTH 89 DEGREES 55 MINUTES 54 SECONDS WEST 1344. 77 FEET) ALONG THE EASTWEST 114 LINE OF SAID SECTION 33; THENCE NORTH 02 DEGREES 19 MINUTES 48 SECONDS WEST 2654.07 FEET (RECORDED AS NORTH 00 DEGREES 01 MINUTE 27 SECONDS WEST 2657.44 FEET) ALONG THE WEST LINE OF THE EAST 112 OF THE NORTHWEST 114 OF SAID SECTION 33; THENCE NORTH 87 DEGREES 45 MINUTES 47 SECONDS EAST 326.37 FEET (RECORDED AS EAST 326.30 FEET) ALONG THE NORTH LINE OF SAID SECTION 33 AND THE CENTERLINE OF GEDDES ROAD (66.00 FEET WIDE); THENCE SOUTH 02 DEGREES 14 MINUTES 13 SECONDS EAST 726.00 FEET (RECORDED AS SOUTH OO DEGREES 00 MINUTES 29 SECONDS EAST 725.92 FEET); THENCE NORTH 87 DEGREES 45 MINUTES 47 SECONDS EAST 600.00 FEET (RECORDED AS NORTH 89 DEGREES 59 MINUTES 45 SECONDS EAST 599.99 FEET); THENCE NORTH 02 DEGREES 14 MINUTES 13 SECONDS WEST 726.00 FEET (RECORDED AS NORTH 00 DEGREES 00 MINUTES 10 SECONDS WEST 725.88 FEET); THENCE NORTH 87 DEGREES 45 MINUTES 47 SECONDS EAST 404.20 FEET (RECORDED AS EAST) ALONG THE NORTH SECTION LINE OF SAID SECTION 33 AND THE CENTERLINE OF SAID GEDDES ROAD TO THE POINT OF BEGINNING.

PROJECT NARRATIVE

THE MEADOWS AT HAWTHORNE MILL IS A PROPOSED RESIDENTIAL SITE CONDOMINIUM CONSISTING OF 215 SINGLE FAMILY HOMES ON APPROXIMATELY 71 ACRES OF LAND. THIS PARCEL OF LAND WAS PREVIOUSLY APPROVED FOR A VERY SIMILAR RESIDENTIAL DEVELOPMENT IN 2004 BUT CONSTRUCTION NEVER COMMENCED BECAUSE OF THE RECESSION AND ALL OF THE PREVIOUS ENTITLEMENTS AND PERMITS HAVE SINCE EXPIRED. THE DEVELOPER IS AIMING TO COMMENCE CONSTRUCTION ON THE MEADOWS IN THE SUMMER OF 2026. THE SITE IS BEING DESIGNED WITH PRIVATE ROADS THAT WILL PROVIDE MULTIPLE ACCESS POINTS TO GEDDES ROAD, CONNECT TO THE CURRENTLY PROPOSED PROSPECT POINTE WEST DEVELOPMENT AND PROVIDE STUBS FOR FUTURE DEVELOPMENT TO THE SOUTH AND WEST.

THE SITE CONTAINS NATURAL FEATURES WITH TWO EGLE REGULATED STREAM BEDS AND 0.82 ACRES OF REGULATED WETLANDS, OF WHICH 0.49 ACRES ARE PROPOSED TO BE PRESERVED AS PART OF THE DEVELOPMENT. 17.09 ACRES OF OPEN SPACE IS PROPOSED THAT INCLUDE PRESERVATION OF 155 REGULATED TREES. A PASSIVE TRAIL SYSTEM IS DESIGNED TO MEANDER THROUGHOUT THE NATURAL OPEN AREAS AND CONNECT INTO THE DEVELOPMENTS SIDEWALK SYSTEM AS WELL AS 4 POCKET PARKS LOCATED THROUGHOUT THE DEVELOPMENT.

THE PROPOSED DEVELOPMENT WILL BE SERVICED WITH PUBLIC UTILITIES. SEWER WILL CONNECT FROM LEFORGE ROAD AND THE PROSPECT POINTE DEVELOPMENT AND WATER WILL BE LOOPED THROUGHOUT THE DEVELOPMENT FROM GEDDES ROAD. STORMWATER MANAGEMENT WILL BE HANDLED WITH 4 PROPOSED DETENTION PONDS LOCATED THROUGHOUT THE DEVELOPMENT.

SITE DATA

GROSS AREA:	71.57 ACRES
GEDDES ROAD ROW:	0.55 ACRES
NET AREA:	71.02 ACRES
EXISTING ZONING:	PC (PLANNED COMMUNITY)
PROPOSED ZONING:	PC (PLANNED COMMUNITY)
ADJACENT ZONING:	
SOUTH	PC (PLANNED COMMUNITY)
NORTH	A2 (AGRICULTURAL DISTRICT)
WEST	PM (PLANNED MANUFACTURING DISTRICT)
EAST	R4 (SINGLE FAMILY RESIDENTIAL DISTRICT)
NUMBER OF PROPOSED LOTS:	70 LOTS (215 LOTS TOTAL)
PROPOSED DENSITY (GROSS):	3.00
PROPOSED DENSITY (NET):	3.03
MIN. LOT AREA PER DWELLING UNIT:	60' x 120' = 7,200 SF (TYPICAL)
MINIMUM LOT WIDTH:	60'
LOT SETBACKS:	
FRONT	25'
SIDE	6' MIN. (16' TOTAL)
REAR	35'
PROPOSED GENERAL COMMON ELEMENT (G.C.E.):	17.09 ACRES
WETLAND IMPACTS:	
REGULATED	0.44 ACRES
NON-REGULATED	0.36 ACRES

PAVING (On-Site)	Quantity	Unit
Bituminous Surface Course (1.5")	8,303	S.Y.
Bituminous Leveling Course (1.5")	8,303	S.Y.
Bituminous Base Course (2")	8,303	S.Y.
10" 21AA Aggregate Base	8,303	S.Y.
6" Continuous Edge Underdrain	5,142	L.F.
Concrete Curb & Gutter	5,412	L.F.
5'-8' Wide Concrete Sidewalk (4" conc.)	33,590	S.F.

STORM SEWER	Quantity	Unit
4" Sump Lead PVC	1,640	L.F.
12" RCP Storm Sewer	1,947	L.F.
15" RCP Storm Sewer	838	L.F.
18" RCP Storm Sewer	696	L.F.
21" RCP Storm Sewer	279	L.F.
24" RCP Storm Sewer	257	L.F.
27" RCP Storm Sewer	843	L.F.
30" RCP Storm Sewer	141	L.F.
36" RCP Storm Sewer	343	L.F.
42" RCP Storm Sewer	115	L.F.
15" Concrete Flared End Section	1	EA.
18" Concrete Flared End Section	2	EA.
21" Concrete Flared End Section	1	EA.
24" Concrete Flared End Section	1	EA.
36" Concrete Flared End Section	1	EA.
42" Concrete Flared End Section	1	EA.
4' Diameter CB/MH	37	EA.
5' Diameter CB/MH	13	EA.
4' Diameter Outlet Control Structures	2	EA.

WATER MAIN	Quantity	Unit
8" D.I.P. CL. 54 Water Main	3,400	L.F.
Hydrant Assembly	8	EA.
Temporary Hydrant Assembly	1	EA.
8" Gate Valve and Well	7	EA.
1" Copper Water Lead	2,691	L.F.

SANITARY	Quantity	Unit
8" PVC SDR 26 Pipe	2,268	L.F.
4' Sanitary Manhole	13	EA.
6" PVC SDR 26 Leads	2,145	L.F.

SHEET LIST

Sheet Number	Sheet Title
1	COVER SHEET
2	OVERALL EXISTING CONDITIONS
3	EXISTING CONDITIONS & DEMOLITION PLAN
4	EXISTING CONDITIONS & DEMOLITION PLAN
5	ONSITE TREE LIST
6	NATURAL FEATURES PLAN
7	SOIL EROSION & SEDIMENTATION CONTROL PLAN
8	SOIL EROSION & SEDIMENTATION CONTROL PLAN
9	SOIL EROSION & SEDIMENTATION CONTROL DETAILS
10	OVERALL LAYOUT PLAN
11	LAYOUT PLAN
12	LAYOUT PLAN
13	OVERALL GRADING PLAN
14	GRADING PLAN
15	GRADING PLAN
16	INTERSECTION PLAN
17	ROAD & WATERMAIN PLAN & PROFILE- ASTILBE AVE.
18	ROAD & WATERMAIN PLAN & PROFILE - BLUE BELL AVE.
19	ROAD & WATERMAIN PLAN & PROFILE - BLUE BELL AVE.
20	ROAD & WATERMAIN PLAN & PROFILE - GOLDENROD WAY
21	ROAD & WATERMAIN PLAN & PROFILE - N. DAYLILY DR.
22	OVERALL UTILITY PLAN
23	UTILITY PLAN
24	UTILITY PLAN
25	SANITARY SEWER PLAN & PROFILE
26	SANITARY SEWER PLAN & PROFILE
27	SANITARY SEWER PLAN & PROFILE
28	SANITARY SEWER PLAN & PROFILE
29	STORM SEWER PLAN & PROFILE
30	STORM SEWER PLAN & PROFILE
31	STORM SEWER PLAN & PROFILE
32	STORM SEWER PLAN & PROFILE
33	STORM SEWER PLAN & PROFILE
34	STORM SEWER PLAN & PROFILE
35	DRAINAGE AREA PLAN
36	DETENTION TRIBUTARY DRAINAGE AREA PLAN
37	DETENTION BASIN PLAN - BASIN B
38	CALCULATIONS & TABLES
39	CALCULATIONS & TABLES
40	FIRE PROTECTION PLAN
41	OVERALL LANDSCAPE PLAN
42	LANDSCAPE PLAN
43	LANDSCAPE PLAN
44	DETAILS
45	SUPERIOR TOWNSHIP STANDARD SANITARY DETAILS
46	SUPERIOR TOWNSHIP STANDARD SANITARY DETAILS
47	SUPERIOR TOWNSHIP STANDARD STORM DETAILS
48	SUPERIOR TOWNSHIP STANDARD STORM DETAILS
49	SUPERIOR TOWNSHIP STANDARD WATER MAIN DETAILS
50	SUPERIOR TOWNSHIP STANDARD WATER MAIN DETAILS

AMMAR KALASHO
ENGINEER
No. 58902
STATE OF MICHIGAN
LICENSED PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT ©2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
COVER SHEET

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

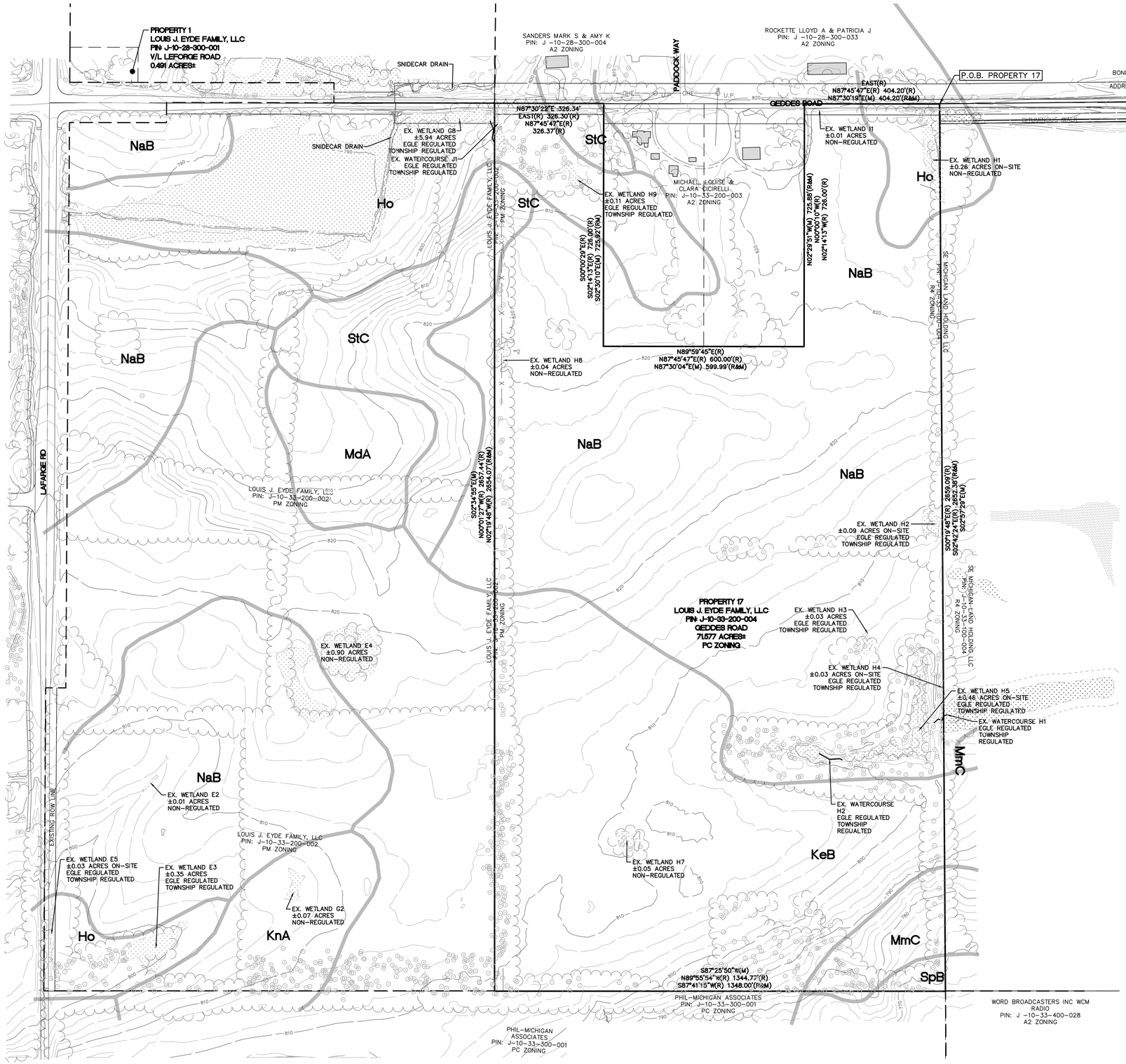
REVISIONS

NA NA NA
N/A

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 1

CAD FILE: I:\19004443\SP-01-CV.DWG

I:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443SP-01-CV.DWG 9/22/2026 8:53 AM MATTHEW MYERS



SOIL INFORMATION

HO	HOYTVILLE SILTY CLAY LOAM
KeB	KENDALLVILLE LOAM, 2 TO 6 PERCENT SLOPES
MmC	MIAMI LOAM, 6 TO 12 PERCENT SLOPES
NaB	NAPPANEE SILTY CLAY LOAM, 2 TO 6 PERCENT SLOPES
SpB	SPINKS LOAMY SAND, 0 TO 6 PERCENT SLOPES
StC	ST. CLAIR CLAY LOAM, 6 TO 12 PERCENT SLOPES
KnA	KIBBIE FINE SANDY LOAM, 0 TO 4 PERCENT SLOPES3
NaB	NAPPANEE SILTY CLAY LOAM, 2 TO 6 PERCENT SLOPES
MdA	MATHERTON SANDY LOAM, 0 TO 4 PERCENT SLOPES

NOTE:
ALL SOILS INFORMATION HAS BEEN SUPPLIED BY THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE.

NOTES:

1. BEARINGS ARE BASED ON MICHIGAN STATE PLANE COORDINATES (NAD83), SOUTH ZONE, GROUND DISTANCES, INTERNATIONAL FEET. MEASURED BEARINGS AS SHOWN DIFFER FROM RECORD TITLE BEARINGS.
2. PROJECT VERTICAL DATUM IS NAVD 88.
3. THE SITE SHOWN HEREON IS LOCATED WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO MAP NUMBERS 26161C0267E, 26161C0269E, 26161C0288E & 26161C0290E OF THE FLOOD INSURANCE RATE MAP, EFFECTIVE DATE APRIL 3, 2012.
4. SEE SHEET 6 FOR NATURAL FEATURES NARRATIVE AND GROUNDWATER RECHARGE AREAS DESCRIPTION.
5. GUARANTEE CANNOT BE MADE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED.

SCHEDULE B, PART II EXCEPTIONS PER COMMITMENT FOR TITLE INSURANCE ISSUED BY WFG NATIONAL TITLE INSURANCE COMPANY, ISSUING AGENT: DIVERSIFIED NATIONAL TITLE AGENCY, LLC, COMMITMENT NUMBER: 19-4464, COMMITMENT DATE: 12/11/2019:

25. AFFIDAVIT OF QUALIFIED AGRICULTURAL PROPERTY, SET FORTH IN LIBER 4892, PAGE 194, AS TO PARCEL 17. (COVERS SUBJECT PROPERTY.)
26. FARMLAND DEVELOPMENT RIGHTS AGREEMENT, SET FORTH IN LIBER 4960, PAGE 907, AS TO PARCEL 17. (COVERS SUBJECT PROPERTY.)
27. RIGHT OF WAY IN FAVOR OF MICHIGAN BELL TELEPHONE COMPANY AND THE COVENANTS, CONDITIONS AND RESTRICTIONS CONTAINED IN INSTRUMENT RECORDED IN LIBER 1772, PAGE 343, AS TO PARCEL 17. (COVERS SUBJECT PROPERTY AND ADDITIONAL LAND, RIGHT OF WAY AS SHOWN HEREON.)

LEGEND

- BOUNDARY LINE
- EXISTING EASEMENT
- SECTION LINE
- BOUNDARY/PROPERTY LINE
- 890 EXISTING CONTOUR
- EXISTING CURB AND GUTTER
- EXISTING FENCE
- EXISTING BUILDING
- EXISTING STRUCTURE
- EXISTING WALL
- EXISTING WATER MAIN
- EXISTING SANITARY
- EXISTING GAS
- EXISTING STORM
- EXISTING OVERHEAD ELECTRICAL LINE
- EXISTING OVERHEAD TELEPHONE LINE
- EXIST. CULVERT
- EXIST. CATCH BASIN/INLET
- EXIST. HYDRANT
- EXIST. VALVE
- EXIST. SANITARY SEWER
- EXIST. UNSPECIFIED UTILITY
- EXISTING WETLAND
- EXISTING SOILS LIMIT
- FoB EXISTING SOILS TYPE
- EXISTING TEST PIT

SITE BENCHMARKS:

BM #1: ARROW ON FIRE HYDRANT IN SOUTH RIGHT OF WAY OF GEDDES ROAD, 275'± WEST OF NORTHEAST PROPERTY CORNER
ELEVATION: 819.71 (NAVD88)

BM #2: NORTHEAST CORNER OF HEADWALL IN SOUTH RIGHT OF WAY OF GEDDES ROAD, 285'± WEST OF NORTHWEST PROPERTY CORNER
ELEVATION: 794.21 (NAVD88)

811 Know what's below. Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT ©2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC

THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
OVERALL EXISTING CONDITIONS

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

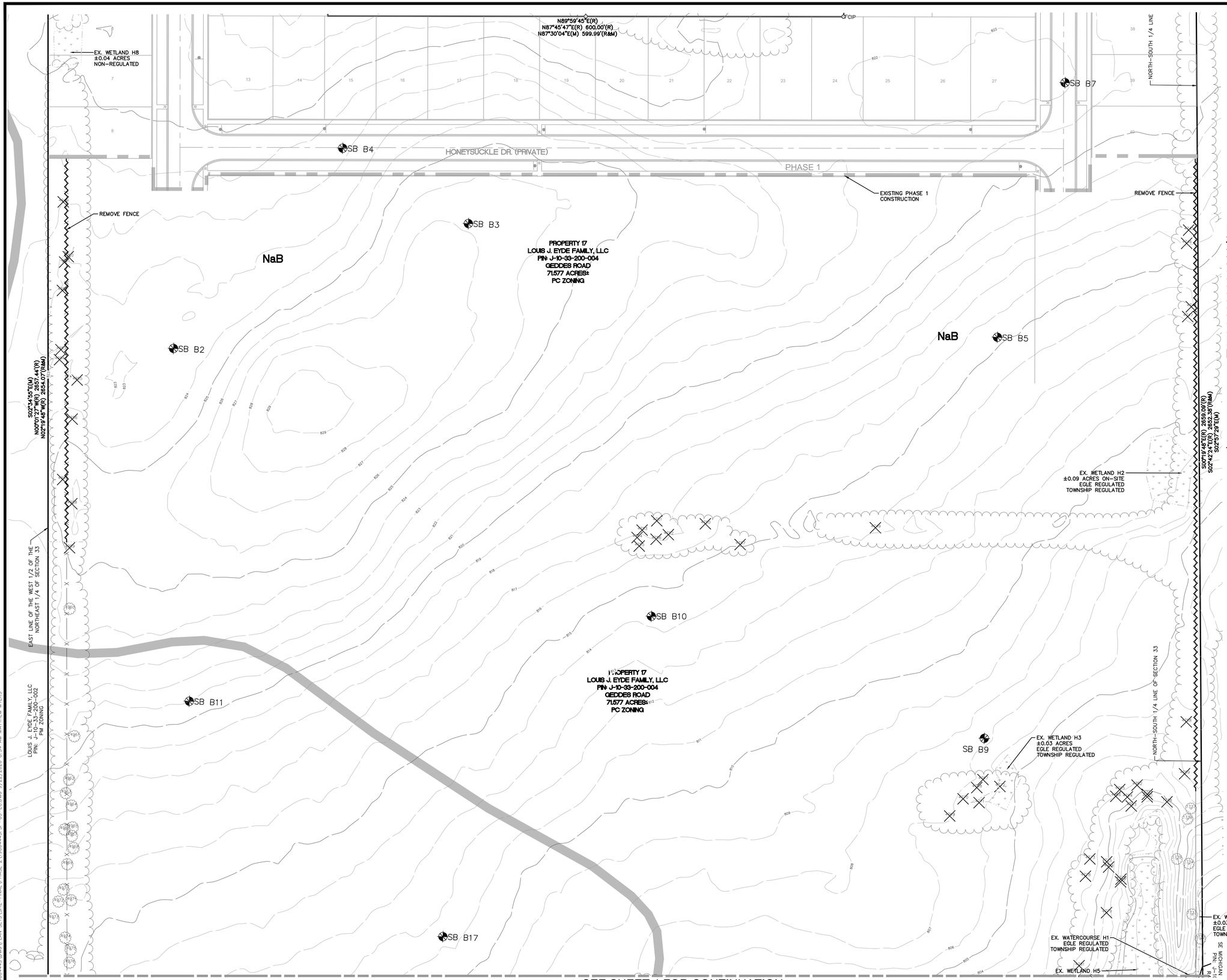
REVISIONS

0 75 150
SCALE: 1" = 150 FEET

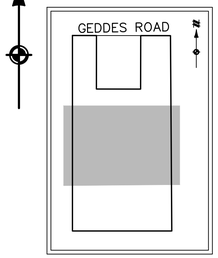
DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 2

CAD FILE: 19004443FSP-02-OEC.DWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443FSP-02-OEC.DWG 9/22/2026 8:54 AM MATTHEW MYERS



SEE SHEET 4 FOR CONTINUATION



KEY MAP
NOT TO SCALE

LEGEND

- BOUNDARY LINE
- EXISTING EASEMENT
- SECTION LINE
- BOUNDARY/PROPERTY LINE
- 890 EX. CONTOUR
- W EX. WATER MAIN
- EX. SANITARY
- G EX. GAS
- C EX. STORM
- OHE EX. OVERHEAD ELECTRICAL LINE
- T EX. TELEPHONE LINE
- EX. WETLAND
- EX. TREE LINE
- EX. CURB AND GUTTER
- X EX. FENCE
- EX. SOIL DELINEATION
- EX. BUILDING
- EX. CATCH BASIN/INLET/CULVERT
- EX. HYDRANT
- EX. VALVE
- EX. SANITARY SEWER
- EX. TREE
- EX. TREE TO BE REMOVED
- SOIL BORING LOCATION
- TO BE REMOVED
- DRIVE/PAVEMENT– TO BE REMOVED
- BUILDING/HOUSE– TO BE REMOVED

SITE BENCHMARKS:

BM #1: ARROW ON FIRE HYDRANT IN SOUTH RIGHT OF WAY OF GEDDES ROAD, 275'± WEST OF NORTHEAST PROPERTY CORNER
ELEVATION: 819.71 (NAVD88)

BM #2: NORTHEAST CORNER OF HEADWALL IN SOUTH RIGHT OF WAY OF GEDDES ROAD, 285'± WEST OF NORTHWEST PROPERTY CORNER
ELEVATION: 794.21 (NAVD88)

811
Know what's **below.**
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
EXISTING CONDITIONS & DEMOLITION PLAN

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

REVISIONS

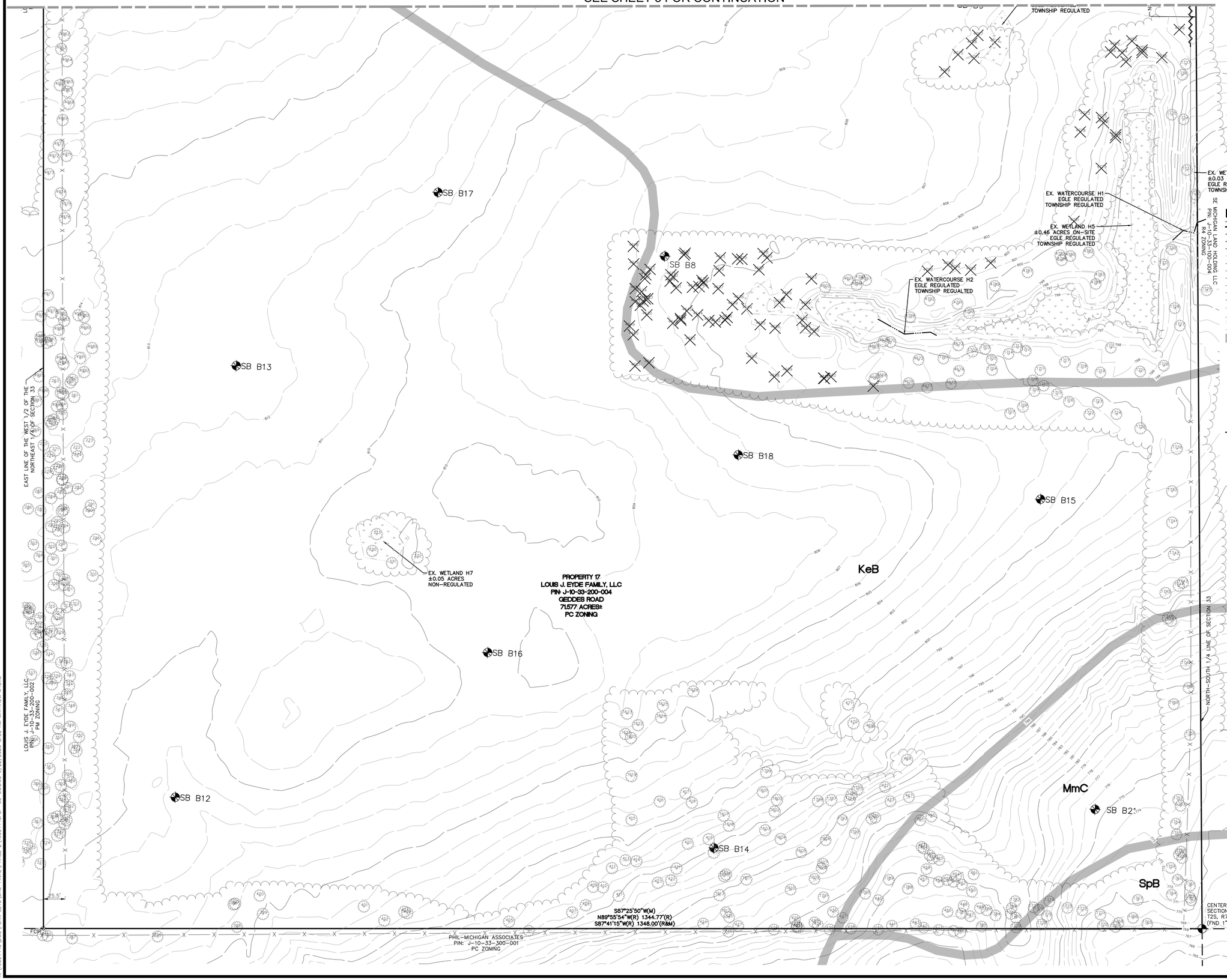
0 25 50
SCALE: 1" = 50 FEET

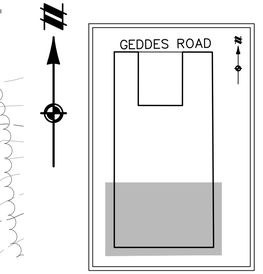
DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 3

K:\19004443\DWG\PLAN SETS\SITE_FINAL\PHASE 2\19004443FSP-03-ECDWG 9/22/2026 8:54 AM MATTHEW MYERS

CAD FILE: 19004443FSP-03-ECDWG

SEE SHEET 3 FOR CONTINUATION





LEGEND

- BOUNDARY LINE
- EXISTING EASEMENT
- SECTION LINE
- BOUNDARY/PROPERTY LINE
- EX. CONTOUR
- EX. WATER MAIN
- EX. SANITARY
- EX. GAS
- EX. STORM
- EX. OVERHEAD ELECTRICAL LINE
- EX. TELEPHONE LINE
- EX. WETLAND
- EX. TREE LINE
- EX. CURB AND GUTTER
- EX. FENCE
- EX. SOIL DELINEATION
- EX. BUILDING
- EX. CATCH BASIN/INLET/CULVERT
- EX. HYDRANT
- EX. VALVE
- EX. SANITARY SEWER
- EX. TREE
- EX. TREE TO BE REMOVED
- SOIL BORING LOCATION
- TO BE REMOVED
- DRIVE/PAVEMENT– TO BE REMOVED
- BUILDING/HOUSE– TO BE REMOVED

SITE BENCHMARKS:

BM #1: ARROW ON FIRE HYDRANT IN SOUTH RIGHT OF WAY OF GEDDES ROAD, 275'± WEST OF NORTHEAST PROPERTY CORNER
ELEVATION: 819.71 (NAVD88)

BM #2: NORTHEAST CORNER OF HEADWALL IN SOUTH RIGHT OF WAY OF GEDDES ROAD, 285'± WEST OF NORTHWEST PROPERTY CORNER
ELEVATION: 794.21 (NAVD88)

811
Know what's **below.**
Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
246.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
EXISTING CONDITIONS & DEMOLITION PLAN

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

REVISIONS

0 25 50
SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 4

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443FSP-03-EC.DWG 9/22/2026 8:55 AM MATTHEW MYERS

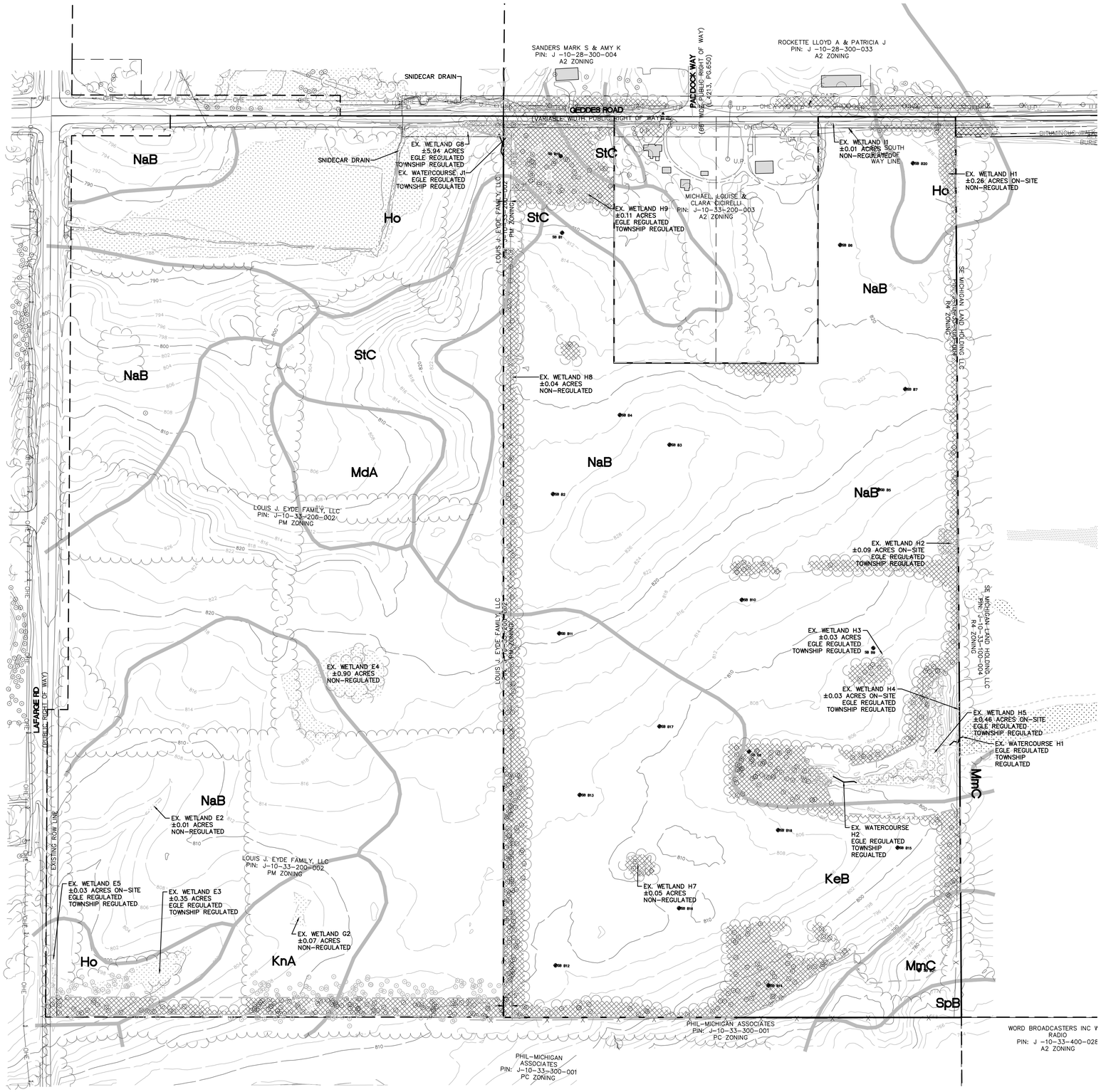
CAD FILE: 19004443FSP-03-EC.DWG

TAG #	COMMON NAME	SCIENTIFIC NAME	DBH (INCHES)	CONDITION	LANDMARK	INVASIVE	EXEMPT	REMOVE?
260	Red Oak	*Quercus rubro*	12.5	Good				
261	American Basswood	*Tilia americono*	16.5	Good				
262	Red Oak	*Quercus rubro*	22	Good	Y			
263	Bitternut Hickory	*Coryo cordiformis*	10	Good				
264	Red Oak	*Quercus rubro*	9	Good				
265	American Basswood	*Tilia americono*	13	Good				
266	Bitternut Hickory	*Coryo cordiformis*	13	Good				
267	Red Oak	*Quercus rubro*	22.5	Good	Y			
268	Bitternut Hickory	*Coryo cordiformis*	9	Good				
269	Bitternut Hickory	*Coryo cordiformis*	10.5	Good				
270	Bitternut Hickory	*Coryo cordiformis*	8.5	Good				
271	Bitternut Hickory	*Coryo cordiformis*	11	Good				
272	Red Oak	*Quercus rubro*	14	Good				
273	Box Elder Maple	*Acer negundo*	10	Good		Y	Y	
274	American Basswood	*Tilia americono*	9	Good				
275	Black Walnut	*Juglons nigro*	16	Good				
276	Black Walnut	*Juglons nigro*	19	Good	Y			
277	Bitternut Hickory	*Coryo cordiformis*	8	Good				
278	American Basswood	*Tilia americono*	17.5	Good				
279	Bitternut Hickory	*Coryo cordiformis*	10	Good				
280	Bitternut Hickory	*Coryo cordiformis*	11	Good				
281	Red Oak	*Quercus rubro*	12	Good				
282	Black Walnut	*Juglons nigro*	9	Good				
283	Bitternut Hickory	*Coryo cordiformis*	14	Good				
284	American Basswood	*Tilia americono*	12	Good				
285	Bitternut Hickory	*Coryo cordiformis*	21	Good	Y			
286	Bitternut Hickory	*Coryo cordiformis*	10.5	Good				
287	Black Cherry	*Prunus serotino*	10.5	Good				
288	Bitternut Hickory	*Coryo cordiformis*	12.5	Good				
289	Bitternut Hickory	*Coryo cordiformis*	8	Good				
290	American Elm	*Ulmus americono*	8.5	Good				
291	Siberian Elm	*Ulmus pumilo*	11	Good				
292	American Basswood	*Tilia americono*	21	Good	Y			
293	Bitternut Hickory	*Coryo cordiformis*	9	Good				
294	Bitternut Hickory	*Coryo cordiformis*	8	Good				
295	Red Oak	*Quercus rubro*	17	Good	Y			
296	Eastern Cottonwood	*Populus deltoides*	14	Good		Y	Y	
297	Red Oak	*Quercus rubro*	21	Good	Y			
301	Bitternut Hickory	*Coryo cordiformis*	12	Good				
302	Red Oak	*Quercus rubro*	18.5	Good	Y			
303	Shagbark Hickory	*Coryo ovoto*	19	Good	Y			
304	Bitternut Hickory	*Coryo cordiformis*	9.5	Good				
305	American Basswood	*Tilia americono*	10	Good				
306	Black Walnut	*Juglons nigro*	16.5	Good				
307	Bitternut Hickory	*Coryo cordiformis*	10	Good				
308	Red Oak	*Quercus rubro*	20	Good	Y			
309	White Oak	*Quercus albo*	11	Good				
310	American Elm	*Ulmus americono*	8	Good				
311	Red Oak	*Quercus rubro*	22.5	Good	Y			
312	American Basswood	*Tilia americono*	9	Good				
313	Red Oak	*Quercus rubro*	18	Good	Y			
314	Pignut Hickory	*Coryo glabro*	9	Good				
315	American Basswood	*Tilia americono*	13	Good				
316	American Basswood	*Tilia americono*	16	Fair				
317	American Basswood	*Tilia americono*	12	Fair				
318	American Basswood	*Tilia americono*	9	Good				
319	Red Oak	*Quercus rubro*	10	Good				
320	Red Oak	*Quercus rubro*	8.5	Good				
321	American Basswood	*Tilia americono*	12	Good				
322	Bitternut Hickory	*Coryo cordiformis*	18	Good	Y			
323	Shagbark Hickory	*Coryo ovoto*	16	Good	Y			
324	American Basswood	*Tilia americono*	9.5	Good				
325	American Basswood	*Tilia americono*	8	Good				
326	American Basswood	*Tilia americono*	10	Good				
327	Black Walnut	*Juglons nigro*	12	Good				
328	Black Walnut	*Juglons nigro*	16	Good				
329	Red Oak	*Quercus rubro*	19	Good	Y			
330	Box Elder Maple	*Acer negundo*	13	Good		Y	Y	
331	Eastern Cottonwood	*Populus deltoides*	12	Good		Y	Y	
332	Eastern Cottonwood	*Populus deltoides*	13.5	Good		Y	Y	
333	American Elm	*Ulmus americono*	18	Good	Y			
334	American Basswood	*Tilia americono*	12	Good				
335	American Basswood	*Tilia americono*	12	Good				
336	American Basswood	*Tilia americono*	13.5	Good				
337	Bitternut Hickory	*Coryo cordiformis*	13	Good				
338	American Basswood	*Tilia americono*	12	Good				
339	Shagbark Hickory	*Coryo ovoto*	8	Good				
340	Red Oak	*Quercus rubro*	16	Good	Y			
341	Red Oak	*Quercus rubro*	14	Good				
342	Red Oak	*Quercus rubro*	14	Good				
343	Red Oak	*Quercus rubro*	14	Good				
344	Red Oak	*Quercus rubro*	13	Good				
345	Bitternut Hickory	*Coryo cordiformis*	13	Good				
346	White Oak	*Quercus albo*	19	Good	Y			
347	Bitternut Hickory	*Coryo cordiformis*	12	Good				
348	Bitternut Hickory	*Coryo cordiformis*	8.5	Good				
349	Red Oak	*Quercus rubro*	18.5	Good	Y			
350	American Basswood	*Tilia americono*	10.5	Good				
351	Red Oak	*Quercus rubro*	19	Good	Y			
352	Eastern Cottonwood	*Populus deltoides*	19	Good		Y	Y	
353	American Basswood	*Tilia americono*	8.5	Good				
354	American Basswood	*Tilia americono*	8.5	Good				
355	Red Oak	*Quercus rubro*	17	Good	Y			
356	Shagbark Hickory	*Coryo ovoto*	17.5	Good	Y			
357	American Basswood	*Tilia americono*	8.5	Good				
358	Shagbark Hickory	*Coryo ovoto*	10	Fair				
359	Red Oak	*Quercus rubro*	12	Good				
360	American Basswood	*Tilia americono*	15	Good				
361	Red Oak	*Quercus rubro*	9.5	Good				
362	Red Oak	*Quercus rubro*	16.5	Good	Y			
363	Red Oak	*Quercus rubro*	10	Good				
364	Black Cherry	*Prunus serotino*	13.5	Good				
365	Pignut Hickory	*Coryo glabro*	14	Good				
366	Red Oak	*Quercus rubro*	11	Good				
367	Red Oak	*Quercus rubro*	21.5	Good	Y			
368	Red Oak	*Quercus rubro*	20	Good	Y			
369	Bitternut Hickory	*Coryo cordiformis*	20	Good	Y			
370	Red Oak	*Quercus rubro*	9	Good				
371	Red Oak	*Quercus rubro*	13.5	Good				
372	Red Oak	*Quercus rubro*	19	Good	Y			
373	American Basswood	*Tilia americono*	13	Good				
374	American Basswood	*Tilia americono*	18	Good	Y			
375	Red Oak	*Quercus rubro*	24	Good	Y			
376	Red Oak	*Quercus rubro*	9	Good				
377	American Basswood	*Tilia americono*	8.5	Good				
378	Bitternut Hickory	*Coryo cordiformis*	10.5	Good				*
379	Red Oak	*Quercus rubro*	13.5	Good				*
380	Black Cherry	*Prunus serotino*	12	Good				*
381	Red Oak	*Quercus rubro*	10	Good				*
382	American Basswood	*Tilia americono*	9.5	Good				*
383	Pignut Hickory	*Coryo glabro*	20	Good	Y			*
384	Bitternut Hickory	*Coryo cordiformis*	13.5	Good				
385	Black Cherry	*Prunus serotino*	11.5	Good				
386	Bitternut Hickory	*Coryo cordiformis*	8.5	Good				*
387	Black Walnut	*Juglons nigro*	11.5	Good				

TAG #	COMMON NAME	SCIENTIFIC NAME	DBH (INCHES)	CONDITION	LANDMARK	INVASIVE	EXEMPT	REMOVE?
388	Black Walnut	*Juglons nigro*	17	Good				*
389	Black Walnut	*Juglons nigro*	19	Good	Y			*
390	Red Oak	*Quercus rubro*	13	Good				*
391	Bitternut Hickory	*Coryo cordiformis*	8	Good				*
392	Black Walnut	*Juglons nigro*	8	Good				*
393	Bitternut Hickory	*Carya cordiformis*	10	Good				*
394	Siberian Elm	*Ulmus pumila*	9	Good				*
395	Black Walnut	*Juglons nigro*	11.5	Good				
396	Eastern Cottonwood	*Populus deltoides*	21	Good		Y	Y	
397	Siberian Elm	*Ulmus pumila*	8	Good				
398	Box Elder Maple	*Acer negundo*	15	Good		Y	Y	
399	Common Buckthorn	*Rhamnus cathortica*	10	Good		Y	Y	
400	Siberian Elm	*Ulmus pumila*	11	Good				
401	Eastern Cottonwood	*Populus deltoides*	22	Good		Y	Y	
402	Eastern Cottonwood	*Populus deltoides*	21	Poor		Y	Y	
403	Box Elder Maple	*Acer negunda*	15	Good		Y	Y	
404	Box Elder Maple	*Acer negunda*	10.5	Fair		Y	Y	
405	Red Oak	*Quercus rubro*	9	Good				
406	Red Oak	*Quercus rubro*	8	Good				
407	Red Oak	*Quercus rubro*	21	Good	Y			
408	Eastern Cottonwood	*Populus deltoides*	17.5	Good		Y	Y	
409	Siberian Elm	*Ulmus pumila*	14	Good				
410	Eastern Cottonwood	*Populus deltoides*	22	Good		Y	Y	
411	Box Elder Maple	*Acer negundo*	9	Good		Y	Y	
412	Siberian Elm	*Ulmus pumila*	10	Good				
413	Common Buckthorn	*Rhamnus cathartica*	8	Good		Y	Y	
414	Green Ash	*Fraxinus pennsylvanica*	8.5	Poor			Y	
415	Box Elder Maple	*Acer negunda*	13	Good		Y	Y	
416	Red Cedar	*Juniperus virginiana*	6.5	Good		Y	Y	
417	Green Ash	*Fraxinus pennsylvanica*	12	Fair				
418	Apple	*Malus spp.*	8	Good				
419	Red Cedar	*Juniperus virginiana*	8	Good		Y	Y	
420	Red Cedar	*Juniperus virginiana*	5.5	Good		Y	Y	
421	Green Ash	*Fraxinus pennsylvanica*	9	Good				
422	Green Ash	*Fraxinus pennsylvanica*	8.5	Good				
423	Green Ash	*Fraxinus pennsylvanica*	8.5	Good				
424	Box Elder Maple	*Acer negunda*	14	Fair		Y	Y	
425	Shagbark Hickory	*Carya ovata*	8	Good				
426	Shagbark Hickory	*Carya ovata*	11	Good				
427	Shagbark Hickory	*Carya ovata*	11	Good				
428	Pignut Hickory	*Carya glabra*	14	Good				
429	Shagbark Hickory	*Carya ovata*	10.5	Good				
430	Shagbark Hickory	*Carya ovata*	8	Good				
431	Shagbark Hickory	*Carya ovata*	9	Good				
432	Black Cherry	*Prunus serotina*	17	Good				
433	Shagbark Hickory	*Carya ovata*	9	Good				
434	Shagbark Hickory	*Carya ovata*	11	Good				
435	Shagbark Hickory	*Carya ovata*	9.5	Good				
436	Shagbark Hickory	*Carya ovata*	9	Good				
437	Black Cherry	*Prunus serotina*	12	Good				
438	Bitternut Hickory	*Coryo cordiformis*	28	Good	Y			
439	Shagbark Hickory	*Carya ovata*	26	Good	Y			
440	Bitternut Hickory	*Coryo cordiformis*	26	Good	Y			
441	Shagbark Hickory	*Carya ovata*	29	Good	Y			
442	Black Cherry	*Prunus serotina*	14	Good				
443	Black Cherry	*Prunus serotina*	11	Good				
444	American Elm	*Ulmus americana*	14	Good				
445	Black Cherry	*Prunus serotina*	11.5	Good				
446	Shagbark Hickory	*Carya ovata*	10	Good				
447	American Elm	*Ulmus americono*	18	Good	Y			
448	Bitternut Hickory	*Coryo cordiformis*	9	Good				
449	Bitternut Hickory	*Coryo cordiformis*	9	Good				
450	Box Elder Maple	*Acer negundo*	8.5	Good		Y	Y	
451	Eastern Cottonwood	*Populus deltoides*	15	Good		Y	Y	
452	Box Elder Maple	*Acer negunda*	9	Good		Y	Y	
453	White Mulberry	*Morus alba*	9	Good				
454	Box Elder Maple	*Acer negunda*	8	Good		Y	Y	
455	White Mulberry	*Morus alba*	20	Good				
456	Bitternut Hickory	*Coryo cordiformis*	9	Good				
457	Black Cherry	*Prunus serotina*	12	Good				
458	Box Elder Maple	*Acer negundo*	10.5	Good		Y	Y	
459	Box Elder Maple	*Acer negundo*	10.5	Good		Y	Y	
460	Box Elder Maple	*Acer negundo*	8	Good		Y	Y	
461	Box Elder Maple	*Acer negunda*	14	Good		Y	Y	
462	Box Elder Maple	*Acer negunda*	17	Good		Y	Y	
463	Box Elder Maple	*Acer negunda*	10.5	Good		Y	Y	
464	White Mulberry	*Morus alba*	13	Good				
465	Black Walnut	*Juglons nigro*	9	Good				
466	Black Walnut	*Juglons nigro*	9	Good				
467	Box Elder Maple	*Acer negundo*	11	Good		Y	Y	
468	Box Elder Maple	*Acer negunda*	10.5	Good		Y	Y	
469	Red Cedar	*Juniperus virginiana*	4	Good		Y	Y	
470	Box Elder Maple	*Acer negunda*	9	Good		Y	Y	
471	Box Elder Maple	*Acer negunda*	18	Good		Y	Y	
472	White Mulberry	*Morus alba*	10	Good				
473	Box Elder Maple	*Acer negunda*	10	Good		Y	Y	
474	Box Elder Maple	*Acer negunda*	9	Good		Y	Y	
475	Box Elder Maple	*Acer negundo*	22	Poor		Y	Y	
1601	Hawthorn	*Crotoegus spp.*	10	Good				
1602	Black Cherry	*Prunus serotina*	12	Good				
1603	Red Cedar	*Juniperus virginiana*	3.5	Good		Y	Y	
1604	Green Ash	*Fraxinus pennsylvanica*	8	Poor			Y	
1605	Black Cherry	*Prunus serotina*	13	Good				
1606	Green Ash	*Fraxinus pennsylvanica*	8	Good				
1607	Hawthorn	*Crotoegus spp.*	8	Good				
1608	Box Elder Maple	*Acer negundo*	8.5	Good		Y	Y	
1609	Black Cherry	*Prunus serotina*	12	Good				
1610	Green Ash	*Fraxinus pennsylvanica*	13	Good				
1611	Green Ash	*Fraxinus pennsylvanica*	12	Good				
1612	Hawthorn	*Crataegus spp.*	12.5	Good				
1613	Green Ash	*Fraxinus pennsylvanica*	10	Good				
1614	Red Cedar	*Juniperus virginiana*	4.5	Good		Y	Y	
1615	Green Ash	*Fraxinus pennsylvanica*	8	Good				
1616	Red Cedar	*Juniperus virginiana*	3.5	Good		Y	Y	
1617	Hawthorn	*Crotoegus spp.*	11	Good				
1618	Red Cedar	*Juniperus virginiana*	3	Good		Y	Y	
1619	Eastern Cottonwood	*Populus deltoides*	33.5	Good	Y	Y	Y	
1620	White Mulberry	*Morus alba*	12	Good				
1621	Box Elder Maple	*Acer negunda*	8.5	Good		Y	Y	
1622	White Mulberry	*Morus alba*	19	Good				
1623	Box Elder Maple	*Acer negunda*	19	Poor		Y	Y	
1624	Box Elder Maple	*Acer negunda*	11	Poor		Y	Y	
1625	Hawthorn	*Crotoegus spp.*	9.5	Fair				
1626	Box Elder Maple	*Acer negundo*	9	Fair		Y	Y	
1701	White Mulberry	*Morus alba*	11.5	Fair				
1702	Box Elder Maple	*Acer negundo*	8	Fair		Y	Y	
1703	Box Elder Maple	*Acer negunda*	10.5	Fair		Y	Y	
1704	Black Willow	*Salix nigra*	14.5	Good				
1705	Box Elder Maple	*Acer negunda*	8	Fair		Y	Y	
1706	White Mulberry	*Morus alba*	11.5	Good				
1707	Box Elder Maple	*Acer negunda*	8	Good		Y	Y	
1708	Eastern Cottonwood	*Populus deltoides*	19	Good		Y	Y	
1709	Black Willow	*Salix nigra*	11	Fair				
1710	Black Willow	*Salix nigra*	11	Fair				
1711	Apple	*Malus spp.*	10.5	Good				

TAG #	COMMON NAME	SCIENTIFIC NAME	DBH (INCHES)	CONDITION	LANDMARK	INVASIVE	EXEMPT	REMOVE?
1712	Box Elder Maple	*Acer negundo*	8	Good		Y	Y	
1713	Box Elder Maple	*Acer negundo*	8	Fair		Y	Y	
1714	Box Elder Maple	*Acer negundo*	8	Good		Y	Y	
1715	Black Cherry	*Prunus serotina*	9	Good				
1716	Sugar Maple	*Acer soccharum*	9	Good				
1717	Eastern Cottonwood	*Populus deltoides*	13.5	Good		Y	Y	
1718	Eastern Cottonwood	*Populus deltoides*	24	Good	Y	Y	Y	
1719	Eastern Cottonwood	*Populus deltoides*	17	Good		Y	Y	
1720	Red Oak	*Quercus rubro*	8.5	Poor			Y	
1721	Black Willow	*Salix nigro*	9	Good				
1722	American Elm	*Ulmus americano*	8	Good				
1723	Red Cedar	*Juniperus virginiano*	5	Good		Y	Y	
1724	Apple	*Malus spp.*	9	Good				
1725	Box Elder Maple	*Acer negundo*	8	Good		Y	Y	
1726	Eastern Cottonwood	*Populus deltoides*	18.5	Good		Y	Y	
1727	Box Elder Maple	*Acer negundo*	10.5	Good		Y	Y	
1728	Box Elder Maple	*Acer negundo*	11	Good		Y	Y	
1729	Black Willow	*Salix nigro*	37	Poor	Y		Y	
1730	American Elm	*Ulmus americano*	11.5	Fair				
1731	American Elm	*Ulmus americano*	8	Fair				
1732	Green Ash	*Fraxinus pennsylvanica*	10.5	Fair				
1733	Green Ash	*Fraxinus pennsylvanica*	11.5	Good				
1734	Box Elder Maple	*Acer negundo*	23	Good		Y	Y	
1735	Black Willow	*Salix nigro*	18	Good				
1736	Black Cherry	*Prunus serotina*	8.5	Good				
1737	Black Cherry	*Prunus serotina*	10	Good				
1738	Black Willow	*Salix nigro*	12	Good				Y
1739	Green Ash	*Fraxinus pennsylvanica*	9	Good				
1740	Common Buckthorn	*Rhamnus cathortica*	10.5	Good		Y	Y	
1741	Black Walnut	*Juglons nigro*	9	Good				
1742	Hawthorn	*Crotoegus spp.*	13	Good				
1743	White Mulberry	*Morus alba*	33.5	Good	Y			
1744	Black Cherry	*Prunus serotina*	8	Fair				
1745	Bitternut Hickory	*Coryo cordiformis*	10	Good				
1746	Black Cherry	*Prunus serotina*	9	Good				
1747	Siberian Elm	*Ulmus pumila*	8.5	Good				
1748	Black Walnut	*Juglons nigro*	25	Good	Y			
1749	Black Walnut	*Juglons nigro*	22	Good	Y			
1750	Black Walnut	*Juglons nigro*	8	Good		Y		
1751	Black Walnut	*Juglons nigro*	25	Good	Y			
1752	Black Walnut	*Juglons nigro*	9	Good				
1753	White Mulberry	*Morus alba*	20	Good		Y		
1754	Black Walnut	*Juglons nigro*	27	Good	Y			
1755	Bitternut Hickory	*Coryo cordiformis*	9	Good				
1756	Black Walnut	*Juglons nigro*	8	Good				
1757	Black Walnut	*Juglons nigro*	22	Good	Y			
1758	Black Walnut	*Juglons nigro*	10	Good				
1759	Black Walnut	*Juglons nigro*	9.5	Good				
1760	Black Walnut	*Juglons nigro*	15	Good				
1761	Black Walnut	*Juglons nigro*	19	Good	Y			
1762	Black Walnut	*Juglons nigro*	19	Good	Y			
1763	Black Walnut	*Juglons nigro*	24	Good	Y			
1764	Black Walnut	*Juglons nigro*	16	Good				
1765	Black Walnut	*Juglons nigro*	23.5	Good	Y			
1766	Bitternut Hickory	*Coryo cordiformis*	23.5	Good	Y			
1767	Box Elder Maple	*Acer negunda*	9	Good		Y	Y	
1768	American Elm	*Ulmus americano*	14	Good				
1769	Black Walnut	*Juglons nigro*	23	Good	Y			
1770	Black Walnut	*Juglons nigro*	11.5	Good				
1771	American Elm	*Ulmus americano*	8	Good				
1772	Black Walnut	*Juglons nigro*	19	Good	Y			
1773	Red Oak	*Quercus rubro*	15.5	Good				
1774	Black Walnut	*Juglons nigro*	19.5	Good	Y			
1775	Black Walnut	*Juglons nigro*	20	Good	Y			
1776	Red Oak	*Quercus rubro*	10	Good				
1777	Bitternut Hickory	*Coryo cordiformis*	12	Good				
1778	Bitternut Hickory	*Coryo cordiformis*	12.5	Good				
1779	Black Cherry	*Prunus serotina*	12	Good				
1780	Red Oak	*Quercus rubro*	10	Good				
1781	Bitternut Hickory	*Coryo cordiformis*	13	Good				
1782	Bitternut Hickory	*Coryo cordiformis*	14.5	Good				
1783	Bitternut Hickory	*Coryo cordiformis*	13.5	Good				
1784	Black Cherry	*Prunus serotina*	12	Poor			Y	
1785	Black Cherry	*Prunus serotina*	15	Good				
1786	Bitternut Hickory	*Coryo cordiformis*	10	Good				
1787	Red Oak	*Quercus rubro*	11	Good				
1788	White Mulberry	*Morus alba*	23	Fair				
1789	Shagbark Hickory	*Coryo ovoto*	11	Good				
1790	Shagbark Hickory	*Coryo ovoto*	12	Good				
1791	Shagbark Hickory	*Coryo ovoto*	9	Good				
1792	Black Cherry	*Prunus serotina*	16	Good				
1793	Box Elder Maple	*Acer negunda*	9.5	Good		Y	Y	
1794	Black Cherry	*Prunus serotina*	9.5	Good				
1795	Hawthorn	*Crotoegus spp.*	8	Good				
1796	Box Elder Maple	*Acer negunda*	9	Fair		Y	Y	
1797	Box Elder Maple	*Acer negunda*	17	Good		Y	Y	
1798	Hawthorn	*Crotoegus spp.*	5	Good				
1799	Box Elder Maple	*Acer negunda*	11	Good		Y	Y	
1800	Red Cedar	*Juniperus virginiano*	8.5	Good		Y	Y	
4601	Box Elder Maple	*Acer negundo*	15	Good		Y	Y	
4602	Box Elder Maple	*Acer negundo*	10.5	Good		Y	Y	
4603	Box Elder Maple	*Acer negundo*	12	Poor		Y	Y	Y
4604	Black Cherry	*Prunus serotina*	9.5	Good				
4605	Box Elder Maple	*Acer negundo*	16.5	Fair		Y	Y	Y
4606	Box Elder Maple	*Acer negundo*	12	Good		Y	Y	Y
4607	Box Elder Maple	*Acer negundo*	10.5	Good		Y	Y	Y
4608	Box Elder Maple	*Acer negundo*	10	Good		Y	Y	Y
4609	Box Elder Maple	*Acer negundo*	12	Good		Y	Y	Y
4610	Box Elder Maple	*Acer negundo*	10	Good		Y	Y	Y
4611	Box Elder Maple	*Acer negundo*	11	Good		Y	Y	Y
4612	Box Elder Maple	*Acer negundo*	12	Good		Y	Y	Y
4613	White Mulberry	*Morus alba*	12	Good				Y
4614	Box Elder Maple	*Acer negundo*	9	Good		Y	Y	Y
4615	Box Elder Maple	*Acer negundo*	10.5	Good		Y	Y	Y
4616	Box Elder Maple	*Acer negundo*	10	Good		Y	Y	Y
4617	White Mulberry	*Morus alba*	12.5	Good				Y
4618	Box Elder Maple	*Acer negundo*	24.5	Fair	Y	Y	Y	Y
4619	American Elm	*Ulmus americana*	18	Good	Y			Y
4620	Box Elder Maple	*Acer negundo*	19	Good		Y	Y	Y
4621	Box Elder Maple	*Acer negundo*	18	Good		Y	Y	Y
4622	Box Elder Maple	*Acer negundo*	14	Good		Y	Y	Y
4623	Box Elder Maple	*Acer negundo*	15	Good		Y	Y	Y
4624	Box Elder Maple	*Acer negundo*	13	Good		Y	Y	Y
4625	Black Cherry	*Prunus serotina*	11	Good				Y
4626	Box Elder Maple	*Acer negundo*	10	Good		Y	Y	Y
4627	Box Elder Maple	*Acer negundo*	10	Good		Y	Y	Y
4628	Box Elder Maple	*Acer negundo*	16	Good		Y	Y	Y
4629	Box Elder Maple	*Acer negundo*	9	Good		Y	Y	Y
4630	Box Elder Maple	*Acer negundo*	14	Good		Y	Y	Y
4631	Box Elder Maple	*Acer negundo*	10	Good		Y	Y	Y
4632	Box Elder Maple	*Acer negundo*	9	Good		Y	Y	Y
4633	Box Elder Maple	*Acer negundo*	12	Good		Y	Y	Y
4634	Box Elder Maple	*Acer negundo*	11	Poor		Y	Y	Y
4635	Box Elder Maple	*Acer negundo*	8.5	Good		Y	Y	Y
4636	Box Elder Maple	*Acer negundo*	8.5	Good		Y	Y	Y

TAG #	COMMON NAME	SCIENTIFIC NAME	DBH (INCHES)	CONDITION	LANDMARK	INVASIVE	EXEMPT	REMOVE?
4637	Box Elder Maple	*Acer negundo*	10	Good		Y	Y	Y
4638	Box Elder Maple	*Acer negundo*	9	Poor		Y	Y	Y
4639	Box Elder Maple	*Acer negundo*	12	Good		Y	Y	Y
4640	Box Elder Maple	*Acer negundo*	9	Good		Y	Y	Y
4641	Box Elder Maple	*Acer negundo*	10	Good		Y	Y	Y
4642	Box Elder Maple	*Acer negundo*	11	Good		Y	Y	Y
4643	Box Elder Maple	*Acer negundo*	10.5	Good		Y	Y	Y
4644	Green Ash	*Fraxinus pennsylvanica*	8	Good				Y
4645	Box Elder Maple	*Acer negundo*	8	Good		Y	Y	Y
4646	Box Elder Maple	*Acer negundo*	8.5	Good		Y	Y	Y
4647	Box Elder Maple	*Acer negundo*	20	Good		Y	Y	Y
4648	Box Elder Maple	*Acer negundo*	14	Poor		Y	Y	Y
4649	Box Elder Maple	*Acer negundo*	10.5	Good		Y	Y	Y
4650	Box Elder Maple	*Acer negundo*	9	Good		Y	Y	Y
4651	Box Elder Maple	*Acer negundo*	9.5	Good		Y	Y	Y
4652	White Mulberry	*Morus alba*	20	Good				Y
4653	Box Elder Maple	*Acer negundo*	19	Good		Y	Y	Y
4654	Box Elder Maple	*Acer negundo*	13	Good		Y	Y	Y
4655	Box Elder Maple	*Acer negundo*	14	Good		Y	Y	Y
4656	Black Cherry	*Prunus serotina*	10	Good				Y
4657	Box Elder Maple	*Acer negundo*	10.5	Good		Y	Y	Y
4658	White Mulberry	*Morus alba*	8	Good				Y
4659	Box Elder Maple	*Acer negundo*	10.5	Good		Y	Y	Y
4660	Box Elder Maple	*Acer negundo*	9	Good		Y	Y	Y
4661	Box Elder Maple	*Acer negundo*	9	Good		Y	Y	Y
4662	Box Elder Maple	*Acer negundo*	9	Good		Y	Y	Y
4663	Common Buckthorn	*Rhamnus cathortica*	8	Good		Y	Y	Y
4664	Box Elder Maple	*Acer negundo*	20	Good		Y	Y	Y
4665	Box Elder Maple	*Acer negundo*	8	Good		Y	Y	Y
4666	Box Elder Maple	*Acer negundo*	9.5	Good		Y	Y	Y
4667	Box Elder Maple	*Acer negundo*	9	Fair		Y	Y	Y
4668	Box Elder Maple	*Acer negundo*	10.5	Good		Y	Y	Y
4669	American Elm	*Ulmus americono*	10	Good				
4670	Box Elder Maple	*Acer negundo*	11	Good		Y	Y	Y
4671	Box Elder Maple	*Acer negundo*	9	Good		Y	Y	Y
4672	Box Elder Maple



LEGEND

- BOUNDARY LINE
- EXISTING EASEMENT
- SECTION LINE
- BOUNDARY/PROPERTY LINE
- 890 EX. CONTOUR
- W EX. WATER MAIN
- EX. SANITARY
- G EX. GAS
- C EX. STORM
- OHE EX. OVERHEAD ELECTRICAL LINE
- T EX. TELEPHONE LINE
- EX. WETLAND
- EX. TREE LINE
- EX. CURB AND GUTTER
- X EX. FENCE
- EX. BUILDING
- EX. CATCH BASIN/INLET/CULVERT
- EX. HYDRANT
- EX. VALVE
- EX. SANITARY SEWER
- TO BE REMOVED/IMPACTED

SOIL INFORMATION

HO	HOYTVILLE SILTY CLAY LOAM
KeB	KENDALLVILLE LOAM, 2 TO 6 PERCENT SLOPES
MmC	MIAMI LOAM, 6 TO 12 PERCENT SLOPES
NaB	NAPPANEE SILTY CLAY LOAM, 2 TO 6 PERCENT SLOPES
SpB	SPINKS LOAMY SAND, 0 TO 6 PERCENT SLOPES
StC	ST. CLAIR CLAY LOAM, 6 TO 12 PERCENT SLOPES
KnA	KIBBIE FINE SANDY LOAM, 0 TO 4 PERCENT SLOPES3
NaB	NAPPANEE SILTY CLAY LOAM, 2 TO 6 PERCENT SLOPES
MdA	MATHERTON SANDY LOAM, 0 TO 4 PERCENT SLOPES

NOTE:
ALL SOILS INFORMATION HAS BEEN SUPPLIED BY THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE.

NATURAL FEATURES NARRATIVE

NATURAL FEATURES ON THE SITE CONSIST OF STREAM BEDS, WETLAND, TREES, SLOPES AND AGRICULTURAL FIELD. TWO EGLE REGULATED STREAM BEDS AND 0.82 ACRES OF REGULATED WETLANDS EXIST ON THE SITE, OF WHICH 0.49 ACRES ARE PROPOSED TO BE PRESERVED AS PART OF THE DEVELOPMENT.

BASED ON THE GEOTECHNICAL INVESTIGATION REPORT, PREPARED BY TESTING ENGINEERS AND CONSULTANTS, INC. AND DATED JANUARY 3, 2005, THE TOP SOIL IS BROWN TO DARK BROWN CLAYEY TOPSOIL. FILL WAS FOUND ONSITE AND CONSISTS MOSTLY OF CLAY WITH TRACES OF ORGANICS. THE UNDERLYING NATIVE SOILS CONSIST PRIMARILY OF LAYERS OF SOFT TO HARD CLAY WITH SOME SILT AND TRACES OF GRAVEL.

THERE ARE THREE MAIN HIGH POINTS ON THE SITE, ONE IS IN THE MIDDLE PORTION AND THE TWO OTHERS ARE ON THE FAR SOUTH SIDE, THE TOPOGRAPHY GENERALLY SLOPES TOWARD THE WETLANDS SWALES IN THE LOWER HALF AND THE UPPER NORTHWEST CORNER OF THE PROPERTY. THERE IS APPROXIMATELY 30–40 FEET OF TOPOGRAPHIC RELIEF WITHIN THE SITE. THERE ARE STEEP SLOPES ON THE SITE IN THE SOUTHERN PORTION RANGING FROM 10%–13%.

TREES ON THE SITE ALTHOUGH IN GOOD CONDITION, ARE NOT NECESSARILY HIGH QUALITY WITH RESPECT TO SPECIES. THE TREES EXIST LARGELY IN HEDGE ROWS AND SCATTERED CLUSTERS. THE PREDOMINANT SPECIES ARE ELM, BOXELDER, POPLAR, & WALNUT WITH A MAJORITY RANGING IN SIZE FROM APPROXIMATELY 8"–15".

811
Know what's **below.**
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT ©2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
NATURAL FEATURES PLAN

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

REVISIONS

0 75 150
SCALE: 1" = 150 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 6

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443FSP-05-NF.DWG 9/22/2026 8:55 AM MATTHEW MYERS

CAD FILE: 19004443FSP-05-NF.DWG

LEGEND

PROPERTY LINE	GRADING LIMITS
EASEMENT	TREE PROTECTION
EX. 2' CONTOUR	EX. CURB AND GUTTER
EX.10' CONTOUR	PR. CURB AND GUTTER
PR. 2' CONTOUR	PR. SILT SACK INLET FILTER
PR. 10' CONTOUR	PR. STORM INLET FILTER
EX. MH/CB/ES	
PR. MH/CB/ES	PR. RIP-RAP
PR. SILT FENCE	EX. SOIL DELINEATION
EX. SOILS TYPE	

FoB

GEDDES ROAD

KEY MAP
NOT TO SCALE

TRACKING SURFACE (SEE DETAIL ON SH. 9) ONE CONSTRUCTION ACCESS POINT IS REQUIRED. SECOND LOCATION IS OPTIONAL. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT VIA THE INSTALLED CONSTRUCTION ACCESS.

TRACKING SURFACE (SEE DETAIL ON SH. 9) ONE CONSTRUCTION ACCESS POINT IS REQUIRED. SECOND LOCATION IS OPTIONAL. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT VIA THE INSTALLED CONSTRUCTION ACCESS.

PR. SILT FENCE (TYP.) (SEE DETAIL ON SH. 9)

HONEYSUCKLE DR. (PRIVATE)

PHASE 1
PHASE 2
PHASE 1
PHASE 2
PHASE 2
PHASE 3

NaB
NaB

PR. YARD INLET FILTER (TYP.) (SEE DETAIL ON SH. 9)

GOLDENROD WAY (PRIVATE)

PR. CURB INLET FILTER W/ BEAVER DAMS (TYP.) (SEE DETAIL ON SH. 9)

PR. SILT FENCE (TYP.) (SEE DETAIL ON SH. 9)

N. DAYLILY DRIVE (PRIVATE)

MASS GRADING SOUTH OF PHASE 2 WAS PERFORMED DURING PHASE 1 CONSTRUCTION TO INSTALL THE SANITARY SEWER CORRIDOR.

LOUIS J. EYDE FAMILY, LLC
PARCEL #: I-02-33-200-002
PM ZONING

SEE SHEET 8 FOR CONTINUATION

811
Know what's **below.**
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
SOIL EROSION & SEDIMENTATION CONTROL PLAN

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

REVISIONS

SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 7

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443FSP-06-SESC.DWG 9/22/2026 8:58 AM MATTHEW MYERS

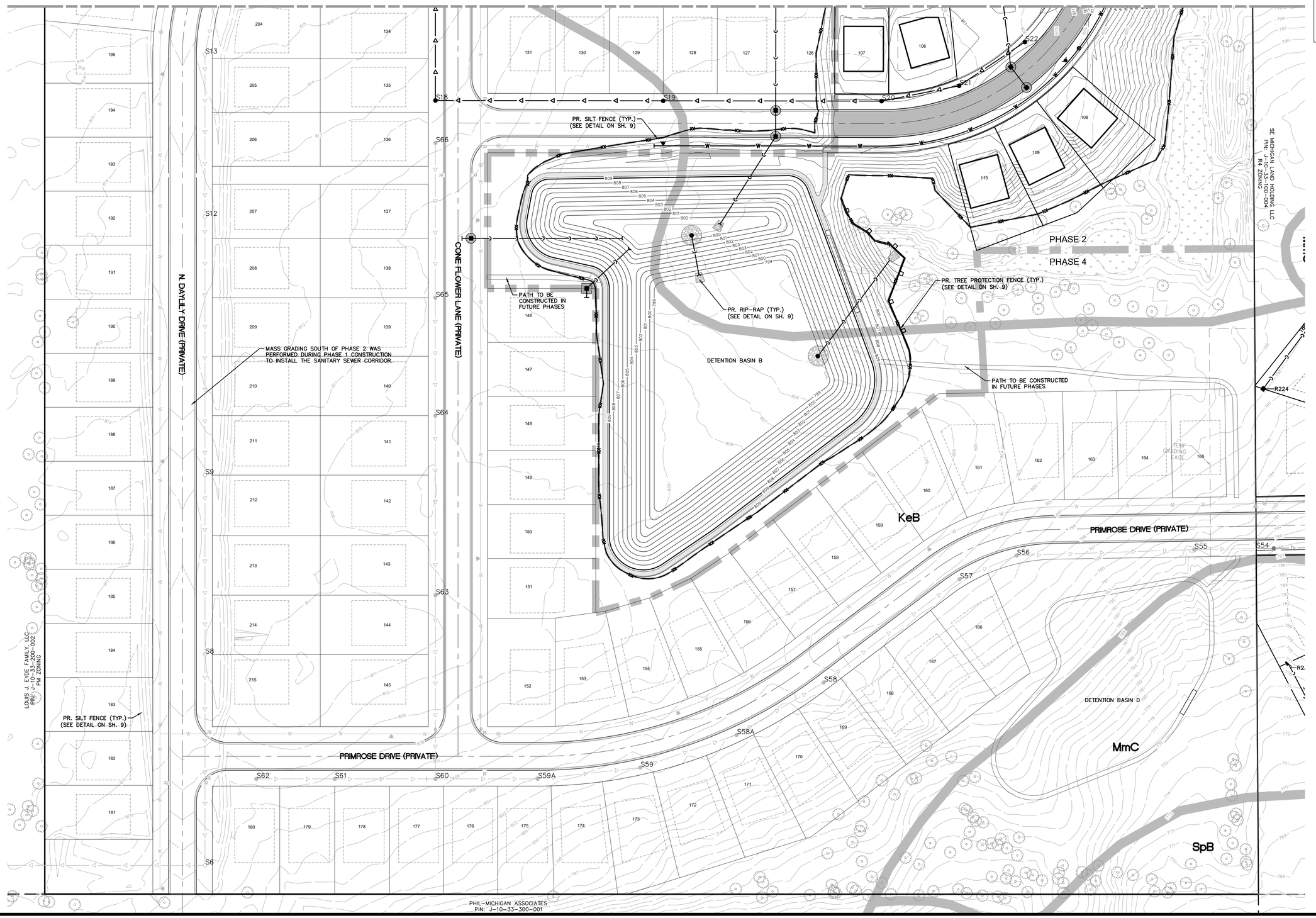
CAD FILE: 19004443FSP-06-SESC.DWG

LEGEND

PROPERTY LINE	GRADING LIMITS
EASEMENT	TREE PROTECTION
EX. 2' CONTOUR	EX. CURB AND GUTTER
EX.10' CONTOUR	PR. CURB AND GUTTER
PR. 2' CONTOUR	PR. SILT SACK INLET FILTER
PR. 10' CONTOUR	PR. STORM INLET FILTER
EX. MH/CB/ES	
PR. MH/CB/ES	PR. RIP-RAP
PR. SILT FENCE	
EX. SOILS TYPE	EX. SOIL DELINEATION

FoB

SEE SHEET 7 FOR CONTINUATION



811
Know what's below.
Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
SOIL EROSION & SEDIMENTATION CONTROL PLAN

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

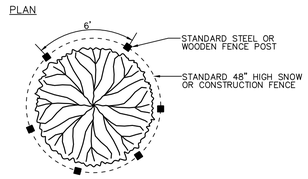
REVISIONS

0 25 50
SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: --
SHEET NO. 8

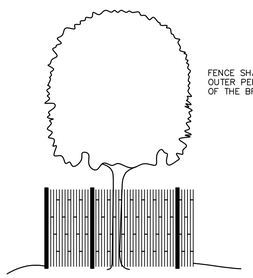
CAD FILE: I:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443SP-06-SESC.DWG 9/22/2026 8:58 AM MATTHEW MYERS

CAD FILE: 19004443SP-06-SESC.DWG

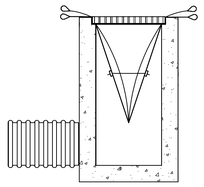


TREE PROTECTION NOTES:

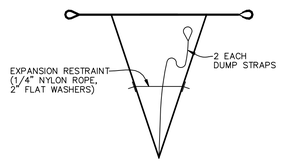
1. ALL TREES TO BE REMOVED WILL BE IDENTIFIED BY RED FLAGGING.
2. TREE PROTECTION FENCING IS TO BE ERECTED PRIOR TO ANY EARTHWORK OR CONSTRUCTION AND IS TO REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
3. ALL DEBRIS, FILL, EQUIPMENT OR MATERIAL IS TO BE KEPT CLEAR OF AREA WITHIN PROTECTIVE FENCE. NO CLEANING OF EQUIPMENT,OR MATERIAL OR STORAGE OR DISPOSAL OF ANY MATERIAL WITHIN THE DRIP LINE OF ANY TREES TO BE SAVED.



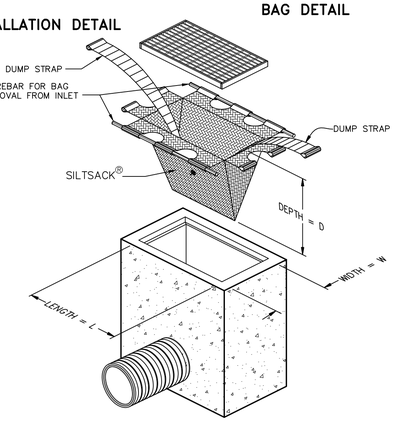
TREE PROTECTION FENCE DETAIL
NO SCALE



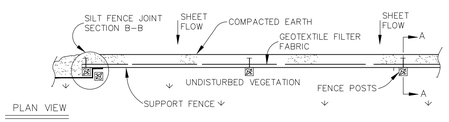
INSTALLATION DETAIL

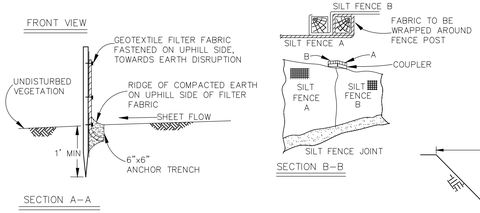


BAG DETAIL

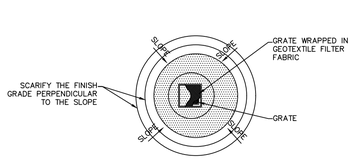


SILTSACK DETAIL
NO SCALE

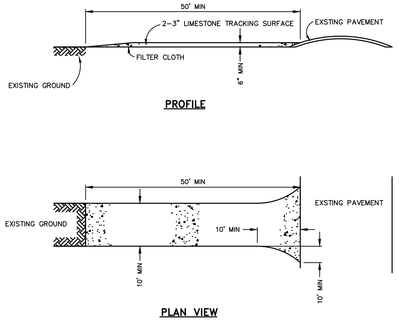




SILTFENCE DETAIL
NO SCALE



LOW POINT INLET FILTER
NO SCALE

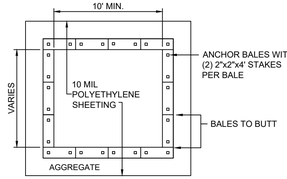


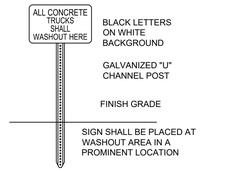
TRACKING SURFACE
NO SCALE

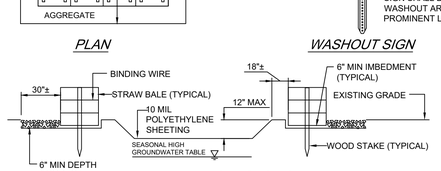
SITE INFORMATION

SITE LOCATION: NORTHEAST 1/4 OF SECTION 33, SUPERIOR TOWNSHIP, MICHIGAN.

1. ULTIMATE RECEIVING WATER: HURON RIVER, VIA SUPERIOR DRAIN NO. 1 AND SNIDECAR DRAIN.
2. APPROXIMATE AREA OF DISTURBANCE: **22.0± ACRES**
3. THIS PROJECT IS WITHIN 500 FEET OF A WATER BODY OR WATERCOURSE



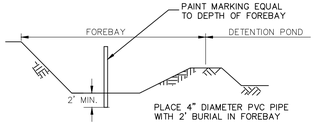




NOTES:

1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE ASHOUT IS 75% FULL.
4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
6. AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

CONCRETE WASHOUT AREA
NO SCALE



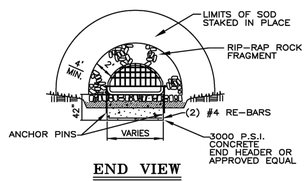
SEDIMENT FOREBAY MARKER DETAIL
NO SCALE

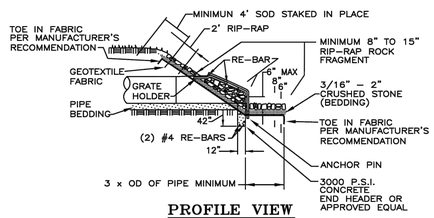
SOIL INFORMATION

HO	HOYTVILLE SILTY CLAY LOAM
KeB	KENDALLVILLE LOAM, 2 TO 6 PERCENT SLOPES
MmC	MIAMI LOAM, 6 TO 12 PERCENT SLOPES
NaB	NAPPANEE SILTY CLAY LOAM, 2 TO 6 PERCENT SLOPES
SpB	SPINKS LOAMY SAND, 0 TO 6 PERCENT SLOPES
StC	ST. CLAIR CLAY LOAM, 6 TO 12 PERCENT SLOPES
KnA	KIBBIE FINE SANDY LOAM, 0 TO 4 PERCENT SLOPES3
NaB	NAPPANEE SILTY CLAY LOAM, 2 TO 6 PERCENT SLOPES
MdA	MATHERTON SANDY LOAM, 0 TO 4 PERCENT SLOPES

NOTE:
ALL SOILS INFORMATION HAS BEEN SUPPLIED BY THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE.

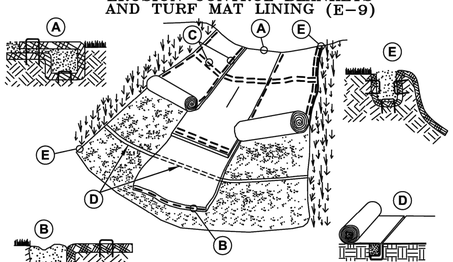
RIP-RAP, END SECTION AND BAR SCREEN DETAIL (E-7)

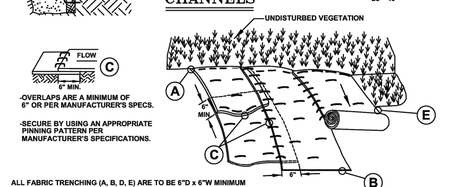




NOTE:
-BAR SCREEN DETAILS PER MDOT ROAD & BRIDGE STANDARD PLANS, STEEL GRATES FOR END SECTIONS. BARS ARE TO BE CUT OFF AT EDGE OF END SECTION.
-FOR SLOPE AND/OR CHANNEL PROTECTION SEE OTHER BMP'S ON THIS SHEET OR IN THE WRC SOIL EROSION MANUAL.

EROSION CONTROL BLANKETS AND TURF MAT LINING (E-9)





DEPENDING ON THE VELOCITY, SLOPE, SOILS, USE PROPER BLANKET OR TURF MAT LINING PER MANUFACTURER'S SPECIFICATIONS TO HANDLE THE SHEER STRESSES OF THE SLOPE/CHANNEL.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES:

1. THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT.
2. WHEN LAND IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE SHALL BE KEPT TO THE SHORTEST PERIOD OF TIME.
3. TEMPORARY VEGETATION AND/OR MULCHING SHALL BE BE USED TO PROTECT CRITICAL AREAS EXPOSED DURING DEVELOPMENT.
4. THE PERMANENT FINAL VEGETATION AND STRUCTURES SHALL BE INSTALLED AS SOON AS PRACTICAL IN DEVELOPMENT.
5. THE DEVELOPMENT PLAN SHOULD BE FITTED TO THE TOPOGRAPHY AND SOIL SO AS TO CREATE THE LEAST SOIL EROSION POTENTIAL.
6. REFER TO WASHTENAW COUNTY STANDARD DETAILS OF THE SESC BMP MEASURES AS THEY CORRESPOND WITH THIS PLAN.
7. ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE TOWNSHIP AND THE WASHTENAW COUNTY DRAIN COMMISSIONER.
8. THE CONTRACTOR SHALL MAKE DAILY INSPECTIONS TO DETERMINE EFFECTIVENESS OF EROSION AND SEDIMENT CONTROL MEASURES, AND ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
9. EROSION AND ANY SEDIMENTATION FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES AND PONDS.
10. EROSION AND ANY SEDIMENTATION CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION. SEDIMENT CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTING OF SILT OFF THE SITE.
11. PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 5 CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED. WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER AN EARTH CHANGE HAS BEEN COMPLETED OR WHERE SIGNIFICANT EARTH CHANGE ACTIVITY CEASES, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED. ALL PERMANENT SOIL EROSION CONTROL MEASURES WILL BE IMPLEMENTED AND ESTABLISHED BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED.
12. A WATER TRUCK SHALL BE AVAILABLE TO WATER DOWN THE SITE ON A DAILY BASIS FOR DUST CONTROL.
13. ALL MUD/DIRT TRACKED ONTO EXISTING CITY/COUNTY ROADS FROM THIS SITE, DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR/BUILDER, AS DIRECTED BY THE TOWNSHIP. MUD MAT DAILY MAINTENANCE WILL INCLUDE THE ADDITION OF EXTRA LAYERS OF STONE AS NECESSARY.
14. DURING CONSTRUCTION OF THE STORM SEWER SYSTEM, STRAW BALES, STONE FILTERS OR OTHER APPROVED MEANS, WILL PROTECT THE ENDS OF ALL OPEN PIPES.
15. PROMPTLY UPON THE BACKFILLING OF STORM STRUCTURES, INLET FILTERS WILL BE PLACED AROUND THE STRUCTURE PER DETAILS.
16. WITHIN FIVE (5) DAYS AFTER COMPLETION OF PAVING, A 16-FOOT STRIP AROUND PAVED AREAS SHALL BE PROTECTED FROM SOIL EROSION BY AN APPROVED METHOD CONSISTENT WITH THE GROWING SEASON.
17. ANY REMAINING DENUDED AREA SHALL BE SEEDED AND MULCHED WITHIN 5 DAYS AFTER COMPLETION OF FINAL GRADING. SEED MIX AND APPLICATION RATES SHALL BE PER MDOT CLASS A SEED.
18. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE MAINTAINED ON A DAILY BASIS TO ENSURE PROPER FUNCTIONING. SEDIMENT DEPOSIT MUST BE REMOVED WHEN ACCUMULATION REACHES 1/3 TO 1/2 OF THE HEIGHT OF THE SILT FENCE AND SHOULD BE REMOVED AFTER EACH STORM EVENT. FABRIC SHALL BE REPLACED PROMPTLY IF IT DECOMPOSES OR BECOMES INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USEABLE LIFE.
19. THAT ALL EROSION CONTROL MEASURES ARE INSTALLED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE OF CONSTRUCTION
    - 19.1. INSTALL SILT FENCE/STRAW BERMS AS SHOWN ON PLANS.
    - 19.2. STRIP AND STOCKPILE TOPSOIL AND GRADE SITE.
    - 19.3. INSTALL ON-SITE AND OFF-SITE STORM SEWER SYSTEMS COMPLETE, IMMEDIATELY INSTALL STONE FILTERS ON ALL PIPE INLETS AND CATCH BASINS AND ESTABLISH VEGETATION ON ALL DITCHES, SWALES, AND DISTURBED AREAS.
    - 19.4. INSTALL ALL PUBLIC UTILITIES (GAS, ELECTRICITY, AND TELEPHONE)
    - 19.5. INSTALL PAVEMENT COMPLETE REPAIR AND/OR REPLACE STONE FILTERS AS REQUIRED.
    - 19.6. FINISH GRADE, REDISTRIBUTE TOPSOIL, ESTABLISH VEGETATION AND/OR LANDSCAPE ALL DISTURBED AREAS.
    - 19.7. CLEAN PAVEMENT, WALKS, CULVERTS, WATERCOURSES, AND STORM SEWER SYSTEMS OF ALL SEDIMENT IN CONJUNCTION WITH THE REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURES. REESTABLISHED VEGETATION AS NECESSARY.
20. SHOULD DEWATERING BE NECESSARY, DISCHARGE SHALL BE ROUTED THROUGH A SEDIMENT FOREBAY, FILTER BAG OVER A WELL VEGETATED AREA OR OTHER APPROVED FILTERING MECHANISM PRIOR TO BEING DISCHARGED FROM THE SITE. DISCHARGE MUST BE LIMITED TO A NON-EROSIVE VELOCITY.
21. SOIL EROSION WILL BE CONTROLLED DURING AND AFTER CONSTRUCTION TO PROTECT ADJACENT PROPERTIES OR FACILITIES.
22. EROSION CONTROL BLANKET/MATTING SHALL BE INSTALLED ON SLOPES AT OR NEAR MAXIMUM ALLOWABLE GRADE AND AS NEEDED TO EFFECTIVELY ESTABLISH BOTH TEMPORARY AND PERMANENT VEGETATIVE COVER.

SOIL EROSION CONSTRUCTION SEQUENCE

1. NOTIFY SOIL EROSION OFFICE 48 HOURS BEFORE WORK IS TO BEGIN.
2. PRIOR TO CONSTRUCTION, INSTALL TEMPORARY STONE ACCESS DRIVES AT ENTRANCE, PERIMETER SILT FENCE, SNOW FENCE, AND EROSION CONTROL MEASURES ON EXISTING STORM INLETS AS DESIGNATED ON THE SESC PLAN.
3. INSTALL UNDERGROUND UTILITIES (I.E. SANITARY, STORM, AND WATER MAIN.). INSTALL INLET FILTER PROTECTION ON PROPOSED STORM SEWER STRUCTURES.
4. PAVING ACTIVITIES. REMOVE STONE ACCESS DRIVE WHEN COMPLETE.
5. INSTALL PUBLIC UTILITIES (ELECTRIC, TELEPHONE, AND CABLE T.V.).
6. FINAL GRADING AND INSTALLATION OF LANDSCAPING. ESTABLISH PERMANENT VEGETATION FOR REMAINING DISTURBED AREAS.
7. CLEAN OUT STORM SEWER SYSTEM. CLEAN OUT SEDIMENT AND RESTORE SEDIMENT FOREBAY AND DETENTION POND TO DESIGN SPECIFICATIONS.
8. CALL SOIL EROSION OFFICE FOR FINAL INSPECTION. REMOVE TEMPORARY SOIL EROSION MEASURES UPON APPROVAL.

NOTE: NO WORK WITHIN REGULATED WETLANDS UNTIL EGLE PERMIT IS SUBMITTED.

Maintenance Tasks and Schedule (during construction) (To be performed by developer/contractor)

Tasks	Components: Storm Sewer System	Catch Basin Sumps	Catch Basin Inlet Castings	Channels	Outflow Control Structures	Rip-Rap	Storm Detention Areas	Wetlands	Emergency Overflow	Schedule
Inspect for sediment accumulation	*	*			*	*	*			Weekly
Removal of sediment accumulation		*	*			*		*		As needed* and prior to turnover
Inspect for floatables and debris	*	*	*	*	*		*	*	*	Quarterly
Cleaning of floatables and debris	*	*	*	*	*		*	*	*	Quarterly and at turnover
Inspection for erosion					*	*	*	*	*	Weekly
Reestablish permanent vegetation on eroded slopes				*			*	*	*	As needed* and prior to turnover
Replacement of gravel jackets					*					As needed*
Mowing				*			*		*	0 to 2 times per yr.
Inspect structural elements during wet weather and compare as-built plans (by a professional engineer reporting to the Developer)	*			*	*	*	*	*	*	Annually and at turnover
Make adjustments or replacements as determined by pre-turnover inspection	*			*	*	*	*	*	*	As needed*

* "as needed" means when sediment has accumulated to a maximum of one foot depth.

Maintenance Tasks and Schedule (following construction) (To be performed by owner or owner's representative)

Tasks	Components: Streets	Storm Sewer System	Storm Basin Sumps	Catch Basin Inlet Castings	Channels	Outflow Control Structures	Filtration Basins	Storm Detention Areas	Wetlands	Woodlands	Emergency Overflow	Schedule	Annual Cost
Inspect for sediment accumulation		*	*			*	*	*				Annually	$300.00
Removal of sediment accumulation		*	*			*	*	*				Every 5-10 yrs as needed	$1,000.00
Inspect for floatables and debris		*	*	*	*	*	*	*			*	Annually	$300.00
Cleaning of floatables and debris		*	*	*	*	*	*	*			*	Annually	$400.00
Inspection for erosion					*	*	*	*				Annually	$300.00
Inspect wetlands and woodlands for invasive species. Remove or treat as needed									*	*		Annually (removal or treatment every 3-5 years as needed)	$800.00
Reestablish permanent vegetation on eroded slopes						*		*	*	*		* As needed	$500.00
Replacement of gravel jackets							*					Every 3-5 yrs as needed	$700.00
Clean streets	*											Semi-annually	$400.00
Mowing	*					*		*			*	0 to 2 times per yr.	$400.00
Inspect structural elements during wet weather and compare as-built plans (by a professional engineer reporting to the condominium association)							*					Annually	$400.00
Make adjustments or replacements as determined by wet weather inspection		*				*	*	*	*		*	As needed	$500.00
Keep records of all inspections and maintenance activities and report to condominium association		*				*	*	*	*		*	Annually	
Keep records of all costs for inspections, maintenance and repairs. Report to condominium association			*	*	*	*	*	*	*	*	*	Annually	
Condominium association reviews cost effectiveness of the preventative maintenance program and makes necessary adjustments			*	*	*	*	*	*	*	*	*	Annually	
Condominium association to have a professional engineer carry out emergency inspections upon identification of severe problems.			*	*	*	*	*	*	*	*	*	As needed	$200.00
													$6,200.00

The Condominium Association will assess its members to pay for all maintenance activities on an annual basis

811 Know what's below. Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN - PHASE 2
SOIL EROSION & SEDIMENTATION CONTROL DETAILS

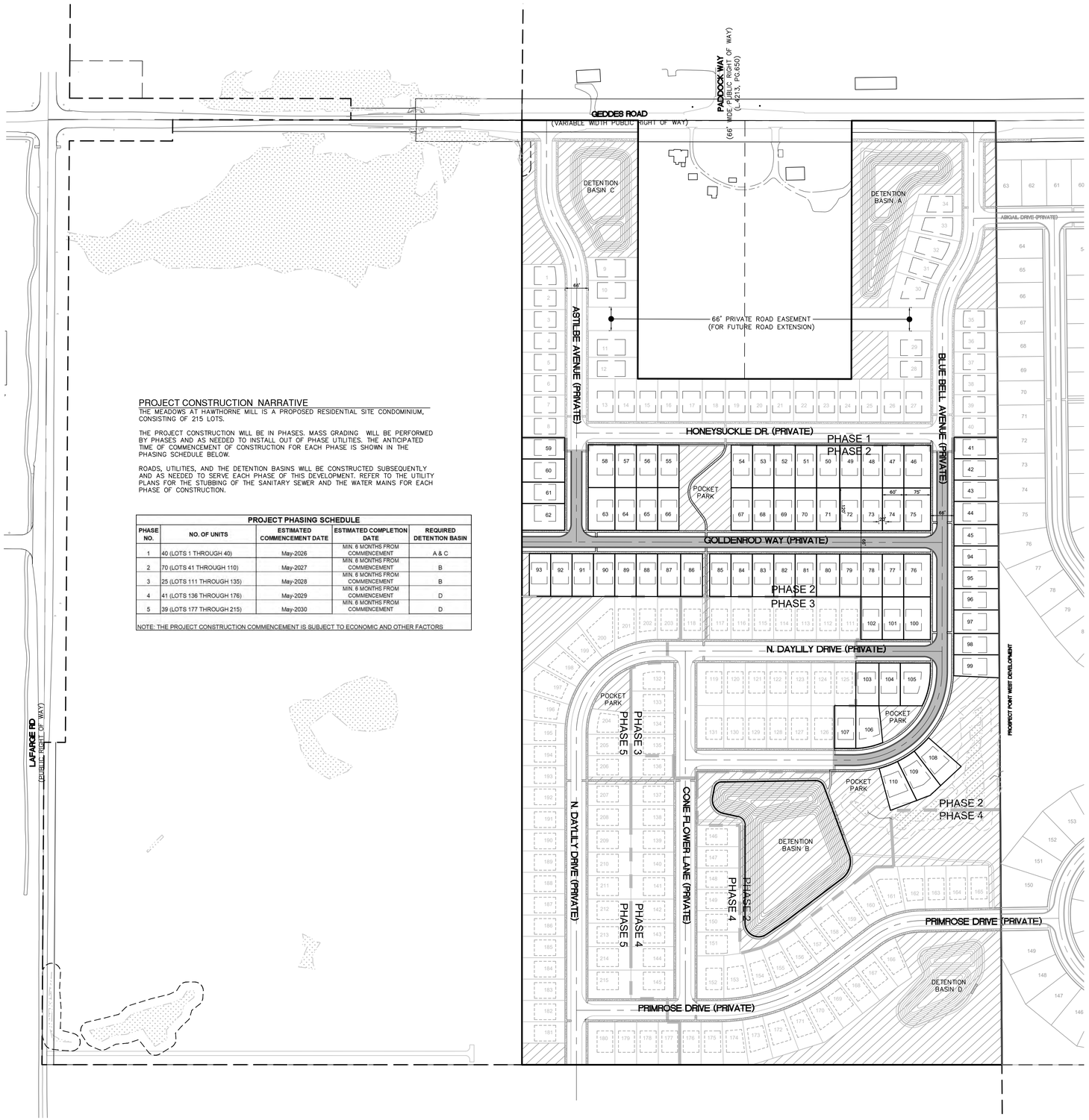
DATE
MAY 29, 2026
08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

REVISIONS
NA NA NA
N/A

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 9

CAD FILE: 19004437SP-07-SESC-DT.DWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443SP-07-SESC-DT.DWG 9/22/2026 8:59 AM MATTHEW MYERS



PROJECT CONSTRUCTION NARRATIVE

THE MEADOWS AT HAWTHORNE MILL IS A PROPOSED RESIDENTIAL SITE CONDOMINIUM, CONSISTING OF 215 LOTS.

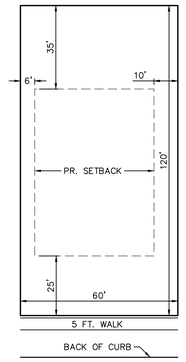
THE PROJECT CONSTRUCTION WILL BE IN PHASES. MASS GRADING WILL BE PERFORMED BY PHASES AND AS NEEDED TO INSTALL OUT OF PHASE UTILITIES. THE ANTICIPATED TIME OF COMMENCEMENT OF CONSTRUCTION FOR EACH PHASE IS SHOWN IN THE PHASING SCHEDULE BELOW.

ROADS, UTILITIES, AND THE DETENTION BASINS WILL BE CONSTRUCTED SUBSEQUENTLY AND AS NEEDED TO SERVE EACH PHASE OF THIS DEVELOPMENT. REFER TO THE UTILITY PLANS FOR THE STUBBING OF THE SANITARY SEWER AND THE WATER MAINS FOR EACH PHASE OF CONSTRUCTION.

PROJECT PHASING SCHEDULE

PHASE NO.	NO. OF UNITS	ESTIMATED COMMENCEMENT DATE	ESTIMATED COMPLETION DATE	REQUIRED DETENTION BASIN
1	40 (LOTS 1 THROUGH 40)	May-2026	MIN. 6 MONTHS FROM COMMENCEMENT	A & C
2	70 (LOTS 41 THROUGH 110)	May-2027	MIN. 6 MONTHS FROM COMMENCEMENT	B
3	25 (LOTS 111 THROUGH 135)	May-2028	MIN. 6 MONTHS FROM COMMENCEMENT	B
4	41 (LOTS 136 THROUGH 176)	May-2029	MIN. 6 MONTHS FROM COMMENCEMENT	D
5	39 (LOTS 177 THROUGH 215)	May-2030	MIN. 6 MONTHS FROM COMMENCEMENT	D

NOTE: THE PROJECT CONSTRUCTION COMMENCEMENT IS SUBJECT TO ECONOMIC AND OTHER FACTORS



TYPICAL 60' LOT DETAIL
N.T.S.

LEGEND

- BOUNDARY LINE
- EXIST. EASEMENT
- SECTION LINE
- BOUNDARY/PROPERTY LINE
- EXIST. SETBACK
- EXIST. CURB AND GUTTER
- EXIST. BUILDING
- EXIST. WETLAND SETBACK
- PROP. SETBACK
- PROP. LOT LINE
- PROP. ROAD CENTERLINE
- PROP. BACK OF CURB
- PROP. WALK
- PROP. ASPH.
- OPEN SPACE
- EXISTING WETLAND
- PROP. PHASE LINE

SITE DATA

GROSS AREA:	71.57 ACRES
GEDDES ROAD ROW:	0.55 ACRES
NET AREA:	71.02 ACRES
EXISTING ZONING:	PC (PLANNED COMMUNITY)
PROPOSED ZONING:	PC (PLANNED COMMUNITY)
ADJACENT ZONING:	
SOUTH	PC (PLANNED COMMUNITY)
NORTH	A2 (AGRICULTURAL DISTRICT)
WEST	PM (PLANNED MANUFACTURING DISTRICT)
EAST	R4 (SINGLE FAMILY RESIDENTIAL DISTRICT)
NUMBER OF PROPOSED LOTS:	215 LOTS
PROPOSED DENSITY (GROSS):	3.00
PROPOSED DENSITY (NET):	3.03
MIN. LOT AREA PER DWELLING UNIT:	60' x 120' = 7,200 SF (TYPICAL)
MINIMUM LOT WIDTH:	60'
LOT SETBACKS:	
FRONT	25'
SIDE	6' MIN. (16' TOTAL)
REAR	35'
PROPOSED GENERAL COMMON ELEMENT (G.C.E.):	17.09 ACRES
WETLAND IMPACTS:	
REGULATED	0.44 ACRES
NON-REGULATED	0.36 ACRES

Parcel Table	
Parcel #	Area (S.F.)
1	8,006
2	7,259
3	7,254
4	7,248
5	7,243
6	7,237
7	7,232
8	7,226
9	9,129
10	10,399
11	10,400
12	8,320
13	9,000
14	7,200
15	7,200
16	7,200
17	7,800
18	7,800
19	7,800
20	7,367
21	7,800
22	7,800
23	7,200

Parcel Table	
Parcel #	Area (S.F.)
24	7,200
25	7,200
26	7,800
27	9,000
28	7,200
29	9,000
30	10,628
31	7,647
32	9,719
33	8,430
34	7,739
35	7,286
36	7,227
37	7,256
38	7,285
39	7,314
40	7,343
41	7,372
42	7,400
43	7,429
44	8,081
45	7,489
46	9,000

Parcel Table	
Parcel #	Area (S.F.)
47	7,200
48	7,200
49	7,200
50	7,800
51	7,200
52	7,200
53	7,200
54	7,200
55	7,200
56	7,200
57	7,200
58	9,000
59	7,221
60	7,817
61	7,210
62	9,004
63	9,000
64	7,200
65	7,200
66	7,200
67	7,200
68	7,200
69	7,200

Parcel Table	
Parcel #	Area (S.F.)
70	7,200
71	7,800
72	7,200
73	7,200
74	7,200
75	9,000
76	9,000
77	7,200
78	7,200
79	7,200
80	7,800
81	7,200
82	7,200
83	7,200
84	7,200
85	7,200
86	7,367
87	7,800
88	7,200
89	7,200
90	7,200
91	7,200
92	7,200

Parcel Table	
Parcel #	Area (S.F.)
93	7,200
94	7,518
95	7,547
96	7,576
97	8,367
98	7,637
99	7,887
100	9,000
101	7,200
102	7,200
103	7,800
104	7,200
105	9,362
106	8,082
107	7,200
108	8,081
109	8,389
110	8,081
111	7,200
112	7,800
113	7,200
114	7,200
115	7,200

Parcel Table	
Parcel #	Area (S.F.)
116	7,200
117	7,200
118	7,367
119	9,027
120	7,200
121	7,200
122	7,200
123	7,800
124	7,865
125	7,200
126	7,865
127	7,800
128	7,200
129	7,200
130	7,200
131	9,006
132	9,147
133	7,400
134	7,200
135	7,200
136	7,200
137	7,200
138	7,920

Parcel Table	
Parcel #	Area (S.F.)
139	7,800
140	7,920
141	7,920
142	8,090
143	7,920
144	7,920
145	9,600
146	7,200
147	7,200
148	7,200
149	7,200
150	7,200
151	7,828
152	9,018
153	8,385
154	7,221
155	7,221
156	7,265
157	7,200
158	7,200
159	7,408
160	8,516
161	9,163

Parcel Table	
Parcel #	Area (S.F.)
162	8,028
163	7,200
164	7,200
165	7,200
166	7,401
167	7,800
168	7,200
169	7,549
170	8,059
171	7,964
172	8,322
173	7,958
174	7,837
175	7,322
176	7,202
177	7,201
178	7,320
179	7,319
180	8,998
181	7,200
182	7,200
183	7,200
184	7,200

Parcel Table	
Parcel #	Area (S.F.)
185	7,200
186	7,200
187	7,200
188	7,200
189	7,200
190	7,200
191	7,200
192	7,200
193	7,200
194	7,200
195	7,637
196	8,799
197	10,307
198	8,843
199	8,145
200	11,477
201	8,256
202	7,358
203	7,800
204	7,734
205	7,200
206	7,200
207	7,200

Parcel Table	
Parcel #	Area (S.F.)
208	7,920
209	7,800
210	7,920
211	7,920
212	8,090
213	7,920
214	7,920
215	9,600

811 Know what's **below.** **Call** before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT ©2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
OVERALL LAYOUT PLAN

DATE
MAY 29, 2026
08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

REVISIONS

0 75 150
SCALE: 1" = 150 FEET
DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 10

CAD FILE: K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443FSP-08-OL.DWG 9/22/2026 8:59 AM MATTHEW MYERS

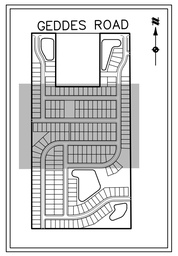
ASTILBE AVE. - HONEYSUCKLE DR. - BLUE BELL AVE. GOLDENROD WAY - N. DAYLILY DR.

ALIGNMENT LINE TABLE				
LINE #	LENGTH	DIRECTION	START POINT	END POINT
L4	734.62	S2° 29' 55.60"E	(N 282917.48, E 13326106.09)	(N 282183.56E 13326138.12)
L7	984.84	S2° 29' 55.60"E	(N 282850.60, E 13327137.38)	(N 281866.69E 13327180.31)
L9	1027.39	N87° 30' 04.40"E	(N 282489.27, E 13326124.78)	(N 282534.06E 13327151.19)
L10	1180.39	N87° 30' 04.40"E	(N 282176.89, E 13325985.26)	(N 282228.35E 13327164.53)
L12	796.61	S87° 30' 04.40"W	(N 281922.64, E 13327177.87)	(N 281887.91E 13326382.02)

ALIGNMENT CURVE TABLE									
CURVE #	RADUIS	LENGTH	DELTA	CHD. BEARING	CHORD LENGTH	POINT OF CURVE	POINT OF TAGENCY	POINT OF INTERSECTION	DEGREE OF CURVE
C6	250.00'	392.70'	90°00'00"	S42°30'04"W	353.55'	(N 281866.69, E 13327180.31)	(N 281606.03,E 13326941.45)	(N 281616.93, E 13327191.21)	22.92°
C7	230.00'	361.62'	90°04'59"	S42°27'35"W	325.51'	(N 281887.91, E 13326382.02)	(N 281647.77,E 13326162.28)	(N 281877.87, E 13326151.90)	24.91°

LEGEND

- BOUNDARY LINE
- EX. EASEMENT
- SECTION LINE
- BOUNDARY/PROPERTY LINE
- EX. SETBACK
- EX. TREE LINE
- EX. CURB AND GUTTER
- 25 FT WETLAND SETBACK LINE
- PR. SETBACK
- PR. LOT LINE
- PR. ROAD CENTERLINE
- PR. BACK OF CURB
- PR. PHASE LINE
- PR. CONCRETE WALK
- PR. ASPH.
- OPEN SPACE
- NATURE PATH
- EXISTING WETLAND
- GARAGE/DRIVEWAY LOCATION



KEY MAP
NOT TO SCALE

SIGN LEGEND

- (A) W11A-2 PEDESTRIAN CROSSING SIGN
- (B) R1-1 STOP SIGN
- (C) D3-1 STREET NAME SIGN
- (D) "NO PARKING-FIRE LANE" SIGN

NOTES

1. REFER TO SHEET 44 FOR ALL ON-SITE RAMP DETAILS, ON-SITE SIDEWALK AND NATURE PATH DETAILS, ONSITE CURB DETAIL, AND OFF-SITE SANITARY SEWER MAINTENANCE ACCESS PATH.

HONEYSUCKLE DR. (PRIVATE)
GOLDENROD WAY (PRIVATE)
N. DAYLILY DRIVE (PRIVATE)
ENUE (PRIVATE)
PHASE 1
PHASE 2
PHASE 3
PHASE 5
PROSPECT POINT WEST DEVELOPMENT
25' WETLAND SETBACK
LOUIS J. EYDE FAMILY, LLC
PIN: J-10-33-200-002
PM ZONING

SEE SHEET 18 FOR CONTINUATION

811 Know what's below. Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
LAYOUT PLAN

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

REVISIONS

0 25 50
SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 17

CAD FILE: K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443FSP-09-LDWG 9/22/2026 8:59 AM MATTHEW MYERS
CAD FILE: 19004443FSP-09-LDWG

BLUE BELL AVE. - N. DAYLILY DR. CONE FLOWER LN. - PRIMROSE DR.

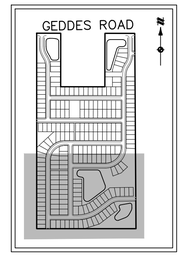
ALIGNMENT LINE TABLE				
LINE #	LENGTH	DIRECTION	START POINT	END POINT
L11	470.50	S87° 30' 04.27"W	(N 281606.03, E 13326941.45)	(N 281585.52E 13326471.40)
L13	1032.57	S2° 34' 55.10"E	(N 281647.77, E 13326162.28)	(N 280616.24E 13326208.80)
L14	1009.50	S2° 34' 55.10"E	(N 281891.21, E 13326457.61)	(N 280882.73E 13326503.09)
L15	394.48	N87° 25' 04.90"E	(N 280868.94, E 13326197.40)	(N 280886.72E 13326591.48)
L16	170.51	N50° 10' 28.16"E	(N 281002.21, E 13326889.18)	(N 281111.41E 13327020.14)
L17	386.84	N86° 27' 34.60"E	(N 281164.34, E 13327153.24)	(N 281188.22E 13327539.34)

ALIGNMENT CURVE TABLE									
CURVE #	RADIUS	LENGTH	DELTA	CHD. BEARING	CHORD LENGTH	POINT OF CURVE	POINT OF TAGENCY	POINT OF INTERSECTION	DEGREE OF CURVE
C6	250.00'	392.70'	90°00'00"	S42°30'04"W	353.55'	(N 281866.69, E 13327180.31)	(N 281606.03,E 13326941.45)	(N 281616.93, E 13327191.21)	22.92°
C8	500.00'	325.01'	37°14'37"	N68°47'47"E	319.32'	(N 280886.72, E 13326591.48)	(N 281002.21,E 13326889.18)	(N 280894.31, E 13326759.79)	11.46°
C9	230.00'	145.66'	36°17'06"	N68°19'01"E	143.24'	(N 281111.41, E 13327020.14)	(N 281164.34,E 13327153.24)	(N 281159.68, E 13327078.02)	24.91°

LEGEND

- BOUNDARY LINE
- EX. EASEMENT
- SECTION LINE
- BOUNDARY/PROPERTY LINE
- EX. SETBACK
- EX. TREE LINE
- EX. CURB AND GUTTER
- 25 FT WETLAND SETBACK LINE
- PR. SETBACK
- PR. LOT LINE
- PR. ROAD CENTERLINE
- PR. BACK OF CURB
- PR. PHASE LINE
- PR. CONCRETE WALK
- PR. ASPH.
- OPEN SPACE
- NATURE PATH
- EXISTING WETLAND
- GARAGE/DRIVEWAY LOCATION

SEE SHEET 11 FOR CONTINUATION



KEY MAP
NOT TO SCALE

SIGN LEGEND

- (A) W11A-2 PEDESTRIAN CROSSING SIGN
- (B) R1-1 STOP SIGN
- (C) D3-1 STREET NAME SIGN
- (D) "NO PARKING-FIRE LANE" SIGN

NOTES

1. REFER TO SHEET 44 FOR ALL ON-SITE RAMP DETAILS, ON-SITE SIDEWALK AND NATURE PATH DETAILS, ONSITE CURB DETAIL, AND OFF-SITE SANITARY SEWER MAINTENANCE ACCESS PATH.

EAST LINE OF THE WEST 1/2 OF THE NORTHEAST 1/4 OF SECTION 33

LOUIS J. EYDE FAMILY, LLC
PIN: J-10-33-200-002
PM ZONING

SE MICHIGAN LAND HOLDING LLC
PIN: J-10-33-100-004
R4 ZONING

NORTH-SOUTH 1/4 LINE OF SECTION 33

PHIL-MICHIGAN ASSOCIATES
PIN: J-10-33-300-001

CENTER POST
SECTION 33
T2S, R7E
(FND 1" IRON PIPE)

811
Know what's below.
Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
LAYOUT PLAN

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

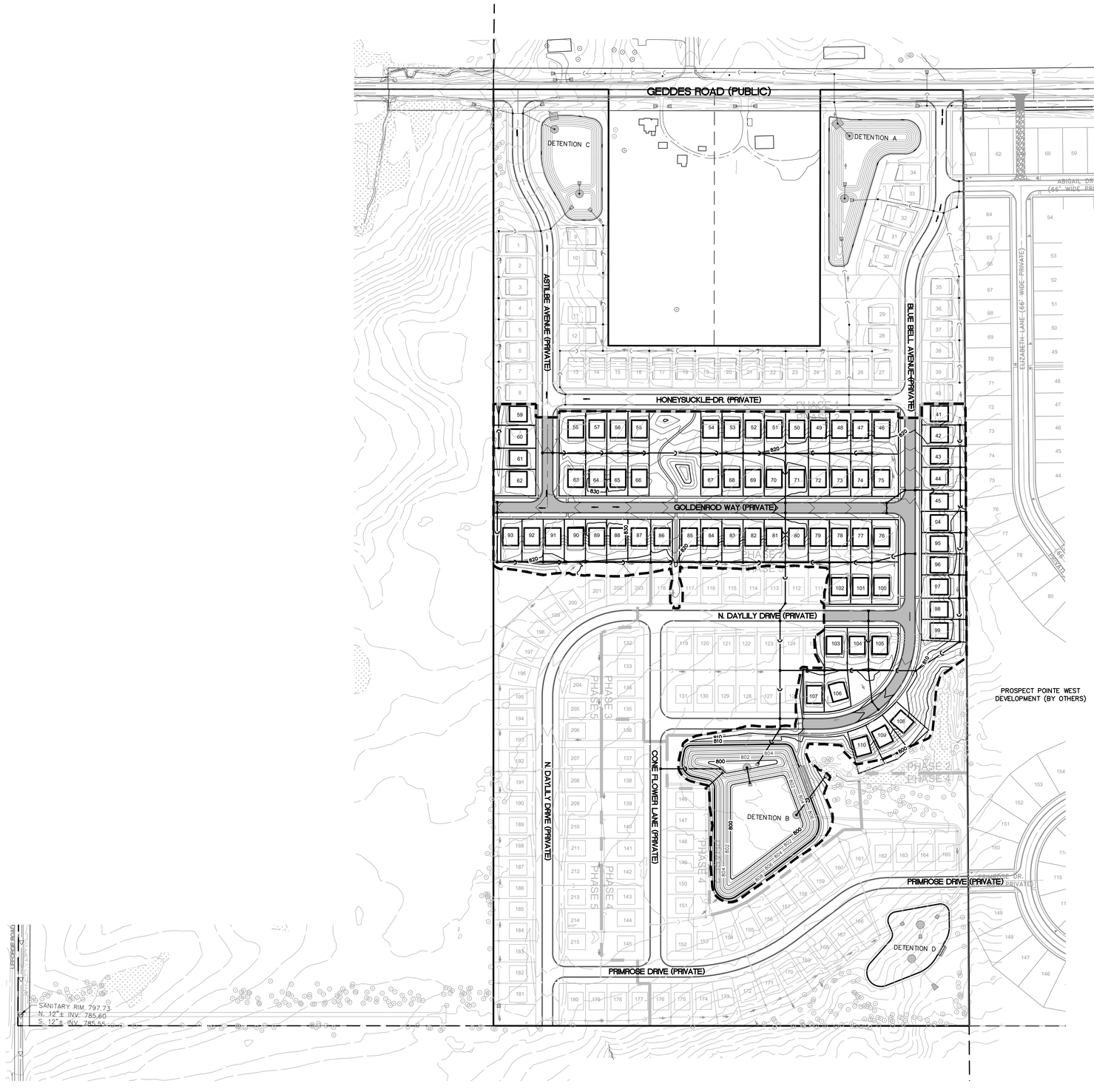
REVISIONS

0 25 50
SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 12

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443SP-09-LDWG 9/22/2026 9:00 AM MATTHEW MYERS

CAD FILE: 19004443SP-09-LDWG



LEGEND

- 588 — PROPOSED 2' CONTOUR
- 590 — PROPOSED 10' CONTOUR
- 588 — EXISTING 2' CONTOUR
- 590 — EXISTING 10' CONTOUR
- PROPERTY LINE
- GRADING LIMITS
- EXISTING MANHOLE / CATCH BASIN
- PROPOSED MANHOLE / CATCH BASIN
- EXISTING WETLAND
- PROPOSED ASPHALT

PAVING & GRADING NOTES:

1. CONTRACTOR SHALL ENSURE NO ADVERSE IMPACTS WILL OCCUR TO NEIGHBORING PROPERTIES DURING AND AFTER COMPLETION OF CONSTRUCTION.
2. THE STORM WATER MANAGEMENT BASINS SHALL BE EXCAVATED, TOP SOIL ADDED, SEEDED, MULCHED AND TACKED PRIOR TO MAJOR EARTH DISRUPTION ACTIVITIES.
3. LOCATION OF DRIVEWAYS, AS SHOWN, IS APPROXIMATE. SPECIFIC DRIVE LOCATIONS/CONFIGURATIONS TO BE DETERMINED AND SUBMITTED WITH INDIVIDUAL LOT PLOT PLANS. EFFORTS WILL BE MADE TO AVOID LAYOUTS WHICH WOULD PLACE UTILITY STRUCTURES IN DRIVES BUT MAY OCCUR IF STRUCTURES ARE PROTECTED WITH A CONCRETE APRON.
4. EXISTING TREES ARE LOCATED ON THE PLAN PER THE BEST AVAILABLE INFORMATION. IF VARIATIONS IN LOCATION ARE DISCOVERED DURING CONSTRUCTION, THE ENGINEER IS TO BE NOTIFIED OF VARIATION AND REASONABLE EFFORT TO BE MADE TO FOLLOW THE INTENT OF THE GRADING AND TREE PRESERVATION SHOWN ON THIS SHEET.

SITE MASS GRADING NOTE:
MASS GRADING WILL BE DONE BY PHASES AND AS NEEDED TO INSTALL OUT OF PHASE UTILITIES. FINAL GRADING AND DEVELOPMENT WILL OCCUR IN PHASES STARTING WITH PHASE 1. REFER TO SHEET 10 FOR PHASING SUMMARY AND NARRATIVE.

NOTE:
THE CONTRACTOR SHALL PERFORM MASS GRADING IN SUCH A WAY THAT ENSURES ADEQUATE COVER OVER THE UTILITIES DURING AND AFTER THE CONSTRUCTION OF EACH PHASE.

811 Know what's **below.** **Call** before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
OVERALL GRADING PLAN

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

REVISIONS

0 75 150
SCALE: 1" = 150 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 13

CAD FILE: 19004443SP-10-GG.DWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443SP-10-GG.DWG 9/22/2026 9:02 AM MATTHEW MYERS

LEGEND

- PR. 1' CONTOUR
- PR. 5' CONTOUR
- EX. 1' CONTOUR
- EX. 5' CONTOUR
- PROPERTY LINE
- GRADING LIMITS
- EX. MANHOLE / CATCH BASIN
- PR. MANHOLE / CATCH BASIN
- EX. HYDRANT
- PR. HYDRANT
- EX. GATE VALVE & WELL
- PR. GATE VALVE & WELL
- EX. WATER MAIN MANHOLE
- PR. SANITARY SEWER MANHOLE
- EX. SANITARY SEWER MANHOLE
- EX. WETLAND
- PR. ASPHALT
- PR. CONCRETE
- PR. EMERGENCY OVERFLOW ROUTE
- PR. DRIVEWAY

SPOT GRADE DESIGNATIONS
FG = FINISH GRADE
DBL = DROP BRICK LEDGE
VO= VIEWOUT
WO = WALKOUT
RIM = RIM GRADE/FLOW LINE
HP = HIGH POINT
TC = TOP OF CURB
TW = TOP OF WALK
T/WALL= TOP OF WALL
B/WALL= BOTTOM OF WALL

NOTE: FF (FINISHED FLOOR) = FG + 2.04 FT.

GEDDES ROAD

KEY MAP
NOT TO SCALE

HONEYSUCKLE DR. (PRIVATE)

BLUE BELL AVENUE (PRIVATE)

GOLDENROD WAY (PRIVATE)

N. DAYLILY DRIVE (PRIVATE)

PHASE 1

PHASE 2

PHASE 3

MASS GRADING COMPLETED IN PHASE 1

PR. RELOCATED TEMPORARY CULVERT TO MAINTAIN DRAINAGE ACROSS THE ROAD EMBANKMENT– LOCATION TO BE DETERMINED BY THE CONTRACTOR BASED ON INTERIM SITE CONDITIONS

SEE SHEET 15 FOR CONTINUATION

811
Know what's **below.**
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
GRADING PLAN

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

REVISIONS

0 25 50
SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 14

CAD FILE: 19004443SP-11-G.DWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443SP-11-G.DWG 9/22/2026 9:03 AM MATTHEW MYERS

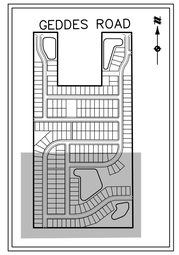
LEGEND

- PR. 1' CONTOUR
- PR. 5' CONTOUR
- EX. 1' CONTOUR
- EX. 5' CONTOUR
- PROPERTY LINE
- GRADING LIMITS
- EX. MANHOLE / CATCH BASIN
- PR. MANHOLE / CATCH BASIN
- EX. HYDRANT
- PR. HYDRANT
- EX. GATE VALVE & WELL
- PR. GATE VALVE & WELL
- EX. WATER MAIN MANHOLE
- PR. SANITARY SEWER MANHOLE
- EX. SANITARY SEWER MANHOLE
- EX. WETLAND
- PR. ASPHALT
- PR. CONCRETE
- PR. EMERGENCY OVERFLOW ROUTE
- PR. DRIVEWAY

SPOT GRADE DESIGNATIONS
FG = FINISH GRADE
DBL = DROP BRICK LEDGE
VO= VIEWOUT
WO = WALKOUT
RIM = RIM GRADE/FLOW LINE
HP = HIGH POINT
TC = TOP OF CURB
TW = TOP OF WALK
T/WALL= TOP OF WALL
B/WALL= BOTTOM OF WALL

NOTE: FF (FINISHED FLOOR) = FG + 2.04 FT.

SEE SHEET 14 FOR CONTINUATION



KEY MAP
NOT TO SCALE

811
Know what's below.
Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
GRADING PLAN

DATE
MAY 29, 2026

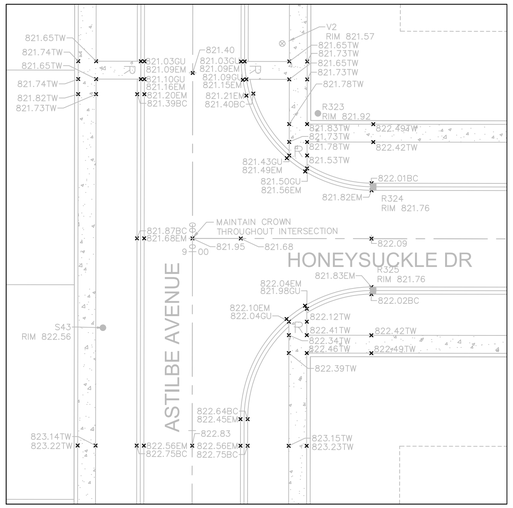
08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

REVISIONS

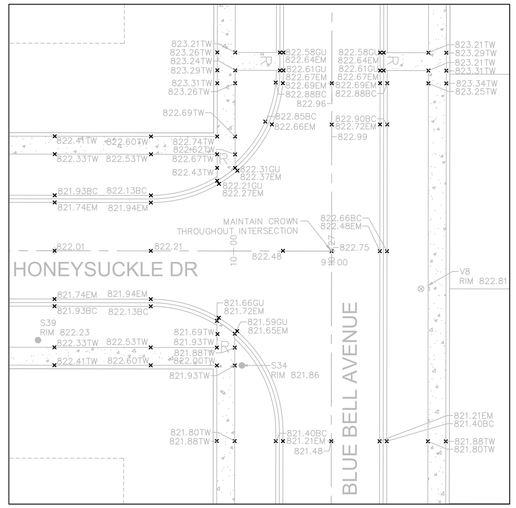
SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 15

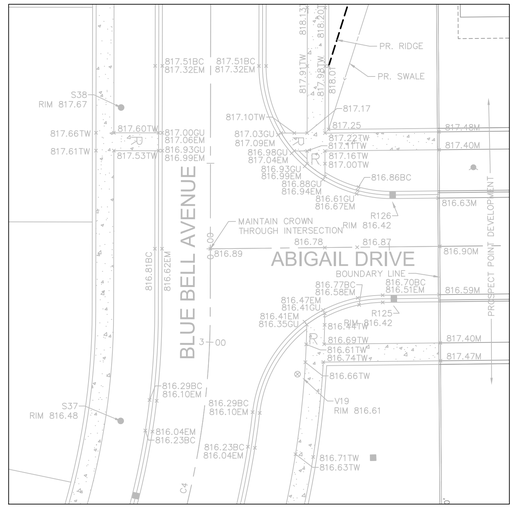
CAD FILE: K:\19004443\DWG\PLAN SETS\SITE, FINAL\PHASE 2\19004443FSP-11-G.DWG 9/22/2026 9:03 AM MATTHEW MYERS



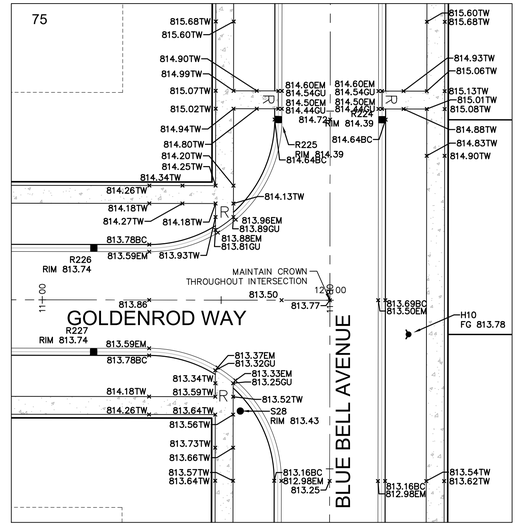
HONEYSUCKLE DR & ASTILBE AVENUE



HONEYSUCKLE DR & BLUE BELL AVENUE



ABIGAIL DR & BLUE BELL AVENUE



GOLDENROD WAY & BLUE BELL AVENUE

GOLDENROD WAY & ASTILBE AVENUE

BLUE BELL AVENUE & N. DAYLILY DR

N. DAYLILY DR & CONE FLOWER LANE

CONE FLOWER LANE & BLUE BELL AVENUE

CONE FLOWER LANE & PRIMROSE DR

N. DAYLILY DR & PRIMROSE DR

K:\19004443\DWG\PLAN SETS\SITE - FINAL\PHASE 2\19004443FSP -28- INT.DWG 9/22/2026 9:04 AM MATTHEW MYERS

811
Know what's **below.**
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33, TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
INTERSECTION PLAN

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

REVISIONS

0 10 20
SCALE: 1" = 20 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 16

CAD FILE: 19004443FSP-28-INT.DWG

NOTE:
TEMPORARY HYDRANTS MAY BE RELOCATED AND REUSED FOR FUTURE PHASES HYDRANTS.

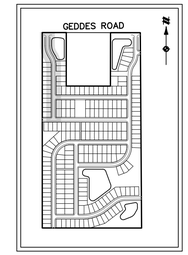
LEGEND

- PROPERTY LINE
- EX. STORM SEWER
- PR. STORM SEWER
- EX. MH/CB/ES
- PR. MH/CB/ES
- EX. WATER MAIN
- PR. WATER MAIN
- EX. HYDRANT
- PR. HYDRANT
- EX. GATE VALVE & WELL
- PR. GATE VALVE & WELL
- EX. SAN. SEWER
- PR. SAN. SEWER
- EX. SAN. SEWER MANHOLE
- PR. SAN. SEWER MANHOLE
- PR. COMPACTED CLASS II GRANULAR MATERIAL (C.G.M)
- UTILITY CROSSING
- GARAGE/DRIVEWAY

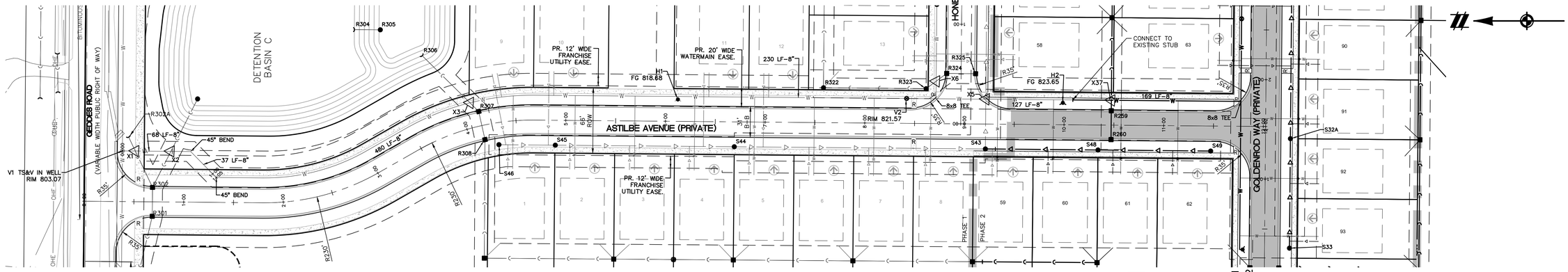
EXISTING GRADE — 850 — PROFILE GRID ELEVATION
850.00 — PROPOSED GRADE AT C/L OF ROAD
17+00 — ROAD STATION

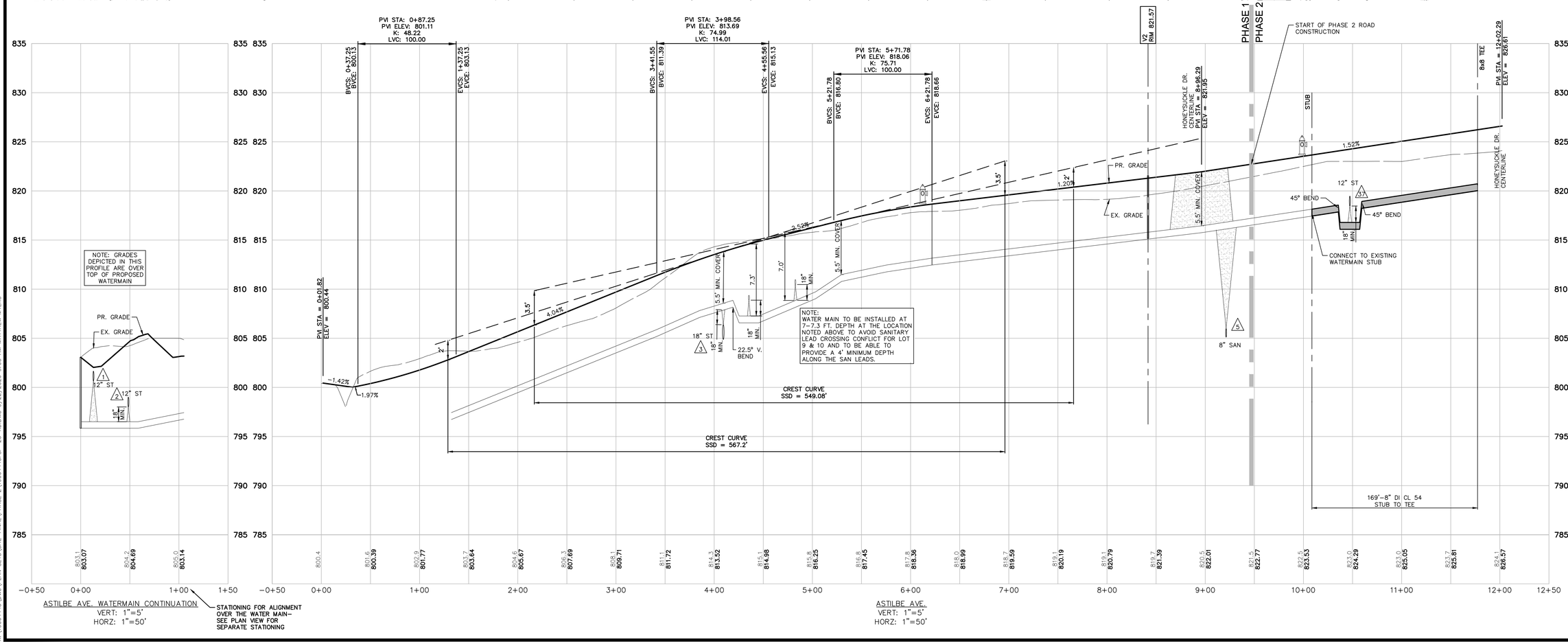
NOTE: SEE SH. 38 FOR UTILITY CROSSING INFORMATION.

NOTE:
WHERE THE WATER MAIN PASSES A STORM STRUCTURE WITH LESS THAN 10' OF HORIZONTAL SEPARATION, A FULL STICK OF PIPE SHALL BE INSTALLED (CENTERED AT THE STRUCTURE) TO LOCATE THE WATER MAIN JOINTS 10' AWAY FROM THE STRUCTURE.



KEY MAP
NOT TO SCALE





Know what's below. Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
ROAD & WATERMAIN PLAN & PROFILE– ASTILBE AVE.

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

REVISIONS

SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 17

CAD FILE: 19004443SP-23-RD.DWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443SP-23-RD.DWG 9/22/2026 8:05 AM MATTHEW MYERS

LEGEND

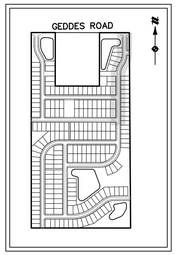
PROPERTY LINE
EX. STORM SEWER
PR. STORM SEWER
EX. MH/CB/ES
PR. MH/CB/ES
EX. WATER MAIN
PR. WATER MAIN
EX. HYDRANT
PR. HYDRANT
EX. GATE VALVE & WELL
PR. GATE VALVE & WELL
EX. SAN. SEWER
PR. SAN. SEWER
EX. SAN. SEWER MANHOLE
PR. SAN. SEWER MANHOLE
PR. COMPACTED CLASS II GRANULAR MATERIAL (C.G.M)
UTILITY CROSSING
GARAGE/DRIVEWAY

EXISTING GRADE — 850 — PROFILE GRID ELEVATION
850.00 — PROPOSED GRADE AT C/L OF ROAD
17+00 — ROAD STATION

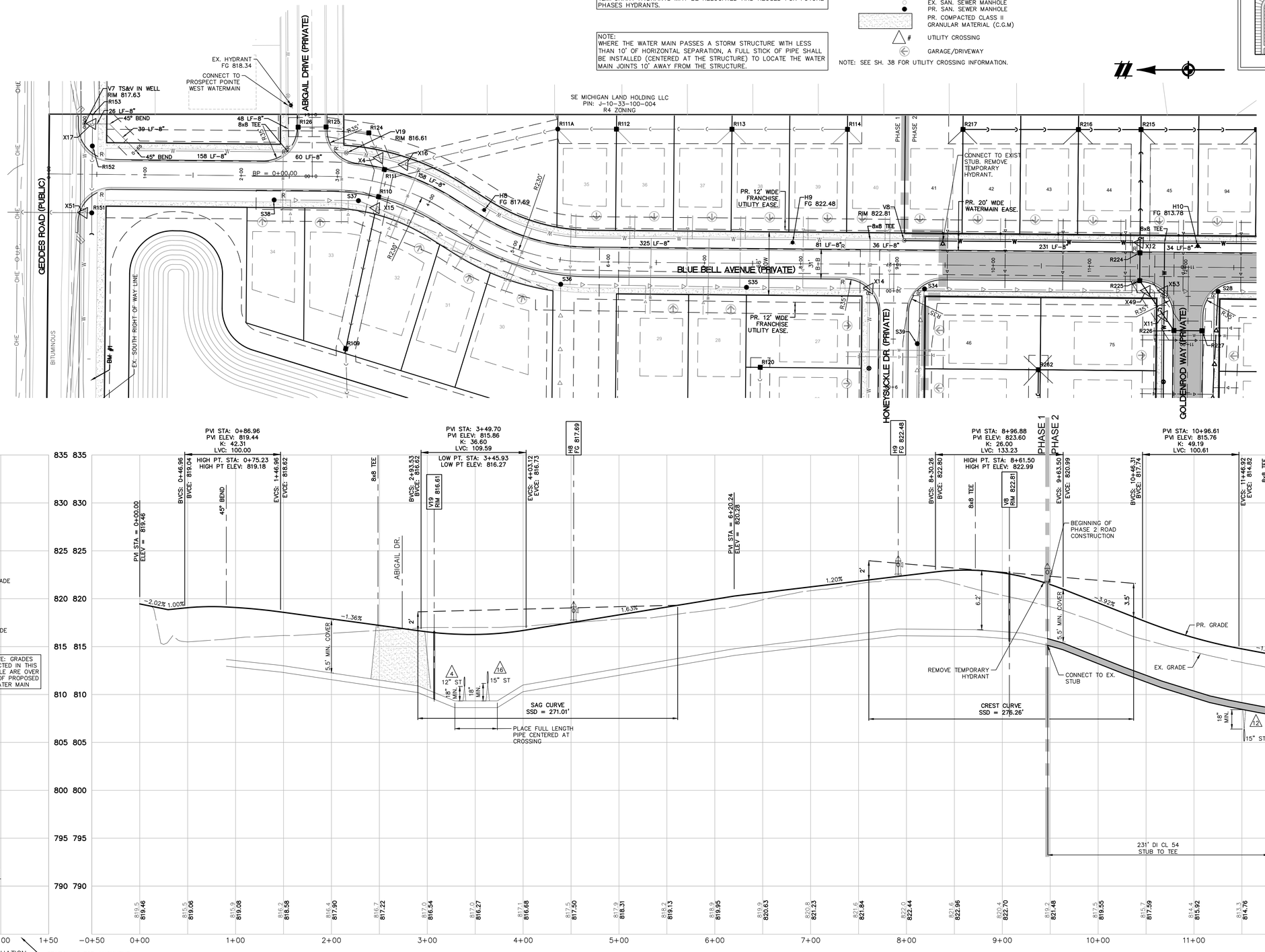
NOTE: SEE SH. 38 FOR UTILITY CROSSING INFORMATION.

NOTE:
TEMPORARY HYDRANTS MAY BE RELOCATED AND REUSED FOR FUTURE PHASES HYDRANTS.

NOTE:
WHERE THE WATER MAIN PASSES A STORM STRUCTURE WITH LESS THAN 10' OF HORIZONTAL SEPARATION, A FULL STICK OF PIPE SHALL BE INSTALLED (CENTERED AT THE STRUCTURE) TO LOCATE THE WATER MAIN JOINTS 10' AWAY FROM THE STRUCTURE.



KEY MAP
NOT TO SCALE



BLUE BELLE AVE. WATERMAIN CONTINUATION
VERT: 1"=5'
HORZ: 1"=50'

STATIONING FOR ALIGNMENT OVER THE WATER MAIN— SEE PLAN VIEW FOR SEPARATE STATIONING

BLUE BELL AVE.
VERT: 1"=5'
HORZ: 1"=50'

SEE SHEET 19 FOR CONTINUATION

Know what's below. Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
ROAD & WATERMAIN PLAN & PROFILE – BLUE BELL AVE.

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP.
09-22-2026 PER TWP.

REVISIONS

SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 18

CAD FILE: 19004443SP-23-RD.DWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443SP-23-RD.DWG 9/22/2026 9:06 AM MATTHEW MYERS

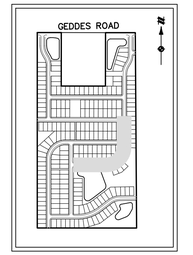
LEGEND

PROPERTY LINE
EX. STORM SEWER
PR. STORM SEWER
EX. MH/CB/ES
PR. MH/CB/ES
EX. WATER MAIN
PR. WATER MAIN
EX. HYDRANT
PR. HYDRANT
EX. GATE VALVE & WELL
PR. GATE VALVE & WELL
EX. SAN. SEWER
PR. SAN. SEWER
EX. SAN. SEWER MANHOLE
PR. SAN. SEWER MANHOLE
PR. COMPACTED CLASS II GRANULAR MATERIAL (C.G.M)
UTILITY CROSSING
GARAGE/DRIVEWAY

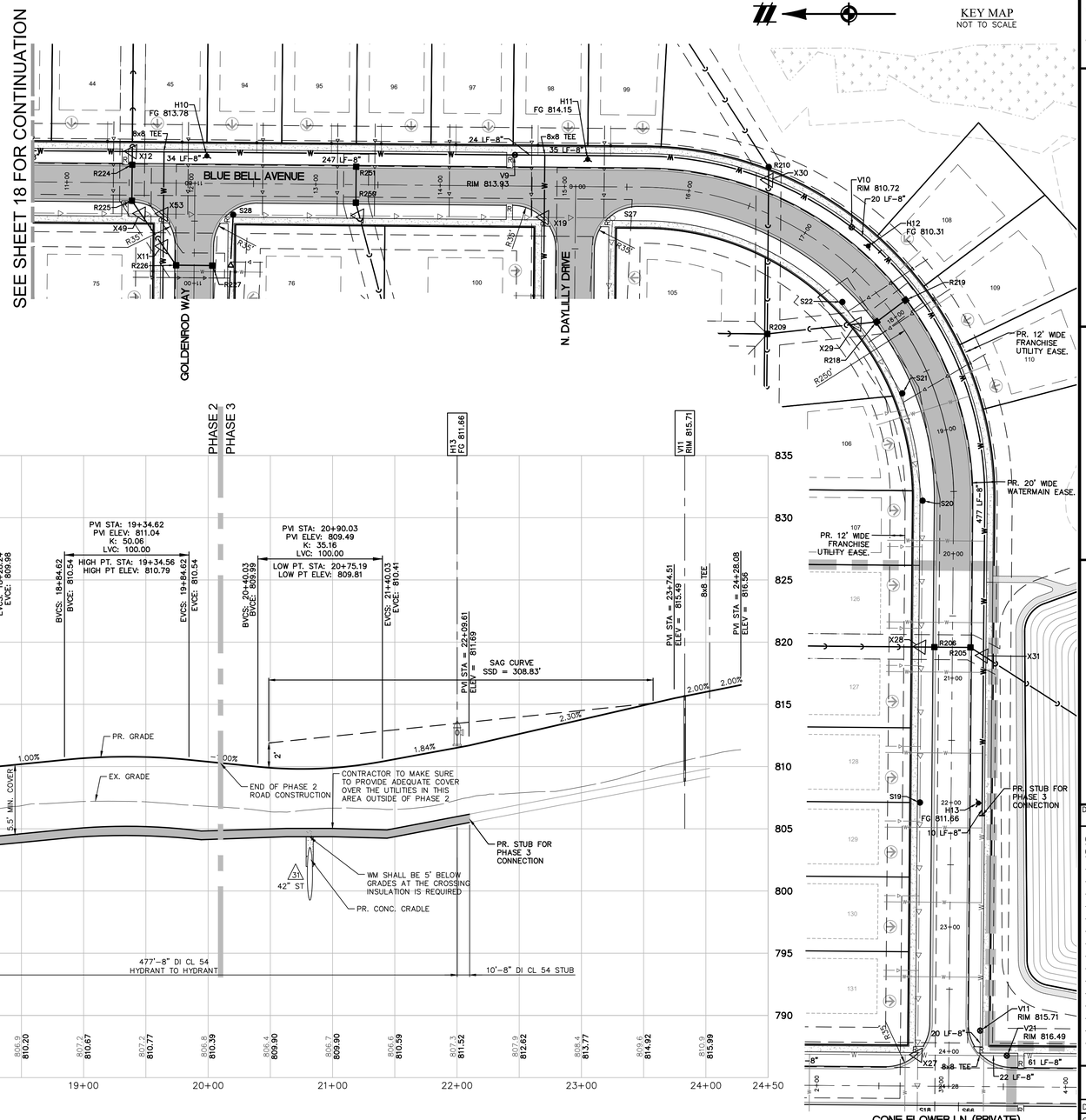
EXISTING GRADE
PROPOSED GRADE AT C/L OF ROAD
850 — PROFILE GRID ELEVATION
850.00 — PROPOSED GRADE AT C/L OF ROAD
17+00 — ROAD STATION

NOTE:
WHERE THE WATER MAIN PASSES A STORM STRUCTURE WITH LESS THAN 10' OF HORIZONTAL SEPARATION, A FULL STICK OF PIPE SHALL BE INSTALLED (CENTERED AT THE STRUCTURE) TO LOCATE THE WATER MAIN JOINTS 10' AWAY FROM THE STRUCTURE.

NOTE: SEE SH. 38 FOR UTILITY CROSSING INFORMATION.



KEY MAP
NOT TO SCALE



BLUE BELL AVE.
VERT: 1"=5'
HORZ: 1"=50'

811
Know what's below.
Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
ROAD & WATERMAIN PLAN & PROFILE – BLUE BELL AVE.

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP.
09-22-2026 PER TWP.

REVISIONS

SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 19

CAD FILE: 19004443FSP-23-RD.DWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443FSP-23-RD.DWG 9/22/2026 9:06 AM MATTHEW MYERS

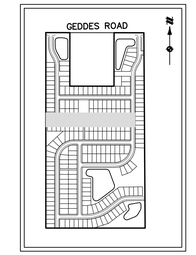
NOTE:
WHERE THE WATER MAIN PASSES A STORM STRUCTURE WITH LESS THAN 10' OF HORIZONTAL SEPARATION, A FULL STICK OF PIPE SHALL BE INSTALLED (CENTERED AT THE STRUCTURE) TO LOCATE THE WATER MAIN JOINTS 10' AWAY FROM THE STRUCTURE.

LEGEND

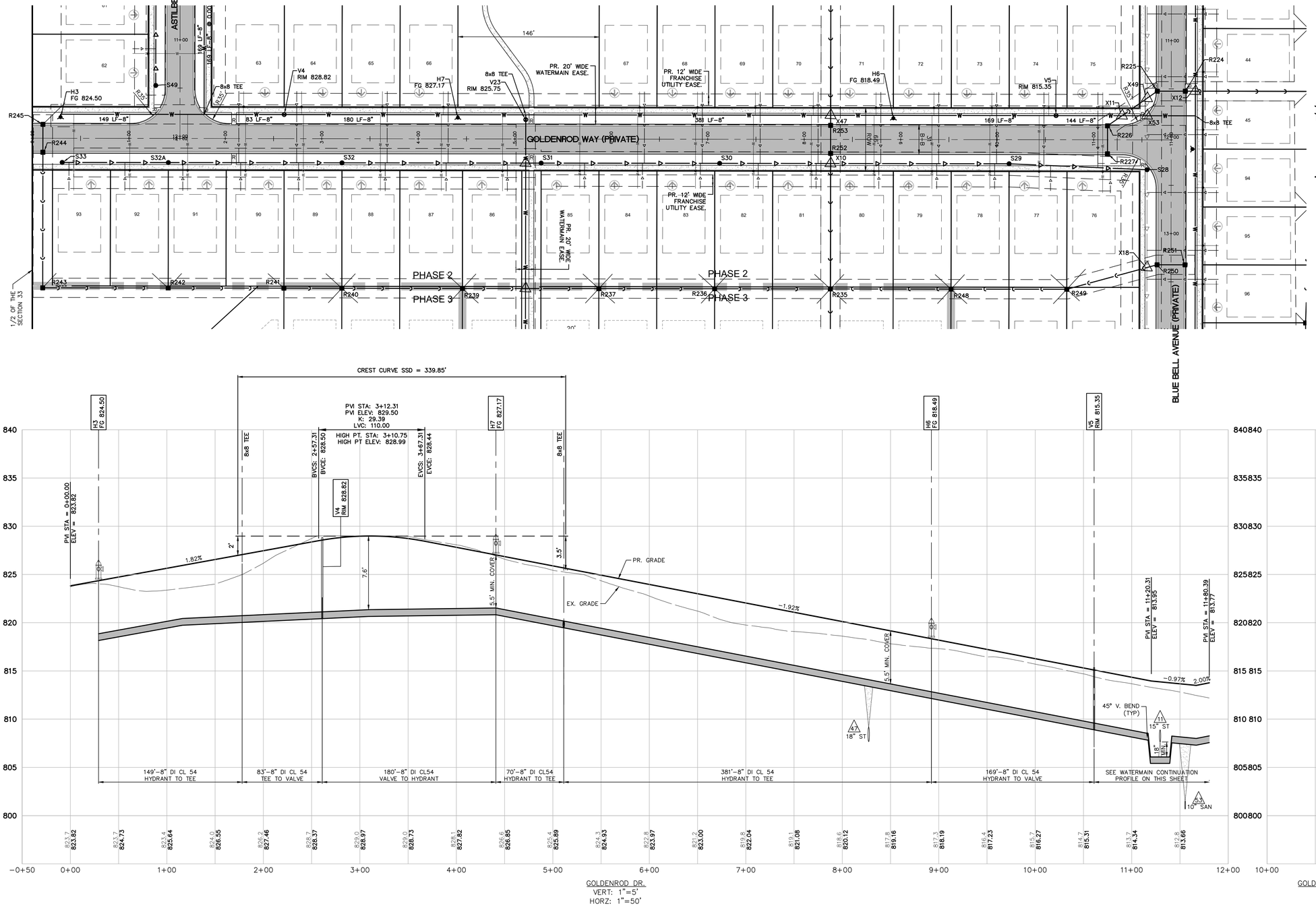
- PROPERTY LINE
- EX. STORM SEWER
- PR. STORM SEWER
- EX. MH/CB/ES
- PR. MH/CB/ES
- EX. WATER MAIN
- PR. WATER MAIN
- EX. HYDRANT
- PR. HYDRANT
- EX. GATE VALVE & WELL
- PR. GATE VALVE & WELL
- EX. SAN. SEWER
- PR. SAN. SEWER
- EX. SAN. SEWER MANHOLE
- PR. SAN. SEWER MANHOLE
- PR. COMPACTED CLASS II GRANULAR MATERIAL (C.G.M)
- # UTILITY CROSSING
- GARAGE/DRIVEWAY

NOTE: SEE SH. 38 FOR UTILITY CROSSING INFORMATION

850 — PROFILE GRID ELEVATION
EXISTING GRADE — 850.00 — PROPOSED GRADE AT C/L OF ROAD
17+00 — ROAD STATION



KEY MAP
NOT TO SCALE



GOLDENROD DR.
VERT: 1"=5'
HORZ: 1"=50'

GOLDENROD DR. WATERMAIN CONTINUATION
VERT: 1"=5'
HORZ: 1"=50'

Know what's below. Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
ROAD & WATERMAIN PLAN & PROFILE – GOLDENROD WAY

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

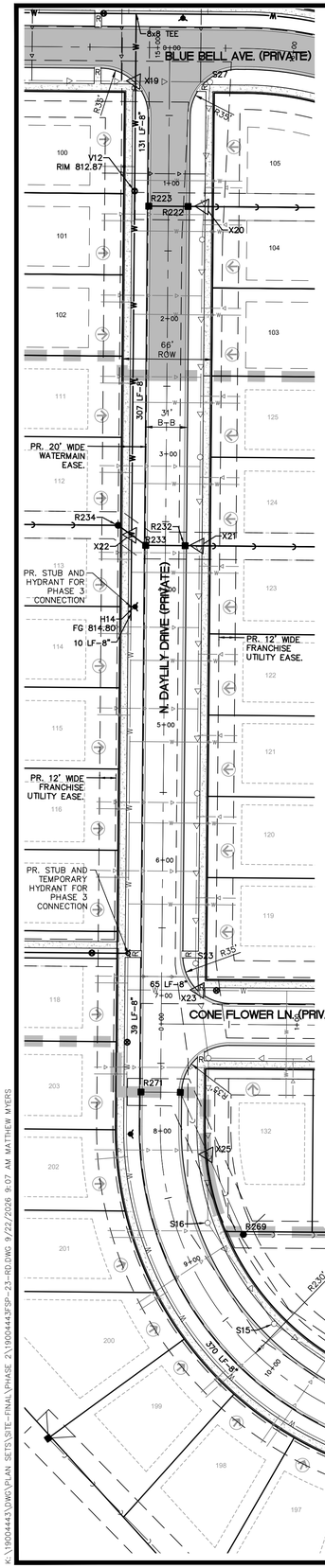
REVISIONS

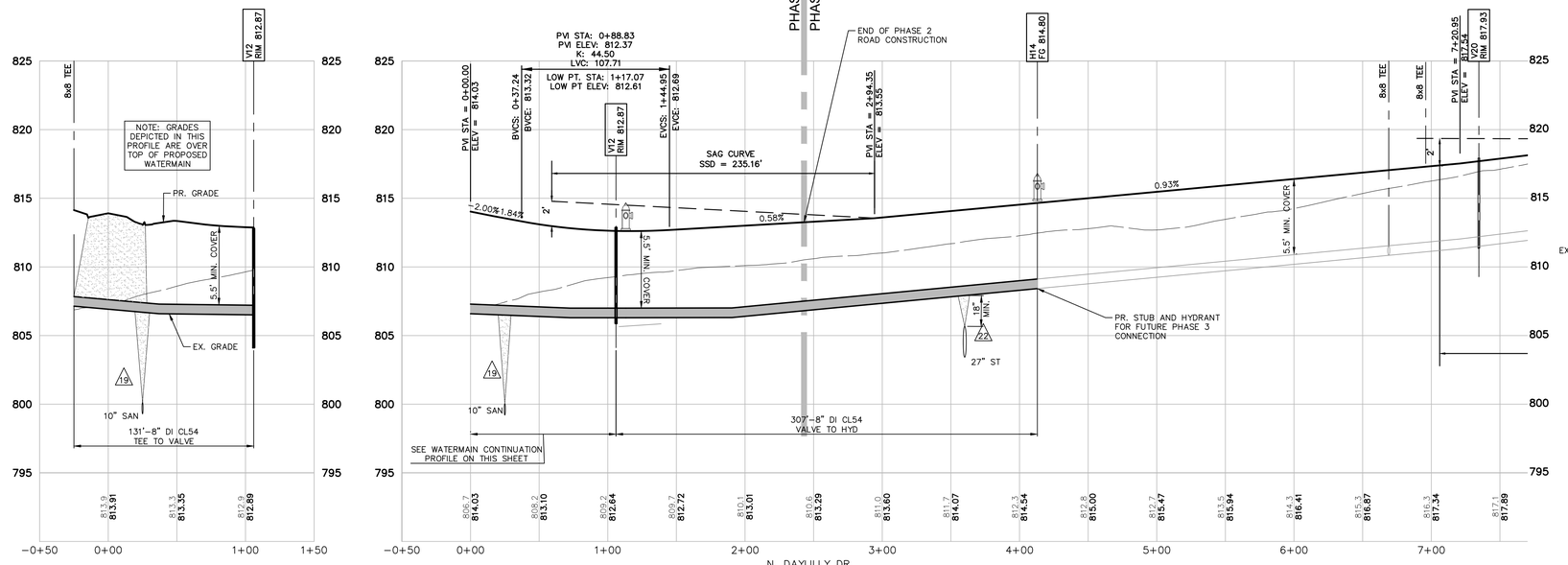
SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 20

CAD FILE: 19004443SP-23-RD.DWG

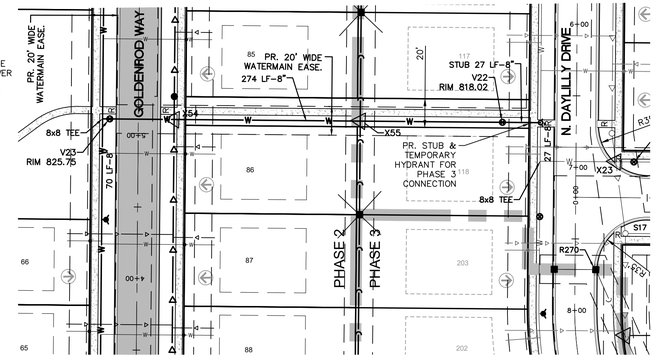
K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443SP-23-RD.DWG 9/22/2026 9:06 AM MATTHEW MYERS





N. DAYLILLY DR.
VERT: 1"=5'
HORZ: 1"=50'

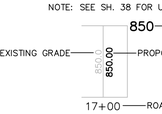
GOLDENROD – DAYLILLY LOOP
VERT: 1"=5'
HORZ: 1"=50'

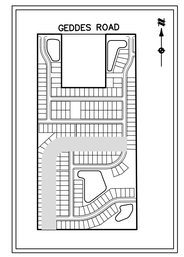


LEGEND

- PROPERTY LINE
- EX. STORM SEWER
- PR. STORM SEWER
- EX. MH/CB/ES
- PR. MH/CB/ES
- EX. WATER MAIN
- PR. WATER MAIN
- EX. HYDRANT
- PR. HYDRANT
- EX. GATE VALVE & WELL
- PR. GATE VALVE & WELL
- EX. SAN. SEWER
- PR. SAN. SEWER
- EX. SAN. SEWER MANHOLE
- PR. SAN. SEWER MANHOLE
- PR. COMPACTED CLASS II GRANULAR MATERIAL (C.G.M)
- # UTILITY CROSSING
- GARAGE/DRIVEWAY

NOTE: SEE SH. 38 FOR UTILITY CROSSING INFORMATION.





KEY MAP
NOT TO SCALE

NOTE:
WHERE THE WATER MAIN PASSES A STORM STRUCTURE WITH LESS THAN 10' OF HORIZONTAL SEPARATION, A FULL STICK OF PIPE SHALL BE INSTALLED (CENTERED AT THE STRUCTURE) TO LOCATE THE WATER MAIN JOINTS 10' AWAY FROM THE STRUCTURE.

811
Know what's **below.**
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
ROAD & WATERMAIN PLAN & PROFILE – N. DAYLILY DR.

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

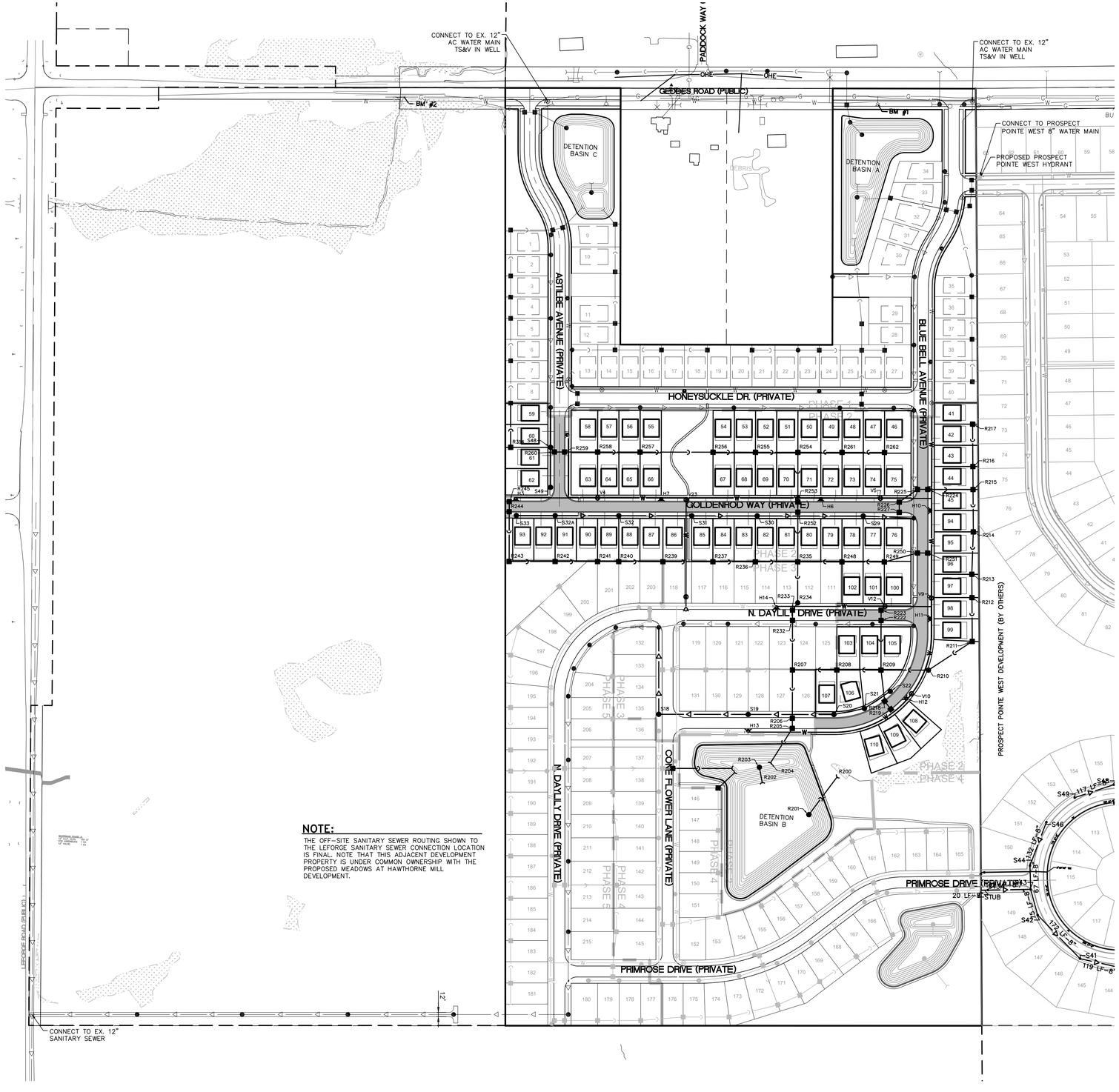
REVISIONS

SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 21

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443PSP-23-RD.DWG 9/22/2026 9:07 AM MATTHEW MYERS

CAD FILE: 19004443PSP-23-RD.DWG



NOTE:

THE OFF-SITE SANITARY SEWER ROUTING SHOWN TO THE LEFORGE SANITARY SEWER CONNECTION LOCATION IS FINAL. NOTE THAT THIS ADJACENT DEVELOPMENT PROPERTY IS UNDER COMMON OWNERSHIP WITH THE PROPOSED MEADOWS AT HAWTHORNE MILL DEVELOPMENT.

NOTE:
ACCORDING TO UTILITIES DEPARTMENT RECORDS THE EXISTING GEDDES ROAD WATER MAIN IS A 16" AC (ASBESTOS CEMENT) PIPE.

LEGEND

- PROPERTY LINE
- EX. STORM SEWER
- PR. STORM SEWER
- EX. WATER MAIN
- PR. WATER MAIN
- EX. SANITARY SEWER
- PR. SANITARY SEWER
- PR. EASEMENT
- EX. WETLAND

UTILITY NARRATIVE

SEWER: THE SITE WILL BE SERVICED WITH PUBLIC SANITARY SEWER VIA CONNECTION POINTS TO TWO SEPARATE SEWER DISTRICTS. SOME CAPACITY REMAINS IN THE PROSPECT POINTE PUMP STATION FOR SANITARY SEWER. THE SOUTHERN-MOST UNITS WILL BE SERVICED BY A CONNECTION THROUGH PROSPECT POINTE WEST TO MAKE USE OF THIS REMAINING CAPACITY. IT IS ANTICIPATED THAT UP TO 49 UNITS CAN BE ACCOMMODATED IN THE AVAILABLE CAPACITY. ALL UNITS NOT SERVICED THROUGH PROSPECT POINTE WILL BE SERVICED BY CONNECTING TO EXISTING SEWER IN LEFORGE ROAD.

WATER: THE SITE WILL BE SERVICED WITH PUBLIC WATER BY CONNECTING TO AN EXISTING 12" MAIN IN GEDDES ROAD ROW AS WELL AS CONNECTING INTO TWO 8" MAINS FROM PROSPECT POINTE WEST.

STORMWATER: ATWELL HAS COORDINATED WITH THE WASHTENAW COUNTY WATER RESOURCE COMMISSION RELATED TO PRELIMINARY DESIGN REQUIREMENTS AND SOILS ANALYSIS. THIS IS DISCUSSED IN MORE DETAIL ON SHEET 36.

UTILITY PHASING: DURING THE INITIAL PHASE, ALL UTILITIES NEEDED TO SERVICE LOTS 1-40 SHALL BE INSTALLED ALONG WITH THE TWO NORTH DETENTION BASINS AND OUTLETS TO THE SNIDECAR DRAIN. THE SANITARY SEWER WILL BE EXTENDED THOUGH THE ADJACENT PARCEL OUT TO LEFORGE ROAD AND WATER MAIN WILL CONNECT TO THE EXISTING 12" WATER MAIN ALONG GEDDES AS WELL AS THE NORTHERN CONNECTION TO THE 8" MAIN IN PROSPECT POINTE TO ENSURE A LOOPING SYSTEM. THE LATER PHASES OF THE DEVELOPMENT WILL ADD ADDITIONAL STORMWATER BASINS THAT FOLLOW EXISTING DRAINAGE PATTERNS TO THE SUPERIOR NO. 1 DRAIN. WATER AND SANITARY SEWER SERVICE WILL BE EXTENDED AS REQUIRED FROM THE PREVIOUS PHASES.

NOTE:
THE STORM SEWER AND SURFACE DRAINAGE EASEMENTS AND THE DETENTION BASIN EASEMENT/BUFFER WILL BE GRANTED TO THE WASHTENAW COUNTY WATER RESOURCES COMMISSION (WCWRC) AND THE MEADOWS AT HAWTHORNE MILL ASSOCIATION.

NOTE:
THE PATH FOR THE OFFSITE SANITARY SEWER NEEDS TO SUPPORT A FULLY LOADED VACTOR TRUCK. THE TRENCH BACKFILL, EITHER NATIVE MATERIAL OR IMPORTED GRANULAR FILL NEEDS TO BE COMPACTED TO 95% OF ITS MAXIMUM UNIT WEIGHT TO SUPPORT THIS EQUIPMENT

WATER MAIN BASIS OF DESIGN

No. of Single Family Lots:		215 Lots
No. of Users per Lot:		3.5 Persons
Total Expected Population Served:		753 Persons
Average Daily Flow (per capita):		100 G.P.D.
Peaking Factor:	18+√(POP/1000) = 4+√(POP/1000)	3.88
Average Demand:	POP * 100 =	**75,300 G.P.D.**
	=	52.3 G.P.M.
	=	0.117 C.F.S.
Peak Demand: 75,300	* 3.88 =	**291,868 G.P.D.**
	=	202.7 G.P.M.
	=	0.452 C.F.S.

SANITARY SEWER BASIS OF DESIGN - LEFORGE ROAD SERVICE AREA

Total No. of Single Family Lots:		170 Lots
No. of Users per Lot:		3.5 Persons
Total Expected Population Served:		595 Persons
Average Daily Flow (per capita):		100 G.P.D.
Peaking Factor:	18+√(POP/1000) = 4+√(POP/1000)	3.93
Average Flow:	POP * 100 =	**59,500 G.P.D.**
	=	41.3 G.P.M.
	=	0.092 C.F.S.
Peak Flow: 59,500	* 3.93 =	**234,083 G.P.D.**
	=	162.6 G.P.M.
	=	0.362 C.F.S.
Pipe Capacity: 10 in. diameter		A= 0.545 sf
0.30% slope		R= 0.208 ft
0.013 Manning's 'n'		
Manning's Capacity =		1.203 C.F.S.
Velocity Flowing Full =		2.21 F.P.S.

SANITARY SEWER BASIS OF DESIGN - PROSPECT POINTE SERVICE AREA

Total No. of Single Family Lots:		45 Lots
No. of Users per Lot:		3.5 Persons
Total Expected Population Served:		158 Persons
Average Daily Flow (per capita):		100 G.P.D.
Peaking Factor:	18+√(POP/1000) = 4+√(POP/1000)	4.18
Average Flow:	POP * 100 =	**15,800 G.P.D.**
	=	11.0 G.P.M.
	=	0.024 C.F.S.
Peak Flow: 15,800	* 4.18 =	**66,101 G.P.D.**
	=	45.9 G.P.M.
	=	0.102 C.F.S.
Pipe Capacity: 8 in. diameter		A= 0.349 sf
0.40% slope		R= 0.167 ft
0.013 Manning's 'n'		
Manning's Capacity =		0.766 C.F.S.
Velocity Flowing Full =		2.20 F.P.S.

Prospect Pointe Pump Station Sewer Flows Summary

6/9/2020

Existing Flows to date:

	Acres	REU's	Population	Base Flow GPD	CFS	GPM	Peak Flow GPD	CFS	GPM	Peak Factor (total service area)
Fairfax		41	143.5	14350	0.02	9.97	55022.35	0.09	38.56	3.87
PP I		86	301	30100	0.05	20.90	116461.51	0.18	80.88	3.87
PP II		94	329	32900	0.05	22.85	127295.14	0.20	88.40	3.87
Totals		221	773.5	77350	0.12	53.72	299279.00	0.46	207.83	3.87

Existing Pump Sta. capacity 382 GPM or 0.85 cfs

Proposed Future Flows:

	Acres	REU's	Population	Base Flow GPD	CFS	GPM	Peak Flow GPD	CFS	GPM	Peak Factor (total service area)
Fairfax		41	143.5	14350	0.02	9.97	52860.51	0.08	36.71	3.68
PP I		86	301	30100	0.05	20.90	110878.14	0.17	77.00	3.68
PP II		94	329	32900	0.05	22.85	121192.38	0.19	84.16	3.68
PP West (Future)		157	549.5	54950	0.09	38.16	202417.07	0.31	140.57	3.68
Meadows		45	157.5	15750	0.02	10.94	58017.63	0.09	40.29	3.68
Totals		423	1480.5	148050	0.23	102.81	545365.73	0.84	376.73	3.68

NOTES

1. ALL UTILITIES SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
2. CONTRACTOR SHALL COORDINATE SCHEDULING AND PROCEDURES WITH THE AUTHORITY HAVING JURISDICTION PRIOR TO PERFORMING THE PROPOSED CONNECTIONS TO THE EXISTING WATER MAIN.
3. 10' HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN WATER MAINS AND SEWERS.
4. A MINIMUM VERTICAL SEPERATION OF 18" SHALL BE MAINTAINTED BETWEEN CROSSING UTILITES, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
5. ALL PROPOSED STORM SEWER SHALL BE RCP CL-IV UNLESS OTHERWISE NOTED.
6. ALL STORM STRUCTURES RECEIVING STORM RUNOFF, EXCEPT FOR 2 FOOT DIAMETER INLETS, ARE TO HAVE 2-FOOT SUMPS PER SUPERIOR TOWNSHIP STANDARDS.
7. LOW HEAD (FLAT TOP) STRUCTURES SHALL BE PROVIDED FOR THE STORM STRUCTURES WITH LESS THAN FOUR FEET OF COVER.
8. ALL WATER MAIN SHALL BE DUCTILE IRON CL-54 AS APPROVED. WATER LEADS SHALL BE 1" TYPE K COPPER, UNLESS OTHERWISE APPROVED. ALL GATE VALVES EXCEPT HYDRANT SHUTOFFS SHALL BE INSTALLED IN WELLS.
9. ALL SANITARY LEADS SHALL BE 6" PVC SDR 23.5 LAID AT 1% MINIMUM SLOPE.
10. ALL SANITARY SEWER PIPE SHALL BE PVC SDR 26 TO 20 FEET DEPTH PVC TRUSS PIPE FOR SANITARY SEWER DEEPER THAN 20 FEET FROM FINISH GRADE.
11. THE MINIMUM COVER OF SANITARY SEWERS 4'.
12. TRAFFIC CONTROL TO BE PROVIDED IN ACCORDANCE WITH THE MMUTCD & COUNTY ROAD COMMISSION.
13. MDOT CLASS II SAND BACKFILL IS REQUIRED FOR ALL UTILITY BACKFILL UNDER OR WITHIN A 1:1 INFLUENCE OF PROPOSED ROADWAYS.
14. ALL STORM SEWER SHALL BE PLACED IN 20' WIDE DRAINAGE EASEMENTS. PERIMETER REAR LOT SWALES WILL BE PLACE IN 30' WIDE DRAINAGE EASEMENTS.
15. ALL SANITARY SEWER WILL BE PLACED IN EASEMENTS. WIDER EASEMENTS HAVE BEEN PROVIDED FOR MAINTENANCE ACCESS ON DEEP SANITARY SEWERS.
16. ALL WATER MAIN WILL BE PLACED IN A MINIMUM 20' WIDE EASEMENTS.
17. AT THIS TIME, LOTS **1, 9,** AND **10** ARE ANTICIPATED TO BE SERVICED BY HUNG PLUMBING.
18. STOP BOXES SHALL BE INSTALLED AT THE R.O.W. LINE (AT 1 FT. BEHIND THE SIDEWALK).
19. WATER LEADS TO ROW LINE SHALL BE INSTALLED BY THE CONTRACTOR FROM THE WATER MAIN AND AFTER WATER MAIN TESTING ACCEPTANCE.
20. SUMP LEADS SHALL BE PVC PIPE AT 1% MINIMUM SLOPE.
21. GATE WELL AND FRAME SHALL BE EJ 1040 WITH TYPE 'C' COVER OR APPROVED EQUAL. COVERS SHALL BE SAT WITH THE SUPERIOR TOWNSHIP LOGO AND THE WORDS 'SUPERIOR TOWNSHIP-WATER' IN RAISED LETTERS SPACED IN FROM THE PERIPHERY OF THE COVER.
22. STORM MANHOLE COVERS AND FRAMES SHALL BE EJ 1040 WITH TYPE 'C' COVER OR APPROVED EQUAL.
23. STORM YARD INLETS COVERS AND FRAMES SHALL BE EJ M.D.O.T BEHIVE WITH TYPE "N" COVER OR APPROVED EQUAL.
24. CATCH BASINS COVERS AND FRAMES SHALL BE EJ 7065 OR EQUAL WHEN IN PAVEMENT EDGE OR GUTTER LINE.
25. SANITARY SEWER MANHOLE COVERS AND FRAMES SHALL BE EJ 1040 WITH TYPE "A" COVER OR APPROVED EQUAL. COVERS SHALL BE CAST WITH THE SUPERIOR TOWNSHIP LOGO AND THE WORDS, "SUPERIOR TOWNSHIP-SANITARY" IN RAISED LETTERS SPACED IN FROM THE PERIPHERY OF THE COVER.

Know what's below. Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33 TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN - PHASE 2
OVERALL UTILITY PLAN

DATE
MAY 29, 2026
08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

REVISIONS

0 75 150
SCALE: 1" = 150 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: --
SHEET NO. 22

CAD FILE: 19004443PSP-12-OU.DWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443PSP-12-OU.DWG 9/22/2026 9:09 AM MATTHEW MYERS

NOTE:
1. FULL SANITARY LEADS WERE INSTALLED FOR LOTS OUTSIDE OF PHASE 1 THAT ARE SERVED BY THE SANITARY SEWER INSTALLED DURING PHASE 1, INCLUDING LOTS 41–59, 94–105, 111–125, AND 181–215.
2. FULL SANITARY LEADS FOR PHASE 3 LOTS (126–135) WILL BE COMPLETELY INSTALLED IN PHASE 2.
3. WATER LEADS TO ROW LINE SHALL BE INSTALLED BY THE CONTRACTOR FROM THE WATER MAIN AND AFTER WATER MAIN TESTING ACCEPTANCE.
4. TEMPORARY HYDRANTS MAY BE RELOCATED AND REUSED FOR FUTURE PHASES HYDRANTS.

LEGEND

- PROPERTY LINE
- EX. STORM SEWER
- PR. STORM SEWER
- EX. WATER MAIN
- PR. WATER MAIN
- EX. SANITARY SEWER
- PR. SANITARY SEWER
- PR. EASEMENT
- EX. WETLAND

GEDDES ROAD

KEY MAP
NOT TO SCALE

HONEYSUCKLE DR. (PRIVATE)
ASTILBE AVENUE (PRIVATE)
BLUE BELL AVENUE (PRIVATE)
GOLDENROD WAY (PRIVATE)
N. DAYLILY DRIVE (PRIVATE)
PHASE 1
PHASE 2
PHASE 3
PHASE 5
PR. PROSPECT POINT WEST DEVELOPMENT
LOUIS J. EYDE FAMILY, LLC PIN: J-10-33-200-002 PW ZONING
SEE SHEET 24 FOR CONTINUATION

811 Know what's below. Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
UTILITY PLAN

DATE
MAY 29, 2026
08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

REVISIONS

SCALE: 1" = 50 FEET

DRAWN BY:	KS
CHECKED BY:	AK
P.M.:	J. KIME
JOB #:	19004443
FILE CODE:	–
SHEET NO.	23

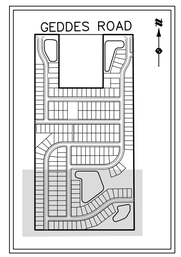
CAD FILE: 19004443PSP-13-UDWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443PSP-13-UDWG 9/22/2026 9:11 AM MATTHEW MYERS

NOTE:
1. FULL SANITARY LEADS WERE INSTALLED FOR LOTS OUTSIDE OF PHASE 1 THAT ARE SERVED BY THE SANITARY SEWER INSTALLED DURING PHASE 1, INCLUDING LOTS 41–59, 94–105, 111–125, AND 181–215.
2. FULL SANITARY LEADS FOR PHASE 3 LOTS (126–135) WILL BE COMPLETELY INSTALLED IN PHASE 2.
3. WATER LEADS TO ROW LINE SHALL BE INSTALLED BY THE CONTRACTOR FROM THE WATER MAIN AND AFTER WATER MAIN TESTING ACCEPTANCE.
4. TEMPORARY HYDRANTS MAY BE RELOCATED AND REUSED FOR FUTURE PHASES HYDRANTS.

LEGEND

- PROPERTY LINE
- EX. STORM SEWER
- PR. STORM SEWER
- EX. WATER MAIN
- PR. WATER MAIN
- EX. SANITARY SEWER
- PR. SANITARY SEWER
- PR. EASEMENT
- EX. WETLAND



KEY MAP
NOT TO SCALE

SEE SHEET 23 FOR CONTINUATION

811
Know what's below.
Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
UTILITY PLAN

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

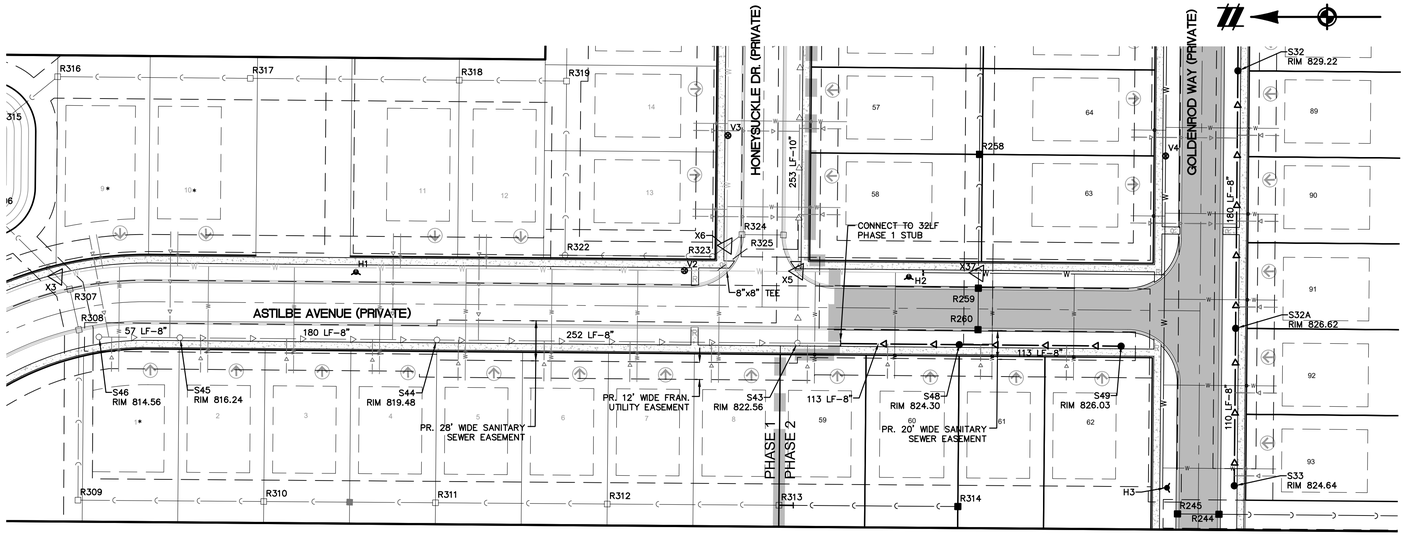
REVISIONS

SCALE: 1" = 50 FEET

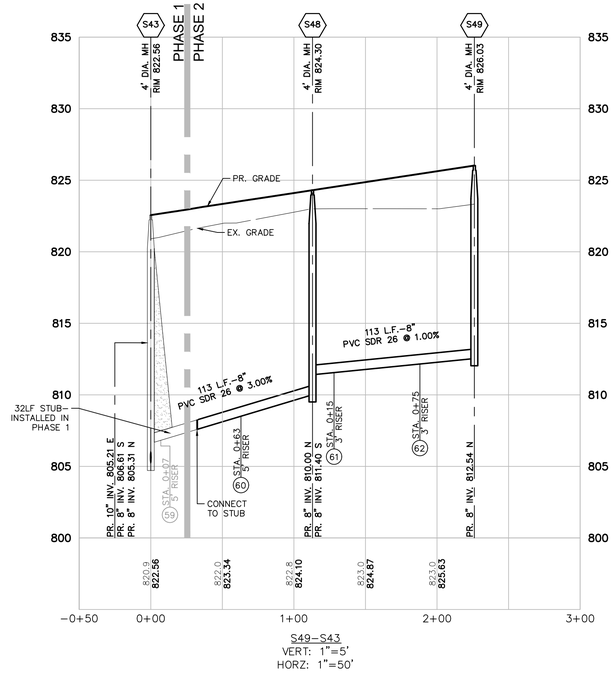
DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 24

CAD FILE: 19004443SP-13-U.DWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443SP-13-U.DWG 9/22/2026 9:11 AM MATTHEW MYERS

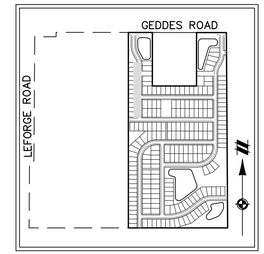


S49–S43
VERT: 1"=5'
HORZ: 1"=50'



LEGEND

- PROPERTY LINE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING MANHOLE/CATCH BASIN/END SECTION
- PROPOSED MANHOLE/CATCH BASIN/END SECTION
- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- PROPOSED WATER MAIN LEAD
- EXISTING HYDRANT
- PROPOSED HYDRANT
- EXISTING GATE VALVE & WELL
- PROPOSED GATE VALVE & WELL
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- PROPOSED SANITARY LEAD
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- 25 FT WETLAND SETBACK LINE
- EXISTING WETLAND
- PROPOSED COMPACTED GRANULAR MATERIAL (C.G.M)
- # UTILITY CROSSING
- 850 PROFILE GRID ELEVATION
- EXISTING GRADE / 850.00 PROPOSED GRADE
- 17+00 UTILITY ALIGNMENT STATION



KEY MAP
NOT TO SCALE

Lot #	Lead Invert at Main	Lead Length (LF)	Lead Slope (%)	Lead Dia. (in)	Lot F.G. Elev.	Riser Height (FT)	Stub Invert Elev.
L59	807.65	28	1.04%	6	824.70	5	812.95
L60	809.34	23	1.04%	6	825.70	5	814.58
L61	812.38	24	1.04%	6	826.60	3	815.63
L62	812.98	24	1.04%	6	827.50	3	816.23

LOT 59 SANITARY LEAD WAS INSTALLED IN PHASE 1

NOTE: SEE SH. 38 FOR UTILITY CROSSING INFORMATION.

Know what's **below.** **Call** before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
SANITARY SEWER PLAN & PROFILE

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

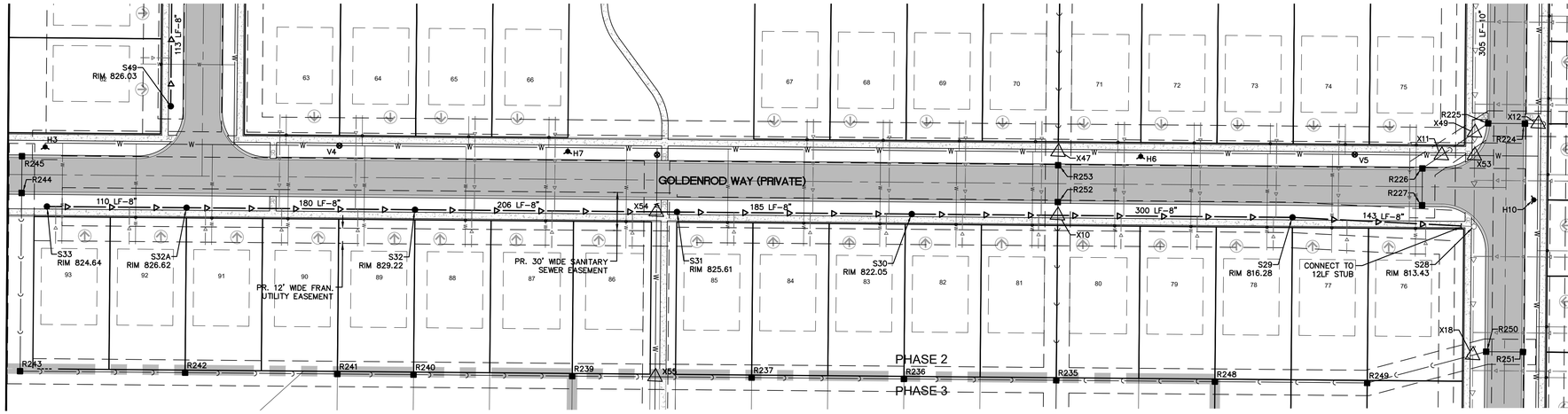
REVISIONS

SCALE: 1" = 50 FEET

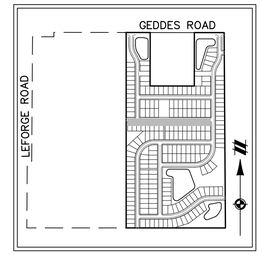
DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 25

CAD FILE: 19004443PSP-22-S.DWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443PSP-22-S.DWG 9/22/2026 9:12 AM MATTHEW MYERS



KEY MAP
NOT TO SCALE

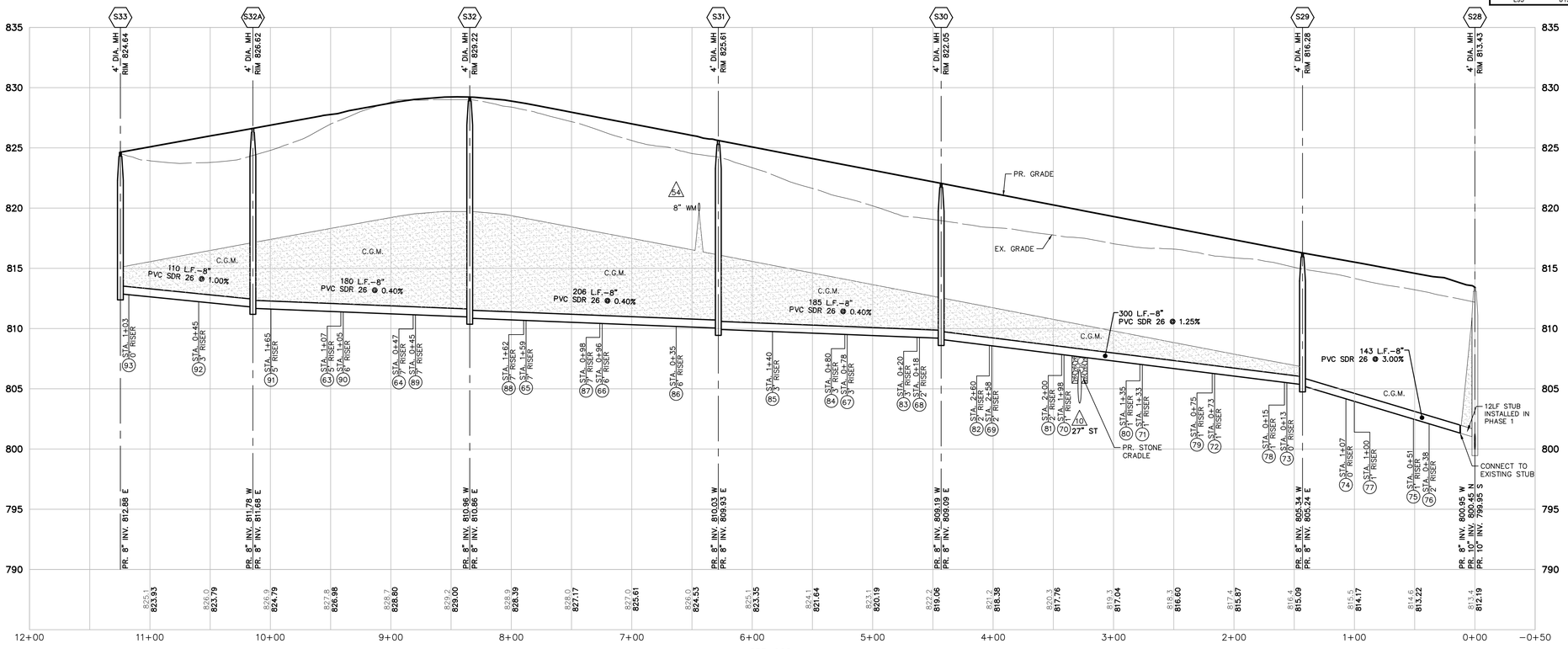


LEGEND

- PROPERTY LINE
- EX. STORM SEWER
- PR. STORM SEWER
- EX. MH/CB/ES
- PR. MH/CB/ES
- EX. WATER MAIN
- PR. WATER MAIN
- EX. HYDRANT
- PR. HYDRANT
- EX. GATE VALVE & WELL
- PR. GATE VALVE & WELL
- EX. SAN. SEWER
- PR. SAN. SEWER
- EX. SAN. SEWER MANHOLE
- PR. SAN. SEWER MANHOLE
- PR. COMPACTED CLASS II GRANULAR MATERIAL (C.G.M
- # UTILITY CROSSING
- GARAGE/DRIVEWAY
- 850 PROFILE GRID ELEVATION
- EXISTING GRADE — 850.00 PROPOSED GRADE
- 17+00 UTILITY ALIGNMENT STATION

Lot #	Lead Invert at Main	Lead Length (LF)	Lead Slope (%)	Lead Dia. (in)	Lot F.G. Elev.	Riser Height (FT)	Stub Invert Elev.
L63	812.22	74	1.04%	6	830.10	5	817.99
L64	811.98	74	1.04%	6	830.75	7	819.75
L65	811.50	74	1.04%	6	830.60	7	819.27
L66	811.25	74	1.04%	6	829.60	6	818.02
L67	810.34	74	1.04%	6	825.63	3	814.10
L68	810.10	74	1.04%	6	824.60	2	812.86
L69	809.40	74	1.04%	6	823.50	2	812.17
L70	808.65	74	1.04%	6	822.30	1	810.42
L71	807.84	74	1.04%	6	821.10	1	809.61
L72	807.09	74	1.04%	6	819.90	1	808.86
L73	806.34	74	1.04%	6	818.70	0	807.11
L74	804.99	76	1.04%	6	817.50	0	805.78
L75	803.31	78	1.04%	6	816.40	1	805.12
L76	802.92	26	1.04%	6	816.40	2	805.19
L77	804.78	26	1.04%	6	817.60	1	806.05
L78	806.36	26	1.04%	6	818.75	1	807.63
L79	807.11	26	1.04%	6	819.90	1	808.38
L80	807.86	26	1.04%	6	821.10	1	809.13
L81	808.67	26	1.04%	6	822.30	2	810.94
L82	809.42	26	1.04%	6	823.50	2	811.69
L83	810.10	26	1.04%	6	824.60	3	813.37
L84	810.34	26	1.04%	6	825.70	4	814.61
L85	810.58	26	1.04%	6	825.85	3	813.85
L86	811.00	29	1.04%	6	828.40	6	817.30
L87	811.28	29	1.04%	6	829.60	7	818.56
L88	811.51	29	1.04%	6	830.80	7	818.81
L89	811.97	29	1.04%	6	831.00	7	819.27
L90	812.21	29	1.04%	6	830.20	6	818.51
L91	812.45	29	1.04%	6	829.00	5	817.75
L92	813.06	29	1.04%	6	827.90	3	816.36
L93	813.64	29	1.04%	6	826.85	0	813.94

NOTE: SEE SH. 38 FOR UTILITY CROSSING INFORMATION.



S33–S28
VERT: 1"=5'
HORZ: 1"=50'

Know what's below. Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.
COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
SANITARY SEWER PLAN & PROFILE

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

REVISIONS

0 25 50
SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 26

K:\19004443\DWG\PLAN SETS\SITE_FINAL\PHASE 2\19004443FSP-22-S.DWG 9/22/2026 9:13 AM MATTHEW MYERS

CAD FILE: 19004443FSP-22-S.DWG

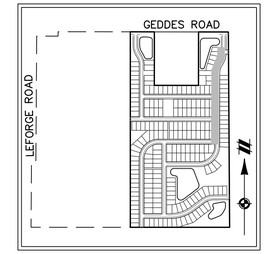
Lot #	Lead Invert at Main	Lead Length (LF)	Lead Slope (%)	Lead Dia. (in)	Lot F.G. Elev.	Riser Height (FT)	Stub Invert Elev.
L41	802.18	74	1.04%	6	824.00	10	812.95
L42	801.99	72	1.04%	6	821.80	7	809.74
L43	801.80	74	1.04%	6	819.50	5	807.57
L44	801.59	74	1.04%	6	817.60	4	806.36
L45	801.40	74	1.04%	6	816.10	2	804.17
L94	800.70	74	1.04%	6	815.30	2	803.47
L95	800.51	74	1.04%	6	814.65	2	803.28
L96	800.42	74	1.04%	6	814.50	2	803.19
L97	800.22	74	1.04%	6	815.25	3	803.99
L98	800.01	74	1.04%	6	815.60	3	803.78
L99	799.83	74	1.04%	6	815.50	3	803.60
L100	799.49	76	1.04%	6	814.20	2	802.28

LEAD SHOWN IN THIS TABLE WERE FULLY INSTALLED IN PHASE 1

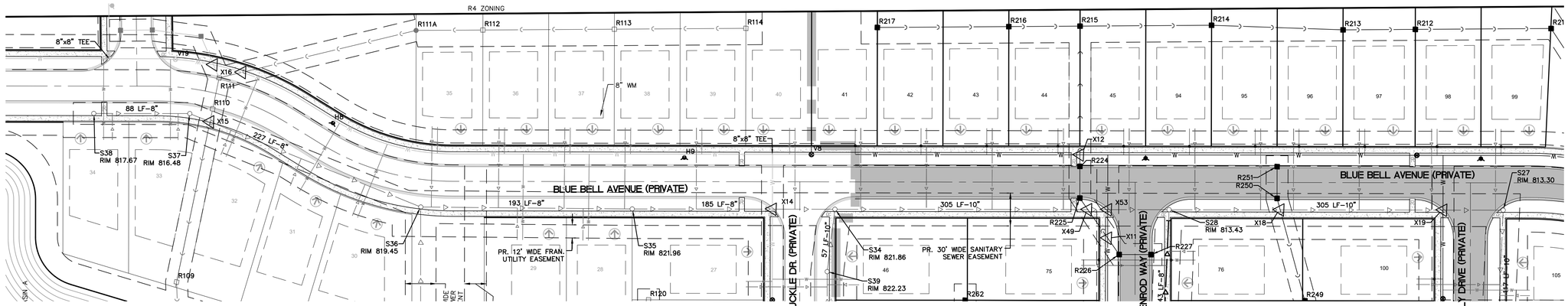
NOTE: SEE SH. 38 FOR UTILITY CROSSING INFORMATION.

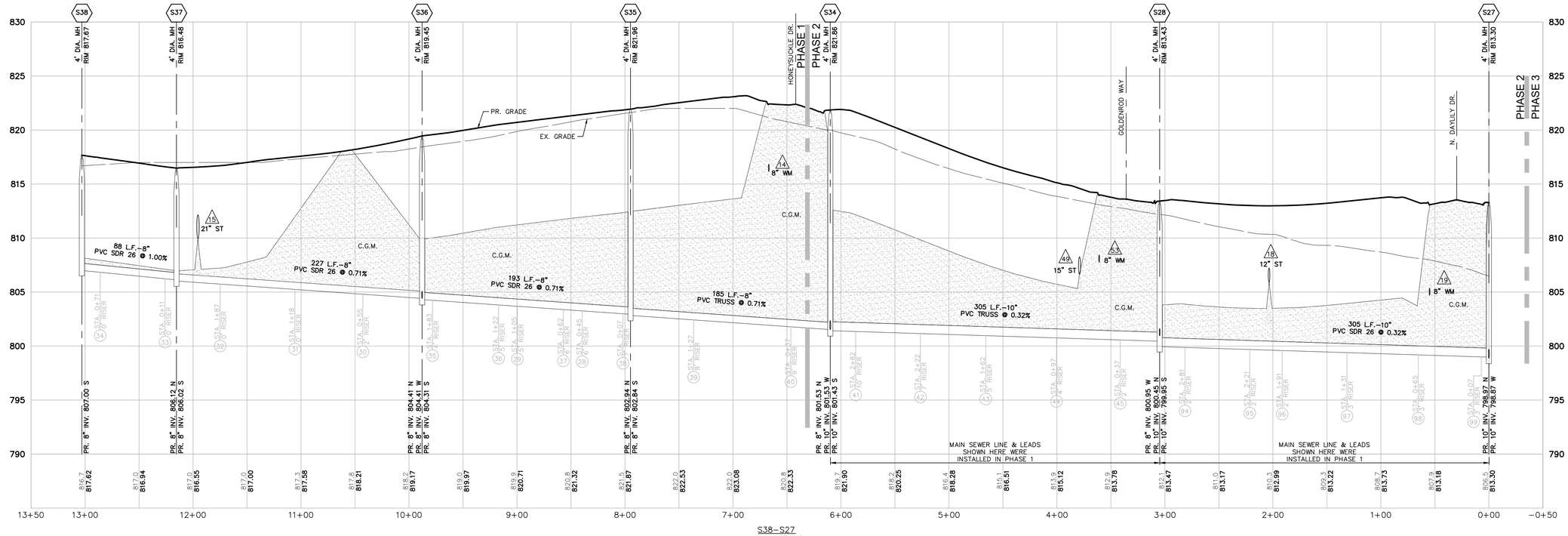
LEGEND

- PROPERTY LINE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING MANHOLE/CATCH BASIN/END SECTION
- PROPOSED MANHOLE/CATCH BASIN/END SECTION
- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- PROPOSED WATER MAIN LEAD
- EXISTING HYDRANT
- PROPOSED HYDRANT
- EXISTING GATE VALVE & WELL
- PROPOSED GATE VALVE & WELL
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- PROPOSED SANITARY LEAD
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- 25 FT WETLAND SETBACK LINE
- EXISTING WETLAND
- PROPOSED COMPACTED GRANULAR MATERIAL (C.G.M)
- # UTILITY CROSSING
- 850 PROFILE GRID ELEVATION
- EXISTING GRADE / PROPOSED GRADE (850.00)
- 17+00 UTILITY ALIGNMENT STATION



KEY MAP
NOT TO SCALE





S38–S27
VERT: 1"=5'
HORZ: 1"=50'

Know what's below. Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
SANITARY SEWER PLAN & PROFILE

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

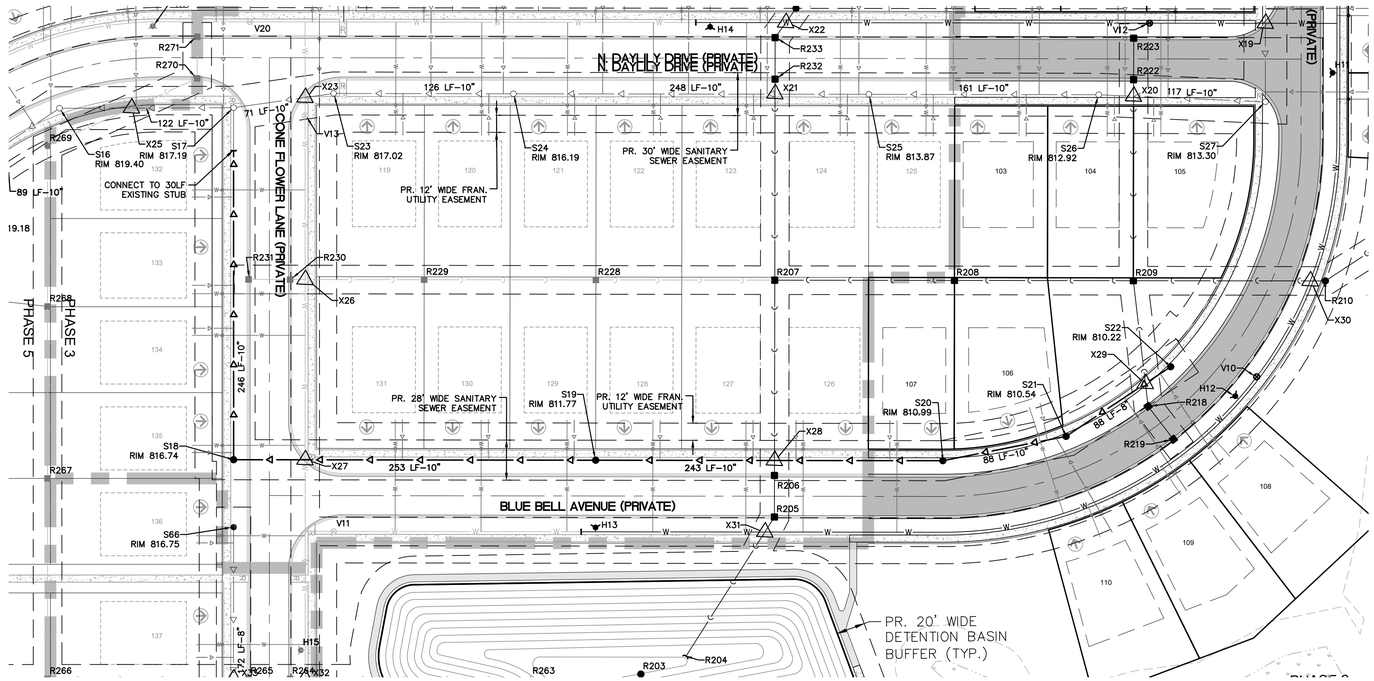
REVISIONS

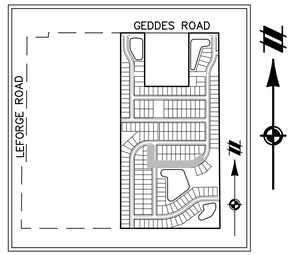
SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 27

CAD FILE: 19004443FSP-22-S.DWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443FSP-22-S.DWG 9/22/2026 9:13 AM MATTHEW MYERS





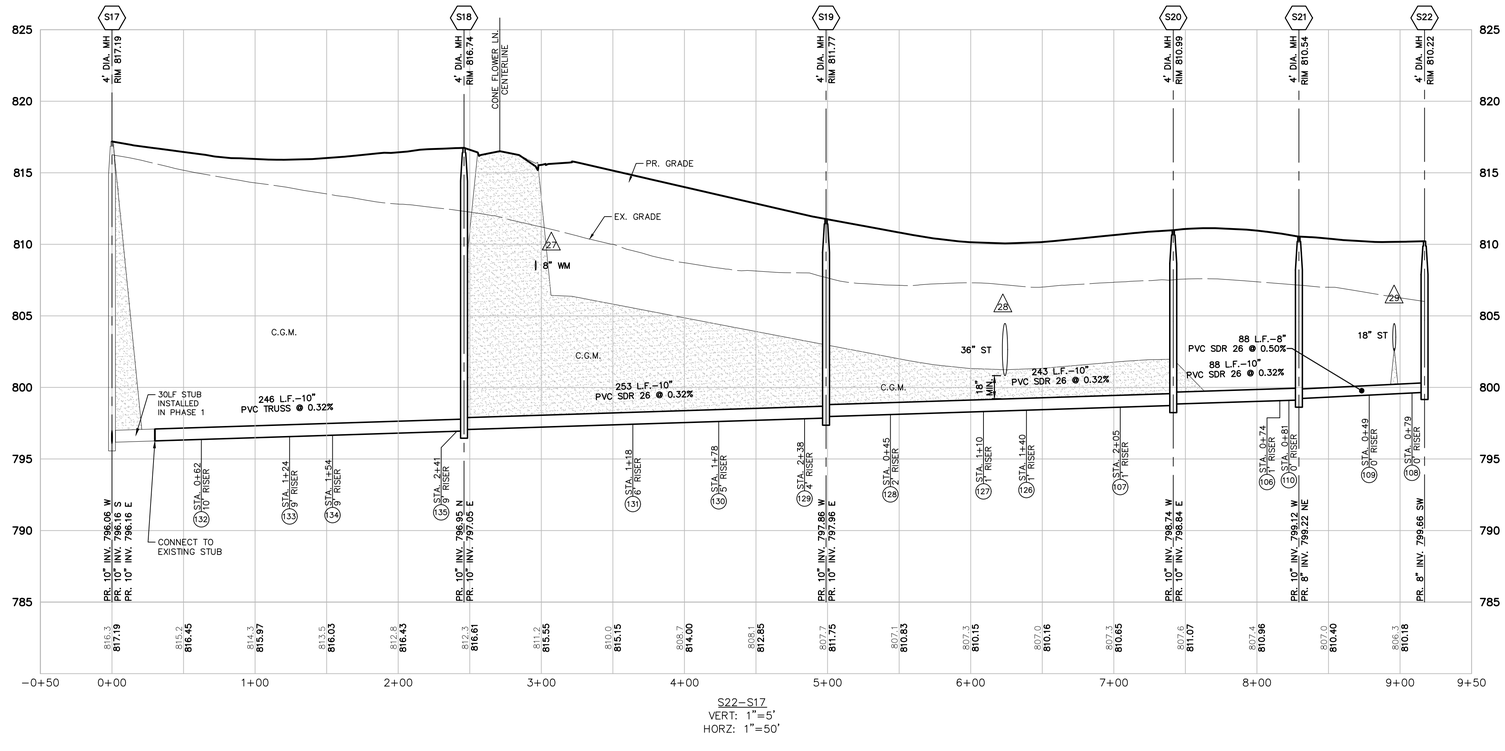
KEY MAP
NOT TO SCALE

LEGEND

- PROPERTY LINE
- EX. STORM SEWER
- PR. STORM SEWER
- EX. MH/CB/ES
- PR. MH/CB/ES
- EX. WATER MAIN
- PR. WATER MAIN
- EX. HYDRANT
- PR. HYDRANT
- EX. GATE VALVE & WELL
- PR. GATE VALVE & WELL
- EX. SAN. SEWER
- PR. SAN. SEWER
- EX. SAN. SEWER MANHOLE
- PR. SAN. SEWER MANHOLE
- PR. COMPACTED CLASS II GRANULAR MATERIAL (C.G.M
- UTILITY CROSSING
- GARAGE/DRIVEWAY

NOTE: SEE SH. 38 FOR UTILITY CROSSING INFORMATION.

Lot #	Lead Invert at Main	Lead Length (LF)	Lead Slope (%)	Lead Dia. (in)	Lot F.G. Elev.	Riser Height (FT)	Stub Invert Elev.
L108	800.44	76	1.04%	6	812.05	0	801.24
L109	800.29	78	1.04%	6	812.10	0	801.07
L110	799.93	76	1.04%	6	812.35	0	800.72
L106	799.91	26	1.04%	6	812.70	1	801.18
L107	799.45	28	1.04%	6	812.70	1	800.74
L126	799.24	28	1.04%	6	812.15	1	800.53
L127	799.14	28	1.04%	6	812.10	1	800.43
L128	798.93	28	1.04%	6	813.00	2	801.23
L129	798.64	28	1.04%	6	814.30	4	802.93
L130	798.45	28	1.04%	6	815.70	5	803.74
L131	798.26	28	1.04%	6	816.50	6	804.55
L132	797.19	29	1.04%	6	818.55	10	807.50
L133	797.39	29	1.04%	6	817.75	9	806.69
L134	797.49	29	1.04%	6	818.00	9	806.79
L135	797.77	29	1.04%	6	818.30	9	807.07



S22–S17
VERT: 1"=5'
HORZ: 1"=50'

Know what's below. Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

EYDE COMPANY
THE MEADOWS AT HAWTHORNE MILL
CONSTRUCTION PLANS
SANITARY SEWER PLAN & PROFILE

DATE
FEB. 1, 2021

12/10/2021 PER TWP
06/09/2022 PER TWP/WCWRC
03/13/2023 PER TWP/WCWRC
06/05/2023 PER WCRC/WCWRC
09/01/2023 PER WCRC/EGLE
09/25/2023 PER EGLE
12/11/2023 PER EGLE
04/01/2025 REVISIONS
04/21/2025 PER WCWRC
07/24/2025 PER TWP

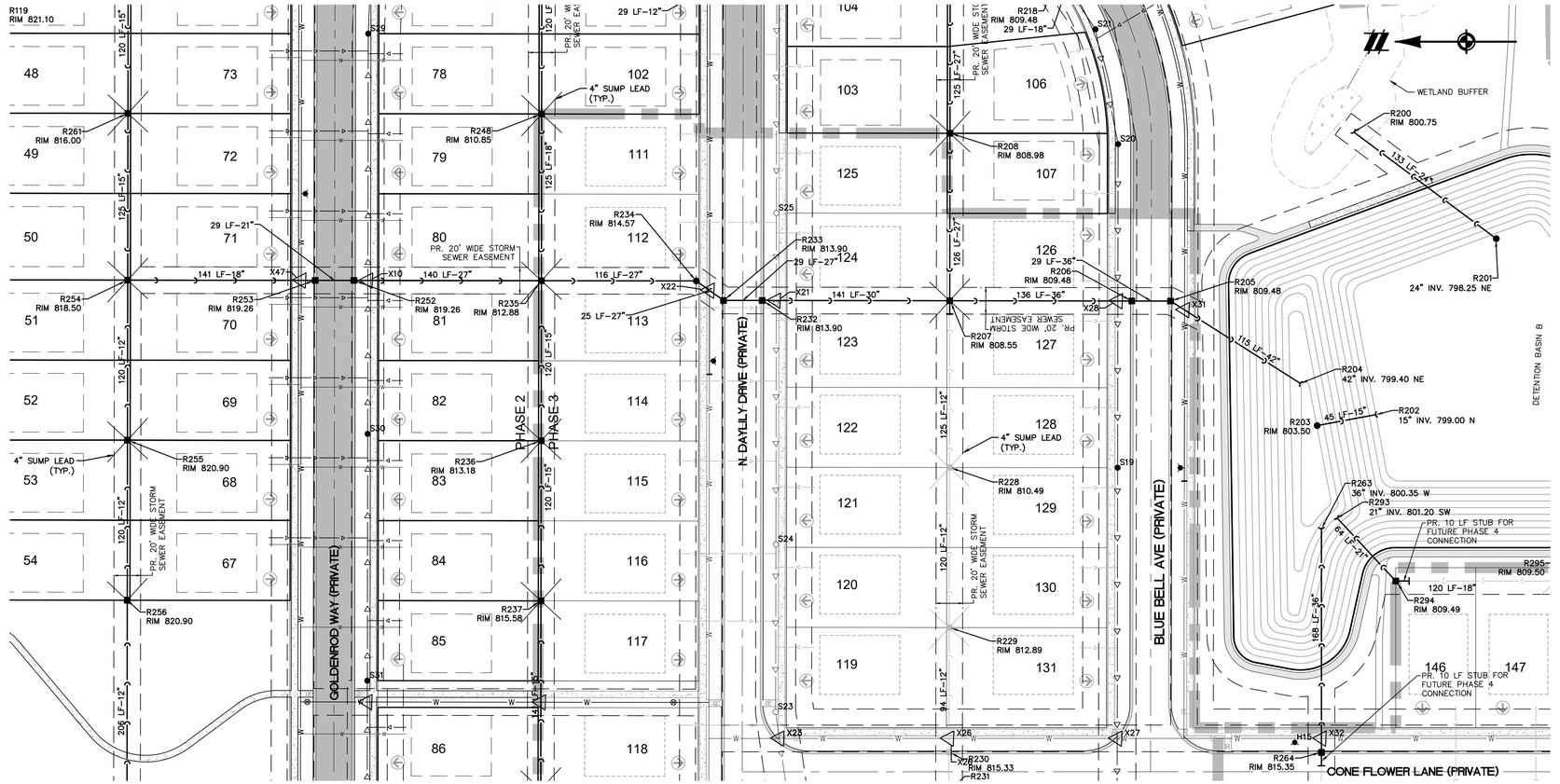
REVISIONS

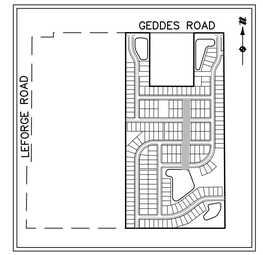
SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 28

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443PSP-22-S.DWG 9/22/2026 9:13 AM MATTHEW MYERS

CAD FILE: 19004443PSP-22-S.DWG





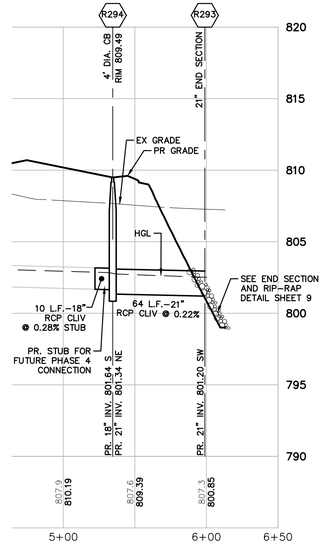
KEY MAP
NOT TO SCALE

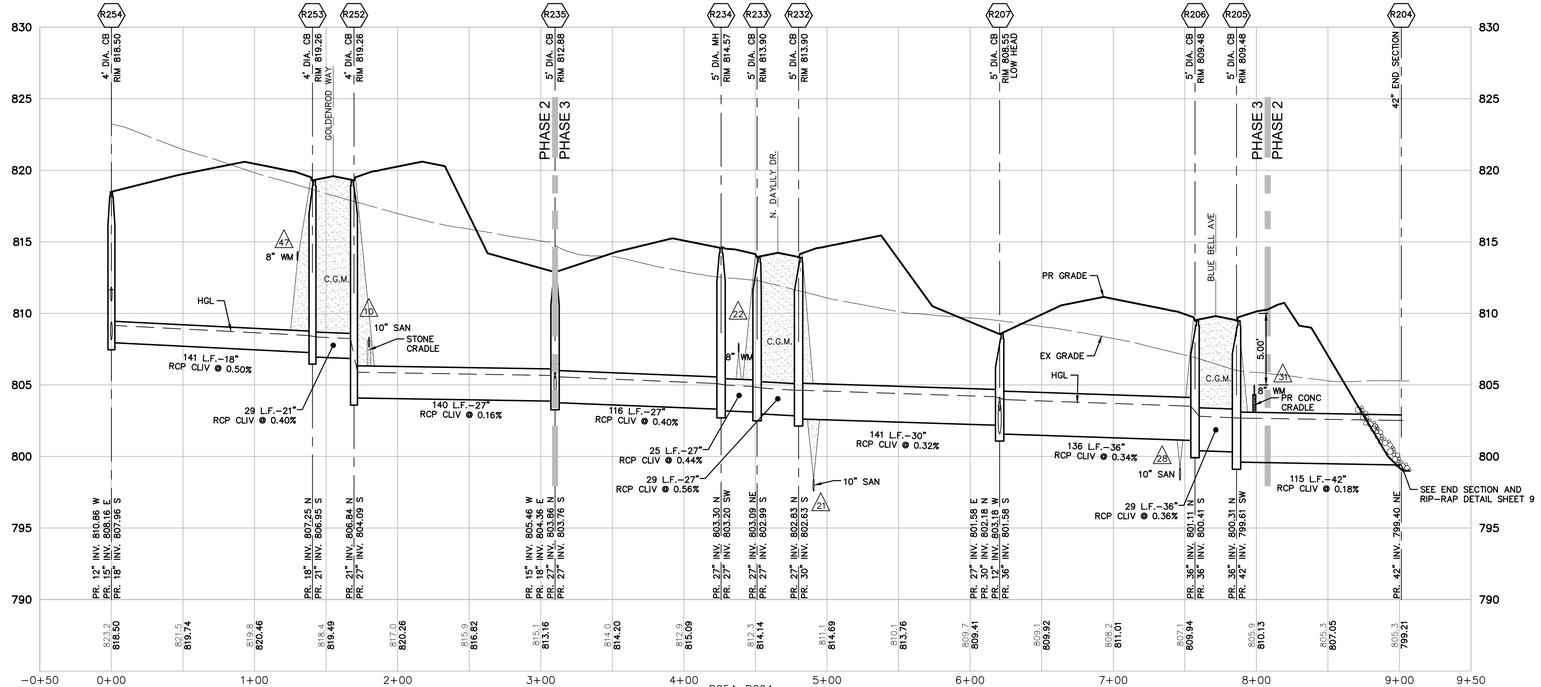
NOTE:
ALL STORM SEWER STRUCTURES RECEIVING STORM RUNOFF, EXCEPT FOR 2' DIAMETER INLETS, SHOULD HAVE 2-FOOT SUMPS PER SUPERIOR TOWNSHIP STANDARDS.

LEGEND

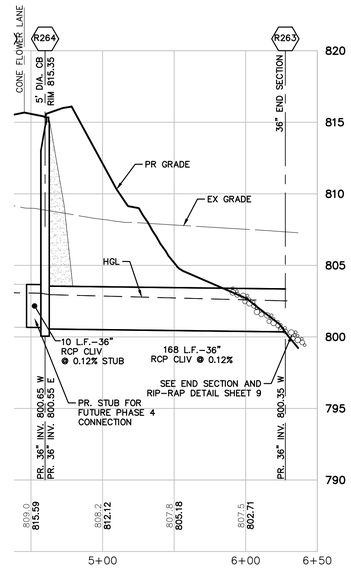
- PROPERTY LINE
- EX. STORM SEWER
- PR. STORM SEWER
- EX. MANHOLE/CATCH BASIN/END SECTION
- PR. MANHOLE/CATCH BASIN/END SECTION
- EX. WATER MAIN
- PR. WATER MAIN
- EX. HYDRANT
- PR. HYDRANT
- EX. GATE VALVE & WELL
- PR. GATE VALVE & WELL
- EX. SANITARY SEWER
- PR. SANITARY SEWER
- EX. SANITARY SEWER MANHOLE
- PR. SANITARY SEWER MANHOLE
- PR. COMPACTED GRANULAR MATERIAL (C.G.M)
- # UTILITY CROSSING
- 850 PROFILE GRID ELEVATION
- EXISTING GRADE / PROPOSED GRADE (850.00)
- 17+00 UTILITY ALIGNMENT STATION

NOTE: SEE SH. 38 FOR UTILITY CROSSING INFORMATION.





R254–R204
VERT: 1"=5'
HORZ: 1"=50'



Know what's below. Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
STORM SEWER PLAN & PROFILE

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

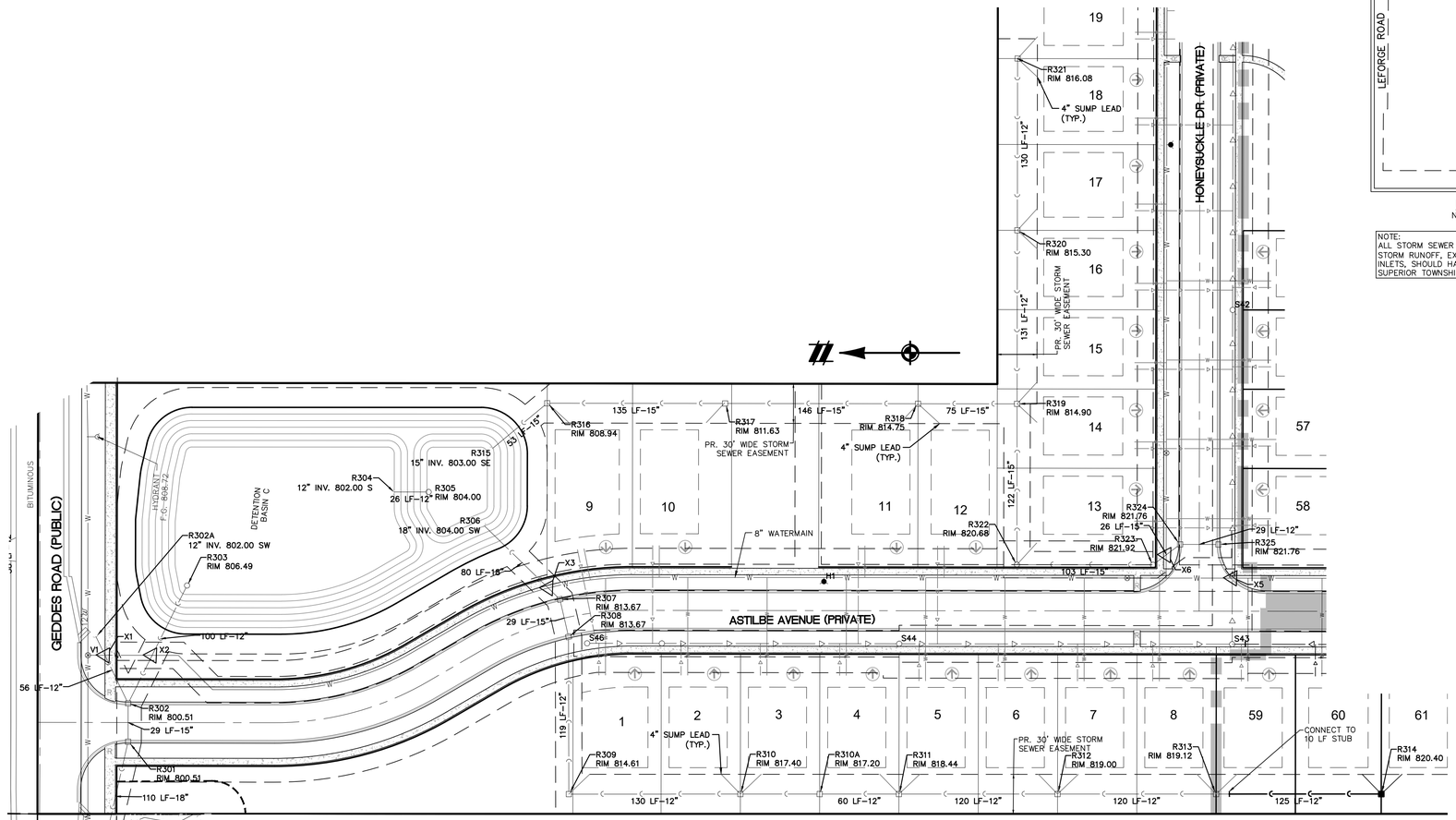
REVISIONS

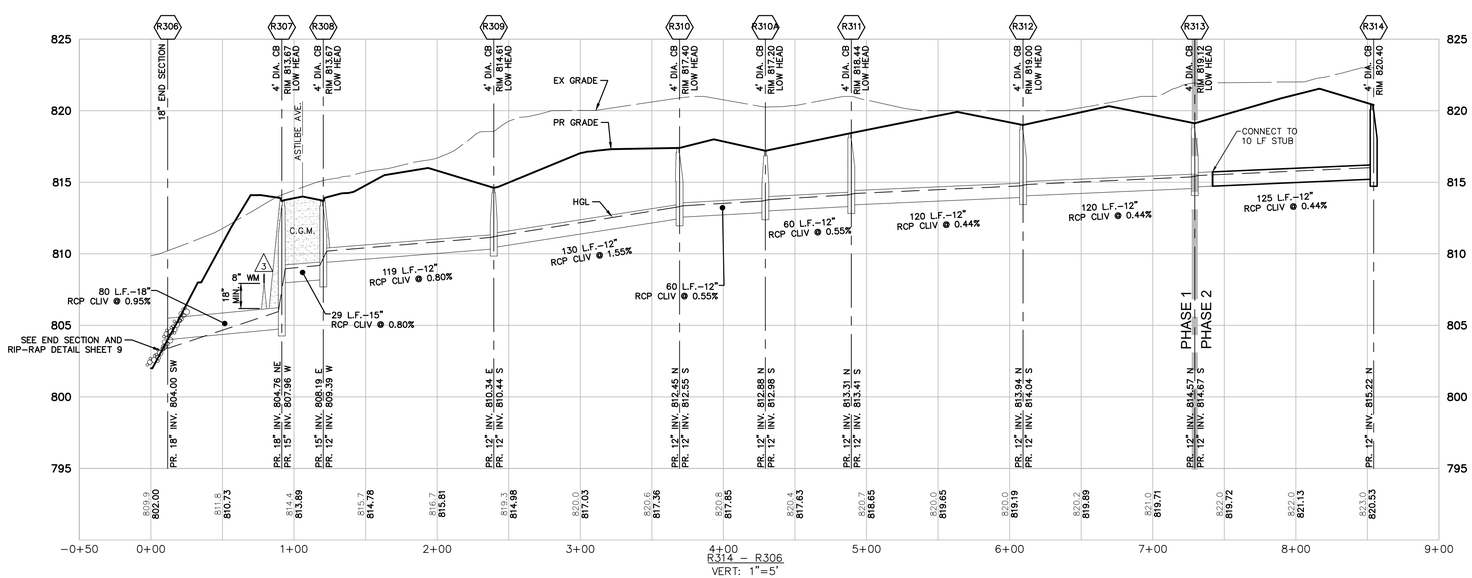
SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 29

CAD FILE: 19004443FSP-24-R.DWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443FSP-24-R.DWG 9/22/2026 9:14 AM MATTHEW MYERS





R314 – R306
VERT: 1"=5'
HORZ: 1"=50'

KEY MAP
NOT TO SCALE

NOTE:
ALL STORM SEWER STRUCTURES RECEIVING STORM RUNOFF, EXCEPT FOR 2' DIAMETER INLETS, SHOULD HAVE 2-FOOT SUMPS PER SUPERIOR TOWNSHIP STANDARDS.

LEGEND

PROPERTY LINE
EXISTING STORM SEWER
PROPOSED STORM SEWER
EXISTING MANHOLE/CATCH BASIN/END SECTION
PROPOSED MANHOLE/CATCH BASIN/END SECTION
EXISTING WATER MAIN
PROPOSED WATER MAIN
PROPOSED WATER MAIN LEAD
EXISTING HYDRANT
PROPOSED HYDRANT
EXISTING GATE VALVE & WELL
PROPOSED GATE VALVE & WELL
EXISTING SANITARY SEWER
PROPOSED SANITARY SEWER
PROPOSED SANITARY LEAD
EXISTING SANITARY SEWER MANHOLE
PROPOSED SANITARY SEWER MANHOLE
25 FT WETLAND SETBACK LINE
EXISTING WETLAND
PROPOSED COMPACTED GRANULAR MATERIAL (C.G.M)
UTILITY CROSSING
850 PROFILE GRID ELEVATION
EXISTING GRADE
PROPOSED GRADE
17+00 UTILITY ALIGNMENT STATION

NOTE: SEE SH. 38 FOR UTILITY CROSSING INFORMATION.

811
Know what's below.
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
STORM SEWER PLAN & PROFILE

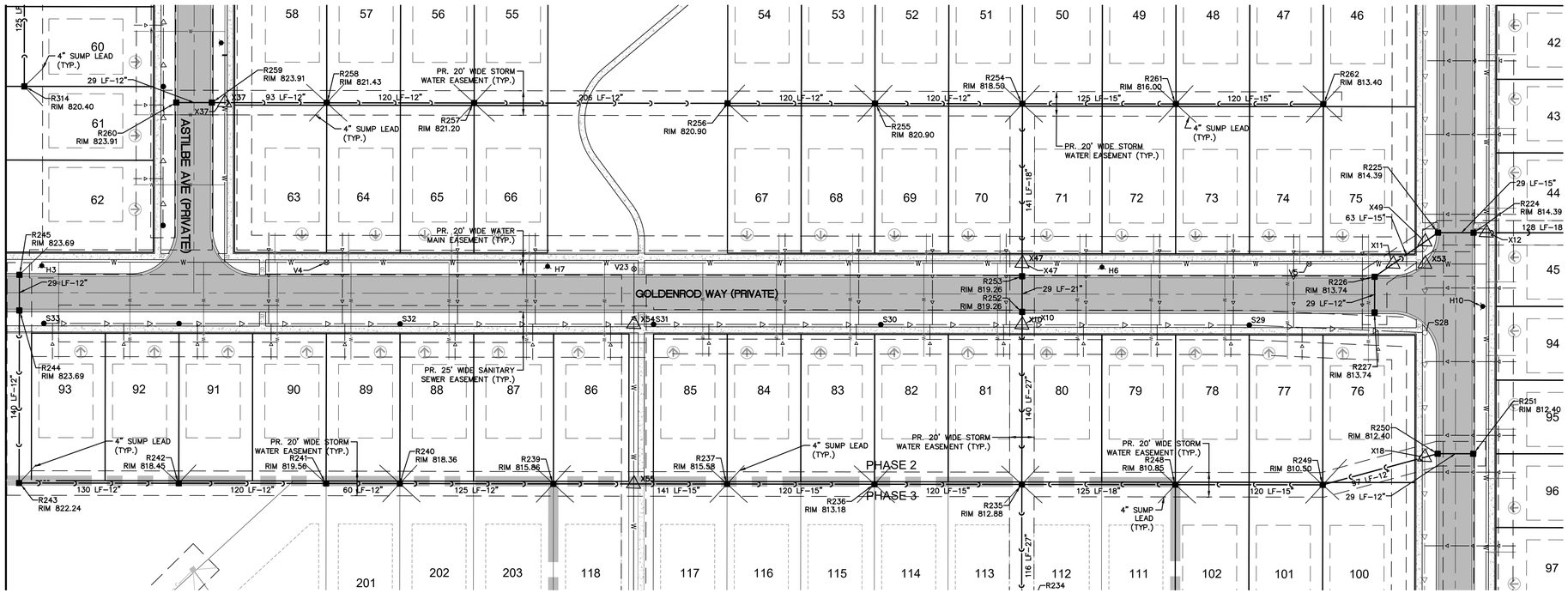
DATE
MAY 29, 2026
08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

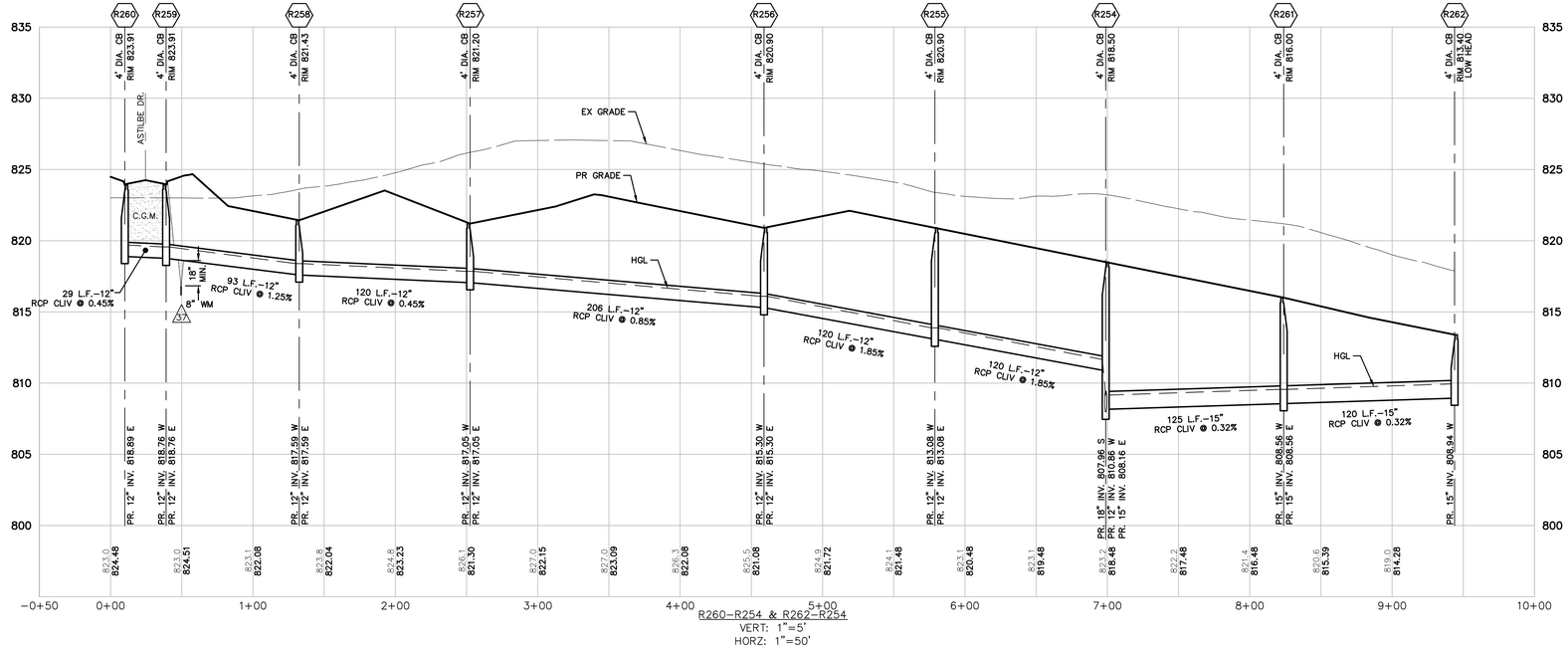
REVISIONS

0 25 50
SCALE: 1" = 50 FEET
DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 29

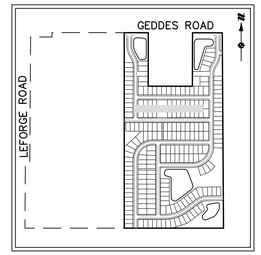
CAD FILE: 19004443SP-24-R.DWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443SP-24-R.DWG 9/22/2026 9:14 AM MATTHEW MYERS





R260–R254 & R262–R254
VERT: 1"=5'
HORZ: 1"=50'



KEY MAP
NOT TO SCALE

NOTE:
ALL STORM SEWER STRUCTURES RECEIVING STORM RUNOFF, EXCEPT FOR 2' DIAMETER INLETS, SHOULD HAVE 2-FOOT SUMPS PER SUPERIOR TOWNSHIP STANDARDS.

LEGEND

- PROPERTY LINE
- EX. STORM SEWER
- PR. STORM SEWER
- EX. MANHOLE/CATCH BASIN/END SECTION
- PR. MANHOLE/CATCH BASIN/END SECTION
- EX. WATER MAIN
- PR. WATER MAIN
- EX. HYDRANT
- PR. HYDRANT
- EX. GATE VALVE & WELL
- PR. GATE VALVE & WELL
- EX. SANITARY SEWER
- PR. SANITARY SEWER
- EX. SANITARY SEWER MANHOLE
- PR. SANITARY SEWER MANHOLE
- PR. COMPACTED GRANULAR MATERIAL (C.G.M)
- # UTILITY CROSSING
- 850 PROFILE GRID ELEVATION
- EXISTING GRADE / 850.00 PROPOSED GRADE
- 17+00 UTILITY ALIGNMENT STATION

NOTE: SEE SH. 38 FOR UTILITY CROSSING INFORMATION.

811 Know what's below. Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
STORM SEWER PLAN & PROFILE

DATE
MAY 29, 2026
08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

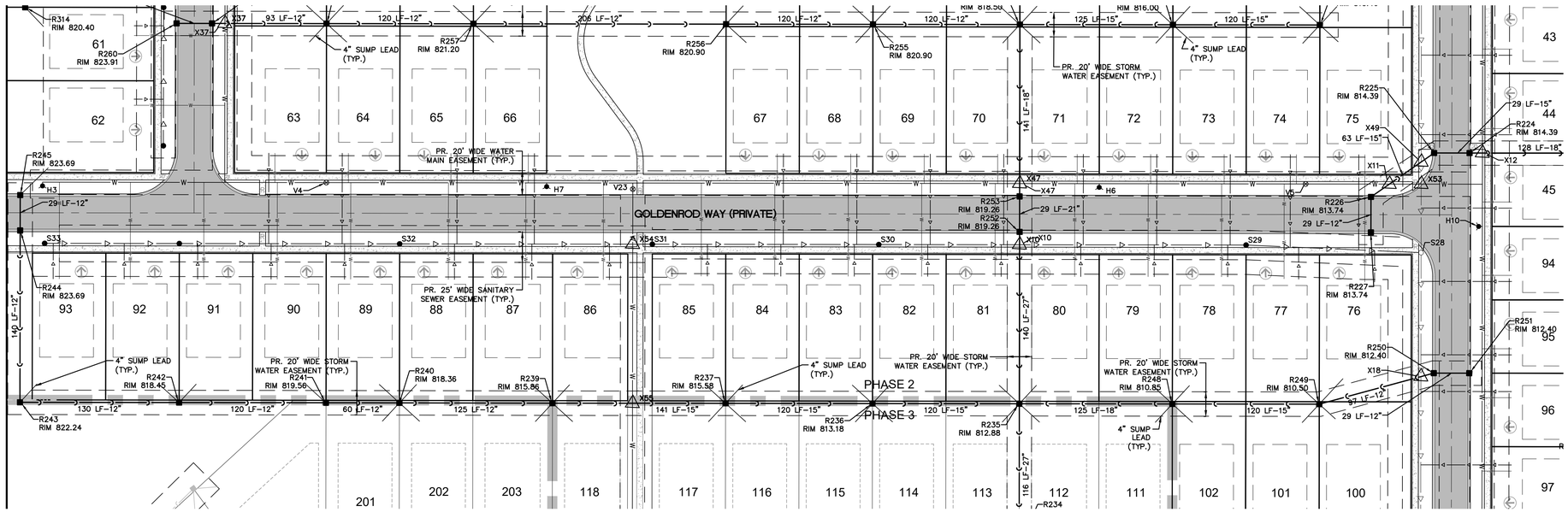
REVISIONS

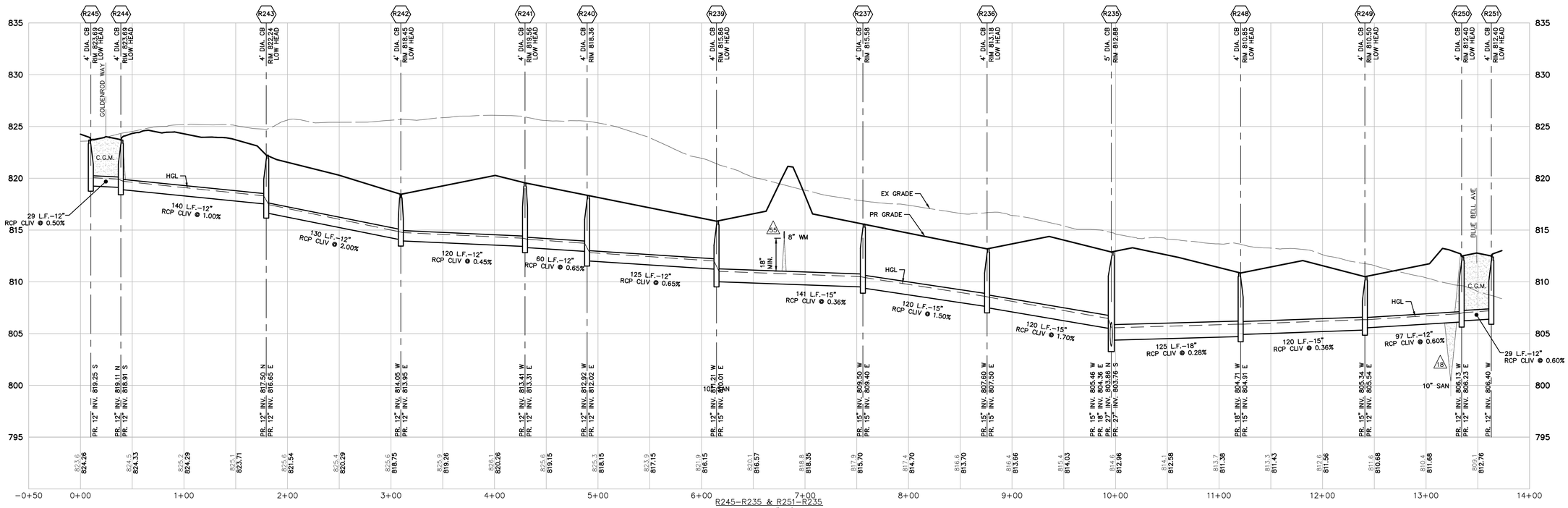
SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 31

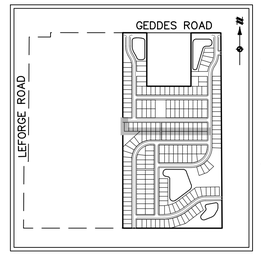
CAD FILE: 19004443SP-24-R.DWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443SP-24-R.DWG 9/22/2026 9:15 AM MATTHEW MYERS





R245–R235 & R251–R235
VERT: 1"=5'
HORZ: 1"=50'



KEY MAP
NOT TO SCALE

NOTE:
ALL STORM SEWER STRUCTURES RECEIVING STORM RUNOFF, EXCEPT FOR 2' DIAMETER INLETS, SHOULD HAVE 2–FOOT SUMPS PER SUPERIOR TOWNSHIP STANDARDS.

LEGEND

- PROPERTY LINE
- EX. STORM SEWER
- PR. STORM SEWER
- EX. MANHOLE/CATCH BASIN/END SECTION
- PR. MANHOLE/CATCH BASIN/END SECTION
- EX. WATER MAIN
- PR. WATER MAIN
- EX. HYDRANT
- PR. HYDRANT
- EX. GATE VALVE & WELL
- PR. GATE VALVE & WELL
- EX. SANITARY SEWER
- PR. SANITARY SEWER
- EX. SANITARY SEWER MANHOLE
- PR. SANITARY SEWER MANHOLE
- PR. COMPACTED GRANULAR MATERIAL (C.G.M)
- # UTILITY CROSSING
- 850 PROFILE GRID ELEVATION
- EXISTING GRADE / PROPOSED GRADE (850.00)
- 17+00 UTILITY ALIGNMENT STATION

NOTE: SEE SH. 38 FOR UTILITY CROSSING INFORMATION.

Know what's **below.** **Call** before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
STORM SEWER PLAN & PROFILE

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

REVISIONS

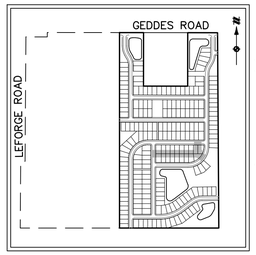
SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 32

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443FSP-24-R.DWG 9/22/2026 9:15 AM MATTHEW MYERS

CAD FILE: 19004443FSP-24-R.DWG

NOTE:
ALL STORM SEWER STRUCTURES RECEIVING STORM RUNOFF, EXCEPT FOR 2' DIAMETER INLETS, SHOULD HAVE 2-FOOT SUMPS PER SUPERIOR TOWNSHIP STANDARDS.

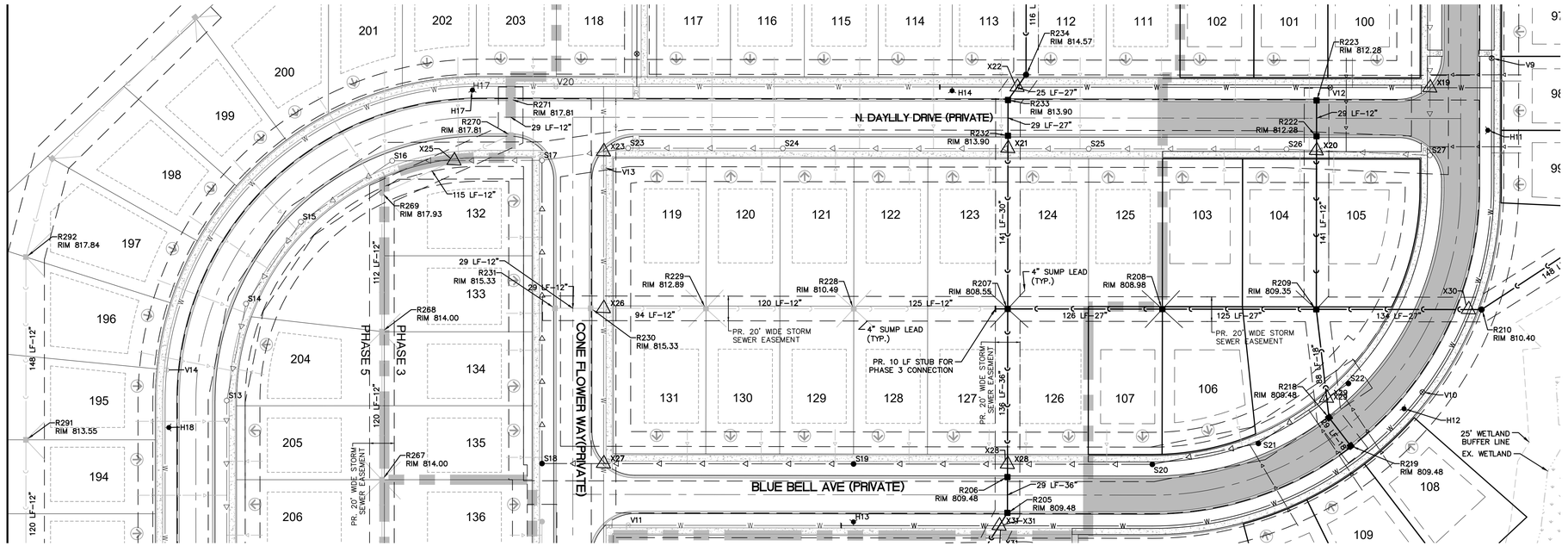


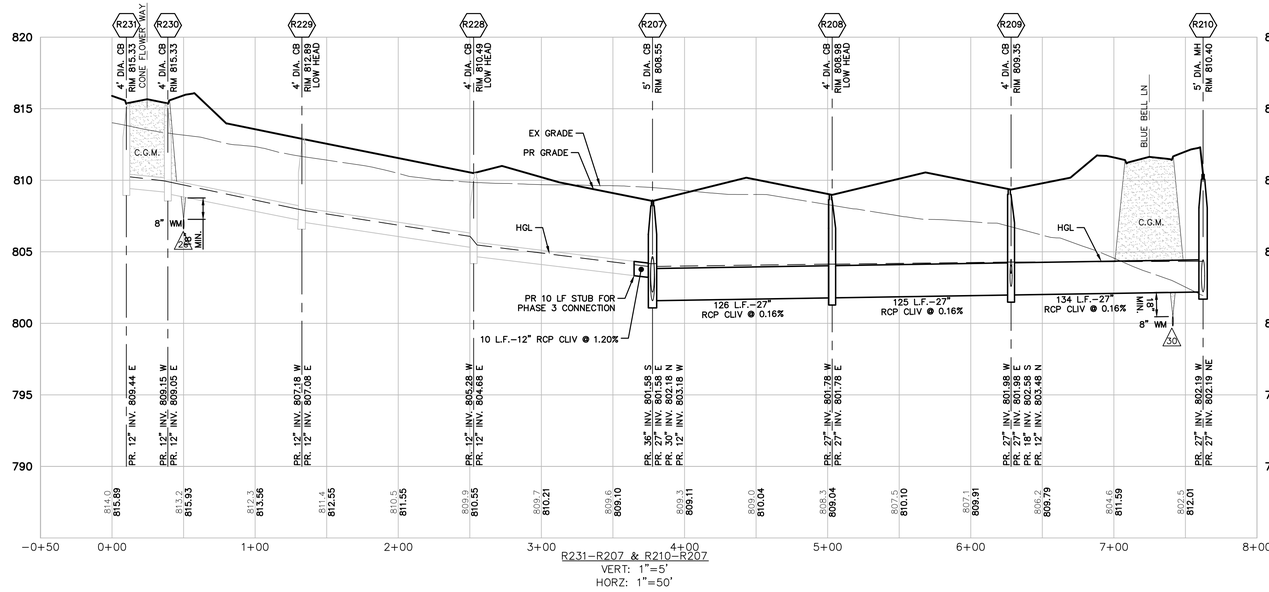
KEY MAP

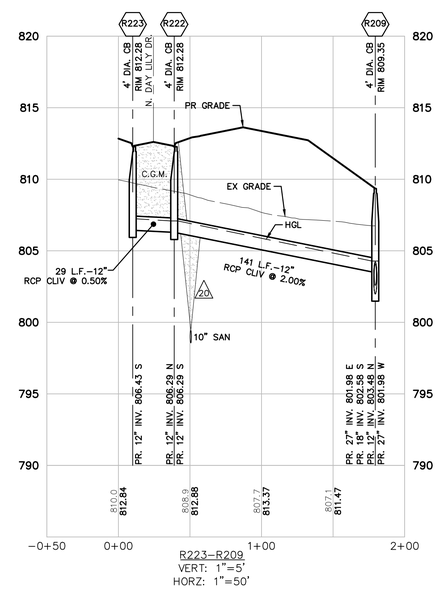
LEGEND

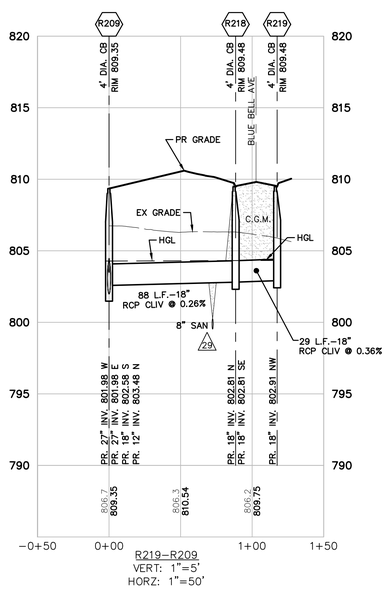
- PROPERTY LINE
- EX. STORM SEWER
- PR. STORM SEWER
- EX. MANHOLE/CATCH BASIN/END SECTION
- PR. MANHOLE/CATCH BASIN/END SECTION
- EX. WATER MAIN
- PR. WATER MAIN
- EX. HYDRANT
- PR. HYDRANT
- EX. GATE VALVE & WELL
- PR. GATE VALVE & WELL
- EX. SANITARY SEWER
- PR. SANITARY SEWER
- EX. SANITARY SEWER MANHOLE
- PR. SANITARY SEWER MANHOLE
- PR. COMPACTED GRANULAR MATERIAL (C.G.M)
- # UTILITY CROSSING
- 850 PROFILE GRID ELEVATION
- EXISTING GRADE / 850.00 PROPOSED GRADE
- 17+00 UTILITY ALIGNMENT STATION

NOTE: SEE SH. 38 FOR UTILITY CROSSING INFORMATION.









Know what's below. Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
STORM SEWER PLAN & PROFILE

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

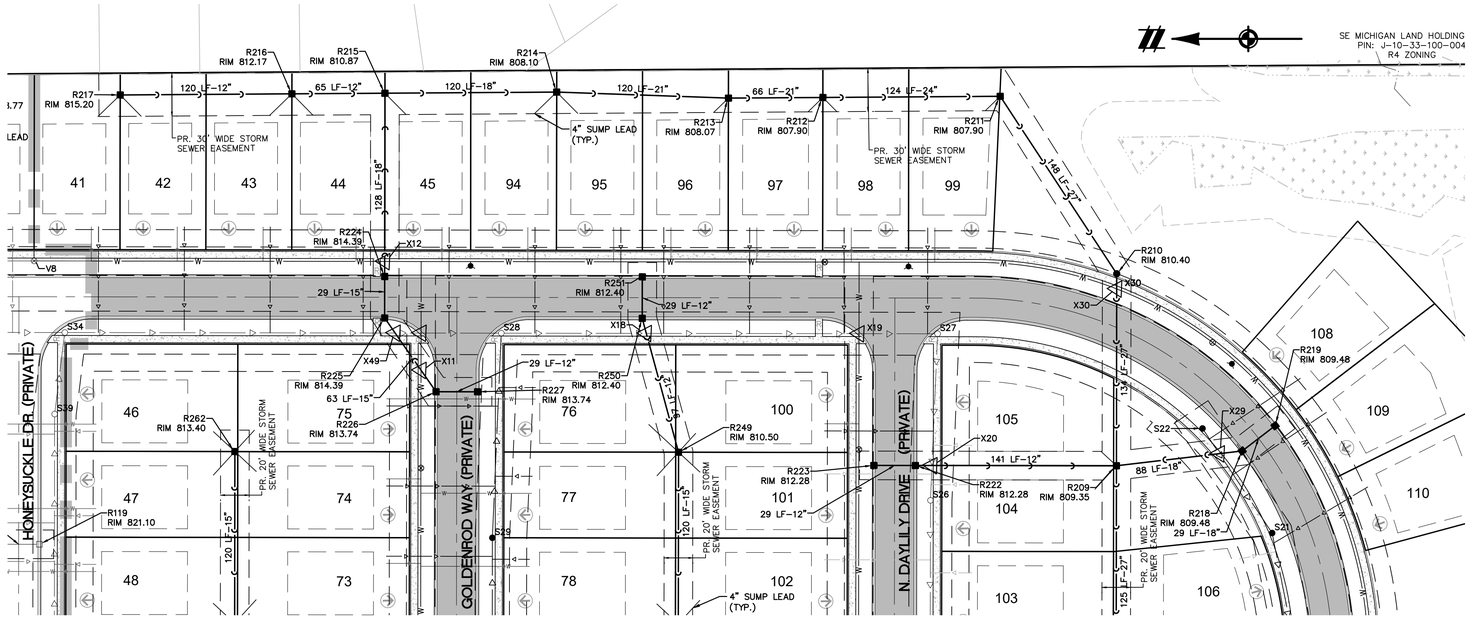
REVISIONS

0 25 50
SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 33

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443SP-24-R.DWG 9/22/2026 9:15 AM MATTHEW MYERS

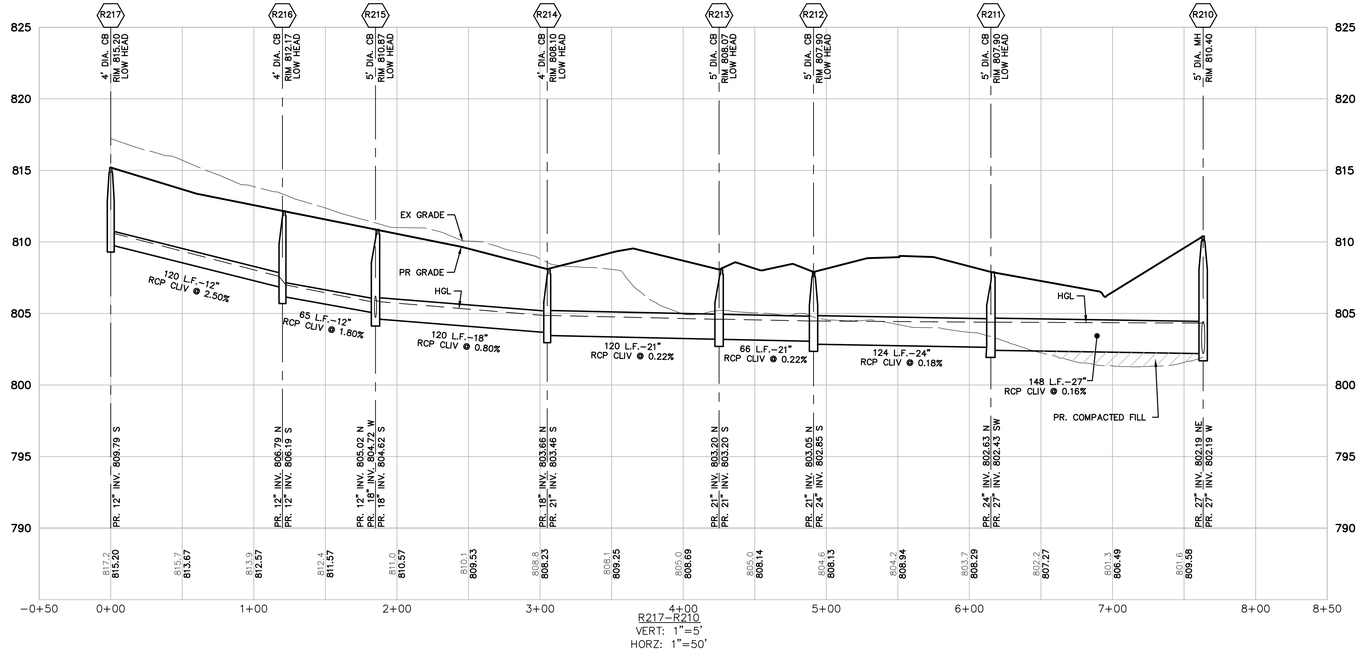
CAD FILE: 19004443SP-24-R.DWG



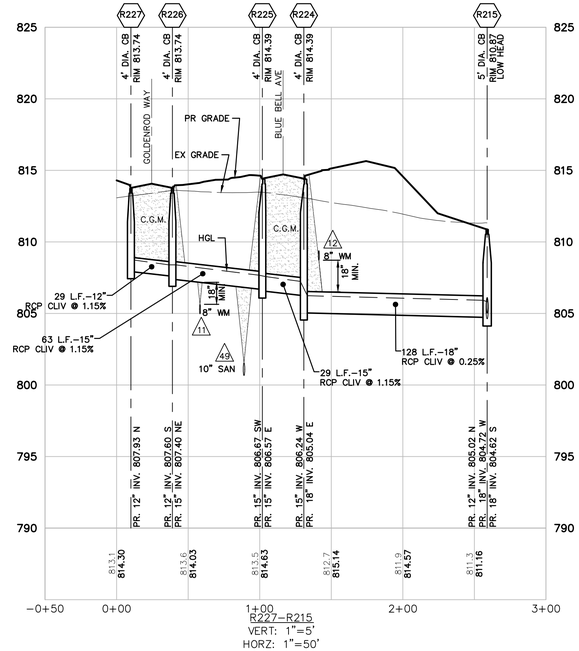
LEGEND

- PROPERTY LINE
- EX. STORM SEWER
- PR. STORM SEWER
- EX. MANHOLE/CATCH BASIN/END SECTION
- PR. MANHOLE/CATCH BASIN/END SECTION
- EX. WATER MAIN
- PR. WATER MAIN
- EX. HYDRANT
- PR. HYDRANT
- EX. GATE VALVE & WELL
- PR. GATE VALVE & WELL
- EX. SANITARY SEWER
- PR. SANITARY SEWER
- EX. SANITARY SEWER MANHOLE
- PR. SANITARY SEWER MANHOLE
- PR. COMPACTED GRANULAR MATERIAL (C.G.M)
- # UTILITY CROSSING
- 850 PROFILE GRID ELEVATION
- EXISTING GRADE / PROPOSED GRADE (850.00)
- 17+00 UTILITY ALIGNMENT STATION

NOTE: SEE SH. 38 FOR UTILITY CROSSING INFORMATION.



R217–R210
VERT: 1"=5'
HORZ: 1"=50'



R227–R215
VERT: 1"=5'
HORZ: 1"=50'

Know what's below. Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.
COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
STORM SEWER PLAN & PROFILE

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP.
09-22-2026 PER TWP.

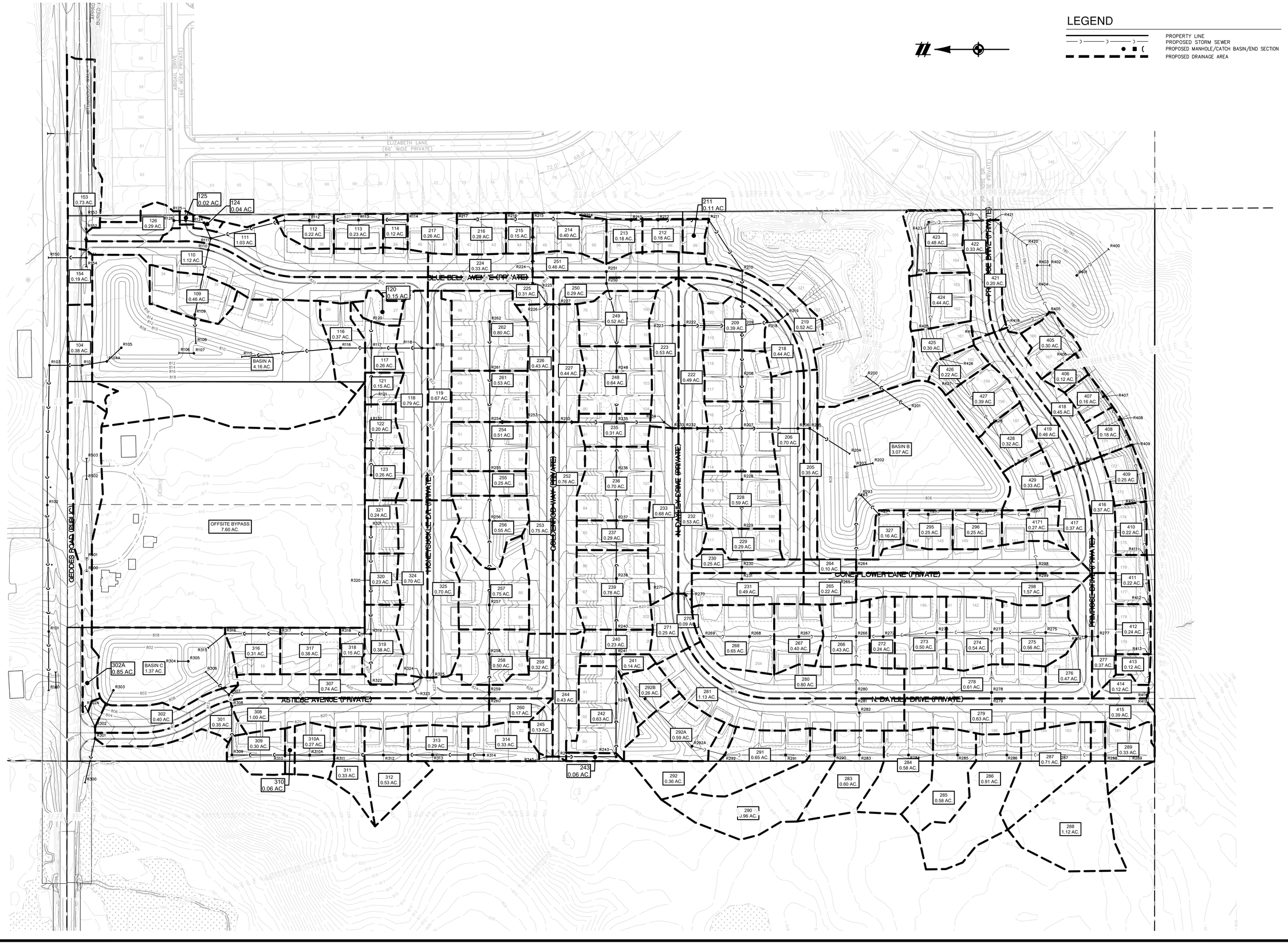
REVISIONS

SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 34

CAD FILE: 19004443SP-24-R.DWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443SP-24-R.DWG 9/22/2026 9:16 AM MATTHEW MYERS



811
Know what's below.
Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
DRAINAGE AREA PLAN

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP.
09-22-2026 PER TWP.

REVISIONS

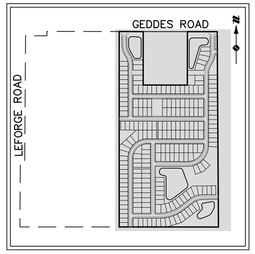
0 50 100
SCALE: 1" = 100 FEET
DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 35

CAD FILE: 19004443SP-14-DA.DWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443SP-14-DA.DWG 9/22/2026 9:16 AM MATTHEW MYERS

NOTES

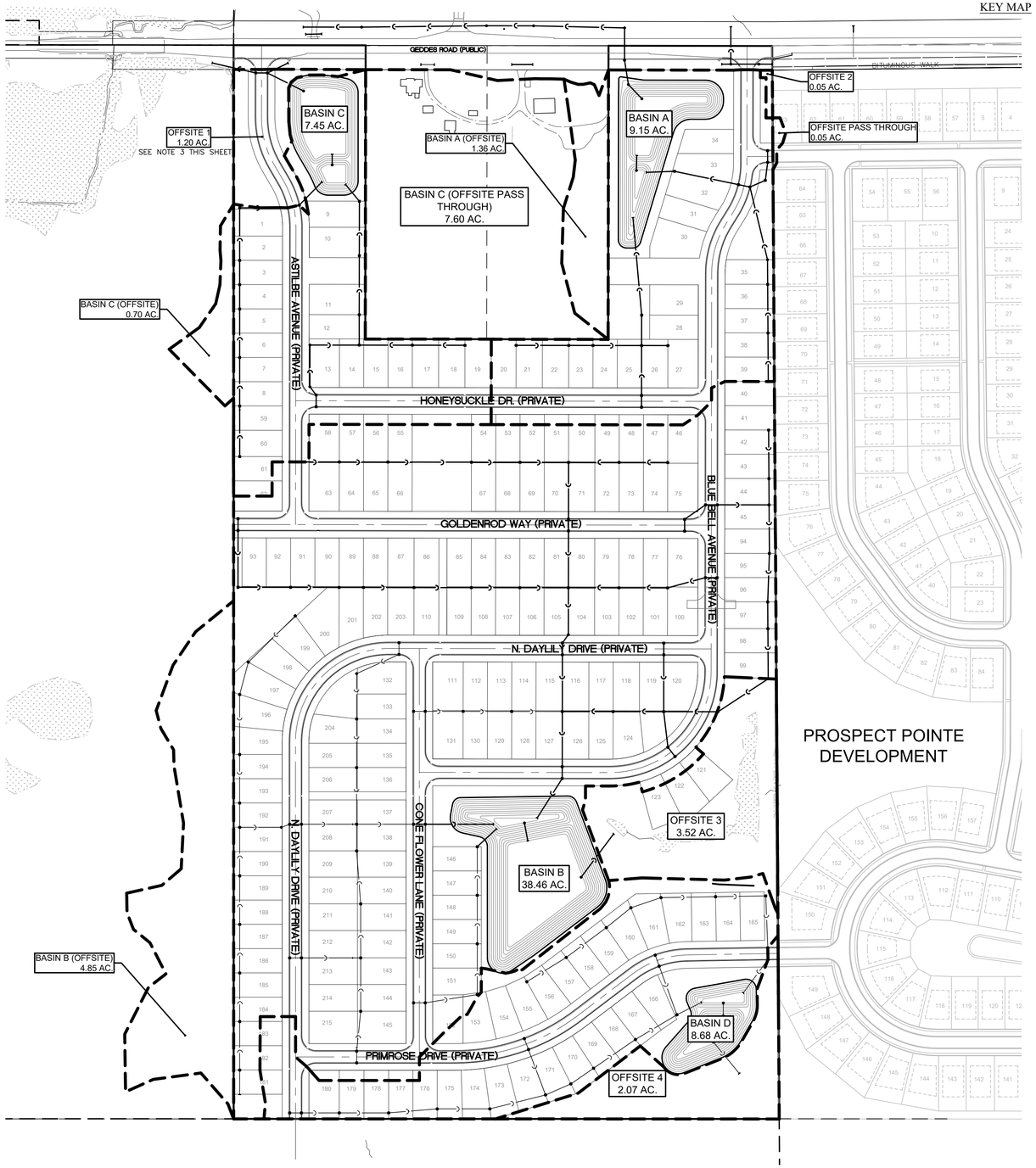
1. TEST PITS FOR SOIL INFILTRATION TESTING WERE PERFORMED IN MAY, 2020. OF THE TWELVE TEST LOCATIONS, ONLY TP-10 CONTAINED SOILS SUITABLE FOR INFILTRATION TESTING. DUE TO THE SHALLOW DEPTH OF THE CLAYEY SAND/GRAVEL LAYER AND RELATIVELY HIGH ELEVATION OF THIS TEST LOCATION IN RELATION TO THE SURROUNDING SITE AREAS, IT WAS DETERMINED THAT THIS LOCATION WAS NOT VIABLE TO SERVE THE INFILTRATION REQUIREMENTS OF THE SITE. THEREFORE, THE PROPOSED BASINS HAVE BEEN DESIGNED WITH A TWENTY PERCENT (20%) VOLUME PENALTY, IN ACCORDANCE WITH WCWRC RULES.
2. THE DETENTION BASIN OUTLETS WILL ULTIMATELY DISCHARGE TO THE SNIDECAR DRAIN AND THE SUPERIOR NO. 1 DRAIN, WHICH FLOW SOUTH AND ULTIMATELY DISCHARGES INTO THE HURON RIVER, APPROXIMATELY 1.5 MILES SOUTHWEST OF THE PROJECT.
3. OFFSITE 1 DRAINAGE AREA IS TO DRAIN UNDETAINED DUE TO ROADWAY BEING AT OR BELOW THE POND ELEVATIONS
4. AN EGLE PERMIT HAS BEEN ISSUED FOR THE REGULATED WETLAND IMPACTS.



KEY MAP

LEGEND

- PROPERTY LINE
- PROPOSED STORM SEWER
- PROPOSED MANHOLE/CATCH BASIN/END SECTION
- PROPOSED DRAINAGE AREA



811 Know what's **below.** **Call** before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
DETENTION TRIBUTARY
DRAINAGE AREA PLAN

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

REVISIONS

0 75 150
SCALE: 1" = 150 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 36

CAD FILE: 19004443SP-15-DET-DA.DWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443SP-15-DET-DA.DWG 9/22/2026 9:17 AM MATTHEW MYERS

DETENTION BASIN B

Project: The Meadows at Hawthorne Mill — Date: 9/22/2026
Location: Superior Township — By: Atwell
Description: Detention Basin B

W1 Determining Post-Development Cover Types, Areas, Curve Numbers and runoff coefficients

Total Contributing Drainage Area = 43.31 Acres
Total Site Area = 41.95 Acres

Rational Method Variables

Cover Type	Soil Type	Area (sf)	Area (ac)	Runoff Coef	(c)(Area)
Paved Parking Lots, roofs, driveways	D	655,160	15.04	0.95	622,402
Water Surfaces	B	96,500	2.22	1.00	96,500
Developed Open Space, Good Condition	B	407,720	9.36	0.25	101,930
Developed Open Space, Good Condition	D	515,938	11.84	0.45	232,172
Off-site Contributing Area	B	211,266	4.85	0.25	52,817
				Total - Sum (c)(Area) =	1,105,820
				Area Total (sf)=	1,886,584
				Weighted C-Sum(c)(Area)/Sum(ac) or Sum(sf)=	0.59

NRCS Variables

Pervious Cover Type	Soil Type	Area (sf)	Area (ac)	Curve Number	(CN)(Area)
Developed Open Space, Good Condition	B	407,720	9.36	61	24,870,920
Developed Open Space, Good Condition	D	515,938	11.84	80	41,275,008
Off-site Contributing Area	B	211,266	4.85	58	12,253,428
Total - Sum (CN)(Area) =					78,399,356
Area Total (sf)=					1,134,924
Weighted CN-Sum(CN)(Area)/Sum(ac) or Sum(sf)=					69

NRCS Variables

Impervious Cover Type	Soil Type	Area (sf)	Area (ac)	Curve Number	(CN)(Area)
Paved Parking Lots, roofs, driveways	D	655,160	15.04	98	64,205,680
Impervious, Ponds	B	96,500	2.22	98	9,457,000
Total - Sum (CN)(Area) =					73,662,680
Area Total - Sum(ac) of Sum(sf)=					751,660
Weighted CN-Sum(CN)(Area)/Sum(ac) or Sum(sf)=					98

W2 First Flush Runoff Calculations (Vff)

A. Vff = (1") (1/12) (43560/1) (C) AC = **92,757** cf

W3 Predevelopment Bankfull Runoff Calculations (Vbf-pre)

A.	2 year/24 hour storm event	P =	2.35	in
B.	Pervious Cover CN *(Good Cover Woods or Meadows)*	CN =	70	
C.	S = (1000/CN)-10	S =	4.29	in
D.	Q = (P-0.25)^2/(P+0.8S)	Q =	0.39	in
E.	Pervious Cover Area	Area =	1,886,584	sf
F.	$V_{bf\text{-}pre}$ = Q(1/12)Area	$V_{bf\text{-}pre}$ =	**60,633**	cf

W4 Pervious Cover Post-development Bankfull Runoff Calculations (Vbf-per-post)

A.	2 year/24 hour storm event	P =	2.35	in
B.	Pervious Cover CN	CN =	**69**	
C.	S = (1000/CN)-10	S =	4.48	in
D.	Q = (P-0.25)^2/(P+0.8S)	Q =	0.36	in
E.	Pervious Cover Area	Area =	1,134,924	sf
F.	$V_{bf\text{-}per\text{-}post}$ = Q(1/12)Area	$V_{bf\text{-}per\text{-}post}$ =	**33,751**	cf

W5 Impervious Cover Post-development Bankfull Runoff Calculations (Vbf-imp-post)

A.	2 year/24 hour storm event	P =	2.35	in
B.	Impervious Cover CN	CN =	98	
C.	S = (1000/CN)-10	S =	0.20	in
D.	Q = (P-0.25)^2/(P+0.8S)	Q =	2.12	in
E.	Pervious Cover Area	Area =	751,660	sf
F.	$V_{bf\text{-}imp\text{-}post}$ = Q(1/12)Area	$V_{bf\text{-}imp\text{-}post}$ =	**132,898**	cf

W6 Pervious Cover Post-development 100-year Storm Runoff Calculations (V100-per-post)

A.	100 year storm event	P =	5.11	in
B.	Pervious Cover CN	CN =	69	
C.	S = (1000/CN)-10	S =	4.48	in
D.	Q = (P-0.25)^2/(P+0.8S)	Q =	2.04	in
E.	Pervious Cover Area	Area =	1,134,924	sf
F.	$V_{100\text{-}per\text{-}post}$ = Q(1/12)Area	$V_{100\text{-}per\text{-}post}$ =	**193,322**	cf

W7 Impervious Cover Post-development 100-year Storm Runoff Calculations (V100-imp-post)

A.	100 year storm event	P =	5.11	in
B.	Pervious Cover CN	CN =	98	
C.	S = (1000/CN)-10	S =	0.20	in
D.	Q = (P-0.25)^2/(P+0.8S)	Q =	4.87	in
E.	Pervious Cover Area	Area =	751,660	sf
F.	$V_{100\text{-}imp\text{-}post}$ = Q(1/12)Area	$V_{100\text{-}imp\text{-}post}$ =	**305,237**	cf

W8 Determine Time of Concentration (Tc-hrs)

User specified; assume 30 minutes

Total Time of Concentration (hrs) = 0.50

W9 Runoff Summary & Onsite Infiltration Requirement

A. Runoff Summary from Previous Worksheets

V_{ff} =	**92,757**	**cf***
$V_{bf\text{-}pre}$ =	60,633	cf
$V_{bf\text{-}per\text{-}post}$ =	33,751	cf **Total BF Volume ($V_{BF\ post}$)**
$V_{bf\text{-}imp\text{-}post}$ =	132,898	cf 166,649 cf
$V_{100\text{-}per\text{-}post}$ =	193,322	cf **Total 100-year Volume (V_{100})**
$V_{100\text{-}imp\text{-}post}$ =	305,237	cf 498,559 cf

B. Determine Onsite Infiltration Requirement

$V_{bf\text{-}post}$ =	166,649	cf
$V_{bf\text{-}pre}$ =	60,633	cf
Bankfull Volume Difference =	**106,016**	**cf***

Onsite Infiltration Requirement (V_{inf}) = **106,016** cf

W10 Detention / Retention Requirement

A.	Q_A = 238.6 (T_c) ^ -0.82	421.23	cfs/in-mi^2
B.	Total Site Area	43.31	ac
C.	Q_{100} = $Q_{100\text{-}per}$ + $Q_{100\text{-}imp}$	6.92	in
D.	Peak Flow (PF) = (Q_A-Q_{100})A)/640	197.172	cfs
E.	Delta = PF - 0.15A	190.676	cfs
F.	V_{det} = (Delta/PF) x V_{100} - V_{inf}*	**482,132**	**cf**

* V_{inf} refers to total infiltration provided per worksheet W11

W11 Determine Applicable BMPs and Associated Volume Credits

Proposed BMP	Average Area (ft²)	Storage Depth (ft)	Storage Volume (ft³)	Ave. Design Infil. Rate (in/hr)*	Infil. During Storm (ft³)	Total Volume Reduction (ft³)

Total Volume Reduction Credit by Proposed Structural BMPs (Vinf) = **0** cf

W13 Infiltration / Detention Summary

Total Infiltration Required per WCWRC Rules:	106,016 cf
Total Infiltration Provided:	0 cf
Difference:	(106,016) cf
% Deficiency:	100.0%
Pro-Rated 20% Detention Penalty:	**20.0%**
Total Detention Required	482,132 cf
Total Detention Required including Penalty, if applicable	**578,559** cf

Basin Stage-Storage Summary:

Elev.	Area	Avg. Area	Depth	Volume
809.0	104,000	100,250	1.0	692,400
808.0	96,500	93,750	1.0	592,150
807.0	91,000	87,750	1.0	498,400
806.0	84,500	81,250	1.0	410,650
805.0	78,000	75,000	1.0	329,400
804.0	72,000	62,950	1.0	254,400
803.0	53,900	51,200	1.0	191,450
802.0	48,500	46,350	1.0	140,250
801.0	44,200	42,250	1.0	93,900
800.0	40,300	38,150	1.0	51,650
799.0	36,000	18,000	0.75	13,500
798.25	0	0		0

Total Volume Provided: **592,150** cf

Vff Elev.=	800.97
Vbf Elev.=	802.52
Vprovided Elev.=	807.86
1' Freeboard=	808.86 Actual= **809.00**

Forebay Sizing

Required Volume (Vfb)=0.05*V100 **24,928** cf

Forebay Stage-Storage Summary:

Elev.	Area	Avg. Area	Depth	Volume
803.5	11,600	10,050	1.5	28,908
802.0	8,500	7,100	1.0	13,833
801.0	5,700	4,650	1.0	6,733
800.0	3,600	2,450	0.85	2,083
799.15	1,300			0
			Vfb Elev.=	**803.10**

Outlet Control Structure Sizing

1. Standpipe outlet holes sizing - "first flush" runoff
(First Flush discharge should be released in 24 hours)

Qff = Vff / 24 hrs / 3600 sec	Qff=	1.074	cfs
hft(ave) = 2/3 x (Hft - Xo)	hft(ave) =	1.815	ft
Aft(required) = Qff / 0.62 x sqrt(2*32.2*h)	A(required) =	0.160	sf
Selected Orifice Diameter =		**2.5**	in
Area of each orifice =		0.034	sf
Number of orifice holes required =		**4**	**holes at elev.** **798.25**

Check First Flush discharge release time

Aft(actual) =	0.1364	ft²
Qff = A x 0.62 x sqrt(2*32.2*h) =	0.9141	cfs
Tff = Vff / (Qff x 3600)	**28.2**	hrs O.K.

2. Standpipe outlet holes sizing - "Bankfull flood" discharge
(Bankfull Volume must be detained between 36 and 48 hours)
Check release from first flush holes only

hbf(ave) = 2/3 x (Xbf - Xo)	hbf(ave) =	2.844	ft
Qbf = A x 0.62 x sqrt(2*32.2*h) =	Qbf =	1.144	cfs
Tbf = Vbf / (Qbf x 3600) =	Tbf =	**40.5**	hrs

3. Standpipe outlet holes sizing - "100-yr flood" discharge

Q100 = Qa	Q100 =	6.497	cfs
Release from above holes			
hff = (X100-Xo)	hff =	9.61	ft
hbf = (X100-Xff)	hbf =	6.88	ft
Qff+Qbf = A x 0.62 x sqrt(64.4*hff) + A x 0.62 x sqrt(64.4*hbf) =		2.103	cfs
Remaining flow =	Q100-Qa	4.394	cfs
h100 = 2/3 * (2100-Zo)	= 2/3 * 9.6	6.403	ft
A = Q100 /(.62 x sqrt(2*32.2*h100))	A(required) =	0.349	sf
Selected Orifice Diameter =		**4**	**in**
Area of each orifice =		0.0873	sf
Number of orifice holes required=		**3**	**holes at elev.** **802.52**
No. of Holes for 72hr Detenetion Time, Use		**4**	**holes at elev.** **802.52**

Check allowable flow rate has not been exceeded

(Qff+Qbf)+0.62*#hoff*A100*sqrt(64.4*(X100-Xof) < Q_{allow}	6.116	cfs **O.K.**

Calculate that the 100-year storm discharges within 72 hours

h ff ave = (2/3)(X 100-X ff)+(Xff-X bot.)*	7.825	ft
*Q ff = 0.62 * # ff onf * A ff onf * sqrt(64.4*h ff)*	1.888	cfs
h bf ave =(2/3)(X 100 xbf)+(X bf -X ff)*	5.102	ft
Qbf =100 = [0.62]*(#bf orif)*(Abf onf)*sqrt(64.4*hbf ave)	0	cfs
h100 ave = (2/3) *(X100-Xbf)	3.560	ft
Q100 ave = (0.62*#100 orif*A100 onf)*sqrt(64.4*h100ave)	3.277	cfs
Vmm = V100-Vbf	411,910	cf
T100 = Tbf + (Vmm/[Qbf+Qbf+100*Q100ave]))	**62.57**	hr **O.K.**

4. Riser Outlet Pipe Design
Outlet pipe designed to handle the 100-year restricted flow

100-year restricted flow =	Q =	4.39	cfs
Choose outflow pipe diameter =	d =	**24**	**in**
Choose outflow pipe slope =	S =	**0.19**	%
Assume roughness factor	n =	0.013	
Flow velocity at 100-yr restricted flow (Mannings) =	V =	3.14	fps
Design Pipe Capacity =	=	9.87	cfs

Basin Overflow Weir

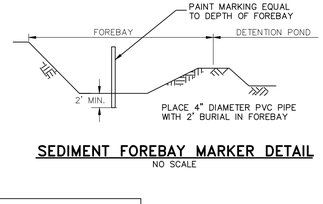
Drainage Area, A =	43.31	ac	
C-Factor (C) =	0.59		
Time of Conc. (T) =	30.00	min	
Intensity (I)	5.00	in/hr	I = 275/(T+25)
Peak Flow to basin(Q) =	127.76	cfs	C x I x A
Weir Coef (C)=	3.367		
Weir Elevation=	**808.3**		
Height of Weir (H) =	0.70		
Min. Length of Weir (B) =	**64.8**	ft	
L = Q/(C x H^(3/2))			

Forebay Standpipe outlet holes sizing
Discharge should be released from Foreboy in 24 hours

Qfb = Vfb / 24 hrs / 3600 sec	Qfb=	0.289	cfs
hfb(ave) = 2/3 x (Xfb - Xo)	hfb(ave) =	2.64	ft
Afb(required) = Qff / 0.62 x sqrt(2*32.2*h)	A(required) =	0.036	sf
Selected Orifice Diameter =		**1.25**	in
Area of each orifice =		0.009	sf
Number of orifice holes required =		**4**	**holes at elev.** **799.15**

Check discharge release time

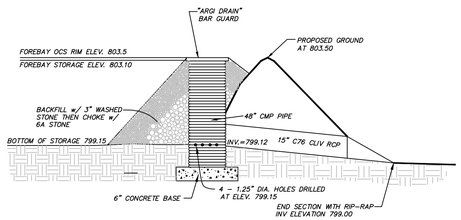
Afb(actual) =	0.0341	ft²
Qfb = A x 0.62 x sqrt(2*32.2*h) =	0.2754	cfs



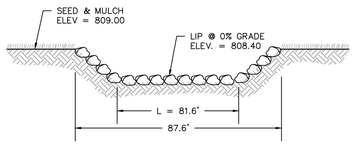
SEDIMENT FOREBAY MARKER DETAIL
NO SCALE

NOTE:
WIRE MESH SHOULD BE USED OVER OPENINGS GREATER THAN 1.25 INCHES.

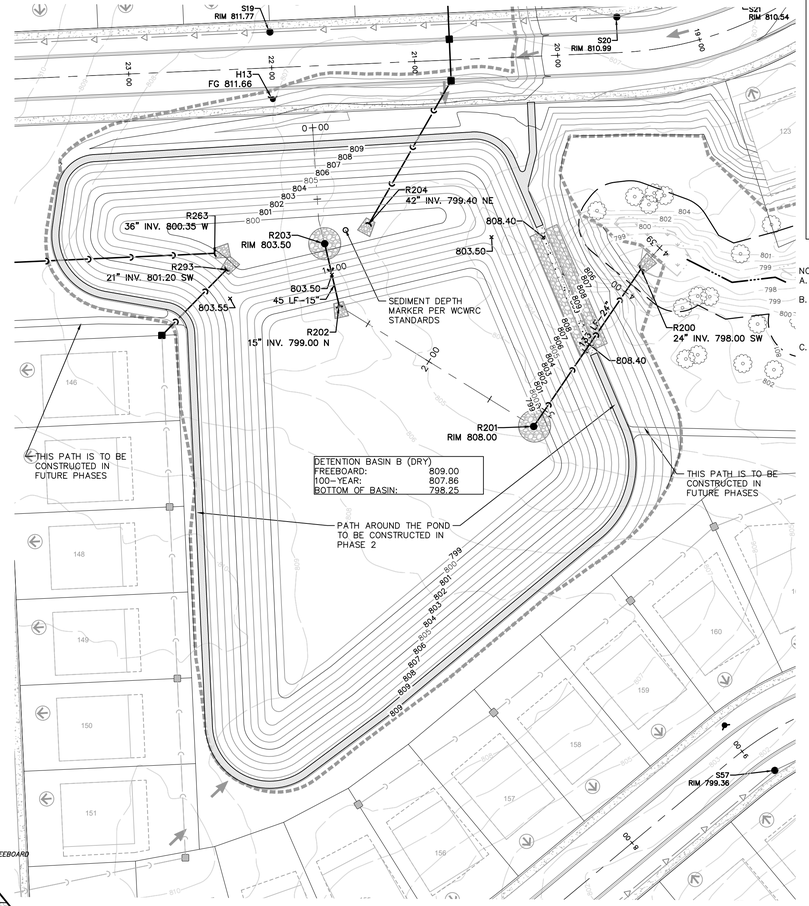
DETENTION BASIN – OUTLET DETAIL
NO SCALE

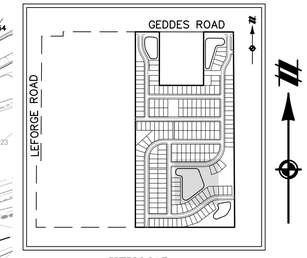


DETENTION BASIN – SEDIMENT FOREBAY OUTLET DETAIL
NO SCALE



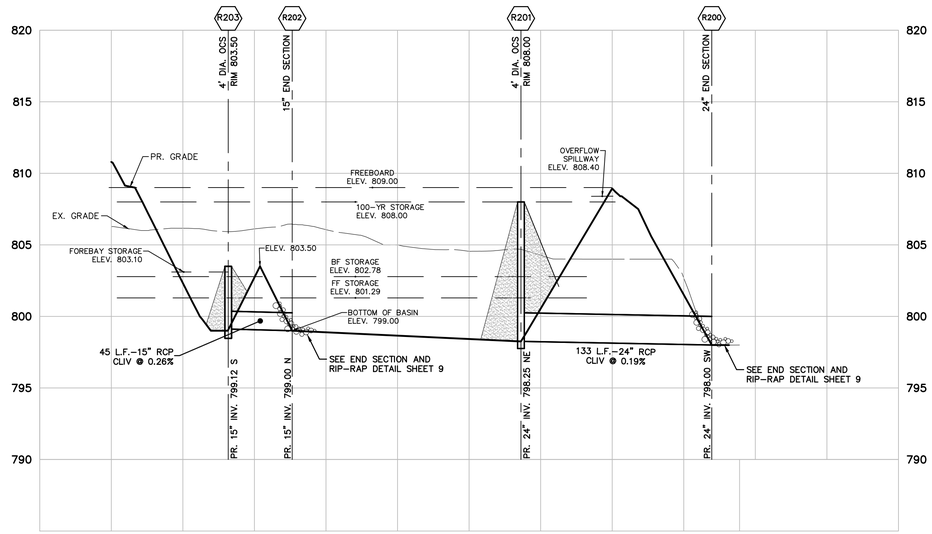
EMERGENCY OVERFLOW SPILLWAY
NO SCALE





KEY MAP

NOTE:
A. MOWING IS ONLY ALLOWED TWICE PER YEAR WITHIN THE STORM WATER FEATURES.
B. AT THE TIME OF PLANT AND SEED DELIVERY, A WCWRC LANDSCAPE REVIEWER MUST BE PRESENT. THE QUANTITY AND SPECIES DELIVERED WILL BE REVIEWED ON SITE. CONTACT CATIE WYTYCHAK AT WYTYCHAKC@EWASHTENAW.ORG TO COORDINATE.
C. DETENTION BASIN B MUST HAVE A MAINTENANCE ACCESS PATH CONSTRUCTED DURING PHASE 2



DETENTION BASIN B
VERT: 1"=5'
HORZ: 1"=50'

Know what's **below.** **Call** before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
DETENTION BASIN PLAN – BASIN B

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

REVISIONS

0 25 50
SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 37

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443PSP-17-DET.DWG 9/22/2026 9:18 AM MATTHEW MYERS

CAD FILE: 19004443PSP-17-DET.DWG

STORM SEWER CONVEYANCE CALCULATIONS

ON-SITE STORM SEWER CONVEYANCE SYSTEM DESIGN

Project: Meadows at Hawthorne Mill
Date: May 27, 2022
Revision:

Community Superior Township
County: Washtenaw

I = B/(T+D)^E B = 151.8 D = 19.9 E = 1
C = 0.013 RCP 0.024 CMP
T = 20 (min.)

PHASE 2 STORM SEWER

FROM MH INPUT	TO MH	INCRE-MENT ACRES (A)	C	EQUIV. AREA 100% ACRES CA	TOTAL AREA 100% ACRES SUM CA	T TIME (MIN.)	I (IN PER HOUR)	Q=CIA C.F.S. FLOW	CAPAC-ITY OF SEWER (C.F.S.)	DIAM. OF PIPE (IN.)	LENGTH OF LINE (FT.)	SLOPE OF PIPE (%)	MIN HG BASED ON "Q" (%)	VEL. FLOW FULL (FT./ SEC.)	TIME OF FLOW (MIN.)	H.G.L. ELEV. UPPER END	H.G.L. ELEV. LOWER END	GROUND ELEV. UPPER END	GROUND ELEV. LOWER END	INVERT ELEV. UPPER END	INVERT ELEV. LOWER END
R114	R113	0.12	0.50	0.06	0.06	20.00	3.80	0.22	2.52	12	120	0.50	0.00	3.2	0.6	815.25	814.65	818.77	818.10	814.45	813.85
R113	R112	0.23	0.50	0.12	0.17	20.60	3.75	0.65	2.52	12	120	0.50	0.03	3.2	0.6	814.55	813.95	818.10	817.40	813.75	813.15
R112	R111A	0.22	0.51	0.11	0.29	21.20	3.69	1.07	3.19	12	61	0.80	0.09	4.1	0.3	813.85	813.36	817.40	818.69	813.05	812.56
R111A	R111	0.00	0.00	0.00	0.29	21.50	3.67	1.07	4.57	15	185	0.50	0.03	3.7	0.8	813.16	812.24	818.69	815.93	812.16	811.24
R111	R110	1.03	0.52	0.53	0.99	22.30	3.60	3.58	4.09	15	29	0.40	0.31	3.3	0.1	811.74	811.62	815.93	815.93	810.74	810.62
R110	R109	1.12	0.71	0.79	1.78	22.40	3.59	6.39	10.02	21	161	0.40	0.16	4.2	0.6	811.62	810.98	815.93	815.13	810.22	809.58
R109	R108	0.46	0.47	0.22	2.00	23.00	3.54	7.07	14.31	24	69	0.40	0.10	4.6	0.3	810.88	810.67	815.13	811.75	809.28	809.00
R123	R122	0.26	0.47	0.12	0.12	20.00	3.80	0.47	2.36	12	130	0.44	0.02	3.0	0.7	812.99	812.41	816.15	817.82	812.19	811.61
R122	R121	0.20	0.54	0.11	0.23	20.70	3.74	0.87	2.36	12	60	0.44	0.06	3.0	0.3	812.31	812.05	817.82	818.52	811.51	811.25
R121	R117	0.15	0.45	0.07	0.30	21.00	3.71	1.10	3.77	15	120	0.34	0.03	3.1	0.7	812.05	811.64	818.52	819.50	811.05	810.64
R117	R116	0.26	0.53	0.14	1.39	21.70	3.65	5.06	5.56	18	75	0.28	0.23	3.1	0.4	811.64	811.43	819.50	818.97	810.44	810.23
R116	R115	0.37	0.37	0.14	1.52	22.10	3.61	5.51	7.43	21	242	0.22	0.12	3.1	1.3	811.43	810.67	818.97	811.98	810.03	809.50
R126	R125	0.29	0.49	0.14	0.14	20.00	3.80	0.55	2.36	12	29	0.44	0.02	3.0	0.2	812.25	812.12	816.42	816.42	811.45	811.32
R125	R124	0.02	0.72	0.02	0.16	20.20	3.79	0.61	2.36	12	45	0.44	0.03	3.0	0.2	812.12	811.92	816.42	815.90	811.32	811.12
R124	R111	0.04	0.25	0.01	0.17	20.40	3.77	0.64	2.36	12	41	0.44	0.03	3.0	0.2	811.92	811.74	815.90	815.93	811.12	810.94
R119	R118	0.67	0.64	0.43	0.43	20.00	3.80	1.63	2.76	12	29	0.60	0.21	3.5	0.1	816.55	816.38	821.10	821.10	815.75	815.58
R118	R117	0.79	0.58	0.46	0.89	20.10	3.80	3.36	3.56	12	123	1.00	0.89	4.5	0.5	813.38	812.14	821.10	819.50	812.58	811.34
R120	R117	0.15	0.44	0.07	0.07	20.00	3.80	0.26	5.63	12	65	2.50	0.01	7.2	0.2	816.27	814.64	820.87	819.50	815.47	813.84
R105	R104A	0.00	0.00	0.00	0.00	20.00	3.80	0.00	5.75	18	48	0.30	0.00	3.3	0.2	807.77	807.63	814.19	814.30	806.57	806.43
R104A	R104	0.00	0.00	0.00	0.00	20.20	3.79	0.00	17.23	24	50	0.58	0.00	5.5	0.2	807.63	807.34	814.30	816.93	806.03	805.74
R104	R103	0.38	0.42	0.16	0.16	20.40	3.77	0.60	13.94	24	90	0.38	0.00	4.4	0.3	807.24	806.89	816.93	818.19	805.64	805.29
R103	R102A	0.00	0.00	0.00	0.16	20.70	3.74	0.60	12.39	24	225	0.30	0.00	3.9	1.0	806.59	805.92	818.19	819.42	804.99	804.32
R102A	R102	0.00	0.00	0.00	0.16	21.70	3.65	0.60	13.94	24	116	0.38	0.00	4.4	0.4	805.82	805.37	819.42	817.03	804.22	803.77
R102	R101	0.00	0.00	0.00	0.16	22.10	3.61	0.60	13.94	24	309	0.38	0.00	4.4	1.2	805.27	804.10	817.03	807.05	803.67	802.50
R101	R100	0.00	0.00	0.00	0.16	23.30	3.51	0.60	11.97	24	144	0.28	0.00	3.8	0.6	804.00	804.00	807.05	804.75	802.40	802.00
R153	R152	0.73	0.46	0.34	0.34	20.00	3.80	1.28	3.88	15	33	0.36	0.04	3.2	0.2	816.72	816.60	817.66	820.50	815.72	815.60
R152	R151	0.00	0.00	0.00	0.34	20.20	3.79	1.28	3.88	15	70	0.36	0.04	3.2	0.4	816.50	816.25	820.50	820.00	815.50	815.25
R151	R150	0.00	0.00	0.00	0.43	20.60	3.75	1.60	3.88	15	92	0.36	0.06	3.2	0.5	816.15	816.07	820.00	816.76	815.15	814.82
R154	R151	0.19	0.49	0.09	0.09	20.00	3.80	0.35	5.34	12	22	7.65	0.01	6.8	0.1	818.10	816.44	818.80	820.00	817.30	815.64
R260	R259	0.17	0.68	0.12	0.12	20.00	3.80	0.44	2.39	12	29	0.45	0.02	3.0	0.2	819.69	819.56	823.91	823.91	818.89	818.76
R259	R258	0.32	0.63	0.20	0.32	20.20	3.79	1.20	3.98	12	93	1.25	0.11	5.1	0.3	819.56	818.39	823.91	821.43	818.76	817.59
R258	R257	0.50	0.48	0.24	0.56	20.50	3.76	2.10	2.39	12	120	0.45	0.35	3.0	0.7	818.39	817.85	821.43	821.20	817.59	817.05
R257	R256	0.75	0.43	0.32	0.88	21.20	3.69	3.24	3.28	12	206	0.85	0.83	4.2	0.8	817.85	816.10	821.20	820.90	817.05	815.30
R256	R255	0.55	0.36	0.20	1.08	22.00	3.62	3.90	4.85	12	120	1.85	1.20	6.2	0.3	816.10	813.88	820.90	820.90	815.30	813.08
R255	R254	0.25	0.48	0.12	1.20	22.30	3.60	4.31	4.85	12	120	1.85	1.46	6.2	0.3	813.88	811.66	820.90	818.50	813.08	810.86
R254	R253	0.51	0.48	0.24	2.06	22.60	3.57	7.37	7.43	18	141	0.50	0.49	4.2	0.6	809.16	808.45	818.50	819.26	807.96	807.25
R253	R252	0.75	0.47	0.35	2.42	23.20	3.52	8.52	10.02	21	29	0.40	0.29	4.2	0.1	808.35	808.24	819.26	819.26	806.95	806.84
R252	R235	0.76	0.47	0.36	2.78	23.30	3.51	9.75	12.39	27	140	0.16	0.10	3.1	0.8	805.89	805.66	819.26	812.88	804.09	803.86
R235	R234	0.31	0.44	0.13	5.51	24.10	3.45	19.01	19.59	27	116	0.40	0.38	4.9	0.4	805.56	805.10	812.88	814.57	803.76	803.30
R234	R233	0.00	0.00	0.00	5.51	24.50	3.42	19.01	20.54	27	25	0.44	0.38	5.2	0.1	805.00	804.89	814.57	813.90	803.20	803.09
R233	R232	0.68	0.57	0.39	5.90	24.60	3.41	20.12	23.18	27	29	0.56	0.42	5.8	0.1	804.79	804.63	813.90	813.90	802.99	802.83
R232	R207	0.53	0.62	0.33	6.23	24.70	3.40	21.19	23.20	30	141	0.32	0.27	4.7	0.5	804.63	804.18	813.90	808.55	802.63	802.18
R207	R206	0.64	0.52	0.33	10.63	25.20	3.37	35.78	38.89	36	136	0.34	0.29	5.5	0.4	803.98	803.51	808.55	809.48	801.58	801.11
R206	R205	0.70	0.58	0.41	11.04	25.60	3.34	36.83	40.02	36	29	0.36	0.30	5.7	0.1	802.81	802.71	809.48	809.48	800.41	800.31
R205	R204	0.35	0.67	0.24	11.28	25.70	3.33	37.53	42.68	42	115	0.18	0.14	4.4	0.4	802.68	802.52	809.48	803.78	799.61	799.40
R262	R261	0.80	0.47	0.38	0.38	20.00	3.80	1.43	3.65	15	120	0.32	0.05	3.0	0.7	809.94	809.56	813.40	816.00	808.94	808.56
R261	R254	0.53	0.47	0.25	0.62	20.70	3.74	2.33	3.65	15	125	0.32	0.13	3.0	0.7	809.56	809.16	816.00	818.50	808.56	808.16
R245	R244	0.13	0.55	0.07	0.07	20.00	3.80	0.28	2.52	12	29	0.50	0.01	3.2	0.2	820.05	819.91	823.69	823.69	819.25	819.11
R244	R243	0.43	0.60	0.26	0.33	20.20	3.79	1.26	3.56	12	140	1.00	0.12	4.5	0.5	819.71	818.30	823.69	822.24	818.91	817.50
R243	R242	0.06	0.25	0.02	0.35	20.70	3.74	1.30	5.04	12	130	2.00	0.13	6.4	0.3	817.45	814.85	822.24	818.45	816.65	814.05
R242	R241	0.63	0.41	0.26	0.60	21.00	3.71	2.25	2.39	12	120	0.45	0.40	3.0	0.7	814.75	814.21	818.45	819.56	813.95	813.41
R241	R240	0.14	0.35	0.05	0.66	21.70	3.65	2.39	2.87	12	60	0.65	0.45	3.7	0.3	814.11	813.72	819.56	818.36	813.31	812.92
R240	R239	0.23	0.50	0.12	0.77	22.00	3.62	2.79	2.87	12	125	0.65	0.61	3.7	0.6	812.82	812.01	818.36	815.86	812.02	811.21
R239	R237	0.78	0.40	0.31	1.08	22.60	3.57	3.87	3.88	15	141	0.36	0.36	3.2	0.7	811.01	810.50	815.86	815.58	810.01	809.50
R237	R236	0.29	0.49	0.14	1.23	23.30	3.51	4.31	7.91	15	120	1.50	0.44	6.5	0.3	810.40	808.60	815.58	813.18	809.40	807.60
R236	R235	0.70	0.50	0.35	1.57	23.60	3.49	5.49	8.42	15	120	1.70	0.72	6.9	0.3	808.50	806.46	813.18	812.88	807.50	805.46
R251	R250	0.46	0.59	0.27	0.27	20.00	3.80	1.04	2.76	12	29	0.60	0.09	3.5	0.1	807.20	807.03	812.40	812.40	806.40	806.23
R250	R249	0.29	0.59	0.17	0.45	20.10	3.80	1.69	2.76	12	97	0.60	0.22	3.5	0.5	806.93	806.34	812.40	810.50	806.13	805.54
R249	R248	0.52	0.47	0.25	0.69	20.60	3.75	2.59	3.88	15	120	0.36	0.16	3.2	0.6	806.34	805.91	810.50	810.85	805.34	804.91
R248	R235	0.64	0.52	0.34	1.03	21.20	3.69	3.79	5.56	18	125	0.28	0.13	3.1	0.7	805.91	805.56	810.85	812.88	804.71	804.36
R217	R216	0.26	0.47	0.12	0.12	20.00	3.80	0.47	5.63	12	120	2.50	0.02	7.2	0.3	810.59	807.59	815.20	812.17	809.79	806.79
R216	R215	0.28	0.46	0.13	0.25	20.30	3.78	0.95	4.78	12	65	1.80	0.07	6.1	0.2	806.99	805.82	812.17	810.87	805.19	805.02
R215	R214	0.15	0.45	0.07	1.28	20.50	3.76	4.81	9.40	18	120	0.80	0.21	5.3	0.4	805.82	804.86	810.87	808.10	804.62	803.66
R214	R213	0.40	0.47	0.19	1.47	20.90	3.72	5.47	7.43	21	120	0.22	0.12	3.1	0.6	804.86	804.60	808.10	808.07	803.46	803.20
R213	R212	0.18	0.49	0.09	1.56	21.50	3.67	5.71	7.43	21	66	0.22	0.13	3.1	0.4	804.60	804.48	808.07	807.90	803.20	803.05
R212	R211	0.18	0.49	0.09	1.65	21.90	3.63	5.98	9.60	24	124	0.18	0.07	3.1	0.7	804.48	804.39	807.90	807.90	802.85	802.63
R211	R210	0.11	0.52	0.06	1.70	22.60	3.57	6.08	12.39	27	148	0.16	0.04	3.1	0.8	804.39	804.33	807.90	810.40	802.43	802.19
R210	R209	0.00	0.00	0.00	1.70	23.40	3.51	6.08	12.39	27	134	0.16	0.04	3.1	0.7	804.33	804.28	810.40	809.35	802.19	801.98
R209	R208	0.39	0.40	0.16	3.04	24.10	3.45	10.48	12.39	27	125	0.16	0.11	3.1	0.7	804.28	804.14	809.35	808.98	801.98	801.78
R208	R207	0.46	0.50	0.23	3.27	24.80	3.40	11.10	12.39	27	126	0.16	0.13	3.1	0.7	804.14	803.98	808.98	808.55	801.78	801.58
R227	R226	0.44	0.60	0.26	0.26	20.00	3.80	1.00	3.82	12	29	1.15	0.08	4.9	0.1	808.73	808.40	813.74	813.74	807.93	807.60
R226	R225	0.43	0.63	0.27	0.53	20.10	3.80	2.01	6.93	15	63	1.15	0.10	5.6	0.2	808.40	807.67	813.74	814.39	807.40	806.67
R225	R224	0.31	0.63	0.19	0.72	20.30	3.78	2.73	6.93	15	29	1.15	0.18	5.6	0.1	807.57	807.24	814.39	814.39	806.57	806.24
R224	R215	0.33	0.73	0.24	0.96	20.40	3.77	3.63	5.25	18	128	0.25	0.12	3.0	0.7	806.24	805.92	814.39	810.87	805.04	804.72
R219	R218	0.52	0.61	0.31	0.31	20.00	3.80	1.20	6.30	18	29	0.36	0.01	3.6	0.1	804.32	804.32	809.48	809.48	802.91	802.81
R218	R209	0.44	0.58	0.26	0.57	20.10	3.80	2.18	5.36	18	88	0.26	0.04	3.0	0.5	804.32	804.28	809.48	809.35	802.81	802.58
R223	R222	0.53	0.58	0.31	0.31	20.00	3.80	1.16	2.52	12	29	0.50	0.11	3.2	0.2	807.23	807.09	812.28	812.28	806.43	806.29
R222	R209	0.49	0.60	0.30	0.60	20.20	3.79	2.28	5.04	12	141	2.00	0.41	6.4	0.4	807.09	804.28	812.28	809.35	806.29	803.48
R231	R230	0.49	0.53	0.26	0.26	20.00	3.80	0.98	3.56	12	29	1.00	0.08	4.5	0.1	810.24	809.95	815.33	815.33	809.44	809.15
R230	R229	0.25	0.61	0.15	0.41	20.10	3.80	1.54	5.04	12	94	2.00	0.19	6.4	0.2	809.85	807.98	815.33	812.89	809.05	807.18
R229	R228	0.29	0.45	0.13	0.54	20.30	3.78	2.03	4.36	12	120	1.50	0.32	5.6	0.4	807.88	806.08	812.89	810.49	807.08	805.28
R228	R207	0.59	0.45	0.26	0.80	20.70	3.74	3.00	3.90	12	125	1.20	0.71	5.0	0.4	805.48	803.98	810.49	808.55	804.68	803.18
R289	R288	0.33	0.30	0.10	0.10	20.00	3.80	0.38	5.16	12	60	2.10	0.01	6.6	0.2	807.95	806.69	808.82	809.69	807.15	805.89
R288	R287	1.12	0.30	0.34	0.44	20.20	3.79	1.66	2.39	12	120	0.45	0.22	3.0	0.7	806.69	806.15	809.69	809.50	805.89	805.35
R287	R286	0.71	0.37	0.26	0.70	20.90	3.72	2.62	3.77	15	120	0.34	0.16	3.1	0.7	806.15	805.75	809.50	810.50	805.15	804.75
R286	R285	0.91	0.30	0.27	0.97	21.60	3.66	3.56	3.77	15	120	0.34	0.30	3.1	0.7	805.75	805.34	810.50	811.12	804.75	804.34
R285	R284	0.58	0.35	0.20	1.18	22.30	3.60	4.23	4.33	15	120	0.45	0.43	3.5	0.6	805.34	804.80	811.12	810.90	804.34	803.80
R284	R283	0.58	0.35	0.20	1.38	22.90	3.55	4.89	5.56	18	120	0.28	0.22	3.1	0.6	804.80	804.46	810.90	812.35	803.60	803.26
R283	R282	0.60	0.35	0.21	2.53	23.50	3.50	8.83	9.60	24	103	0.18	0.15	3.1	0.6	804.46	804.28	812.35	815.80	802.86	802.68
R282	R281	0.00	0.00	0.00	2.53	24.10	3.45	8.83	9.60	24	22	0.18	0.15	3.1	0.1	804.18	804.14	815.80	814.99	802.58	802.54
R281	R280	1.13	0.57	0.64	3.17	24.20	3.44	10.90	12.80	24	29	0.32	0.23	4.1	0.1	804.14	804.04	814.99	814.99	802.54	802.44
R280	R266	0.80	0.62	0.50	3.66	24.30	3.43	12.58	12.80	24	137	0.32	0.31	4.1	0.6	803.94	803.51	814.99	814.06	802.34	801.91
R265	R264	0.22	1.10	0.24	6.69	25.40	3.35	22.41	23.10	36	29	0.12	0.11	3.3	0.1	803.09	803.05	815.35	815.35	800.69	800.65
R264	R263	0.10	1.81	0.18	6.86	25.50	3.34	22.95	23.10	36	168	0.12	0.12	3.3	0.9	802.95	802.52	815.35	804.18	800.55	800.35
R292B	R292A	0.26	0.41	0.11	0.11	20.00	3.80	0.42	4.51	12	163	1.60	0.01	5.7	0.5	816.14	813.53	819.21	816.69	815.34	812.73
R292A	R292	0.59	0.35	0.21	0.31	20.50	3.76	1.18	2.52	12	83	0.50	0.11	3.2	0.4	813.43	813.02	816.69	817.84	812.63	812.22
R292	R291	0.36	0.29	0.10	0.42	20.90	3.72	1.56	4.51	12	148	1.60	0.19	5.7	0.4	812.92	810.54	817.84	813.55	812.12	809.74
R291	R290	0.65	0.38	0.25	0.67	21.30	3.68	2.46	2.52	12	120	0.50	0.48	3.2	0.6	810.54	809.94	813.55	813.55	809.74	809.14
R290	R283	0.96	0.28	0.27	0.94	21.90	3.63	3.40	4.78	12	60	1.80	0.91	6.1	0.2	809.94	808.86	813.55	812.35	809.14	808.06
R277	R276	0.37	0.62	0.23	0.23	20.00	3.80	0.87	2.39	12	29	0.45	0.06	3.0	0.2	805.70	805.57	809.76	809.76	804.90	804.77
R276	R275	0.47	0.44	0.20	0.43	20.20	3.79	1.64	2.39	12	99	0.45	0.21	3.0	0.5	805.57	805.12	809.76	808.80	804.77	804.32
R275	R274	0.56	0.51	0.29	0.72	20.70	3.74	2.68	3.82	15	132	0.35	0.17	3.1	0.7	805.12	804.66	808.80	810.50	804.12	803.66
R274	R273	0.54	0.44	0.24	1.54	21.40	3.68	5.67	6.48	18	133	0.38	0.29	3.7	0.6	804.66	804.15	810.50	812.34	803.46	802.95
R273	R272	0.50	0.48	0.24	1.79	22.00	3.62	6.47	6.48	18	131	0.38	0.38	3.7	0.6	804.15	803.65	812.34	814.00	802.95	802.45
R272	R266	0.24	0.49	0.12	1.90	22.60	3.57	6.80	7.43	21	66	0.22	0.18	3.1	0.4	803.65	803.51	814.00	814.06	802.25	802.11
R314	R313	0.33	0.47	0.15	0.15	20.00	3.80	0.59	2.36	12	125	0.44	0.03	3.0	0.7	816.02	815.47	820.40	819.12	815.22	814.67
R312	R311	0.53	0.36	0.19	0.49	21.40	3.68	1.80	2.36	12	120	0.44	0.26	3.0	0.7	814.74	814.21	819.00	818.44	813.94	813.41
R311	R310A	0.33	0.34	0.11	0.60	22.10	3.61	2.17	2.64	12	60	0.55	0.37	3.4	0.3	814.11	813.78	818.44	817.20	813.31	812.98
R310A	R310	0.27	0.41	0.11	0.71	22.40	3.59	2.56	2.64	12	60	0.55	0.51	3.4	0.3	813.68	813.35	817.20	817.40	812.88	812.55
R310	R309	0.06	0.48	0.03	0.74	22.70	3.56	2.65	4.44	12	130	1.55	0.55	5.7	0.4	813.25	811.24	817.40	814.61	812.45	810.44
R309	R308	0.30	0.44	0.13	0.88	23.10	3.53	3.09	3.19	12	119	0.80	0.75	4.1	0.5	811.14	810.19	814.61	813.67	810.34	809.39
R308	R307	1.00	0.76	0.76	0.76	1.64	23.60	3.49	5.72	5.78	15	29	0.80	0.78	4.7	0.1	809.19	808.96	813.67	813.67	808.19	807.96
R307	R306	0.74	0.59	0.44	2.08	23.70	3.48	7.23	10.24	18	80	0.95	0.47	5.8	0.2	805.96	803.42	813.67	806.21	804.76	804.00
R325	R324	0.70	0.54	0.37	0.37	20.00	3.80	1.42	2.52	12	29	0.50	0.16	3.2	0.2	817.13	816.98	821.76	821.76	816.33	816.18
R324	R323	0.70	0.57	0.40	0.77	20.20	3.79	2.92	5.98	15	26	0.38	0.20	3.2	0.1	813.98	813.88	821.76	821.92	812.98	812.88
R323	R322	0.00	0.00	0.00	0.77	20.30	3.78	2.92	4.57	15	103	0.50	0.20	3.7	0.5	813.78	813.27	821.92	820.68	812.78	812.27
R322	R319	0.00	0.00	0.00	0.77	20.80	3.73	2.92	9.14	15	122	2.00	0.20	7.4	0.3	813.17	810.73	820.68	814.90	812.17	809.73
R319	R318	0.38	0.48	0.18	1.19	21.10	3.70	4.39	5.00	15	75	0.60	0.46	4.1	0.3	810.63	810.18	814.90	814.75	809.63	809.18
R318	R317	0.15	0.44	0.07	1.25	21.40	3.68	4.60	5.00	15	146	0.60	0.51	4.1	0.6	808.18	807.31	814.75	811.63	807.18	806.31
R317	R316	0.38	0.33	0.12	1.38	22.00	3.62	4.99	5.00	15	135	0.60	0.60	4.1	0.5	805.31	804.50	811.63	808.94	804.31	803.50
R316	R315	0.31	0.39	0.12	1.50	22.50	3.58	5.36	5.59	15	53	0.75	0.69	4.6	0.2	804.40	803.42	808.94	804.94	803.40	803.00
R321	R320	0.24	0.49	0.12	0.12	20.00	3.80	0.45	2.76	12	130	0.60	0.02	3.5	0.6	812.70	811.92	816.08	815.30	811.90	811.12
R320	R319	0.23	0.50	0.12	0.23	20.60	3.75	0.88	2.

SANITARY LEAD CROSSING TABLE

CROSSING	CROSSING PIPE 1				CROSSING PIPE 2				Clearance
L9	8 "	WM	T/P=	807.50	6 "	SAN	B/P=	809.10	1.60
L10	8 "	WM	T/P=	809.06	6 "	SAN	B/P=	810.70	1.64
L11	8 "	WM	B/P=	812.93	6 "	SAN	T/P=	809.50	3.43
L12	8 "	WM	B/P=	813.65	6 "	SAN	T/P=	810.15	3.50
L13	8 "	WM	B/P=	816.68	6 "	SAN	T/P=	813.83	2.85
L14	8 "	WM	B/P=	817.31	6 "	SAN	T/P=	813.64	3.67
L15	8 "	WM	B/P=	817.93	6 "	SAN	T/P=	814.45	3.48
L16	8 "	WM	B/P=	818.56	6 "	SAN	T/P=	815.16	3.41
L17	8 "	WM	B/P=	819.18	6 "	SAN	T/P=	815.96	3.22
L18	8 "	WM	B/P=	819.85	6 "	SAN	T/P=	816.76	3.10
L19	8 "	WM	B/P=	820.53	6 "	SAN	T/P=	817.55	2.98
L20	8 "	WM	B/P=	820.56	6 "	SAN	T/P=	817.14	3.42
L21	8 "	WM	B/P=	819.58	6 "	SAN	T/P=	816.95	2.63
L22	8 "	WM	B/P=	818.39	6 "	SAN	T/P=	815.72	2.67
L23	8 "	WM	B/P=	817.31	6 "	SAN	T/P=	814.52	2.79
L24	8 "	WM	B/P=	816.27	6 "	SAN	T/P=	813.33	2.95
L25	8 "	WM	B/P=	815.62	6 "	SAN	T/P=	812.04	3.58
L26	8 "	WM	B/P=	815.61	6 "	SAN	T/P=	812.95	2.66
L27	8 "	WM	B/P=	816.17	6 "	SAN	T/P=	812.75	3.42
L35	8 "	WM	B/P=	813.35	6 "	SAN	T/P=	810.14	3.22
L36	8 "	WM	B/P=	814.38	6 "	SAN	T/P=	810.70	3.69
L37	8 "	WM	B/P=	815.10	6 "	SAN	T/P=	811.28	3.83
L38	8 "	WM	B/P=	815.76	6 "	SAN	T/P=	811.89	3.88
L39	8 "	WM	B/P=	816.54	6 "	SAN	T/P=	812.32	4.22
L40	8 "	WM	B/P=	816.85	6 "	SAN	T/P=	812.68	4.17
L41	8 "	WM	B/P=	815.47	6 "	SAN	T/P=	813.25	2.22
L42	8 "	WM	B/P=	813.15	6 "	SAN	T/P=	810.04	3.11
L43	8 "	WM	B/P=	810.87	6 "	SAN	T/P=	807.87	3.01
L44	8 "	WM	B/P=	809.02	6 "	SAN	T/P=	806.66	2.37
L63	8 "	WM	B/P=	821.68	6 "	SAN	T/P=	818.29	3.40
L64	8 "	WM	B/P=	822.84	6 "	SAN	T/P=	820.05	2.80
L65	8 "	WM	B/P=	822.51	6 "	SAN	T/P=	819.57	2.94
L66	8 "	WM	B/P=	821.30	6 "	SAN	T/P=	818.32	2.98
L67	8 "	WM	B/P=	817.38	6 "	SAN	T/P=	814.41	2.98
L68	8 "	WM	B/P=	816.23	6 "	SAN	T/P=	813.17	3.07
L69	8 "	WM	B/P=	815.08	6 "	SAN	T/P=	812.47	2.62
L70	8 "	WM	B/P=	813.92	6 "	SAN	T/P=	810.72	3.21
L71	8 "	WM	B/P=	812.67	6 "	SAN	T/P=	809.91	2.77
L72	8 "	WM	B/P=	811.52	6 "	SAN	T/P=	809.16	2.37
L73	8 "	WM	B/P=	810.36	6 "	SAN	T/P=	807.41	2.96
L74	8 "	WM	B/P=	809.24	6 "	SAN	T/P=	806.08	3.17
L75	8 "	WM	B/P=	808.34	6 "	SAN	T/P=	805.42	2.92
L94	8 "	WM	B/P=	807.19	6 "	SAN	T/P=	803.77	3.42
L95	8 "	WM	B/P=	806.82	6 "	SAN	T/P=	803.58	3.24
L96	8 "	WM	B/P=	806.83	6 "	SAN	T/P=	803.49	3.35
L97	8 "	WM	B/P=	807.27	6 "	SAN	T/P=	804.29	2.98
L98	8 "	WM	B/P=	807.91	6 "	SAN	T/P=	804.08	3.83
L99	8 "	WM	B/P=	808.00	6 "	SAN	T/P=	803.90	4.11
L100	8 "	WM	B/P=	806.15	6 "	SAN	T/P=	802.58	3.58
L101	8 "	WM	B/P=	806.08	6 "	SAN	T/P=	802.47	3.61
L102	8 "	WM	B/P=	806.52	6 "	SAN	T/P=	803.17	3.35
L111	8 "	WM	B/P=	807.09	6 "	SAN	T/P=	803.98	3.12
L112	8 "	WM	B/P=	807.71	6 "	SAN	T/P=	804.66	3.05
L113	8 "	WM	B/P=	808.32	6 "	SAN	T/P=	805.48	2.85
L114	8 "	WM	B/P=	808.84	6 "	SAN	T/P=	805.28	3.56
L115	8 "	WM	B/P=	809.41	6 "	SAN	T/P=	806.09	3.32
L116	8 "	WM	B/P=	810.07	6 "	SAN	T/P=	806.73	3.35
L117	8 "	WM	B/P=	810.55	6 "	SAN	T/P=	807.57	2.99
L118	8 "	WM	B/P=	811.27	6 "	SAN	T/P=	808.29	2.99
L108	8 "	WM	B/P=	803.94	6 "	SAN	T/P=	801.53	2.41
L109	8 "	WM	B/P=	803.93	6 "	SAN	T/P=	801.37	2.57
L110	8 "	WM	B/P=	804.36	6 "	SAN	T/P=	801.02	3.35
L146	8 "	WM	B/P=	808.75	6 "	SAN	T/P=	806.24	2.51
L147	8 "	WM	B/P=	808.15	6 "	SAN	T/P=	805.34	2.81
L148	8 "	WM	B/P=	807.40	6 "	SAN	T/P=	804.66	2.74
L149	8 "	WM	B/P=	806.28	6 "	SAN	T/P=	803.33	2.95
L150	8 "	WM	B/P=	805.05	6 "	SAN	T/P=	802.00	3.05
L151	8 "	WM	B/P=	804.11	6 "	SAN	T/P=	800.64	3.48
L152	8 "	WM	B/P=	804.31	6 "	SAN	T/P=	801.32	2.99
L153	8 "	WM	B/P=	803.22	6 "	SAN	T/P=	800.62	2.61
L154	8 "	WM	B/P=	802.24	6 "	SAN	T/P=	798.88	3.36
L155	8 "	WM	B/P=	801.19	6 "	SAN	T/P=	798.46	2.73
L156	8 "	WM	B/P=	800.25	6 "	SAN	T/P=	797.52	2.74
L157	8 "	WM	B/P=	798.74	6 "	SAN	T/P=	795.47	3.28
L158	8 "	WM	B/P=	796.51	6 "	SAN	T/P=	793.67	2.85
L159	8 "	WM	B/P=	794.11	6 "	SAN	T/P=	791.87	2.25
L160	8 "	WM	B/P=	792.25	6 "	SAN	T/P=	789.86	2.39
L161	8 "	WM	B/P=	790.33	6 "	SAN	T/P=	785.91	4.42
L162	8 "	WM	B/P=	788.36	6 "	SAN	T/P=	785.39	2.97
L163	8 "	WM	B/P=	785.97	6 "	SAN	T/P=	782.78	3.19
L164	8 "	WM	B/P=	783.78	6 "	SAN	T/P=	781.17	2.61
L165	8 "	WM	B/P=	782.11	6 "	SAN	T/P=	779.90	2.22
L181	8 "	WM	B/P=	803.87	6 "	SAN	T/P=	801.34	2.54
L182	8 "	WM	B/P=	805.65	6 "	SAN	T/P=	802.53	3.13
L183	8 "	WM	B/P=	807.03	6 "	SAN	T/P=	803.72	3.31
L184	8 "	WM	B/P=	807.78	6 "	SAN	T/P=	804.11	3.68
L185	8 "	WM	B/P=	807.26	6 "	SAN	T/P=	804.30	2.96
L186	8 "	WM	B/P=	806.98	6 "	SAN	T/P=	803.49	3.49
L187	8 "	WM	B/P=	807.15	6 "	SAN	T/P=	804.59	2.57
L188	8 "	WM	B/P=	808.36	6 "	SAN	T/P=	805.88	2.48
L189	8 "	WM	B/P=	810.04	6 "	SAN	T/P=	807.17	2.88
L190	8 "	WM	B/P=	809.98	6 "	SAN	T/P=	807.36	2.62
L191	8 "	WM	B/P=	809.47	6 "	SAN	T/P=	806.55	2.92
L192	8 "	WM	B/P=	809.42	6 "	SAN	T/P=	806.65	2.78
L193	8 "	WM	B/P=	809.83	6 "	SAN	T/P=	806.94	2.89
L194	8 "	WM	B/P=	810.43	6 "	SAN	T/P=	807.12	3.31
L195	8 "	WM	B/P=	811.03	6 "	SAN	T/P=	808.32	2.71
L196	8 "	WM	B/P=	811.51	6 "	SAN	T/P=	808.59	2.92
L197	8 "	WM	B/P=	812.02	6 "	SAN	T/P=	808.72	3.30
L198	8 "	WM	B/P=	812.50	6 "	SAN	T/P=	809.98	2.52
L199	8 "	WM	B/P=	812.97	6 "	SAN	T/P=	810.08	2.89
L200	8 "	WM	B/P=	813.49	6 "	SAN	T/P=	810.43	3.06
L201	8 "	WM	B/P=	813.33	6 "	SAN	T/P=	810.48	2.85
L202	8 "	WM	B/P=	813.73	6 "	SAN	T/P=	809.85	3.89
L203	8 "	WM	B/P=	811.99	6 "	SAN	T/P=	809.05	2.95
L156	12 "	ST	B/P=	800.20	6 "	SAN	T/P=	797.67	2.54
L157	12 "	ST	B/P=	798.09	6 "	SAN	T/P=	795.60	2.50
L158	12 "	ST	B/P=	796.51	6 "	SAN	T/P=	793.79	2.73
L159	12 "	ST	B/P=	794.47	6 "	SAN	T/P=	791.99	2.49
L160	12 "	ST	B/P=	792.83	6 "	SAN	T/P=	789.98	2.85
L161	12 "	ST	B/P=	790.77	6 "	SAN	T/P=	786.06	4.71
L162	12 "	ST	B/P=	788.58	6 "	SAN	T/P=	785.52	3.06
L163	12 "	ST	B/P=	786.93	6 "	SAN	T/P=	782.91	4.02
L164	12 "	ST	B/P=	785.01	6 "	SAN	T/P=	781.30	3.71
L165	12 "	ST	B/P=	783.66	6 "	SAN	T/P=	780.02	3.64

SANITARY LEAD TABLE

Lot #	Lead Invert at Main	Lead Length (LF)	Lead Slope (%)	Lead Dia. (in)	Lot F.G. Elev.	Riser Height (FT)	Stub Invert Elev.
* L1	808.63	24	1.04%	6	817.90	0	808.88
L2	808.00	24	1.04%	6	819.20	0	808.25
L3	807.74	24	1.04%	6	820.00	0	807.99
L4	807.49	24	1.04%	6	820.95	2	809.74
L5	807.14	28	1.04%	6	821.65	3	810.43
L6	806.89	28	1.04%	6	822.45	4	811.18
L7	806.64	28	1.04%	6	823.00	5	811.93
L8	806.40	28	1.04%	6	823.70	6	812.69
* L9	808.65	72	1.04%	6	816.90	0	809.40
* L10	808.23	74	1.04%	6	818.00	2	811.00
L11	807.43	74	1.04%	6	821.10	1	809.20
L12	807.08	74	1.04%	6	821.80	2	809.85
L13	805.76	74	1.04%	6	824.50	7	813.53
L14	805.57	74	1.04%	6	825.30	7	813.34
L15	805.38	74	1.04%	6	825.90	8	814.15
L16	805.09	74	1.04%	6	826.70	9	814.86
L17	804.89	74	1.04%	6	827.30	10	815.66
L18	804.69	74	1.04%	6	828.00	11	816.46
L19	804.48	74	1.04%	6	828.60	12	817.25
L20	804.07	74	1.04%	6	828.60	12	816.84
L21	803.88	74	1.04%	6	827.90	12	816.65
L22	803.65	74	1.04%	6	826.60	11	815.42
L23	803.45	74	1.04%	6	825.70	10	814.22
L24	803.26	74	1.04%	6	824.60	9	813.03
L25	802.97	74	1.04%	6	823.45	8	811.74
L26	802.88	74	1.04%	6	823.60	9	812.65
L27	802.68	74	1.04%	6	824.20	9	812.45
L28	804.09	29	1.04%	6	823.40	6	810.39
L29	804.51	29	1.04%	6	822.60	5	809.81
L30	805.63	31	1.04%	6	820.55	2	807.95
L31	806.08	26	1.04%	6	820.00	0	806.35
L32	806.57	24	1.04%	6	819.00	0	806.82
L33	807.06	24	1.04%	6	818.70	0	807.31
L34	807.66	24	1.04%	6	819.30	0	807.91
L35	805.07	74	1.04%	6	821.70	4	809.84
L36	804.64	73	1.04%	6	822.50	5	810.40
L37	804.21	74	1.04%	6	823.20	6	810.97
L38	803.82	74	1.04%	6	824.00	7	811.59
L39	803.25	74	1.04%	6	824.55	8	812.02
L40	802.61	74	1.04%	6	824.90	9	812.38
L41	802.18	74	1.04%	6	824.00	10	812.95
L42	801.99	72	1.04%	6	821.80	7	809.74
L43	801.80	74	1.04%	6	819.50	5	807.57
L44	801.59	74	1.04%	6	817.60	4	806.36
L45	801.40	74	1.04%	6	816.10	2	804.17
L46	802.68	29	1.04%	6	824.30	10	812.98
L47	802.87	29	1.04%	6	823.70	9	812.17
L48	802.98	29	1.04%	6	823.75	9	812.28
L49	803.26	29	1.04%	6	824.50	10	813.57
L50	803.46	29	1.04%	6	825.60	10	813.76
L51	803.66	29	1.04%	6	826.70	11	814.96
L52	803.85	29	1.04%	6	827.70	12	816.15
L53	804.04	29	1.04%	6	828.70	13	817.34
L54	804.43	29	1.04%	6	828.80	13	817.73
L55	805.08	29	1.04%	6	826.80	10	815.38
L56	805.37	29	1.04%	6	826.10	9	814.67
L57	805.56	29	1.04%	6	825.50	8	813.87
L58	805.76	29	1.04%	6	824.90	7	813.06
L59	807.65	28	1.04%	6	824.70	5	812.95
L60	809.34	24	1.04%	6	825.70	5	814.58
L61	812.38	24	1.04%	6	826.60	3	815.63
L62	812.98	24	1.04%	6	827.50	3	816.23
L63	812.22	74	1.04%	6	830.10	5	817.99
L64	811.98	74	1.04%	6	830.75	7	819.75
L65	811.50	74	1.04%	6	830.60	7	819.27
L66	811.25	74	1.04%	6	829.60	6	818.02
L67	810.34	74	1.04%	6	825.63	3	814.10
L68	810.10	74	1.04%	6	824.60	2	812.86
L69	809.40	74	1.04%	6	823.50	2	812.17
L70	808.65	74	1.04%	6	822.30	1	810.42
L71	807.84	74	1.04%	6	821.10	1	809.61
L72	807.09	74	1.04%	6	819.90	1	808.86
L73	806.34	74	1.04%	6	818.70	0	807.11
L74	804.99	76	1.04%	6	817.50	0	805.78
L75	803.31	78	1.04%	6	816.40	1	805.12
L76	802.92	26	1.04%	6	816.40	2	805.19
L77	804.78	26	1.04%	6	817.60	1	806.05
L78	806.36	26	1.04%	6	818.75	1	807.63
L79	807.11	26	1.04%	6	819.90	1	808.38
L80	807.86	26	1.04%	6	821.10	1	809.13
L81	808.67	26	1.04%	6	822.30	2	810.94
L82	809.42	26	1.04%	6	823.50	2	811.69
L83	810.10	26	1.04%	6	824.60	3	813.37
L84	810.34	26	1.04%	6	825.70	4	814.61
L85	810.58	26	1.04%	6	825.85	3	813.85
L86	811.00	29	1.04%	6	828.40	6	817.30
L87	811.26	29	1.04%	6	829.60	7	818.56
L88	811.51	29	1.04%	6	830.80	7	818.81
L89	811.97	29	1.04%	6	831.00	7	819.27
L90	812.21	29	1.04%	6	830.20	6	818.51
L91	812.45	29	1.04%	6	829.00	5	817.75
L92	813.06	29	1.04%	6	827.90	3	816.36
L93	813.64	29	1.04%	6	826.85	0	813.94
L94	800.70	74	1.04%	6	815.30	2	803.47
L95	800.51	74	1.04%	6	814.65	2	803.28
L96	800.42	74	1.04%	6	814.50	2	803.19
L97	800.22	74	1.04%	6	815.25	3	803.99
L98	800.01	74	1.04%	6	815.60	3	803.78
L99	799.83	74	1.04%	6	815.50	3	803.60
L100	799.49	76	1.04%	6	814.20	2	802.28
L101	799.39	75	1.04%	6	814.15	2	802.17
L102	799.10	74	1.04%	6	814.60	3	802.87
L111	798.91	74	1.04%	6	815.00	4	803.68
L112	798.59	74	1.04%	6	815.70	5	804.36
L113	798.41	74	1.04%	6	816.40	6	805.18
L114	798.21	74	1.04%	6	816.80	6	804.98
L115	798.02	74	1.04%	6	817.40	7	805.79
L116	797.66	74	1.04%	6	818.15	8	806.43
L117	797.50	74	1.04%	6	818.70	9	807.27
L118	797.19	77	1.04%	6	819.40	10	807.99

Lot #	Lead Invert at Main	Lead Length (LF)	Lead Slope (%)	Lead Dia. (in)	Lot F.G. Elev.	Riser Height (FT)	Stub Invert Elev.
L119	797.43	29	1.04%	6	818.90	10	807.74
L120	797.63	29	1.04%	6	818.35	9	806.93
L121	797.96	29	1.04%	6	817.40	8	806.26
L122	798.15	29	1.04%	6	817.00	7	805.45
L123	798.36	29	1.04%	6	816.50	6	804.66
L124	798.57	29	1.04%	6	816.00	6	804.87
L125	798.86	29	1.04%	6	815.15	4	803.16
L103	799.07	29	1.04%	6	814.80	4	803.37
L104	799.37	29	1.04%	6	814.10	3	802.66
L105	799.45	27	1.04%	6	814.20	3	802.74
L108	800.44	76	1.04%	6	812.05	0	801.24
L109	800.29	78	1.04%	6	812.10	0	801.07
L110	799.93	76	1.04%	6	812.35	0	800.72
L106	799.91	26	1.04%	6	812.70	1	801.18
L107	799.45	28	1.04%	6	812.70	1	800.74
L126	799.24	28	1.04%	6	812.15	1	800.53
L127	799.14	28	1.04%	6	812.10	1	800.43
L128	798.93	28	1.04%	6	813.00	2	801.23
L129	798.64	28	1.04%	6	814.30	4	802.93
L130	798.45	28	1.04%	6	815.70	5	803.74
L131	798.26	28	1.04%	6	816.50	6	804.55
L132	797.19	29	1.04%	6	818.55	10	807.50
L133	797.39	29	1.04%	6	817.75	9	806.69
L134	797.49	29	1.04%	6	818.00	9	806.79
L135	797.77	29	1.04%	6	818.30	9	807.07
L136	807.30	26	1.04%	6	818.55	0	807.57
L137	806.50	26	1.04%	6	818.10	0	806.77
L138	805.84	26	1.04%	6	817.40	0	806.11
L139	803.94	26	1.04%	6	816.80	1	805.21
L140	802.95	26	1.04%	6	816.00	1	804.22
L141	801.44	26	1.04%	6	815.10	2	803.71
L142	801.07	26	1.04%	6	814.10	1	802.34
L143	800.71	26	1.04%	6	812.70	0	800.98
L144	799.35	26	1.04%	6	812.15	1	800.62
L145	799.18	26	1.04%	6	812.20	1	800.45
L146	804.17	74	1.04%	6	816.90	1	805.94
L147	803.27	74	1.04%	6	816.20	1	805.04
L148	801.59	74	1.04%	6	815.40	2	804.36
L149	801.26	74	1.04%	6	814.60	1	803.03
L150	800.93	74	1.04%	6	813.35	0	801.70
L151	799.57	74	1.04%	6	812.30	0	800.34
L152	796.26	73	1.04%	6	812.30	4	801.02
L153	795.57	72	1.04%	6	812.00	4	800.32
L154	793.84	71	1.04%	6	810.50	4	798.58
L155	791.47	72	1.04%	6	809.55	6	798.22
L156	789.52	72	1.04%	6	808.70	7	797.28
L157	786.46	74	1.04%	6	807.26	8	795.23
L158	784.66	74	1.04%	6	805.10	8	793.43
L159	782.86	74	1.04%	6	802.80	8	791.63
L160	780.84	76	1.04%	6	800.80	8	789.63
L161	779.90	74	1.04%	6	796.97	5	785.68
L162	778.36	77	1.04%	6	796.97	6	785.16
L163	777.76	76	1.04%	6	794.60	4	782.55
L164	777.16	75	1.04%	6	792.30	3	780.93
L165	774.89	74	1.04%	6	790.80	4	779.66
L166	780.89	28	1.04%	6	802.10	9	790.18
L167	784.11	26	1.04%	6	804.50	9	793.38
L168	786.06	26	1.04%	6	806.95	9	795.33
L169	787.74	26	1.04%	6	808.00	8	796.01
L170	790.55	26	1.04%	6	808.70	6	796.82
L171	792.12	27	1.04%	6	809.50	6	798.40
L172	793.81	26	1.04%	6	810.30	5	799.08
L173	794.29	28	1.04%	6	811.05	5	799.58
L174	795.87	26	1.04%	6	811.70	4	800.14
L175	796.32	27	1.04%	6	812.35	4	800.60
L176	797.02	26	1.04%	6	812.55	4	801.29
L177	797.71	26	1.04%	6	812.55	3	800.98
L178	799.74	26	1.04%	6	812.10	1	801.01
L179	800.32	26	1.04%	6	812.00	0	800.59
L180	800.93	26	1.04%	6	812.60	0	801.20
L181	792.27	74	1.04%	6	812.54	8	801.03
L182	792.46	74	1.04%	6	814.10	9	802.23
L183	792.65	74	1.04%	6	815.30	10	803.42
L184	793.04	74	1.04%	6	815.80	10	803.81
L185	793.23	74	1.04%	6	815.45	10	804.00
L186	793.42	74	1.04%	6	815.00	9	803.19
L187	793.52	74	1.04%	6	815.73	10	804.29
L188	793.81	74	1.04%	6	817.00	11	805.58
L189	794.10	74	1.04%	6	817.90	12	806.87
L190	794.29	74	1.04%	6	818.10	12	807.06
L191	794.48	74	1.04%	6	817.60	11	806.25
L192	794.58	74	1.04%	6	817.50	11	806.35
L193	794.87	74	1.04%	6	818.00	11	806.64
L194	795.06	73	1.04%	6	818.65	11	806.82
L195	795.25	74	1.04%	6	819.20	12	808.02
L196	795.49	78	1.04%	6	819.80	12	808.29
L197	795.64	75	1.04%	6	820.30	12	808.42
L198	795.87	78	1.04%	6	820.80	13	809.68
L199	796.00	75	1.04%	6	821.30	13	809.78
L200	796.34	77	1.04%	6	821.70	13	810.13
L201	796.38	78	1.04%	6	821.80	13	810.19
L202	796.68	84	1.04%	6	820.80	12	809.55
L203	796.87	84	1.04%	6	820.10	11	808.75
L204	795.49	26	1.04%	6	819.80	13	808.76
L205	795.15	29	1.04%	6	818.80	12	807.45
L206	794.96	29	1.04%	6	818.20	11	806.26
L207	794.59	29	1.04%	6	817.55	11	805.89
L208	794.39	29	1.04%	6	817.50	11	805.69
L209	794.18	29	1.04%	6	818.10	12	806.48
L210	793.97	29	1.04%	6	817.80	12	806.27
L211	793.76	29	1.04%	6	816.88	11	805.06
L212	793.44	29	1.04%	6	815.20	10	803.75
L213	793.35	29	1.04%	6	815.10	10	803.65
L214	793.14	29	1.04%	6	815.70	11	804.44
L215	792.71	29	1.04%	6	815.70	11	804.02

NOTE: THE * ANNOTATION BY THE LOT # INDICATES HUNG PLUMBING

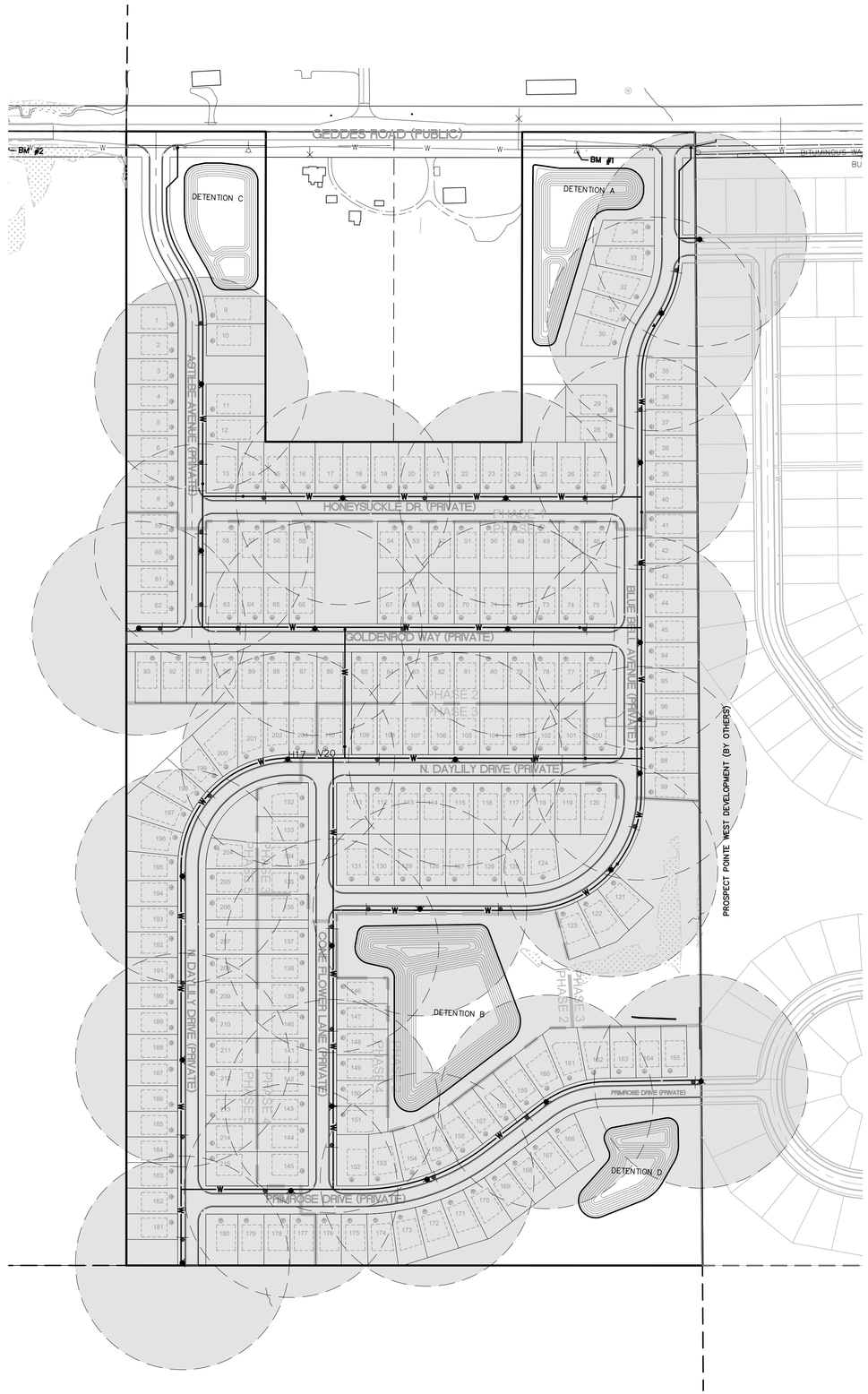
811
Know what's below.
Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.
COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGA



LEGEND

- PROPOSED WATER MAIN
- EXISTING WATER MAIN
- 250' RADIUS HYDRANT COVERAGE (TYP.)
- PROPOSED PAVEMENT
- PROPOSED HYDRANT
- 'NO PARKING – FIRE LANE' SIGN

811 Know what's **below.** **Call** before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
FIRE PROTECTION PLAN

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

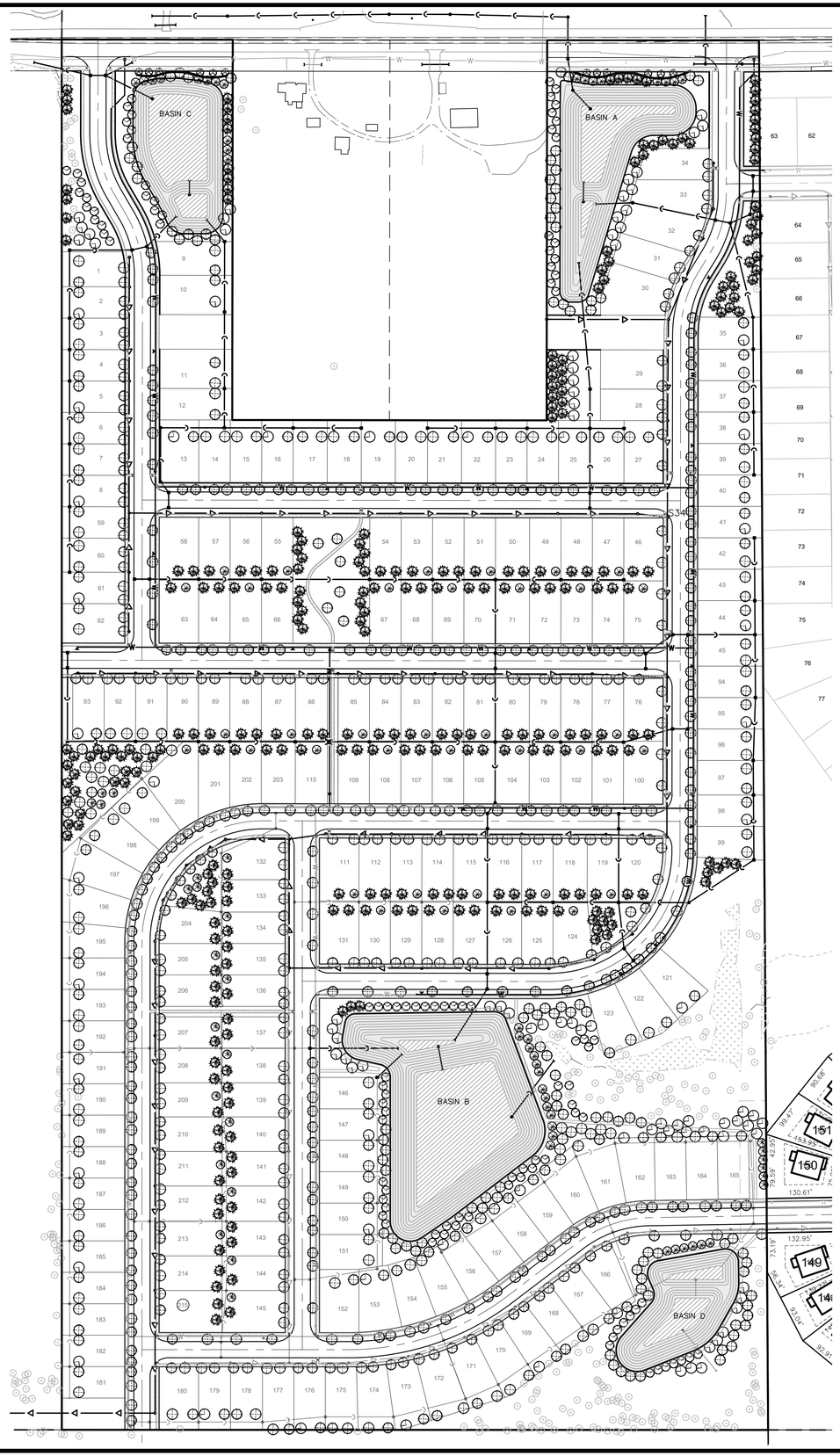
REVISIONS

0 75 150
SCALE: 1" = 150 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 40

CAD FILE: 19004443SP-19-FP.DWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443SP-19-FP.DWG 9/22/2026 8:19 AM MATTHEW MYERS



STORMWATER SEED MIX

Botanical Name	Common Name	PLS Oz/Acre
Permanent Grasses/Sedges		
Bolboschoenus luviatilis	River Bulrush	0.25
Carex cristatella	Crested Oval Sedge	2.00
Carex lurida	Bottlebrush Sedge	3.00
Carex vulpinoidea	Brown Fox Sedge	6.00
Elymus virginicus	Virginia Wild Rye	13.50
Glyceria striata	Fowl Manna Grass	1.25
Juncus effusus	Common Rush	2.00
Leersia oryzoides	Rice Cut Grass	1.00
Panicum virgatum	Switch Grass	2.00
Schoenoplectus tabernaemontani	Softstem Bulrush	3.00
Scirpus atrovirens	Dark Green Rush	2.00
Scirpus cyperinus	Wool Grass	1.00
	Total	**37.00**
Temporary Cover		
Avena sativa	Common Oat	360.00
Lolium multiforum	Annual Rye	100.00
	Total	**460.00**
Forbs		
Alisma spp.	Water Plantain Mix	4.25
Asclepias incarnata	Swamp Milkweed	1.50
Bidens spp.	Bidens Mix	2.00
Helenium autumnale	Sneezeweed	2.00
Iris virginica	Blue Flag	4.00
Lycopus americanus	Common Water Horehound	0.25
Mimulus ringens	Monkey Flower	1.00
Oligoneuron riddellii	Riddell's Goldenrod	0.50
Penthorum sedoides	Ditch Stonecrop	0.50
Polygonum erectum	Erect Knotweed	4.00
Rudbeckia subtomentosa	Sweet Black-Eyed Susan	1.00
Rudbeckia triloba	Brown-Eyed Susan	1.50
Sagittaria latifolia	Common Arrowhead	1.00
Senna hebecarpa	Wild Senna	1.00
Symphyotrichum novae-angliae	New England Aster	1.50
Thalictrum dasycarpum	Purple Meadow Rue	2.00
	Total	**28.00**

STORMWATER SEED MIX BY NATIVESCAPES

TOTAL AREA	3.72 ACRES (162,000 SF)
APPLICATION RATE	37 LBS PER ACRE
REQUIRED STORMWATER SEED MIX	138 LBS

WET MEADOW PLANT LIST

QTY	BOTANICAL NAME	COMMON NAME	SPACING	CONTAINER
2760	AGASTACHE NEPETOIDES	YELLOW GIANT HYSSOP	24" O.C.	2" POT OR CELLS
2760	ASCLEPIAS INCARNATA	SWAMP MILKWEED	24" O.C.	2" POT OR CELLS
2760	CAREX GRAYI	GRAY'S SEDGE	24" O.C.	2" POT OR CELLS
2760	DOELLINGERIA UMBELLATA	FLAT-TOP WHITE ASTER	24" O.C.	2" POT OR CELLS
2760	EUPATORIUM PERFOLIATUM	BONESET	24" O.C.	2" POT OR CELLS
2760	EUTROCHIUM MACULATUM	JOE-PYE WEED	24" O.C.	2" POT OR CELLS
2760	HELENIUM AUTUMNALE	SNEEZEWEED	24" O.C.	2" POT OR CELLS

*NOTE: WET MEADOW AREA 77,300 SF

NOTE

HOMEBUILDER TO PROVIDE A MINIMUM 2 TREES PER LOT IN THE REAR YARD. THE TREE SPECIES HAVE BEEN IDENTIFIED ON THE PLANTING PLAN BUT HOMEBUILDER MAY PROVIDE ALTERNATE SPECIES PER THE HOMEOWNERS SELECTION. THE HOMEOWNER MAY SELECT ANY 2 TREES FROM THE PROPOSED ONSITE PLANTING SCHEDULE FOR THE DEVELOPMENT, WITH THE ONLY EXCEPTION BEING SPRING SNOW CRAB APPLE.

LEGEND

- PROPERTY LINE
- SANITARY SEWER
- STORM SEWER
- WATERMAIN
- PROPOSED TREE
- PROPOSED WET MEADOW
- PR. STORMWATER SEED MIX

OVERALL LANDSCAPE REQUIREMENTS

1. STREET TREES:
   - REQUIREMENT: 2 PER LOT OR A MAXIMUM OF 60' ON CENTER
   - REQUIRED: 2 X 215 = 430 TREES
   - PROVIDED: 482 TREES
2. GREENBELT BUFFER:
   - 1 TREE AND 3 SHRUBS PER 15' OF GREENBELT LENGTH.
   - MIN. WIDTH = 10'
   - MIN. 3' HIGH BERM
   - SITE REQUIREMENT:
     - GEDDES RD BUFFER (WEST) = (260LF/15) = 18 TREES AND 54 SHRUBS
     - GEDDES RD BUFFER (EAST) = (338LF/15) = 23 TREES AND 69 SHRUBS
   - PROVIDED:
     - GEDDES RD BUFFER (WEST) = 18 TREES AND 54 SHRUBS
     - GEDDES RD BUFFER (EAST) = 23 TREES AND 69 SHRUBS
3. WOODLAND REPLACEMENT:
   - REQUIRED ONSITE REPLACEMENT TREES = 955 TREES
   - REQUIRED OFFSITE REPLACEMENT TREES = 771 TREES
   - TOTAL REQUIRED REPLACEMENT TREES = 1,726 TREES
   - REPLACEMENT TREES PROVIDED = (482 + 915) 1,397 TREES
   - PAYMENT INTO TREE FUND = (1,726 – 1,397) 329 TREES

OVERALL PLANTING SCHEDULE STREET TREES

TAG	QTY.	BOTANICAL NAME	COMMON NAME	CALIPER	HEIGHT	NOTES
AR	96	ACER RUBRUM 'AUTUMN BLAZE'	AUTUMN BLAZE RED MAPLE	2.5"		B & B
GT	97	GLEDITISIA TRIACANTHOS V. INERMIS	THORNLESS HONEY LOCUST	2.5"		B & B
LT	87	LIRIODENDRON TULIPIFERA	TULIP TREE	2.5"		B & B
QP	103	QUERCUS PALUSTRIS	PIN OAK	2.5"		B & B
TC	99	TTILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	2.5"		B & B
TOTAL	482					

OVERALL PLANTING SCHEDULE BUFFERS & OPEN SPACE

DECIDUOUS & EVERGREEN TREES

TAG	QTY.	BOTANICAL NAME	COMMON NAME	CALIPER	HEIGHT	NOTES
AB	98	ABIES BALSAMEA	BALSAM FIR		6'–8'	B & B
AW	73	ABIES CONCOLOR	WHITE FIR		6'–8'	B & B
AR	56	ACER RUBRUM 'AUTUMN BLAZE'	AUTUMN BLAZE RED MAPLE	2.5"		B & B
AS	40	ACER SACCHARUM 'LEGACY'	LEGACY SUGAR MAPLE	2.5"		B & B
BN	100	BETULA NIGRA	MULTI–STEM RIVER BIRCH		10'–12'	B & B
GT	38	GLEDITISIA TRIACANTHOS V. INERMIS	THORNLESS HONEY LOCUST	2.5"		B & B
LT	97	LIRIODENDRON TULIPIFERA	TULIP TREE	2.5"		B & B
MS	12	MALUS 'SPRING SNOW'	SPRING SNOW CRAB APPLE	2.0"		B & B
PA	120	PICEA ABIES	NORWAY SPRUCE		6'–8'	B & B
PG	102	PICEA GLAUCA	WHITE SPRUCE		6'–8'	B & B
QP	51	QUERCUS PALUSTRIS	PIN OAK	2.5"		B & B
QR	90	QUERCUS RUBRA	RED OAK	2.5"		B & B
TC	38	TTILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	2.5"		B & B
TOTAL	915					

SHRUBS

TAG	QTY.	BOTANICAL NAME	COMMON NAME	CALIPER	HEIGHT	NOTES
HB	32	HYDRANGEA P. 'LIMELIGHT'	LIMELIGHT HYDRANGEA		30"	CONT.
SJ	91	SPIRAEA JAPONICA 'GOLDFLAME'	GOLDFLAME JAPANESE SPIRAEA		30"	CONT.
TOTAL	123					

LANDSCAPE NOTES

1. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATION OF ALL UNDERGROUND AND OVERHEAD UTILITIES.
2. LANDSCAPING OPERATIONS, INCLUDING PLANTING OF TREES AND SHRUBS, SHALL NOT DAMAGE ANY UTILITY OR INTERRUPT ANY UTILITY SERVICE, AND SHALL NOT DAMAGE OR CREATE A NUISANCE AFFECTING ADJACENT PROPERTY, PUBLIC STREETS, OR SIDEWALKS.
3. PLANT AND GRASS MATERIALS SHALL BE INSTALLED ACCORDING TO GENERALLY ACCEPTED PLANTING PROCEDURES.
4. ALL DISTURBED AREAS THAT ARE NOT SPECIFIED WITH OTHER PLANTING, PAVING OR SEED MIXTURES SHALL BE PLANTED WITH A STANDARD PERMANENT GRASS SEED MIXTURE TO INDUSTRY STANDARDS.
5. LANDSCAPING MATERIALS THAT ARE UNSIGHTLY, DEAD, DYING, OR THAT BECOME UNHEALTHY BECAUSE OF DAMAGE, NEGLECT, DRAINAGE PROBLEMS, DISEASE, INSECT INFESTATION, OR OTHER CAUSES SHALL BE REPLACED WITHIN ONE YEAR, OR THE NEXT PLANTING PERIOD, WHICHEVER OCCURS FIRST. REPLACEMENT MATERIALS SHALL MEET ALL STANDARDS OF THE ORIGINAL INSTALLATION.
6. ALL LANDSCAPED AREAS SHALL BE PROVIDED WITH AN ADEQUATE WATER SUPPLY. IF AUTOMATIC IRRIGATION IS PROVIDED, IT MUST HAVE A RAIN SENSOR TO SHUT OFF SO AS NOT TO SATURATE INFILTRATION BASINS.
7. THE PROPERTY OWNER (OR ANY APPLICABLE OWNER'S ASSOCIATION) SHALL BE RESPONSIBLE TO ENSURE THE PROPER CARE AND MAINTENANCE OF LANDSCAPE AREAS, INCLUDING KEEPING ALL LANDSCAPE MATERIALS IN A HEALTHY AND GROWING STATE. ALL LANDSCAPE ELEMENTS SUCH AS, BUT NOT LIMITED TO, FENCES, SCREENS, WALLS, OR LIGHTING SHALL BE KEPT IN GOOD REPAIR.
8. TOPSOIL REMOVED DURING CONSTRUCTION SHALL BE STOCKPILED IN AN APPROPRIATE MANNER TO PREVENT EROSION, AND SHALL BE REDISTRIBUTED ON RE-GRADED SURFACES TO BE LANDSCAPED, TO PROVIDE A MINIMUM OF FOUR INCHES OF EVEN COVER. THE TOPSOIL SHALL THEN BE PERMANENTLY STABILIZED BY GRASS, GROUND COVER, OR OTHER PLANTINGS.
9. NO PLANT MATERIAL SHALL BE PLANTED CLOSER THAN 4 FEET FROM ANY PROPERTY LINE.
10. REMOVE ALL TWINE, WIRE, NURSERY GUARDS, TAGS AND INORGANIC MATERIAL FROM ROOT BALL. PEEL BACK THE BURLAP FROM EARTH BALLS AND REMOVE ANY BURLAP, TWINE OR WIRE AROUND THE TRUNK FLARE AND ABOVE.
11. ALL PLANTING AREAS ARE TO BE EXCAVATED OF ALL BUILDING / CONSTRUCTION AND FILL MATERIALS AND BACKFILLED WITH GOOD MEDIUM TEXTURED PLANTING SOIL. SEEDING AREAS ARE TO BE TREATED WITH 4" OF NEW TOPSOIL AND ROTOTILLED OR OTHERWISE SCARIFIED TO BREAK UP COMPACTION AT LEAST 8" BELOW THE TOPSOIL.
12. TOPSOIL SHALL BE SCREENED AND SUITABLE FOR GROWING VEGETATION AND MEET AT A MINIMUM ASTM D–5268 AND MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
13. RECOMMENDED PLANTING DATES ARE MARCH 15 TO JUNE 15 AND SEPTEMBER 15 TO NOVEMBER 15.
14. ALL DISTURBED SOIL IN STORMWATER SYSTEMS MUST BE PLANTED WITH PERENNIAL PLANTINGS TO PROVIDE FOR PERMANENT SOIL STABILIZATION AS CALLED FOR IN THE SOIL EROSION CONTROL PERMIT.
15. WITHIN AREAS ABOVE THE INFILTRATION STORAGE ELEVATION OF THE PROPOSED DETENTION BASIN, SEEDING AND/OR LIVE PLANTINGS ARE ALLOWED. ONLY NATIVE SEEDS (AS DEFINED BY MICHIGAN FLORA, MICHIGANFLORA.NET) ARE ALLOWED FOR PERMANENT SOIL STABILIZATION. ANNUAL SEEDS ARE ALLOWED IN AN AMOUNT NECESSARY TO TEMPORARILY STABILIZE THE LIMITS OF DISTURBANCE.
16. BELOW THE INFILTRATION STORAGE ELEVATION WITHIN THE DETENTION BASIN, LIVE PLANTINGS MUST COVER THE ENTIRE AREA. THE INFILTRATION STORAGE ELEVATION SHOULD BE NOTED ON THE DETAILS. NATIVE PLANTS ARE PREFERRED. CULTIVARS AND NON–NATIVE PERENNIALS ARE ALLOWABLE IF APPROVED BY WCWRC. PLANTS LISTED ON THE WCWRC PAIN GARDEN PLANT LIST ARE ACCEPTABLE. INVASIVE SPECIES ARE NOT ALLOWED (SEE THE CITY OF ANN ARBOR'S INVASIVE SPECIES LIST).
    - A. PLANTINGS SHOULD BE LOCALLY ADAPTED AND APPROPRIATE TO HYDRIC CONDITIONS PROPOSED. FOR MORE INFORMATION ON INDIVIDUAL SPECIES, SEE "PLANTS FOR STORMWATER DESIGN: SPECIES SELECTION FOR THE UPPER MIDWEST" BY DANIEL SHAW & RUSTY SCHMIDT.
    - B. PLANTINGS SHOULD BE SPACED ACCORDING TO EACH SPECIES SIZE AND GROWTH POTENTIAL TO ALLOW FOR SUFFICIENT COVERAGE AS REQUIRED BY THE SOIL EROSION PERMIT.
17. PLANTING SOILS MUST BE AMENDED WITH A COMPOSTED ORGANIC MATERIAL. SOILS MUST BE FREE OF CONSTRUCTION DEBRIS AND SUBSOILS. A RECOMMENDED SOIL BLEND INCLUDES 20 TO 30 PERCENT COMPOST.
18. AT THE TIME OF PLANT AND SEED DELIVERY, A WCWRC LANDSCAPE REVIEWER MUST BE PRESENT. THE QUANTITY AND SPECIES DELIVERED WILL BE REVIEWED ON SITE. CONTACT CATIE WYTYCHAK AT WYTYCHAKC@WASHTENAW.ORG OR (734) 222–6813 TO COORDINATE.

Know what's below. Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
OVERALL LANDSCAPE PLAN

DATE
MAY 29, 2026

08–19–2026 PER CLIENT/TWP
09–22–2026 PER TWP.

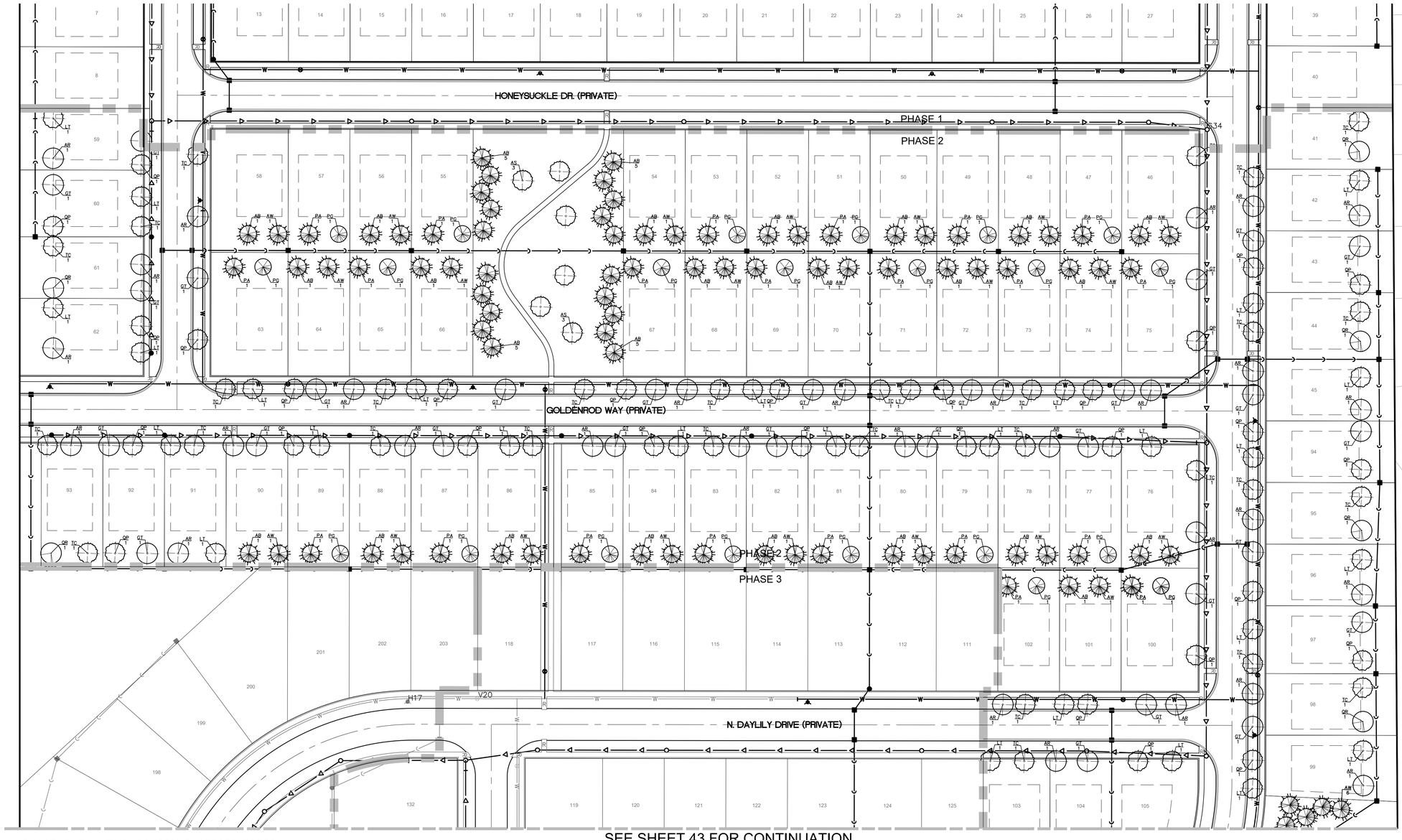
REVISIONS

0 60 120
SCALE: 1" = 120 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 41

CAD FILE: I:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443FSP-2D-LS.DWG 9/22/2026 9:20 AM MATTHEW MYERS

CAD FILE: 19004443FSP-2D-LS.DWG



SEE SHEET 43 FOR CONTINUATION

PHASE 2 PLANTING SCHEDULE STREET TREES

TAG	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT	NOTES
AR	24	ACER RUBRUM 'AUTUMN BLAZE'	AUTUMN BLAZE RED MAPLE	2.5" CAL.		B & B
GT	26	GLEDITSIA TRIACANTHOS V. INERMIS	THORNLESS HONEY LOCUST	2.5" CAL.		B & B
LT	23	LIRIODENDRON TULIPIFERA	TULIP TREE	2.5" CAL.		B & B
QP	27	QUERCUS PALUSTRIS	PIN OAK	2.5" CAL.		B & B
TC	27	TTILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	2.5" CAL.		B & B
TOTAL	127					

PHASE 2 PLANTING SCHEDULE BUFFERS & OPEN SPACE

DECIDUOUS & EVERGREEN TREES

TAG	QTY.	BOTANICAL NAME	COMMON NAME	CALIPER	HEIGHT	NOTES
AB	45	ABIES BALSAMEA	BALSAM FIR		6'–8'	B & B
AR	49	ACER RUBRUM 'AUTUMN BLAZE'	AUTUMN BLAZE RED MAPLE	2.5"		B & B
AS	7	ACER SACCHARUM 'LEGACY'	LEGACY SUGAR MAPLE	2.5"		B & B
GT	6	GLEDITSIA TRIACANTHOS V. INERMIS	THORNLESS HONEY LOCUST	2.5" CAL.		B & B
PA	25	PICEA ABIES	NORWAY SPRUCE		6'–8'	B & B
PG	25	PICEA GLAUCA	WHITE SPRUCE		6'–8'	B & B
QP	6	QUERCUS PALUSTRIS	PIN OAK	2.5"		B & B
QR	7	QUERCUS RUBRA	RED OAK	2.5"		B & B
TC	8	TTILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	2.5"		B & B
LT	4	LIRIODENDRON TULIPIFERA	TULIP TREE	2.5" CAL.		B & B
TOTAL	182					

PHASE 2 LANDSCAPE REQUIREMENTS

1. STREET TREES:
   - PHASE 2: PROVIDED: 127 TREES

2. WOODLAND REPLACEMENT:
   - PHASE 1 REQUIRED:
     - ONSITE: 97 TREES
     - OFFSITE: 771 TREES
     - TOTAL: 868 TREES
   - PHASE 1 PROVIDED:
     - PHASE 1 REPLACEMENT TREES PROVIDED = (108 + 265) 373 TREES
     - PHASE 1 PAID INTO TREE FUND = (868 – 373) 495 TREES (EXCEEDS OVERALL DEVELOPMENT TREE FUND REQUIREMENT)
     - OVERALL DEVELOPMENT TREE FUND REQUIRED = 329 TREES (SEE SH. 41 FOR DETAILED CALCULATIONS)
     - EXCESS BOND AMOUNT FOR TREES TO BE PLANTED IN FUTURE PHASES = (495–329) 166 TREES
   - PHASE 2 REQUIRED:
     - ONSITE: 88 TREES
     - OFFSITE: 0 TREES
     - TOTAL: 88 TREES
   - PHASE 2 PROVIDED:
     - PHASE 2 REPLACEMENT TREES PROVIDED = (127 + 182) 309 TREES
     - PHASE 2 TREE FUND CALCULATION = (88 – 309) –221 TREES (EXCEEDS BONDED TREES FROM PHASE 1)
     - THEREFORE THE FULL EXCESS TREE BOND POSTED IN PHASE 1 CAN BE RELEASED UPON POSTING OF THE PHASE 2 LANDCAPE BOND.
     - NET TREE CREDIT FOR FUTURE PHASES (221–166) 55 TREES

STORMWATER SEED MIX BY NATIVESCAPES

TOTAL AREA	1.56 ACRES (68.126 SF)
APPLICATION RATE	37 LBS PER ACRE
REQUIRED STORMWATER SEED MIX	58 LBS

WET MEADOW PLANT LIST (PHASE 2)

QTY	BOTANICAL NAME	COMMON NAME	SPACING	CONTAINER
1155	AGASTACHE NEPETOIDES	YELLOW GIANT HYSSOP	24" O.C.	2" POT OR CELLS
1155	ASCLEPIAS INCARNATA	SWAMP MILKWEED	24" O.C.	2" POT OR CELLS
1155	CAREX GRAYI	GRAY'S SEDGE	24" O.C.	2" POT OR CELLS
1155	DOELLINGERIA UMBELLATA	FLAT-TOP WHITE ASTER	24" O.C.	2" POT OR CELLS
1155	EUPATORIUM PERFOLIATUM	BONESET	24" O.C.	2" POT OR CELLS
1155	EUTROCHIUM MACULATUM	JOE-PYE WEED	24" O.C.	2" POT OR CELLS
1155	HELENIUM AUTUMNALE	SNEEZEWEED	24" O.C.	2" POT OR CELLS

*NOTE: WET MEADOW AREA 37,825 SF

STORMWATER SEED MIX

Botanical Name	Common Name	PLS Oz/Acre
Permanent Grasses/Sedges		
Bolboschoenus luviatilis	River Bulrush	0.25
Carex cristatella	Crested Oval Sedge	2.00
Carex lurida	Bottlebrush Sedge	3.00
Carex vulpinoidea	Brown Fox Sedge	6.00
Elymus virginicus	Virginia Wild Rye	13.50
Glyceria striata	Fowl Manna Grass	1.25
Juncus effusus	Common Rush	2.00
Leersia oryzoides	Rice Cut Grass	1.00
Panicum virgatum	Switch Grass	2.00
Schoenoplectus tabernaemontani	Softstem Bulrush	3.00
Scirpus atrovirens	Dark Green Rush	2.00
Scirpus cyperinus	Wool Grass	1.00
	Total	**37.00**
Temporary Cover		
Avena sativa	Common Oat	360.00
Lolium multiflorum	Annual Rye	100.00
	Total	**460.00**
Forbs		
Alisma spp.	Water Plantain Mix	4.25
Asclepias incarnata	Swamp Milkweed	1.50
Bidens spp.	Bidens Mix	2.00
Helenium autumnale	Sneezeweed	2.00
Iris virginica	Blue Flag	4.00
Lycopus americanus	Common Water Horehound	0.25
Mimulus ringens	Monkey Flower	1.00
Oligoneuron riddellii	Riddell's Goldenrod	0.50
Penthorum sedoides	Ditch Stonecrop	0.50
Polygonum erectum	Erect Knotweed	4.00
Rudbeckia subtomentosa	Sweet Black-Eyed Susan	1.00
Rudbeckia triloba	Brown-Eyed Susan	1.50
Sagittaria latifolia	Common Arrowhead	1.00
Senna hebecarpa	Wild Senna	1.00
Symphyotrichum novae-angliae	New England Aster	1.50
Thalictrum dasycarpum	Purple Meadow Rue	2.00
	Total	**28.00**

811 Know what's **below.** **Call** before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
LANDSCAPE PLAN

DATE
MAY 29, 2026
08–19–2026 PER CLIENT/TWP
09–22–2026 PER TWP.

REVISIONS

0 25 50
SCALE: 1" = 50 FEET
DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 42

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443FSP-2B-LS DT.DWG 9/22/2026 9:21 AM MATTHEW MYERS

CAD FILE: 19004443FSP-2B-LS DT.DWG

SEE SHEET 42 FOR CONTINUATION



LEGEND

- PROPERTY LINE
- SANITARY SEWER
- STORM SEWER
- WATERMAIN
- PROPOSED TREE
- PROPOSED WET MEADOW
- PR. STORMWATER SEED MIX

Know what's **below.** **Call** before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT ⓒ2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33
TOWN 2 SOUTH, RANGE 7 EAST
SUPERIOR TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN – PHASE 2
LANDSCAPE PLAN

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

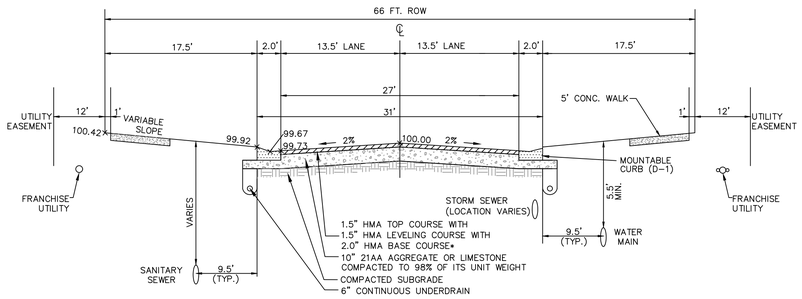
REVISIONS

SCALE: 1" = 50 FEET

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 43

CAD FILE: 19004443SP-29-LS DT.DWG

K:\19004443\DWG\PLAN SETS\SITE-FINAL\PHASE 2\19004443SP-29-LS DT.DWG 9/22/2026 8:22 AM MATTHEW MYERS



TYPICAL RESIDENTIAL ROADWAYS CORRIDOR CROSS SECTION(PRIVATE)

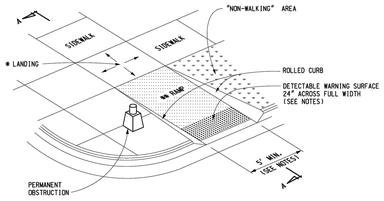
NOT TO SCALE

* NOTES:
1. REFER TO CURRENTLY APPROVED WCRC HMA MIX DESIGNS AND BINDER REQUIREMENTS PRIOR TO CONSTRUCTION.
2. ALL PROPOSED UTILITIES SHALL BE WITHIN THE RIGHT-OF-WAY OR WITHIN AN EASEMENT OUTSIDE OF THE RIGHT-OF-WAY.

ASSUMED SECTION:
1.5" LVSP WEARING COURSE WITH 3% MAX AIR VOIDS
1.5" LVSP LEVELING COURSE
2" 4E1 BASE COURSE
ALL HMA SHALL LIMIT RAP TO 25%

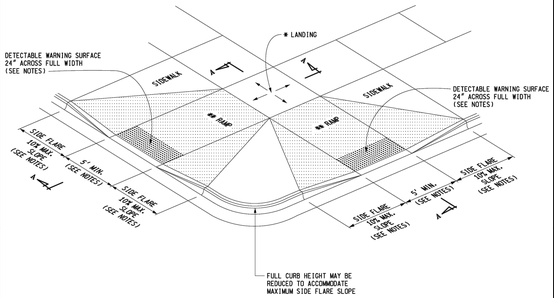
* MAXIMUM LANDING SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. LANDING MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.

** MAXIMUM RAMP CROSS SLOPE IS 2.0%. RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.



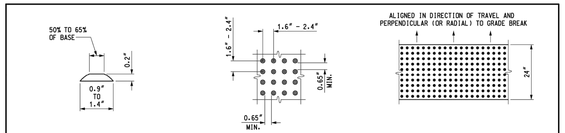
SIDEWALK RAMP TYPE R

(ROLLED SIDES)



SIDEWALK RAMP TYPE F

(FLARED SIDES, TWO RAMPS SHOWN)



DOME SECTION | DOME SPACING | DOME ALIGNMENT

DETECTABLE WARNING DETAILS

NOTES:

DETAILS SPECIFIED ON THIS PLAN APPLY TO ALL CONSTRUCTION, RECONSTRUCTION, OR ALTERATION OF STREETS, CURBS, OR SIDEWALKS IN THE PUBLIC RIGHT OF WAY.

SIDEWALK RAMPS ARE TO BE LOCATED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

RAMPS SHALL BE PROVIDED AT ALL CORNERS OF AN INTERSECTION WHERE THERE IS EXISTING OR PROPOSED SIDEWALK AND CURB. RAMPS SHALL ALSO BE PROVIDED AT MARKED AND/OR SIGNALIZED MID-BLOCK CROSSINGS.

SURFACE TEXTURE OF THE RAMP SHALL BE THAT OBTAINED BY A COARSE BROOMING, TRANSVERSE TO THE RUNNING SLOPE.

SIDEWALK SHALL BE RAMPED WHERE THE DRIVEWAY CURB IS EXTENDED ACROSS THE WALK.

CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE ON THE RAMP, WHERE CONDITIONS PERMIT. IT IS DESIRABLE THAT THE SLOPE OF THE RAMP BE IN ONLY ONE DIRECTION, PARALLEL TO THE DIRECTION OF TRAVEL.

RAMP WIDTH SHALL BE INCREASED, IF NECESSARY, TO ACCOMMODATE SIDEWALK SNOW REMOVAL EQUIPMENT NORMALLY USED BY THE MUNICIPALITY.

WHEN 5' MINIMUM WIDTHS ARE NOT PRACTICABLE, RAMP WIDTH MAY BE REDUCED TO NOT LESS THAN 4' AND LANDINGS TO NOT LESS THAN 4' x 4'.

CURB RAMPS WITH A RUNNING SLOPE ≤5% DO NOT REQUIRE A TOP LANDING. HOWEVER, ANY CONTINUOUS SIDEWALK OR PEDESTRIAN ROUTE CROSSING THROUGH OR INTERSECTING THE CURB RAMP MUST INDEPENDENTLY MAINTAIN A CROSS SLOPE NOT GREATER THAN 2% PERPENDICULAR TO ITS OWN DIRECTION(S) OF TRAVEL.

DETECTABLE WARNING SURFACE COVERAGE IS 24" MINIMUM IN THE DIRECTION OF RAMP/PATH TRAVEL AND THE FULL WIDTH OF THE RAMP/PATH OPENING EXCLUDING CURBED OR FLARED CURB TRANSITION AREAS. A BORDER OFFSET NOT GREATER THAN 2" MEASURED ALONG THE EDGES OF THE DETECTABLE WARNING IS ALLOWABLE. FOR RADIAL CURB THE OFFSET IS MEASURED FROM THE ENDS OF THE RADIUS.

FOR NEW ROADWAY CONSTRUCTION, THE RAMP CROSS SLOPE MAY NOT EXCEED 2.0%. FOR ALTERATIONS TO EXISTING ROADWAYS, THE CROSS SLOPE MAY BE TRANSITIONED TO MEET AN EXISTING ROADWAY GRADE. THE CROSS SLOPE TRANSITION SHALL BE APPLIED UNIFORMLY OVER THE FULL LENGTH OF THE RAMP.

THE MAXIMUM RUNNING SLOPE OF 8.3% IS RELATIVE TO A FLAT (0%) REFERENCE. HOWEVER, IT SHALL NOT REQUIRE ANY RAMP OR SERIES OF RAMPS TO EXCEED 15 FEET IN LENGTH NOT INCLUDING LANDINGS OR TRANSITIONS.

DRAINAGE STRUCTURES SHOULD NOT BE PLACED IN LINE WITH RAMPS. THE LOCATION OF THE RAMP SHOULD TAKE PRECEDENCE OVER THE LOCATION OF THE DRAINAGE STRUCTURE. WHERE EXISTING DRAINAGE STRUCTURES ARE LOCATED IN THE RAMP PATH OF TRAVEL, USE A MANUFACTURER'S ADA COMPLIANT GRATE. OPENINGS SHALL NOT BE GREATER THAN ½". ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.

THE TOP OF THE JOINT FILLER FOR ALL RAMP TYPES SHALL BE FLUSH WITH THE ADJACENT CONCRETE.

CROSSWALK AND STOP LINE MARKINGS, IF USED, SHALL BE SO LOCATED AS TO STOP TRAFFIC SHORT OF RAMP CROSSINGS. SPECIFIC DETAILS FOR MARKING APPLICATIONS ARE GIVEN IN THE "MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

FLARED SIDES WITH A SLOPE OF 10% MAXIMUM, MEASURED ALONG THE ROADSIDE CURB LINE, SHALL BE PROVIDED WHERE AN UNOBSTRUCTED CIRCULATION PATH LATERALLY CROSSES THE SIDEWALK RAMP. FLARED SIDES ARE NOT REQUIRED WHERE THE RAMP IS BORDERED BY LANDSCAPING, UNPAVED SURFACE OR PERMANENT FIXED OBJECTS, WHERE THEY ARE NOT REQUIRED. FLARED SIDES CAN BE CONSIDERED IN ORDER TO AVOID SHARP CURB RETURNS AT RAMP OPENINGS.

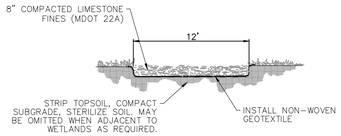
DETECTABLE WARNING PLATES MUST BE INSTALLED USING FABRICATED OR FIELD CUT UNITS CAST AND/OR ANCHORED IN THE PAVEMENT TO RESIST SHIFTING OR HEAVING.

MDOT Michigan Department of Transportation	DEPARTMENT DIRECTOR Paul C. Ajegba	MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN FOR SIDEWALK RAMP AND DETECTABLE WARNING DETAILS			
PREPARED BY DESIGN DIVISION	APPROVED BY: DIRECTOR, BUREAU OF FIELD SERVICES	F.H.W.A. APPROVAL	7-26-2019 PLAN DATE	R-28-J	SHEET 1 OF 7
DRAWN BY: R.L.T.	APPROVED BY: DIRECTOR, BUREAU OF DEVELOPMENT				
CHECKED BY: M.K.P.					

NOTE:
CONTRACTOR IS RESPONSIBLE TO USE THE MOST CURRENT MDOT DETAILS AND SPECIFICATIONS, AS APPLICABLE.

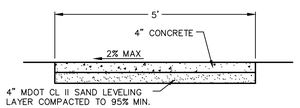
MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF DEVELOPMENT STANDARD PLAN FOR
SIDEWALK RAMP AND DETECTABLE WARNING DETAILS

F.H.W.A. APPROVAL	7-26-2019 PLAN DATE	R-28-J	SHEET 7 OF 7



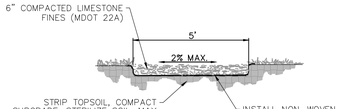
SANITARY SEWER TEMPORARY MAINTENANCE ACCESS DRIVE

NOT TO SCALE



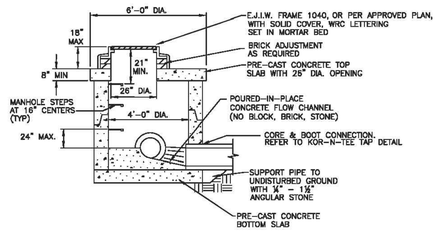
CONCRETE SIDEWALK SECTION

NOT TO SCALE



GRAVEL NATURE PATH CROSS SECTION

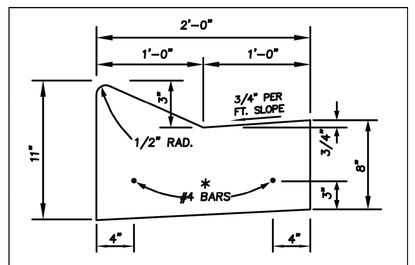
NOT TO SCALE



PRE-CAST LOW HEAD MANHOLE DETAIL

NO SCALE

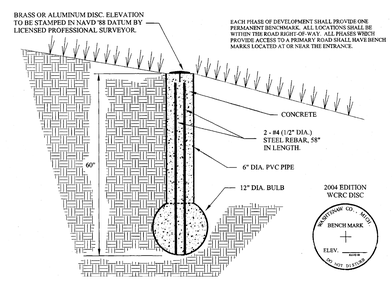
(PRIOR APPROVAL ONLY)



MOUNTABLE CURB & GUTTER DETAIL

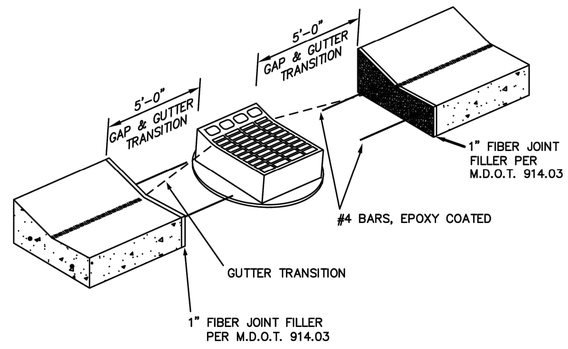
MOUNTABLE CURB & GUTTER DETAIL (ONSITE ONLY)

NO SCALE



SUBDIVISION BENCHMARK DETAIL

NO SCALE



CURB & GUTTER GAP & TRANSITION DETAIL

NO SCALE

Know what's below. Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2026 ATWELL LLC NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC

ATWELL
866.850.4200 www.atwell-group.com
TWO TOWNE SQUARE, SUITE 700
SOUTHFIELD, MI 48076
248.447.2000

SECTION 33 | TOWN 2 SOUTH, RANGE 7 EAST | SUPERIOR TOWNSHIP | WASHTENAW COUNTY, MICHIGAN

PULTE HOMES OF MICHIGAN, LLC
THE MEADOWS AT HAWTHORNE MILL
FINAL SITE PLAN - PHASE 2
DETAILS

DATE
MAY 29, 2026

08-19-2026 PER CLIENT/TWP
09-22-2026 PER TWP.

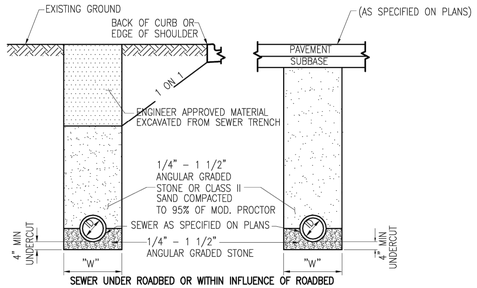
REVISIONS

NA NA NA
N/A

DRAWN BY: KS
CHECKED BY: AK
P.M.: J. KIME
JOB #: 19004443
FILE CODE: –
SHEET NO. 44

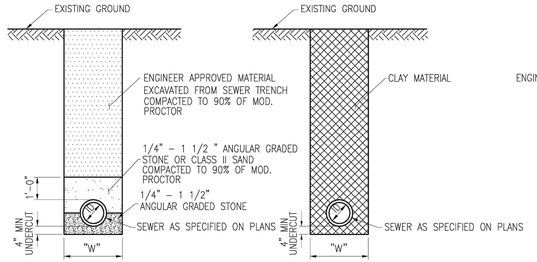
CAD FILE: 19004443SP-21-DTDWG

K:\19004443\DWG\PLAN SETS\SITE_FINAL\PHASE 2\19004443SP-21-DTDWG 9/22/2026 9:22 AM MATTHEW MYERS



SEWER UNDER ROADBED OR WITHIN INFLUENCE OF ROADBED

PLASTIC PIPE TRENCH DETAIL A



PLASTIC PIPE TRENCH DETAIL B

PLASTIC PIPE CLAY BACKFILL TRENCH DETAIL

BACKFILL TRENCH DETAIL

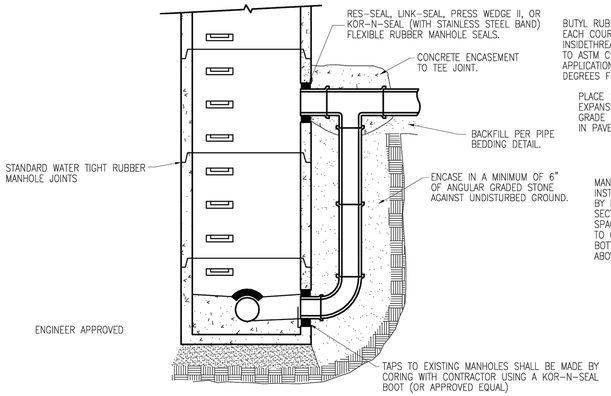
THE FOLLOWING ARE MINIMUM TRENCH WIDTHS:

I.D. PIPE SIZE (INCHES)	LESS THAN 18	21	24	30	36
"W" TRENCH WIDTH (FEET)	3.0	3.5	4.0	5.0	6.0

I.D. PIPE SIZE (INCHES)	42	48	54	60	66	72	78
"W" TRENCH WIDTH (FEET)	7.0	8.0	9.5	10.0	10.5	11.0	11.5

I.D. PIPE SIZE (INCHES)	84	90	96	102	108
"W" TRENCH WIDTH (FEET)	12.0	12.5	13.0	13.5	14.0

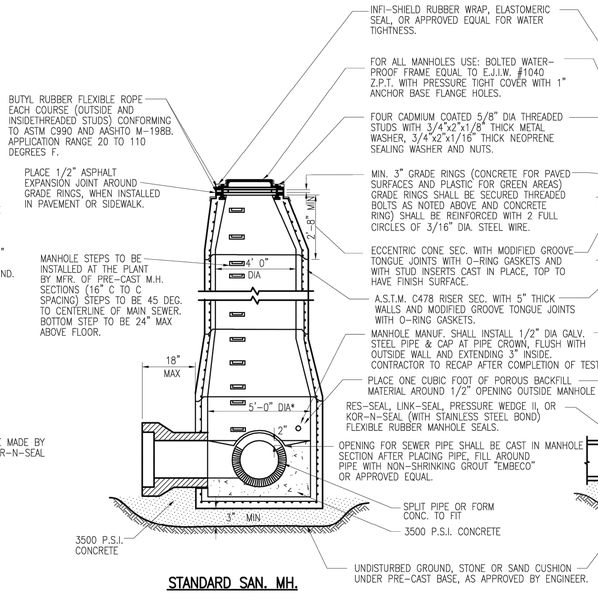
ESTIMATED PAVEMENT REMOVAL WIDTH IS TO BE TRENCH WIDTH "W" PLUS 1' EACH SIDE OF THE TRENCH (6' MINIMUM).



EXTERNAL DROP CONECTION

(HYDROGEN SULFIDE PROTECTION)

DIA OF SEWER	DIA OF DROP CONNECTION
8" & 10"	8"
12",15" & 18"	12"
21",24" & 30"	18"
36" & 42"	24"



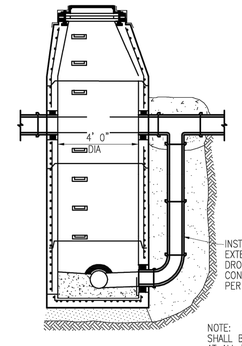
STANDARD SAN. MH.

FOR SEWERS 24" THRU 42"

* MANHOLE DIAMETER TO MEET MANUFACTURERS REQUIREMENTS FOR BOTH STRAIGHT THRU & RIGHT ANGLE INSTALLATION

STANDARD SAN. MH.

FOR SEWERS 8" THRU 21"



NOTE: SANITARY FLOW SHALL BE MAINTAINED AT ALL TIMES.

SANITARY MH. BUILT OVER EX SANITARY LINE

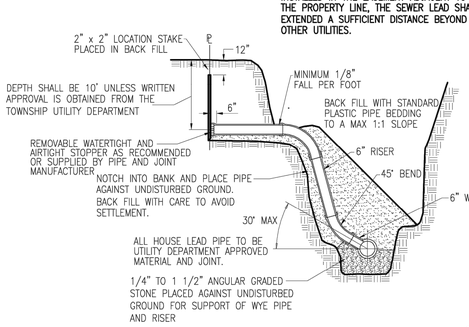
(SAME AS STANDARD SAN MH EXCEPT AS INDICATED HERE)

(HYDROGEN SULFIDE PROTECTION)

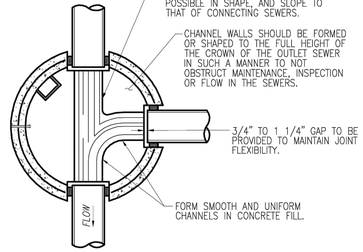
SANITARY SEWER CONSTRUCTION NOTES

1. ALL MANHOLE RIMS SHALL BE SET TO GRADE AS FURNISHED BY THE ENGINEER.
2. RISERS ON SANITARY SEWERS SHALL BE INSTALLED WHERE SEWER ARE OVER 10' DEEP TO A DEPTH OF 10'.
3. PLACE ONE 6" WYE FOR EACH LOT ON SANITARY SEWERS UNLESS OTHERWISE SPECIFIED.
4. ALL MANHOLES SHALL USE ECCENTRIC CONES PLACED TOWARD THE PROPERTY LINE UNLESS OTHERWISE NOTED.
5. INFILTRATION FOR ANY SECTION OF SEWERS BETWEEN MANHOLES SHALL NOT EXCEED 200 GALLONS PER INCH IN DIAMETER PER MILE OF SEWER PER 24 HRS.
6. NO FOOTING OR ROOF DRAINS SHALL BE CONNECTED TO THE PROPOSED SEWER.
7. DIFFERENTIAL OF EXCAVATION AROUND EXISTING MANHOLES SHALL NOT EXCEED 6 FEET.
8. NO CONNECTION RECEIVING STORM WATER, SURFACE WATER, OF GROUND WATER SHALL BE MADE TO SANITARY SEWERS.
9. ALL SEWERS SHALL BE SUBJECT TO TELEVISION INSPECTION AND AIR INFILTRATION OR EXFILTRATION TESTS, OR A COMBINATION OF SAME WITHIN 30 DAY OF BACKFILL, PRIOR TO ACCEPTANCE. ALL SEWERS OVER 24" DIAMETER SHALL BE SUBJECTED TO INFILTRATION TESTS. ALL SEWERS OF 24" DIAMETER OR SMALLER, WHERE THE GROUND WATER LEVEL ABOVE THE TOP OF THE SEWER IS OVER 2 FEET, SHALL BE SUBJECTED TO INFILTRATION TESTS. ALL SEWERS OF 24" DIAMETER OR LESS, WHERE THE GROUND WATER LEVEL ABOVE THE TOP OF THE SEWER IS 2 FEET OR LESS, SHALL BE SUBJECTED TO AIR TESTS OR EXFILTRATION TESTS.
10. ALL SEWER SYSTEM CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND GENERAL SPECIFICATIONS OF THE AGENCY OR AGENCIES HAVING JURISDICTION OF THE SEWER SYSTEM AND CONSTRUCTION AREA.
11. ALL SEWERS SHALL BE TELEVISED, WITH TEST RESULTS APPROVED BY THE TOWNSHIP UTILITY DEPARTMENT PRIOR TO PLACING THE SEWER IN SERVICE.
12. NO SEWER SHALL BE CONSTRUCTED LESS THAN 8" IN DIAMETER.
13. ALL STUBS SHALL HAVE A WATER AND AIR TIGHT BULKHEAD.
14. ALL ELEVATIONS ARE BASED ON NAVD 88 (ORIGINAL)
15. THE MINIMUM DIAMETER OF MANHOLES SHALL BE 48 INCHES, LARGER DIAMETERS ARE PREFERABLE FOR LARGER DIAMETER SEWERS. A MINIMUM ACCESS DIAMETER OF 22 INCHES SHALL BE PROVIDED.
16. CONTRACTOR SHALL PERFORM 9 POINT MANDREL TESTING PER SECTION V, OPEN CUT SEWERS OF THE SPECIFICATIONS.
17. SANITARY SEWER SHALL BE COMPOSITE ABS OR PVC TRUSS PIPE CONFORMING TO REQUIREMENTS OF ASTM D-2680 OR, PVC PIPE CONFORMING TO ASTM D-3034 (SDR 26) MAY BE USED WHERE DEPTH IS LESS THAN 15'.
18. JOINTS FOR PLASTIC PIPE SHALL BE PUSH-ON TYPE OR IN SPECIAL APPLICATIONS ,SOLVENT JOINTS, WHERE SPECIFIED, SHALL CONFORM TO ASTM D-3112 AND F-477. SOLVENT-CEMENTED JOINTS, WHERE SPECIFIED, SHALL CONFROM TO ASTM D-2855.
19. JOINTS ON TRUSS PIPE SHALL CONSIST OF ABS PLASTIC COUPLINGS CHEMICALLY CEMENTED TO THE ENDS OF THE PIPE BEING CONNECTED. SOLVENTS AND METHODS USED IN MAKING THE CHEMICAL BOND SHALL BE IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS, AND THE INSTALLATION TECHNIQUE SHALL CONFORM TO ASTM D – 2321, OR LATEST REVISION.
20. MANHOLE STEPS TO BE PLASTIC COATED MEETING THE REQUIREMENTS IN ASTM D2146, TYPE II, GRADE 49108, M.A. INDUSTRIES P.S.I. POLYPROPYLENE, OR E.J.I.W. 8502.
21. A VIDEOTAPE (WITH LOG AND LEAD LOCATIONS) SHALL BE SUBMITTED AND APPROVED BY THE TOWNSHIP PRIOR TO THE FINAL ACCEPTANCE. SAID VIDEOTAPE SHALL BE PERFORMED PRIOR TO FINAL ACCEPTANCE OF THE SYSTEM.
22. PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL TELEPHONE MISS DIG (800-482-7171) A MINIMUM OF 30 DAYS AFTER DAYS AFTER COMPLETION OF BACKFILL FOR THE LOCATION IF UNDER GROUND PIPELINE AND CABLE FACILITIES AND SHALL ALSO NOTIFY REPRESENTATIVES.
23. MINIMUM DEPTH TO TOP OF PIPE SHALL BE 4 FEET.
24. THE MAXIMUM DEPTH TO INVERT OF ANY SANITARY SEWER SHALL NOT EXCEED THE DEPTH RECOMMENDED BY THE MANUFACTURER FOR EACH SIZE AND CLASS AND PIPE.
25. INLET AND OUTLET PIPES SHALL BE JOINED TO THE MANHOLE WITH A GASKETED FLEXIBLE WATERTIGHT CONNECTION THAT ALLOWS DIFFERENTIAL SETTLEMENT OF THE PIPE AND MANHOLE WALL TO TAKE PLACE.
26. A BENCH SHALL BE PROVIDED ON EACH SIDE OF ANY MANHOLE CHANNEL WHEN THE PIPE DIAMETER IS LESS THAN THE MANHOLE DIAMETER. THE BENCH SHOULD BE SLOPED NO LESS THAN 1/2 INCH PER FOOT. NO LATERAL SEWER, SERVICE CONNECTION, OR DROP MANHOLE PIPE SHALL DISCHARGE ONTO THE SURFACE OF THE BENCH.
27. WHERE WORK IS TO BE PERFORMED IN THE VICINITY OF A SUPERIOR TOWNSHIP MAIN, CONTRACTOR SHALL NOTIFY THE SUPERIOR TOWNSHIP UTILITY DEPARTMENT AT (734) 480-5500 AT LEAST 3 WORKING DAYS PRIOR TO START OF CONSTRUCTION AS WELL AS TOWNSHIP ENGINEER TO SCHEDULE INSPECTION.
28. AN ELASTOMERIC SEAL OR RUBBER WRAP SHALL BE PLACED AROUND EACH MANHOLE FRAME AND CONE SECTION FOR WATER TIGHTNESS.

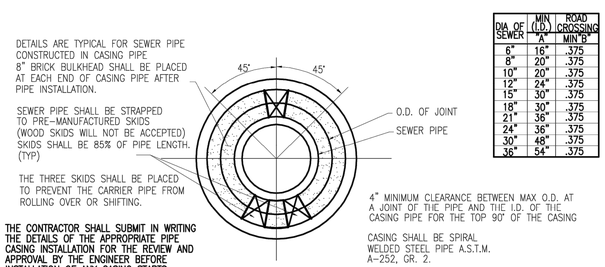
NOTE:
IN THE EVENT THAT OTHER UTILITIES ARE TO BE INSTALLED IN THE EASEMENT ADJACENT TO THE THE PROPERTY LINE, THE SEWER LEAD SHALL BE EXTENDED A SUFFICIENT DISTANCE BEYOND THE OTHER UTILITIES.



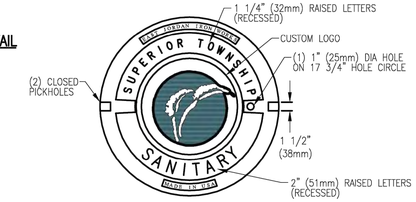
HOUSE LEAD DETAIL

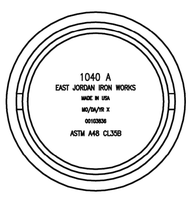


CHANNEL DETAIL

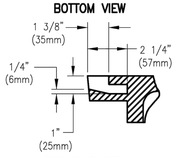


PIPE BARREL SUPPORT FOR SANITARY SEWER CONSTRUCTED IN CASING PIPE

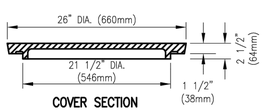




BOTTOM VIEW

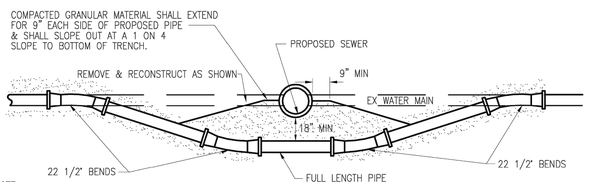


PICKHOLE DETAIL



COVER SECTION

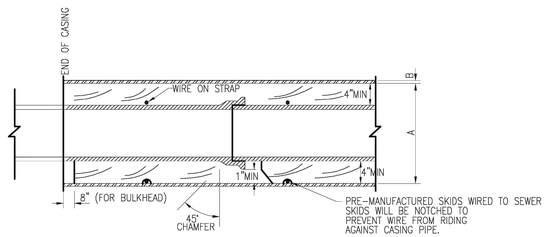
STANDARD COVER & FRAME



NOTE:
FOR BEDDING OF WATER MAIN SEE STANDARD SAND ENCASEMENT DETAIL "B" THIS SHEET.

NOTE:
FOR ANCHORAGE DETAILS AT BENDS SEE WATER DETAIL SHEET.– W.D.1

RELOCATION OF WATER MAIN, SANITARY OR STORM



STANDARD CASING SECTION

DRAWING PATH: S:\CVT\SuperiorTwp\Standards\CADD\sanitary\SuperiorSan01.dwg Dec 20, 2011 - 4:33pm

OHM

WWW.OHM-ADVISORS.COM

34000 Plymouth Road | Livonia, MI 48150 | P (734) 522-6711 | F (734) 522-6427

COPYRIGHT 2009 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

VERT DATUM N/A
HORIZ DATUM N/A
SCALE H. NTS V. N/A
JOB # 000-00-0000
REVISIONS:
CITY/VILLAGE/TOWNSHIP CHARTER TOWNSHIP OF SUPERIOR
COUNTY WASHTENAW
CLIENT CHARTER TOWNSHIP OF SUPERIOR
RANGE
TOWN
SECTION
PROJ.MGR
ENG / ARCH DLG/JGL
CADD DK
DATE OCT 2003
REVISIONS:

CHARTER TOWNSHIP OF SUPERIOR
STANDARD SANITARY DETAILS

SHEET 45 1 OF 2

SANITARY SEWER ACCEPTANCE TESTS

GENERAL

ALL SANITARY SEWERS SHALL BE SUBJECTED TO INFILTRATION, EXFILTRATION OR LOW PRESSURE AIR TESTS, OR A COMBINATION THEREOF PRIOR TO FINAL ACCEPTANCE BY THE TOWNSHIP. IN ADDITION, ALL PVC AND ABS PLASTIC SEWERS SHALL BE SUBJECTED TO DEFLECTION TESTING BY MEANS OF A NINE–POINT MANDREL DEFLECTION TEST.

THE TOWNSHIP'S INSPECTOR SHALL BE PRESENT FOR ALL TESTING OPERATIONS. IF TESTING IS TO BE DONE BY THE CONTRACTOR, ONLY PROPERLY TRAINED PERSONNEL SHALL BE ALLOWED TO PERFORM THE TESTING WORK. IF TESTING IS TO BE DONE BY MUNICIPAL AGENCY WORK FORCES, THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE INSPECTOR IN ORDER TO SCHEDULE THE TESTING.

IN THE EVENT THAT THE SEWER PIPE FAILS ANY OF THE REQUIRED TESTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING THE PIPE AND REPEATING THE TEST UNTIL ACCEPTABLE RESULTS ARE ACHIEVED.
THE METHOD OF TESTING AND MEASUREMENT SHALL BE APPROVED BY THE TOWNSHIP. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT AND LABOR FOR MAKING THE TESTS.

INFILTRATION TEST

ALL SANITARY SEWERS THAT ARE OVER TWENTY–FOUR (24) INCHES IN DIAMETER SHALL BE SUBJECTED TO AN INFILTRATION TEST. ALSO, ALL SANITARY SEWERS THAT ARE TWENTY–FOUR (24) INCHES IN DIAMETER AND SMALLER AND WHERE THE GROUND WATER LEVEL IS MORE THAN TWO (2) FEET ABOVE THE TOP OF THE SEWER SHALL BE SUBJECTED TO AN INFILTRATION TEST.

THE INFILTRATION RATE FOR ALL SANITARY SEWERS SHALL NOT EXCEED A MAXIMUM OF TWO HUNDRED (200) GALLONS PER INCH DIAMETER PER MILE OF SEWER PER TWENTY–FOUR (24) HOURS.

LOW PRESSURE AIR TEST

ALL SANITARY SEWERS THAT ARE TWENTY–FOUR (24) INCHES IN DIAMETER OR SMALLER AND WHERE THE GROUND WATER LEVEL IS TWO (2) FEET OR LESS ABOVE THE TOP OF THE SEWER SHALL BE SUBJECTED TO A LOW PRESSURE AIR TEST.

THE PROCEDURE FOR AIR TESTING OF SEWERS SHALL BE AS FOLLOWS:

THE SEWER LINE SHALL BE TESTED IN INCREMENTS BETWEEN MANHOLES. THE LINE SHALL BE CLEANED AND PLUGGED AT EACH MANHOLE. SUCH PLUGS SHALL BE DESIGNED TO HOLD AGAINST THE TEST PRESSURE AND SHALL PROVIDE AN AIRTIGHT SEAL ONE OF THE PLUGS SHALL HAVE AN ORIFICE THROUGH WHICH AIR CAN BE INTRODUCED INTO THE SEWER. AN AIR SUPPLY LINE SHALL BE CONNECTED TO THE ORIFICE. THE SUPPLY LINE SHALL BE FITTED WITH SUITABLE CONTROL VALVES AND A PRESSURE GAUGE FOR CONTINUALLY MEASURING THE AIR PRESSURE IN THE SEWER. THE PRESSURE GAUGE SHALL HAVE A MINIMUM DIAMETER OF THREE AND ONE–HALF (3–1/2) INCHES AND A RANGE OF 0 – 10 PSIG. THE GAUGE SHALL HAVE MINIMUM DIVSIONS OF 0–10 PSIG AND ACCURACY OF PLUS OR MINUS (+/–) 0.04 PSIG.

THE SEWER SHALL BE PRESSURIZED TO 4 PSIG GREATER THAN THE GREATEST BACK PRESSURE CAUSED BY GROUND WATER OVER THE TOP OF THE SEWER PIPE. AT LEAST TWO (2) MINUTES SHALL BE ALLOWED FOR THE AIR PRESSURE TO STABILIZE BETWEEN THREE AND ONE HALF (3.5) AND FOUR (4) PSIG. IF NECESSARY, AIR SHALL BE ADDED TO THE SEWER TO MAINTAIN A PRESSURE OF 3.5 PSIG OR GREATER.

AFTER THE STABILIZATION PERIOD, THE AIR SUPPLY CONTROL VALVE SHALL BE CLOSED SO THAT NO MORE AIR WILL ENTER THE SEWER. THE SEWER AIR PRESSURE SHALL BE NOTED AND TIMING FOR THE TEST BEGUN. THE TEST SHALL NOT BEGIN IF THE AIR PRESSURE IS LESS THAN THREE AND ONE HALF (3.5) PSIG, OR SUCH OTHER PRESSURE AS IS NECESSARY TO COMPENSATE FOR GROUND WATER LEVEL.

THE TIME REQUIRED FOR THE AIR PRESSURE TO DECREASE ONE (1.0) PSIG DURING THE TEST SHALL NOT BE LESS THAN THE TIME SHOWN IN THE FOLLOWING AIR TEST TABLES. THE CONTRACTOR SHALL USE THE APPROPRIATE TEST TABLE BASED UPON THE SEWER PIPE MATERIAL.

AIR TEST TABLE FOR VITRIFIED CLAY AND CONCRETE PIPE

	SPECIFICATION TIME (MIN:SEC) REQUIRED FOR PRESSURE DROP FROM 3–1/2 TO 2–1/2 PSIG WHEN TESTING ONE PIPE DIAMETER ONLY PIPE DIAMETER, INCHES														
LENGTH OF LINE, FEET	4	6	8	10	12	15	18	21	24	27	30	33	36	39	42
25	0:04	0:10	0:18	0:22	0:27	0:32	0:36	0:45	0:54	1:03	1:12	1:21	1:30	1:39	1:50
50	0:09	0:21	0:36	0:45	0:54	1:03	1:12	1:30	1:48	2:06	2:42	2:42	3:00	3:18	3:39
75	0:14	0:32	0:54	1:08	1:21	1:34	1:48	2:15	2:42	3:09	3:36	4:03	4:30	4:57	5:29
100	0:18	0:42	1:12	1:30	1:48	2:06	2:24	3:00	3:36	4:12	4:48	5:24	6:00	6:36	7:18
125	0:22	0:52	1:30	1:52	2:15	2:38	3:00	3:45	4:30	5:15	6:00	6:45	7:30	8:15	9:08
150	0:27	1:03	1:48	2:15	2:42	3:09	3:36	4:30	5:24	6:18	7:12	8:06	9:00	9:54	10:57
175	0:32	1:14	2:06	2:38	3:09	3:40	4:12	5:15	6:18	7:21	8:24	9:27	10:30	11:33	12:47
200	0:36	1:24	2:24	3:00	3:36	4:12	4:48	6:00	7:12	8:24	9:36	10:48	12:00	13:12	14:36
225	0:40	1:34	2:42	3:22	4:03	4:44	5:24	6:45	8:06	9:27	10:48	12:09	13:30	14:51	16:26
250	0:45	1:45	3:00	3:45	4:30	5:15	6:00	7:30	9:00	10:30	12:00	13:30	15:00	16:30	18:16
275	0:50	1:56	3:18	4:08	4:57	5:46	6:36	8:15	9:54	11:33	13:12	14:51	16:30	18:09	20:06
300	0:54	2:06	3:36	4:30	5:24	6:18	7:12	9:00	10:48	12:36	14:24	16:12	18:00	19:48	21:54
350	1:03	2:27	4:12	5:15	6:18	7:21	8:24	10:30	12:36	14:42	16:48	18:54	21:00	23:06	25:33
400	1:12	2:48	4:48	6:00	7:12	8:24	9:36	12:00	14:24	16:48	19:12	21:36	24:00	26:24	29:12
450	1:21	3:09	5:24	6:45	8:06	9:27	10:48	13:30	16:12	18:54	21:36	24:18	27:00	29:42	32:51
500	1:30	3:30	6:00	7:30	9:00	10:30	12:00	15:00	18:00	21:00	24:00	27:00	30:00	33:00	36:30

NOTE: THIS TABLE IS TAKEN FROM THE NATIONAL CLAY PIPE INSTITUTE (NCPI) TABLES WHICH ARE BASED UPON ASTM C828 "TEST METHOD FOR LOW PRESSURE AIR TEST FOR VITRIFIED CLAY PIPE LINES" AND ASTM C924 "STANDARD PRACTICE FOR TESTING CONCRETE PIPE SEWER LINES BY LOW PRESSURE AIR TEST METHOD."

AIR TEST TABLE FOR PVC AND ABS PIPE
MINIMUM SPECIFIED TIME REQUIRED FOR A 1.0 PSIG PRESSURE DROP
FOR SIZE AND LENGTH OF PIPE INDICATED FOR Q=0.0015*

THE MINIMUM HOLDING TIME FOR THE PRESSURE TO DROP FROM 3.5 TO 2.5 PSIG (GREATER THAN ADDED GROUND WATER PRESSURE) SHALL NOT BE LESS THAN THAT GIVEN IN THE FOLLOWING TABLE FOR EACH TESTED RUN OF SEWER BETWEEN MANHOLES:

NOTE: AIR TESTING SHOULD NOT BE USED IF THE AIR PRESSURE REQUIRED FOR THE TEST EXCEEDS 9 PSIG.

PIPE DIAMETER INCHES	MINIMUM TIME MINUTES	LENGTH FOR MINIMUM TIME, FT.	TIME FOR LONGER LENGTH, S	SPECIFICATION TIME FOR LENGTH (L) SHOWN, MINUTES							
				100 FT	150 FT	200 FT	250 FT	300 FT	350 FT	400 FT	450 FT
4	3:46	597	0.380 L	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	5:40	398	0.854 L	5:40	5:40	5:40	5:40	5:40	5:40	5:42	6:24
8	7:34	298	1.520 L	7:34	7:34	7:34	7:34	7:36	8:52	10:08	11:24
10	9:26	239	2.374 L	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48
12	11:20	199	3.418 L	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38
15	14:10	159	5.342 L	14:10	14:10	17:48	22:15	26:42	31:09	35:36	40:04
18	17:00	133	7.692 L	17:00	19:13	25:38	32:03	38:27	44:52	51:16	57:41
21	19:50	114	10.470 L	19:50	26:10	34:54	43:37	52:21	61:00	69:48	78:31
24	22:40	99	13.674 L	22:47	34:11	45:34	56:58	68:22	79:46	91:10	102:33
27	25:30	88	17.306 L	28:51	43:16	57:41	72:07	86:32			
30	28:20	80	21.366 L	35:37	53:25	71:13	89:02	106:50			
33	31:10	72	25.852 L	43:05	64:38	86:10	107:43	129:16			
36	34:00	66	30.768 L	51:17	76:55	102:34	128:12	153:50			

NOTE: THIS TABLE IS TAKEN FROM ASTM F1417 "STANDARD TEST METHOD FOR INSTALLATION AND ACCEPTANCE OF PLASTIC GRAVITY SEWER LINES USING LOW PRESSURE AIR TEST." ASTM F1417 CONFORMS TO UNI–BELL "RECOMMENDED PRACTICE FOR LOW PRESSURE AIR TESTING OF INSTALLED SEWER PIPE" (UNI–B–6–98)

* Q IS THE ALLOWABLE LEAKAGE RATE IN CUBIC FEET/MINUTE/SQUARE FOOT OF INSIDE SURFACE AREA OF PIPE

EXFILTRATION TEST

EXFILTRATION OR LEAKAGE FROM THE SEWER LINE CAN BE MEASURED BY RECORDING THE WATER LEVEL DROP OVER A GIVEN PERIOD OF TIME IN A STANDPIPE PLACED AND CONNECTED IN THE UPSTREAM MANHOLE. THE MEASURED DROP IN THE TIME PERIOD CAN BE CONVERTED BY CALCULATIONS TO THE LEAKAGE RATE IN TERMS OF GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY.

EXFILTRATION TESTS MAY BE SUBSTITUTED FOR LOW PRESSURE AIR TESTS WHERE APPROVED BY THE TOWNSHIP ENGINEER. EXFILTRATION TESTS WILL NOT BE ALLOWED WHERE THE EXTERNAL WATER PRESSURE EXCEEDS FOUR (4) FEET.

FOR THE PURPOSE OF EXFILTRATION TESTING, THE INTERNAL WATER LEVEL SHALL BE EQUAL TO THE EXTERNAL WATER LEVEL PLUS FOUR (4) FEET AS MEASURED FROM THE TOP OF THE HIGHEST PIPE IN THE SYSTEM BEING TESTED. THIS COULD BE EITHER A HOUSE LEAD OR A LATERAL. HOWEVER, THE MAXIMUM TOTAL HEIGHT OF WATER ABOVE THE INVERT OF THE PIPE AT THE LOWER END SHALL NOT EXCEED SIXTEEN (16) FEET. A PROSPECTIVE TEST THAT WOULD EXCEED THIS SIXTEEN (16) FOOT LIMIT SHOULD NOT BE TAKEN. THE LINE UNDER CONSTRUCTION CAN BE BROKEN DOWN INTO SMALLER SECTIONS SUCH THAT THE MAXIMUM HEAD OF SIXTEEN (16) FEET WILL NOT BE EXCEEDED.

THE MAXIMUM EXFILTRATION RATE SHALL BE THE SAME AS THAT PERMITTED FOR THE INFILTRATION TEST. THE EXFILTRATION TEST PROCEDURE IS SUMMARIZED AS FOLLOWS:

1) ALL SERVICE LATERALS, STUBS AND FITTINGS INTO THE SEWER LINE(S) BEING TESTED SHOULD BE PROPERLY CAPPED OR PLUGGED, AND CAREFULLY BRACED TO RESIST THE THRUST ACTIONS DEVELOPED BY THE INTERNAL WATER PRESSURE. IN PREPARING THE BLOCKING OF PLUGS OR END CAPS, IT IS EXTREMELY IMPORTANT TO RECOGNIZE THAT THE FIVE (5) TO TEN (10) FEET OF HEAD IN THE STANDPIPE WILL EXERT CONSIDERABLE THRUST AGAINST THE PLUGS OR CAPS.

2) A PLUG IS INSERTED AND TIGHTENED IN THE INLET PIPE OF THE DOWNSTREAM MANHOLE TO WHICH THE WATER SUPPLY CONNECTION IS MADE FOR FILLING THE PIPE.

3) THE UPPER MANHOLE IS PLUGGED AND SECURELY TIGHTENED FOR CONNECTION TO THE STANDPIPE. THE STANDPIPE IS THEN PLACED IN THIS MANHOLE AND CONNECTED TO THE TAPPED PLUG. THE STANDPIPE MUST BE CAPABLE OF HANDLING FROM FIVE (5) TO TEN (10) FEET OF WATER HEAD TO DETERMINE THE TIGHTNESS AND SOUNDNESS OF THE SEWER LINE, AS SPECIFIED AND DIRECTED BY THE ENGINEER.

4) WATER IS INTRODUCED INTO THE LINE AT THE DOWNSTREAM (LOWER) MANHOLE UNTIL THE STANDPIPE IN THE UPSTREAM MANHOLE HAS BEEN COMPLETELY FILLED. BY FILLING THE LINE FROM THE LOWEST LEVEL, THE AIR IN THE LINE IS EASILY PUSHED AHEAD AND, FINALLY DISPELLED THROUGH THE STANDPIPE AT THE UPPER END OF THE TEST SECTION. CARE SHOULD BE TAKEN TO MINIMIZE ENTRAPPED AIR THAT WILL GIVE DISTORTED TEST RESULTS. THE RATE OF DROP IN THE STANDPIPE MAY BE QUITE RAPID UNTIL THE AIR HAS BEEN EXPELLED.

5) AFTER FILLING WITH WATER, THE LINE MUST BE ALLOWED TO STAND FOR AT LEAST FOUR (4) HOURS BEFORE BEGINNING THE TEST. DURING THIS TIME SOME WATER ABSORPTION INTO THE MANHOLE STRUCTURES AND SEWER PIPE WILL TAKE PLACE. AFTER THE WATER ABSORPTION HAS STABILIZED, THE WATER LEVEL IN THE STANDPIPE IS CHECKED AND WATER ADDED IF NECESSARY.

6) THE TEST IS NOW READY TO BEGIN. THE DROP IN THE STANDPIPE IS MEASURED AND RECORDED OVER A FIFTEEN (15) MINUTE PERIOD. TO VERIFY THE FIRST RESULTS, A SECOND FIFTEEN (15) MINUTE TEST IS SUGGESTED. THIS WILL ALSO VERIFY WHETHER A STABLE CONDITION EXISTS IN THE LINE.

7) THE MEASURED DROPS IN THE STANDPIPE ARE CONVERTED TO LEAKAGE IN TERMS OF GALLONS PER INCH DIAMETER PER MILE PER DAY.

8) ANOTHER COMMONLY USED METHOD OF CONDUCTING WATER EXFILTRATION TESTING IS TO UTILIZE THE MANHOLE IN LIEU OF A STANDPIPE. THE TEST PROCEDURE IS EXACTLY AS OUTLINED FOR USING THE STANDPIPE. HOWEVER, SINCE THE MANHOLE IS LARGER IN DIAMETER THAN THE STANDPIPE, THIS METHOD NORMALLY REQUIRES A MINIMUM TWO (2) HOUR TEST PERIOD IN ORDER TO BE ABLE TO RECORD A MEASURABLE WATER LEVEL DROP. MANHOLE LEAKAGE MUST ALSO BE CONSIDERED IN THE LEAKAGE RATE AND TEST RESULTS.

9) CAUTION SHOULD BE TAKEN ABOUT CONDUCTING EXFILTRATION TESTS ON SEWER LINES LAID ON STEEP GRADES. CONSIDERATION MUST BE GIVEN TO THE DOWNSTREAM PORTION OF THE SYSTEM TO PREVENT EXCESSIVE PRESSURES IN THESE LOWER LINES. FOR THESE INSTALLATIONS AND WHERE THE UPSTREAM MANHOLES ARE VERY DEEP, IT IS NOT ADVISABLE TO FILL THE STANDPIPE OR MANHOLE TO THE TOP WHEN PERFORMING THE TEST.

DEFLECTION TEST FOR PLASTIC PIPE

DEFLECTION GAUGE (MANDREL): MANDREL TESTING SHALL TAKE PLACE TO ENSURE THE FLEXIBLE PIPE HAS BEEN PROPERLY BEDDED AND BACK–FILLED. THE DEFLECTION TEST MUST BE CONDUCTED NO LESS THAN 30 DAYS AFTER INSTALLATION OF THE FINAL BACKFILL. THE MAXIMUM ALLOWABLE DEFLECTION IS 5 PERCENT. INSTALLATION SHALL CONFORM TO ASTM 2321–89. A NINE–ARM (POINT) MANDREL SHALL BE USED. CHERNE FIXED STEEL DEFLECTION OR APPROVED EQUAL.

VIDEOTAPING

AS A MEANS OF INSURING THAT PIPE LAYING WAS PROPERLY DONE AND THAT ALL JOINTS ARE IN A "HOME" POSITION, THE CONTRACTOR SHALL PROVIDE VIDEOTAPING OF ALL OF THE PIPE LAID THAT IS THIRTY–SIX (36) INCHES IN DIAMETER AND SMALLER. THIS VIDEOTAPING SHALL BE DONE NO SOONER THAN THIRTY (30) DAYS AFTER COMPLETION OF BACKFILL. THE CONTRACTOR SHALL PROVIDE FORTY–EIGHT (48) HOURS NOTICE TO THE TOWNSHIP PRIOR TO VIDEOTAPING SO THAT A REPRESENTATIVE MAY BE PRESENT. A SATISFACTORY REVIEW OF THE VIDEOTAPE BY THE TOWNSHIP SHALL BE A CONDITION FOR SEWER ACCEPTANCE BY THE TOWNSHIP. TYPICAL ITEMS TO BE REVIEWED ON THE VIDEOTAPE WILL INCLUDE PIPE DEFLECTION, PIPE SETTLEMENT, LEAD CONNECTIONS, JOINTS AND PIPE CLEANLINESS. IF THE VIDEOTAPE REVIEW REVEALS UNSATISFACTORY CONDITIONS, THE CONTRACTOR SHALL CORRECT THE CONDITIONS AND SHALL RE–VIDEOTAPE THE AFFECTED PIPE SECTIONS FOR REVIEW BY THE TOWNSHIP.

DRAWING PATH: S:\CVTS\Superior\Twp\Standards\CADD\sanitary\SuperiorSan02.dwg Dec 20, 2011 - 4:34pm

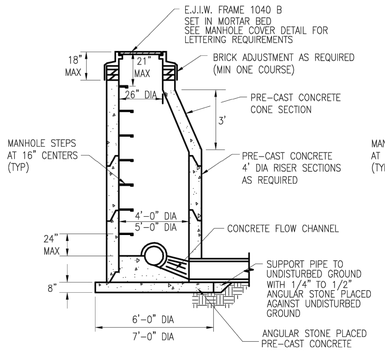
OHM
WWW.OHM-ADVISORS.COM
34000 Plymouth Road | Livonia, MI 48150 | P (734) 522-6711 | F (734) 522-6427

CITY/VILLAGE/TOWNSHIP: CHARTER TOWNSHIP OF SUPERIOR
COUNTY: WASHTENAW
CLIENT: CHARTER TOWNSHIP OF SUPERIOR
JOB #: 000-00-0000
H: NTS V: N/A
HORIZ DATUM: N/A
VERT DATUM: N/A
DATE: OCT 2003
CADD: DK
ENG / ARCH: DLG/JGL
PROJ MGR:
SECTION:
TOWN:
RANGE:
REVISIONS:
REVISIONS:

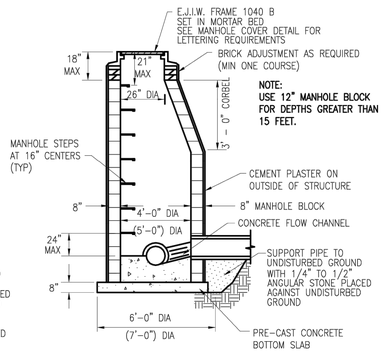
COPYRIGHT 2009 OHM ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF OHM AND THE SAME MAY NOT BE DUPLICATED, DISTRIBUTED, OR DISCLOSED WITHOUT PRIOR WRITTEN CONSENT OF OHM

CHARTER TOWNSHIP OF SUPERIOR
STANDARD SANITARY DETAILS

SHEET 46 2 OF 2

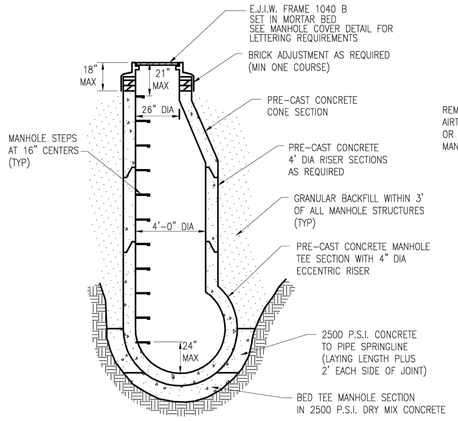


PRE-CAST MANHOLE

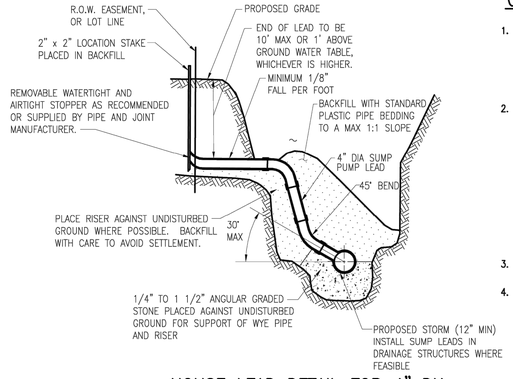


BLOCK MANHOLE

STANDARD MANHOLE DETAILS



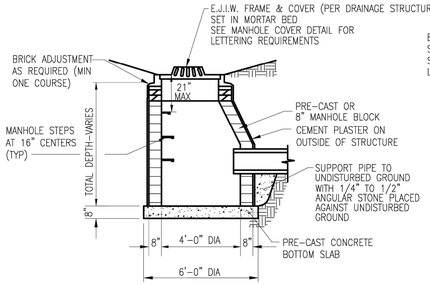
PRE-CAST TEE MANHOLE DETAIL



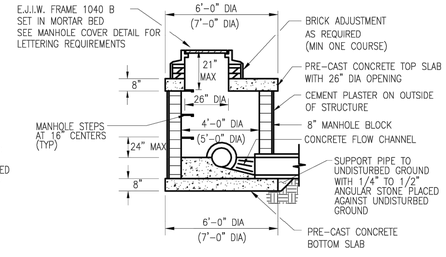
HOUSE LEAD DETAIL FOR 4" DIA PLASTIC SUMP PUMP LEADS

GENERAL NOTES FOR STORM SEWER CONSTRUCTION

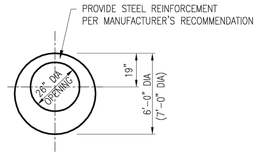
1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF CHARTER TOWNSHIP OF SUPERIOR.
   A. TYPE AND CLASS OF PIPE SHALL BE AS SPECIFIED ON PLANS.
   B. SAND BEDDING SHALL BE USED THROUGHOUT, UNLESS OTHERWISE SPECIFIED ON THE PLAN.
   C. ALL END SECTIONS 18" AND LARGER SHALL BE PROVIDED WITH A GALVANIZED BAR SCREEN.
2. CONTRACTOR SHALL CONSTRUCT MANHOLES WITH PRECAST REINFORCED CONCRETE IN LIEU OF CONCRETE, BRICK AND BLOCK MANHOLES IN ACCORDANCE WITH THE FOLLOWING CONDITIONS:
   A. 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.
   B. 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.
   C. OPENINGS FOR THE OUTLET SEWER SHALL BE PRECAST WITH A DIAMETER OF 3 INCHES LARGER THAN THE OUTSIDE DIAMETER OF THE OUTLET PIPE. ALL OTHER OPENINGS SHALL BE MADE IN THE FIELD AFTER THE MANHOLE HAS BEEN CONSTRUCTED.
3. ALL VERTICAL OPENINGS IN CONCRETE BLOCK STRUCTURE WALLS SHALL BE COMPLETELY FILLED WITH MORTAR. ALL VERTICAL WALL JOINTS SHALL BE CEMENT POINTED.
4. CONCRETE PIPE REQUIREMENTS:
   A. THE CONTRACTOR SHALL PROVIDE REINFORCED CONCRETE PIPE AS SPECIFIED ON THE PLANS.
   B. ALL ROUND REINFORCED CONCRETE PIPE SHALL HAVE MODIFIED GROOVE TONGUE JOINTS WITH O-RING TYPE RUBBER GASKET, PER A.S.T.M. SPECIFICATIONS C443. ALL ELLIPTICAL CONCRETE PIPE SHALL HAVE GROOVE TONGUE JOINTS WITH BITUMINOUS (DEWITT #10) JOINT MATERIAL AND INSIDE MORTAR POINTING. ELLIPTICAL CONCRETE PIPE JOINTS SHALL ALSO BE WRAPPED PER A.S.T.M. SPECIFICATION C877 FOR EXTERNAL SEALING BANDS FOR NON-CIRCULAR CONCRETE PIPE.
   C. THE INSIDE JOINT OF PIPE SIZES OVER 27" DIAMETER SHALL BE POINTED UP WITH MORTAR UPON COMPLETION OF BACKFILLING OPERATIONS.
   D. 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.
   E. ALL PIPES ENTERING OR LEAVING A MANHOLE SHALL BE ADEQUATELY SUPPORTED WITH 1/4" TO 1/2" ANGULAR GRADED STONE FILL FROM UNDISTURBED EARTH TO SPRINGLINE OR WITH APPROVED CRUSHED AGGREGATE.



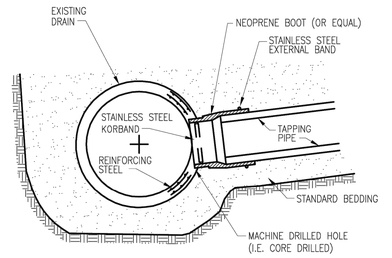
CATCH BASIN DETAIL



LOW HEAD MANHOLE AND CATCH BASIN DETAIL



PRE-CAST CONCRETE TOP SLAB DETAIL, 8" THICK

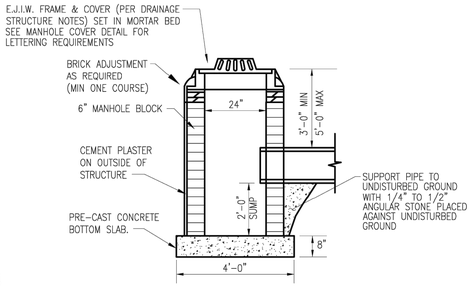


CONNECTION DETAIL FOR DIRECT TAPS TO PIPE WALL OF EXISTING DRAINS.

KOR-N-TEE TAP FOR CONCRETE PIPE

DRAINAGE STRUCTURE REQUIREMENTS:

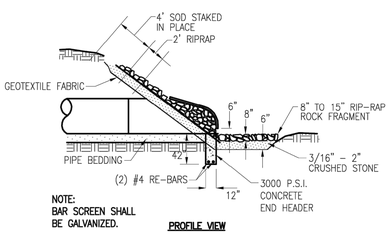
1. ALL STRUCTURE(S) SHALL BE 4' IN DIAMETER UNLESS OTHERWISE INDICATED ON CONSTRUCTION DRAWINGS. 2' DIAMETER CATCH BASINS AND INLETS SHALL BE USED ONLY WITH PRIOR TOWNSHIP APPROVAL.
2. MANHOLE STEPS SHALL BE STEEL, ENCASED WITH POLYPROPYLENE PLASTIC OR APPROVED EQUIVALENT TO M.A. INDUSTRIES, INC., PS-1 FOR BRICK, OR PS-1B FOR BLOCK, EAST JORDAN IRON WORKS 8503 (OR APPROVED EQUAL). MANHOLE STEPS AT 16" CENTERS.
3. CATCH BASIN STEPS SHALL BE EAST JORDAN IRON WORKS 8502 PLASTIC COATED (OR APPROVED EQUAL).
4. MANHOLE COVERS AND FRAMES SHALL BE EAST JORDAN IRON WORKS 1040, TYPE "B" COVER OR AS PER CONSTRUCTION DRAWINGS.
5. CATCH BASIN AND INLET FRAME AND COVER SHALL BE:
   A. EAST JORDAN IRON WORKS 5080, TYPE "M1" COVER WITH STRAIGHT FACE CURB AND GUTTER (OR AS APPROVED EQUAL).
   B. EAST JORDAN IRON WORKS 5080, TYPE "M1" COVER WITH MOUNTABLE CURB AND GUTTER AND INTEGRAL CURB AND GUTTER (OR AS APPROVED EQUAL).
   C. EAST JORDAN IRON WORKS 1040, TYPE "02" COVER (BEEHIVE) TO BE USED ON OPEN DITCHES AND SWALES, REAR YARD CATCH BASIN (OR AS APPROVED EQUAL). IF WITHIN 8' OF ROAD, TYPE "N" COVER (LOW BEEHIVE) SHALL BE USED.
   D. FRAMES SHALL BE SET IN FULL BED OF MORTAR AND THE SIDE SHALL BE OVERLAPPED TO PREVENT LEAKAGE.
6. 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 WHICH 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.
7. STANDARD BRICK ADJUSTMENT: MINIMUM OF ONE COURSE AND A MAXIMUM OF 5 COURSES OF BRICK.
   A. ALL BRICKS AND BLOCKS USED FOR ADJUSTMENT SHALL BE CONCRETE.
   B. 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".
   C. PRECAST REINFORCED CONCRETE SECTION AS MINIMUM SHALL CONFORM TO A.S.T.M. C-478.
   D. CONCRETE BASE FOR MANHOLE, CATCH BASIN, AND INLET SHALL BE MDOT GRADE 30P (MIN), 8" THICK, 3000 PSI.
8. PLASTER ALL OUTSIDE MASONRY SURFACES WITH 1:2 1/2 MASONRY CEMENT (TYPE II) 1/2" THICK.
9. 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-CAST SECTION IS TAPPED, BEND MESH AND USE AS REINFORCEMENT WITH BRICK COLLAR.
10. ALL PRECAST RISER(S) SHALL BE PLACED IN A FULL BED OR MORTAR. ALL JOINTS & LIFTHOLES SHALL BE POINTED UP WITH MORTAR ON THE OUTSIDE AND INSIDE.
11. HINGED BAR GRATES WILL BE REQUIRED FOR HEADWALLS PER W.C.D.C. AND/OR MDOT STANDARDS, WHICHEVER IS STRICTER.
    A. ALL VERTICAL AND HORIZONTAL BARS SHALL BE TACK-WELDED TO THE ANGLE FRAME.
    B. THE BAR GRATE SCREEN SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION IS COMPLETE.



2' DIA CATCH BASIN DETAIL

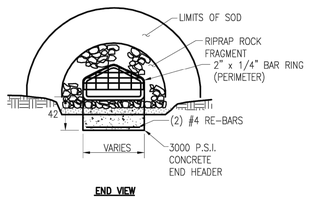
NOT TO SCALE

(NOTE: 2' DIA CATCH BASIN SHALL NOT BE USED UNLESS PRIOR APPROVAL IS OBTAINED FROM TOWNSHIP ENGINEER.)



NOTE:
BAR SCREEN SHALL
BE GALVANIZED.

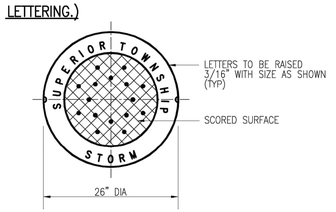
PROFILE VIEW

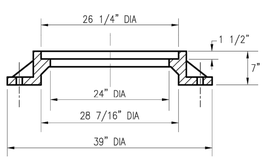


END VIEW

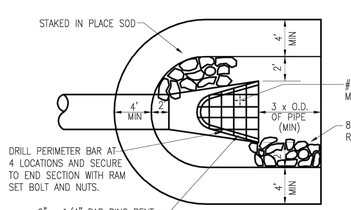
END SECTION AND BAR SCREEN DETAIL

(NOTE: LETTERING SHALL BE USED ONLY FOR PUBLIC STORM SYSTEM. ALL OTHERS SHALL HAVE NO LETTERING.)





CAST IRON MANHOLE COVER E.J.I.W. 1040

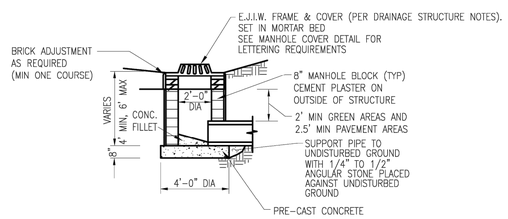


PLAN VIEW

(NOTE: MINIMUM REQUIREMENTS FOR RIP-RAP MATERIAL SHALL MEET MDOT SPECIFICATION 8.19.02.)

RIP RAP SCHEDULE

PIPE DIA	SY
12"	4
15"	4
18"	4
21"	5
24"	6
27"	7
30"	8
36"	10
42"	12
48"	14



2' DIA INLET DETAIL

DRAWING PATH: S:\CVT\Superior Twp\Standards\CADD\STORM\SuperiorStm01.dwg May 27, 2010 - 9:25am

OHM

WWW.OHM-ADVISORS.COM

34000 Plymouth Road | Livonia, MI 48150 | P (734) 522-6711 | F (734) 522-6427

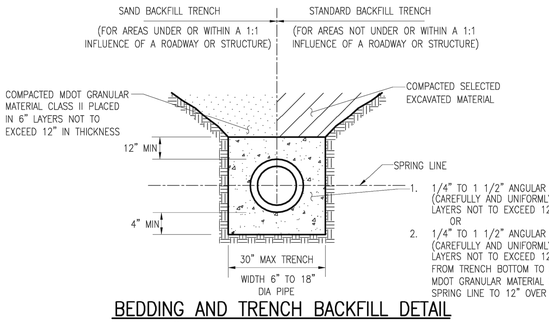
CHARTER TOWNSHIP OF SUPERIOR

CITY/VILLAGE/TOWNSHIP: CHARTER TOWNSHIP OF SUPERIOR
COUNTY: WASHTENAW
TOWN | RANGE | SECTION | PROJ.MGR | ENG./ARCH: DLG/GSL | CADD: DK | DATE: OCT 2003
SCALE: H. NTS V. N/A
HORIZ DATUM: N/A
VERT DATUM: N/A
JOB # 000-00-0000
REVISIONS:

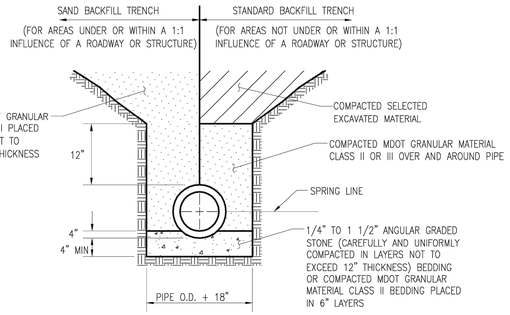
CHARTER TOWNSHIP OF SUPERIOR
STANDARD STORM SEWER DETAILS

SHEET 47 1 OF 2

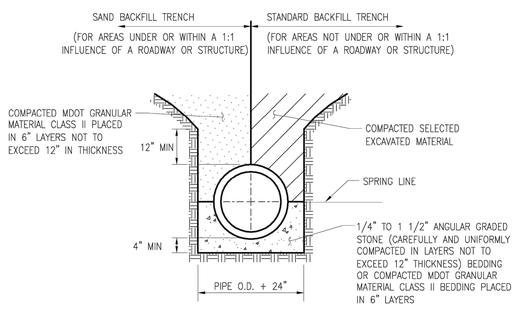
COPYRIGHT 2003 OHM ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF OHM AND THE SAME MAY NOT BE DUPLICATED, DISTRIBUTED, OR DISCLOSED WITHOUT PRIOR WRITTEN CONSENT OF OHM



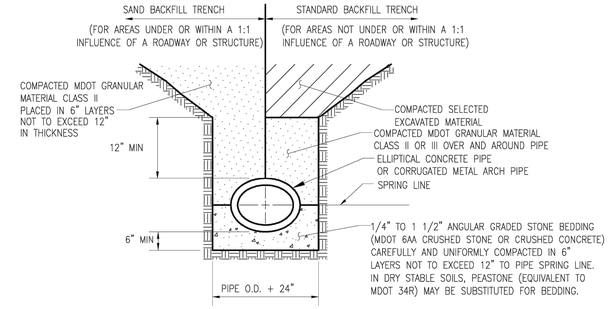
BEDDING AND TRENCH BACKFILL DETAIL FOR 18" DIAMETER AND SMALLER PIPE (PVC SOLID WALL, AND TRUSS PIPE)



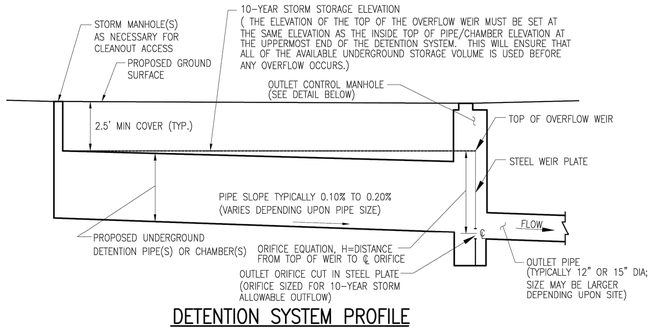
BEDDING AND TRENCH BACKFILL DETAIL FOR 24" DIAMETER AND SMALLER PIPE



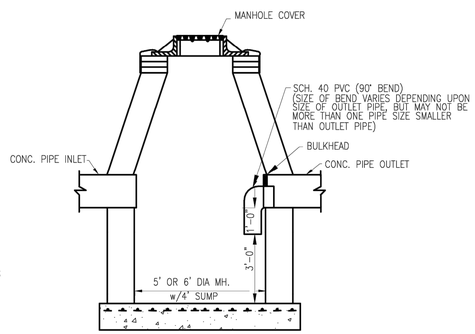
BEDDING AND TRENCH BACKFILL DETAIL FOR 27" DIAMETER AND LARGER PIPE



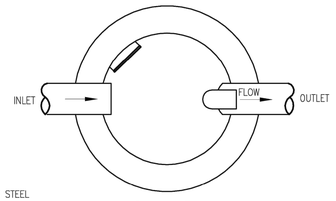
BEDDING AND TRENCH BACKFILL DETAIL FOR ELLIPTICAL CONCRETE PIPE OR CORRUGATED METAL ARCH PIPE



DETENTION SYSTEM PROFILE



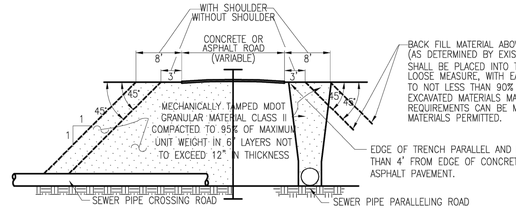
SIDE VIEW



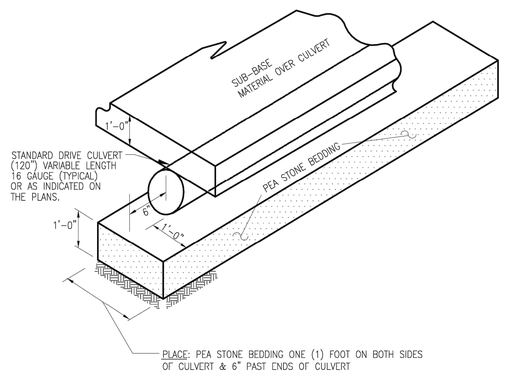
PLAN VIEW

OIL/GAS SEPARATOR PLACEMENT DETAIL FOR 18" DIAMETER AND SMALLER OUTLET PIPE

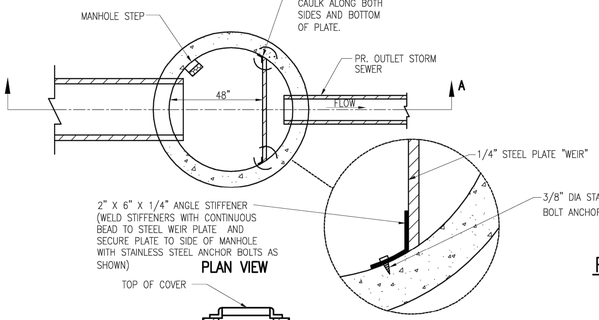
(FOR OUTLET PIPES LARGER THAN 18" IN DIAMETER, AN ALTERNATE DESIGN MUST BE APPROVED BY THE TOWNSHIP ENGINEER)



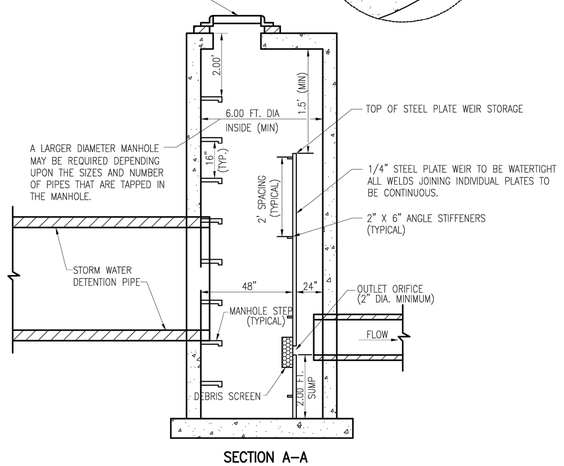
SAND OR GRAVEL BACKFILL DETAILS FOR SEWERS UNDER CONCRETE OR ASPHALT PAVEMENTS, SIDEWALKS, DRIVEWAYS AND PARKING AREAS



DRIVE CULVERT BEDDING DETAIL



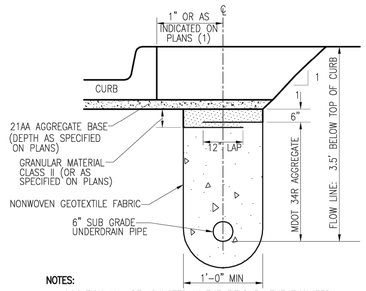
PLAN VIEW



SECTION A-A

6 FT. DIA OUTLET MANHOLE

TYPICAL UNDERGROUND DETENTION AND OUTLET MANHOLE DETAILS



NOTES:

1. LOCATION MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
2. ALL UNDERDRAIN SHALL BE APPROVED PLASTIC PIPE. METAL PIPE SHALL NOT BE USED.
3. ALL UNDERDRAIN SHALL OUTLET TO DRAINAGE STRUCTURE.
4. 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"

GENERAL NOTES FOR STORM SEWER CONSTRUCTION

1. **PIPE BEDDING AND BACKFILLING:**

   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 STORM STORM SEWER MAY BE LAID DIRECTLY ON COMPACTED NATIVE SUBGRADE SOILS.

   BACKFILL SHALL BE COMPACTED ABOVE PIPE OR 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 6" LAYERS NOT TO EXCEED 12" TO A DENSITY OF 95% AS DETERMINED BY AASHTO T99. ALL BACKFILL PLACED WITHIN A 1:1 INFLUENCE OF STRUCTURES SHALL BE APPROVED SAND, PLACED IN 1' LAYERS AND COMPACTED. NO FROZEN MATERIAL SHALL BE BURIED MORE THAN 4' BELOW THE FINAL ELEVATION OF THE GROUND.

   TRENCHES WHICH ARE TO BE LEFT OPEN OVERNIGHT SHALL BE ENCLOSED WITH SUITABLE FENCING AND LIGHTED BARRICADES, UNLESS OTHERWISE APPROVED BY THE TOWNSHIP.

2. **SUMP PUMP LEAD REQUIREMENTS:**

   ALL SUMP PUMP LEADS CONNECTED TO A DRAIN SHALL BE PRE-MANUFACTURED.

   SUMP PUMP MAINS AND LEADS SHALL BE A SDR 35, NON-PERFORATED, SOLID WALL, PVC, ARMCO TRUSS PIPE, OR APPROVED EQUAL, WITH PREMIUM JOINTS.

   TAPS TO 12" STORM SEWER SHALL BE MADE WITH A FERNCO EZ TAP OR APPROVED EQUAL. TAPS TO OTHER SIZE STORM SEWER SHALL 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 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.

3. **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
SEED AND FERTILIZER	SLOPES & DITCH BANKS, ETC.	MDOT "ROADSIDE" MIX (50% PERENNIAL RYE, 15% KENTUCKY BLUE, 35% RED FESCUE) APPLIED AT 100 LBS/ACRE	240 LBS/ACRE OF CHEMICAL FERTILIZER NUTRIENTS IN EQUAL PROPORTIONS OF NITROGEN, PHOSPHORIC ACID AND POTASH. (MUST BE A SLOW-RELEASE FERTILIZATION)
	OTHER AREAS	MDOT "CLASS A" MIX (30% PERENNIAL RYE, 30% KENTUCKY BLUE, 40% RED FESCUE) APPLIED AT 100 LBS/ACRE	240 LBS/ACRE OF CHEMICAL FERTILIZER NUTRIENTS IN EQUAL PROPORTIONS OF NITROGEN, PHOSPHORIC ACID AND POTASH. (MUST BE A SLOW-RELEASE FERTILIZATION)
SOD	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.

DRAWING PATH: S:\CVT\SuperiorTwp\Standards\CADD\STORM\SuperiorStm02.dwg May 27, 2010 - 9:26am

OHM

WWW.OHM-ADVISORS.COM

34000 Plymouth Road | Livonia, MI 48150 | P (734) 522-6711 | F (734) 522-6427

COPYRIGHT 2009 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

DATE OCT 2003 | CADD DK | ENG / ARCH DLG/JGL | PROJ MGR | SECTION | TOWN | RANGE | COUNTY WASHTENAW | CITY/VILLAGE/TOWNSHIP CHARTER TOWNSHIP OF SUPERIOR | H. NTS | V. N/A | SCALE | JOB # 000-00-0000 | HORIZ DATUM N/A | VERT DATUM N/A

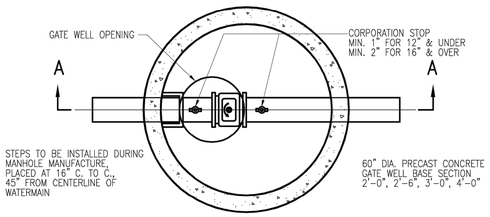
REVISIONS:

CLIENT: CHARTER TOWNSHIP OF SUPERIOR

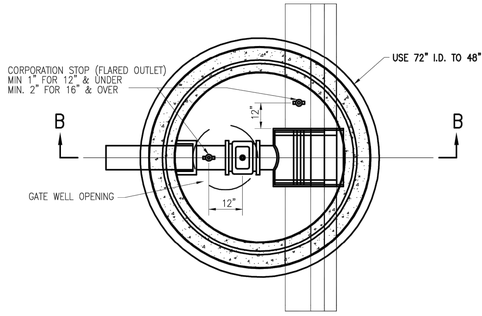
REVISIONS:

CHARTER TOWNSHIP OF SUPERIOR
STANDARD STORM SEWER DETAILS

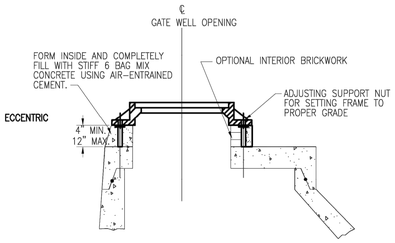
SHEET 48 2 OF 2



PLAN GATE WELL TYPICAL

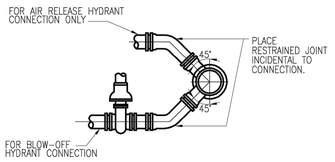


TAPPING SLEEVE VALVE & WELL TYPICAL

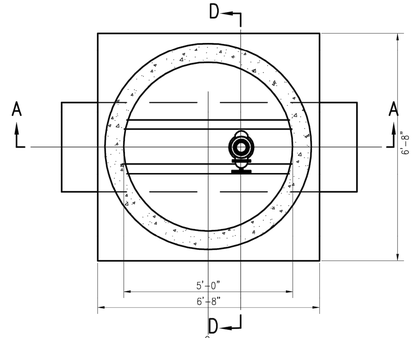


GATE WELL TOPS WITHIN PAVEMENT AREAS

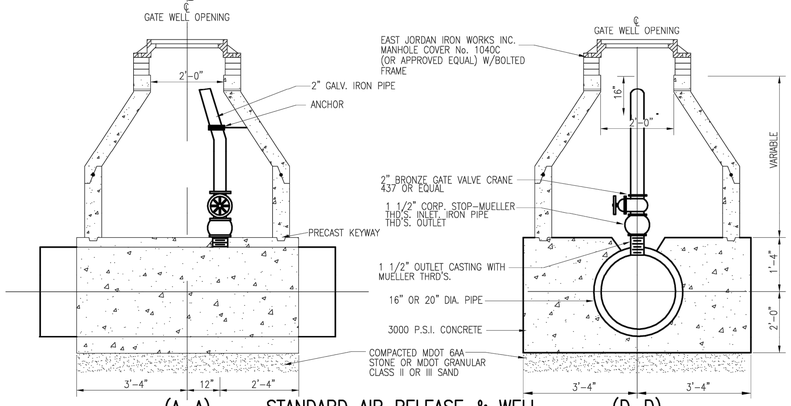
RUBBER 'O' RINGS SHALL NOT BE USED IN PAVEMENT



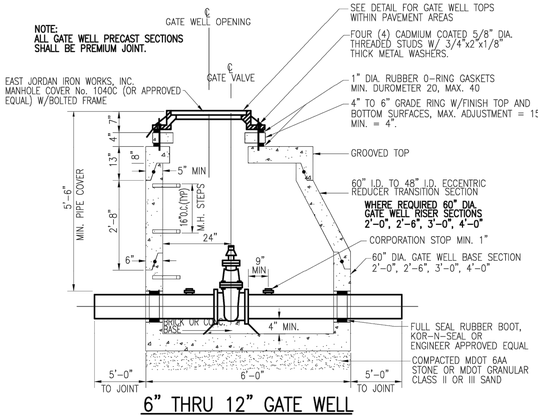
AIR RELEASE AND BLOW-OFF CONNECTION



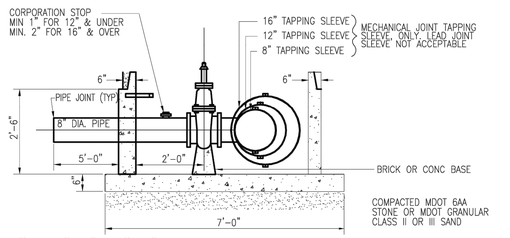
NOTES:
ALL AIR RELEASE WELLS SHALL BE PRECAST STRUCTURES.
ALL AIR RELEASE VALVES SHALL BE AUTOMATIC.



STANDARD AIR RELEASE & WELL FOR 16" & 20" WATER MAIN



6" THRU 12" GATE WELL

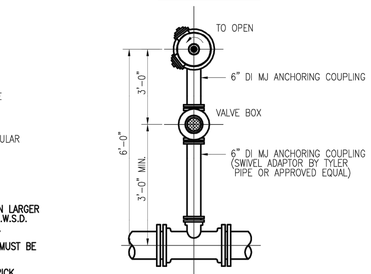


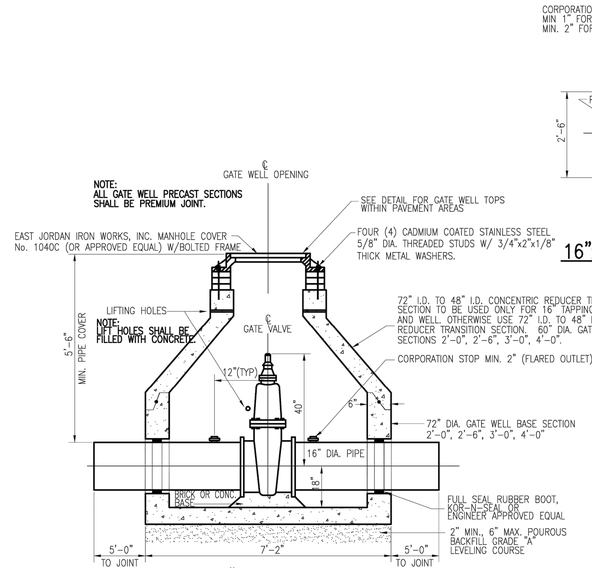
16"x8", 12"x8", 8"x8"* TAPPING SLEEVE, VALVE & WELL

NOTES:
TAPPING SLEEVE VALVE AND WELL FOR WATER MAIN LARGER THAN 16" DIAMETER SHALL BE PER Y.C.U.A AND D.W.S.D. STANDARDS, AND MUST BE SHOWN ON THE PLANS.

***USE OF 8"x8" TAPPING SLEEVE VALVE AND WELL MUST BE APPROVED BY SUPERIOR TOWNSHIP**

OPENING IN PRECAST BASE TO BE FILLED WITH BRICK.

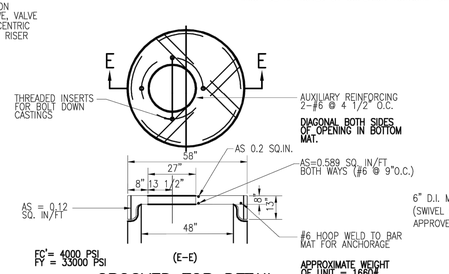




16"x12", 12"x12"* TAPPING SLEEVE, VALVE & WELL

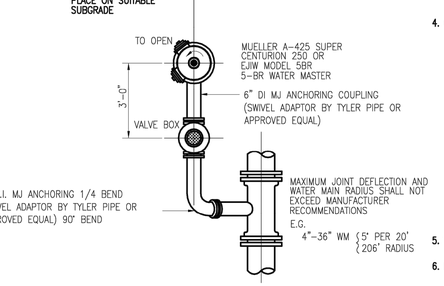
***NOTE:**
USE OF 12"x12" TAPPING SLEEVE VALVE AND WELL MUST BE APPROVED BY SUPERIOR TOWNSHIP D.P.W.

16" GATE WELL



GROOVED TOP DETAIL

NOTE:
AS=CROSS-SECTION AREA OF REINFORCING STEEL, IN SQUARE INCHES PER FOOT.



DETAIL OF HYDRANT SETTINGS

NOTE:
ALL HYDRANTS TO BE FULLY RESTRAINED BY MECHANICAL JOINTS APPROVED BY TOWNSHIP ENGINEER.

WATER MAIN NOTES

1. All construction procedures and materials used on all water main projects shall conform to Ypsilanti Community Utilities Authority (Y.C.U.A), Detroit Water System Department (D.W.S.D.), and The Charter Township of Superior current Standards and Specifications.
2. All hydrants shall be Mueller A-425-Super-Centurion 250 or E.J.I.W. 5-BR Water Master and shall conform to AWWA current standards and shall have a 5 1/4" valve opening which 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 seat, 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 facing the centerline of the road unless otherwise directed by the Township. Pumper connections shall have: National Standard Threads on one pumper connection (4 1/2" I.D., 4 threads per inch, 5.389 minor dia., 5.761 major dia., 5.586 pitch dia.) and Storz Fitting on the other pumper connection (RLS Manufacturing). Operating Nut: (1) 1 1/2" P-F pentagon, open left. Drain holes in hydrant shall be plugged and watertight. Hydrants shall be painted red above the ground and black below. All hydrants shall be constructed with companion valve in a three piece piece adjustable cast iron valve box.
3. All water mains shall be ductile iron as 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 6" through 16" Class 55 for 24" pipe, pipe sizes larger than 24" in nominal diameter shall meet all the requirements of the current AWWA C100 for ductile iron pipe.
4. Gate Valves shall be iron body, fully bronze mounted, E.J.I.W. resilient wedge, non-rising stem, opening counterclockwise with 2" square operating nut conforming to Y.C.U.A. and D.W.S.D. specifications. 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 "U" bracket and "L" bracket supplied by E.J.I.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 in a location that will prevent the extension stem from slipping off the operating nut. Details of extension stem and method of installation shall be approved by the engineer prior to installation. All precast 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 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 rubber gaskets. All gate well covers shall be E.J.I.W. #1040C with bolted frame and have words "Superior Township Water Main and Logo" in raised letters on the frame cover, or approved equal.
5. Tapping sleeve shall be mechanical joint with DWS Mechanical Joint Tapping Gate Valve. Lead joint sleeves shall not be used.
6. No installation of water main is to be attempted without Township's inspector being present. 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 sewer shall be maintained.
7. Three (3) working days before you dig, dial MISS DIG at 1-800-482-7171.
8. 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.
9. The design engineer shall furnish Superior Township with mylar "Record" water main plans along with a computer disk using the most recent release of AutoCAD, upon job completion. Plans shall locate all water mains, hydrants and gate valves and wells.
10. Where work is to be performed in the vicinity of a Superior Township main, contractor shall notify the Superior Township Utility Deprtment at (734) 480-5500 at least 3 working days prior to start of construction as well as township engineer to schedule inspection.
11. All pipe and all pipe fittings shall be made in the U.S.A.
12. 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.
13. BACKFILL NOTE: Under road surfaces, pavement, sidewalk, curb, driveways and where the edge of the trench is within 3 (three) feet of the pavement or as called for on the plans, the trench depth shall be 4 (four) inches lower than the proposed water main elevation. The trench width shall be the outside diameter plus 16 (sixteen) inches for pipe diameters up to 36 (thirty-six) inches and larger. The trench shall be backfilled by placing granular material by the "controlled Density Method" or other means having approval of the engineer and compacting it to 95 (ninety-five) percent of its maximum unit weight.
14. "Mega Lugs," "Field Lock Gaskets," or a mechanical joint restraint system shall be used instead of concrete thrust blocks for joint restraint.
15. All bolts used in securing fittings to the water main shall be "COR-BLUE" bolts or approved equal.
16. All buried bolts, nuts and washers shall be "COR-BLUE" or equivalent and poly-wrapped.
17. Like size to like size tapping sleeves shall not be used with transite pipe.
18. Where water main is located under pavement, the Township shall not be responsible for repairing pavement within the easement in the event that maintenance or repairs to the water main become necessary.
19. Mechanical and slip-on joints for ductile iron shall be in accordance with AWWA C111 (ANSI A21.11)
20. All fire hydrant joints shall be totally restrained by use of "Mega Lugs" or other approved restrained joint.
21. Fittings for ductile iron pipe shall be ductile iron or cast iron and shall meet requirements of AWWA C110 (ANSI A21.10) or AWWA C153 (ANSI A21.53). Ductile iron fittings shall be rated for 350 psi, pipe 24" diameter and less and 250 psi for pipe sizes over 24" diameter, except that ductile iron flanged fitting shall be rated for 250 psi for all pipe diameters.
22. Manhole steps shall be steel encased with polypropylene plastic or approved equivalent to M.A. Industries, Inc., PS-1 for brick, or PS-18 for block, East Jordan Iron Works 8502 (or approved equal). Manhole steps at 16" centers.
23. Maximum joint deflection and water main radius shall not exceed manufacturer recommendations (e.g. 4"-36" WM - 5° per 20' or 206' radius).

DRAWING PATH: S:\CVT\SuperiorTwp\Standards\CADD\watermain\Superior\WM01.dwg May 27, 2010 - 9:18am

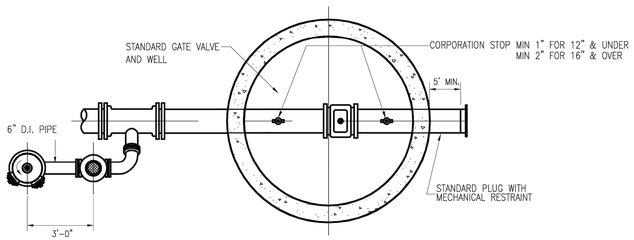
OHM
WWW.OHM-ADVISORS.COM
34000 Plymouth Road | Livonia, MI 48150 | P (734) 522-6711 | F (734) 522-6427

CITY/VILLAGE/TOWNSHIP: CHARTER TOWNSHIP OF SUPERIOR
COUNTY: WASHTENAW
CLIENT: CHARTER TOWNSHIP OF SUPERIOR
H. NTS V. N/A
SCALE
HORIZ DATUM N/A
VERT DATUM N/A
JOB # 000-00-0000
DATE OCT 2003
CADD DK
ENG / ARCH DLC/JSL
PROJ MGR
SECTION
TOWN
RANGE
REVISIONS:
REVISIONS:

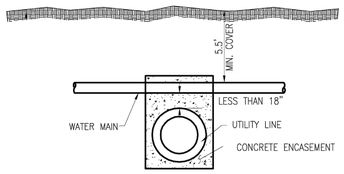
COPYRIGHT 2009 OHM ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF OHM AND THE SAME MAY NOT BE DUPLICATED, DISTRIBUTED, OR DISCLOSED WITHOUT PRIOR WRITTEN CONSENT OF OHM

CHARTER TOWNSHIP OF SUPERIOR STANDARD WATER MAIN DETAILS

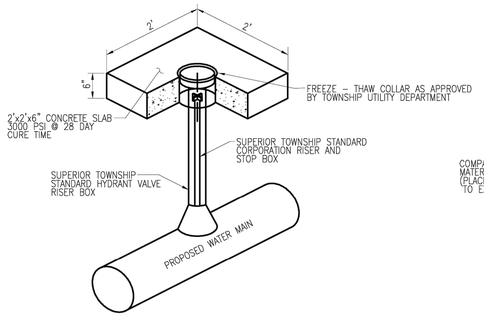
SHEET 49 1 OF 2



END OF WATER LINE ASSEMBLY FOR WATER MAINS



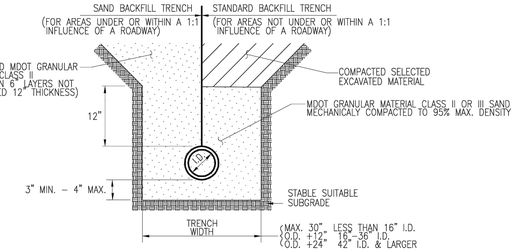
UTILITY CROSSING WITH LESS THAN 18" CLEARANCE



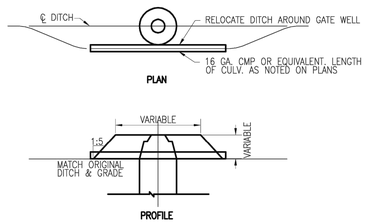
STOP BOX IN PAVEMENT

WATER STOP BOX REQUIREMENTS

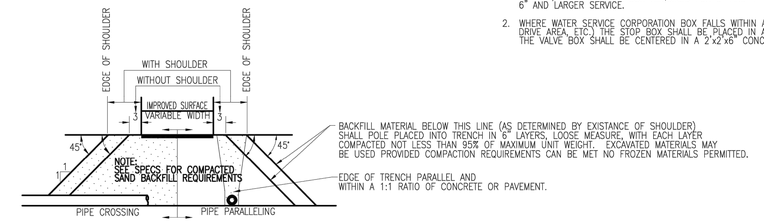
1. TWO HOLE ARCH PATTERN (ERIE PATTERN) TYPE WITH 1" UPPER AND 5' EXTENDED LENGTH WITH 42" ROD (FORD STOP BOX PART NO. EA1-50-40-42R OR APPROVED EQUAL). SMALL BOX REQUIRED FOR 3/4" AND 1" SERVICE. LARGE BOX REQUIRED FOR 1-1/2" AND 2" SERVICE. HYDRANT VALVE BOX REQUIRED FOR 3" AND 4" SERVICE. GATE WELL REQUIRED FOR 6" AND LARGER SERVICE.
2. WHERE WATER SERVICE CORPORATION BOX FALLS WITHIN A PAVED AREA (PARKING LOT, SERVICE DRIVE AREA, ETC.) THE STOP BOX SHALL BE PLACED IN A STANDARD HYDRANT VALVE BOX. THE VALVE BOX SHALL BE CENTERED IN A 2'x2'x6" CONCRETE SLAB.



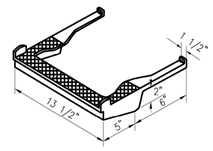
STANDARD BEDDING AND TRENCH BACKFILL DETAIL FOR WATER MAIN



DITCH ENCLOSURE AT GATE WELL

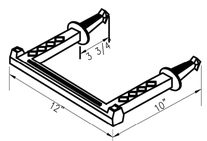


BACKFILL IN THE AREA OF STREETS, ALLEYS SIDEWALKS, DRIVES & PARKING LOTS



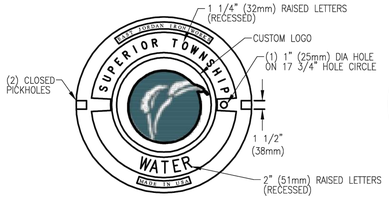
E.J.I.W. 8502

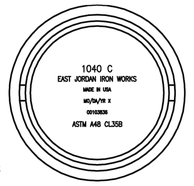
OR



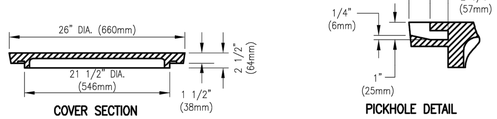
STANDARD MANHOLE STEP

M.A. PSI-375

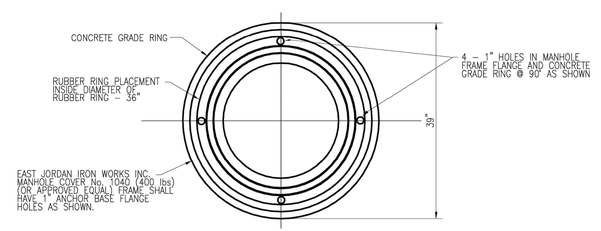




BOTTOM VIEW

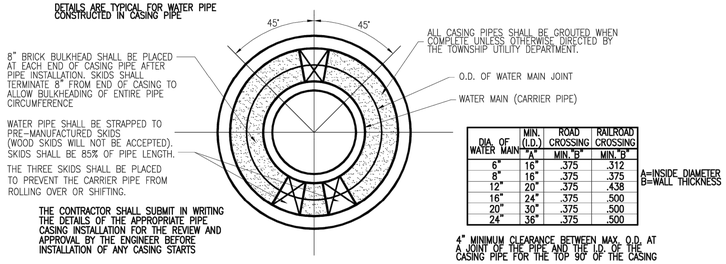


STANDARD COVER & FRAME



CAST IRON GATE WELL COVER AND GRADE RING

DETAILS ARE TYPICAL FOR WATER PIPE CONSTRUCTED IN CASING PIPE



DIA. OF WATER MAIN	MIN. (I.D.) "A"	ROAD CROSSING MIN. "B"	RAILROAD CROSSING MIN. "B"
6"	16"	.375	.312
8"	16"	.375	.375
12"	20"	.375	.438
16"	24"	.375	.500
20"	30"	.375	.500
24"	36"	.375	.500

A=INSIDE DIAMETER
B=WALL THICKNESS

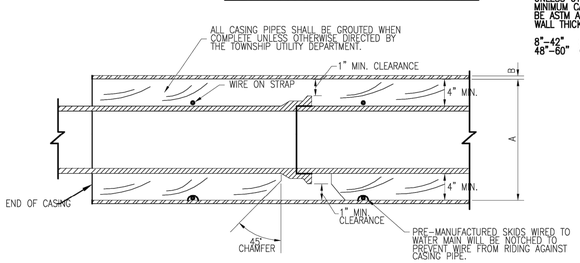
4" MINIMUM CLEARANCE BETWEEN MAX. O.D. AT A JOINT OF THE PIPE AND THE I.D. OF THE CASING PIPE FOR THE TOP 90° OF THE CASING

PIPE BARREL SUPPORT FOR WATER MAIN CONSTRUCTED IN CASING PIPE

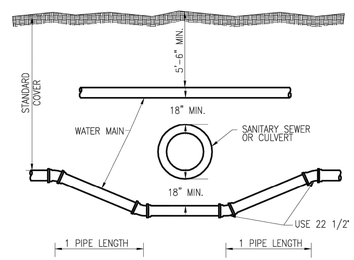
CASING SHALL BE SPIRAL WELDED STEEL PIPE A.S.T.M. A-252, GR. 2.

UNLESS OTHERWISE SPECIFIED, MINIMUM CASING PIPE SHALL BE ASTM A-139 GRADE B, WALL THICKNESS AS FOLLOWS:

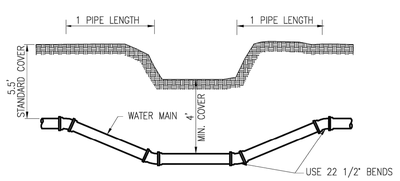
8"-42" 0.375
48"-60" 0.500



STANDARD CASING SECTION



SEWER OR CULVERT CROSSING



DITCH OR STREAM CROSSING

DRAWING PATH: S:\CVT\Superior1wp\Standards\CADD\waterman\Superior\WM02.dwg May 27, 2010 - 9:23am

OHM

CITY/VILLAGE/TOWNSHIP: CHARTER TOWNSHIP OF SUPERIOR
COUNTY: WASHTENAW
CLIENT: CHARTER TOWNSHIP OF SUPERIOR
REVISIONS:

H: NTS | V: N/A | JOB # 000-00-0000 | HORIZ DATUM: N/A | VERT DATUM: N/A

RANGE | TOWN | SECTION | PROJ MGR | ENG / ARCH: DLG/JGL | CADD: DK | DATE: OCT 2003

REVISIONS:

34000 Plymouth Road | Livonia, MI 48150 | P (734) 522-6711 | F (734) 522-6427
WWW.OHM-ADVISORS.COM

COPYRIGHT 2009 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

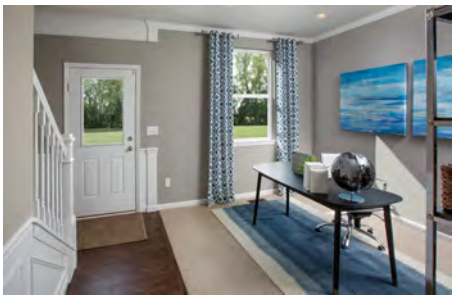
CHARTER TOWNSHIP OF SUPERIOR STANDARD WATER MAIN DETAILS

SHEET 50 2 OF 2

Oakdale

1,893+ Sq. Ft. | 3 Bedrooms | 2 Baths | 1 Half Bath







PulteHOMES™





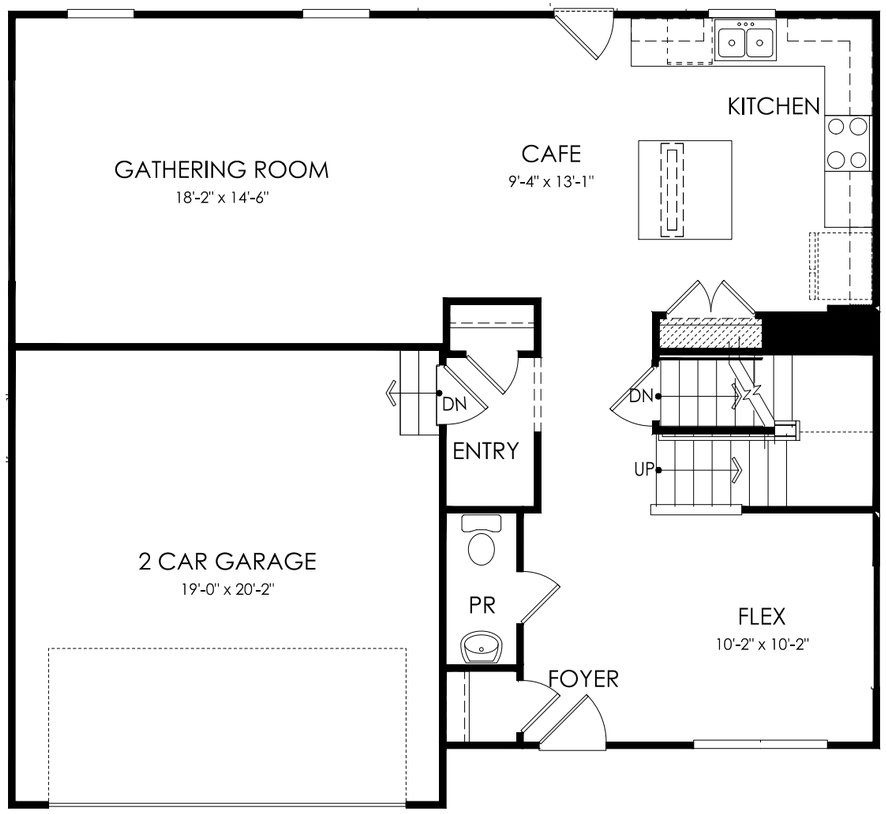


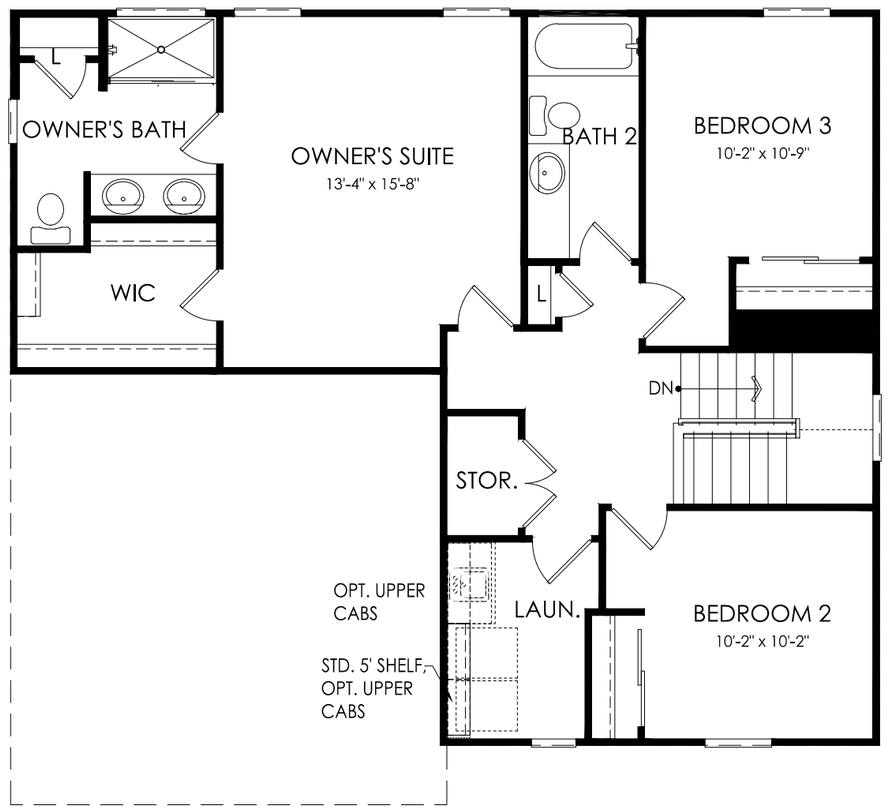
*All photos above are similar plan representations, not actual Oakdale images.

The Oakdale

OPTIONS AND ELEVATIONS

Speak with a sales consultant to review all options and elevations available for this home design at your community. Interactive floorplans are available on Pulte.com.





First Floor

Speak with a sales consultant to learn about all first floor structural options available for this home.
All floorplan window locations and sizes are subject change per elevation.

Optional Second Floor

Speak with a sales consultant to learn about all second floor structural options available for this home.
All floorplan window locations and sizes are subject change per elevation.

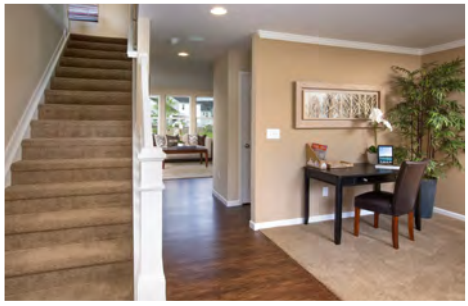
This floorplan is for illustrative purposes only. The elevation you select and local building regulations may require changes to the floorplan shown above. Dimensions, specifications, and options are subject to change without notice. Square footages are approximate. Elevations are the artist's conception and are not intended to show specific detailing. Images are for illustrative purposes only and are not intended to be an actual representation of any particular home, community, neighborhood or the completed improvements being offered. Speak to a sales consultant for complete details. ©2022 Pulte Homes. All rights reserved. Project Contractor and Broker: Pulte Homes of Michigan, LLC, 2800 Livernois Rd, Troy, MI 48083, Contractor License Number: 2102165263

Crisfield

2,108+ Sq. Ft. | 3-4 Bedrooms | 2 Baths | 1 Half Bath



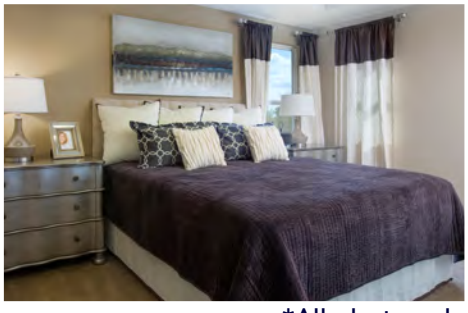




Pulte HOMES





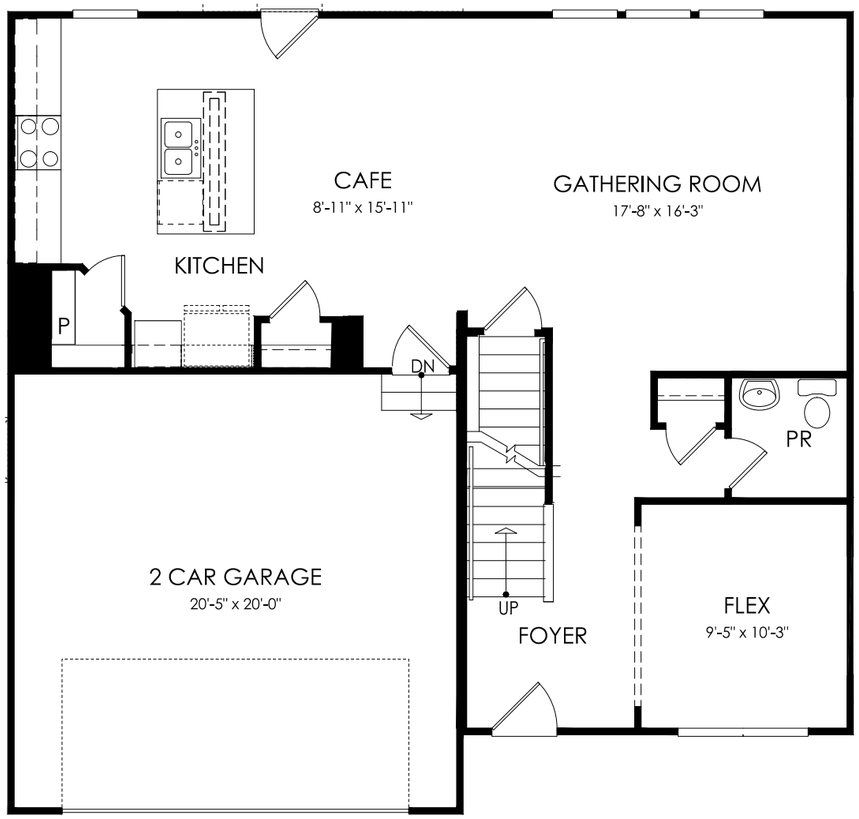


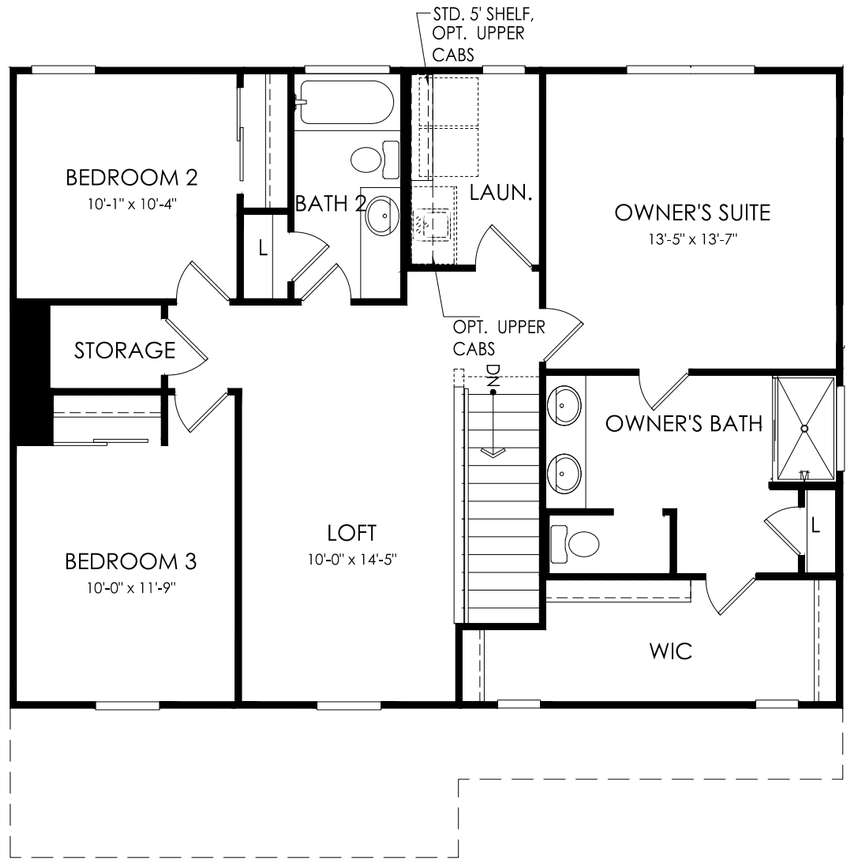
*All photos above are similar plan representations, not actual Crisfield images.

The Crisfield

OPTIONS AND ELEVATIONS

Speak with a sales consultant to review all options and elevations available for this home design at your community. Interactive floorplans are available on Pulte.com.





First Floor

Speak with a sales consultant to learn about all first floor structural options available for this home.
All floorplan window locations and sizes are subject change per elevation.

Second Floor

Speak with a sales consultant to learn about all second floor structural options available for this home.
All floorplan window locations and sizes are subject change per elevation.

This floorplan is for illustrative purposes only. The elevation you select and local building regulations may require changes to the floorplan shown above. Dimensions, specifications, and options are subject to change without notice. Square footages are approximate. Elevations are the artist's conception and are not intended to show specific detailing. Images are for illustrative purposes only and are not intended to be an actual representation of any particular home, community, neighborhood or the completed improvements being offered. Speak to a sales consultant for complete details. ©2022 Pulte Homes. All rights reserved. Project Contractor and Broker: Pulte Homes of Michigan, LLC, 2800 Livernois Rd, Troy, MI 48083, Contractor License Number: 2102165263

Aspire

2,264-2,456 Sq. Ft. | 4 Bedrooms | 2 Baths | 1 Half Bath

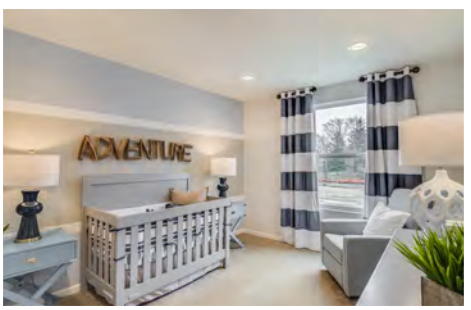






Pulte™ HOMES





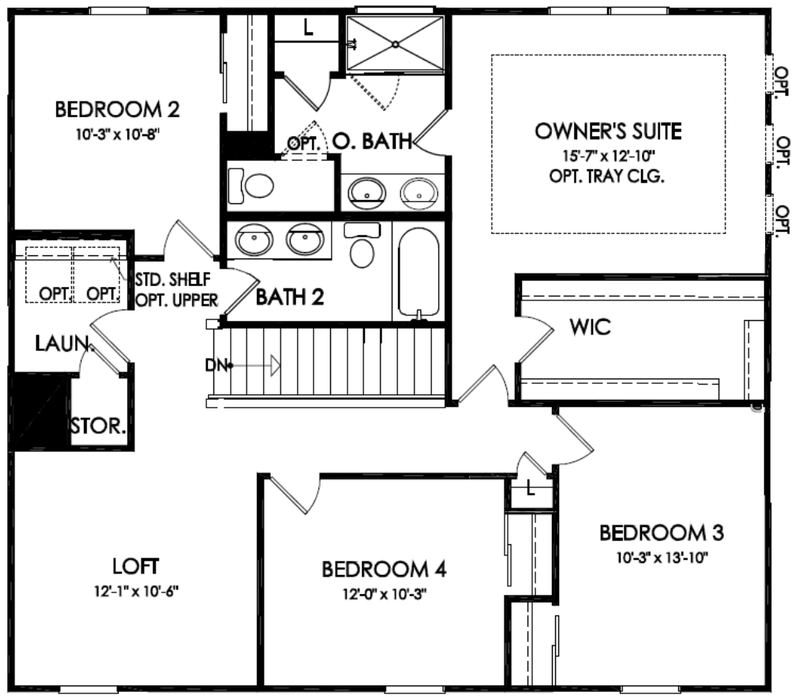


The Aspire

OPTIONS AND ELEVATIONS

Speak with a sales consultant to review all options and elevations available for this home design at your community. Interactive floorplans are available on Pulte.com.





First Floor

Speak with a sales consultant to learn about all first floor structural options available for this home.
All floorplan window locations and sizes are subject change per elevation.

Second Floor

Speak with a sales consultant to learn about all second floor structural options available for this home.
All floorplan window locations and sizes are subject change per elevation.

This floorplan is for illustrative purposes only. The elevation you select and local building regulations may require changes to the floorplan shown above. Dimensions, specifications, and options are subject to change without notice. Square footages are approximate. Elevations are the artist's conception and are not intended to show specific detailing. Images are for illustrative purposes only and are not intended to be an actual representation of any particular home, community, neighborhood or the completed improvements being offered. Speak to a sales consultant for complete details. ©2026 Pulte Homes. All rights reserved. Project Contractor and Broker: Pulte Homes of Michigan, LLC, 2800 Livernois Rd, Troy, MI 48083, Contractor License Number: 2102165263

Hampton

2,606-2,830 Sq. Ft. | 4-6 Bedrooms | 2-3 Baths | 1 Half Bath







Pulte™ HOMES





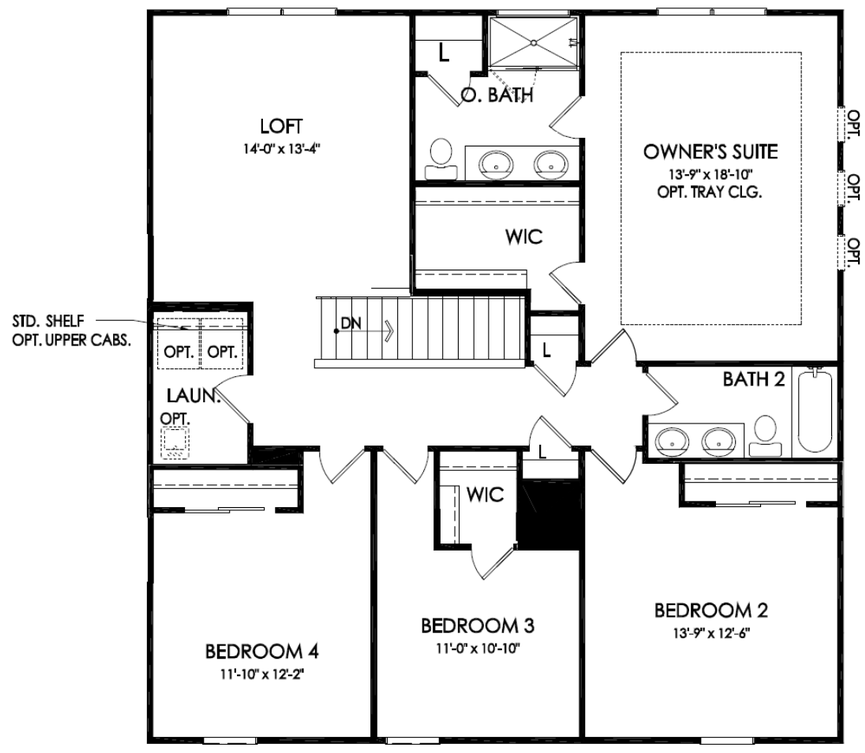


The Hampton

OPTIONS AND ELEVATIONS

Speak with a sales consultant to review all options and elevations available for this home design at your community. Interactive floorplans are available on Pulte.com.





First Floor

Speak with a sales consultant to learn about all first floor structural options available for this home.
All floorplan window locations and sizes are subject change per elevation.

Optional Second Floor

Speak with a sales consultant to learn about all second floor structural options available for this home.
All floorplan window locations and sizes are subject change per elevation.

This floorplan is for illustrative purposes only. The elevation you select and local building regulations may require changes to the floorplan shown above. Dimensions, specifications, and options are subject to change without notice. Square footages are approximate. Elevations are the artist's conception and are not intended to show specific detailing. Images are for illustrative purposes only and are not intended to be an actual representation of any particular home, community, neighborhood or the completed improvements being offered. Speak to a sales consultant for complete details. ©2026 Pulte Homes. All rights reserved. Project Contractor and Broker: Pulte Homes of Michigan, LLC, 2800 Livernois Rd, Troy, MI 48083, Contractor License Number: 2102165263