



THE GROVE JSP26-02

JSP26-02 The Grove

Public hearing at the request of Ivanhoe Companies for Preliminary Site Plan, Phasing Plan, Wetland Permit, Woodland Permit and Storm Water Management Plan. The subject property is zoned RM-1 with a Planned Rezoning Overlay (PRO). The applicant is proposing to develop 232 multifamily residential units.

REQUIRED ACTION

Approve/deny the Preliminary Site Plan, Phasing Plan, Wetland Permit, Woodland Permit and Stormwater Management Plan.

REVIEW	RESULT	DATE	COMMENTS
Planning	Approval recommended	3-10-26	<ul style="list-style-type: none"> Items to be addressed on the Final Site Plan submittal
Engineering	Approval recommended	2-24-26	<ul style="list-style-type: none"> Items to be addressed on the Final Site Plan submittal
Landscaping	Approval recommended	3-4-26	<ul style="list-style-type: none"> Items to be addressed on the Final Site Plan submittal
Wetlands	Approval recommended with conditions	2-19-26	<ul style="list-style-type: none"> Wetland Permit with on-site mitigation Wetland Buffer Authorization Items to be addressed on the Final Site Plan submittal
Woodlands	Approval recommended	2-19-26	<ul style="list-style-type: none"> Woodland Permit Items to be addressed on the Final Site Plan submittal
Traffic	Approval recommended	2-19-26	<ul style="list-style-type: none"> Items to be addressed on the Final Site Plan submittal
Façade			<ul style="list-style-type: none"> Facades have not been revised and are as permitted by PRO Agreement;
Fire	Approval recommended	2-10-26	<ul style="list-style-type: none"> Items to be addressed on the Final Site Plan submittal

MOTION SHEET

Approval – Preliminary Site Plan

In the matter of The Grove, JSP26-02, motion to **approve** the Preliminary Site Plan based on and subject to the following:

- a. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters, as well as all of the terms and conditions of the PRO Agreement as approved, with any outstanding items being addressed on the Final Site Plan; and
- b. *(additional conditions here if any)*

(This motion is made because the plan is otherwise in compliance with Article 3, Article 4 and Article 5 of the Zoning Ordinance and all other applicable provisions of the Ordinance, as well as the terms of the PRO Agreement.)

-AND-

Approval – Phasing Plan

In the matter of The Grove, JSP26-02, motion to **approve** the Phasing Plan based on and subject to the following:

- a. The sequence of the identified Phases may be revised, subject to administrative review and approval for compliance with applicable ordinances and PRO Agreement requirements.
- b. Other revisions to the Phasing plan may also be approved after administrative review if, in the opinion of the City Planner, the phasing plan is in compliance with applicable ordinances and PRO Agreement requirements.
- c. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters, as well as all of the terms and conditions of the PRO Agreement as approved, with any outstanding items being addressed on the Final Site Plan; and
- d. *(additional conditions here if any)*

(This motion is made because the plan is otherwise in compliance with Article 3, Article 4 and Article 5 of the Zoning Ordinance and all other applicable provisions of the Ordinance, as well as the terms of the PRO Agreement.)

-AND-

Approval – Wetland Permit

In the matter of The Grove, JSP26-02, motion to **approve** the Wetland Permit based on and subject to the following:

- a. Provided sufficient information is supplied by the applicant and compliance with applicable Ordinances is achieved, the Wetland Permit may be issued as separate permits as applicable for the approved Phasing Plan for the project.
- b. The total on-site wetland impact being authorized is 0.94 acres, with on-site mitigation to be constructed in accordance with City standards. Any additional impact shall require re-authorization.
- c. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan; and
- d. *(additional conditions here if any)*

(This motion is made because the plan is otherwise in compliance with Chapter 12 of the Code of Ordinances and all other applicable provisions of the Ordinance.)

-AND-

Approval – Woodland Permit

In the matter of The Grove, JSP26-02, motion to **approve** the Woodland Permit based on and subject to the following:

- a. Provided sufficient information is supplied by the applicant and compliance with applicable Ordinances is achieved, the Woodland Permit may be issued as separate permits as applicable for the approved Phasing Plan for the project.
- b. The total woodland impact being authorized is the removal of 2,020 regulated trees, with mitigation in accordance with City standards. Any additional impacts exceeding 1 percent shall require re-authorization of the woodland permit by the Planning Commission.
- c. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan; and
- d. *(additional conditions here if any)*

(This motion is made because the plan is otherwise in compliance with Chapter 37 of the Code of Ordinances and all other applicable provisions of the Ordinance.)

-AND-

Approval – Stormwater Management Plan

In the matter of The Grove, JSP26-02, motion to **approve** the Stormwater Management Plan, based on and subject to:

- a. The findings of compliance with Ordinance standards in the staff and consultant review letters, and the conditions and items listed in those letters being addressed on the Final Site Plan; and
- b. *(additional conditions here if any)*

(This motion is made because it otherwise in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance.)

-OR-

Denial – Preliminary Site Plan

In the matter of The Grove, JSP26-02, motion to **deny** the Preliminary Site Plan... *(because the plan is not in compliance with Article 3, Article 4 and Article 5 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)*

-AND-

Denial – Phasing Plan

In the matter of The Grove, JSP26-02, motion to **deny** the Phasing Plan... *(because the plan is not in compliance with Article 3, Article 4 and Article 5 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)*

-AND-

Denial- Wetland Permit

In the matter of The Grove, JSP26-02, motion to **deny** the Wetland Permit... *(because the plan is not in compliance with Chapter 12 of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

-AND-

Denial – Woodland Permit

In the matter of The Grove, JSP26-02, motion to **deny** the Woodland Permit... *(because the plan is not in compliance with Chapter 37 of the Code of Ordinances and all other applicable provisions of the Ordinance)*

-AND-

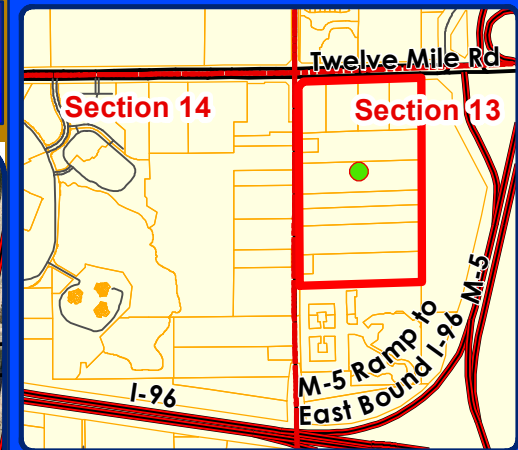
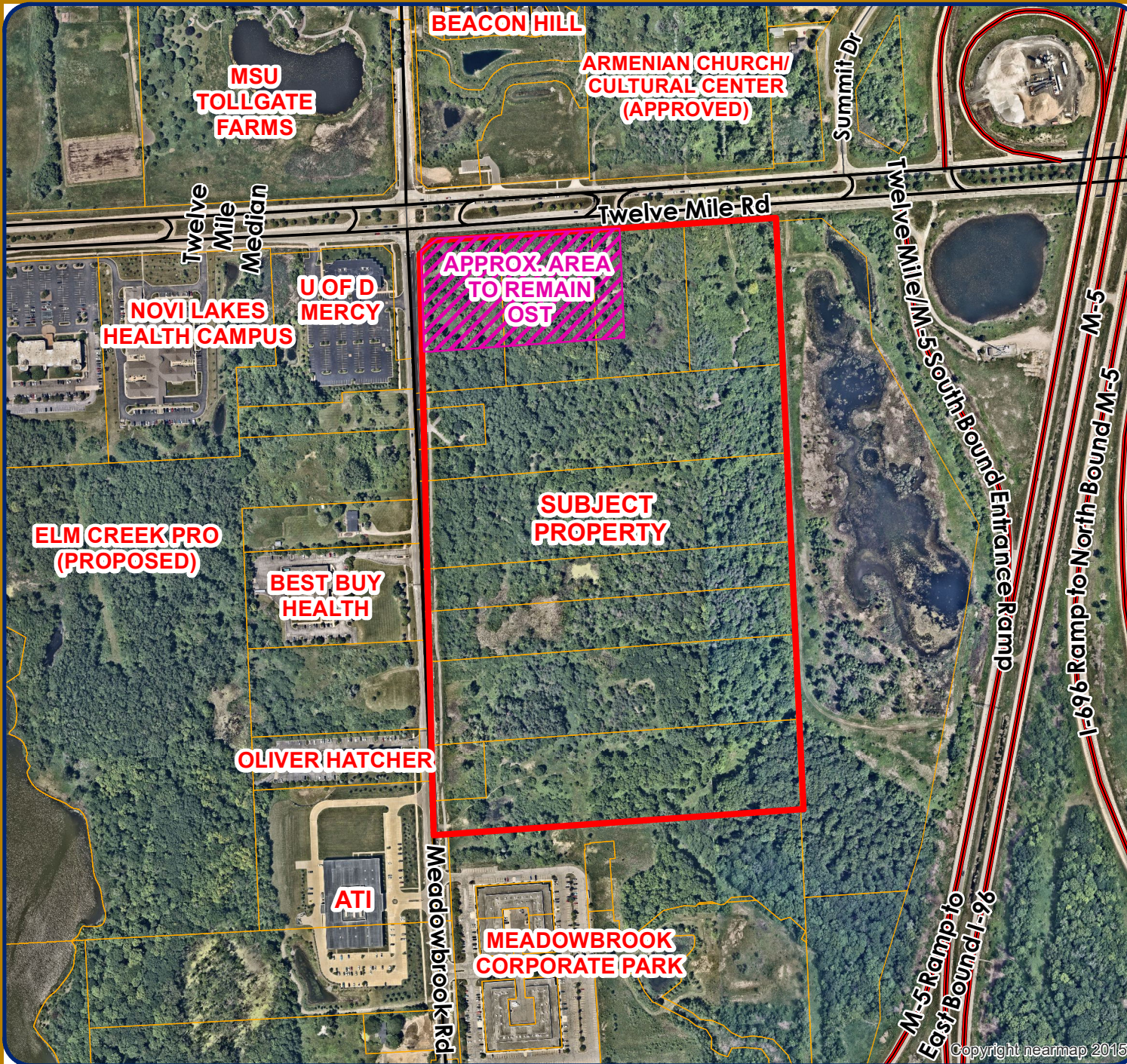
Denial – Stormwater Management Plan

In the matter of The Grove, JSP26-02, motion to **deny** the Stormwater Management Plan... *(because the plan is not in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance.)*


MAPS
Location
Zoning
Future Land Use
Natural Features

JZ24-31 THE GROVE

LOCATION




Legend

-  Subject Area

**City of Novi**
Dept. of Community Development
City Hall / Civic Center
45175 W Ten Mile Rd
Novi, MI 48375
cityofnovi.org

Map Author: Lindsay Bell
Date: 9/9/24
Project: THE GROVE
Version #: 1

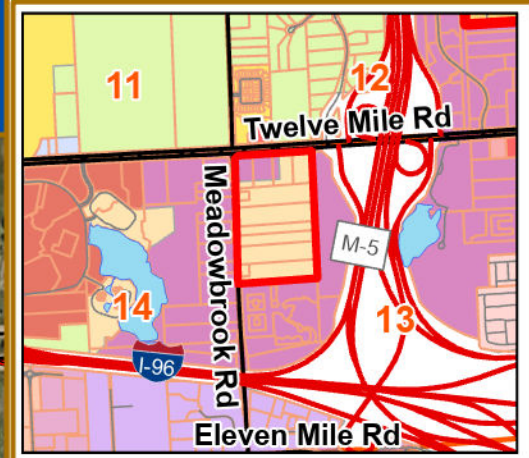
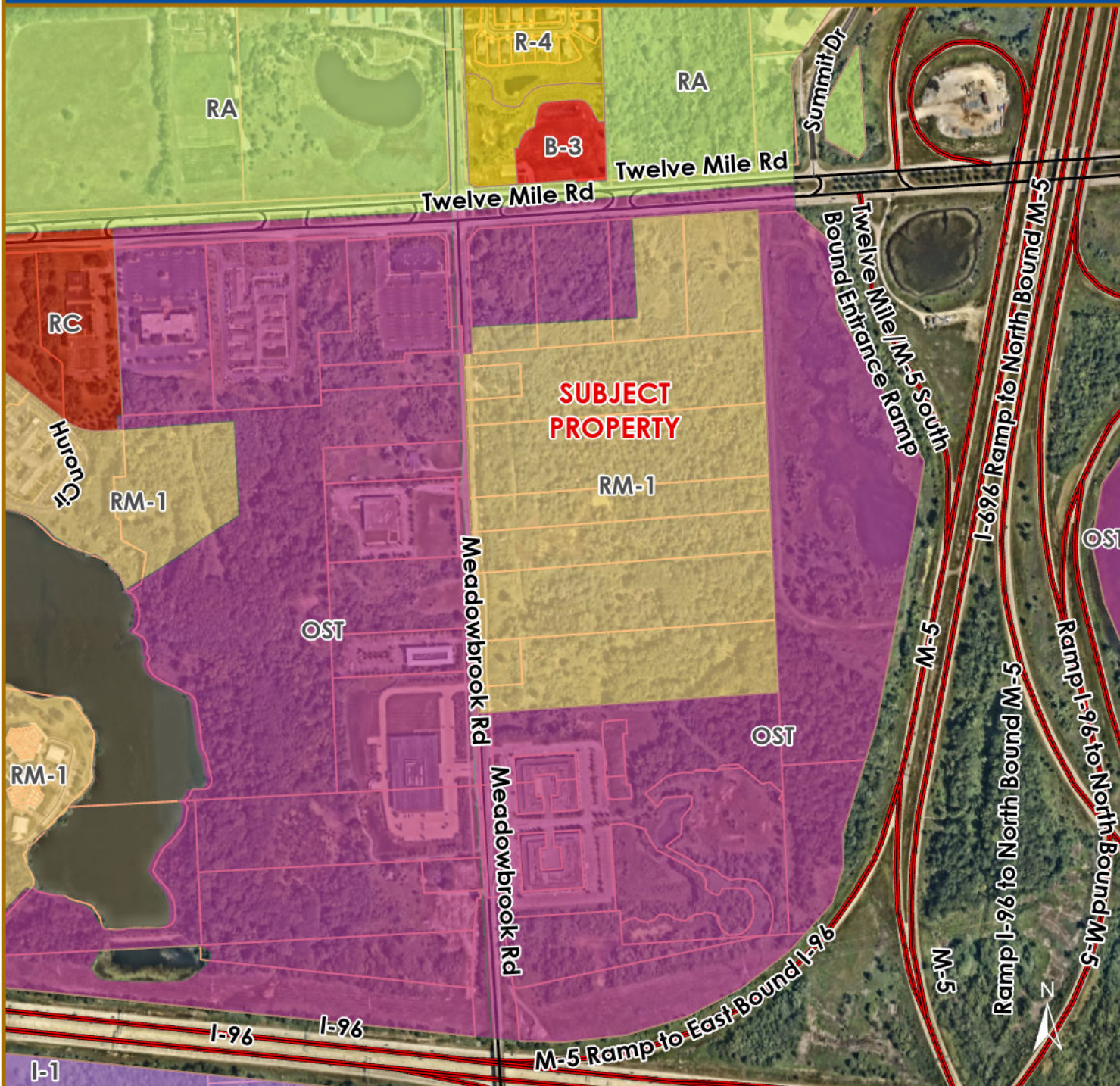
0 120 240 480 720 Feet
1 inch = 542 feet



MAP INTERPRETATION NOTICE

Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.

THE GROVE ZONING



Zoning District

- B-2: Community Business
- B-3: General Business
- I-1: Light Industrial
- MH: Mobile Home
- OS-1: Office Service
- OSC: Office Service Commercial
- OST: Office Service Technology
- R-2: One-Family Residential
- R-4: One-Family Residential
- RA: Residential Acreage
- RC: Regional Center
- RM-1: Low-Density Multiple-Family
- RM-2: High Density Multiple Family
- TC: Town Center



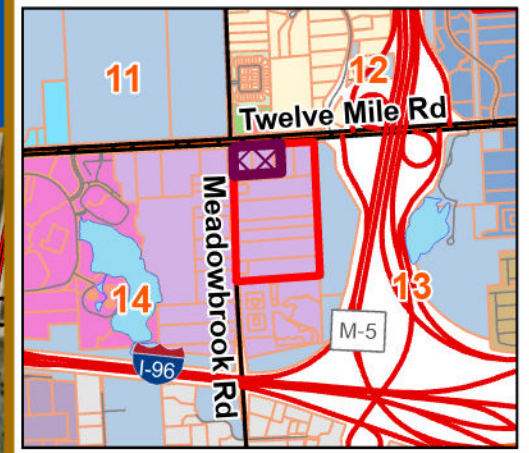
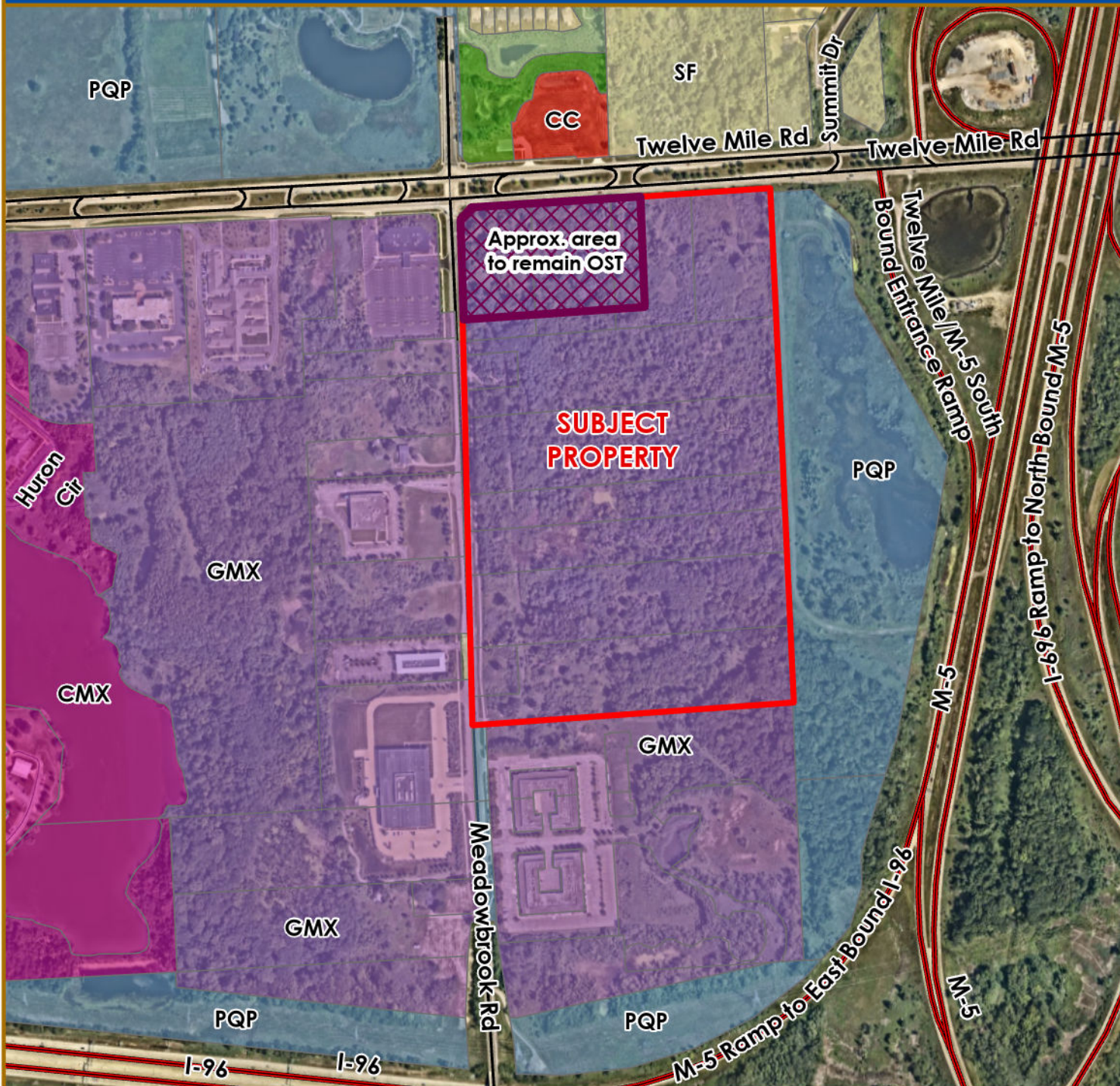
City of Novi
 Dept. of Community Development
 Novi City Hall
 45175 Ten Mile Rd
 Novi, MI 48375
 cityofnovi.org



Map Author: Lindsay Bell
 Date: 4/9/26
 Project: The Grove
 Version #: 1

JZ24-31 THE GROVE

FUTURE LAND USE



- Future Land Use (2025)**
- Commercial Mixed-Use
 - Community Commercial
 - Community Office
 - General Mixed-Use
 - Industrial/Office
 - Manufactured Housing
 - Multiple Family
 - Office, Service, Technology
 - Private Park
 - Public Park
 - Public/Quasi-Public
 - Single Family
 - Town Center Mixed-Use



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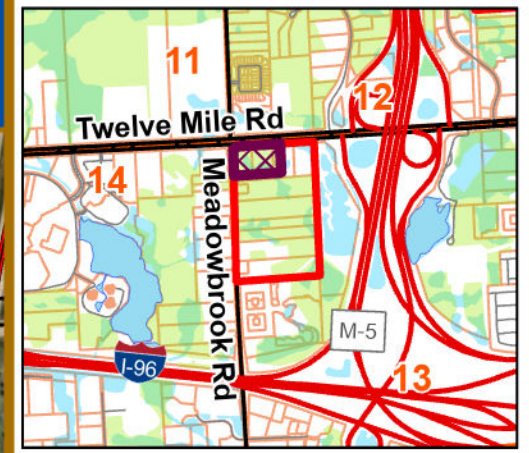
Map Author: Lindsay Bell
 Date: 9/22/25
 Project: The Grove
 Version #: 1



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NATURAL FEATURES



■ Woodlands
■ Wetlands



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PRELIMINARY SITE PLAN



THE GROVE

“ A placemaking destination ”

PUBLIC/PRIVATE OPEN SPACE & PATHWAYS PLAN

- **32.5 %** total open space.
- Connected network of sidewalks, compacted stone walking trails, and natural hiking trails
- Novi public SMART bus stop
- Public access to Grove Nature Area Trail along the MDOT Pond and Conservation Easement to the east with scenic overlook.
- When combined with adjacent open space protected by conservation easements, our open space creates a large, contiguous habitat area.
- Public access to 12 Mile Rd Park and Open Space



- - - Off-site bike paths
- - - 8 ft sidewalk
 Compacted stone walking trails or natural hiking trails
● Bus stop

FOUR DISTINCT VILLAGES

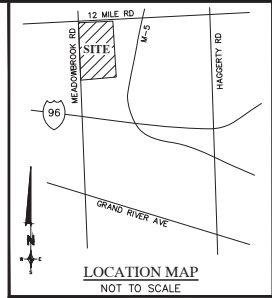




PRELIMINARY SITE PLAN, STORM WATER MANAGEMENT PLAN, AND PHASING PLAN

THE GROVE

NOVI, MICHIGAN



DEVELOPER:

IVANHOE COMPANIES
6689 ORCHARD LAKE ROAD, SUITE 314
WEST BLOOMFIELD, MI 48322
(248) 626-6114
GARY SHAPIRO

CIVIL ENGINEER:

ZEIMET-WOZNAK AND ASSOCIATES, INC.
55800 GRAND RIVER AVE, SUITE 100
NEW HUDSON, MI 48165
P: (248) 437-5099 www.zeimetwoznai.com
ANDY WOZNAK

LANDSCAPE ARCHITECT:

ALLEN DESIGN
557 CARPENTER
NORTHVILLE, MI 48167
P: (248) 467-4668
JIM ALLEN, RLA

WETLAND/WOODLAND CONSULTANT:

BARK ENGINEERING
3005 BOARDWALK DR. SUITE 100
ANN ARBOR, MI 48108
P: (734) 922-4414
FRAN THOMPSON

ARCHITECT:

T.R.-DESIGN GROUP, LLC
6001 N. ADAMS RD., SUITE 202
BLOOMFIELD HILLS, MI 48304
(248) 792-3256
JASON (J.R.) RUTHIG, AIA

PLANNER:

CINCAR CONSULTING GROUP, LLC
17199 N. LAUREL PARK DRIVE, SUITE 204
LIVONIA, MI 48152
(248) 867-8942
BRAD STRADER

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A3 OF 3	ELEVATIONS
C1 OF 3	OPTION 1
C2 OF 3	OPTION 2
C3 OF 3	OPTION 3 AND 4



NOTE:

THESE PLANS ARE THE PROPERTY OF ZEIMET-WOZNAK & ASSOCIATES, INC. NO CONSTRUCTION STAKING OR CONSTRUCTION INSPECTION OR CONSTRUCTIVE USE OF THESE PLANS SHALL BE MADE BY ANYONE WITHOUT THE WRITTEN AUTHORIZATION BELOW.

AUTHORIZATION BY:

ZEIMET-WOZNAK & ASSOCIATES, INC. SHALL NOT BE RESPONSIBLE FOR MEANS, METHODS, PROCEDURES, TECHNIQUES, OR SEQUENCES OF CONSTRUCTION, NOR FOR SAFETY ON THE JOB SITE. NOR SHALL ZEIMET-WOZNAK & ASSOCIATES, INC. BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

THE CONTRACTOR SHALL INDEMNIFY AND SAVE HARMLESS THE OWNER AND ENGINEER FROM ALL LIABILITIES FOR INJURY TO PERSONS, OR DAMAGE TO OR LOSS OF PROPERTY, OR ANY OTHER LOSS, COST OR EXPENSE, AS A RESULT OF THE ACTIONS OF THE CONTRACTOR, HIS EMPLOYEES, AGENTS, OR SUBCONTRACTORS.

ALL CONTRACTORS SHALL NAME ZEIMET-WOZNAK & ASSOCIATES, INC. AS ADDITIONALLY INSURED ON ALL INSURANCE POLICIES.

THE LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES, AND PROPOSED UTILITY CROSSINGS IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY CONFLICTS ARE APPARENT OR IF THE LOCATION OR DEPTH DIFFERS SIGNIFICANTLY FROM THE PLANS.

FIRE DEPARTMENT NOTES:

1. WATER MAINS AND FIRE HYDRANTS SHALL BE INSTALLED AND OPERATIONAL PRIOR TO ANY COMBUSTIBLE MATERIAL IS BROUGHT ON-SITE (FC 2015 3312.1)
2. ALL NEW MULTIFAMILY RESIDENTIAL BUILDINGS SHALL BE NUMBERED WITH A MINIMUM 10" HIGH BY 1" WIDE NUMBERS A MINIMUM 15 FEET ABOVE THE GROUND ON THE BUILDING WHERE READILY VISIBLE FROM THE STREET SIDE.
3. FIRE APPARATUS DRIVES TO AND FROM BUILDINGS THROUGH PARKING LOTS SHALL HAVE A MINIMUM 50 (50) FOOT OUTSIDE TURNING RADIUS AND DESIGNED TO SUPPORT A MINIMUM OF THIRTY-FIVE (35) TONS.
4. IMMEDIATE ACCESS TO FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED AT ALL TIMES AND WITHOUT OBSTRUCTION BY FENCES, BUSHES, TREE WALLS, OR ANY OTHER OBJECT FOR A MINIMUM OF 3- FEET.
5. FIRE LANES SHALL BE DESIGNATED BY THE FIRE CHIEF. THE MINIMUM WIDTH OF A POSTED FIRE LANE IS 20' AND THE MINIMUM CLEAR HEIGHT OF THE FIRE LANE IS 14'.
6. PROPOSED BUILDINGS DO NOT HAVE FIRE SUPPRESSION SYSTEMS.

GENERAL SITE NOTES:

1. ALL WORK SHALL CONFORM TO THE CITY OF NOVI'S CURRENT STANDARDS AND SPECIFICATIONS.
2. CALL MISS DIG (1-800-647-7344 / 1-800-MISS DIG) A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE TO EXISTING UNDERGROUND UTILITIES CAUSED BY HIS OPERATIONS.
4. TRENCHES UNDER OR WITHIN 3 FT. OF EXISTING OR PROPOSED PAVEMENTS, DRIVEWAYS, AND/OR SIDEWALKS SHALL BE BACKFILLED AND COMPACTED WITH M001 CLASS II SAND.
5. WHERE UTILITIES CROSS, PROVIDE POROUS BACKFILL TAMPED IN 12" LAYERS TO THE UNDERSIDE OF THE HIGHER UTILITY. A 6" MIN. SAND CUSHION SHALL BE PROVIDED BETWEEN UTILITIES.
6. ALL SEWER CONSTRUCTION SHALL HAVE M001 CLASS II BEDDING UNLESS OTHERWISE SPECIFIED ON THE PROFILES.
7. ALL ELEVATIONS ARE BASED ON NAVD83 DATUM.
8. ALL DISTURBED AREAS SHALL BE PROPERLY RESTORED BY THE CONTRACTOR.
9. ALL SOIL EROSION AND SILT MUST BE CONTAINED ON THE SITE.
10. THE CONTRACTOR SHALL AT ALL TIMES PROVIDE EMERGENCY ACCESS TO PROPERTY FOR THE POLICE, FIRE DEPARTMENT, AMBULANCES OR OTHER EMERGENCY VEHICLES TO PROTECT LIFE, HEALTH AND PROPERTY.
11. PAVED STREETS AND DRIVEWAYS MUST BE MAINTAINED IN A REASONABLE STATE OF CLEANLINESS AND THE CONTRACTOR SHALL REMOVE ACCUMULATIONS OF DEBRIS CAUSED BY CONSTRUCTION OPERATIONS.
12. CONTRACTOR SHALL PROVIDE ALL NECESSARY SHEETING, SHORING, DEWATERING, BRACING, TRENCH BOXES, ETC. TO PERFORM WORK SAFELY AND PROTECT EXISTING UTILITIES AND IMPROVEMENTS IN ACCORDANCE TO MICHIGAN OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (MOSHA).
13. IF DEWATERING IS ANTICIPATED OR ENCOUNTERED DURING CONSTRUCTION, THEN A DEWATERING PLAN MUST BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE CITY'S ENGINEERING DIVISION FOR REVIEW AND APPROVAL. ALL CONTRACTORS MUST OBTAIN A PERMIT FROM THE CITY OF NOVI FOR ANY WORK WITHIN THE RIGHT-OF-WAY OF MEADOWBROOK ROAD.
14. ALL CONTRACTORS MUST OBTAIN A PERMIT FROM THE ROAD COMMISSION FOR OAKLAND COUNTY FOR ANY WORK WITHIN THE RIGHT-OF-WAY OF 12 MILE ROAD.
15. ALL PAVEMENT MARKINGS, TRAFFIC CONTROL SIGNS, AND PARKING SIGNS SHALL COMPLY WITH THE DESIGN AND PLACEMENT REQUIREMENTS OF THE 2011 MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
SUBMITTAL	7/26/24	FSP SUBMITTAL	1/28/26						
PRO SUBMITTAL	7/09/25								
PRO SUBMITTAL	8/22/25								
PRO UPDATE	9/12/25								

ZEIMET W OZNAK
INCORPORATED
CIVIL ENGINEERS
55800 GRAND RIVER AVE, SUITE 100
NEW HUDSON, MICHIGAN 48165
P: (248) 437-5099 / F: (248) 437-5222 / www.zeimetwoznai.com

MISS DIG
THREE FULL WORKING DAYS BEFORE YOU DIG. CALL THE MISS DIG SYSTEM

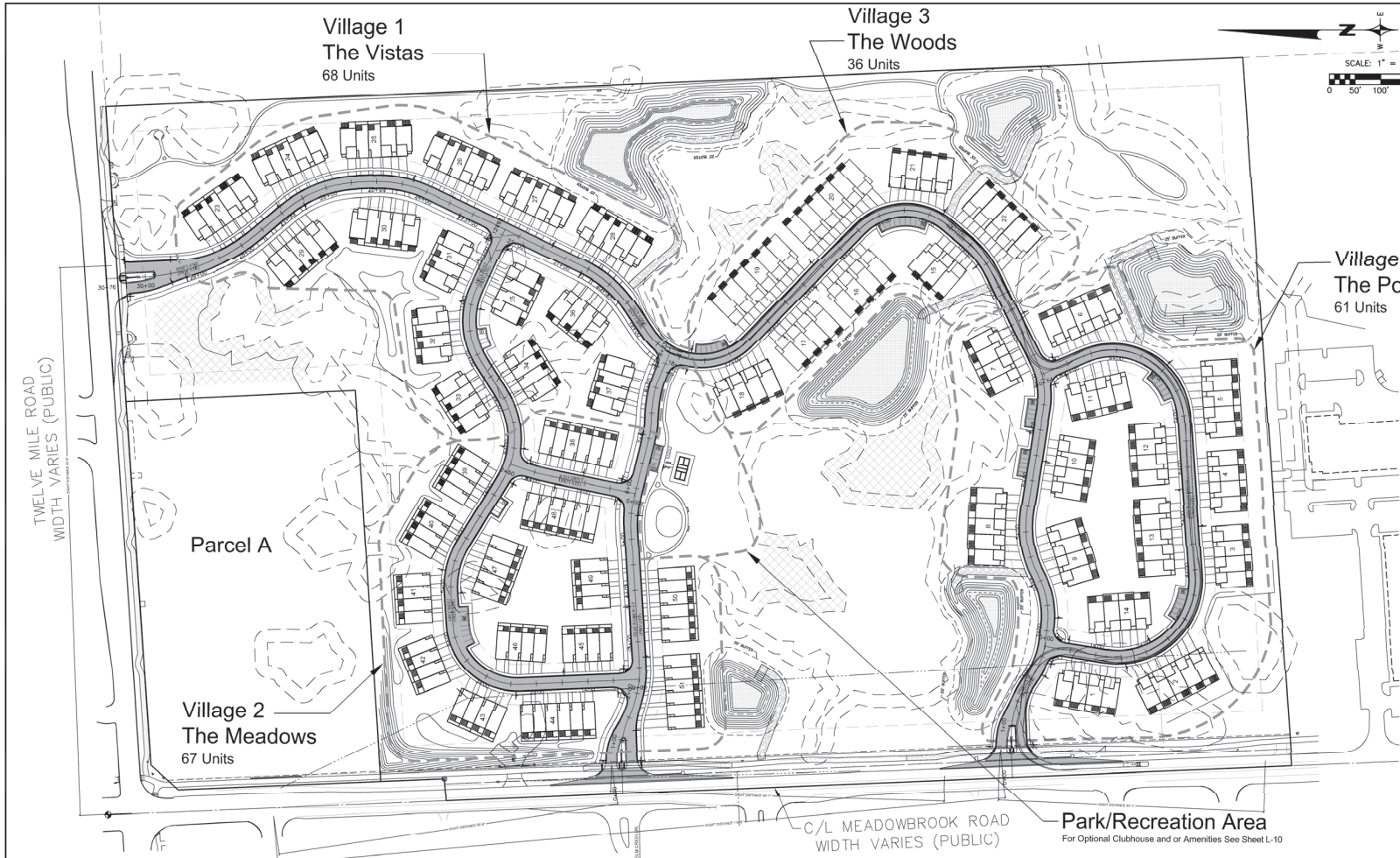
PROJECT SPONSOR:
IVANHOE COMPANIES
6689 ORCHARD LAKE ROAD, SUITE 314
WEST BLOOMFIELD, MI 48322 (248) 626-6114

COVER SHEET
THE GROVE
NOVI, MICHIGAN

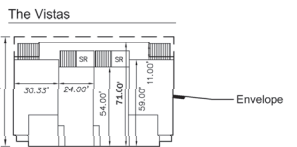
NOVI JOB #IZ24-31



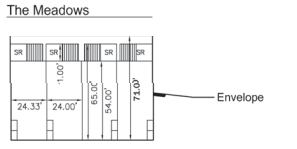
DATE 7/14/24 SCALE HOR: 1" = 100'
JOB NO. 22149 VERT: 1" = N/A
DESIGNED BY SRB
DRAWN BY DATE SHEET COVER



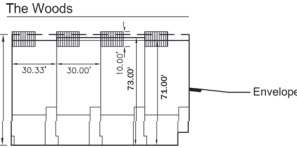
Typical Building Envelopes



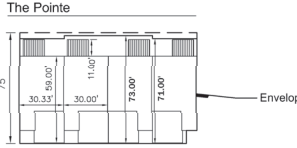
1st floor Primary Suite (end units)
2-Story Townhomes with optional sunroom (interior units)



2-Story Townhomes with optional sunroom



71' deep Ranch



1st floor Primary Suite

- Notes for all Residential Envelopes:
- Unit mix, size, and location are representative and may vary within the building envelope. Each building envelope will accommodate 3 - 6 units.
 - Unit type (ranch, 1st floor primary, townhome) are interchangeable between villages.
 - Building envelope depth may increase in some locations to accommodate a 75' deep unit. All minimum setback requirements will be maintained.
 - Decks or patios may extend a maximum of 10' beyond the building envelope into the perimeter, side to side, and side to rear setbacks.
 - Minimum Building Width is 24'.
 - Maximum Building Depth is 75'.
 - All units will have 2 or 3 bedrooms.
 - Minimum Driveway Length is 20' from Sidewalks.

Site Summary

Existing Zoning Proposed Zoning	OST PRD RM-1	Unit Breakdown	The Vistas 68 Units The Meadows 67 Units The Woods 36 Units The Pointe 61 Units Total 232 Units	Parking	The Vistas Parking Required 278 Spaces Off-Street Parking 4 Spaces Garage and Drives 272 Spaces	Open Space Summary	Total Green Space Provided 40.39 Acres (73.6%) Usable Open Space Required 1.15 Acres (2.1% / 232 units x 200 s.f.) Usable Open Space Provided 8.64 Acres (16.8%) Additional Open Space Provided 9.21 Acres (16.8%) Total Open Space Provided 17.85 Acres (32.7%)
Parcel Breakdown	Parcel A Site Area Less ROW Net Site Area	7.8 Acres 0.16 Acres 7.64 Acres	Max. Net Density Allowed 5.4 Du/Ac (296 - 3 Bedroom Units) 7.3 Du/Ac (400 - 2 Bedroom Units) Net Density Provided 4.23 Du/Ac (232 Units / 54.85 Acres)	The Meadows	Parking Required 168 Spaces (2.5 per Unit) Parking Provided 280 Spaces Off-Street Parking 12 Spaces Garage and Drives 260 Spaces	Minimum Setbacks Provided	Front Yard Min. 25' Side to Side 25' Side to Rear 30' Rear to Rear 50' Perimeter 50'
The Grove	Site Area Less Wetlands 2 ac* Less ROW Net Site Area	61.86 Acres 4.89 Acres 2.32 Acres 54.85 Acres	24 Units Shown 39 Units Shown	The Woods	Parking Required 90 Spaces (2.5 per Unit) Parking Provided 159 Spaces Off-Street Parking 15 Spaces Garage and Drives 144 Spaces	Building Lot Coverage	Allowed 20% Proposed 21% 493,626 s.f. / 2,389,266 s.f. (54.85 Acres)
Parcel A	Site Area Less ROW Net Site Area	7.8 Acres 0.16 Acres 7.64 Acres	Room Breakdown	The Pointe	Parking Required 153 Spaces (2.5 per Unit) Parking Provided 268 Spaces Off-Street Parking 24 Spaces Garage and Drives 244 Spaces	Bicycle Parking	Units Parking Required 47 Spaces Parking Provided 232 Spaces (Covered)
Parcel B	Site Area Less ROW Net Site Area	7.8 Acres 0.16 Acres 7.64 Acres	The Vistas 2 - 3 bdrm. (1,905 s.f. min.) The Meadows 3 bdrm. (1,905 s.f. min.) The Woods 2 - 3 bdrm. (1,958 s.f. min.) The Pointe 2 - 3 bdrm. (1,958 s.f. min.)	Park/Recreation Area	Parking Provided 5 Spaces	Parking Provided	8 Spaces 12 Spaces

ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
SUBMITTAL	7/26/24	PSP SUBMITTAL	1/28/26						
PRO SUBMITTAL	7/09/25								
PRO SUBMITTAL	8/22/25								
PRO UPDATE	9/19/25								

Z EIMET WOZNIAK
CONSULTANTS
CORP
1000 GRANDVIEW AVE., SUITE 100
NEW HIRSHON, MICHIGAN 48869
P: (248) 437-3000 / (248) 437-3222 www.zewoz.com

MSS DIG 311
THREE FIELD WORKING DAYS BEFORE THE DATE THE JOB IS TO BE SYSTEM

PROJECT SPONSOR:
IVANHOE COMPANIES
6669 ORCHARD LAKE ROAD, SUITE 314
WEST BLOOMFIELD, MI 48322 (248) 626-6114

OVERALL SITE PLAN
THE GROVE
NOVI, MICHIGAN

DATE 1/14/24 SCALE HOR: 1" = 100'
VER: 1" = N/A
DRAWN BY CBB JOB NO. 22149
CHECKED BY DATE SHEET SP-3

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12 MILE ROAD
WIDTH VARIES (PUBLIC)





SIGHT DISTANCE 89'-0"

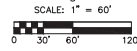
The Meadows

The Vistas

PAVING LEGEND:

(SEE SPECIFICATIONS ON SHEET SP-3.3)

-  HMA PAVEMENT
-  CONCRETE WALK/DRIVEWAY
-  ASPHALT PATHWAY
-  GRAVEL ACCESS DRIVE



SIGNAGE TABLE:

SYMBOL	TYPE	MUNICO. CODE	DESCRIPTION	QUANTITY (TOTAL)
(S)	STOP SIGN	R1-1	30"x30" OCTAGON WITH WHITE LEGEND & BORDER ON RED BACKGROUND.	10
(K)	KEEP RIGHT	R4-7	24"x30" BLACK LEGEND & BORDER ON WHITE BACKGROUND.	3
(L)	SPEED LIMIT	R2-(25)	24"x30" BLACK LEGEND & BORDER ON WHITE BACKGROUND.	22
(N)	STREET SIGN	D3-1	8" HIGH SIGN WITH 4.5" HIGH INITIAL UPPERCASE LETTERS & FOLLOWED W/LOWERCASE LETTERS & BORDERS ON GREEN BACKGROUND.	10
(P)	NO PARKING SIGN	R8-3	12"x12" BLACK LEGEND & BORDER WITH RED CIRCLE AND SLASH ON WHITE BACKGROUND.	38
(BP)	VAN ACCESSIBLE SIGN & PLAQUE	R7-B & R7-8P	18"x12" GREEN LEGEND & BORDER ON WHITE BACKGROUND. 8"x12" GREEN LETTERS ON WHITE BACKGROUND.	1

SIGN NOTES:

- ALL SIGNAGE SHALL COMPLY WITH THE LATEST EDITION OF MUNICO.
- POSTS SUPPORTING RIGHT OF WAY CONTROL (STOP OR YIELD) SIGNS END STREET NAME SIGNS SHALL BE LOCATED 4 FEET IN ADVANCE OF THE ACTUAL OR IMPLIED CROSSWALKS (IE. SIDEWALK STRIPS).
- ALL SIGNAGE SHALL COMPLY WITH THE CITY OF NOVI TRAFFIC CONTROL SIGN STANDARDS. THE FACE OF THE CURB TO THE NEAR EDGE OF THE SIGN.
- SIGNS 12" X 18" OR SMALLER SHALL BE MOUNTED ON A GALVANIZED 3 LB. U-CHANNEL POST.
- SIGNS GREATER THAN 12" X 18" SHALL BE MOUNTED ON A GALVANIZED 3 LB. OR GREATER U-CHANNEL POST.
- SIGN BOTTOM HEIGHT SHALL BE 7" FROM FINAL GRADE.
- SIGNING SHALL BE PLACED 2" FROM FACE/CURB OR SIDEWALK.
- TRAFFIC CONTROL SIGNS SHALL HAVE HIGH INTENSITY PRISMATIC (HIP) SHEETING TO MEET FHWA RETRO-REFLECTIVITY REQUIREMENTS.

CURB AND GUTTER NOTES:

- TYPE A 4"x18" STRAIGHT FACE CONCRETE CURB AND GUTTER
- TYPE B 4"x18" MOUNTABLE CONCRETE CURB AND GUTTER
- TYPE C 4" HIGH INTEGRAL CONCRETE WALK-CURB
- TYPE D MDT B-2 CONCRETE CURB AND GUTTER

TRASH COLLECTION NOTES:

- TRASH COLLECTION SHALL BE CURBSIDE FOR THE MEADOWS, VISTAS, THE PONTE, AND THE CLUBHOUSE.

PAVEMENT MARKING NOTES:

- STANDARD PARKING SPACES SHALL BE STRIPED WITH FOUR (4) INCH WIDE WHITE STRIPES.
- ACCESSIBLE PARKING SPACES AND ASSOCIATED AISLE SHALL BE STRIPED WITH FOUR (4) INCH WIDE BLUE STRIPES.
- WHERE ADA SPACES ABUT NORMAL SPACES, BLUE STRIPES SHOULD ABUT WHITE STRIPES.

NOTE:

ALL DIMENSIONS ARE TO BACK OF CURB OR FACE OF WALK AS SHOWN EXCEPT PARKING STALLS WHICH ARE TO FACE OF CURB.

GENERAL NOTE:

ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOVI, ROAD COMMISSION FOR OAKLAND COUNTY, MDT, OR EOLE STANDARDS AND SPECIFICATIONS HAVING JURISDICTION ON THE WORK.

TRAFFIC NOTE:

CONTRACTOR SHALL PROVIDE ALL MAINTAINING TRAFFIC CONTROL DEVICES AND WARNINGS FOR WORK WITHIN THE 12 MILE ROAD AND MEADOWBROOK ROAD RIGHTS-OF-WAY PER THE CURRENT EDITION OF THE MUNICO, FPO, AND MDT.

ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
SUBMITTAL	7/26/24	PSP SUBMITTAL	1/28/26				
PRO SUBMITTAL	7/26/25						
PRO SUBMITTAL	8/22/25						
PRO UPDATE	11/12/25						

MATCH LINE-SEE SHEET SP-3.2

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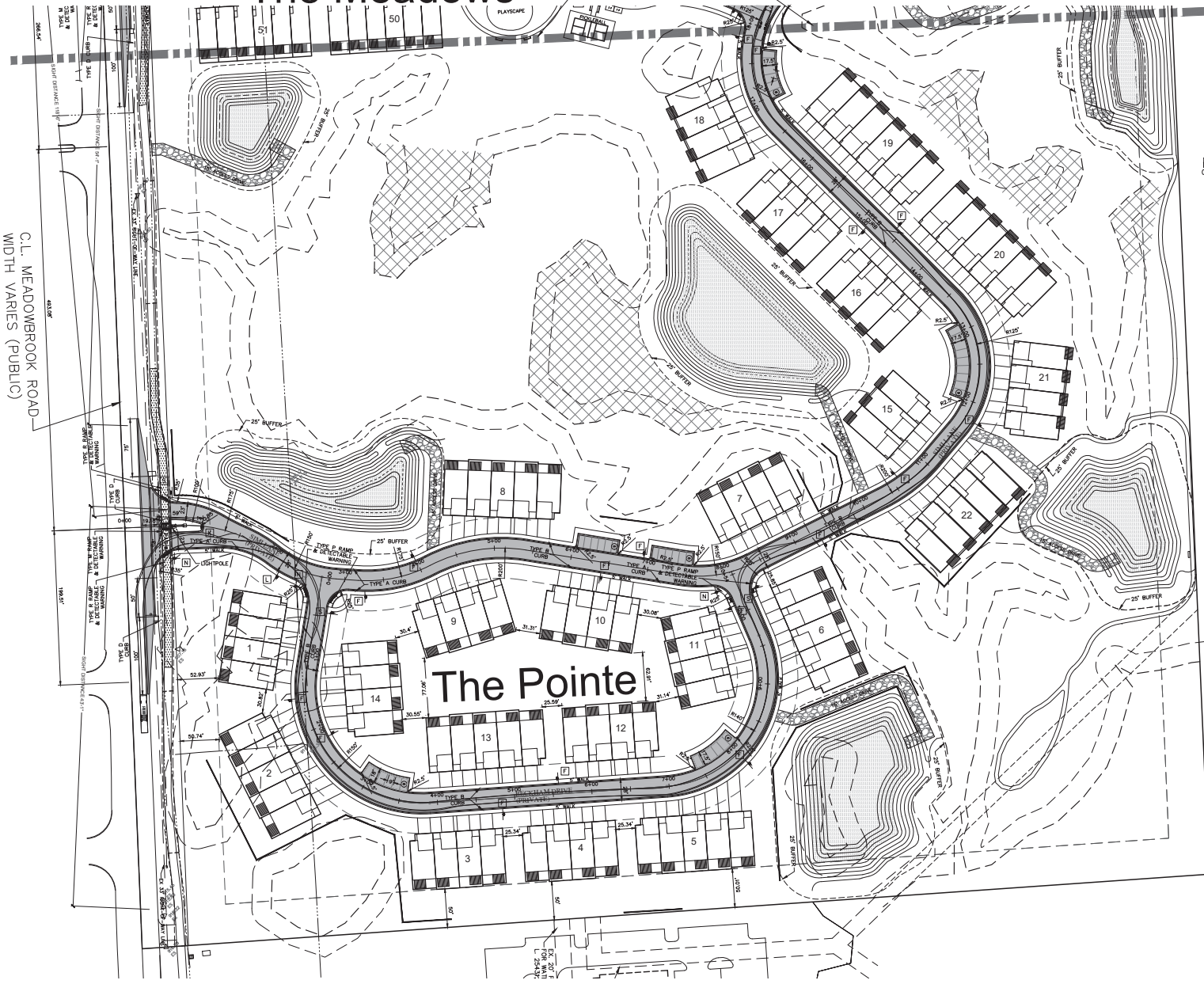
SITE PLAN
THE GROVE
NOVI, MICHIGAN

DATE: 1/14/24 SCALE: HOR: 1" = 60'
VER: 1" = N/A
DESIGNED BY: SRB JOB NO.: 22149
DRAWN BY: DAB SHEET: SP-3.1

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The Meadows

MATCH LINE-SEE SHEET SP-3.1



PAVING LEGEND:
(SEE SPECIFICATIONS ON SHEET SP-3.3)

- HMA PAVEMENT
- CONCRETE WALK/DRIVEWAY
- ASPHALT PATHWAY
- GRAVEL ACCESS DRIVE

SCALE: 1" = 60'

0 30' 60' 120'

SIGNAGE TABLE:

SYMBOL	TYPE	MUTCD CODE	DESCRIPTION	QUANTITY (TOTAL)
[G]	STOP SIGN	R1-1	30"x30" OCTAGON WITH WHITE LEGEND & BORDER ON RED BACKGROUND.	10
[K]	KEEP RIGHT	R4-7	24"x30" BLACK LEGEND & BORDER ON WHITE BACKGROUND.	3
[S]	SPEED LIMIT	R2-1(25)	24"x30" BLACK LEGEND & BORDER ON WHITE BACKGROUND.	3
[N]	STREET SIGN	D3-1	8" HIGH SIGN WITH 4.5" HIGH INITIAL, UPPERCASE LETTERS & FOLLOWED W/LOWERCASE LETTERS & BORDERS ON GREEN BACKGROUND.	10
[P]	NO PARKING SIGN	R8-3	12"x12" BLACK LEGEND & BORDER WITH RED CIRCLE AND SLASH ON WHITE BACKGROUND.	38
[V]	VAN ACCESSIBLE SIGN & PLAQUE	R7-B & R7-SP	18"x12" GREEN LEGEND & BORDER ON WHITE BACKGROUND, 8"x12" GREEN LETTERS ON WHITE BACKGROUND.	1

- SIGN NOTES:**
- ALL SIGNAGE SHALL COMPLY WITH THE LATEST EDITION OF MUTCD.
 - POSTS SUPPORTING RIGHT OF WAY CONTROL (STOP OR YIELD) SIGNS END STREET NAME SIGNS SHALL BE LOCATED 4 FEET IN ADVANCE OF THE ACTUAL OR IMPLIED CROSSWALKS (E.G. SIDEWALK STRIPS).
 - ALL SIGNAGE SHALL COMPLY WITH THE CITY OF NOV TRAFFIC CONTROL SIGN STANDARDS. THE FACE OF THE CURB TO THE NEAR EDGE OF THE SIGN.
 - SIGNS 12" X 18" OR SMALLER SHALL BE MOUNTED ON A GALVANIZED 2 LB. U-CHANNEL POST.
 - SIGNS GREATER THAN 12" X 18" SHALL BE MOUNTED ON A GALVANIZED 3 LB. OR GREATER U-CHANNEL POST.
 - SIGN BOTTOM HEIGHT SHALL BE 7" FROM FINAL GRADE.
 - SIGNING SHALL BE PLACED 2' FROM FACE/CURB OR SIDEWALK.
 - FHWA STANDARD ALPHABET SERIES USED FOR ALL SIGN LANGUAGE.
 - TRAFFIC CONTROL SIGNS SHALL HAVE HIGH INTENSITY PRISMATIC (HIP) SHEETING TO MEET FHWA RETRO-REFLECTIVITY REQUIREMENTS.

- CURB AND GUTTER NOTES:**
(SEE DETAILS ON SHEET SP-3.3)
- TYPE A 4"x18" STRAIGHT FACE CONCRETE CURB AND GUTTER
 - TYPE B 4"x18" MOUNTABLE CONCRETE CURB AND GUTTER
 - TYPE C 4" HIGH INTEGRAL CONCRETE WALK-CURB
 - TYPE D MDOT B-2 CONCRETE CURB AND GUTTER

- TRASH COLLECTION NOTES:**
- TRASH COLLECTION SHALL BE CURBSIDE FOR THE MEADOWS, VISTAS, THE PONTE, AND THE CLUBHOUSE.

- PAVEMENT MARKING NOTES:**
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 - WHERE ADA SPACES ABUT NORMAL SPACE, BLUE STRIPES SHOULD ABUT WHITE STRIPES.

NOTE:
ALL DIMENSIONS ARE TO BACK OF CURB OR FACE OF WALK AS SHOWN EXCEPT PARKING STALLS WHICH ARE TO FACE OF CURB.

GENERAL NOTE:
ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOV, ROAD COMMISSION FOR OAKLAND COUNTY, MDOT, OR EGLE STANDARDS AND SPECIFICATIONS HAVING JURISDICTION ON THE WORK.

TRAFFIC NOTE:
CONTRACTOR SHALL PROVIDE ALL MAINTAINING TRAFFIC CONTROL DEVICES AND WARNINGS FOR WORK WITHIN THE 12 MILE ROAD AND MEADOWBROOK ROAD RIGHTS-OF-WAY PER THE CURRENT EDITION OF THE MUTCD, RCCO, AND MDOT.

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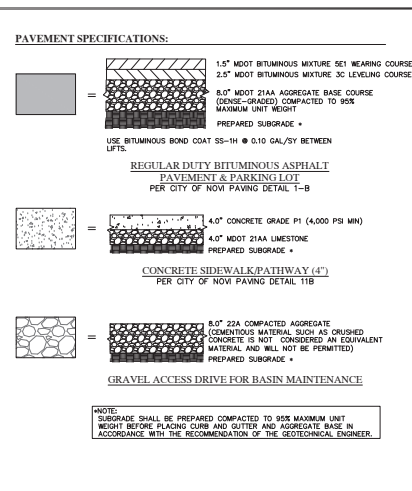
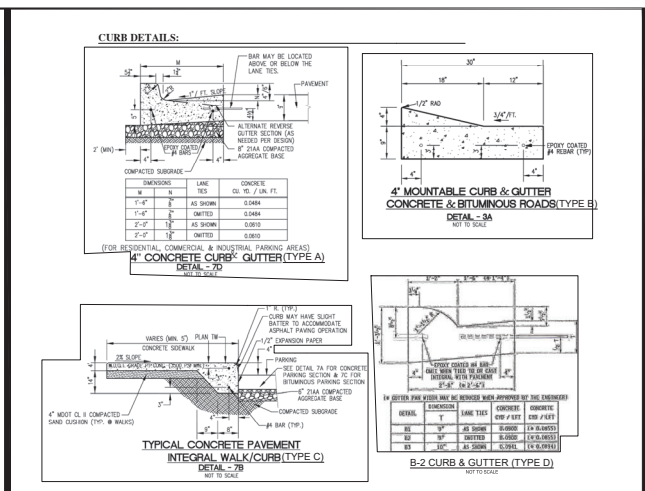
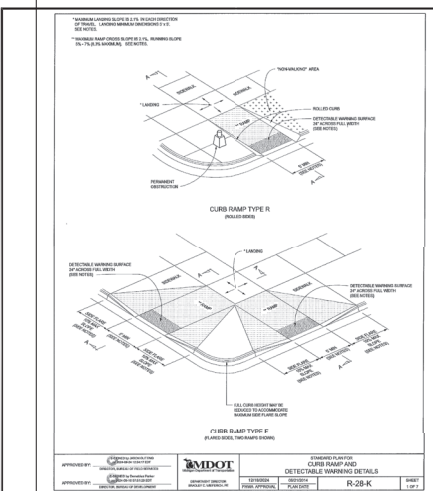
ZEIMET WOZNAK
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SITE PLAN
THE GROVE
NOV, MICHIGAN

DATE: 1/14/24 SCALE: HOR: 1" = 60'
VER: 1" = N/A
DRAWN BY: SRB JOB NO.: 22149
DATE: SHEET SP-3.2



GENERAL SITE NOTES:

- ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOW STANDARDS AND SPECIFICATIONS.
- STORM WATER WILL BE ACCOMMODATED VIA UNDERGROUND PIPES. STORM WATER DETENTION WILL OCCUR ON-SITE IN NEW DETENTION PONDS.
- ROOFTOP EQUIPMENT MUST BE SCREENED PER ORDINANCE REQUIREMENTS.
- EXTERIOR LIGHTING MUST COMPLY WITH SECTION 2511 OF THE CITY OF NOW CODE.
- ALL SIGNS SHALL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES (CHAPTER 28) OF THE CITY OF NOW.
- NO SIGNS (OTHER THAN TYPICAL TRAFFIC CONTROL SIGNS) ARE APPROVED AS A PART OF THIS SITE PLAN PRIOR TO ERECTION OF A SIGN. AN APPLICATION SHALL BE MADE AND SHALL BE REVIEWED AND APPROVED BY THE NOW BUILDING DEPARTMENT.
- ALL PARKING AND TRAFFIC CONTROL SIGNS SHALL COMPLY WITH THE DESIGN AND PLACEMENT REQUIREMENTS OF THE CURRENT EDITION OF THE "MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD).
- CONTRACTOR SHALL NOTIFY THE CITY OF NOW A MINIMUM OF 48 HOURS PRIOR TO THE START OF ANY WORK.
- CALL WIS (811) A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
- ALL SOIL EROSION AND SILT MUST BE CONTROLLED AND CONTAINED ON SITE.
- ALL EXCAVATION UNDER OR WITHIN A 5:1 INFLUENCE OF PAVEMENT, EXISTING OR PROPOSED SHALL BE BACKFILLED AND COMPACTED WITH SAND (MDOT CLASS II MATERIAL).
- THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES, CURBS, WALKS, DRIVES, ETC. AS A RESULT OF HIS OPERATIONS.
- PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY, ENGINEERING SITE INSPECTION IS REQUIRED.
- IF DETERMINED IS ANTICIPATED OR ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR IS REQUIRED TO SUBMIT A DETERMINING PLAN TO THE CITY ENGINEERING DIVISION FOR REVIEW.
- ONLY NECESSARY LIGHTING FOR SECURITY PURPOSES AND LIMITED OPERATIONS SHALL BE USED AFTER THE BUILDING'S HOURS OF OPERATIONS.
- FLASHING LIGHTS SHALL NOT BE PERMITTED.
- OUTSIDE STORAGE SHALL NOT BE PERMITTED.
- CONTRACTOR SHALL FIELD VERIFY THE LOCATION, DEPTH, AND SIZE OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION AND SHALL NOTIFY THE DESIGN ENGINEER IF ANY CONFLICTS ARE APPARENT.
- ELECTRIC SERVICE TO LIGHT FIXTURES SHALL BE PLACED UNDERGROUND.

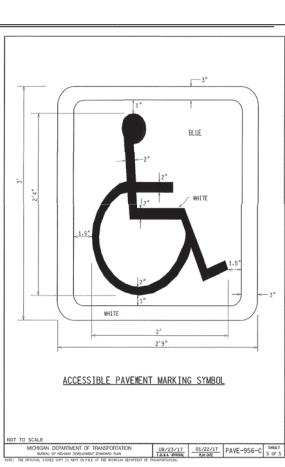
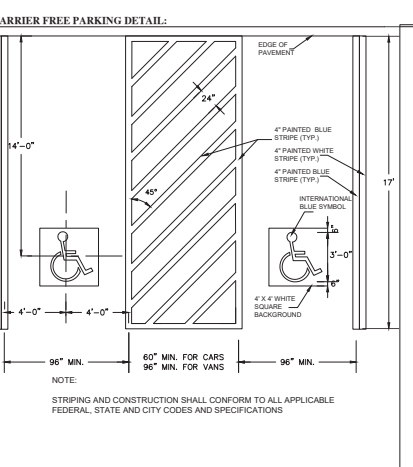
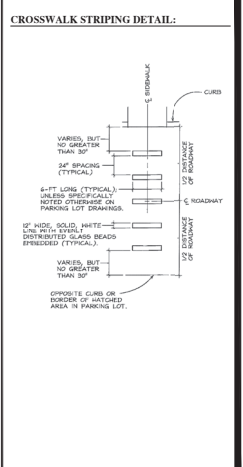
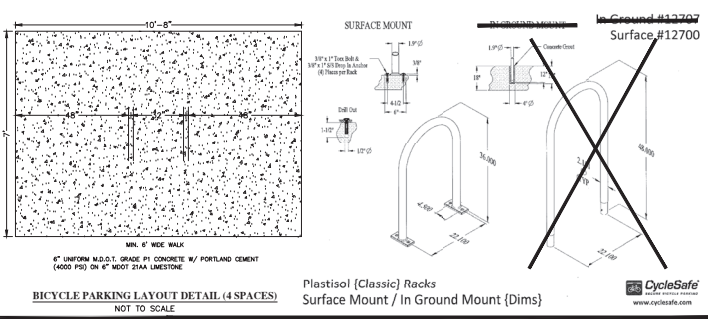
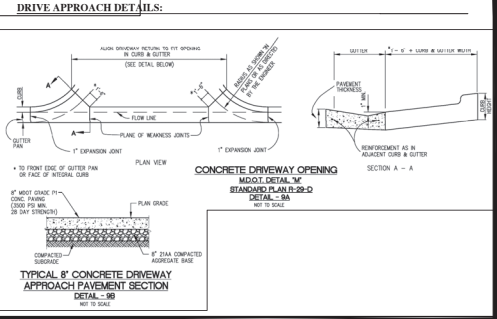
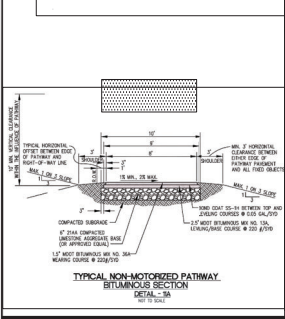
GENERAL CONSTRUCTION NOTES:

THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THE PROJECT.

- ALL DIMENSIONS SHOWN ARE TO BACK OF CURB, FACE OF SIDEWALK, OUTSIDE FACE OF BUILDING, PROPERTY LINE, CENTER OF MANHOLE/CATCH BASIN OR CENTERLINE OF PIPE UNLESS OTHERWISE NOTED EXCEPT FOR PARKING SPACES WHICH ARE TO FACE OF CURB.
- "NO PARKING-FIRE LANE" SIGNS SHALL BE POSTED ALONG ALL FIRE LINES AT 100 FOOT INTERVALS OR AS DIRECTED BY THE FIRE OFFICIAL.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF NOW CURRENT STANDARDS AND REGULATIONS.
- THE CONTRACTOR SHALL NOTIFY HIS CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- ANY WORK WITHIN THE PUBLIC STREET RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION AND SHALL NOT BEGAN UNTIL ALL NECESSARY PERMITS HAVE BEEN ISSUED OR MODIFIED.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST THE TOP OF ALL EXISTING AND PROPOSED STRUCTURES (MANHOLES, CATCH BASINS, INLETS, GATE WELLS ETC.) WITHIN GRADED AND/OR PAVED AREAS TO FINAL GRADE SHOWN ON THE PLANS. ALL SUCH ADJUSTMENTS SHALL BE INCIDENTAL TO THE JOB AND NOT BE PAID FOR SEPARATELY.

GRADING NOTES:

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF NOW.
- ALL NECESSARY PERMITS, TESTING, BONDS AND INSURANCE ETC., SHALL BE PAID FOR BY THE CONTRACTOR. THE OWNER SHALL PAY FOR THE CITY INSPECTION FEE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL DURING THE PERIODS OF CONSTRUCTION. THIS SHALL BE CONSIDERED INCIDENTAL TO THE JOB.
- PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT MGS D (811) TO VERIFY THE LOCATION OF ANY EXISTING UNDERGROUND UTILITIES AND SHALL NOTIFY OTHER REPRESENTATIVES OF OTHER UTILITIES IN THE VICINITY OF THE WORK.
- ALL PROPERTIES OR FACILITIES IN THE SURROUNDING AREA, PUBLIC OR PRIVATE, DESTROYED OR OTHERWISE DISTURBED DUE TO CONSTRUCTION SHALL BE REPLACED AND/OR RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR.
- MANHOLE, CATCH BASIN, GATE VALVES AND HYDRANT FINISH GRADES MUST BE CLOSELY CHECKED AND APPROVED BY THE ENGINEER BEFORE THE CONTRACTOR'S WORK IS CONSIDERED COMPLETE.
- CONTRACTOR SHALL REMOVE AND DISPOSE OF OFF-SITE ANY TREES, BRUSH, STUMPS, TRASH OR OTHER UNWANTED DEBRIS AT THE OWNER'S DIRECTION, INCLUDING OLD BUILDING FOUNDATIONS AND FLOORS, BURNING OF TRASH, STUMPS OR OTHER DEBRIS SHALL NOT BE PERMITTED.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADES, LIGHTS AND TRAFFIC CONTROL DEVICES TO PROTECT THE WORK AND SAFELY CONTAIN TRAFFIC IN ACCORDANCE WITH "MUTCD".
- ALL EXCAVATIONS SHALL BE SLOPED, SHORED OR BRACED IN ACCORDANCE WITH M-694 REQUIREMENTS. THE CONTRACTOR PROVIDES AN ADEQUATELY CONSTRUCTED AND BRACED SHORING SYSTEM FOR EMPLOYEES WORKING IN AN EXCAVATION THAT MAY EXPOSE EMPLOYEES TO THE DANGER OF MOVING AROUND.
- ALL REFERENCES TO M.D.O.T. SPECIFICATIONS ARE TO BE IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS FOR CONSTRUCTION.



WATER MAIN NOTES:

- ALL WATER MAIN SHALL BE INSTALLED WITH A MINIMUM COVER OF 6.0' BELOW FINISH GRADE. WHEN WATER MAINS MUST DIP TO PASSES UNDER A STORM SEWER OR SANITARY SEWER, THE SECTIONS WHICH ARE DEEPER THAN NORMAL SHALL BE KEPT TO A MINIMUM LENGTH BY THE USE OF VERTICAL TWENTY TWO AND A HALF (22.5) DEGREE BENDS, PROPERLY ANCHORED.
- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF NOW.
- ALL TRENCHES UNDER OR WITHIN THREE (3) FEET OR THE FORTY FIVE (45) DEGREE ZONE OF INFLUENCE LINE OF EXISTING AND/OR PROPOSED PAVEMENT, BUILDING PAD OR DRIVE APPROACH SHALL BE BACKFILLED WITH SAND COMPACTED TO AT LEAST NINETY-FIVE (95%) PERCENT OF MAXIMUM UNIT WEIGHT (ASTM D-1557). ALL OTHER TRENCHES TO BE COMPACTED TO 90% OR BETTER.
- ALL TEES, BENDS, CONNECTIONS, ETC. ARE CONSIDERED INCIDENTAL TO THE JOB.
- PHYSICAL CONNECTIONS SHALL NOT BE MADE BETWEEN EXISTING AND NEW WATER MAINS UNTIL TESTING IS SATISFACTORILY COMPLETED.
- MAINTAIN 10' HORIZONTAL CLEARANCE BETWEEN OUTER EDGE OF WATER MAIN AND ANY SANITARY SEWER OR STRUCTURE.
- ALL WATER MAIN SHALL BE CASTLE IRON CLASS 54 WITH POLYETHYLENE WRAP.
- REFER TO CITY OF NOW WATER MAIN DETAIL SHEETS FOR ADDITIONAL INFORMATION.

SANITARY SEWER NOTES:

- DOWNSPOUTS, WEE PILE, FOOTING DRAINS OR ANY CONDUIT THAT CARRIES STORM OR GROUND WATER SHALL NOT BE ALLOWED TO DISCHARGE INTO A SANITARY SEWER.
- ALL SANITARY LEADS SHALL BE CONSTRUCTED OF PVC SDR 25.2 AT 1.00% MINIMUM SLOPE.
- ALL SANITARY SEWER SHALL BE CONSTRUCTED OF PVC TRUSS PIPE WITH A MINIMUM DIAMETER OF 8" PER CITY REQUIREMENTS.
- JOINTS FOR P.V.C. SOLID WALL PIPE SHALL BE ELASTOMERIC (RUBBER GASKET) AS SPECIFIED IN ASTM DESIGNATION D-3121.
- REFER TO CITY OF NOW STANDARD DETAILS FOR PIPE BEDDING DETAILS.
- REFER TO CITY OF NOW SANITARY SEWER DETAIL SHEETS FOR ADDITIONAL INFORMATION.
- SANITARY LEADS WILL BE AT LEAST 5'-FEET DEEP WHERE UNDER THE INFLUENCE OF PAVEMENT.

STORM SEWER NOTES:

- ALL STORM SEWER 12" AND LARGER SHALL BE RCP CLASS IV UNLESS OTHERWISE NOTED. REFER TO CITY OF NOW STANDARD DETAILS SHEET FOR STANDARD BEDDING DETAILS.
- JOINTS FOR ALL STORM SEWER 12" AND LARGER SHALL BE MOODED TONGUE AND GROOVE JOINT WITH RUBBER GASKETS UNLESS SPECIFIED OTHERWISE (ASTM C-443).
- ALL STORM SEWER LEADS SHALL BE CONSTRUCTED OF PVC SCHEDULE 40 PIPE AT 1.00% MINIMUM SLOPE WITH GLEED JOINTS. UNLESS OTHERWISE NOTED, REFER TO CITY OF NOW DETAILS FOR BEDDING DETAILS.
- REFER TO CITY OF NOW STORM SEWER DETAIL SHEETS FOR ADDITIONAL INFORMATION.
- A MINIMUM COVER OF 3'-FEET SHALL BE MAINTAINED OVER ALL PROPOSED STORM SEWER UNLESS OTHERWISE NOTED.

PAVING NOTES:

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF NOW, BIDDING AND M.D.O.T.
- IN AREAS WHERE NEW PAVEMENTS ARE BEING CONSTRUCTED, THE TOPSOIL AND SOIL CONTAINING ORGANIC MATTER SHALL BE REMOVED PRIOR TO PAVEMENT CONSTRUCTION.
- SUBGRADE UNDERLITING, INCLUDING BACKFILLING SHALL BE PERFORMED TO REPLACE MATERIALS SUSCEPTIBLE TO FILL HEAVING AND UNSTABLE SOIL CONDITIONS. ANY EXCAVATIONS THAT MAY BE REQUIRED BELOW THE TOPSOIL IN FULL SECTIONS OR BELOW SUBGRADE IN CUT SECTIONS, WILL BE CLASSIFIED AS SUBGRADE UNDERLITING. SUBGRADE UNDERLITING SHALL BE PERFORMED WHERE NECESSARY AND THE EXCAVATED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR. ANY SUBGRADE UNDERLITING SHALL BE BACKFILLED WITH SAND OR OTHER SIMILAR APPROVED MATERIAL. BACKFILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM UNIT WEIGHT (PER ASTM D-1557) UNLESS OTHERWISE SPECIFIED.
- BACKFILL UNDER PAVED AREAS SHALL BE AS SPECIFIED ON DETAILS.
- ANY SUB-GRADE WATERING REQUIRED TO ACHIEVE REQUIRED DENSITY SHALL BE CONSIDERED INCIDENTAL TO THE JOB.

FIRE DEPARTMENT NOTES:

- WATER MAINS AND FIRE HYDRANTS SHALL BE INSTALLED AND OPERATIONAL PRIOR TO ANY COMBUSTIBLE MATERIAL IS BROUGHT ON-SITE. (CFC 2105 332(2)).
- ALL NEW MULTIFAMILY RESIDENTIAL BUILDING SHALL BE NUMBERED WITH A MINIMUM 10" HIGH BY 1" WIDE NUMBERS A MINIMUM 15 FEET ABOVE THE GROUND ON THE BUILDING WHERE READILY VISIBLE FROM THE STREET SIDE.
- FIRE APPARATUS ACCESS DRIVES TO AND FROM BUILDINGS THROUGH PARKING LOTS SHALL HAVE A MINIMUM FIFTY (50) FOOT OUTSIDE TURNING RADIUS AND DESIGNED TO SUPPORT A MINIMUM OF THIRTY-FIVE (35) TONS. IMMEDIATE ACCESS TO FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED AT ALL TIMES AND WITHOUT OBSTRUCTION BY FENCES, BUSHES, TREES, WALLS, OR ANY OTHER OBJECT FOR A MINIMUM OF 3'-FEET. FIRE LINES SHALL BE DESIGNATED BY THE FIRE CHIEF. THE MINIMUM WIDTH OF A POSTED FIRE LANE IS 20' AND THE MINIMUM CLEAR HEIGHT OF THE FIRE LANE IS 14'.
- PROPOSED BUILDINGS DO NOT HAVE FIRE SUPPRESSION SYSTEMS.

GENERAL UTILITY NOTES:

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY OF NOW.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY AND/OR OBTAIN ANY INFORMATION NECESSARY REGARDING THE PRESENCE OF UNDERGROUND UTILITIES, WHICH MUST AFFECT THIS JOB.
- ALL TRENCHES UNDER OR WITHIN THREE (3) FEET OR THE FORTY-FIVE (45) DEGREE ZONE OF INFLUENCE LINE OF EXISTING AND/OR PROPOSED PAVEMENT, BUILDING PAD OR DRIVE APPROACH SHALL BE BACKFILLED WITH SAND COMPACTED TO AT LEAST NINETY-FIVE (95) PERCENT OF MAXIMUM UNIT WEIGHT (ASTM D-1557). ALL OTHER TRENCHES TO BE COMPACTED TO 90% OR BETTER.
- WHENEVER EXISTING MANHOLES OR SEWER PIPE ARE TO BE TAPPED, DRILL HOLES 4" CENTER TO CENTER, AROUND PERIPHERY OF OPENING TO CREATE A PLANE OF WEARNESS JOINT BEFORE BREAKING SECTION OUT. EXACT GRADINGS AND DEPTHS OF UTILITIES ARE TO BE CHECKED CLOSELY WITH THE FIELD ENGINEER PRIOR TO INSTALLATION.
- REFER TO CITY OF NOW STANDARD DETAIL SHEETS FOR ADDITIONAL INFORMATION.

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PRO SUBMITTAL	8/22/25						
PRO UPDATE	9/12/25						

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MISG 811
THREE FULL WORKING DAYS BEFORE START OF DIG SYSTEM

PAVING NOTES AND DETAILS
THE GROVE
NOW, MICHIGAN

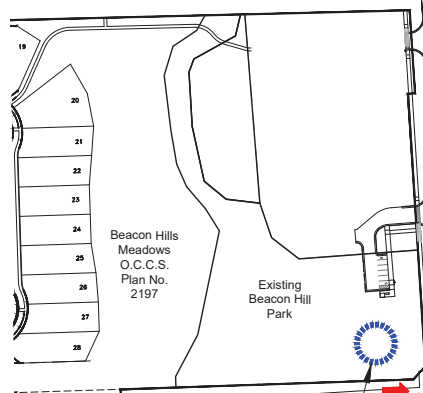
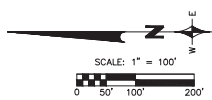
DATE: 9/24/24 SCALE: HOR: 1" = N/A
DESIGNED BY: GSE JOB NO: 22149
DRAWN BY: DAB SHEET: SP-3.3

Wetland Conservation Easement- Typical

Grove Nature Area Trail

12 Mile Road Park and Open Space (1 Acre)

Novi Public Bus Stop



Beacon Hill Park Improvements

Parcel A

Novi Offsite Pathway

Novi Connectivity Sidewalk

Woodland Conservation Easement- Typical



THE GROVE PUBLIC BENEFITS

- 12 MILE ROAD PARK AND OPEN SPACE**
CREATE A ONE-ACRE OPEN SPACE PARK AREA ALONG 12 MILE ROAD AT THE NORTHEAST CORNER OF THE SITE, ACCESSIBLE TO RESIDENTS AND MEMBERS OF THE GENERAL PUBLIC. AN EASEMENT TO ALLOW THE PUBLIC TO USE THE PARK WILL BE GRANTED TO THE CITY OF NOVI. THIS PARK WILL PROVIDE A PEDESTRIAN AND BIKE REST STOP AREA ALONG THE NEWLY INSTALLED 10' WIDE CONNECTOR SIDEWALK FOR THE RESIDENTS AND PUBLIC AT LARGE.
- GROVE NATURE AREA TRAIL**
CREATE A NATURE TRAIL, ACCESSIBLE TO RESIDENTS AND MEMBERS OF THE GENERAL PUBLIC, THAT EXTENDS FROM THE NEWLY CREATED 12 MILE ROAD PARK, ALONG THE EAST PROPERTY LINE OF THE GROVE, PROVIDING SCENIC VIEWS OF THE ADJACENT 30-ACRE NATURAL WETLAND AREA. THE TRAIL IS APPROXIMATELY A ONE-MILE LOOP AND WILL HAVE MULTIPLE CONNECTIONS WITHIN THE GROVE FOR OVER THREE MILES OF INTERNAL PATHWAYS AND SIDEWALKS.
- BEACON HILL PARK IMPROVEMENTS**
IN ORDER TO ADDRESS THE IMPACT OF THE INCREASED USE OF BEACON HILL PARK BY THE NEW RESIDENTS OF THE GROVE DUE TO THE CLOSE PROXIMITY OF THE GROVE TO THE EXISTING BEACON HILL PARK AND THE PLANNED ACCESS AND INTERCONNECTIVITY FOR NOV RESIDENTS TO UTILIZE THE NEW GROVE 12 MILE PARK AND NATURE TRAIL, DEVELOPER AGREES TO PROVIDE \$25,000 TO THE CITY TO BE USED BY THE CITY, AT ITS DISCRETION, FOR BEACON HILL PARK IMPROVEMENTS, SERVICES AND/OR MAINTENANCE.
- NOVI OFF-SITE PATHWAY**
CONSTRUCT OVER 700 FEET OF 10' WIDE PATHWAY, OFF-SITE ON THE SOUTH SIDE OF 12 MILE RD. TO CREATE A CONNECTION FROM THE EXISTING BEACON HILL PARK AND PARKING LOT TO THE GROVE 12 MILE ROAD PARK AND OPEN SPACE. THIS NEW PATHWAY CONNECTION IS A LONG-TERM NETWORK GOAL OF THE CITY OF NOVI'S 2023 ACTIVE MOBILITY PLAN.
- NOVI PUBLIC BUS STOP**
CONSTRUCT A NEW "COVERED STOP" BUS STOP IN ACCORDANCE WITH THE SMART BUS STOP DESIGN HANDBOOK, DATED JANUARY 2022. THIS BUS STOP IS SUPPORTED BY SMART, AND WILL INCLUDE ADJACENT SEATING, BIKE RACKS, AND LANDSCAPE AREA ALONG 12 MILE ROAD TO PROVIDE TRANSPORTATION OPTIONS FOR THE ENTIRE NOVI COMMUNITY.
- INCREASE USEABLE OPEN SPACE**
INCREASE USEABLE OPEN SPACE BY OVER 260% FROM THE REQUIRED 1.65 ACRES TO 5.97 ACRES. TOTAL OPEN SPACE IS APPROXIMATELY 1/3 OF THE PROPERTY.
- NOVI CONNECTIVITY SIDEWALK**
CONSTRUCT A NEW 8' WIDE SIDEWALK ALONG THE ARTERIAL ROAD WITHIN THE GROVE TO PROVIDE PEDESTRIAN AND BIKE CONNECTIVITY BETWEEN MEADOWBROOK ROAD AND 12 MILE ROAD, WHICH WILL ALLOW PEDESTRIANS AND BIKERS TO BYPASS THE CORNER BUSINESS PROPERTY AND ALLOW EASER ACCESS TO THE 12 MILE ROAD PARK AND NATURE TRAIL. THIS IS AN OBJECTIVE OF THE CITY OF NOVI'S 2023 ACTIVE MOBILITY PLAN.
- DEDICATION OF WOODLAND AND WETLAND CONSERVATION AREAS**
PROTECT APPROXIMATELY 10.2 ACRES OF 10 SEPARATE WOODLANDS AND WOODLAND REPLACEMENT AREAS AND APPROXIMATELY 15.6 ACRES OF 10 SEPARATE WETLANDS AND WETLAND MITIGATION AREAS WITH CONSERVATION EASEMENTS. THE COMBINED CONSERVATION EASEMENTS WILL ENSURE THAT OVER 47% OF THE PROPERTY REMAINS UNTOUCHED FOR FUTURE GENERATIONS.
- DECREASED DENSITY**
DECREASE DENSITY FROM 7.3 UNITS PER ACRE, WHICH IS THE MAXIMUM ALLOWED FOR THREE-BEDROOM UNITS IN THE NOW PROPOSED RM-1 ZONING DISTRICT CRITERIA, TO 4.23 UNITS PER ACRE. THIS PROVIDES THE OPPORTUNITY TO INCREASE OPEN SPACE AND DECREASE WETLAND AND WOODLAND IMPACT.
- MEADOWBROOK ROAD RIGHT-OF-WAY DEDICATION**
DEDICATE RIGHT-OF-WAY ALONG THE ENTIRE MEADOWBROOK ROAD FRONTAGE (2,166 FEET). THE TOTAL LAND AREA TO BE DEDICATED IS APPROXIMATELY 2.5 ACRES.

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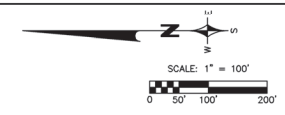


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PUBLIC BENEFITS PLAN
THE GROVE
NOVI, MICHIGAN

DATE 1/14/24 SCALE HOR: 1" = 100'
VER: 1" = N/A
DESIGNED BY SRB JOB NO. 22149
DRAWN BY DAB SHEET SP-3.5

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LEGEND

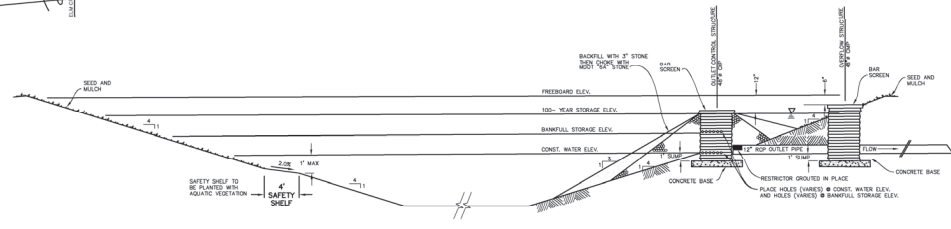
EXISTING		PROPOSED	
○	MANHOLE	●	MANHOLE
□	CATCH BASIN	■	CATCH BASIN
□	INLET	■	INLET
○	CLEANOUT	○	CLEANOUT
◁	END SECTION	◁	END SECTION
○	ROOF DRAIN	◊	ROOF DRAIN
○	GATE VALVE	◊	GATE VALVE
⊕	HYDRANT	⊕	HYDRANT
⊕	WATER SHUT-OFF	⊕	WATER SHUT-OFF
⊕	UTILITY POLE	⊕	UTILITY POLE
⊕	QUIY ANCHOR	⊕	QUIY ANCHOR
⊕	LIGHT POLE	⊕	LIGHT POLE
⊕	3R/1	⊕	3R/1
⊕	TREE	⊕	TREE
⊕	TREE LINE	⊕	TREE REMOVAL
⊕	SANITARY SEWER	⊕	SANITARY SEWER
⊕	STORM SEWER	⊕	STORM SEWER
⊕	WATER MAIN	⊕	WATER MAIN
⊕	GAS MAIN	⊕	WATER MAIN
⊕	ELECTRIC CABLE	⊕	CONTOUR MAJOR
⊕	CONTOUR MAJOR	⊕	CONTOUR MINOR
⊕	CONTOUR MINOR	⊕	SPOT ELEVATION
⊕	SPOT ELEVATION	⊕	PROPOSED GRADE

PROPOSED GRADE
 99.0 = TOP OF CURB
 T/C = TOP OF WALK
 T/P = TOP OF PAVEMENT
 T/B = TOP OF BANK
 G = GROUND
 D = DITCH
 C/L = CUTTER
 FG = FINISH GRADE
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 BF = BASEMENT FLOOR
 BL = BRICK LEDGE

ALL PROPOSED GRADES IN PAVEMENT ARE TOP OF PAVEMENT OR GUTTER.



- NOTES**
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DETENTION BASIN OUTLET DETAIL
N.T.S.

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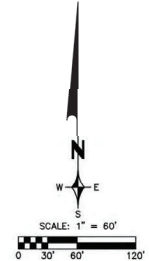


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OVERALL GRADING PLAN
THE GROVE
 NOV, MICHIGAN

DATE	1/14/24	SCALE	HOR: 1" = 100'
DESIGNED BY	GRB	JOB NO.	22149
DRAWN BY	DATE	SHEET	SP-4

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- LEGEND**
- EXISTING**
- MANHOLE
 - CATCH BASIN
 - ⊞ INLET
 - ⊞ CLEANOUT
 - ⊞ END SECTION
 - ⊞ ROOF DRAIN
 - ⊞ GATE VALVE
 - ⊞ HYDRANT
 - ⊞ WATER SHUT-OFF
 - ⊞ UTILITY POLE
 - ⊞ GUY ANCHOR
 - ⊞ LIGHT POLE
 - ⊞ SIGN
 - ⊞ TREE
 - TREE LINE
 - SANITARY SEWER
 - STORM SEWER
 - WATER MAIN
 - GAS MAIN
 - ELECTRIC CABLE
 - CONTOUR MAJOR
 - CONTOUR MINOR
 - SPOT ELEVATION

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 - DITCH
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- WETLAND LEGEND**
- ▨ WETLAND
 - ▨ MITIGATION AREA

- NOTES:**
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GRADING PLAN
THE GROVE
 NOVI, MICHIGAN

DATE: 1/14/24 SCALE: HOR: 1" = 60'
 VER: 1" = N/A
 DRAWN BY: SRS JOB NO: 22149
 CHECKED BY: SRS SHEET: SP-4.1

MATCH LINE-SEE SHEET SP-4.1



- LEGEND**
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 - ▨ WETLAND MITIGATION AREA

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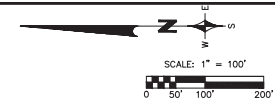
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GRADING PLAN
THE GROVE
 NOV, MICHIGAN

DATE: 1/14/24 SCALE: HOR: 1" = 60'
 VER: 1" = N/A
 DRAWN BY: GRS JOB NO: 22149
 CHECKED BY: GRS SHEET: SP-4.2

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PRE-DEVELOPMENT DRAINAGE MASTER PLAN TABLE							
DRAINAGE AREAS	TOTAL AREA	MARSH	MEADOW/BRUSH	Z CA	V ₁ (CF)	V ₁₀₀ (CF)	V ₁₀₀ (CF)
AREA FROM EACH DRAINAGE (ACRES)							
1	31.87	9.21	22.66	7.30	56139	88711	138760
2	0.89	0.54	0.34	0.23	1770	2797	4375
3	1.85	0.30	1.55	0.40	3078	4884	7608
4	1.23	0.17	1.06	0.26	2024	3169	5003
5	5.78	2.29	3.49	1.39	10858	16842	26344
6	2.52	0.82	1.90	0.57	4356	6883	10766
7	1.77	0.19	1.58	0.37	2870	4536	7095
8	0.85	0.21	0.34	0.13	1008	1593	2492
9	2.81	0.90	1.71	0.61	4710	7442	11641
10	2.64	0.49	2.15	0.58	4440	7017	10975
11	0.86	0.15	0.81	0.21	1393	2517	3937
12	1.98	0.47	1.51	0.44	3408	5307	8426
13	4.14	1.97	2.17	1.03	7886	12465	19497
14	5.94	0.87	5.07	1.28	9812	15505	24252
15	0.87	0.25	0.62	0.20	1351	2100	3785
16	1.46	0.58	0.88	0.35	2693	4256	6657

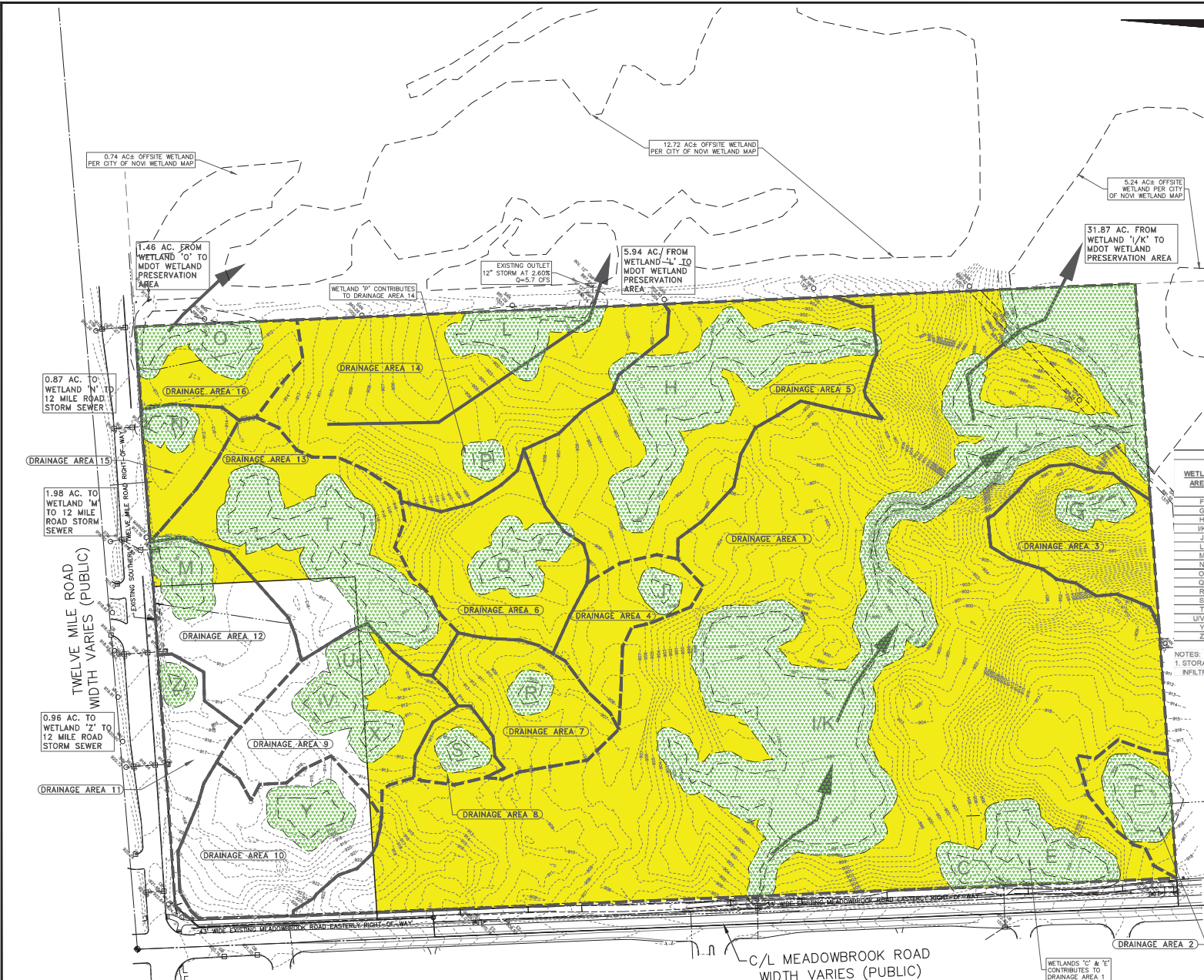
- NOTE:
- RUNOFF COEFFICIENTS BASED ON HYDROLOGIC GROUP 'B' SOILS
 - V₁ BASED ON 2.12" OF EXPECTED RAINFALL FOR A 1-YR STORM EVENT OF 24-HR DURATION FOR FARMINGTON, MICHIGAN (NO. 14, VOL. 8, VER. 2)
 - V₁₀₀ BASED ON 5.24" OF EXPECTED RAINFALL FOR A 10-YR STORM EVENT OF 24-HR DURATION FOR FARMINGTON, MICHIGAN (NO. 14, VOL. 8, VER. 2)
 - V₁₀₀ BASED ON 5.24" OF EXPECTED RAINFALL FOR A 100-YR STORM EVENT OF 24 HR DURATION FARMINGTON, MICHIGAN (NO. 14, VOL. 8, VER. 2)

PRE-DEVELOPMENT WETLAND STORAGE TABLE							
WETLAND AREAS	SURFACE AREA (SQ. FT.)	V ₁ (CF)	V ₁₀₀ (CF)	V ₁₀₀ (CF)	DEPTH OF WATER @ V ₁	DEPTH OF WATER @ V ₁₀₀	DEPTH OF WATER @ V ₁₀₀
F	12485	1770	2797	4375	1.70	2.69	4.21
G	2713	3078	4884	7608	13.81	6.58	33.65
H	48932	10858	16842	26344	2.51	4.13	6.52
JK	208852	56139	88711	138760	3.23	5.10	7.98
J	1505	2024	3198	5003	16.14	25.50	39.89
L	12415	9812	15505	24252	9.48	14.99	23.44
M	8928	3408	5387	8426	4.58	7.24	11.33
N	2596	1531	2420	3785	7.08	11.19	17.50
O	16578	2693	4256	6657	1.95	3.08	4.82
Q	10073	4356	6883	10766	5.19	8.20	12.83
R	1924	2870	4536	7095	17.90	28.29	44.25
S	2179	1008	1593	2492	5.55	8.77	13.72
T	42268	7886	12465	19497	2.24	3.54	5.54
UVX	14364	4710	7442	11641	3.83	6.22	9.73
Y	9010	4440	7017	10975	5.91	9.35	14.62
Z	1078	1593	2517	3937	17.75	28.02	43.83

- NOTES:
- STORAGE DEPTH DOES NOT TAKE INTO ACCOUNT SUBSURFACE STORAGE OR INFILTRATION, OR TIME OF CONCENTRATION TO REACH WETLAND.

PRE-DEVELOPMENT LEGEND:

- MARSH (C=0.30)
- MEADOW/BRUSH (C=0.20)
- PRE-DEVELOPMENT DRAINAGE DIVIDE



ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
SUBMITTAL	7/26/24	FSP SUBMITTAL	1/28/26						
PRO SUBMITTAL	7/09/25								
PRO SUBMITTAL	8/22/25								
PRO UPDATE	9/12/25								

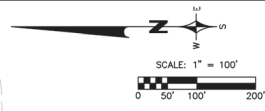
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PRE-DEVELOPMENT DRAINAGE PLAN
THE GROVE
NOVI, MICHIGAN

DATE: 1/14/24 SCALE: HOR: 1" = 100'
VER: 1" = N/A
DESIGNED BY: SRB JOB NO: 22149
DRAWN BY: DAB SHEET: SP-5



POST-DEVELOPMENT DRAINAGE MASTER PLAN TABLE (1-21-2026)

DRAINAGE AREA	DESIGN AREA (ACRES)	DESCRIPTION	FAVORABLE	ROUGH	LAWN	CRUISE	WATER	LA	VEGET	VAR10	VEGET	VEGET	VEGET	VEGET	VEGET	VEGET	VEGET	VEGET
ORANGE	7.40	DRAINAGE AREA K	2.39	1.87	2.47	0.47	5.45	105.917	80.03									STORAGE PROVIDED BY DETENTION BASIN
LI.BLUE	3.30	DRAINAGE AREA H	1.14	0.91	1.00	0.20	2.34	33.245	33.769									STORAGE PROVIDED BY DETENTION BASIN
PURPLE	6.34	DRAINAGE AREA G	1.37	1.78	2.74	0.45	4.40	90.439	60.608									STORAGE PROVIDED BY DETENTION BASIN
GOLD	2.95	DRAINAGE AREA D	1.06	0.65	1.09	0.37	2.16	43.104	28.619									STORAGE PROVIDED BY DETENTION BASIN
PINK	2.44	DRAINAGE AREA E	0.66	0.49	1.33	0.16	1.73	28.893	22.494									STORAGE PROVIDED BY DETENTION BASIN
LI.GREEN	7.36	DRAINAGE AREA F	1.65	1.39	3.38	0.54	4.87	112.333	69.167									STORAGE PROVIDED BY DETENTION BASIN



IMPACTS TO WETLANDS "W" AND "W"

PER ADOPTED ATLAS FOR HARMONIZATION, MICHIGAN (ATLAS 14, VOLUME II, VERSION 2)

L = 2.1372446
W = 1.5272446

WE SHALL EXAMINE THE VOLUMES OF WATER AND THE DEPTH OF WATER FOR EACH OF THE ABOVE STORM EVENTS FOR THE PRE-DEVELOPMENT AND POST-DEVELOPMENT CONDITIONS.

PRE-DEVELOPMENT CONDITIONS

DRAINAGE PARAMETERS ARE THE DRAINAGE AREA OF 1 WETLAND "W" AND 1 WETLAND "W"

VEGETATION: W = 1.38 AC MP W = 7.36 AC MP CA = 1.26 AC MP CA = 1.63 AC MP

DETERMINE DEPTH OF WATER OVER SURFACE OF EXISTING WETLAND:

	H	W	L	W	S	Q ₁₀	Q ₅	Q ₂
H	48.532	10678	1642	2434	241	4.13	8.12	8.12
W	28842	50189	88715	138260	124	1.90	3.96	3.96
L	12.443	1852	3340	3487	9.12	11.98	23.23	23.23
W	22446	3946	7244	1044	2.24	4.47	8.74	8.74

POST-DEVELOPMENT CONDITIONS

DRAINAGE PARAMETERS FOR WETLAND "W" ARE THE SUM OF DRAINAGE AREA CHANGES

DRAINAGE PARAMETERS FOR WETLAND "W" ARE THE SUM OF DRAINAGE AREA LT, BOLD, GOLD, PINK, AND BLUE AREAS. SEE SHEET 14-13

CA = 1.58 AC MP CA = 2.34 AC MP CA = 1.27 + 1.64 + 5.89 = 12.37 AC MP CA = 1.63 AC MP CA = 1.63 AC MP

DETERMINED DEPTH OF WATER OVER SURFACE OF EXISTING WETLAND AND DETENTION AREA:

	H	W	L	W	S	Q ₁₀	Q ₅	Q ₂
H	57.1	1271	2571	3771	381	6.93	13.81	13.81
W	49.877	42782	78262	108137	131	3.92	7.82	7.82
L	274.862	33842	277279	88916	3.89	7.22	14.42	14.42
W	79889	16864	32664	4936	2.11	4.22	8.42	8.42

CHANGES TO WETLAND FROM PRE-DEVELOPMENT CONDITIONS

	H	W	L	W	S	Q ₁₀	Q ₅	Q ₂
H	+15280	+51810	+79916	+112410	+45	+1.12	+2.24	+2.24
W	+77232	+32825	+195248	+24812	+1.12	+2.24	+2.24	+2.24
L	+3390	+3229	+8379	+20	+0.35	+0.70	+0.70	+0.70
W	+3790	+3889	+2191	+27	+0.12	+0.24	+0.24	+0.24

NOTE: THE POST-DEVELOPMENT WETLAND VOLUMES AND DEPTHS DO NOT TAKE INTO CONSIDERATION THE IMPACTS OF THE PROPOSED DEVELOPMENT ON THE WETLANDS AND DETENTION AREAS. RELEASE TIMES TO THE WETLANDS.

STORMWATER OUTFLET ANALYSIS

STORMWATER FROM THE PROPOSED DEVELOPMENT SHALL OUTFLET TO ONE WETLANDS WHICH OUTFLET TO THE CITY OF NOVI WETLANDS. THE DEPTHS OF THE CITY OF NOVI WETLANDS ARE SPECIFIED IN THE PLAN SHEET CITY OF NOVI WETLANDS MAPS. THROUGH THESE OUTFLET LOCATIONS INTO THE WETLANDS, THERE ARE NO CHANGES TO THE PRE-DEVELOPMENT FLOW RATES IN AN ACINANCE AREA (WETLANDS, 14 WETLANDS, AND W WETLANDS). ACCORDING TO THESE AND POST-DEVELOPMENT 100 YEAR DISCHARGES FROM THESE WETLANDS USING THE FOLLOWING FORMULAE:

$Q_{out} = C A I^{0.48}$

$I_{100} = 275(1 - 20) WINDSET + 20 MINUTE$

$I_{100} = 275(20 - 20) + 111900$

DRAINAGE AREA 1 (DRAINAGE W)

PRE-DEVELOPMENT
CA = 7.36
 $Q_{out} = 1.30 \times 10^{11} + 44.65 CFS$

POST-DEVELOPMENT
DRAINAGE AREA 1 UNDEVELOPED
A = 1.58 ACRES
CA = 2.34
 $Q_{out} = 1.32 \times 10^{11} + 15.91 CFS$

THE FOLLOWING ARE THE SPECIFIED PROPOSED DETENTION BASIN DISCHARGE RATES:

PRE-DEVELOPMENT
CA = 7.36
 $Q_{out} = 0.97 CFS$
 $Q_{out} = 0.97 CFS$
 $Q_{out} = 0.97 CFS$
 $Q_{out} = 0.97 CFS$
 $Q_{out} = 0.97 CFS$
 $Q_{out} = 0.97 CFS$

POST-DEVELOPMENT
DRAINAGE AREA 1 UNDEVELOPED
A = 1.58 ACRES
CA = 2.34
 $Q_{out} = 1.50 \times 10^{11} + 1.74 CFS$
 $Q_{out} = 0.14 CFS$

DRAINAGE AREA 2 (WETLAND F)

PRE-DEVELOPMENT
CA = 7.36
 $Q_{out} = 0.35 \times 10^{11} + 2.14 CFS$

POST-DEVELOPMENT
DRAINAGE AREA 2 UNDEVELOPED
A = 6.67 ACRES
CA = 1.58
 $Q_{out} = 0.87 \times 10^{11} + 0.79 CFS$
 $Q_{out} = 0.41 CFS$

ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
SUBMITTAL	7/26/24	PSP SUBMITTAL	1/28/26						
PRO SUBMITTAL	7/09/25								
PRO SUBMITTAL	8/22/25								
PRO UPDATE	9/19/25								

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POST-DEVELOPMENT DRAINAGE PLAN
THE GROVE
 NOVI, MICHIGAN

DATE: 1/14/24 SCALE: HOR. 1" = 100'
 VER. 1" = N/A
 DRAWN BY: SRS JOB NO.: 22149
 DATE: SHEET SP-5.1

THE GROVE, NOV 1/21/24

THE FOLLOWING STORMWATER CALCULATIONS ARE FOR THE CURRENT CITY OF NOVI
STORMWATER STANDARDS AS OUTLINED IN CHAPTER 5 OF THE CITY'S ENGINEERING DESIGN
MANUAL (JANUARY 31, 2024).

BASIN A: (7.40 AC.)

1. CALCULATE THE COMPOSITE RUNOFF COEFFICIENT
 ROOF = 1.87 AC @ 0.95 = 1.78
 PAVT/PAVK = 2.96 AC @ 0.95 = 2.77
 LAWN = 2.67 AC @ 0.35 = 0.93
 WATER (BASIN) = 5.62 AC @ 1.00 = 5.62

POST 'C': = 5.45 / 7.40 = 0.74

2. DETERMINE THE REQUIRED WATER QUALITY STORAGE VOLUME

V_{WQ} = 3630 x A x C = 3630 x 7.40 x 0.74 = 19,979 CF

3. DETERMINE THE REQUIRED CHANNEL PROTECTION STORAGE VOLUME

V_{CP} = 4719 x A x C = 4719 x 7.40 x 0.74 = 25,841 CF

4. DETERMINE THE REQUIRED 100-YEAR STORAGE VOLUME

Q₁₀₀ = 1.1055 - 0.206(A) = 1.1055 - 0.206(7.40) = 0.69 CFS/ACRQ
 Q₁₀₀ = 0.69 CFS/ACRQ x 7.40 = 5.11 CFS

5. DETERMINE THE REQUIRED 100-YEAR STORAGE VOLUME

V₁₀₀ = 19855 x A x C = 19855 x 7.40 x 0.74 = 103,962 CF

6. CALCULATE THE 100-YEAR PEAK INFLOW RATE (Q₁₀₀)

I₁₀₀ = 83.3(I_P) + 9.17(I_P)² = 83.3(20) + 9.17(20)² = 5.42 INHR
 Q₁₀₀ = C x I₁₀₀ x A = 0.24 x 5.42 x 7.40 = 9.68 CFS

7. CALCULATE THE STORAGE CURVE FACTOR (K)

K = 0.206 - 0.18n₁₀₀ / (Q₁₀₀ - 0.02) = 0.206 - 0.18n₁₀₀ / (11.29 - 0.02) = 0.47

8. CALCULATE THE 100-YEAR DETENTION VOLUME (V_D)

V_D = (V_{WQ} + K) / V_D
 FOR THE CALCULATION, V_D = 0 SINCE INFILTRATION IS NOT ASSUMED AND CANNOT BE CREDITED AGAINST THE 100-YEAR VOLUME

V_D = 103,962 x 0.47 = 48,862 CF

ADD 10% FOR CONSTRUCTION TOLERANCES: **V₁₀₀ = 53,748 CF**

9. DETERMINE PROVIDED STORAGE

STORAGE SHALL BE PROVIDED IN A DETENTION POND WHICH SHALL HAVE A PERMANENT 3-FP (MIN.) DEEP POOL OF STANDING WATER.

FOR 100-YR AND CHANNEL PROTECTION CONTROL STORAGE IN POND:

ELEV.	AREA (SF)	AVG. AREA (SF)	DEPTH (FT)	VOLUME (CF)
8920	21,308		1.0	21,308
8910	18,944	20,127	1.0	20,127
8910	14,534	17,790	1.0	17,790
8900	13,474	15,055	1.0	15,055
				75,564 CF

BY INTERPOLATION:
 THE 100-YR STORAGE VOLUME IS PROVIDED AT ELEV. 891.70
 (PROVIDED 100-YR STORAGE VOLUME = 27,658 CF)

THE CHANNEL PROTECTION VOLUME IS PROVIDED AT ELEV. 890.00
 (PROVIDED CHANNEL PROTECTION STORAGE VOLUME = 13,550 CF)

FREEBOARD ELEV. = 893.25

10. SELECT WATER QUALITY CONTROL DEVICES

WATER QUALITY CONTROL SHALL BE PROVIDED USING MECHANICAL TREATMENT SYSTEMS (METS) PLACED UPSTREAM OF THE BASIN PRIOR TO THE STORMWATER DISCHARGING INTO THE BASIN. THE METS SHALL BE SIZED TO TREAT THE 1-YEAR STORM EVENT (Q₁).

A = 2.34 ACRES (UPSTREAM DRAINAGE AREA)

Q₁ = C x I x A = 30.2(20) + 9.17(20)² = 1.87 INHR

Q₁ = 0.77 x 1.87 x 3.30 = 3.97 CFS

SELECT A CONTROL CASCADE CS-8 (USE WITH A TREATMENT FLOW RATE OF 3.9 CFS)

11. OUTLET CONTROL STRUCTURE AND RESTRICTED OUTLET PIPE FOR BASIN

A. SIZING THE RISER:
 A STANDPIPE SHALL BE PROVIDED WITH HOLES AROUND ITS PERIMETER TO ACT AS RESTRICTORS. THE HOLES SHALL BE SIZED TO RELEASE THE V₁₀₀ AND V_{CP} OVER A MINIMUM 48-HOUR PERIOD.

V₁₀₀ = 25,841 CF
 Q₁₀₀ = V₁₀₀ / (172,800 - 25,841 / 172,800) = 0.1495 CFS

H = 16,901.00(90.000) = 0.50 FT

A = Q₁₀₀ / (0.62 x (16.4 x H)^{1.5}) = 0.1495 / (0.62 x (16.4 x 0.50)^{1.5}) = 0.0425 SF

D = 1-INCH (A = 0.00684 SF)

REQ'D NO. OF 1-INCH HOLES = 0.0425 / 0.00684 = 7.8

USE (7) 1-INCH HOLES AT ELEV. 890.00

ACTUAL RELEASE RATE = 0.62 x 7.8(0.00684 x (16.4 x 0.50)^{1.5}) = 0.134 CFS < Q₁₀₀ = 0.1495 CFS

ACTUAL HOLDING TIME = 25,841 / (0.134 x 3600) = 53.6 HRS > 48 HRS

B. SIZING THE RESTRICTOR PIPE

Q₁₀₀ = 5.11 CFS

H = 90.35 - 90.29 = 1.80"

A = 5.11 / (0.62 x (16.4 x H)^{1.5}) = 0.7551 SF

THIS EQUATES TO A 1.17" DIA. HOLE.

USE A 1.5" OUTLET PIPE WITH A 1.125" DIA. (1.125" DIA. (A=0.7551 SF) HOLE IN BOTTOM CAP OF TEE.

Q₁₀₀ = 0.62 x 0.7551 x (16.4 x 1.80)^{1.5} = 5.11 CFS = Q₁₀₀

12. OVERFLOW STRUCTURE AND OUTLET PIPE

A. SIZING THE OVERFLOW MANHOLE:
 USING THE FORMULA FOR A SHARP-CRESTED WEIR:
 DIAMETER OF OVERFLOW MANHOLE = 6.0 FT
 % OF MANHOLE USED AS WEIR = 75%
 CALCULATED WEIR LENGTH = 0.75 x 3.14 x 6.0 = 14.13 FT
 H = 90.35 - 90.29 = 1.0 FT (HEIGHT OF FREEBOARD)
 C = 3.33
 Q₁₀₀ = 3.33 x 14.13 x (1.0)^{1.5} = 47.05 CFS

DETERMINE THE ACTUAL FLOW USING THE RATIONAL FORMULA:

A = 2.42 AC

C = 0.74

I₁₀₀ = 175 / (22.31 + 25) = 3.70

Q₁₀₀ = 7.45(3.70 x 2.42) = 32.08 CFS

A 6.0 FT DIAMETER OVERFLOW MANHOLE IS ADEQUATE

B. SIZING THE OVERFLOW PIPE:
 Q₁₀₀ = 29.05 CFS
 H = 90.29 - 90.20 = 0.29 FT
 A = 29.05 / (0.62 x (16.4 x 0.29)^{1.5}) = 3.48 SF (22.7" DIA.)
 USE A 30" DIAMETER OUTLET PIPE (V = 8.3 FPS, S = 1.0%)

C. SIZING THE EMERGENCY OVERFLOW WEIR:
 Q₁₀₀ = 29.05 CFS
 H = 90.4 - 90.29 = 0.50 FT
 29.50 = 3.33 x L x (0.50)^{1.5}
 L = 20.10 FEET
 USE A 30-FOOT WIDE x 6-INCH DEEP WEIR AND SPILLWAY.

BASIN B: (3.30 AC.)

1. CALCULATE THE COMPOSITE RUNOFF COEFFICIENT
 ROOF = 0.91 AC @ 0.95 = 0.86
 PAVT/PAVK = 1.14 AC @ 0.95 = 1.08
 LAWN = 1.20 AC @ 0.35 = 0.42
 WATER (BASIN) = 0.26 AC @ 1.00 = 0.26

POST 'C': = 2.54 / 3.30 = 0.77

2. DETERMINE THE REQUIRED WATER QUALITY STORAGE VOLUME

V_{WQ} = 3630 x A x C = 3630 x 3.30 x 0.77 = 9,224 CF

3. DETERMINE THE REQUIRED CHANNEL PROTECTION STORAGE VOLUME

V_{CP} = 4719 x A x C = 4719 x 3.30 x 0.77 = 11,991 CF

4. DETERMINE THE REQUIRED 100-YEAR STORAGE VOLUME

Q₁₀₀ = 1.1055 - 0.206(A) = 1.1055 - 0.206(3.30) = 0.86 CFS/ACRQ
 Q₁₀₀ = 0.86 CFS/ACRQ x 3.30 = 2.84 CFS

5. DETERMINE THE REQUIRED 100-YEAR STORAGE VOLUME

V₁₀₀ = 19855 x A x C = 19855 x 3.30 x 0.77 = 49,541 CF

6. CALCULATE THE 100-YEAR PEAK INFLOW RATE (Q₁₀₀)

I₁₀₀ = 83.3(I_P) + 9.17(I_P)² = 83.3(20) + 9.17(20)² = 5.42 INHR
 Q₁₀₀ = C x I₁₀₀ x A = 0.27 x 5.42 x 3.30 = 13.27 CFS

7. CALCULATE THE STORAGE CURVE FACTOR (K)

K = 0.206 - 0.18n₁₀₀ / (Q₁₀₀ - 0.02) = 0.206 - 0.18n₁₀₀ / (45.177 - 0.02) = 0.52

8. CALCULATE THE 100-YEAR DETENTION VOLUME (V_D)

V_D = (V_{WQ} + K) / V_D
 FOR THE CALCULATION, V_D = 0 SINCE INFILTRATION IS NOT ASSUMED AND CANNOT BE CREDITED AGAINST THE 100-YEAR VOLUME

V_D = 49,541 x 0.52 = 25,868 CF

ADD 10% FOR CONSTRUCTION TOLERANCES: **V₁₀₀ = 27,944 CF**

9. DETERMINE PROVIDED STORAGE

STORAGE SHALL BE PROVIDED IN A DETENTION POND WHICH SHALL HAVE A PERMANENT 3-FP (MIN.) DEEP POOL OF STANDING WATER.

FOR 100-YR AND CHANNEL PROTECTION CONTROL STORAGE IN POND:

ELEV.	AREA (SF)	AVG. AREA (SF)	DEPTH (FT)	VOLUME (CF)
8920	21,308		1.0	21,308
8910	18,944	20,127	1.0	20,127
8910	14,534	17,790	1.0	17,790
8900	13,474	15,055	1.0	15,055
				75,564 CF

BY INTERPOLATION:
 THE 100-YR STORAGE VOLUME IS PROVIDED AT ELEV. 891.70
 (PROVIDED 100-YR STORAGE VOLUME = 27,658 CF)

THE CHANNEL PROTECTION VOLUME IS PROVIDED AT ELEV. 890.00
 (PROVIDED CHANNEL PROTECTION STORAGE VOLUME = 13,550 CF)

FREEBOARD ELEV. = 893.40

10. SELECT WATER QUALITY CONTROL DEVICES

WATER QUALITY CONTROL SHALL BE PROVIDED USING MECHANICAL TREATMENT SYSTEMS (METS) PLACED UPSTREAM OF THE BASIN PRIOR TO THE STORMWATER DISCHARGING INTO THE BASIN. THE METS SHALL BE SIZED TO TREAT THE 1-YEAR STORM EVENT (Q₁).

A = 2.34 ACRES (UPSTREAM DRAINAGE AREA)

Q₁ = C x I x A = 30.2(20) + 9.17(20)² = 1.87 INHR

Q₁ = 0.77 x 1.87 x 3.30 = 3.97 CFS

SELECT A CONTROL CASCADE CS-8 (USE WITH A TREATMENT FLOW RATE OF 3.9 CFS)

11. OUTLET CONTROL STRUCTURE AND RESTRICTED OUTLET PIPE FOR BASIN

A. SIZING THE RISER:
 A STANDPIPE SHALL BE PROVIDED WITH HOLES AROUND ITS PERIMETER TO ACT AS RESTRICTORS. THE HOLES SHALL BE SIZED TO RELEASE THE V₁₀₀ AND V_{CP} OVER A MINIMUM 48-HOUR PERIOD.

V₁₀₀ = 11,991 CF
 Q₁₀₀ = V₁₀₀ / (172,800 - 11,991 / 172,800) = 0.0694 CFS

H = 16,901.00(90.000) = 0.46 FT

A = Q₁₀₀ / (0.62 x (16.4 x H)^{1.5}) = 0.0694 / (0.62 x (16.4 x 0.46)^{1.5}) = 0.0039 SF

D = 1-INCH (A = 0.00684 SF)

REQ'D NO. OF 1-INCH HOLES = 0.0039 / 0.00684 = 0.58

USE (1) 1-INCH HOLES AT ELEV. 890.00

ACTUAL RELEASE RATE = 0.62 x 1.0(0.00684 x (16.4 x 0.46)^{1.5}) = 0.0564 CFS < Q₁₀₀ = 0.0694 CFS

ACTUAL HOLDING TIME = 11,991 / (0.0564 x 3600) = 58.4 HRS > 48 HRS

B. SIZING THE RESTRICTOR PIPE

Q₁₀₀ = 8.87 CFS (PASS THRU)

Q₁₀₀ = 1.60 CFS

Q₁₀₀ = 8.87 x 1.65 = 14.62 CFS

H = 87.70(89.000) = 1.07"

A = 10.52 / (0.62 x (16.4 x H)^{1.5}) = 1.622 SF

THIS EQUATES TO A 17.5" DIA. HOLE.

USE A 24" OUTLET PIPE WITH A 1.125" DIA. (1.125" DIA. (A=1.622 SF) HOLE IN BOTTOM CAP OF TEE.

Q₁₀₀ = 0.62 x 1.622 x (16.4 x 1.07)^{1.5} = 10.53 CFS = Q₁₀₀

12. OVERFLOW STRUCTURE AND OUTLET PIPE

A. SIZING THE OVERFLOW MANHOLE:
 USING THE FORMULA FOR A SHARP-CRESTED WEIR:
 DIAMETER OF OVERFLOW MANHOLE = 6.0 FT
 % OF MANHOLE USED AS WEIR = 75%
 CALCULATED WEIR LENGTH = 0.75 x 3.14 x 6.0 = 14.13 FT
 H = 89.35 - 89.20 = 1.0 FT (HEIGHT OF FREEBOARD)
 C = 3.33
 Q₁₀₀ = 3.33 x 14.13 x (1.0)^{1.5} = 47.05 CFS

DETERMINE THE ACTUAL FLOW USING THE RATIONAL FORMULA:

A = 3.30 AC

C = 0.71

I₁₀₀ = 175 / (21.87 + 25) = 3.70

Q₁₀₀ = 3.93(3.70 x 3.30) = 48.08 CFS

A 6.0 FT DIAMETER OVERFLOW MANHOLE IS ADEQUATE

B. SIZING THE OVERFLOW PIPE:
 Q₁₀₀ = 13.74 CFS
 H = 89.4 - 89.29 = 0.50 FT
 13.74 = 3.33 x L x (0.50)^{1.5}
 L = 18.3 FEET
 USE A 20-FOOT WIDE x 6-INCH DEEP WEIR AND SPILLWAY.

C. SIZING THE EMERGENCY OVERFLOW WEIR:

Q₁₀₀ = 21.61 CFS

H = 89.4 - 89.29 = 0.50 FT

21.61 = 3.33 x L x (0.50)^{1.5}
 L = 18.3 FEET
 USE A 20-FOOT WIDE x 6-INCH DEEP WEIR AND SPILLWAY.

BASIN C: (4.34 AC.)

1. CALCULATE THE COMPOSITE RUNOFF COEFFICIENT
 ROOF = 1.78 AC @ 0.95 = 1.69
 PAVT/PAVK = 1.35 AC @ 0.95 = 1.28
 LAWN = 2.74 AC @ 0.35 = 0.96
 WATER (BASIN) = 0.65 AC @ 1.00 = 0.65

POST 'C': = 4.40 / 6.34 = 0.69

2. DETERMINE THE REQUIRED WATER QUALITY STORAGE VOLUME

V_{WQ} = 3630 x A x C = 3630 x 4.34 x 0.69 = 15,880 CF

3. DETERMINE THE REQUIRED CHANNEL PROTECTION STORAGE VOLUME

V_{CP} = 4719 x A x C = 4719 x 4.34 x 0.69 = 20,644 CF

4. DETERMINE THE REQUIRED 100-YEAR STORAGE VOLUME

Q₁₀₀ = 1.1055 - 0.206(A) = 1.1055 - 0.206(4.34) = 0.81 CFS/ACRQ
 Q₁₀₀ = 0.81 CFS/ACRQ x 4.34 = 3.52 CFS

5. DETERMINE THE REQUIRED 100-YEAR STORAGE VOLUME

V₁₀₀ = 19855 x A x C = 19855 x 4.34 x 0.69 = 59,552 CF

6. CALCULATE THE 100-YEAR PEAK INFLOW RATE (Q₁₀₀)

I₁₀₀ = 83.3(I_P) + 9.17(I_P)² = 83.3(20) + 9.17(20)² = 5.42 INHR
 Q₁₀₀ = C x I₁₀₀ x A = 0.69 x 5.42 x 4.34 = 25.71 CFS

7. CALCULATE THE STORAGE CURVE FACTOR (K)

K = 0.206 - 0.18n₁₀₀ / (Q₁₀₀ - 0.02) = 0.206 - 0.18n₁₀₀ / (45.273 - 0.02) = 0.45

8. CALCULATE THE 100-YEAR DETENTION VOLUME (V_D)

V_D = (V_{WQ} + K) / V_D
 FOR THE CALCULATION, V_D = 0 SINCE INFILTRATION IS NOT ASSUMED AND CANNOT BE CREDITED AGAINST THE 100-YEAR VOLUME

V_D = 59,552 x 0.45 = 26,798 CF

ADD 10% FOR CONSTRUCTION TOLERANCES: **V₁₀₀ = 41,111 CF**

9. DETERMINE PROVIDED STORAGE

STORAGE SHALL BE PROVIDED IN A DETENTION POND WHICH SHALL HAVE A PERMANENT 3-FP (MIN.) DEEP POOL OF STANDING WATER.

BASIN 0 (2.95 AC.)

1. CALCULATE THE COMPOSITE RUNOFF COEFFICIENT

Table with 3 columns: Surface Type, Runoff Coefficient (C), and Area (A). Rows include Roof, Pavement, Lawn, Water Basin, and Post.

2. DETERMINE THE REQUIRED WATER QUALITY STORAGE VOLUME

V_{WQ} = 3630 x A x C = 3630 x 2.95 x 0.73 = 7,810 CF

3. DETERMINE THE REQUIRED CHANNEL PROTECTION STORAGE VOLUME

V_{CP} = 4719 x A x C = 4719 x 2.95 x 0.73 = 10,162 CF

4. DETERMINE THE REQUIRED 100-YEAR STORAGE VOLUME

Q₁₀₀ = 1.1055 - 0.206(A) = 1.1055 - 0.206(2.95) = 0.88 CFS/ACRE

CALCULATE THE 100-YEAR PEAK INFLOW RATE (Q₁₀₀)

I₁₀₀ = 83.3(I_p + 9.17)^{0.77} = 83.3(20 + 9.17)^{0.77} = 5.42 INHR

CALCULATE THE STORAGE CURVE FACTOR (R)

R = 0.206 - 0.159(Q₁₀₀/Q₁₀₀) = 0.206 - 0.159(1101.47) = 0.54

CALCULATE THE 100-YEAR DETENTION VOLUME (V₁₀₀)

V₁₀₀ = (V_{WQ} + R)V_{CP} = 0.54(7810 + 10162) = 11,847 CF

5. DETERMINE PROVIDED STORAGE

STORAGE SHALL BE PROVIDED IN A DETENTION POND WHICH SHALL HAVE A PERMANENT 3 FT (MIN) DEEP POOL OF STANDING WATER.

FOR 100-YR AND CHANNEL PROTECTION CONTROL STORAGE IN POND:

Table with 5 columns: ELEV., AREA (SF), AVG. AREA (SF), DEPTH (FT), VOLUME (CF). Rows 8900 to 8960.

BY INTERPOLATION:

THE 100-YR STORAGE VOLUME IS PROVIDED AT ELEV. 899.40 (PROVIDED 100-YR STORAGE VOLUME = 24,300 CF)

6. SELECT WATER QUALITY CONTROL DEVICES

WATER QUALITY CONTROL SHALL BE PROVIDED USING MECHANICAL TREATMENT SYSTEMS (MITS) PLACED UPSTREAM OF THE BASIN PRIOR TO THE STORMWATER DISCHARGING INTO THE BASIN.

7. OUTLET CONTROL STRUCTURE AND RESTRICTED OUTLET PIPE FOR BASIN

A. SIZING THE RISER: A STANDPIPE SHALL BE PROVIDED WITH HOLES AROUND ITS PERIMETER TO ACT AS RESTRICTORS.

B. SIZING THE RESTRICTOR PIPE: Q₁₀₀ = 1.30 CFS

8. OVERFLOW STRUCTURE AND OUTLET PIPE

A. SIZING THE OVERFLOW MANHOLE: USING THE FORMULA FOR A SHARP-CRESTED WEIR.

B. SIZING THE OVERFLOW PIPE: Q₁₀₀ = 10.34 CFS

C. SIZING THE EMERGENCY OVERFLOW WEIR: Q₁₀₀ = 10.34 CFS

BASIN 1 (2.44 AC.)

1. CALCULATE THE COMPOSITE RUNOFF COEFFICIENT

Table with 3 columns: Surface Type, Runoff Coefficient (C), and Area (A). Rows include Roof, Pavement, Lawn, Water Basin, and Post.

2. DETERMINE THE REQUIRED WATER QUALITY STORAGE VOLUME

V_{WQ} = 3630 x A x C = 3630 x 2.44 x 0.66 = 6,325 CF

3. DETERMINE THE REQUIRED CHANNEL PROTECTION STORAGE VOLUME

V_{CP} = 4719 x A x C = 4719 x 2.44 x 0.66 = 8,222 CF

4. DETERMINE THE REQUIRED 100-YEAR STORAGE VOLUME

Q₁₀₀ = 1.1055 - 0.206(A) = 1.1055 - 0.206(2.44) = 0.91 CFS/ACRE

CALCULATE THE 100-YEAR PEAK INFLOW RATE (Q₁₀₀)

I₁₀₀ = 83.3(I_p + 9.17)^{0.77} = 83.3(20 + 9.17)^{0.77} = 5.42 INHR

CALCULATE THE STORAGE CURVE FACTOR (R)

R = 0.206 - 0.159(Q₁₀₀/Q₁₀₀) = 0.206 - 0.159(1069.48) = 0.53

CALCULATE THE 100-YEAR DETENTION VOLUME (V₁₀₀)

V₁₀₀ = (V_{WQ} + R)V_{CP} = 0.53(6325 + 8222) = 11,285 CF

5. DETERMINE PROVIDED STORAGE

STORAGE SHALL BE PROVIDED IN A DETENTION POND WHICH SHALL HAVE A PERMANENT 3 FT (MIN) DEEP POOL OF STANDING WATER.

FOR 100-YR AND CHANNEL PROTECTION CONTROL STORAGE IN POND:

Table with 5 columns: ELEV., AREA (SF), AVG. AREA (SF), DEPTH (FT), VOLUME (CF). Rows 9010 to 9070.

BY INTERPOLATION:

THE 100-YR STORAGE VOLUME IS PROVIDED AT ELEV. 900.25 (PROVIDED 100-YR STORAGE VOLUME = 19,380 CF)

6. SELECT WATER QUALITY CONTROL DEVICES

WATER QUALITY CONTROL SHALL BE PROVIDED USING MECHANICAL TREATMENT SYSTEMS (MITS) PLACED UPSTREAM OF THE BASIN PRIOR TO THE STORMWATER DISCHARGING INTO THE BASIN.

7. OUTLET CONTROL STRUCTURE AND RESTRICTED OUTLET PIPE FOR BASIN

A. SIZING THE RISER: A STANDPIPE SHALL BE PROVIDED WITH HOLES AROUND ITS PERIMETER TO ACT AS RESTRICTORS.

B. SIZING THE RESTRICTOR PIPE: Q₁₀₀ = 1.24 CFS

8. OVERFLOW STRUCTURE AND OUTLET PIPE

A. SIZING THE OVERFLOW MANHOLE: USING THE FORMULA FOR A SHARP-CRESTED WEIR.

B. SIZING THE OVERFLOW PIPE: Q₁₀₀ = 7.79 CFS

C. SIZING THE EMERGENCY OVERFLOW WEIR: Q₁₀₀ = 7.79 CFS

BASIN 2 (7.34 AC.)

1. CALCULATE THE COMPOSITE RUNOFF COEFFICIENT

Table with 3 columns: Surface Type, Runoff Coefficient (C), and Area (A). Rows include Roof, Pavement, Lawn, Water Basin, and Post.

2. DETERMINE THE REQUIRED WATER QUALITY STORAGE VOLUME

V_{WQ} = 3630 x A x C = 3630 x 7.34 x 0.66 = 17,635 CF

3. DETERMINE THE REQUIRED CHANNEL PROTECTION STORAGE VOLUME

V_{CP} = 4719 x A x C = 4719 x 7.34 x 0.66 = 22,933 CF

4. DETERMINE THE REQUIRED 100-YEAR STORAGE VOLUME

Q₁₀₀ = 1.1055 - 0.206(A) = 1.1055 - 0.206(7.34) = 0.69 CFS/ACRE

CALCULATE THE 100-YEAR PEAK INFLOW RATE (Q₁₀₀)

I₁₀₀ = 83.3(I_p + 9.17)^{0.77} = 83.3(20 + 9.17)^{0.77} = 5.42 INHR

CALCULATE THE STORAGE CURVE FACTOR (R)

R = 0.206 - 0.159(Q₁₀₀/Q₁₀₀) = 0.206 - 0.159(1069.48) = 0.45

CALCULATE THE 100-YEAR DETENTION VOLUME (V₁₀₀)

V₁₀₀ = (V_{WQ} + R)V_{CP} = 0.45(17635 + 22933) = 45,489 CF

5. DETERMINE PROVIDED STORAGE

STORAGE SHALL BE PROVIDED IN A DETENTION POND WHICH SHALL HAVE A PERMANENT 3 FT (MIN) DEEP POOL OF STANDING WATER.

FOR 100-YR AND CHANNEL PROTECTION CONTROL STORAGE IN POND:

Table with 5 columns: ELEV., AREA (SF), AVG. AREA (SF), DEPTH (FT), VOLUME (CF). Rows 9010 to 9070.

BY INTERPOLATION:

THE 100-YR STORAGE VOLUME IS PROVIDED AT ELEV. 898.80 (PROVIDED 100-YR STORAGE VOLUME = 45,489 CF)

6. SELECT WATER QUALITY CONTROL DEVICES

WATER QUALITY CONTROL SHALL BE PROVIDED USING MECHANICAL TREATMENT SYSTEMS (MITS) PLACED UPSTREAM OF THE BASIN PRIOR TO THE STORMWATER DISCHARGING INTO THE BASIN.

7. OUTLET CONTROL STRUCTURE AND RESTRICTED OUTLET PIPE FOR BASIN

A. SIZING THE RISER: A STANDPIPE SHALL BE PROVIDED WITH HOLES AROUND ITS PERIMETER TO ACT AS RESTRICTORS.

B. SIZING THE RESTRICTOR PIPE: Q₁₀₀ = 5.08 CFS

8. OVERFLOW STRUCTURE AND OUTLET PIPE

A. SIZING THE OVERFLOW MANHOLE: USING THE FORMULA FOR A SHARP-CRESTED WEIR.

B. SIZING THE OVERFLOW PIPE: Q₁₀₀ = 21.44 CFS

C. SIZING THE EMERGENCY OVERFLOW WEIR: Q₁₀₀ = 21.44 CFS

Table with 8 columns: ISSUED FOR, DATE, ISSUED FOR, DATE, ISSUED FOR, DATE, ISSUED FOR, DATE. Rows for SUBMITTAL, PRO SUBMITTAL, PRO SUBMITTAL, PRO UPDATE.

ZEMET WOZNAK CONSULTING ENGINEERS logo and contact information.



PROJECT SPONSOR: IVANHOE COMPANIES 6689 ORCHARD LAKE ROAD, SUITE 314 WEST BLOOMFIELD, MI 48322 (248) 626-6114

STORMWATER MANAGEMENT CALCULATIONS THE GROVE NOW, MICHIGAN. Includes revision table with columns for DATE, SCALE, HOR. VER., SHEET, and DRAWN BY.



UTILITY LEGEND	
EXISTING	PROPOSED
○ MANHOLE	● MANHOLE
□ CATCH BASIN	■ CATCH BASIN
○ CLEANOUT	○ CLEANOUT
○ END SECTION	○ END SECTION
○ ROOF DRAIN	○ ROOF DRAIN
○ GATE VALVE	○ GATE VALVE
○ HYDRANT	○ HYDRANT
○ WATER SHUT-OFF	○ WATER SHUT-OFF
○ UTILITY POLE	○ UTILITY POLE
○ GUY ANCHOR	○ GUY ANCHOR
○ LIGHT POLE	○ LIGHT POLE
○ SIGN	○ SIGN
○ TREE	○ TREE
○ TREE LINE	○ TREE LINE
○ SANITARY SEWER	○ SANITARY SEWER
○ STORM SEWER	○ STORM SEWER
○ WATER MAIN	○ WATER MAIN
○ ELECTRIC CABLE	○ ELECTRIC CABLE
	○ TREE REMOVAL
	○ SANITARY SEWER
	○ STORM SEWER
	○ WATER MAIN
	○ DITCH
	○ MULTIPHASE PRE-TREATMENT DEVICE
	○ OUTLET CONTROL STRUCTURE

- SANITARY SEWER NOTES:**
- PROVIDE A TESTING BULKHEAD IMMEDIATELY UPSTREAM OF THE SANITARY CONNECTION POINT. ADDITIONALLY, PROVIDE A TEMPORARY 1-FOOT-DEEP SUMP IN THE FIRST SANITARY STRUCTURE PROPOSED UPSTREAM OF THE CONNECTION POINT, AND PROVIDE A SECONDARY WATERPROOF BULKHEAD IN THE DOWNSTREAM SIDE OF THIS STRUCTURE.
 - TWO 6-GAUGE SOLID OR STRANDED ANNEALED OR HARD COPPER TRACER WIRES WITH GREEN AS-THICK INSULATION (NMP) SHALL BE ATTACHED TO THE SEWER PIPE IN ACCORDANCE WITH CURRENT WRC SPECIFICATIONS. SPICES SHALL BE MADE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. SPICE SHALL THEN BE ATTACHED TO PIPE WITH TIES AND HEAT SHRINK-WRAPPED IN PLACE TO RE-ESTABLISH INSULATION ACROSS SPICED LENGTH. ALL SPICES SHALL REQUIRE TESTING OF THE ENTIRE LENGTH OF WIRE FOR CONTINUITY FROM STRUCTURE TO STRUCTURE. A MINIMUM LENGTH OF 6 FEET OF TRACER WIRE SHALL BE COILED AND LEFT ACCESSIBLE UNDER THE COVER OF ALL MANHOLES, SERVICE VALVE BOXES AND OTHER STRUCTURES AS DIRECTED BY THE ENGINEER. THE TRACER WIRE SHALL BE ATTACHED TO THE OUTSIDE OF THE MANHOLE DIRECTLY ABOVE THE PIPE AND SHALL ENTER THE MANHOLE BETWEEN THE MANHOLE. CONTRACTOR IS RESPONSIBLE FOR TESTING CONTINUITY OF TRACER WIRE FROM STRUCTURE TO STRUCTURE USING EQUIPMENT COMPATIBLE WITH OAKLAND COUNTY WATER RESOURCES COMMISSIONERS OFFICE OR LOCAL CITY/VILLAGE/TOWNSHIP MES DIG LOCATING DEVICES. AT LEAST ONE OF THE TWO WIRES SHALL BE REQUIRED TO HAVE PASSED THE CONTINUITY TESTING REQUIREMENT.

SANITARY SEWER REUS:

EXISTING ZONING:	OST
BUILDING AREA=	984,600 SF ("CONCEPTUAL OST SITE PLAN")
REU =	0.40/1,000 SF (OCWR GENERAL OFFICE)
REU =	0.40/1,000 SF x 984,600 SF = 393.84

PROPOSED ZONING: PRO (15% RM-1 ZONING)

RESIDENTIAL DWELLING UNITS:	VESTS = 68
MEADOWS =	67
WOODS =	36
POINTE =	61
	2320 UNITS
REU =	2 BED = 0.75/UNIT, 3 BED = 1.00/UNIT (CITY OF NOV)
	THE UNITS WILL EITHER BE 2 OR 3 BEDROOMS. SINCE THE ACTUAL UNITS HAVE NOT YET BE DESIGNATED FOR THE NUMBER OF BEDROOMS, WE WILL ASSUME THAT THEY ARE ALL 3 BEDROOM FOR DESIGN PURPOSES.
REU =	1.00/UNIT x 2320 UNITS = 232.0 REU'S

OPTIONAL CLUBHOUSE:

BLDG. AREA =	3,582 SF
REU =	0.40/1,000 SF (OCWR GENERAL OFFICE)
REU =	0.40/1,000 SF x 3,582 SF = 1.43 REU

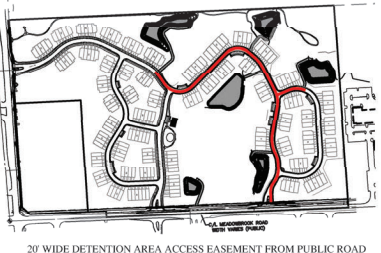
OPTIONAL POOL:

AREA =	1,957 SF
REU =	3.0/1,000 SF
REU =	3.0/1,000 SF x 1,957 SF = 5.87 REU

TOTAL REU WITHOUT OPTIONAL CLUBHOUSE/POOL = 232.0 REU'S
 TOTAL REU WITH OPTIONAL CLUBHOUSE/POOL = 232.0+1.43+5.87 = 239.3 REU

- WATERMAIN NOTES:**
- BACTERIOLOGICAL SAMPLING SHALL BE IN ACCORDANCE WITH R326.1110 OF THE ADMINISTRATIVE RULES FROM/LEGISLATED UNDER MICHIGAN SAFE DRINKING WATER ACT, 1976 PA 399, AS AMENDED. TWO CONSECUTIVE BACTERIOLOGICAL SAMPLES SHALL BE COLLECTED 24 HOURS APART AT EACH SAMPLING SITE. SAMPLING SITE SHALL BE IN ACCORDANCE WITH THE LATEST VERSION AWWA STANDARD C651.
 - FOR THE PROPOSED DUCTILE IRON WATER MAINS, EACH PIPE, HYDRANTS, VALVES, AND OTHER APPURTENANCE MATERIAL THAT COMES IN CONTACT WITH POTABLE WATER MUST BE CERTIFIED TO MEET THE ANSI/NSF STANDARD 61 AND THE CERTIFICATION SHOULD BE STAMPED ON THE EXTERIOR WALL OF THE PIPE OR APPURTENANCE.
- WATERMAIN CROSSING NOTE:**
- PER THE ILL. STATES STANDARDS ARTICLE 8.5.5, ILL. REG. 201-1.01 PIPE LENGTH OF WATER MAIN SHALL BE USED WHENEVER STORM SEWER OR SANITARY SEWER IS CROSSED, AND THE PIPE SHALL BE CENTERED OVER THE CROSSING IN ORDER TO ENSURE 10-FOOT SEPARATION BETWEEN WATER MAIN AND SEWERS.

- NOTES:**
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AS DISCLOSED BY AVAILABLE UTILITY COMPANY RECORDS AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE COMPANY. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. 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. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF A CONFLICT IS APPARENT.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTMENT OF ALL STRUCTURES, KNOWN OR UNKNOWN, SHOWN OR UNSHOWN, LOCATED WITHIN THE LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE IF ANY SUCH STRUCTURES ARE IDENTIFIED. ALL COSTS ASSOCIATED WITH LOCATING AND ADJUSTING THESE STRUCTURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 - DESIGN PROFESSIONAL AND CLIENT WARRANT THAT IN TRANSMITTING INSTRUMENTS OF SERVICE OR ANY OTHER INFORMATION, THE TRANSMITTING PARTY IS THE OWNER OF SUCH INFORMATION OR HAS PERMISSION FROM THE COPYRIGHT OWNER TO TRANSMIT SUCH INFORMATION FOR ITS USE OF THE PROJECT. IF THE CLIENT AND DESIGN PROFESSIONAL INTEND TO TRANSMIT INSTRUMENTS OF SERVICE OR ANY OTHER INFORMATION OR DOCUMENTATION IN DIGITAL FORM, THEY SHALL ENDEAVOR TO ESTABLISH NECESSARY PROTOCOLS GOVERNING SUCH TRANSMISSIONS.



EASEMENT HATCH LEGEND:

	20' WIDE PUBLIC WATERMAIN EASEMENT
	20' WIDE PUBLIC SANITARY SEWER EASEMENT
	12' WIDE PRIVATE STORM SEWER EASEMENT
	STORMWATER AND MAINTENANCE ACCESS EASEMENT (PRIVATE)

ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
SUBMITTAL	7/26/24	PSP SUBMITTAL	1/28/26				
PRO SUBMITTAL	7/09/23						
PRO SUBMITTAL	8/22/23						
PRO UPDATE	9/12/23						

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OVERALL UTILITY PLAN
THE GROVE
 NOVI, MICHIGAN

DATE: 7/14/24
 SCALE: HOR: 1" = 100'
 VERT: 1" = N/A
 DRAWN BY: GSB
 JOB NO.: 22149
 SHEET: SP-6



UTILITY LEGEND

- EXISTING**
- MANHOLE
 - CATCH BASIN
 - INLET
 - CLEANOUT
 - END SECTION
 - ROOF DRAIN
 - GATE VALVE
 - HYDRANT
 - WATER SHUT-OFF
 - UTILITY POLE
 - GUY ANCHOR
 - LIGHT POLE
 - SIGN
 - TREE
- PROPOSED**
- MANHOLE
 - CATCH BASIN
 - INLET
 - CLEANOUT
 - END SECTION
 - ROOF DRAIN
 - GATE VALVE
 - HYDRANT
 - WATER SHUT-OFF
 - TREE REMOVAL
- SANITARY SEWER
 --- STORM SEWER
 --- WATER MAIN
 --- GAS MAIN
 --- ELECTRIC CABLE
- DITCH
 --- MECHANICAL PRETREATMENT DEVICE
 --- OCS OUTLET CONTROL STRUCTURE

NOTES:

1. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE MANNER AS DISCLOSED BY AVAILABLE UTILITY COMPANY RECORDS AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE COMPANY. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION. THE CONTRACTOR SHALL VERIFY 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. THE CONTRACTOR SHALL NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE IF ANY SUCH STRUCTURES ARE IDENTIFIED. ALL COSTS ASSOCIATED WITH LOCATING AND ADJUSTING THESE STRUCTURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTMENT OF ALL STRUCTURES, KNOWN OR UNKNOWN, SHOWN OR UNSHOWN, LOCATED WITHIN THE LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE IF ANY SUCH STRUCTURES ARE IDENTIFIED. ALL COSTS ASSOCIATED WITH LOCATING AND ADJUSTING THESE STRUCTURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. DESIGN PROFESSIONAL AND CLIENT WARRANT THAT IN TRANSMITTING INSTRUMENTS OF SERVICE, OR ANY OTHER INFORMATION, THE TRANSMITTING PARTY IS THE COPYRIGHT OWNER OF SUCH INFORMATION OR HAS PERMISSION FROM THE COPYRIGHT OWNER TO TRANSMIT SUCH INFORMATION FOR ITS USE OF THE PROJECT. IF THE CLIENT AND DESIGN PROFESSIONAL INTEND TO TRANSMIT INSTRUMENTS OF SERVICE OR ANY OTHER INFORMATION OR DOCUMENTATION IN DIGITAL FORM, THEY SHALL ENDEAVOR TO ESTABLISH NECESSARY PROTOCOLS GOVERNING SUCH TRANSMISSIONS.

ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
SUBMITTAL	7/26/24	PSP SUBMITTAL	1/28/26						
PRO SUBMITTAL	7/26/25								
PRO SUBMITTAL	8/22/26								
PRO UPDATE	8/12/25								

MATCH LINE-SEE SHEET SP-6.2

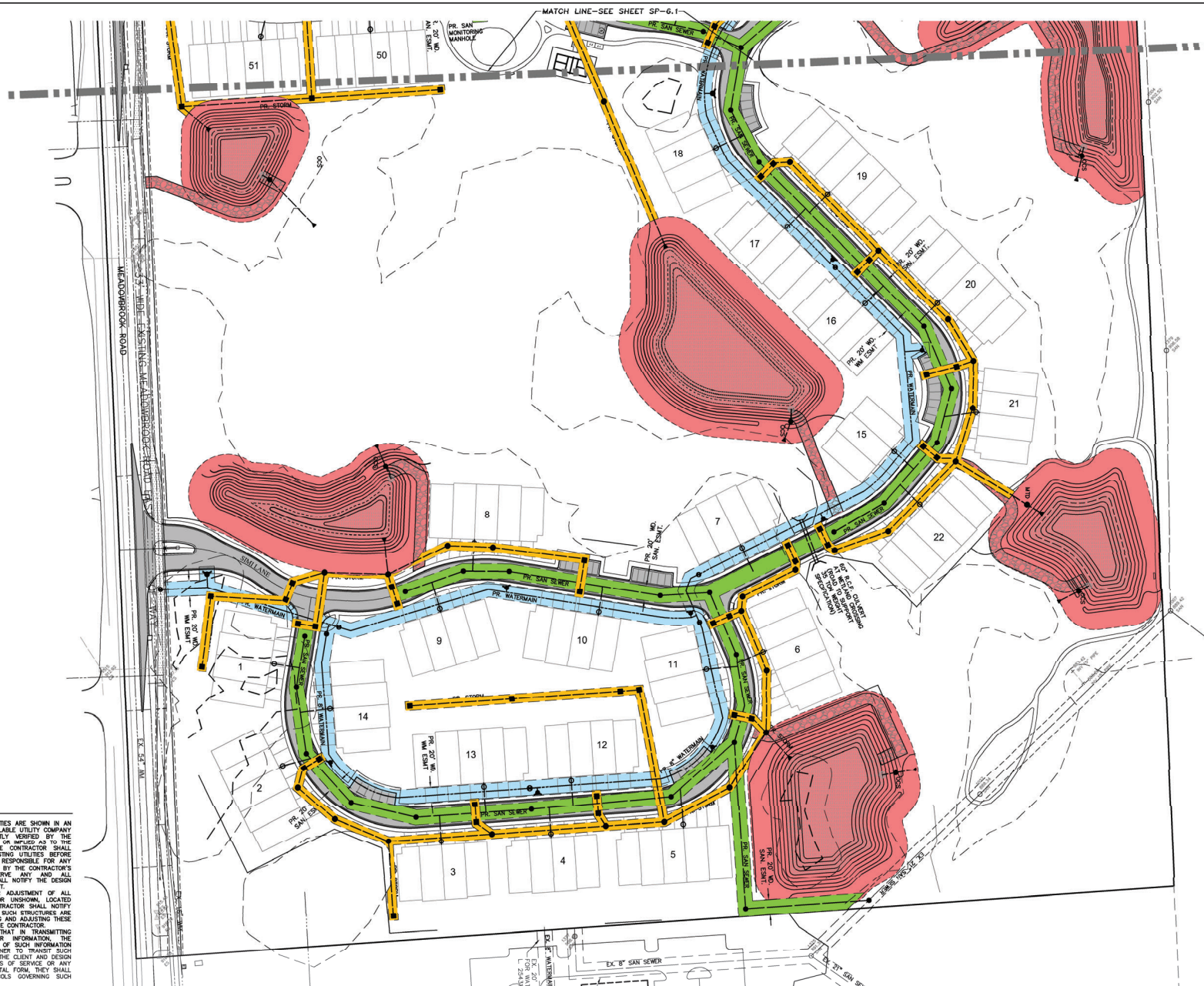
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UTILITY PLAN
 THE GROVE
 NOV, MICHIGAN

DATE: 1/14/24 SCALE: HOR: 1" = 60'
 VER: 1" = N/A
 DRAWN BY: SRS JOB NO.: 22149
 DATE: SHEET: SP-6.1



- UTILITY LEGEND**
- EXISTING**
- MANHOLE
 - CATCH BASIN
 - INLET
 - CLEANOUT
 - END SECTION
 - ROOF DRAIN
 - GATE VALVE
 - HYDRANT
 - WATER SHUT-OFF
 - UTILITY POLE
 - GUY ANCHOR
 - LIGHT POLE
 - SIGN
 - TREE
 - TREE LINE
 - SANITARY SEWER
 - STORM SEWER
 - WATER MAIN
 - GAS MAIN
 - ELECTRIC CABLE
- PROPOSED**
- MANHOLE
 - CATCH BASIN
 - INLET
 - CLEANOUT
 - END SECTION
 - ROOF DRAIN
 - GATE VALVE
 - HYDRANT
 - WATER SHUT-OFF
 - TREE REMOVAL
 - SANITARY SEWER
 - STORM SEWER
 - WATER MAIN
 - DITCH
 - MTD
 - MECHANICAL PRETREATMENT DEWICE
 - OCS
 - OUTLET CONTROL STRUCTURE

NOTES:

1. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AS DISCLOSED BY AVAILABLE UTILITY COMPANY RECORDS AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE CONTRACTOR. 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. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF A CONFLICT IS APPARENT.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTMENT OF ALL STRUCTURES, KNOWN OR UNKNOWN, SHOWN OR UNKNOWN, LOCATED WITHIN THE LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE IF ANY SUCH STRUCTURES ARE IDENTIFIED. ALL COSTS ASSOCIATED WITH LOCATING AND ADJUSTING THESE STRUCTURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. DESIGN PROFESSIONAL AND CLIENT WARRANT THAT IN TRANSMITTING INSTRUMENTS OF SERVICE OR ANY OTHER INFORMATION, THE TRANSMITTING PARTY IS THE COPYRIGHT OWNER OF SUCH INFORMATION OR HAS PERMISSION FROM THE COPYRIGHT OWNER TO TRANSMIT SUCH INFORMATION FOR ITS USE OF THE PROJECT. IF THE CLIENT AND DESIGN PROFESSIONAL INTEND TO TRANSMIT INSTRUMENTS OF SERVICE OR ANY OTHER INFORMATION OR DOCUMENTATION IN DIGITAL FORM, THEY SHALL ENDEAVOR TO ESTABLISH NECESSARY PROTOCOLS GOVERNING SUCH TRANSMISSIONS.

ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
SUBMITTAL	7/26/24	PSP SUBMITTAL	1/28/25						
PRO SUBMITTAL	7/26/25								
PRO SUBMITTAL	8/22/25								
PRO UPDATE	9/12/25								

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 5800 GRANDVIEW AVE., SUITE 100
 NEW HUDSON, MICHIGAN 48166
 P: (248) 437-5099 F: (248) 437-5222 www.zeimetwozniak.com

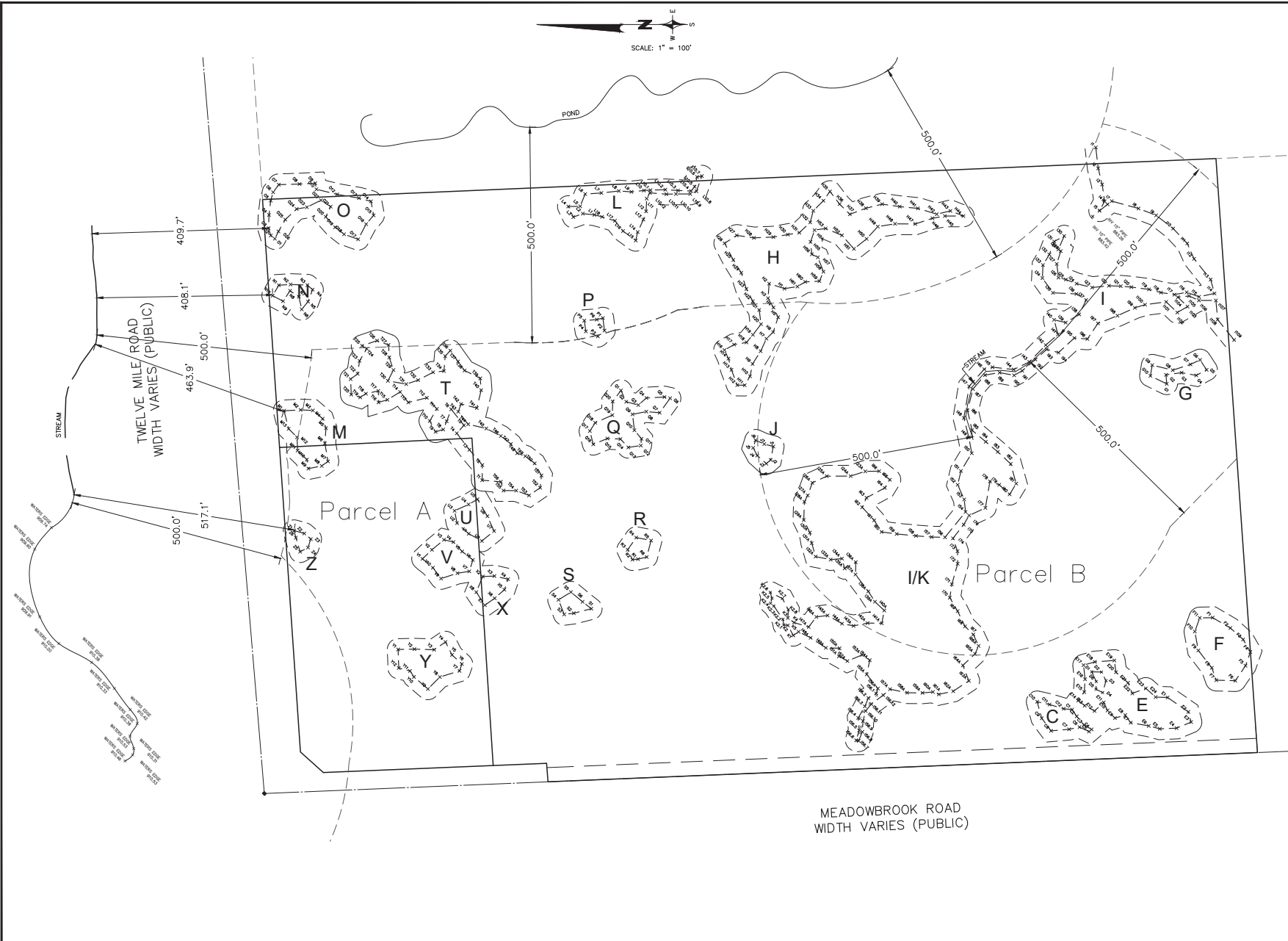
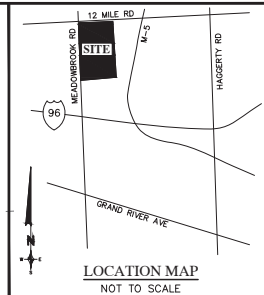


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IVANHOE COMPANIES
 6689 ORCHARD LAKE ROAD, SUITE 314
 WEST BLOOMFIELD, MI 48322 (248) 626-6114

UTILITY PLAN
THE GROVE
 NOV, MICHIGAN

DATE: 1/14/24 SCALE: HOR: 1" = 60'
 VER: 1" = N/A
 DRAWN BY: SRB JOB NO.: 22149
 CHECKED BY: DAB SHEET: SP-6.2

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The Grove
Preliminary Opinion of Wetland Jurisdiction

Wetland	Acres	EGLE Regulated	
		Yes	No
C	0.10		0.10
E	0.42		0.42
F	0.29		0.29
G	0.06	0.06	
H	1.12	1.12	
I/K	4.79	4.79	
J	0.03	0.03	
L	0.29	0.29	
M	0.21	0.21	
N	0.06	0.06	
O	0.39	0.39	
P	0.03	0.03	
Q	0.23		0.23
R	0.04		0.04
S	0.05		0.05
T	0.97	0.97	
U	0.12		0.12
V	0.14		0.14
X	0.07		0.07
Y	0.21		0.21
Z	0.02		0.02
Totals:	7.95	1.69	

ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
SUBMITTAL	7/26/24	PSP SUBMITTAL	1/28/26						
PRO SUBMITTAL	7/09/25								
PRO SUBMITTAL	8/22/25								
PRO UPDATE	9/12/25								

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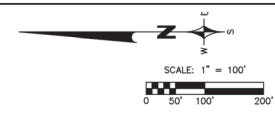


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6689 ORCHARD LAKE ROAD, SUITE 314
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WETLAND SURVEY
THE GROVE
NOVI, MICHIGAN

DATE 1/14/24 SCALE HOR: 1" = 100'
VER: 1" = N/A
DESIGNED BY SRB JOB NO. 22149
DRAWN BY DAB SHEET SP-8

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ON-SITE: THE GROVE

WETLAND IMPACTS

WETLAND	ACRES (AC)	NOVI REGULATED	EDGE REGULATED	WETLAND TYPE	IMPACT (AC)	VOLUME (CY)	MITIGATION RATIO	MITIGATION REQD (AC)
C	0.83	YES	PEM	0.380	0.000	125	1.5:1	0.83
E	0.42	YES	DEM	0.461	0.000	400	1.5:1	0.94
F	0.20	YES	PRO	0.000	0	0	2:1	0.12
G	0.06	YES	PRO	0.000	0	0	2:1	0.03
H	1.12	YES	PRO	0.000	0	0	2:1	0.60
I	0.08	YES	PRO/PS	0.054	0.000	68	2:1	0.07
L	0.29	YES	PS	0.000	0	0	2:1	0.15
N	0.05	YES	PS/PS	0.000	0	0	2:1	0.03
O	0.39	YES	PS/PS	0.000	0	0	2:1	0.21
Q	0.73	YES	PS	0.730	0.000	805	1.5:1	0.86
R	0.06	YES	PS/PS	0.050	0.000	152	1.5:1	0.06
S	0.06	YES	PS	0.000	0.000	278	2:1	0.03
T	0.97	YES	PS/PS	0.000	0	0	2:1	0.53
TOTALS	8.86	YES	PS	0.634	0	1,574	1.60	8.86

TOTAL NOVI REGULATED WETLANDS: 8.86
TOTAL EDGE REGULATED WETLANDS: 7.74
TOTAL NOVI WETLAND IMPACT: 0.86
TOTAL EDGE WETLAND IMPACT: 0.54

MITIGATION REQUIRED: 1.61
MITIGATION PROVIDED: 1.65

BUFFER IMPACTS

WETLAND	AREA (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)	TOTAL BUFFER IMPACT (AC)
C	0.12	0.000	0.000	0.120
E	0.26	0.000	0.000	0.260
F	0.09	0.107	0.000	0.107
G	0.03	0.000	0.000	0.030
H	1.17	0.115	0.000	0.115
I	0.11	0.141	0.000	0.141
L	0.5	0.000	0.002	0.002
N	0.2	0.000	0.000	0.000
O	0.47	0.000	0.000	0.000
P	0.18	0.149	0.000	0.149
Q	0.39	0.390	0.000	0.390
R	0.14	0.141	0.000	0.141
S	0.16	0.160	0.000	0.160
T	0.11	0.000	0.000	0.000
TOTALS	7.67	1.58	0.004	1.57

OFF-SITE: PARCEL A

WETLAND IMPACTS

WETLAND	ACRES (AC)	NOVI REGULATED	EDGE REGULATED	WETLAND TYPE	IMPACT (AC)	VOLUME (CY)	MITIGATION RATIO	MITIGATION REQD (AC)
M	0.21	YES	PEM/PRO	0.060	0	1.5:1	0.060	
U	0.12	YES	PRO	0.000	0	2:1	0.060	
V	0.14	YES	PRO	0.140	0	2:1	0.280	
W	0.21	YES	PEM	0.210	0	1.5:1	0.315	
Z	0.02	YES	PS	0.000	0	1.5:1	0.030	
TOTALS	0.70	YES	PS	0.550	0	1.5:1	0.66	

TOTAL NOVI REGULATED WETLANDS: 0.70
TOTAL EDGE REGULATED WETLANDS: 0.21
TOTAL NOVI WETLAND IMPACT: 0.66
TOTAL EDGE WETLAND IMPACT: 0.06

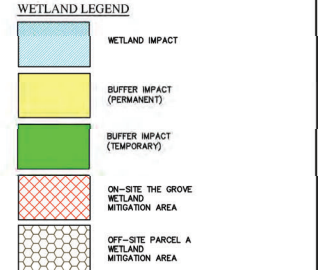
MITIGATION REQUIRED: 0.66
MITIGATION PROVIDED: 0.66

NOTE: IMPACT TO WETLAND M IS BASED ON POSSIBLE FUTURE DEVELOPMENT OF THE OUTLOT (PARCEL A) WITH MITIGATION BEING PROVIDED WITHIN THE GROVE DEVELOPMENT.

NOTE: PEM=PALUSTRINE EMERGENT; PS=PALUSTRINE SCRUB SHRUB; PRO=PALUSTRINE FOREST.

BUFFER IMPACTS

WETLAND	AREA (AC)	PERMANENT BUFFER IMPACT (AC)	TEMPORARY BUFFER IMPACT (AC)	TOTAL BUFFER IMPACT (AC)
M	0.27	0.107	0.000	0.107
U	0.13	0.100	0.000	0.100
V	0.21	0.200	0.000	0.200
W	0.26	0.260	0.000	0.260
Z	0.12	0.100	0.000	0.100
TOTALS	0.27	0.107	0.000	0.107



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WETLAND IMPACT PLAN
THE GROVE
NOVI, MICHIGAN

DATE: 1/14/24
SCALE: HOR: 1" = 100'
VER: 1" = 1/4"
DRAWN BY: SRS
CHECKED BY: SRS
DATE: 1/28/26
JOB NO: 22149
SHEET: SP-8.1

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EXISTING LEGEND

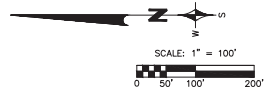
- MANHOLE
- CATCH BASIN
- INLET
- CLEANOUT
- END SECTION
- ROOF DRAIN
- GATE VALVE
- HYDRANT
- WATER SHUT-OFF
- UTILITY POLE
- GUY ANCHOR
- LIGHT POLE
- SIGN
- TREE

- TREE LINE
- FENCE
- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- GAS MAIN
- ELECTRIC CABLE
- WETLAND LIMITS
- WETLAND BUFFER
- BOUNDARY LINE
- PARCEL LINE
- SECTION LINE
- EASEMENTS
- FENCE LINE
- CONTOUR MAJOR
- CONTOUR MINOR
- SPOT ELEVATION
- SOIL BORING

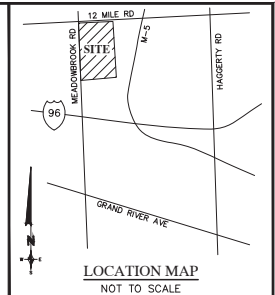
BENCHMARKS:

CITY BM #1231-
 'X' ON NORTH RIM OF GATE VALVE LOCATED 8 FEET NORTH OF DRIVE INTO PRIV, 45 FEET EAST OF CENTERLINE OF MEADOWBROOK ROAD, 700 FEET NORTH OF CENTERLINE OF 12 MILE ROAD
 NORTHING: 365052.492
 EASTING: 13366796.58
 ELEV.: 922.9876

CITY BM #1312-
 'X' ON NORTH RIM OF GATE VALVE LOCATED 670 FEET EAST OF THE INTERSECTION OF MEADOWBROOK ROAD AND 12 MILE ROAD, SOUTH OF WEST BOUND 12 MILE ROAD INTERSECTION, 4 FEET SOUTH OF BACK OF CURB
 NORTHING: 364317.6108
 EASTING: 13369467.09
 ELEV.: 917.5438
 917.48 SHOT JOB #22149



CENTER OF SECTION 13
 T. 1 N., R. 8 E.
 CITY OF NOV.,
 OAKLAND CO., MI.



STATE OF MICHIGAN MDOT
 22-13-100-019

N. 1/4 CORNER
 SECTION 13
 T. 1 N., R. 8 E.
 CITY OF NOV.,
 OAKLAND CO., MI.

TWELVE MILE ROAD
 WIDTH VARIES (PUBLIC)

C/L MEADOWBROOK ROAD
 WIDTH VARIES (PUBLIC)

STRUCTURE TABLE:

POINT	DESCRIPTION	BM	PIPE SIZE	DIRECTION	INVERT
910.22	SANITARY	910.22	12"	N	886.56
			12"	S	884.62
1003	SANITARY	901.29	12"	N	884.29
			12"	S	884.29
1004	SANITARY	902.52	12"	N	882.00
			12"	S	881.96
1007	SANITARY	889.42	18"	N	876.72
			21"	SW	876.17
			18"	SE	876.44
1027	SANITARY	888.34	21"	NE	875.28
			21"	SW	875.20
1363	CATCH BASIN	911.94	15"	N	910.04
1375	SANITARY	891.35	21"	SE	874.21
			21"	NE	874.31
			4"	W	875.20
1377	SANITARY	908.06	8"	N	894.64
			8"	S	894.54
1378	GATE VALVE	909.90	T/PIPE FULL OF WATER		904.40
1379	SANITARY	906.58	21"	N	879.44
			21"	S	879.44
1486	GATE VALVE	912.74	T/PIPE FULL OF WATER		907.26
1515	CATCH BASIN	912.92	12"	NW	909.63
				E	909.41
				E	909.39
1547	GATE VALVE	911.45	T/PIPE FULL OF WATER		902.79
1592	GATE VALVE	907.93	T/PIPE FULL OF WATER		901.76
1651	CATCH BASIN	906.68	12"	N	903.61
			12"	S	904.01
			15"	E	903.85
			15"	W	903.88
6454	GATE VALVE	923.36	T/PIPE	S	913.96
6455	SANITARY	924.09	8"	W	903.75
			8"	NE	903.63
1365	CATCH BASIN	916.89	15"	N	912.87
6116	GATE VALVE	907.03	T/PIPE FULL OF WATER		901.08
6074	GATE VALVE	907.82	T/PIPE FULL OF WATER		901.27
6086	GATE VALVE	908.21	T/PIPE FULL OF WATER		901.86
6473	SANITARY	922.64	8"	SW	903.43
			8"	N	903.32
6475	CATCH BASIN	921.45	12"	N	915.95
6595	CATCH BASIN	918.84	15"	N	912.48
			15"	S	912.70
6699	CATCH BASIN	916.74	15"	N	909.02
			15"	S	909.32
6727	CATCH BASIN	914.88	15"	NE	908.21
			15"	S	908.23
6752	CATCH BASIN	910.70	15"	N	908.60
			12"	E	907.98
6789	CATCH BASIN	910.06	15"	N	907.90
			12"	E	908.43
6790	CATCH BASIN	912.78	15"	N	907.38
			15"	S	907.38
6880	SANITARY	915.59	8" T/DIRT	N	898.39
			8" T/DIRT	S	898.39
			8" T/DIRT	E	898.39
6881	MH	917.50	---	N	895.73
			---	S	895.63

SEE SHEETS SP-10.0-SP-10.1 FOR SOIL BORING INFORMATION.

N. 1/4 CORNER
 SECTION 13
 T. 1 N., R. 8 E.
 CITY OF NOV.,
 OAKLAND CO., MI.

ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
SUBMITTAL	7/26/24	PSP SUBMITTAL	1/28/26						
PRO SUBMITTAL	7/09/25								
PRO SUBMITTAL	8/22/25								
PRO UPDATE	9/19/25								

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 CONSULTING CIVIL ENGINEERS
 1580 GRAND RIVER AVE., SUITE 100
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 THREE FULL WORKING DAYS BEFORE YOU DIG. CALL THE RED DIG SYSTEM

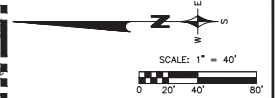
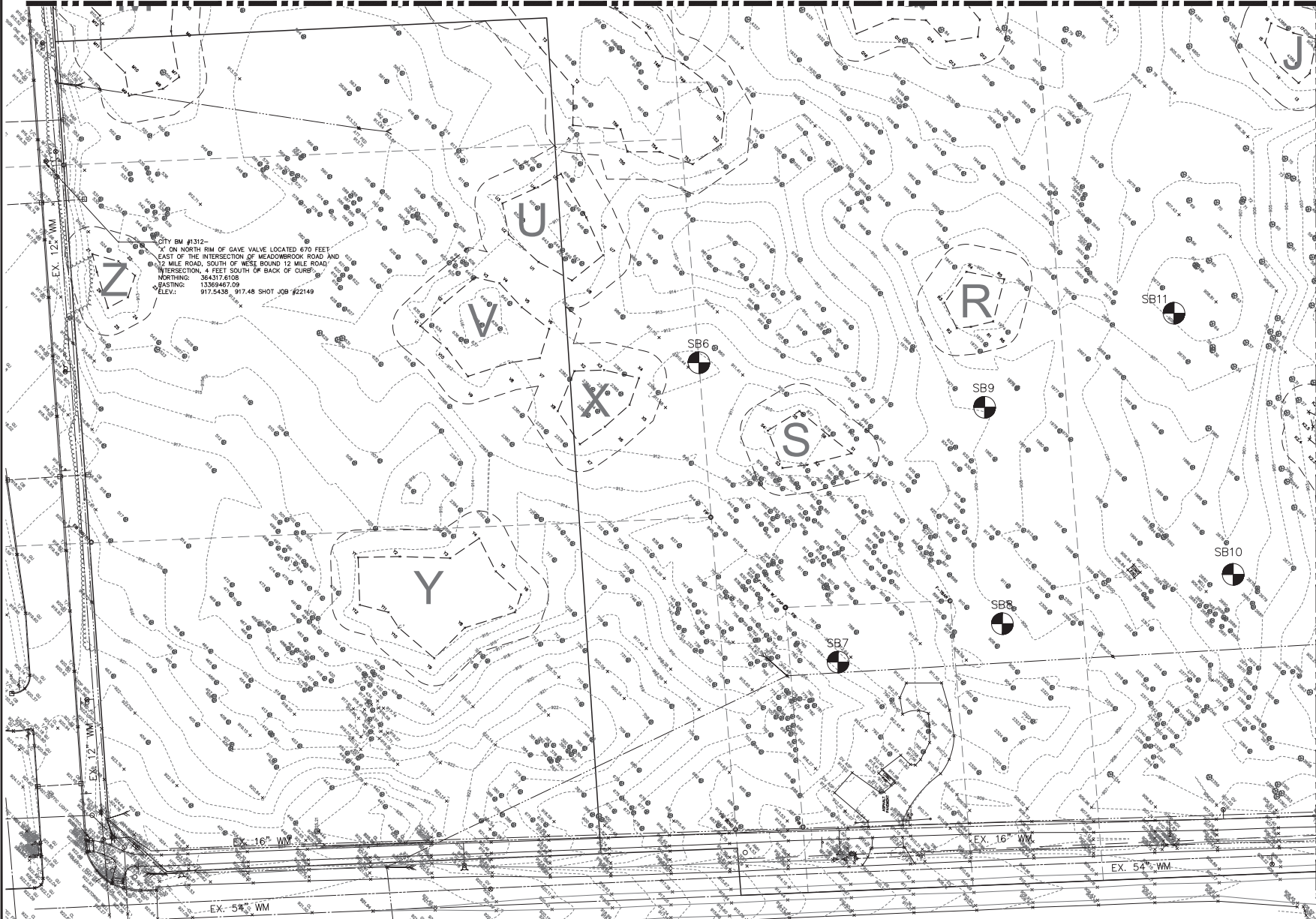
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TOPOGRAPHIC & TREE SURVEY
 THE GROVE
 NOV., MICHIGAN

DATE	1/14/24	SCALE	HOR: 1" = 100'
VER:	N/A	VER:	1" = N/A
DESIGNED BY	SRB	JOB NO.	22149
DRAWN BY	DAB	SHEET	SP-9

Z:\Projects\2024\22149\22149 TOPO & TREE SURVEY\22149-10.1.dwg, 11:46:42 AM, 9/19/25

MATCH LINE SHEET SP-9.2



EXISTING LEGEND

- MANHOLE
- CATCH BASIN
- INLET
- CLEANOUT
- △ END SECTION
- ROOF DRAIN
- GATE VALVE
- HYDRANT
- WATER SHUT-OFF
- UTILITY POLE
- GUY ANCHOR
- LIGHT POLE
- SIGN
- TREE
- TREE LINE
- FENCE
- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- GAS MAIN
- ELECTRIC CABLE
- WETLAND LIMITS
- WETLAND BUFFER
- BOUNDARY LINE
- PARCEL LINE
- SECTION LINE
- EASEMENTS
- FENCE LINE
- CONTOUR MAJOR
- CONTOUR MINOR
- SPOT ELEVATION

MATCH LINE SHEET SP-9.4

ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
SUBMITTAL	7/26/24	PSP SUBMITTAL	1/28/25						
PRO SUBMITTAL	7/09/25								
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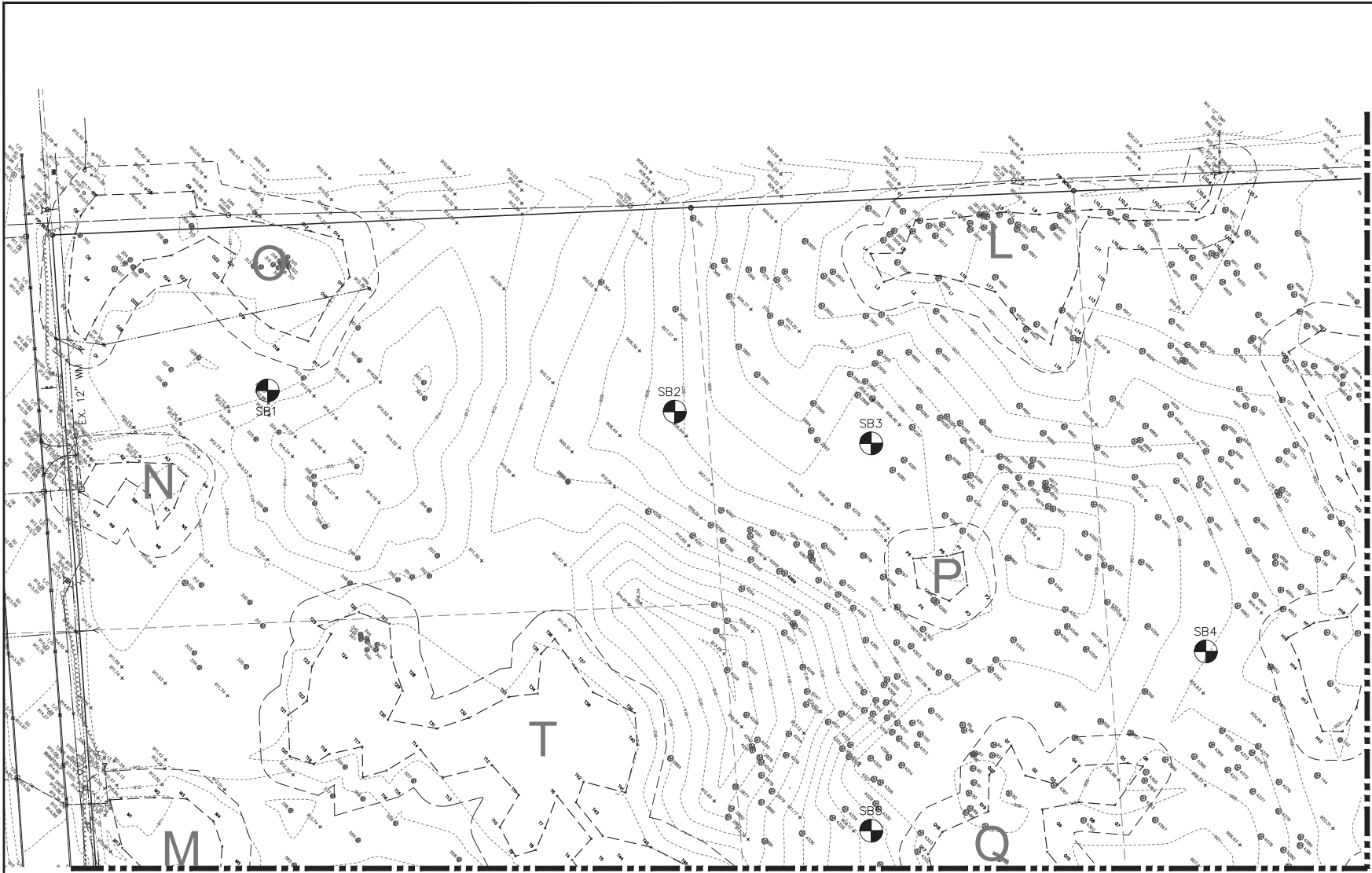


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TOPOGRAPHIC & TREE SURVEY
THE GROVE
NOVI, MICHIGAN

DATE 1/14/24 SCALE HOR: 1" = 40'
VER: 1" = N/A
DESIGNED BY SRB JOB NO. 22149
DRAWN BY DATE SHEET SP-9.1

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MATCH LINE SHEET SP-9.3

SCALE: 1" = 40'

0 20' 40' 80'

EXISTING LEGEND

- MANHOLE
- CATCH BASIN
- CLEANOUT
- ◊ END SECTION
- ROOF DRAIN
- ⊗ GATE VALVE
- ⊕ HYDRANT
- ⊖ WATER SHUT-OFF
- ⊙ UTILITY POLE
- ⊙ GUY ANCHOR
- ⊙ LIGHT POLE
- ⊙ SIGN
- ⊙ TREE
- ~ TREE LINE
- FENCE
- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- GAS MAIN
- ELECTRIC CABLE
- WETLAND LIMITS
- WETLAND BUFFER
- BOUNDARY LINE
- PARCEL LINE
- SECTION LINE
- EASEMENTS
- FENCE LINE
- CONTOUR MAJOR
- CONTOUR MINOR
- SPOT ELEVATION

MATCH LINE SHEET SP-9.1

ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
SUBMITTAL	7/26/24	PSP SUBMITTAL	1/28/26						
PRO SUBMITTAL	7/09/25								
PRO SUBMITTAL	8/22/25								
PRO UPDATE	9/12/25								

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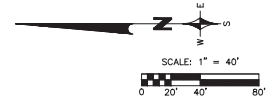
TOPOGRAPHIC & TREE SURVEY
THE GROVE
NOVI, MICHIGAN

DATE	1/14/24	SCALE	HOR: 1" = 40'
DESIGNED BY	SRB	JOB NO.	22149
DRAWN BY	DAE	SHEET	SP-9.2

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MATCH LINE SHEET SP-9.2

MATCH LINE SHEET SP-9.4



EXISTING LEGEND

- MANHOLE
- CATCH BASIN
- ⊕ INLET
- ⊙ CLEANOUT
- ∠ END SECTION
- ⊖ ROOF DRAIN
- ⊕ GATE VALVE
- ⊕ HYDRANT
- ⊕ WATER SHUT-OFF
- ⊕ UTILITY POLE
- ⊕ GUY ANCHOR
- ⊕ LIGHT POLE
- ⊕ SIGN
- ⊕ TREE
- TREE LINE
- FENCE
- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- GAS MAIN
- ELECTRIC CABLE
- WETLAND LIMITS
- WETLAND BUFFER
- BOUNDARY LINE
- PARCEL LINE
- SECTION LINE
- EASEMENTS
- FENCE LINE
- CONTOUR MAJOR
- CONTOUR MINOR
- +100.00 SPOT ELEVATION

ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
SUBMITTAL	7/26/24	PSP SUBMITTAL	1/28/26						
PRO SUBMITTAL	7/09/25								
PRO SUBMITTAL	8/22/25								
PRO UPDATE	9/12/25								

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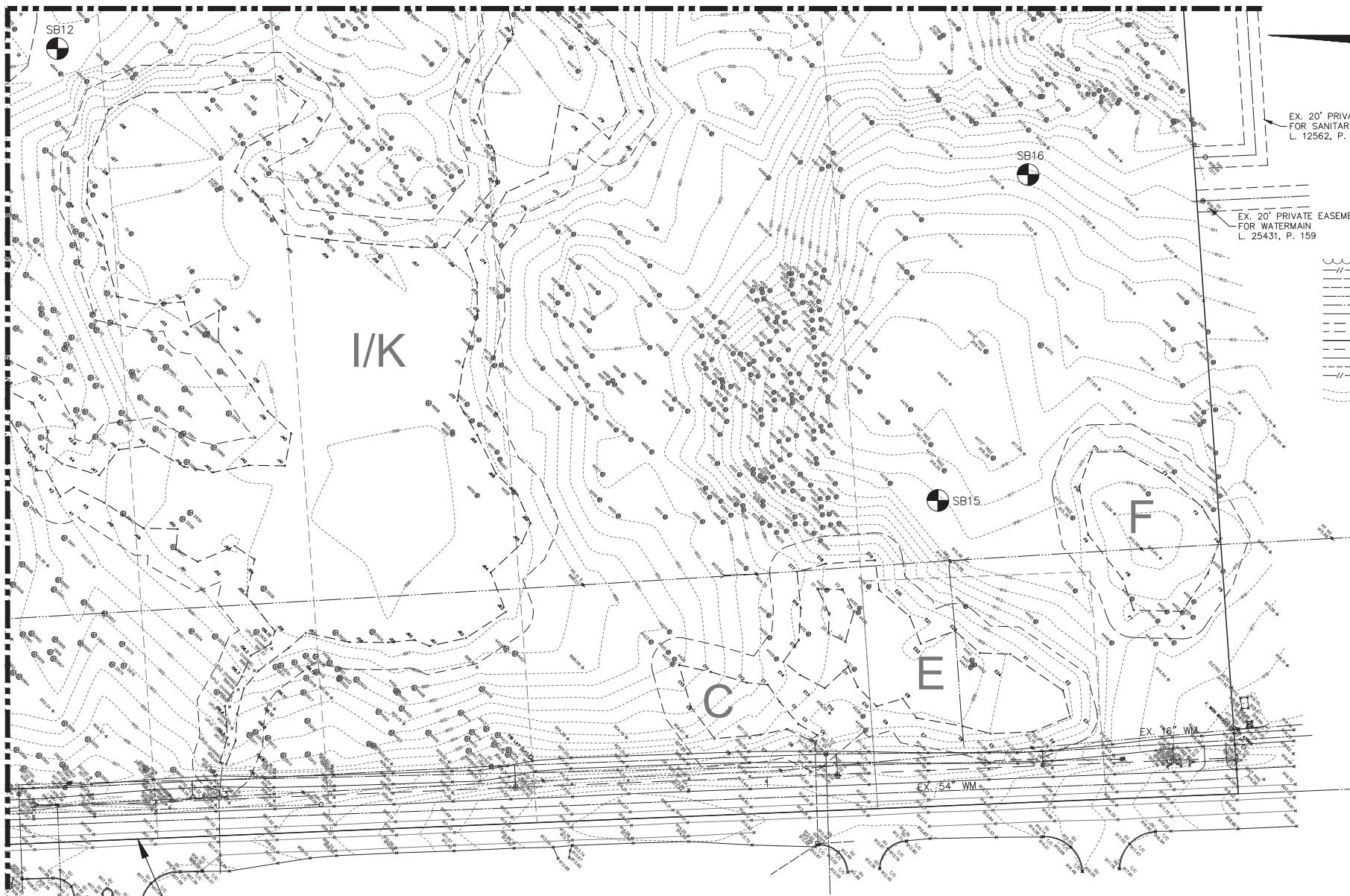
TOPOGRAPHIC & TREE SURVEY
 THE GROVE
 Novi, Michigan

DATE	1/14/24	SCALE	HOR: 1" = 40'
DESIGNED BY	SRB	JOB NO.	22149
DRAWN BY	DATE	SHEET	SP-9.3

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MATCH LINE SHEET SP-9.3

MATCH LINE SHEET SP-9.1



EX. 20' PRIVATE EASEMENT FOR SANITARY L. 12562, P.

EX. 20' PRIVATE EASEMENT FOR WATERMAIN L. 25431, P. 159

- EXISTING LEGEND**
- MANHOLE
 - CATCH BASIN
 - INLET
 - CLEANOUT
 - ◁ END SECTION
 - ROOF DRAIN
 - ⊕ GATE VALVE
 - ⊕ HYDRANT
 - ⊕ WATER SHUT-OFF
 - ⊕ UTILITY POLE
 - ⊕ GUY ANCHOR
 - ⊕ LIGHT POLE
 - ⊕ SIGN
 - ⊕ TREE
 - TREE LINE
 - FENCE
 - SANITARY SEWER
 - STORM SEWER
 - WATER MAIN
 - GAS MAIN
 - ELECTRIC CABLE
 - WETLAND LIMITS
 - WETLAND BUFFER
 - BOUNDARY LINE
 - PARCEL LINE
 - SECTION LINE
 - EASEMENTS
 - FENCE LINE
 - CONTOUR MAJOR
 - CONTOUR MINOR
 - SPOT ELEVATION

ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
SUBMITTAL	7/26/24	PSP SUBMITTAL	1/28/26						
PRO SUBMITTAL	7/09/25								
PRO SUBMITTAL	8/22/25								
PRO UPDATE	9/12/25								

ZEMET WOZNAK
 CONSULTING CIVIL ENGINEERS
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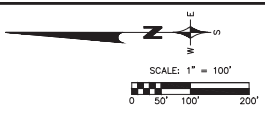
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TOPOGRAPHIC & TREE SURVEY
 THE GROVE
 NOVI, MICHIGAN

DATE	1/14/24	SCALE	HOR: 1" = 40'
DESIGNED BY	SRB	JOB NO.	22149
DRAWN BY	DATE	SHEET	SP-9.4

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PHASING PLAN



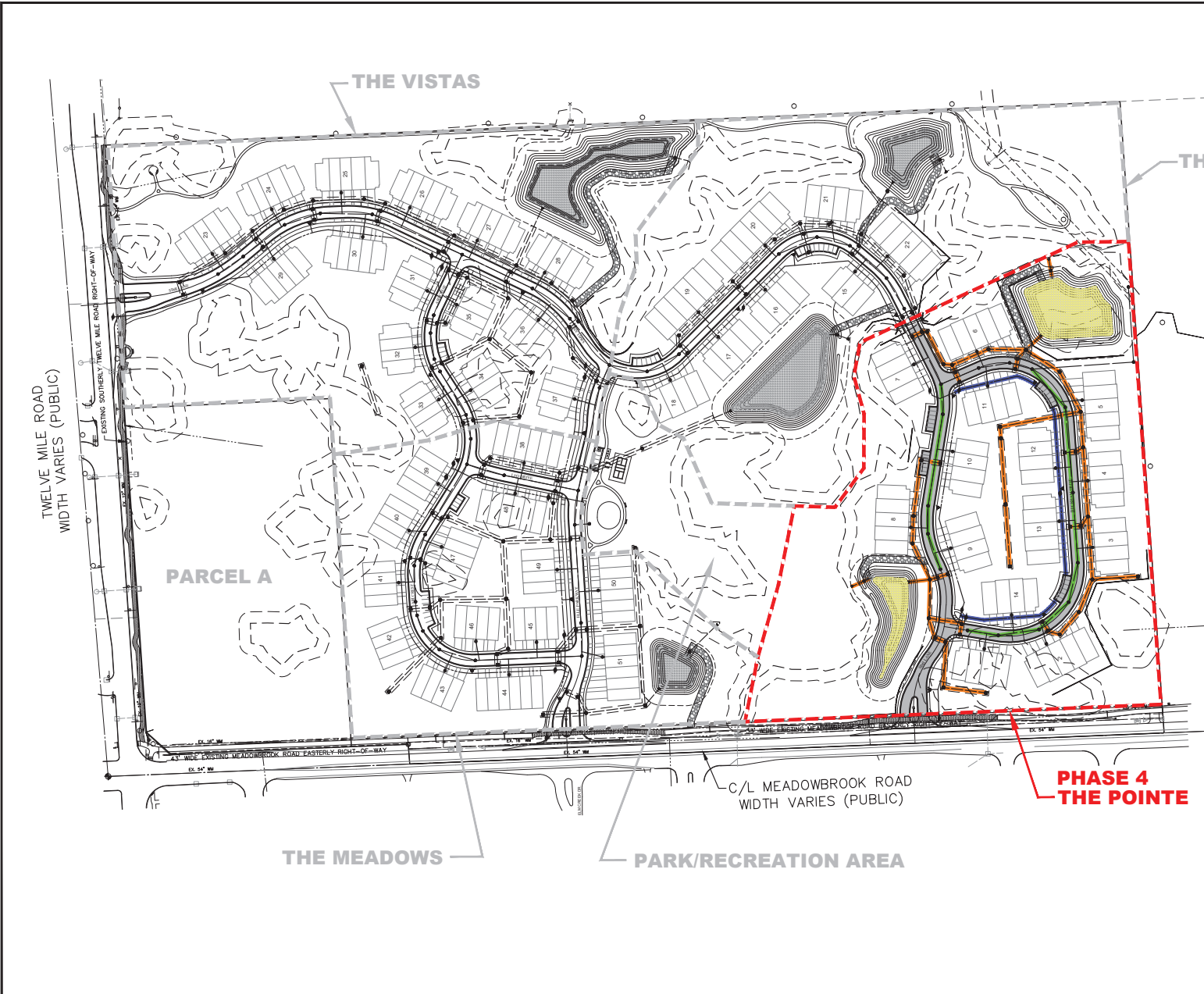
- UTILITY LEGEND**
- | | |
|------------------|------------------|
| EXISTING | PROPOSED |
| ○ MANHOLE | ● MANHOLE |
| □ CATCH BASIN | ■ CATCH BASIN |
| ⊖ CLEANOUT | ⊖ CLEANOUT |
| ⊖ END SECTION | ⊖ END SECTION |
| ⊖ ROOF DRAIN | ⊖ ROOF DRAIN |
| ⊖ GATE VALVE | ⊖ GATE VALVE |
| ⊖ HYDRANT | ⊖ HYDRANT |
| ⊖ WATER SHUT-OFF | ⊖ WATER SHUT-OFF |
| ⊖ UTILITY POLE | ⊖ TREE REMOVAL |
| ⊖ GUY ANCHOR | ⊖ SANITARY SEWER |
| ⊖ LIGHT POLE | ⊖ STORM SEWER |
| ⊖ SIGN | ⊖ WATER MAIN |
| ⊖ TREE | ⊖ DITCH |
| ⊖ TREE LINE | |
| ⊖ SANITARY SEWER | |
| ⊖ STORM SEWER | |
| ⊖ WATER MAIN | |
| ⊖ GAS MAIN | |
| ⊖ ELECTRIC CABLE | |

PHASE 4 CONSTRUCTION TO INCLUDE THE HIGHLIGHTED UNDERGROUND UTILITIES, PAVING, DETENTION BASINS, AND WETLAND MITIGATION AREAS, AS WELL AS TREE REMOVAL AND MASS GRADING REQUIRED TO CONSTRUCT THESE ITEMS.

THE SEQUENCE OF THE PHASING AND THE ASSOCIATED IMPROVEMENTS MAY CHANGE.

PHASE 4 CONSTRUCTION:

- WATERMAIN
- SANITARY SEWER
- STORM SEWER
- PAVING
- DETENTION BASIN
- WETLAND MITIGATION



ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
SUBMITTAL	7/26/24	PSP SUBMITTAL	1/28/26						
PRO SUBMITTAL	7/09/25								
PRO SUBMITTAL	8/22/25								
PRO UPDATE	9/12/25								

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INITIAL PHASING PLAN - PHASE 4
 THE GROVE
 NOV, MICHIGAN

DATE 1/14/24 SCALE HOR: 1" = 100'
 VER: 1" = N/A
 DESIGNED BY SRB JOB NO. 22149
 DRAWN BY DAB SHEET SP-3.13

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BUILDING FACADES



The Meadows

The Vistas



- Various home styles
- Diversity- vary by color, materials, height
- Include 1st floor bedroom ranches to appeal to seniors

Artist renderings are for illustration purposes only and are subject to change. There are 3,4,5,&6 unit buildings. Each unit and or building configuration is subject to change and Grove unit types are interchangeable between Villages per building envelopes shown.



The Woods

- Various home styles
- Diversity- vary by color, materials, height
- Include 1st floor bedroom ranches to appeal to seniors

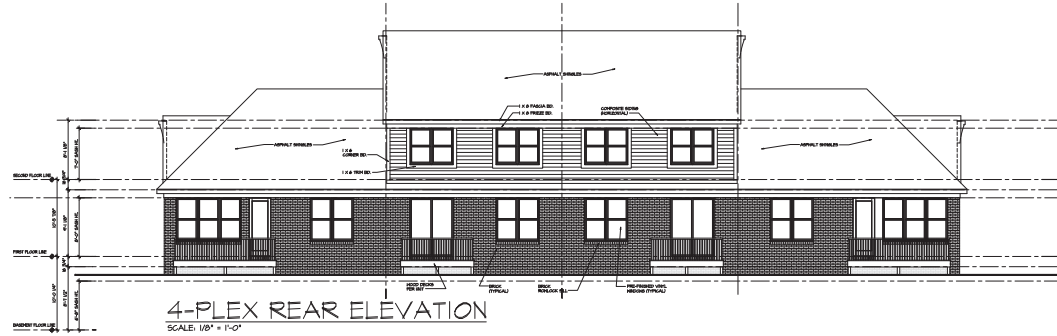
The Pointe



Artist renderings are for illustration purposes only and are subject to change. There are 3,4,5,&6 unit buildings. Each unit and or building configuration is subject to change and Grove unit types are interchangeable between Villages per building envelopes shown.

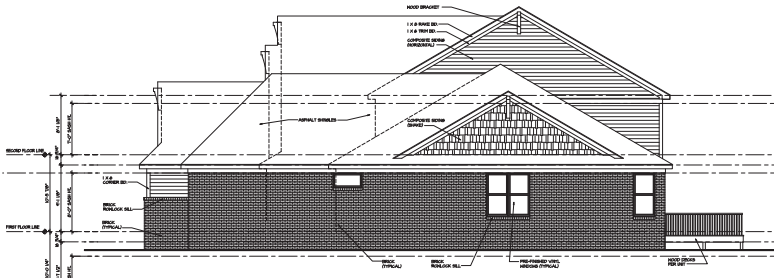
NOTES:

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- THE 4-PLEX SHOWN IS AN ASSUMED UNIT LAYOUT. EACH UNIT AND/OR BUILDING CONFIGURATION IS SUBJECT TO CHANGE BASED ON SITE PLAN AND FINAL GRADING.
- BUILDING CONFIGURATIONS MAY VARY BETWEEN 3,45,46 UNIT BUILDINGS
- GRADE IS SUBJECT TO CHANGE PER UNIT / BUILDING. REFER TO FINAL SITE AND GRADING PLAN
- GROVE UNIT TYPES ARE INTERCHANGEABLE BETWEEN VILLAGES PER BUILDING ENVELOPES SHOWN ON SHEET SP-3



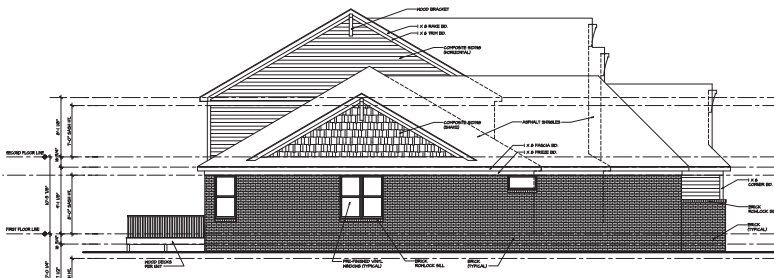
4-PLEX REAR ELEVATION
SCALE: 1/8" = 1'-0"

REAR ELEVATION MATERIAL QUANTITY:
BRICK / VENEER = 147 SQ.FT. = 14%
COMPOSITE SIDING / HOOD TRIM = 264 SQ.FT. = 26%



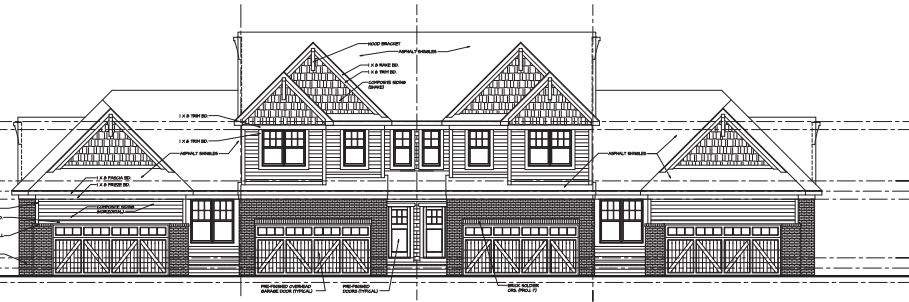
4-PLEX RIGHT ELEVATION
SCALE: 1/8" = 1'-0"

RIGHT ELEVATION MATERIAL QUANTITY:
BRICK / STONE VENEER = 665 SQ.FT. = 65%
COMPOSITE SIDING / HOOD TRIM = 366 SQ.FT. = 35%



4-PLEX LEFT ELEVATION
SCALE: 1/8" = 1'-0"

LEFT ELEVATION MATERIAL QUANTITY:
BRICK / STONE VENEER = 665 SQ.FT. = 65%
COMPOSITE SIDING / HOOD TRIM = 366 SQ.FT. = 35%



4-PLEX FRONT ELEVATION
SCALE: 1/8" = 1'-0"

FRONT ELEVATION MATERIAL QUANTITY:
BRICK / STONE VENEER = 355 SQ.FT. = 30%
COMPOSITE SIDING / HOOD TRIM = 712 SQ.FT. = 61%



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Village #1 - The Vista

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Revised Set:	09/22/25
Permit Set:	NOT FOR CONSTRUCTION
Revisions:	

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Job Number

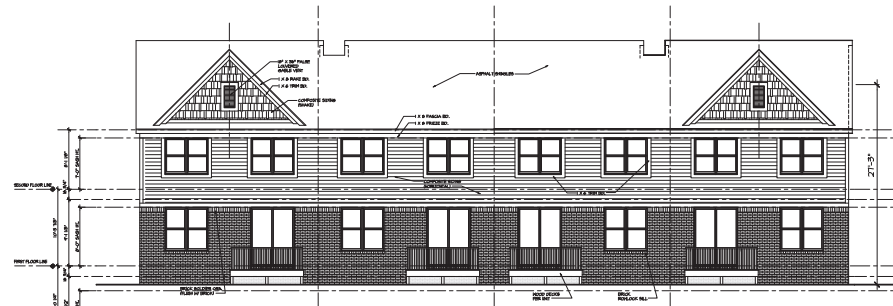
A3 of 3
Sheet



Ivanhoe Companies
The Grove - Novi, Michigan
Village #2 - The Meadows

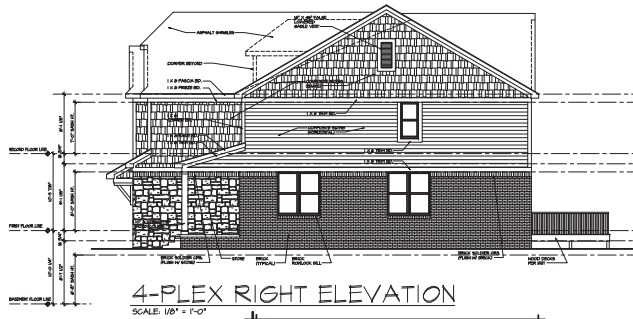
NOTES:

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- THE 4-PLEX SHOWN IS AN ASSIGNED UNIT LAYOUT. EACH UNIT AND OR BUILDING CONFIGURATION IS SUBJECT TO CHANGE BASED ON SITE PLAN AND FINAL GRADING.
- BUILDING CONFIGURATIONS MAY VARY BETWEEN 345,66 UNIT BUILDINGS
- GRADE IS SUBJECT TO CHANGE PER UNIT / BUILDING. REFER TO FINAL SITE AND GRADING PLAN.
- GROVE UNIT TYPES ARE INTERCHANGEABLE BETWEEN VILLAGES PER BUILDING ENVELOPES SHOWN ON SHEET SP-3



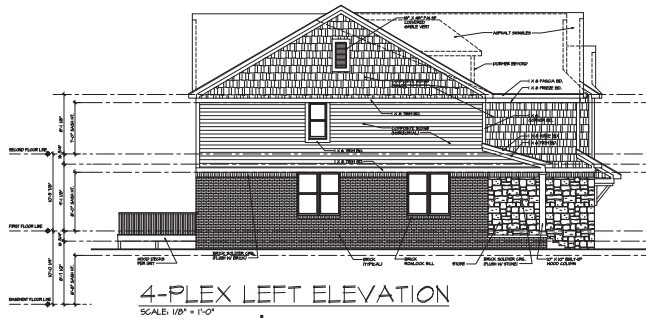
REAR ELEVATION
4-PLEX REAR ELEVATION
SCALE: 1/8" = 1'-0"

REAR ELEVATION MATERIAL QUANTITY:
BRICK VENEER = 675 SQ.FT. = 54%
COMPOSITE SIDING / HOOD TRIM = 185 SQ.FT. = 44%



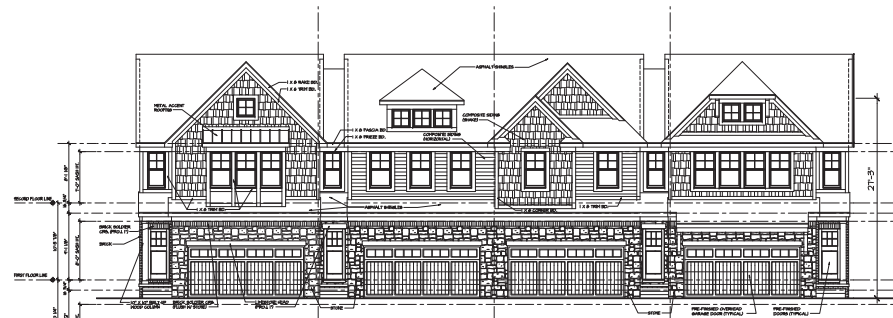
4-PLEX RIGHT ELEVATION
SCALE: 1/8" = 1'-0"

RIGHT ELEVATION MATERIAL QUANTITY:
BRICK / STONE VENEER = 497 SQ.FT. = 61%
COMPOSITE SIDING / HOOD TRIM = 771 SQ.FT. = 39%



4-PLEX LEFT ELEVATION
SCALE: 1/8" = 1'-0"

LEFT ELEVATION MATERIAL QUANTITY:
BRICK / STONE VENEER = 497 SQ.FT. = 61%
COMPOSITE SIDING / HOOD TRIM = 771 SQ.FT. = 39%



4-PLEX FRONT ELEVATION
SCALE: 1/8" = 1'-0"

FRONT ELEVATION MATERIAL QUANTITY:
BRICK / STONE VENEER = 470 SQ.FT. = 37%
COMPOSITE SIDING / HOOD TRIM = 815 SQ.FT. = 63%

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Final Set:	NOT FOR CONSTRUCTION	Revised Set:	
Revisions:			

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A2 of 2

Sheet

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- THE 4-PLEX SKETCH IS AN ASSUMED UNIT LAYOUT. EACH UNIT AND/OR BUILDING CONFIGURATION IS SUBJECT TO CHANGE BASED ON SITE PLAN AND FINAL GRADING.

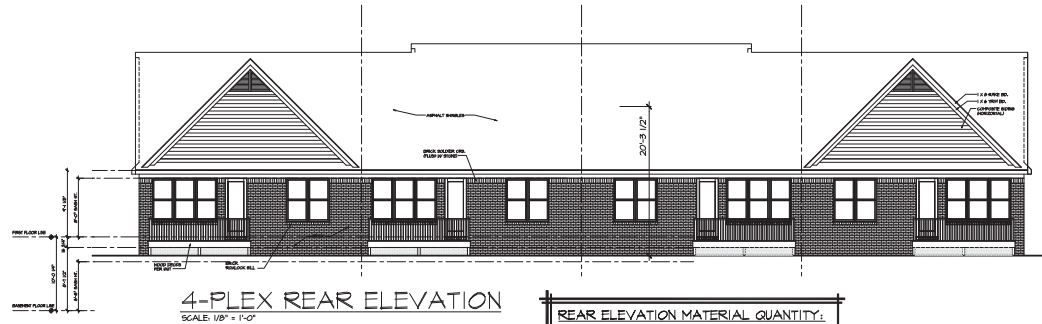
- BUILDING CONFIGURATIONS MAY VARY BETWEEN 3,4,5,6 UNIT BUILDINGS

- GRADE IS SUBJECT TO CHANGE PER UNIT / BUILDING. REFER TO FINAL SITE AND GRADING PLAN

- GRADE UNIT TYPES ARE INTERCHANGEABLE BETWEEN VILLAGES PER BUILDING ENVELOPES SKETCH ON SHEET SP-3



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The Grove - Novi, Michigan
Village #3 - The Woods



4-PLEX REAR ELEVATION
SCALE: 1/8" = 1'-0"

REAR ELEVATION MATERIAL QUANTITY:

BRICK VENEER	= 246 SQ.FT. = 64%
COMPOSITE SIDING / WOOD TRIM	= 425 SQ.FT. = 34%



4-PLEX RIGHT ELEVATION
SCALE: 1/8" = 1'-0"

RIGHT ELEVATION MATERIAL QUANTITY:

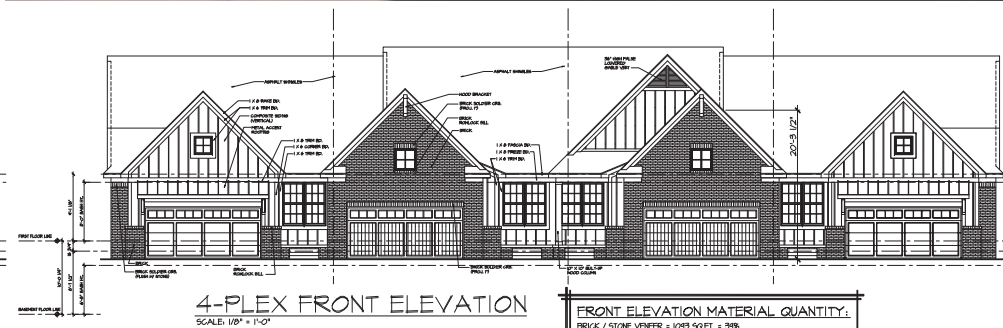
BRICK / STONE VENEER	= 625 SQ.FT. = 13%
COMPOSITE SIDING / WOOD TRIM	= 362 SQ.FT. = 47%



4-PLEX LEFT ELEVATION
SCALE: 1/8" = 1'-0"

LEFT ELEVATION MATERIAL QUANTITY:

BRICK / STONE VENEER	= 625 SQ.FT. = 13%
COMPOSITE SIDING / WOOD TRIM	= 362 SQ.FT. = 47%



4-PLEX FRONT ELEVATION
SCALE: 1/8" = 1'-0"

FRONT ELEVATION MATERIAL QUANTITY:

BRICK / STONE VENEER	= 1083 SQ.FT. = 24%
COMPOSITE SIDING / WOOD TRIM	= 1665 SQ.FT. = 64%

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Revised Set:	07/15/25	Prepared Set:
Final Set:	NOT FOR CONSTRUCTION	
Revised Set:	09/22/25	Added Bricks to Front Elevation

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Job Number

A3 of 3

Sheet

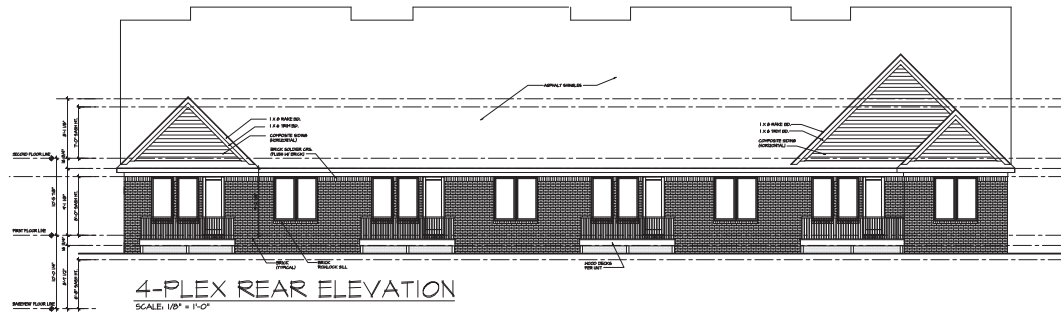
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Village #4 - The Pointe

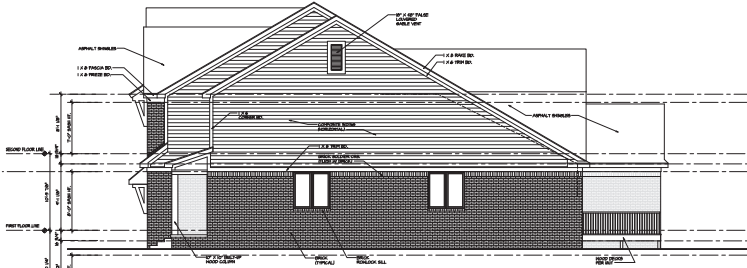
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- BUILDING CONFIGURATIONS MAY VARY BETWEEN 3,45,16 UNIT BUILDINGS
- GRADE IS SUBJECT TO CHANGE PER UNIT / BUILDING, REFER TO FINAL SITE AND GRADING PLAN
- GROVE UNIT TYPES ARE INTERCHANGEABLE BETWEEN VILLAGES PER BUILDING ENVELOPES SHOWN ON SHEET SP-3



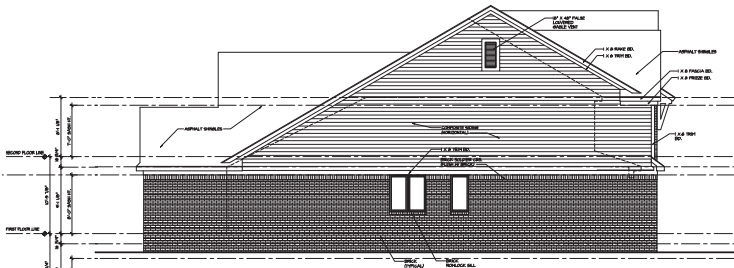
4-PLEX REAR ELEVATION
SCALE: 1/8" = 1'-0"

REAR ELEVATION MATERIAL QUANTITY:
BRICK VENEER = 891 SQ.FT. = 18%



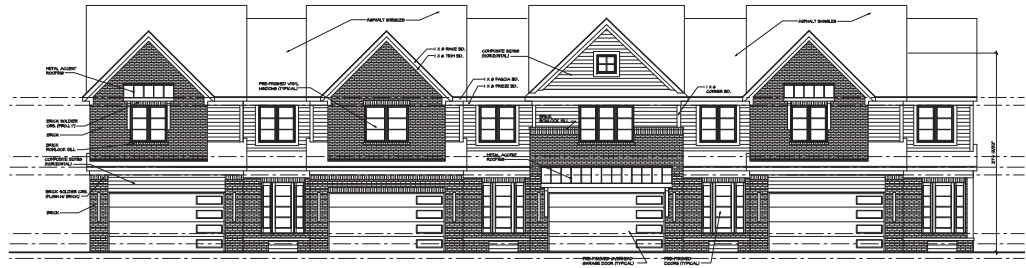
4-PLEX RIGHT ELEVATION
SCALE: 1/8" = 1'-0"

RIGHT ELEVATION MATERIAL QUANTITY:
BRICK / STONE VENEER = 101 SQ.FT. = 46%



4-PLEX LEFT ELEVATION
SCALE: 1/8" = 1'-0"

LEFT ELEVATION MATERIAL QUANTITY:
BRICK / STONE VENEER = 100 SQ.FT. = 47%



4-PLEX FRONT ELEVATION
SCALE: 1/8" = 1'-0"

FRONT ELEVATION MATERIAL QUANTITY:
BRICK / STONE VENEER = 1184 SQ.FT. = 14%

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Final Set: NOT FOR CONSTRUCTION	
Revisions:	

23073
Job Number

A3 of 3
Sheet

PLANNING REVIEW



PLAN REVIEW CENTER REPORT

Planning Review

March 10, 2026

JSP26-02 The Grove

PETITIONER

Ivanhoe Companies

REVIEW TYPE

Preliminary Site Plan

PROPERTY CHARACTERISTICS

Section	13	
Site Location	East side of Meadowbrook, south of Twelve Mile Road;	
Site School District	Novi Community School District	
Current Site Zoning	RM-1, Low-Density Multiple Family with PRO	
Adjoining Zoning	North	R-4 and B-3 with a PRO; RA Residential Acreage
	East	OST, Office Service Technology
	West	OST, Office Service Technology
	South	OST, Office Service Technology
Current Site Use	Vacant	
Adjoining Uses	North	Vacant, Beacon Hill park
	East	MDOT-owned natural area
	West	U of D Mercy, vacant, Single Family, Office Buildings
	South	Office Complex
Site Size	Gross: 61.86 Acres; Net: 54.85 acres (ROW: 2.32, Wetlands > 2: 4.69)	
Parcel ID's	22-13-100-024; 22-13-100-026; 22-13-100-030; 22-13-100-028; 22-13-100-005; 22-13-100-006; 22-13-100-007; 22-13-100-008; 22-13-100-009; 22-13-100-010; 22-13-100-020; 22-13-100-021	
Plan Date	January 28, 2026	

PROJECT SUMMARY

The subject property is located on the east side of Meadowbrook Road, south of Twelve Mile Road in Section 13 of the City of Novi. The property totals about 61.86 acres and contains a significant amount of regulated woodland and wetland areas. The applicant is proposing to develop a 232-unit multiple-family residential development. The development consists of four "villages" of homes: The Meadows (67 attached units in 14 buildings), The Vistas (68 attached units in 15 buildings), The Woods (36 attached units in 8 buildings) and The Pointe (61 attached units in 14 buildings). Wetland mitigation is proposed on-site to replace impacted wetland areas. The development utilizes a private street network with two entrances off Meadowbrook Road, and one entrance off Twelve Mile Road. The applicant is expected to receive Council approval at an upcoming meeting to rezone the site from Office Service Technology (OST) to Low-Density Multiple Family (RM-1) with a Planned Rezoning Overlay.

PRO OPTION

The PRO option creates a "floating district" with a conceptual plan attached to the rezoning of a parcel. As part of the PRO, the underlying zoning is changed (in this case from OST to RM-1), and

the applicant submits a conceptual plan for development of the site, along with site-specific conditions relating to the proposed improvements. Following final approval of the PRO Plan and Agreement, the applicant submits for Preliminary and Final Site Plan approval under standard site plan review procedures. If development is not commenced within two years from the effective date of the PRO Agreement it will expire, unless otherwise agreed to by the parties.

PROJECT HISTORY

The project was submitted and reviewed by staff and consultants in a pre-application submittal in May 2024. Comments were provided on the concept plans submitted, but no recommendations for approval were made at that time.

The initial PRO plan was submitted and reviewed in August/September 2024. At that time, the applicant was proposing to develop a 438-unit multiple-family residential development with a mix of townhomes and apartment buildings. The Planning Commission held a public hearing on October 30, 2024, and provided feedback on the proposal. On December 16, 2024, City Council considered the request and provided feedback to the applicant. Minutes from both meetings are available on the city website.

The Formal PRO submittal was first reviewed in July and again in August/September 2025 to address outstanding concerns.

The Planning Commission held a public hearing on the Formal PRO request on October 8, 2025. They unanimously recommended approval of the rezoning to City Council.

The applicant received tentative approval from City Council of the rezoning request and PRO Concept Plan on November 17, 2025.

Final approval of the rezoning to RM-1 and PRO Agreement is anticipated to be considered by City Council on March 23, 2026. The following review is based on the draft PRO Agreement text, which may be subject to change.

RECOMMENDATION

Planning recommends conditional approval of the Preliminary Site Plan **as it is in conformance with the Draft PRO Agreement and relevant sections of the Zoning Ordinance. Any reference to the “PRO Agreement” and Next Steps means that the staff’s comments are provided in anticipation of the City Council approving the PRO Agreement, but the City staff makes no representation that the PRO Agreement is or will be approved.**

Planning Commission approval will be required for Preliminary Site Plan, Phasing Plan, Wetland Permit, Woodland Permit, and Storm Water Management Plan.

REVIEW COMMENTS

This project was reviewed for conformance with the Zoning Ordinance with respect to Article 3 (Zoning Districts), Article 4 (Use Standards), Article 5 (Site Standards), Section 7.13 (Amendments to Ordinance) and any other applicable provisions of the Zoning Ordinance, as well as the terms of the PRO Agreement. **Please see the attached chart for additional information pertaining to ordinance requirements.** Items in **bold** below must be addressed and incorporated as part of the next submittal:

1. **Building Numbers:** The buildings have been identified with numbers that are not consistent with the proposed phasing of the project. **It is recommended that the buildings be renumbered to roughly correspond with the proposed order of construction to be more logical and not cause confusion.**

2. Pickleball Court: The plan and narrative indicates a pickleball court will be one of the amenities to be developed, along with a playscape, in a central area of the project. As shown on the plan, the court would be 100 feet from the nearest residence. **While pickleball is a very popular and growing sport, we have heard reports from Novi residents and other communities that the sound produced during play is very disruptive/disturbing to those living in proximity to these facilities. Consideration of sound buffering around the pickleball court is needed to be a condition to protect future residents from this nuisance. The PRO Agreement states that a noise impact study be provided in the site plan process for any pickleball courts proposed to ensure it and any noise mitigation will comply with the performance standards of Section 5.14 of the Zoning Ordinance.**

3. Phasing: The phasing plan provided shows 4 Phases of development, with the central recreation area un-assigned to a phase.
 - a. **Phase 1 (Vistas)**: The plan shows Buildings 23-37 (15 buildings) will be constructed in Phase 1, along with the northern portion of Simi Lane connecting to Twelve Mile Road, and portions of Ari Crest, Leo Drive, and Elle Parkway. Two stormwater ponds are shown to be constructed in phase 1: east of buildings 27-28, and west of Buildings 16-17. Watermain would be installed along the roads being built, and is shown to be extended to Meadowbrook Road (through Phase 2 area). Sanitary sewer be constructed from 12 Mile under the phase 1 roads and extended through Phases 3 and 4 to the southernmost property line. Storm sewer is also proposed connecting to the detention ponds. **Some wetland mitigation is to be constructed in this phase (Mitigation area 2, 0.75 ac on Sheet SP-4.2). On the overall plans there is also wetland mitigation shown south of Twelve Mile, west of Simi Lane (Mitigation area 1, 0.85 ac on sheet SP-4.1). The PRO Agreement states this mitigation will be constructed when the Trinity Parcel is developed. The Trinity Parcel plans would need design details of the mitigation basin that would be reviewed at that time under the standards currently in effect. Note that requirements could change.**
 - b. **Phase 2 (Meadows)**: Buildings 38-51 (14 buildings) will be constructed in Phase 2, along with the remaining portions of Elle Parkway (connecting to Meadowbrook Road) and Ari Crest. Utility lines are extended from the lines placed in Phase 1 to serve the new buildings. A small detention pond is to be built near Meadowbrook Road south of Building 51. South of building 50 wetland mitigation is proposed. **The central recreation areas are to be completed prior to occupancy of any building in Phase 2.**
 - c. **Phase 3 (Woods)**: Buildings 15-22 (8 buildings) will be constructed in Phase 3, with the middle section of Simi Lane ending in a temporary T-turnaround for emergency vehicles. A stormwater pond would be constructed east of building 22 along with storm sewer lines. Water main would be extended from the stub in Phase 1 along the full length of Simi Lane connecting to Meadowbrook Road. Two areas of wetland mitigation is shown east of buildings 19-20 (Wetland mitigation area 4, 0.44 ac on Sheet SP-4.2).
 - d. **Phase 4 (Pointe)**: Buildings 1-14 will be constructed in Phase 4, along with the final portion of Simi Lane (connecting to Meadowbrook Road), and all of Beckham Drive. A bridge crossing would be required between Phases 3 and 4. Two stormwater ponds and storm sewer would be installed. The final segments of sanitary sewer and water main would also be constructed.

	Phase 1 The Vistas	Phase 2 The Meadows	Phase 3 The Woods	Phase 4 The Pointe
Buildings	15	14	8	14
Units	68	67	36	61
Parking	276	280	159	268
Usable Open	2.06 ac	0.45 ac	1.17 ac	0.72 ac

Space				
Stormwater				
Wetland impacts				
Wetland mitigation	0.75 ac	0.43 ac	0.44 ac	0 ac
Woodland removals				
Woodland credits				

4. Wetland and Woodland Permits: Wetland and Woodland impacts are not broken down by Phase. **The applicant should clarify if one wetland permit and one woodland permit will be used for the whole project, or if these will also be phased. If to be phased, additional information is needed to show impacts and mitigation proposed for each phase. The Planning Commission’s approval of a single permit may later be broken out into separate permits after Final Site Plan review determines impacts in each phase, but this should be clarified in the Planning Commission motion.**
5. Condominium Plan (Sec. 6.3): The applicant has previously indicated ownership of the property will be organized within a Condominium. **A draft Master Deed and Exhibit B will need to be submitted for review and approval prior to Stamping Set submittal.**
6. Detention Area Access: On Sheet SP-6, a 20-foot wide detention area access easement from public road exhibit shows access would not be available until Phase 4 is constructed. **An alternate route to access the detention areas would be required beginning in Phase 1 in the event subsequent phases are not built or are delayed.**
7. Site Amenities: In the PRO Agreement, the applicant commits to providing several amenities on the site. **These amenities will need to be shown with detailed plans in the Final Site Plan submittal. Cost estimates for each amenity shall also be provided by Phase.**
8. Site Lighting (Sec. 5.7): Site lighting and photometric plan to be reviewed at the time of Final Site Plan Submittal. See Plan Review Chart for standards of Section 5.7.
9. Plan Review Chart: **See the attached chart for additional comments on many of the Ordinance review standards.**

MAJOR CONDITIONS OF PLANNED REZONING OVERLAY AGREEMENT

Some selected conditions that are part of the Draft PRO Agreement are included below. Please refer to the Draft PRO agreement for other details. **Staff comments are in bold.**

1. Developer shall construct an approximately one-acre park area, accessible to residents and the general public, with pedestrian and bike rest stop area, at the northeast corner of the site along 12 Mile Road. The park area shall be completed prior to the issuance of the first final certificate of occupancy (“FCO”) for the Vistas. Notwithstanding the above, the park area shall be completed within five (5) years of the issuance of the first building permit within the Development. The Master Deed(s) for the unit owners within the Development shall include a notice that the park is for use by the public and the Development, but shall be maintained by the Developer and the Association, thereafter. Signs identifying the park as public access shall be installed as part of the

construction of the park area. The signage shall be maintained permanently by the Developer, and the Association after transition of control.

2. Developer shall construct an approximately one-mile loop "Grove Nature Area Trail", accessible to residents and the public, that extends from the newly created park area along the east property line of the Property, providing scenic views of the adjacent 30-acre natural wetland area (not within the Development) as well as natural features of the Property. The Grove Nature Area Trail shall be completed as shown in an approved Phasing Plan prior to the issuance of the first FCO for the Vistas or the Woods, whichever first occurs. Notwithstanding the above, the Grove Nature Trail shall be completed within five (5) years of the issuance of the first building permit within the Development. The Master Deed for the Development shall include a notice that the trail is for use by the public and the unit owners in the Development, but shall be maintained by the Developer and the Association, thereafter. Signage identifying the public trail shall be installed as part of the construction of the Grove Nature Trail prior to the issuance of the first FCO for each Phase along the trail.
3. In order to address the impact of additional use of Beacon Hill Park by the new residents and planned access and interconnectivity for Novi residents and Grove Nature Trail, Developer agrees to provide the City with \$25,000 prior to the first preconstruction meeting after approval of the Stamping Set, to be used by the City at its discretion for Beacon Hill Park improvements, art, services and/or maintenance.
4. Developer shall construct approximately 700 feet of 10-foot-wide pathway gap on the south side of 12 Mile Road to create a connection from the existing bike path, located along the east side of Meadowbrook Road, and the new sidewalk being constructed with The Grove within the first phase of the Development and prior to the issuance of the first FCO. Trinity agrees to provide Developer with such construction and other easements over the Remaining Trinity Property to the extent required to construct the pathway. Off-site easements/right-of-way for the pathway shall be dedicated to the City prior to the issuance of Stamping Sets for the Development.
5. Subject to SMART approval as to the precise location and design, Developer shall relocate the SMART bus stop to the east and enhance the area with landscaping and seating along 12 Mile Road. At least 8 bike parking spaces shall be provided. The bus stop improvements shall be completed as part of the first phase of the Development, prior to the issuance of the first FCO.
6. Developer shall preserve approximately 1/3 of the property as open space with most of the units abutting or overlooking open space, as shown on the PRO Plan.
7. Developer shall construct an 8-foot wide shared-use public pathway within the Development to provide pedestrian and bicycle connectivity between Meadowbrook Road and 12 Mile Road. The pathway will be constructed at the time buildings adjacent to the pathway are constructed and shall be completed within two (2) years of the issuance of the first FCO within each such phase. The Master Deed for the Development shall include a notice that the pathway is for use by the public and the unit owners in the Development but shall be maintained by the Developer and the Association, thereafter. Signage identifying the public pathway shall be installed at the entrance to the pathway along Meadowbrook and the entrance of the pathway and 12 Mile Road upon completion of the pathway. Notwithstanding the above, the pathway shall be completed within five (5) years of the issuance of the first building permit within the Development.

8. Developer shall provide conservation easements protecting approximately 10 acres of woodland and woodland replacement areas and approximately 15.5 acres of wetland and wetland mitigation areas, which represents over 47% of the property and could not be required under typical development conditions, to be recorded prior to the issuance of the first building permit within the Development. Developer shall develop a plan for the removal of invasive species from the wetland areas for City review with the final site plan submittal, and implement the first removal treatment prior to the issuance of the first building permit for the Development. Wetland and woodland signage delineating protected areas shall be installed prior to the issuance of the first FCO for each Phase. The signs must be permanently maintained as posted by the Developer, and the Association after transition of control.
9. The Development shall be limited to approximately 4.23 dwelling units per acre, which is a lower density from what would be permissible in the RM-1 zoning district (up to 7.3 units per acre permitted).
10. Developer shall dedicate approximately 1,648 lineal feet of future right-of-way (60-foot width) along the entire Meadowbrook Road frontage, a total land area of about 2.32 acres, prior to issuance of the first building permit within the Development.
11. Developer shall provide the community amenities shown in the PRO Plan, except as otherwise stated in this Section above, prior to the issuance of the first FCO in each phase accordance with the phasing plan to be approved as part of the site plan approval process. Developer, at its option, may construct a clubhouse and/or pool or other amenities where the pickleball court and playscape are currently shown. Provision of amenities shall occur with development of The Meadows. The clubhouse shall meet all requirements of the Zoning Ordinance at the time of site plan approval for the clubhouse, which may occur at a later date after approval of the preliminary or final site plan. Any changes to recreation amenities will require submittal of a site plan for review and approval following the City's standard procedures. Amenities may be changed but not eliminated.
13. Building height within the Development shall be limited to 30 feet, which is less than the 35 feet permitted in the RM-1 District.
14. Developer shall construct the off-site road and entranceway improvements as shown on the PRO Plan by phase, prior to the issuance of the first FCO within each Phase of the Development.
15. If pickleball court(s) are proposed at the time of Final Site Plan submittal, a noise impact statement shall be submitted showing that the activity, with any noise mitigation measures required, will comply with the City's Performance Standards, as set forth in Section 5.14 of the City of Novi Zoning Ordinance, as amended.
16. Developer shall provide the following sustainable design features:
 - a. Pre-wired garages for one 48 amp 240-volt EV charger (60 amp circuit).
 - b. All appliances used within the development must be EnergyStar-rated or applicable equivalent standards.
 - c. All applicable plumbing fixtures shall be WaterSense labeled or applicable equivalent standard.

- d. Building material on the exterior façade of a majority of the exterior elevations shall be energy-efficient, durable, and low maintenance, including brick and composite siding.
 - e. Developer shall use energy-efficient glass/glazing and insulation materials.
 - f. Developer shall offer a tankless water heater option.
 - g. Install smart scheduling technology for sprinklers incorporating weather and soil moisture measurements.
 - h. Developer shall construct the pathway network and infrastructure as shown on the PRO Plan that reduces emissions and promotes pedestrian connectivity with bike/pedestrian friendly streets, and bicycle parking in units throughout the site prior to first unit building permit in each Phase and/or as set forth above.
 - i. Developer shall provide benches made with recycled materials to be used throughout the open space areas prior to the issuance of the first FCO for each Phase.
17. Developer shall include a notice in the Master Deed and Bylaws that the Trinity Retained Property is zoned OST and may be developed with any of the uses permitted in that district, and is the Master Plan designation is General Mixed Use.

Additional conditions may be included in the PRO Agreement, if it should be approved, during review by the public bodies.

ORDINANCE DEVIATIONS

Section 7.13.2.D.i.c(2) permits deviations from the strict interpretation of the Zoning Ordinance within a PRO agreement. These deviations must be accompanied by a finding by City Council that *"each Zoning Ordinance provision sought to be deviated would, if the deviation were not granted, prohibit an enhancement of the development that would be in the public interest, and that approving the deviation would be consistent with the Master Plan and compatible with the surrounding areas."*

The following deviations from the standards of the Zoning Ordinance are authorized pursuant to the tentative approval granted by City Council and the DRAFT PRO Agreement:

- a. A Zoning Ordinance deviation from Section 3.1.7.D to reduce the building setbacks from 75 feet to 50 feet along the north, east, and south property lines, as sufficient screening appears to be proposed.
- b. A Zoning Ordinance deviation from Sec. 3.8.2.D to revise the required orientation of the buildings from a minimum of 45 degrees in certain locations. This allows for a more uniform site layout with all of the units backing up to open space/wooded areas.
- c. A Zoning Ordinance deviation from Sec 3.8.2.H to reduce the building separation distance from the calculated formula as shown on the Building Separation Table on Sheet SP-3.6 of the PRO Plan. This deviation enables the layout of this project to fit within the available space while minimizing wetland and woodland impacts.
- d. A Zoning Ordinance deviation from Section 5.10 allows for perpendicular parking on the major drives. This deviation is requested due to the impracticality of providing a minor road (defined as less than 600 feet in length) given the site constraints (woodlands, wetlands, and

- property configuration). Perpendicular parking for guests is proposed on four Major Drives (Simi Drive, Beckham Drive, Elle Parkway, and Ari Crest) in several locations, where driveways are also proposed. The parking spaces will not cause any more disruption on the roadway than cars that will be backing out of the driveways.
- e. A Zoning Ordinance deviation from Section 5.10 to allow on-street parking on curves with less than a 230-foot centerline radius. The deviation is supported as the parking spaces will not cause any more disruption on the roadway than cars that will be backing out of the driveways.
 - f. A landscape deviation from Section 5.5.3.A.ii to not provide a 4-foot, 6-inch to 6-foot-high landscape berm on a proposed RM-1 district adjacent to an OST district on the north, east and south side. This deviation is supported because of topography and the provision of dense landscaping and/or preserved trees along the property lines.
 - g. A landscape deviation from Section 5.5.3.B.ii for the required greenbelt berm and plantings along 12 Mile and Meadowbrook Road due to the existing natural areas to be preserved, and a heavily landscaped detention basin.

Any additional deviations identified during Site Plan Review (after the Concept Plan and PRO Agreement is approved), will require amendment of the PRO Agreement unless otherwise stated.

SUMMARY OF OTHER REVIEWS:

1. Engineering Review: **Engineering recommends approval of the Preliminary Site Plan and Stormwater Management Plan.** The plans meet the general/preliminary requirements on Chapter 11, Storm water management ordinance and the Engineering Design Manual. Additional comments to be addressed in the Final Site Plan submittal.
2. Landscape Review: **Landscape recommends approval for the Preliminary Site.** Comments to be addressed in the Final Site Plan submittal. Refer to review letter for more comments.
3. Woodland Review: **Woodlands recommends approval of the Preliminary Site Plan.** See review letter for detailed comments to be addressed in the Final Site Plan submittal.
4. Wetland Review: **Wetlands recommends approval of the Preliminary Site Plan.** See review letter for detailed comments to be addressed in the Final Site Plan submittal.
5. Traffic Review: **Traffic recommends approval for the Preliminary Site Plan.** Comments to be addressed in the Final Site Plan submittal. Refer to review letter for more comments.
6. Facade Review: No facade review completed at this time, as the applicant indicates there are no changes to the facades that are anticipated to be approved in the PRO Plan.
7. Fire Review: **Fire recommends conditional approval.** The vehicle bridge crossing will need to support 35 Ton specifications in FSP submittal.

FUTURE STEP: PLANNING COMMISSION MEETING

This Site Plan will be scheduled to go before the Planning Commission for public hearing and consideration for approval if and when the PRO Agreement and rezoning have been approved by City Council.

FINAL SITE PLAN SUBMITTAL

After receiving Preliminary Site Plan approval from Planning Commission, please submit the following for Final Site Plan review and approval:

1. Six copies of Final Site Plan addressing all comments from Preliminary review
2. Response letter **addressing all comments and refer to sheet numbers where the change is reflected**
3. [Final Site Plan Application](#)
4. [Final Site Plan Checklist](#)

5. Engineering Cost Estimate
6. Landscape Cost Estimate
7. [Other Agency Checklist](#)
8. [Non-Domestic User Survey](#) (Non-residential developments)
9. Drafts of any legal documents (note that off-site easements need to be executed and any on-site easements need to be submitted in draft form before stamping sets will be stamped)

ELECTRONIC STAMPING SET SUBMITAL AND RESPONSE LETTER

Once all reviewers recommend Final Site Plan approval, submit the following for Electronic stamping set approval:

1. Plans addressing the comments in all of the staff and consultant review letters in PDF format.
2. Response letter addressing all comments in ALL letters and ALL charts and **refer to sheet numbers where the change is reflected.**

STAMPING SET APPROVAL

Stamping sets are still required for this project. After having received Electronic Stamping Set comments from City staff the applicant should make the appropriate changes on the plans and submit **9 size 24" x 36" copies with original signature and original seals,** to the Community Development Department for final Stamping Set approval.

SITE ADDRESSING

New addresses are required for this project. The applicant should contact the Building Division for an address prior to applying for a building permit. Building permit applications cannot be processed without a correct address. The address application can be found by clicking on this [link](#).

Please contact the Ordinance Division 248.735.5678 in the Community Development Department with any specific questions regarding addressing of sites.

STREET AND PROJECT NAME

This project has received approval from the Project Naming Committee. See letter from Stacey Choi dated 2/20/26. **Please use the approved street names for all future submittals – Elle Trail, Ari Circle, Harper Lane, Poppy Lane, and Leo Drive. See letter and map for proper locations.**

PRE-CONSTRUCTION MEETING

A Pre-Construction meeting is required for this project. Prior to the start of any work on the site, Pre-Construction (Pre-Con) meetings must be held with the applicant's contractor and the City's consulting engineer. Pre-Con meetings are generally held after Stamping Sets have been issued and prior to the start of any work on the site. There are a variety of requirements, fees and permits that must be issued before a Pre-Con can be scheduled. If you have questions regarding the checklist or the Pre-Con itself, please contact Sarah Marchioni [248.347.0430 or smarchioni@cityofnovi.org] in the Community Development Department.

CHAPTER 26.5

Chapter 26.5 of the City of Novi Code of Ordinances generally requires all projects be completed within two years of the issuance of any starting permit. Please contact Sarah Marchioni at 248-347-0430 for additional information on starting permits. The applicant should review and be aware of the requirements of Chapter 26.5 before starting construction.

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.347.0484 or jbelle@cityofnovi.org

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

Lindsay Bell, AICP, Senior Planner



PLANNING REVIEW CHART: RM-2 with PRO

Review Date: February 24, 2026
Review Type: Preliminary Site Plan
Project Name: **JSP26-02 THE GROVE**
Plan Date: January 28, 2026
Prepared by: Lindsay Bell, AICP, Senior Planner
E-mail: lbell@cityofnovi.org; **Phone:** (248) 347-0484

Bold To be addressed in future submittals
Underline Deviations or conditions anticipated to be part of PRO agreement (based on tentative approval)
Bold and Underline To be addressed with Final Site Plan submittal
Italics Items to be noted

Item	Required Code	Proposed	Meets Code	Comments
Zoning and Use Requirements				
Master Plan <i>(adopted July 26, 2017)</i>	General Mixed Use	Multiple Family Residential	Yes	<u>Rezoning request approved by City Council on TBD</u>
Area Study	The site does not fall under any special category	NA	NA	
Zoning <i>(Effective January 8, 2015)</i>	RM-1 Low-density Multiple Family with a PRO	RM-1 Low-density Multiple Family with a PRO	No	
Uses Permitted <i>(Sec 3.1.21.B & C)</i>	Sec. 3.1.8. Multi-Family Residential	Sec. 3.1.8. Multi-Family Residential	Yes	<u>PRO Agreement permits Multi-family uses proposed</u>
Phasing	If proposed, show proposed phasing lines on the plan. Each phase should be able to stand on its own with regards to utilities, open space, parking, etc.	Phasing Plan provided: Phase 1: 15 bldgs, 68 units Phase 2: 14 bldgs, 67 units Phase 3: 8 bldgs, 36 units Phase 4: 14 bldgs, 61 units	TBD	<i>Phasing plan to be approved by Planning Commission, see detailed discussion in Planning Review</i>
Height, bulk, density and area limitations (Sec 3.1.8.D)				
Frontage on a Public Street. <i>(Sec. 5.12)</i>	Frontage on a Public Street is required	The site has frontage and access to Meadowbrook and 12 Mile Roads	Yes	
Minimum Zoning Lot Size for each Unit: in Acres <i>(Sec 3.8.1)</i>	RM-1 and RM-2 Required Conditions	61.86 acres gross 54.85 acres net	Yes	
Minimum Zoning Lot Size for each Unit: Width in Feet <i>(Sec 3.8.1)</i>			NA	
Usable Open Space Area <i>(Sec 3.1.8.D)</i>	200 sf of Minimum usable open space per dwelling unit	Sheet SP3.4 – Usable OS: 5.97 acres	Yes	<u>This is a condition of development in the draft PRO Agreement</u>

Item	Required Code	Proposed	Meets Code	Comments
Article 2: Definitions	For a total of 232 dwelling units, <u>required Open Space: 46,400 SF (~1.15 acre)</u> Refer to definitions for <u>Usable Open Space and Open Space</u>	"Additional Open Space" = 11.99 acres		
Maximum % of Lot Area Covered (By All Buildings)	25%	21%	Yes	
Building Height (Sec. 3.1.7)	35 ft. or 2 stories whichever is less	2 stories proposed 1-story units: 20 ft 3 in 2-story towns: ~28 ft	Yes	
Minimum Floor Area per Unit (Sec. 3.1.7.D)	Efficiency	400 sq. ft.		
	1 bedroom	500 sq. ft.		
	2 bedroom	750 sq. ft.	1905 sf	Yes
	3 bedroom	900 sq. ft.	1958 sf	Yes
	4 bedroom	1,000 sq. ft.		NA
Maximum Dwelling Unit Density/Net Site Area (Sec. 3.1.7.D) Per Sec. 3.8.2.B, all buildings less than four stories should comply with RM-1 regulations for limits on percent of 1 bedroom units and number of rooms.	Efficiency	Max 5%	0	Overall proposed is 4.2 du/ac, <u>This is a condition of development in the draft PRO Agreement</u>
	1 bedroom	Max 20% 10.9 du/ac	0	
	2 bedroom	7.3 du/ac		
	3+ bedroom	5.4 du/ac		
Residential Building Setbacks (Sec 3.1.7.D)				
Front @ Meadowbrook Rd	50 ft. (Sec. 3.6.B)	50 ft	Yes	<u>Deviation granted in draft PRO for east, north and south side setbacks</u>
Exterior Side at 12 Mile	50 ft.	~135 ft	Yes	
Side - East	75 ft.	50 ft	No	
Side - South	75 ft.	50 ft	No	
Side – North (adj to Trinity parcel)	75 ft.	50 ft.	No	
Parking Setback (Sec 3.1.8.D) (Sec 3.1.12.D) Refer to applicable notes in Sec 3.6.2				
Front (3.6.2.B)	75 ft.		NA	
Exterior side	75 ft.		NA	
Rear (3.6.2.B)	20 ft.		NA	
Side (3.6.2.B)	20 ft.		NA	

Item	Required Code	Proposed	Meets Code	Comments	
Note To District Standards (Sec 3.6.2)					
Exterior Side Yard Abutting a Street (Sec 3.6.2.C)	All exterior side yards abutting a street shall be provided with a setback equal to front yard.	12 Mile Road considered exterior side yard	Yes		
Off-Street Parking in Front Yard (Sec 3.6.2.E)	Off-street parking is allowed in front yard	Parking is not proposed in the front yard	NA		
Distance between buildings (Sec 3.6.2.H)	It is governed by sec. 3.8.2 or by the minimum setback requirements, whichever is greater	RM-1 code has additional requirements for distance between buildings.		See Comments later in the review	
Wetland/Watercourse Setback (Sec 3.6.2.M)	A setback of 25ft from wetlands and from high watermark course shall be maintained	Extensive wetland areas exist –buffer impacts likely		Refer to wetland review letter for more detail	
Parking setback screening (Sec 3.6.2.P)	Required parking setback area shall be landscaped per sec 5.5.3.			Refer to landscape review for comments	
Modification of parking setback requirements (Sec 3.6.2.Q)	The Planning Commission may modify parking setback requirements based on its determination according to Sec 3.6.2.Q		NA		
RM-1 and RM-2 Required Conditions (Sec 3.8)					
Total number of rooms (Sec. 3.8.1.A)	For RM-1 District, Total No. of rooms < Net site area in SF/2000	2,389,266 sf/2000 = 1,195 rooms allowed Total number of rooms Proposed: ~928	Yes	<u>This is a condition of development in the draft PRO Agreement</u>	
Public Utilities (Sec. 3.8.1)	All public utilities should be available	All public utilities are available	Yes	Refer to Engineering review for more details	
Maximum Number of Units (Sec. 3.8.1.A.ii) <i>Applicable for RM-1 building and RM-2 buildings less than four stories</i>	Efficiency < 5 percent of the units		NA		
	1 bedroom units < 20 percent of the units		NA		
	Balance should be at least 2 bedroom units	Proposed	Yes		
Room Count per Dwelling Unit Size (Sec. 3.8.1.C) <i>*An extra room such as den count towards an extra room</i>	Dwelling Unit Size	Room Count *		Yes	<i>Floorplans are provided. The plans indicate a combined living/dining. The Vistas include Office/Flex room as 5th room</i>
	Efficiency	1	NA		
	1 bedroom	2	NA		
	2 bedroom	3	3		
	3 or more bedrooms	4	4		

Item	Required Code	Proposed	Meets Code	Comments
<i>For the purpose of determining lot area requirements and density in a multiple-family district, a room is a living room, dining room or bedroom, equal to at least eighty (80) square feet in area. A room shall not include the area in kitchen, sanitary facilities, utility provisions, corridors, hallways, and storage. Plans presented showing one (1), two (2), or three (3) bedroom units and including a "den," "library," or other extra room shall count such extra room as a bedroom for the purpose of computing density.</i>				
Setback along natural shore line (Sec. 3.8.2.A)	A minimum of 150 feet along natural lake shore line is required.	No natural lake shore line exists within the property	NA	
Structure frontage (Sec. 3.8.2.B)	Each structure in the dwelling group shall front either on a dedicated public street or approved private drive.	Proposed Private Drives	Yes	<u>To be approved by City Council in PRO Agreement</u>
Maximum length of the buildings (Sec. 3.8.2.C)	A single building or a group of attached buildings cannot exceed 180 ft.	~150 feet max (The Woods & The Pointe)	Yes	
Modification of maximum length (Sec. 3.8.2.C)	Planning Commission may modify the extra length up to 360 ft. if		NA	
	Common areas with a minimum capacity of 50 persons for recreation or social purposes			
	Additional setback of 1 ft. for every 3 ft. in excess of 180 ft. from all property lines abutting a residential district or major thoroughfare			
Building Orientation (Sec. 3.8.2.D)	Where any multiple dwelling structure and/ or accessory structure is located <u>along an outer perimeter property line adjacent to another residential or nonresidential district</u> , said structure shall be oriented at a minimum angle of forty-five (45) degrees to said property line.	Buildings 1-5, 24-26, 40-44 do not appear to meet the minimum requirement for 45-degree orientation	No	<u>Deviation to be granted in PRO</u>
Yard setback restrictions (Sec. 3.8.2.E)	Within any front, side or rear yard, <u>off-street parking, maneuvering lanes, service drives or loading areas</u> cannot exceed 30% of yard area	Complies –parking areas are all internal to the site	Yes	

Item	Required Code	Proposed	Meets Code	Comments
Off-Street Parking or related drives (Sec. 3.8.2.F) Off-street parking and related drives shall be	No closer than 25 ft. to any wall of a dwelling structure that contains openings involving living areas or	Off-street parking spaces are placed greater than 25 feet from buildings	Yes	
	No closer than 8 ft. for other walls or	Complies	Yes	
	No closer than 20 ft. from ROW and property line	Minimum of 20 ft. is maintained	Yes	
Pedestrian Connectivity (Sec. 3.8.2.G)	5 feet sidewalks on both sides of the Private drive are required to permit safe and convenient pedestrian access.	5-ft sidewalks mostly proposed, 10-ft pathway on one side of Elle Pkwy and part of Simi Lane	Yes?	
	Where feasible sidewalks shall be connected to other pedestrian features abutting the site.	Provides connectivity to Meadowbrook and 12 Mile Road	Yes	
	All sidewalks shall comply with barrier free design standards	Details not yet provided	TBD	<u>See Traffic Review</u>
Minimum Distance between the buildings (Sec. 3.8.2.H)	(Total length of building A + total length of building B + 2(height of building + height of building B))/6	Table provided on sheet SP3.6 – several proposed distances are less than the calculated requirement	No	<u>Deviation to be granted in PRO</u>
Minimum Distance between the buildings (Sec. 3.8.2.H)	In no instance shall this distance be less than thirty (30) feet unless there is a corner-to-corner relationship in which case the minimum distance shall be fifteen (15) feet.	Corner to corner relationships are min. of 25 feet	Yes	
5.10 Additional Road Design, Building Setback, And Parking Setback Requirements, Multiple-Family Uses				
Road standards (Sec. 5.10)	A private drive network within a cluster, two-family, multiple-family, or non-residential uses and developments shall be built to City of Novi Design and Construction Standards for local street standards (twenty-eight (28) feet back-to-back width	Major and minor drive network shown	Yes	

Item	Required Code	Proposed	Meets Code	Comments
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For the purpose of this review, staff categorized the drives as follows:

1. Major Drive: Blue line
2. Minor Drive: Red line

Major Drives	- Width: 28 feet	Elle Pkwy, Ari Crest, Simi Ln, and Beckham Dr are 28-feet and greater than 600 feet length	Yes	
Minor Drive	<ul style="list-style-type: none"> - Cannot exceed 600 feet - Width: 24 feet with no on-street parking - Width: 28 feet with parking on one side - Parking on two sides is not allowed - Needs turn-around if longer than 150 feet 	Leo Drive would be considered minor, 28-ft width	Yes	
Parking on Major and Minor Drives	<ul style="list-style-type: none"> - Angled and perpendicular parking, permitted on minor drive, but not from a major drive; - minimum centerline radius: 100 feet - Adjacent parking and on-street parking shall be limited near curves with less than two-hundred thirty (230) feet of centerline radius 	<p>On-street perpendicular parking is proposed on the Major Drives (Simi Ln, Elle Pkwy, Ari Crest and Beckham Dr)</p> <p>Centerline radius: 125', 140', 150'</p>	No	<u>Deviation to be granted in PRO</u>

Driveways, Parking, Loading and Dumpster Requirements

Item	Required Code	Proposed	Meets Code	Comments
Number of Parking Spaces (Sec.5.2.12.A & B)	For 2 or less bedroom units: 2 spaces each For 3 or more bedroom units: 2 ½ spaces each 232 x 2.5 = TOTAL REQUIRED: 581 spaces	Meadows: 280 spaces Vistas: 276 spaces (garage, driveways and on-street) The Woods: 159 spaces, & the Pointe: 268 (garage, driveways and on-street) Park/Recreation area: 5 spaces TOTAL PROPOSED: 988	Yes	
Landbank Parking (Sec.5. 2.14)	Maximum number of Landbank spaces: 25% of required parking		NA	
Parking Space Dimensions and Maneuvering Lanes (Sec. 5.3.2)	- 90° Parking: 9 ft. x 19 ft. - 24 ft. two way drives - 9 ft. x 17 ft. parking spaces allowed along 7 ft. wide interior sidewalks as long as detail indicates a 4" curb at these locations and along landscaping	Appears to comply	Yes	
Parking stall located adjacent to a parking lot entrance (public or private) (Sec. 5.3.13)	- shall not be located closer than twenty-five (25) feet from the street right-of-way (ROW) line, street easement or sidewalk, whichever is closer	Not applicable	NA	
End Islands (Sec. 5.3.12)	- End Islands with landscaping and raised curbs are required at the end of all parking bays that abut traffic circulation aisles. - The end islands shall generally be at least 8 feet wide, have an outside radius of 15 feet, and be constructed 3' shorter than the adjacent parking stall as illustrated in the Zoning Ordinance	End Islands not needed for small parking bays	Yes	Refer to Traffic comments.
Barrier Free Spaces Barrier Free Code			TBD	

Item	Required Code	Proposed	Meets Code	Comments
Barrier Free Space Dimensions <i>Barrier Free Code</i>	- 8' wide with an 8' wide access aisle for van accessible spaces - 8' wide with a 5' wide access aisle for regular accessible spaces		TBD	
Barrier Free Signs <i>Barrier Free Code</i>	One sign for each accessible parking space.			See Traffic review for signage notes
Minimum number of Bicycle Parking <i>(Sec. 5.16.1)</i>	One (1) space for each five (5) dwelling units For 232 units, 47 bike spaces are required	8 spaces at recreation area 8 spaces at Bus stop 4 spaces at 12 Mile Park 232 in unit garages	Yes	
Bicycle Parking General requirements <i>(Sec. 5.16)</i>	No farther than 120 ft. from the entrance being served	Complies	Yes	
	When 4 or more spaces are required for a building with multiple entrances, the spaces shall be provided in multiple locations	Complies	Yes	
	Spaces to be paved and the bike rack shall be inverted "U" design Shall be accessible via 6 ft. paved sidewalk			
Covered Bicycle Parking <i>(Sec 5.16.4)</i>	When 20 or more bike parking spaces are required, 25% shall be in covered locations	Each unit garage provides a covered space	Yes	
Bicycle Parking Lot layout <i>(Sec 5.16.6)</i>	Parking space width: 7 ft. One tier width: 11 ft. Two tier width: 18 ft. Maneuvering lane width: 4 ft. Parking space depth: 32 in	Not provided	TBD	<u>Provide the bike layout plan as required at the time of final site plan. It shall meet the requirements.</u>
Exterior lighting <i>Sec. 5.7</i>	Photometric plan and exterior lighting details needed at time of Final Site Plan submittal	A lighting and photometric plan is not provided at this time	TBD	
Accessory Use (Sec. 4.19)				
Accessory Buildings <i>Sec. 2.2. Definitions</i>	Any structure, either temporary or permanent, having a roof supported by columns or walls, and intended for the shelter, or enclosure of persons, animals, chattels, or property of any kind.	Clubhouse – shown as optional sheet L-11	TBD	Revisions to community amenities, including adding Clubhouse in the future, would require revised site plan review
Location:	They shall not be erected			

Item	Required Code	Proposed	Meets Code	Comments
Accessory Building <i>Sec. 4.19.1.B</i>	in any required front yard or in any required exterior side yard.			
Setbacks: Detached Accessory Building <i>Sec. 4.19.1.G</i>	<ul style="list-style-type: none"> - It shall not be located closer than ten (10) feet to any main building - It shall not be located closer than six (6) feet to any interior side lot or rear lot line. 		TBD	
Height: Detached Accessory Building <i>Sec. 4.19.1.G</i>	The height equal to the maximum permitted height of the district; provided, if the accessory building exceeds one (1) story or fourteen (14) feet in height, the building shall be set back one (1) foot for each foot the building exceeds fourteen (14) feet in height.		TBD	
Façade requirements for Carport Canopies <i>Sec. 5.15.12.b</i>	<ul style="list-style-type: none"> - Not greater than 12' tall - <40 ft width - Powder coated steel or aluminum material, neutral in color to harmonize with primary buildings - Solar photo voltaic and EV charging integration strongly encouraged 		NA	
Canopies and Carports <i>Sec. 4.19.2.C</i>	Two or more carports permitted on any lot greater than 2 acres, provided they comply with accessory building setback and height		NA	
Maximum number of Accessory buildings <i>Sec. 4.19.1.J</i>	Lots more than 21,780 SF: 2		NA	
Dumpster <i>Sec 4.19.2.F</i>	<ul style="list-style-type: none"> - Located in rear yard - Attached to the building or - No closer than 10 ft. from building if not attached - Not located in parking setback - If no setback, then it cannot be any closer than 10 ft, from property 		NA	

Item	Required Code	Proposed	Meets Code	Comments
	<p>line.</p> <ul style="list-style-type: none"> - Away from Barrier free Spaces 			
<p>Dumpster Enclosure <i>Sec. 21-145. (c) Chapter 21 of City Code of Ordinances</i></p>	<ul style="list-style-type: none"> - Screened from public view - A wall or fence 1 ft. higher than height of refuse bin - And no less than 5 ft. on three sides - Posts or bumpers to protect the screening - Hard surface pad. - Screening Materials: Masonry, wood or evergreen shrubbery 		NA	
<p>Roof top equipment and wall mounted utility equipment <i>Sec. 4.19.2.E.ii</i></p>	All roof top equipment must be screened and all wall mounted utility equipment must be enclosed and integrated into the design and color of the building		NA	
<p>Roof top appurtenances screening</p>	Roof top appurtenances shall be screened in accordance with applicable facade regulations, and shall not be visible from any street, road or adjacent property.		NA	
<p>Accessory Structures <i>(Sec. 4.19.2)</i></p>	<p>Anything constructed or erected, the use of which requires location on the ground or attachment to something having location on the ground.</p> <p>Flagpoles, solar structures, transformers and utility boxes</p>	The plan does not appear to propose any other accessory structures	NA	<p><u>Contact Planning department if any accessory structures are proposed</u></p> <p><u>Any future proposed structures are expected to comply with the requirements if not approved as part of the PRO plan</u></p>
Sidewalks				
<p>Active Mobility Plan</p>	Proposed Off-Road Trails, enhanced road crossings, Shared-use Path of 10 feet on S side of 12 Mile, support new transit route on 12 Mile	10-foot pathway along S side of 12 Mile Road; 8-foot pathway along N side of Elle Pkwy and part of Simi Lane	Yes	
<p>Internal Sidewalks <i>Sec. 3.8.2.G</i></p>	Five foot sidewalks required on both sides of internal public or private drives	5-ft Sidewalk provided on both sides for most part, 8-foot pathway along Elle Pkwy.	Yes	

Item	Required Code	Proposed	Meets Code	Comments
Public Sidewalks <i>(Chapter 11, Sec.11-276(b))</i>	A 10- foot sidewalk is required along 12-Mile Road; Existing pathway on Meadowbrook	Pathway proposed along 12 Mile Road	Yes	
Other Requirements				
Residential Entryway lighting <i>Sec. 5.7</i>	One street light is required per entrance.	Not provided at this time	TBD	Will be verified Final site plan review
Design and Construction Standards Manual	Land description, Sidwell number (metes and bounds for acreage parcel, lot number(s), Liber, and page for subdivisions).	Legal description provided SP 7.3	Yes	
General layout and dimension of proposed physical improvements	Location of all existing and proposed buildings, proposed building heights, building layouts, (floor area in square feet), location of proposed parking and parking layout, streets and drives, and indicate square footage of pavement area (indicate public or private).	Generally Provided		Please provide additional information as requested in this and other review letters
Economic Impact	- Total cost of the proposed building & site improvements - Number of anticipated jobs created (during construction & after building is occupied, if known)			
Other Permits and Approvals				
Development/ Business Sign <i>(City Code Sec 28.3)</i>	Signage if proposed requires a permit.			<u>For sign permit information contact Ordinance Division at 248-735-5678.</u>
Development and Street Names	Development and street names must be approved by the Street Naming Committee	Received	Yes	Contact Stacey Choi at 248-347-0475 regarding any changes, if needed
Property Split or Combination	The proposed property split must be submitted to the Assessing Department for approval.	12 parcels are supposed to be combined, with one 7-acre area at the corner of 12 Mile and Meadowbrook to be split off and remain OST	TBD	The parcel combination must be completed prior to final stamping set approval.
Other Legal Requirements				
PRO Agreement <i>(Sec. 7.13.2.D(3))</i>	A PRO Agreement shall be prepared by the City Attorney and the applicant	PRO Agreement under review	NA	<u>Draft PRO Agreement to be approved by City Council</u>

Item	Required Code	Proposed	Meets Code	Comments
	(or designee) and approved by the City Council, and which shall incorporate the PRO Plan and set forth the PRO Conditions and conditions imposed			
Master Deed/Covenants and Restrictions	Applicant is required to submit this information for review with the Final Site Plan submittal		TBD	<u>Master Deed draft shall be submitted prior to Stamping Set approval.</u>
Conservation easements	Conservation easements may be required for woodland/wetlands		TBD	<u>Applicant proposes conservation easements over remaining woodlands and wetland areas, as well as wetland mitigation areas – drafts to be provided prior to Stamping Set approval</u>
Lighting and Photometric Plan (Sec. 5.7)				
Intent (Sec. 5.7.1)	Establish appropriate minimum levels, prevent unnecessary glare, reduce spillover onto adjacent properties & reduce unnecessary transmission of light into the night sky	Applicant states details will be provided with FSP submittal	TBD	
Lighting Plan (Sec. 5.7.A.i)	Site plan showing location of all existing & proposed buildings, landscaping, streets, drives, parking areas & exterior lighting fixtures		TBD	
Building Lighting (Sec. 5.7.2.A.iii)	Relevant building elevation drawings showing all fixtures, the portions of the walls to be illuminated, illuminance levels of walls and the aiming points of any remote fixtures.			
Lighting Plan Elements (Sec.5.7.2.A.ii)	Specifications for all proposed & existing lighting fixtures		TBD	
	Photometric data		TBD	
	Fixture height		TBD	
	Mounting & design		TBD	
	Glare control devices (Also see Sec. 5.7.3.D)		TBD	
	Type & color rendition of lamps		TBD	
	Hours of operation			
Maximum Height	Height not to exceed		TBD	

Item	Required Code	Proposed	Meets Code	Comments
(Sec. 5.7.3.A)	maximum height of zoning district (or 25 ft. where adjacent to residential districts or uses.			
Required Conditions (Sec. 5.7.3.B)	<ul style="list-style-type: none"> - Electrical service to light fixtures shall be placed underground - Flashing light shall not be permitted - Only necessary lighting for security purposes & limited operations shall be permitted after a site's hours of operation 		TBD	
Indoor Lighting (Sec. 5.7.3.H)	<ul style="list-style-type: none"> - Indoor lighting shall not be the source of exterior glare or spillover 			
Security Lighting (Sec. 5.7.3.I) Lighting for security purposes shall be directed only onto the area to be secured.	<ul style="list-style-type: none"> - All fixtures shall be located, shielded and aimed at the areas to be secured. - Fixtures mounted on the building and designed to illuminate the facade are preferred 		NA	
Color Spectrum Management (Sec. 5.7.3.F)	Non-Res and Multifamily: For all permanent lighting installations - minimum Color Rendering Index of 70 and Correlated Color Temperature of no greater than 3000 Kelvin		TBD	
Parking Lot Lighting (Sec. 5.7.3.J)	<ul style="list-style-type: none"> - Provide the minimum illumination necessary to ensure adequate vision and comfort. - Full cut-off fixtures shall be used to prevent glare and spillover. 		NA	
Min. Illumination (Sec. 5.7.3.L)	Parking areas: 0.2 min		TBD	
	Loading & unloading areas: 0.4 min			
	Walkways: 0.2 min			
	Building entrances, frequent use: 1.0 min			
	Building entrances, infrequent use: 0.2 min			

Item	Required Code	Proposed	Meets Code	Comments
Average Light Level (Sec.5.7.3.L)	Average light level of the surface being lit to the lowest light of the surface being lit shall not exceed 4:1			
Max. Illumination adjacent to Non-Residential (Sec. 5.7.3.L)	When site abuts a non-residential district, maximum illumination at the property line shall not exceed 1 foot candle		TBD	
Max. Illumination adjacent to Residential (Sec. 5.7.3.M)	<ul style="list-style-type: none"> - Fixture height not to exceed 25 feet - Cut off angle of 90 degrees or less - No direct light source shall be visible at the property line adjacent to residential at ground level - Maximum illumination at the prop line not to exceed 0.5 fc. 			
Residential Developments (Sec. 5.7.3.O)	<ul style="list-style-type: none"> - Provide sufficient illumination (0.2 fc min) at each entrance from major thoroughfare - Residential projects may deviate from the min. illumination levels and uniformity requirements of 5.7.3.L so long as site lighting for parking lots, property lines and security lighting is provided 		TBD	

NOTES:

1. This table is a working summary chart and not intended to substitute for any Ordinance or City of Novi requirements or standards.
2. The section of the applicable ordinance or standard is indicated in parenthesis. Please refer to those sections in Article 3, 4 and 5 of the zoning ordinance for further details
3. Please include a written response to any points requiring clarification or for any corresponding site plan modifications to the City of Novi Planning Department with future submittals.

ENGINEERING REVIEW



PLAN REVIEW CENTER REPORT

2/24/2026

Engineering Review

The Grove
JSP26-0002

APPLICANT

Ivanhoe Companies

REVIEW TYPE

Preliminary Site Plan

PROPERTY CHARACTERISTICS

- Site Location: Located on the south side of 12 Mile Road east of Meadowbrook Road, in section 13 of the City of Novi
- Site Size: +/- 67 acres
- Plan Date: 1/28/2026
- Design Engineer: Zeimet Wozniak & Associates

PROJECT SUMMARY

- Proposed rezoning from OST to RM-1. The Grove shall consist of 4 residential zones with a total of 232 units proposed:
 - Zone 1: The Vistas 68 Units
 - Zone 2: The Meadows 67 Units
 - Zone 3: The Woods 36 Units
 - Zone 4: The Pointe 61 Units
- Site access shall be provided by two entrances on Meadowbrook Road and one entrance on 12 Mile Road. The residential development shall be on 61.83 acres, and 7.74 acres shall be left for future development.
- Three water main connections are proposed; one connection is proposed to the existing 24-inch water main on the south side of 12 Mile Road. Two connections are proposed to the 16-inch water main on the east side of Meadowbrook Road.
- One sanitary sewer connection is proposed to the existing 21-inch sanitary sewer located on-site on the southeast corner of the property.
- Storm water would be collected by the proposed storm sewer system; there are six total detention basins proposed on-site. All the proposed detention basins outlet to the on-site wetlands.

RECOMMENDATION

Approval of the Preliminary Site Plan is **recommended**. At this time, the plan meets the general requirements of the design and construction standards as set forth in [Chapter 11 of the City of Novi Code of Ordinances](#), the Storm Water Management Ordinance and the [Engineering Design Manual](#) with the following items to be addressed at the time of Final Site Plan submittal:

PHASING COMMENTS:

1. Phase 1 shows installation of sanitary sewer and one detention basin outside of the phase. Show the limits of grading for this phase. Indicate if any other phases have any grading that is required outside of the phase lines.
2. During construction of Phase 3 construction traffic should access the site from the southernmost approach on Meadowbrook Road, instead of access through the Phase 1 or Phase 2 portions of the development.
3. A portion of the public benefit the 'Grove Nature Area Trail' extends between Phases 1 and 3, clearly show when all public benefits shall be installed in phasing plans.
4. Each phase should be able to stand alone, the SDFEMA, water main easement, and sanitary easements will need to be separated with each phase.

Items that may be addressed at a later time:

1. For the sidewalk extension along the Trinity property, indicate if the sidewalk will be installed within the existing ROW or if a sidewalk easement will be needed.
2. For the sidewalk along the proposed approach any portion of the sidewalk that goes outside of the ROW will need a sidewalk easement. The proposed bus stops are not included in this, a public access easement will be needed over the benches, the public park area and the public walking trail.
3. Provide a traffic control sign table listing the quantities of each **permanent** sign type proposed for the development. Provide a note along with the table stating all traffic signage will comply with the current MMUTCD standards.
4. Traffic signs in the Road Commission for Oakland County (RCOC) right-of-way will be installed by RCOC.
5. Provide a traffic control plan for the proposed road work activity for 12 Mile Road and Meadowbrook Road with the final site plan submittal.
6. Provide a note that compacted sand backfill (MDOT sand Class II) shall be provided for all utilities within the influence of paved areas; illustrate and label on the profiles.
7. Provide a construction materials table on the utility plan listing the quantity and material type for each utility (water, sanitary and storm) being proposed.
8. Provide a utility crossing table indicating that at least 18-inch vertical clearance will be provided, or that additional bedding measures will be utilized at points of conflict where adequate clearance cannot be maintained.

9. Provide a note stating if dewatering is anticipated or encountered during construction, then a dewatering plan must be submitted to the Engineering Division for review.
10. Generally, all proposed trees shall remain outside utility easements. Where proposed trees are required within a utility easement, the trees shall maintain a minimum 5-foot horizontal separation from water main and storm sewer and 10-foot horizontal separation from sanitary sewer. All utilities shall be shown on the landscape plan, or other appropriate sheet, to confirm the separation distance.
11. Show the locations of all light poles on the utility plan and indicate the typical foundation depth for the pole to verify that no conflicts with utilities will occur. Light poles in a utility easement will require a License Agreement.
12. If the clubhouse building is proposed a [Non-Domestic User Survey Form](#) for sanitary sewer flow shall be submitted to the City so it can be forwarded to Oakland County.
13. Show the water, sanitary and roof leads for the clubhouse building in future submittals.
14. The dedication of the master-planned 60-foot-wide right-of-way is requested for the project on Meadowbrook Road; there is an existing sidewalk easement. It is requested that the applicant provide a right-of-way easement instead of a sidewalk easement in this location.
15. A [Right-of-Way Permit](#) will be required from the City of Novi and Oakland County.
16. **Only at the time of the printed Stamping Set submittal**, provide the City's standard detail sheets for water main (5 sheets), sanitary sewer (3 sheets), storm sewer (2 sheets), paving (2 sheets) and Boardwalks/Pathways (1 sheet). The most updated details can be found on the City's website under [Engineering Standards and Construction Details](#).

WATER MAIN

17. Provide a profile for all proposed public water main 8-inch or larger.
18. All public water main easements shall be 20 feet wide. Ensure that all proposed hydrants are shown within in a 20-foot-wide easement and are centered within the easement, with 10-feet on each side.
19. Provide a water main basis of design. Indicate material of main where connection is proposed.
20. Water Systems must have the ability to serve at least three thousand (3,000) gallons per minute in apartment, cluster residential and similar complexes, institutional and school areas is essential.
21. A tapping sleeve, valve and well is required at the connection to the existing water main.
22. Provide additional valves to limit pipe runs to a maximum of 800 feet between valves.

23. 6-inch hydrant leads are allowed for leads less than or equal to 25 feet in length. 8-inch leads are required for leads greater than 25 feet in length.
24. All gate valves 6" or larger shall be placed in a well with the exception of a hydrant shut off valve. A valve shall be placed in a box for water main smaller than 6".
25. Provide a separate domestic lead and, if required by the Fire Marshal, a minimum 6-inch fire lead for each building with a unique shut-off valve for each.
26. In the general notes and on the profile, add the following note: "Per the Ten States Standards Article 8.8.3, one full 20-foot pipe length of water main shall be used whenever storm sewer or sanitary sewer is crossed, and the pipe shall be centered on the crossing, in order to ensure 10-foot separation between water main and sewers." Additionally, show the 20-foot pipe lengths on the profile.
27. A sealed set of utility plans along with the [Michigan Department of Environment, Great Lakes & Energy \(EGLE\) permit application](#) for water main construction, the [Streamlined Water Main Permit Checklist](#), [Contaminated Site Evaluation Checklist](#), [Basis of Design](#), and an electronic version of the utility plan should be submitted to the Engineering Division for review, assuming no further design changes are anticipated. Utility plan sets shall include only the cover sheet, any applicable utility sheets, and the standard detail sheets.

IRRIGATION

28. Irrigation plans should be provided with the final site plan submittal, plans cannot be stamped until Water & Sewer has reviewed the irrigation plans.

SANITARY SEWER

29. All public sanitary sewer shall be within a dedicated sanitary sewer easement unless proposed in the right-of-way. Show proposed 20-foot wide sanitary sewer easement.
30. A monitoring manhole will be needed for the clubhouse building, at time of final site plan submittal show the clubhouse on engineering sheets. Include clubhouse in sanitary and water main basis of design.
31. Provide a sanitary sewer basis of design for the development on the utility plan sheet. (Calculations should use peaking factor of 4.0 and 3.2 People/REU, peaking factor of 4.0 is only for sanitary not for water main).
32. Section 11-164 (g)-4 states the maximum length of a sanitary sewer lead shall not exceed 100-feet unless otherwise approved. Extend Sanitary Sewer so that leads are not more than 100-feet long **or** provide clean-outs every 100-feet. Sanitary leads should be shown in the final site plan submittal.
33. Provide a note on the Utility Plan and sanitary profile stating the sanitary leads will be buried at least 5 feet deep where under the influence of pavement.
34. Provide a testing bulkhead immediately upstream of the sanitary connection point.
35. Illustrate all pipes intersecting with manholes on the sanitary profiles.
36. An electronic copy of the utility plans along with the [Michigan Department of Environment, Great Lakes & Energy \(EGLE\) permit application](#), and the

Streamlined Sanitary Sewer Permit Certification Checklist should be submitted to the Engineering Division for review, assuming no further design changes are anticipated. Utility plan sets shall include only the cover sheet, any applicable utility sheets, and the standard detail sheets. It should be indicated with the application if an expedited EGLE review is requested. EGLE will charge a fee that can be paid directly to the State.

STORM SEWER

37. A minimum cover depth of 3 feet shall be maintained over all proposed storm sewer. Grades shall be elevated, and minimum pipe slopes shall be used to maximize the cover depth.
38. Provide a 0.1-foot drop in the downstream invert of all storm structures where a change in direction of 30 degrees or greater occurs.
39. Match the 0.80 diameter depth above invert for pipe size increases.
40. Storm manholes with differences in invert elevations exceeding two feet shall contain a 2-foot-deep plunge pool.
41. Provide a four-foot-deep sump and an oil/gas separator in the last storm structure prior to discharge to the storm water basin.
42. Provide profiles for all storm sewer 12-inch and larger at time of final site plan submittal.
43. Label the 10-year HGL on the storm sewer profiles and ensure the HGL remains at least 1-foot below the rim of each structure.
44. Illustrate all pipes intersecting storm structures on the storm profiles.
45. Provide a schedule listing the casting type, rim elevation, diameter, and invert sizes/elevations for each proposed, adjusted, or modified storm structure on the utility plan. Round castings shall be provided on all catch basins except curb inlet structures.
46. Show and label all roof conductors and show where they tie into the storm sewer.
47. Provide a storm sewer basis of design table. We recommend revising the storm sewer design, so the Q provided is greater than or equal to the Q calculated to maximize the life of the pipe and structures.

STORM WATER MANAGEMENT PLAN

48. The Storm Water Management Plan (SWMP) for this development shall be designed in accordance with the Storm Water Ordinance and Chapter 5 of the [**Engineering Design Manual**](#) (updated Jan 31, 2024).
49. C factor for lawn should be based on hydrologic soil type, 0.35 is for hydrologic soil type C only. 0.30 should be used for hydraulic soil type B.
50. Provide a 5-foot-wide stone bridge/access route allowing direct access to the standpipe from the bank of the basin during high-water conditions (i.e. stone 6-inches above high water elevation). Provide a detail and/or note as necessary.
51. The Storm Drainage Facility Maintenance Access Easements should show access based on the phase the basin is in. When basin A is installed, the

entrance where the access easement is proposed will not be constructed. Each access easement should only use the entrances that are constructed based on the phase the basin is constructed in.

52. Provide manufacturer's details and sizing calculations for the pretreatment structure(s) on the plans. Provide drainage area and runoff coefficient calculations specific to the area tributary to each treatment structure. The treated flow rate should be based on the 1-year storm event intensity (~1.6 In/Hr).
53. Pretreatment structure shall limit the concentration of Total Suspended Solids (TSS) to 80% based on the 110-micron particle size. The NJDEP standard of 50% removal is also allowable, as it is for the target median particle size of 75-microns.
54. The detention basin outlet control structure detail on sheet SP-5.4 should be updated to show the 100-year detention basin storage volume and the V_{ED} (aka the Channel Protection Rate Control Volume). There is also a typical detention basin outlet detail provided on sheet SP-4; applicant should indicate which detail will be used for which basin or remove the extra detail from the plans.
55. Make sure the calculations for the outlet control structure outlet hole elevations uses the Channel Protection Rate Control Volume – Extended Detention ($V_{ED}/CPRC$) elevation is shown for each basin. The calculations currently show the Channel Protection Volume Control (V_{CP-R}) volume elevation.

$$V_{ED} = 6,897 \times C \times A$$

where: V_{ED} = required extended detention volume in cubic feet
C = post development runoff coefficient
A = contributing area in acres

56. Provide release rate calculations for the three design storm events (V_{CP-R} , V_{ED} and V_{100}). Outlet Control Structure calculations should show storage and outlet elevations for CPRC – Extended Detention (V_{ED}) and 100-Year Storage Volume (V_{100}).
57. The flow restriction shall be accomplished by methods other than a pipe restriction in an oversized pipe due to the potential for clogging and restrictor removal. A perforated standpipe, weir design, baffle wall, etc. should be utilized instead.
58. The primary outlet standpipe shall be designed with a secondary outer pipe with numerous holes. The stone filter would rest against this outer pipe and would help protect the outlet standpipe from clogging.
59. Provide a soil boring in the vicinity of the storm water basin to determine soil conditions and to establish the high-water elevation of the groundwater table. Note the bottom of the detention facility must be a minimum of **three (3) feet** above the groundwater elevation. **This must be provided with the final site plan submittal.**

RAIN GARDEN

60. The bioswale shall be sized for the V_{CP-R} volume. This volume shall include the above-grade ponded water and the below-grade gravel media. The available storage volume in the gravel shall assume that only 85-percent of the volume is available for storage to account for sediment accumulation within the media. Provide these calculations on the plans.
61. Provide a geotextile filter fabric under the planting material to separate it from the underdrain/base material or in-situ soils.
62. Provide a soil boring in the vicinity of the bioretention facility to determine soil conditions and to establish the high-water elevation of the groundwater table. Verify the ground water elevation is at least 3 feet below the bioretention facility. **This should be provided with the final site plan submittal.**
63. A secondary overflow catch basin shall be provided outside of the bioswale limits.
64. The planting soil media shall consist of the following mixture: 50% topsoil/50% sand or 20% topsoil/60% sand/20% compost.
65. The spillway shall consist of gravel or riprap to dissipate flows. Provide a detail for the spillway, including the interface with the bioswale.
66. Cleanouts shall be provided at each end of the proposed underdrain for periodic maintenance.
67. The rain garden should also be shown on the landscaping sheets and provide detail for the types of planting that will be installed in the rain garden. The maintenance of the rain garden should also be included in the SDFMEA agreement.

PAVING & GRADING

68. Provide a construction materials table on the Paving Plan listing the quantity and material type for each pavement cross-section being proposed.
69. Sidewalks on the proposed roadways should be located at a minimum of 5 feet back of curb.
70. Provide at least 3-foot buffer distance between the sidewalk and any fixed objects, including hydrants and irrigation backflow devices. Include a note on the plan where the 3-foot separation cannot be provided.
71. Per MDOT Special Provision for Crushed Concrete; the use of crushed concrete is prohibited on the project within 100 feet of any water course (stream, river, county drain, etc.) and lake, regardless of the application of location of the water course or lake relative to the project limits. Add note to use 21AA crushed limestone base for any pavement within 100 feet of a water course.
72. For residential developments, show individual driveway tapers (standard driveway 16-foot wide with 3-foot tapers on each side) on plans to ensure there are no conflicts with sidewalks, hydrants, street signs, etc. Detectable warning surfaces and sidewalk ramps shall not be proposed within a residential driveway.

73. Site grading shall be limited to 1V:4H (25-percent), excluding landscaping berms. Indicate if grades steeper than 25% are proposed anywhere on-site.
74. The grade of the drive approach shall not exceed 2-percent within the first 25 feet of the intersection. Provide spot grades as necessary to establish this grade.
75. Dimensions of parking stalls abutting a curb or sidewalk are to the face of curb or walk. All other dimensions are to back of curb unless otherwise indicated.
76. Sidewalk width should be adjusted to 7-feet wide in order to have the required 2-foot overhang, if overhang cannot be provided in this area 19-foot stalls with 6-inch curb should be proposed.
77. A License Agreement will be required for the proposed retaining wall within any utility easements. A plan view and cross-section shall be included with the agreement showing the relationship between the wall foundation and the existing/proposed utility.
78. Retaining walls that are 48-inches or larger shall need a permit from Building Department.
79. A retaining wall that has a grade change of 30" or more within a 3' horizontal distance will require a guardrail.
80. Soil borings along the proposed road will be required at 500-foot intervals per Section 11-195(d) of the Design and Construction Standards. **These will be required at time of Final Site Plan submittal.**
81. Per Section 26.5-35(h), a statement is required on any plan containing a private street with the following language: "City of Novi has no responsibility to improve or maintain the private streets contained within or private streets providing access to the property described in this [plan/plat]".

SOIL EROSION & SEDIMENT CONTROL

82. A SEESC permit is required (link to [Soil Erosion Permit Application](#)). A review will be done when a completed packet is submitted to Sarah Marchioni at Community Development.

OFF-SITE EASEMENTS

83. No off-site easements anticipated at this time. If off-site easements are required for the sidewalk on 12 Mile Road along the frontage of the Trinity property the applicant will need to provide draft easements at time of final site plan submittal.

THE FOLLOWING MUST BE SUBMITTED WITH THE NEXT SUBMITTAL:

84. A letter from either the applicant or the applicant's engineer must be submitted with the next submittal highlighting the changes made to the plans addressing each of the comments listed above and indicating the revised sheets involved. **Additionally, a statement must be provided stating that all changes to the plan have been discussed in the applicant's response letter.**
85. An itemized construction cost estimate must be submitted to the Community Development Department for the determination of plan review and construction inspection fees. This estimate should only include the civil site work

and not any costs associated with construction of the building or any demolition work. **The estimate must be itemized** for each utility (water, sanitary, storm sewer), on-site paving (square yardage, should include number of detectable warning plates), right-of-way paving (including proposed right-of-way), grading, and the storm water basin (basin construction, control structure, pre-treatment structure and restoration).

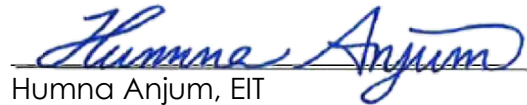
LEGAL DOCUMENTS

The Legal Review transmittal for this project will be provided with the final site plan review letter

86. A draft copy of the [Storm Drainage Facility Maintenance Easement Agreement \(SDFMEA\)](#), as outlined in the Storm Water Management Ordinance, must be submitted to the Community Development Department. Once the agreement is approved by the City's Legal Counsel, this agreement will then be sent to City Council for approval/acceptance. The SDFMEA will then be recorded at the office of the Oakland County Register of Deeds. This document is available on our website.
87. Sidewalk easement will be needed for the portion of the sidewalk on 12 Mile Road frontage that goes outside of the right-of-way. A draft copy of the sidewalk easement must be submitted to the Community Development Department.
88. A public access easement will be needed over the public park, bus stops and the public trailway, a draft copy must be submitted to the Community Development Department.
89. A draft copy of the 20-foot-wide [Watermain System Easement](#) onsite must be submitted to the Community Development Department.
90. A draft copy of the 20-foot-wide [Sanitary Sewer Easement](#) onsite must be submitted to the Community Development Department.
91. A draft copy of the 20-foot-wide [Sanitary Sewer Monitoring Manhole Access Easement](#) onsite must be submitted to the Community Development Department (Required if clubhouse is proposed).
92. A draft of the License Agreement may be required if there are light poles or retaining walls within the sanitary sewer or water main easement. This must be submitted to the Community Development Department.
93. A draft copy of the Warranty Deed for the additional proposed 60-foot wide right-of-way along Meadowbrook must be submitted for review and acceptance by the City.
94. Executed copies of approved off-site utility easements must be submitted.

To the extent this review letter addresses items and requirements that require the approval of or a permit from an agency or entity other than the City, this review shall not be considered an indication or statement that such approvals or permits will be issued.

Please contact Humna Anjum at (248) 735-5632 or email at hanjum@cityofnovi.org with any questions.



Humna Anjum, EIT
Project Engineer

cc: Lindsay Bell, Community Development
Stacey Choi, Planning Assistant
Kate Purpura, Engineering
Ben Croy, City Engineer

LANDSCAPE REVIEW



PLAN REVIEW CENTER REPORT

March 4, 2026

The Grove

Preliminary Site Plan - Landscaping

Review Type

Preliminary Site Plan Landscape Review

Job #

JSP26-0002

Property Characteristics

- Site Location: Southwest corner of Meadowbrook and 12 Mile Road
- Site Acreage: 54.85 ac.
- Site Zoning: OST
- Proposed Zoning: RM-1 with PRO
- Adjacent Zoning: North: RA, R-4, R-3; East, South, West: OST
- Plan Date: 1/28/2026

Ordinance Considerations

This project was reviewed for conformance with Chapter 37: Woodland Protection, Zoning Article 5.5 Landscape Standards, the Landscape Design Manual and any other applicable provisions of the Zoning Ordinance. Items in **bold** below must be addressed and incorporated as part of the Final Site Plan submittal. Please follow the guidelines of the Zoning Ordinance and Landscape Design Manual. This review and the accompanying Landscape Chart are summaries and are not intended to substitute for any Ordinance.

RECOMMENDATION:

This project is **recommended for approval for Preliminary Site Plan**. Information that must be provided on the Final Site Plans is listed in this letter and further expanded upon on the accompanying landscape chart.

LANDSCAPE DEVIATIONS GRANTED TENTATIVE APPROVAL BY CITY COUNCIL ON NOVEMBER 17, 2025 FOR THE PROPOSED PLANS:

- *Deficiency in required screening berms between the site and Office Service/Tech*
- *Lack of greenbelt berms*
- *No greenbelt plantings in preserved areas*

Please copy the above italicized text to Sheet L-1

GENERAL NOTES:

- Please use a symbol for woodland replacement evergreen trees that is very different from that used for multifamily unit trees. When they are small they are too hard to distinguish.
- If the clubhouse option is used, please reorient the clubhouse/pool layout to keep it out of the wetland buffer.
- Please change the City Project Number on the Cover Sheet to JSP26-0002.

Ordinance Considerations

Existing Trees (Sec 37 Woodland Protection, Preliminary Site Plan checklist #17 and LDM 2.3 (2))

1. A Tree survey and Wetland survey are provided.
2. Please see the Merjent letter for a detailed review of the woodlands and wetlands.

3. A total of 248 woodland replacement trees are shown as being planted, with a deposit to the tree fund being made to the remaining 2895 credits required.
4. **When species are assigned to the symbols shown, please use species that are similar to those removed as much as possible. Specifics regarding species are discussed on the landscape chart.**

Adjacent to Residential - Buffer (Zoning Sec. 5.5.3.B.ii and iii)

1. The project is adjacent to OST property on the east and south so a 4.5-6 foot tall, landscaped berm is required for buffering.
2. The plan proposes dense landscaping as a buffer around the site instead of the required berm where significant existing landscaping is not preserved and where site grading makes a berm impractical. A landscape deviation was granted by City Council for this deviation.

Adjacent to Public Rights-of-Way – Berm/Wall, Buffer and Street Trees (Zoning Sec. 5.5.3.B.ii, iii)

1. The required greenbelt widths are proposed for both 12 Mile Road and Meadowbrook Road.
2. No berm is proposed along 12 Mile Road or in areas to be preserved along Meadowbrook. City Council also granted a deviation for this.
3. The required street trees are proposed along 12 Mile Road with one minor correction to be made that is discussed on the landscape chart.
4. The required street trees are proposed along Meadowbrook Road.

Parking Lot Landscaping (Zoning Sec. 5.5.3.C.)

1. There are no parking lots except for the clubhouse option.
2. **Please use interior street trees along the perimeters of the bays instead of having a separate calculation for the bays' perimeter – treat them as the street.**

Multi-family Residential Landscaping (Zoning Sec 5.5.3.F.iii)

1. **Multi-family unit trees**
 - a. 232 units are proposed, so 696 trees are required. It appears that all of the required trees are provided, but please double-check the counts and add more if required.
 - b. **Tree species must be provided on Final Site Plans.**
 - c. **No more than 25% of the trees used may be subcanopy trees**
2. **Interior roadway trees**
 - a. The plan proposes all of the required 248 trees are proposed, plus 24 parking lot perimeter trees. **See the above discussion related to the perimeter trees.**
 - b. **When species are assigned, all of them should be deciduous canopy trees.**
3. **Foundation landscaping**

The detailed plans indicate that all of the buildings have the required landscaping, either entirely on the front of the building or a combination of mostly the front plus some on the sides facing the roads. This is acceptable.

Building Foundation Landscaping (Zoning Sec 5.5.3.D)

1. It appears from the calculations and shading shown around the building that the required foundation landscaping for the clubhouse will be provided.
2. **Please provide detailed foundation planting plans on Final Site Plans.**

Plant List (LDM 4, 10)

1. **Please provide plant lists for each phase and a total for the entire site on the Final Site Plans so the tree diversity and species composition can be evaluated.**
2. **At least 50% of the non-woodland replacement species used must be species native to Michigan.**

- 3. The non-woodland tree diversity should have no more than 10% of the trees planted composed of a single species, and no more than 15% of them composed of a single genus.**

Planting Notations and Details (LDM 10)

Provided

Storm Basin Landscape (Zoning Sec 5.5.3.E.iv and LDM 3)

1. All required landscaping except one seed mix appears to be proposed.
- 2. Please see the notes on the landscape chart for a more detailed discussion of the detention landscaping.**

Irrigation (LDM 10)

- 1. If an irrigation system is used, a plan for it must be provided with Final Site Plans.**
- 2. If there will be alternative means of providing water to the plants for their establishment and long-term survival, information regarding that is also required with Final Site Plans.**

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.735.5621 or rmeader@cityofnovi.org.



Rick Meader – Landscape Architect

LANDSCAPE REVIEW SUMMARY CHART – Preliminary Site Plan

Review Date: March 4, 2026
Project Name: JSP26-0002: The Grove
Plan Date: January 28, 2026
Prepared by: Rick Meader, Landscape Architect E-mail: rmeader@cityofnovi.org;
 Phone: (248) 735-5621

Items in **Bold** need to be addressed by the applicant before approval of the Preliminary Site Plan. Underlined items need to be addressed on the Final Site Plan.

LANDSCAPE DEVIATIONS GRANTED BY CITY COUNCIL ON NOVEMBER 17, 2025 FOR THE PROPOSED LAYOUT:

- *Deficiency in required screening berms between the site and Office Service/Tech*
- *Lack of greenbelt berms*
- *No greenbelt plantings in preserved areas*

Please copy the above italicized text to Sheet L-1.

GENERAL NOTES:

- Please use a symbol for woodland replacement evergreen trees that is very different from that used for multifamily unit trees. When they are small they are too hard to distinguish.
- If the clubhouse option is used, please re-orient the clubhouse/pool layout to keep it out of the wetland buffer.
- Please change the job number on the cover sheet to JSP26-0002.

Item	Required	Proposed	Meets Code	Comments
Landscape Plan Requirements – Basic Information (LDM (2))				
Landscape Plan (Zoning Sec 5.5.2, LDM 2.e)	<ul style="list-style-type: none"> • New commercial or residential developments • Addition to existing building greater than 25% increase in overall footage or 400 SF whichever is less. • 1"-20' minimum with proper North. Variations from this scale can be approved by LA 	<ul style="list-style-type: none"> • Overall site (Sheets L-1 – L-3 and L-7): 1"=50 ft • Greenbelt & Entry Plans, Amenity Plan (Sheets L-4 - L-6, L-11): 1"=30 ft • Detention Ponds and Unit Typical (Sheets L-8 - L-10): 1" = 40 ft 	Yes	
Owner/Developer Contact Information (LDM 2.a.)	Name, address and telephone number of the owner and developer or association	Ivanhoe Companies - on Cover Sheet and on the landscape plan title block	Yes	
Project Information (LDM 2.d.)	Name and Address	Location map on Cover Sheet and Sheet L-1	Yes	
Survey information (LDM 2.c.)	Legal description or boundary line survey	<ul style="list-style-type: none"> • Boundary: Sheets SP7-SP7.3 • Ex. Topo: Sheets 9-9.4 	Yes	

Item	Required	Proposed	Meets Code	Comments
Landscape Architect contact information (LDM 2.b.)	Name, Address and telephone number of RLA/PLA/LLA who created the plan	Jim Allen – Allen Design	Yes	
Sealed by LA. (LDM 2.g.)	Requires original signature	Copy of seal and signature	Yes	
Miss Dig Note (800) 482-7171 (LDM.3.a.(8))	Show on all plan sheets	On Landscape Plan Title block	Yes	
EXISTING CONDITIONS				
<p>Existing plant material Existing woodlands or wetlands (LDM 2.e.(2), Zoning Sec 12, 37)</p>	<ul style="list-style-type: none"> • Show location type and size. • Label to be saved or removed. • Plan shall state if none exists. 	<ul style="list-style-type: none"> • Tree survey is provided on Sheets SP9-9.8. • Tree survey and removals are also provided on Sheets L-13 -L-20. • Woodland replacement calculations are provided on L-20. • Trees to remain are shown on the landscape plan • Wetland boundaries are indicated on SP-8 and topographic survey sheets • Wetland impacts and mitigation areas are shown on Sheets SP-8.1 and W-1 – W-4. 	<ul style="list-style-type: none"> • Yes • Yes • Yes • Yes • Yes • Yes 	<ol style="list-style-type: none"> 1. <u>As long as the information is the same between the tree survey in the civil plans and that shown in the landscape plans, please remove one of the surveys and tree charts.</u> 2. <u>If the civil sheets are kept, the removals and replacement calculations must be clearly shown and provided with either the tree chart or the landscape plans.</u> 3. <u>A list of proposed woodland replacement species is provided on L-1. Please consider the following:</u> <ol style="list-style-type: none"> a. <u>Aesculus pavia is not native to MI so it should not be used for woodland replacements</u> b. <u>As there are a number of hickories, black walnuts and elms being removed, please consider adding them to the list, even if only saplings or whips can be found for some of the species.</u>

Item	Required	Proposed	Meets Code	Comments
				<p>4. All plantings shown in a phase, including all of the woodland replacements, must be planted with that phase to make inspections as efficient as possible.</p> <p>5. Please provide a table showing how many replacements will be planted with each phase so the Financial Guarantee can be tracked effectively.</p> <p>6. No Demolition Plan is provided. Please be sure to show the tree fencing located at trees' actual CRZ, not the edge of the tree symbol as is currently done, in order to get an accurate portrayal of CRZ impacts.</p> <p>7. See the Merjent letter for detailed reviews of wetlands and woodlands.</p>
<p>Phragmites and Japanese Knotweed Control (Zoning Sec 6.B.i)</p>	<ul style="list-style-type: none"> Any/all populations of <i>Phragmites australis</i> and/or Japanese knotweed and related species shall be noted on plans. If any is found, instructions for their complete removal should be added to the plans. If none is found, a note stating that shall be added. 	<ul style="list-style-type: none"> Phragmites locations are shown on L-2 Methods for its removal are also on L-2 No mention is made of Japanese knotweed 	<ul style="list-style-type: none"> Yes Yes TBD 	<p>1. Please either show locations of Japanese knotweed on the same sheet or add a note stating that no Knotweed was found on the site.</p> <p>2. The site may need to be surveyed in the late spring or summer, when the weed is growing.</p>
<p>Soil type (LDM.2.r.)</p>	<p>As determined by Soils survey of Oakland County</p>	<ul style="list-style-type: none"> Soils boundaries and types are shown on SP-2 Soil Boring locations are also shown on SP-2 and SP9.0-9.4 	<ul style="list-style-type: none"> Yes Yes 	

Item	Required	Proposed	Meets Code	Comments
		<ul style="list-style-type: none"> • Soil Boring charts are provided on Sheets, SP-10.0 and SP-10.1 		
Zoning (LDM 2.f.)	Show site zoning and zoning of all adjacent parcels	Shown on L-1 <ul style="list-style-type: none"> • Site: OST • Proposed: RM-1 with PRO • North: RA, R-4, B-3, East: OST, South: OST, West: OST 	Yes	
PROPOSED IMPROVEMENTS				
Existing and proposed improvements (LDM 2.e.(4))	Existing and proposed buildings, easements, parking spaces, vehicular use areas, and R.O.W	<ul style="list-style-type: none"> • Site plan shows locations of buildings and drives • All proposed improvements are shown on the landscape plans. 	<ul style="list-style-type: none"> • Yes • Yes 	
Existing and proposed utilities (LDM 2.e.(4))	<ul style="list-style-type: none"> • Overhead and underground utilities, including hydrants • Show all proposed light posts 	<ul style="list-style-type: none"> • Utilities are shown on SP-6.1 and SP-6.2 • Utilities are included on the landscape plans • Light posts are not provided yet 	<ul style="list-style-type: none"> • Yes • Yes • No 	<u>Please add all proposed light posts to the landscape plans on the Final Site Plans at the latest and resolve all tree/post conflicts.</u>
Proposed topography - 2' contour minimum (LDM 2.e.(1))	Provide proposed contours at 2' interval	<ul style="list-style-type: none"> • Proposed spot elevations and berms are shown on SP-4.0 - SP-4.2 • Berms are shown on landscape plans • Retaining wall TW/BW elevations are given for all of the walls except for the one near the intersection of Simi Lane and Elle Parkway 	<ul style="list-style-type: none"> • Yes • Yes • Yes/No 	<u>Please add TW/BW elevations for the unlabeled retaining wall.</u>
Clear Zones (LDM 2.e.(5))	<ul style="list-style-type: none"> • Show clear vision zones for all entry points. • Use RCOC clear vision guidelines for 12 Mile Road and City clear vision guidelines for Meadowbrook. • Refer to exhibits at end 	<ul style="list-style-type: none"> • City clear vision zones are shown for all entries. • No trees or shrubs are shown within the zones. 	Yes	

Item	Required	Proposed	Meets Code	Comments
	of this chart.			
LANDSCAPING REQUIREMENTS				
Berms and ROW Planting				
<ul style="list-style-type: none"> All berms shall have a maximum slope of 33%. Gradual slopes are encouraged. Show 1ft. contours Berm should be located on lot line except in conflict with utilities. Berms should be constructed with 6" of topsoil. 				
Residential Adjacent to Non-residential (Zoning Sec 5.5.3. & LDM 1.a)				
Berm requirements (Zoning Sec 5.5.A)	<u>Residential adjacent to Office Service/Tech residential requires:</u> <ul style="list-style-type: none"> 4.5-6 foot high landscaped berm with 5-foot-wide crest. Opacity 80% winter, 90% summer. 	<ul style="list-style-type: none"> No berms are provided along the east side where there is just a large wetland mitigation/detention area. Dense plantings are provided east of Buildings 24-26 and over 140 feet of existing trees or densely planted detention basins are provided between the remaining buildings near the east property line. No screening berms are proposed along the south property line. Buildings 3-5 are about 50 feet north of the property line and the industrial park to the south. Dense evergreen plantings are provided as screening for those buildings. 108' and more of undisturbed area is south of Building 2. 	No	A landscape deviation was granted for the lack of a screening berm along the east and south property line.
Planting requirements (LDM 1.a.)	LDM Novi Street Tree List	Many trees are shown but are not identified yet	TBD	<u>Add tree labels to the plans, no later than the Final Site Plans.</u>
Adjacent to Public Rights-of-Way (Zoning Sec 5.5.B and LDM 1.b)				

Item	Required	Proposed	Meets Code	Comments
ROW Landscape Screening Requirements Chart (Zoning Sec 5.5.3.B. ii) (RM-1)				
Greenbelt width (2)(3) (5)	<ul style="list-style-type: none"> Adj to parking: 20 ft Not adj to parking: 34 ft 12 Mile Road: 34 ft Meadowbrook Road: 20 feet/34 feet 	<p>12 Mile Rd: 135 feet</p> <p>Meadowbrook Rd: 50 feet</p>	<ul style="list-style-type: none"> Yes Yes 	
Min. berm crest width	<ul style="list-style-type: none"> 12 Mile Road: 4 ft Meadowbrook Road: 4 ft 	<p>12 Mile Rd: 0 ft</p> <p>Meadowbrook Rd:</p> <ul style="list-style-type: none"> 3-4 ft when a berm exists Berm does not exist for 550 lf between Elle Parkway and Simi Lane where there are no homes and most of the frontage is preserved natural landscape There is also no berm south of Simi Lane (approx. 420lf). Dense landscaping is proposed in place of the berm due to grading issues. 	<ul style="list-style-type: none"> No Yes/No 	<p>A landscape deviation was granted for the lack of berms as shown on the plans.</p>
Min. berm height (9)	<ul style="list-style-type: none"> 12 Mile Road: 4 ft Meadowbrook Road: 4 ft 	<ul style="list-style-type: none"> 12 Mile Rd: 0 feet Meadowbrook Rd: 3-4 ft 	<ul style="list-style-type: none"> No No 	<p>1. A landscape waiver was granted to not provide berms in preserved areas.</p> <p>2. Where berms are proposed, please increase the minimum height to 4 feet (the berm south of Elle Parkway is not 4 feet tall).</p> <p>3. If Phases 2 or 4 are cleared for construction of Phases 1 and/or 3, the greenbelt landscaping along Meadowbrook associated with the adjacent phase shall</p>

Item	Required	Proposed	Meets Code	Comments
				<p>be planted at that time. Otherwise it should be provided along with the adjacent phase.</p> <p>4. Likewise, street trees would not be required for a temporary accessway for Phases 1 and 3 but if the permanent road is constructed, the street trees associated with it should be provided at the road's completion.</p>
3' wall	(4)(7)	No walls are proposed in the greenbelts	NA	
<p>Canopy deciduous or large evergreen trees Notes (1) (10)</p>	<p>1 tree per 35 lf</p> <p>12 Mile Road:</p> <ul style="list-style-type: none"> Developed frontage: (577-60-226)/35 = 8 trees Preserved frontage: 226lf/35 = 8 trees <p>Meadowbrook Road:</p> <ul style="list-style-type: none"> Developed frontage: (1771-60-60-574)/35 = 31 trees Preserved frontage: 584/35 = 17 trees 	<p>12 Mile Rd:</p> <ul style="list-style-type: none"> 12 trees (including the 4 "extra" street trees) <p>Meadowbrook Rd:</p> <ul style="list-style-type: none"> 31 trees 	<ul style="list-style-type: none"> • Yes • Yes 	<ol style="list-style-type: none"> A landscape deviation was granted to deduct the preserved areas from the calculation. Please show the proposed green belt plantings (lightly) on Sheets L-2, L-3 as is done on L-1 so it is clear where they are versus the multifamily unit trees that are shown near the greenbelt.
<p>Sub-canopy deciduous trees Notes (2)(10)</p>	<p>1 tree per 25 lf</p> <p>12 Mile Road:</p> <ul style="list-style-type: none"> Developed frontage: (577-226-60)/25= 12 trees Preserved frontage: 226lf/25=9 trees <p>Meadowbrook Road:</p> <ul style="list-style-type: none"> Developed frontage: (1771-60-60-574)/25 = 43 trees Preserved frontage: 584/25 = 23 trees 	<p>12 Mile Rd: 12 trees</p> <p>Meadowbrook Rd:</p> <ul style="list-style-type: none"> 41 trees 24 on L-4 17 on L-5 	<ul style="list-style-type: none"> • Yes • No 	<ol style="list-style-type: none"> See above regarding the landscape deviation. Please make the greenbelt trees on L-5 and L-6 heavier so counts can be verified more easily. See the street tree discussion below regarding the 3 subcanopy trees in the 12 Mile Road ROW and the 3 extra subcanopy trees in the Meadowbrook

Item	Required	Proposed	Meets Code	Comments
<p>Canopy deciduous trees in area between sidewalk and curb</p>	<p>1 tree per 35 lf</p> <p>12 Mile Road:</p> <ul style="list-style-type: none"> • (577-280)/35 = 14 trees <p>Meadowbrook Road:</p> <ul style="list-style-type: none"> • (1771-160-160)/35 = 41 trees 	<p>12 Mile Rd:</p> <p>14 trees</p> <ul style="list-style-type: none"> • 8 canopy trees in ROW • 3 subcanopy trees in ROW • 4 canopy trees behind the park <p>Meadowbrook Rd:</p> <p>43.33 trees</p> <ul style="list-style-type: none"> • 24 canopy trees • 29 subcanopy trees under/near overhead wires 	<ul style="list-style-type: none"> • No • Yes 	<p><u>Road ROW.</u></p> <ol style="list-style-type: none"> 1. <u>As there is 280lf of frontage that either has paving or is not wide enough to support canopy trees, it can be deducted from the 577 of frontage, leaving a requirement of 8 canopy trees, which are provided. The 3 subcanopy and 4 extra canopy trees can be removed from the plan if desired.</u> 2. <u>If the RCOC does not allow some or all of the trees along 12 Mile Road they do not need to be planted, but a copy of their decision must be provided to the City.</u> 3. <u>Please move 3 of the subcanopy trees in the Meadowbrook Road right-of-way into the greenbelt so that shortage is addressed.</u>
<p>Multi-Family Residential (Zoning Sec 5.5.3.F.ii)</p>				
<p>Building Landscaping (Zoning Sec 5.5.3.E.ii.)</p>	<ul style="list-style-type: none"> • 3 deciduous canopy trees or large evergreen trees per dwelling unit on the first floor. • # units * 3 = # trees • Up to 25% of requirement can be subcanopy trees <p>232 units * 3 = 696 trees</p>	<ul style="list-style-type: none"> • 696 trees • At this point it can't be determined if the 25% maximum subcanopy tree limit is met. 	<ul style="list-style-type: none"> • Yes • TBD 	<p><u>On the final site plans, the species must be provided and the percentage of subcanopy trees provided.</u></p>
<p>Interior Street Landscaping</p>	<ul style="list-style-type: none"> • 1 deciduous canopy tree along interior roads for every 35 lf (both sides), excluding driveways, interior 	<p>248 trees + 24 parking lot perimeter trees</p>	<p>Yes</p>	<p>1. Since the parking is limited to bays along one side of the drive, interior street trees can be used along</p>

Item	Required	Proposed	Meets Code	Comments
	roads adjacent to public rights-of-way and parking entry drives. <ul style="list-style-type: none"> Trees in boulevard islands do not count toward street tree requirement $(12450-3770)/35 = 248$ trees 			their perimeter instead of calculating the parking lot perimeter calculation separately and providing parking lot perimeter trees. This may decrease the total required. 2. Please move the clubhouse parking calculations to Sheet L-11.
Foundation Landscaping	35% of building façades facing road must be landscaped	<ul style="list-style-type: none"> All of the units have sufficient landscaping, either at the building face or around on the face and some on the side of the building facing the road According to the conceptual clubhouse plan, sufficient foundation landscaping will be provided 	<ul style="list-style-type: none"> Yes Yes 	Plant labels must be provided no later than the Final Site Plans
Parking Area Landscape Requirements (Zoning Sec 5.5.3.C & LDM 5)				
General requirements (LDM 1.c)	<ul style="list-style-type: none"> Clear sight distance within parking islands No evergreen trees 	No parking lots are proposed	NA	
Name, type and number of ground cover (LDM 1.c.(5))	As proposed on planting islands	NA	NA	
General (Zoning Sec 5.5.3.C)				
Parking lot Islands (a, b. i)	<ul style="list-style-type: none"> A minimum of 200 SF to qualify 200sf landscape space per tree planted on the island. 6" curbs Islands minimum width 10' BOC to BOC 	No parking lots are proposed, only single-sided parking bays	NA	
Curbs and Parking stall reduction (c)	Parking stall can be reduced to 17' with 4" curb adjacent to a sidewalk of minimum 7	Spaces are 17' long with either a 7' wide sidewalk or open space at the	Yes	

Item	Required	Proposed	Meets Code	Comments
	ft.	end		
Contiguous space limit (i)	Maximum of 15 contiguous spaces	No bay is more than 15 spaces.	Yes	
Category 1: For OS-1, OS-2, OSC, OST, B-1, B-2, B-3, NCC, EXPO, FS, TC, TC-1, RC, Special Land Use or non-residential use in any R district (Zoning Sec 5.5.3.C.iii)				
A = Total square footage of vehicular use areas x 7.5%	$A = x \text{ SF} \times 7.5\%$	No parking lots are proposed, only single-sided parking bays	NA	<u>Show the interior parking lot requirement and trees for the Clubhouse on Sheet L-11.</u>
B = Total square footage of additional paved vehicular use areas over 50,000 SF x 1 %	$B = x \text{ SF} \times 1\% = B \text{ sf}$	No parking lots are proposed, only single-sided parking bays	NA	
All Categories				
Total square footage of landscaped islands $C = A+B$	$C = A + B$	NA	NA	
Number of canopy trees required $D = C/200$	$D = C/200$	None	NA	
Parking Lot Perimeter Trees	<ul style="list-style-type: none"> • 1 Canopy tree per 35 lf • Sub-canopy trees can be used under overhead utility lines. • Perimeter within 20 feet of a building does not need to be included in the basis 	24 trees	Yes	<u>As the extra parking is just provided in single bays along the drives, the interior drive tree calculation should include those bays and the interior drive trees for those stretches should be located along the perimeter of those bays.</u>
Parking land banked	None			
Miscellaneous Landscaping Requirements				
Plantings around Fire Hydrant (d)	<ul style="list-style-type: none"> • No plantings with matured height greater than 12' within 10 ft. of fire hydrants, manholes, catch basins or other utility structures. • Trees should not be planted within 5 feet of underground lines. 	<ul style="list-style-type: none"> • For the most part, trees are properly spaced • There appears to be a tree on top of a structure southeast of Building 7. 	Yes	<u>Please double-check to be sure that the required spacing from utility lines and structures is provided.</u>
Landscaped area (g)	Areas not dedicated to parking use or driveways exceeding 100 sq. ft. shall be landscaped	Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
Name, type and number of ground cover (LDM 1.c.(5))	As proposed on planting islands	No indication is given	Yes	<u>Please indicate groundcovers on landscape plan</u>
Snow deposit (LDM.2.q.)	Show leave snow deposit areas on plan in locations where landscaping won't be damaged	A note indicates that the snow will be deposited along the drives except when the sidewalk is adjacent to the road. In that case the snow shall be deposited elsewhere.	Yes	<u>Please be sure that that information is included in the master deed and is passed along to the snow removal contractors.</u>
Transformers/Utility boxes (LDM 1.e from 1 through 5)	<ul style="list-style-type: none"> • A minimum of 2 ft. separation between box and the plants • Ground cover below 4" is allowed up to pad. • No plant materials within 8 ft. from the doors 	<ul style="list-style-type: none"> • No utility boxes or utility box landscaping is shown • Landscaping detail is provided 	TBD	<ol style="list-style-type: none"> 1. <u>Please show transformers and other utility boxes when their locations are determined.</u> 2. <u>Please add an allowance of 10 shrubs per box on the plant list and label as such</u>
Detention/Retention Basin Planting requirements (Zoning Sec. 5.5.3.E.iv)	<ul style="list-style-type: none"> • Clusters of large native shrubs shall cover 70-75% of the basin rim area at 10 ft away from the permanent water line. • Canopy trees must be located at 1 per 35lf of the pond rim 10 feet away from the permanent water level • 10" to 14" tall grass along sides of basin • Refer to wetland for basin mix • Include seed mix details on landscape plan 	<ul style="list-style-type: none"> • The required shrub and tree symbols are provided • A stormwater seed mix is called out on the pond detail sheet but no seed mix is provided for the areas around the ponds. 	<ul style="list-style-type: none"> • Yes • Yes/No 	<ol style="list-style-type: none"> 1. <u>Please add the shrub and tree species on the Final Site Plans.</u> 2. <u>Please add all appropriate seed mixes to the plans on the Final Site Plans.</u>
Landscape Notes and Details– Utilize City of Novi Standard Notes				
Plant List (LDM 4) – Include all cost estimates				
Quantities and sizes		No plant list is given	TBD	<u>Provide plant list on the Final Site Plans.</u>
Root type		No plant list is given	TBD	<u>See above</u>
Botanical and common names	<ul style="list-style-type: none"> • At least 50% of plant species used, not including seed mixes or woodland replacement trees, 	No plant list is provided	TBD	<u>See above</u>

Item	Required	Proposed	Meets Code	Comments
	must be species native to Michigan. • The non-woodland replacement tree diversity must meet the standards of the Landscape Design Manual section 4. As the number of trees will be more than 200, no more than 10% of the trees planted shall be of a given species, and no more than 15% shall be from a single genus. • Woodland replacements do not need to meet the LDM diversity requirements and should resemble the percentages of trees removed as much as possible.			
Type and amount of lawn		No		<u>Need for final site plan</u>
Cost estimate (LDM 2.t)	For all new plantings, mulch and sod as listed on the plan	No		<u>Need for final site plan</u>
Planting Details/Info (LDM 2.i) – Utilize City of Novi Standard Details				
Canopy Deciduous Tree	Refer to LDM for detail drawings	On Sheet L-12	Yes	
Evergreen Tree		On Sheet L-12	Yes	
Shrub		On Sheet L-12	Yes	
Multi-stem tree		On Sheet L-12	Yes	
Perennial/ Ground Cover		On Sheet L-12	Yes	
Tree stakes and guys	Wood stakes, fabric guys.	On Sheet L-12	Yes	
Cross-Section of Berms (LDM 2.j)				
Slope, height and width	• Label contour lines • Maximum 33% slope • Constructed of loam • 6" top layer of topsoil	On Sheet L-12	Yes	
Type of Ground Cover		Lawn is noted	Yes	
Walls (LDM 2.k & Zoning Sec 5.5.3.vi)				
Material, height and type of construction	Freestanding walls should have brick or	A number of retaining walls are	TBD	<u>Please provide standard details for the</u>

Item	Required	Proposed	Meets Code	Comments
footing	stone exterior with masonry or concrete interior	proposed They appear to be boulder walls		<u>walls</u>
Walls greater than 3 ½ ft. should be designed and sealed by an Engineer				<u>If walls are taller than 3 ½ feet, please have engineer design, sign and seal.</u>
Notes (LDM 2.i) – Utilize City of Novi Standard Details				
Installation date <i>(LDM 2.l. & Zoning Sec 5.5.5.B)</i>	<ul style="list-style-type: none"> Provide intended date Between Mar 15 – Nov 15 	Between March 15 and November 15	Yes	
Maintenance & Statement of intent <i>(LDM 2.m & Zoning Sec 5.5.6)</i>	<ul style="list-style-type: none"> Include statement of intent to install and guarantee all materials for 2 years. Include a minimum one cultivation in June, July and August for the 2-year warranty period. 	Notes are provided	Yes	
Plant source <i>(LDM 2.n & LDM 3.a.(2))</i>	Shall be northern nursery grown, No.1 grade.	Noted	Yes	
Establishment period <i>(Zoning Sec 5.5.6.B)</i>	2 yr. Guarantee	Noted	Yes	
Approval of substitutions. <i>(Zoning Sec 5.5.5.E)</i>	City must approve any substitutions <u>in writing</u> prior to installation.	Noted	Yes	
Miscellaneous Landscape Requirements (LDM 3)				
General Conditions <i>(LDM 3.a)</i>	Plant materials shall not be planted within 4 ft. of property line	Note has been added	Yes	
Irrigation plan <i>(LDM 2.s.)</i>	A fully automatic irrigation system and a method of draining is required with Final Site Plan	No		<ol style="list-style-type: none"> <u>Please add an irrigation plan or information as to how plants will be watered sufficiently for establishment and long-term survival on the final site plans</u> <u>The plan should meet the requirements listed at the end of this chart.</u> <u>If xeriscaping is used, please provide information about plantings included.</u>

Item	Required	Proposed	Meets Code	Comments
Other information (LDM 2.u)	Required by Planning Commission	NA		
Landscape tree credit (LDM 11.b.(d))	<ul style="list-style-type: none"> • Substitutions to landscape standards for preserved canopy trees outside woodlands/ wetlands should be approved by LA. • Refer to Landscape tree Credit Chart in LDM 	None		
Plant Sizes for ROW, Woodland replacement and others (LDM 11.b)	<ul style="list-style-type: none"> • Canopy Deciduous shall be 3" and sub-canopy deciduous shall be 2.5" caliper. • Refer to LDM section 11.b for more details 	No plant list is provided	TBD	<u>Include correct sizes on plant list.</u>
Plant size credit (LDM 11.b)	NA	None taken		
Prohibited Plants (LDM 11.b)	Do not use any plants on the Prohibited Species List	No plant list is provided	TBD	
Recommended trees for planting under overhead utilities (LDM 3.e)		Overhead lines are not labeled on the landscape plans		
Collected or Transplanted trees (LDM 3.f)		None indicated		
Nonliving Durable Material: Mulch (LDM 4)	<ul style="list-style-type: none"> • Trees shall be mulched to 3" depth and shrubs, groundcovers to 2" depth • Specify natural color, finely shredded hardwood bark mulch. • Include in cost estimate. 	Shown on planting details		

NOTES:

1. This table is a working summary chart and is not intended to substitute for any Ordinance or City of Novi requirements or standards.
2. The section of the applicable ordinance or standard is indicated in parenthesis. For the landscape requirements, please see the Zoning Ordinance landscape section 5.5 and the Landscape Design Manual for the appropriate items under the applicable zoning classification.
3. Please include a written response to any points requiring clarification or for any corresponding site plan modifications to the City of Novi Planning Department with future submittals.

Irrigation System Requirements

- Any booster pump installed to connect the project's irrigation system to an existing irrigation system must be downstream of the RPZ.
- The RPZ must be installed in accordance with the 2015 Michigan Plumbing Code.
- The RPZ must be installed in accordance with the manufacture installation instructions for winterization that includes drain ports and blowout ports.
- The RPZ must be installed a minimum of 12-inches above FINISHED grade.
- Attached is a handout that addresses winterization installation requirements to assist with this.
- A plumbing permit is required.
- The assembly must be tested after installation with results recorded on the City of Novi test report form.

WETLAND & WOODLAND REVIEW

February 19, 2026

Lindsay Bell
Planner – Community Development
City of Novi
45175 Ten Mile Road
Novi, MI 48375

Submitted electronically to lbell@cityofnovi.org

Re: The Grove Preliminary Site Plan Wetland and Woodland Review (JSP26-02)

Dear Lindsay,

Merjent, Inc. (Merjent) has conducted a site plan review of the Preliminary Site Plan (PSP) submittal for The Grove (site). Two sets of plans were provided:

- One plan prepared by Zeimet Wozniak and Associates dated January 28, 2026. This plan contains the primary design/engineering information for the PSP Submittal.
- One plan prepared by Allen Design dated January 28, 2026 This plan contains the landscape and woodland replacement information for the PSP Submittal.

Merjent reviewed the plans for conformance with the City of Novi's (City) current Woodland Protection Ordinance, Chapter 37, and Wetlands and Watercourse Protection Ordinance, Chapter 12 Article V. The site is located southeast of the intersection of Meadowbrook Road and Twelve Mile Road in Section 13 of the City. Development is proposed within and is identified by approximately 12 different parcel numbers in the City of Novi records. The site contains City-regulated woodlands and City-regulated wetlands (**Figure 1** and **Figure 2**).

Project Phasing

It is understood that this project will occur in four phases under the following names: Phase 1 – The Vistas; Phase 2 – The Meadows; Phase 3 – The Woods; and Phase 4 – The Pointe. A fifth Park/Recreation Area is identified with no associated phase. Parcel A at the northwestern portion of the site is also identified for development. It is requested that the applicant provide approximate construction dates/phasing for each phase proposed. Additionally, if the applicant is able to separate woodland and wetland impacts by phase, it would help future reviews and permitting of the project.

The applicant has stated in a response letter that Parcel A impacts will be included as a part of a separate submittal. All applicant responses to the Planned Rezoning Overlay have been included as **Attachment A**.

Woodlands

Woodland Recommendation: Merjent **recommends approval** of The Grove PSP Submittal. A list of comments is provided below to meet the requirements of the Woodland Protection Ordinance. The following Woodland Regulations apply to this site:

Woodland Regulation	Required
Woodland Permit (Chapter 37, Section 37-26)	Yes
Tree Replacement (Chapter 37, Section 37-8)	Yes
Tree Protection (Fence; Chapter 37, Section 37-9)	Yes
Woodland Conservation Easement (Chapter 37-30[e])	Yes, if feasible

Woodland Review Comments

1. City-regulated woodlands, as identified on the City of Novi Woodlands interactive map website, are present onsite (**Figure 1**). A site visit was performed on August 23, 2024 to verify and review the extent of woodlands on-site. Due to the extent of invasive species on-site, such as European buckthorn (*Rhamnus cathartica*), it is Merjent’s opinion that the extent of the Woodlands listed in the map viewer is accurate. Select photos from the site visit were included in the initial concept plan submittal.
2. When a proposed site plan is located within a regulated woodland, any tree proposed for removal with a diameter at breast height (DBH) greater than or equal to eight inches will require tree replacement and a Woodland Use Permit per Section 37-8. This also applies to any tree that will be preserved, but where impacts to critical root zones are proposed.
3. Regardless of the presence of regulated woodlands onsite, a Woodland Use Permit is required to perform construction on any site containing the removal of trees larger than 36 inches in diameter at breast height (DBH).
4. The plans have proposed the cumulative removal of 2,020 regulated trees (does not include dead or dying [very poor] trees). A **Woodland Use Permit** is required to perform construction on any site containing regulated woodlands. The permit for this site would require Planning Commission approval because there are more than three trees proposed to be impacted/removed by construction.
5. **Woodland Replacement.** Based on review of the plans, the following woodland replacements are currently listed:

Tree Size (DBH, inches)	Number of Trees	Ratio Replacement/Removed Tree	Total Replacements Required
8-11	1,127	1	1,127
12-20	715	2	1,430
21-29	59	3	177
30+	14	4	56
Multi-stem	105	Sum of Stem DBH/8 (rounded up)	389
Total	2,020	-	3,179

Tree Size (DBH, inches)	Number of Trees	Ratio Replacement/Removed Tree	Total Replacements Required
Less Credits (for trees saved outside of current woodland areas)			-35
Total Replacements Required			3,144

- **Requested edit for future submittals:** tree 3250 has an incorrect multi-stem calculation (seven as opposed to six), which would reduce the number of replacements by one.
6. For tree replacement credits that will be planted on-site, a financial guarantee of \$400/tree replacement credit is required to ensure the planting of the on-site woodland replacement credits. The financial guarantee will be released after trees have been planted and approved by the City of Novi. The applicant must request a tree planting inspection. Based on the provided site plan, the applicant has proposed planting 248 replacement trees on-site. A **Woodland Replacement Financial Guarantee of \$99,200** (248 trees x \$400/tree) is required as part of the Woodland Use Permit fees to ensure a successful planting of on-site Woodland Replacement Tree Credits.

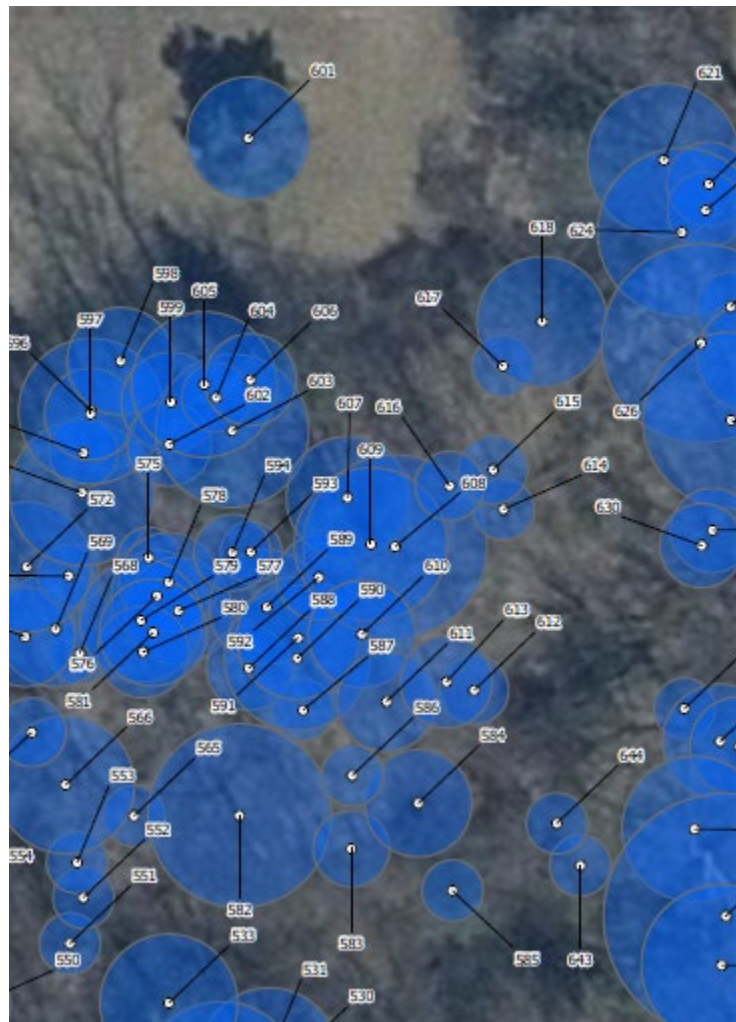
The Applicant shall guarantee trees for two growing seasons after installation and the City's acceptance, per the City's Performance Guarantees Ordinance. A **two-year maintenance bond in the amount of 25% (\$24,800)** of the value of the trees, but in no case less than \$1,000, shall be required to ensure the continued health of the trees following acceptance (Chapter 26.5, Section 26.5-37).

Note that the Applicant is responsible for requesting an inspection of the installed on-site Woodland Replacement Trees.

- **Requested edit/clarification:** Sheet L-1 states that *Aesculus pavia* (red buckeye) will be used as a woodland replacement species. Section 37-8 does not allow this species to be used for woodland replacement. However, Ohio buckeye (*Aesculus glabra*) is a similar species and is allowed under Section 37-8. Additionally, the applicant should consider planting species similar to the trees that are being removed, including but not limited to, Dutch Elm resistant American elm (*Ulmus americana*), black cherry (*Prunus serotina*), and black walnut (*Juglans nigra*). **Additionally, if the applicant can maximize the available space on-site for additional tree plantings, the City would appreciate any reforestation that can occur on-site as opposed to payment into the City of Novi Tree Fund.**
7. The Applicant will be required to pay into the **City of Novi Tree Fund \$1,158,400** for the remaining 2,896 woodland replacements not planted on site (2,896 woodland replacement credits x \$400/credit). This fee is non-refundable.
- a. The applicant has acknowledged that trees planted for wetland mitigation do not count toward woodland replacements.
8. **Critical root zone.** Accurate critical root zones (CRZ) must be depicted on the site plan for all regulated trees within 50 feet of the proposed grading or construction activities. Tree symbols are present on the plan but are relatively small. Additionally, it is unclear whether the tree symbol on the plan represents the trunk, dripline, or critical root zone of the tree. The tree symbol should be clarified in the legend or elsewhere on the plan. Critical root zones should be identified using a separate symbol on the site

plans. These impacts may have already been accounted for in the removal table provided, but the symbol should be clarified prior to the final site plan approval.

- **Required edit for future submittals:** the applicant's response indicates that CRZ impacts will be assessed during site clearing. However, to ensure a proactive and accurate impact assessment, the applicant must estimate the CRZ prior to any site disturbance by updating the plans with approximate buffer areas for each tree. A standard industry buffer for root protection is a one-foot radius for every inch of DBH. In future submittals, the applicant shall illustrate these protective zones by generating circular buffers based on this 1:1 ratio (e.g., a 20-inch DBH tree requires a 20-foot radius [40-foot diameter] buffer). To maintain plan legibility given the density of these buffers, this data should be presented on a dedicated "Tree Preservation" sheet within the plan set. While a calculated buffer often underestimates the extent of the actual biological drip line, this method provides a quantifiable metric to estimate tree replacement requirements and potential impacts before final approval is granted. An example graphic demonstrating these approximate buffers is provided below.



9. Regulated woodland disturbance includes impacts to the critical root zone of regulated trees, including but not limited to encroachment by grading, landscaping, and construction. If impacts to the critical root

zone of regulated woodland trees are proposed – woodland replacements are required. Revised woodland replacement calculations or plan revisions may be necessary to address any unclear encroachments into the critical root zone.

10. A **woodland fence guarantee of \$6,000** (\$5,000 x 120%) is required per Chapter 26.5-37. The financial guarantee shall be paid prior to issuance of the City of Novi Woodland Use Permit.
11. **Woodland Replacement Inspection** – The Applicant is responsible for walking the entire site to confirm that all woodland replacement trees/shrubs have been planted on site according to the approved site plan stamping set. If any material is missing, dead or dying, replacements should be made prior to requesting the inspection. The applicant should also provide an as-built landscape plan if the trees planted do not match the species and/or location shown on the approved site plan stamping set. Once this occurs the Applicant should contact the Bond Coordinator to schedule the inspection (Angie Sosnowski at asosnowski@cityofnovi.org; 248-347-0441) and complete the inspection request form. If additional inspections are needed, then additional inspection fees will be required to be paid by the applicant.
12. **Woodland Guarantee Inspection** – Prior to requesting the 2-year woodland guarantee inspection, the Applicant is responsible for walking the entire site to confirm that all plant material has survived and is healthy. If any material is missing, dead or dying, replacements should be made prior to requesting the inspection. Once this occurs the Applicant should contact the Bond Coordinator to schedule the 2-year guarantee inspection (Angie Sosnowski at asosnowski@cityofnovi.org / 248-347-0441) and complete the inspection request form. If additional inspections are needed, then additional inspection fees will be required to be paid by the applicant. Based upon a successful inspection for the 2-year warranty the Landscape/Woodland/Street trees financial guarantee will be returned to the Applicant.

If the woodland replacements, street trees, or landscaping guarantee period is scheduled to end during the period when inspections are not conducted (November 15th – April 15th) the Applicant is responsible for contacting the Bond Coordinator and Woodland/Landscape Inspector in the late summer/early fall prior to the 2-year expiration to schedule an inspection.

13. The Applicant may be required to provide preservation/conservation easements as directed by the City of Novi Community Development Department for any areas of woodland replacement trees. The applicant shall demonstrate that all proposed woodland replacement trees and existing regulated woodland trees to remain will be guaranteed to be preserved as planted with a conservation easement or landscape easement to be granted to the city. This language shall be submitted to the City Attorney for review. The executed easement must be returned to the City Attorney within 60 days of the issuance of the City of Novi Woodland permit. Any associated easement boundaries shall be indicated on the Plan.
 - a. An existing conservation easement is present southeast of the site associated with Meadowbrook Investments LLC. A map of conservation easements is provided as **Attachment B**.

Wetlands

Wetland Recommendation: Merjent **recommends approval** of the The Grove PSP submittal based on the comments provided below. Additional comments have been provided to meet the requirements of the City's Wetlands and Watercourse Protection Ordinance.

Upon review of published resources, the Site appears to contain or immediately borders:

- City-regulated wetlands, as identified on the City of Novi interactive map website. Note that both wetland and property limits depicted on the City’s map are considered approximations (**Figure 2**).
- Wetlands that are regulated by the Michigan Department of Environment, Great Lakes, and Energy (EGLE).
- Wetlands as identified on National Wetland Inventory (NWI) and Michigan Resource Inventory System (MIRIS) maps, as identified on the EGLE Wetlands Viewer interactive map website (map provided in Wetland Boundary Review). NWI and MIRIS wetlands are identified by the associated governmental bodies' interpretation of topographic data and aerial photographs.
- Hydric (wetland) soil as mapped by the U.S. Department of Agriculture, Natural Resources Conservation Service, as identified on the EGLE Wetlands Viewer interactive map website (map provided in Wetland Boundary Review).

Permits and Regulatory Status

Due to the comments below, the following wetland-related items will be required for this project:

Item	Required/Not Required
Wetland Permit (specify Non-minor or Minor)	Required, Non-minor
Wetland Mitigation	Required
Environmental Enhancement Plan	Required, Mitigation Plan
Wetland Buffer Authorization	Required
EGLE Wetland Permit	Likely Required*
Wetland Conservation Easement	Required

*Final determination is at the discretion of EGLE

Wetland Review Comments

1. Impacts have been proposed to 17 wetlands on-site, totaling approximately 1.71 acres loss of wetland. The impacts are summarized below.

Table 1. Wetland Summary and Impact Table

Wetland ID	Classification*	Acres On-site	Wetland Impact Area (acre)	Wetland Impact Volume (cu. yd.)	Permanent Buffer Impact Area (acre)	Temporary Buffer Impact Area (acre)	Buffer Impact Volume (cu. ft.)
C	Emergent	0.10	0.100	525	0.120	0.000	Not Provided
E	Emergent	0.42	0.361	400	0.368	0.000	Not Provided
F	Emergent/Forested	0.29	0.000	0	0.137	0.000	Not Provided
G	Forested	0.06	0.060	0	0.230	0.000	Not Provided
H	Forested	1.12	0.000	0	0.115	0.030	Not Provided
I/K	Emergent/Scrub-shrub/Forested	4.79	0.016	320	0.234	0.402	Not Provided

Wetland ID	Classification*	Acres On-site	Wetland Impact Area (acre)	Wetland Impact Volume (cu. yd.)	Permanent Buffer Impact Area (acre)	Temporary Buffer Impact Area (acre)	Buffer Impact Volume (cu. ft.)
J	Scrub-shrub/Forested	0.03	0.034	68	0.140	0.000	Not Provided
L	Scrub-shrub	0.29	0.000	0	0.002	0.052	Not Provided
M	--Separate Parcel--						
N	Emergent/Scrub-shrub	0.06	0.000	0	0.022	0.000	Not Provided
O	Emergent/Scrub-shrub	0.39	0.000	0	0.000	0.000	Not Provided
P	Scrub-shrub	0.03	0.030	130	0.130	0.000	Not Provided
Q	Forested	0.23	0.230	805	0.390	0.000	Not Provided
R	Emergent/Scrub-shrub	0.04	0.040	152	0.140	0.000	Not Provided
S	Forested	0.05	0.050	379	0.160	0.000	Not Provided
T	Emergent/Scrub-shrub	0.97	0.000	0	0.040	0.289	Not Provided
U	--Separate Parcel--						
V	--Separate Parcel--						
X	Scrub-shrub	0.07	0.022	0	0.070	0.000	Not Provided
Y	--Separate Parcel--						
Z	--Separate Parcel--						
Total	-	8.94	0.94	2,779	2.298	0.773	--
					3.071 total		

*Classification per Sheet SP-8.1

- **Requested edit:** the sum of buffer impacts provided on Sheet SP-8.1 is incorrect. Please see table above for corrected sums.
2. In addition to wetlands, the City of Novi regulates wetland and watercourse buffers/setbacks. Section 3.6 (2[M]) of the Zoning Ordinance, Schedule of Regulations, states: "There shall be maintained in all districts a wetland and watercourse setback, as provided herein, unless and to the extent, it is determined to be in the public interest not to maintain such a setback. The intent of this provision is to require a minimum setback from wetlands and watercourses". The established wetland and watercourse buffer/setback limit is 25 horizontal feet, regardless of grade change.
 - **Requested edit:** Buffer impact volumes should be provided for all impacts.
 3. The City of Novi requires the boundary lines of any watercourses or wetlands on the Site to be clearly flagged or staked and such flagging/staking shall remain in place throughout the conduct of permit activity. During Merjent's site visit on May 31, 2024 it was noted that the flagging from the delineation was still present. Select photos were provided in the Initial Concept Plan Review. The site does not

need to be re-flagged during the site plan review process, but prior to granting a Wetland Use Permit and construction the wetlands should be verified as being accurately staked or flagged.

4. The cost to perform any wetland protection and restoration shall be listed on the site plan, per Chapter 26.5, Section 26.5-7 (b) of the City of Novi Code of Ordinances. A **Wetland Financial Performance Guarantee** in the amount of 120% of the cost to perform any wetland protection, restoration, and development will be collected prior to the granting of a Wetland Use Permit.
5. When a project permanently impacts 0.25 acre or more of essential wetland, the City of Novi requires mitigation at a ratio of 2:1 for forested wetlands and 1.5:1 for emergent and scrub-shrub wetlands. Current wetland classifications in **Table 1** above reflect the classifications noted on Sheet SP-8.1. The total proposed impact to City-regulated wetlands is approximately 0.94 acre.
6. According to the City Ordinance Section 12-176 (Mitigation), "Mitigation shall be provided onsite where practical and beneficial to the wetland resources. If onsite mitigation is not practical and beneficial, mitigation in the immediate vicinity, within the same watershed, may be considered. Mitigation at other locations within the city will only be considered when the above options are impractical."
 - a. The applicant is required to provide 1.61 acres of mitigation on-site and has proposed 1.65 acres on-site for The Grove.
 - b. City-regulated mitigations will follow the City of Novi Mitigation Performance Standards (**Attachment C**), which are similar to EGLE's typical Mitigation Performance Standards.
 - c. The applicant has provided a response to the required conceptual mitigation plan for the site plan review process.. The conceptual mitigation plan should contain the following information:
 - The location of the proposed wetland mitigation site in relation to the proposed The Grove site. A location map for the mitigation site should be provided with the nearest crossroads and/or identifiable landmarks.
 - The total acreage and ecological type of the wetland that will be created and/or expanded.
 - A brief description of existing conditions at the proposed mitigation site. Existing conditions include but are not limited to, general topography, soils, vegetation, and any existing hydrology.
 - A brief description of the method with which the mitigated wetland will be created and/or expanded. A detailed engineering design is not required, but the source of water for the mitigated wetland should be identified.

*Responses for all items above are provided in **Attachment A**.*

- d. For final site plan approval, the applicant will need to provide all required criteria stated in Section 12-176 in the final site plan or appended to the final site plan review submission.
7. The Applicant is encouraged to provide wetland conservation easements for any areas of remaining wetland and 25-foot wetland buffer. The Applicant shall provide wetland conservation easements as directed by the City of Novi Community Development Department for any areas of proposed wetland mitigation areas (if necessary). Additionally, EGLE may request conservation easements around remaining wetlands on-site if a permit is required from EGLE. This requirement would be unrelated to the requirements of the City of Novi Wetland Use Permit. This language shall be submitted to the City

Attorney for review. The executed easement must be returned to the City Attorney within 60 days of the issuance of the City of Novi Wetland Use Permit.

- a. An existing conservation easement is present southeast of the site associated with Meadowbrook Investments LLC. A map of conservation easements is provided as **Attachment B**.

Should you have any questions or concerns with this review, please contact me via email at jason.demoss@merjent.com or via phone at (619) 944-3835.

Sincerely,

Merjent, Inc.



Jason DeMoss, PWS
Environmental Consultant

Enclosures:

- Figure 1 – City of Novi Woodlands Map
- Figure 2 – City of Novi Wetlands Map
- Attachment A – Applicant PRO Responses
- Attachment B – Conservation Easement Map
- Attachment C – Wetland Mitigation Performance Standards

CC:

Stacey Choi, City of Novi, schoi@cityofnovi.org
Rick Meader, City of Novi, rmeader@cityofnovi.org
Barbara McBeth, City of Novi, bmcbeth@cityofnovi.org
Matt Pudlo, Merjent, matt.pudlo@merjent.com



Figure 1. City of Novi Regulated Woodlands Map
 Approximate Site boundary is shown in red.
 (Approximate) Regulated Woodland areas are shown in green.

Attachment A
Applicant Responses to PRO Review



Consulting Civil Engineers

55800 Grand River Avenue, Suite 100
New Hudson, Michigan 48165-9318
248.437.5099 · 248.437.5222 fax
www.zeimetwozniak.com

January 28, 2026

Ms. Lindsay Bell, AICP, Senior Planner
City of Novi Community Development Department – Planning Division
45175 Ten Mile Road
Novi, MI 48375

Re: The Grove
Job No. JZ24-31
Wetland and Woodland Review Response for PSP Submittal

Dear Ms. Bell:

This letter is in response to the Wetland and Woodland Review letter, prepared by Mergent, dated August 8, 2025.

We offer the following responses to the few outstanding review comments that remain after approval of the PRO.

Woodlands

5. **Woodland Replacement.** The existing 10" Pine noted in the review letter will be removed during construction. The tree has been added to the Tree Survey List on Sheet SP-9.8. Sheet L-20 has been updated to indicate that the tree will be removed and that an additional tree replacement is required.
6. A list of trees proposed for replacement has been added to Sheet L-1. The discrepancy regarding the number of replacement trees has been corrected on Sheets L-1, L-2, and L-3.
- 7a. Required trees that are planted for wetland mitigation are not counted towards woodland replacement credits.
8. **Critical Root Zone.** Due to the dense vegetation on-site it is impossible to accurately depict the critical root for all regulated trees within 50 feet of the proposed grading or construction activities at this time. Once the tree removal and brushing have been completed, it will be possible to identify any critical root zone for any trees that may be impacted. Payment for any additional replacement credits will be made to the City of Novi Tree Fund.
13. A woodland conservation easement for any areas of woodland replacement trees, will be provided and the easement will be depicted on the Final Site Plan.
14. Parcel A woodland impacts will occur when Parcel A is developed under a separate submittal. The trees on Parcel A are included in the Tree Survey (Sheets SP-9 through SP-9.8).

Wetlands

1. Wetland C buffer impact has been added to Sheet SP-8.1.

As noted above, Parcel A will be developed under a separate submittal in the future. Parcel A includes the impacts to wetlands M, U, V, Y, and Z. The wetland impacts are shown on Sheet SP-8.1. The undisturbed portion of wetland U on the Grove is a natural area that will remain as a buffer. A portion of wetland X in the Grove will be impacted for the proposed buildings while the balance of the wetland will remain as a buffer.

An area on the Grove parcel, adjacent to Parcel A, has been set aside to accommodate the required wetland mitigation for Parcel A, when it's developed in the future.

Separate wetland permit applications for The Grove and Parcel A have been submitted to EGLE and are currently being reviewed. We request that Novi issue separate wetland permits as well.

2. The buffer impact volumes have been updated on Sheet SP-8.1.

6a. The proposed wetland mitigation area has increased to 2.50 acres (see Sheet SP-8.1).

6c.

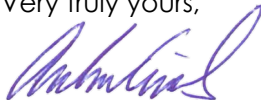
- All proposed mitigation will be on The Grove property.
- The total acreage and ecological type of the wetland that will be created is shown on Sheet SP-8.1.
- No off-site mitigation is proposed.
- The wetland mitigation areas will be created by excavating upland areas to match the grade of the existing wetlands. The mitigation areas will be supported by existing hydrology, including natural wetland water levels and the stormwater outfalls that currently discharge to the system. Because the project expands an established wetland complex, no new water source is required.

7. A wetland conservation easement will be provided.

We look forward to a recommendation of approval of the Preliminary Site Plan from Mergent and will address any remaining comments during preparation of the Final Site Plan.

Please contact us if you have any questions or comments.

Very truly yours,



Andrew Wozniak

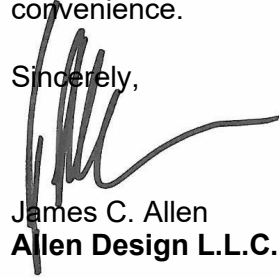
- *Detention.* Permanent water elevations are identified for each basin. Plantings will be called out for Final Site Plan.
- *Irrigation.* An irrigation plan will be provided for stamping sets.

Woodland Comments:

6. The woodland replacement values have been revised.
9. The critical root zones will be shown after clearing. Required replacements will be adjusted accordingly for grading under tree canopies.
10. Woodland fencing fee is shown on Sheet L-19.

If you have any questions or comments regarding this response, please contact me at your convenience.

Sincerely,



James C. Allen
Allen Design L.L.C.

Attachment B
Conservation Easement Map

City of Novi Conservation Easements



9/4/2024

Conservation Easement

- Wetland
- Wetland & Woodland

World Imagery

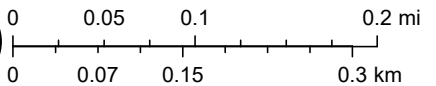
Low Resolution 15m Imagery

High Resolution 60cm Imagery

High Resolution 30cm Imagery

Citations

2.4m Resolution Metadata



1:9,046

Maxar, Esri Community Maps Contributors, City of Novi, MI, Province of Ontario, Oakland County, Michigan, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Attachment C
Wetland Mitigation Performance Standards

City of Novi Mitigation Performance Standards

August 2024

- a. Construction has been completed in accordance with the City of Novi's approved plans and specifications included in the permit and mitigation plan (and associated approved site plan).
- b. The mitigation wetland is characterized by the presence of water at a frequency and duration sufficient to support a predominance of wetland vegetation and the wetland types specified at the end of the monitoring period. The monitoring period will follow the U.S. Army Corps of Engineers definition of the growing season as stated in the 1987 *Wetland Delineation Manual*:
 - i. "The portion of the year when soil temperatures at 19.7 inches (50 cm) below the soil surface are higher than biological zero (5°C [41°F]). For ease of determination, this period can be approximated by the number of frost-free days."
 - ii. "Estimating starting and ending dates for the growing season are based on 28°F (-2.2°C) air temperature thresholds at a frequency of five years in 10."
- c. A layer of high-quality topsoil, from the A horizon of an organic or loamy surface texture soil, is placed (or exists) over the entire wetland mitigation area at a minimum thickness of six inches.
- d. The mitigation wetland shall be free of oil, grease, debris, and all other contaminants.
- e. A minimum of six wildlife habitat structures, consisting of at least three types, have been placed per acre of mitigation wetland. At least 50 percent of each structure shall extend above the normal water level. The types of acceptable wildlife habitat structures are:
 - i. Tree stumps laid horizontally within the wetland area. Acceptable stumps shall be a minimum of six feet long (log and root ball combined) and 12 inches in diameter.
 - ii. Logs laid horizontally within the wetland area. Acceptable logs shall be a minimum of 10 feet long and six inches in diameter.
 - iii. Whole trees laid horizontally within the wetland area. Acceptable whole trees shall have all of their fine structure left intact (i.e., not trimmed down to major branches for installation), be a minimum of 20 feet long (tree and root ball), and a minimum of 12 inches in diameter.
 - iv. Snags which include whole trees left standing that are dead or dying, or live trees that will be flooded and die, or whole trees installed upright into the wetland. A variety of tree species should be used for the creation of snag habitat. Acceptable snags shall be a minimum of 20 feet tall (above the ground surface) and a minimum of 12 inches in diameter at breast height. Snags should be grouped together to provide mutual functional support as nesting, feeding, and perching sites.
 - v. Sand mounds at least 18 inches in depth and placed so that they are surrounded by a minimum of 30 feet of water measuring at least 18 inches in depth. The sand mound shall have at least a 200 square foot area that is 18 inches above the projected high-water level and oriented to receive maximum sunlight.
- f. The mean percent cover of native wetland species in the herbaceous layer at the end of the monitoring period is not less than:
 - i. 60 percent for emergent wetland.
 - ii. 80 percent for scrub-shrub wetland.

- iii. 80 percent for forested wetland.
- g. Extensive areas of open water and submergent vegetation areas having no emergent and/or rooted floating vegetation shall not exceed 20 percent of the mitigation wetland area. Extensive areas of bare soil shall not exceed five percent of the mitigation wetland area. For the purposes of these performance standards, extensive refers to areas greater than 0.01 acre (436 square feet) in size.
- h. The total percent cover of wetland species in each plot shall be averaged for plots taken in the same wetland type to obtain a mean percent cover value for each wetland type. For the purposes of this standard, total percent cover is the percent cover of the ground surface covered by vegetation, bare soil, and open water, when viewed from above. Total percent cover cannot exceed 100 percent. Plots within identified extensive open water and submergent areas, bare soil areas, and areas without a predominance of wetland vegetation shall not be included in this average. Wetland species refers to species listed as facultative and wetter (FAC, FACW, OBL) on the U.S. Army Corps of Engineer's 2020 Regional Plant List (version 3.5) for the Midwest Region.
- i. The mitigation wetland supports a predominance of wetland (hydrophytic) vegetation (as defined in the 2010 U.S. Army Corps of Engineers "Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region [Version 2.0]") in each vegetative layer, represented by a minimum number of native wetland species, at the end of the monitoring period. The minimum number of native wetland species per wetland type shall not be less than:
 - i. 15 species within the emergent wetland.
 - ii. 15 species within the scrub-shrub wetland.
 - iii. 15 species within the forested wetland.

The total number of native wetland plant species shall be determined by a sum of all species identified in sample plots of the same wetland type.

- j. At the end of the monitoring period, the mitigation wetland supports a minimum of:
 - i. 300 individual surviving, established, and free-to-grow trees per acre in the forested wetland that are classified as native wetland species and consisting of at least three different species.
 - ii. 300 individual surviving, established, and free-to-grow shrubs per acre in the scrub-shrub wetland that are classified as native wetland species and consisting of at least four different species.
 - iii. *Optional*: Eight native wetland species of grasses, sedges, or rushes per acre in the wet meadow wetland.
- k. Physiognomic classification of trees and shrubs shall be in accordance with the most updated resource from the following list:
 - i. The Michigan Floristic Quality Assessment
 - ii. Michigan Flora (also referred to as the University of Michigan Herbarium)
 - iii. The U.S. Army Corps of Engineer's Regional Plant List for the Midwest Region.
- l. The mean percent cover of invasive species including, but not limited to, *Phragmites australis* (Common Reed), *Lythrum salicaria* (Purple Loosestrife), and *Phalaris arundinacea* (Reed Canary Grass) shall in combination be limited to no more than 10 percent within each wetland type. Invasive species shall not dominate the vegetation in any extensive area of the mitigation wetland. A more exhaustive list of invasive species that are known to be in Michigan can be found on the State of Michigan's Invasive Species plant list (<https://www.michigan.gov/invasives/id-report/plants>)

If the mean percent cover of invasive species is more than 10 percent within any wetland type or if there are extensive areas of the mitigation wetland in which an invasive species is one of the dominant plant species, the permittee shall submit an evaluation of the problem to the City of Novi and/or the. If the permittee determines that it is infeasible to reduce the cover of invasive species to meet the above performance standard, the permittee must submit an assessment of the problem, a control plan, and the projected percent cover that can be achieved for review by the City of Novi. Based on this information, the City of Novi may approve an alternative invasive species standard. Any alternative invasive species standard must be approved in writing by the City of Novi.

If the mitigation wetland does not satisfactorily meet these standards by the end of the monitoring period, or is not satisfactorily progressing during the monitoring period, the permittee will be required to take corrective

Consultant review of Monitoring Reports will be split into the following sections:

1. Vegetation
2. Invasive Species
3. Hydrology
4. Wildlife Observations
5. Topsoil
6. Pollutants
7. Signage
8. Wetland Recommendations (as applicable)
 - a. Financial Guarantee Release

TRAFFIC REVIEW



AECOM
 39575 Lewis Dr, Ste. 400
 Novi
 MI, 48377
 USA
 aecom.com

Project name:
 JSP26-02 – The Grove Preliminary Traffic
 Review

From:
 AECOM

Date:
 February 19, 2026

To:
 Barbara McBeth, AICP
 City of Novi
 45175 10 Mile Road
 Novi, Michigan 48375

CC:
 Lindsay Bell, Dan Commer, Humna Anjum, Diana
 Shanahan, Milad Alesmail, Stacey Choi, Kate
 Purpura

Memo

Subject: JSP26-02 – The Grove Preliminary Traffic Review

The phasing component of the preliminary site plan was reviewed, as well as comments previously provided, and AECOM recommends **approval** as long as the comments provided below are adequately addressed to the satisfaction of the City.

GENERAL COMMENTS

1. The applicant, Ivanhoe Companies, is proposing a residential development consisting of 232 units built in four phases:
 - a. The Vistas – 68 units
 - b. The Meadows – 67 units
 - c. The Woods – 36 units
 - d. The Pointe – 61 units
2. The development is located on the southeast corner of Twelve Mile Road and Meadowbrook Road. Twelve Mile Road is under the jurisdiction of the Road Commission for Oakland County and Meadowbrook Road is under the jurisdiction of the City of Novi.
3. The site is zoned OST (Office Service Technology) and the applicant is requesting a PRO for RM-1 (Low-Density Multiple-Family).
4. The following traffic related deviations have been received:
 - a. Parking on a major drive.
 - b. Parking along street with centerline radius less than 230’.

TRAFFIC IMPACTS

1. AECOM performed an initial trip generation based on the ITE Trip Generation Manual, 11th Edition, as follows.

ITE Code: 220 – Multifamily Housing (Low-Rise)

Development-specific Quantity: 232 Units

Zoning Change: OST to RM-2 PRO

Trip Generation Summary	Estimated Trips	Estimated Peak-Direction Trips	City of Novi Threshold	Above Threshold?
AM Peak-Hour Trips	95	72	100	No
PM Peak-Hour Trips	120	76	100	Yes
Daily (One-Directional) Trips	1564	N/A	750	Yes

2. The City of Novi generally requires a traffic impact study/statement if the number of trips generated by the proposed development exceeds the City's threshold of more than 750 trips per day or 100 trips per either the AM or PM peak hour, or if the project meets other specified criteria.

Trip Impact Study Recommendation	
Type of Study:	Justification
Traffic Impact Statement (TIS) And Rezoning Traffic Impact Statement (RTIS)	Proposed rezoning from OST to RM-1, and estimated trips are above the City's threshold. The TIS was approved per the memo dated September 9, 2025.

TRAFFIC REVIEW

The following table identifies the aspects of the plan that were reviewed. Items marked O are listed in the City's Code of Ordinances. Items marked with ZO are listed in the City's Zoning Ordinance. Items marked with ADA are listed in the Americans with Disabilities Act. Items marked with MMUTCD are listed in the Michigan Manual on Uniform Traffic Control Devices.

The values in the 'Compliance' column read as 'met' for plan provision meeting the standard it refers to, 'not met' stands for provision not meeting the standard and 'inconclusive' indicates applicant to provide data or information for review and 'NA' stands for not applicable for subject Project. The 'remarks' column covers any comments reviewer has and/or 'requested/required variance' and 'potential variance'. A potential variance indicates a variance that will be required if modifications are not made or further information provided to show compliance with the standards and ordinances. The applicant should put effort into complying with the standards; the variances should be the last resort after all avenues for complying have been exhausted. Indication of a potential variance does not imply support unless explicitly stated.

EXTERNAL SITE ACCESS AND OPERATIONS				
No.	Item	Proposed	Compliance	Remarks
1	Driveway Radii O Figure IX.3	35'	Met	
2	Driveway Width O Figure IX.3	28' and 23' at boulevard entrances	Met	
3	Driveway Taper O Figure IX.11			
3a	Taper length	100' and 75'	Met	
3b	Tangent	50'	Met	
4	Emergency Access O 11-194.a.19	3 access points	Met	
5	Driveway sight distance O Figure VIII-E	1065.11' along 12 Mile Rd; 665.95', 649.13', 1421.94', 516.97' along Meadowbrook Rd	Met	
6	Driveway spacing			
6a	Same-side O 11.216.d.1.d	N/A	-	

EXTERNAL SITE ACCESS AND OPERATIONS				
No.	Item	Proposed	Compliance	Remarks
6b	Opposite side O 11.216.d.1.e	235.35' 12 Mile Rd, 199.51' and 493.08' Meadowbrook Rd	Met	
7	External coordination (Road agency)	RCOC	Met	
8	External Sidewalk Master Plan & EDM	Proposed 10' along Twelve Mile Rd and tying into existing on Meadowbrook Rd	Met	
9	Sidewalk Ramps EDM 7.4 & R-28-K	Indicated and detail provided	Met	
10	Any Other Comments:	Island lengths at each entrance/exit are within range of the requirements shown in Figure IX.3. Provide details of pavement stubs between phases and applicable signage in future submittal. Provide emergency vehicle turning movements for the turnaround proposed in phase 3.		

INTERNAL SITE OPERATIONS				
No.	Item	Proposed	Compliance	Remarks
11	Loading zone ZO 5.4	N/A	-	
12	Trash receptacle ZO 5.4.4	Trash collection will be at each driveway	Met	
13	Emergency Vehicle Access	Provided	Met	
14	Maneuvering Lane ZO 5.3.2	N/A	-	
15	End islands ZO 5.3.12			
15a	Adjacent to a travel way	N/A	-	
15b	Internal to parking bays	N/A	-	
16	Parking spaces ZO 5.2.12	Perpendicular spaces, garage and driveway parking		See Planning review letter. The applicant has received a waiver for parking along a major drive.
17	Adjacent parking spaces ZO 5.5.3.C.ii.i	<15 spaces in all parking bays	Met	
18	Parking space length ZO 5.3.2	17'	Met	
19	Parking space Width ZO 5.3.2	9'	Met	
20	Parking space front curb height ZO 5.3.2	4" in front of 17' spaces, 6" everywhere else	Met	
21	Accessible parking – number ADA	1 proposed at pickleball courts	Met	
22	Accessible parking – size ADA	8' x 17' with 8' aisle	Met	

INTERNAL SITE OPERATIONS				
No.	Item	Proposed	Compliance	Remarks
23	Number of Van-accessible space ADA	1 indicated, 1 required	Met	
24	Bicycle parking			
24a	Requirement ZO 5.16.1	47 required, provided in units and 4 provided at pickleball courts	Met	
24b	Location ZO 5.16.1	Indicated	Met	
24c	Clear path from Street ZO 5.16.1	6'	Met	
24d	Height of rack ZO 5.16.5.B	3'	Met	
24e	Other (Covered / Layout) ZO 5.16.1	Indicated	Met	
25	Sidewalk – min 5' wide Master Plan	5' minimum	Met	
26	Sidewalk ramps EDM 7.4 & R-28-K	Indicated and detail provided	Met	
27	Sidewalk – distance back of curb EDM 7.4	0' and 7.5'	Met	
28	Cul-De-Sac O Figure VIII-F	N/A	-	
29	EyeBrow O Figure VIII-G	N/A	-	
30	Minor/Major Drives ZO 5.10	28' wide, over minimum 100' radius proposed	Partially Met	The applicant has received a waiver to allow adjacent parking near curves with less than a 230' radius.
31	Any Other Comments:			

SIGNING AND STRIPING				
No.	Item	Proposed	Compliance	Remarks
32	Signing: Sizes MMUTCD	Indicated	Met	
33	Signing table: quantities and sizes	Indicated	Met	Review the quantity of speed limit signs in the signage table on sheet SP-3.1.
34	Signs 12" x 18" or smaller in size shall be mounted on a galvanized 2 lb. U-channel post MMUTCD	Indicated	Met	
35	Signs greater than 12" x 18" shall be mounted on a galvanized 3 lb. or greater U-channel post MMUTCD	Indicated	Met	
36	Sign bottom height of 7' from final grade MMUTCD	Indicated	Met	
37	Signing shall be placed 2' from the face of the curb or edge of the nearest sidewalk to the near edge of the sign MMUTCD	Indicated	Met	
38	FHWA Standard Alphabet series used for all sign language MMUTCD	Indicated	Met	
39	High-Intensity Prismatic (HIP) sheeting to meet FHWA retro-reflectivity MMUTCD	Indicated	Met	

SIGNING AND STRIPING				
No.	Item	Proposed	Compliance	Remarks
40	Parking space striping notes	Indicated	Met	
41	The international symbol for accessibility pavement markings ADA	Provided	Met	
42	Crosswalk pavement marking detail	None proposed	N/A	
43	Any Other Comments:	The applicant noted to maintain traffic for Meadowbrook Road and Twelve Mile Road entrance work per MMUTCD, RCOC and MDOT.		

Note: Hyperlinks to the standards and Ordinances are for reference purposes only, the applicant and City of Novi to ensure referring to the latest standards and Ordinances in its entirety.

Should the City or applicant have questions regarding this review, they should contact AECOM for further clarification.

Sincerely,

AECOM



Paula K. Johnson, PE
Senior Transportation Engineer



Saumil Shah, PE
Project Manager

FAÇADE REVIEW



August 6, 2025

City of Novi Planning Department
 45175 W. 10 Mile Rd.
 Novi, MI 48375-3024

Attn: Ms. Barb McBeth – City Planner

Re: **FACADE ORDINANCE**
The Grove PRO, JZ24-31, Formal PRO
 Façade Region: 1
 Zoning District - Current: OST, Proposed: PRO RM-2.

Dear Ms. McBeth:

The following is the Façade Review for the above referenced project based on the drawings prepared by The Residential Design Group, dated 7/9/25. This project is subject to the Façade Ordinance Section 5.15, and the Planned Rezoning Overlay Ordinance (PRO) Section 7.13. The percentages of materials proposed for each façade are as shown in the tables below. Materials in non-compliance are highlighted in bold.

The Vistas	Front	Left	Right	Rear	Ordinance Maximum (Minimum)
Brick or Stone	31%	37%	37%	38%	100% (30% Minimum)
Composite Siding, Horizontal	15%	12%	12%	12%	50%
Composite Siding, Shake	13%	5%	5%	0%	50%
Trim	10%	5%	5%	5%	15%
Asphalt Shingles	31%	41%	41%	45%	50% (Note 14)

The Meadows	Front	Left	Right	Rear	Ordinance Maximum (Minimum)
Brick or Stone	32%	37%	37%	38%	100% (30% Minimum)
Composite Siding, Horizontal	7%	12%	12%	12%	50%
Composite Siding, Shake	19%	5%	5%	0%	50%
Trim	8%	5%	5%	5%	15%
Asphalt Shingles	34%	41%	41%	45%	50% (Note 14)

The Woods	Front	Left	Right	Rear	Ordinance Maximum (Minimum)
Brick or Stone	21%	37%	37%	36%	100% (30% Minimum)
Composite Siding, Vertical	28%	12%	12%	0%	50%
Composite Siding, Horizontal	0%	25%	25%	11%	50%
Trim	8%	6%	6%	5%	15%
Standing Seam Roof	3%	0%	0%	0%	
Asphalt Shingles	40%	32%	32%	48%	50% (Note 14)

The Pointe	Front	Left	Right	Rear	Ordinance Maximum (Minimum)
Brick or Stone	35%	37%	37%	31%	100% (30% Minimum)
Composite Siding, Horizontal	12%	36%	36%	6%	50%
Trim	9%	5%	5%	3%	15%
Standing Seam Roof	1%	0%	0%	0%	
Asphalt Shingles	43%	22%	22%	60%	50% (Note 14)

All Above Residential Units - As shown above the minimum percentage of Brick is not provided on the Front Façade of the Woods model. All other models are in full compliance. It is recommended the percentage of Brick be increased on the Woods model to more closely comply with the Ordinance.

Clubhouse, Option 1 (4,025 SF)	Front	Left	Right	Rear	Ordinance Maximum (Minimum)
Brick or Stone	22%	Not Provided			100% (30% Minimum)
Composite Siding, Vertical	24%				50%
Trim	10%				15%
Standing Seam Roof	1%				
Asphalt Shingles	42%				50% (Note 14)

Clubhouse, Option 2 (1,830 SF)	Front	Left	Right	Rear	Ordinance Maximum (Minimum)
Brick or Stone	15%	Not Provided			100% (30% Minimum)
Composite Siding, Vertical	38%				50%
Trim	9%				15%
Standing Seam Roof	6%				
Asphalt Shingles	32%				50% (Note 14)

Clubhouse, Option 3 (1,350 SF)	Front	Left	Right	Rear	Ordinance Maximum (Minimum)
Brick or Stone	36%	Not Provided			100% (30% Minimum)
Composite Siding, Vertical	15%				50%
Trim	11%				15%
Standing Seam Roof	0%				
Asphalt Shingles	38%				50% (Note 14)

Clubhouse, Option 4 (620 SF)	Front	Left	Right	Rear	Ordinance Maximum (Minimum)
Brick or Stone	60%	Not Provided			100% (30% Minimum)
Composite Siding, Vertical	0%				50%
Trim	5%				15%
Standing Seam Roof	0%				
Asphalt Shingles	35%				50% (Note 14)

Clubhouse - As shown above the minimum percentage of Brick is not provided on the Front Façade of Clubhouse, options 1 and 2. All other options are in full compliance. It is recommended the percentage of Brick be increased on Options 1 and 2 to more closely comply with the Ordinance.

Rezoning Overlay Ordinance (PRO) Section 7.13 Section 7.13.2.D.ii.a of the PRO Ordinance requires that the application shall result in an enhancement of the project as compared to the existing zoning and such enhancement would be unlikely in the absence of the use of a PRO.” The design of all buildings generally meets this requirement, contingent on bringing The Woods model and the Clubhouse into full compliance. Without full design details for all 4 Clubhouse options no determination can be made on compliance with the PRO Ordinance. If the Clubhouse is to be optional or the design to be determined, the applicant should suggest conditions to be met during the site plan review process that would exceed ordinance standards (such as minimum 45% brick on front façade).

If you have any questions regarding this project please do not hesitate to call.

Sincerely,
 DRN & Associates, Architects PC



Douglas R. Necci, AIA

FIRE REVIEW



February 10, 2026

TO: Barbara McBeth - City Planner
Lindsay Bell - Plan Review Center
Dan Commer – Plan Review Center
Diana Shanahan – Plan Review Center
Stacey Choi – Planning Assistant

CITY COUNCIL

Mayor

Justin Fischer

Mayor Pro Tem

Laura Marie Casey

Dave Staudt

Brian Smith

Matt Heintz

Priya Gurumurthy

Aaron Martinez

City Manager

Victor Cardenas

Director of Public Safety

Chief of Police

Erick W. Zinser

Fire Chief

John B. Martin

Assistant Chief of Police

Scott R. Baetens

Assistant Fire Chief

Todd Seog

RE: **The Grove**

JSP26-02

Project Description:

New Multi residential building complex

Comments:

1. **CORRECTED as of 2/9/26** - Building numbers will need to be corrected/adjusted for final plan set. Numbers need to follow a better sequence while driving through complex for emergency access. FM Copeland spoke to developers who stated that buildings will have separate addresses now and will not need individual building numbers.
2. **CORRECTED on 2/9/26** - Fire truck turning radii will need to be re-calculated for a truck length of 48' and adjusted for 50' outside swing radii. Plan set page #SP3.7 indicated a measurement of only 38' truck length.
3. Plans show a vehicle crossing over wetland area. If this is a vehicular bridge – then this will need to be engineered for Fire lane & Fire Truck access. Bridge will need to support 35 ton weight specifications. This is Indicated on plan set #SP6.2. Provide a "Section & Detail" page for this bridge.

Recommendation:

Approved with the following conditions, Item #3 will need to be addressed and submitted for final review.

Sincerely,

Andrew Copeland – Fire Marshal
City of Novi Fire Department

Novi Public Safety Administration

45125 Ten Mile Road
Novi, Michigan 48375
248.348.7100
248.347.0590 fax

cityofnovi.org

cc: file

APPLICANT RESPONSE LETTER

Z EIMET W OZNIAK & ASSOCIATES

Consulting Civil Engineers

55800 Grand River Avenue, Suite 100
New Hudson, Michigan 48165-9318
248.437.5099 · 248.437.5222 fax
www.zeimetwozniak.com

March 25, 2026

Ms. Lindsay Bell, AICP, Senior Planner
City of Novi Community Development Department – Planning Division
45175 Ten Mile Road
Novi, MI 48375

Re: The Grove Job No. JZ24-31
Planning Review Response for PSP Planning Commission Meeting

Dear Ms. Bell:

We would like to thank you and City staff and consultants for their unanimous recommendation of approval of the Preliminary Site Plan for the Grove. We have reviewed the Plan Review Center Report dated March 10, 2026, and accompanying letters from staff and consultants. There are no items that need to be addressed prior to Preliminary Site Plan approval. All outstanding comments will be addressed during the Final Site Plan review and approval process.

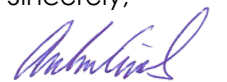
The PRO Agreement was approved by City Council on March 23, 2026. We are requesting the Site Plan be scheduled to go before the Planning Commission on April 15, 2026, for a public hearing and consideration for approval of the Preliminary Site Plan, Wetland Permit, Stormwater Management Plan, and Phasing.

Regarding phasing, the PRO Agreement reads *"The Development may be constructed in a single or multiple phases. If the Development is to be constructed in phases, a phasing plan must be provided at the time of Preliminary Site Plan submittal. Each phase, together with proceeding phases, must be able to stand on its own with regard to roads, utilities, open space, parking, emergency access, landscaping and other requirements of the City's Ordinances. Further details of each phase are required with the Final Site Plan stage, including all grading, utilities, access roads and paths, landscaping, buildings, amenities, wetland mitigation design, woodland replacements, and hydrant coverage. Required cost estimates shall be broken down by each phase. Separate pre-construction meetings and financial guarantees will be required for each phase proposed. The phasing plan may be revised by the Developer, subject to City review and approval for compliance with this Agreement and City Ordinances".*

To ensure that it is clear that the phasing can be revised subject to the requirements of the PRO Agreement and that Planning Commission approval is not required, we would like the motion to include a statement such as, *"The Phasing limits and the associated improvements and the sequence of phasing may be revised during or after final site plan approval, subject to City Administrative review and approval for compliance with the City Ordinance and PRO Agreement requirements. Separate pre-construction meetings, City of Novi wetland, woodland, grading permits and financial guarantees will be required for each phase proposed"*.

Please confirm that this request reflects your conversation with Gary and let us know if you have any questions or comments for us to address, prior to preparing your staff report for the Planning Commission meeting.

Sincerely,



Andrew Wozniak

**PRO AGREEMENT
(EXCLUDING EXHIBITS)**

PLANNED REZONING OVERLAY (PRO) AGREEMENT

THE GROVE

AGREEMENT ("Agreement"), by and between **Ivanhoe Companies, LLC**, a Michigan limited liability company whose address is 6689 Orchard Lake Rd Ste 314, West Bloomfield, MI 48322 (referred to as "**Developer**"); **Trinity Health-Michigan**, a Michigan nonprofit corporation, f/k/a Mercy Health Services ("**Trinity**" or "**Owner**"), whose address is 20555 Victor Parkway, Livonia, Michigan 48152, and the **City of Novi**, whose address is 45175 Ten Mile Road, Novi, MI 48375-3024 (referred to as the "**City**").

RECITATIONS:

- A. Developer has submitted an application to rezone approximately 62 acres of land on the south side of Twelve Mile Road, east of Meadowbrook Road (Section 13), from Office Service Technology (OST) to Low Density Multiple Family (RM-1) using the City's Planned Rezoning Overlay (PRO) option to construct a 232-unit residential condominium development. The development consists of four "villages" of homes: The Meadows (67 attached units in 14 buildings), The Vistas (68 attached units in 15 buildings), The Woods (36 attached units in 8 buildings) and The Pointe (61 attached units in 14 buildings). There is also a central park area with amenities, including a pickleball court and a playground park, with an option to locate a clubhouse in that area if determined by Developer to be desired in the future.
- B. The "Property" is owned by Trinity and is more particularly described and depicted on **Exhibit A**, attached hereto and incorporated herein. The OST classification shall be referred to as the "**Existing Classification**" and the RM-1 classification shall be referred to as the "**Proposed Classification.**" The Property is part of a larger land area owned by Trinity consisting of approximately 69.65 acres. The land not included in the rezoning request, consisting of approximately 7.65 acres, as more particularly described and depicted in **Exhibit B**, will be retained by Trinity (the "**Trinity Retained Property**"). Except for the limited purposes expressly stated herein (i.e., with respect to wetland mitigation), the Trinity Retained Property is not a part of or subject to this Agreement.
- C. The Proposed Classification would provide Developer with certain material development options not available under the Existing Classification and would be a distinct and material benefit and advantage to the Developer.
- D. The City has reviewed the petition from Developer to amend the Existing Classification of the Property to the Proposed Classification, including the Developer's proposed PRO Plan (including the residential uses authorized in this Agreement as the only uses permitted on the Property pursuant to this Agreement, the site layout, and the building façades, elevations, and design) attached hereto

and incorporated herein as **Exhibit C** (the "**PRO Plan**") under the terms of the Planned Rezoning Overlay (PRO) provisions of the City's Zoning Ordinance. The PRO Plan is a conceptual or illustrative plan for the potential development of the Property under the Proposed Classification. Approval by the City of the PRO Plan is not an approval to construct the proposed improvements shown thereon, as any development on the Property will require site plan approval from the City as provided by this Agreement.

The City has further reviewed both (i) the requested deviations as contained in this Agreement (the "**Deviations**") from the strict terms of the City's Zoning Ordinance and other land use ordinances and regulations (collectively, the "**City Ordinances**") and (ii) the proposed PRO Conditions (as defined in Paragraph F.iii below) offered or accepted by Developer, and has concluded that the proposed Low Density Multiple Family (RM-1) zoning district is a reasonable alternative and fulfills the intent of the Master Plan for Land Use and meets the requirements of the Zoning Ordinance as relates to Planned Rezoning Overlays because it includes site specific features as part of the PRO Conditions that are more restrictive than could otherwise be required by ordinance. because, in the specific circumstances of the project, the benefits to the public of the project outweigh an detrimental impacts of the project.

The City therefore finds that the project as a whole is in the public interest. Without the PRO Conditions as set forth herein and Developer's (and/or its successors⁻ and assigns⁻) continuing obligations to comply with the terms of this Agreement, however, the City would not have made such a finding and would not have approved the rezoning to the Proposed Classification or the Deviations.

- E. Developer desires to proceed with obtaining the site plan and engineering approval and the issuance of permits required to develop the Property in accordance with the approved PRO Plan (collectively, the "**Development**"). The City desires to ensure that all of the land that is depicted on the PRO Plan is developed in accordance with, and used only for the specific residential uses permitted by this Agreement, the related documents and undertakings of Developer, and all applicable laws, City Ordinances, regulations, and standards of the City and other regulatory bodies. This Agreement will govern the development of the Property and is to be recorded with the Register of Deeds for the County of Oakland following execution by the parties.
- F. As an integral part of the Developer's request to the City for rezoning to the Proposed Classification, Developer agrees to develop and construct the sanitary sewer, storm water sewer system, utilities, municipal water system, roads, sidewalks, and other infrastructure necessary to develop and use the Property in conformance with the following undertakings and forbearances by Developer (such undertakings and forbearances hereafter referred to as the "**Undertakings**"):

- i. **Uses Permitted.** The PRO Plan proposes a 232-unit multiple-family for-sale condominium development. Over 50% of the units can accommodate and are available for primary bedrooms on the ground level to accommodate aging-in-place. The development consists of four “villages” of homes: The Meadows (67 attached units in 14 buildings), The Vistas (68 attached units in 15 buildings), The Woods (36 attached units in 8 buildings) and The Pointe (61 attached units in 14 buildings). There is also a central park area with amenities, including an optional pickleball court and a playground park, with an option to locate a clubhouse in that area if determined by Developer to be desired in the future. A couple of different designs are provided for the clubhouse depending on size of building selected.

The development is accessed by two entrances off Meadowbrook Road, and one from 12 Mile Road. The stormwater plan requires an interconnected system with 6 detention ponds of various sizes, along with the existing wetland system. Signage has not been reviewed and is not included as a part of this PRO Agreement.

The City’s wetland review included both the Property and the Trinity Retained Property, and each of the delineated wetlands on both properties meets the criteria of providing wildlife habitat as well as flood and storm control. The total permanent wetland impact area on both properties is approximately 1.44 acres out of the total 9.64 acres present on both properties. The full requirement for mitigation is proposed to be provided on-site, and includes an area on the Property for mitigation of wetlands required for the future development of the Trinity Retained Property (to be constructed when the Trinity Retained Property is developed).

The PRO Plan appears to remove about 73% of the identified regulated trees on the woodland survey for the Property. Approximately 250 credits are proposed to be planted on-site, with the remaining credits to be paid into the Tree Fund. A woodland impact analysis for the development of the Trinity Retained Property shall be undertaken at such time as that Trinity Retained Property is proposed for development.

The façade materials for the buildings are in full compliance with City standards. In addition, the level of detail and overall character of the designs qualify as an enhancement of the area beyond what could be required by the ordinance, which is in line with the intent of the PRO Ordinance.

- ii. **Compliance with Applicable Laws and Regulations.** Except as expressly authorized herein, the Property shall be developed in accordance with this Agreement, the PRO Plan, all applicable State, County and City

statutes, codes, ordinances, regulations, and the City Ordinances, including all applicable requirements of the Zoning Ordinance under the Proposed Classification, and further including all storm water and soil erosion requirements and measures during the design and construction phases of the Development and during the subsequent use of the Property as contemplated in this Agreement (collectively, the "**Legal Requirements**").

The deviations from the provisions of the City Ordinances, rules, or regulations are depicted in the PRO Plan and are approved by this Agreement; however, except as to the Authorized Deviations listed below, the Property shall be subject to and developed in accordance with all applications, reviews, approvals, permits, and authorizations required under applicable Legal Requirements, including, but not limited to, site plan approval, storm water management plan approval, woodlands and wetlands permits, façade approval, landscape approval, and engineering plan approval.

iii. **PRO Conditions.** As part of its approval of the PRO Plan and this Agreement, the City Council made certain findings as required by the Zoning Ordinance. Those findings were based in part on the fact that the Developer has agreed that the following conditions shall apply to the Property (collectively, the "**PRO Conditions**"). The Developer (or its successors or assigns) shall be responsible for obtaining all permits, licenses, or approvals required for the development, construction, use, and occupancy of the Development.

a. Development Enhancements offered by Developer.

1. Developer shall construct an approximately one-acre park area, accessible to residents and the general public, with pedestrian and bike rest stop area, at the northeast corner of the site along 12 Mile Road. The park area shall be completed prior to the issuance of the first final certificate of occupancy ("**FCO**") for the Vistas. Notwithstanding the above, the park area shall be completed within five (5) years of the issuance of the first building permit within the Development. The Master Deed(s) for the unit owners within the Development shall include a notice that the park is for use by the public and the Development, but shall be maintained by the Developer and the Association, thereafter. Signs identifying the park as public access shall be installed as part of the construction of the park area. The signage shall be maintained permanently by the Developer, and the Association after transition of control.

2. Developer shall construct an approximately one-mile loop "Grove Nature Area Trail", accessible to residents and the public, that extends from the newly created park area along the east property line of the Property, providing scenic views of the adjacent 30-acre natural wetland area (not within the Development) as well as natural features of the Property. The Grove Nature Area Trail shall be completed as shown in an approved Phasing Plan prior to the issuance of the first FCO for the Vistas or the Woods, whichever first occurs. Notwithstanding the above, the Grove Nature Trail shall be completed within five (5) years of the issuance of the first building permit within the Development. The Master Deed for the Development shall include a notice that the trail is for use by the public and the unit owners in the Development, but shall be maintained by the Developer and the Association, thereafter. Signage identifying the public trail shall be installed as part of the construction of the Grove Nature Trail prior to the issuance of the first FCO for each Phase along the trail.
3. In order to address the impact of additional use of Beacon Hill Park by the new residents and planned access and interconnectivity for Novi residents and Grove Nature Trail, Developer agrees to provide the City with \$25,000 prior to the first preconstruction meeting after approval of the Stamping Set, to be used by the City at its discretion for Beacon Hill Park improvements, art, services and/or maintenance. Enhancements of the public trailhead would benefit the overall community.
4. Developer shall construct approximately 700 feet of 10-foot-wide pathway gap on the south side of 12 Mile Road to create a connection from the existing bike path, located along the east side of Meadowbrook Road, and the new sidewalk being constructed with The Grove within the first phase of the Development and prior to the issuance of the first FCO. Trinity agrees to provide Developer with such construction and other easements over the Remaining Trinity Property to the extent required to construct the pathway. Off-site easements/right-of-way for the pathway shall be dedicated to the City prior to the issuance of Stamping Sets for the Development.
5. Subject to SMART approval as to the precise location and design, Developer shall relocate the SMART bus stop to the east and enhance the area with landscaping and seating along

12 Mile Road. At least 8 bike parking spaces shall be provided. The bus stop improvements shall be completed as part of the first phase of the Development, prior to the issuance of the first FCO.

6. Developer shall preserve approximately 1/3 of the property as open space with most of the units abutting or overlooking open space, as shown on the PRO Plan.
7. Developer shall construct an 8-foot wide shared-use public pathway within the Development to provide pedestrian and bicycle connectivity between Meadowbrook Road and 12 Mile Road. The pathway will be constructed at the time buildings adjacent to the pathway are constructed and shall be completed within two (2) years of the issuance of the first FCO within each such phase. The Master Deed for the Development shall include a notice that the pathway is for use by the public and the unit owners in the Development, but shall be maintained by the Developer and the Association, thereafter. Signage identifying the public pathway shall be installed at the entrance to the pathway along Meadowbrook and the entrance of the pathway and 12 Mile Road upon completion of the pathway. Notwithstanding the above, the pathway shall be completed within five (5) years of the issuance of the first building permit within the Development.
8. Developer shall provide conservation easements protecting approximately 10 acres of woodland and woodland replacement areas and approximately 15.5 acres of wetland and wetland mitigation areas, which represents over 47% of the property and could not be required under typical development conditions, to be recorded prior to the issuance of the first building permit within the Development. Developer shall develop a plan for the removal of invasive species from the wetland areas for City review with the final site plan submittal, and implement the first removal treatment prior to the issuance of the first building permit for the Development. Wetland and woodland signage delineating protected areas shall be installed prior to the issuance of the first FCO for each Phase. The signs must be permanently maintained as posted by the Developer, and the Association after transition of control.
9. The Development shall be limited to approximately 4.23 dwelling units per acre, which is a lower density from what

would be permissible in the RM-1 zoning district (up to 7.3 dwelling units per acre permitted).

10. Developer shall dedicate approximately 1,648 lineal feet of future right-of-way (60-foot width) along the entire Meadowbrook Road frontage, a total land area of about 2.32 acres, prior to issuance of the first building permit within the Development.
11. Developer shall provide the community amenities shown in the PRO Plan, except as otherwise stated in this Section above, prior to the issuance of the first FCO in each phase accordance with the phasing plan to be approved as part of the site plan approval process. Developer, at its option, may construct a clubhouse and/or pool or other amenities where the pickleball court and playscape are currently shown. Provision of amenities shall occur with development of The Meadows. The clubhouse shall meet all requirements of the Zoning Ordinance at the time of site plan approval for the clubhouse, which may occur at a later date after approval of the preliminary or final site plan. Any changes to recreation amenities will require submittal of a site plan for review and approval following the City's standard procedures. Amenities may be changed but not eliminated.
13. Building height within the Development shall be limited to 30 feet, which is less than the 35 feet permitted in the RM-1 District.
14. Developer shall construct the off-site road and entranceway improvements as shown on the PRO Plan by phase, prior to the issuance of the first FCO within each Phase of the Development.
15. If pickleball court(s) are proposed at the time of Final Site Plan submittal, a noise impact statement shall be submitted showing that the activity, with any noise mitigation measures required, will comply with the City's Performance Standards, as set forth in Section 5.14 of the City of Novi Zoning Ordinance, as amended.
16. Developer shall provide the following sustainable design features:

- a. Pre-wired garages for one 48 amp 240-volt EV charger (60 amp circuit).
 - b. All appliances used within the development must be EnergyStar-rated or applicable equivalent standards.
 - c. All applicable plumbing fixtures shall be WaterSense labeled or applicable equivalent standard.
 - d. Building material on the exterior façade of a majority of the exterior elevations shall be energy-efficient, durable, and low maintenance, including brick and composite siding.
 - e. Developer shall use energy-efficient glass/glazing and insulation materials.
 - f. Developer shall offer a tankless water heater option.
 - g. Install smart scheduling technology for sprinklers incorporating weather and soil moisture measurements.
 - h. Developer shall construct the pathway network and infrastructure as shown on the PRO Plan that reduces emissions and promotes pedestrian connectivity with bike/pedestrian friendly streets, and bicycle parking in units throughout the site prior to first unit building permit in each Phase and/or as set forth above.
 - i. Developer shall provide benches made with recycled materials to be used throughout the open space areas prior to the issuance of the first FCO for each Phase.
17. Developer shall include a notice in the Master Deed and Bylaws that the Trinity Retained Property is zoned OST and may be developed with any of the uses permitted in that district, and is designated in the Master Plan as General Mixed Use.
- c. Access: The timing of the installation of roads, drives, and curb cuts shall be determined at the time of preliminary site plan approval, including phasing plan approval, if requested and approved. Roads, drives, and curb cuts shall be complete to the extent required for occupancy in accordance with Chapter 26.5 of the City of Novi Code of Ordinances, as amended.

Developer shall ensure that once constructed, all required vehicular and pedestrian access shall remain open to all required parts of the Development and be properly maintained, including but not limited to the public and private sidewalks, street sign and traffic control measures and exterior light fixtures.

- d. Water and Sewer: Developer shall construct and install the improvements and/or connections tying into the municipal water and sewage systems.

All water and sewer improvements shall be designed and constructed by Developer in accordance with the approved PRO Plan and all applicable Legal Requirements, subject to final engineering plan approval at the time of site plan review. Such water and sanitary sewer facilities, including any on-site and off-site facilities, if any, extensions, and easements to reach the area to be served, shall be provided by and at the sole expense of the Developer, and shall be completed and approved by phase as determined at the time of site plan approval before issuance of any building permits for any building within that phase and in accordance with Chapter 26.5 of the City of Novi Code of Ordinances.

- e. Storm Water: The storm water management system for the Property shall be approved by the City as part of the review and approval of the site plan for the Property. In general, the storm water collection, pre-treatment, storage, and transportation facilities shall be included as part of the final engineering plan independently approved for the Development. The Development shall be constructed to achieve a storm water management system that assures that the quality and quantity of storm water will be in accordance with all applicable ordinances, regulations, and laws and shall be completed and approved by phase as determined at the time of site plan approval before issuance of any building permits for any building within that phase and in accordance with Chapter 26.5 of the City of Novi Code of Ordinances. Soil borings as required by the City's Engineering Design Manual will be provided with final site plan submittal.

- f. Phasing: The Development may be constructed in a single or multiple phases. If the Development is to be constructed in phases, a phasing plan must be provided at the time of Preliminary Site Plan submittal. Each phase, together with proceeding phases, must be able to stand on its own with regard to roads, utilities, open space, parking, emergency access, landscaping and other requirements of the City's Ordinances. Further details of each phase are required with the Final Site Plan stage, including all grading, utilities, access roads and

paths, landscaping, buildings, amenities, wetland mitigation design, woodland replacements, and hydrant coverage. Required cost estimates shall be broken down by each phase. Separate pre-construction meetings and financial guarantees will be required for each phase proposed. The phasing plan may be revised by the Developer, subject to City review and approval for compliance with this Agreement and City Ordinances.

- iv. **Performance Guarantees.** The City shall require Developer (or its contractors as may be applicable) to provide performance and financial guarantees for the completion of the improvements by phase in accordance with an approved phasing plan, including, without limitation, road, right-of-way improvements, water mains, sanitary sewers, storm drains, site amenities, and landscaping and tree planting activities. Such financial guarantees shall cover the site improvements for the project as provided in the City Code. Such financial guarantees may include cash deposits, surety bonds or letters of credit as allowed by the current provisions of the City's Code. Deposit and administration of financial guarantees shall be subject to the requirements and conditions of Chapter 26.5 of the City of Novi Code and any other related rules or regulations. Any deviations or requests for relief from this provision shall be considered by City Council as a deviation from Chapter 26.5, and will not require an amendment to this Agreement or PRO Plan if approved by the City Council.
- v. **Compliance with Laws.** The development and use of the Property shall be in accordance this Agreement, the PRO Plan and with all applicable laws, ordinances, and regulations including all applicable setback requirements of the Zoning Ordinance under the Proposed Classification, except as expressly authorized in this Agreement and PRO Plan, all storm water and soil erosion requirements and measures, both throughout the site during the design and construction phases of the Development and during the subsequent use of the Property as contemplated in this Agreement, and all traffic laws.
- vi. **Other City Authority.** Nothing in this Agreement shall prevent the City from exercising its regulatory and other authority with respect to the Property and the Development in a manner consistent with the PRO Plan and this Agreement.
- vii. **Application Fees; Connection Fees.** The Developer shall be responsible to pay all application and review fees as and when required under the City Ordinances, including but not limited to planning, engineering, legal, and any consultant fees in connection with the review and approval of the Development. Such amounts shall be due upon invoice, and failure to pay amounts owed shall entitle the City to cease review, approval, and/or issuance of permits. In addition, the Developer shall pay all required water

and sewer connection and tap charges and fees, without reduction, as provided in the City Ordinances, separately for each phase as and when required. Such fees may be timely paid by others in connection with the development of individual unit owners.

- viii. **Property Maintenance Obligations.** Until such time as the Developer turns over to a condominium association or associations such maintenance obligations for the Development or any phase thereof, Developer agrees, at its expense, to operate, maintain, repair, manage, and improve the entire Development site during buildout of all phases of the Development. Developer shall be responsible to preserve and maintain the roads, unless and until dedicated to the public, parks, open space, storm water drainage facilities, driveways, sidewalks and pathways, and any and all areas disturbed in connection with the Development to ensure that the same continue to function as intended, and are stabilized, and meet all standards of applicable laws and ordinances for property maintenance, including, but not limited to regular snow and ice removal. Developer shall establish a regular and systematic program of maintenance for the development to ensure that the physical condition and intended function of such areas and facilities shall be perpetually preserved and maintained.

Notwithstanding any other remedies in this Agreement, in the event that Developer shall at any time fail to carry out the responsibilities above, and/or in the event of a failure to preserve and/or maintain such areas or facilities in reasonable order and condition, the City may serve written notice upon Developer setting forth the deficiencies in maintenance and/or preservation. Notice shall also set forth a demand that the deficiencies be cured within a stated reasonable time period, and the date, time, and place of the hearing before the City Council, or such other Council, body, or official delegated by the City Council, for the purpose of allowing Developer to be heard as to why the City should not proceed with the maintenance and/or preservation which has not been undertaken.

At the hearing, the time for curing the deficiencies and the hearing itself may be extended and/or continued to a date certain. If, following the hearing, the City Council or other body or official designated to conduct the hearing determines that the required maintenance and/or preservation have not been undertaken within the time specified in the notice, the City shall have the power and authority, but not the obligation, to enter upon the Property, or cause its agents or contractors to enter upon the Property, and perform such maintenance and/or preservation as reasonably found by the City to be appropriate. The cost and expense of making and financing such maintenance and/or preservation, including the cost of notices by the City and reasonable legal fees incurred by the City, plus an administrative fee in the amount of 25% of the total of all costs and expenses incurred,

shall be paid by Developer, and such amount shall constitute a lien on the property.

The City may require the payment of such monies prior to the commencement of work. If such costs and expenses have not been paid within 30 days of a billing to the Developer, all unpaid amounts may be placed on the delinquent tax roll of the City and shall accrue interest and penalties, and be collected as, and deemed delinquent real property taxes, according to the laws made and provided for the collection of delinquent real property taxes. In the discretion of the City, such costs and expenses may be collected by suit initiated against Developer, and, in such event, the Developer shall pay all court costs and reasonable attorney fees incurred by the City in connection with such suit.

- ix. **Staff and Consultant Review Letters.** Developer shall comply with all conditions listed in the staff and consultant review letters not inconsistent with the terms of this Agreement as set forth in **Exhibit D**. City approval of the Final Site Plan shall be deemed satisfaction of the conditions listed in the staff and consultant review letters.

- x. **Developer and Owner Representations.** Developer and Owner (to the extent provided below) hereby makes the following acknowledgments, representations, and warranties to City, which representations and warranties shall be true and correct as of the date hereof:
 - a. Developer is duly organized and validly existing, in good standing under the laws of the state of Michigan, authorized to do business under the laws of the state of Michigan and has all requisite power and authority to own and operate its assets and properties, to carry on its business as now being conducted, and to enter into and perform the terms of this Agreement. Developer has provided City with an accurate and complete copy of its Articles of Organization and Certificate of Good Standing in effect as of the date of this Agreement ("Organizational Documents") and agrees to provide accurate and complete copies of any revisions or modifications to the Organizational Documents.

 - b. Developer and Owner have no notice of and there is no pending litigation, administrative action or examination, claim or demand before any court or any federal, state or municipal governmental department, commission, board, bureau, agency or instrumentality thereof which would affect Developer or its principals from carrying out the covenants and promises made herein.

 - c. Developer is financially able to complete the Development.

- d. Developer shall construct all improvements for the Development in a good and workmanlike manner employing quality contractor(s), construction manager(s), and other professional possessing the requisite experience and competency to construct such improvements.
- e. Developer represents that it has sufficient control of its contractors, employees, agents, suppliers, clients, and other consultants that it can comply with all provisions of this Agreement.

NOW, THEREFORE, IT IS AGREED AS FOLLOWS:

1. **Developer Obligations and Rights**. Upon execution of this Agreement by the parties:
 - a. The Property shall be developed only in accordance with the Undertakings, the PRO Plan, the PRO Conditions, Legal Requirements, City Ordinances (as amended), and this Agreement (collectively, the "**PRO Documents**");
 - b. Developer shall comply with the PRO Documents;
 - c. Developer shall forbear from acting in a manner inconsistent with the PRO Documents;
 - d. Developer shall complete all actions necessary to carry out all of the obligations in the PRO Documents.
 - e. This Agreement authorizes Developer to pursue and obtain preliminary and final site plan approvals and other City permits and approvals consistent with the PRO Plan and this Agreement.
2. **Authorized Deviations**. The following deviations from the standards of the Zoning Ordinance are hereby authorized pursuant to §7.13.2.C.i.c.(2) of the City's Zoning Ordinance:
 - a. A Zoning Ordinance deviation from Section 3.1.7.D to reduce the building setbacks from 75 feet to 50 feet along the north, east, and south property lines, as sufficient screening appears to be proposed.
 - b. A Zoning Ordinance deviation from Sec. 3.8.2.D to revise the required orientation of the buildings from a minimum of 45 degrees in certain locations. This allows for a more uniform site layout with all of the units backing up to open space/wooded areas.

- c. A Zoning Ordinance deviation from Sec 3.8.2.H to reduce the building separation distance from the calculated formula as shown on the Building Separation Table on Sheet SP-3.6 of the PRO Plan. This deviation enables the layout of this project to fit within the available space while minimizing wetland and woodland impacts.
 - d. A Zoning Ordinance deviation from Section 5.10 allows for perpendicular parking on the major drives. This deviation is requested due to the impracticality of providing a minor road (defined as less than 600 feet in length) given the site constraints (woodlands, wetlands, and property configuration). Perpendicular parking for guests is proposed on four Major Drives (Simi Drive, Beckham Drive, Elle Parkway, and Ari Crest) in several locations, where driveways are also proposed. The parking spaces will not cause any more disruption on the roadway than cars that will be backing out of the driveways.
 - e. A Zoning Ordinance deviation from Section 5.10 to allow on-street parking on curves with less than a 230-foot centerline radius. The deviation is supported as the parking spaces will not cause any more disruption on the roadway than cars that will be backing out of the driveways.
 - f. A landscape deviation from Section 5.5.3.A.ii to not provide a 4-foot, 6-inch to 6-foot-high landscape berm on a proposed RM-1 district adjacent to an OST district on the north, east and south side. This deviation is supported because of topography and the provision of dense landscaping and/or preserved trees along the property lines.
 - g. A landscape deviation from Section 5.5.3.B.ii for the required greenbelt berm and plantings along 12 Mile and Meadowbrook Road due to the existing natural areas to be preserved, and a heavily landscaped detention basin.
3. **Revocation of Rights.** In the event Developer attempts to or proceeds with actions to complete improvement of the Land in any manner other than as described herein and shown on **Exhibit B**, or if Developer refuses to or cannot comply with the PRO Conditions, the City shall be authorized to revoke all outstanding building permits and certificates of occupancy issued for such building and use.
4. **Modifications; Required Amendments.** Minor modifications to the approved PRO Plan(or any preliminary or final site plan approved hereafter) may be approved administratively if the Zoning Ordinance (interpreted as though the approved PRO Plan is an approved site plan for purposes of this Paragraph only) would otherwise allow an administrative site plan review and approval, so long as the City Planner determines that the modifications (i) are minor, (ii) do not deviate

from the general intent of the PRO Plan, and (iii) do not result in increased impacts on the surrounding development and existing infrastructure. The Planning Commission shall also be permitted to authorize amendments to the PRO Plan in its review of the site plans for the Development, with regard to parking-related, landscaping-related, and façade-related requirements, provided it would otherwise have that authority under the Zoning Ordinance. ▯

Revisions to the PRO Plan, preliminary site plan and/or final site plan approved thereafter, such as to the types and locations of amenities offered to residents (but not the elimination of amenities), reducing the number of residential units within a building envelop by enlarging or revising the interior residential unit size or layout, reducing the size of buildings, interchanging one unit type for another approved unit type among the Villages, a non-material change to a dimensional variation (as determined by City Staff), or certain revisions to building facades may be considered Minor Modifications which may be approved administratively based on the standards provided above in parts (i)–(iii), and provided that the modifications do not involve a greater number of residential units, any reduction to open space requirements, new deviations from ordinance standards, or to the elimination or material change to any of the Developer Enhancements set forth in this Agreement (paragraph F.iii.a.1-18). A revision such as detaching individual units from multi-family buildings in one or more of the Villages or material change to a dimensional variation, or significant changes to the approved façade materials or quantities, or other modifications of a similar scope (as determined by City Staff) would be considered a Major Modification requiring approval of the Planning Commission, or Amendment of the PRO Agreement if deviations outside the authority of the Planning Commission are requested.

5. **Condition Precedent.** The parties acknowledge that Developer does not yet hold title to the Property, and that commencement of construction of the Development will occur after Developer or its assignees or designees close on the acquisition of the Property from Trinity (the "Condition Precedent"). If Developer or its assignees or designees does not acquire the Property from Trinity and the right to acquire the Property from Trinity has terminated, then either Trinity or the City may elect to terminate this Agreement by written notice to the other parties. The recording of deed(s) vesting title to the Property in Developer (or its successors or assigns) shall automatically be deemed satisfaction of the Condition Precedent and, upon such deemed satisfaction of the Condition Precedent, this paragraph 4 shall automatically be null and void. If required by applicable City Code, the City will process an application to separate the Property from the Trinity Retained Property so that separate tax identification numbers can be issued for each property prior to commencement of the Development.

6. **General Provisions:**

- a. The Zoning Board of Appeals (the "ZBA") shall have no jurisdiction over the Property or the application of this Agreement until after site plan approval and construction of the Development as approved therein. In no event shall the ZBA be permitted to vary any terms or conditions of this Agreement. As signage has not been reviewed as part of this Agreement, the applicant shall apply for sign permits under the typical process. If variances from the sign ordinance are required, the applicant shall be permitted to seek relief from the ZBA.
- b. A breach of this Agreement shall constitute a nuisance *per se*, which shall be abated. Developer and the City therefore agree that, in the event of a breach of this Agreement by Developer, the City, in addition to any other relief to which it may be entitled at law or in equity, or any other provisions of this Agreement, shall be entitled under this Agreement to relief in the form of specific performance (except as to construction of the buildings, unless construction of a building has commenced) and an order of the court requiring abatement of the nuisance *per se*. In the event of a breach of this Agreement, the City may notify Developer of the occurrence of the breach and issue a written notice requiring the breach be cured within thirty (30) days; provided, however, that if the breach, by its nature, cannot be cured within thirty (30) days, Developer shall not be in the breach hereunder if Developer commences the cure within the thirty (30) day period and diligently pursues the cure to completion. Failure to comply with such notice shall, in addition to any other relief to which the City may be entitled in equity or at law, render Developer liable to the City in any suit for enforcement for actual costs incurred by the City including, but not limited to, reasonable attorneys' fees, expert witness fees and the like.
- c. This Agreement may not be amended except in writing signed by the parties and recorded in the same manner as this Agreement. In the event the Developer desires to propose an amendment, an application shall be made to the City's Department of Community Development, which shall process the application in accordance with the procedures set forth in the Zoning Ordinance.
- d. The parties understand and agree that if any part, term, or provision of this Agreement is held by a court of competent jurisdiction, and as a final enforceable judgment, to be illegal or in conflict with any law of the State of Michigan or the United States, the validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if

this Agreement did not contain the particular part, term, or provisions held to be invalid.

- e. This Agreement shall be governed by the laws of the State of Michigan, both as to interpretation and performance. Any and all suits for any and every breach of this Agreement may be instituted and maintained in any court of competent jurisdiction in the County of Oakland, State of Michigan.
- f. No waiver of any breach of this Agreement shall be held to be a waiver of any other or subsequent breach. A delay in enforcement of any provision of this Agreement shall not be construed as a waiver or estoppel of the City's rights to eventually enforce, or take action to enforce, the terms of this Agreement. All remedies afforded in this Agreement shall be taken and construed as cumulative; that is, all remedies afforded in this Agreement are in addition to every other remedy provided by law.
- g. The signers of this Agreement warrant and represent that they have the authority to sign this Agreement on behalf of their respective principals and the authority to bind each party to this Agreement according to its terms. Further, each of the parties represents that the execution of this Agreement has been duly authorized and is binding on such parties as and when provided herein.
- h. This Agreement and all of its covenants, restrictions, and conditions are made for the benefit of the Property and the community and shall run with the land described herein as the Property and bind the parties, their heirs, successors, and assigns. The Parties acknowledge that the Property is subject to changes in ownership and/or control at any time, but that heirs, successors, and assigns shall take their interest subject to the terms of this Agreement. All references to the "Developer" in this Agreement shall also include all respective heirs, successors, and assigns of Developer, all future owners of any parcels or units created by the proposed land divisions or condominium(s). The City shall have the right to enforce the Agreement and its covenants, restrictions, and conditions against Developer or its heirs, successors, and assigns.
- i. This Agreement shall be recorded in the Oakland County Register of Deeds.
- j. Developer has negotiated with the City the terms of the PRO Plan, the PRO Conditions, and this Agreement, and such documentation represents the product of the joint efforts and mutual agreements of

the Parties. Developer fully accepts and agrees to the final terms, conditions, requirements and obligations of the PRO Plan and PRO Agreement, and Developer shall not be permitted in the future to claim that the effect of the PRO Plan and PRO Agreement results in an unreasonable limitation upon uses of all or a portion of the Property, or claim that enforcement of the PRO Plan and PRO Agreement causes an inverse condemnation, other condemnation or taking of all or any portion of the Property. Developer, and the City agree that this Agreement and its terms, conditions, and requirements are lawful and consistent with the intent and provisions of local ordinances, state and federal law, and the Constitutions of the State of Michigan and the United States of America. Developer specifically has offered and agreed to proceed with the Undertakings, the PRO Conditions, and any other obligations as set forth in this Agreement in order to protect the public health, safety, and welfare and provide material advantages and development options for Developer, all of which Undertakings, PRO Conditions, and other obligations Developer and the City agree are necessary in order to ensure public health, safety, and welfare, to ensure compatibility with adjacent uses of land, to promote use of the Property in a socially, environmentally, and economically desirable manner, and to achieve other reasonable and legitimate objectives of the City and Developer, as authorized under applicable City ordinances and the Michigan Zoning Enabling Act, MCL 125.3101, *et seq.*, as amended.

Developer further agrees and acknowledges that the terms, conditions, obligations, and requirements of this Agreement are clearly and substantially related to the burdens to be created by the development and use of the Property under the PRO Plan, and are, without exception, clearly and substantially related to the City's legitimate interests in protecting the public health, safety and general welfare.

- k. Developer acknowledges that, at the time of the execution of this Agreement, Developer has not yet obtained site plan or engineering approvals for the Property. Developer acknowledges that the Planning Commission and City engineering staff/consultants may impose additional conditions other than those contained in this Agreement during site plan and engineering reviews and approvals as authorized by law; provided, however, that any such additional conditions shall not be inconsistent with the PRO Plan and this Agreement and shall not change or eliminate any development right authorized thereby. Such conditions shall be incorporated into and made a part of this Agreement.

- l. None of the terms or provisions of this Agreement shall be deemed to create a partnership or joint venture between the Parties.
- m. The Recitations contained in this Agreement and all exhibits attached to this Agreement and referred to herein shall for all purposes be deemed to be incorporated in this Agreement by this reference and made a part of this Agreement. Headings are descriptive only. The Exhibits attached hereto are as follows:

Exhibit A - Description & Depiction of the Property

Exhibit B – Description & Depiction of the Trinity Retained Property

Exhibit C - PRO Plan

Exhibit D – Staff and Consultant Review Letters

- n. This Agreement is intended as the complete integration of all understandings between the Parties related to the subject matter herein. No prior contemporaneous addition, deletion, or other amendment shall have any force or effect whatsoever, unless embodied herein in writing. No subsequent notation, renewal, addition, deletion or other amendment shall have any force or effect unless embodied in a written amendatory or other agreement executed by the parties required herein, other than additional conditions which may be attached to site plan approvals as stated above.
- o. The Parties intend that this Agreement shall create no third-party beneficiary interest except for an assignment pursuant to this Agreement. The Parties are not presently aware of any actions by them or any of their authorized representatives which would form the basis for interpretation construing a different intent and expressly disclaim any such acts or actions, particularly in view of the integration of this Agreement.
- p. Where there is a question with regard to applicable regulations for a particular aspect of the Development, construction and use of all or any portion of the Property, or with regard to clarification, interpretation, or definition of terms or regulations, and there are no express provisions of the PRO Plan and this Agreement which apply, the City, in the reasonable exercise of its discretion, shall determine the regulations of the City's Zoning Ordinance, as such Ordinance may have been amended, or other City Ordinances that shall be applicable, provided that such determination is not inconsistent with the nature and intent of the PRO Plan and this Agreement and does

not delay, change or eliminate any development rights authorized by the PRO Plan and this Agreement. In the event of a conflict or inconsistency between two or more provisions of the PRO Plan (including notes thereto) and/or this Agreement or between such documents and applicable City ordinances the more restrictive provision, as determined in the reasonable discretion of the City, shall apply.

- q. The Parties acknowledge and agree that they have had the opportunity to have the PRO Plan and this Agreement reviewed by legal counsel.
- r. This Agreement is subject to termination and/or expiration in accordance with and as provided by the City's Zoning Ordinance.
- s. This Agreement may be signed in counterparts.

{Signatures begin on following page}

DEVELOPER:
IVANHOE COMPANIES, LLC, a Michigan
Limited Liability Company

By: _____
Its: _____

STATE OF MICHIGAN)
) ss
COUNTY OF OAKLAND)

On this ____ day of _____, 2026, before me appeared Gary Shapiro of **IVANHOE COMPANIES, LLC, a Michigan Limited Liability Company**, on its behalf.

Notary Public
_____ County
Acting in _____ County
My commission expires: _____

{Signatures continue on following page}

**TRINITY HEALTH-MICHIGAN, a Michigan
Non-Profit Corporation, f/k/a Mercy
Health Services**

By: _____
Its: _____

STATE OF MICHIGAN)
) ss
COUNTY OF OAKLAND)

On this ____ day of _____, 2026, before me appeared
_____ **of TRINITY HEALTH-MICHIGAN, a
Michigan Non-Profit Corporation, f/k/a Mercy Health Services,** on its behalf.

Notary Public
_____ County
Acting in _____ County
My commission expires: _____

{Signatures continue on following page}

CITY OF NOVI

By: Justin Fischer
Its: Mayor

By: Cortney Hanson
Its: Clerk

STATE OF MICHIGAN)
) ss
COUNTY OF OAKLAND)

On this ____ day of _____, 2026, before me appeared **Justin Fischer and Cortney Hanson**, who stated that they had signed this document of their own free will on behalf of the **City of Novi** in their respective official capacities, as stated above.

Notary Public
_____ County
Acting in _____ County
My commission expires: _____

Drafted by:

Elizabeth Kudla Saarela
Rosati, Schultz, Joppich & Amstbuechler, PC
27555 Executive Drive, Suite 250
Farmington Hills, MI 48331-5627

When recorded return to:

Cortney Hanson, Clerk
City of Novi
45175 Ten Mile Road
Novi, MI 48375

{Exhibits commence on following page}

Exhibit A

Description & Depiction of the Property

Exhibit B

Description & Depiction of Trinity Retained Property

Exhibit C

PRO Plans

Exhibit D

Staff and Consultant Review Letters

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