



MARIELLA ESTATES PRO JZ24-43

JZ24-43 MARIELLA ESTATES PRO PLAN WITH REZONING 18.750

Public hearing at the request of Braciolo Brothers, LLC for initial submittal and eligibility discussion for a Zoning Map Amendment from RA Residential Acreage to R-1 One-Family Residential with a Planned Rezoning Overlay. The subject site is approximately 9.4 acres and is located west of Garfield Road, on the north side of Eight Mile Road (Section 31). The applicant is proposing to develop 10 single family lots.

REQUIRED ACTION

Discussion of the initial submittal and eligibility of the rezoning request from RA Residential Acreage to R-1 One Family Residential with a Planned Rezoning Overlay.

REVIEW	RESULT	DATE	COMMENTS
Planning	No Significant Concerns	3-21-25	<ul style="list-style-type: none"> • Deviation for lot width for 2 lots <i>(Supported)</i>
Engineering	No Significant Concerns	3-20-25	<ul style="list-style-type: none"> • Items to be addressed on subsequent submittals
Landscaping	No Significant Concerns	11-14-24	<ul style="list-style-type: none"> • Deviation for lack of greenbelt berm east of the private road entrance <i>(Supported if the pond is to be preserved)</i> • Utilities should be revised to provide all of the required interior street trees
Wetlands	No Significant Concerns	3-19-25	<ul style="list-style-type: none"> • Additional information is required to determine if pond area in southeastern portion of site is wetland
Woodlands			<ul style="list-style-type: none"> • A few regulated trees are to be removed – woodland permit will be required • Items to be addressed on subsequent submittals
Traffic	No Significant Concerns	3-20-25	<ul style="list-style-type: none"> • Deviation for below standard centerline radius of private road • Items to be addressed in Site Plan submittals
Fire	No Significant Concerns	11-14-24	<ul style="list-style-type: none"> • Items to be addressed in Site Plan submittals

Planning Commission's opportunity to comment on the request (No Motion Needed)

The Planning Commission is invited to provide comment on the initial submittal and eligibility of the proposal to rezone the subject property from RA Residential Acreage to R-1 One-Family Residential with a Planned Rezoning Overlay Plan. Planning Commission members may offer feedback for the applicant to consider that would be an enhancement to the project and surrounding area, including suggesting site-specific conditions, revisions to the plans or the benefits/deviations requested, and other impressions.

As stated in the amended PRO Ordinance,

In order to be eligible for the proposal and review of a rezoning with PRO, an applicant must propose a rezoning of property to a new zoning district classification, and must, as part of such proposal, propose clearly-identified site-specific conditions relating to the proposed improvements that,

- (1) are in material respects, more strict or limiting than the regulations that would apply to the land under the proposed new zoning district, including such regulations or conditions as set forth in Subsection C below; and*
- (2) constitute an overall benefit to the public that outweighs any material detriments or that could not otherwise be accomplished without the proposed rezoning.*

CONDITIONS

The suggested types of conditions of Subsection C of the PRO Ordinance are summarized in the table below. The Full text of Ordinance Amendment, including Subsection C, can be [found here](#).

Types of PRO Conditions (Section 7.13.2.C.ii.b)	Included	Notes
(1) Establishment of development features such as the location, size, height, area, or mass of buildings, structures, or other improvements in a manner that cannot be required under the Ordinance or the City's Code of Ordinances, to be shown in the PRO Plan.	Yes	Lot layout to be as shown in the PRO Plan.
(2) Specification of the maximum density or intensity of development and/or use, as shown on the PRO Plan and expressed in terms fashioned for the particular development and/or use (for example, and in no respect by way of limitation, units per acre, maximum usable floor area, hours of operation, and the like).	Yes	Number of units and lot dimensions can be stated as per PRO Plan.
(3) Provision for setbacks, landscaping, and other buffers in a manner that exceeds what the Ordinance of the Code of Ordinances can require.	Yes	Open space exceeds requirements in R-1 District. 25-foot landscape buffer mimics what was provided at adjacent Ballantyne and Parc Vista developments
(4) Exceptional site and building design, architecture, and other features beyond the minimum requirements of the Ordinance or the Code of Ordinances.	No	
(5) Preservation of natural resources and/or features, such as woodlands and wetlands, in a manner that cannot be accomplished through the Ordinance or the Code of Ordinances and that exceeds what is otherwise required. If such areas are to be affected by the proposed development, provisions designed to minimize or mitigate such impact.	Yes	Small area of possible wetland to be preserved in southeast corner of site
(6) Limitations on the land uses otherwise allowed under the proposed zoning district, including, but not limited to, specification of uses that are permitted and those that are not permitted.	Yes	Use to be limited to 10 single family lots
(7) Provision of a public improvement or improvements that would not otherwise be required under the ordinance or Code of Ordinances to further the public health, safety, and welfare, protect existing or planned uses, or alleviate or lessen an existing or potential problem related to public facilities. These can include, but are not limited to, road and infrastructure improvements; relocation of overhead utilities; or other public facilities or improvements.	Yes	Upgrades to existing crosswalk proposed, which may include a 5-foot sidewalk from crosswalk to Maybury Park entrance

(8) Improvements or other measures to improve traffic congestion or vehicular movement with regard to existing conditions or conditions anticipated to result from the development.	No	
(9) Improvements to site drainage (storm water) or drainage in the area of the development not otherwise required by the Code of Ordinances.		
(10) Limitations on signage.	No	
(11) Creation or preservation of public or private parkland or open space.	Yes	Park/playground area available to the public was proposed, however as the community will be gated it is unlikely to be used by non-community members
(12) Other representation, limitations, improvements, or provisions approved by the City Council.	TBD	

BENEFITS

The following is a summary of features that may be considered to *meet the standard of constituting an overall benefit to the public that outweighs any material detriments or that could not otherwise be accomplished without the proposed rezoning*:

1. A Public-use Park: The development proposes an active open space park area intended for use by the residents and the public at large, with direct public access off of 8 Mile Road. **As the entrance to the development is gated, Staff has concerns that future residents of the development will seek to exclude non-residents from using the park with the justification that the liability and maintenance are borne by the HOA and therefore it is a private space. Given non-residents are unlikely to use the playground in a gated community, and with the proximity to both Maybury Park and ITC Park playgrounds, Staff does not see much in the way of benefit for the general public.**
2. Public-Use Playground Structure: The development proposes a playground for public use, with direct public access from 8-Mile Road. **See comment above.**
3. Perimeter Landscape Buffers: The development proposes a minimum 25-foot perimeter landscape buffer from the lots to the property boundary. **Only a few areas of the buffer show any landscaping being provided. Additional trees should be planted to be considered as an enhancement of the project.**
4. Increased Open Space: The development proposes an extensive amount of open space for a single-family development (28%) and a majority of the proposed open space is usable active open space. **The only amenity shown in the open spaces is the play structure, which as noted above is unlikely to be utilized by non-residents. The wetland area near 8 Mile is now proposed for preservation.**

5. Overall density shall not exceed 1.07 dwelling units per acre. **This would be more limiting than the 1.6 dwelling units per acre allowed in the R-1 District, and closer to what has been developed in the surrounding neighborhoods.**
6. Flashing Crosswalk at 8-Mile: The existing 8 Mile crosswalk will be upgraded with flashing crosswalk signs. **The existing crosswalk is approximately 460 feet east of the entrance to the proposed development, and there is no paved pathway on the south side of Eight Mile Road to get users of the crosswalk to the entrance of Maybury State Park. The applicant states in their response letter that they will pursue providing a 5-foot pathway that avoids the ditch and natural features on the south side of Eight Mile. Staff has advised consideration be given to relocate the crosswalk westward, closer to the entrance of Maybury State Park, while also upgrading the crosswalk with flashing signage if a crosswalk study indicates this treatment is warranted. Road Commission for Oakland County would also need to agree to any changes to the crosswalk.**
7. If unit model building elevations are provided for review and determined to exceed the standards of the ordinance, that could be considered in the public interest/an enhancement of the project. **The applicant indicates that these will be custom-built homes and they will not be the builder, so it is unlikely that representative building elevations can be provided.**

DEVIATIONS

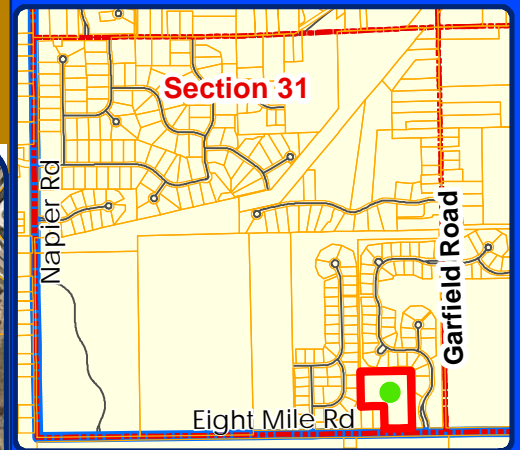
The proposed PRO Concept Plan includes the following ordinance deviation requests:

1. **Lot Width (Sec 3.1.2.D):** A Zoning Ordinance deviation is requested to reduce the required lot width for lots 4 and 5 to 98 feet (120 feet required). *The deviation is requested for the two pie-shaped lots near the corner of the road.*
Applicant Justification: *These lots still provide adequate space for the intended housing product, are the two largest lots proposed, and exceed the R-1 minimum lot area requirements for over 10,000 square feet and 5,000 square feet respectively.*
2. **Road Centerline Radius (Code of Ordinances, Sec. 11-194.b.2):** Design and Construction Standards deviation for proposed street with 90-foot centerline radius (230-foot radius standard).
Applicant Justification: *This does not provide a safety concern given the short distance of the road, the low travel speed, and the minimal traffic volumes expected.*
3. **Screening Berm (Sec. 5.5.3.B.ii, iii):** Landscape deviation for not providing the required berm on the east side of the road adjacent to the Public Right of Way. **This is supported if the existing wetland/pond is preserved, which appears to be shown.**


MAPS
Location
Zoning
Future Land Use
Natural Features

JZ24-43 MARIELLA ESTATES

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: 4/3/25
Project: MARIELLA ESTATES
Version #: 1

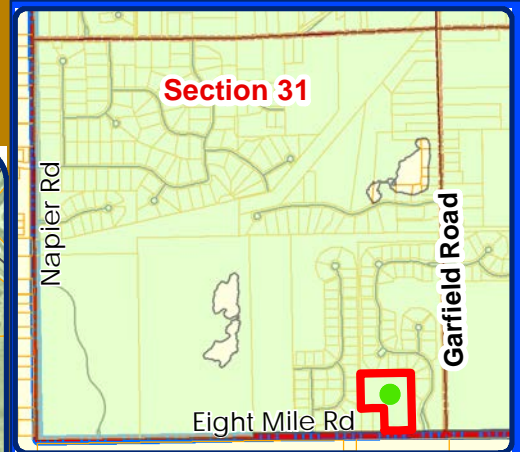
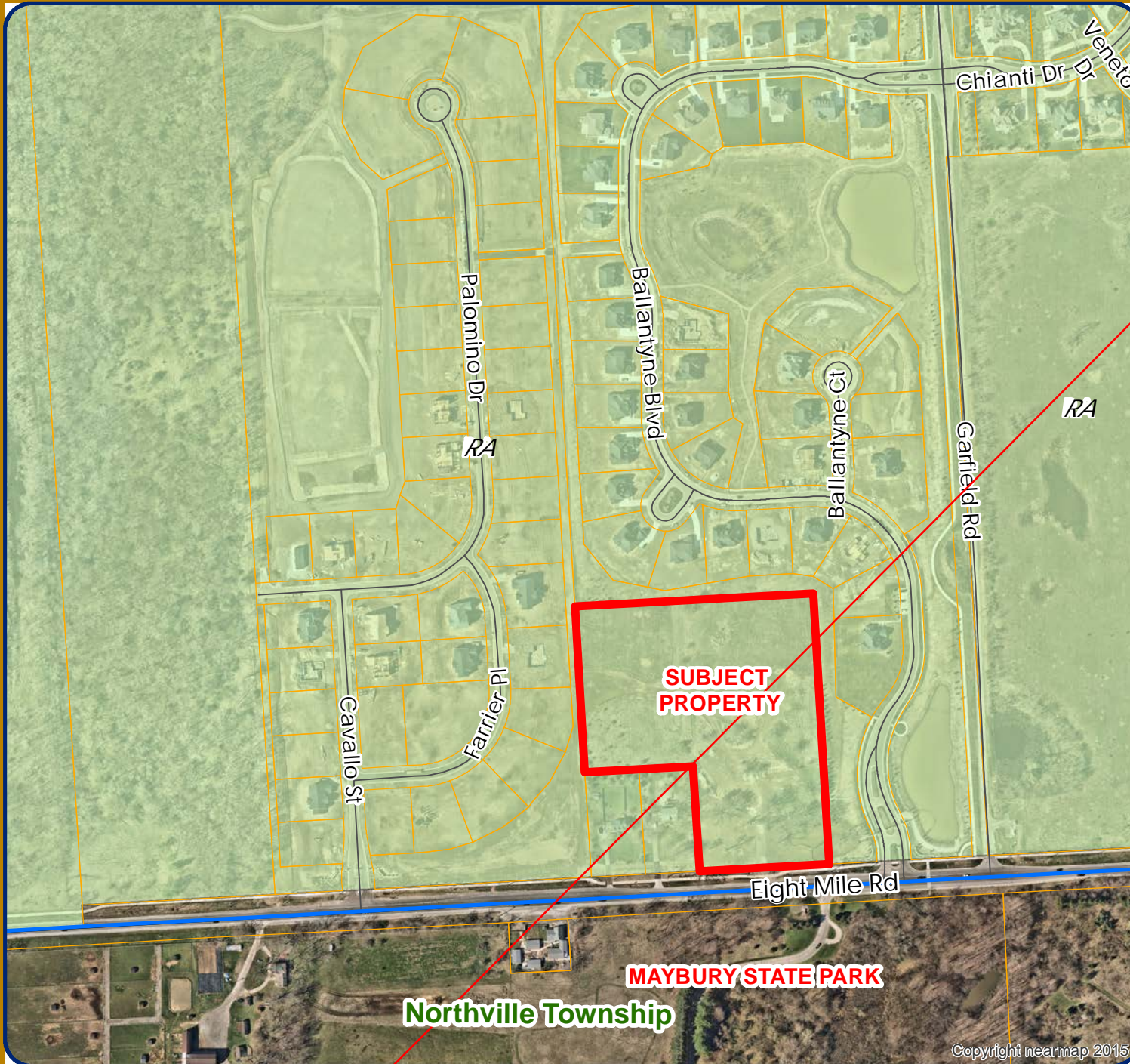


MAP INTERPRETATION NOTICE

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.

JZ24-43 MARIELLA ESTATES

ZONING



Legend

R-A: Residential Acreage

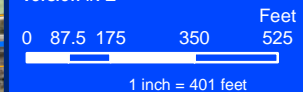
Subject Area



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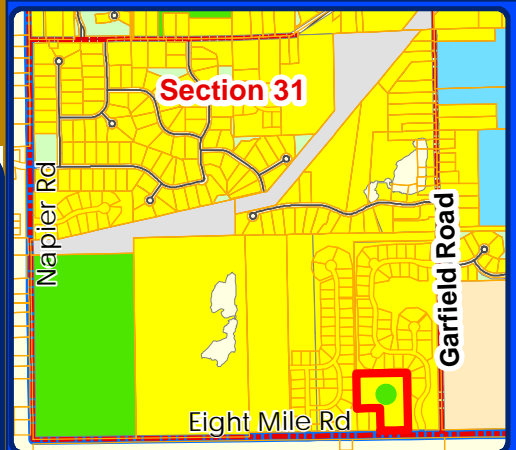
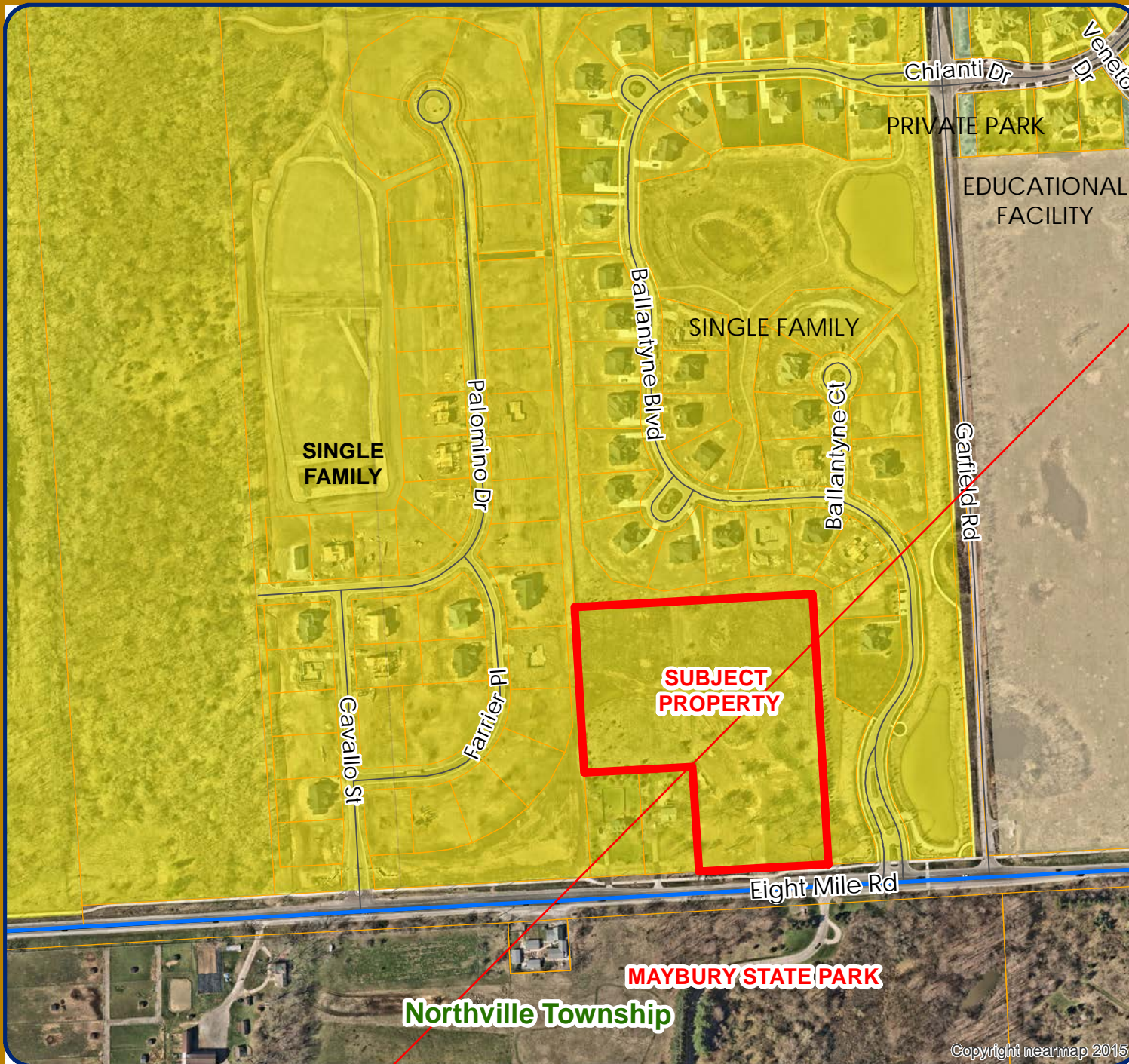


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JZ24-43 MARIELLA ESTATES

FUTURE LAND USE



Legend

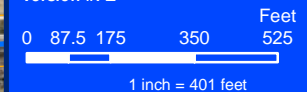
- Single Family
- Educational Facility
- Public
- Public Park
- Private Park
- Utility
- Subject Area



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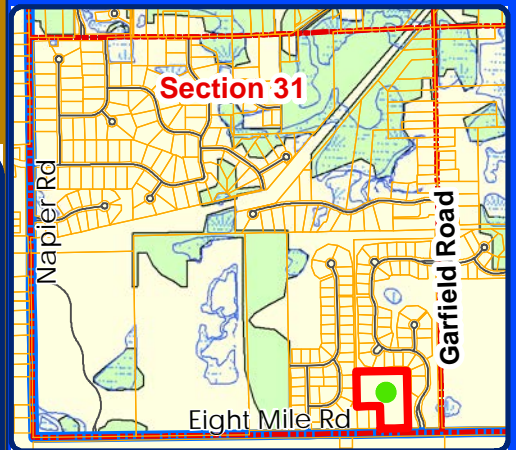
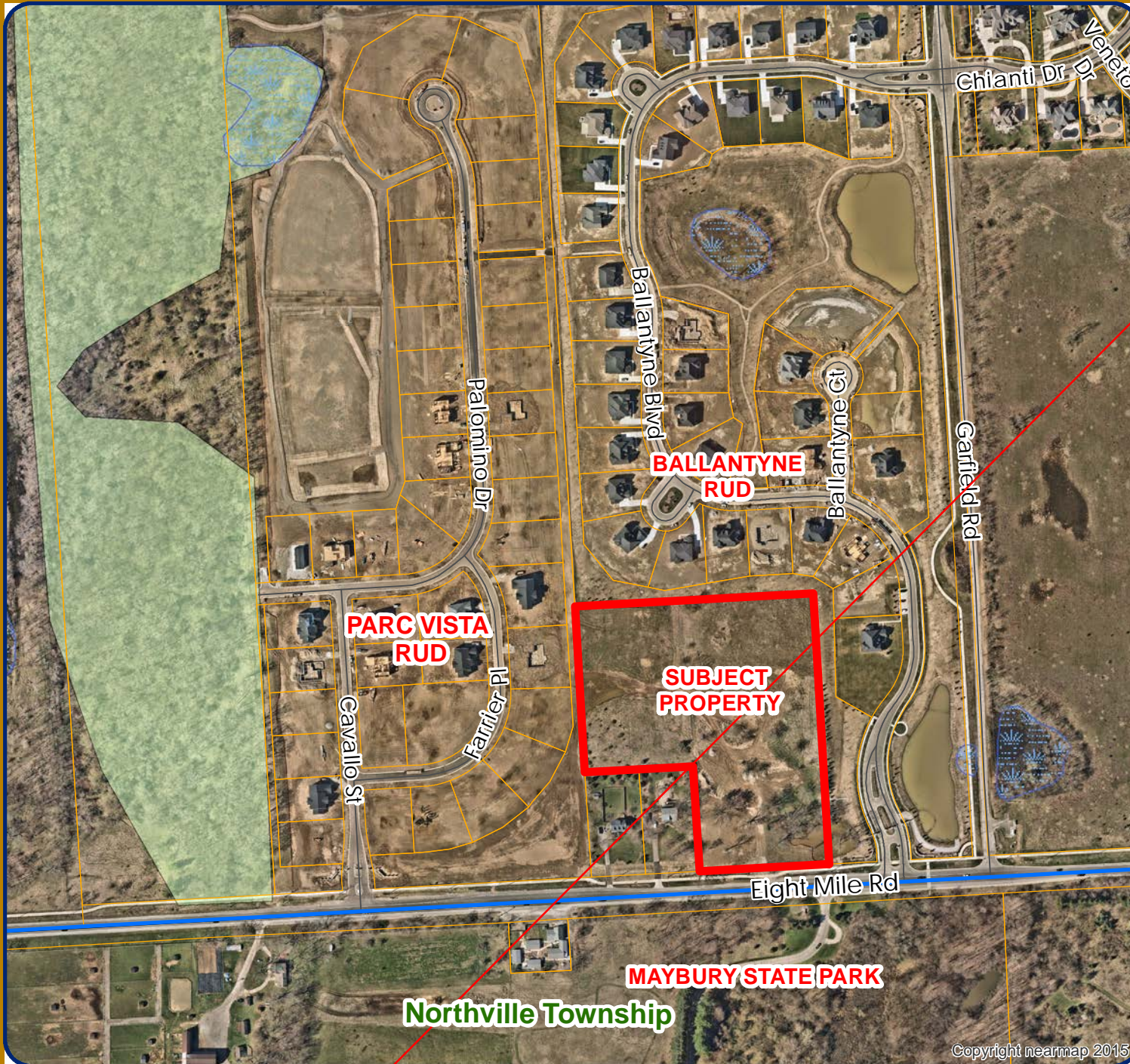


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JZ24-43 MARIELLA ESTATES

NATURAL FEATURES



Legend

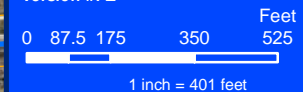
- WETLANDS
- WOODLANDS
- Subject Area



City of Novi

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INITIAL PRO PLAN

DEVELOPMENT TEAM

DEVELOPER/APPLICANT
BRACIOLE BROTHERS, LLC
47955 ANNA COURT
WILKIN, MI 48393
CONTACT: ANTONELLO STANTE
PHONE: (248) 380-9922

ENGINEER
ATWELL, LLC
311 NORTH MAIN STREET
ANN ARBOR, MICHIGAN 48104
CONTACT: CHRIS ROTHHAAR, P.E.
PHONE: (947) 886-9874

SITE DATA

EXISTING SITE ZONING: RA, RESIDENTIAL ACREAGE
PROPOSED ZONING: PRO, PLANNED REZONING OVERLAY (R-1)
PARCELS NO.: 22-31-400-008
EXISTING SITE AREA: 9.36 ACRES
NO. OF SINGLE FAMILY LOTS: 10
ANTICIPATED POPULATION: 35 (3.5 PER LOT)
MIN. LOT SIZE: 21,760 SQ. FT. (0.5 ACRE)
TYP. LOT WIDTH: 120' MINIMUM
PROPOSED DENSITY: 1.07 DU/ACRE
RA REQUIRED: 0.80 DU/ACRE
R-1 REQUIRED: 1.65 DU/ACRE
BUILDING SIZE: 35 FEET
HEIGHT: 2
STORIES: 3,200 TO 4,300 SF
FLOOR AREA PER UNIT:
OPEN SPACE: ±2.65 AC (28%)

FIRE DEPARTMENT NOTES

1. ALL FIRE HYDRANTS AND WATER MAINS SHALL BE INSTALLED AND IN SERVICE PRIOR TO ABOVE FOUNDATION BUILDING CONSTRUCTION AS EACH PHASE IS BUILT.
2. ALL ROADS SHALL BE PAVED AND CAPABLE OF SUPPORTING 35 TONS PRIOR TO CONSTRUCTION ABOVE FOUNDATION.
3. BUILDING ADDRESSES SHALL BE POSTED FACING THE STREET DURING ALL PHASES OF CONSTRUCTION. ADDRESSES SHALL BE A MINIMUM OF THREE INCHES IN HEIGHT ON A CONTRASTING BACKGROUND.
4. FIRE LANES SHALL BE POSTED WITH "FIRE LANE - NO PARKING" SIGNS IN ACCORDANCE WITH ORDINANCE #85.99.02.

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE CITY OF NOVI'S CURRENT STANDARDS AND SPECIFICATIONS, UNLESS OTHERWISE APPROVED IN THE PRO AGREEMENT.
2. THE CONTRACTOR MUST OBTAIN A PERMIT FROM THE ROAD COMMISSION FOR OAKLAND COUNTY FOR ANY WORK WITHIN THE RIGHT-OF-WAY OF EIGHT MILE ROAD.
3. 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.
4. THE 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.

SUMMARY OF PUBLIC BENEFITS

- PUBLIC-USE PARK: THE DEVELOPMENT PROPOSES AN ACTIVE OPEN SPACE PARK AREA INTENDED FOR USE BY THE RESIDENTS AND THE PUBLIC AT LARGE, WITH DIRECT PUBLIC ACCESS OFF OF 8-MILE ROAD.
- PUBLIC-USE PLAYGROUND STRUCTURE: THE DEVELOPMENT PROPOSES A PLAYGROUND FOR PUBLIC USE, WITH DIRECT PUBLIC ACCESS FROM 8-MILE ROAD.
- PERIMETER LANDSCAPE BUFFERS: THE DEVELOPMENT PROPOSES A MINIMUM 25' PERIMETER LANDSCAPE BUFFER FROM THE LOTS TO THE PROPERTY BOUNDARY.
- INCREASED OPEN SPACE: THE DEVELOPMENT PROPOSES AN EXTENSIVE AMOUNT OF OPEN SPACE FOR A SINGLE-FAMILY DEVELOPMENT (28%) AND A MAJORITY OF THE PROPOSED OPEN SPACE IS USABLE ACTIVE OPEN SPACE.
- FLASHING CROSSWALK AT 8-MILE: THE EXISTING 8-MILE CROSSWALK WILL BE UPGRADED WITH FLASHING CROSSWALK SIGNS.
- REDUCED DENSITY: A REDUCED DENSITY OF 1.07 UNITS PER ACRE IS BEING PROPOSED. R-1 ZONING ALLOWS UP TO 1.65 UNITS PER ACRE.

DEVIATIONS

- LOTS WIDTHS FOR LOTS 4 AND 5 ARE 98' WIDE. THIS IS 22' BELOW THE 120' MINIMUM LOT WIDTH REQUIRED UNDER R-1 ZONING AS MEASURED AT THE FRONT SETBACK LINE. THESE LOTS STILL PROVIDE ADEQUATE SPACE FOR THE INTENDED HOUSING PRODUCT, ARE THE TWO LARGEST LOTS PROPOSED, AND EXCEED THE R-1 MINIMUM LOT AREA REQUIREMENTS FOR OVER 10,000 SQUARE FEET AND 5,000 SQUARE FEET RESPECTIVELY.
- NO CUL-DE-SAC IS BEING PROVIDED GIVEN THE LOW VOLUME OF TRAFFIC THAT THIS SUBDIVISION WILL ENCOUNTER. A TURNAROUND IS BEING PROPOSED DUE TO GEOMETRIC CONSTRAINTS AND A WAY TO REDUCE TOTAL PAVEMENT ON SITE. THE DIMENSIONS OF THE PROPOSED TURNAROUND MEETS CURRENT INTERNATIONAL FIRE CODE (IFC) REQUIREMENTS.
- A REDUCED CENTERLINE RADIUS OF 60 DEGREES IS PROPOSED DUE TO GEOMETRIC SITE CONSTRAINTS. THIS DOES NOT PROVIDE A SAFETY CONCERN GIVEN THE SHORT DISTANCE OF THE ROAD, THE LOW TRAVEL SPEED AND THE MINIMAL TRAFFIC VOLUMES EXPECTED.

CONCEPTUAL PLANNED REZONING OVERLAY (PRO)

MARIELLA ESTATES

A SINGLE-FAMILY RESIDENTIAL DEVELOPMENT

CITY OF NOVI, OAKLAND COUNTY, MICHIGAN



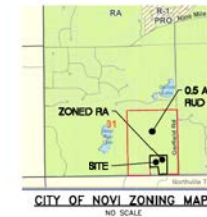
DEVELOPMENT MAP
SCALE: 1" = 60'



VICINITY MAP
NO SCALE

SHEET INDEX

- 01 COVER SHEET
- 02 EXISTING CONDITIONS
- 03 TREE LIST
- 04 LAYOUT PLAN
- 05 UTILITY PLAN
- 06 GRADING & STORM WATER MANAGEMENT PLAN
- 07 8 MILE FRONTAGE PLAN
- 08 CONCEPTUAL AMENITIES PLAN
- 09 STANDARD DETAILS
- 10 UNDERGROUND DETENTION DETAILS
- 11 UNDERGROUND DETENTION DETAILS 1
- 12 UNDERGROUND DETENTION DETAILS 1
- 13 UNDERGROUND DETENTION DETAILS 1
- L-1 LANDSCAPE PLAN
- L-2 GREENBELT & DETENTION
- L-3 LANDSCAPE DETAIL
- L-4 WOODLAND PLAN



CITY OF NOVI ZONING MAP
NO SCALE



CITY FUTURE LAND USE MAP
NO SCALE

PROJECT NARRATIVE

THE MARIELLA ESTATES PROJECT IS A PROPOSED SINGLE FAMILY RESIDENTIAL COMMUNITY LOCATED ON AN APPROXIMATELY 9-ACRE SITE IN THE CITY OF NOVI, OAKLAND COUNTY, MICHIGAN. THE PROPOSED DEVELOPMENT IS ON 8-MILE ROAD, WEST OF GARFIELD ROAD, AND BETWEEN THE BALLANTYNE AND PARC VISTA RUD COMMUNITIES. THE SUBJECT PARCEL IS CURRENTLY ZONED RA AND IS USED AS A RESIDENTIAL PROPERTY. THE DEVELOPMENT WILL UTILIZE THE CITY'S PLANNED REZONING OVERLAY (PRO) OPTION TO ALLOW FOR SINGLE FAMILY HOUSING AT A LOT SIZE AND DENSITY THAT WILL MATCH THE DIRECTLY ADJACENT BALLANTYNE AND PARC VISTA DEVELOPMENTS TO THE EAST AND WEST. LANDSCAPE SERVES WILL BE PROVIDED AT THE ENTRANCE TO SCREEN THE DEVELOPMENT FROM 8 MILE ROAD.

THE DEVELOPMENT WILL CONTAIN PRIVATE ROADS AND IS ALSO PROPOSED TO BE SERVED BY PUBLIC SEWER AND WATER LOCATED WITHIN THE 8-MILE ROAD RIGHT-OF-WAY. THESE PUBLIC UTILITIES WILL HAVE THE CAPACITY TO SERVE THE DEVELOPMENT PER THE CITY'S ENGINEERING STANDARDS. STORM WATER MANAGEMENT IS PROPOSED TO BE ADDRESSED THROUGH THE CONSTRUCTION OF AN UNDERGROUND INFILTRATION/RETENTION BASIN ON THE WEST SIDE OF THE PROPERTY. THE POND WILL BE DESIGNED IN ACCORDANCE WITH THE CITY'S REQUIREMENTS.

THE DEVELOPMENT IS PLANNED TO BE CONSTRUCTED IN ONE PHASE.



Know what's below.
Call before you dig.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ONLY AND ARE NOT BEING GUARANTEED. THE LOCATION OF THE UTILITIES SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES.

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ATWELL
886.650.4000 www.atwell-group.com
ANN ARBOR, MI 48104
734.294.4000

SECTION 31
TOWN 01 NORTH, RANGE 08 EAST
CITY OF NOVI
OAKLAND COUNTY, MICHIGAN

BRACIOLE BROTHERS, LLC
MARIELLA ESTATES
CONCEPTUAL PLANNED
REZONING OVERLAY
COVER SHEET

DATE: NOVEMBER 6, 2024
12/26/2025 PER CITY

REVISIONS

SCALE: 0 30 60
1" = 60 FEET

DR SK CH CR
PL CR
BOOK
JOB 23002817
SHEET NO. 01

PRELIMINARY - NOT FOR CONSTRUCTION



LEGEND	
	BOUNDARY LINE
	EXIST. EASEMENT
	SECTION LINE
	BOUNDARY/PROPERTY LINE
	EXIST. TREE LINE
	EXIST. FENCE
	EXIST. 1' CONTOUR
	EXIST. 5' CONTOUR
	EXIST. WETLAND
	EXIST. WETLAND BUFFER
	EXIST. WATER MAIN
	EXIST. SANITARY
	EXIST. GAS
	EXIST. STORM
	EXIST. CULVERT
	EXIST. CATCH BASIN/INLET
	EXIST. HYDRANT
	EXIST. VALVE
	EXIST. SANITARY SEWER

SITE INFORMATION

- SITE LOCATION: SECTION 31, T2N, R3E, CITY OF NOVI, OKLAHOMA COUNTY, MICHIGAN
ULTIMATE RECEIVING WATER: N/A (ON SITE)
1. SITE SOILS INFORMATION FOR THE NATIONAL RESOURCES CONSERVATION SERVICE (NRCS) SOIL SURVEY, OKLAHOMA COUNTY, MICHIGAN.
2. APPROXIMATE AREA OF DISTURBANCE: 18.39 ACRES

EXISTING CONDITIONS NOTES

1. SOILS INFORMATION REFERENCED FROM USDA NRCS WEB SOILS SURVEY, ACCESSED 2022.
2. SOIL TYPES REFERENCED IN THESE PLANS PER SOIL SURVEY START, NATURAL RESOURCES CONSERVATION SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE, OKLAHOMA COUNTY WEB SOIL SURVEY, AVAILABLE ONLINE AT [HTTP://WEBSOILSURVEY.NRCS.USDA.GOV/](http://websoilsurvey.nrcs.usda.gov/).
3. REFER TO INFILTRATION STUDY PROVIDED BY PEA GROUP, JOB #24-0212, DATED 2/8/2024, TEST PIT LOCATIONS SHOWN IN THESE PLANS PER THE ABOVE REFERENCED REPORT.
4. NO REGULATED FLOODPLAIN EXISTS ON SITE PER FEMA FIRM PANEL F26125C0608F AND F26125C0608F DATED 9/29/2006.
5. NO REGULATED WOODLAND ZONES ARE WITHIN THE PROJECT BOUNDARY. BASED ON [HTTPS://Nvw.Maps.Arcgis.Com/Apps/Webappviewer/Index.html](https://nvw.maps.arcgis.com/apps/webappviewer/index.html).

SURVEY NOTES

1. BEARINGS ARE BASED ON MICHIGAN STATE PLANE COORDINATES (NAD83), SOUTH ZONE, GROUND DISTANCES, INTERNATIONAL FEET, VERTICAL DATUM IS BASED ON NAVD83.
2. THE SITE SHOWN HEREON IS LOCATED WITHIN ZONE 4 (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO MAP NUMBERS 26125C0608F & 26125C0608F OF THE FLOOD INSURANCE RATE MAP, EFFECTIVE DATE SEPTEMBER 29, 2006.
3. WATER MAIN, STORM SEWER, SANITARY SEWER AND FRANCHISE UTILITY STRUCTURES HAVE BEEN FIELD LOCATED WHERE VISIBLE. UTILITY AND AS-BUILT MAPS HAVE BEEN REQUESTED AND SOME MAPS HAVE BEEN RECEIVED AT DATE OF THIS SURVEY. FRANCHISE UTILITY MAPS HAVE BEEN REQUESTED FROM THE APPROPRIATE FRANCHISE COMPANIES, BUT NOT ALL MAPS HAVE BEEN RECEIVED AT DATE OF SURVEY.
NOTE: THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED.
NOTE TO THE CLIENT, INSURER AND LENDER - SOURCE INFORMATION FROM PLANS AND MAPPINGS WILL BE COMBINED WITH OBSERVED EVIDENCE OF UTILITIES PURSUANT TO SECTION 5.6.V. TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES. HOWEVER, LACKING EVIDENCE, THE EXACT LOCATION OF UNDERGROUND UTILITIES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DETERMINED. IN ADDITION, IN SOME JURISDICTIONS, 811 OR OTHER SIMILAR UTILITY LOCATE REQUESTS FROM SURVEYORS MAY BE IGNORED OR RESULT IN AN INCOMPLETE RESPONSE. IN WHICH CASE, THE SURVEYOR SHALL NOTE ON THE PLAN OR MAP HOW THIS AFFECTED THE SURVEYOR'S ASSESSMENT OF THE LOCATION OF THE UTILITIES. WHERE ADDITIONAL OR MORE DETAILED INFORMATION IS REQUIRED, THE CLIENT IS ADVISED THAT EXCAVATION AND/OR A PRIVATE UTILITY LOCATE REQUEST MAY BE NECESSARY.
4. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A CURRENT TITLE COMMITMENT. EASEMENTS MAY EXIST THAT ARE NOT SHOWN HEREON.
5. SHOW AND LOC CONDITIONS EXISTED IN THE FIELD THAT MAY RESULT IN SOME PHYSICAL FEATURES NOT BEING VISIBLE AND THEREFORE MAY NOT BE LOCATED AS PART OF THIS SURVEY.

SOILS LEGEND

Map Unit	Map Unit Name	Depth to	Flood	Ponding
1B1	Ferri-sandy loam, 18 to 24 percent	80 inches	None	None
2B1	(Oxy-sandy loam, 2 to 8 percent slopes	12 to 24"	None	None

BENCHMARK NOTES

- SOURCE BENCHMARK:
CITY OF NOVI BENCHMARK ID: 223
BENCH TIE IN WEST FACE OF POWER POLE 180 FEET NORTH OF CENTERLINE OF 8 MILE ROAD AND CASTERLO ROAD
ELEVATION: 974.31 (NAVD83)
SITE BENCHMARKS:
BM #1: ARROW ON FIRE HYDRANT IN NORTH RIGHT OF WAY OF 8 MILE ROAD AT SOUTHWEST CORNER OF SITE
ELEVATION: 977.04 (NAVD83)
BM #2: SET RAILROAD SPIKE IN SOUTH FACE OF UTILITY POLE IN NORTH RIGHT OF WAY OF 8 MILE ROAD
ELEVATION: 978.38 (NAVD83)

LEGAL DESCRIPTION

DESCRIPTION OF TAX PARCEL NUMBER 22-31-400-008 PER WARRANTY DEED RECORDED IN LIVER 57890, PAGE 432, OKLAHOMA COUNTY RECORDS
SITUATED IN THE CITY OF NOVI, COUNTY OF OKLAHOMA, STATE OF MICHIGAN, TO WIT:
A PART OF THE SOUTHEAST 1/4 OF SECTION 31, TOWN 1 NORTH, RANGE 8 EAST, CITY OF NOVI, OKLAHOMA COUNTY, MICHIGAN, MORE PARTICULARLY DESCRIBED AS: COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 31, THENCE NORTH 89°46'31" WEST 440.00 FEET ALONG THE SOUTH LINE OF SAID SECTION 31 AND THE CENTERLINE OF SAID 8 MILE ROAD, THENCE NORTH 0°07'09" WEST 80.00 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF SAID 8 MILE ROAD, AND THE POINT OF BEGINNING, THENCE NORTH 89°46'31" WEST 300.00 FEET ALONG THE RIGHT OF WAY LINE OF SAID 8 MILE ROAD, THENCE NORTH 0°07'09" WEST 210.41 FEET, THENCE NORTH 89°46'31" WEST 300.00 FEET, THENCE NORTH 0°07'09" WEST 418.59 FEET, THENCE SOUTH 89°46'31" EAST 660.00 FEET, THENCE SOUTH 0°07'09" EAST 710.00 FEET TO THE POINT OF BEGINNING.

811

Know what's below.

Call before you dig.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES, WATER MAINS AND GAS LINES MUST BE DETERMINED BY A QUALIFIED PROFESSIONAL ENGINEER OR SURVEYOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXISTING LOCATION OF ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXISTING LOCATION OF ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXISTING LOCATION OF ALL UTILITIES.

NOTICE:

THE LOCATION OF EXISTING UNDERGROUND UTILITIES, WATER MAINS AND GAS LINES MUST BE DETERMINED BY A QUALIFIED PROFESSIONAL ENGINEER OR SURVEYOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXISTING LOCATION OF ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXISTING LOCATION OF ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXISTING LOCATION OF ALL UTILITIES.

APPROXIMATE AREA OF DISTURBANCE: 18.39 ACRES

ATWELL

666.660.0000

www.atwell-group.com

ANN ARBOR, MI 48106

734.994.0000

SECTION 31

TOWN 01 NORTH, RANGE 08 EAST

CITY OF NOVI

OKLAHOMA COUNTY, MICHIGAN

BRAGIOLE BROTHERS, LLC

MARIELLA ESTATES

CONCEPTUAL PLANNED

REZONING OVERLAY

EXISTING CONDITIONS

DATE:

NOVEMBER 6, 2024

8/28/2025 PER CITY

REVISIONS

SCALE: 0 25 50

1" = 50 FEET

DN SK CH CR

BOOK

JOB 23002817

SHEET NO. 02

PRELIMINARY - NOT FOR CONSTRUCTION

Tree Tag #	Data Code	Scientific Name	Common Name	DBH (inches)	Condition	Bats	Comments	Landmark Tree	To Be Removed
1785	ACPL	<i>Acer platanoides</i>	Norway Maple	24	Good	No		Yes	Yes
1786	PIGL	<i>Picea glauca</i>	White Spruce	18	Fair	No	Dead Branches	No	Yes
1787	ACSAN	<i>Acer saccharum</i>	Silver Maple	52	Fair	No	Fused Trunk	Yes	Yes
1788	ACSA	<i>Acer saccharum</i>	Sugar Maple	22	Fair	No	Topped For Utility Line	No	Yes
1789	ACSA	<i>Acer saccharum</i>	Sugar Maple	25	Fair	No	Topped For Utility Line	Yes	No
1790	MAHPP	<i>Malus spicata</i>	Apple/Crispinapple	16	Fair	No	Two Trunk (2T): 12, Dead Main Branches	No	Yes
1791	ACSAN	<i>Acer saccharum</i>	Silver Maple	61.5	Good	No	2T: 39, Fused Trunk	Yes	Yes
1792	JUVI	<i>Juniperus virginiana</i>	Eastern Red Cedar	14.5	Fair	No	Dead Branches, Missing Bark	Yes	Yes
1793	MAGR	<i>Magnolia grandiflora</i>	Magnolia	16	Good	No	Three Trunk (3T): 12, 8	No	Yes
1794	ACSAN	<i>Acer saccharum</i>	Silver Maple	33.5	Good	No		Yes	Yes
1795	ACSA	<i>Acer saccharum</i>	Sugar Maple	11	Good	No		No	Yes
1796	ACSAN	<i>Acer saccharum</i>	Silver Maple	20	Good	No		No	Yes
1797	ACSAN	<i>Acer saccharum</i>	Silver Maple	24	Good	No		Yes	Yes
1798	ACSAN	<i>Acer saccharum</i>	Silver Maple	25	Good	No		Yes	Yes
1799	ACSAN	<i>Acer saccharum</i>	Silver Maple	12	Good	No	Seven Trunk (7T): 11, 11, 8.5, 6.5, 4, 3.5	No	Yes
2237	AEGL	<i>Aesculus glabra</i>	Ohio Buckeye	32.5	Fair	No	Trimmed Main Limb	Yes	Yes
2238	MAGR	<i>Magnolia grandiflora</i>	Magnolia	17.5	Fair	No	2T: 14.5, Missing Branches	No	Yes
2246	GLTR	<i>Gleditsia triacanthos</i>	Honey Locust	36	Good	No		Yes	Yes
2247	ACSAN	<i>Acer saccharum</i>	Silver Maple	35	Fair	No	Dead Limbs, Trimmed	Yes	No
2401	ACSAN	<i>Acer saccharum</i>	Silver Maple	27.5	Good	No		Yes	Yes
2402	ACSAN	<i>Acer saccharum</i>	Silver Maple	40.5	Good	No	Fused Trunk	Yes	Yes
2403	MOAL	<i>Morus alba</i>	White Mulberry	16	Good	No	3T: 13, 11	No	Yes
2404	MOAL	<i>Morus alba</i>	White Mulberry	8.5	Good	No		No	Yes
2405	MOAL	<i>Morus alba</i>	White Mulberry	8	Good	No	2T: 7	No	Yes
2406	MOAL	<i>Morus alba</i>	White Mulberry	17	Good	No	2T: 6, Fused Trunk	No	Yes
2407	MOAL	<i>Morus alba</i>	White Mulberry	12	Good	No	Fused Trunk	No	Yes
2408	ACNE	<i>Acer negundo</i>	Bowelder	8	Good	No		No	Yes
2409	MOAL	<i>Morus alba</i>	White Mulberry	22	Good	No		No	Yes
2410	ACNE	<i>Acer negundo</i>	Bowelder	21	Good	No	2T: 10	No	Yes
2411	ACNE	<i>Acer negundo</i>	Bowelder	13	Good	No	Fused Trunk	No	Yes
2412	PRAV	<i>Prunus avium</i>	Sweet Cherry	16.5	Good	No		No	Yes
2413	ACSAN	<i>Acer saccharum</i>	Silver Maple	18	Good	No		No	Yes
2414	MOAL	<i>Morus alba</i>	White Mulberry	8	Good	No		No	Yes
2415	FRPE	<i>Fraxinus pennsylvanica</i>	Green Ash	10.5	Fair	No	Four Trunk (4T): 9.5, 9.5, 6, Dead Main Trunks	No	Yes
2416	ACNE	<i>Acer negundo</i>	Bowelder	12	Good	No		No	Yes
2417	ACSA	<i>Acer saccharum</i>	Sugar Maple	13	Good	No		No	Yes
2418	PIPU	<i>Picea pungens</i>	Blue Spruce	10.5	Good	No		No	Yes
2419	POTR	<i>Populus tremuloides</i>	Quaking Aspen	8	Good	No		No	Yes
2420	ACNE	<i>Acer negundo</i>	Bowelder	30	Good	No	2T: 16	No	Yes
2421	MOAL	<i>Morus alba</i>	White Mulberry	15.5	Good	No	2T: 4, Fused Trunk	No	Yes
2422	ROPS	<i>Robinia pseudacacia</i>	Black Locust	8	Good	No		No	Yes
2423	ROPS	<i>Robinia pseudacacia</i>	Black Locust	8	Good	No		No	Yes
2424	ROPS	<i>Robinia pseudacacia</i>	Black Locust	25	Good	No		Yes	Yes
2425	ROPS	<i>Robinia pseudacacia</i>	Black Locust	9	Good	No		No	Yes

Know what's below.
Call before you dig.

THE LOCATION OF EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO, WATER, GAS, ELECTRIC, AND TELEPHONE LINES, ARE SHOWN ON THIS PLAN. ANY AND ALL UTILITIES NOT SHOWN ON THIS PLAN ARE THE RESPONSIBILITY OF THE USER. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES AND STRUCTURES. THE USER SHALL BE RESPONSIBLE FOR REMEDIATION OF ANY DAMAGE TO EXISTING UTILITIES AND STRUCTURES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES AND STRUCTURES. THE USER SHALL BE RESPONSIBLE FOR REMEDIATION OF ANY DAMAGE TO EXISTING UTILITIES AND STRUCTURES.

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SECTION 31
TOWN OF NORTH, RANGE 08 EAST
CITY OF NOVI
OKLAHOMA COUNTY, MICHIGAN

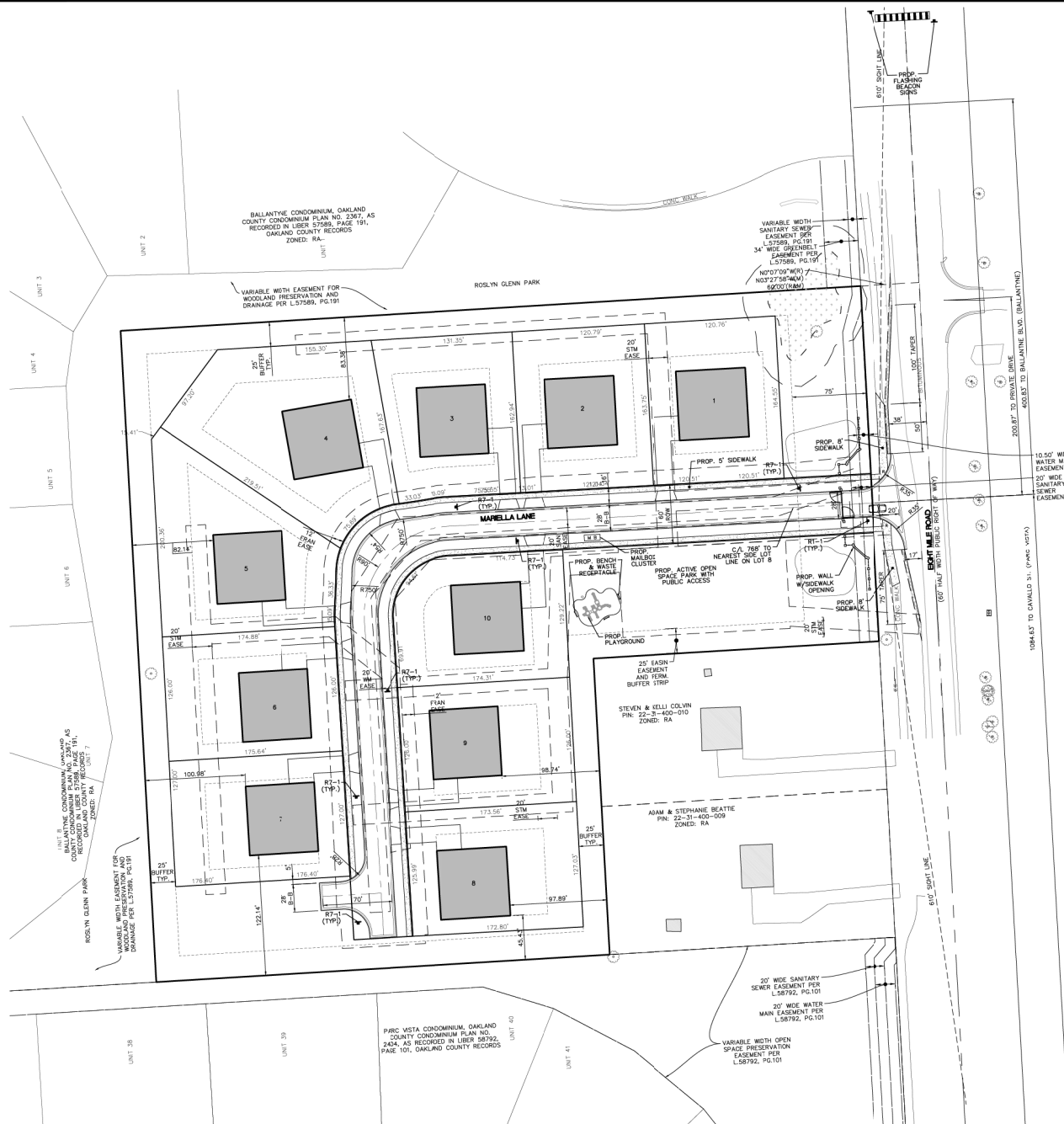
BRAGIOLE BROTHERS, LLC
MARIELLA ESTATES
CONCEPTUAL PLANNED
REZONING OVERLAY
TREE LIST

DATE: NOVEMBER 6, 2024
BY: 12/28/2025 PER CITY

REVISIONS

SCALE: 0' = 1" NO SCALE

BY: SK CH: CR
IN: CR
BOOK: 23002817
SHEET NO. 03

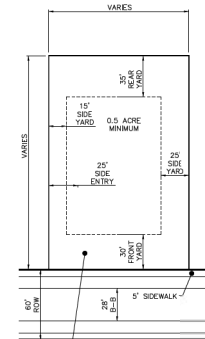


LAYOUT NOTES

1. THE DEVELOPMENT WILL CONTAIN PRIVATE ROADS. THE PROPOSED CONNECTION WILL BE COORDINATED WITH THE ROAD COMMISSION OF OKLAHOMA COUNTY.
2. THE ROAD WILL NOT BE GRADED.
3. LANDSCAPE BUFFERS WILL BE PROVIDED ON THE SIDES OF THE DEVELOPMENT AS SHOWN BUFFERING THE PROPERTY FROM THE ADJACENT USES.
4. LANDSCAPING SHOWN IS PRELIMINARY AND SUBJECT TO CHANGE.
5. ALL SIDEWALKS AND SIDEWALK RAMPS SHALL BE ADA COMPLIANT AND SHALL COMPLY WITH BARRIER FREE DESIGN STANDARDS.
6. NO ON-STREET PARKING IS PROPOSED. UNIT GARAGE AND DRIVEWAY PARKING EXCEEDS CITY PARKING REQUIREMENTS. NO PARKING SIGNS TO BE PLACED IN AREAS OF ROAD CURVE RADIUS LESS THAN 230'.
7. ALL ON-SITE SIGNAGE AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH THE LIMITED.
8. PROPOSED BUILDING FACADES WILL HAVE A MINIMUM OF 30% BRICK OR STONE.
9. THE TOTAL PROPOSED FLOOR SQUARE FOOTAGE OF EACH DWELLING UNIT VARIES FROM 3,200 TO 4,300 SQUARE FEET.
10. SIGHT DISTANCE TRIANGLES SHOWN FOR 3.5' EYE HEIGHT IN ACCORDANCE WITH MOST TRAFFIC AND SAFETY STANDARDS APRIL 22, 2015 (2011 AASHTO TABLE 9-6, 9-38). SIGHT DISTANCE FOR SPEED LIMIT FOR 55 MPH AND 2 LANES OF TRAFFIC IS 410'.
11. CITY OF NOW HAS NO RESPONSIBILITY TO IMPROVE OR MAINTAIN THE PRIVATE STREETS CONTAINED WITHIN OR PRIVATE STREETS PROVIDING ACCESS TO THE PROPERTY DESCRIBED IN THIS PLAN.

WETLAND SUMMARY

TOTAL WETLAND AREA: 0.11 ACRES
IMPACT AREA: 0.00 ACRES



LOT NO.	AREA (SF)	LOT WIDTH	D/W RATIO
1	21854.14	133.06'	1.2
2	21875.57	134.05'	1.2
3	21834.47	127.13'	1.3
4	31856.38	98.53'	1.7
5	29955.05	98.57'	1.7
6	22082.74	126'	1.4
7	22354.11	127'	1.4
8	21909.57	126.17'	1.4
9	21916.09	126'	1.4
10	21883.10	129.91'	1.3

AVERAGE LOT AREA: 23,622 SF
TOTAL LOT AREA: 236,216 SF
* LOT WIDTH IS MEASURED FROM SIDE LOT LINE TO SIDE LOT LINE AT FRONT SETBACK

TYPICAL LOT DETAIL

SCALE: 1" = 50 FEET
DISTANCE BETWEEN DRIVE AND LOT LINE VARIES, WILL BE FINALIZED IN FUTURE PLANS



SIGN QUANTITIES

SIGN TYPE	SIGN SIZE	QUANTITY
R1-1	30"x30"	1
R7-1	18"x12"	5

NOTE: ALL TRAFFIC SIGNAGE WILL COMPLY WITH CURRENT LIMITED STANDARDS.

PAVING QUANTITIES

PAVING	Quantity	Unit
Bituminous Surface Course (1.5")	3,004	S.Y.
Bituminous Base Course (2")	3,004	S.Y.
8" 21AA Aggregate Base	3,602	S.Y.
Concrete Curb & Gutter	1,922	L.F.
Concrete Sidewalk (4" conc.)	9,933	S.F.

LEGEND

BOUNDARY LINE	EXIST. EASEMENT	BOUNDARY/PROPERTY LINE
EXIST. WETLAND	PROF. DETENTION	PROF. ROAD CENTERLINE
PROF. ASPHALT	PROF. BUILDING	PROF. WALK
PROF. STOP SIGN (R1-1)	PROF. NO PARKING SIGN (R7-1)	

PRELIMINARY - NOT FOR CONSTRUCTION

Know what's below.
Call before you dig.

THE LOCATION OF EXISTING UTILITIES (GAS, WATER, SEWER, ETC.) MUST BE DETERMINED PRIOR TO ANY CONSTRUCTION. THE LOCATION OF ALL UTILITIES SHALL BE DETERMINED BY THE UTILITY LOCATOR. THE LOCATION OF ALL UTILITIES SHALL BE DETERMINED BY THE UTILITY LOCATOR. THE LOCATION OF ALL UTILITIES SHALL BE DETERMINED BY THE UTILITY LOCATOR.

NOTICE: EXISTING UTILITIES ARE SHOWN BY THE UTILITY LOCATOR. THE LOCATION OF ALL UTILITIES SHALL BE DETERMINED BY THE UTILITY LOCATOR. THE LOCATION OF ALL UTILITIES SHALL BE DETERMINED BY THE UTILITY LOCATOR.

APPROPRIATELY SIGNED AND SEALED BY THE UTILITY LOCATOR. THE LOCATION OF ALL UTILITIES SHALL BE DETERMINED BY THE UTILITY LOCATOR. THE LOCATION OF ALL UTILITIES SHALL BE DETERMINED BY THE UTILITY LOCATOR.

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ANN ARBOR, MI 48106
TOLSON, MI 48106

SECTION 31
TOWN OF NORTH, RANGE 08 EAST
CITY OF NOVI
OKLAHOMA COUNTY, MICHIGAN

BRACIOLE BROTHERS, LLC
MARELLA ESTATES
CONCEPTUAL PLANNED
REZONING OVERLAY
LAYOUT PLAN

DATE: NOVEMBER 6, 2024
8/28/2025 PER CITY

REVISIONS

SCALE: 0 25 50
1" = 50 FEET

SK CH CR
PLAN BOOK
JOB 230022817
SHEET NO. 04





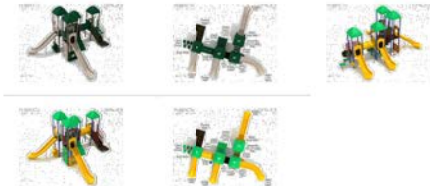
Figgs Landing
\$24,628.00



Product Description
Play set will be used to replace the equipment of the Figgs Landing play structure, which is ADA compliant and designed for children 2-12 years of age. A transfer station, slide, and safety surface play structure will be replaced with a new play structure. The new play structure will be a complex play structure with a transfer station, slide, and safety surface play structure. The new play structure will be a complex play structure with a transfer station, slide, and safety surface play structure.

Product Specifications
Price: \$24,628.00
Model Number: NPS1234
Age Range: 2-12 years
Child Capacity: 40-50
Fall Height: 12'
Post Diameter: 3.5 inch
Product Type: Quick Ship
Safety Zone: 41' x 37' x 37'

ADA Compliant
Elevated
Ground Level

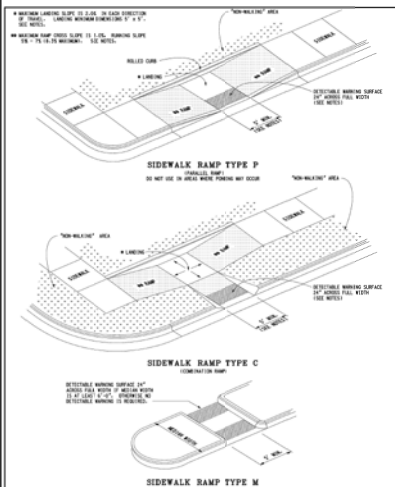


WVB Playgrounds, Inc. DBA PlaygroundEquipment.com

800-667-0097 | PLAYGROUND-EQUIPMENT.COM

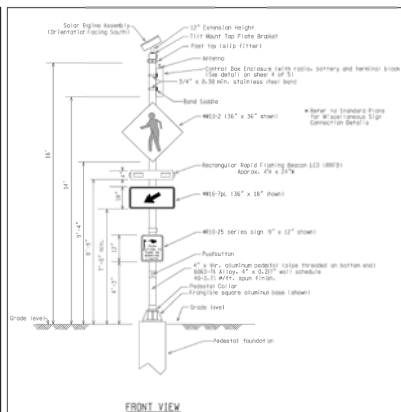
PLAYGROUND PRODUCT DESCRIPTION

NOT TO SCALE



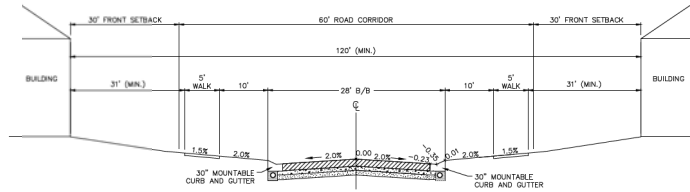
MICHIGAN DEPARTMENT OF TRANSPORTATION
SIDEWALK RAMP AND
EXTENSIBLE WARNING DETAILS

DATE: 01-01-2020
SHEET: R-28-J 1 of 1



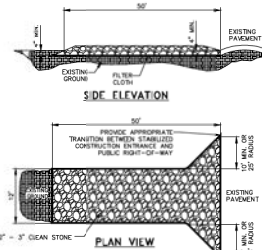
SOLAR POWER ASSEMBLY (ONE-SIDED REAR)

NOT TO SCALE
MICHIGAN DEPARTMENT OF TRANSPORTATION
SOLAR POWER ASSEMBLY (ONE-SIDED REAR)
DATE: 01-01-2020
SHEET: S10-321-A 1 of 5



TYPICAL ROAD CROSS SECTION

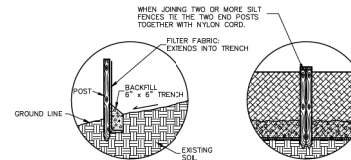
NO SCALE



- CONSTRUCTION SPECIFICATIONS**
1. STONE - USE COARSE AGGREGATE (2 - 3 INCH STONE)
 2. LENGTH - 50' MIN.
 3. THICKNESS - NOT LESS THAN EIGHT (8) INCHES.
 4. WIDTH - 12' MIN.

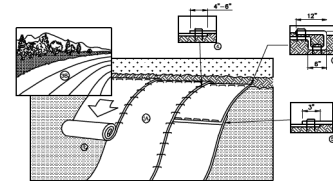
STABILIZED CONSTRUCTION ENTRANCE AND STONE LAYDOWN

NOT TO SCALE



GEOTEXTILE SILT FENCE

NO SCALE



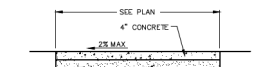
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIMB, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDING BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FILL REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET WITH COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.

3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE TENSION AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS PER MANUFACTURER'S RECOMMENDATION.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH MINIMUM 8" OVERLAP TO ENSURE PROPER SEAM ALIGNMENT. PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLED STITCH) WITH AN APPROXIMATE 5" OVERLAP STAPLED THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.
6. PLACE STAPLES/STAKES PER MANUFACTURER'S RECOMMENDATION FOR THE APPROPRIATE SLOPE BEING APPLIED.

- NOTES:**
1. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLES OR STAKE LENGTHS GREATER THAN 8" MAY BE NECESSARY TO SECURELY "TIE" BLANKETS.
 2. FOLLOW EROSION CONTROL, TO WHODDY COUNCIL SPECIFICATION FOR PRODUCT SELECTION.

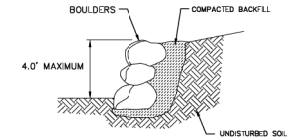
EROSION CONTROL BLANKET (SLOPE INSTALLATION)

NO SCALE



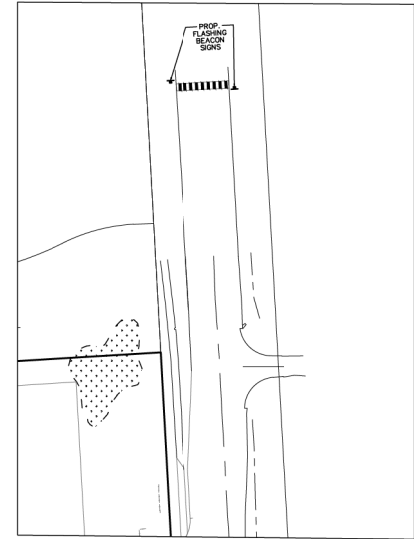
CONCRETE SIDEWALK SECTION

NOT TO SCALE



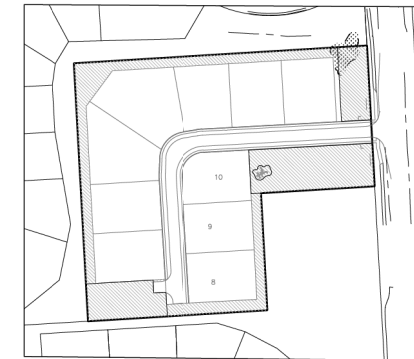
BOULDER WALL

NO SCALE



RAPID FLASHING BEACON EXHIBIT

SCALE: 1" = 60 FEET



OPEN SPACE EXHIBIT

SCALE: 1" = 150 FEET

TOTAL OPEN SPACE = 2.85 ACRES
TOTAL USABLE OPEN SPACE = 1.85 ACRES

PRELIMINARY - NOT FOR CONSTRUCTION



Know what's below.
Call before you dig.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES, MANY OF WHICH HAVE NOT BEEN RECORDED, IS UNKNOWN TO THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UTILITIES.

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ATWELL
800.850.4000
www.atwell-llc.com
ANN ARBOR, MI 48106
734.954.4000



SECTION 31
TOWN OF NORTH, RANGE 08 EAST
CITY OF NOV
OAKLAND COUNTY, MICHIGAN

BRAGIOLE BROTHERS, LLC
MARELLA ESTATES
CONCEPTUAL PLANNED
REZONING OVERLAY
STANDARD DETAILS

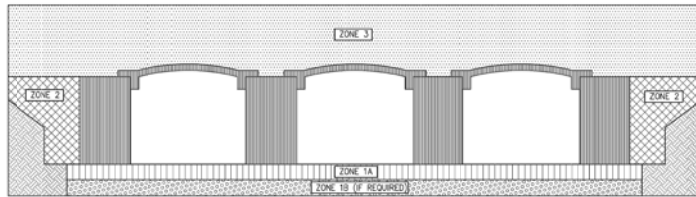
DATE: NOVEMBER 6, 2024
BY: 12/28/2025 PER CITY

REVISIONS
AS NOTED
BY: SK CH CR
DATE: 12/28/2025
BOOK: 23002817
SHEET NO: 09

<div>STORM ARC INSTALLATION SPECIFICATIONS</div> <div>1. STORM ARC SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C891 STANDARD PRACTICE FOR INSTALLATION OF UNDERGROUND PRE-CAST CONCRETE UTILITY STRUCTURES. THE FOLLOWING ADDITIONS AND/OR EXCEPTIONS SHALL APPLY: 2. IT IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO ENSURE THAT PROPER/ADEQUATE EQUIPMENT IS USED TO SET/INSTALL THE MODULES. 3. THE AGGREGATE FOUNDATION HAS BEEN DESIGNED BASED ON THE FOLLOWING ASSUMPTIONS. THESE ASSUMPTIONS WILL NEED TO BE VERIFIED BY A GEOTECHNICAL ENGINEER WHICH WILL NEED TO BE EMPLOYED BY THE OWNER. 3.1. A QUALIFIED GEOTECHNICAL ENGINEER WILL BE EMPLOYED, BY THE OWNER, TO PROVIDE ASSISTANCE IN EVALUATING THE EXISTING SOIL CONDITIONS BELOW THE PROPOSED ENGINEERED STONE FOUNDATION. IF A STONE FOUNDATION DESIGN IS TO BE USED, THE BEARING CAPACITY OF THE SOILS BELOW THE STONE WILL NEED TO BE EVALUATED FOR ACCEPTABILITY. IF THE SOIL ARE DETERMINED TO BE UNACCEPTABLE, THE STONE FOUNDATION MAY NOT BE AN OPTION FOR THIS LOCATION. 3.2. A QUALIFIED GEOTECHNICAL ENGINEER WILL BE EMPLOYED, BY THE OWNER, TO EVALUATE THE SOURCE OF STONE AGGREGATES THAT WILL BE PLACED ON PROPERLY COMPACTED SOILS. THE AGGREGATE BASE COURSE FOR WHICH THE STORM ARC SYSTEM WILL BEAR DIRECTLY ON SHALL CONSIST OF A 9" THICK BED OF 3/4" TO 1-1/2" DIAMETER ANGULAR STONE, WELL COMPACTED AND SEATED, WITH NO FINES, AND A 9" THICK BED OF 3" ANGULAR AGGREGATE (SEE DETAIL 2003/2.0 ON SHEET 2). PLEASE NOTE THAT THESE ARE ONLY MINIMUM RECOMMENDATIONS AND A QUALIFIED GEOTECHNICAL ENGINEER SHALL BE USED TO DETERMINE THE EXACT REQUIREMENTS FOR THE LOCATIONS THAT THE STORM ARC SYSTEM IS TO BE LOCATED. 3.3. THE CONTRACTOR SHALL REMOVE ANY AND ALL EXPANDABLE OR COLLAPSIBLE SOILS AT THE DIRECTION OF A QUALIFIED GEOTECHNICAL ENGINEER. 3.4. THE AGGREGATE FOUNDATION SHALL BE INSTALLED SUCH THAT THE AGGREGATE EXTENDS A MINIMUM OF 1'-0" PAST THE OUTSIDE OF THE SYSTEM (SEE DETAIL 2005/2.0). 3.5. THE 3/4" TO 1-1/2" AGGREGATE SHALL BE COMPACTED USING A VIBRATING ROLLER OR PLATE COMPACTOR CAPABLE OF APPLYING A MINIMUM OF 4,000 LBS OF FULL DYNAMIC FORCE TO ACHIEVE A FLAT SURFACE. 3.6. DISK, DRY, AND COMPACT THE TOP 8" OF THE SUBGRADE SOILS TO 95% OF THE STANDARD DRY DENSITY AND 110% OPTIMUM MOISTURE CONTENT. 3.7. AGGREGATE SHALL BE GRADED WITHIN +/-1/4" OF THE GRADE SHOWN ON THE PLANS. 4. THE STORM ARC MODULES SHALL BE PLACED SUCH THAT THE MAXIMUM SPACE BETWEEN ADJACENT MODULES DOES NOT EXCEED 3/4" (SEE DETAIL 2004/2.0). IF THE SPACE EXCEEDS 3/4" THE MODULES SHALL BE RESET WITHIN APPROPRIATE ADJUSTMENT MADE TO LINE AND GRADE TO BRING THE SPACE INTO SPECIFICATION. 5. STORM ARC MODULES ARE NOT WATER-TIGHT. IF A WATER-TIGHT APPLICATION IS REQUIRED, CONTACT STORM ARC FOR RECOMMENDATIONS. THE WATER-TIGHT APPLICATION IS TO BE PROVIDED AND IMPLEMENTED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE SELECTED WATER-TIGHT SOLUTION PERFORMS AS SPECIFIED BY THE MANUFACTURER. 6. ALL EXTERIOR ROOF AND EXTERIOR VERTICAL WALL JOINTS BETWEEN ADJACENT STORM ARC MODULES SHALL BE SEALED WITH 8" WIDE PRE-FORMED, COLD-APPLIED, SELF-ADHERING ELASTOMERIC RESIN, BONDING TO A MOVEN, HIGHLY PUNCTURE RESISTANT POLYMER WRAP, CONFORMING TO ASTM C891 AND SHALL BE INTEGRATED WITH PRIMER SEALANT AS APPROVED BY STORM ARC. THE JOINT WRAP DOES NOT PROVIDE A WATER-TIGHT SEAL. THE SOLE PURPOSE OF THE JOINT WRAP IS TO PROVIDE A SILT AND SOIL TIGHT SYSTEM. THE ADHESIVE EXTERIOR JOINT WRAP SHALL BE INSTALLED ACCORDING TO THE FOLLOWING INSTALLATION INSTRUCTIONS: 6.1. USE A BRUSH OR WET CLOTH TO THOROUGHLY CLEAN THE OUTSIDE SURFACE AT THE POINT WHERE THE JOINT WRAP IS TO BE APPLIED. 6.2. A RELEASE PAPER PROTECTS THE ADHESIVE SIDE OF THE JOINT WRAP. PLACE THE ADHESIVE TAPE (ADHESIVE SIDE DOWN) AROUND THE STRUCTURE, REMOVING THE RELEASE PAPER AS YOU GO. PRESS THE JOINT WRAP FIRMLY AGAINST THE STORM ARC MODULE SURFACE WHEN APPLYING. 7. IF THE CONTRACTOR NEEDS TO CANCEL ANY SHIPMENTS, THEY MUST DO SO 48 HOURS PRIOR TO THEIR SCHEDULED ARRIVAL AT THE JOB SITE. IF CANCELED AFTER THAT TIME, PLEASE CONTACT THE PROJECT MANAGER. 8. IF THE STORM ARC MODULE(S) IS DAMAGED IN ANY WAY PRIOR, DURING, OR AFTER INSTALL, GOODFLOW SOLUTIONS MUST BE CONTACTED IMMEDIATELY TO ASSESS THE DAMAGE AND TO DETERMINE WHETHER OR NOT THE MODULE(S) WILL NEED TO BE REPLACED. IF ANY MODULE ARRIVES AT THE JOBSITE DAMAGED DO NOT UNLOAD IT. CONTACT STORM ARC IMMEDIATELY. ANY DAMAGE NOT REPORTED BEFORE THE TRUCK IS UNLOADED WILL BE THE CONTRACTOR'S RESPONSIBILITY. 9. STORM ARC MODULES CANNOT BE ALTERED IN ANY WAY AFTER MANUFACTURING WITHOUT WRITTEN CONSENT FROM GOODFLOW SOLUTIONS.</div>		<div>GENERAL NOTES</div> <div>STORM ARC IS DESIGNED TO BE USED IN CONJUNCTION WITH CONCRETE STRUCTURES TO CREATE ONE OF THE MOST EFFECTIVE AND STRUCTURALLY SUPERIOR STORM WATER DETENTION SYSTEMS IN THE INDUSTRY. ARC PARAMETERS: 1. ARC DIMENSIONS ARE: MD SECTION TOTAL: TOTAL OVERALL WIDTH- 11'-3 11/16" WIDTH FROM OUTSIDE EDGES OF VERTICAL LEGS- 9'-4" TOTAL OVERALL LENGTH INCLUDING KEYWAYS- 4'-4" ASSEMBLED LENGTH- 4' RIGHT END SECTION: TOTAL OVERALL WIDTH- 11'-3 11/16" WIDTH FROM OUTSIDE EDGES OF VERTICAL LEGS- 9'-4" TOTAL OVERALL LENGTH INCLUDING KEYWAY- 4'-4" ASSEMBLED LENGTH- 4' LEFT END SECTION: TOTAL OVERALL WIDTH- 11'-3 11/16" WIDTH FROM THE OUTSIDE EDGES OF VERTICAL LEGS- 9'-4" TOTAL OVERALL LENGTH INCLUDING KEYWAY- 4'-4" ASSEMBLED LENGTH- 4' INSTALLATION DETAILS: 1. STORM ARC SECTIONS ARE DESIGNED TO UTILIZE ANY CONCRETE STRUCTURES THAT HAVE SIDES WHERE THE TOPS FORM RIGHT ANGLES AND WIDTH OF 7' OR WIDER SUCH AS CHAMBERS, VAULTS, CONCRETE BLOCKS ETC. 2. STEEL REINFORCED CONCRETE SLABS ARE USED TO SEAL THE END OF THE ARC ROWS. THE SLABS ARE 12" LONG THE HEIGHT OF THE SLAB WHEN INSTALLED WITH ONE OF THE LONG SIDES DOWN IS 12" LOWER THAN THE HEIGHT OF THE FOUNDATIONAL CONCRETE STRUCTURE AND THE THICKNESS OF THE SLAB IS 4" 3. ANY STRUCTURES UTILIZING STORM ARC HAVE TO BE APPROVED AND CERTIFIED BY GOODFLOW SOLUTIONS. 4. ONCE THE FOUNDATIONAL CONCRETE STRUCTURES ARE INSTALLED LEVEL AND WITH THE PROPER SPACING SET THE END SLABS AT THE BEGINNING OF EACH ARC ROW. THE SLABS OVERLAP THE FOUNDATIONAL STRUCTURES BY 3" ON EACH SIDE. THE SLABS ARE SECURED IN PLACE BY HARDWARE PROVIDED WITH EACH SYSTEM 5. AFTER SLABS ARE PLACED AND SECURED START SETTING THE STORM ARCS. EACH ROW BEGINS BY SETTING A LEFT END SECTION. THE BOTTOM OF THE SOLID END WALL SITS ON THE TOP OF THE SLAB. 6. AFTER END SECTIONS ARE SET, PLACE THE MID-SECTION PIECES WITH THE OVER LAPPING TOP & BOTTOM KEYWAYS TIGHTLY TOGETHER, TO CLOSE OFF THE END OF EACH ARC ROW USE THE SAME PROCESS DESCRIBED IN DETAIL #2. THEN LOWER A RIGHT END SECTION TO SEAL THE END OF EACH ROW. 7. ARC MID-SECTIONS CAN BE PRODUCED IN LENGTHS LESS THAN 4'-4" TO ACCOMMODATE ROWS WITH LENGTHS WHERE STANDARD ARC DIMENSIONS DON'T MATCH FOUNDATIONAL STRUCTURE LENGTHS</div>		<div>1001 1.0</div> <div>STORM ARC - XXXXXX</div> <div>NTS</div> <div>1002 1.0</div> <div>STORM ARC - GENERAL LAYOUT PLAN VIEW</div> <div>NTS</div> <div>NOTES: 1. BEDDING DEPTH SHALL MEET MANUFACTURERS SPECIFICATIONS. 2. THE CITY'S INSPECTING ENGINEERS SHALL VERIFY THE BEARING CAPACITY OF THE NATIVE SOILS TO VERIFY ADEQUATE BEDDING DEPTH IS PROVIDED. 3. AGGREGATE POROSITY WILL BE TESTED AND RESULTS WILL BE PROVIDED TO THE CITY'S INSPECTING ENGINEERS</div>		<div></div> <div>1003 1.0</div> <div>STORM ARC - LAYOUT PLAN VIEW</div> <div>NTS</div>																																							
<div>PRODUCT IDENTIFICATION CHART</div> <div>GOODFLOW STORM ARC - QFA GOODFLOW CHAMBERS : 3.25' TALL X 8' L - QFC - 3 4.25' TALL X 8' L - QFC - 4 5.25' TALL X 8' L - QFC - 5 6.25' TALL X 8' L - QFC - 6 GOODFLOW END SLABS : GOODFLOW 3' TALL END SLAB SOLID "NO KNOCKOUT" - QFS - 3 GOODFLOW 3' TALL END SLAB "WITH PIPE KNOCKOUT" - QFS - K/D - 3 GOODFLOW 4' TALL END SLAB SOLID "NO KNOCKOUT" - QFS - 4 GOODFLOW 4' TALL END SLAB "WITH PIPE KNOCKOUT" - QFS - K/D - 4 GOODFLOW 5' TALL END SLAB SOLID "NO KNOCKOUT" - QFS - 5 GOODFLOW 5' TALL END SLAB "WITH PIPE KNOCKOUT" - QFS - K/D - 5 GOODFLOW 6' TALL END SLAB SOLID "NO KNOCKOUT" - QFS - 6 GOODFLOW 6' TALL END SLAB "WITH PIPE KNOCKOUT" - QFS - K/D - 6 GOODFLOW HARDWARE : GOODFLOW HARDWARE PACKAGE INCLUDING THREADED ROD AND STEEL SLAB ARM - QFH - 1 GOODFLOW MANHOLE - QFMH - 1 - SEE SPECIFICATIONS FOR MANHOLE COVER, RING AND COVER.</div>		<div>FILTER FABRIC SPECIFICATIONS / PROCEDURES</div> <div><table><tr><th colspan="4">SUPER GEOTEXTILE SGT-160 (6 OZ)</th></tr><tr><th>DESCRIPTION</th><th>TEST METHOD</th><th>ENGLISH (MARV)</th><th>METRIC (MARV)</th></tr><tr><td>GRAB TENSILE STRENGTH</td><td>ASTM D 4832</td><td>160 lbs</td><td>0.711 kN</td></tr><tr><td>GRAB ELONGATION</td><td>ASTM D 4832</td><td>50%</td><td>50%</td></tr><tr><td>TRAPEZOID TEAR STRENGTH</td><td>ASTM D 4833</td><td>60 lbs</td><td>0.267 kN</td></tr><tr><td>CBR PUNCTURE RESISTANCE</td><td>ASTM D 6241</td><td>410 lbs</td><td>2.823 kN</td></tr><tr><td>PERMEIVITY 4</td><td>ASTM D 4891</td><td>1.5 sec⁻¹</td><td>1.5 sec⁻¹</td></tr><tr><td>WATER FLOW 4</td><td>ASTM D 4891</td><td>110 gpm/ft²</td><td>4480 l/min/m²</td></tr><tr><td>APPARENT OPENING SIZE (AOS) 384</td><td>ASTM D 4751</td><td>70 Std. U.S. Sieve</td><td>0.212 mm</td></tr><tr><td>UV RESISTANCE</td><td>ASTM D 4355</td><td>70%/500 hrs</td><td>70%/500 hrs</td></tr></table> <div>NOTE: IF NOT UTILIZING A STORM ARC CONCRETE SCOURING PAD AT THE SYSTEM INLET(S), USE 12" WIDE SGT-160 (6 oz) WOVEN FABRIC OR APPROVED EQUAL, CUT A MINIMUM 16' LONG PIECE OF FABRIC, PRIOR TO SETTING THE FIRST 2 ROWS OF CHAMBERS ON EITHER SIDE OF THE INLET AND THE 2ND SLAB WITH THE INLET, LAY OUT THE FABRIC SECTION SO THAT A MINIMUM OF 12" OF FABRIC WILL BE UNDER THE CHAMBER WALLS AND END SLAB WHEN THEY ARE SET IN PLACE.</div></div>		SUPER GEOTEXTILE SGT-160 (6 OZ)				DESCRIPTION	TEST METHOD	ENGLISH (MARV)	METRIC (MARV)	GRAB TENSILE STRENGTH	ASTM D 4832	160 lbs	0.711 kN	GRAB ELONGATION	ASTM D 4832	50%	50%	TRAPEZOID TEAR STRENGTH	ASTM D 4833	60 lbs	0.267 kN	CBR PUNCTURE RESISTANCE	ASTM D 6241	410 lbs	2.823 kN	PERMEIVITY 4	ASTM D 4891	1.5 sec ⁻¹	1.5 sec ⁻¹	WATER FLOW 4	ASTM D 4891	110 gpm/ft ²	4480 l/min/m ²	APPARENT OPENING SIZE (AOS) 384	ASTM D 4751	70 Std. U.S. Sieve	0.212 mm	UV RESISTANCE	ASTM D 4355	70%/500 hrs	70%/500 hrs	<div>PROJECT_NAME: CITY_STATE: ADDRESS_1: ADDRESS_2:</div> <div><div>PRECAST SOLID STORM ARC-001</div><div>PROJECT NO: XXXXXXXXXX DESIGNED BY: XXXXXXXXXX SCALE: AS NOTED</div><div>DATE: XX-XX-XXXX CHECKED BY: XXXXXXXXXX SHEET NO: 1 OF 4</div></div>	
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STORM ARC INSTALLATION SPECIFICATIONS

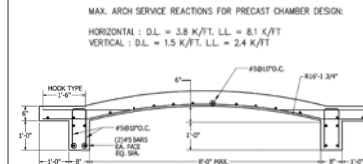
1. THE FILL PLACED AROUND THE STORM ARC MODULES MUST BE DEPOSITED ON BOTH SIDES AT THE SAME TIME AND TO APPROXIMATELY THE SAME ELEVATION. AT NO TIME SHALL THE FILL BEHIND ONE SIDE WALL BE MORE THAN 2'-0" HIGHER THAN THE FILL ON THE OPPOSITE SIDE. BACKFILL SHALL EITHER BE COMPACTED AND/OR VIBRATED TO ENSURE THAT BACKFILL AGGREGATE/STONE MATERIAL IS WELL SEATED AND PROPERLY INTERLOCKED. CARE SHALL BE TAKEN TO PREVENT ANY WEDGING ACTION AGAINST THE STRUCTURE, AND ALL SLOPES WITHIN THE AREA TO BE BACKFILLED MUST BE STOPPED OR SEPARATED TO PREVENT WEDGING ACTION. BACKFILL MUST BE FREE-DRAINING MATERIAL. SEE ZONE 2 BACKFILL CHART ON THIS PAGE FOR APPROVED BACKFILL OPTIONS. IF NATIVE EARTH IS SUSCEPTIBLE TO MIGRATION, CONFIRM WITH THE GEOTECHNICAL ENGINEER AND PROVIDE PROTECTION AS REQUIRED (PROVIDED BY OTHERS).
2. DURING PLACEMENT OF MATERIAL OVERTOP THE SYSTEM, AT NO TIME SHALL MACHINERY BE USED OVERTOP THAT EXCEEDS THE DESIGN LIMITATIONS OF THE SYSTEM. WHEN PLACEMENT OF MATERIAL OVERTOP MATERIAL SHALL BE PLACED SUCH THAT THE DIRECTION OF PLACEMENT IS PARALLEL WITH THE OVERALL LONGITUDINAL DIRECTION OF THE SYSTEM WHENEVER POSSIBLE.
3. THE FILL PLACED OVERTOP THE SYSTEM SHALL BE PLACED IN A MINIMUM OF 6" LIFTS. AT NO TIME SHALL MACHINERY OR VEHICLES EXCEED THE DESIGN HS-20 LOADING CRITERIA TRAVEL OVERTOP THE SYSTEM WITHOUT THE MINIMUM DESIGN COVERAGE. IF TRAVEL IS NECESSARY OVERTOP THE SYSTEM PRIOR TO ACHIEVING THE MINIMUM DESIGN COVERAGE, IT MAY BE NECESSARY TO REDUCE THE ULTIMATE LOAD/BURDEN OF THE OPERATING MACHINERY SO AS TO NOT EXCEED THE DESIGN CAPACITY OR THE SYSTEM. IN SOME CASES, IN ORDER TO ACHIEVE REQUIRED COMPACTION, HAND COMPACTION MAY BE NECESSARY IN ORDER NOT TO EXCEED THE ALLOWED DESIGN LOADING. SEE CHART FOR TRACKED VEHICLE WIDTH AND ALLOWABLE MAXIMUM PRESSURE PER TRACK.
4. FREE DRAINING AGGREGATE - MINIMUM 85% AGGREGATE RETAINED ON 3/4" SIEVE. MAJORITY OF AGGREGATE SIZE BETWEEN 3/4" AND 1 1/2", MAXIMUM OF 5% OF MATERIAL PASSING #3/8 SIEVE.
5. FREE DRAINING, NO FINES, 3" AGGREGATE - MAJORITY OF STONE SIZE IN BETWEEN 1 1/2" AND 3" - VERY SIMILAR TO AASHTO (#1 #2 #3 & #4) STONE AGGREGATE GRADATION.
6. CRUSHED CONCRETE AGGREGATE IS KNOWN TO REACT WITH WATER AND CAN INCREASE THE PH VALUE OF THE GROUND WATER. PRIOR TO USING CRUSHED CONCRETE AGGREGATE IN ZONE 1B, IT IS IMPERATIVE THAT THE USE OF SUCH MATERIAL SHALL BE VERIFIED BY THE ENGINEER OF RECORD AND/OR THE PROJECT GEOTECHNICAL ENGINEER.
7. WHERE DIRECT INLETS ARE TO BE INSTALLED IN THE STORMARC SECTIONS OR A GFC CHAMBER, A 4" CONCRETE ANTI SCOUR PAD OR SIMILAR DEVICE SHALL BE EMPLOYED BELOW THE DIRECT INLET.



BACKFILL DETAIL

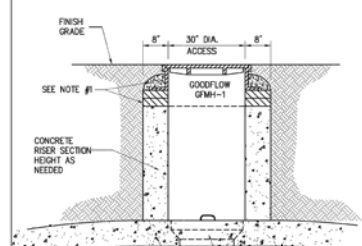
APPROVED ZONE 2 BACKFILL OPTIONS	
OPTION	REMARKS
1-1/2" STONE AGGREGATE	THE STONE AGGREGATE SHALL CONSIST OF CLEAN AND FREE DRAINING ANGULAR MATERIAL. THE SIZE OF THIS MATERIAL SHALL HAVE 100% PASSING THE 2" SIEVE WITH 0% TO 15% PASSING THE 3/4" SIEVE (ASTM SIZE #4). THIS AGGREGATE MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL BY USING GEOFABRIC AROUND THE PERIMETER OR THE BACKFILL AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
SAND	IMPORTED PURE SAND IS PERMITTED TO BE USED AS BACKFILL IF IT IS CLEAN AND FREE DRAINING. THE SAND USED FOR BACKFILLING SHALL HAVE LESS THAN 40% PASSING #40 SIEVE AND LESS THAN 5% PASSING #200 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL BY USING GEOFABRIC AROUND THE PERIMETER OF THE SAND BACKFILL.
CRUSHED CONCRETE AGGREGATE	CLEAN, FREE DRAINING CRUSHED CONCRETE AGGREGATE MATERIAL CAN BE USED AS CRUSHED BACKFILL FOR THE STORM ARC MODULES. THE SIZE OF THIS MATERIAL SHALL HAVE 100% CONCRETE PASSING THE 1" SIEVE OR 10% PASSING THE #4 SIEVE. THIS MATERIAL SHALL BE SEPARATED FROM NATIVE MATERIAL USING GEOFABRIC AROUND THE PERIMETER OF THE BACKFILL.
ROAD PACK	STONE AGGREGATE 100% PASSING THE 1-1/2" SIEVE WITH LESS THAN 12% PASSING THE #200 SIEVE (ASTM SIZE #40). GEOFABRIC AS PER GEOTECHNICAL ENGINEER RECOMMENDATION.

ZONE CHART	
ZONES	ZONE DESCRIPTION
ZONE 1 A	FOUNDATION AGGREGATE
ZONE 1 B	FOUNDATION AGGREGATE (INFILTRATION ALLOWED)
ZONE 2	FOUNDATION AGGREGATE (INFILTRATION NOT ALLOWED)
ZONE 3	FINAL COVER OVERTOP
REMARKS	
#1 (1 1/2") STONE AGGREGATE (SEE NOTE 4)	
3" STONE AGGREGATE (SEE NOTE 5)	
3" RECYCLED CRUSHED CONCRETE (SEE NOTES 5 & 6)	
UNIFIED SOIL CLASSIFICATION (CWL, GP, SW, SP) OR SEE BELOW FOR APPROVED BACKFILL OPTIONS	
MATERIALS NOT TO EXCEED 120 PCF	
FL. DEPTH	TRACK WIDTH
12"	12"
12"	18"
12"	24"
12"	30"
12"	36"
MAX. VEHICLE WEIGHT (LBS)	MAX. GROUND PRESSURE
51.8	1690 PSF
56.1	1219 PSF
68.1	1111 PSF
76.7	1000 PSF
85.0	924 PSF
NOTES:	
TRACK LENGTH NOT TO EXCEED 15'-4"	
ONLY TWO TRACKS PER VEHICLE	

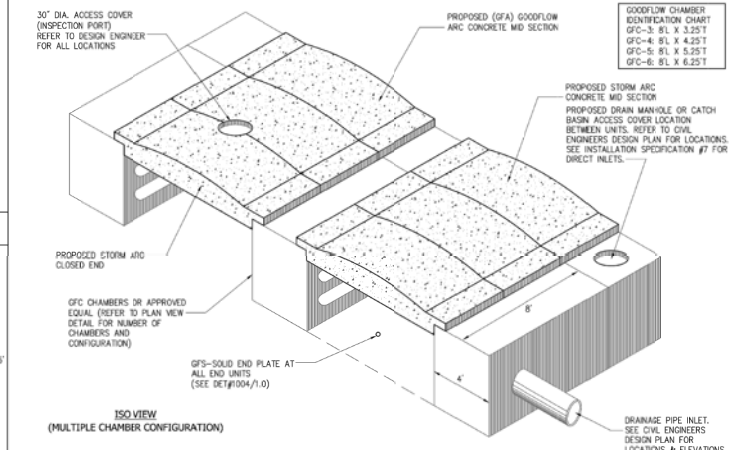


DESIGN NOTES:

1. DESIGN PER AASHTO 318-14 W/AASHTO HS-20 LL
2. FC @ 28 DAYS = 5000 PSI
3. BAR COVER = 1" MIN.
4. UNIT WEIGHT OF SOIL = 120 PSF
5. FILL DEPTH = 0.5' MIN. TO 15.0' MAX.
6. REINFORCEMENT SHALL BE BAR PER ASTM A615, GRADE 60 AND WWR PER ASTM A955/A957, GRADE 65.
7. REINFORCEMENT SHOWN (BAR) MAY BE REPLACED WITH WWR. MAINTAIN MIN. AREA OF STEEL = 0.37 IN²/FT AND MAXIMUM SPACING OF 10".



REINFORCING SECTION NTS RISER SECTION NTS



SYSTEM SIZING CALCULATIONS

TOTAL STORAGE VOLUME REQUIRED = XXXXXXXX C.F.

PROPOSED SYSTEM DESIGN:

XX ROWS OF 3.25' TALL GFC CHAMBERS WITH X STORM ARC ROWS (SEE CROSS SECTION DETAIL)

OVERALL DIMENSIONS: XXXXX FT X XXX FT.

STORAGE AVAILABLE FOR XX FT SECTION = XXXXXXXX C.F.

6'-0" BASE OF 1.5' DOUBLE WASHED CRUSHED STONE NOT INCLUDED IN STORAGE VOLUME.

XXXXX C.F. / XXXXXX C.F. = XXXX FT SECTIONS - USE XX SECTIONS

XX SECTIONS X XX FT = XXX FT

TOTAL STORAGE PROVIDED: XXXXXX C.F. X XXX = XXXXXXXX C.F.

STONE BASE TO EXTEND 1 FT BEYOND CHAMBERS

TOTAL PERIMETER OF SYSTEM INCLUDING STONE BASE = XXXXX FT.

TOTAL AREA OF SYSTEM INCLUDING STONE BASE = XXXXXX S.F.

GOODFLOW MATERIALS REQUIRED:

X' GFC CHAMBERS XX TOTAL

X CORNER UNITS

X END UNITS

XX SIZE UNITS

XXXX MODULE UNITS

STORM ARC SECTIONS: XXXX TOTAL

STORM ARC BACKFILL SPECIFICATIONS CHARTS NTS

GOODFLOW CHAMBER IDENTIFICATION CHART	
GFC-3: 8L X 3.25'	14.41'
GFC-4: 8L X 4.25'	14.08'
GFC-5: 8L X 5.25'	13.08'
GFC-6: 8L X 6.25'	12.08'
GFC-6: 8L X 6.25'	11.41'

GOODFLOW CHAMBER IDENTIFICATION CHART	
GFC-3: 8L X 3.25'	14.41'
GFC-4: 8L X 4.25'	14.08'
GFC-5: 8L X 5.25'	13.08'
GFC-6: 8L X 6.25'	12.08'
GFC-6: 8L X 6.25'	11.41'

NOTE: STACKED CHAMBER OPTION PROVIDES FOR TOTAL CHAMBER HEIGHTS FROM 7.25' TO 12.25'. ALL STACKED CHAMBER DESIGNS MUST BE REVIEWED AND APPROVED BY PWP CONSULTING, INC. AND GOODFLOW SOLUTIONS.

30' DIA. INSPECTION PORT COVER (INSTALL RISER TO WITHIN 6" OF SURFACE ELEVATION)

MIN. 95% COMPACTED BACKFILL WITH GRAVEL OR 3/4" PROCESS

GRASS

FIN. GRADE=XXXX

6" MIN. NON-H2O

6'-0" BASE OF 1.5' DOUBLE WASHED CRUSHED STONE

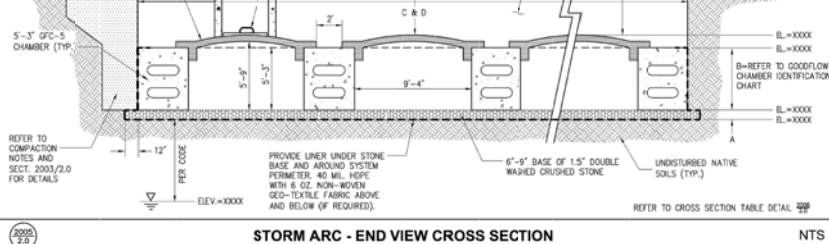
UNDISTURBED NATIVE SOILS (TYP.)

REFER TO CROSS SECTION TABLE DETAIL

ELEVATION STORAGE CHART

STAGE STORAGE	
ELEVATION	STAGE STORAGE
0.00 FT.	0.00 C.F.
1.00 FT.	120.06 C.F.
2.00 FT.	240.12 C.F.
3.00 FT.	360.18 C.F.
4.00 FT.	480.24 C.F.
5.00 FT.	600.30 C.F.
6.00 FT.	720.36 C.F.
7.00 FT.	840.42 C.F.
8.00 FT.	960.48 C.F.
9.00 FT.	1,080.54 C.F.
10.00 FT.	1,200.60 C.F.
11.00 FT.	1,320.66 C.F.
12.00 FT.	1,440.72 C.F.
12.75 FT.	1,411.13 C.F.

NOTE: STORAGE SHOWN IS FOR THE INITIAL CROSS-SECTION OF 1 STORM ARC SECTION, 2 CHAMBER ROWS, AND FOR A SINGLE 8' L.F. CROSS JOB SPECIFIC STAGE-STORAGE CHARTS CAN BE PROVIDED UPON REQUEST.



GOODFLOW SOLUTIONS

Manufacturer of Innovative Septic & Drainage Systems

23 Ryan Street
Stamford, CT 06907
www.GoodFlow.com

PH: (203) 869-2969
F: (203) 869-2977
info@goodflow.com

THIS DRAWING WAS PREPARED TO SUPPORT THE PROJECT ENGINEER OF RECORD FOR THE PROPOSED SYSTEM. IT IS THE ULTIMATE RESPONSIBILITY OF THE PROJECT ENGINEER OF RECORD TO ENSURE THAT THE GOODFLOW SYSTEMS DESIGN IS IN FULL COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. IT IS THE PROJECT ENGINEER OF RECORD'S RESPONSIBILITY TO ENSURE THAT THE GOODFLOW PRODUCTS ARE DESIGNED IN ACCORDANCE WITH GOODFLOW'S MINIMUM REQUIREMENTS. GOODFLOW DOES NOT APPROVE PLANS, SIZING, OR SYSTEM DESIGNS.

PROJECT_NAME:
CITY_STATE:
ADDRESS_1:
ADDRESS_2:

STORM ARC - MULTI CHAMBER LAYOUT NTS

STORM ARC MODEL #XXX	
DESCRIPTION	STORMARC #XXX
A MIN. DEPTH OF STONE BASE	6"
B CHAMBER HEIGHT	PER DESIGN
C MIN. DEPTH REQUIRED OF 95% COMPACTED FILL FOR RAISED TRAFFIC	6"
D MAX. DEPTH OF COVER ALLOWED ABOVE CROWN OF STORM ARC	15'
E MAX. PIPE SIZE TO CHAMBER ENDWALL/ENDCAP	5'

NOTE: SEE ELEVATION STORAGE CHART FOR STAGE-STORAGE VOLUMES

12.25 FT.(MAX.)

6"

13.25 FT.(MAX.)

6"

6' C - DRAINAGE CHAMBER

H1+0.5'

6' C - DRAINAGE CHAMBER

H1+1'

0.00 FT.

NOTES:

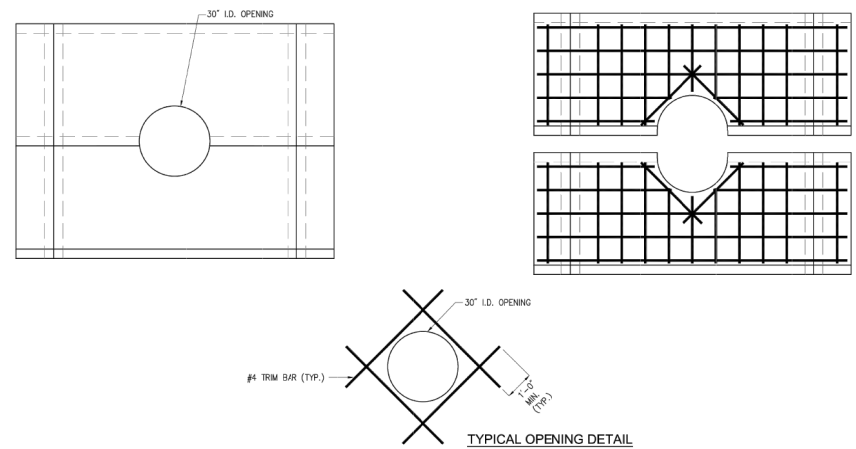
1. STONE BELOW UNITS MAY VARY PER SYSTEM. SEE SYSTEM LAYOUT FOR STONE REQUIREMENTS

2. CONSULT GOODFLOW SOLUTIONS FOR BURIAL DEPTHS OVER 6 FT.

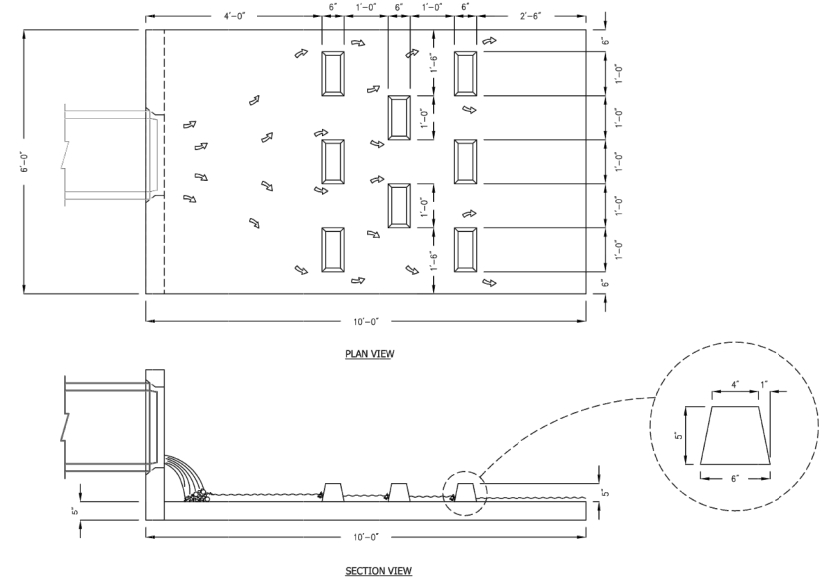
CROSS SECTION TABLE REFERENCE NTS STORAGE CHART CROSS-SECTION

PRECAST SOLID STORM ARC-001	
PROJECT NO: XXXXXXXXXX	DATE: XX-XX-XXXX
DESIGNED BY: XXXXXXXXXX	CHECKED BY: XXXXXXXXXX
SCALE: AS NOTED	SHEET NO: 2 OF 4

<p>ISO VIEW</p>	<p>TOP VIEW</p> <p>SIDE VIEW</p> <p>END VIEW</p>	<p>TOP VIEW</p> <p>SIDE VIEW</p> <p>END VIEW</p>							
<div>3004 3.0</div> <div>STORM ARC - END PLATE</div> <div>NTS</div>	<div>3002 3.0</div> <div>STORM ARC - END SECTION LEFT SIDE VIEW</div> <div>NTS</div>	<div>3001 3.0</div> <div>STORM ARC - END SECTION RIGHT SIDE VIEW</div> <div>NTS</div>							
<p>ISO VIEW</p>	<p>TOP VIEW</p> <p>SIDE VIEW</p> <p>END VIEW</p>	<p>ISO VIEW (OPEN END MALE)</p> <p>ISO VIEW (CLOSED END)</p> <p>SIDE VIEW</p>							
<div>3004 3.0</div> <div>STORM ARC - END PLATE FRONT VIEW</div> <div>NTS</div>	<div>3003 3.0</div> <div>STORM ARC - MID SECTION SIDE VIEW</div> <div>NTS</div>	<div>3000 3.0</div> <div>STORM ARC - END SECTIONS</div> <div>NTS</div>							
<p>SIDE VIEW</p> <p>SLAB CONNECTION SECURED WITH HEXHEAD NUT</p>	<div>3003 3.0</div> <div>STORM ARC - MID SECTION SIDE VIEW</div> <div>NTS</div> <div>1. CONCRETE MUST BE 5000 PSI AT 28 DAYS.</div> <div>2. MAXIMUM SIZE AGGREGATE LESS THAN 5/8" W/C RATIO LESS THAN .45 PRIOR TO ADDITION OF ANY HRWR OR MINEL.</div> <div>3. REBAR IS TO BE TIED @ 10" O.C.E.W. UNLESS NOTED OTHERWISE.</div> <div>4. MINIMUM CONCRETE COVERAGE IS 1.50".</div>	<div>3000 3.0</div> <div>STORM ARC - END SECTIONS</div> <div>NTS</div>							
<div>3004 3.0</div> <div>STORM ARC - END PLATE DETAILS</div> <div>NTS</div>	<div>3003 3.0</div> <div>STORM ARC - MID SECTION SIDE VIEW</div> <div>NTS</div> <div>CONCRETE SPECIFICATIONS</div>	<div>3000 3.0</div> <div>STORM ARC - END SECTIONS</div> <div>NTS</div>							
<div><div></div><div><div>GOODFLOW SOLUTIONS</div><div>Manufacturer of Innovative Septic & Drainage Systems</div><div>23 Ryan Street Stamford, CT 06907 www.GoodFlow.com</div><div>PH: (203) 869-2969 F: (203) 869-2977 info@goodflow.com</div></div></div>	<div>THIS DRAWING WAS PREPARED TO SUPPORT THE PROJECT ENGINEER OF RECORD FOR THE PROPOSED SYSTEM. IT IS THE ULTIMATE RESPONSIBILITY OF THE PROJECT ENGINEER OF RECORD TO ENSURE THAT THE GOODFLOW SYSTEMS DESIGN IS IN FULL COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. IT IS THE PROJECT ENGINEER OF RECORD'S RESPONSIBILITY TO ENSURE THAT THE GOODFLOW PRODUCTS ARE DESIGNED IN ACCORDANCE WITH GOODFLOW'S MINIMUM REQUIREMENTS. GOODFLOW DOES NOT APPROVE PLANS, SIZING, OR SYSTEM DESIGNS.</div>	<div>PROJECT_NAME:</div> <div>CITY_STATE:</div> <div>ADDRESS_1:</div> <div>ADDRESS_2:</div>	<div>PRECAST SOLID STORM ARC-001</div> <table><tr><td>PROJECT NO: XXXXXXXXX</td><td>DATE: XX-XX-XXXX</td></tr><tr><td>DESIGNED BY: XXXXXXXXX</td><td>CHECKED BY: XXXXXXXXX</td></tr><tr><td>SCALE: AS NOTED</td><td>SHEET NO: 3 OF 4</td></tr></table>	PROJECT NO: XXXXXXXXX	DATE: XX-XX-XXXX	DESIGNED BY: XXXXXXXXX	CHECKED BY: XXXXXXXXX	SCALE: AS NOTED	SHEET NO: 3 OF 4
PROJECT NO: XXXXXXXXX	DATE: XX-XX-XXXX								
DESIGNED BY: XXXXXXXXX	CHECKED BY: XXXXXXXXX								
SCALE: AS NOTED	SHEET NO: 3 OF 4								

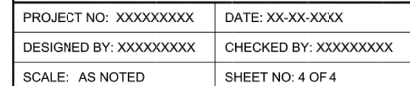


STORM ARC - 30" I.D. OPENING



SECTION VIEW

STORM ARC - SCOUR CONCRETE PAD



Location Map



Bench



Landscape Summary

Street Trees	1,788 L.F.
Street Frontage	51 Trees (1,788 / 35)
Trees Required	51 Trees
Trees Provided	51 Trees
Woodland Replacement	18 Trees
Trees Required	18 Trees
Trees Provided	18 Trees
Sheet L-1	10 Trees

- Notes:
1. Soils Information is Found on Sheet 2.
 2. Trees Shall be Planted no Closer than 10' Driveways, Sanitary Sewer, Utility Structures Including Hydrants and 5' from Utility Lines.
 3. Trees Shall not be Planted within 4' of Property Lines.
 4. Utility Boxes Shall be Screen per Detail on Sheet L-3.
 5. Phragmites and Japanese Knotweed are Not Present on this Site.
 6. Overhead Power Lines are Indicated on the Plan Along 8 Mile.
 7. An Irrigation Plan will be Provided for Stamping Sets.
 8. Snow Deposit will be Along the Streets Between the Curb and Sidewalk.

Seal:



Title:

Landscape Plan

Project:

Mariella Estates
Novi, Michigan

Prepared for:

Bracole Brothers, LLC
48955 Anna Court
Livonia, Michigan 48150
Antoniello Stante, 248.380.9922

Revision:

Submission	May 1, 2024
Revised	November 6, 2024
Revised	February 28, 2025

Issued:

Job Number:

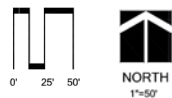
24-023

Drawn By:

jca

Checked By:

jca

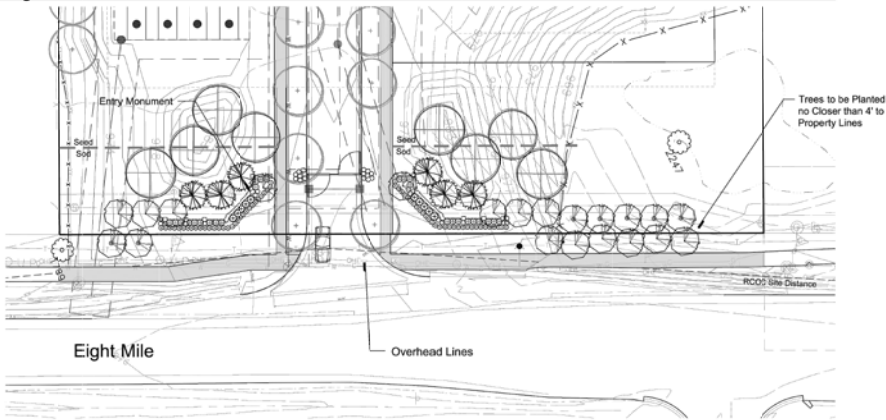


Sheet No.

L-1



Eight Mile Greenbelt



Seal:



Title:

Greenbelt and
Detention

Project:

Mariella Estates
Novi, Michigan

Prepared for:

Bracole Brothers, LLC
48955 Anna Court
Wiscom, Michigan 48393
Antonello Stante, 248.380.9922

Landscape Summary

Greenbelt Plantings	
Eight Mile	
Total Street Frontage	360 l.f.
Less ROW	28 l.f.
Net Frontage	332 l.f.
Canopy Trees Required	8.3 Trees (332 / 40)
Canopy Trees Provided	8 Trees
Sub-Canopy Trees Required	13.3 Trees (332 / 25)
Sub-Canopy Trees Provided	13 Trees
Street Trees	
Eight Mile	
Total Street Frontage	360 l.f.
Less RCOZ Site Vision	294 l.f.
Net Frontage	66 l.f.
Trees Required	1.9 Trees (66 / 35)
Ornamental Trees Provided	5 Trees (1.5 Ornamental per Tree)
Note:	
1. Trees Shall be Planted no Closer than 10' Driveways, Sanitary Sewer, Utility Structures Including Hydrants and 5' from Utility Lines.	
2. Trees Shall not be Planted within 4' of Property Lines.	

Revision:

Issued:

Submission	May 1, 2024
Revised	November 6, 2024
Revised	February 28, 2025

Job Number:

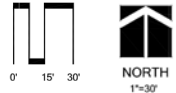
24-023

Drawn By:

jca

Checked By:

jca



Sheet No.

L-2





Title:

Project:

Mariella Estates
Novi, Michigan

Prepared for:

Braciolo Brothers, LLC
48955 Anna Court
Wixom, Michigan 48393
Antonello Stante, 248.380.9922

Revision: Issued:

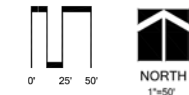
Submission	May 1, 2024
Revised	November 5, 2024
Revised	February 28, 2025

Job Number:

24-023

Drawn By: _____ Checked By: _____

|ca |ca



Sheet No.



Know what's below.
Call before you dig.

L-4



Tree Tag #	Scientific Name	Common Name	DBH (inches)	Condition	Comments	To Be Removed	Replacements	Conflicts
1766	<i>Acer glaberrimum</i>	Smooth Maple	26	Good		Yes		
1768	<i>Aster alpinus</i>	White Spurge	8	Fair	Shed Branches	Yes		
1769	<i>Asplenium platyneuron</i>	Rock Fern	0	Good		Yes		
1770	<i>Aster acrocarpus</i>	White Spurge	22	Fair	Support for Utility Lines	Yes		
1771	<i>Asplenium platyneuron</i>	Rock Fern	0	Good	Shed Branches	Yes		
1772	<i>Malva speciosa</i>	Apple Sucker	39	Fair	Tree Trunk (7.5) 12 Dead Main Branches	Yes		
1773	<i>Asplenium platyneuron</i>	Rock Fern	0	Good	Shed Branches	Yes		
1780	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1781	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1782	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
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1799	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1800	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1801	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1802	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1803	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
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1899	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1900	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1901	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1902	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1903	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1904	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1905	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1906	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1907	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1908	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1909	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1910	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1911	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1912	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1913	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1914	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1915	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1916	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1917	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1918	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1919	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1920	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1921	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1922	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1923	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1924	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1925	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1926	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1927	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1928	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1929	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1930	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1931	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1932	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1933	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1934	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1935	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1936	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good	Shed Branches, Missing Bark	Yes		
1937	<i>Juniperus horizontalis</i>	Horizontal Cedar	38.5	Good				

Total Trees	44 Trees
Regulated Trees Removed	12 Trees

Total Trees	44 Trees
Regulated Trees Removed	12 Trees

Replacement Required		
Trees 8" - 11"	0 trees x 1=	0 Trees
Trees 11" - 20"	0 trees x 2=	0 Trees
Trees 20" - 30"	0 trees x 3=	0 Trees
Trees 30"+	4 trees x 4=	16 Trees
Multi-Stemmed Trees (0 Trees)		0 Trees
Net Replacement Required		16 Trees
Less Credits		6 Trees
Replacement Required		10 Trees

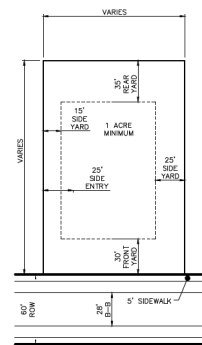
Tree Fence Installation and Removal \$9,102 (1,517 l.f. x \$6 l.f.)






The diagram illustrates a tree in a nursery bed with the following components and layers:

- CRP LINE**: A horizontal line at the top of the tree canopy.
- "T" POLES @ 5' O.C.**: Vertical poles supporting the tree.
- PROTECTIVE FENCING PLACED 1' BEYOND DRIP LINE LIMITS**: A grid-like structure surrounding the tree.
- ORGANIC LAYER**: The top layer of the ground.
- TOP SOIL**: The layer below the organic layer.
- UNDERSTORY PLANTS**: Small plants growing in the top soil layer.
- MINERAL LAYER**: The bottom layer of the ground.

- [illegible]

PARALLEL PLAN



	BOUNDARY LINE
	EXIST. EASEMENT
	SECTION LINE
	BOUNDARY/PROPERTY LINE
	EXIST. WETLAND
	PROP. DETENTION
	PROP. ROAD CENTERLINE
	PROP. ASPHALT

PRELIMINARY - NOT FOR CONSTRUCTION

PROJECT NARRATIVE



February 28, 2024

Ms. Lindsay Bell
City of Novi – Planning Department
45175 West Ten Mile Road
Novi, Michigan 48375

Re: Preserves of Maybury
Planned Rezoning Overlay (PRO) Submittal Package
PREAPP24-01

Dear Ms. Bell,

We are pleased to present to you a proposed single family residential development by Braciolo Brothers LLC. Please accept this letter document, accompanying plans, and supplemental information as the Conceptual PRO submittal for our client's Preserves of Maybury development. We are providing these plans for your distribution and comments.

PROJECT OVERVIEW

The Preserves at Maybury project is a single-family residential community proposed on approximately 9-acres in the City of Novi, Oakland County, Michigan. The proposed development is located on the north side of 8-Mile Road, just west of Garfield Road. The subject property is directly adjacent and surrounded by two RUD developments on either side, the Ballantyne and Parc Vista. The subject parcel and surrounding parcels in the area are currently zoned RA and prominently support development of 1/2-acre lots. The development will utilize the City's Planned Rezoning Overlay (PRO) option to allow for single family housing at a lot size and density more in line with that of the directly adjacent RUD developments. Multiple public benefits are being proposed as a part of the PRO that are at the scale appropriate for a residential development with 10 houses being proposed.

The development will contain private roads and is proposed to be served by public sewer and water located within the 8-mile road right-of-way. These public utilities will have the capacity to serve the development per the city's engineering standards. Storm water management is proposed to be addressed through the construction of an underground detention vault on the west side of the property. The vault will be designed in accordance with the city's requirements.

The development is planned to be constructed in one phase.

PARALLEL PLAN

Under the current RA zoning a maximum of 9 lots would be allowed based on site acreage. However, given geometric challenges of the property as well as providing an access road and stormwater detention, 6 lots are represented on the enclosed parallel plan.

PUBLIC BENEFITS FOR REZONING

The requested R-1 underlay zoning, with a PRO Development Agreement would be the most cohesive option for development of this site to maintain a consistent lot size and product type between the two adjacent developments. Additionally, R-1 zoning is in compliance with the “Single-Family” designation listed for this site in the City of Novi Master Plan. As required with all PRO requests, we offer the following specific public benefits with the PRO project:

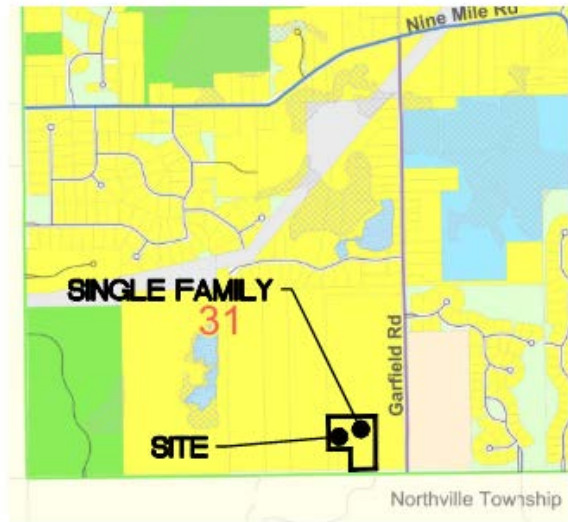
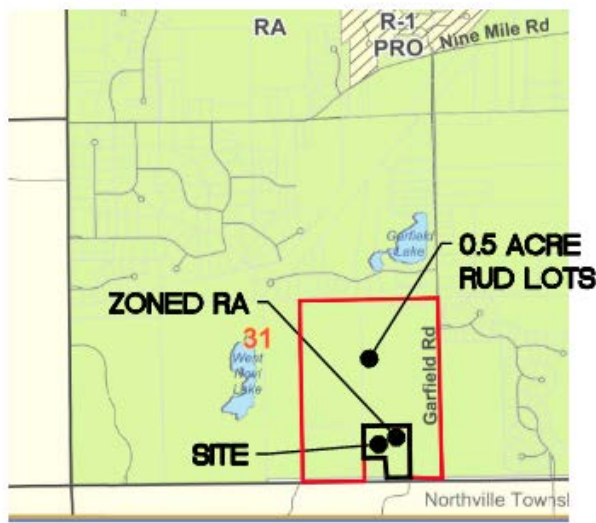
- Public-Use Park: The development proposes an active open space park area indented for use by the residents and the public at large, with direct public access off of 8-Mile Road.
- Public-Use Playground Structure: The development proposes a playground for public use, with direct public access from 8-Mile Road.
- Perimeter Landscape Buffers: The development proposes a minimum 25' perimeter landscape buffer from the lots to the property boundary.
- Increased Open Space: The development proposes an extensive amount of open space for a single-family development (28%) and a majority of the proposed open space is usable active open space.
- Flashing Crosswalk at 8-Mile: The existing 8-mile crosswalk will be upgraded with flashing crosswalk signs.
- Reduced Density: A reduced density of 1.07 units per acre is being proposed. R-1 zoning allows up to 1.65 units per acre.

REQUESTED ORDINANCE DEVIATIONS

Three deviations are being requested, as follows:

- Lots widths for lots 4 and 5 are 98' wide. This is 22' below the 120' minimum lot width required under R-1 zoning as measured at the front setback line. These lots still provide adequate space for the intended housing product, are the two largest lots proposed, and exceed the R-1 minimum lot area requirements for over 10,000 square feet and 5,000 square feet respectively.
- No cul-de-sac is being provided. Given the low volume of traffic that this subdivision will encounter a T-turnaround is being proposed due to geometric constraints and a way to reduce total pavement on site. The dimensions of the proposed turnaround meets current International Fire Code (IFC) requirements.
- A reduced centerline radius of 90 degrees is proposed due to geometric site constraints. This does not provide a safety concern given the short distance of the road, the low travel speed and the minimal traffic volumes expected.

ZONING AND FUTURE LAND USE MAPS (FOR REFERENCE)



CONCLUSION AND SUBMITTAL

We look forward to your earliest review of this development and rezoning proposal. For your record, included with this submittal are the following documents:

- One (1) Site Plan Revision application
- One (1) updated Road and Project Name application
- One (1) Woodland and Wetland Permit application
- Four (4) Site Plans (24" x 36") – signed & sealed by a licensed engineer
- One (1) Response Letter addressing the previous review comments
- One (1) Copy of the Wetland memo
- One (1) Copy of the Parallel plan
- One (1) Copy of the Sign Location Plan

Thank you for your continued assistance and cooperation with respect to this project. If you should have any questions or need any additional information, please contact us.

Sincerely,
ATWELL, LLC

Chris Rothhaar, P.E.
Project Manager

PLANNING REVIEW



PLAN REVIEW CENTER REPORT

Planning Review

March 21, 2025

JZ24-43 Mariella Estates PRO

(fka Preserves of Maybury)

Zoning Map Amendment No. 18.750

APPLICANT

Braciolo Brothers, Inc

REVIEW TYPE

Revised Initial PRO Plan: Consideration of Eligibility

Rezoning Request from RA Residential Acreage to R-1 One Family Residential with a Planned Rezoning Overlay

PROPERTY CHARACTERISTICS

Section	31	
Site Location	West of Garfield Road and North of Eight Mile Road (Parcel 22-31-400-008)	
Site School District	Northville Community School District	
Site Zoning	RA Residential Acreage	
Adjoining Zoning	North	RA Residential Acreage
	East	RA Residential Acreage
	West	RA Residential Acreage
	South	(Northville Township) Maybury State Park
Current Site Use	Farmland	
Adjoining Uses	North	Single Family Residential (under construction)
	East	Single Family Residential
	West	Single Family Residential (under construction)
	South	Maybury State Park/Single Family Residential
Site Size	9.36 acres	
Plan Date	February 28, 2025	

PROJECT SUMMARY

The subject property is located on the north side of Eight Mile Road, west of Garfield Road in Section 31 of the City of Novi. The property to be rezoned totals about 9.36 acres and is currently vacant. The applicant is proposing to develop a 10-unit single family residential development. The development proposes a private street with one entrance off Eight Mile Road with a gated entrance. The applicant is requesting to rezone the site from RA Residential Acreage to R-1 One Family Residential 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 proposed to be changed (in this case from RA

to R-1), and the applicant submits a conceptual plan for development of the site. After Staff and consultant review, the proposed request goes through initial review by the Planning Commission and City Council. Each of those bodies will provide feedback and comments on whether the project meets the eligibility criteria for the PRO process.

The applicant can then make any changes to the Concept Plan based on the feedback received, and resubmit for formal review. The Planning Commission holds a public hearing and makes a recommendation to City Council. The City Council reviews the Concept Plan, and if the plan receives tentative approval, it directs the preparation of an agreement between the City and the applicant, which also requires City Council approval. Following final approval of the PRO concept plan and PRO agreement, the applicant will submit for Preliminary and Final Site Plan approval under standard site plan review procedures. The PRO runs with the land, so future owners, successors, or assignees are bound by the terms of the agreement, absent modification by the City of Novi, or unless otherwise stated in the agreement or terminated.

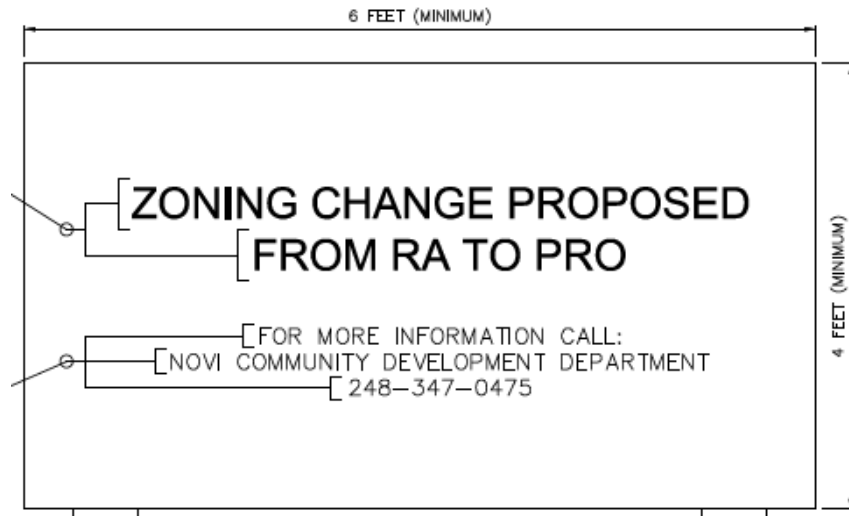
RECOMMENDATION

Staff notes there will not be a significant change in the number of units as a result of the rezoning, with lots that are similar in size to the RUD developments adjacent. The percentage of open space preservation is less than the RUD developments adjacent. The identified benefit of rezoning is the provision of an open space park area with a play structure that will be available to the public. In the interest of the public, the applicant should consider implementing the recommendations of the Active Mobility Plan, as described on page 3.

REVIEW CONCERNS

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. **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. Supporting Documentation: The applicant has provided the following as part of their application packet:
 - a. **Narrative**: The narrative provided states that Rezoning allows for development consistent with the adjacent communities that have developed under a Residential Unit Development (RUD) Agreement – Ballyntine and Parc Vista. This property is not eligible for an RUD as it is less than 20 acres in size, therefore the applicant is seeking a rezoning to R-1 in order to create similar-sized lots. **The applicant indicates 6 lots could be feasibly developed under the existing RA standards when providing an access road and stormwater detention. A “Parallel Plan” has been provided to demonstrate the potential lot layout under RA standards. The change in Residential Equivalent Units (REUs) would be from 6 under the current zoning to 10 with the proposed zoning.**
 - b. The statement also notes the conditions and deviations proposed, as well as public benefits. **Future submittals should be updated to reflect the most current requests, including any deviations.**
 - c. **Traffic Impact Study**: Not required as does not meet the threshold (rezoning to residential category two or more higher).
 - d. **Sign Location Plan**: A sign placement plan and rezoning sign mock-up have been provided for review. **Please change the wording in the 2ND line on the signage to “FROM RA TO R-1 with PRO”.** Signage must be posted on the site a minimum of 15 days prior to the public hearing date. The sign placement is approved for the location shown.



2. Wetland Delineation: The applicant has provided a statement from Atwell indicating the likely presence of a wetland on the site prior to grading that was conducted earlier, however that evaluation was based on a February site visit when no vegetation was growing, and no soil borings were taken. Based on aerial imagery from 2000-present, the southeastern area of the site has exhibited standing water. The wetland area is now shown on the plans, as is a 25-foot wetland buffer that extends onto Lot 1. **The City advises the applicant to conduct further wetland investigation of the area during the growing season as described in Merjent's review letter, including wetland flagging (including U.S. Army Corp of Engineers Data Forms). Further, the applicant should propose a PRO Condition that would provide a physical indication to the future owner of Lot 1 that the wetland buffer shall be protected from mowing/vegetation removal and no structures or impervious surfaces shall intrude into the wetland buffer.**
3. Active Mobility Plan: The City's Active Mobility Plan, adopted in 2024, recommends improvements to the Eight Mile Road crosswalk (flashing beacons or HAWK signal), and coordinating with Maybury State Park to provide a non-motorized connection between the crosswalk and the park entrance. Currently cyclists and pedestrians must use the narrow shoulder on the south side of 8 Mile to access the entrance to the park. While the south side of 8 Mile is in Northville Township, improved safety enhancements to access this important regional recreational destination would benefit Novi residents as well.

The applicant now proposes to upgrade the existing crosswalk with flashing crosswalk signage as a benefit to the public at large. The existing crosswalk is approximately 460 feet east of the entrance to the proposed development, and there is no paved pathway on the south side of the Eight Mile Road to get users of the crosswalk to the entrance of Maybury State Park 270 feet to the west. The applicant states they do not want to pursue paving a pathway or sidewalk on the south side of the road due to grading and drainage concerns, as well as natural features impacts. Given these concerns, consideration should be given to relocate the crosswalk westward, closer to the entrance of Maybury State Park, while also upgrading the crosswalk with flashing signage if a crosswalk study indicates this treatment is warranted. Road Commission for Oakland County would also need to agree to any changes to the crosswalk. This would increase the likelihood of achieving an overall benefit to the public.



Figure 1: Google Street view image of existing crosswalk, just east of the Ballantyne entrance



Figure 2: Aerial view of the crosswalk on the east, with Maybury State Park entrance 270 feet to the west with no non-motorized connection between.

4. Plan Review Chart: The attached chart provides additional comments on many of the Ordinance review standards. Please refer to it in detail and note deviations that may be required if not corrected in the Formal PRO submittal.
5. Other Reviews:
 - a. **Engineering**: Engineering recommends approval of the Initial PRO Plan. Negative impacts to public utilities are not expected with the requested change in zoning. Additional comments shall be addressed in the Site Plan submittal.
 - b. **Landscape**: Landscape review previously recommended approval with the condition that utilities be revised to remove conflicts with required street trees.
 - c. **Traffic**: Traffic review notes that the applicant would need a deviations for centerline radius of the proposed private road, which are below the City standards. Approval is recommended.
 - d. **Woodlands**: The site does not contain regulated woodlands. However, there are 4-5 trees on the site that are regulated as they are 36 inches diameter or greater. A woodland permit would be required for their removal.
 - e. **Wetlands**: Wetlands notes that the plans have been revised to indicate the wetland area. Future submittals shall ensure flagging of wetland area has been completed.
 - f. **Façade**: No elevations of future homes have been provided for review.
 - g. **Fire**: Fire has some additional concerns to be addressed in future submittals. Conditional approval is recommended.

LAND USE AND ZONING: FOR SUBJECT PROPERTY AND ADJACENT PROPERTIES

Figure 1: Current Zoning



Figure 2: Future Land Use



The following table summarizes the zoning and land use status for the subject property and surrounding properties.

	Existing Zoning	Existing Land Use	Master Plan Land Use Designation
Subject Property	Residential Acreage	Vacant	Single Family
Northern Parcels	Residential Acreage	Single family homes	
Eastern Parcels	Residential Acreage	Single family homes	
Western Parcels	Residential Acreage	Single family homes	
Southern Parcels		State Parkland	Public Park

Compatibility with Surrounding Land Use

The subject property is located along the north side of Eight Mile Road, west of Garfield Road. It is surrounded by single family lots and subdivisions. The area to the south of Eight Mile is Maybury State Park in Northville Township. The proposed use consistent with the surrounding existing uses.

The applicant's narrative notes that they have attempted to create a layout that is similar to the adjacent new-construction communities that developed under the Residential Unit Development (RUD) provisions of the Ordinance. Because the subject property is less than 20 acres in size, it is not eligible for RUD consideration.



Figure 3: Names of surrounding developments

Comparison of Zoning Districts

The following table provides a comparison of the current (RA) and proposed (R-1) zoning classifications. The two districts are not significantly different from one another in terms of the types of uses allowed and building style permitted for homes. Differences are noted in bold text.

	RA (EXISTING)	R-1 (PROPOSED)
Principal Permitted Uses	One-family dwellings Farms and Greenhouses Publicly owned and operated parks, parkways and outdoor recreation facilities Home occupations Family day care homes Accessory buildings and uses customarily incidental to any of the above uses	One-family dwellings Farms and Greenhouses Publicly owned and operated parks, parkways and outdoor recreation facilities Home occupations Family day care homes Accessory buildings and uses customarily incidental to any of the above uses
Special Land Uses	<ul style="list-style-type: none"> - Raising of nursery plant materials - Dairies - Keeping and raising of livestock - Places of worship - Public, parochial and private elementary, intermediate or secondary schools - Utility and public service buildings and uses (without storage yards) - Group day care homes, day care centers, and adult day care 	<ul style="list-style-type: none"> - Places of worship - Public, parochial and private elementary, intermediate or secondary schools - Utility and public service buildings and uses (without storage yards) - Group day care homes, day care centers, and adult day care - Private noncommercial recreational areas, institutional or community recreation centers, nonprofit

	RA (EXISTING)	R-1 (PROPOSED)
	<ul style="list-style-type: none"> - Private noncommercial recreational areas, institutional or community recreation centers, nonprofit swimming pool clubs - Golf courses - Colleges, universities, and other such institutions of higher learning - Private pools - Cemeteries - Railroad right-of-way, but not including terminal freight facilities, transfer and storage tracks - Mortuary establishments - Bed and Breakfasts - Limited non-residential use of historic buildings - Accessory buildings and uses incidental to the above 	<ul style="list-style-type: none"> swimming pool clubs - Golf courses - Colleges, universities, and other such institutions of higher learning - Private pools - Cemeteries - Railroad right-of-way, but not including terminal freight facilities, transfer and storage tracks - Mortuary establishments - Bed and Breakfasts - Accessory buildings and uses incidental to the above
Lot Size	1 acre	21,780 sf (1/2 acre)
Lot Width	150 feet	120 feet
Lot Coverage	25%	25%
Building Height	35 ft or 2.5 stories, whichever is less	35 ft or 2.5 stories, whichever is less
Building Setbacks	Front: 45 feet Rear: 50 feet Side: 20 feet min, total 50 ft two sides	Front: 30 feet Rear: 35 feet Side: 15 feet min, total 40 ft two sides
Minimum Floor Area	1000 sf	1000 sf
Dwelling unit density maximum	0.8 dwellings/acre	1.65 dwellings/acre

DEVELOPMENT POTENTIAL

The land is currently vacant. Development under the current Residential Acreage zoning could result in 7 single family lots, based strictly on density permitted. However, the parallel plan provided shows only 6 lots could be fit onto the site given road, lot and stormwater configuration.

The current concept plan proposes the development of 10 single family lots (density of 1.07 dwellings per acre) for a single-family development which is below the 1.65 dwellings/acre maximum density allowed in the R-1 zoning district. The lots all meet the ½-acre minimum lot size, and all comply with the minimum lot width except units 4 and 5 which are somewhat narrower than the 120-foot minimum due to being on the corner of the road. While the provision of “open space” is not required for standard R-1 developments, the proposed plan includes 2.65 acres of open space within the development to mimic what was provided with the adjacent RUD developments. This includes a 25-foot buffer between the lot areas and the adjacent developments, which matches similar buffers on in those developments.

The RUD option allows the City Council to approve deviations from lot size requirements if the development dedicates a portion of the overall land for open space/preservation of natural features. However, the overall density cannot exceed the underlying zoning district. The adjacent Ballantyne and Parc Vista developments both have RUD Agreements that allowed a majority of the lots to meet R-1 District standards (rather than the R-A standards) in exchange for the preservation of a significant area of open space and/or existing wetland and woodland areas. The Parc Vista development preserved 44% of the site and Ballantyne preserved 35.7% of the site as open space while maintaining an overall density of 0.8 dwellings per acre.

The Master Plan for Land Use states the anticipated density for this area is 0.8 dwellings per acre, which is consistent with the existing Residential Acreage zoning.

The applicant provides a reasonable justification for the change of use, but greater density is proposed and less open space is maintained compared to the adjacent developments. This is generally due to the smaller area of land available for development. The small wetland area is now proposed to be retained.

Based on the feedback provided, and any additional comments from the Planning Commission and City Council, the applicant should consider addressing those comments and revise the drawings accordingly before the Formal PRO submittal.

2016 MASTER PLAN FOR LAND USE: GOALS AND OBJECTIVES

The proposed use is currently not recommended by the 2016 Master Plan for Land Use. The following objectives as listed in the Master Plan are applicable for the proposed development. However, at this time the plan follows only a few. **The applicant should consider revisions to the plan to comply with as many goals as possible. Please refer to staff comments in bold and revisions recommended in bold and underline.**

1. General Goal: Quality and Variety of Housing

- a. Provide residential developments that support healthy lifestyles. Ensure the provision of neighborhood open space within residential developments. **The development proposes the required sidewalks along the private street. A portion of the site is to remain undeveloped in open space, with one play structure amenity, which the applicant states would be available for public use. However, as gates are now shown at the entrance it is very unlikely that non-residents would utilize this space.**
- b. Safe housing and neighborhoods. Enhance the City of Novi's identity as an attractive community in which to live by maintaining structurally safe and attractive housing choices and safe neighborhoods.
- c. Maintain existing housing stock and related infrastructure. **No homes would be removed to create the development.**
- d. Provide a wide range of housing options. Attract new residents to the City by providing a full range of quality housing opportunities that meet the housing needs of all demographic groups including but not limited to singles, couples, first time home buyers, families and the elderly. **The development would provide additional housing options in Novi.**

2. General Goal: Community Identity

- a. Maintain quality architecture and design throughout the City. **No architectural drawings have been provided.**

3. General Goal: Environmental Stewardship

- a. Protect and maintain the City's woodlands, wetlands, water features, and open space. The concept plan proposes additional removal of regulated woodlands. **Please refer to the wetland review letter for opportunities to further protect this natural feature.**
- b. Increase recreational opportunities in the City. **The Concept plan proposes a play structure on a park area that is to be available to the public.**
- c. Encourage energy-efficient and environmentally sustainable development through raising awareness and standards that support best practices. **The applicant should consider sustainable, energy-efficient and best-practice design for site elements and building materials, such as LEED recommended strategies.**

4. General Goal: Infrastructure

- a. Provide and maintain adequate water and sewer service for the City's needs. Please refer to the Engineering memo.
- b. Provide and maintain adequate transportation facilities for the City's needs. Address vehicular and non-motorized transportation facilities. With the proximity to Maybury State Park, the applicant has proposed to upgrade the existing crosswalk on 8 Mile Road with flashing crosswalk signs, which is a recommendation in the Active Mobility Plan to provide enhanced connections for pedestrians and bicyclists coming from Novi. However, the location of the existing crosswalk is further east, and there is no paved pathway from the end of the crossing to the entrance to the park. A crosswalk study would be needed to determine the appropriate treatment for the crossing.

5. General Goal: Economic Development / Community Identity

- a. Ensure compatibility between residential and non-residential developments. Please refer to comments about compatibility with surrounding development earlier in this review.

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."* Such deviations must be considered by City Council, who will make a finding of whether to include those deviations in a proposed PRO agreement. A proposed PRO agreement would be considered by City Council only after tentative approval of the proposed concept plan and rezoning.

The Concept Plan submitted with an application for a rezoning with a PRO is not required to contain the same level of detail as a preliminary site plan. Staff has reviewed the applicant's Concept Plan in as much detail as possible to determine what deviations from the Zoning Ordinance are currently shown. The applicant may choose to revise the concept plan to better comply with the standards of the Zoning Ordinance, or may proceed with the plan as submitted with the understanding that those deviations would have to be approved by City Council in a proposed PRO agreement. The previous concept plan required 8 deviations. The revised submittal has reduced that number to 6.

The following are Ordinance deviations that have been requested by the applicant:

1. **Lot Width (Sec 3.1.2.D):** A Zoning Ordinance deviation is requested to reduce the required lot width for lots 4 and 5 to 98 feet (120 feet required). *The deviation is requested for the two pie-shaped lots near the corner of the road.*
Applicant Justification: *These lots still provide adequate space for the intended housing product, are the two largest lots proposed, and exceed the R-1 minimum lot area requirements for over 10,000 square feet and 5,000 square feet respectively.*
2. **Lack of Cul-de-Sac (Code of Ord. Figure VIII-F):** A deviation is required to provide a T-turnaround in lieu of a cul-de-sac at the end of the roadway. **(Note: this deviation is no longer required as the road design meets the appropriate standards.)**
Applicant Justification: *Given the low volume of traffic that this subdivision will encounter a T-turnaround is being proposed due to geometric constraints and a way to reduce total pavement on site. The dimensions of the proposed turnaround meets current International Fire Code requirements.*

3. **Road Centerline Radius** (Code of Ordinances, Sec. 11-194.b.2): Design and Construction Standards deviation for proposed street with 90-foot centerline radius (230-foot radius standard).
Applicant Justification: This does not provide a safety concern given the short distance of the road, the low travel speed, and the minimal traffic volumes expected.

Additional Deviations required:

4. **Screening Berm** (Sec. 5.5.3.B.ii, iii): Landscape deviation for not providing the required berm on the east side of the road adjacent to the Public Right of Way. **This is supported if the existing wetland/pond is preserved, which appears to be shown.**

All deviations from the ordinance requirements shall be identified and included in PRO Agreement. Any additional deviations identified during Site Plan Review (after the Concept Plan and PRO Agreement is approved), will require amendment of the PRO Agreement.

APPLICANT'S BURDEN UNDER PRO ORDINANCE

The Planned Rezoning Overlay ordinance (PRO) requires the applicant to demonstrate that certain requirements and standards are met. The applicant should be prepared to discuss these items, especially in number 1 below, where the ordinance suggests that the enhancement under the PRO request would be unlikely to be achieved or would not be assured without utilizing the Planned Rezoning Overlay. Section 7.13.2.D.ii states the following:

1. (Sec. 7.13.2.D.ii.a) *The PRO accomplishes the integration of the proposed land development project with the characteristics of the project area in such a manner that results in an enhancement of the project area as compared to the existing zoning that would be unlikely to be achieved or would not be assured in the absence of the use of a Planned Rezoning Overlay.*
2. (Sec. 7.13.2.D.ii.b) *Sufficient conditions shall be included on and in the PRO Plan and PRO Agreement such that the City Council concludes, in its discretion, that, as compared to the existing zoning and considering the site specific land use proposed by the applicant, it would be in the public interest to grant the Rezoning with Planned Rezoning Overlay. In determining whether approval of a proposed application would be in the public interest, the benefits which would reasonably be expected to accrue from the proposal shall be balanced against, and be found to clearly outweigh the reasonably foreseeable detriments thereof, taking into consideration reasonably accepted planning, engineering, environmental and other principles, as presented to the City Council, following recommendation by the Planning Commission, and also taking into consideration the special knowledge and understanding of the City by the City Council and Planning Commission.*

The applicant has listed the following conditions in the public interest for consideration:

1. A Public-use Park: The development proposes an active open space park area intended for use by the residents and the public at large, with direct public access off of 8 Mile Road. **As the entrance to the development is gated, Staff has concerns that future residents of the development will seek to exclude non-residents from using the park with the justification that the liability and maintenance are borne by the HOA and therefore it is a private space. Given non-residents are unlikely to use the playground in a gated community, and with the proximity to both Maybury Park and ITC Park playgrounds, Staff does not see much in the way of benefit for the general public.**

2. Public-Use Playground Structure: The development proposes a playground for public use, with direct public access from 8-Mile Road. **See comment above.**
3. Perimeter Landscape Buffers: The development proposes a minimum 25-foot perimeter landscape buffer from the lots to the property boundary. **Only a few areas of the buffer show any landscaping being provided. Additional trees should be planted to be considered as an enhancement of the project.**
4. Increased Open Space: The development proposes an extensive amount of open space for a single-family development (28%) and a majority of the proposed open space is usable active open space. **The only amenity shown in the open spaces is the play structure, which as noted above is unlikely to be utilized by non-residents. Compared to the adjacent RUD developments, this proposal has a lower percentage of open space preserved. The wetland area near 8 Mile is now proposed for preservation.**
5. Overall density shall not exceed 1.07 dwelling units per acre. **This would be more limiting than the 1.6 dwelling units per acre allowed in the R-1 District, and closer to what has been developed in the surrounding neighborhoods.**
6. Flashing Crosswalk at 8-Mile: The existing 8 Mile crosswalk will be upgraded with flashing crosswalk signs. **The existing crosswalk is approximately 460 feet east of the entrance to the proposed development, and there is no paved pathway on the south side of Eight Mile Road to get users of the crosswalk to the entrance of Maybury State Park. The applicant states they do not want to pursue paving for a pathway or sidewalk on the south side of the road due to grading and drainage concerns, as well as natural features impacts. Given these concerns, consideration should be given to relocate the crosswalk westward, closer to the entrance of Maybury State Park, while also upgrading the crosswalk with flashing signage if a crosswalk study indicates this treatment is warranted. Road Commission for Oakland County would also need to agree to any changes to the crosswalk.**
7. If unit model building elevations are provided for review and determined to exceed the standards of the ordinance, that could be considered in the public interest/an enhancement of the project.

Additional conditions to be included in the PRO Agreement, if it should be approved, will likely be added during the review process.

This is a PRO in which the applicant seeks both a rezoning and a list of ordinance deviations. In Staff's opinion the conditions could be further enhanced to result in a positive impact to the public, and we have offered some suggestions for the applicant to consider in this and the other review letters.

The Planning Commission and City Council should offer their thoughts on whether the proposed benefits are sufficient, and whether they have other ideas for improvements to the proposal.

NEXT STEP: PLANNING COMMISSION CONSIDERATION OF ELIGIBILITY

The Planning Commission will have an opportunity to discuss the revised initial PRO submittal and eligibility of the rezoning request from RA to R-1 with a Planned Rezoning Overlay.

As stated in the newly amended PRO Ordinance,

In order to be eligible for the proposal and review of a rezoning with PRO, an applicant must propose a rezoning of property to a new zoning district classification, and must, as part of such proposal, propose clearly-identified site-specific conditions relating to the proposed improvements that,

- (1) *are in material respects, more strict or limiting than the regulations that would apply to the land under the proposed new zoning district, including such regulations or conditions as set forth in Subsection C below; and*
- (2) *constitute an overall benefit to the public that outweighs any material detriments or that could not otherwise be accomplished without the proposed rezoning.*

(See attachment for Full text, including Subsection C)

The next available date for the Planning Commission for initial review and comment on the PRO Plan is Wednesday, April 23, 2025. **Please let me know no later than Tuesday, March 25th, if that date does not work for you. Please ensure that the rezoning signage, revised to indicate "R-1 with PRO" as the requested zoning district, are posted in the appropriate location indicated on the map provided no later than April 3, to give proper notice prior to the public hearing before the Planning Commission.**

CITY COUNCIL CONSIDERATION OF ELIGIBILITY

Following the Planning Commission's initial review of the proposed project, the City Council will likewise have the opportunity to review the PRO proposal and comment on whether the project is eligible for the PRO process.

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 lbell@cityofnovi.org.



Lindsay Bell, AICP, Senior Planner

Attachments:

1. Planning Chart



PLANNING REVIEW CHART: Rezoning to R-1 with PRO

Review Date: March 19, 2025
Review Type: Revised Initial PRO Plan
Project Name: JZ24-43 MARIELLA ESTATES PRO
Plan Date: February 28, 2025
Prepared by: Lindsay Bell, AICP, Senior Planner
Contact: E-mail: lbell@cityofnovi.org; Phone: (248) 347-0484

Bold To be addressed in Formal PRO Plan submittal
Underline To be addressed with Preliminary Site Plan submittal
Bold and Underline Possible deviations to be included as part of PRO agreement
Italics Items to be noted

Item	Required Code	Proposed	Meets Code	Comments
Zoning and Use Requirements				
Master Plan <i>(adopted July 26, 2017)</i>	Single Family, with master planned 0.8 maximum dwelling units per acre.	10 Unit single family residential development (1.07 du/ac)	No	
Zoning <i>(Effective January 8, 2015)</i>	RA: Residential Acreage district	R-1 with PRO	No	PRO Rezoning Requested
Uses Permitted <i>(Sec.3.1.1)</i>	Single Family Dwellings	Single Family dwellings	Yes	
Planned Rezoning Overlay Document Requirements (SDM link: Site Plan & Development Manual)				
Written Statement <i>(Site Plan & Development manual)</i> <i>The statement should describe the following</i>	Potential development under the proposed zoning and current zoning	Not provided	No	Include in written statement how many lots could be developed under current RA zoning, number of REUs for each
	Identified benefit(s) of the development	Stated	Yes	
	Conditions proposed for inclusion in the PRO Agreement (i.e., Zoning Ordinance deviations, limitation on total units, etc.)	Stated	Yes	
Sign Location Plan <i>(Page 23, SDM)</i>	Installed within 15 days prior to public hearing Located along all road frontages	Provided	Yes	See comments in Planning Review. Signage must be posted no later than 15 days prior to public hearing
Traffic Impact Study <i>(Site Plan & Development manual)</i>	A Traffic Impact Study as required by the City of Novi Site Plan and Development Manual.		NA	
Community	- Over 30 acres for		NA	

Item	Required Code	Proposed	Meets Code	Comments
Impact Statement (Sec. 2.2)	permitted non-residential projects - Over 10 acres in size for a special land use - All residential projects with more than 150 units A mixed-use development, staff shall determine			
Market Study	Optional: a Market study to provide a market demand analysis for the proposed project.		NA	
R-1 One-Family Residential, Height, bulk, density and area limitations (Sec. 3.1.2)				
Lot Size (Sec 3.1.2.D)	R-1 zoning requires: • 21,780 sf lot area • 120 ft. lot widths	Minimum area : 21,780 sf Lot width: 98-feet shown in lot table sheet 04 for lots 4 and 5	Yes No	 <u>Lots 4 and 5 require a deviation for lot width</u>
Building Setbacks (Sec 3.1.2.D)	Front: 30 ft.	30 ft	Yes	Proposed to comply based on building footprints
	Side: 15 ft. one side, 40 ft. two sides	40 total, 15-ft minimum	Yes	
	Rear: 35 ft.	35 ft	Yes	
Maximum % of Lot Area Covered (By All Buildings) (Sec 3.1.2)	25%	Not shown	TBD	Provide maximum lot coverage in Formal PRO plan submittal – potentially a condition of development, or to comply at time of plot plan review
Minimum Floor Area (Sec 3.1.2)	1,000 Sq.ft.	3,200-4,300 sq ft. per unit indicated	Yes	<i>Details reviewed at plot plan phase</i>
Building Height (Sec 3.1.2)	35 ft. or 2.5 stories whichever is less	35 feet, 2 stories indicated	Yes	<i>Details reviewed at plot plan phase</i>
Frontage on a Public Street. (Sec. 5.12)	No lot or parcel of land shall be used for any purpose permitted by this Ordinance unless said lot or parcel shall front directly upon a public street, unless otherwise provided for in this Ordinance.	All units front on a proposed private road within the proposed condominium, with access to Eight Mile Road	Yes	Frontage on Private road for individual lots is permitted for a Condominium development
Note to District Standards (Sec 3.6)				
Area Requirements	- Lot width shall be measured between	Lot widths clarified	Yes?	

Item	Required Code	Proposed	Meets Code	Comments
(Sec 3.6A & Sec. 2.2)	two lines where a front setback line intersects with side setback lines. - Distance between side lot lines cannot be less than 90% between the front setback line and the main building.			
Additional Setbacks (Sec 3.6.B)	NA	No off-street parking lots	NA	
Exterior Side yard abutting Streets (Sec 3.6.C)	NA	Side yards abutting residential districts	NA	
Wetland/Water-course Setback (Sec 3.6.M)	25ft. from boundary of a wetland and 25ft. from the ordinary highwater mark of a watercourse is required	Small wetland in SE corner of property – wetland buffer extends onto Lot 1	Yes?	Lot 1 shall include buffer delineation to prevent encroachment/mowing/r emoval of vegetation
Subdivision Ordinance				
Blocks (Subdivision Ordinance: Sec. 4.01)	- Maximum length for all blocks shall not exceed 1,400 ft. - Widths of blocks shall be determined by the conditions of the layout.	Small site, so blocks not longer than 1400 ft.	Yes	
Lots: Sizes and Shapes (Subdivision Ordinance: Sec. 4.02A)				
Lot Depth Abutting a Secondary Thoroughfare (Subdivision Ordinance: Sec. 4.02.A5)	Lots abutting a major or secondary thoroughfare must have a depth of at least 140'	No lots abutting 8 Mile	Yes	
Depth to Width Ratio (Subdivision Ordinance: Sec. 4.02.A6)	Single Family lots shall not exceed a 3:1 depth to width ratio	Maximum of 1.7:1 ratio is maintained	Yes	
Arrangement (Subdivision Ordinance: Sec. 4.02.B)	- Every lot shall front or abut on a street. - Side lot lines shall be at right angles or radial to the street lines, or as nearly as possible thereto.	- All lots front on proposed street - All lots conform to shape requirement	Yes	

Item	Required Code	Proposed	Meets Code	Comments
Streets (Subdivision Ordinance: Sec. 4.04)	Extend streets to boundary to provide access intervals not to exceed 1,300 ft. unless one of the following exists: - practical difficulties because of topographic conditions or natural features - Would create undesirable traffic patterns	No stub streets proposed – recent abutting developments do not have any connecting points to take advantage of	Yes	Extension to the north and west is impractical as the approved subdivisions have no streets available for connection
Topographic Conditions (Subdivision Ordinance Sec 4.03)				
A. Flood plain	Compliance with applicable state laws and City Code Areas in a floodplain cannot be platted	Not Applicable	NA	
B. Trees and Landscaping	Compliance with Chapter 37 and Article 5 of City Zoning Code	Tree survey and Landscape Plans are provided	Yes	
C. Natural Features	To be preserved Lots cannot extend into a wetland or watercourse	Wetland appears to exist on southeast corner of the site – not delineated	No?	
D. Man-made Features	To be built according to City standards	Underground detention proposed	Yes	See Engineering Review letter for detail on SWM Plan comments
E. Open Space Areas	Any Open Space Area shall meet the following: - Require performance guarantee - Shall be brought to a suitable grade - Compliance with zoning ordinance - Except for wooded areas, all ground area should be top dressed with a minimum of 25% of red fescue and a maximum of 20% perennial rye.	A park area with a playground is proposed, with public access permitted	Yes	Usable open space noted in northwestern area of the site – could this area be enhanced with landscaping, benches, gazebo, etc. in order to amenitize it?
F. Non-Access Greenbelt Easements	Along rear or side property lines for reverse frontage lots	75 ft greenbelt between 8 Mile and side yards of nearest lot	Yes	

Item	Required Code	Proposed	Meets Code	Comments
G. Zoning Boundary Screening	A non-residential development abutting a residential development would need screening		NA	
Sidewalks Requirements				
Active Mobility Plan	AMP recommends upgrading nearby crosswalk and providing a trail connection to entrance of Maybury State Park; New subdivision entrances	Applicant proposes upgrading existing crosswalk to include flashing walk signs	TBD	See Planning Review for discussion
Public Sidewalks (Chapter 11, Sec.11-276(b), Subdivision Ordinance: Sec. 4.05)	An 8' wide public sidewalk shall be constructed along all arterial and collector roads except in industrial districts	8' sidewalk existing along Eight Mile Road within ROW	Yes	
Other Requirements				
Development and Street Names	Development and street names must be approved by the Street Naming Committee	Mariella Estates proposed Mariella Lane proposed	Yes	The committee has considered and approved the requested names
Development/ Business Sign	Signage if proposed requires a permit.		TBD	<u>Sign permits are reviewed separately. If deviations are anticipated submit concurrently with Formal PRO</u>
NOTES: <ol style="list-style-type: none"> 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

03/20/2025

Engineering Review

Mariella Estates
JSP24-0043

APPLICANT

Braciolo Brothers LLC

REVIEW TYPE

Revised Initial PRO Plan

PROPERTY CHARACTERISTICS

- Site Location: Located on the north side of 8 Mile Road west of Garfield Road located in section 31 of the City of Novi
- Site Size: 9.36 acres
- Plan Date: 02/28/2025
- Design Engineer: Atwell Group

PROJECT SUMMARY

- Planned Rezoning Overlay Site Plan (PRO): Currently zoned R-A (Residential Acreage), applicant wishes to rezone to R-1.
- Construction of a 10-unit single family residential home development. Site access would be provided via 8 Mile Road.
- Water service would be provided by an extension from the existing 12-inch water main along the north side of 8 Mile Road, along with 2 additional hydrants.
- Sanitary sewer service would be provided by an extension from the existing 8-inch sanitary sewer along the north side of 8 Mile Road.
- Storm water would be collected by a single storm sewer collection system and discharged to an on-site underground detention system.

RECOMMENDATION

Approval of the revised Initial PRO 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 site plan submittal:

COMMENTS

1. Based on the existing zoning RA zoning six homes could be proposed on this site, the new zoning will allow for 10 homes. Engineering does not have any concerns with the 4 additional REUs that would be allowed with this rezoning.
2. Applicant must obtain RCOC approval for the approach tapers prior to final PRO plan approval. Permit will not be required at that time, but applicant must have RCOC review the approach location. Engineering does not have concerns with the proposed approach tappers.
3. Sheet 04 Layout Notes state that the road will not be gated and that roads will be private, the plan shows a gate at the entrance and the road is labeled with 60' ROW. Clarify if roads will be private, revise note to state 60' private road ROW.
4. Provide a utility crossing table at the time of the site plan submittal.
5. 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.
6. Indicate if an entrance streetlight shall be proposed. The City of Novi has a streetlighting program where the city pays for one standard streetlight at the entrance of subdivisions. This would be an agreement with DTE, if a decorative streetlight is proposed the applicant/HOA will need to pay the difference in cost.

WATER MAIN

7. All public water main shall be within a dedicated water main easement.
8. Additional details shall be provided at time of site plan submittal. Profiles shall be needed at time of final site plan submittal.
9. EGLE water main permit will be required for the main extension, the application can be submitted at time of final site plan submittal.

SANITARY SEWER

10. All public sanitary sewer shall be within a dedicated sanitary sewer easement.
11. Sanitary sewer should be relocated outside of the pavement to the east and north side of Mariella Lane.
12. EGLE sanitary sewer extension permit shall be required prior to the pre-con meeting, EGLE application can be submitted at time of final site plan submittal.

STORM SEWER

13. A minimum cover depth of 3 feet shall be maintained over all proposed storm sewer. Provide profiles for all storm sewer 12-inch and larger at time of site plan submittal.
14. Provide Storm sewer basis of design table at time of site plan submittal.

STORM WATER MANAGEMENT PLAN

15. The proposed outlet location is acceptable, the applicant should ensure that the existing driveway culverts have adequate capacity and are cleaned out as part of this project.
16. The Ballantyne storm water detention basin does not outlet to the wetlands near the entrance of Mariella Estates.
17. Provide supporting calculations for the runoff coefficient determination. C factor greenspace shall be based on hydrologic soil type.
18. Provide the overland routing that would occur in the event the underground system cannot accept flow. This route shall be directed to a recognized drainage course or drainage system.
19. Provide a soil boring in the vicinity of the proposed underground detention system to determine bearing capacity and the high-water elevation of the groundwater table.
20. Provide inspection ports throughout the underground detention system at the midpoint of all storage rows. Additional inspection ports may be required for systems larger than 200 feet. Inspection ports shall be a minimum of 8-inches.
21. For piped/chamber systems the underground storage system shall include 4-foot diameter manholes at one end of each row for maintenance access purposes. Manholes are shown on plans.
22. Provide critical elevations for the detention system. Also, provide a cross-section for the underground detention system. Ensure that there is at least 1 foot of freeboard between the 100-year elevation and the subgrade elevation beneath the proposed park area.
23. The underground detention system shall be kept outside of the influence of any planting areas. Show manhole locations on landscaping sheets.

PAVING & GRADING

24. Provide a construction materials table on the Paving Plan listing the quantity and material type for each pavement cross-section being proposed.
25. Label specific ramp locations on the plans where the detectable warning surface is to be installed.
26. Provide existing and proposed contours on the Grading Plan at the time of the Final Site Plan submittal.
27. Site grading shall be limited to 1V:4H (25-percent), regrade or relocate the proposed home and driveway on lot 8 so that the slopes steeper than 1V:4H are not on the proposed on the residential lot.
28. Retaining walls that are 48-inches or larger shall need a permit from Building Department.
29. A retaining wall that has a grade change of 30" or more within a 3' horizontal distance will require a guardrail.
30. Soil borings along the proposed road will be required at 500-foot intervals per Section 11-195(d) of the Design and Construction Standards.

OFF-SITE EASEMENTS

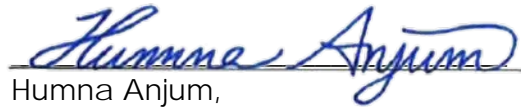
31. No off-site easements anticipated at this time.

THE FOLLOWING MUST BE SUBMITTED WITH THE NEXT SUBMITTAL:

32. A letter from either the applicant or the applicant's engineer must be submitted with the Stamping Set 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.**

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,
Project Engineer

cc: Lindsay Bell, Community Development
Milad Alesmail, Engineering
Ben Croy, City Engineer

LANDSCAPE REVIEW



PLAN REVIEW CENTER REPORT

November 14, 2024

Preserves of Maybury

Initial PRO Concept Plan - Landscaping

Review Type

Initial PRO Concept Plan Landscape Review

Job

JZ24-43

Property Characteristics

- Site Location: 8 Mile Road west of Ballantyne
- Site Acreage: 9.36 ac.
- Site Zoning: RA
- Adjacent Zoning: North, East, West: RA, South: Maybury State Park
- Plan Date: 11/6/2024

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 revised Preliminary Site Plan submittal. Underlined items must be addressed on the Final Site Plans. Please follow guidelines of the Zoning Ordinance and Landscape Design Guidelines. 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 of the concept**. Some revisions to the utility and landscaping must be made for the project to be compliant with City landscape requirements, but that could be done within the current lot and road layout.

LANDSCAPE DEVIATIONS THAT ARE REQUIRED FOR THE PROPOSED LAYOUT:

- Lack of screening berm east of driveway – *not supported by staff unless the pond is preserved.*

Please revise the utilities to provide room for all of the required interior street trees.

Ordinance Considerations

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

1. Tree survey is provided but it doesn't include offsite trees within 50 feet of the project.
Please add the offsite trees within 50 feet of the project to the tree survey.
2. There is a pond at the southwest corner of the site that extends onto the Ballantyne property, and is being partially filled to create Lot 1. **See the Merjent letter regarding this.**
3. Please add tree protection fencing for all trees to be saved.

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

1. The project is only adjacent to other single-family residential property so no screening between the developments is required.
2. **While a berm is not required, dense evergreen hedges must be added to the ends of both of the turnaround legs to shield the residences in the adjacent developments from headlights.**

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

1. Only one of the required berms is proposed. **This would require a deviation** that would not be supported by staff unless the pond is preserved as it is, a berm was proposed where it could be, and the required landscaping is provided across the frontage, including on the pond's banks.
2. **Please provide the additional subcanopy tree that is required.**
3. The required street trees are provided.

Interior Street Trees (Zoning Sec 5.5.3.F.iii)

1. The required street trees are shown.
2. There are a number of areas where the required spacing between the trees and the underground utilities is not provided. **If they couldn't be planted, a deviation would be required.** That deviation would not be supported by staff.
3. **Please revise the underground utility layout such that the required spacing between curb, tree and underground utility lines can be met.**

Plant List (LDM 4, 10)

Please provide a plant list on the Final Site Plans at the very latest.

Planting Notations and Details (LDM 10)

Provided

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

1. Underground detention is proposed. If that is approved by engineering, no detention basin landscaping is required.
2. **If above-ground detention is required, detention basin landscaping will also be required.**

Irrigation (LDM 10)

1. If an irrigation system will be used, a plan for it must be provided with Final Site Plans.
2. If 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 – Initial PRO Concept Plan

Project name: JZ24-43: Preserve at Maybury
 Property location: 8 Mile Road, west of Ballantyne subdivision
 Plan Date: November 6, 2024
 Review Date: November 14, 2024
 Reviewed by: Rick Meader, Landscape Architect, LLA rmeader@cityofnovi.org, (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 for Final Site Plan.

LANDSCAPE DEVIATIONS REQUIRED FOR PROPOSED PLAN:

- Lack of screening berm east of driveway – *not supported by staff unless the pond is preserved.*

Item	Required	Proposed	Meets Code	Comments
Landscape Plan Requirements (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 • Consistent with plans throughout set 	1" = 50'	Yes	
Project Information (LDM 2.d.)	Name and Address	Location map provided	Yes	
Owner/Developer Contact Information (LDM 2.a.)	Name, address and telephone number of the owner and developer or association	On title block	Yes	
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 signature and seal	Yes	
Miss Dig Note (800) 482-7171 (LDM.3.a.(8))	Show on all plan sheets	On title block	Yes	
Zoning (LDM 2.f.)	Include all adjacent zoning	<u>Shown on location map</u> Site: RA North, East & West: RA	Yes	Please show zoning of adjacent parcels on Sheet LS-1

Item	Required	Proposed	Meets Code	Comments
		South: Northville Twp		
Survey information (LDM 2.c.)	<ul style="list-style-type: none"> • Legal description or boundary line survey • Existing topography 	<ul style="list-style-type: none"> • Sheet 2 	<ul style="list-style-type: none"> • Yes 	
Existing plant material Existing woodlands or wetlands (LDM 2.e.(2))	<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 on L-4 • All tree removals are indicated on L-4 • Woodland replacement calculations and trees are provided • Existing pond at southwest corner of site appears to be partially filled in to create Lot 1 	<ul style="list-style-type: none"> • Yes • Yes • Yes • TBD 	<ol style="list-style-type: none"> 1. Please provide a current wetland delineation. 2. See the Merjent review for a complete discussion of the trees and wetlands. 3. Offsite trees within 50 feet of the limits of disturbance should be added to the tree survey.
Soil types (LDM.2.r.)	<ul style="list-style-type: none"> • As determined by Soils survey of Oakland Co. • Show types, boundaries 	Sheet 2 – Fox Sandy loam and Glynwood loam	Yes	
Existing and proposed improvements (LDM 2.e.(4))	Existing and proposed buildings, easements, parking spaces, vehicular use areas, and R.O.W	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"> • Proposed storm water system, including underground storage, is shown • Water and sanitary lines and structures are also shown 	<ul style="list-style-type: none"> • Yes • Yes 	<ol style="list-style-type: none"> 1. Please adjust the layout of the sanitary line to leave room for the required street trees. There should be 10 feet of space between a tree trunk and an underground storage line. 2. There should also be 5 feet of space between a tree and water line, and at least 3 feet between the tree and the curb.
Proposed grading. 2' contour minimum (LDM 2.e.(1))	Provide proposed contours at 2' interval	<ul style="list-style-type: none"> • Sheet 6 • The required berms along the 8 Mile Road frontage are not shown on the grading plan. • One berm is shown on the 	Yes	The grading shown should be consistent between the grading plan and landscape plan

Item	Required	Proposed	Meets Code	Comments
		west side of the development's road.		
Snow deposit (LDM.2.q.)	Show snow deposit areas on plan	<ul style="list-style-type: none"> No areas are shown A note indicates that snow will be deposited along the road, between the curb and sidewalk 	TBD	
LANDSCAPING REQUIREMENTS				
Parking Area Landscape Requirements LDM 1.c. & Calculations (LDM 2.o.)				
General requirements (LDM 1.c)	<ul style="list-style-type: none"> Clear sight distance within parking islands No evergreen trees 	No parking areas are proposed		
Name, type and number of ground cover (LDM 1.c.(5))	As proposed on planting islands	NA		
General (Zoning Sec 5.5.3.C.ii)				
Parking lot Islands (a, b. i)	<ul style="list-style-type: none"> A minimum of 300 SF to qualify 6" curbs Islands minimum width 10' BOC to BOC 	NA		
Curbs and Parking stall reduction (c)	Parking stall can be reduced to 17' and the curb to 4" adjacent to a sidewalk of minimum 7ft.	NA		
Plantings around Fire Hydrant (d)	No plantings with matured height greater than 12' within 10 ft. of fire hydrants or other utility structures, and 5 feet from underground utility lines	It appears that trees are correctly spaced from structures, but not all of the lines	No	<ol style="list-style-type: none"> Please add a note to all sheets with plantings clearly stating that trees must be planted at least 10 feet from utility structures and 5 feet from underground utility lines. Please show lines a little heavier so conflicts can be avoided. Please revise the utility layout to provide room for all required trees.
Landscaped area (g)	Areas not dedicated to parking use or driveways exceeding 100 sq. ft.	NA		

Item	Required	Proposed	Meets Code	Comments
	shall be landscaped			
Clear Zones (LDM 2.3.(5))	<ul style="list-style-type: none"> 25 ft corner clearance required at Garfield Road entry. Refer to diagram from Section 5.5.9 RCOC guidelines to determine required clear vision zone for 8 Mile Road entry. 	The RCOC clear zone is shown and no trees are located within it	Yes	If the RCOC does not allow any or all of the street trees shown along 8 Mile Road, they do not need to be planted, but a copy of their decision must be provided to the City.
Berms, Walls and ROW Planting Requirements				
Berms				
<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.A and LDM 1.a)				
Berm requirements (Zoning Sec 5.5.A)	Adjacent Zoning is RA	NA		
Planting requirements (LDM 1.a.)	LDM Novi Street Tree List	NA		Although a berm is not required between single family residential developments, a dense evergreen hedge should be placed at both end sections of the turnaround to block headlights from impacting the residences in adjacent developments.
Adjacent to Public Rights-of-Way (Zoning Sec 5.5.3.A and LDM 1.b)				
Cross-Section of Berms (Zoning Sec 5.5.3.B and LDM 2.j)				
Slope, height and width (Zoning Sec 5.5.3.A.v)	<ul style="list-style-type: none"> Label contour lines Maximum 33% slope Min. 4 feet crest 	Provided	Yes	
Type of Ground Cover		Lawn	Yes	
Setbacks from Utilities	Overhead utility lines and 15 ft. setback from edge of utility or 20 ft. setback from closest pole	Overhead utilities are shown along 8 Mile Road	Yes	
Walls (LDM 2.k & Zoning Sec 5.5.3.vi)				
Material, height and type of construction footing	Freestanding walls should have brick or stone exterior with masonry or concrete interior	None proposed		

Item	Required	Proposed	Meets Code	Comments
Walls greater than 3 ½ ft. should be designed and sealed by an Engineer		NA		
ROW Landscape Screening Requirements (Sec 5.5.3.B. ii)				
Greenbelt width (2)(3) (5)	34 ft./40-foot non-access easement	75 ft	Yes	
Min. berm crest width	4 ft.	A large berm is proposed west of the drive, but not east of it due to the pond.	No	<ol style="list-style-type: none"> 1. Please provide the berm on the east side of driveway for as much of the 8 Mile road frontage as possible 2. A landscape waiver is required for the proposed configuration – it would not be supported by staff unless the pond is preserved in its current configuration and the required landscaping is provided around the banks.
Minimum berm height (9)	4 ft.	See above	No	
3' wall (4) (7)	NA	No walls are proposed		
Canopy deciduous or large evergreen trees (Sec 5.5.3.B)	<ul style="list-style-type: none"> • 1 tree per 40 l.f.; • 8 Mile Road (360-28)/40= 8 trees 	8 trees	Yes	
Sub-canopy deciduous trees (Sec 5.5.3.B)	<ul style="list-style-type: none"> • 1 tree per 25 l.f.; • 8 Mile Road (360-28)/25= 13 trees 	12 trees	No	Please add another subcanopy tree.
Street Trees (Sec 5.5.3.B and LDM 2)	<u>External Trees</u> <ul style="list-style-type: none"> • 1 tree per 35 l.f.; • 8 Mile Road (360-180)/35= 5 trees or 8 subcanopy trees <u>Internal streets</u> <ul style="list-style-type: none"> • 1 tree per 35 lf • 1788/35 = 51 trees 	<u>8 Mile Road:</u> 14 subcanopy trees <u>Internal streets:</u> 51 trees	<ul style="list-style-type: none"> • Yes • Yes 	
Island & Boulevard Planting (Zoning Sec 5.5.3.f.ii & LDM 1.d.(1)(e))	<ul style="list-style-type: none"> • Must be landscaped & irrigated • Mix of canopy/sub-canopy trees, shrubs, groundcovers, etc. • No plant materials between heights of 3-6 	No islands are proposed		

Item	Required	Proposed	Meets Code	Comments
	feet as measured from street grade			
Transformers/Utility boxes (LDM 1.e from 1 through 5)	<ul style="list-style-type: none"> A minimum of 2ft. separation between box and the plants Ground cover below 4" is allowed up to pad. No plant materials within 8 ft. from the doors 	None shown	TBD	<ol style="list-style-type: none"> When location of transformer/utility boxes is determined, add landscaping per city requirements. Add a note to this effect to the plans.
Detention/Retention Basin Requirements (Sec. 5.5.3.E.iv)				
Planting requirements (Sec. 5.5.3.E.iv)	<ul style="list-style-type: none"> Clusters of large shall cover 70-75% of the basin rim area at 10 feet from the bottom or permanent water level. Canopy trees at 1/35 lf measured at 10 feet above the bottom or permanent water level around the east, west and south sides of the basins -woodland replacement trees may be used to meet this requirement. 10" to 14" tall grass along sides of basin 	An underground detention basin is proposed	§ NA	If above-ground detention is required, it must be landscaped per the current standards.
Phragmites and Japanese Knotweed Control (Sec 5.5.6.B.i)	<ul style="list-style-type: none"> Any and all populations of Phragmites australis and/or Japanese Knotweed on site shall be included on tree survey. Treat populations per MDEQ guidelines and requirements to eradicate the weed from the site. 	None indicated	TBD	<ol style="list-style-type: none"> Please survey the site for any populations of Phragmites australis and show its location on the topographic survey or landscape plan. If some is found, add plans for its removal. If none is found, please indicate that on the survey.
LANDSCAPING NOTES, DETAILS AND GENERAL REQUIREMENTS				
Landscape Notes – Utilize City of Novi Standard Notes				
Installation date (LDM 2.i. & Zoning Sec 5.5.5.B)	Intended dates of planting should be between Mar 15 – Nov 15	Mar 15-Nov 15	Yes	
Maintenance & Statement of intent (LDM 2.m & Zoning	<ul style="list-style-type: none"> Include statement of intent to install and guarantee all 	Both notes included	Yes	

Item	Required	Proposed	Meets Code	Comments
Sec 5.5.6)	materials for 2 years. • Include a minimum one cultivation in June, July and August for the 2-year warranty period.			
Plant source (LDM 2.n & LDM 3.a.(2))	Shall be northern nursery grown, No.1 grade	Yes	Yes	
Irrigation plan (LDM 2.s.)	A fully automatic irrigation system and a method of draining is required with Final Site Plan or alternative means of providing sufficient water for plant establishment and long-term survival	No		<u>Need for final site plan</u>
Other information (LDM 2.u)	Required by Planning Commission	NA		
Establishment period (Zoning Sec 5.5.6.B)	2 yr. Guarantee	Yes	Yes	
Approval of substitutions. (Zoning Sec 5.5.5.E)	City must approve any substitutions in writing prior to installation.	Yes	Yes	
Plant List (LDM 4, 11) – Include all cost estimates				
Quantities and sizes	See Table 11.b.(2)(a).i	Shown in plant lists	Yes	
Root type	• B&B or Cont	Shown in plant lists	Yes	
Botanical and common names	• Species native to Michigan shall constitute at least 50% (preferably more) of the plants used, not including woodland replacements or seed mix species. • Non-woodland replacement trees shall conform to the LDM Section 4 standards for diversity	No plant list is provided	TBD	<u>Please provide a plant list no later than the Final Site Plans, preferably on Preliminary Site Plans</u>
Type and amount of lawn		Not shown on plans	TBD	<u>Please clearly indicate which areas are to be seeded with which type of seed on plan view</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	Refer to LDM for detail	Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
Tree	drawings			
Evergreen Tree		Yes	Yes	
Multi-stem Tree		Yes	Yes	
Shrub		Yes	Yes	
Perennial/ Ground Cover		Yes	Yes	
Tree stakes and guys. (Wood stakes, fabric guys)		Yes	Yes	
Tree protection fencing	Located at Critical Root Zone (1' outside of dripline)	Yes	Yes	
Other Plant Material Requirements (LDM 3)				
General Conditions (LDM 3.a)	Plant materials shall not be planted within 4 ft. of property line	No	No	<u>Please add note near property lines.</u>
Plant Materials & Existing Plant Material (LDM 3.b)	Clearly show trees to be removed and trees to be saved.	<ul style="list-style-type: none"> • All but 2 of the trees on-site will be removed. • No protective tree fencing for the trees to remain on or off-site is shown 	<ul style="list-style-type: none"> • Yes • No 	1. Please leave tree labels for trees to be saved on Landscape Plans L-1 2. Please add tree protection fencing for all trees within 50 feet of the project work area to be saved.
Landscape tree credit (LDM3.b.(d))	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 3.c)	Refer to Chapter 37, LDM for more details	No plant list is provided	TBD	<u>Please use correct sizes for plant material on the plant list when it is provided.</u>
Plant size credit (LDM3.c.(2))	NA			
Prohibited plants (LDM 11.b(2)b)	No plants on City Invasive Species List	No species are specified	TBD	
Recommended trees for planting under overhead utilities (LDM 3.e)	Label the distance from the overhead utilities			
Collected or Transplanted trees (LDM 3.f)		None		

Item	Required	Proposed	Meets Code	Comments
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. 	Yes	Yes	

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. 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.

WETLAND REVIEW



March 19, 2025

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

Submitted electronically to lbell@cityofnovi.org

Re: Preserves of Maybury Planned Rezoning Overlay Wetland Review (revised Initial Concept Plan; JZ24-43)

Dear Lindsay,

Merjent, Inc. (Merjent) has conducted a site plan review of the planned rezoning overlay (PRO) for the revised Initial Concept PRO Plan (rICP) for Preserves of Maybury (site). Two sets of plans were provided:

- One plan prepared by Atwell dated February 28, 2025. This plan contains the primary design/engineering information for the ICP.
- One plan prepared by Allen Design dated February 28, 2025. This plan contains the landscape and woodland replacement information for the ICP.

Merjent reviewed the plans for conformance with the City of Novi's (City) current Wetlands and Watercourse Protection Ordinance, Chapter 12 Article V. The site is located approximately at 49680 Eight Mile Road in Section 31 of the City (Parcel No. 50-22-31-400-008). The site contains City-regulated wetlands (**Figure 1**).

An ICP review of woodlands was completed for the site on December 3, 2024 and deficiencies were found that required addressing wetland issues at the site.

Wetlands

Wetland Recommendation: Merjent **recommends approval** of the Preserves of Maybury rICP **with requests for edits** for future submittals. Additional comments have been provided to meet 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 1**). Although not depicted on the City of Novi's interactive regulated wetland map viewer (**Figure 1**), this should be used as an initial planning tool and does not constitute the presence or absence of City-regulated wetlands.
- ☐ 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 may be required for this project:

Item	Required/Not Required
Wetland Permit (specify Non-minor or Minor)	Likely Required (see Comment 1(a)(ii))
Wetland Mitigation	Likely Not Required
Environmental Enhancement Plan	Likely Not Required
Wetland Buffer Authorization	Likely Required
EGLE Wetland Permit	Likely Not Required*
Wetland Conservation Easement	Likely Required (see Comment 5)

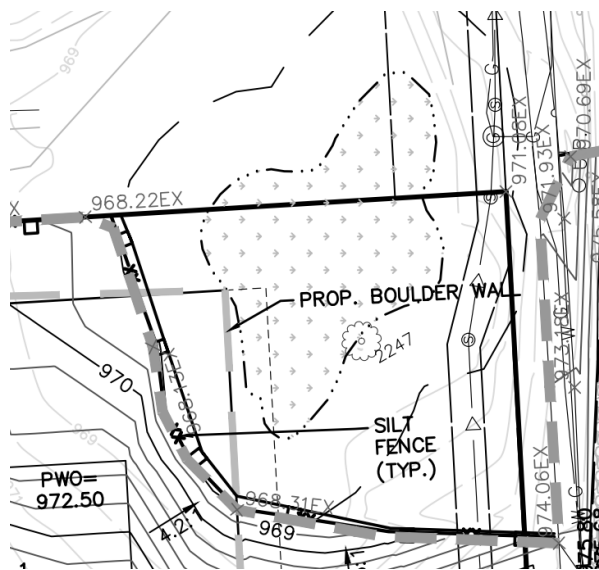
*Final determination is at the discretion of EGLE

Wetland Review Comments

1. As noted in PREAPP24-01 (49680 Eight Mile Subdivision) and the ICP Review from December 2024, it is possible that a wetland may be present in the southeastern portion of the site. The applicant provided a March 19, 2024 *Wetland Delineation and Threatened and Endangered Species Assessment* and stated that the southeastern portion of the site was flooded during a February site visit. The applicant states that the area exhibited minimal hydrophytic vegetation. However, with the site visit being conducted during February (outside of the growing season), no vegetation was likely growing whether hydrophytic or not. Merjent recommends the applicant conduct a growing season wetland delineation to verify the presence or absence of hydrophytic vegetation. Additionally, the applicant states that historical aerial review of the site indicates that wetland signatures may be present on-site.
 - a. The applicant provided a February 14, 2025 response letter that requests that the historic footprint of the feature be utilized based on a March 3, 2020 aerial image. It should be noted that boundaries should be determined based on current conditions on-site. Whether the applicant determines the area be considered a watercourse or wetland, Section 12-171 states that *"It shall be unlawful for any person to conduct any activities within a watercourse or wetland location without first having obtained a use permit upon proper application. Activities requiring a use permit include but are not limited to the following: (1) Depositing or permitting the depositing of any material including structures into, within or upon any watercourse or wetland; or (6) Creating, enlarging or diminishing any natural or artificially constructed canal, channel, ditch, lagoon, pond, lake or other waterway for navigation or any other purpose, whether or not connected to an existing lake, stream or watercourse."*
 - i. Therefore, boundaries should be flagged (see Comment 3) and determined based on the current conditions. Whether it is determined that the feature is a wetland or

watercourse (pursuant to Section 12-152) the current boundary may be affected by the proposed design. It is understood that the applicant intends to avoid the historic boundary of this feature, but application reviews are based on current features present on-site. Additionally, aerial photographs are provided in **Attachment A** dating back to 2006 showing a potentially larger feature compared to the optimal photo provided from March 2020, likely based on yearly precipitation conditions and the time of photograph capture.

- ii. Sheet 06 contains a label pointing to a proposed boulder wall that is unclear of the extent of the boulder wall. It is requested that in future submittals (once the current boundary is established) that symbols are provided showing the extent of the proposed boulder wall. Additionally, fill information (cubic yards and square feet) will be required for potential impacts to the feature and its setback.



2. Merjent conducted a site visit on March 18, 2025. While this visit was also outside of the growing season, remnant hydrophytic vegetation was present such as large barnyard grass (*Echinochloa crus-galli*, FACW [Midwestern Regional Supplement]), hybrid cat-tail (*Typha X glauca*), northern water-plantain (*Alisma triviale*, OBL), and dock-leaf smartweed (*Persicaria lapathifolia*, FACW). Additionally, as noted in the tree survey, this area has silver maple (*Acer saccharinum*, FACW) trees present throughout the flooded and low lying portions of the site. Additionally, mallard ducks (*Anas platyrhynchos*) and common muskrats (*Ondatra zibethicus*) were seen utilizing the standing water and herbaceous vegetation as nesting material. Photographs from the site visit are provided in **Attachment B**.
 - a. Due to the presence of multiple wildlife species utilizing the water resource on-site, the on-site water resource should be considered essential to the City of Novi due to meeting the criteria under Section 12-174(b)(6).
3. Merjent recommends that a growing season wetland delineation be completed and that U.S. Army Corps of Engineers Data Forms be provided in future submittals for this project. The applicant intends to avoid this area based on the current design, but as stated in Comment 1, the extent of this feature should be mapped based on current conditions. Additionally, pursuant to Section 12-172 (f), *the*

applicant shall have the boundary lines of any watercourses or wetlands on the property flagged or staked, and the flagging or staking shall remain in place throughout the conduct of the permit activity.

4. The City of Novi regulates wetland and watercourse buffers/setbacks. Section 3.6.2 (M)(i) of the City of Novi Zoning Ordinance 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 25-foot limit is measured as horizontal feet, regardless of grade change.
 - a. Similar to Comment 1, impacts resulting from the proposed boulder wall should be quantified (cubic yards and square feet).
5. 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. 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 and Watercourse permit.
 - a. If final approval is granted for this project, it is recommended that the water resource and subsequent buffer on-site be retained in a conservation easement. This will include the prevention of mowing, which could have impacts to the residents of the proposed Lot 1.

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 and Wetlands Map
Attachment A – Aerial Imagery
Attachment B – Site Photographs

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.

No mapped regulated woodland areas are shown in the map view. Regulated wetland areas are shown in turquoise. Area identified as being inundated with water approximately outlined in blue and filled with yellow.

Attachment A
Aerial Imagery



2017 Imagery showing the extent of flooding and multiple *Acer saccharinum* trees within the flooded area



2006 Imagery showing the extent of flooding on-site that is similar to the current extent of flooding in 2024 (see image below).



2024 Imagery showing the extent of flooding and silt fence placement from the Ballantyne development

Attachment B
Site Photographs



A common muskrat seen utilizing and nesting within the water on-site.



No flagging seen present on-site



Overview of wetland feature on-site



Overview of emergent wetland vegetation on-site.

TRAFFIC REVIEW



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

Project name:
JZ24-43 – Mariella Estates Revised Initial PRO
Traffic Review

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

From:
AECOM

Date:
March 20, 2025

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

Memo

Subject: JZ24-43 – Mariella Estates Revised Initial PRO Traffic Review

The revised initial PRO concept site plan was reviewed to the level of detail 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, Braciolo Brothers, LLC, is proposing a ten home single-family subdivision.
2. The development is located on the north side of Eight Mile Road, west of Garfield Road. Eight Mile Road is under the jurisdiction of the Road Commission of Oakland County and Garfield Road is under the jurisdiction of the City of Novi.
3. The site is zoned R-A (Residential Acreage) and the applicant is utilizing the PRO option.
4. There are following traffic related deviations are being requested by the applicant:
 - a. Below standard centerline radius.

TRAFFIC IMPACTS

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

ITE Code: 210 – Single-Family Detached Housing
Development-specific Quantity: 10 Dwelling Units
Zoning Change: N/A

Trip Generation Summary	Estimated Trips	Estimated Peak-Direction Trips	City of Novi Threshold	Above Threshold?
AM Peak-Hour Trips	9	7	100	No
PM Peak-Hour Trips	11	7	100	No
Daily (One-Directional) Trips	121	N/A	750	No

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

None	-
------	---

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'	Met	
3	Driveway Taper O Figure IX.11			
3a	Taper length	75' and 100'	Met	
3b	Tangent	0' and 50'	Met	
4	Emergency Access O 11-194.a.19	-	N/A	
5	Driveway sight distance O Figure VIII-E	610'	Met	
6	Driveway spacing			
6a	Same-side O 11.216.d.1.d	400.83' and 1084.63'	Met	
6b	Opposite side O 11.216.d.1.e	200.87' to private drive	Met	
7	External coordination (Road agency)	Indicated coordination with RCOC	Met	
8	External Sidewalk Master Plan & EDM	8' proposed, tying into existing	Met	
9	Sidewalk Ramps EDM 7.4 & R-28-K	Indicated	Partially Met	Update detail to latest R-28-K version in future submittal.
10	Any Other Comments:			

INTERNAL SITE OPERATIONS				
No.	Item	Proposed	Compliance	Remarks
11	Loading zone ZO 5.4	-	N/A	

INTERNAL SITE OPERATIONS				
No.	Item	Proposed	Compliance	Remarks
12	Trash receptacle ZO 5.4.4	Not indicated	Inconclusive	Indicate if individual trash collection is to be present for single family homes.
13	Emergency Vehicle Access	Turning movements not provided	Inconclusive	Provide turning movements in future submittal.
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	On-street parking not allowed	Met	
17	Adjacent parking spaces ZO 5.5.3.C.ii.i	-	N/A	
18	Parking space length ZO 5.3.2	-	N/A	
19	Parking space Width ZO 5.3.2	-	N/A	
20	Parking space front curb height ZO 5.3.2	-	N/A	
21	Accessible parking – number ADA	-	N/A	
22	Accessible parking – size ADA	-	N/A	
23	Number of Van-accessible space ADA	-	N/A	
24	Bicycle parking			
24a	Requirement ZO 5.16.1	-	N/A	
24b	Location ZO 5.16.1	-	N/A	
24c	Clear path from Street ZO 5.16.1	-	N/A	
24d	Height of rack ZO 5.16.5.B	-	N/A	
24e	Other (Covered / Layout) ZO 5.16.1	-	N/A	
25	Sidewalk – min 5' wide Master Plan	5' proposed	Met	
26	Sidewalk ramps EDM 7.4 & R-28-K	None proposed	N/A	
27	Sidewalk – distance back of curb EDM 7.4	10' proposed	Met	
28	Cul-De-Sac O Figure VIII-F	-	N/A	
29	EyeBrow O Figure VIII-G	54' radius proposed	Met	
30	Turnaround ZO 5.10	Proposed and dimensioned	Met	
31	Any Other Comments:	Proposed 90' centerline radius is below 230' standard per Section 11-194.b.2 of the City's Code of Ordinances. The applicant is requesting a deviation.		

SIGNING AND STRIPING				
No.	Item	Proposed	Compliance	Remarks
32	Signing: Sizes MMUTCD	Indicated	Met	
33	Signing table: quantities and sizes	Indicated	Met	Remove "typ." from the sign labels on site plan.

SIGNING AND STRIPING				
No.	Item	Proposed	Compliance	Remarks
34	Signs 12" x 18" or smaller in size shall be mounted on a galvanized 2 lb. U-channel post MMUTCD	Not indicated	Inconclusive	Provide in future submittal.
35	Signs greater than 12" x 18" shall be mounted on a galvanized 3 lb. or greater U-channel post MMUTCD	Not indicated	Inconclusive	Provide in future submittal.
36	Sign bottom height of 7' from final grade MMUTCD	Not indicated	Inconclusive	Provide in future submittal.
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	Not indicated	Inconclusive	Provide in future submittal.
38	FHWA Standard Alphabet series used for all sign language MMUTCD	Not indicated	Inconclusive	Provide in future submittal.
39	High-Intensity Prismatic (HIP) sheeting to meet FHWA retro-reflectivity MMUTCD	Not indicated	Inconclusive	Provide in future submittal.
40	Parking space striping notes	-	N/A	
41	The international symbol for accessibility pavement markings ADA	-	N/A	
42	Crosswalk pavement marking detail	-	N/A	
43	Any Other Comments:	The applicant is proposing flashing beacon signs on 8 Mile Road that will be installed by RCOC.		

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
Project Manager

FIRE REVIEW



November 14, 2024

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

RE: Preserves of Maybury – Initial PRO

CITY COUNCIL

Mayor
Justin Fischer

Mayor Pro Tem
Laura Marie Casey

Dave Staudt

Brian Smith

Ericka Thomas

Matt Heintz

Priya Gurumurthy

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

Novi Public Safety Administration
45125 Ten Mile Road
Novi, Michigan 48375
248.348.7100
248.347.0590 fax

cityofnovi.org

JZ24-43

Project Description: Build new subdivision on 9.36 acres, with 10 Single family homes.

Comments:

- **All fire hydrants *MUST* be installed and operational prior to any combustible material is brought on site. *IFC 2015 3312.1.* **ONE additional hydrant is needed near lot #1. Sheet #5 only shows 2 hydrants being added to new water main.****
- Fire lanes will be designated by the Fire Chief or his designee when it is deemed necessary and shall comply with the Fire Prevention Ordinances adopted by the City of Novi. The location of all “fire lane – no parking” signs are to be shown on the site plans. ***(Fire Prevention Ord.).***
Additional “No Parking signs” needed at end of proposed Maybury Dr, near cul-de-sac turnaround.
- Fire apparatus access drives to and from buildings through parking lots shall have a minimum fifty (50) feet outside turning radius and designed to support a minimum of thirty-five (35) tons. ***(D.C.S. Sec 11-239(b)(5)).***
Sheet #5 indicates 45’ turning radii. Have this updated and include 50’ turning capabilities.
- ***All other Fire Department notes (from sheet 1) will be followed for next review.***

Recommendation:

Approved w/Conditions to be followed from list above for next review.

Sincerely,

Andrew Copeland – Acting Fire Marshal
City of Novi Fire Department
cc: file

APPLICANT RESPONSE LETTERS

April 14, 2025



Lindsay Bell, AICP
Senior Planner
45175 Ten Mile Road
Novi, MI 48375

RE: JZ24-43 MARIELLA ESTATES PRO

Ms. Bell,

Thank you for providing your review and feedback for the above referenced project. We have reviewed the plans in accordance with your review letter dated February 28, 2024. For your use, below are our responses on how we plan to address each of the comments in your letter, pending the results of the Planning Commission meeting scheduled for April 23, 2025.

Review Concerns – Reviewed by Lindsay Bell

1. Supporting Documentation: The applicant has provided the following as part of their application packet:
 - a. Narrative: The narrative provided states that Rezoning allows for development consistent with the adjacent communities that have developed under a Residential Unit Development (RUD) Agreement – Ballyntine and Parc Vista. This property is not eligible for an RUD as it is less than 20 acres in size, therefore the applicant is seeking a rezoning to R-1 in order to create similar-sized lots. The applicant indicates 6 lots could be feasibly developed under the existing RA standards when providing an access road and stormwater detention. A “Parallel Plan” has been provided to demonstrate the potential lot layout under RA standards. The change in Residential Equivalent Units (REUs) would be from 6 under the current zoning to 10 with the proposed zoning.
Response: *The applicant agrees with the assessment outlined above.*
 - b. The statement also notes the conditions and deviations proposed, as well as public benefits. Future submittals should be updated to reflect the most current requests, including any deviations.
Response: *The noted conditions and deviations will be revised as needed to accurately reflect the current proposed plan with each resubmittal.*
 - c. Traffic Impact Study: Not required as does not meet the threshold (rezoning to residential category two or more higher).
Response: *Understood.*
 - d. Sign Location Plan: A sign placement plan and rezoning sign mock-up have been provided for review. Please change the wording in the 2ND line on the signage to “FROM RA TO R-1 with PRO”. Signage must be posted on the site a minimum of 15 days prior to the public hearing date. The sign placement is approved for the location shown.
Response: *The requested revision has been completed, and the sign was installed on April 1, 2025. Photographs were provided to the City as confirmation.*
2. Wetland Delineation: The applicant has provided a statement from Atwell indicating the likely presence of a wetland on the site prior to grading that was conducted earlier, however that

evaluation was based on a February site visit when no vegetation was growing, and no soil borings were taken. Based on aerial imagery from 2000-present, the southeastern area of the site has exhibited standing water. The wetland area is now shown on the plans, as is a 25-foot wetland buffer that extends onto Lot 1. The City advises the applicant to conduct further wetland investigation of the area during the growing season as described in Merjent's review letter, including wetland flagging (including U.S. Army Corp of Engineers Data Forms). Further, the applicant should propose a PRO Condition that would provide a physical indication to the future owner of Lot 1 that the wetland buffer shall be protected from mowing/vegetation removal and no structures or impervious surfaces shall intrude into the wetland buffer.

Response: *The wet area has expanded following the recent construction of the Ballantyne development to the east. Based on our review of historical aerial imagery, we have provided our professional opinion on the wetland boundary which is shown in the current plans. The lot line for Lot 1 has been relocated outside of this historic wetland, and no grading is proposed within its buffer. The applicant is currently assessing the standing water area outside of the historic wetland line for the presence of hydric soils. If hydric soils are identified, the wetland will be re-delineated during the growing season. Should the delineation confirm a regulated wetland, the applicant will submit the necessary permit documentation to allow for Lot 1 construction.*

3. Active Mobility Plan: The City's Active Mobility Plan, adopted in 2024, recommends improvements to the Eight Mile Road crosswalk (flashing beacons or HAWK signal), and coordinating with Maybury State Park to provide a non-motorized connection between the crosswalk and the park entrance. Currently cyclists and pedestrians must use the narrow shoulder on the south side of 8 Mile to access the entrance to the park. While the south side of 8 Mile is in Northville Township, improved safety enhancements to access this important regional recreational destination would benefit Novi residents as well.

The applicant now proposes to upgrade the existing crosswalk with flashing crosswalk signage as a benefit to the public at large. The existing crosswalk is approximately 460 feet east of the entrance to the proposed development, and there is no paved pathway on the south side of the Eight Mile Road to get users of the crosswalk to the entrance of Maybury State Park 270 feet to the west. The applicant states they do not want to pursue paving a pathway or sidewalk on the south side of the road due to grading and drainage concerns, as well as natural features impacts. Given these concerns, consideration should be given to relocate the crosswalk westward, closer to the entrance of Maybury State Park, while also upgrading the crosswalk with flashing signage if a crosswalk study indicates this treatment is warranted. Road Commission for Oakland County would also need to agree to any changes to the crosswalk. This would increase the likelihood of achieving an overall benefit to the public.

Response: *Enhancing the existing crosswalk location is preferable, as it already includes pavement markings and receiving ramps at both ends and avoids crossing vehicular taper lanes, unlike the alternative location near the park entrance. Following a site visit, a clear route was identified for a 5-foot-wide pathway from the existing south receiving ramp to the park boundary that would not impact natural features or the roadside ditch. If directed by the Planning Commission, the applicant is open to further discussion on either installing this pathway extension to the park or relocating the crosswalk as a public benefit. The selected revision will be reflected in future plan submittals.*

4. Plan Review Chart: The attached chart provides additional comments on many of the Ordinance review standards. Please refer to it in detail and note deviations that may be required if not corrected in the Formal PRO submittal.

Response: *Understood.*

Additional Miscellaneous Comments – Reviewed by Lindsay Bell

1. The development proposes the required sidewalks along the private street. A portion of the site is to remain undeveloped in open space, with one play structure amenity, which the applicant states would be available for public use. However, as gates are now shown at the entrance it is very unlikely that non-residents would utilize this space.

Response: *Understood. As the City does not consider the playground a public benefit due to the gated nature of the community, the applicant intends to remove it from the list of public benefits and will likely omit it from future plan submittals. Should a playground be constructed, it would be at the discretion of the HOA and would remain private.*

2. No architectural drawings have been provided.

Response: *The homes are anticipated to be custom builds, consistent with the character of adjacent developments. Representative architectural drawings or images will be included in a future submittal.*

3. The applicant should consider sustainable, energy-efficient and best-practice design for site elements and building materials, such as LEED recommended strategies.

Response: *Understood. The applicant will not be constructing the homes, however this request will be passed on to the homebuilders.*

4. With the proximity to Maybury State Park, the applicant has proposed to upgrade the existing crosswalk on 8 Mile Road with flashing crosswalk signs, which is a recommendation in the Active Mobility Plan to provide enhanced connections for pedestrians and bicyclists coming from Novi. However, the location of the existing crosswalk is further east, and there is no paved pathway from the end of the crossing to the entrance to the park. A crosswalk study would be needed to determine the appropriate treatment for the crossing.

Response: *The existing crosswalk currently has markings and receiving raps on either end. In addition this crosswalk does not cross at taper lanes like the relocation would require. If directed by the Planning Commission the applicant agrees to the relocation of the existing crosswalk to be closer to the park entrance and this change will be reflected in future plan submittals.*

5. A Public-use Park: The development proposes an active open space park area intended for use by the residents and the public at large, with direct public access off of 8 Mile Road. As the entrance to the development is gated, Staff has concerns that future residents of the development will seek to exclude non-residents from using the park with the justification that the liability and maintenance are borne by the HOA and therefore it is a private space. Given non-residents are unlikely to use the playground in a gated community, and with the proximity to both Maybury Park and ITC Park playgrounds, Staff does not see much in the way of benefit for the general public.

Response: *Understood. As the City does not consider the playground a public benefit due to the gated nature of the community, the applicant intends to remove it from the list of public benefits and will likely omit it from future plan submittals. Should a playground be constructed, it would be at the discretion of the HOA and would remain private.*

6. Perimeter Landscape Buffers: The development proposes a minimum 25-foot perimeter landscape buffer from the lots to the property boundary. Only a few areas of the buffer show any landscaping being provided. Additional trees should be planted to be considered as an enhancement of the project.

Response: *Understood, additional landscape plantings in the buffers will be included in future submittals.*

7. Increased Open Space: The development proposes an extensive amount of open space for a single-family development (28%) and a majority of the proposed open space is usable active open space. The only amenity shown in the open spaces is the play structure, which as noted above is unlikely to be utilized by non-residents. Compared to the adjacent RUD developments, this proposal has a lower percentage of open space preserved. The wetland area near 8 Mile is now proposed for preservation.

Response: *Understood, the park area will remain open space even if the playground is removed and the wetland area will be preserved.*

8. Overall density shall not exceed 1.07 dwelling units per acre. This would be more limiting than the 1.6 dwelling units per acre allowed in the R-1 District, and closer to what has been developed in the surrounding neighborhoods.

Response: *Understood, this has been included as a public benefit.*

9. Flashing Crosswalk at 8-Mile: The existing 8 Mile crosswalk will be upgraded with flashing crosswalk signs. The existing crosswalk is approximately 460 feet east of the entrance to the proposed development, and there is no paved pathway on the south side of Eight Mile Road to get users of the crosswalk to the entrance of Maybury State Park. The applicant states they do not want to pursue paving for a pathway or sidewalk on the south side of the road due to grading and drainage concerns, as well as natural features impacts. Given these concerns, consideration should be given to relocate the crosswalk westward, closer to the entrance of Maybury State Park, while also upgrading the crosswalk with flashing signage if a crosswalk study indicates this treatment is warranted. Road Commission for Oakland County would also need to agree to any changes to the crosswalk.

Response: *Enhancing the existing crosswalk location is preferable, as it already includes pavement markings and receiving ramps at both ends and avoids crossing vehicular taper lanes, unlike the alternative location near the park entrance. Following a site visit, a clear route was identified for a 5-foot-wide pathway from the existing south receiving ramp to the park boundary that would not impact natural features or the roadside ditch. If directed by the Planning Commission, the applicant is open to further discussion on either installing this pathway extension to the park or relocating the crosswalk as a public benefit. The selected revision will be reflected in future plan submittals.*

10. If unit model building elevations are provided for review and determined to exceed the standards of the ordinance, that could be considered in the public interest/an enhancement of the project.

Response: *Understood. The applicant's intent is for the homes to be high end construction that will likely exceed the ordinance requirements. Architectural plans/images will be provided with a future submittal.*

Planning – Reviewed by Lindsay Bell

1. Include in written statement how many lots could be developed under current RA zoning, number of REUs for each.

Response: *This will be included on the plans in a future submittal.*

2. See comments in Planning Review. Signage must be posted no later than 15 days prior to public hearing.

Response: *Signage was posted as of April 1st, 2025.*

3. Lots 4 and 5 require a deviation for lot width.

Response: *This deviation is listed on the cover of the plans.*

4. Lot 1 shall include buffer delineation to prevent encroachment/mowing/removal of vegetation.
Response: *A wetland buffer with signage will be added to lot 1 in a future submittal.*
5. See Engineering Review letter for detail on SWM Plan comments.
Response: *Responses to the engineering comments are included later in this letter.*
6. Usable open space noted in northwestern area of the site – could this area be enhanced with landscaping, benches, gazebo, etc. in order to amenitize it?
Response: *The applicant is open to discussing the requested additional enhancements to the common open space. However, due to the steep slopes in this area, installing an ADA-accessible sidewalk through the grassed area is not feasible, making the proposed enhancements seem impractical.*
7. The committee has considered and approved the requested names.
Response: *Understood.*
8. Sign permits are reviewed separately. If deviations are anticipated submit concurrently with Formal PRO.
Response: *Understood. Not deviations are currently anticipated.*

Engineering – Reviewed by Humna Anjum

1. Based on the existing zoning RA zoning six homes could be proposed on this site, the new zoning will allow for 10 homes. Engineering does not have any concerns with the 4 additional REUs that would be allowed with this rezoning.
Response: *Understood.*
2. Applicant must obtain RCOC approval for the approach tapers prior to final PRO plan approval. Permit will not be required at that time, but applicant must have RCOC review the approach location. Engineering does not have concerns with the proposed approach tappers.
Response: *Understood. Following the results of the PC meeting the plans will be submitted to RCOC for review/approval.*
3. Sheet 04 Layout Notes state that the road will not be gated and that roads will be private, the plan shows a gate at the entrance and the road is labeled with 60' ROW. Clarify if roads will be private, revise note to state 60' private road ROW.
Response: *The roads will be private. The note and labels will be revised to clearly state the roads are private and that the development will be gated on future submittals.*
4. Provide a utility crossing table at the time of the site plan submittal.
Response: *A utility crossing table will be included in the site plan submittal.*
5. 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.
Response: *Understood. The requested separations will be confirmed and maintained in all future submittals.*
6. Indicate if an entrance streetlight shall be proposed. The City of Novi has a streetlighting program where the city pays for one standard streetlight at the entrance of subdivisions. This would be an agreement with DTE, if a decorative streetlight is proposed the applicant/HOA will

need to pay the difference in cost.

Response: *A streetlight at the entrance will be shown with future submittals.*

7. All public water main shall be within a dedicated water main easement.

Response: *Understood. Watermain easements will be shown on future submittals.*

8. Additional details shall be provided at time of site plan submittal. Profiles shall be needed at time of final site plan submittal.

Response: *Profiles and additional design details will be provided with final site plan submittal.*

9. EGLE water main permit will be required for the main extension, the application can be submitted at time of final site plan submittal.

Response: *Understood.*

10. All public sanitary sewer shall be within a dedicated sanitary sewer easement.

Response: *Understood. Sanitary easements will be shown on all future submittals.*

11. Sanitary sewer should be relocated outside of the pavement to the east and north side of Mariella Lane.

Response: *The applicant is open to either option and will evaluate the feasibility of the requested location outside the pavement. If feasible, this routing will be reflected in future submittals. However, the proposed location may conflict with the required landscape separation.*

12. EGLE sanitary sewer extension permit shall be required prior to the pre-con meeting, EGLE application can be submitted at time of final site plan submittal.

Response: *Understood.*

13. A minimum cover depth of 3 feet shall be maintained over all proposed storm sewer. Provide profiles for all storm sewer 12-inch and larger at time of site plan submittal.

Response: *Profiles and additional design details will be provided with final site plan submittal.*

14. Provide Storm sewer basis of design table at time of site plan submittal.

Response: *Storm sewer design calculations will be provided with final site plan submittal.*

15. The proposed outlet location is acceptable, the applicant should ensure that the existing driveway culverts have adequate capacity and are cleaned out as part of this project.

Response: *The capacity of the downstream driveway and road culverts was verified prior to the previous submittal. A note will be added in future submittals to address the request for cleaning out the driveway culverts immediately downstream prior to construction completion.*

16. The Ballantyne storm water detention basin does not outlet to the wetlands near the entrance of Mariella Estates.

Response: *Understood. The detention basin does not outlet into the wetland but the swales along Ballantynes western property line all drain undetained to this low area. Based on our recent survey and site walks we were unable to find any piped or natural outlet from this low area. As such we are not directing our detention or any additional drainage to this location.*

17. Provide supporting calculations for the runoff coefficient determination. C factor greenspace shall be based on hydrologic soil type.

Response: *Calculations for the runoff coefficient will be included in the next submittal.*

18. Provide the overland routing that would occur in the event the underground system cannot

accept flow. This route shall be directed to a recognized drainage course or drainage system.
Response: *Overland flow routes will be clearly shown on the plans in the next submittal.*

19. Provide a soil boring in the vicinity of the proposed underground detention system to determine bearing capacity and the high-water elevation of the groundwater table.

Response: *Soil boring information will be gathered and provided with the final site plan submittal.*

20. Provide inspection ports throughout the underground detention system at the midpoint of all storage rows. Additional inspection ports may be required for systems larger than 200 feet. Inspection ports shall be a minimum of 8-inches.

Response: *Inspection ports will be provided as requested with the next submittal.*

21. For piped/chamber systems the underground storage system shall include 4-foot diameter manholes at one end of each row for maintenance access purposes. Manholes are shown on plans.

Response: *Understood.*

22. Provide critical elevations for the detention system. Also, provide a cross-section for the underground detention system. Ensure that there is at least 1 foot of freeboard between the 100-year elevation and the subgrade elevation beneath the proposed park area.

Response: *Additional details will be provided with the final site plan submittal.*

23. The underground detention system shall be kept outside of the influence of any planting areas. Show manhole locations on landscaping sheets.

Response: *Understood. This will be confirmed and the system outline and access manholes will be added to the landscape plan with the next submittal.*

24. Provide a construction materials table on the Paving Plan listing the quantity and material type for each pavement cross-section being proposed.

Response: *Paving quantities will be included on the plans with the next submittal.*

25. Label specific ramp locations on the plans where the detectable warning surface is to be installed.

Response: *Sidewalks ramp locations will be shown with the next submittal.*

26. Provide existing and proposed contours on the Grading Plan at the time of the Final Site Plan submittal.

Response: *Understood. Additional details will be provided with the final site plan submittal.*

27. Site grading shall be limited to 1V:4H (25-percent), regrade or relocate the proposed home and driveway on lot 8 so that the slopes steeper than 1V:4H are not on the proposed on the residential lot.

Response: *Understood. The grading in this area will be revised as requested on future submittals.*

28. Retaining walls that are 48-inches or larger shall need a permit from Building Department.

Response: *Understood.*

29. A retaining wall that has a grade change of 30" or more within a 3' horizontal distance will require a guardrail.

Response: *Understood.*

30. Soil borings along the proposed road will be required at 500-foot intervals per Section 11-195(d) of the Design and Construction Standards.

Response: *Soil boring information will be gathered and provided with the final site plan submittal.*

31. No off-site easements anticipated at this time.

Response: *Understood.*

32. A letter from either the applicant or the applicant's engineer must be submitted with the Stamping Set 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.

Response: *Please accept his letter to serve as the requested document.*

Wetlands Reviewed by – Jason DeMoss

1. As noted in PREAPP24-01 (49680 Eight Mile Subdivision) and the ICP Review from December 2024, it is possible that a wetland may be present in the southeastern portion of the site. The applicant provided a March 19, 2024 Wetland Delineation and Threatened and Endangered Species Assessment and stated that the southeastern portion of the site was flooded during a February site visit. The applicant states that the area exhibited minimal hydrophytic vegetation. However, with the site visit being conducted during February (outside of the growing season), no vegetation was likely growing whether hydrophytic or not. Merjent recommends the applicant conduct a growing season wetland delineation to verify the presence or absence of hydrophytic vegetation. Additionally, the applicant states that historical aerial review of the site indicates that wetland signatures may be present on-site.

- a. The applicant provided a February 14, 2025 response letter that requests that the historic footprint of the feature be utilized based on a March 3, 2020 aerial image. It should be noted that boundaries should be determined based on current conditions on-site. Whether the applicant determines the area be considered a watercourse or wetland, Section 12-171 states that "It shall be unlawful for any person to conduct any activities within a watercourse or wetland location without first having obtained a use permit upon proper application. Activities requiring a use permit include but are not limited to the following: (1) Depositing or permitting the depositing of any material including structures into, within or upon any watercourse or wetland; or (6) Creating, enlarging or diminishing any natural or artificially constructed canal, channel, ditch, lagoon, pond, lake or other waterway for navigation or any other purpose, whether or not connected to an existing lake, stream or watercourse."

- i. Therefore, boundaries should be flagged (see Comment 3) and determined based on the current conditions. Whether it is determined that the feature is a wetland or watercourse (pursuant to Section 12-152) the current boundary may be affected by the proposed design. It is understood that the applicant intends to avoid the historic boundary of this feature, but application reviews are based on current features present on-site. Additionally, aerial photographs are provided in Attachment A dating back to 2006 showing a potentially larger feature compared to the optimal photo provided from March 2020, likely based on yearly precipitation conditions and the time of photograph capture.

Response: *The wet area has expanded following the recent construction of the Ballantyne development to the east. Based on our review of historical aerial imagery, we have provided our professional opinion on the wetland boundary which is shown in the current plans. The lot line for Lot 1 has been relocated outside of this historic wetland, and no grading is proposed within its buffer. The*

applicant is currently assessing the standing water area outside of the historic wetland line for the presence of hydric soils. If hydric soils are identified, the wetland will be re-delineated during the growing season. Should the delineation confirm a regulated wetland, the applicant will submit the necessary permit documentation to allow for Lot 1 construction.

- ii. Sheet 06 contains a label pointing to a proposed boulder wall that is unclear of the extent of the boulder wall. It is requested that in future submittals (once the current boundary is established) that symbols are provided showing the extent of the proposed boulder wall. Additionally, fill information (cubic yards and square feet) will be required for potential impacts to the feature and its setback.

Response: *Understood. Additional details regarding a potential wall will be provided with the final site plan submittals. Any potential impacts to the buffer will be addressed in future submissions.*

- 2. Merjent conducted a site visit on March 18, 2025. While this visit was also outside of the growing season, remnant hydrophytic vegetation was present such as large barnyard grass (*Echinochloa crusgalli*, FACW [Midwestern Regional Supplement]), hybrid cat-tail (*Typha X glauca*), northern waterplantain (*Alisma triviale*, OBL), and dock-leaf smartweed (*Persicaria lapathifolia*, FACW). Additionally, as noted in the tree survey, this area has silver maple (*Acer saccharinum*, FACW) trees present throughout the flooded and low lying portions of the site. Additionally, mallard ducks (*Anas platyrhynchos*) and common muskrats (*Ondatra zibethicus*) were seen utilizing the standing water and herbaceous vegetation as nesting material. Photographs from the site visit are provided in Attachment B.

- a. Due to the presence of multiple wildlife species utilizing the water resource on-site, the on-site water resource should be considered essential to the City of Novi due to meeting the criteria under Section 12-174(b)(6).

Response: *Understood.*

- 3. Merjent recommends that a growing season wetland delineation be completed and that U.S. Army Corps of Engineers Data Forms be provided in future submittals for this project. The applicant intends to avoid this area based on the current design, but as stated in Comment 1, the extent of this feature should be mapped based on current conditions. Additionally, pursuant to Section 12-172 (f), the applicant shall have the boundary lines of any watercourses or wetlands on the property flagged or staked, and the flagging or staking shall remain in place throughout the conduct of the permit activity.

Response: *Understood. This information will be gathered during the growing season.*

- 4. The City of Novi regulates wetland and watercourse buffers/setbacks. Section 3.6.2 (M)(i) of the City of Novi Zoning Ordinance 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 25-foot limit is measured as horizontal feet, regardless of grade change.

- a. Similar to Comment 1, impacts resulting from the proposed boulder wall should be quantified (cubic yards and square feet).

Response: *This information will be provided with future submittals.*

- 5. 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. 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 and Watercourse permit.

- a. If final approval is granted for this project, it is recommended that the water resource and subsequent buffer on-site be retained in a conservation easement. This will include the prevention of mowing, which could have impacts to the residents of the proposed Lot 1.

Response: *A conservation easement will be provided over this area prior to construction.*

Traffic Reviewed by – Paula K. Johnson

1. Update detail to latest R-28-K version in future submittal.

Response: *The detail will be updated with the next submittal.*

2. Indicate if individual trash collection is to be present for single family homes.

Response: *Individual trash collection will be provided for each home. This will be noted on the plans with the next submittal.*

3. Provide turning movements in future submittal.

Response: *Fire truck turning movements are shown on the plans.*

4. Proposed 90' centerline radius is below 230' standard per Section 11-194.b.2 of the City's Code of Ordinances. The applicant is requesting a deviation.

Response: *Noted.*

We appreciate your continued review and assistance with this project. We remain committed to working closely with the City to ensure a smooth and timely review process. Should you have any remaining questions or need anything else from us to help facilitate your approvals, please do not hesitate to contact me direct at (947)-886-9874.

Sincerely,

ATWELL, LLC



Chris Rothhaar, P.E.
Project Manager



February 28, 2025

Lindsay Bell, AICP
Senior Planner
45175 W 10 Mile Road
Novi, MI 48375

RE: JZ24-43 Preserves of Maybury

Ms. Bell,

Thank you for providing your review and feedback for the above referenced project. We have revised the plans in accordance with your review letter dated January 22, 2025. For your use, below are our responses on how we have addressed or plan to address each of the comments in your letter.

Planning – Reviewed by Lindsay Bell

Review Concerns and Additional Comments:

1. The applicant should revise the statement to indicate how many units could be feasibly developed under the existing RA standards, and how many Residential Equivalent Units (REUs) would be anticipated under each option. Include a "Parallel Plan" to demonstrate the potential lot layout under RA standards.

Response: *Under the current RA zoning a maximum of 9 lots would be allowed based on total site acreage. However, given geometric challenges of the property as well as providing an access road and stormwater detention, 6 lots are represented on the enclosed parallel plan. The narrative has been updated to detail this and a parallel plan has been included with this resubmittal.*

2. Future submittals should be updated to reflect the most current requests, including any deviations.

Response: *Understood, the enclosed plans have been updated accordingly.*

3. A sign placement plan and rezoning sign mock-up must be provided for review. Must be reviewed and approved prior to scheduling for public hearing. Signage must be posted on the site a minimum of 15 days prior to the public hearing date.

Response: *Understood, a sign placement exhibit has been included with this submittal for review. Once approved and the date of the public hearing is known, the signage will be installed 15 days prior to the public hearing.*

4. The City advises the applicant to conduct further wetland investigation of the area during the growing season as described in Merjent's review letter

Response: *An additional wetland investigation has been performed and a revised detailed memo has been included with submittal. It is feasible that prior to the Ballantyne development allowing runoff to collect on the applicants parcel without a viable outlet or appropriate drainage course, there may have been a smaller wet area in that location that could have qualified as a wetland by city standards. The potential historic limits of the wetlands have been estimated using history aerals and are now shown on the plans. The layout plan has been revised to avoid this.*

5. With the proximity to Maybury State Park, the applicant could consider the recommendations in the Active Mobility Plan to provide enhanced connections for pedestrians and bicyclists coming from Novi.

Response: *The applicant would like to pursue upgrading the existing crosswalk east of the site to include flashing walk signs. We propose that this is an appropriate public benefit when the smaller scale of the development and the additional proposed public benefits are considered. The applicant would not like to pursue extending a walk to Maybury State Park along the south side of the road due to grading and drainage concerns associated with this work as well as natural feature impacts.*

6. Unless this space is dedicated to the City for use as a public park, Staff has concerns that future residents of the development will seek to exclude non-residents from using the park with the justification that the liability and maintenance are borne by the HOA and therefore it is a private space. The PRO Agreement and Master Deed would need to clearly state that the HOA would be responsible for the maintenance, and made clear to all home purchasers the intent to have the space available to the public.

Response: *The applicant is willing to dedicate the park, including maintenance and liability to the City, as desired. The applicant does not wish to formally dedicate the park while maintaining maintenance and liability cost.*

7. Only a few areas of the buffer show any landscaping being provided. Additional trees should be planted to be considered as an enhancement of the project.

Response: *Additional landscaping is now being provided in the buffers.*

8. This is a requirement of the Subdivision Ordinance (Non-Access Greenbelt), and will not be considered an enhancement.

Response: *The 75' front setback has been removed as a public benefit.*

9. The only amenity shown in the open spaces is the play structure. Compared to the adjacent RUD developments, this proposal has a lower percentage of open space preserved. Consider preservation of the wetland area near 8 Mile rather than the northwest corner of the property.

Response: *The proposed open space for the development is well above that required under conventional development under RA zoning. The wetland is now being preserved.*

10. This would be more limiting than the 1.6 dwelling units per acre allowed in the R-1 District, and closer to what has been developed in the surrounding neighborhoods.

Response: *The reduced density is now listed as a public benefit.*

Planning Review Chart:

1. Include in written statement how many lots could be developed under current RA zoning, number of REUs for each.

Response: *Under the current RA zoning a maximum of 9 lots would be allowed based on total site acreage. However, given geometric challenges of the property as well as providing an access road and stormwater detention, 6 lots are represented on the enclosed parallel plan. The narrative has been updated to detail this and a parallel plan has been included with this resubmittal.*

2. Provide a sign placement plan and rezoning sign mock-up for review. Must be reviewed and approved prior to scheduling for public hearing.

Response: *Understood, a sign placement exhibit has been included with this submittal for review. Once approved signage will be installed 15 days prior to the public hearing.*

3. Clarify if lot width is measured at front setback line – appears to be 110-115 ft width for lots 4 and 5, which may require a deviation.
 - **Response:** *Lot width is measured from side lot line to side lot line at the front setback. See note on sheet 4. Lots widths for lots 4 and 5 are 98' wide. This is below the 120' minimum lot width required under R-1 zoning, but these lots still provide adequate space for the intended housing product, are the two largest lots proposed, and exceed the R-1 minimum lot area requirements for over 10,000 square feet and 5,000 square feet respectively. A PRO deviation has been requested for lots 4 and 5, which is listed on the cover sheet and PRO narrative.*
4. Verify measurements of lot width are taken between two lines where a front setback line intersects with side setback lines.
Response: *Measurements have been confirmed to be measured from the correct location.*
5. Based on site conditions, aerial imagery, property appears to contain wetland areas. See Planning and Merjent review letters.
Response: *A estimated historic limits wetland boundary is now shown throughout the set. Additionally see attached supplemental wetland letter included in this submittal.*
6. Extension to the north and west is impractical as the approved subdivisions have no streets to connect to; Deviation required – See Engineering Review for additional comments
Response: *A secondary access point is not required due to the furthest lot being approximately 750' away from the entrance.*
7. See Engineering Review letter for detail on SWM Plan comments.
Response: *Responses to the SWM comments have been provided below.*
8. Usable open space noted in northwestern area of the site – could this area be enhanced with landscaping, benches, gazebo, etc. in order to amenitize it?
Response: *Given site grading constraints, the slopes down into this area are too steep to support ADA access. At this time this open space is proposed to be limited to buffer landscaping and general open area use. We feel the development provides sufficient usable open space with the proposed park area, given the scale of the development.*
9. Submit for Project & Street Name approval prior to Formal PRO Submittal.
Response: *An updated project and street Name Form has been included in this submittal.*
10. Sign permits are reviewed separately. If deviations are anticipated submit concurrently with Formal PRO.
Response: *Noted.*

Engineering – reviewed by Humna Anjum

Items that must be addressed prior to initial PRO approval:

1. The underground detention system must have an overflow route and a viable outlet location. The proposed outlet is shown to discharge stormwater into the right-of-way on 8 Mile Road, the is only one residential driveway culvert in this area. Applicant should investigate if the system can outlet to the east where the wetlands on-site are located (applicant has currently proposed to fill this area) or to the south across 8 Mile Road (this will require an easement from the park). The applicant should also explore the possibility of downstream improvements.

Response: The wet area on the east side of the site does not have a viable overflow or outlet route in existing conditions. and should not have been accepted as a discharge location for the Ballantyne project. To not further exacerbate the issue of this low area, the discharge and overflow location for the underground system will remain in its current location where water has a clear drainage path to the west via ditches and culverts, under 9-mile road, and into the Maybury Park wetland system. Downstream culverts have been reviewed and were found to have adequate capacity. Additional size and elevation information for these downstream culverts are now being shown on sheet 6 of the plans.

2. If a viable outlet for the underground detention facility cannot be provided the applicant shall need to provide a retention basin on-site. Underground retention facilities are not permitted. A retention basin is required to provide the volume of two consecutive 100-year events.

Response: *A viable outlet is provided. Refer to response in #1 above.*

3. A cul-de-sac is required at the end of Maybury Lane.

Response: *Given site constraints a cul-de-sac is not viable for this development. Given the low volume of traffic that this subdivision will encounter a T-turnaround is being proposed due to geometric constraints and a way to reduce total pavement on site. The dimensions of the proposed turnaround also meet current International Fire Code (IFC) requirements. A proposed deviation for this has now been listed on the cover accordingly.*

4. Applicant must obtain RCOC approval for the approach tapers prior to final PRO plan approval. Permit will not be required at that time, but applicant must have RCOC review the approach location.

Response: *Understood. We believe the proposed approach meets RCOC standards. Once Conceptual PRO approval has been received from the City, a permit application will be filed with the RCOC.*

5. A opposite-side driveway spacing Waiver, granted by the Planning Commission, would be required for the proposed location of the entrance drive with respect to the adjacent drive to the south (200' proposed vs. 275' required). This should also be reviewed by RCOC prior to final PRO approval.

Response: *Understood. Given the limited frontage and the site constraints, this waiver need is unavoidable. Low traffic volumes are anticipated for the proposed drive.*

6. Provide additional details for approach, indicate how approach will impact the existing entrance to the Ballantyne subdivision on the east. Show the existing hydrants on the approach plan, as well as the existing guardrail. Indicate if any hydrants will need to be relocated.

Response: *A frontage plan has been added.*

General Comments:

1. A secondary point of access is required if any lots are more than 800 feet from the nearest point of external access. This distance should be clearly noted on the plans. This distance is increased to 1,500 feet for RA districts, the applicant is rezoning for RA to R-1 so they must meet the 800-foot requirement.

Response: *A secondary access point is not required due to the furthest lot being approximately 750' away from the entrance.*

2. Applicant should provide the REUs for the site based on the current R-A zoning vs the REUs for the site under the proposed R-1 zoning.

Response: *This has been added to the Site Data on sheet 1.*

3. A Right-of-Way Permit will be required from the City of Novi and Oakland County prior to the

pre-con.

Response: *Understood. We believe the proposed approach meets RCOC standards. Once Conceptual PRO approval has been received from the City, a permit application will be filed with the RCOC.*

4. Remove riser detail from sheet 8, it is no longer required since a basin is not proposed at this time.

Response: *The riser detail has been removed from sheet 8.*

5. 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.

Response: *A traffic control sign table is shown on sheet 4.*

6. Traffic signs in the Road Commission for Oakland County (RCOC) right-of-way will be installed by RCOC.

Response: *Understood.*

7. Indicate if a streetlight shall be installed at the entrance on 8 Mile Road, show location at time of site plan submittal.

Response: *A streetlight is not being proposed as a result of this development.*

8. Provide a traffic control plan for the proposed road work activity on 8 Mile Road.

Response: *A traffic control plan will be provided during the final PRO submittal.*

9. Provide a construction materials table on the utility plan listing the quantity and material type for each utility (water, sanitary and storm) being proposed.

Response: *A construction materials table has been provided on sheet 5.*

10. 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.

Response: *A utility crossing table will be provided during the final PRO submittal.*

11. A tapping sleeve, valve and well is required at the connection to the existing water main.

Response: *A tapping sleeve and valve are called out on sheet 5.*

12. Generally, the distribution system in all developments requiring more than eight hundred (800) feet of water main shall have a minimum of two (2) connections to a source of supply and shall be a looped system. Indicate length of the proposed water main.

Response: *The proposed watermain layout is less than 800-feet. This is noted on sheet 5.*

13. Water Systems must have the ability to serve at least two thousand (2,000) gallons per minute in single-family detached residential.

Response: *Understood.*

14. Per current EGLE requirement, provide a profile for all proposed water main 8-inch and larger.

Response: *Profiles will be provided during the final PRO submittal.*

15. 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.

Response: *Understood, this has been noted on sheet 5.*

16. 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".
Response: *Understood, this has been noted on sheet 5.*
17. Note on the construction materials table that 6-inch sanitary leads shall be a minimum SDR 23.5, and mains shall be SDR 26.
Response: *Understood, this has been noted on sheet 5.*
18. 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.
Response: *Understood, this has been noted on sheet 5.*
19. Illustrate all pipes intersecting with manholes on the sanitary profiles.
Response: *This will be provided during the final PRO submittal.*
20. Relocate the sanitary sewer to go around the cul-de-sac outside the paved road. Extend the sanitary sewer so no leads cross under the cul-de-sac.
Response: *No Cul-de-sac is proposed, see previous comment.*
21. A minimum cover depth of 3 feet shall be maintained over all proposed storm sewer. Currently, a few pipe sections do not meet this standard. Grades shall be elevated, and minimum pipe slopes shall be used to maximize the cover depth. In situations where the minimum cover cannot be achieved, Class V pipe must be used with an absolute minimum cover depth of 2 feet. An explanation shall be provided where the cover depth cannot be provided.
Response: *Understood, additional design information will be provided during the final PRO submittal.*
22. Provide a four-foot-deep sump and an oil/gas separator in the last storm structure prior to discharge underground detention system.
Response: *Oil/gas separators are now called out on sheet 05.*
23. Provide profiles for all storm sewer 12-inch and larger. All storm pipes accepting surface drainage shall be 12-inch or larger. 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.
Response: *Profiles will be provided during the final PRO submittal.*
24. Illustrate all pipes intersecting storm structures on the storm profiles.
Response: *This will be provided during the final PRO submittal.*
25. 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.
Response: *A casting schedule will be provided during the final PRO submittal.*
26. Provide Storm sewer basis of design table at time of site plan submittal.
Response: *Detention calculations and utility basis of design have been provided. Stormwater conveyance calculations will be provided during the final PRO submittal.*
27. 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)
Response: *Understood.*

28. Provide calculations verifying the post-development runoff rate directed to the proposed receiving drainage course does not exceed the pre-development runoff rate for the site.
Response: *Pre/Post runoff calculations have been added to sheet 6.*
29. The SWMP must address the discharge of storm water off-site, and evidence of its adequacy must be provided. This should be done by comparing pre- and post-development discharge rates. The area being used for this off-site discharge should be delineated and the ultimate location of discharge shown.
Response: *Pre/Post runoff calculations have been added to sheet 6.*
30. An adequate maintenance access route to the basin outlet structure and any other pretreatment structures shall be provided (15 feet wide, maximum running slope of 1V:5H, maximum cross slope of 3%, and able to withstand the passage of heavy equipment). Verify the access route does not conflict with proposed landscaping.
Response: *The underground detention area is flat and free of obstacles.*
31. As part of the Storm Drainage Facility Maintenance Easement Agreement, provide an access easement for maintenance over the storm water detention system and the pretreatment structure. Also, include an access easement to the detention area from the public road right-of-way.
Response: *An easement has been provided over the underground detention facility.*
32. 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).
Response: *A pre-treatment structure product and details will be provided during the final PRO submittal.*
33. Provide a soil boring in the vicinity of the underground 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.
Response: *Additional soil borings will be performed prior to construction.*
34. Provide the overland routing that would occur in the event the underground system cannot accept flow. This route shall be directed to a recognized drainage course or drainage system.
Response: *The overflow route is shown on sheet 06.*
35. Provide a table or note addressing the required bedding depth vs. bearing capacity of the underlying soils in the vicinity of the underground detention system per the manufacturer's specifications.
Response: *A note has been added to the underground detention details.*
36. Provide a note on the plans stating the City's inspecting engineers shall verify the bearing capacity of the native soils to verify an adequate bedding depth is provided.
Response: *A note has been added to the underground detention details.*
37. Provide a note on the underground detention detail that aggregate porosity will be tested, and results provided to the City's inspecting engineers.
Response: *A note has been added to the underground detention details.*
38. Provide 4-foot diameter manhole at one end of each row of the underground storage system for maintenance access purposes.

Response: *Manholes have been provided at one end of each row.*

39. The underground detention system shall be kept outside of the influence of any planting areas.

Response: *Understood.*

40. Provide a construction materials table on the Paving Plan listing the quantity and material type for each pavement cross-section being proposed.

Response: *A paving quantity table has been added to sheet 4.*

41. For residential developments, if driveways do not meet the city standard 16-foot wide with 3-tapers on each side a design construction variance will be needed.

Response: *The city driveway standards are being met.*

42. For residential developments, show individual driveway tapers (standard driveway 16-foot wide with 3-foot tapers on each side) on plans to ensure no conflict with sidewalks, manholes, hydrants, street signs and etc. Detectable warning surfaces and sidewalk ramps shall not be proposed within a residential driveway.

Response: *Driveway tapers are being shown.*

43. Provide existing and proposed contours on the Grading Plan at the time of the Final Site Plan submittal.

Response: *Understood, existing and proposed contours are currently shown on the grading sheet and will be shown on the Final Site Plan.*

44. Provide at least 3-foot of 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.

Response: *Understood, the 3' clearance is provided.*

45. Site grading shall be limited to 1V:4H (25-percent), excluding landscaping berms. Numerous areas appear to exceed this standard.

Response: *The plan has been revised to show slopes at 1V:4H or flatter. There is one smaller area on the west side of lot 8 that still must be steeper than 1V:4H, but this slope is designed flatter than 1V:3H, is constructable, is mowable, and will be established using a mulch blanket additional BMP measure. Refer to sheet 6.*

46. Soil borings along the proposed road will be required at time of site plan submittal at 500-foot intervals per Section 11-195(d) of the Design and Construction Standards.

Response: *Additional soil borings will be performed prior to construction.*

47. Per Section 26.5-35(c), 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]".

Response: *The requested statement has been added to sheet 4.*

48. No off-site easements anticipated at this time. An off-site easement may be needed if stormwater is discharged off-site into adjacent properties.

Response: *Understood.*

Plan Review – reviewed by Rick Meader

1. Tree survey is provided but it doesn't include offsite trees within 50 feet of the project. Please

add the offsite trees within 50 feet of the project to the tree survey.

Response: *An additional tree survey is underway and will be provided once completed.*

2. There is a pond at the southwest corner of the site that extends onto the Ballantyne property, and is being partially filled to create Lot 1. See the Merjent letter regarding this.

Response: *This area is no longer being filled. See other responses for additional information regarding the wetland.*

3. Please add tree protection fencing for all trees to be saved.

Response: *Tree protection fence has been added and is shown on sheet 06.*

4. The project is only adjacent to other single-family residential property so no screening between the developments is required.

Response: *This screening is provided as a public benefit for the residents, adjacent developments, and adjacent homeowners.*

5. While a berm is not required, dense evergreen hedges must be added to the ends of both of the turnaround legs to shield the residences in the adjacent developments from headlights.

Response: *Additional landscaping is proposed in this location.*

6. Only one of the required berms is proposed. This would require a deviation that would not be supported by staff unless the pond is preserved as it is, a berm was proposed where it could be, and the required landscaping is provided across the frontage, including on the pond's banks.

Response: *Berms have been added where feasible and will not impact the existing pond.*

7. Please provide the additional subcanopy tree that is required.

Response: *The additional subcanopy tree has been provided.*

8. The required street trees are provided.

Response: *Understood.*

9. The required street trees are shown.

Response: *Understood.*

10. There are a number of areas where the required spacing between the trees and the underground utilities is not provided. If they couldn't be planted, a deviation would be required. That deviation would not be supported by staff.

Response: *The utilities have been revised to provide the requested spacing.*

11. Please revise the underground utility layout such that the required spacing between curb, tree and underground utility lines can be met.

Response: *The utilities have been revised to provide the requested spacing.*

12. Please provide a plant list on the Final Site Plans at the very latest.

Response: *Understood.*

13. Underground detention is proposed. If that is approved by engineering, no detention basin landscaping is required.

Response: *Understood.*

14. If above-ground detention is required, detention basin landscaping will also be required.

Response: *Underground detention is proposed.*

15. If an irrigation system will be used, a plan for it must be provided with Final Site Plans.

Response: *Understood.*

16. If 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.

Response: *Understood.*

Landscape Review – reviewed by Rick Meader

1. Please show zoning of adjacent parcels on Sheet LS-1.

Response: *The adjacent zoning districts are shown on the location map.*

2. Please provide a current wetland delineation.

Response: *A memo has been provided with this submittal detailing the existing wetland on site. The wetland is now shown throughout the plans.*

3. See the Merjent review for a complete discussion of the trees and wetlands.

Response: *Understood, see responses below.*

4. Offsite trees within 50 feet of the limits of disturbance should be added to the tree survey.

Response: *An additional tree survey is underway and will be provided with the next submittal.*

5. Please adjust the layout of the sanitary line to leave room for the required street trees. There should be 10 feet of space between a tree trunk and an underground storage line.

Response: *The sanitary sewer line has been relocated under the street. Trees have been revised to be no closer than 10 to the underground storage.*

6. There should also be 5 feet of space between a tree and water line, and at least 3 feet between the tree and the curb.

Response: *Trees are no closer than 5' to the watermain and are shown 4' from back of curb.*

7. The grading shown should be consistent between the grading plan and landscape plan.

Response: *The landscaping plan now accurately shows the proposed grading.*

8. Please add a note to all sheets with plantings clearly stating that trees must be planted at least 10 feet from utility structures and 5 feet from underground utility lines.

Response: *This note has been added to Sheet L-2.*

9. Please show lines a little heavier so conflicts can be avoided.

Response: *Utility line weights have been increased.*

10. Please revise the utility layout to provide room for all required trees.

Response: *The utility layout has been adjusted to provide adequate room for trees.*

11. If the RCOC does not allow any or all of the street trees shown along 8 Mile Road, they do not need to be planted, but a copy of their decision must be provided to the City.

Response: *Correspondence will be provided by RCOC if they do not allow the plantings.*

12. Although a berm is not required between single family residential developments, a dense evergreen hedge should be placed at both end sections of the turnaround to block headlights from impacting the residences in adjacent developments.

Response: *A row of 8' Green Giants will be planted in this location.*

13. Please provide the berm on the east side of driveway for as much of the 8 Mile road frontage as possible

Response: *A berm is now provided on both sides of the entrance.*

14. Please add another subcanopy tree.

Response: *An additional subcanopy trees has been added to the 8 Mile greenbelt.*

15. When location of transformer/utility boxes is determined, add landscaping per city requirements.

Response: *Understood*

16. Add a note to this effect to the plans.

Response: *The note has been added.*

17. If above-ground detention is required, it must be landscaped per the current standards.

Response: *Underground detention is proposed.*

18. Please survey the site for any populations of *Phragmites australis* and show its location on the topographic survey or landscape plan.

- If some is found, add plans for its removal.
- If none is found, please indicate that on the survey.

Response: *A phragmites site survey is underway and results will be provided when complete. This will be performed during the additional tree survey.*

19. Please clearly indicate which areas are to be seeded with which type of seed on plan view.

Response: *Seed and sod limits are noted on L-1 and shown on L-2.*

20. Please add note near property lines.

Response: *This note has been added to the plans.*

21. Please leave tree labels for trees to be saved on Landscape Plans L-1.

Response: *Labels for preserved trees are shown.*

22. Please add tree protection fencing for all trees within 50 feet of the project work area to be saved.

Response: *Tree protection is shown around the project perimeter.*

23. Please use correct sizes for plant material on the plant list when it is provided.

Response: *Understood*

Wetland & Woodland review – reviewed by Jason DeMoss

1. No 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 November 27, 2024 to verify and review the extent of identified trees on-site. Select photos from the site visit are included in Attachment A.

Response: *Understood.*

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. Because no regulated woodlands are present on-site, this is not applicable to this site.

Response: *Understood.*

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). There are at least four trees on-site that meet this criterion. The following trees are regulated on-site:
 - i. 2402 (40.5 in DBH)
 - ii. 2246 (36 in DBH)
 - iii. 1791 (61.5 in DBH)
 - iv. 1787 (52 in DBH)

Response: *Understood.*

4. One tree was identified during the November 27, 2024 site visit as being possibly larger than 36 inches and is not identified with a tree tag on-site, nor in the ICP. The tree is located north of Tree 1795 and south of Tree 2403. In future submittals, this tree should be clarified by species, DBH, and a unique identifier. If it is larger than 36 inches, it should be accounted for in the replacement calculation. A photograph of the tree is provided in Attachment A.

Response: *This tree will be confirmed during the expanded tree survey.*

5. The plans have proposed the cumulative removal of 4 regulated trees (Comment 4 may affect this calculation in future reviews). A Woodland Use Permit is required to perform construction on any site containing regulated trees. The permit for this site would require Planning Commission approval because there are more than three trees proposed to be impacted/removed by construction.

Response: *Understood. A woodland use permit application has been included in this submittal.*

6. Woodland Replacement. Based on review of the plans, the following woodland replacements are currently listed:

Response: *The woodland chart has been updated.*

7. The applicant has stated on Sheet L-4 that they will take credit for Tree 2420 and Tree 1789 for a total of 11 credits. By taking credit for existing (non-regulated) trees, the applicant may be required to place these trees into a conservation easement (see Comment 14). Additionally, the applicant may have overcounted the number of required replacements on-site. Because the site is not a regulated woodland, only trees larger than 36 inches DBH are required to be replaced.

Response: *This tree is located adjacent to proposed woodland replacement trees so will be part of an easement.*

8. A replacement plan and cost estimate for the tree replacement will be necessary prior to final site plan approval by the City. Woodland replacement credits can be provided by:
 - a. Planting the woodland tree replacement credits on-site.
 - i. 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 would be released after trees have been planted and approved by the City of Novi. The financial guarantee will be released after trees have been planted and approved by the City of Novi, and applicants must request a tree planting inspection.
 - ii. Woodland replacements shall be guaranteed for two growing seasons after the applicant's installation and the City's acceptance. A two-year maintenance

bond in the amount of 25% 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.

- b. Payment to the City of Novi Tree Fund at a rate of \$400/woodland replacement credit.
- c. Combination of on-site tree planting and payment into the City of Novi Tree Fund (\$400/woodland replacement credit).

Response: *Understood.*

9. Critical root zone. Accurate critical root zones must be depicted on the site plan for all regulated trees within 50 feet of the proposed grading or construction activities. Because only trees larger than 36 inches are regulated at this site, this requirement is not applicable to the other trees to be removed on-site. This may apply to trees within a new conservation easement adjacent to the site (Attachment B).

Response: *CRZs have been added for all trees currently surveyed and greater than 36”.*

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. Because the site is located west of a new woodland conservation easement (Attachment B), tree protection will need to be shown on the eastern and northern portions of the site.

- a. The cost to stake, install, and remove the tree protection fencing should be added to the Landscape Plan in order to calculate woodland fence inspection fees.

Response: *Tree protection fence at the CRZ is now added to the plans. A fence cost estimate has been added to the Woodland Plan.*

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.

Response: *Understood.*

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.

Response: *Understood.*

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.

Response: *Understood, please clarify if a conservation easement will be required.*

14. As noted in PREAPP24-01 (49680 Eight Mile Subdivision), it is possible that a wetland may be present in the southeastern portion of the site. The applicant provided a March 19, 2024 Wetland Delineation and Threatened and Endangered Species Assessment and stated that the southeastern portion of the site was flooded during a February site visit. The applicant states that the area exhibited minimal hydrophytic vegetation. However, with the site visit being conducted during February (outside of the growing season), no vegetation was likely growing whether hydrophytic or not. Merjent recommends the applicant conduct a growing season wetland delineation to verify the presence or absence of hydrophytic vegetation. Additionally, the applicant states that historical aerial review of the site indicates that wetland signatures may be present on-site.

Response: *An additional wetland investigation has been performed and a detailed memo has been included with submittal. It is believed that prior to the Ballantyne development allowing runoff to collect on the applicants parcel without a viable outlet or appropriate drainage course there may have been a small wet area that would qualify as a wetland by city standards. The site plan layout has been revised to avoid the historic limits of this wet area prior to the construction of the adjacent development. This potential wetland boundary is now shown throughout the plans.*

15. The recent development of the site to the east (Ballantyne) avoided impacts to the same feature and placed soil erosion best management practices (BMP) around the feature in question. Additionally, the Ballantyne development constructed a stone retaining wall to avoid impacts to the feature; the retaining wall can be seen in photographs provided in Attachment A.

Response: *Noted.*

16. Sheet 02 of the ICP states that the southeastern side was inundated with standing water/ice in February 2024.

Response: *Noted.*

17. Merjent conducted a site visit on November 27, 2024. While this visit was also outside of the growing season, remnant hydrophytic vegetation was present such as large barnyard grass (*Echinochloa crus-galli*, FACW [Midwestern Regional Supplement]), hybrid cat-tail (*Typha X glauca*), and dock-leaf smartweed (*Persicaria lapathifolia*, FACW). Additionally, as noted in the tree survey, this area has silver maple (*Acer saccharinum*, FACW) trees present throughout the flooded and low lying portions of the site. Photographs from the site visit are provided in Attachment A.

Response: *See previous responses and memo included with the submittal.*

18. Merjent recommends that a growing season wetland delineation be completed and that U.S. Army Corps of Engineers Data Forms be provided before a determination is recommended (approval/disapproval) for this project.

Response: *See previous responses and memo included with the submittal.*

19. If the area is found to be a wetland and impacts are proposed, details such as area to be filled, amount of fill, and type of fill are required. Additionally, the City of Novi regulates wetland and watercourse buffers/setbacks. Section 3.6.2 (M)(i) of the City of Novi Zoning Ordinance 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 25-foot limit is measured as horizontal feet, regardless of grade change.

Response: *See previous responses and memo included with the submittal.*

20. Additional information on Wetland Permits within the City of Novi can be found in the PREAPP24-01, Pre-application Letter.

Response: *Understood.*

Traffic review – reviewed by Paula K. Johnson

1. The applicant, Braciolo Brothers, LLC, is proposing a ten home single family subdivision.

Response: *Understood.*

2. The development is located on the north side of Eight Mile Road, west of Garfield Road. Eight Mile Road is under the jurisdiction of the Road Commission of Oakland County and Garfield Road is under the jurisdiction of the City of Novi.

Response: *Understood.*

3. The site is zoned R-A (Residential Acreage) and the applicant is utilizing the PRO option.

Response: *Understood.*

4. There are following traffic related deviations will be required if changes are not made to the plans:

- a. Below standard eyebrow radius.
- b. Below standard centerline radius.

Response: *Deviations have been requested for both and are listed on the cover.*

5. Indicate coordination with RCOC as necessary.

Response: *Understood.*

6. Update detail to latest R-28-K version in future submittal.

Response: *The detail has been updated.*

7. Indicate if individual trash collection is to be present for single family homes.

Response: *Individual lot trash collection will be provided, there will not be a community dumpster.*

8. Provide turning movements in future submittal.

Response: *Emergency vehicle turning movement is shown on sheet 5.*

9. 54' required for residential. A deviation will be required if the plans are not revised.

Response: *A deviation has been requested and is listed on the cover.*

10. Proposed 90' centerline radius is below 230' standard per Section 11-194.b.2 of the City's Code of Ordinances. A deviation will be required if the plans are not revised.

Response: *A deviation has been requested and is listed on the cover.*

11. Label signs on site plan.

Response: *All signs are labeled.*

Fire – reviewed by Andrew Copeland

1. All fire hydrants MUST be installed and operational prior to any combustible material is brought on site. IFC 2015 3312.1. ONE additional hydrant is needed near lot #1. Sheet #5 only shows 2 hydrants being added to new water main.

Response: *Understood, this has been noted on the cover.*

2. Fire lanes will be designated by the Fire Chief or his designee when it is deemed necessary and shall comply with the Fire Prevention Ordinances adopted by the City of Novi. The location of all "fire lane – no parking" signs are to be shown on the site plans. (Fire Prevention Ord.). Additional "No Parking signs" needed at end of proposed Maybury Dr, near cul-de-sac turnaround.

Response: *Understood, an additional no parking sign has been added.*

3. Fire apparatus access drives to and from buildings through parking lots shall have a minimum fifty (50) feet outside turning radius and designed to support a minimum of thirty-five (35) tons. (D.C.S. Sec 11-239(b)(5)). Sheet #5 indicates 45' turning radii. Have this updated and include 50' turning capabilities.

Response: *The turning template has been updated.*

4. All other Fire Department notes (from sheet 1) will be followed for next review.

Response: *Understood.*

We appreciate your continued review and assistance with this project. Should you have any remaining questions or need anything else from us to help facilitate your approvals, please do not hesitate to contact me direct at (947)-886-9874.

Sincerely,

ATWELL, LLC

A handwritten signature in blue ink, appearing to read "Chris Rothhaar", with a stylized flourish at the end.

Chris Rothhaar, P.E.
Project Manager

CORRESPONDENCE



CITY OF NOVI
RESPONSE FORM

RECEIVED

APR 11 2025

**CITY OF NOVI
COMMUNITY DEVELOPMENT**

**JZ24-43 MARIELLA ESTATES FOR INITIAL CONSIDERATION OF ELIGIBILITY FOR A PLANNED
REZONING OVERLAY (PRO) CONCEPT PLAN ASSOCIATED WITH ZONING MAP AMENDMENT
18.750, TO REZONE FROM RA (RESIDENTIAL ACREAGE) TO R-1 (ONE FAMILY RESIDENTIAL).**

You are invited to attend the public hearing on April 23, 2025, and voice your support or objection.

Participants may also choose to submit comments that can be read into the record if they are unable to attend. To submit a written reply, you may use this form to reply by mail, email, or fax. Returning this form by mail, email, or fax has as much validity as verbal comments. Signed comments will be added to the record of the meeting. Unsigned or anonymous comments **WILL NOT** be considered. Written comments must be received by 4:00 PM on the day of the meeting.

Return via email: schoi@cityofnovi.org

Return via mail or fax: Community Development Department
45175 Ten Mile Road, Novi, Michigan 48375
248-347-0475 (Main) 248-735-5633 (Fax)

Information regarding the project will be available the Saturday prior to the meeting date at:
<https://www.cityofnovi.org/agendas-minutes/planning-commission/2025/>.

Plans are available for viewing during the City's regular business hours, Monday thru Friday, 8:00 AM to 5:00 PM, at the Community Development Department, or by contacting bmcbeth@cityofnovi.org.



I SUPPORT



I OBJECT

TO THE ABOVE REQUEST FOR THE FOLLOWING REASONS:

- ① The change and the new development will hurt nearby property values.
- ② The development will add more traffic to the area (two existing communities state park farm, etc), which is a safety concern.
- ③ Two nearby new communities are almost completed and occupied. This new development will introduce new dust, noise, and construction danger to the neighborhood.
- ④ There are plenty other lands available elsewhere for full development.

SIGNATURE: [Signature] 4/7/25

PRINT NAME: Yang Zhou

ADDRESS: 21077 Bullerstone Blvd Northville MI 48167

***** IN ACCORDANCE WITH MCL 125.3103:**

- NOTICE SHALL BE GIVEN TO ALL PERSONS TO WHOM REAL PROPERTY IS ASSESSED WITHIN 300 FEET OF THE SUBJECT PROPERTY.
- IF A SINGLE STRUCTURE CONTAINS MORE THAN 4 DWELLING UNITS OR OTHER DISTINCT SPATIAL AREAS OWNED OR LEASED BY DIFFERENT PERSONS, NOTICE MAY BE GIVEN TO THE MANAGER OR OWNER OF THE STRUCTURE, WHO SHALL BE REQUESTED TO POST THE NOTICE AT THE PRIMARY ENTRANCE TO THE STRUCTURE.