



CATHOLIC CENTRAL CONNECTOR ROAD JSP21-17

CATHOLIC CENTRAL CONNECTOR ROAD JSP21-17

Public hearing at the request of Catholic Central High School for Planning Commission's approval of Preliminary Site Plan, Wetland Permit, Woodland Permit and Stormwater Management Plan. The subject property is zoned R-4 One Family Residential, R-1 One Family Residential, and I-1 Light Industrial and is located in Section 18, west of Wixom Road and south of Twelve Mile Road. The applicant is proposing to construct a new driveway to provide a connection from the existing loop road to Twelve Mile Road through the northern area of the property. Utilities, stormwater detention and wetland mitigation are also proposed.

Required Action

Approval/Denial of the Preliminary Site Plan, Wetland Permit, Woodland Permit and Stormwater Management Plan.

REVIEW	RESULT	DATE	COMMENTS
Planning	Approval recommended	9-17-21	<ul style="list-style-type: none"> • Items to be addressed in Final Site Plan submittal
Engineering	Approval recommended	8-16-21	<ul style="list-style-type: none"> • Items to be addressed in the Final Site Plan submittal
Landscaping	Approval recommended	7-30-21	<ul style="list-style-type: none"> • Waiver lack of berms along the Berkshire Pointe property lines (Supported by staff as existing vegetation would be disturbed) • Waiver for lack of berms and greenbelt landscaping along 12 Mile Road (Supported for east of the entry due to presence of wetland) • Items to be addressed in Final Site Plan
Wetland	Approval recommended	8-17-21	<ul style="list-style-type: none"> • Non-Minor Wetland permit, mitigation, conservation easement • Items to be addressed in the electronic stamping submittal
Woodland	Approval recommended	9-15-21	<ul style="list-style-type: none"> • Woodland permit, conservation easement • Items to be addressed in Final Site Plan
Traffic	Approval recommended	8-13-21	<ul style="list-style-type: none"> • Items to be addressed in Final Site Plan
Fire	Conditional Approval recommended	8-16-21	<ul style="list-style-type: none"> • Items to be address in Final Site Plan

Motion sheet

Approval – Preliminary Site Plan

In the matter of Catholic Central Connector Road, JS21-17, motion to **approve** the Preliminary Site Plan based on and subject to the following:

- a. This approval applies to the road construction and associated improvements only, future phases depicted on the Master Plan will require additional approvals;
- b. Landscaping waiver from Section 5.5.3.B.ii. and iii. For absence of berm along Berkshire Pointe, *because construction of a berm would disturb additional existing woodland and wetland including mature trees which provide screening*, which is hereby granted;
- c. Landscape waiver from Section 5.5.3.B. ii. and iii. for absence of required berm adjacent to the public right of way at Twelve Mile Road east of the new driveway, *because construction of a berm would disturb additional existing wetland and woodland*, which is hereby granted;
- d. **Choose:**
 1. Landscape waiver from Section 5.5.3.B. ii. and iii. for absence of required berm adjacent to the public right of way at Twelve Mile Road west of the new driveway, *because construction of a berm would impact the proposed area of the detention pond, the entry wall, pond and landscaping will provide a substantial visual buffer, and there will be no structure located within 150 feet of 12 Mile Road*, which is hereby granted; **(Applicant Requested)**

OR

2. The applicant shall comply with the Ordinance requirement and provide the required berm along Twelve Mile Road west of the new driveway; **(Staff Preferred)**

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

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

-AND-

Approval – Wetland Permit

In the matter of Catholic Central Connector Road, JS21-17, motion to **approve** the Wetland Permit based on and subject to the following:

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

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

-AND-

Approval – Woodland Permit

In the matter of Catholic Central Connector Road, JS21-17, motion to **approve** the Woodland Permit based on and subject to the following:

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

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

- AND -

Approval – Stormwater Management Plan

In the matter of Catholic Central Connector Road, JS21-17, motion to **approve** the Stormwater Management Plan, based on and subject to:

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

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

- OR -

Denial – Preliminary Site Plan

In the matter of Catholic Central Connector Road, JS21-17, motion to **deny** the Preliminary Site Plan...*(because the plan is not in compliance with Article 3, Article 4 and Article 5 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)*

-AND-

Denial- Wetland Permit

In the matter of Catholic Central Connector Road, JS21-17, motion to **deny** the Wetland Permit... *(because the plan is not in compliance with Chapter 12, Article V of the Code of Ordinances, and all other applicable provisions of the Ordinance.)*

-AND-

Denial- Woodland Permit

In the matter of Catholic Central Connector Road, JS21-17, motion to **deny** the Woodland Permit... *(because the plan is not in compliance with Chapter 37 of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

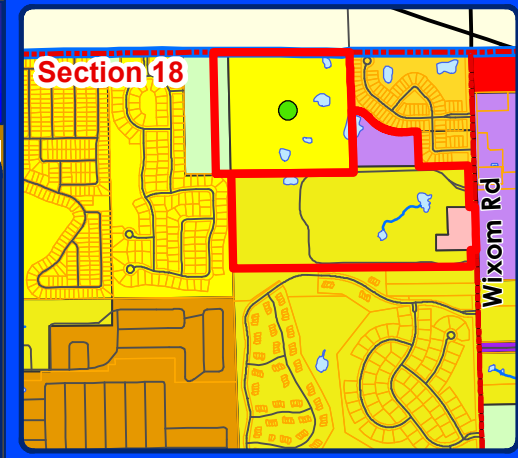
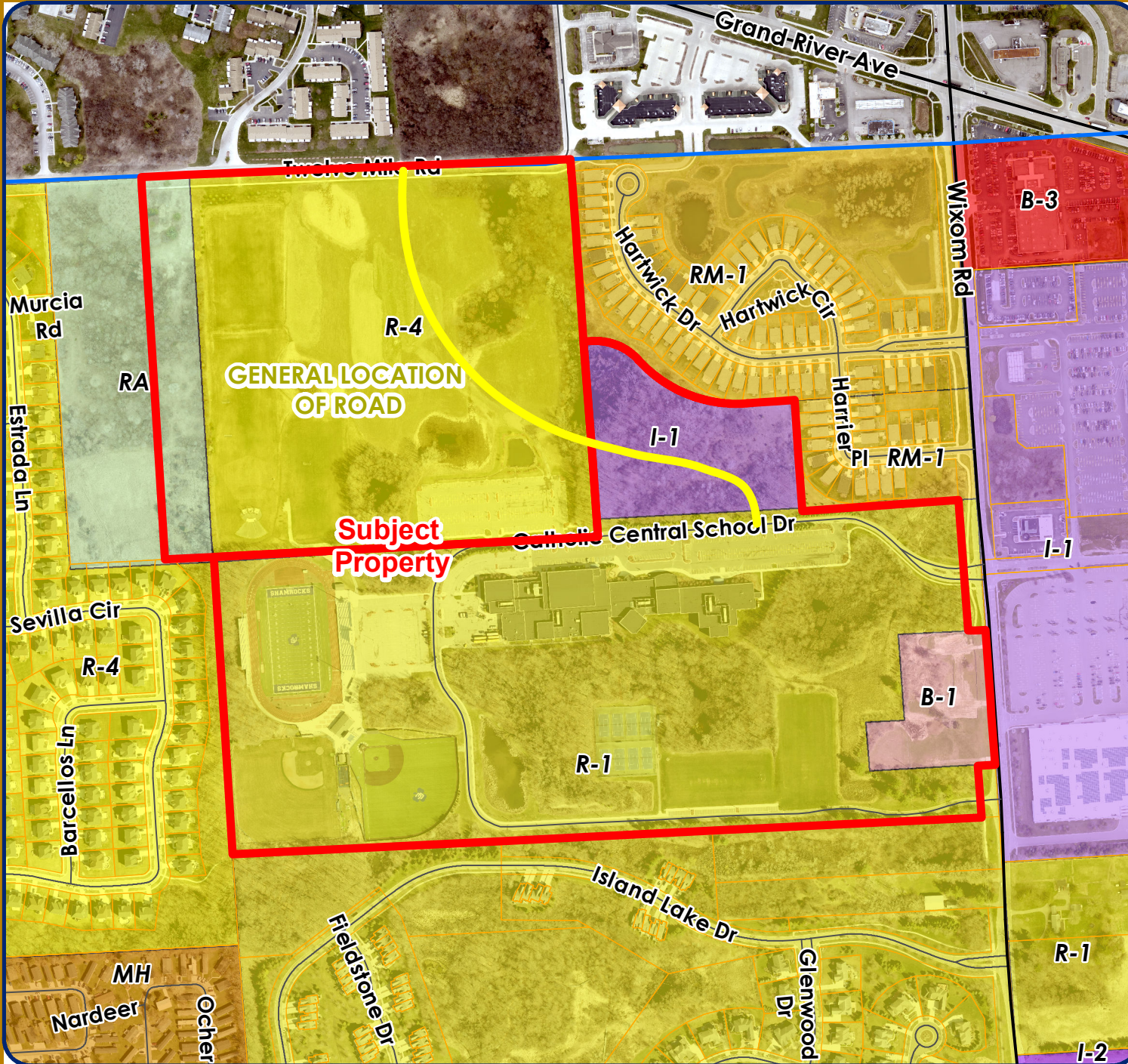
-AND-

Denial – Stormwater Management Plan

In the matter of Catholic Central Connector Road, JS21-17, motion to **deny** the Stormwater Management Plan...*(because the plan is not in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance.)*

MAPS
Location
Zoning
Future Land Use
Natural Features

JSP 21-17 CATHOLIC CENTRAL CONNECTOR ROAD ZONING



- LEGEND**
- R-A: Residential Acreage
 - R-1: One-Family Residential District
 - R-4: One-Family Residential District
 - RM-1: Low-Density Multiple Family
 - MH: Mobile Home District
 - B-1: Local Business District
 - B-3: General Business District
 - I-1: Light Industrial District
 - I-2: General Industrial District
 - Subject Property



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

Map Author: Lindsay Bell
 Date: 9/30/21
 Project: CATHOLIC CENTRAL ROAD
 Version #: 1

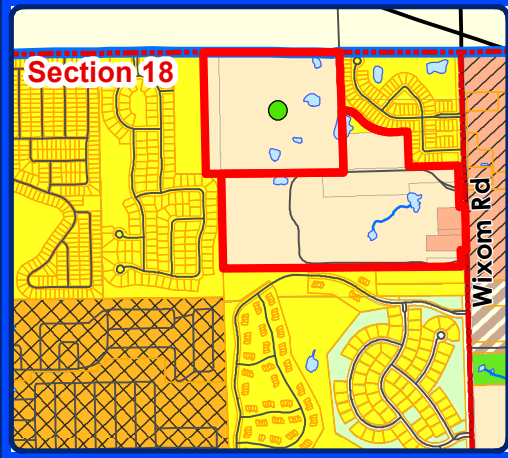
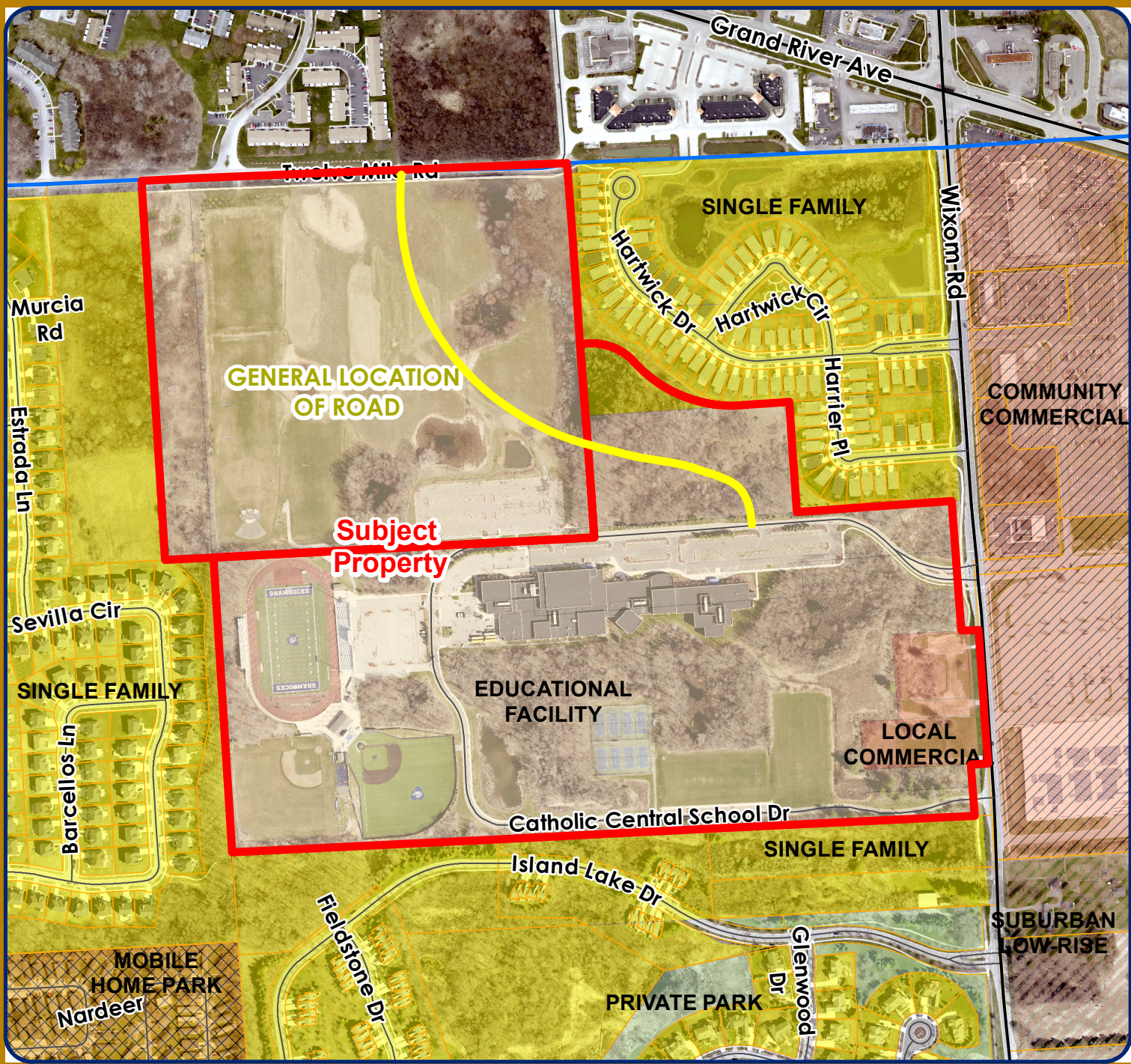


MAP INTERPRETATION NOTICE

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.

JSP 21-17 CATHOLIC CENTRAL CONNECTOR ROAD

FUTURE LAND USE



LEGEND

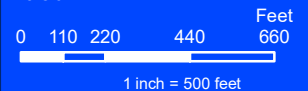
- Single Family
- Mobile Home Park
- Suburban Low-Rise
- Local Commercial
- Community Commercial
- Educational Facility
- Public Park
- Private Park
- Subject Property



City of Novi

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

Map Author: Lindsay Bell
 Date: 9/30/21
 Project: CATHOLIC CENTRAL ROAD
 Version #: 1

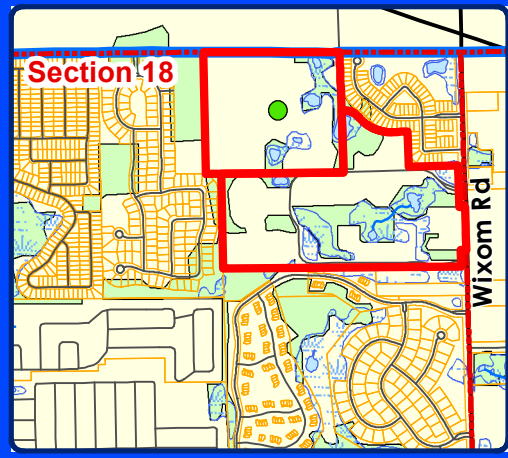
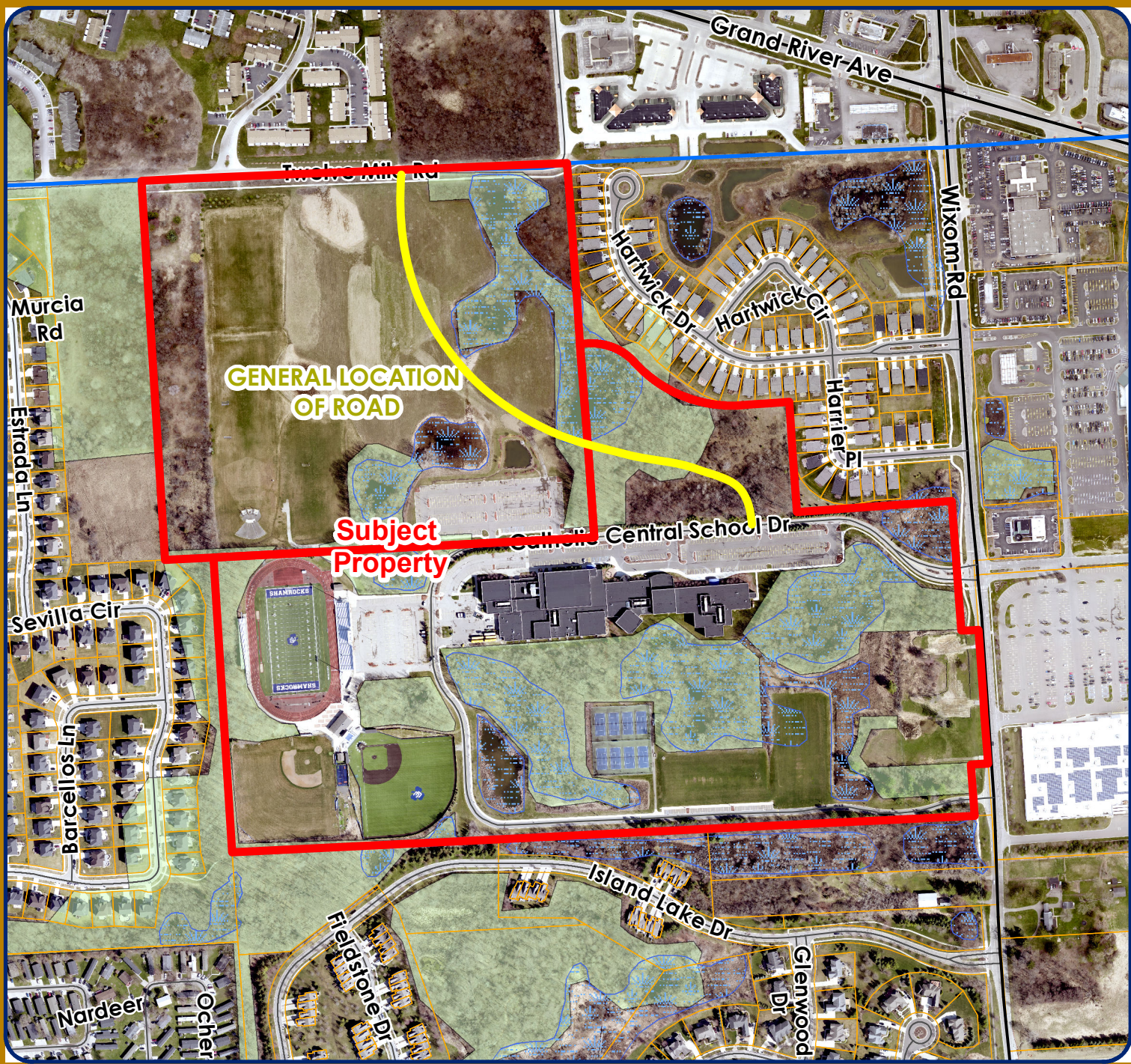


MAP INTERPRETATION NOTICE

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.

JSP 21-17 CATHOLIC CENTRAL CONNECTOR ROAD

NATURAL FEATURES



LEGEND


-  WETLANDS
-  WOODLANDS
-  Subject Property



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

Map Author: Lindsay Bell
 Date: 9/30/21
 Project: CATHOLIC CENTRAL ROAD
 Version #: 1

0 110 220 440 660 Feet
 1 inch = 500 feet



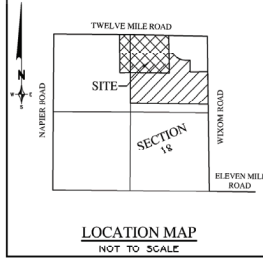
MAP INTERPRETATION NOTICE

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

SITE PLAN



PRELIMINARY SITE PLAN AND STORMWATER MANGEMENT PLAN FOR CATHOLIC CENTRAL HIGH SCHOOL CONNECTOR ROAD & UTILITY PLAN CATHOLIC CENTRAL HIGH SCHOOL SECTION 18, CITY OF NOVI, MICHIGAN



LOCATION MAP
NOT TO SCALE

TAX ID. NUMBERS: 22-18-200-026 AND 22-18-200-027

APPLICANT/OWNER: CATHOLIC CENTRAL HIGH SCHOOL 5580 GRAND BLVD., SUITE 100 NOVI, MI 48274 PHONE: (248) 596-3899 CONTACT: MICHAEL WILSON	CIVIL ENGINEER/LAND SURVEYOR: ZEMET WOZNAK AND ASSOCIATES, INC. 5580 GRAND BLVD., SUITE 100 NOVI, MI 48274 PHONE: (248) 437-3099 FAX: (248) 437-5222 CONTACT: ANDY WOZNAK	WETLAND/WOODLAND CONSULTANT: BARK ENGINEERING 3005 BOARDWALK DR. ANN ARBOR, MI 48106 PHONE: (734) 922-4400 CONTACT: WOODY HELD	LANDSCAPE ARCHITECT: GRISIM MIETZ ANDRISSE ASSOCIATES 311 E. CODY, SUITES A & B NORTHVILLE, MI 48167 PHONE: (248) 847-7010 CONTACT: STEVE ENDRES	ARCHITECT: IDS 1441 WEST LONG LAKE, SUITE 200 TROY, MI 48069 PHONE: (248) 823-2100 CONTACT: BRUCE SNYDER	CONSTRUCTION MANAGER: J.S. VIG CONSTRUCTION COMPANY 15040 CLAY STREET PLYMOUTH, MI 48170 PHONE: (734) 283-3002 CONTACT: JOSEPH S. VIG
--	---	--	--	--	---

SHEET INDEX:
COVER SHEET

- CIVIL DRAWINGS:**
- CE-1 EXISTING CONDITIONS
 - CE-1.1 TREE SURVEY - AREA A
 - CE-1.2 TREE SURVEY - AREA B
 - CE-1.3 TREE SURVEY - AREA C
 - CE-1.4 TREE SURVEY - AREA D
 - CE-1.5 TREE SURVEY SCHEDULE
 - CE-1.6 TREE SURVEY SCHEDULE
 - CE-2 SOILS MAP
 - CE-3 MASTER SITE STUDY
 - CE-3.1 MASTER GRADING SITE STUDY
 - CE-3.2 MASTER WATER MAIN SITE STUDY
 - CE-3.3 MASTER SANITARY SEWER SITE STUDY
 - CE-4 DIMENSION AND PAVING PLAN
 - CE-4A DIMENSION AND PAVING PLAN
 - CE-4B DIMENSION AND PAVING PLAN
 - CE-4C DIMENSION AND PAVING PLAN
 - CE-4D PERFORMANCE TURNING ANALYSIS
 - CE-5 SCHEMATIC CONNECTOR ROAD CROSS SECTIONS
 - CE-5.1 CONNECTOR ROAD PROFILE
 - CE-5.2 GRADING PLAN
 - CE-5.3 GRADING PLAN
 - CE-5.4 GRADING PLAN
 - CE-5.5 GRADING PLAN
 - CE-5.6 GRADING PLAN
 - CE-5.7 GRADING PLAN
 - CE-5.8 GRADING PLAN
 - CE-5.9 GRADING PLAN
 - CE-5.10 GRADING PLAN
 - CE-5.11 GRADING PLAN
 - CE-5.12 GRADING PLAN
 - CE-5.13 GRADING PLAN
 - CE-5.14 GRADING PLAN
 - CE-5.15 GRADING PLAN
 - CE-5.16 GRADING PLAN
 - CE-5.17 GRADING PLAN
 - CE-5.18 GRADING PLAN
 - CE-5.19 GRADING PLAN
 - CE-5.20 GRADING PLAN
 - CE-6 STORM SEWER PLAN
 - CE-6.1 STORM SEWER PLAN
 - CE-6.2 STORM SEWER PLAN
 - CE-6.3 STORM SEWER PLAN
 - CE-6.4 STORM SEWER PLAN
 - CE-6.5 STORM SEWER PLAN
 - CE-6.6 STORM SEWER PLAN
 - CE-6.7 STORM SEWER PLAN
 - CE-6.8 STORM SEWER PLAN
 - CE-6.9 STORM SEWER PLAN
 - CE-6.10 STORM SEWER PLAN
 - CE-6.11 STORM SEWER PLAN
 - CE-6.12 STORM SEWER PLAN
 - CE-6.13 STORM SEWER PLAN
 - CE-6.14 STORM SEWER PLAN
 - CE-6.15 STORM SEWER PLAN
 - CE-6.16 STORM SEWER PLAN
 - CE-6.17 STORM SEWER PLAN
 - CE-6.18 STORM SEWER PLAN
 - CE-6.19 STORM SEWER PLAN
 - CE-6.20 STORM SEWER PLAN
 - CE-7 WATER MAIN PLAN
 - CE-7.1 WATER MAIN PLAN
 - CE-7.2 WATER MAIN PLAN
 - CE-7.3 WATER MAIN PLAN
 - CE-7.4 WATER MAIN PLAN
 - CE-7.5 WATER MAIN PLAN
 - CE-7.6 WATER MAIN PLAN
 - CE-7.7 WATER MAIN PLAN
 - CE-7.8 WATER MAIN PLAN
 - CE-7.9 WATER MAIN PLAN
 - CE-7.10 WATER MAIN PLAN
 - CE-7.11 WATER MAIN PLAN
 - CE-7.12 WATER MAIN PLAN
 - CE-7.13 WATER MAIN PLAN
 - CE-7.14 WATER MAIN PLAN
 - CE-7.15 WATER MAIN PLAN
 - CE-7.16 WATER MAIN PLAN
 - CE-7.17 WATER MAIN PLAN
 - CE-7.18 WATER MAIN PLAN
 - CE-7.19 WATER MAIN PLAN
 - CE-7.20 WATER MAIN PLAN
 - CE-8 UTILITIES PLAN
 - CE-8.1 UTILITIES PLAN
 - CE-8.2 UTILITIES PLAN
 - CE-8.3 UTILITIES PLAN
 - CE-8.4 UTILITIES PLAN
 - CE-8.5 UTILITIES PLAN
 - CE-8.6 UTILITIES PLAN
 - CE-8.7 UTILITIES PLAN
 - CE-8.8 UTILITIES PLAN
 - CE-8.9 UTILITIES PLAN
 - CE-8.10 UTILITIES PLAN
 - CE-8.11 UTILITIES PLAN
 - CE-8.12 UTILITIES PLAN
 - CE-8.13 UTILITIES PLAN
 - CE-8.14 UTILITIES PLAN
 - CE-8.15 UTILITIES PLAN
 - CE-8.16 UTILITIES PLAN
 - CE-8.17 UTILITIES PLAN
 - CE-8.18 UTILITIES PLAN
 - CE-8.19 UTILITIES PLAN
 - CE-8.20 UTILITIES PLAN
 - CE-9 STORM WATER MANAGEMENT PLAN
 - CE-9.1 STORM WATER MANAGEMENT PLAN
 - CE-9.2 STORM WATER MANAGEMENT PLAN
 - CE-9.3 STORM WATER MANAGEMENT PLAN
 - CE-9.4 STORM WATER MANAGEMENT PLAN
 - CE-9.5 STORM WATER MANAGEMENT PLAN
 - CE-9.6 STORM WATER MANAGEMENT PLAN
 - CE-9.7 STORM WATER MANAGEMENT PLAN
 - CE-9.8 STORM WATER MANAGEMENT PLAN
 - CE-9.9 STORM WATER MANAGEMENT PLAN
 - CE-9.10 STORM WATER MANAGEMENT PLAN
 - CE-9.11 STORM WATER MANAGEMENT PLAN
 - CE-9.12 STORM WATER MANAGEMENT PLAN
 - CE-9.13 STORM WATER MANAGEMENT PLAN
 - CE-9.14 STORM WATER MANAGEMENT PLAN
 - CE-9.15 STORM WATER MANAGEMENT PLAN
 - CE-9.16 STORM WATER MANAGEMENT PLAN
 - CE-9.17 STORM WATER MANAGEMENT PLAN
 - CE-9.18 STORM WATER MANAGEMENT PLAN
 - CE-9.19 STORM WATER MANAGEMENT PLAN
 - CE-9.20 STORM WATER MANAGEMENT PLAN
 - CE-10 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.1 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.2 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.3 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.4 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.5 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.6 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.7 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.8 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.9 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.10 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.11 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.12 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.13 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.14 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.15 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.16 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.17 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.18 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.19 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-10.20 STORM WATER OUTLET STRUCTURE DETAILS
 - CE-11 WETLAND AND BUFFER IMPACTS
 - CE-11.1 WETLAND AND BUFFER IMPACTS
 - CE-11.2 WETLAND AND BUFFER IMPACTS
 - CE-11.3 WETLAND AND BUFFER IMPACTS
 - CE-11.4 WETLAND AND BUFFER IMPACTS
 - CE-11.5 WETLAND AND BUFFER IMPACTS
 - CE-11.6 WETLAND AND BUFFER IMPACTS
 - CE-11.7 WETLAND AND BUFFER IMPACTS
 - CE-11.8 WETLAND AND BUFFER IMPACTS
 - CE-11.9 WETLAND AND BUFFER IMPACTS
 - CE-11.10 WETLAND AND BUFFER IMPACTS
 - CE-11.11 WETLAND AND BUFFER IMPACTS
 - CE-11.12 WETLAND AND BUFFER IMPACTS
 - CE-11.13 WETLAND AND BUFFER IMPACTS
 - CE-11.14 WETLAND AND BUFFER IMPACTS
 - CE-11.15 WETLAND AND BUFFER IMPACTS
 - CE-11.16 WETLAND AND BUFFER IMPACTS
 - CE-11.17 WETLAND AND BUFFER IMPACTS
 - CE-11.18 WETLAND AND BUFFER IMPACTS
 - CE-11.19 WETLAND AND BUFFER IMPACTS
 - CE-11.20 WETLAND AND BUFFER IMPACTS
 - CE-12 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.1 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.2 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.3 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.4 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.5 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.6 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.7 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.8 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.9 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.10 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.11 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.12 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.13 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.14 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.15 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.16 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.17 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.18 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.19 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-12.20 PRE-DEVELOPMENT DRAINAGE MAP
 - CE-13 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.1 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.2 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.3 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.4 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.5 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.6 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.7 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.8 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.9 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.10 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.11 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.12 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.13 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.14 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.15 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.16 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.17 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.18 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.19 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-13.20 STORM AREA MAP AND STORM SEWER CALCULATIONS
 - CE-14 EROSION CONTROL PLAN
 - CE-14.1 EROSION CONTROL PLAN
 - CE-14.2 EROSION CONTROL PLAN
 - CE-14.3 EROSION CONTROL PLAN
 - CE-14.4 EROSION CONTROL PLAN
 - CE-14.5 EROSION CONTROL PLAN
 - CE-14.6 EROSION CONTROL PLAN
 - CE-14.7 EROSION CONTROL PLAN
 - CE-14.8 EROSION CONTROL PLAN
 - CE-14.9 EROSION CONTROL PLAN
 - CE-14.10 EROSION CONTROL PLAN
 - CE-14.11 EROSION CONTROL PLAN
 - CE-14.12 EROSION CONTROL PLAN
 - CE-14.13 EROSION CONTROL PLAN
 - CE-14.14 EROSION CONTROL PLAN
 - CE-14.15 EROSION CONTROL PLAN
 - CE-14.16 EROSION CONTROL PLAN
 - CE-14.17 EROSION CONTROL PLAN
 - CE-14.18 EROSION CONTROL PLAN
 - CE-14.19 EROSION CONTROL PLAN
 - CE-14.20 EROSION CONTROL PLAN
 - CE-15 EROSION CONTROL PLAN
 - CE-15.1 EROSION CONTROL PLAN
 - CE-15.2 EROSION CONTROL PLAN
 - CE-15.3 EROSION CONTROL PLAN
 - CE-15.4 EROSION CONTROL PLAN
 - CE-15.5 EROSION CONTROL PLAN
 - CE-15.6 EROSION CONTROL PLAN
 - CE-15.7 EROSION CONTROL PLAN
 - CE-15.8 EROSION CONTROL PLAN
 - CE-15.9 EROSION CONTROL PLAN
 - CE-15.10 EROSION CONTROL PLAN
 - CE-15.11 EROSION CONTROL PLAN
 - CE-15.12 EROSION CONTROL PLAN
 - CE-15.13 EROSION CONTROL PLAN
 - CE-15.14 EROSION CONTROL PLAN
 - CE-15.15 EROSION CONTROL PLAN
 - CE-15.16 EROSION CONTROL PLAN
 - CE-15.17 EROSION CONTROL PLAN
 - CE-15.18 EROSION CONTROL PLAN
 - CE-15.19 EROSION CONTROL PLAN
 - CE-15.20 EROSION CONTROL PLAN
 - CE-16 EROSION CONTROL PLAN
 - CE-16.1 EROSION CONTROL PLAN
 - CE-16.2 EROSION CONTROL PLAN
 - CE-16.3 EROSION CONTROL PLAN
 - CE-16.4 EROSION CONTROL PLAN
 - CE-16.5 EROSION CONTROL PLAN
 - CE-16.6 EROSION CONTROL PLAN
 - CE-16.7 EROSION CONTROL PLAN
 - CE-16.8 EROSION CONTROL PLAN
 - CE-16.9 EROSION CONTROL PLAN
 - CE-16.10 EROSION CONTROL PLAN
 - CE-16.11 EROSION CONTROL PLAN
 - CE-16.12 EROSION CONTROL PLAN
 - CE-16.13 EROSION CONTROL PLAN
 - CE-16.14 EROSION CONTROL PLAN
 - CE-16.15 EROSION CONTROL PLAN
 - CE-16.16 EROSION CONTROL PLAN
 - CE-16.17 EROSION CONTROL PLAN
 - CE-16.18 EROSION CONTROL PLAN
 - CE-16.19 EROSION CONTROL PLAN
 - CE-16.20 EROSION CONTROL PLAN
 - CE-17 EROSION CONTROL NOTES AND DETAILS
 - CE-17.1 EROSION CONTROL NOTES AND DETAILS
 - CE-17.2 EROSION CONTROL NOTES AND DETAILS
 - CE-17.3 EROSION CONTROL NOTES AND DETAILS
 - CE-17.4 EROSION CONTROL NOTES AND DETAILS
 - CE-17.5 EROSION CONTROL NOTES AND DETAILS
 - CE-17.6 EROSION CONTROL NOTES AND DETAILS
 - CE-17.7 EROSION CONTROL NOTES AND DETAILS
 - CE-17.8 EROSION CONTROL NOTES AND DETAILS
 - CE-17.9 EROSION CONTROL NOTES AND DETAILS
 - CE-17.10 EROSION CONTROL NOTES AND DETAILS
 - CE-17.11 EROSION CONTROL NOTES AND DETAILS
 - CE-17.12 EROSION CONTROL NOTES AND DETAILS
 - CE-17.13 EROSION CONTROL NOTES AND DETAILS
 - CE-17.14 EROSION CONTROL NOTES AND DETAILS
 - CE-17.15 EROSION CONTROL NOTES AND DETAILS
 - CE-17.16 EROSION CONTROL NOTES AND DETAILS
 - CE-17.17 EROSION CONTROL NOTES AND DETAILS
 - CE-17.18 EROSION CONTROL NOTES AND DETAILS
 - CE-17.19 EROSION CONTROL NOTES AND DETAILS
 - CE-17.20 EROSION CONTROL NOTES AND DETAILS
 - CE-18 STORM SEWER PROFILES
 - CE-18.1 STORM SEWER PROFILES
 - CE-18.2 STORM SEWER PROFILES
 - CE-18.3 STORM SEWER PROFILES
 - CE-18.4 STORM SEWER PROFILES
 - CE-18.5 STORM SEWER PROFILES
 - CE-18.6 STORM SEWER PROFILES
 - CE-18.7 STORM SEWER PROFILES
 - CE-18.8 STORM SEWER PROFILES
 - CE-18.9 STORM SEWER PROFILES
 - CE-18.10 STORM SEWER PROFILES
 - CE-18.11 STORM SEWER PROFILES
 - CE-18.12 STORM SEWER PROFILES
 - CE-18.13 STORM SEWER PROFILES
 - CE-18.14 STORM SEWER PROFILES
 - CE-18.15 STORM SEWER PROFILES
 - CE-18.16 STORM SEWER PROFILES
 - CE-18.17 STORM SEWER PROFILES
 - CE-18.18 STORM SEWER PROFILES
 - CE-18.19 STORM SEWER PROFILES
 - CE-18.20 STORM SEWER PROFILES
 - CE-19 WATER MAIN PROFILES
 - CE-19.1 WATER MAIN PROFILES
 - CE-19.2 WATER MAIN PROFILES
 - CE-19.3 WATER MAIN PROFILES
 - CE-19.4 WATER MAIN PROFILES
 - CE-19.5 WATER MAIN PROFILES
 - CE-19.6 WATER MAIN PROFILES
 - CE-19.7 WATER MAIN PROFILES
 - CE-19.8 WATER MAIN PROFILES
 - CE-19.9 WATER MAIN PROFILES
 - CE-19.10 WATER MAIN PROFILES
 - CE-19.11 WATER MAIN PROFILES
 - CE-19.12 WATER MAIN PROFILES
 - CE-19.13 WATER MAIN PROFILES
 - CE-19.14 WATER MAIN PROFILES
 - CE-19.15 WATER MAIN PROFILES
 - CE-19.16 WATER MAIN PROFILES
 - CE-19.17 WATER MAIN PROFILES
 - CE-19.18 WATER MAIN PROFILES
 - CE-19.19 WATER MAIN PROFILES
 - CE-19.20 WATER MAIN PROFILES
 - CE-20 SITE PLAN NOTES AND DETAILS

- SITE LANDSCAPING DRAWINGS:**
- L001 COMPOSITE LANDSCAPE PLAN
 - L101 TREE REMOVALS PLAN - AREA A
 - L102 TREE REMOVALS PLAN - AREA B
 - L103 TREE REMOVALS PLAN - AREA C
 - L104 TREE REMOVALS PLAN & SCHEDULE - AREA D
 - L201 LANDSCAPE PLAN - AREA A
 - L202 LANDSCAPE PLAN - AREA B
 - L203 LANDSCAPE PLAN - AREA C
 - L204 LANDSCAPE PLAN - AREA D
 - L301 LANDSCAPE DETAILS
 - L401 SIGNAGE DETAILS

- SITE LIGHTING DRAWINGS:**
- LE-01 ELECTRICAL REFERENCE INFORMATION
 - LE-01 COMPOSITE SITE PLAN
 - LE-01 PARTIAL ONE-LINE DIAGRAM
 - LE-01 DETAILS
 - LE-01 DETAILS
 - LE-01 LIGHTING CALCULATIONS

- WETLAND DRAWINGS:**
- L-01 WETLAND MITIGATION
 - L-02 WETLAND MITIGATION SPECIFICATIONS AND DETAILS
 - L-03 WETLAND MITIGATION SPECIFICATIONS AND DETAILS



Andrew J. Woznak, Jr.

NOT FOR CONSTRUCTION

DATE: 3/30/21 SCALE: HORIZ. 1" = 200'
JOB NO.: 10120.1
DESIGNED BY: JAW
DRAWN BY: JAW
CHECKED BY: JAW
DATE: 3/30/21 SHEET: COVER

OVERALL LEGAL DESCRIPTION:

PART OF THE NORTH 1/2 OF SECTION 18, T. 1 N., R. 8 E., CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS: BEGINNING AT THE NORTH 1/4 CORNER OF SECTION 18 AND PROCEEDING ALONG THE NORTH LINE OF SAID SECTION 18, SAID LINE ALSO BEING THE CENTERLINE OF 12 MILE ROAD (33 FEET WIDE, 1/2 WIDTH) S. 88°56'17" E. 1316.65 FEET; THENCE THE FOLLOWING SEVEN (7) COURSES ALONG BERSHIRE POINTE, OAKLAND COUNTY CONDOMINIUM PLAN NUMBER 2080, 1) S. 0°04'42" E. 630.03 FEET, 2) S. 89°31'51" E. 28.86 FEET, 3) 177.40 FEET ALONG THE ARC OF A CURVE TO THE RIGHT, RADIUS 200.00 FEET, CENTRAL ANGLE 50°49'12" AND A CHORD THAT BEARS S. 64°07'16" E. 171.64 FEET, 4) 417.22 FEET ALONG THE ARC OF A CURVE TO THE LEFT, RADIUS 409.88 FEET, CENTRAL ANGLE 51°09'01" AND A CHORD THAT BEARS S. 64°14'01" E. 403.97 FEET, 5) N. 89°19'07" E. 165.00 FEET, 6) S. 0°41'09" E. 384.00 FEET AND 7) N. 89°19'07" E. 338.98 FEET TO A POINT ON THE 60 FOOT RIGHT OF WAY LINE OF WIXOM ROAD; THENCE ALONG SAID LINE S. 0°41'09" E. 1098.12 FEET TO A POINT ON THE NORTH LINE OF ISLAND LAKE VINEYARDS, OAKLAND COUNTY CONDOMINIUM PLAN NUMBER 1275; THENCE ALONG SAID LINE N. 89°20'09" W. 2585.76 FEET TO A POINT ON THE NORTH AND SOUTH 1/4 LINE OF SAID SECTION 18, ALSO BEING THE EAST LINE OF ANGELENA RIDGE, OAKLAND COUNTY CONDOMINIUM PLAN NUMBER 2083; THENCE ALONG SAID LINE N. 0°19'03" W. 1028.05 FEET; THENCE N. 89°31'51" W. 165.00 FEET; THENCE N. 0°19'03" W. 1320.00 FEET TO A POINT ON SAID NORTH LINE OF SECTION 18; ALSO BEING THE CENTERLINE OF 12 MILE ROAD; THENCE ALONG SAID LINE S. 89°31'51" E. 165.00 FEET TO SAID NORTH 1/4 CORNER OF SECTION 18 AND POINT OF BEGINNING CONTAINING 115.11 ACRES MORE OR LESS, BEING SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD AND THE RIGHTS OF THE PUBLIC OR ANY GOVERNMENTAL AGENCY OVER WIXOM ROAD AND 12 MILE ROAD.

NOTICE:

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

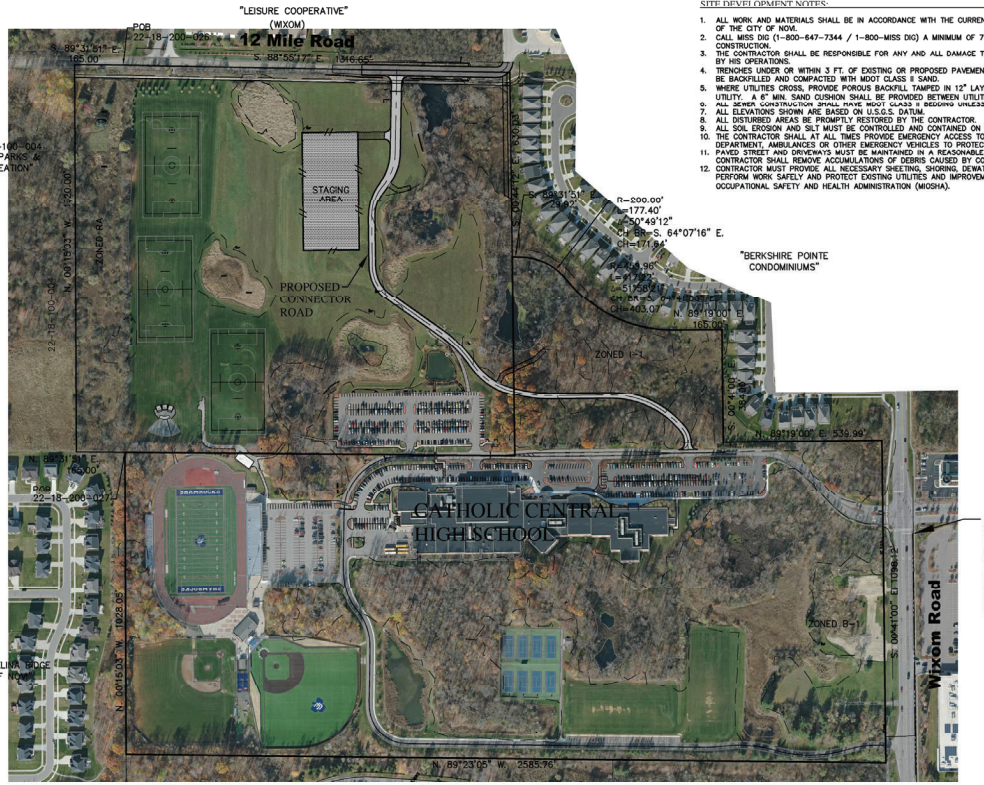
AUTHORIZATION BY:

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

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

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

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



SITE MAP

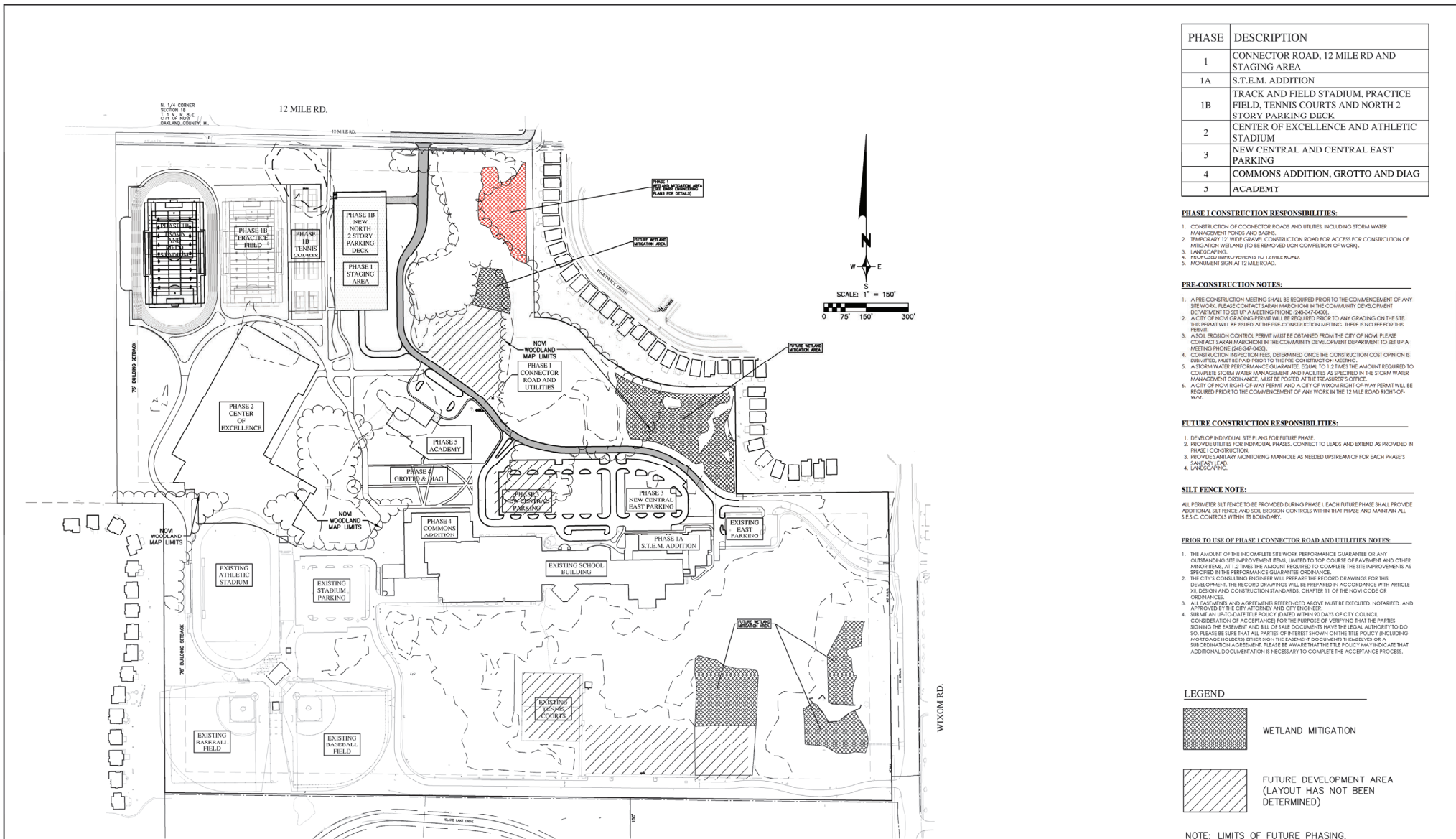
ZEMET WOZNAK
Civil Engineering & Surveying
5580 GRAND BLVD., SUITE 100
NOVI, MICHIGAN 48274
P: (248) 437-3099 F: (248) 437-5222 www.zemetwoznak.com

MISS DIG SYSTEM INC.
THREE FIELD WOODLAND DRIVE
ANN ARBOR, MI 48106
1-800-342-7171

PROJECT SPONSOR:
CATHOLIC CENTRAL HIGH SCHOOL
27225 WIXOM ROAD
NOVI, MI 48374 ED TUREK, PRES. (248)596-3801

COVER SHEET
CATHOLIC CENTRAL HIGH SCHOOL CONNECTOR ROAD & UTILITY PLAN
SECTION 18, CITY OF NOVI, MICHIGAN

Z:\Projects\10120.1\10120.1\10120.1\COVER SHEET.dwg, COVER SHEET, 3/30/21, 10:12:01 AM, JAW



PHASE	DESCRIPTION
1	CONNECTOR ROAD, 12 MILE RD AND STAGING AREA
1A	S.T.E.M. ADDITION
1B	TRACK AND FIELD STADIUM, PRACTICE FIELD, TENNIS COURTS AND NORTH 2 STORY PARKING DECK
2	CENTER OF EXCELLENCE AND ATHLETIC STADIUM
3	NEW CENTRAL AND CENTRAL EAST PARKING
4	COMMONS ADDITION, GROTTO AND DIAG
5	ACADEMY

PHASE 1 CONSTRUCTION RESPONSIBILITIES:

- CONSTRUCTION OF CONNECTOR ROADS AND UTILITIES, INCLUDING STORM WATER MANAGEMENT FORDS AND BANKS.
- TEMPORARY 12" WEE GRAVEL CONSTRUCTION ROAD FOR ACCESS FOR CONTRIBUTION OF MITIGATION WETLAND (TO BE REMOVED UPON COMPLETION OF WORK).
- LANDSCAPING.
- WETLAND MITIGATION (SEE WETLAND MITIGATION PLAN FOR DETAILS).
- MONUMENT SIGN AT 12 MILE ROAD.

PRE-CONSTRUCTION NOTES:

- A PRE-CONSTRUCTION MEETING SHALL BE REQUIRED PRIOR TO THE COMMENCEMENT OF ANY SITE WORK. PLEASE CONTACT SARAH MARCHIONI IN THE COMMUNITY DEVELOPMENT DEPARTMENT TO SET UP A MEETING PHONE (248-542-2400).
- A CITY OF NOVI GRADING PERMIT WILL BE REQUIRED PRIOR TO ANY GRADING ON THE SITE. THIS PERMIT WILL BE REVIEWED AT THE PRE-CONSTRUCTION MEETING. THERE IS NO FEE FOR THE PERMIT.
- A SOIL EROSION CONTROL PERMIT MUST BE OBTAINED FROM THE CITY OF NOVI. PLEASE CONTACT SARAH MARCHIONI IN THE COMMUNITY DEVELOPMENT DEPARTMENT TO SET UP A MEETING PHONE (248-542-2400).
- CONSTRUCTION INSPECTION FEES, DETERMINED ONCE THE CONSTRUCTION COST OPINION IS SUBMITTED, MUST BE PAID PRIOR TO THE PRE-CONSTRUCTION MEETING.
- A STORM WATER PERFORMANCE GUARANTEE, EQUAL TO 1.2 TIMES THE AMOUNT REQUIRED TO COMPLETE STORM WATER MANAGEMENT FACILITIES AS SPECIFIED IN THE STORM WATER MANAGEMENT ORDINANCE, MUST BE POSTED AT THE TREASURER'S OFFICE.
- A CITY OF NOVI RIGHT-OF-WAY PERMIT AND A CITY OF WIXOM RIGHT-OF-WAY PERMIT WILL BE REQUIRED PRIOR TO THE COMMENCEMENT OF ANY WORK IN THE 12 MILE ROAD RIGHT-OF-WAY.

FUTURE CONSTRUCTION RESPONSIBILITIES:

- DEVELOP INDIVIDUAL SITE PLANS FOR FUTURE PHASE.
- PROVIDE UTILITIES FOR INDIVIDUAL PHASES. CONNECT TO LEADS AND EXTEND AS PROVIDED IN PHASE 1 CONSTRUCTION.
- PROVIDE SANITARY MONITORING MANHOLE AS NEEDED UPSTREAM OF EACH PHASE'S SANITARY LEAD.
- LANDSCAPING.

SILT FENCE NOTE:

ALL PERIMETER SILT FENCE TO BE PROVIDED DURING PHASE 1. EACH FUTURE PHASE SHALL PROVIDE ADDITIONAL SILT FENCE AND SOIL EROSION CONTROLS WITHIN THAT PHASE AND MAINTAIN ALL S.E.S.C. CONTROLS WITHIN ITS BOUNDARY.

PRIOR TO USE OF PHASE 1 CONNECTOR ROAD AND UTILITIES NOTES:

- THE AMOUNT OF THE INCOMPLETE SITE WORK PERFORMANCE GUARANTEE OR ANY OUTSTANDING SITE IMPROVEMENT FEES, LIMITED TO TOP COURSE OF PAVEMENT AND OTHER MARKET FEES, AT 1.2 TIMES THE AMOUNT REQUIRED TO COMPLETE THE SITE IMPROVEMENTS AS SPECIFIED IN THE PERFORMANCE GUARANTEE ORDINANCE.
- THE CITY'S CONSULTING ENGINEER WILL PREPARE THE RECORD DRAWINGS FOR THE DEVELOPMENT. THE RECORD DRAWINGS WILL BE PREPARED IN ACCORDANCE WITH ARTICLE 16 DESIGN AND CONSTRUCTION STANDARDS, CHAPTER 11 OF THE NOVI CODE OR ORDINANCES.
- ALL UNDERWRITERS AND ACCEPTANCE INTERESTS MUST BE FULFILLED AND APPROVED AND APPROVED BY THE CITY ATTORNEY AND CITY ENGINEER.
- SUBMIT AN UP-TO-DATE TITLE BLOCK DATED WITHIN 90 DAYS OF CITY COUNCIL CONSIDERATION OF ACCEPTANCE FOR THE PURPOSE OF VERIFYING THAT THE PARTIES SIGNING THE AGREEMENT AND BILL OF SALE DOCUMENTS HAVE THE LEGAL AUTHORITY TO DO SO. PLEASE BE SURE THAT ALL PARTIES OF INTEREST SHOWN ON THE TITLE BLOCK (INCLUDING MORTGAGE HOLDERS) EITHER SIGN THE EASEMENT DOCUMENTS THEMSELVES OR A SUBORDINATION AGREEMENT. PLEASE BE AWARE THAT THE TITLE POLICY MAY INDICATE THAT ADDITIONAL DOCUMENTATION IS NECESSARY TO COMPLETE THE ACCEPTANCE PROCESS.

LEGEND

- WETLAND MITIGATION
- FUTURE DEVELOPMENT AREA (LAYOUT HAS NOT BEEN DETERMINED)

NOTE: LIMITS OF FUTURE PHASING, WETLAND MITIGATION, DEVELOPMENT AND LAYOUT IS SUBJECT TO CHANGE.

NOT FOR CONSTRUCTION

ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
PSP SUBMITTAL	7-23-21								
WETLAND UPDATE	8-10-21								
REV. PSP	8-27-21								

ZEIMET WOZNAK
 CONSULTING ENGINEERS & ARCHITECTS
 11000 GRAND BYWAY AVE. SUITE 100
 NEW BUCHANAN, MICHIGAN 48165
 P: (248) 431-9889 F: (248) 431-7222 www.zeimetwoznak.com

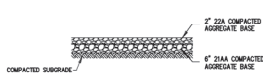
MISS DIG SYSTEM INC.
 THREE FIELD WINDMILL DRIVE
 CANTON, MI 48105
 (248) 342-7171

PROJECT SPONSOR:
 CATHOLIC CENTRAL HIGH SCHOOL
 27225 WIXOM ROAD
 NOVI, MI 48374 ED TUREK, PRES. (248)596-3801

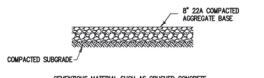
MASTER SITE STUDY
 CATHOLIC CENTRAL HIGH SCHOOL CONNECTOR ROAD & UTILITY PLAN
 SECTION 18, CITY OF NOVI, MICHIGAN

DATE: 3/30/21 SCALE: 1" = 150'
 DESIGNED BY: JMB VER: 1" = N/A
 DRAWN BY: JMB JOB NO: 10120.1
 DATE: SHEET CE-3

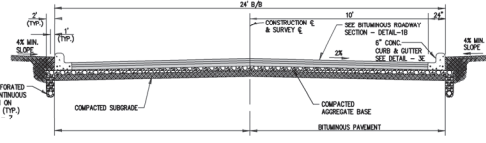
Z:\Projects\10120_MHS\10120_MASTER SITE STUDY_030321.dwg, CE: MASTER SITE STUDY, 03/30/21 7:52:23 AM, gmbms



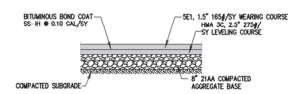
GRAVEL ROADWAY SECTION FOR 12 MILE ROAD
NOT TO SCALE



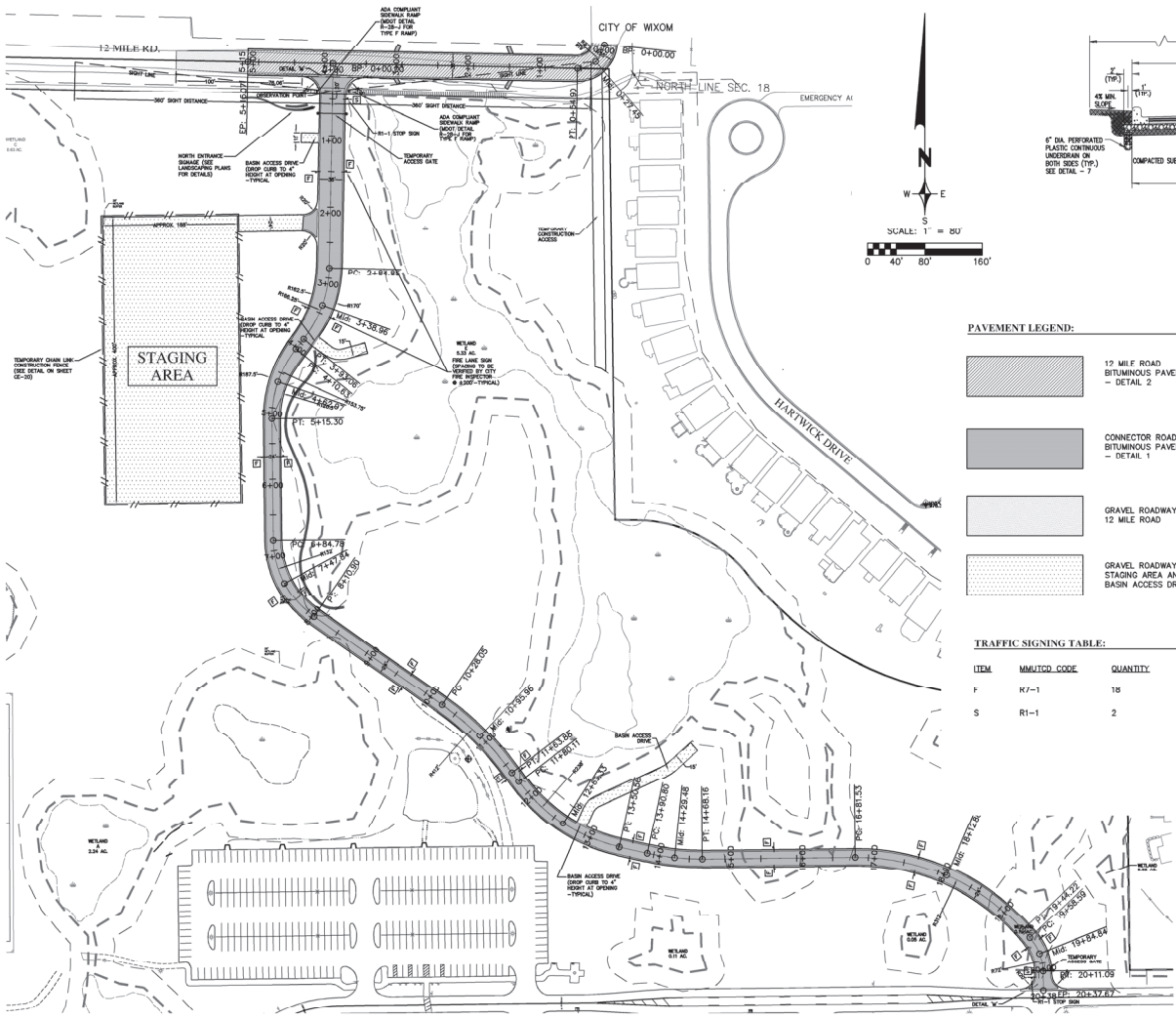
GRAVEL AREA AND BASIN ACCESS DRIVE SECTION
NOT TO SCALE



TYPICAL CROSS SECTION DETAIL - 1
CONNECTOR ROAD PAVEMENT (24' B/B)
NOT TO SCALE



BITUMINOUS ROADWAY SECTION FOR CONNECTOR ROAD
DETAIL - 1B
NOT TO SCALE

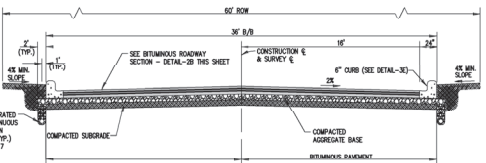


PAVEMENT LEGEND:

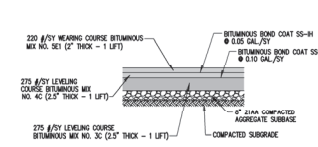
- 12 MILE ROAD BITUMINOUS PAVEMENT - DETAIL 2
- CONNECTOR ROAD BITUMINOUS PAVEMENT - DETAIL 1
- GRAVEL ROADWAY- 12 MILE ROAD
- GRAVEL ROADWAY- STAGING AREA AND BASIN ACCESS DRIVE

TRAFFIC SIGNING TABLE:

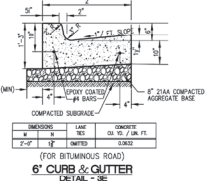
ITEM	MUTCD CODE	QUANTITY	SIZE	DESCRIPTION
F	R7-1	18	12" X 18"	FIKE LANE
S	R1-1	2	30" X 30"	STOP



TYPICAL CROSS SECTION DETAIL - 2
12 MILE ROAD PAVEMENT (36' B/B)
NOT TO SCALE



BITUMINOUS ROADWAY SECTION FOR 12 MILE ROAD
DETAIL - 1B
NOT TO SCALE



6" CURB & GUTTER
DETAIL - 3C
NOT TO SCALE

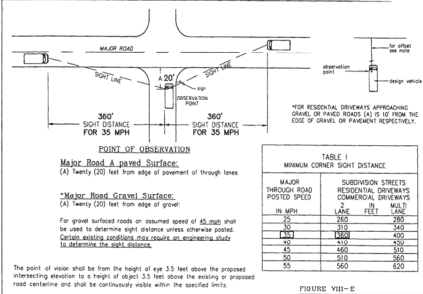
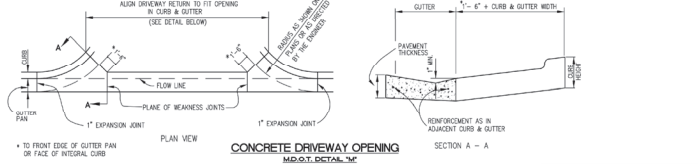


TABLE 1
MINIMUM CORNER SIGHT DISTANCE

MAJOR ROAD	SUBDIVISION STREETS	RESIDENTIAL DRIVEWAYS	COMMERCIAL DRIVEWAYS
IN MPH	LANE FEET	LANE FEET	LANE FEET
15	100	100	100
20	125	125	125
25	150	150	150
30	175	175	175
35	200	200	200
40	225	225	225
45	250	250	250
50	275	275	275
55	300	300	300
60	325	325	325
65	350	350	350
70	375	375	375
75	400	400	400
80	425	425	425
85	450	450	450
90	475	475	475
95	500	500	500
100	525	525	525



CONCRETE DRIVEWAY OPENING
DETAIL - 9A
NOT TO SCALE

NOTE: ALL DIMENSIONS ARE TO BACK OF CURB OR FACE OF WALK AS SHOWN.

NOT FOR CONSTRUCTION

DATE: 3/30/21 SCALE: HORIZ. 1" = 80'
 DESIGNED BY: JAW MER. 1" = N/A
 DRAWN BY: DAE JOB NO. 19120.1
 SHEET CE-4

ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
PSP SUBMITTAL	7-23-21						

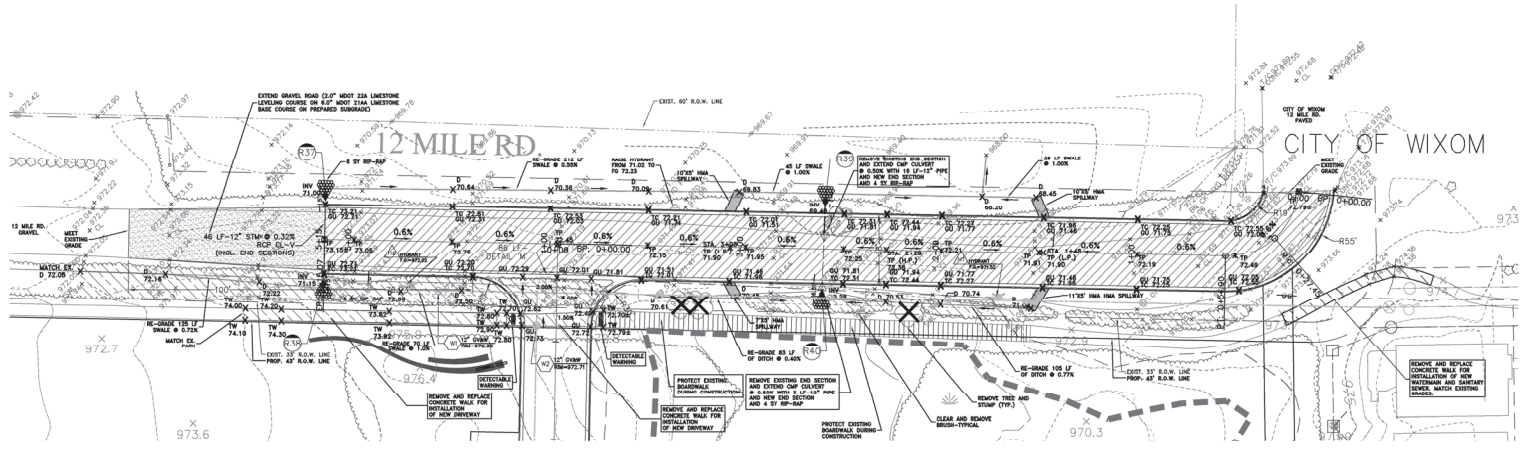
ZEMET WOZNAK
Civil Engineers & Land Surveyors
5500 GRAND BYWAY AVE. SUITE 100
NEW BUCHANAN, MICHIGAN 48165
P: (248) 431-9889 F: (248) 431-7022 www.zemetwoznak.com

MISS DIG SYSTEM INC.
THREE FIELD WOODS DRIVE
CIVIL ENGINEERING
4800 142-7171

PROJECT SPONSOR:
CATHOLIC CENTRAL HIGH SCHOOL
27225 WIXOM ROAD
NOVI, MI 48374 ED TUREK, PRES. (248)596-3801

DIMENSION AND PAVING PLAN
CATHOLIC CENTRAL HIGH SCHOOL CONNECTOR ROAD & UTILITY PLAN
SECTION 18, CITY OF NOVI, MICHIGAN

DATE: 3/30/21 SCALE: HORIZ. 1" = 80'
 DESIGNED BY: JAW MER. 1" = N/A
 DRAWN BY: DAE JOB NO. 19120.1
 SHEET CE-4



12 MILE ROAD R.O.W. CONSTRUCTION NOTES:

- ALL WORK WITHIN THE 12 MILE ROAD R.O.W. SHALL BE TO CURRENT CITY OF NOVI AND CITY OF WIXOM STANDARDS AND SPECIFICATIONS.
- TRAFFIC CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL OBTAIN A CONSTRUCTION PERMIT FROM THE CITY OF NOVI AND CITY OF WIXOM PRIOR TO ANY WORK WITHIN THE 12 MILE ROAD R.O.W.
- THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE ADJACENT PROPERTY OWNERS TO THIS PROJECT TO MINIMIZE INTERFERENCE AND INCONVENIENCES TO THEIR USERS.
- RESTORE ALL DISTURBED NON-PAVED AREAS WITH A MINIMUM 3" TOPSOIL, SEED AND MULCH.
- VEGETATION MUST BE ACCEPTABLY ESTABLISHED PRIOR TO FINAL RELEASE OF THE CONSTRUCTION GUARANTEE BY THE CITY OF NOVI.
- MAINTAIN TWO-WAY TRAFFIC AT ALL TIMES ALONG 12 MILE ROAD.
- CONTRACTOR SHALL NOT POUR CURBS AND GUTTERS UNTIL FORMS ARE CHECKED AND APPROVED BY THE CITY OF NOVI INSPECTOR.
- ALL MUD AND DIRT TRACKED ONTO EXISTING ROADS FROM THIS SITE DUE TO CONSTRUCTION SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
- CALL CITY OF NOVI INSPECTOR OR PERMIT SUPERVISOR BEFORE BEGINNING ANY WORK IN RIGHT-OF-WAY.
- "PROPER SIGNING" IS REQUIRED BEFORE ANY WORK IN RIGHT-OF-WAY IS STARTED.
- LANE CLOSURES RESTRICTED TO 9 AM TO 3 PM, MONDAY TO FRIDAY.
- FIXED OBJECTS SHALL BE A MINIMUM 6 FEET FROM THE BACK OF THE FINISHED CURB LINE. REMOVE OR RELOCATE ALL FIXED OBJECTS PRIOR TO EXCAVATION.
- ANY PEDESTRIAN FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CURRENT AMERICANS WITH DISABILITIES ACT (ADA) GUIDELINES. SIDEWALK SHALL BE NO NEARER THAN 5 FEET FROM THE BACK OF CURB, OR 12 FEET FROM THE LANE LINE.
- PAVEMENT CROSS SECTION IS SHOWN ON SHEET CE-4 (CRUSHED CONCRETE IS NOT AN ACCEPTABLE BASE).
- EXCAVATIONS WITHIN A 1:1 SLOPE OF THE ROADWAY WILL REPAIR WITH 12 ASS 8 REBAR/1' COMPACTED TO 95% MAXIMUM DENSITY.
- MATCH AND THE PROPOSED CURB TO EXISTING CURB. EPOXY COATED #4 REBAR REQUIRED.

NOTES:

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

EXISTING		LEGEND		PROPOSED	
○	MANHOLE	—	SANITARY SEWER	●	MANHOLE
□	CATCH BASIN	—	STORM SEWER	■	CATCH BASIN
○	INLET	—	WATER MAIN	○	INLET
○	CLEANOUT	—	WATER MAIN	○	CLEANOUT
◁	END SECTION	—	PROPOSED GRADE	◁	END SECTION
○	ROOF DRAIN	—	99.0	○	ROOF DRAIN
○	GATE VALVE	—	1/6	○	GATE VALVE
○	HYDRANT	—	1/7	○	HYDRANT
○	WATER SHUT-OFF	—	1/8	○	WATER SHUT-OFF
○	UTILITY POLE	—	1/9	○	UTILITY POLE
○	GUY AND/OR	—	1/10	○	GUY AND/OR
○	LIGHT POLE	—	1/11	○	LIGHT POLE
○	SIGN	—	1/12	○	SIGN
○	TREE	—	1/13	○	TREE
○	TREE LINE	—	1/14	○	TREE LINE
○	SANITARY SEWER	—	1/15	○	SANITARY SEWER
○	STORM SEWER	—	1/16	○	STORM SEWER
○	WATER MAIN	—	1/17	○	WATER MAIN
○	ELECTRIC CABLE	—	1/18	○	ELECTRIC CABLE
○	CONTOUR MAJOR	—	1/19	○	CONTOUR MAJOR
○	CONTOUR MINOR	—	1/20	○	CONTOUR MINOR
○	GROUND	—	1/21	○	GROUND
○	DITCH	—	1/22	○	DITCH
○	GUTTER	—	1/23	○	GUTTER
○	FINISH GRADE	—	1/24	○	FINISH GRADE
○	FINISH FLOOR	—	1/25	○	FINISH FLOOR
○	BASEMENT FLOOR	—	1/26	○	BASEMENT FLOOR
○	BRICK LEDGE	—	1/27	○	BRICK LEDGE

PAVEMENT LEGEND:

	12 MILE ROAD BITUMINOUS PAVEMENT
	GRAVEL ROADWAY-12 MILE ROAD

ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
PSP SUBMITTAL	7-23-21								

ZEMET WOZNIAK
Civil Engineers & Land Surveyors
5500 HIGHLAND BOULEVARD, SUITE 100
NEW BUCHON, MICHIGAN 48165
P: (248) 491-9889 F: (248) 431-7022 www.zemetwozniak.com

MISS DIG SYSTEM INC.
THREE FULL WORKING DAYS BEFORE STARTING. CALL THE MISS DIG SYSTEM 1-800-342-7171

PROJECT SPONSOR:
CATHOLIC CENTRAL HIGH SCHOOL
27225 WIXOM ROAD
NOVI, MI 48374 ED TUREK, PRES. (248)596-3801

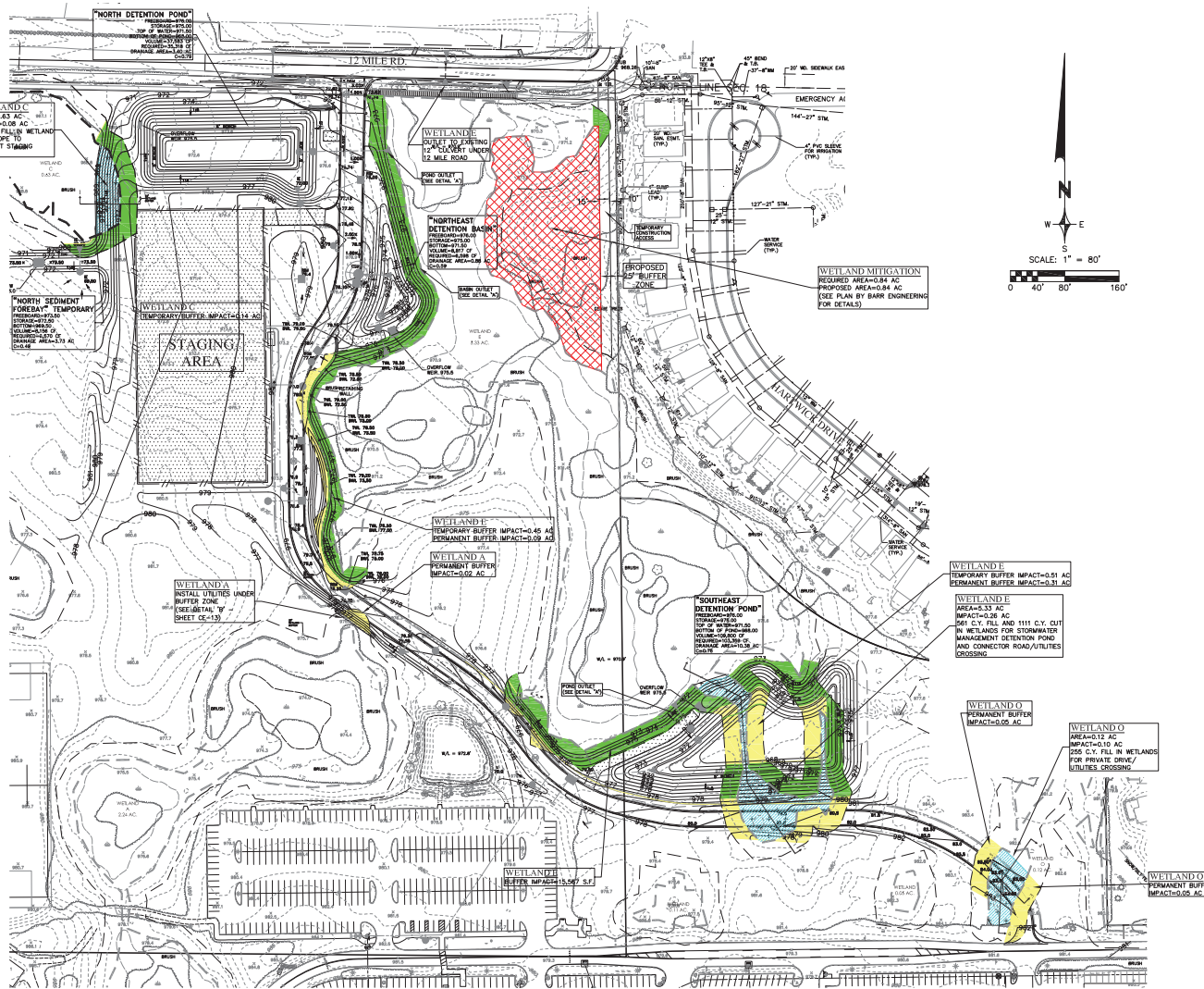
12 MILE ROAD DETAIL
CATHOLIC CENTRAL HIGH SCHOOL CONNECTOR ROAD & UTILITY PLAN
SECTION 18, CITY OF NOVI, MICHIGAN

NOT FOR CONSTRUCTION

DATE: 3/30/21 SCALE: HOR. 1" = 30'
VER. 1" = N/A

DESIGNED BY: JOB NO. 19120.1
DRAWN BY: SHEET CE-11

Z:\Project\19120_19120.1\12 MILE ROAD\12 MILE ROAD DETAIL_TUR 20210330 11:28:56 AM.dwg



CONNECTOR ROAD WETLAND IMPACTS:

WETLAND	AREA (AC)	NOVI REGULATED	EGLE REGULATED	IMPACT (AC)	MITIGATION RATIO	REQUIRED MITIGATION (AC)	TYPE
A	2.24	YES	NO	0.00	0.0	0.00	EMERGENT
C	0.63	YES	NO	0.08	1.5	0.12	EMERGENT
E	5.53	YES	YES	0.26	2.0	0.52	FORESTED
O	0.12	YES	NO	0.10	2.0	0.20	FORESTED
TOTALS	8.52 AC			0.44 AC		0.84 AC	

CONNECTOR ROAD BUFFER IMPACTS:

WETLAND	PERMANENT IMPACT (AC)	TEMPORARY IMPACT (AC)	TOTAL IMPACT (AC)
A	0.02	0.00	0.02
C	0.00	0.14	0.14
E	0.40	0.96	1.36
O	0.10	0.00	0.10
TOTALS	0.52 AC	1.10 AC	1.62 AC

WETLAND FILL / CUT CALCULATIONS:

WETLAND	AREA OF FILL (AC)	VOLUME OF FILL (CY)	AREA OF CUT (AC)	VOLUME OF CUT (CY)
A	NO PROPOSED FILLING		NO PROPOSED EXCAVATION	
C	0.08	691	NO PROPOSED EXCAVATION	
E	0.22	561	0.04	1111
O	0.10	225	NO PROPOSED EXCAVATION	

TEMPORARY AND PERMANENT IMPACTS TO 25-FT WETLAND BUFFER ZONE:

WETLAND	TEMPORARY IMPACTS	PERMANENT IMPACTS
A	<ul style="list-style-type: none"> BORE FOR UNDERGROUND UTILITIES 	<ul style="list-style-type: none"> GRADING FOR CONNECTOR ROAD INSTALLATION OF UNDERGROUND UTILITIES
C	<ul style="list-style-type: none"> GRADING FOR NORTH DETENTION POND AND SLOPE TO SUPPORT PAD FOR STAGING AREA GRADING FOR TEMPORARY NORTH SEDIMENT FOREBAY 	<ul style="list-style-type: none"> GRADING FOR CONNECTOR ROAD INSTALLATION OF UNDERGROUND UTILITIES
E	<ul style="list-style-type: none"> GRADING FOR RETAINING WALL GRADING FOR NORTHEAST DETENTION BASIN GRADING FOR SOUTHEAST DETENTION POND GRADING FOR TEMPORARY CONSTRUCTION ACCESS PATH FOR CONSTRUCTION MITIGATION WETLAND 	<ul style="list-style-type: none"> GRADING FOR CONNECTOR ROAD INSTALLATION OF UNDERGROUND UTILITIES GRADING FOR SOUTHEAST DETENTION POND RETAINING WALL TO REMAIN WITHIN 25 FT BUFFER ZONE
O		<ul style="list-style-type: none"> GRADING FOR CONNECTOR ROAD INSTALLATION OF UNDERGROUND UTILITIES

WETLAND LEGEND



ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE	ISSUED FOR	DATE
PSP SUBMITTAL	7-23-21								
METLAND UPDATE	8-10-21								
REV. PSP	8-27-21								

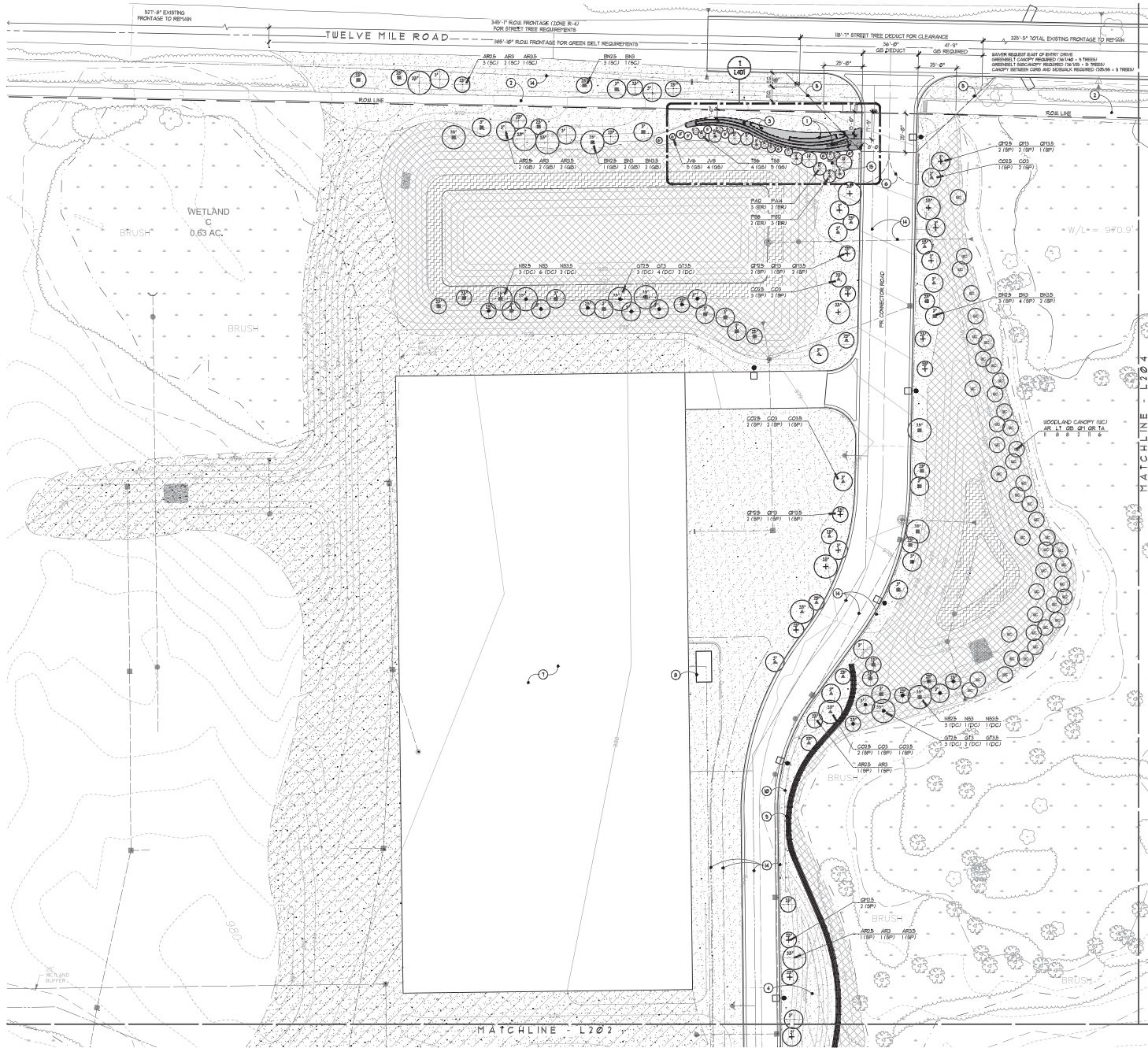
ZEIMET WOZNAK
 Civil Engineers & Land Surveyors
 5000 GRAND BYWAY AVE. SUITE 100
 NEW HUDSON, MICHIGAN 48128
 P: (248) 474-0009 F: (248) 474-0222 www.zeimetwoznak.com

MISS DIG SYSTEM, INC.
 THREE FIELD WORKERS FIELD BEFORE YOU DIG CALL THE MISS DIG SYSTEM 1-800-342-7171

PROJECT SPONSOR:
 CATHOLIC CENTRAL HIGH SCHOOL
 27225 WIXOM ROAD
 NOVI, MI 48374 ED TUREK, PRES. (248)596-3801

WETLAND AND BUFFER IMPACTS
 CATHOLIC CENTRAL HIGH SCHOOL CONNECTOR ROAD & UTILITY PLAN
 SECTION 18, CITY OF NOVI, MICHIGAN

NOT FOR CONSTRUCTION
 DATE: 3/30/21 SCALE: HOR. 1" = N/A
 DRAWN BY: JOB NO. 19120.1
 CHECKED BY: SHEET CE-12



Landscape Legend: (APPLIES TO SHEETS L201 - L204, NOT ALL APPLY PER SHEET)

- LIST OF WORK
- EXISTING TREES TO REMAIN - PROTECT THROUGHOUT CONSTRUCTION
- EXISTING WETLAND
- EXISTING EDGE OF VEGETATION
- WOODLAND PROTECTION FENCE
- STREET LIGHT POLES - REFER TO ELECTRICAL DOCUMENTS
- ROODED LAWN
- REEDED MEADOW LAWN - TYPE 'M' ON 4\"/>
- STORMWATER REED FILTER TYPE 'B' ON 4\"/>
- DETENTION POND SHRUB PLANTING ZONE - PLANT MINERAL CLUSTERS COVERING 10% OF THE BASIN PERIMETER (REARDED UP FROM PERMANENT WATER LEVEL OR FROM BOTTOM FOR PONDS DESIGNED TO EMPTY AFTER 24-48 HOURS. SPECIFIC PLANT LOCATIONS TO BE PROVIDED WITH P&ID SUBMITTAL.
- EMERGENT WETLAND REED FILTER TYPE 'C' - REED TO EXISTING WATER LINE AT THE END OF CONSTRUCTION
- 4\"/>
- 4\"/>
- PLANT CODE
- (A)25 - CALIPER SIZE IF APPLICABLE
- (T) - ORDINANCE REQUIREMENT CODE (SEE BELOW) QUANTITY
- (DC) DETENTION POND CANOPY TREES
- (GC) GREENBELT CANOPY TREES
- (GB) GREENBELT SUB-CANOPY TREES
- (SC) STREET CANOPY TREES (FRONT-OF-YARD)
- (SP) STREET CANOPY TREES (PRIVATE DRIVE)
- (WC) WOODLAND REPLACEMENT CANOPY TREES
- (EV) EVERGREEN TREE REPLACEMENTS (NON-WOODLAND)

Note Key: (APPLIES TO SHEETS L201 - L204, NOT ALL APPLY PER SHEET)

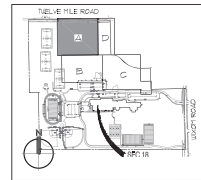
1. NATURAL STONE WALL WITH IDENTITY SIGNAGE ELEMENT ON STRUCTURAL FOOTING
2. EXISTING CONCRETE SIDEWALK / BOARDWALK
3. DECORATIVE STONE HELIX WITH STEEL EDGING
4. SCULPTED EARTH FEATURES
5. 25' CORNER CLEARANCE ZONE
6. MANUAL GATE CONTROL GATES WITH LOCKING BOLLARDS
7. STAGING AREA
8. FUTURE ELECTRICAL TRANSFORMER
9. RETAINING WALL - REFER TO CIVIL DOCUMENTS
10. GUARD RAIL - REFER TO CIVIL DOCUMENTS
11. EXISTING PARKING LOT TO REMAIN
12. EXISTING DETENTION BASIN TO REMAIN
13. EXISTING INTERIOR LOOP ROAD TO REMAIN
14. UTILITIES BELOW - REFER TO CIVIL DOCUMENTS
15. SIGNAGE ELECTRICAL PANEL, SCREENED BY EVERGREEN TREES - REFER TO ELECTRICAL DOCUMENTS

General Notes:

1. REFER TO SHEET L204 FOR PLANT LIST AND ORDINANCE REQUIREMENTS.
2. PLANT MATERIAL SHALL NOT BE PLANTED WITHIN 4 FT. OF THE PROJECT LINE.
3. LOCATE ALL EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING ANY EXCAVATION WORK.
4. NO OVERHEAD UTILITY LINES ARE KNOWN TO BE PRESENT WITHIN THE WORK AREA. PLANTING TREES BEHIND OVERHEAD UTILITY LINES IS PROHIBITED.
5. PROTECT ALL REEDED AND EXISTING UTILITIES, LIGHTS, PAVEMENT, POLES, ETC. DURING CONSTRUCTION.
6. RESTORE ANY DAMAGED LANDSCAPE OR INFRASTRUCTURE TO PRE-CONSTRUCTION CONDITIONS PER SPECIFICATIONS.
7. CONTRACTOR SHALL VERIFY ALL EXISTING CONCRETE INFORMATION BASIN PRIOR TO CONSTRUCTION. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONCERNS PRIOR TO PROCEEDING.
8. PROPOSED UTILITIES SHOWN FOR REFERENCE ONLY. REFER TO CIVIL DRAWINGS.
9. REFER TO EROSION CONTROL PLANS FOR SOIL TYPE DESIGNATIONS.
10. DECORATIVE STONE HELIX SHALL BE SUPPLIED BY CAPITAL STONEMAN, REEDED WOODS, HICKMAN, HASSID OR APPROVED EQUAL.
11. ALL REEDED LINES / FROG EDGES BETWEEN ROOD TYPES AND TREE LOCATIONS SHALL BE PAINTED OUT BY THE CONTRACTOR FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
12. ALL LAWN AREAS TO BE IRRIGATED. REFER TO THE IRRIGATION DRAWINGS.

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

SCALE: 1"=30'



Key Map
Scale: NAD 83 State Plane



Richard Housley



Detroit
Catholic Central
High School

**GRISSIM
METZ
ANDRIESE**
Landscape Architecture

311 East Cady Street
Northville, MI 48167
Ph: 248-347-010

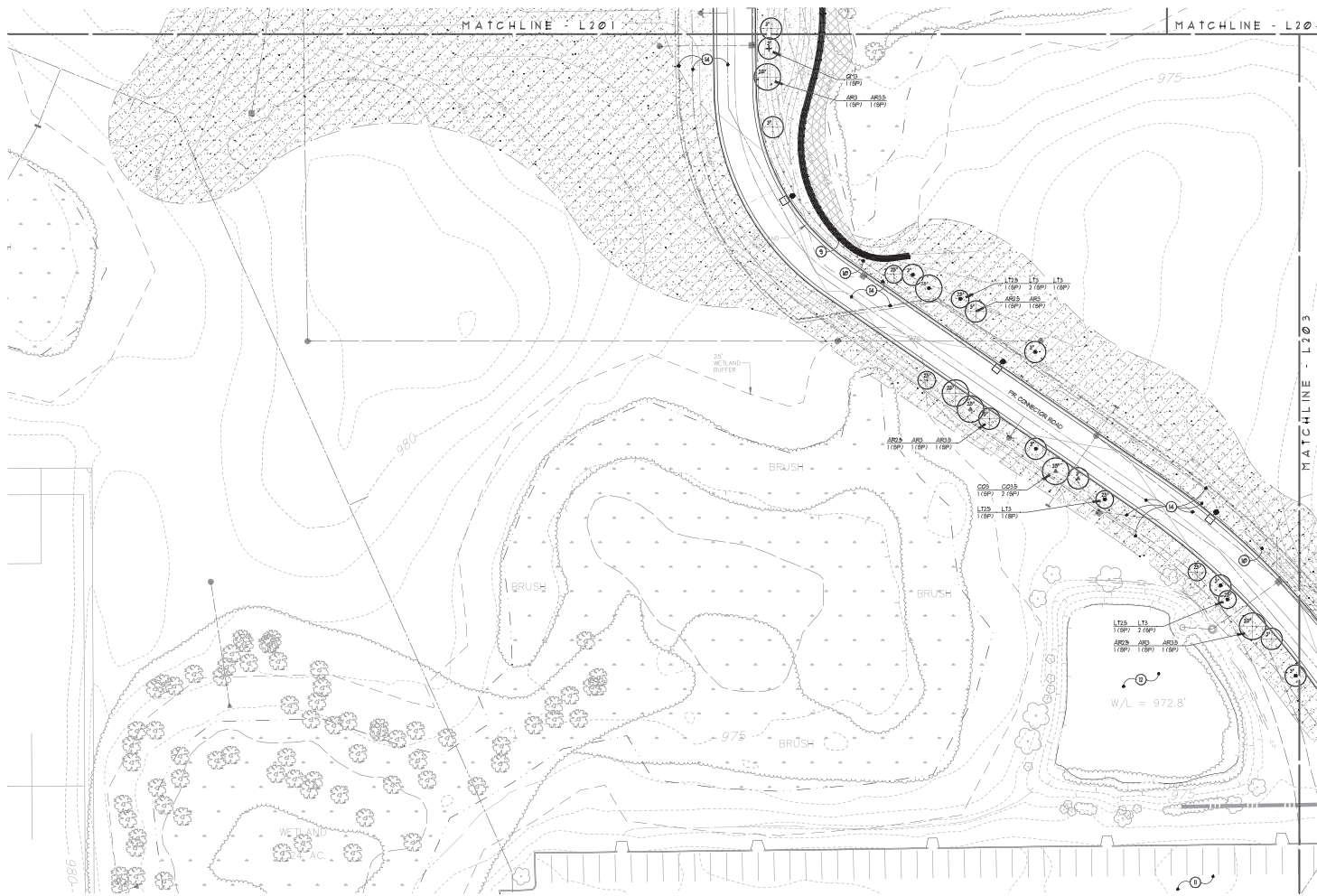
Project:
Catholic Central High School
Connector Road
New, Michigan, Section 18

Sheet:
**Landscape Plan
Area A**

Job Number: C22-211
Owner: SAC
Contractor: RGH
Scale:

Date: 05.19.2021
06.23.2021
07.23.2021
08.27.2021

Issued for:
Owner Review
Permit
PSP Submittal
Rev. PSP



Landscape Legend: (APPLIES TO SHEETS L201 - L204 NOT ALL APPLY PER SHEET)

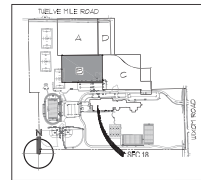
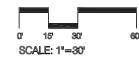
- LIST OF WORK
- ☼ EXISTING TREES TO REMAIN - PROTECT THROUGHOUT CONSTRUCTION
- EXISTING WETLAND
- EXISTING EDGE OF VEGETATION
- WOODLAND PROTECTION FENCE
- STREET LIGHT POLES - REFER TO ELECTRICAL DOCUMENTS
- SLOPED LAWN
- REEDED MEADOW LAWN - TYPE 'M' ON 4" TOPSOIL
- STONE/WATER REED HURDLE TYPE 'B' ON 2" TOPSOIL
- DETENTION POND BRUSH PLANTING ZONE - PLANT MINERAL CLUSTERS COVERING 10% OF THE BASIN PERIMETER (EASINGS) OF HIGH PERMANENT WATER LEVEL OR POND BOTTOM FOR PONDS DESIGNED TO EMPTY AFTER 24-48 HOURS. SPECIFIC PLANT LOCATIONS TO BE PROVIDED WITH SUPPLEMENTAL.
- EVERGREEN WETLAND REED HURDLE TYPE 'C' - REED TO EXISTING WATER LINE AT THE OF CONSTRUCTION
- 4" DEPTH DECORATIVE STONE HILGH TYPE 'A' OVER NON-SODDIUM FILTER FABRIC
- 4" DEPTH DECORATIVE STONE HILGH TYPE 'B' OVER NON-SODDIUM FILTER FABRIC
- PLANT CODE
 (C) - CALIBER SIZE IF APPLICABLE
 (Q) - ORDINANCE REQUIREMENT CODE (SEE BELOW) QUANTITY
- (DC) DETENTION POND CANOPY TREES
- (GC) GREENBELT CANOPY TREES
- (GB) GREENBELT SUB-CANOPY TREES
- (SC) STREET CANOPY TREES (RIGHT-OF-WAY)
- (SP) STREET CANOPY TREES (PRIVATE DRIVE)
- (WC) WOODLAND REPLACEMENT CANOPY TREES
- (EV) EVERGREEN TREE REPLACEMENTS (NON WOODLAND)

Note Key: (APPLIES TO SHEETS L201 - L204 NOT ALL APPLY PER SHEET)

- 1. NATURAL STONE WALL WITH DENSITY SIGNAGE ELEMENT ON STRUCTURAL FOOTING
- 2. EXISTING CONCRETE SIDEWALK / BOARDWALK
- 3. DECORATIVE STONE HILGH WITH STEEL EDGING
- 4. SCULPTED EARTH FEATURES
- 5. 25' CORNER CLEARANCE ZONE
- 6. MANUAL GLOBE CONTROL GATES WITH LOCKING BOLLARDS
- 7. STAGING AREA
- 8. FUTURE ELECTRICAL TRANSFORMER
- 9. RETAINING WALL - REFER TO CIVIL DOCUMENTS
- 10. GUARD RAIL - REFER TO CIVIL DOCUMENTS
- 11. EXISTING PARKING LOT TO REMAIN
- 12. EXISTING DETENTION BASIN TO REMAIN
- 13. EXISTING INTERIOR LOOP ROAD TO REMAIN
- 14. UTILITIES BELOW - REFER TO CIVIL DOCUMENTS
- 15. SIGNAGE ELECTRICAL PANEL, SCREENED BY EVERGREEN TREE - REFER TO ELECTRICAL DOCUMENTS

General Notes:

- 1. REFER TO SHEET L204 FOR PLANT LIST AND ORDINANCE REQUIREMENTS.
- 2. PLANT MATERIAL SHALL NOT BE PLANTED WITHIN 4 FT. OF THE PROPOSED LINE.
- 3. LOCATE ALL EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING ANY EXCAVATION WORK.
- 4. NO OVERHEAD UTILITY LINES ARE KNOWN TO BE PRESENT WITHIN THE WORK AREA. PLANTING TREES BEHIND OVERHEAD UTILITY LINES IS PROHIBITED.
- 5. PROTECT ALL REEDED AND EXISTING UTILITIES, LIGHTS, PAVEMENT, POLERS, ETC. DURING CONSTRUCTION.
- 6. RESTORE ANY DAMAGED LANDSCAPE OR INFRASTRUCTURE TO PRE-CONSTRUCTION CONDITIONS PER SPECIFICATIONS.
- 7. CONTRACTOR SHALL VERIFY ALL EXISTING CONDICTION INFORMATION BASIN PRIOR TO CONSTRUCTION NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONCERN PRIOR TO PROCEEDING.
- 8. PROPOSED UTILITIES SHOWN FOR REFERENCE ONLY. REFER TO CIVIL DRAWINGS.
- 9. REFER TO EROSION CONTROL PLANS FOR SOIL TYPE DESIGNATIONS.
- 10. DECORATIVE STONE HILGH SHALL BE SUPPLIED BY CAPITAL STONEWORKS, ICEBO WARDOR, MICHIGAN 48330 OR APPROVED EQUAL.
- 11. ALL REEDED LINES / POND EDGES BETWEEN ROD TYPES AND TREE LOCATIONS SHALL BE PLANTED OUT BY THE CONTRACTOR FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
- 12. ALL LAWN AREAS TO BE IRRIGATED. REFER TO THE IRRIGATION DRAWINGS.



Key Map
Scale: NAD 83 State



Richard Housley



Detroit
Catholic Central
High School

**GRISSIM
METZ
ANDRIESE**
Associates

Landscape Architecture
311 East Cady Street
Northville, MI 48167
Ph: 248-347-010

Project:
Catholic Central High School
Connector Road
Nov, Michigan, Section 18

Sheet:
Landscape Plan
Area B

Job Number: C22-211
Owner: SAE
Contractor: RGH

Date: 05.10.2021
06.23.2021
07.23.2021
08.27.2021

Issued for:
Owner Review
Permit
PSP Submitted
Rev. PSP

Ordinance Requirements:

WOODLAND TREE REPLACEMENTS:

1. Applicant is proposing to remove 174 trees which are over 8" DBH and located within a city-regulated woodland as part of the construction for the Catholic Central Connector Road project. Total replacement trees required = 170 canopy trees @ evergreen trees. See sheet L204. Refer to landscape plan for proposed woodlot tree replacement locations.

2. Applicant is proposing to provide woodland replacement trees and purchase additional credits for the city's tree fund. See schedule below.

Code	Qty	Species	Minimum Requirement	Required	Provided
01	84	Essential Tree	(0.75) 8" DBH	18	18
02	84	Essential Sub-canopy	(0.75) 8" DBH	18	18
03	84	Street Tree Group	(0.75) 8" DBH	18	18
04	84	Street Tree Group	(0.75) 8" DBH	18	18
05	84	Street Tree Group	(0.75) 8" DBH	18	18
06	84	Street Tree Group	(0.75) 8" DBH	18	18
07	84	Street Tree Group	(0.75) 8" DBH	18	18
08	84	Street Tree Group	(0.75) 8" DBH	18	18
09	84	Street Tree Group	(0.75) 8" DBH	18	18
10	84	Street Tree Group	(0.75) 8" DBH	18	18
11	84	Street Tree Group	(0.75) 8" DBH	18	18
12	84	Street Tree Group	(0.75) 8" DBH	18	18
13	84	Street Tree Group	(0.75) 8" DBH	18	18
14	84	Street Tree Group	(0.75) 8" DBH	18	18
15	84	Street Tree Group	(0.75) 8" DBH	18	18
16	84	Street Tree Group	(0.75) 8" DBH	18	18
17	84	Street Tree Group	(0.75) 8" DBH	18	18
18	84	Street Tree Group	(0.75) 8" DBH	18	18
19	84	Street Tree Group	(0.75) 8" DBH	18	18
20	84	Street Tree Group	(0.75) 8" DBH	18	18
21	84	Street Tree Group	(0.75) 8" DBH	18	18
22	84	Street Tree Group	(0.75) 8" DBH	18	18
23	84	Street Tree Group	(0.75) 8" DBH	18	18
24	84	Street Tree Group	(0.75) 8" DBH	18	18
25	84	Street Tree Group	(0.75) 8" DBH	18	18
26	84	Street Tree Group	(0.75) 8" DBH	18	18
27	84	Street Tree Group	(0.75) 8" DBH	18	18
28	84	Street Tree Group	(0.75) 8" DBH	18	18
29	84	Street Tree Group	(0.75) 8" DBH	18	18
30	84	Street Tree Group	(0.75) 8" DBH	18	18
31	84	Street Tree Group	(0.75) 8" DBH	18	18
32	84	Street Tree Group	(0.75) 8" DBH	18	18
33	84	Street Tree Group	(0.75) 8" DBH	18	18
34	84	Street Tree Group	(0.75) 8" DBH	18	18
35	84	Street Tree Group	(0.75) 8" DBH	18	18
36	84	Street Tree Group	(0.75) 8" DBH	18	18
37	84	Street Tree Group	(0.75) 8" DBH	18	18
38	84	Street Tree Group	(0.75) 8" DBH	18	18
39	84	Street Tree Group	(0.75) 8" DBH	18	18
40	84	Street Tree Group	(0.75) 8" DBH	18	18
41	84	Street Tree Group	(0.75) 8" DBH	18	18
42	84	Street Tree Group	(0.75) 8" DBH	18	18
43	84	Street Tree Group	(0.75) 8" DBH	18	18
44	84	Street Tree Group	(0.75) 8" DBH	18	18
45	84	Street Tree Group	(0.75) 8" DBH	18	18
46	84	Street Tree Group	(0.75) 8" DBH	18	18
47	84	Street Tree Group	(0.75) 8" DBH	18	18
48	84	Street Tree Group	(0.75) 8" DBH	18	18
49	84	Street Tree Group	(0.75) 8" DBH	18	18
50	84	Street Tree Group	(0.75) 8" DBH	18	18
51	84	Street Tree Group	(0.75) 8" DBH	18	18
52	84	Street Tree Group	(0.75) 8" DBH	18	18
53	84	Street Tree Group	(0.75) 8" DBH	18	18
54	84	Street Tree Group	(0.75) 8" DBH	18	18
55	84	Street Tree Group	(0.75) 8" DBH	18	18
56	84	Street Tree Group	(0.75) 8" DBH	18	18
57	84	Street Tree Group	(0.75) 8" DBH	18	18
58	84	Street Tree Group	(0.75) 8" DBH	18	18
59	84	Street Tree Group	(0.75) 8" DBH	18	18
60	84	Street Tree Group	(0.75) 8" DBH	18	18
61	84	Street Tree Group	(0.75) 8" DBH	18	18
62	84	Street Tree Group	(0.75) 8" DBH	18	18
63	84	Street Tree Group	(0.75) 8" DBH	18	18
64	84	Street Tree Group	(0.75) 8" DBH	18	18
65	84	Street Tree Group	(0.75) 8" DBH	18	18
66	84	Street Tree Group	(0.75) 8" DBH	18	18
67	84	Street Tree Group	(0.75) 8" DBH	18	18
68	84	Street Tree Group	(0.75) 8" DBH	18	18
69	84	Street Tree Group	(0.75) 8" DBH	18	18
70	84	Street Tree Group	(0.75) 8" DBH	18	18
71	84	Street Tree Group	(0.75) 8" DBH	18	18
72	84	Street Tree Group	(0.75) 8" DBH	18	18
73	84	Street Tree Group	(0.75) 8" DBH	18	18
74	84	Street Tree Group	(0.75) 8" DBH	18	18
75	84	Street Tree Group	(0.75) 8" DBH	18	18
76	84	Street Tree Group	(0.75) 8" DBH	18	18
77	84	Street Tree Group	(0.75) 8" DBH	18	18
78	84	Street Tree Group	(0.75) 8" DBH	18	18
79	84	Street Tree Group	(0.75) 8" DBH	18	18
80	84	Street Tree Group	(0.75) 8" DBH	18	18
81	84	Street Tree Group	(0.75) 8" DBH	18	18
82	84	Street Tree Group	(0.75) 8" DBH	18	18
83	84	Street Tree Group	(0.75) 8" DBH	18	18
84	84	Street Tree Group	(0.75) 8" DBH	18	18
85	84	Street Tree Group	(0.75) 8" DBH	18	18
86	84	Street Tree Group	(0.75) 8" DBH	18	18
87	84	Street Tree Group	(0.75) 8" DBH	18	18
88	84	Street Tree Group	(0.75) 8" DBH	18	18
89	84	Street Tree Group	(0.75) 8" DBH	18	18
90	84	Street Tree Group	(0.75) 8" DBH	18	18
91	84	Street Tree Group	(0.75) 8" DBH	18	18
92	84	Street Tree Group	(0.75) 8" DBH	18	18
93	84	Street Tree Group	(0.75) 8" DBH	18	18
94	84	Street Tree Group	(0.75) 8" DBH	18	18
95	84	Street Tree Group	(0.75) 8" DBH	18	18
96	84	Street Tree Group	(0.75) 8" DBH	18	18
97	84	Street Tree Group	(0.75) 8" DBH	18	18
98	84	Street Tree Group	(0.75) 8" DBH	18	18
99	84	Street Tree Group	(0.75) 8" DBH	18	18
100	84	Street Tree Group	(0.75) 8" DBH	18	18

Plant List - Woodland Replacement Trees

CODE	QTY	DESCRIPTION	SIZE	COMMENTS	GENUS %	SPECIES %
AR	42	Acer rubrum Red Maple	2.5" cal. 8.00		21.6%	21.6%
LT	45	Lindera latifolia Toad Tree	2.5" cal. 8.00		18.2%	18.2%
OB	42	Quercus bicolor Scuppernon White Oak	2.5" cal. 8.00		16.2%	
OM	8	Quercus macrocarpa Bur Oak	2.5" cal. 8.00	11 trees to be installed in wetland basin	3.1%	31%
OR	59	Quercus rubra Red Oak	2.5" cal. 8.00		22.7%	41.6%
TA	40	Tilia americana American Basswood	2.5" cal. 8.00		15.6%	15.6%
TOTAL Woodland Replacement Trees Provided					100%	100%

NOTES:

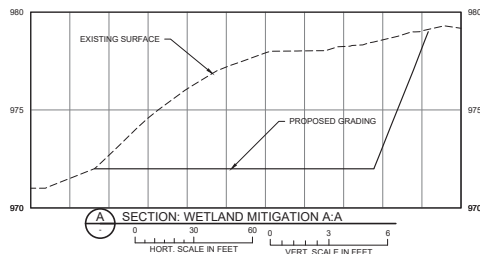
1. QUANTITIES AND PERCENTAGES OF WOODLAND REPLACEMENT TREES ARE REPRESENTATIVE OF THE GENUS AND SPECIES BEING REMOVED. REMOVED COTONWOOD, QUINCE, ASPEN, ASH, APPLE, BLACK CHERRY, PEAR, AND HAWTHORN TO BE REPLACED WITH TILIA.

2. WOODLAND REPLACEMENT TREES ARE TO BE INTERMIXED AND PLANTED IN NATURAL CLUSTERS. SPECIFIC LOCATIONS TO BE PROVIDED WITH FRP SUBMITTAL.

Plant List - Ordinance Required Trees (Non-Woodland)

CODE	QTY	DESCRIPTION	SIZE	COMMENTS	GENUS %	SPECIES %
AR2	1,500	Acer rubrum Armstrong Red Maple	2.5" cal. 8.00		10.7%	10.7%
AR3	2,000	Acer rubrum Armstrong Red Maple	3" cal. 8.00		14.3%	14.3%
AR4	2,500	Acer rubrum Armstrong Red Maple	3.5" cal. 8.00		18.2%	18.2%
AR5	3,000	Acer rubrum Armstrong Red Maple	4" cal. 8.00		21.6%	21.6%
AR6	3,500	Acer rubrum Armstrong Red Maple	4.5" cal. 8.00		25.5%	25.5%
AR7	4,000	Acer rubrum Armstrong Red Maple	5" cal. 8.00		29.4%	29.4%
AR8	4,500	Acer rubrum Armstrong Red Maple	5.5" cal. 8.00		33.3%	33.3%
AR9	5,000	Acer rubrum Armstrong Red Maple	6" cal. 8.00		37.2%	37.2%
AR10	5,500	Acer rubrum Armstrong Red Maple	6.5" cal. 8.00		41.1%	41.1%
AR11	6,000	Acer rubrum Armstrong Red Maple	7" cal. 8.00		45.0%	45.0%
AR12	6,500	Acer rubrum Armstrong Red Maple	7.5" cal. 8.00		48.9%	48.9%
AR13	7,000	Acer rubrum Armstrong Red Maple	8" cal. 8.00		52.8%	52.8%
AR14	7,500	Acer rubrum Armstrong Red Maple	8.5" cal. 8.00		56.7%	56.7%
AR15	8,000	Acer rubrum Armstrong Red Maple	9" cal. 8.00		60.6%	60.6%
AR16	8,500	Acer rubrum Armstrong Red Maple	9.5" cal. 8.00		64.5%	64.5%
AR17	9,000	Acer rubrum Armstrong Red Maple	10" cal. 8.00		68.4%	68.4%
AR18	9,500	Acer rubrum Armstrong Red Maple	10.5" cal. 8.00		72.3%	72.3%
AR19	10,000	Acer rubrum Armstrong Red Maple	11" cal. 8.00		76.2%	76.2%
AR20	10,500	Acer rubrum Armstrong Red Maple	11.5" cal. 8.00		80.1%	80.1%
AR21	11,000	Acer rubrum Armstrong Red Maple	12" cal. 8.00		84.0%	84.0%
AR22	11,500	Acer rubrum Armstrong Red Maple	12.5" cal. 8.00		87.9%	87.9%
AR23	12,000	Acer rubrum Armstrong Red Maple	13" cal. 8.00		91.8%	91.8%
AR24	12,500	Acer rubrum Armstrong Red Maple	13.5" cal. 8.00		95.7%	95.7%
AR25	13,000	Acer rubrum Armstrong Red Maple	14" cal. 8.00		99.6%	99.6%
AR26	13,500	Acer rubrum Armstrong Red Maple	14.5" cal. 8.00		103.5%	103.5%
AR27	14,000	Acer rubrum Armstrong Red Maple	15" cal. 8.00		107.4%	107.4%
AR28	14,500	Acer rubrum Armstrong Red Maple	15.5" cal. 8.00		111.3%	111.3%
AR29	15,000	Acer rubrum Armstrong Red Maple	16" cal. 8.00		115.2%	115.2%
AR30	15,500	Acer rubrum Armstrong Red Maple	16.5" cal. 8.00		119.1%	119.1%
AR31	16,000	Acer rubrum Armstrong Red Maple	17" cal. 8.00		123.0%	123.0%
AR32	16,500	Acer rubrum Armstrong Red Maple	17.5" cal. 8.00		126.9%	126.9%
AR33	17,000	Acer rubrum Armstrong Red Maple	18" cal. 8.00		130.8%	130.8%
AR34	17,500	Acer rubrum Armstrong Red Maple	18.5" cal. 8.00		134.7%	134.7%
AR35	18,000	Acer rubrum Armstrong Red Maple	19" cal. 8.00		138.6%	138.6%
AR36	18,500	Acer rubrum Armstrong Red Maple	19.5" cal. 8.00		142.5%	142.5%
AR37	19,000	Acer rubrum Armstrong Red Maple	20" cal. 8.00		146.4%	146.4%
AR38	19,500	Acer rubrum Armstrong Red Maple	20.5" cal. 8.00		150.3%	150.3%
AR39	20,000	Acer rubrum Armstrong Red Maple	21" cal. 8.00		154.2%	154.2%
AR40	20,500	Acer rubrum Armstrong Red Maple	21.5" cal. 8.00		158.1%	158.1%
AR41	21,000	Acer rubrum Armstrong Red Maple	22" cal. 8.00		162.0%	162.0%
AR42	21,500	Acer rubrum Armstrong Red Maple	22.5" cal. 8.00		165.9%	165.9%
AR43	22,000	Acer rubrum Armstrong Red Maple	23" cal. 8.00		169.8%	169.8%
AR44	22,500	Acer rubrum Armstrong Red Maple	23.5" cal. 8.00		173.7%	173.7%
AR45	23,000	Acer rubrum Armstrong Red Maple	24" cal. 8.00		177.6%	177.6%
AR46	23,500	Acer rubrum Armstrong Red Maple	24.5" cal. 8.00		181.5%	181.5%
AR47	24,000	Acer rubrum Armstrong Red Maple	25" cal. 8.00		185.4%	185.4%
AR48	24,500	Acer rubrum Armstrong Red Maple	25.5" cal. 8.00		189.3%	189.3%
AR49	25,000	Acer rubrum Armstrong Red Maple	26" cal. 8.00		193.2%	193.2%
AR50	25,500	Acer rubrum Armstrong Red Maple	26.5" cal. 8.00		197.1%	197.1%
AR51	26,000	Acer rubrum Armstrong Red Maple	27" cal. 8.00		201.0%	201.0%
AR52	26,500	Acer rubrum Armstrong Red Maple	27.5" cal. 8.00		204.9%	204.9%
AR53	27,000	Acer rubrum Armstrong Red Maple	28" cal. 8.00		208.8%	208.8%
AR54	27,500	Acer rubrum Armstrong Red Maple	28.5" cal. 8.00		212.7%	212.7%

CADDUSER: MALT STONE-PALMIST FILE: P:\ANN ARBOR\22 MRS231344\DOC\ATLNETIC CAMPUS\CONNECTOR\ROAD\MITIGATION\WETLAND MITIGATION\WETLAND MITIGATION.DWG OF SCALE: 1:1 PLOT DATE: 7/23/2021 8:42 PM

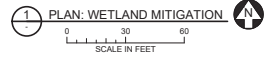


LEGEND

---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
---	PROPOSED MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR

EROSION AND SEDIMENT CONTROL

---	SILT FENCE
[Pattern]	FORESTED WETLAND MITIGATION AREA (0.844 AC.)
[Pattern]	UPLAND BUFFER SEEDING



NO.	BY	CHK	APP	DATE	REVISION DESCRIPTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MICHIGAN.
 PRINTED NAME: MALT STONE-PALMIST
 SIGNATURE: [Signature]
 DATE: 07/23/2021 LICENSE #

CLIENT	
DESIGN	
CONSTRUCTION	
RECORD	

RELEASED TO/FOR	A	B	C	D	1	2	3
DATE RELEASED							

BARR

Corporate Headquarters
 Minneapolis, Minnesota
 Ph: 1-608-270-6217
 Fax: (732) 922-4401
 www.barr.com

Project Office:
 BARR ENGINEERING CO.
 3005 BOARDWALK STREET
 SUITE 100
 ANN ARBOR, MI 48108
 Ph: 1-982-270-6217
 Fax: (732) 922-4401
 www.barr.com

Scale	AS SHOWN
Date	07/23/21
Drawn	CWF
Checked	MSP
Designed	BARR
Approved	MSP

CATHOLIC CENTRAL HIGH SCHOOL
 NOVI, MICHIGAN

CATHOLIC CENTRAL HIGH SCHOOL COLLECTOR ROAD
WETLAND MITIGATION

BARR PROJECT No.	22/63-1044.00
CLIENT PROJECT No.	
DWG. No.	L-01
REV. No.	A

PLANNING REVIEW



PLAN REVIEW CENTER REPORT
Planning Review
CATHOLIC CENTRAL CONNECTOR ROAD
 JSP 21-17
 September 17, 2021

PETITIONER

Catholic Central High School

REVIEW TYPE

Revised Preliminary Site Plan

PROPERTY CHARACTERISTICS

Section	18	
Site Location	West of Wixom Road, South of Grand River; Catholic Central HS Campus; 22-18-200-027; 22-18-200-026;	
Site School District	Novi Community School District	
Site Zoning	R-1 & R-4 One Family Residential & I-1 Light Industrial	
Adjoining Zoning	North	City of Wixom north of 12 Mile, RM-1 Low Density Multiple Family on eastern side
	East	RM-1 Low Density Multiple Family on eastern side
	West	RA Residential Acreage, R-4 One-Family Residential
	South	R-1 One-Family Residential
Current Site Use	Detroit Catholic Central High School	
Adjoining Uses	North	Multifamily Residential in Wixom, vacant
	East	Berkshire Pointe residential community
	West	Northwest Park; Andelina Ridge single family residential
	South	Island Lake residential community
Site Size	115.77 acres	
Plan Date	August 27, 2021	

PROJECT SUMMARY

The applicant is proposing a new road to provide a site entrance/exit on Twelve Mile Road, which would connect to the existing loop road on the north side of the main school building. The current proposed improvements include the construction of the road and utilities, along with landscaping, stormwater management, wetland mitigation and lighting. The proposed road would be gated at both ends, and would primarily serve as a construction route for future development phases planned for the Catholic Central campus. The City will review this phase of the project as a Roads & Utilities project per Section 6.1.1.E of the Zoning Ordinance. Wetland and Woodland impacts are proposed, which will require permitting following public hearing and approval by the Planning Commission.

In addition to the on-site drive, the applicant proposes to pave an approximately 600-linear feet portion of Twelve Mile Road adjacent to the site, which is currently gravel.

RECOMMENDATION

Staff **recommends approval of the revised Preliminary Site Plan.** Planning Commission approval of the Preliminary Site Plan, Wetland Permit, Woodland Permit and Storm Water Management Plan is required.

ORDINANCE REQUIREMENTS

This project was reviewed for compliance with the City of Novi Zoning Ordinance, Article 3 (Residential Acreage), Article 24 (Schedule of Regulations), Article 25 (General Provisions), and any other areas of the ordinance, as noted. The plans show general compliance with ordinance requirements.

1. Roads and Utilities Requirements (Sec. 6.1.1.E): Site plans proposing public or private roads without or in advance of buildings, parking areas and other improvements, are required to include conceptual development plans of possible future improvements in order to demonstrate feasibility of compliance with ordinance standards. At minimum conceptual plans shall include the following:
 - a. *An illustrative plan for the development area carried out in such detail as to indicate any expected future buildings, parking, landscaped areas, building setbacks, open spaces, utility locations, and storm water detention basins. **The Preliminary Site Plan set includes several sheets of Master Planned future development of the site. Existing buildings and athletic facilities are included, along with future phases of improvements which include a STEM Addition, Commons Addition, Grotto & Diag, Academy, Center of Excellence, a new Athletic stadium, practice fields, tennis courts, and various parking facilities. Future wetland mitigation areas and regulated woodlands are also noted. Sheets are also included to illustrate the future grading, water main, and sanitary facilities. The 75-foot building setback lines have been added to the Master Site study sheet. The planned Track and Field Stadium will encroach into the required building setbacks, which will require a variance if the location remains the same.***
 - b. *A written statement reinforcing the illustrative plan explaining in detail the full intent of the applicant, indicating type of structures contemplated, expected uses of the property, and the intended scheduling of the development. **A written statement has been provided.***
 - c. *A topographic map of the development area at a contour interval of not more than 2 feet. For the development area and within one-hundred feet of the development area, this map shall indicate all major stands of trees, of 8 inches or greater in diameter, bodies of water, wetlands and unbuildable areas. Preliminary Wetland and Woodland assessments are required for the entire property. **The locations and sizes of wetlands are shown on Sheet CE-1, and the applicant has added vegetative character of each of the wetlands identified to sheet CE-12. A woodland assessment, including the location of regulated woodland per the official Novi Woodland Map, has now been provided on Tree Survey sheets CE1.1-CE1.5.***
 - d. *A boundary survey of the exact acreage of the property, prepared by a registered land surveyor or civil engineer. **An Existing Conditions sheet includes the necessary information.***
 - e. *A recent aerial photograph of the area shall be provided. **This is now included on the cover sheet.***
 - f. *If utilities are not proposed to be constructed at the same time roads are constructed, the applicant shall submit a plan with an indication of the contemplated storm and sanitary sewer design with preliminary engineering calculations, and a preliminary topographic map indicating how the land area is proposed to be shaped. **Some utilities are proposed to be constructed at the same time as the road. Utility plans have been provided to show future utility extensions and facilities.***
2. Wetland Mitigation proposed: A 15-foot wide temporary construction easement is shown on the east side of the property adjacent to the Berkshire Pointe community. This construction

easement is to enable construction of the wetland mitigation proposed. There does not appear to be another approach to this area without disturbing existing wetlands. The applicant is encouraged to communicate their plans to the neighboring homeowners in advance of the public hearing. See the Engineering review letter regarding comments on slope requirements on the mitigation area – the mitigation area may need to be redesigned to comply.

3. Lighting Plan (Section 5.7): There are minor lighting comments to be addressed in the Final Site Plan submittal – see Planning Chart.
4. Sidewalk (Code Chapter 11: Design & Construction Standards): The applicant requests a variance to not install required sidewalks along the proposed road. **City engineers have determined that the connector road would be classified as a driveway since it only serves one business/institution, and therefore a sidewalk is not required along the road and no variance is required.**

Other Reviews

- Engineering Review: Engineering review recommends approval of the Preliminary Site Plan and Storm Water Management Plan. Additional comments to be addressed with Final Site Plan submittal.
- Landscape Review: Two landscape waivers are required. Approval of the Preliminary Site Plan is recommended, contingent on the plan being modified to address concerns detailed in the Landscape Letter to be addressed with Final Site Plan submittal.
- Wetland Review: A Non-Minor Wetland Permit will be required. MSG recommends approval of the Preliminary Site Plan, with additional comments to be addressed with Final Site Plan submittal.
- Woodland Review: Woodland permit will be required. **DRG recommends approval of the revised Preliminary Site Plan.** See woodland review letter for additional details.
- Traffic Review: Approval of the Preliminary Site Plan is recommended. Additional comments to be addressed with Final Site Plan submittal.
- Fire Review: Conditional approval is recommended. Additional comments to be addressed with Final Site Plan submittal, particularly in regard to hydrant spacing.

NEXT STEP: PLANNING COMMISSION MEETING

This Site Plan will be scheduled to go before the Planning Commission for public hearing on **October 6, 2021**. Please provide the following via email by **September 30, 2021**:

1. Site Plan submittal in PDF format (maximum of 10MB). **NO CHANGES MADE.**
2. A response letter addressing ALL the comments from ALL the review letters and a request for waivers/variances as you see fit.
3. A color rendering of the Site Plan (optional, to be used for Planning Commission presentation).

FINAL SITE PLAN SUBMITTAL

If the Planning Commission approves the Preliminary Site Plan, please submit the following for Final Site Plan review and approval:

1. Five copies of Final Site Plan addressing all comments from Preliminary review
2. Response letter **addressing all comments and refer to sheet numbers where the change is reflected**
3. [Final Site Plan Application](#)
4. [Final Site Plan Checklist](#)
5. Engineering Cost Estimate
6. Landscape Cost Estimate
7. [Other Agency Checklist](#)

8. [Hazardous Materials Packet](#) (Non-residential developments)
9. [Non-Domestic User Survey](#) (Non-residential developments)
10. [No Revision Façade Affidavit](#) (if no changes are proposed for Façade. If changes are proposed, include an additional set of plans in the submittal.)
11. Legal Documents as required
12. Drafts of any legal documents (note that off-site easements need to be executed and any on-site easements need to be submitted in draft form before stamping sets will be stamped)

ELECTRONIC STAMPING SET SUBMITTAL AND RESPONSE LETTER

After receiving Final Site Plan approval, plans addressing the comments in all of the staff and consultant review letters should be submitted electronically for informal review and approval prior to printing Stamping Sets. A letter from either the applicant or the applicant's representative addressing comments in the review letters and associated charts is to be submitted with the electronic stamping set. This letter should address all comments in ALL letters and ALL charts and **refer to sheet numbers where the change is reflected.**

STAMPING SET APPROVAL

Stamping sets are still required for this project. After receiving approval of the Electronic Stamping Set from City staff, the applicant should submit **9 size 24" x 36" copies, folded, with original signature and original seals,** to the Community Development Department for final Stamping Set approval.

If required, drafts for all legal documents with a legal transmittal are to be submitted along with stamping sets. Any off-site easements must be reviewed, approved, and executed prior to approval of the Stamping Set.

PRE-CONSTRUCTION MEETING

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

CHAPTER 26.5

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

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



Lindsay Bell, AICP, Senior Planner



PLANNING REVIEW CHART: R-4 One Family Residential

Review Date: September 17, 2021
Review Type: Revised Preliminary Site Plan
Project Name: **JSP 21-17 CATHOLIC CENTRAL CONNECTOR ROAD**
Plan Date: August 27, 2021
Prepared by: Lindsay Bell, Planner
Contact: **E-mail:** lbell@cityofnovi.org; **Phone:** (248) 347-0484

Bold To be addressed with the next submittal
Underline To be addressed with final site plan submittal
Bold and Underline Requires Planning Commission and / or ZBA Approval
Italics Notes to be noted

Item	Required Code	Proposed	Meets Code	Comments
Zoning and Use Requirements				
Master Plan <i>(adopted July 26, 2017)</i>	Single Family	Existing parochial school	Yes	
Area Study	The site does not fall under any special category	NA	Yes	
Zoning <i>(Effective January 8, 2015)</i>	One-family Residential (R-1, R-4, I-1) Article 3	No change proposed	Yes	
Uses Permitted (Sec 3.1.1.B & C)	Sec 3.1.1.B Principal Uses Permitted. Sec 3.1.1.C Special Land Uses	No change of use proposed	NA	Roads and Utilities does not appear to represent an expansion of Special Land Use permit, but future buildings will
Phasing	Phasing requires Planning Commission Approval	Phasing plan not proposed at this time	NA	
Required Conditions: Schools (Section 4.3)				
Site Access <i>(Sec 5.13)</i>	<ul style="list-style-type: none"> - Vehicular access shall be provided only to existing or planned major thoroughfare or freeway service drive - OR if property across the street from driveway is zoned for non-residential uses 	New proposed driveway would provide another access point to Twelve Mile Road, which is not a major thoroughfare, but connects to Grand River through an area of General Business and Freeway Service zoned property (City of Wixom)	Yes	Road will be gated at both ends, with traffic limited to emergency and construction vehicles
Noise Impact Statement <i>(Sec 5.14.10.B)</i>	- A noise impact statement is required subject to the standards of Section 5.14.10.B	Changes proposed will not influence noise emissions of site	NA	

Item	Required Code	Proposed	Meets Code	Comments
Height, bulk, density and area limitations (Sec 3.1.1.E)				
Maximum % of Lot Area Covered (By All Buildings)	25%	No changes to buildings proposed at this time	NA	
Building Height (Sec. 3.1.1.E)	35 feet or 2 ½ stories		NA	
Sidewalk Requirements				
Article XI. Off-Road Non-Motorized Facilities	6-foot concrete path is required along Twelve Mile Road	Existing sidewalk on 12 Mile Road	Yes	
Pedestrian Connectivity (Design & Construction Standards)	Assure safety and convenience of both vehicular and pedestrian traffic both within the site and in relation to access streets	There is no sidewalk proposed along the driveway	Yes	
Building Code	Building exits must be connected to sidewalk system or parking lot.		NA	
Other Permit and Legal Requirements				
Design and Construction Standards Manual	Land description, Sidwell number (metes and bounds for acreage parcel, lot number(s), Liber, and page for subdivisions).	Legal descriptions for all parcels are provided	Yes	See Engineering review for further DCS standards
General layout and dimension of proposed physical improvements	Location of all existing and proposed buildings, proposed building heights, building layouts, (floor area in square feet), location of proposed parking and parking layout, streets and drives, and indicate square footage of pavement area (indicate public or private).	Mostly provided	Yes	Refer to all review letters for additional information requested
Development/ Business Sign & Street addressing	<ul style="list-style-type: none"> - Signage if proposed requires a permit. - The applicant should contact the Building Division for an address prior to applying for a building permit. 	Signage is proposed	Yes	<u>Complete sign permit applications for each sign proposed; contact Maureen Underhill at 248-735-5602 for any questions</u>

Item	Required Code	Proposed	Meets Code	Comments
Building Permits	- Any wall over 48" requires building permit	Signage wall will require permit and retaining walls if they exceed the threshold		<u>Contact Building Division for permit requirements 248-347-0415</u>
Project and Street naming	Some projects may need approval from the Street and Project Naming Committee.	This project does not need approval of the Project Name	NA	
Property Split	All property splits and combination must be submitted to the Assessing Department for approval.		NA	Applicant states parcels cannot be combined due to school district boundaries
Lighting and Photometric Plan (Sec. 5.7)				
Intent (Sec. 5.7.1)	Establish appropriate minimum levels, prevent unnecessary glare, reduce spillover onto adjacent properties & reduce unnecessary transmission of light into the night sky			
Lighting Plan (Sec. 5.7.A.i)	Site plan showing location of all existing & proposed buildings, landscaping, streets, drives, parking areas & exterior lighting fixtures	Plan provided	Yes	
Building Lighting (Sec. 5.7.2.A.iii)	Relevant building elevation drawings showing all fixtures, the portions of the walls to be illuminated, illuminance levels of walls and the aiming points of any remote fixtures.		NA	
Lighting Plan (Sec.5.7.2.A.ii)	Specifications for all proposed & existing lighting fixtures	Provided	Yes	<u>Provide fixture height and hours of operation; can lights be dimmed/turned off outside of standard operating hours?</u>
	Photometric data	Provided	Yes	
	Fixture height	Not shown	No	
	Mounting & design	Shown	Yes	
	Glare control devices	Shown	Yes	
	Type & color rendition of lamps	4000K	Yes	
Hours of operation	Not provided	No		
Maximum Height (Sec. 5.7.3.A)	Height not to exceed maximum height of zoning district (or 25 ft. where adjacent to residential districts or uses	Not provided	No	<u>Must not exceed 25 feet</u>

Item	Required Code	Proposed	Meets Code	Comments
Standard Notes (Sec. 5.7.3.B)	<ul style="list-style-type: none"> - Electrical service to light fixtures shall be placed underground - Flashing light shall not be permitted - Only necessary lighting for security purposes & limited operations shall be permitted after a site's hours of operation 			<u>Include standard notes on next submittal</u>
Security Lighting (Sec. 5.7.3.H) Lighting for security purposes shall be directed only onto the area to be secured.	<ul style="list-style-type: none"> - All fixtures shall be located, shielded, and aimed at the areas to be secured. - Fixtures mounted on the building and designed to illuminate the facade are preferred 		NA	
Average Light Levels (Sec.5.7.3.E)	Average light level of the surface being lit to the lowest light of the surface being lit shall not exceed 4:1	3.0:1	Yes	
Type of Lamps (Sec. 5.7.3.F)	Use of true color rendering lamps such as metal halide is preferred over high & low pressure sodium lamps	LED, 4000k		
Min. Illumination (Sec. 5.7.3.k)	Parking areas: 0.2 min		NA	0.5 min on drive shown
	Loading & unloading areas: 0.4 min		NA	
	Walkways: 0.2 min		NA	
	Building entrances, frequent use: 1.0 min		NA	
	Building entrances, infrequent use: 0.2 min		NA	
Max. Illumination adjacent to Non-Residential (Sec. 5.7.3.K)	When site abuts a non-residential district, maximum illumination at the property line shall not exceed 1 foot candle	House-side shield proposed	Yes	
Cut off Angles (Sec. 5.7.3.L)	When adjacent to residential districts <ul style="list-style-type: none"> - All cut off angles of fixtures must be 90° - maximum illumination at the property line shall not exceed 0.5 foot candle 		Yes	

Item	Required Code	Proposed	Meets Code	Comments
NOTES: <ol style="list-style-type: none"><li data-bbox="123 289 1474 352">1. This table is a working summary chart and not intended to substitute for any Ordinance or City of Novi requirements or standards.<li data-bbox="123 354 1458 417">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<li data-bbox="123 420 1490 483">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

08/16/2021

Engineering Review

Catholic Central Connector Road
JSP21-0017

Applicant

Catholic Central High School

Review Type

Preliminary Site Plan

Property Characteristics

- Site Location: West of Wixom Road, South of Twelve Mile Road
- Site Size: 44.89 acres
- Plan Date: 03/30/2021
- Design Engineer: Zeimet Wozniak & Associates

Project Summary

- Construction of an on-site drive a proposed Twelve Mile Road entrance to an existing parking lot.
- Water service would be provided by a 12-inch extension from the existing 12-inch water main along the South side of Twelve Mile Road. Seven hydrants shall be installed.
- Sanitary sewer service would be provided by an 8-inch extension from the existing 8-inch sanitary sewer on property and connection to off-site sanitary sewer.
- Storm water would be collected by a storm sewer collection system and discharged to on-site detention basins.

Recommendation

- **Approval of the Preliminary Site Plan is recommended, with items to be addressed at Final Site Plan Submittal. Preliminary Site Plan approval is for Phase 1 of project: connector road, gravel lot and proposed utilities.**

Comments:

The Preliminary Site Plan meets the general requirements of Chapter 11 of the Code of Ordinances, the Storm Water Management Ordinance and the Engineering Design Manual with the following exceptions, which can be addressed at Final Site Plan Submittal:

General

1. Provide a minimum of two ties to established section or quarter section corners.
2. Add note to clarify what phase approval is for PSP approval is only for proposed connector road, gravel lot, and proposed utilities.
3. **Only at the time of the printed Stamping Set submittal**, provide the City's standard detail sheets for water main (5 sheets), sanitary sewer (3 sheets), storm sewer (2 sheets), paving (2 sheets) and Boardwalks/Pathways (1 sheet). The most updated details can be found on the City's website at this location: <https://cityofnovi.org/services/public-works/engineering-division/engineering-standards-and-construction-details>
4. Site grading shall be limited to 1V:4H (25-percent), excluding landscaping berms. Slope near 'North Sediment Forebay' exceeds 25%.
5. According to City of Novi ROW Master Plan 35-foot-wide right-of-way is needed along 12 Mile Road.
6. Clearly distinguish between proposed improvements and existing features of the site. Reorder pages so that all utility and paving pages are together.
7. A right-of-way permit will be required from the City of Novi and the City of Wixom.
8. Provide a traffic control plan for the proposed road work activity on 12 Mile Road.
9. Provide a note that compacted sand backfill (MDOT sand Class II) shall be provided for all utilities within the influence of paved areas and illustrate and label on the profiles.
10. Provide a construction materials table on the Utility Plan listing the quantity and material type for each utility (water, sanitary and storm) being proposed.
11. 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.
12. Where the minimum 18-inch clearance at utility crossings cannot be achieved, provide a prominent note stating the substandard clearance and that proper bedding/encasement will be determined by the inspecting engineer.
13. 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 distance from any existing or proposed utility. All utilities shall be shown on the landscape plan, or other appropriate sheet, to confirm the separation distance.
14. Show the locations of all light poles on the utility plan and indicate the typical foundation depth for the pole to verify that no conflicts with utilities will occur. Light poles in a utility easement will require a License Agreement.
15. (Minimum detail requirements for all sites with common irrigation systems connected to public water supplies): Install a backflow prevention Reduced Pressure Zone Assembly (RPZ) with an ASSE 1013 listing approval at each tap to the public water supply. A minimum clearance of 12-inches measured from the bottom of pressure relief valve to the finished landscaped grade

shall be required. Provide a detail showing the RPZ installation setup and height above grade. If backflow preventer is to be enclosed, provide a detail of the enclosure with required drainage outlets. Show all locations on a site plan. A plumbing permit is required for the installation of the backflow preventer. Installation of the backflow preventer shall be in such a manner as to not require blowing out the system through the backflow preventer. Drain ports and blow out ports shall be included. Any deviations from these requirements must be approved through the Novi Water & Sewer Division Cross Connection Control Specialist (248-735-5661).

Water Main

16. A tapping sleeve, valve and well is required at the connection to the existing water main.
17. Provide water main modeling calculations demonstrating that the required water supply of 2,000/4,000 GPM will be available.
18. Per current EGLE requirement, provide a profile for all proposed water main 8-inch and larger.
19. Provide irrigation plan.
20. Three (3) sealed sets of revised utility plans along with the Michigan Department of Environment, Great Lakes & Energy (EGLE) permit application for water main construction, the Streamlined Water Main Permit Checklist, and electronic utility plan should be submitted to the Engineering Division for review, assuming no further design changes are anticipated. Utility plan sets shall include only the cover sheet, any applicable utility sheets and the standard detail sheets.

Sanitary Sewer

21. Provide note clarifying if sanitary extension is included in phase 1 of project.
22. Provide a sanitary sewer monitoring manhole, unique to this site, within a dedicated access easement or within the road right-of-way. If not in the right-of-way, provide a 20-foot-wide access easement to the monitoring manhole from the right-of-way (rather than a public sanitary sewer easement).
23. Provide a sanitary sewer basis of design for the development on the utility plan sheet. (Calculations should use peaking factor of 4.0 and 3.2 REU).
24. Verify that Andelina Ridge pump station has capacity to handle proposed flow.
25. Off-site easement will be needed to connect to Andelina Ridge sanitary sewer.
26. Note on the construction materials table that 6-inch sanitary leads shall be a minimum SDR 23.5, and mains shall be SDR 26.
27. 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.
28. Illustrate all pipes intersecting with manholes on the sanitary profiles.
29. Three (3) sealed sets of revised utility plans along with the Michigan Department of Environment, Great Lakes & Energy (EGLE) permit application, electronic utility plan for sanitary sewer construction, and the Streamlined

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

Storm Sewer

30. 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.
31. Provide a 0.1-foot drop in the downstream invert of all storm structures where a change in direction of 30 degrees or greater occurs.
32. Storm manholes with differences in invert elevations exceeding two feet shall contain a 2-foot-deep plunge pool.
33. Provide profiles for all storm sewer 12-inch and larger. Provide table with size of all proposed catch basins/Manholes.
34. Label all inlet storm structures on the profiles. Inlets are only permitted in paved areas and when followed by a catch basin within 50 feet.
35. Illustrate all pipes intersecting storm structures on the storm profiles.
36. 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.

Storm Water Management Plan

37. 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.
38. 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.
39. 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.
40. 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).
41. Provide release rate calculations for the three design storm events (first flush, bank full, 100-year).

42. Provide a soil boring in the vicinity of the storm water basin to determine soil conditions and to establish the high-water elevation of the groundwater table. Note the bottom of the detention facility must be a minimum of three (3) feet above the groundwater elevation.
43. A 4-foot-wide safety shelf is required one foot below the permanent water surface elevation within the basin.
44. A 25-foot vegetated buffer shall be provided around the perimeter of each of the storm water basin where impervious area is directed to the basin via surface flow.

Paving & Grading

45. Provide a construction materials table on the Paving Plan listing the quantity and material type for each pavement cross-section being proposed.
46. Provide a minimum of 6 spot elevations where the pathway crosses each driveway (one at each corner and two in the center of the driveway on each side of the pathway). Spot elevations shall be provided to demonstrate a level landing adjacent to each side of the pathway crossing.
47. Provide detailed drawing of sidewalk connection to City Boardwalk.
48. Provide spot elevations at the intersection of the proposed pathway with the existing pathway.
49. Specify the product proposed and provide a detail for the detectable warning surface for barrier free ramps. The product shall be the concrete-embedded detectable warning plates, or equal, and shall be approved by the Engineering Division. Stamped concrete will not be acceptable.
50. Verify the slopes along the ingress/egress routing to the building from the barrier-free stalls. All barrier-free stalls shall comply with Michigan Barrier-Free regulations.
51. Provide existing and proposed contours on the Grading Plan at the time of the Final Site Plan submittal.
52. 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.
53. Site grading shall be limited to 1V:4H (25-percent), excluding landscaping berms. Numerous areas appear to exceed this standard.
54. The grade of the drive approach shall not exceed 2-percent within the first 25 feet of the intersection. Provide spot grades as necessary to establish this grade.
55. The sidewalk within the right-of-way shall continue through the drive approach. If like materials are used for each, the sidewalk shall be striped through the approach. The sidewalk shall be increased to 6-inches thick along the crossing or match the proposed cross-section if the approach is concrete. The thickness of the sidewalk shall be increased to 6-inches across the drive approach. Provide additional spot grades as necessary to verify the maximum 2-percent cross-slope is being maintained along the walk. Add the maximum 2-percent cross-slope to the sidewalk detail.
56. Revise 12 Mile Road cross section to match City Paving Standards (2% slope on both sides), removed cross section and attached City Paving Standards.

57. Revise plans for 12 Mile to show storm sewer and catch basins instead of spillways.
58. Provide details about height of retaining wall. Proposed 48-inch wall will need permit from Building department. Also indicate distance between walls and proposed road.
59. Soil borings along the proposed road will be required at 500-foot intervals per Section 11-195(d) of the Design and Construction Standards.

Soil Erosion and Sediment Control

60. SESC permit is required. A full review has not been completed at this time. The review checklist detailing all SESC requirements is attached to this letter. Please address the comments below and submit a SESC permit application under separate cover. The application can be found on the City's website at <http://cityofnovi.org/Reference/Forms-and-Permits.aspx>.

Off-Site Easements

61. Off Site Sanitary sewer easement needed. Any off-site utility easements anticipated must be executed **prior to final approval of the plans**. If you have not already done so, drafts of the easements and a recent title search shall be submitted to the Community Development Department as soon as possible for review, and shall be approved by the Engineering Division and the City Attorney prior to executing the easements.

The following must be submitted with the Final Site Plan:

62. 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.**
63. An itemized construction cost estimate must be submitted to the Community Development Department for the determination of plan review and construction inspection fees. This estimate should only include the civil site work and not any costs associated with construction of the building or any demolition work. **The estimate must be itemized** for each utility (water, sanitary, storm sewer), on-site paving (square yardage), right-of-way paving (including proposed right-of-way), grading, and the storm water basin (basin construction, control structure, pre-treatment structure and restoration).
64. Due to the above comments, the itemized construction cost estimate should be revised and resubmitted to the Community Development Department for the determination of plan review and construction inspection fees.

The following must be submitted with the Stamping Set:

(Please note that all documents must be submitted together as a package with the Stamping Set submittal with a legal review transmittal form that can be found on the City's website. Partial submittals will not be accepted.)

65. A draft copy of the Storm Drainage Facility Maintenance Easement Agreement (SDFMEA), as outlined in the Storm Water Management

- Ordinance, must be submitted to the Community Development Department. Once the agreement is approved by the City's Legal Counsel, this agreement will then be sent to City Council for approval/acceptance. The SDFMEA will then be recorded at the office of the Oakland County Register of Deeds. This document is available on our website.
66. A draft copy of the warranty deed for the additional proposed 35-foot-wide right-of-way along 12 Mile Road must be submitted for review and acceptance by the City.
 67. A draft copy of the 20-foot-wide easement for the water main to be constructed onsite must be submitted to the Community Development Department. This document is available on our website.
 68. A draft copy of the 20-foot-wide easement for the sanitary sewer to be constructed onsite must be submitted to the Community Development Department. This document is available on our website.
 69. A draft copy of the 20-foot-wide easement for the sanitary sewer monitoring manhole access to be constructed onsite must be submitted to the Community Development Department. This document is available on our website.
 70. Off-site sanitary sewer easement needed from City of Novi. Executed copies of approved off-site utility easements must be submitted.
 71. A 20-foot-wide easement where storm sewer or surface drainage crosses lot boundaries must be shown on the Exhibit B drawings of the Master Deed.

The following must be addressed prior to construction:

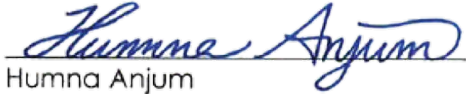
72. A pre-construction meeting shall be required prior to any site work being started. Please contact Sarah Marchioni in the Community Development Department to setup a meeting (248-347-0430). **Be advised that scheduling the pre-construction meeting can take 2-4 weeks.**
73. A City of Novi Grading Permit will be required prior to any grading on the site. This permit will be issued at the pre-construction meeting (no application required). No fee is required for this permit.
74. Material certifications must be submitted to Spalding DeDecker for review prior to the construction of any onsite utilities. Contact Ted Meadows at 248-844-5400 for more information.
75. Construction inspection fees in the amount of **\$TBD** must be paid to the Community Development Department.
76. Legal escrow fees in the amount of **\$TBD** must be deposited with the Community Development Department. **All unused escrows will be returned to the payee at the end of the project.** This amount includes engineering legal fees only. There may be additional legal fees for planning legal documents.
77. A storm water performance guarantee in the amount of **\$TBD** (equal to 120% of the cost required to complete the storm water management facilities) as specified in the Storm Water Management Ordinance must be posted at the Community Development Department.
78. Storm water detention tap fees in the amount of **\$TBD** for the proposed discharge to an off-site regional detention basin must be paid to the Community Development Department.

79. Water and Sanitary Sewer Fees must be paid prior to the pre-construction meeting. Contact the Water & Sewer Division at 248-347-0498 to determine the amount of these fees.
80. A street sign financial guarantee in the amount of **\$TBD** (\$400 per traffic control sign proposed) must be posted at the Community Development Department. Signs must be installed in accordance with MMUTCD standards.
81. A Soil Erosion Control Permit must be obtained from the City of Novi. Contact Sarah Marchioni in the Community Development Department, Building Division (248-347-0430) for forms and information. The financial guarantee and inspection fees will be determined during the SESC review.
82. A permit for all proposed work activities within the road right-of-way must be obtained from the City of Novi. This application is available from the City Engineering Division or on the City website and can be filed once the Final Site Plan has been submitted. Please contact the Engineering Division at 248-347-0454 for further information. Please submit the cover sheet, standard details, and plan sheets applicable to the permit only.
83. A permit for work within the road right-of-way of 12 Mile Road must be obtained from the City of Wixom. The applicant must forward a copy of this permit to the City. Provide a note on the plans indicating all work within the road right-of-way will be constructed in accordance with the City of Wixom standards.
84. A permit for water main construction must be obtained from EGLE. This permit application must be submitted through the Engineering Division after the water main plans have been approved. Please submit the cover sheet, overall utility sheet, standard details, and plan/profile sheets applicable to the permit.
85. A permit for sanitary sewer construction must be obtained from EGLE. This permit application must be submitted through the Engineering Division after the sanitary sewer plans have been approved. Please submit the cover sheet, overall utility sheet, standard details, and plan/profile sheets applicable to the permit. **Be aware that approval by Oakland County Water Resources Commissioner (OCWRC) is required prior to submittal to EGLE.**
86. An NPDES permit must be obtained from EGLE since the site is over 5 acres in size. EGLE may require an approved SESC plan to be submitted with the Notice of Coverage.
87. An inspection permit for the sanitary sewer tap must be obtained from the Oakland County Water Resources Commissioner (OCWRC).
88. Permits for the construction of each retaining wall exceeding 48 inches in height (measured from bottom of the footing to top of the wall) must be obtained from the Community Development Department (248-347-0415).

Prior to preparing stamping sets, the Applicant is advised to provide any revised sheets directly to the Engineering Division for an informal review and approval.

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 with any questions.

A handwritten signature in blue ink that reads "Humna Anjum". The signature is written in a cursive style and is positioned above a horizontal line.

Humna Anjum
Project Engineer

cc: Lindsay Bell, Community Development
Ben Croy, PE; Engineering
Kate Richardson, Engineering
Victor Boron, Engineering

LANDSCAPE REVIEW



PLAN REVIEW CENTER REPORT

July 30, 2021

Catholic Central Connector Road Preliminary Site Plan - Landscaping

Review Type

Preliminary Landscape Review

Job

JSP21-0016

Property Characteristics

- Site Location: 27225 Wixom Road
- Site Acreage: 115.77 ac.
- Site Zoning: R-4/I-1
- Adjacent Zoning: North: Wixom MF residential, East: RM-4, South: R-1, West: RA/R-4
- Plan Date: 7/23/2021

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 Final Site Plan submittal. Please follow guidelines of the Zoning Ordinance and Landscape Design Guidelines. This review is a summary and is not intended to substitute for any Ordinance.

Recommendation

This project is **recommended for approval for Preliminary Site Plan**. There are two landscape waivers required that are supported by staff, and some changes required and requested that can be addressed on Final Site Plans.

LANDSCAPE WAIVERS REQUIRED FOR PROPOSED LAYOUT

- Lack of berms along Berkshire Pointe property lines – *supported by staff because the natural vegetation is being preserved for most of the frontage, and no buildings or parking will be within 150 feet of the property line*
- Lack of berms and required greenbelt landscaping along Twelve Mile Road. *This is supported for the frontage east of the entry, but not for the frontage west of the entry.*

Ordinance Considerations

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

1. Provided
2. **Please plant more of the required woodland replacement trees on the site. There are additional locations available where they could be planted and not restrict future development. See the Landscape Chart for a more detailed discussion.**

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

1. The project is adjacent to residentially-zoned property, which requires a berm of 4.5-6 feet or 10-15 feet but no berms are proposed because the proposed development is over 150 feet away.
2. *This waiver is supported by staff, but the applicant is encouraged to plant more of their required woodland replacement trees along the east property edge to add more*

screening.

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

1. The required greenbelt width is provided.
2. The required canopy trees and street trees are provided along the frontage west of the proposed entry.
3. A landscape waiver is requested for the lack of greenbelt berm and landscaping east of the entry in order to preserve the existing wetland. *This waiver request is supported by staff.*
4. A landscape waiver is also required for the lack of a berm west of the entry. *This request is not supported by staff as there appears to be room to adjust the detention pond grading to provide the required berm. **Please add the required berm.***
5. Eastern redcedar is not a subcanopy tree and can't be used to meet that requirement. **Please either change the redcedar to an actual subcanopy tree or add subcanopy trees elsewhere along the greenbelt.**

Internal Street Landscaping (Zoning Sec. 5.5.3.B.iii.)

1. The required number of canopy trees are located along the drive, on both sides of the drive, where utility conflicts don't prevent trees from being located within 15 feet of the drive.
2. There are still some sections of drive where it seems that trees could be located within 15 feet of the drive. **Please locate trees along as much of the drive as possible, especially along the south and west sides of the road where shading will be most productive.**
3. **Please ensure that all interior access drive trees are located within 15 feet of the paving.**

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

No parking is proposed at this time.

Building foundation Landscaping (Zoning Sec 5.5.3.D)

No buildings are proposed at this time.

Plant List (LDM 4)

1. The non-woodland replacement tree diversity meets the standards of LDM 4.
2. 12 of 15 species used (80%) of non-woodland replacement trees are native to Michigan.
3. **Please replace the Accolade Elm with a species on the Woodland Replacement Chart.**

Planting Notations and Details (LDM)

Provided

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

1. Please adjust the northern detention pond grading to make a more graceful, natural shape.
2. The calculations indicate that the required shrubs will be provided. Please show the arrangement of the shrubs on Final Site Plans.
3. The required canopy trees are missing on the east and west sides of the proposed ponds. **Please add them to provide additional shading for the ponds.** Woodland replacement trees can be used to meet this requirement.

Irrigation (LDM 1.a.(1)(e) and 2.s)

1. If an irrigation system will be used for this project's plantings, please provide the plan with Final Site Plans. The system will need to meet these requirements:
 - Any booster pump installed to connect the project's irrigation system to an existing irrigation system must be downstream of the RPZ.
 - The RPZ must be installed in accordance with the 2015 Michigan Plumbing Code.

- The RPZ must be installed in accordance with the manufacture installation instructions for winterization that includes drain ports and blowout ports.
 - The RPZ must be installed a minimum of 12-inches above FINISHED grade.
 - Attached is a handout that addresses winterization installation requirements to assist with this.
 - A plumbing permit is required.
 - The assembly must be tested after installation with results recorded on the City of Novi test report form.
2. If an alternative method of providing sufficient water for establishment and long-term survival of the plantings will be used, please provide details for that on Final Site Plans.

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



Rick Meader – Landscape Architect

LANDSCAPE REVIEW SUMMARY CHART – Preliminary Site Plan

Review Date: July 29, 2021
Project Name: JSP21 – 0017: Catholic Central Connector Drive
Plan Date: July 23, 2021
Prepared by: Rick Meader, Landscape Architect E-mail: rmeader@cityofnovi.org;
 Phone: (248) 735-5621

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

LANDSCAPE WAIVERS REQUIRED FOR PROPOSED LAYOUT

- Lack of berms along Berkshire Pointe property lines – *supported by staff because the natural vegetation is being preserved for most of the frontage, and no buildings or parking will be within 150 feet of the property line*
- Lack of berms and required greenbelt landscaping along Twelve Mile Road. *This is supported for the frontage east of the entry, but not for the frontage west of the entry.*

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 	Scale: 1" = 30'	Yes	
Project Information (LDM 2.d.)	Name and Address	Yes	Yes	
Owner/Developer Contact Information (LDM 2.a.)	Name, address and telephone number of the owner and developer or association	Yes	Yes	Please add contact information to the landscape plans.
Landscape Architect contact information (LDM 2.b.)	Name, Address and telephone number of RLA/PLA/LLA who created the plan	Grissim Metz Andriese Assoc.	Yes	
Sealed by LA. (LDM 2.g.)	Requires original signature	Yes		<u>Live signature required for final stamping sets.</u>
Miss Dig Note (800) 482-7171 (LDM.3.a.(8))	Show on all plan sheets	Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
Zoning (LDM 2.f.)	Include all adjacent zoning	Shown on Sheet L-001 Parcel: R-4 & I-1 North: RM-1/Wixom East: RM-1 South: R-1 West: RA	Yes	
Survey information (LDM 2.c.)	<ul style="list-style-type: none"> ▪ Legal description or boundary line survey ▪ Existing topography 	Topo and legal description on Sheet CE-1	Yes	
Existing plant material Existing woodlands or wetlands (LDM 2.e.(2), Section 37-8)	<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"> ▪ Wetland Plan Sheet CE-11 ▪ Woodland Plan Sheets L101-104 ▪ Total woodland replacements required: 231 ▪ Only 140 credits are proposed to be planted on site. 	Yes	<ol style="list-style-type: none"> 1. See Mannik & Smith and Davey Resource Group letters for detailed reviews of wetlands and woodlands. 2. Required replacements should be planted on site to the greatest extent possible. There are still many locations where replacements could be used that wouldn't limit future development. 3. One of these is the setback area east of the north wetland mitigation area, which could be planted before disturbance of that area began to help trap some of the dust that will come from its construction and could never be used for future development.
Soil types (LDM.2.r.)	<ul style="list-style-type: none"> ▪ As determined by Soils survey of Oakland county ▪ Show types, boundaries 	Sheet CE-2	Yes	
Existing and proposed improvements (LDM 2.e.(4))	Existing and proposed buildings, easements, parking spaces, vehicular use areas, and R.O.W	Overall – Sheet CE-3	Yes	Please “ghost in” all future areas of development shown on CE-3 on the landscape plan to call out why certain areas that could

Item	Required	Proposed	Meets Code	Comments
				have street trees don't.
Existing and proposed utilities (LDM 2.e.(4))	Overhead and underground utilities, including hydrants	Yes	Yes	
Proposed grading. 2' contour minimum (LDM 2.e.(1))	Provide proposed contours at 2' interval	Spot elevations and contours for road and detention ponds on Sheet CE-5	Yes	
Snow deposit (LDM.2.g.)	Show snow deposit areas on plan	No	No	
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 new parking areas are proposed with this project.	NA	
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 200 SF to qualify ▪ A minimum of 200sf unpaved area per tree planted in an island ▪ 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 7 ft.	NA		
Contiguous space limit (i)	Maximum of 15 contiguous spaces	NA		
Plantings around Fire Hydrant (d)	<ul style="list-style-type: none"> • No plantings with matured height greater than 12' within 10 ft. of fire hydrants • Plant trees at least 5 ft from underground utility lines • Plantings near hydrants or FDCs should be no taller than 12" 	No trees near hydrants are proposed.	Yes	
Landscaped area (g)	Areas not dedicated to	NA		

Item	Required	Proposed	Meets Code	Comments
	parking use or driveways exceeding 100 sq. ft. shall be landscaped			
Clear Zones (LDM 2.3.(5))	<ul style="list-style-type: none"> • 25 ft corner clearance required. • Refer to Zoning Section 5.5.9 • Road Commission for Oakland County zone for RCOC jurisdiction roads 	City of Novi clear zone is provided at the Twelve Mile Road entry and at the internal intersection.	Yes	
Category 1: For OS-1, OS-2, OSC, OST, B-1, B-2, B-3, NCC, EXPO, FS, TC, TC-1, RC, Special Land Use or non-residential use in any R district (Zoning Sec 5.5.3.C.iii)				
A = Total square footage of vehicular use areas up to 50,000sf x 7.5%	<ul style="list-style-type: none"> • $A = x \text{ sf} * 7.5 \% = A \text{ sf}$ • $50,000 * 7.5\% = 3750 \text{ sf}$ 	NA		
B = Total square footage of additional paved vehicular use areas (not including A or B) over 50,000 SF) x 1 %	<ul style="list-style-type: none"> • $B = x \text{ sf} * 1\% = B \text{ sf}$ • $(xxx - 50000) * 1\% = xx \text{ sf}$ 	NA		
Category 2: For: I-1 and I-2 (Zoning Sec 5.5.3.C.iii)				
A. = Total square footage of vehicular use area up to 50,000 sf x 5%	$A = x \text{ sf} * 6\% = A \text{ sf}$	NA		
B = Total square footage of additional paved vehicular use areas over 50,000 SF x 0.5%	$B = 0.5\% \times 0 \text{ sf} = B \text{ SF}$	NA		
All Categories				
C = A+B Total square footage of landscaped islands	<ul style="list-style-type: none"> • $C = A + B$ • $C = xxx + xxx = xx \text{ SF}$ 	NA		
D = C/200 Number of canopy trees required	<ul style="list-style-type: none"> ▪ $D = C/200 \text{ trees}$ ▪ $xx/200 = xx \text{ Trees}$ 	NA		
Perimeter Green space	<ul style="list-style-type: none"> ▪ 1 Canopy tree per 35 lf ▪ $xx /35 = xx \text{ trees}$ 	NA		
Accessway perimeter	<ul style="list-style-type: none"> ▪ 1 canopy tree per 35 lf on each side of road, less widths of access drives. ▪ $(1943 \text{ lf})/35 \times 2 = 111 \text{ trees}$ 	<ul style="list-style-type: none"> ▪ 112 trees ▪ The arrangement of trees is much more spread out along the road than it was on the pre-app plan 	Yes	<p>1. Trees need to be located within 15 feet of the curb to count as an accessway perimeter tree. Please move any street trees farther</p>

Item	Required	Proposed	Meets Code	Comments
				<p>than that closer to the road.</p> <p>2. While clustering is allowed, and there is no requirement for a linear arrangement of street trees, it appears that there are still some large areas, such as along the south side of the road where it bends to the north, that could have trees 4 feet behind the curb that wouldn't conflict with utilities. Please add trees where possible, especially on the west and south sides of the road.</p>
Parking land banked	NA	No		
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 1 ft. 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 (Sec 5.5.3.A) & (LDM 1.a)				
<p>Berm requirements <i>(Zoning Sec 5.5.A)</i></p>	<ul style="list-style-type: none"> ▪ Landscaped berm 4-6 ft tall for R-4 section of the property ▪ 10-15 foot tall landscaped berm for the I-1 section. 	<ul style="list-style-type: none"> ▪ None ▪ Existing vegetation is being left for a buffer of approximately 250-480 ft except for the north wetland mitigation area which will be within 25 feet of the Berkshire Pointe subdivision. 		<ol style="list-style-type: none"> 1. Landscape waivers are required for any berms not provided. 2. The berms are not being provided due to the large area of open land between the portions of the site to be developed and the residential property. 3. <i>This waiver request is supported by staff, but the applicant is encouraged to use the remaining woodland replacement trees to provide additional screening in the</i>

Item	Required	Proposed	Meets Code	Comments
				<i>open areas, and especially along the east property line.</i>
Planting requirements (LDM 1.a.)	LDM Novi Street Tree List	NA		
Adjacent to Public Rights-of-Way (Sec 5.5.B) and (LDM 1.b)				
Berm requirements (Zoning Sec 5.5.3.A.(5))	An undulating berm a minimum of 3 feet high with a 3-foot wide crest is required	No berm is proposed	No	<ol style="list-style-type: none"> Please provide the required berm west of the 12 Mile Road entry. See discussion below in the ROW Landscaping Requirements section.
Cross-Section of Berms (LDM 2.j)				
Slope, height and width	<ul style="list-style-type: none"> Label contour lines Maximum 33% Min. 3 feet flat horizontal area Minimum 3 feet high Constructed of loam with 6' top layer of topsoil. 	No berm is proposed	No	<u>If berms are proposed, please add a cross section showing the berm construction.</u>
Type of Ground Cover		NA		
Setbacks from Utilities	Overhead utility lines and 15 ft. setback from edge of utility or 20 ft. setback from closest pole	<ul style="list-style-type: none"> There are no overhead lines along 12 Mile Road or on the site. All proposed utilities are shown. 	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	<ul style="list-style-type: none"> A ribbon wall (non-retaining) is proposed at the entry Elevations and cross section are provided. 	Yes	
Walls greater than 3 ½ ft. should be designed and sealed by an Engineer		No details provided		
ROW Landscape Screening Requirements (Sec 5.5.3.B. ii)				
Greenbelt width (2)(3) (5)	34 feet	45 ft to edge of detention pond	Yes	
Min. berm crest width	4 feet	None	No	1. A landscape waiver

Item	Required	Proposed	Meets Code	Comments
				<p>is required to not provide the required berm.</p> <p>2. <i>It would be supported for the area east of the entrance in order to preserve the existing wetland, but not the frontage west of the entry.</i></p>
Minimum berm height (9)	4 feet	None	No	
3' wall	(4)(7)	No		
<p>Canopy deciduous or large evergreen trees Notes (1) (10)</p>	<ul style="list-style-type: none"> ▪ 1 tree per 40 lf ▪ West: $387/40 = 10$ trees ▪ East: $367/40 = 9$ trees 	<ul style="list-style-type: none"> ▪ 11 trees ▪ 0 trees 	<ul style="list-style-type: none"> ▪ Yes ▪ No 	<ol style="list-style-type: none"> 1. A landscape waiver is required to not provide the required plantings east of the entry. 2. <i>As with the berm, a landscape waiver would be supported to not provide the required trees east of the entry, in the wetland, to preserve the wetland and open area east of the wetland.</i> 3. Please add calculations showing the trees that will not be planted along that section of frontage, for which the waiver would be requested. 4. Please consider removing the invasive trees and shrubs in those areas to improve the habitat there, and in the wetland and wetland mitigation area (autumn olive, buckthorn, honeysuckle, etc). 5. No other existing vegetation than the invasive plants noted

Item	Required	Proposed	Meets Code	Comments
				above can be removed in the area east of the entry if a waiver is granted. 6. The 42' on the east side of the drive can be added to the waiver since no plantings could be done in that section.
Sub-canopy deciduous trees Notes (2)(10)	<ul style="list-style-type: none"> ▪ 1 tree per 25 lf ▪ West: 387/25 = 15 trees ▪ East: 367/25 = 15 trees 	<ul style="list-style-type: none"> ▪ 18 trees ▪ 0 trees 	<ul style="list-style-type: none"> ▪ Yes ▪ No 	1. See above items 1-3 2. See note below in the Plant List section regarding Eastern Redcedar.
Canopy deciduous trees in area between sidewalk and curb (Novi Street Tree List)	<ul style="list-style-type: none"> ▪ 1 tree per 35 lf ▪ West: 345/35 = 10 trees ▪ East: 325/35 = 9 trees 	<ul style="list-style-type: none"> ▪ 10 trees ▪ 0 trees 	<ul style="list-style-type: none"> ▪ Yes ▪ No 	See above items 1-3.
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 	No	TBD	1. If any transformers are installed, they must be screened with shrubs per the standard detail. 2. Please add detail to plans.
Building Foundation Landscape Requirements (Sec 5.5.3.D)				
Interior site landscaping SF	<ul style="list-style-type: none"> ▪ Equals to entire perimeter of the building x 8 with a minimum width of 4 ft. ▪ A: x lf x 8ft = x SF 	NA		
Zoning Sec 5.5.3.D.ii. All items from (b) to (e)	If visible from public street a minimum of 60% of the exterior building perimeter should be covered in green space	NA		
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 native shrubs shall cover 70-75% of the basin rim area at 10 lf from permanent water level ▪ 10" to 14" tall grass along sides of basin ▪ Refer to wetland for basin mix ▪ Deciduous canopy 	<ul style="list-style-type: none"> ▪ Trees are only shown on the south sides of the north and south detention pond. ▪ A count of shrubs and species are shown on Sheet L204. 		1. Please provide detailed landscape plans for the ponds that include the shrubs. 2. Please add trees to the east and west sides of the north pond and the new south pond to meet

Item	Required	Proposed	Meets Code	Comments
	tree 1/35 of east, south and west sides of pond at 10 feet from permanent water level			<p>the intent of the ordinance, which is to shade the ponds as much as possible.</p> <p>3. Woodland replacement trees can be used to meet the tree requirement</p> <p>4. Additional woodland replacement plantings could also be added around the detention ponds.</p> <p>5. <u>Please give the northern pond a more graceful, natural shape to the greatest extent possible. It seems that there is room for some variation.</u></p> <p>6. <u>Please show the shrub layout on Final Site Plans.</u></p> <p>7. Any required vegetation removed from the existing pond must be replaced elsewhere around the pond.</p>
<p>Phragmites and Japanese Knotweed Control (Sec 5.5.6.C)</p>	<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	<p>1. Please survey the site for any populations of Phragmites australis and Japanese Knotweed</p> <p>2. If any is found, show it on the topo survey and add plans for its removal.</p> <p>3. If none is found, please indicate that on the survey.</p>
<p>LANDSCAPING NOTES, DETAILS AND GENERAL REQUIREMENTS</p>				
<p>Landscape Notes – Utilize City of Novi Standard Notes</p>				
<p>Installation date (LDM 2.I. & Zoning Sec 5.5.5.B)</p>	Provide intended date	Between Mar 15 and Nov 15.	Yes	
<p>Maintenance & Statement of intent (LDM 2.m & Zoning Sec 5.5.6)</p>	<ul style="list-style-type: none"> ▪ Include statement of intent to install and guarantee all materials for 2 years. 	Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
	<ul style="list-style-type: none"> 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.)	<ul style="list-style-type: none"> A fully automatic irrigation system or a method of providing sufficient water for plant establishment and survival is required on Final Site Plans. If irrigation won't be used, note how trees will get sufficient water for establishment and long-term survival 	No	No	<ol style="list-style-type: none"> Please add an irrigation plan or information as to how plants will be watered sufficiently for establishment and long-term survival. If xeriscaping is used, please provide information about plantings included and how sufficient water for their establishment and long-term survival will be supplied.
Other information (LDM 2.u)	Required by Planning Commission	NA		Please revise Installation Spec #3 to end "...inspection time period is from April 15 to November 15, weather allowing."
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) – Include all cost estimates				
Quantities and sizes	Refer to LDM suggested plant list	Yes	Yes	
Root type		Yes	Yes	
Botanical and common names		<ul style="list-style-type: none"> 12 of 15 species used (80%) of species used (not including woodland replacement trees) are native to Michigan Tree diversity meets the requirements of 	<ul style="list-style-type: none"> Yes Yes 	<ol style="list-style-type: none"> Accolade Elm may not be used as a woodland replacement tree as it is a hybrid of non-native elm species. Please limit the woodland replacement species used to those on the Woodland

Item	Required	Proposed	Meets Code	Comments
		LDM4		Replacement Chart (Sec 37-8). 2. Eastern redcedar does not meet the definition of a subcanopy tree. It can still be used, but can't count toward the subcanopy tree requirement.
Type and amount of lawn		Seeded areas are indicated with hatching	Yes	<u>Please add areas of each in cost table.</u>
Cost estimate (LDM 2.t)	For all new plantings, mulch and sod as listed on the plan	No		<u>Please add to final site plan.</u>
Planting Details/Info (LDM 2.i) – Utilize City of Novi Standard Details				
Canopy Deciduous Tree	Refer to LDM for detail drawings	Yes	Yes	
Evergreen 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	Yes	Yes	
Plant Materials & Existing Plant Material (LDM 3.b)	Clearly show trees to be removed and trees to be saved.	Yes	Yes	
Landscape tree credit (LDM3.b.(d))	<ul style="list-style-type: none"> ▪ Substitutions to landscape standards for preserved canopy trees outside woodlands/ wetlands should be approved by LA. ▪ Refer to Landscape tree Credit Chart in LDM 	No		
Plant Sizes for ROW, Woodland replacement and	<ul style="list-style-type: none"> ▪ Size determined by use detailed in LDM Table 11.b.(2)a.i 		TBD	

Item	Required	Proposed	Meets Code	Comments
others (LDM 11)	<ul style="list-style-type: none"> ▪ Indicate on plant list 			
Plant size credit (LDM3.c.(2))	NA	No		
Prohibited Plants (LDM 3.d)	No plants on City Invasive Species List	None proposed	Yes	
Recommended trees for planting under overhead utilities (LDM 3.e)	Label the distance from the overhead utilities	There are no existing or proposed overhead lines on the site.		
Collected or Transplanted trees (LDM 3.f)		No		
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. ▪ Refer to section for additional information 	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.

WOODLAND REVIEW



Corporate Headquarters
 295 South Water Street, Suite 300
 Kent, OH 44240
 800-828-8312

Local Office
 3381 Lapeer Rd. West
 Auburn Hills, MI 48326

To: Lindsay Bell, City of Novi Senior Planner
 Community Development Department, City of Novi

From: Kerry Gray, Principal Consultant
 Davey Resource Group

CC: Barbara McBeth, City Planner
 Christian Carroll, City of Novi Planner
 Rick Meader, City of Novi Landscape Architect
 Madeleine Daniels, City of Novi Planner
 Ben Peacock, City of Novi Assistant Planner
 Craig Willey, Mannik and Smith Group

Date: September 15, 2021

RE: Catholic Central High School Connector Road
 Woodland Review #2 - Preliminary Site Plan Review – JSP21-17

Davey Resource Group, Inc. (DRG) has conducted a review of the revised Preliminary Site Plan for the proposed connector road for Catholic Central High School located at 27225 Wixom Road (Parcel Nos. 22-18-200-026 and 22-18-200-027). The plan set prepared by Zeimet Wozniak and Associates, Inc. (dated: 08/27/2021), proposes construction of a connector road from 12 Mile Road to facilitate future plans to expand the school’s campus. DRG reviewed the revised Preliminary Site Plan set for conformance with the City of Novi’s Woodland Protection Ordinance, Chapter 37. The project site contains regulated woodlands (Figure 1).

Recommendation: DRG **recommends approval** of the Catholic Central Connector Road Preliminary Site Plan contingent upon addressing the Woodland Review comments in this memo.

The following Woodland Regulations apply to this site:

Woodland Regulation	Required
Woodland Permit (Chapter 37, Section 37-26)	YES
Tree Replacement (Chapter 37, Section 37-8) & Financial Guarantee (Chapter 26.5-5)	YES
Tree Protection (Fence) (Chapter 37, Section 37-9) & Financial Guarantee (Chapter 26.5-5)	YES
Woodland Conservation Easement (Chapter 37-30 (e))	YES

Woodland Impacts & Required Replacements

A follow-up site inspection was conducted on September 10, 2021. The woodlands on-site are considered high-quality with a mix of native upland and lowland tree species including, red oak, swamp white oak, bur oak, sugar maple, red maple, silver maple, green ash, cottonwood, and American elm. There are 747 regulated woodland trees on site. The proposed construction of the connector road will remove the following regulated trees:

Regulated Woodland Tree Removals (Good/Fair/Poor Condition)	175
Regulated Woodland Tree Removals (Dead/Very Poor Condition) <i>Do not require woodland tree replacements</i>	18

The following woodland tree replacements requirements are shown on Sheet L104:

Tree Size (DBH)	Number of Trees	Ratio Replacement/ Removed Tree	Total Replacements Required	Credits
8-11"	76	1	76	-
12-20"	63	2	126	-
21-29"	7	3	21	-
30+"	4	4	16	-
Multi-Stem	25	Add Stems/8	86	-
Transplanted non- Regulated Trees (Preserved)	-	-	-	-
Total			325	-
Total Replacements (Required Replacements less Credits)			325 Trees	

The applicant proposes (sheet L204) to meet the 325 Woodland Replacement Credit requirements by:

- Planting 260 trees (260 Woodland Replacement Credits)
 - 62 red maple (*Acer rubrum*) – 2.5" caliper B&B
 - 49 tuliptree (*Liriodendron tulipifera*) – 2.5" caliper B&B
 - 42 swamp white oak (*Quercus bicolor*) – 2.5" caliper B&B
 - 8 bur oak (*Quercus macrocarpa*) – 2.5" caliper B&B
 - 59 red oak (*Quercus rubra*) – 2.5" caliper B&B
 - 40 American basswood (*Tilia americana*) – 2.5" caliper B&B
- Paying into the City of Novi Tree Fund (65 Woodland Replacement Credits)
 - 65 woodland replacement credits x \$400/tree = \$26,000

Woodland Review Comments

1. **Alternative Layouts.** The woodland that is proposed to be disturbed for the construction of the connector road and future parking expansions is a high quality, mature woodland made up of Michigan native species. Please provide the other options and alternatives that were considered for the location of the connector road that would limit the impacts to the woodland and why the proposed location was selected. DRG strongly recommends the applicant re-evaluate the site layout to minimize the impacts to this high quality regulated woodland.

2. **Missing Tree Data.** There is no data on tree numbers 271 and 3128 that are within the limits of disturbance and proposed to be removed (sheet L103). These trees will require tree replacements for removal. Provide the required tree information for these trees and update the tree replacement requirements on all applicable plan sheets.

3. **Critical Root Zone & Tree Protection Fence.** Per Chapter 37, Section 37-9(1):

“Woodland areas shall be separated from construction areas by the installation of a “barrier” fence...This barrier shall be installed at the critical root zone (CRZ) perimeter of the onsite trees to be protected prior to initiating project construction. Should it not be possible to place the protection fencing at the CRZ of a regulated tree due to practical hardship, the applicant may provide replacement value for the tree into the city tree fund. The applicant may also choose to allow the tree in question to remain at his or her option. Accurate critical root zones must be depicted on the site plan for all regulated trees within fifty (50) feet of proposed grading or construction activities.”

Sheet L103 does not show the accurate location of the critical root zone of preserved regulated woodland trees and the tree protection fence appears to be within the critical root zone of preserved woodland trees. Revise plans to:

- (1) Accurately depict the location of the critical root zone per Section 37-9(1)
 - (2) If tree protection fence must be located within the critical root zone of preserved regulated woodland trees, provide the woodland replacement credits required per the woodland replacement requirements outlined in Chapter 37 and calculate the amount to be paid into the City of Novi Tree Fund
4. **Woodland Use Permit.** A Woodland Use Permit is required to perform construction on any site containing regulated woodlands. The permit for this site will require Planning Commission approval.
 5. **Financial Guarantees.**
 - a. **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.
 - b. **Financial Guarantee at a rate of \$400 per woodland replacement credit** planted on-site will be required as part of the Woodland Use Permit fees to ensure planting of the on-site Woodland Replacement tree credits. The financial guarantee will be determined after Comment #2 is addressed.

Based on inspection of the installed on-site Woodland Replacement trees, the Woodland Replacement Financial Guarantee shall be returned to the Applicant. The Applicant is responsible for requesting this inspection. Following acceptance of the planted woodland replacement trees, a 2-year performance bond must be paid to ensure the continued health and survival of the replacement trees (see comment 5d).

- c. The applicant will be required to pay into the City of Novi Tree fund at a rate of \$400/credit for any Woodland Replacement tree credits that cannot be planted on site. The Tree Fund contribution will be determined after comments #2 and 3 are addressed.
- d. **The applicant shall guarantee trees for two (2) growing seasons after installation and the City's acceptance,** per The City's Performance Guarantees Ordinance. A two-year maintenance bond in the amount of twenty-five (25) percent of the value of the trees, but in no case less than one thousand dollars (\$1,000.00), shall be required to ensure the continued health of the trees following acceptance (Chapter 26.5, Section 26.5-37).

The Woodland Maintenance Guarantee amount will be determined after Comment #2 is addressed and may change during the project if the proposed number of on-site Woodland Replacement Trees is revised.

Based on a successful inspection 2-years after installation of the on-site Woodland Replacement trees, the Woodland Replacement Performance Guarantee shall be returned to the Applicant. The Applicant is responsible for requesting this inspection.

- 6. The Applicant shall 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.



Figure 1. Catholic Central High School
City of Novi Regulated Woodland Map

WETLAND REVIEW



August 17, 2021

Lindsay Bell
City Planner
Department of Community Development
City of Novi
45175 W. Ten Mile Road
Novi, Michigan 48375

RE: Catholic Central High School Connector Road; JSP21-17
Wetland Review of Preliminary Site Plan
MSG Project No. N1030058

Dear Ms. Bell:

The Mannik & Smith Group, Inc. (MSG) completed a project site inspection relative to *Sheet CE-12, Wetland and Buffer Impacts of the Preliminary Site Plan and Stormwater Management Plan for Catholic Central High School Connector Road & Utility Plan* prepared by Zeimet Wozniak & Associates dated July 23, 2021, stamped Received by the City of Novi on July 27, 2021 (the PSP). The project site is located at 27225 Wixom Road, west of Wixom Road and south of Twelve Mile Road, Parcels 50-22-18-200-026 and 50-22-18-200-027, in Section 18 (Site). The PSP depicts construction of a paved connector road from Twelve Mile Road to the north to Catholic Central School Drive to the south and improvements to Twelve Mile Road. The PSP also depicts construction of three detention ponds and a wetland mitigation area. Sheet CE-12 of the PSP identifies anticipated areas of permanent wetland impact, permanent natural resources setback (buffer) impact, and temporary buffer impact.

Published Data

MSG reviewed the City of Novi Wetlands Maps and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Wetlands Map Viewer for the Site. The Site contains City-regulated wetlands, wetlands as identified on National Wetland Inventory (NWI) and Michigan Resource Inventory System (MIRIS) maps, and hydric (wetland) soil (Figures 1 and 2, respectively). NWI and MIRIS wetlands are identified through interpretation of topographic data and aerial photographs by the associated governmental bodies. Hydric soil is mapped by the U.S. Department of Agriculture, Natural Resource Conservation Service.

MSG approximated the relative location of the proposed connector road on the City and EGLE maps, and compared the City wetland map to Sheet CE-12. It appears the areas shown as Wetlands A and E in the PSP approximately correspond to City-regulated wetland areas. Sheet CE-12 portrays impact to City-regulated Wetland E, the buffer of Wetland A, and impacts to wetlands and buffers that are not identified on the City of Novi Wetlands Maps. Sheet CE-12 also specifies 0.84 acre of wetland mitigation area is anticipated to be required.

MSG Wetland Boundary Verification

The PSP depicts the locations of approximately fifteen wetlands on the Site. The subject connector road project is depicted as affecting four of the wetlands, identified as Wetlands A, C, E, and O. MSG visited the Site on August 4, 2021 to evaluate the accuracy of the PSP's depiction of wetland impacts at the Site. The conditions at Wetland C generally consisted of emergent vegetation/low grasses, and Wetland O and the affected portions of Wetland E consisted of forested wetland. Wetland delineation markers (numbered pink ribbon or flags) were observed that appeared to correspond to the perimeters of the wetlands as depicted on the PSP. Public aerial images suggest the

affected portion of the Wetland A is historically a section of an unpaved road adjoining an emergent wetland. Selected inspection photographs are found at the end of this letter.

Proposed Impacts

The areas of wetland and buffer impact are summarized below, based on notes in the PSP.

I	II	III	IV	V	VI	VII	VIII	IX
Wetland ID	Wetland Area (Acre)	Temporary Wetland Buffer Impact Area (Acre)	Permanent Wetland Buffer Impact Area (Acre)	Permanent Wetland Impact Area (Acre)*	City Regulated Wetland	EGLE Regulated Wetland	Wetland Type	Mitigation Ratio Per EGLE Guidance (Relative to Column V)
A	2.24	None	0.02	None	Yes	No	Emergent	Not required
C	0.63	0.14	None	0.08	No	No	Emergent	Not required
E	5.53	0.96	0.40	0.26	Yes	Yes	Forested	2 to 1
O	0.12	None	0.10	0.10	No	No	Forested	Not required
Totals		1.10	0.52	0.44				

* No temporary wetland impact was identified in the PSP.

The PSP proposes to impact a total of 1.62 acre of wetland buffer (column III + column IV) and 0.44 acre of wetland (column V).

- When an activity results in the impairment or destruction of wetland areas (column V) of 0.25-acre or greater that are determined to be:
 - essential wetland area (column VI, Wetland E),
 - two acres in size or greater (column II, Wetland E), or
 - contiguous to a lake, pond, river or stream (not applicable to Site),
 mitigation is required per Section 12-176 of the Novi Code of Ordinances.
- EGLE typically regulates wetlands:
 - located within 500 feet of an inland lake, pond, stream, or river (not applicable to Site), and
 - isolated wetlands of an area of 5 acres or more (column II, Wetland E) per Administrative Rules for Part 303.

Comments

1. EGLE typically regulates wetlands isolated wetlands greater than 5 acres in size. Wetland E, as depicted in the PSP, is larger than 5 acres. Any development that affects the Wetland E area will require an EGLE permit and wetland mitigation will be required. The City requires compensatory mitigation for total impacts of 0.25 acre and greater to regulated wetlands, which also applies to Wetland E. Given that a City wetland permit cannot be issued for EGLE-regulated wetlands until EGLE has issued a wetland use permit, the applicant is advised both City and EGLE requirements would apply to a mitigation plan, if applicable.
2. The permanently impacted portion of Wetland E consists of forested wetland. Accordingly, mitigation will be required at a ratio of 2:1 relative to the area of permanent wetland impact (permanent buffer impact is generally not included in mitigation area calculations). Pursuant to the City Ordinance, "Mitigation shall be provided onsite where practical and beneficial to the wetland resources. If onsite mitigation is not practical and beneficial, mitigation in the immediate vicinity, within the same watershed, may be considered. Mitigation at other locations within the city will only be considered when the above options are impractical."

Sheet CE-12 depicts construction of an on-Site 0.925-acre wetland mitigation area adjacent to Wetland E. Since the primary objective of the mitigation wetland is to replace forested wetland lost from Wetland E, the constructed wetland should be designed to result in forested wetland habitat.

MSG notes the planting plan on Drawing L-02 specifies a minimum of 10 individuals of a minimum of four species of tree are to be planted, with a total quantity of 72. Further, the performance standards on Drawing L-03 require a minimum of 300 trees per acre of at least three species at the end of the monitoring period. These and other specifications should be adjusted as necessary to meet the requirements of the EGLE permit after it is obtained.

3. MSG notes the applicant has opted to include compensatory mitigation for affected portions of Wetlands C and O. Since the statutory mitigation standards reflect the minimum requirements, MSG has no objection to voluntary additional mitigation.
4. For the applicant's information, MSG observed the following items in the wetland mitigation plan:
 - *Acer saccharinum*, *Carya laciniosa*, *Quercus palustris*, and *Salix nigra* are not included in the City of Novi's Woodland Tree Replacement Chart (Novi Code of Ordinances, Chapter 37). These species are acceptable for wetland mitigation, although the applicant will not receive tree replacement credits from use of these trees.
 - The specifications state six habitat structures are to be placed in the mitigation area, although only four are represented in the drawing.
5. MSG observed Wetland C to be almost entirely vegetated by reed canary grass (*Phalaris arundinacea*). MSG recommends invasive species and/or monotypic areas such as this be controlled and replaced with a variety of native species wherever possible to maintain the beneficial use of the wetlands by diverse wildlife.

Permits and Regulatory Status


The project as proposed requires an EGLE *Wetlands Protection* permit, a City of Novi *Wetland Use Permit*, and a City of Novi *Authorization to Encroach into the 25-Foot Natural Features Setback* for the proposed impacts. A detailed wetland mitigation plan will also be required.

Item	Required/Not Required/Not Applicable
Wetland Permit (specify Non-Minor or Minor)	Required, Non-Minor Use
Wetland Buffer Authorization	Required
Wetland Mitigation	Required (already depicted on PSP)
EGLE Wetland Permit	Required
Wetland Conservation Easement	Required

Based on available information, **MSG recommends approval of the Preliminary Site Plan for wetlands.** Please contact the undersigned if you have any questions regarding the matters addressed in this letter.

Sincerely,
The Mannik & Smith Group, Inc.


 Douglas Repen, CDT
 Environmental Scientist
 Certified Storm Water Management Operator C-20319


 John A. Freeland, PhD, SPWS
 Senior Scientist


 Craig S. Willey
 Project Manager

- CC: Barbara McBeth, City of Novi Planner
 Christian Carroll, City of Novi Planner
 Madeleine Daniels, City of Novi Planner
 Rick Meader, City of Novi Landscape Architect

FIGURES



Figure 1

City of Novi Regulated Wetland & Woodland Map. Approximate Site parcel boundaries are shown in red. Approximate location of proposed connector road is depicted in pink. Regulated Wetland areas are shown in blue and Regulated Woodland areas are shown in green.

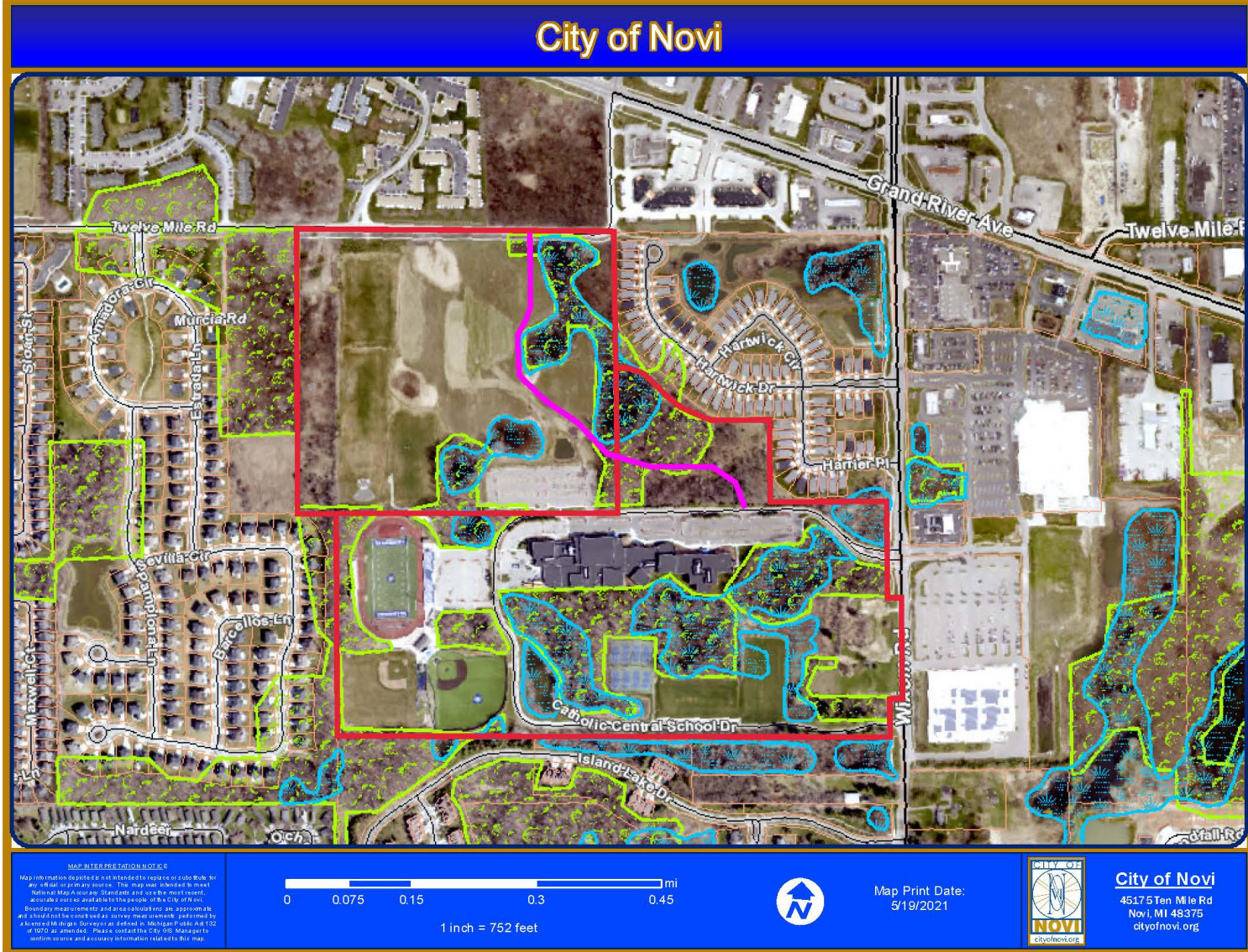


Figure 2 | EGLE Wetlands Viewer Map. Approximate Site boundary is shown in red. Approximate location of proposed connector road is depicted in pink.

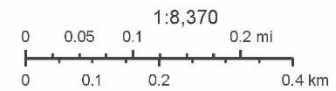
Wetlands Map Viewer



May 19, 2021

Part 303 Final Wetlands Inventory

- Wetlands as identified on NWI and MIRIS maps
- Soil areas which include wetland soils
- Wetlands as identified on NWI and MIRIS maps and soil areas which include wetland soils



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Disclaimer: This map is not intended to be used to determine the specific

SITE PHOTOGRAPHS





Photo 1: View of Wetland C, facing northwest.



Photo 2: Typical view of Wetland E.



Photo 3: View of Wetland O, facing northeast.



Photo 4: Typical view of water marks on trees in Wetland O.

TRAFFIC REVIEW

Memo



AECOM
27777 Franklin Road
Southfield
MI, 48034
USA
aecom.com

Project name:
JSP21-17 – Catholic Central Connector Road
Preliminary Site Plan Traffic Review

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

From:
AECOM

Date:
August 13, 2021

CC:
Lindsay Bell, Madeleine Daniels, Kate Purpura,
Victor Boron, Christian Carroll, Humna Anjum

Memo

Subject: JSP21-17 – Catholic Central Connector Road Preliminary Site Plan Traffic Review

The preliminary site plan was reviewed to the level of detail provided and AECOM recommends **approval** for the applicant to move forward as long as the comments provided below are adequately addressed to the satisfaction of the City.

GENERAL COMMENTS

1. The applicant, Catholic Central High School, is proposing a new connector road between 12 Mile Road and Catholic Central School Drive.
2. The development is located on the south side of 12 Mile Road and the west side of Wixom Road. 12 Mile Road is under the jurisdiction of the City of Novi and Catholic Central School Drive is a private road.
3. The site is currently zoned R-4 (One-Family Residential), R-1 (One-Family Residential), and I-1 (Light Industrial).
4. There are no traffic-related deviations required at this time.

TRAFFIC IMPACTS

1. AECOM could not perform an initial trip generation based on the ITE Trip Generation Manual, 10th Edition, as the project is a road only.
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 is 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	25' and 25' at 12 Mile, 20' and 20' at loop, 20' and 20' at staging area	Met	
2	Driveway Width O Figure IX.3	36' at 12 Mile, 24' at loop	Met	Both in range, neither standard.
3	Driveway Taper O Figure IX.11			
3a	Taper length	N/A	-	None proposed
3b	Tangent	N/A	-	None proposed
4	Emergency Access O 11-194.a.19	2 access points	Met	
5	Driveway sight distance O Figure VIII-E	360'	Met	
6	Driveway spacing			
6a	Same-side O 11.216.d.1.d	N/A	-	Local road
6b	Opposite side O 11.216.d.1.e	N/A	-	Local road
7	External coordination (Road agency)	N/A	-	
8	External Sidewalk Master Plan & EDM	N/A	-	No changes proposed
9	Sidewalk Ramps EDM 7.4 & R-28-J	Indicated	Met	
10	Any Other Comments:			

INTERNAL SITE OPERATIONS				
No.	Item	Proposed	Compliance	Remarks
11	Loading zone ZO 5.4	N/A	-	
12	Trash receptacle ZO 5.4.4	N/A	-	
13	Emergency Vehicle Access	N/A	-	
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	N/A	-	
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	-	

INTERNAL SITE OPERATIONS				
No.	Item	Proposed	Compliance	Remarks
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	N/A	-	
26	Sidewalk ramps EDM 7.4 & R-28-J	N/A	-	
27	Sidewalk – distance back of curb EDM 7.4	N/A	-	
28	Cul-De-Sac O Figure VIII-F	N/A	-	
29	EyeBrow O Figure VIII-G	N/A	-	
30	Minor/Major Drives ZO 5.10	N/A	-	-
31	Any Other Comments:			

SIGNING AND STRIPING				
No.	Item	Proposed	Compliance	Remarks
32	Signing: Sizes MMUTCD	Included	Met	
33	Signing table: quantities and sizes	Included	Partially met	20 R7-1 signs indicated on plans, table lists 18. Correct quantity or plans for next submittal.
34	Signs 12" x 18" or smaller in size shall be mounted on a galvanized 2 lb. U-channel post MMUTCD	Not included	Not Met	2" square steel post currently indicated.
35	Signs greater than 12" x 18" shall be mounted on a galvanized 3 lb. or greater U-channel post MMUTCD	Included	Met	
36	Sign bottom height of 7' from final grade MMUTCD	Not included	Not Met	Details show 6' (72")
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	Included	Met	Noted to be 3' from back of curb.
38	FHWA Standard Alphabet series used for all sign language MMUTCD	Not included	Not Met	
39	High-Intensity Prismatic (HIP) sheeting to meet FHWA retro-reflectivity MMUTCD	Not included	Not Met	
40	Parking space striping notes	N/A	N/A	Could remove the pavement marking details from sheet CE-20 since there are none proposed.

SIGNING AND STRIPING				
No.	Item	Proposed	Compliance	Remarks
41	The international symbol for accessibility pavement markings ADA	N/A	N/A	
42	Crosswalk pavement marking detail	N/A	N/A	
43	Any Other Comments:			

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,

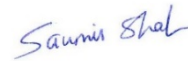
AECOM



Patricia Thompson, EIT
Traffic Engineer



Paula K. Johnson, PE
Senior Transportation Engineer



Saumil Shah, PMP
Project Manager

FIRE REVIEW



August 16, 2021

TO: Barbara McBeth - City Planner
Lindsay Bell - Plan Review Center
Christian Carroll - Plan Review Center
Madeleine Daniels - Planning Assistant

RE: Catholic Central Connector Road
PSP# 21-0070
PSP# 21-0038

CITY COUNCIL

Mayor
Bob Gatt

Mayor Pro Tem
Dave Staudt

Andrew Mutch

Laura Marie Casey

Hugh Crawford

Justin Fischer

Julie Maday

City Manager
Peter E. Auger

**Director of Public Safety
Chief of Police**
David E. Molloy

Fire Chief
Jeffery R. Johnson

Assistant Chief of Police
Erick W. Zinser

Assistant Chief of Police
Scott R. Baetens

Assistant Fire Chief
John B. Martin

Project Description:

Add a connector road from Wixom Rd to the main entrance road/parking lot.

Comments:

- An unobstructed outside turning radius of 50 feet minimum and an inside turning radius of 30 feet maximum are to be provided at intersections of private or public roadways and cul-de-sacs. **(International Fire Code 503.2.4)**
- 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))**
- Hydrants shall be spaced approximately three hundred (300) feet apart online in commercial, industrial, and multiple-residential areas. In cases where the buildings within developments are fully fire suppressed, hydrants shall be no more than five hundred (500) feet apart. The spacing of hydrants around commercial and/or industrial developments shall be considered as individual cases where special circumstances exist upon consultation with the fire chief. **(D.C.S. Sec. 11-68 (f)(1)c)**
- If a gate will be installed for security, MUST provide a Knox Lock on the gate for fire department use.
- The code official shall require and designate public or private fire lanes as deemed necessary for the efficient and effective use of fire apparatus. Fire lanes shall have a minimum width of twenty (20) feet and minimum height of fourteen (14) feet. **(D.C.S. Sec. 15-99(a)).**
- Posting of Fire Lane. **(D.S.C. Sec. 15-99(e)).**

Recommendation:

APPROVED WITH CONDITIONS

Sincerely,

Kevin S. Pierce-Fire Marshal
City of Novi – Fire Dept.

cc: file

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

cityofnovi.org

APPLICANT RESPONSE LETTER

Z EIMET **W** OZNIAK & ASSOCIATES

Civil Engineers & Land Surveyors

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

September 23, 2021

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

Re: Catholic Central High School
Connector Road and Utility Plan
Planning Review Chart
JSP21-17

Dear Ms. Bell:

As part of the Preliminary Site Plan submittal for this project, we are responding to the outstanding comments in your Planning Review Chart dated September 17, 2021.

Zoning and Use Requirements

Uses Permitted – It is noted that a Special Land Use is not required at this time.

Required Conditions

Site Access – The road will be gated for an undetermined amount of time and will provide access for construction traffic for future projects.

Other Permit and Legal Requirements

Design and Construction Standards Manual – An engineering response letter has been provided.

General Layout and Dimensions – Response letters to all reviews have been provided.

Development/Business Sign – A sign permit will be submitted to Maureen Underhill.

Building Permits – Building permits will be obtained for the sign and retaining walls if needed.

Property Split – It is noted that, according to the previous City of Novi Assessor, the property cannot be combined since they are located within two separate school districts.

Lighting and Photometric Plan

Lighting Plan – Fixture height and hours of operation will be included with the Final Site Plan.

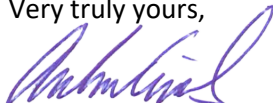
Maximum Height – Lighting height will not exceed 25 feet.

Standard Notes – Standard notes will be included with the Final Site Plan.

Min. illumination – 0.5 min on drives is proposed.

Please contact us if you have any questions or comments.

Very truly yours,



Andrew Wozniak

Z EIMET W OZNIAK
& ASSOCIATES

Civil Engineers & Land Surveyors

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

September 23, 2021

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

Re: Catholic Central High School
Connector Road and Utility Plan: Revised Preliminary Site Plan
Planning Review
JSP21-17

Dear Ms. Bell:

Thank you for your review dated September 17, 2021. We offer the following response:

1. Roads and Utilities Requirements
 - a) The location of the planned Track and Field stadium is conceptual and subject to change. It is noted that a variance will be required if it is to remain within the setback.
 - b) Noted.
 - c) Noted.
 - d) Noted.
 - e) Noted.
 - f) Noted.
2. Wetland Mitigation proposed

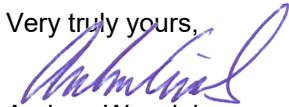
Catholic Central has decided not to meet with the neighboring homeowners prior to the public hearing.
3. Lighting Plan

It is noted that minor comments will be addressed in the Final Site Plan submittal.
4. Sidewalk

It is noted that a sidewalk is not required along the road.

Please contact us if you have any questions or comments.

Very truly yours,



Andrew Wozniak

September 23, 2020

Ms. Humna Anjum, Project Engineer
City of Novi Engineering Dept.
45175 Ten Mile Road
Novi, MI 48375

Re: Engineering Plan Review for
Catholic Central High School
Connector Road
JSP 21-0017

Dear Ms. Anjum:

Thank you for your recommendation for approval of the Preliminary Site Plan. We understand that all comments can be addressed at Final Site Plan submittal. We offer the following response to your review letter dated February August 16, 2021:

General

1. Two ties will be provided.
2. A note clarifying the limits of work will be added to the plans. This project is for the connector road only.
3. Detail sheets will be provided with the Stamping Sets.
4. Site grading will be adjusted where needed to be limited to 25%.
5. A 35' right-of-way will be dedicated to the City of Novi for 12 Mile Rd.
6. Proposed and existing features will be clarified as need at Final Site Plan.
7. A right-of-way permit will be obtained from the City of Novi and the City of Wixom.
8. A traffic control plan will be provided for work within the 12 Mile Rd. right-of-way.
9. A sand backfill note will be provided.
10. A construction quantities table will be provided.
11. A utility crossing table will be provided.
12. Noted.
13. All utilities will be shown on the landscape plans.
14. Light poles will be shown.
15. The irrigation system will meet all required standards.

Water Main

16. There is no need for a tapping sleeve valve and well. The connection at the north end is an existing stub located at the terminus of the water main installed with Berkshire Condominium and the existing hydrant will be relocated at the south connection. There are gate valves located at both locations to isolate the connection points.
17. A flow test will be completed.
18. The water main will be profiled as required.
19. An irrigation plan will be provided.
20. Noted.

Sanitary Sewer

21. A note will be added clarifying that no sanitary sewer is proposed at this time.
22. - 29. These comments do not apply as there is no sanitary sewer proposed at this time.

Storm Sewer

30. Minimum cover will be provided where possible. This item will be addressed during the design for Final Site Plan.
31. A 0.1-foot drop will be provided where required.
32. A 2-foot deep plunge pool will be provided in manholes where the difference in elevation exceeds two feet.
33. Profiles will be provided for pipe 12-inch and larger.
34. Inlets will be labeled.
35. Intersecting pipes will be shown on the storm sewer profiles.
36. A schedule will be provided.

Storm Water Management Plan

37. The SWMP will be designed in accordance with the Storm Water Ordinance and Chapter 5 of the Engineering Design Manual.
38. Post Development run-off calculations will be provided.
39. Access easements will be provided.
40. Pre-treatment information will be provided.
41. Design calculations will be provided.
42. Soil borings have been completed. A soils report will be provided.
43. A safety shelf will be provided.
44. A vegetated buffer will be provided.

Storm Water Management Plan

45. A construction materials table will be provided.
46. A minimum of 6 spot elevations will be provided.
47. A detailed drawing of the sidewalk at the existing boardwalk will be provided.
48. Spot elevations will be provided at the intersection of the proposed pathway and existing pathway.
49. Detectible warning specifications will be provided.
50. This comment does not appear to apply to this project.
51. Existing and proposed contours will be provided.
52. 3-foot separation between the sidewalk and fixed objects will be provided where possible.
53. Site grading will be adjusted not to exceed 25% where possible.
54. The grade of the drive approach will not exceed 2% within the first 25 feet of the intersection.
55. The sidewalk within the right-of-way will continue through the drive approach.
56. The cross section for 12 Mile Rd. will match City of Novi paving standards.
57. Storm sewer and catch basins will be added within 12 Mile Rd. where possible.
58. Retaining wall details and height will be provided.
59. Soil borings have been completed. A soils report will be provided.

Storm Water Management Plan

60. An SESC permit will be obtained.

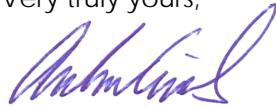
Off-Site Easements

61. It is not anticipated that any off-site easements will be required. There is no sanitary sewer proposed at this time.

Items 62 – 88 will be addressed when appropriate.

Please contact us if you have any additional questions or comments.

Very truly yours,



Andrew Wozniak

September 23, 2021

Mr. Rick Meader
City of Novi Community Development Department – Planning Division
45175 Ten Mile Road
Novi, MI 48375

Re: Catholic Central High School
Connector Road and Utility Plan: Revised Preliminary Site Plan
Landscape Review
JSP21-17

Dear Mr. Meader:

Thank you for your review dated July 30, 2021 and your recommendation for approval of the Preliminary Site Plan. We offer the following response

Landscape Waivers Requested:

- Lack of berms along the Berkshire Pointe property lines.
- Lack of berm and required greenbelt landscaping along Twelve Mile Rd. east of the entry.
- Lack of berm along Twelve Mile Rd. west of the entry (see explanation below).

Ordinance Considerations

Existing Trees

1. Noted.
2. Per your suggestion, additional woodland replacement zones have been added to allow for planting of (260) 2.5" caliper woodland trees on-site (80% of required). The remaining (65) credits will be paid into the city's tree fund. As noted in the woodland review, the number of required replacement credits may increase once tree numbers 271 and 3128 are identified. An additional replacement zone includes the area between the existing homes and the proposed wetland mitigation areas. Please refer to sheets L201, L203 and L204.

Adjacent to Residential – Buffer

1. It is noted that the project is adjacent to residentially zoned property which requires a berm of 4.5-6 feet but no berms are proposed because the development is over 150 feet away.
2. Thank you for support this waiver to eliminate the required berm. Additional trees are proposed along the property line for increased screening.

Adjacent to Public Rights-of-Way – Buffer/Wall, Buffer and Street Trees

1. Noted.
2. Noted.
3. Thank you for your support of a landscape waiver for the lack of a greenbelt berm and landscaping east of the entry in order to preserve the existing wetland.
4. We are requesting a landscape waiver for the lack of a berm west of the entry for the following reasons:
 - There will be no structure located within 150 feet of 12 Mile Road.
 - The detention pond is designed to optimize space. A berm will severely impact the detention pond area which will result in significant impact to the Master Plan.
 - The proposed entry wall, pond and landscaping will provide a substantial visual buffer.
 - A berm will create a barrier between the campus and the 12 Mile Rd. sidewalk which raises safety concerns for students walking along 12 Mile Rd.
 - This is a school and not a commercial enterprise.
 - This appears to be unfair as we are not aware of any other school located within the City of Novi that has a berm along their frontage.
5. The redcedar trees will be replaced with an approved subcanopy tree.

Internal Street Landscaping

1. Noted.
2. The plans will be updated to locate trees along the drive as much as possible.
3. The plans will be updated to ensure that all interior access drive trees are within 15 feet of paving.

Plant List

1. Noted.
2. Noted.
3. The Accolade Elms have been replaced with Tulip Trees (*Liriodendron tulipifera*) per the approved woodland tree replacement chart.

Storm Basin Landscaping

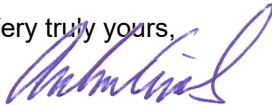
1. As stated above, the shape of the detention pond is required to maximize the area needed for storm water management. We feel that the pond, along with the proposed wall and landscaping will provide an aesthetically pleasing entry that Catholic Central requires.
2. The required shrubs will be shown on the Final Site Plan.
3. The landscape architect will work with you to address the location of the required canopy trees wduring Final Site Plan preparation.

Irrigation

Irrigation plans will be submitted with the Final Site Plan.

Please contact us if you have any questions or comments.

Very truly yours,



Andrew Wozniak

September 23, 2021

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

Re: Catholic Central High School
Connector Road and Utility Plan
Wetland Review
JSP21-17

Dear Ms. Bell:

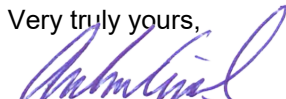
We have reviewed the wetland review prepared by Mannik Smith Group, dated August 17, 2021. We offer the following response to the wetland review comments:

Comments

1. Application for a wetland permit has been submitted to EGLE. The required wetland mitigation has been provided.
2. On-site mitigation at a ratio of 2:1 for Wetland E impact has been provided.
3. Noted.
4. The tree species will be revised. Six habitat structures are proposed.
5. Controlling of invasive species will be addressed with the Final Site plan submittal.

Please contact us if you have any questions or comments.

Very truly yours,



Andrew Wozniak

September 23, 2021

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

Re: Catholic Central High School
Connector Road and Utility Plan
Woodland Review
JSP21-17

Dear Ms. Bell:

We have reviewed the woodland review prepared by Davey Resource Group, dated September 15, 2021. We offer the following response to the Woodland Review Comments:

1. Alternative Layouts

In preparation for Catholic Central's centennial in 2028, a Master Plan has been developed over the past two years. A comprehensive study was completed with input from countless stakeholders working in concert with a team of consultants, to develop a plan that will meet the school's needs for the next 100 years. The plan includes a STEM addition; new athletic fields; tennis courts; north parking area; the "Center of Excellence" (Including indoor athletic facilities); athletic stadium improvements; central and central east parking areas; commons addition to the school for student gathering; grotto; and academy for middle school students.

For the health and safety of the students, it was determined that the majority of the proposed facilities should be located within the connector road. Positioning the road as far north and east as possible accomplishes this goal.

Catholic Central is fortunate to have high quality woodlands located throughout their property. Preserving these woodlands and wetlands, to the greatest extent possible, was paramount during preparation of the Master Plan and is vital to maintaining the natural feel of the campus. To that end, Catholic Central has committed to preserving approximately 30 acres (26 % of the entire campus) as woodlands and/or wetlands.

2. Missing Tree Data

The missing tree data will be added to the plans and accounted for in the replacement calculations.

3. Critical Root Zone & Tree Protection

The critical root zone will be adjusted or additional replacement credits provided.

4. Woodland Use Permit

Planning Commission approval for a Woodland Use permit is being requested.

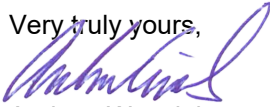
5. Financial Guarantees

- a) A woodland fence guarantee will be paid prior to issuance of a Woodland Use Permit.
- b) It is noted that the financial guarantee will need to be paid prior to issuance of the permit and that the fee will be adjusted after comment #2 is addressed.
- c) The applicant understands that payment to the tree fund will be required.
- d) Trees will be guaranteed for two years.

6. A conservation easement for the woodland replacement trees will be provided.

Please contact us if you have any questions or comments.

Very truly yours,



Andrew Wozniak

Z EIMET W OZNIAK & ASSOCIATES

Civil Engineers & Land Surveyors

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

Reissued September 23, 2021
July 23, 2021

Mr. Kevin S. Pierce, Fire Marshal
City of Novi Public Safety Administration - Fire Department
45125 Ten Mile Road
Novi, MI 48375

Re: Catholic Central High School
Connector Road and Utility Plan: Pre-Application Review
Fire Department Review
JSP21-17

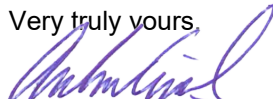
Dear Mr. Pierce:

As part of the Preliminary Site Plan submittal for this project, we are responding to the outstanding comments in your Fire Department Review dated May 19, 2021:

- A Performance Turning Analysis has been added to this submittal that illustrates that an unobstructed outside turning radius of 50 feet minimum and an inside turning radius of 30 feet maximum are provided at the intersections of the roads. See Sheet CE-4D.
- No parking lots or buildings are proposed as a part of this submittal. We will bear in mind that fire apparatus access drives to and from future buildings through parking lots shall have a minimum fifty (50) feet outside turning radius.
- The proposed pavement sections conform to the City of Novi's paving standards and are designed to support a minimum of thirty-five (35) tons.
- The proposed fire hydrants are spaced approximately three hundred (300) feet apart online. Please see Sheets CE-8 to CE-8C. It is understood that the spacing of hydrants around future buildings shall be considered as individual cases.
- The proposed gates shall be furnished with a Knox Lock on the gate for fire department use. See the detail on Sheet CE-4A.
- The proposed Connector Road is 24-feet wide as measured from back of curb to back of curb with no overhead obstructions (such as canopies). The design meets and exceeds the requirement for fire lanes to have a minimum width of twenty (20) feet and minimum height of fourteen (14) feet.
- The Connector Road shall be posted with No Parking - Fire Lane signs. See Sheets CE-4 to CE-4C.

Please contact us if you have any questions or comments.

Very truly yours,



Andrew Wozniak