

ZONING BOARD OF APPEALS

CITY OF NOVI

Community Development Department (248) 347-0415

Case No. PZ14-0030 Catholic Central High School

Location: 27225 Wixom Road

Zoning District: RA, R-4, R-1 One-Family Residential District

The applicant is requesting variance from Section 2400 of the Novi Zoning Ordinance to allow construction of a parking lot with a reduced rear yard setback of 18 ft. The property is located north of 11 Mile Rd and south of Grand River Ave.

Ordinance Sections:

CITY OF NOVI, CODE OF ORDINANCES, Section 2400 requires that all off-street parking lots serving any use other than single-family residential having a minimum rear yard setback 20'.

City of Novi Staff Comments:

Please see the attached Plan Review Center Report from the Site Plan review process for the redevelopment.

Standards for Granting Dimensional Variances:

A variance may be granted if a practical difficulty exists due to all of the following:

- There are unique circumstances or physical conditions of the property such as narrowness, shallowness, shape, water, topography or similar physical conditions and the need for the variance is not due to the applicant's personal or economic difficulty because
- The need is not self-created because______.
- The requested variance is the minimum variance necessary to do substantial justice to the applicant as well as to other property owners in the district because
- The requested variance will not cause an adverse impact on surrounding property, property values or the use and enjoyment of the property in the neighborhood or zoning district

because .



PLAN REVIEW CENTER REPORT

June 2, 2014

Planning Review

Detroit Catholic Central Parking Expansion

JSP14-12

Petitioner

Catholic Central High School

Review Type

Preliminary Site Plan and Special Land Use

Property Characteristics

Site Location:

27225 Wixom Road

• Site Zoning:

RA, R-4, R-1

Adjoining Zoning:

North: RM-1, Multi-family Residential, B-3, General Business (City of Wixom); South: R-1, One-Family Residential, R-4, One-Family Residential; East: B-1.

Local Business, I-1, Light Industrial, RM-1; West: RA, Residential Acreage, R-

4, One-Family Residential

Current Site Use:

Education

Adjoining Uses:

North: Multiple-Family Residential, Vacant (City of Wixom); South: Single-

Family Residential; East: Multi-family Residential, Retail; West: Single-Family

Residential

School District:

South Lyon School District, Novi School District

Site Size:

73.08 acres

Plan Date:

05-09-2014

Project Summary

The applicant is proposing to construct additional parking in two phases to service Catholic Central recreational facilities and the school. No structures are proposed. The proposed Phase I lot will be newly constructed and serviced by the existing road. The proposed Phase II lot will be a reconstruction of existing parallel parking spaces to 90 degree spaces.

The applicant will be applying for a land combination to combine the three individual parcels to the North, resulting in two parcels in total.

Recommendation

Provided the applicant receives a waiver of the required Noise Impact Statement, approval of the site plan and special land use permit is recommended. There are planning related items that need to be addressed at the time of Final Site Plan submittal. Planning Commission approval of the Preliminary Site Plan and Special Land Use Permit is required.

Special Land Use Considerations

In the R-1 and R-4 District educational uses and their accessory uses fall under the Special Land Use requirements (Section 402).

Section 2516.2.c of the Zoning Ordinance outlines specific factors the Planning Commission shall consider in the review of the Special Land Use Permit request:

Whether, relative to other feasible uses of the site, the proposed use will cause any detrimental
impact on existing thoroughfares in terms of overall volumes, capacity, safety, vehicular turning
patterns, intersections, view obstructions, line of sight, ingress and egress,
acceleration/deceleration lanes, off-street parking, off-street loading/unloading, travel times
and thoroughfare level of service.

- Whether, relative to other feasible uses of the site, the proposed use will cause any detrimental
 impact on the capabilities of public services and facilities, including water service, sanitary
 sewer service, storm water disposal and police and fire protection to service existing and
 planned uses in the area.
- Whether, relative to other feasible uses of the site, the proposed use is compatible with the natural features and characteristics of the land, including existing woodlands, wetlands, watercourses and wildlife habitats.
- Whether, relative to other feasible uses of the site, the proposed use is compatible with adjacent
 uses of land in terms of location, size, character, and impact on adjacent property or the
 surrounding neighborhood.
- Whether, relative to other feasible uses of the site, the proposed use is consistent with the goals, objectives and recommendations of the City's Master Plan for Land Use.
- Whether, relative to other feasible uses of the site, the proposed use will promote the use of land
 in a socially and economically desirable manner.
- Whether, relative to other feasible uses of the site, the proposed use is (1) listed among the provision of uses requiring special land use review as set forth in the various zoning districts of this Ordinance, and (2) is in harmony with the purposes and conforms to the applicable site design regulations of the zoning district in which it is located.

Ordinance Requirements

This project was reviewed for conformance with the Zoning Ordinance with respect to Article 4 (R-1 through R-4 One-Family Residential Districts), Article 24 (Schedule of Regulations), Article 25 (General Provisions) and any other applicable provisions of the Zoning Ordinance. Items in **bold** below must be addressed by the applicant.

- 1. <u>Noise Impact Statement:</u> Educational uses and their accessory uses in the R-4 District require the submission of a Noise Impact Statement. The applicant should submit a request for a waiver of the Noise Impact Statement requirement from the Planning Commission. Staff would support this waiver.
- 2. <u>Sidewalks:</u> A 6 foot sidewalk is required along the Twelve Mile Road frontage. A waiver of this requirement was granted temporarily as part of the approval of the now constructed practice fields (SP11-26). Any new construction on the property requires the installation of the required sidewalk on twelve Mile Road. The applicant has included the Twelve Mile Road sidewalk in their scope of work.
- 3. <u>Parking Setbacks:</u> A parcel combination is proposed for the three northern-most parcels that make the subject properties. The northern and southern portions of the school campus are currently split between the South Lyon School District and the Novi School District. As such, the northern and southern parcels cannot be combined. The applicant is proposing a 2 foot rear setback in Phase I of the proposed development (20 feet required). The applicant should apply for a variance from the Zoning Board of Appeals for the deficient setback. Staff would support this variance.
 - Bibycle Parking: The applicant has added space for 8 bicycle parking spaces near the main student entrance on the West side of the building. The minimum required by the Zoning Ordinance (Sec. 2526) is 3 spaces per classroom, with 10 spots minimum. Given the scale of the project, spaces for the entire school do not need to be constructed, but applicant does need to provide the minimum of 10 bicycle parking spots. Staff recommends locating the additional 2 spaces near the Phase II parking to service those recreational facilities. Locating these spots near the Phase II parking will require a location waiver from the Planning Commission as It is greater than 120' from the entrance, which staff would support.
- 5. <u>Plan Drawing Inconsistency:</u> The configuration of the Southern Phase II parking is shown multiple ways. Sheet SP-4 does not show the barrier free spaces or island bump outs that are shown on sheet SP-8. Staff has reviewed the configuration on sheet SP-8 as correct. The applicant should verify consistency across pages of the drawing set.

Planning Review

Catholic Central Parking Expansion JSP14-12

May 13, 2014 Page 3 of 3

Response Letter

A letter from either the applicant or the applicant's representative addressing comments in this review letter is required prior to the Planning Commission meeting.

Pre-Construction Meeting

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

Chapter 26.5

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

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me.

Sard White, Planner

248.347.0484 or swhite@cityofnovi.org

CITY OF NOVI cityofnovi.org ZBA Case No.

ZONING BOARD OF APPEALS APPLICATION

CITY OF NOVI

Community Development Department (248) 347-0415

For Official Use Only

P214 0030

ZBA meeting date

August

EDA COSE NO.		25/ Fileding date							, ,	1	
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	***Please	submit one o						additional co	mplete sets.		
Applicant's Name Catholic Cen			ntral High Sch	tral High School					June 16,201	4	
Company	y (if applica	ble)						_	•		
Address* 27225 Wixom Road						City	Novi			******	
State	MI	Zip code	48374		*Where c	e is to be m	ailed				
Applican	pplicant's E-mail address mwilson@catholiccentral.net										
Phone number 248-596-3899		9			Fax number		248-596-3831				
Request is	s for:					_					
11	Residenti	al	IX;	Vacant p	roperty	Action is the second se	Commer	Commercial		Signage	
Address of subject ZBA case			27225 Wixom Road, Novi, MI					Zip code	48374		
Cross roads of property			Wixom Rd a	and Grand Rive	er	_					
Sidwell number 50-22-		- 18-200-023	18-200-023, -022, -024, 100-005 May be obtained from A					Assessing Department (248) 347-0485			
ls the property within a Homeowr			ner's Association jurisdiction?			_	gondag surisses	Yes	(X)	No	
Zoning (Please circle one)		Пмн	□ R-A	∏R-1 ∏l-2	FR-2	R-3	X R-4 	∏RM-1	RM-2 Other		
Property (owner nam	e (if other th			7 1 2	, AKO	,0)	<u></u>		
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-		section(s) a					- American (€		Bookstoy		
1.	Section	402	na ranano	Variance requested			Rear Yard	Setback			
2.	Section	·····									
3.	Section			Variance requested			-		10 000 1100		
4.	Section		Variance requested								
Please su	bmit an ac	curate, scal	ed drawing	g of the pro	perty show	ing:					
a.	a. All property lines and dimensions correlated with the legal description.										

- b. The location and dimensions of all existing and proposed structures and uses on property.
- c. Any roads, easements, drains, or waterways which traverse or abut the property and the lot area and setback.
- d. Dimensions necessary to show compliance with the regulations of this Ordinance.

State the practical difficulties which prevent conformance with the Zoning Ordinance requirements (attach separate sheet if necessary):

See attached Plan Review Center Report, Ordinance Requirements, 3. Parking Setbacks (page 2 of 3).

Describe any unique circumstances regarding the property (i.e., shape, topography, etc.) which are not common to other properties in the area and which prevent strict compliance with the Zoning Ordinance:

As stated in the attached report, the subject properties are located in different school districts and cannot be combined.

There is a five (5) day hold period before work/action can be taken on variance approvals.

SIGN CASES ONLY:

DIEXCE TARE MOTION.

Your signature on this application indicates that you agree to install a **Mock-Up Sign** ten (10) days before the scheduled ZBA meeting. Failure to install a mock-up sign may result in your case not being heard by the Boord, postponed to the next scheduled ZBA meeting, or cancelled. A mock-up sign is **NOT** to be the actual sign. Upon approval, the mock-up sign must be removed within five (5) days of the meeting. If the case is denied, the applicant is responsible for all costs involved in the removal of the mock-up or actual sign (if erected under violation) within five (5) days of the meeting.

City of Novi Ordinance, Section 3107. - Miscellaneous

No order of the Board permitting the erection of a building shall be valid for a period longer than one (1) year, unless a building permit for such erection or alteration is obtained within such period and such erection or alteration is started and proceeds to completion in accordance with the terms of such permit.

ino order or the Board permitting a use of a building or premises shall be valid for a period longer than one-hundred and eighty (180) days unless such use is established within such a period; provided, however, where such use permitted is dependent upon the erection or alteration of a building such order shall continue in force and effect if a building permit for such erection or alteration is obtained within one (1) year and such erection or alteration is storted and proceeds to completion in accordance with the terms of such permit.

PLEASE I	ARE NOTICE:							
The unde	ersigned hereby appeals the determin	nation d	of the Buildin	g Official /	Inspector or C	ordinance made		
NO.	Construct new home/building		Sing.		to existing ho			
	Accessory building	CONTROL OF THE PARTY OF THE PAR	Use	San Alexandria de S San Alexandria de San	Signage	Other		
	nh want	•				6-17-14		
Applicants Signature					Date			
Property Owners Signature						Date		
		DE	CISION ON	APPEAL				
Granted					Denied			
The Buildi	ing Inspector is hereby directed to issue	a perm	it to the App	licant upon	the following it	ems and conditions:		
Chairperson, Zonina Board of Appeals					,	Date		

DEVELOPER: CATHOLIC CENTRAL HIGH SCHOOL 27225 WIXOM ROAD NOVI, MI 48374

PHONE: (248) 596-3899

CONTACT: MICHAEL WILSON

CIVIL ENGINEER/LAND SURVEYOR: ZEIMET WOZNIAK AND ASSOCIATES, INC. 55800 GRAND RIVER, SUITE 100 NEW HUDSON, MI 48165 PHONE: (248) 437-5099 FAX: (248) 437-5222

12 Mile Road

S. 88*55'17" E. 1316.65'

CONTACT: ANDY WOZNIAK

WETLAND/WOODLAND CONSULTANT:

LANDSCAPE ARCHITECT: DEAK PLANNING AND DESIGN 143 CADYCENTRE #79 NORTHVILLE, MI 48167 PHONE: (248) 444-7892 CONTACT: STEVE DEAK, ASLA

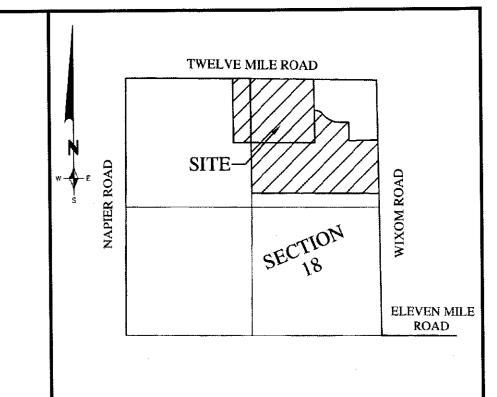
🗩 N.E. CORNER

SECTION 18

I CITY OF NOVI

T. 1 N., R. 8 E.

OAKLAND COUNTY, MI.



LOCATION MAP NOT TO SCALE

SOILS DATA: 10B

PROPOSED-**SIDEWALK** PHASE 1

f18—Capae sandy loam, 0 to 4 percent stopes. This nearly level and gently undisting, somewhal poorly dished so is in broad, fat areas and on low knotis and ridges. Stopes are smooth and convex and are generally less than 100 feat long. Areas are irregular in shape and are 2 to about 250 acres in size.

Typically, the surface layer is very dark graytath brown sandy loam about 8 inches thick. The subsoil is motified, firm day loam about 24 inches thick. The subsoil is motified, firm day loam about 24 inches thick. It is brown in the upper part and graytal brown in the lower part. The substratum to a depth of about 60 inches is pale brown, motited, obscireous loam.

Included in mapping are small areas of the very poortly drained Brokston and Cohrood soils that are in small depressions and narrow drainageways. Also included are small areas of the Selfvidge and Dischor soils that are on landscape positions similar to those of the Capac soil and are more droughly than the Capac soil. The included soils make up 4 to 12 percent of the map unit.

Permeability is moderately slow in this Capac soil, and the available water capacity is high. Runotil is slow. The seasonal high water table is at a depth of 1 to 2 feet from November through May.

In most areas this soil is used as pasture or woodland or is idte land. In a tew areas it is used as cropland. This soil is well suited to use as croptend, pasture, and 27---Houghton and Adrian mucks
Houghton Setting
Landown: Depressions on moralnes, depressions on outwesh
plains, depressions on Sit plains Depth to water table: About 0 to 0 inches or is life land. In a few areas it a used as cropland. This soli is well suited to use as cropland, pasture, and woodland. It is fairly suited to most recreation uses. This soli is poorly suited to building sits development because of weltness and generally is not suited to use as septic tank absorption fields because of weltness and moderately slow permeatifility. If this soil is used as a site for buildings, surface or subsurface drakings is needed to lower the water table and well compacted till is needed to rake the site. Scrittery facilities should be connected to public sewers and sewage treatment facilities.

pool tiltn.
This soil is in capability subclass liw and Michigan soil

The Houghton component makes up 55 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions. The parent material consists of herbededus organic material. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high, Available water to a depth of 60 inches is of 60 inches is very high. Statisk-swell potential is low. This act is not flooded. It is frequently ponded. A sessonal zone of water facilities.
If this soil is used as cropland, the main management concerns are removing excess water and maintaining good lith. Sustace and subsurface drains help to overcome wetness. Conservation titlage, which does not invert the soil and leaves all or part of the crop residue on the surface, helps to reduce compaction and maintain seturation is at 0 usays. February. Asserting January. Inches during January, February. Merch, April, May, June, September, October, November, Occomber, Organic meltar content in the

KING AND MacGREGOR ENVIRONMENTAL, INC. 43050 FORD ROAD CANTON, MI 48187 PHONE: (734) 354-0594 CONTACT: WOODY HELD

SHEET INDEX

COVER SHEET PHASE 1 DIMENSION & PAVING

PHASE 1 GRADING & SESC PHASE 1 DETENTION BASIN PLAN PHASE | BIKE RACK PLAN

PHASE 1 12 MILE ROAD SIDEWALK PHASE 1 12 MILE ROAD SIDEWALK PROFILE

PHASE 1 REMOVALS

PHASE 2 DIMENSION PAVING GRADING & SESC

PHASE 2 REMOVALS STORMWATER MANAGEMENT

NATURAL FEATURES PLAN

PHASE 1 & 2 LANDSCAPE PLANS PHASE 1 & 2 LANDSCAPE PLANS LP-2

LIGHTING PLAN

LEGAL DESCRIPTIONS:

DESCRIPTION 22-18-200-022

PART OF THE NORTHEAST 1/4 OF SECTION 18, T. 1 N., R. 8 E., CITY OF NOVI,

BEGINNING AT THE NORTH 1/4 CORNER OF SECTION 18 AND PROCEEDING ALONG THE ROAD (33 FEET WIDE, 1/2 WIDTH) S. 88'55'17" E. 1316.65 FEET MEASURED, (1317.10 FEET RECORD): THENCE S. 00'44'12" E. 1017.99 FEET; THENCE S. 89"19'00" W. 1324.96 FEET; THENCE ALONG THE NORTH AND SOUTH 1/4 LINE OF SAID SECTION 18 N. GO'15'03" W. 1058.49 FEET TO SAID NORTH 1/4 CORNER OF SECTION 18 AND POINT OF BEGINNING CONTAINING 31.47 ACRES MORE OR LESS, BEING SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD AND THE RIGHTS OF THE PUBLIC OR ANY GOVERNMENTAL AGENCY OVER 12 MILE ROAD.

DESCRIPTION 22-18-200-023

PART OF THE NORTHEAST 1/4 OF SECTION 18, T. 1 N., R. 8 E., CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT THE NORTH 1/4 CORNER OF SECTION 18 AND PROCEEDING ALONG THE NORTH AND SOUTH 1/4 LINE OF SAID SECTION 18 S. 0015'03" E. 1058.49 FEET TO THE POINT OF BEGINNING; THENCE N. 89'19'00" E. 1324.96 FEET; THENCE S. 00'44'12" F. 288.19 FEET: THENCE N. 89'31'51" W. 1327.47 FEET: THENCE ALONG THE NORTH AND SOUTH 1/4 LINE OF SAID SECTION 18 N. 00"15"03" W. 261.50 FEET TO THE POINT OF BEGINNING CONTAINING 8.37 ACRES MORE OR LESS, BEING SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.

DESCRIPTION 22-18-200-024

PART OF THE NORTHEAST 1/4 OF SECTION 18, T. 1 N., R. 8 E., CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT THE NORTH 1/4 CORNER OF SECTION 18 AND PROCEEDING ALONG THE NORTH AND SOUTH 1/4 LINE OF SAID SECTION 18 S 00-15-03 E 1320 FEET TO THE POINT OF BEGINNING. THENCE S 89-31-51 E 1327.47 FEET, THENCE N 00-44-12 W 676.15 FEET, THENCE S 89-31-51 E 29.92 FEET, THENCE ALONG CURVE TO RIGHT, RADIUS 200 FEET, CHORD BEARS S 64-07-16 E 171.64 FEET, DISTANCE OF 177.40 FEET, THENCE ALONG A CURVE TO LEFT, RADIUS 459.96 FEET, CHORD BEARS S 64-41-50 E 403.07 FEET, DISTANCE OF 417.22 FEET, THENCE N 89-19-00 E 165 FEET, THENCE S 00-41-00 E 384 FEET, THENCE N 89-19-00 E 600 FEET, THENCE S 00-41-00 E 453.48 FEET, THENCE N 89-19-17 E 302.50 FEET, THENCE S 00-41-00 E 297.40 FEET, THENCE N 89-19-17 W 133.11 FEET, THENCE S 00-41-00 E 170.08 FEET, THENCE S 89-23-05 E 435.60 FEET, THENCE S 00-41-00 E 179 FEET, THENCE N 89-23-05 W 2645.78 FEET, THENCE N 00-15-03 W 1028.05 FEET TO BEGINNING CONTAINING 68.02 ARES MORE OR LESS, BEING SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.

DESCRIPTION 22-18-100-005

PART OF THE NORTHWEST 1/4 OF SECTION 18, T. 1 N., R. 8 E., CITY OF NOVI, OAKLAND COUNTY, MICHIGAN, BEING MORE PARTICULARLY DESCRIBED AS:

THE NORTH 1320 FEET OF THE EAST 165 FEET OF THE EAST 1/2 OF THE

22-18-200-022 LAKESIDE OAKLAND DEVELOPMENT ZONED B-2 22-18-200-022 (PENDING REZONING TO R-4) 31.47 ACRES CATHOLIC CENTRAL HIGH SCHOOL _S. 89'31'51" E. ~R=200.00' 29.92 M. L=177.40' (25.18' R)' **PARKING** $\Delta = 50'49'12"$ CH BR=S. 64°07'16" E. PHASE 1 22-18-200-025 LAKESIDE OAKLAND DEVELOPMENT ZONED B-2 (PENDING REZONING TO R-4) L=417.22 $\Delta = 51.58'21'$ CH BR=S. 64*41'50" E. CH=403.07' N. 8919'00" E ZONED I-1 22-18-200-003 CADILAC ASPHALT & PAVING ZONED 1-2 -(RENDING REZONING TO R-4) SCALE: 1" = 200'CATHOUG CENTRAL HIGH l. 89°19'00" E. 600.00' N. 89"19'17" 302.50° 22-18-200-024 68.02 ACRES CATHOLIC CENTRAL HIGH SCHOOL ZONED R-1 NOVI ED R 5. 89°23'05" E. 435.60' N. 89°23'05" W. 2645.78' 22-18-200-011 22-18-276-001 22-18-200-016 ISLAND LAKES OF NOVI ISLAND LAKES EAST ARBORS ISLAND LAKES OF NOVI COMMUNITY ASSOC. PROPOSED-ZONED R-1 COMMUNITY ASSOC. ZONED R-1 ZONED R-1 PHASE 2 **BIKE RACK** PHASE 1

NORTHWEST 1/4.

will prevent fertilizer runoff in to protected areas. Once vegetation is established a nonphosphorus fertilizer shall be used. REVISIONS

5/9/14

5/16/14

Start all new lawn areas with 13-26-12 Starter

Fertilizer from Evergreen Seed Company.

depth. Once fertilizer is applied per

Apply fertilizer after disc-ing soil to a 2-3"

manufactures rate, drag the fields and then

broadcast seed mix at recommended rate. This

Seed and Fertilizer Supplier:

Evergreen Seed Company

Farmington Hills, MI 48335

Sports Fields (250 lbs/acre)

20% Rugby II Ky Bluegrass

15% RS-II Per. Ryegrass

15% Intrepid Per. Ryegrass

Open Space (350 lbs/acre)

40% Gooden T.T. Tall Fescue 40%WP-Eze. T.T. Tall Fescue 10% Intrepid Per. Ryegrass 10% Wild Horse Ky. Bluegrass

"Evergreen Fescue Mix"

PSP SUBMITTAL

THA VARIANCE REQUEST

20% Midnight Ky Bluegrass

30% Blue Sapphire Ky Blue Grass

"Overseeding Mix"

Sales Rep - Brian Folk (cell: 734-807-0866)

24300 Indoplex Circle

248-426-7338

WETLAND BUFFER (25'

SOILS-USDA NATURAL

SOIL TYPE AND

BOUNDARY

WETLANDS-

size.

Typically, the surface layer is dark grayleth brown sandy loam about 8 inches thick. The subsoli is firm and is about 23 inches thick. In the upper part it is dark yellowish brown day loam, and in the lower part it is yellowish brown day loam. The substratum to a depth of about 60 inches is yellowish brown and pale brown, mottled, cathareous loam (6g. 5).

Included in mapping are small areas of Fox and Costemo solfs that are on landscape positions similar to tross of the Mariette soil. Also included are the somewhat poorty drained Capea and Melamora soils that are lower on the landscape than the Mariette soil and the very

poorly drained Brookston soils that are in drainageways and shallow depressions. The included soils make up 5 to 15 percent of the map unit.

Permeability is moderately slow in this Marlette soil, and the avellable water capacity is high. Runoff is resident. The high water table is at a depth of 2.5 to 6.0 test from Charachter in.

the time December to April.

In most wees this soil is used as woodend or pasture or is idle land. In a tew areas it is used for crops. It is well suited to use as cropland, pasture, and woodland and to recreation uses.

and to recreation uses.

This soil is suited to building site development, but wetness is a limitation for basicings with basements. It buildings with basements are constructed, the use of well compacted fill to raise the site and the use of subsurface drainage to lower the water table can help to overcome the wetness limitation. This soil is poorly suited to use as seplic tank sheerption fields because of wetness and moderately slow permeability. Special construction measures, such as enlerging or atternating the absorption fields, are needed to overcome these limitations.

initiations. If this soil is used as cropland, the mejor management concerns are controlling erosion, maintaining organic matter content, and keeping the soil in good titth. The use of contour tilluge helps to reduce erosion. Crop residue or green manure helps to maintain the organic matter content and improve tith.

This soil is in capability subclass lie and Michigan soil management group 2.5a.

LEGEND

FROM WETLAND EDGE) REVISIONS

CONSERVATION SERVICE

DATE BY REVISIONS REVISIONS DATE | BY

Civil Engineers & Land Surveyors 55800 GRAND RIVER AVE., SUITE 100 NEW HUDSON, MICHIGAN 48165

P: (248) 437-5099 F: (248) 437-5222 www.zeimetwozniak.com

THREE FULL WORKING DAYS BEFORE YOU DIG, MISS DIG SYSTEM, INC. CALL THE MISS DIG SYSTEM 1-800-482-7171

PROJECT SPONSOR: CATHOLIC CENTRAL HIGH SCHOOL 27225 WIXOM ROAD (248) 596-3899 NOVI, MI 48374

COVER SHEET CATHOLIC CENTRAL PARKING EXPANSION NOVI, MICHIGAN

DATE 4/28/14 SCALE HOR: 1" = 200' VER: 1" = N/A DESIGNED BY 06103 JOB NO. SRB SHEET SP-1 DRAWN BY SRB

