

SPEEDWAY (14 MILE & HAGGERTY) JSP16-13

Speedway (14 Mile & Haggerty) JSP 16-13 with Rezoning 18.714

Public hearing at the request of McBride Dale Clarion for Planning Commission's recommendation to the City Council for rezoning of property in Section 1, located at the southwest corner of Fourteen Mile Road and Haggerty Road from B-3 (General Business) and OST (Office Service Technology) to B-3 (General Business) with a Planned Rezoning Overlay (PRO) Concept Plan. The subject property is approximately 2.03 acres and the applicant is proposing to raze the existing fuel station and construct a new 4,000 square foot convenience store and 5,400 square foot fuel canopy over 8 double-sided fuel dispensers.

REQUIRED ACTION

Recommend to City Council approval or denial of rezoning request from B-3 and OST to B-3 with a Planned Rezoning Overlay

REVIEW	RESULT	DATE	COMMENTS
Planning	Approval recommended	8-11-16	Items to be addressed on the next site plan submittal
Engineering	Approval not recommended	8-12-16	 Drive approach grade and storm water management standards are not met Items to be addressed on the next site plan submittal
Engineering – Public Utilities	Approval recommended	8-10-16	The plan would have negligible impact on the utilities.
Landscaping	Approval recommended	7-22-16	Items to be addressed on the next site plan submittal
Traffic	Approval recommended	8-1-16	Items to be addressed on the next site plan submittal
Facade	Approval Recommended 8-8-16		 Section 9 Façade Waiver recommended Items to be addressed on the next site plan submittal
Fire	Approval recommended	7-29-16	• Items to be addressed on the next site plan submittal

MOTION SHEET

Approval

In the matter of the request of McBride Dale Clarion for Speedway (14 Mile & Haggerty), JSP 16-13, with Zoning Map Amendment 18.714 motion to **recommend approval** to the City Council to rezone the subject property from B-3 (General Business) and OST (Office Service Technology) to B-3 (General Business) with a Planned Rezoning Overlay (PRO).

The recommendation shall include the following ordinance deviations for consideration by the City Council:

- a. A same side driveway spacing waiver to allow the driveway on 14 Mile Road to be located approximately 121 ft. (200 ft. required) from the neighboring driveway to the west to align with existing driveway on the north side of 14 Mile Road.
- b. An opposite side driveway spacing waiver to allow the driveway on Haggerty Road to be located approximately 40 ft. (200 ft. required) from the driveway to the south in order to align with the existing driveway on the east side of Haggerty Road.
- c. Section 9 Façade Waiver for the overage of Asphalt Shingles (maximum 25%; proposed 51% on east, 35% on west, 30% on south, 30% on north) on the building.
- d. Section 9 Façade Waiver for the overage of Flat Metal Panels (maximum 50%; proposed 71% on east, 71% on west, 59% on south, and 59% on north), and the underage of Brick (minimum 30%; proposed 20% on east, 20% on west) on the fuel canopy.
- e. Proposed loading zone is located in the front yard, the ordinance indicates it should be located in the interior side yard of a double frontage lot.
- f. Proposed dumpster is located in the front yard, the ordinance indicates it should be located in the interior side yard of a double frontage lot.

If the City Council approves the rezoning, the Planning Commission recommends the following conditions be requirements of the Planned Rezoning Overlay Agreement:

- a. Acceptance of applicant's offer of public benefits as proposed:
 - i. Installation of a "Welcome to Novi" sign along the 14 Mile Road property line.
 - ii. Dedication of 10 ft. of ROW along 14 Mile Road to the Road Commission of Oakland County.
 - iii. Redevelop the site with a building and canopy that is architecturally consistent with current zoning regulations.
 - iv. Pedestrian access is improved: (a) sidewalks will be extended the length of the expanded property and will close gaps in the sidewalk system and (b) sidewalk connections from the convenience store to 14 Mile Road and Haggerty Road are provided.
 - v. Safety improvements: (a) relocation of driveway away from 14 Mile and Haggerty intersection and to align with opposing driveway and (b) on-site circulation and visibility with new canopy.
 - vi. Preservation of a 10 foot wide wooded buffer along the east property line.
- b. Applicant shall provide a Noise Impact Statement with the Preliminary Site Plan submittal.
- c. All grades of drive approaches shall not exceed 2-percent within the first 25 feet of the intersection, as demonstrated with the next sit plan submittal.
- d. All grading, storm sewer, and drainage areas shall meet all applicable City of Novi standards.
- e. Applicant complying with the conditions listed in the staff and consultant review letters.

This motion is made because:

- a. The Master Plan for Land Use objective to foster a favorable business climate is fulfilled by allowing an existing business to expand and provide 5 more jobs, \$235 million in sales tax, and \$3.1 million in investment.
- b. The Master Plan for Land Use objective to support and strengthen existing businesses is fulfilled by allowing an existing business to expand and develop a vacant parcel.
- c. The concept plan improves existing non-conformities (minimum site size from 0.7 acres to 2.03 acres, location of driveways away from intersection, and upgraded stormwater management).
- d. There is a negligible impact on the utilities due to expected utility demand reduced from 4 residential equivalent units to 3, minimal impact on available water capacity, pressure, and flow, and no apparent impact of the downstream sanitary sewer.
- e. The rebuild and expansion of this site provides an update to the visual aesthetic at an entryway to the City, modern fuel dispensers and convenience store, and replacement of underground storage tanks.

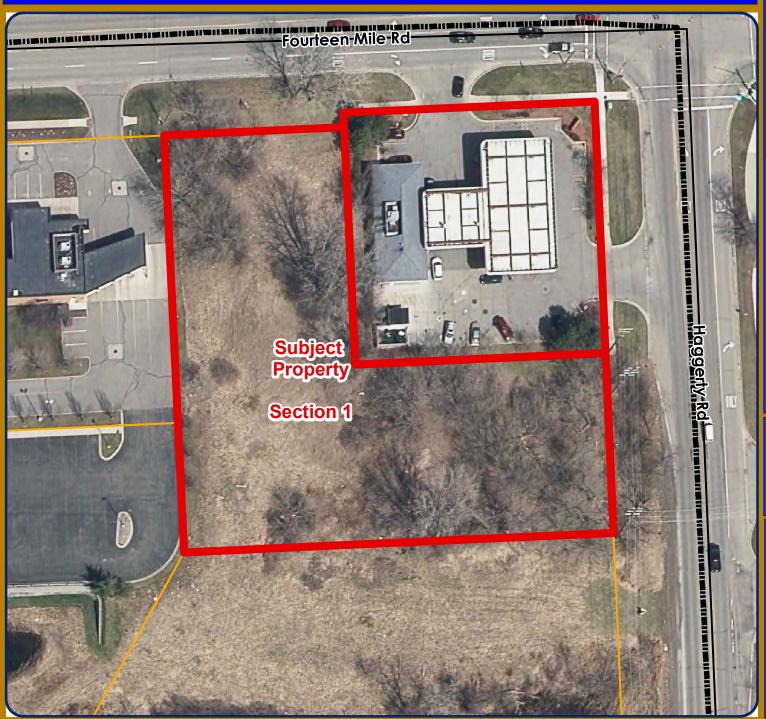
-OR-

Denial

In the matter of the request of McBride Dale Clarion for Speedway (14 Mile & Haggerty), JSP 16-13, with Zoning Map Amendment 18.714 motion to **recommend denial** to the City Council to rezone the subject property from B-3 (General Business) and OST (Office Service Technology) to B-3 (General Business) with a Planned Rezoning Overlay (PRO) ... because the proposed concept plan use is not consistent with the Master Plan for Land Use.

Maps Location Zoning Future Land Use **Natural Features**

JSP16-13: Speedway 14 Mile/Haggerty - PRO Location





LEGEND





City of Novi

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

Map Author: Kirsten Mellem Date: 08/02/16 Project: JSP16-13 Speedway 14 Mile/Haggerty - PRO Version #- 1

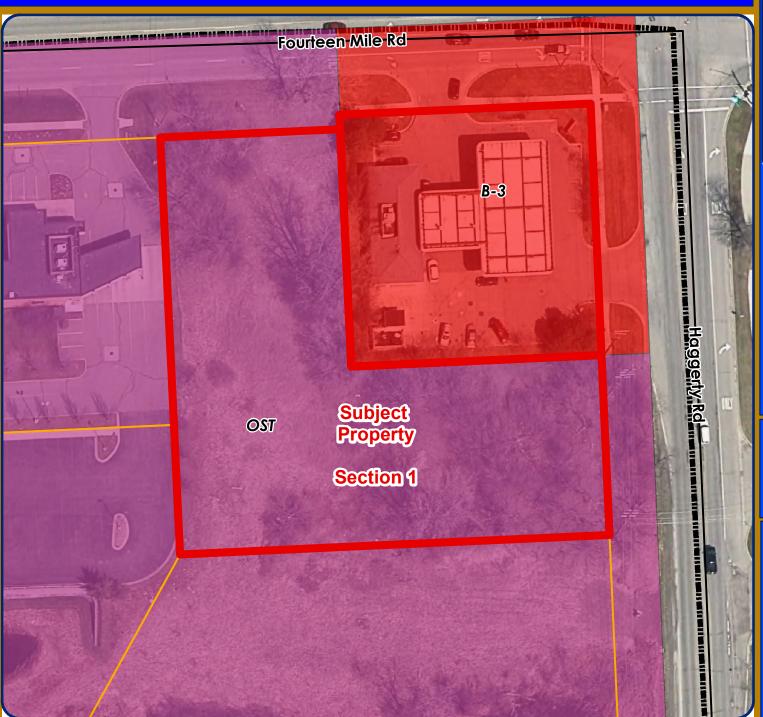
0 12.5 25 50 7

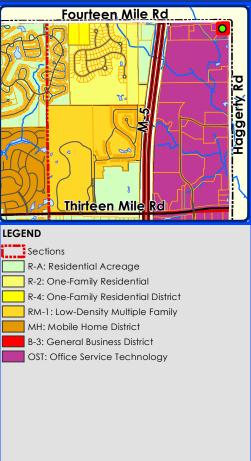


1 inch = 67 fc

MAP INTERPRETATION NOTICE

JSP16-13: Speedway 14 Mile/Haggerty - PRO Zoning







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Map Author: Kirsten Mellem Date: 08/02/16 Project: JSP16-13 Speedway 14 Mile/Haggerty - PRO Version #: 1

0 12.5 25 50 75

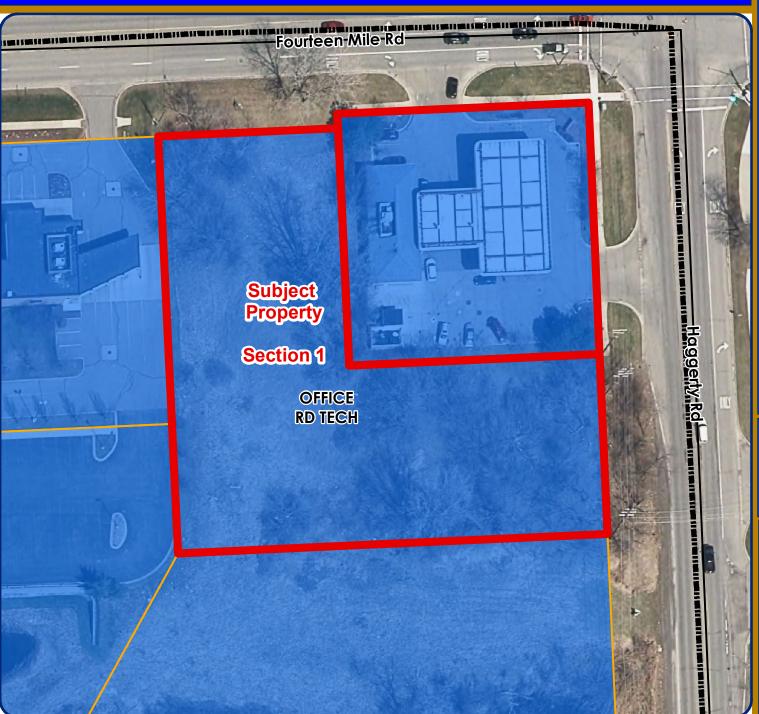


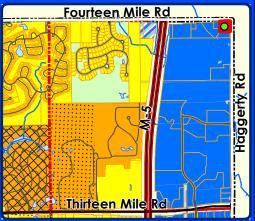
1 inch = 67 feet

MAP INTERPRETATION NOTICE

JSP16-13: Speedway 14 Mile/Haggerty - PRO

Future Land Use





LEGEND

Sections
FUTURE LAND USE

Single Family

PUD

Multiple Family

PD1

Mobile Home Park

Community Office
Office RD Tech

Private Park

Utility



City of Novi

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Date: 08/02/16
Project: JSP16-13 Speedway 14 Mile/Haggerty - PRO
Version #: 1

0 12.5 25 50 75



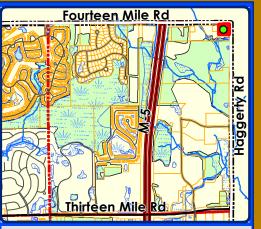
1 inch = 67 fee

MAP INTERPRETATION NOTICE

JSP16-13: Speedway 14 Mile/Haggerty - PRO

Natural Features





LEGEND

Sections

.... WETLANDS

WOODLANDS



City of Novi

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

Map Author: Kirsten Mellem Date: 08/02/16 Project: JSP16-13 Speedway 14 Mile/Haggerty - PRO

0 12.5 25 50 75



1 inch = 67 fee

MAP INTERPRETATION NOTICE

CONCEPT PLAN (Full plan set available for viewing at the Community Development Department)

STORE #2224 **REBUILD**

C3900 - RIGHT HAND QUIK BRICK V10.0 31275 HAGGERTY ROAD OAKLAND COUNTY NOVI, MI

OWNER AND PROJECT MANAGEMENT:

Speedway

500 SPEEDWAY DRIVE **ENON, OH 45323** 937-864-3000

CIVIL ENGINEER: **Speedway**





THIRD PARTY ENGINEERING SUPPORT SURVEY PREPARED BY: CESO, INC. DATE: FEBRUARY 2016

FLOOD NOTE:

PLANNING AND ZONING SET NOT FOR CONSTRUCTION

OPERATING AUTHORITIES

ELECTRIC: NORTHWEST REGION

CONSUMERS ENERGY STEVEN SORIA CUSTOMER ENERGY SPECIALIST LIVONIA SERVICE CENTER

STORE OR 0002224 VERSION OR 95505



0.4.4.	DESIGN TEAM	DATE
GAN 811	DGNR. R. THORNTON	04/15/16
	P.MGR. J. COUCH	04/15/16
BEFORE YOU DIG CALL MISS DIG	RVWR. B. BAIRD	04/15/16
1-800-482-7171	DRWG. NO.	
'	2224 - C	:\/

Speedway

REBUILD
31275 HAGGERTY ROAD
OAKLAND COUNTY
NOVI, MI COVER



LOCATION MAP

SURVEYOR NOTES

1. North and bearing system based upon NAD 83, MICHIGAN SOUTH

Vertical datum based on NAVD 88 and made in confunction with GPS observation on February 18, 2016.

- 2. This survey does not constitute a title search by the surveyor. All information regarding record easements, and other documents that might affect the quality of title to the parcel shown hereon we obtained through a certified title commitment conducted be Fidelity National Title Group, commitment number 16-110078 & 16-110077 dated January 16, 2016 at 8:00 a.m.
- 3. All underground utilities are shown to the best of our knowledge and are based on locations taken from observed evidence. No certification is made or implied that the utilities shown are correct or that all underground utilities are shown. MissDig Ticket
- 4. All data sources, documents and records shown hereon are on file in the Oakland County register of deeds.
- 5. All monumentation shown hereon is in good condition unless otherwise noted.
- 6. Access to the subject parcel is available along Haggerty Road and W. 14 Mile Road (public). No roadway improvement plans were disclosed to CESO during the survey.
- 7. Utilities in the form of water, electric, natural gas, telephone, cable, storm sewe sanitary sewer are all located either on the subject property or within the public right-of-way ad oining said parcel.
- Structures are as shown hereon, no evidence of recent earthwork and recent building
- 9. No evidence that subject property is being used as a sanitary landfill.
- 10. No evidence of wetland delineation areas were evident at the time of the survey.
- 11. This is not a recordable document for transfer of title
- 12. Parcel is located within "□ONE X" (Areas determined to be outside the 0.2□ annual chance floodplain) as indicated by the Flood Insurance Rate Map (FIRM) Map Number 26125C0489F, effective date: September 29, 2006 published by the Federal Emergency Management Agency.
- 13 Site Location: LAT 42 526748° LONG -83 438022°
- 14. The current coning of the subject parcels are shown below:

Owned Parcel - B-3, General Business front yard building setback: front yard building setback: 30' (attached to building) setback: 15' side yard canopy setback: (attached to building) setback: rear yard building setback: rear yard canopy setback: (attached to building) setback: 15'

Second Parcel - OST, Office Service Technology front yard building setback: 50' side yard building setback: rear yard building setback:

15. There currently exist 15 improved parking spaces & 2 handicap parking spaces on site.

UTILITY COMPANIES

WATER & SEWER 3300 Lee becom _ lovi, MI Department Phone: 248-735-5640

COMMUNICATIONS

TITLE COMMITMENT LEGAL DESCRIPTION (owned)

Land situated in the City of Novi, County of Oakland, and State of Michigan, described as

Part of the Northeast 1/4 of Section 1, Township 1 North, Range 8 East, City of Novi, County of Oakland, State of Michigan, and being more particularly described as follows

Commencing at a point being the Northeast corner of said Section 1

thence due West on and along the Section line (being also the centerline of 14 Mile Road), a distance of 235.00 feet to a point

thence South 00 degrees 03 minutes 30 seconds East, a distance of 60.00 feet to a point being the intersection with the Southerly right-of-way line of 14 Mile Road and being the true point of

thence continuing South 00 degrees 03 minutes 30 seconds East, a distance of 175.00 feet to a

thence due East a distance of 175.00 feet to a point being the intersection with the Westerly right-of-way line of Haggerty Road

thence North 00 degrees 03 minutes 30 seconds West on and along said right-of-way line (being also parallel to and 60 feet Westerly from the centerline of Haggerty Road and the East line of Section 1), a distance of 175.00 feet to a point being the intersection with the Southerly right-of-way

thence due West, on and along said right-of-way line, a distance of 175.00 feet to the true point of

TITLE COMMITMENT LEGAL DESCRIPTION

Land situated in the Township of Novi, County of Oakland and State of Michigan, described as

Part of the Northeast One-Quarter of Section 1, Township 1 North, Range 8 East, Township of Novi, County of Oakland, State of Michigan, and being more particularly described as follows: Commencing at a point being the Northeast comer of said Section 1□

Thence due West on and along the section line (being also the centerline of 14 Mile Road) a distance of 235.00 feet to a point. Thence South 00 deg. 03' East, a distance of 60.00 feet to a point being the intersection with the Southerly right-of-way line of 14 Mile Road and being the "True Point of Beginning" Thence continuing South 00 deg. 03' 30" East a distance of

Thence due East a distance of 175.00 feet to a point being the intersection with the Westerly right-of-way line of Haggerty Road. Thence South 00 deg. 03° 30" East on and along said right-of-way line (being also parallel to and 60 feet Westerly from the centerline of Haggerty Road and the East line of Section 1) a distance of 125.00 feet⊡

Thence due West a distance of 300.00 feet

Thence North 00 deg. 03' 30" West a distance of 300.00 feet to a point being the intersection with the Southerly right-of-way line of 14 Mile Road

Thence due East, on and along said right-of-way, a distance of 125.00 feet to the point of beginning.

EXCEPT That part which lies Northerly of a line described as: Commencing at the North One-Quarter corner of Section 1, Township 1 North, Range 8 East, City of Novi, Oakland County

Thence North 87 24' 30" East along the North line of said Section 1, a distance of 2,225 feet

Thence South 02 deg. 35' 30" East, 70.00 feet to the point of beginning of this described line

Thence North 87 deg. 24' 30" East, 550 feet to a point of ending this described line, as conveyed to Michigan Department of Transportation by Deed recorded in Liber 16024, Page 586.

SCHEDULE B - SECTION II (owned):

THIS ALTA/ACSM SURVEY IS EXECUTED HEREON PER TITLE COMMITMENT PROVIDED BY FIDELITY NATIONAL TITLE GROUP, FOR THE PROPOSED INSURED SPEEDWAY, LLC,

...... Oblot on Policies 10 BE ISSUED WILL CONTAIN EXCEPTIONS TO THE FOLLOWING UNLESS THE SAME ARE DISPOSED OF TO THE SATISFACTION OF THE COMPANY:

COMMITMENT NO.: 16-110078 EFFECTIVE DATE: January 22, 2016 at 8:00 a.m.

8. Right of way vested in The Detroit Edison Company by instrument recorded in Liber

- The description of this right-of-way is ambiguous therefore we are unable to determine if it affects the subject parcel.

9. Easement to The Detroit Edison Company recorded in Liber 4378, Page 538. - The description of this easement is ambiguous therefore we are unable to determine if it affects the subject parcel.

10. Easement to The Buckeye Pipe Line Company recorded in Liber 3902, Page 305. Assignment and Assumption of Rights of Way to Buckeye Pipe Line Company, L.P., a Delaware limited partnership recorded in Liber 9705, Page 177 and in Liber 9705, Page 206.

 This item lies within the right-of-way of Haggerty Road. During initial utility research Buckeye Pipeline stated that they would need to be notified of any work with 25' of line.

11. Easement to Buckeye Pipe Line Company recorded in Liber 4786, Page 8. This item lies within the right-of-way of Haggerty Road. During initial utility research Buckeye Pipeline stated that they would need to be notified of any work with 25' of line.

12. Highway Easement in favor of the Michigan Department of Transportation, as recorded in Liber 16658, Page 110. - This item does affect the subject parcel and is plotted

13. Underground Easement (Right of Way) No. R-117697-2 in favor of The Detroit (13) Edison Company, a Michigan corporation, as recorded in Liber 18703, Page 301.

- This item does affect the subject parcel and is plotted.

14. Agreement to Supply Water to Speedway Superamerica, LLC by the Charter nship of Commerce and the City of Novi, as recorded in Liber 18726, Page 758.

- This item does affect the subject parcel, no items to plot.

15. Easement for Water Line in favor of the City of Novi, Michigan, as recorded in Liber 15. Easement for Water Line in lavor of the City of Novi, mor 10312, Page 94 and re-recorded in Liber 10450, Page 33.

- This item does affect the subject parcel and is plotted.

16. Easement for Sewer Line in favor of the Charter Township of Commerce, Michigan

- This item does affect the subject parcel and is plotted

SCHEDULE B - SECTION II:

THIS ALTA/ACSM SURVEY IS EXECUTED HEREON PER TITLE COMMITMENT PROVIDED BY FIDELITY NATIONAL TITLE GROUP, FOR THE PROPOSED INSURED SPEEDWAY, LLC.

THE POLICY OR POLICIES TO BE ISSUED WILL CONTAIN EXCEPTIONS TO THE FOLLOWING UNLESS THE SAME ARE DISPOSED OF TO THE SATISFACTION OF THE COMPANY

COMMITMENT NO.: 16-110077 EFFECTIVE DATE: January 22, 2016 at 8:00 a.m.

7. Easement to the Detroit Edison Company recorded in Liber 3247, Page 56. - The description of this right-of-way is ambiguous therefore we are unable to determine if it affects the subject parcel.

Easement to Buckeye Pipeline Company, as recorded in Liber 4786, Page 8.
 This item lies within the right-of-way of Haggerty Road. During initial utility research Buckeye Pipeline stated that they would need to be notified of any

DEVELOPER:

ALTA/ACSM LAND TITLE SURVEY SPEEDWAY STORE #2224 - 31275 HAGGERTY ROAD NOVI, MI CONTAINING TOTAL ACRES OF LAND
CITY OF NOVI, OAKLAND COUNTY, STATE OF MICHIGAN AND BEING PART OF NORTHEAST QUARTER SECTION 1

OWNER:



SURVEYOR

SURVEYOR'S CERTIFICATION:

TO SPEEDWAY LLC AND FIDELITY NATIONAL TITLE INSURANCE COMPANY IT'S SUCCESSORS AND/OR ASSIGNS

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTAIACSM LAND T SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1-5, 6(a), 11(b), 13, 14, 16 and 18 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED IN FEBRUARY 2016.

DATE OF PLAT OR MAP: 03/01/2016

PRELIMINARY DATE ROBERT MATKO MI P.S. # 54056 CESO, INC. 8164 EXECUTIVE COURT, SUITE B LANSING, MI 48917

ALTA/ACSM LAND TITLE SURVEY SPEEDWAY LLC - STORE #2224

31275 Haggerty Road Novi. MI

DATE: February 2016

DESIGN: DRAWN: SWC

SCALE: na

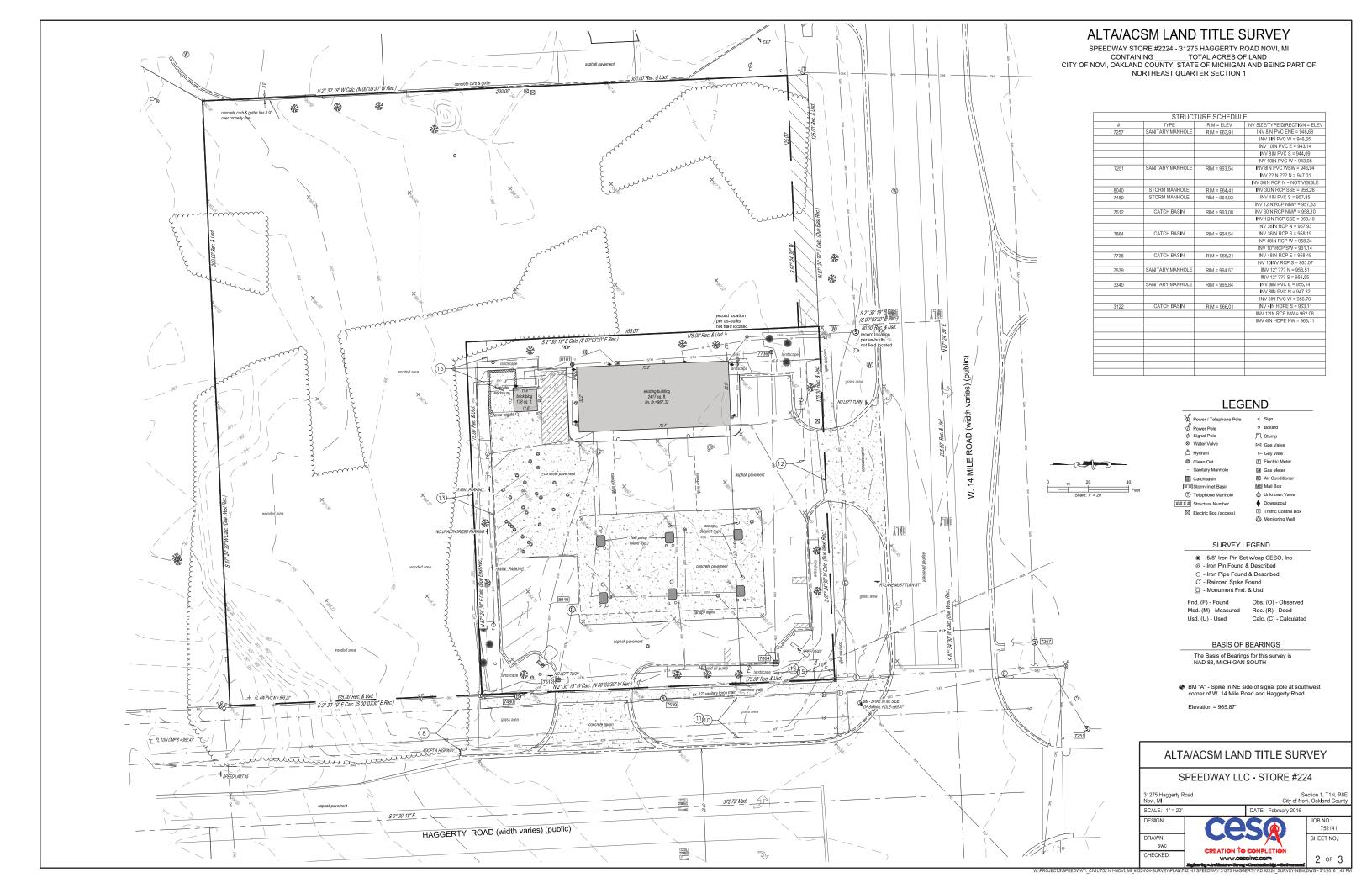
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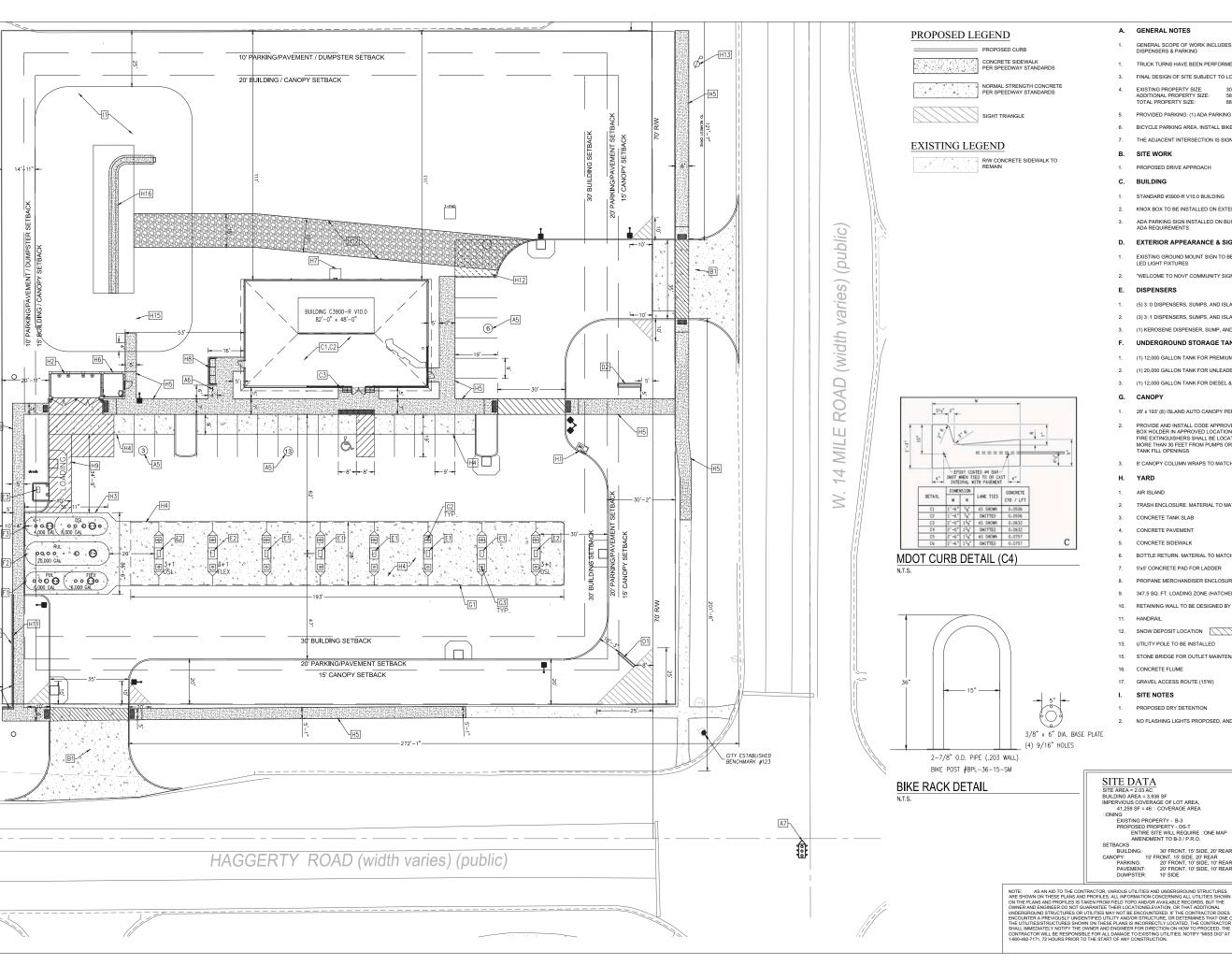
SHEET NO.: 1 or 3

752141

City of Novi, Oakland Cour



ALTA/ACSM LAND TITLE SURVEY 1/2" Iron Pin w/cap "37281" in Monument Box Fnd. & Usd. SPEEDWAY STORE #2224 - 31275 HAGGERTY ROAD NOVI, MI CONTAINING TOTAL ACRES OF LAND CITY OF NOVI, OAKLAND COUNTY, STATE OF MICHIGAN AND BEING PART OF NORTHEAST QUARTER SECTION 1 1/2" Iron Pin w/cap "37281" in Monument | Box Fnd. & Usd. "X" in Walk Fnd. & Usd. Behavioral Care Solutions for Adults and Seniors, Inc. Liber 48620, Page 386 09/21/2015 North Novi Investors Liber 48608, Page 669 04/04/2013 LEGEND N 2° 30' 19" W Calc. (N 00°03'30" W Rec.) Power / Telephone Pole Power Pole Signal Pole Bollard Stump Gas Valve (- Guy Wire E Electric Meter vacant - no buildings · Sanitary Manhole Gas Meter ■ Catchbasin Air Conditioner PARCEL CONTAINS: MB Mail Box ≡ ≡ Storm Inlet Basin 1.3344 acres (survey) (58,125.1 sq.ft.) TRUE POINT OF BEGINNING Telephone Manhole Unknown Valve #### Structure Number ☑ Traffic Control Box Electric Box (access) /S 2° 30' 19" E Calc. (S 00°03'30" E Rec.) Monitoring Well 14 MILE ROAD (width var. SURVEY LEGEND Rebel Realty Inc. Liber 40742, Page 314 12/01/2008 ● - 5/8" Iron Pin Set w/cap CESO, Inc ○ - Iron Pipe Found & Described Fnd. (F) - Found Obs. (O) - Observed Msd. (M) - Measured Rec. (R) - Deed PARCEL CONTAINS: 13)—< Calc. (C) - Calculated 0.7031 acres (survey) (30,625.0 sq.ft.) BASIS OF BEARINGS The Basis of Bearings for this survey is NAD 83, MICHIGAN SOUTH BM "A" - Spike in NE side of signal pole at southwest corner of W. 14 Mile Road and Haggerty Road 16(15 1/2" Iron Pin Fnd. N 42°10'33" W, 0.26' 125.00' Rec. & Usd. S 2° 30' 19" E Calc. (S 00°03'30" E Rec.) Pin set at 2.00' 175.00' Rec. & Usd. Elevation = 965.87' N 2° 30' 19" W Calc. (N 00°03'30" W Rec.) Place of ALTA/ACSM LAND TITLE SURVEY 1-1/2" Disk stamped -"2245" in Monument Box Fnd. & Usd. 1/2" Iron Pin in Monument Box Fnd. & Usd. S 2° 30′ 19* E SPEEDWAY LLC - STORE #2224 2" Disk stamped "OAKLAND CO 24598" in Monument Box Fnd. & Usd. HAGGERTY ROAD (width varies) (public) 1/2" Iron Pin in Monument Box Fnd. & Usd. S 2° 30′ 19″ E_ 31275 Haggerty Road Novi, MI Section 1, T1N, R8E City of Novi, Oakland County 5/8" Iron Pin in Monument Box Fnd. & Usd. 121.06' Msd. S 2° 30′ 19″ E DATE: February 2016 SCALE: 1" = 40' DESIGN: 752141 DRAWN: SHEET NO.: SWC CHECKED: 3 OF 3



R/W CONCRETE SIDEWALK TO REMAIN

A. GENERAL NOTES

- GENERAL SCOPE OF WORK INCLUDES: BUILDING, CANOPY, FUEL TANKS, PIPING DISPENSERS & PARKING
- TRUCK TURNS HAVE BEEN PERFORMED ON THIS SITE TO CONFIRM LOCATION OF USTS
- FINAL DESIGN OF SITE SUBJECT TO LOCAL AND STATE REGULATIONS
- PROVIDED PARKING: (1) ADA PARKING SPACES AND (21) STANDARD PARKING SPACES
- BICYCLE PARKING AREA, INSTALL BIKE RACK PER DETAIL ON THIS SHEET.
- THE ADJACENT INTERSECTION IS SIGNALIZED

SITE WORK

PROPOSED DRIVE APPROACH

- STANDARD #3900-R V10.0 BUILDING
- KNOX BOX TO BE INSTALLED ON EXTERIOR WALL OF BUILDING
- ADA PARKING SIGN INSTALLED ON BUILDING. SIGN TO MEET STATE AND LOCAL ADA REQUIREMENTS.

EXTERIOR APPEARANCE & SIGNAGE

- EXISTING GROUND MOUNT SIGN TO BE REMOVED, REFACED, AND OUTFITTED WITH LED LIGHT FIXTURES
- "WELCOME TO NOVI" COMMUNITY SIGN

- (1) 20,000 GALLON TANK FOR UNLEADED
- (1) 12,000 GALLON TANK FOR DIESEL & KEROSENE

- 28' x 193' (8) ISLAND AUTO CANOPY PER CURRENT STANDARDS
- PROVIDE AND INSTALL CODE APPROVED FIRE EXTINGUISHERS WITH PLASTIC BOX HOLDER IN APPROVED LOCATIONS AS REQUIRED BY LOCAL FIRE OFFICIALS. FIRE EXTINGUISHERS SHALL BE LOCATED SUCH THATA NA STINGUISHER IS NOT MORE THAN 30 FEET FROM PUMPS OR DISPENSERS AND 75 FEET FROM STORAGE TANK FILL OPENINGS.
- 8' CANOPY COLUMN WRAPS TO MATCH BUILDING MATERIAL

- AIR ISLAND
- TRASH ENCLOSURE. MATERIAL TO MATCH BUILDING

- BOTTLE RETURN, MATERIAL TO MATCH BUILDING 5'x5' CONCRETE PAD FOR LADDER

- SNOW DEPOSIT LOCATION
- UTILITY POLE TO BE INSTALLED
- STONE BRIDGE FOR OUTLET MAINTENANCE
- GRAVEL ACCESS ROUTE (15'W)

- NO FLASHING LIGHTS PROPOSED, AND ONLY NECESSARY LIGHTING WILL BE USED

3/8" x 6" DIA. BASE PLATE (4) 9/16" HOLES

SITE DATA
SITE AREA = 2.03 AC
BUILDING AREA = 3,936 SF
IMPERVIOUS COVERAGE OF LOT AREA, 41,259 SF = 46□ COVERAGE AREA

41,259 ST = TAND ST.

ONING

EXISTING PROPERTY - B-3

PROPOSED PROPERTY - OS-T

ENTIRE SITE WILL REQUIRE CONE MAP

AMENDMENT TO B-3 / P.R.O.

 SETBACKS
 30° FRONT, 15° SIDE, 20° REAR

 BUILDING:
 15° FRONT, 15° SIDE, 20° REAR

 PARKING:
 20° FRONT, 10° SIDE, 10° REAR

 PAVEMENT:
 20° FRONT, 10° SIDE, 10° REAR

 DUMPSTER:
 10° SIDE

PARKING:
PARKING REQUIREMENT:
2 PER GASOLINE PUMPING ISLAND
20 FOR CONVENIENCE STORE
TOTAL AUTO PARKING REQUIRED: 36 SPACES
PARKING DIMENSIONS = 9' x 19'

- AUA SPACES - 16 DISPENSER SPACES : 38 TOTAL SPACES : SPACES AT DISPENSERS COUNT TOWARDS PARKING REQUIREMENTS





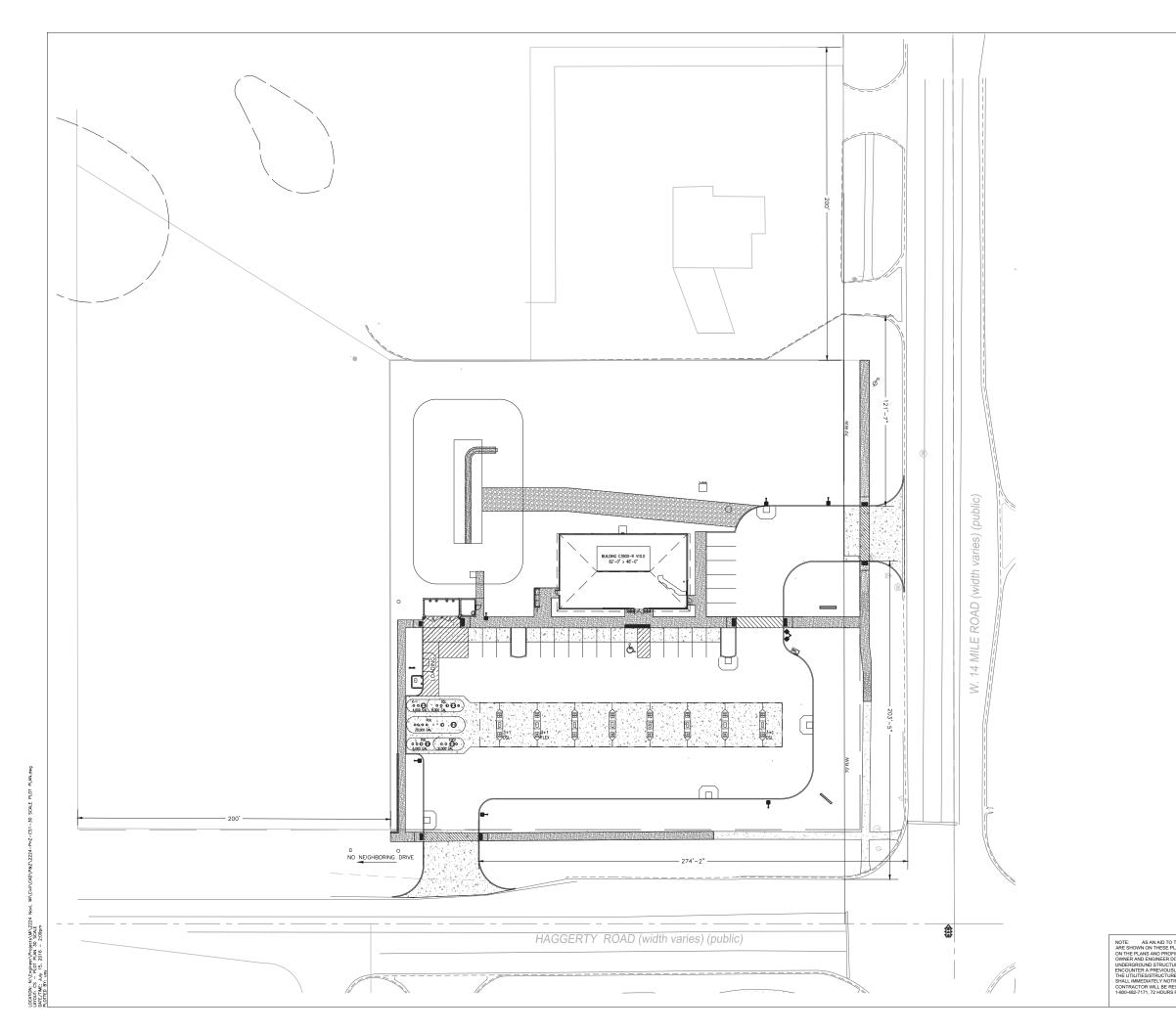
2224 - CS

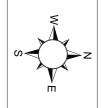
Speedway

PLOT PLAN
REBUILD
31275 HAGGERTY ROAD
OAKLAND COUNTY
NOVI, MI

STORE OR 0002224 VERSION OR 95505

DESIGN TEAM DONR R THORNTON 04/15/16 P.MGR. J. COUCH 04/15/16





Special By:
Spectral By:
Spectral By:
Engineering and Construction Dept.
Enon, OH 45323

	Š.	◁	REV	REVISIONS		DESIGNER	DESIGNER PROJ. MGR.	REVIEWER DATE
N V	-	REVISED PER	REVISED PER CITY COMMENTS RECEIVED 05/13/16	RECEIVED 05	5/13/16	R.THORNTON 05/25/16		J.COUCH 05/25/16
	2	REVISED PER	REVISED PER CITY COMMENTS RECEIVED 07/06/16	RECEIVED 07	7/06/16	R.THORNTON 07/15/16		J.COUCH 07/15/16
		This drawin	This drawing is the property of Speedway and is not to be used or reproduced without expressed written consent of Speedway	erty of Spe	eedway and	d is not t	to be use	,

DRIVEWAY LOCATION PLA

REBUILD

31275 HAGGERTY ROAD
OAKLAND COUNTY
NOVI, MI

STORE OR 0002224

VERSION OR 95505

PROJECT ID 15 30

DESION TEAM DATE
DONR. R. THORNTON 05/24/16
P.MGR. J. COUCH 05/24/16
RVWR. B. BAIRD 05/24/16
DRWG. NO.
2224 - CS1

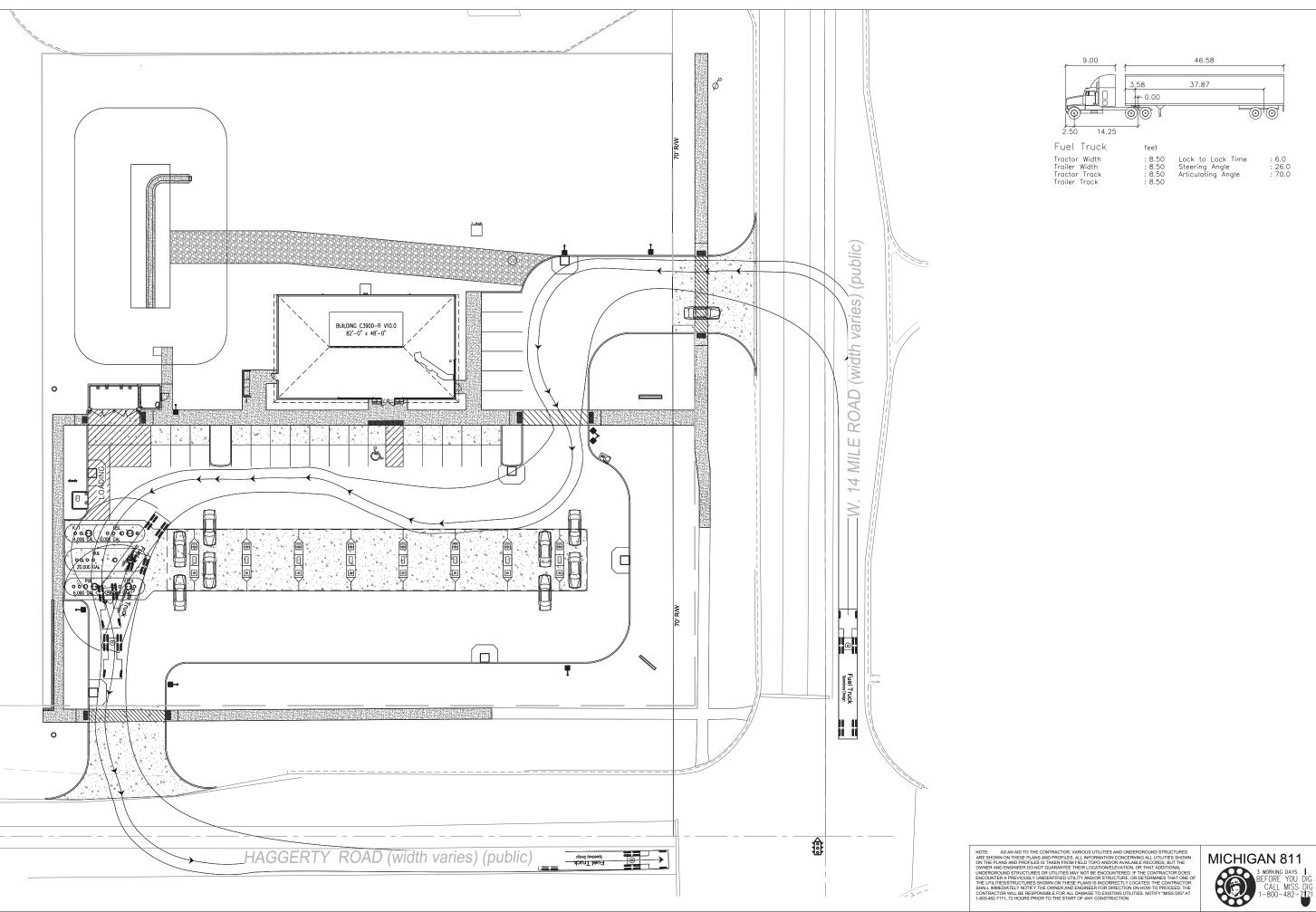
MICHIGAN 811

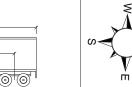
3 WORKING DAYS J

BEFORE YOU DIG

CALL MISS DIG

1-800-482-7171





: 6.0 : 26.0 : 70.0

Speedway

CIRCULATION PLAN
REBUILD
31275 HAGGERTY ROAD
OAKLAND COUNTY
NOVI, MI

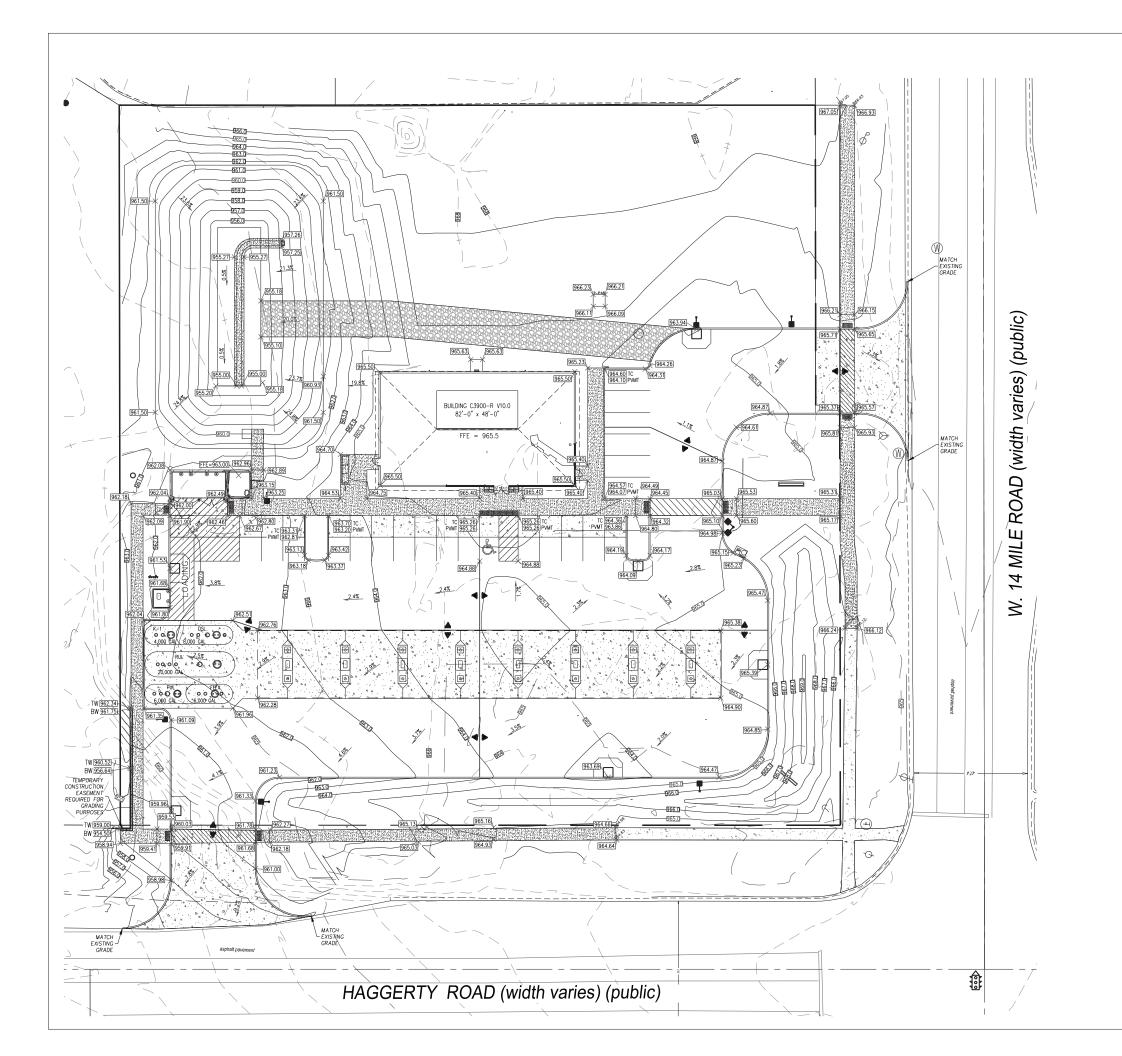
STORE OR 0002224 VERSION OR 95505

GNR. R. THORNTON 04/15/16 P.MGR. J. COUCH 04/15/16

RVMR. B. BAIRD 04/15/16

DRWG. NO.

2224 - CR











- CONTRACTOR TO USE EXTREME CAUTION WHEN GRADING IN AND AROUND EXISTING
 UTILITIES. CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH PRIOR TO START OF
 CONSTRUCTION.
- EXCAVATE SOILS AS NECESSARY TO COMPLETE PROPOSED CONSTRUCTION. UNLESS OTHERWISE DIRECTED (REFER TO GEOTECHNICAL REPORT), USE ALL EXCAVATED SOILS AS FILL ON SITE. ANY SOILS THAT CANNOT BE UTILIZED ON SITE SHALL BE LOADED DIRECTLY ONTO TRANSPORT TRUCKS AND HAULED TO OWNER'S APPROVED LOCATION. ANY IMPACTED SOILS ENCOUNTERED SHALL BE LOADED SEPARATELY AND SHALL NOT BE COMMINGLED WITH CLEAN SOILS. ANY EXCAVATED SOIL OR MATERIALS THAT LEAVE THE SITE MUST GO TO AN APPROVED LANDFILL LOCATION OR BE ACCOMPANIED BY AN APPROVED BILL OF SALE.
- BID AS ALTERNATE A: IMPACTED SOILS SHALL BE PLACED ON MINIMUM 6 MIL. VISQUEEN AND COVERED WITH 40'X 100'S SHEETS OF 4 MIL. VISQUEEN. A SAND BERM SHALL BE CONSTRUCTED AROUND ENTIRE PILE OF SOIL TO HOLD THE VISQUEEN DOWN. ALL SEAMS OR OVERLAP (6" MINIMUM) IN THE VISQUEEN COVERING SHALL BE SECURED WITH WEIGHTED MATERIAL
- BID AS ALTERNATE B: PROVIDE DEWATERING NECESSARY FOR ANY EXCAVATIONS AND TO PREVENT TANKS FROM FLOATING WHILE THE TANKS ARE NOT COVERED BY PROPER OVERBURDEN. DEWATERING SHALL CONSIST OF SUPPLYING EQUIPMENT AND LABOR TO MAINTAIN PUMPING ACTIVITIES AS NECESSARY. COORDINATE WITH OWNER'S REPRESENTATIVE TO DETERMINE WHERE WATER CAN BE PUMPED. IDENTIFY THIS COST AS A SPECIFIC LINE ITEM IN THE BID. DISPOSAL OF CONTAMINATED WATER SHALL BE THE OWNER'S RESPONSIBILITY.
- THE ENVIRONMENTAL CONSULTANT AND THE CONTRACTOR SHALL USE THE "SOILS WORKSHEET" TO ACCOUNT FOR ALL EXCAVATED SOILS.
- A REPORT OF THE SUBSUIFACE INVESTIGATION IS MADE AVAILABLE TO THE CONTRACTOR AT TIME OF BIDDING. THE BASE BID SHALL INCLUDE LAND BALANCING ACTIVITIES BASED ON THE ASSUMPTION THAT EXCAVATED SOIL CAN BE REUSED AS NECESSARY FOR CONSTRUCTION. UPON REVIEWING THE SUBSURFACE INVESTIGATION, CONTRACTOR SHALL INCLUDE THE FOLLOWING AS ALTERNATE:A. OVER-EXCAVATE AREAS OF UNSUITABLE SOILS AND STABILLE AREAS PER THE SUBSURFACE INVESTIGATION. ESTIMATE QUANTITY OF OVER-EXCAVATED AREAS AND REPLACEMENT BACKFILL IN EACH AREA, ALONG WITH THE TYPE OF BACKFILL. ACTUAL QUANTITIES WILL BE VERIFIED DURING CONSTRUCTION PER THE DIRECTION OF THE GEOTECH CONSULTANT AND OWNER'S REPRESENTATIVE, WITH DETAILED CHANGE OPDERS SUBMITTED TO OWNER.
- ANY DISCREPANCIES BETWEEN ELEVATIONS SHOULD BE BROUGHT TO THE ATTENTION OF



Special Specia

REVIE	J.CO	J.CO 07/1				
DESIGNER PROJ MGR. DATE DATE						to be use Speedway.
DESIGNER	R.THORNTON 05/25/16	R.THORNTON 07/15/16				is not sent of
REVISIONS	REVISED PER CITY COMMENTS RECEIVED 05/13/16	REVISED PER CITY COMMENTS RECEIVED 07/06/16				This drawing is the property of Speedway and is not to be used or reproduced without expressed written consent of Speedway.
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GRADING PLAN
REBUILD
31275 HAGGERTY ROAD
OAKLAND COUNTY
NOVI, MI

STORE OR BLDG NO. 0002224

VERSION OR 95505

SCALE 0 10 20

MICHIGAN 811

3 WORKING DAYS 1
BEFORE YOU DIG

1"=20"-0"

DESIGN TEAM DATE

DONR. R. THORNTON 04/15/16

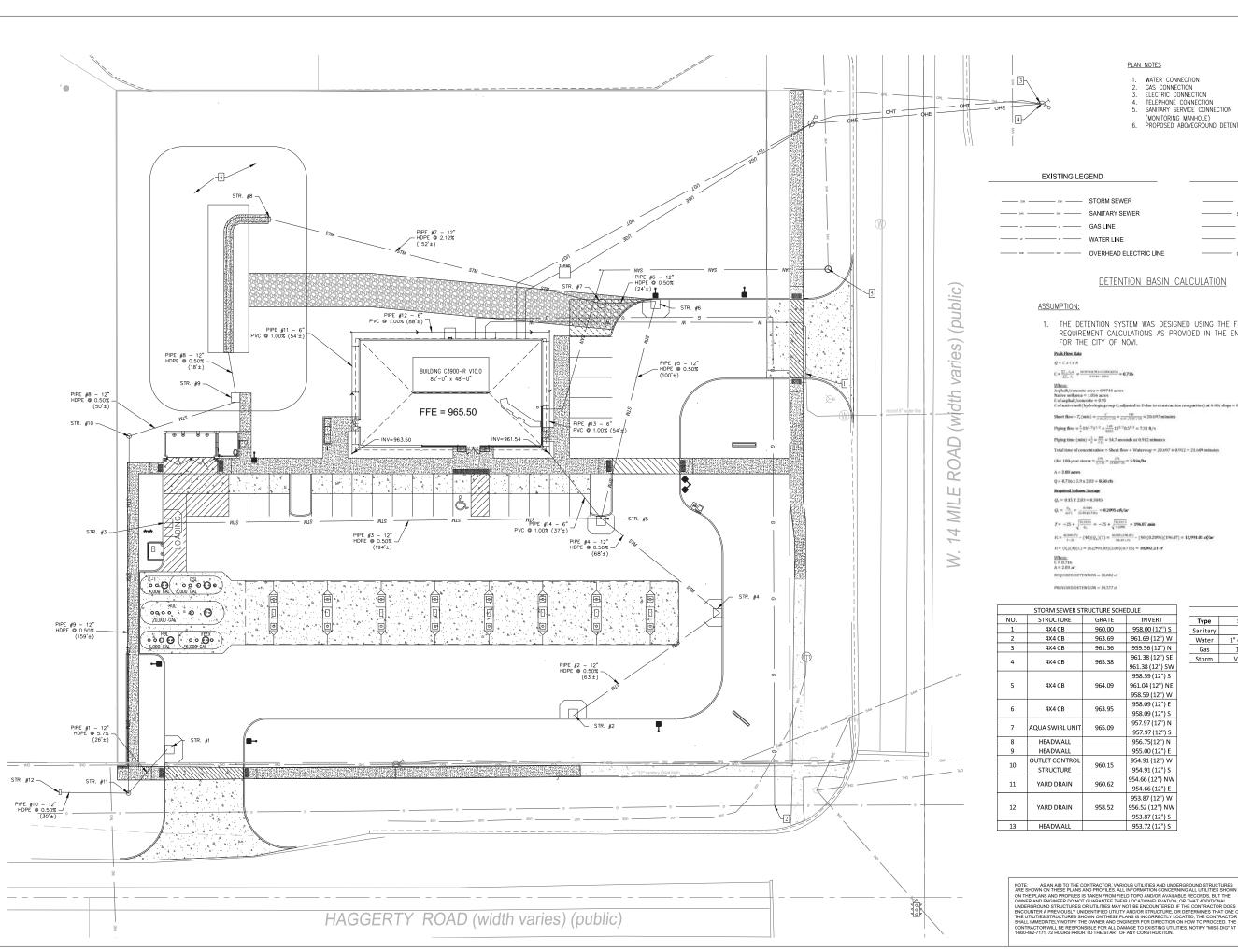
P.M.GR. J. COUCH 04/15/16

FRWR. NO. 04/15/16

DRWG. NO. 04/15/16

BEFORE YOU DIG CALL MISS DIG 1-800-482-7171 PRWR. B DRWG. NO.

2224 - CG



PLAN NOTES

- WATER CONNECTION GAS CONNECTION ELECTRIC CONNECTION
- TELEPHONE CONNECTION
 TELEPHONE CONNECTION
 SANITARY SERVICE CONNECTION
 (MONITORING MANHOLE)
 PROPOSED ABOVEGROUND DETENTION

EXISTING LEGEND PROPOSED LEGEND — STORM SEWER SANITARY SEWER ---- SANITARY SEWER GAS LINE WATER LINE WATER LINE — OVERHEAD ELECTRIC LINE — ∞ OVERHEAD ELECTRIC LINE

DETENTION BASIN CALCULATION

ASSUMPTION:

1. THE DETENTION SYSTEM WAS DESIGNED USING THE FLOOD STORAGE VOLUME REQUIREMENT CALCULATIONS AS PROVIDED IN THE ENGINEERING DESIGN MANUAL FOR THE CITY OF NOVI.

Peak Flow Rate

 $\zeta = \frac{\sum_{i=1}^{n} \mathcal{L}_{i}A_{i}}{\sum_{i=1}^{n} \mathcal{L}_{i}} = \frac{(0.9741 \times 95) + (1.056 \times 0.5)}{0.9744 + 1.056} = 0.716$

Sheet flow $-T_e(min) = \frac{\epsilon'}{0.40 \text{ eVery 00}} = \frac{100}{0.40 \text{ eVeV}} = 20.697 \text{ minutes}$ Piping flow = $\frac{8}{\pi}Rh^{2/9}S^{1/2} = \frac{1.49}{6.013}12^{2/9}0.5^{1/2} = 7.31 \, fl/s$

Piping time (min) = $\frac{L}{V} = \frac{400}{7.21} = 54.7$ seconds or 0.912 minutes

i for 100-year storm = $\frac{375}{7_2 + 25} = \frac{375}{21.005 + 25} = 5.9 \text{ in/hr}$

Q = 0.716 x 5.9 x 2.03 = 8.58 cfs

Required Volume Storage $Q_c = 0.15 \times 2.03 = 0.3045$

 $Q_c = \frac{q_d}{40\%} = \frac{0.0045}{(2.01 \times 6.716)} = 0.2095 \text{ cfs/ac}$

 $T = -25 + \sqrt{\frac{10.312.5}{0.5}} = -25 + \sqrt{\frac{10.312.5}{0.2095}} = 196.87 \text{ min}$

 $V_{\rm c} = \frac{96,500\,(T)}{T\cdot 25} - (40)(Q_{\rm e})(T) = \frac{16,500\,(196,87)}{196,87\cdot 25} - (40)(0.2095)(196.87) = 12,991.03 \, {\rm el/sec}$

 $V_1 = (V_1)(A)(C) = (12,991.03)(2.03)(0.716) = 181892.21 \text{ ef}$

REQUIRED DETENTION = 18,882 ct

STORM SEWER STRUCTURE SCHEDULE	
1 4X4 CB 960.00 958.00 (12"	
2 AYA CB 963 69 961 69 / 12"\	
2 4/4 CD 303.09 301.09 (12)	· vv
3 4X4 CB 961.56 959.56 (12")	N (
4 4X4 CB 965.38 961.38 (12")	SE
4 4X4 CB 965.38 961.38 (12")	SW
958.59 (12")) S
5 4X4 CB 964.09 961.04 (12")	958.59 (12") W 963.95 958.09 (12") E 958.09 (12") S 957.97 (12") N 957.97 (12") S 956.79 (12") S 955.00 (12") E
958.59 (12")	W
958.09 (12")) E
6 4X4 CB 963.95 958.09 (12")) S
7 A CLUA SUMBLUBUT 055 00 957.97 (12")	N (
7 AQUA SWIRL UNIT 965.09 957.97 (12") S
8 HEADWALL 956.75(12")	N
9 HEADWALL 955.00 (12")) E
OUTLET CONTROL 954.91 (12")	W
10 STRUCTURE 960.15 954.91 (12")) S
954.66 (12")	NW
11 YARD DRAIN 960.62 954.66 (12")) E
953.87 (12")	W
12 YARD DRAIN 958.52 956.52 (12")	NW
953.87 (12")) S
13 HEADWALL 953.72 (12"	_

	Material	s List
Туре	Size	Material
Sanitary	6"	PVC
Water	1" or 1.5"	Copper
Gas	1.25"	Polyethylene
Storm	Varies	HDPE

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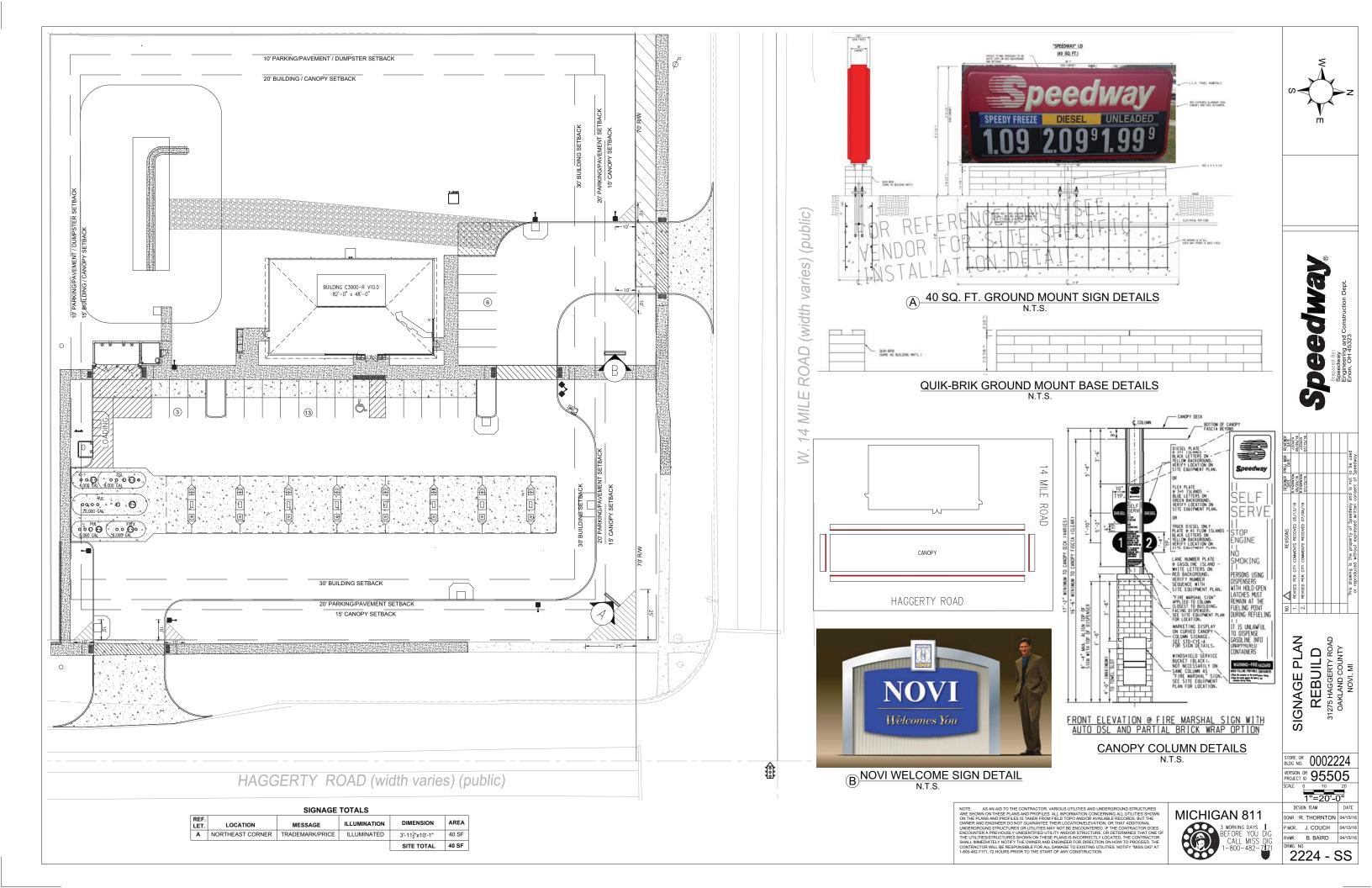
VERSION OR 95505 DGNR. R. THORNTON 04/15/16 P.MGR. J. COUCH 04/15/16 RVWR. B. BAIRD 04/15/16

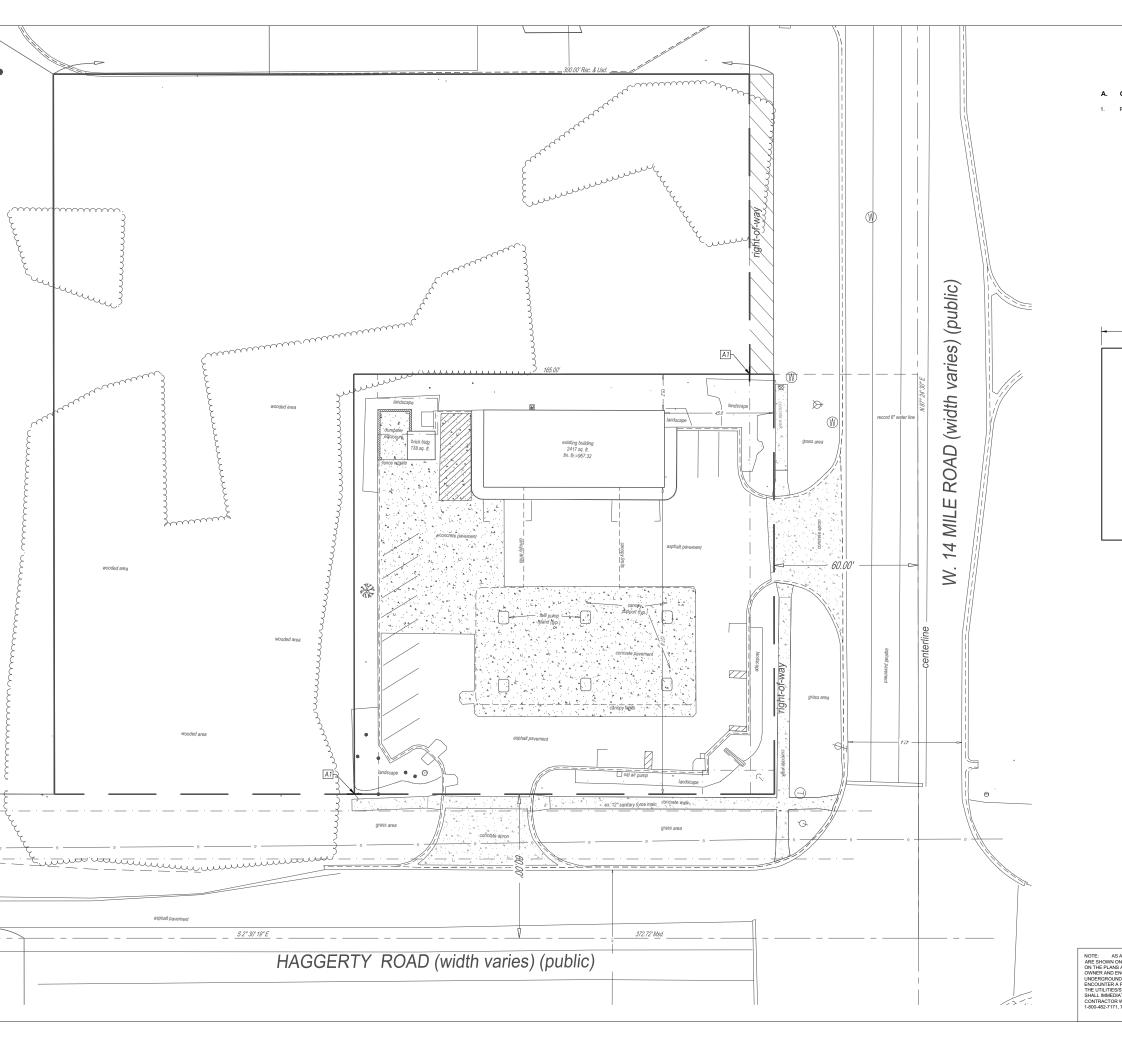
2224 - CU

STORE OR 0002224

Speedway

UTILITIES PLAN REBUILD
31275 HAGGERTY ROAD
OAKLAND COUNTY
NOVI, MI





A. GENERAL NOTES

1. RECONING SIGNS TO BE INSTALLED ON VACANT LOT

ZONING CHANGE PROPOSED FROM OFFICE SERVICE TECHNOLOGY (OST) AND GENERAL BUSINESS (B-3) TO GENERAL BUSINESS DISTRICT PLAN REZONING OVERLAY (B-3/PRO)

FOR MORE INFORMATION CALL: NOVI COMMUNITY DEVELOPMENT DEPARTMENT 248-347-0475

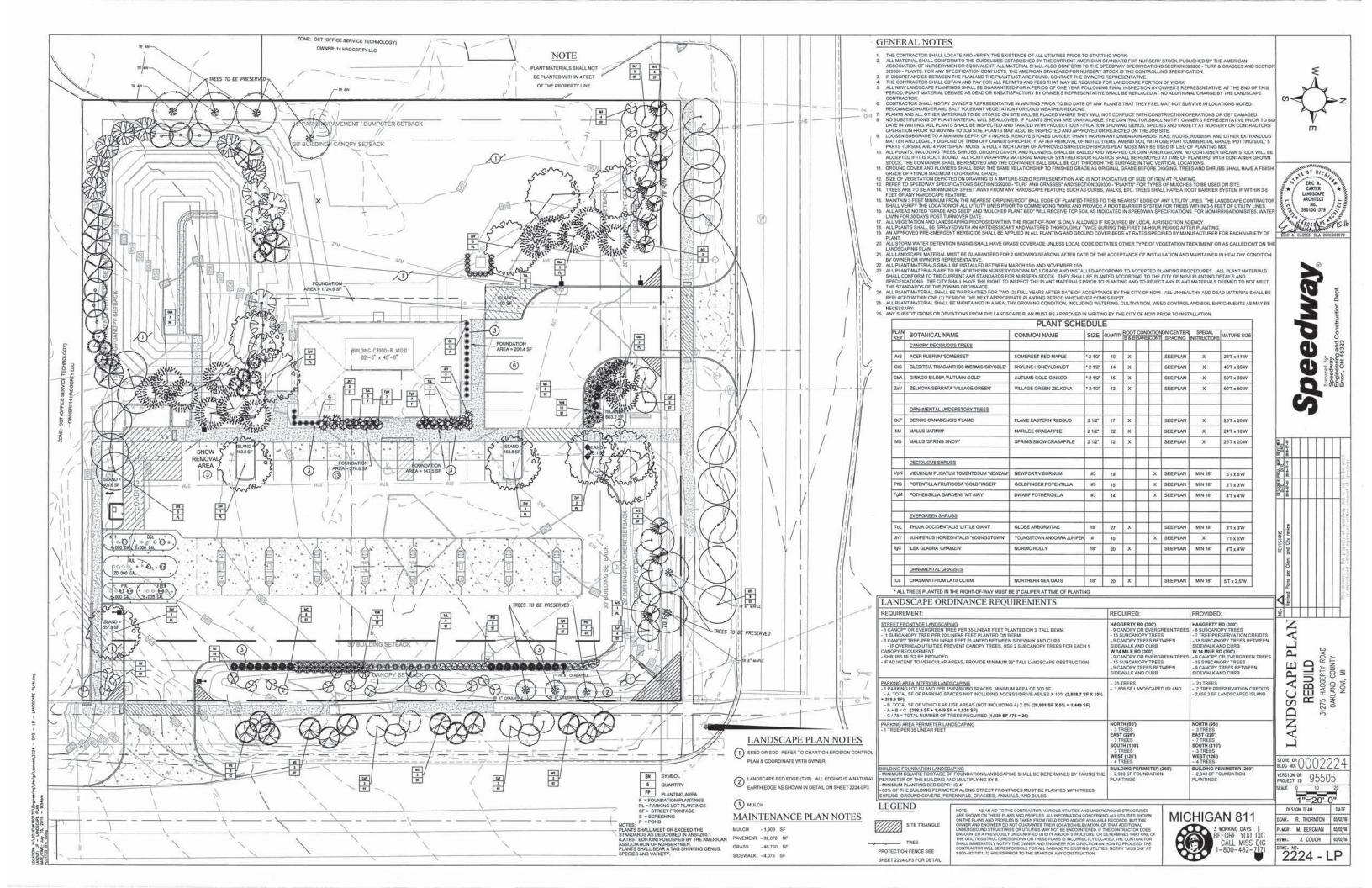
REZONING SIGN DETAIL

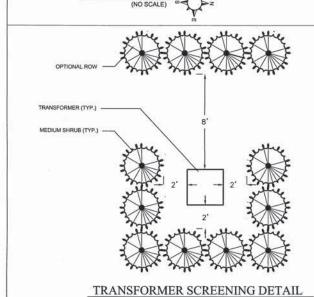
Speedway

REZONING SIGN PLAN REBUILD
1275 HAGGERTY ROAD
OAKLAND COUNTY
NOVI, MI

STORE OR 0002224 VERSION OR 95505

MICHIGAN 811





/120 120"

EXCEPT ON SLOPES
GREATER THAN 3:1 ORIENT
TO SLOPE. USE SAME STAKING/GL ORIENTATION FOR ALL PLANTS WITHIN EACH GROUPING OR AREA

Not to scale

STAKING/GUYING LOCATION



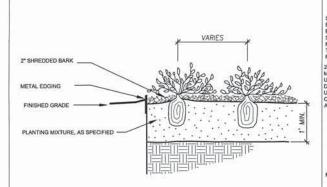
2*-3* WIDE BELT-LIKE NYLON STAKES AS SPECIFIED 3 PER TREE STAKING DETAIL

TREE STAKING DETAIL

PLANS PREPARED BY WEIHE ENGINEERS, INC. 10505 N. COLLEGE AVE.

INDIANAPOLIS, INDIANA 46280

TELEPHONE: (317) 846-6611 FAX: (317) 843-0546 CONTACT PERSON: ERIC CARTER, RLA EMAIL: CARTERE@WEIHE.NET



PERENNIAL PLANTING DETAIL Not to scale

SEED MIXTURES	RATE PER ACRE PURE LIVE SEED	OPTIMUM SOIL PH
1. PERENNIAL RYEGRASS - WHITE CLOVER	70 LBS. 2 LBS.	5.6 TO 7.0
2. PERENNIAL RYEGRASS - TALL FESCUE	70 LBS. 50 LBS.	5.6 TO 7.0
3. TALL FESCUE - WHITE CLOVER	70 LBS. 2 LBS.	551075

SEED MIXTURES	RATE PER ACRE PURE LIVE SEED	OPTIMUM SOIL PH
1. SMOOTH BROME GRASS - RED GLOVER	36 LBS. 20 LBS.	5.5 TO 7.0
2. TALL FESCUE - WHITE CLOVER	50 LBS. 2 LBS.	5.5 TO 7.5
3. TALL FESCUE - RED CLOVER	50 LBS. 20 LBS.	5.5 TO 7.5
4. ORCHARD GRASS - RED CLOVER - WHITE CLOVER	30 LBS. 20 LBS. 2 LBS.	5.6107.0
5. CROWNVETCH - TALL FERCUE	12 LBS. 30 LBS.	5.6 TO 7.0

LAWNS AND HIGH-MAINTENA	NCE AREAS	
SEED MIXTURES	RATE PER ACRE PURE LIVE SEED	OPTIMUM SOIL PI
1. BLUEGRASS	140 LBS.	5.5 TO 7.0
2. PERENNIAL RYEGRASS (TURF TYPE)	60 LBS. 90 LBS.	5.6 TO 7.0
3. TALL FESCUE (TURF TYPE) +BLUEGRASS	170 LBS. 30 LBS.	5.6 TO 7.5

NOTES

1. AN OAT OR WHEAT COMPANION OR NURSE CROP MAY BE USED WITH ANY OF THE ABOVE PERMANENT SEEDING MIXTURES, AT THE FOLLOWING RATES:
SEEDING MIXTURES, AT THE FOLLOWING RATES:
(6) WHEAT - NO MOBE THAN ONE-HALF BUSHEL PER ACRE
(7) WHEAT - NO MOBE THAN ONE-HALF BUSHEL PER ACRE
2. A HIGH POTENTIAL FOR FERTILIZER, SEED, AND MULCH TO WASH EXISTS ON STEEP BANKS, CUTS, AND IN CHANNELS AND AREAS OF CONCENTRATED

INSTALLATION

1. GRADE THE SITE TO ACHIEVE POSITIVE DRAINAGE.

2. ADD TOPSOIL OR COMPOST MULCH TO ACHIEVE NEEDED DEPTH FOR ESTABLISHMENT OF VEGETATION.
(COMPOST MATERIAL MAY BE ADDED TO IMPROVE SOIL MOISTURE HOLDING CAPACITY, SOIL FRABILITY,
AND NUTRIENT AVAILABILITY.)

SEEDBED PREPARATION

1. TEST SOIL TO DETERMINE PH AND NUTRIENT LEVELS.
2. APPLY SOIL AMENDMENTS AS RECOMMENDED BY THE SOIL TEST AND WORK INTO THE UPPER TWO TO FOUR INCHES OF SOIL. IF TESTING IS NOT DONE, APPLY 400 TO 600 POUNDS PER ACRE OF 12-12-12
ANALYSIS FERTILIZER, OR EQUIVALENT. AND ALTISS FER TIME SOIL TO OBTAIN A UNIFORM SEEDBED. USE A DISK OR RAKE, OPERATED ACROSS THE SLOPE, TO WORK THE SOIL AMENDMENTS INTO THE UPPER TWO TO FOUR INCHES OF THE SOIL,

SEEDING
OFTHAMS SEDING DATES ARE MARCH 1 TO MAY 10 AND AUGUST 10 TO SEPTEMBER 30 PERMANENT
SEEDING DONE BETWEEN MAY 10 AND AUGUST 10 MAY NEED TO BE IRRIGATED. SEEDING OUTSIDE OR
BEYONG OPTIMUM SEEDING DATES IS STILL POSSIBLE WITH THE UNDERSTANDING THAT RESEEDING OF
OVERSEEDING MAY BE REQUIRED IF ADEQUATE SURFACE COVER IS NOT ACHIEVED, RESEEDING OR EEDING CAN BE EASILY ACCOMPLISHED IF THE SOIL SURFACE REMAINS WELL PROTECTED WITH

MULCH.

1. SELECT A SEEDING MIXTURE AND RATE FROM TABLE 1, SELECT SEED MIXTURE BASED ON SITE CONDITIONS, SOIL PH, INTENDED LAND USE, AND EXPECTED LEVEL OF MAINTENANCE.

2. APPLY SEED UNIFORMLY WITH A DRILL OR CULTIPACKER SEEDER OR BY BROADCASTING, PLANT OR COVER THE SEED TO A DEPTH OF ONE-FOURTH TO ONE-HALF INCH. IF DRILLING OR BROADCASTING THE SEED, ENSURE GOOD SEED-TO-SOIL CONTACT BY FIRMING THE SEEDED WITH A ROLLER OR CULTIPACKER AFTER COMPLETING SEEDING OPERATIONS, IF SEEDING IS DONE WITH A PHYDROSEEDER, FERTILLIZER AND MULCH CAN BE APPLIED WITH THE SEED IN A SULRY MIXTURE.)

3. MULCH ALL SEEDED AREAS AND USE APPROPRIATE METHODS TO ANCHOR THE MULCH IN PLACE. CONSIDER USING EROSION CONTROL BLANKETS ON SLOPING AREAS AND CONVEYANCE CHANNELS

MAINTENANCE

1. INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS UNTIL THE VEGETATION IS SUCCESSFULLY ESTABLISHED.

2. CHARGE THE SECONDARY OF THE STABLISHED FROM THE VEGETATIVE COVER DENSITY OF 90 PERCENT OR BUILDINGS WITH A UNIFORM VEGETATIVE COVER DENSITY OF 90 PERCENT OR MORE.

SEEDLINGS WITH A UNIFORM VEGETATIVE COVER DENSITY OF 90 PERCENT OR MORE.

3. CHECK FOR EROSION OR MOVEMENT OF MULCH.

4. REPAIR DAMAGED, BARE, GULLIED, OR SPARSELY VEGETATED AREAS AND THEN FERTILIZE, RESEED,
AND APPLY AND ANCHOR MULCH.

5. IF PLANT COVER IS SPARSE OR PATCHY, EVALUATE THE PLANT MATERIALS CHOSEN, SOIL FERTILITY,
MOISTURE CONDITION, AND MULCH APPLICATION; REPAIR AFFECTED AREAS EITHER BY OVERSEEDING OR
PREPARING A NEW SEEDBED AND RESEEDING, APPLY AND ANCHOR MULCH ON THE NEWLY SEEDED
AREAS.
AREAS.
AREAS.

6. GROWN OF THE ORD CONTACT YOUR SOIL AND WATER CONSERVATION DISTRICT OR COOPERATIVE
EXTENSION OFFICE FOR ASSISTANCE.)

7. IF ADDITIONAL FERTILIZATION IS NEEDED TO GET A SATISFACTORY STAND, DO SO ACCORDING TO SOIL
TEST RECOMMENDATIONS.

FEST RECOMMENDATIONS.

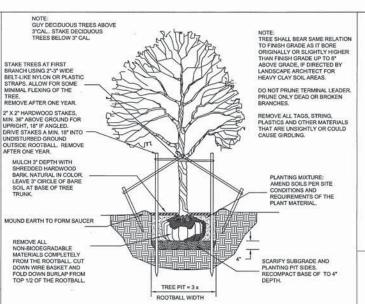
B. ADD FERTILIZER THE FOLLOWING GROWING SEASON. FERTILIZE ACCORDING TO SOIL TEST

RECOMMENDATIONS.

9. FERTILEZ TURF AREAS ANNUALLY, APPLY FERTILIZER IN A SPLIT APPLICATION. FOR COOL-SEASON GRASSES, APPLY ONE-HALF OF THE FERTILIZER IN LATE SPRING AND ONE HALFIN EARLY FALL FOR WARM-SEASON GRASSES, APPLY ONE-THIRD IN EARLY SPRING, ONE-THIRD IN LATE SPRING, AND THE REMAINING ONE-THIRD IN MIDDLE SUMMER.

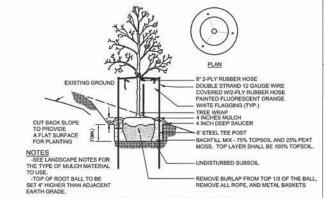
TABLE 1, PERMANENT SEEDING RECOMMENDATIONS
THIS TABLE PROVIDES SEVERAL SEED MIXTURE OPTIONS. ADDITIONAL SEED MIXTURES ARE AVAILABLE
COMMERCIALLY WHEN SELECTING A MIXTURE, CONSIDER INTENDED LAND USE AND SITE CONDITIONS,
INCLUDING SOIL PROPERTIES (E.G., SOIL PH AND DRAINAGE), SLOPE ASPECT, AND THE TOLERANCE OF
EACH SPECIES TO SHADE AND DROUGHT.

PERMANENT SEED



DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE



TREE PLANTING ON SLOPE

SEED SPECIES:		PER ACRE	PLANTING DEPTH
WHEAT OR RYE	150 LBS.	1 TO 1½ INCHES	SEPT. 15 - OCT. 30
SPRING OATS	100 LBS.	1 INCH	MARCH 1 - APRIL 15
ANNUAL RYEGRASS	40 LBS.	1/4 INCH	MARCH 1 - MAY 1 AUG. 1 - SEPT. 1
GERMAN MILLET	40 LBS.	1 TO 2 INCHES	MAY 1 - JUNE 1
SUDANGRASS	35 LBS.	1 TO 2 INCHES	MAY 1 - JULY 30
BUCKWHEAT	60 LBS.	1 TO 2 INCHES	APRIL 15 - JUNE 1
CORN (BROADCAST)	300 LBS.	1 TO 2 INCHES	MAY 11 - AUG. 10
SORGHUM	35 LBS.	1 TO 2 INCHES	MAY 1 - JULY 15

1 PERENNIAL SPECIES MAY BE USED AS A TEMPORARY COVER, ESPECIALLY IF THE AREA TO BE SEEDED WILL REMAIN IDLE FOR MORE THAN ONE YEAR.
2 SEEDING DONE OUTSIDE THE OPTIMUM SEEDING DATES INCREASES THE CHANCES OF SEEDING FAILURE.
DATES MAY BE EXTENDED OR SHORTENED BASED ON THE LOCATION OF THE PROJECT SITE WITHIN THE STATE.

NOTES

MULCH ALONE IS AN ACCEPTABLE TEMPORARY COVER AND MAY BE USED IN LIEU OF TEMPORARY SEEDING, PROVIDED THAT IT IS APPROPRIATELY ANCHORED. A HIGH POTENTIAL FOR FERTILIZER, SEED, AND MULCH TO WASH EXISTS ON STEEP BANKS, CUTS, AND IN CHANNELS AND AREAS OF CONCENTRATED FLOW.

SEEDBED PREPARATION

1. TEST SOIL TO DETERMINE PH AND NUTRIENT LEVELS.

2. APPLY SOIL AMENDMENTS AS RECOMMENDED BY THE SOIL TEST, IF TESTING IS NOT DONE, APPLY 400 TO 600 POUNDS PER ACRE OF 12-12-12 ANALYSIS FERTILIZER, OR EQUIVALENT.

3. WORK THE SOIL AMENDMENTS INTO THE UPPER TWO TO FOUR INCHES OF THE SOIL WITH A DISK OR RAKE OPERATED ACROSS THE SLOPE.

SEEDING

1. SELECT A SEED SPECIES OR AN APPROPRIATE SEED MIXTURE AND APPLICATION RATE FROM TABLE
2. APPLY SEED UNIFORMLY WITH A DRILL OR CULTIPACKER SEEDER OR BY BROADCASTING, PLANT OR COVER
SEED TO THE DEPTH SHOWN IN TABLE 1.

NOTES

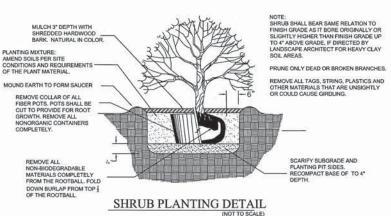
1. IF DRILLING OR BROADCASTING THE SEED, ENSURE GOOD SEED-TO-SOIL CONTACT BY FIRMING THE SEEDBED WITH A ROLLER OR CULTIPACKER AFTER COMPLETING SEEDING OPERATIONS.
2. DAILY SEEDING WHEN THE SOIL IS MOIST IS USUALLY MOST EFFECTIVE.
3. IF SEEDING IS DONE WITH A HYDROSEEDER, FERTILIZER AND MULCH CAN BE APPLIED WITH THE SEED IN A SILIPPY MINTING.

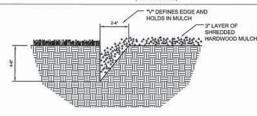
SLURRY MIXTURE.

3. APPLY MULCH AND ANCHOR IT IN PLACE.

MAINTENANCE
INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
CHECK FOR EROSION OR MOVEMENT OF MULCH AND REPAIR IMMEDIATELY.
MONITOR FOR EROSION DAMAGE AND ADEQUATE COVER (80 PERCENT DENSITY); RESEED, FERTILIZE, AND APPLY MULCH WHERE NECESSARY.
IF NITROGEN DEFICIENCY IS APPARENT, TOP-DRESS FALL SEEDED WHEAT OR RYE SEEDING WITH 50 POUNDS PER ACRE OF NITROGEN IN FEBRUARY OR MARCH.

TEMPORARY SEED





V-CUT LANDSCAPE BED EDGE DETAIL

IRRIGATION GENERAL NOTES

CONTRACTOR SHALL DESIGN, SUPPLY, AND INSTALL IRRIGATION SYSTEM FOR ALL SODDED AND PLANTER AREAS AS SHOWN THIS SHEET. DESIGN SHALL BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
 THE IRRIGATION SYSTEM SHALL CONFORM TO SPECIFIANT SPECHASTIONS SECTION 329400 - "PLANTING IRRIGATION", PROVIDE HYDRAULIC ANALYSIS OF CRITICAL FLOW RATE (GPM) AND STATIC PRESSURE REQUIRED FOR SYSTEM TO FUNCTION AS DESIGNED.

FUNCTION AS DESIGNED.

CONFIRM EXISTING WATER SOURCE AVAILABLE FLOW RATE (GPM), STATIC PRESSURE AT POINT OF CONNECTION AND SERVICE LINE SIZE AT POINT OF CONNECTION CONTRACTOR NOTE: NOTIFY SPEEDWAY IF WATER SOURCE DOES NOT COMPLY WITH HYDRAULC AMALYSIS REQUIREMENTS.

LOCATE AND IDENTIFY TYPE / SIZE OF DEDICATED WATER METER AND BACKFLOW PREVENTER ON PLANS.

DESIGN SEPRARATE ZONES FOR TURP AND INXED LANDROSCAPE (TREES, SKRUBS, PERENNIALS OR GROUNDCOVER).

SHRUBS, GROUNDCOVER AND TREES SHOULD BE IRRIGATED WITH DRIP IRRIGATION.

PROVIDE DRIP PLANT IRRIGATION, WITH A FLOW METER, FOR LANDSCAPED AREAS WHERE TYPICAL SPRAY IRRIGATION LINES CANNOT BE UTILIZED.

TURF SHALL BE IRRIGATED WITH 6 INCH POP-UP SPRINKLERS.

LIST OF SPRINKLER NOZZLES THAT ARE ACCEPTABLE TO SPEEDWAY: HUNTER MPROTATOR, RAIN BIRD HE-VAN SPRAY NOZZLE, AND TORD PRECISION SPRAY NOZZLE.

AND TORD THE CONTROL SHEET OR MANUFACTURERS SPECIFICATIONS FOR CONTROLLER, VALVES, DRIPLINE, HEADS, AND PIPES.

MINIMUM 2 YEAR MANUFACTURER WARRANTEE ON IRRIGATION PRODUCTS.
 CONTROLLER TYPE, SIZE AND LOCATION SHALL BE IDENTIFIED ON PLANS ALONG WITH POWER REQUIREMENTS AND

14. LOCATE ALL SLEEVING ON PLANS FOR HARD SURFACE CROSSINGS, SLEEVES SHOULD BE CALLED OUT 2 TIMES PIPE

PLAN.

16. SHOW ALL CONTROL VALVES, PRESSURE REDUCERS, QUICK COUPLERS AND IRRIGATION HEADS.

17. PROVIDE R-LOW SENSOR ON EACH SYSTEM THAT WILL SHUT DOWN A ZONE OR MAINLINE IF A LEAK IS DETECTED.

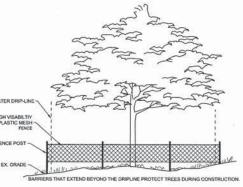
18. PROVIDE SENSOR TO ME

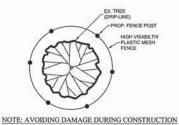
REQUIREMENTS.

19. PROVIDE A DETAIL AND OR NOTES THAT DEFINE PIPE DEPTHS, MAINLINE, LATERALS AND SLEEVES AND PIPE LOCATION RELATIVE TO CURBS AND HARDSCAPES.

NO IRRIGATION HEADS, VALVES OR LINES TO BE WITHIN 36 INCHES FROM BACK OF CURB TO PROTECT SYSTEM FROM VEHICULAR DAMAGE. PUT THE IRRIGATION HEADS, VALVES OR LINES AT THE BACK OF HARROW LANDSCAPED AREAS. CONTRACTOR TO ADJUST SPRINKLER HEADS TO ACCOMMODATE 38 INCH (MIM.) STRIP OF GRASS BETTHE THE CONTRACTOR TO ADJUST SPRINKLER HEADS TO ACCOMMODATE 38 INCH (MIM.) STRIP OF GRASS BETTHE THE CONTRACTOR TO ADJUST SPRINKLER HEADS TO ACCOMMODATE 38 INCH (MIM.) STRIP OF GRASS BETTHE DEFORM THE CONTRACTOR AND ADJUST OF THE WILL BE UTILIZED FOR IRRIGATION LINES GOING MOIDER APPERIANT IS ETWEEN PLANTING BEEN.

22. PREVENT EXCESSIVE WATER SPRAY OVER SIDEWALKS OR DRIVES.





THE SUREST WAY TO PROTECT TREES THAT ARE TO BE SAVED IS TO:

. WORK WITH THE BUILDER TO LOCATE AND MARK WITH HAGGING ANDIOR
TO STORM THE THE BUILDER TO LOCATE AND MARK WITH HAGGING AND AND
AREAS FOR STORMED OF BUILDING MATERIAS, GRAVET, AND SOIL.

2. WORK WITH THE UTILITY CONTRACTORS TO STACE OUT THE EXACT
LOCATION OF TRENDARS.

3. ERECT PHYSICAL BARRIERS AROUND ALL "SAVED TREES OR, BETTER YET,
AROUND GROUPS OF TREES, NEAR THE CONSTRUCTION ACTIVITY.

TREE PRESERVATION DETAIL

(NO SCALE)

MICHIGAN 811 3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171

DESIGN TEAM

2224 - LP3

REBUILD

275 HAGGERTY ROAD

MOVI, MI LANDSCAPE

OF WICH

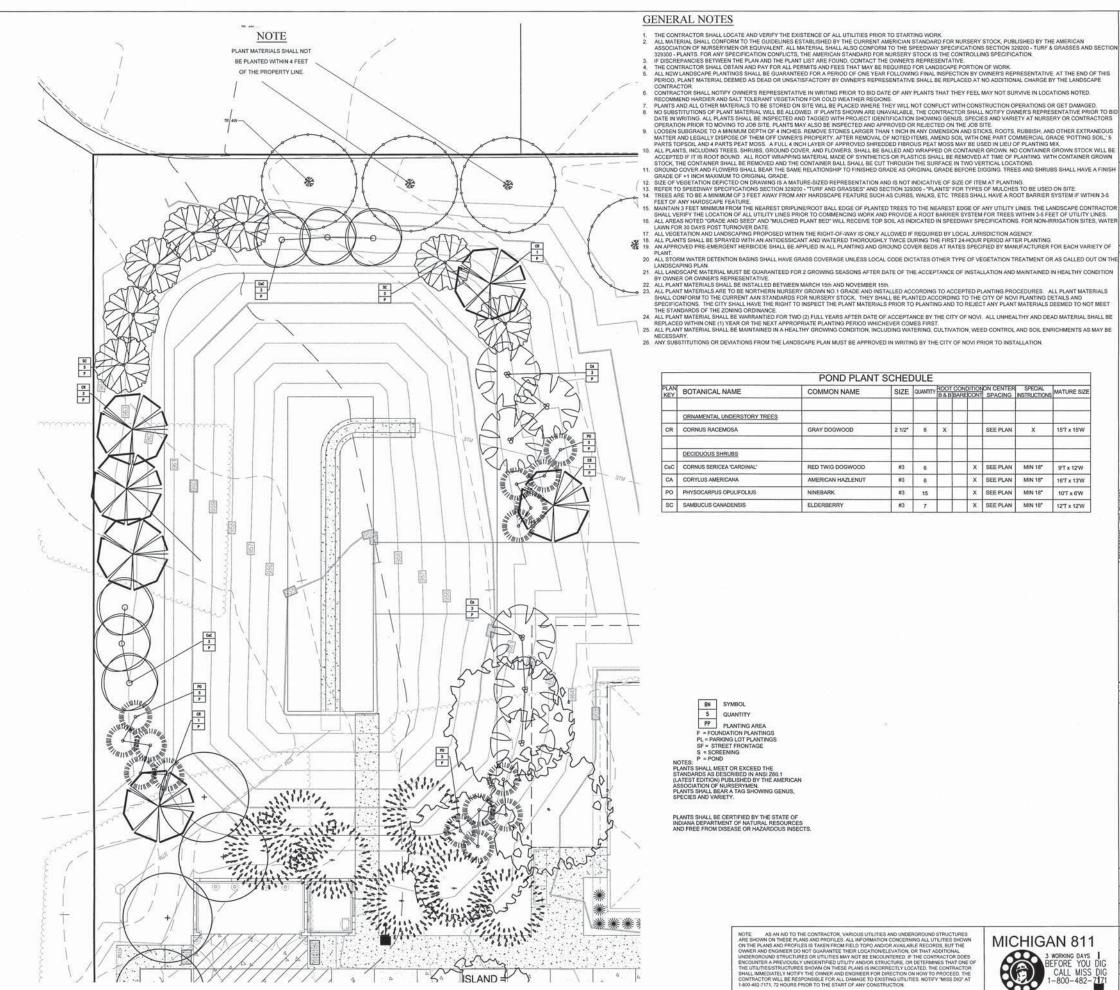
ERIC A. CARTER LANDSCAPE ARCHITECT No.

Speedway

STORE OR 0002224 VERSION OR 95505

1"=20'-0" DGNR. R. THORNTON 03/02/16

P. MGR. M. RERGMAN 03/02/16 RVWR. J. COUCH 03/02/16





THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO STARTING WORK.

ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE CURRENT AMERICIAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN OR EQUIVALENT. ALL MATERIAL SHALL ALSO CONFORM TO THE SPEEDWAY SPECIFICATIONS SECTION 329200 - TURF 8 GRASSES AND SECTION 329200 - PLANTS. FOR ANY SPECIFICATION CONFLICTS, THE AMERICAN STANDARD FOR NURSERY STOCK IS THE CONTROLLING SPECIFICATION.

IF DISCREPANCIES BETWEEN THE PLAN AND THE PLANT LIST ARE FOUND, CONTACT THE OWNERS REPRESTATIVE.

THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND FEES THAT MAY BE REQUIRED FOR LANGSCAPE PORTION OF WORK.

ALL NEW LANDSCAPE PLANTINGS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FOLLOWING FINAL INSPECTION BY OWNERS REPRESENTATIVE. AT THE END OF THIS PERIOD, PLANT MATERIAL DEEMED AS DEAD OR UNSATISFACTORY BY OWNERS REPRESENTATIVE SHALL BE REPLACED AT NO ADDITIONAL CHARGE BY THE LANDSCAPE

PLANT.
20 ALL STORM WATER DETENTION BASINS SHALL HAVE GRASS COVERAGE UNLESS LOCAL CODE DICTATES OTHER TYPE OF VEGETATION TREATMENT OR AS CALLED OUT ON THI

20 ALL STORM WATER DETENTION BASINS SHALL HAVE GRASS COVERAGE UNLESS LOCAL CODE DICTATES OTHER TYPE OF VEGETATION TREATMENT OR AS CALLED OUT ON THE LANDSCAPING PLAN.
21. ALL LANDSCAPE MATERIAL MUST BE GUARANTEED FOR 2 GROWING SEASONS AFTER DATE OF THE ACCEPTANCE OF INSTALLATION AND MAINTAINED IN HEALTHY CONDITION BY OWNERS REPRESENTATIVE.
22. ALL PLANT MATERIALS SHALL BE INSTALLED BETWEEN MARCH 15th AND NOVEMBER 15th.
23. ALL PLANT MATERIALS ARE TO BE NOTHERN NURSERY GROWN NO.1 GRADE AND INSTALLED ACCORDING TO ACCEPTED PLANTING PROCEDURES. ALL PLANT MATERIALS SHALL DEPENDED FOR THE CHIT OF NOVEMBER 15th.
25. ALL PLANT MATERIALS ARE TO BE NOTHERN NURSERY GROWN NO.1 GRADE AND INSTALLED ACCORDING TO THE CHIT OF NOVEMBER 15th.
26. ALL PLANT MATERIALS ARE TO BE NOTHERN THE RIGHT TO INSPECT THE PLANT MATERIALS. PRION TO PLANTING AND TO REJECT ANY PLANT MATERIALS BENEFOR TO PLANTING AND TO REJECT ANY PLANT MATERIALS DESCRIPTION.
26. ALL PLANT MATERIAL, SHALL BE WARRANTIED FOR TWO (2) FULL YEARS AFTER DATE OF ACCEPTANCE BY THE CITY OF NOVI. ALL UNHEALTHY AND DEAD MATERIAL SHALL BE REPLACED WITHIN ONE (1) YEAR OR THE NEXT APPROPRIATE PLANTING PERIOD WICH CHEVEY COMES FIRST.
26. ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION, INCLUDING WATERING, CULTIVATION, WEED CONTROL AND SOIL ERRICHMENTS AS MAY BE NECESSARY.

NECESSARY.
26. ANY SUBSTITUTIONS OR DEVIATIONS FROM THE LANDSCAPE PLAN MUST BE APPROVED IN WRITING BY THE CITY OF NOVI PRIOR TO INSTALLATION.

		POND PLANT	SCHE	DULE					
KEY	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	ROOT B&B	CONDITION	ON CENTER SPACING	SPECIAL INSTRUCTIONS	MATURE SIZE
	ORNAMENTAL UNDERSTORY TREES				H				
CR	CORNUS RACEMOSA	GRAY DOGWOOD	2 1/2*	6	х		SEE PLAN	x	15'T x 15'W
-	DECIDUOUS SHRUBS		+		H				
CsC	CORNUS SERICEA 'CARDINAL'	RED TWIG DOGWOOD	#3	6		×	SEE PLAN	MIN 18*	9T x 12W
CA	CORYLUS AMERICANA	AMERICAN HAZLENUT	#3	6		×	SEE PLAN	MIN 18*	16'T x 13'W
РО	PHYSOCARPUS OPULIFOLIUS	NINEBARK	#3	15		×	SEE PLAN	MIN 18*	10T x 6W
SC	SAMBUCUS CANADENSIS	ELDERBERRY	#3	7		×	SEE PLAN	MIN 18*	12'T x 12'W

BN SYMBOL

5 QUANTITY
PP PLANTING AREA
F = FOUNDATION PLANTING
PL = PARKING LOT PLANTIN
SF = STREET FRONTAGE S = SCREENING P = POND

NOTES: P = POND
PLANTS SHALL MEET OR EXCEED THE
STANDARDS AS DESCRIBED IN ANSI Z80.1
(LATEST EDITION) PUBLISHED BY THE AMERICAN
ASSOCIATION OF NURSERYMEN.
PLANTS SHALL BEAR A TAG SHOWING GENUS,
DECRIEE AM VARIETY.

NOTE: AS AN AID TO THE CONTRACTOR, VARIOUS UTILITIES AND UNDERGROUND STRUCTURES ARE SHOWN ON THESE PLANS AND PROFILES. ALL INFORMATION CONCERNING ALL UTILITIES SHOWN ON THE PLANS AND PROFILES IS TAKEN PROWN FILED TOPO ANDOR AVAILABLE RECORDS, BUTTHE OWNER AND ENGINEER OO NOT GUARANTEE THEIR LOCATIONELEVATION, OR THAT ADDITIONAL UNDERGROUND STRUCTURES OF UTILITIES MAY NOT BE ENCOUNTERED IF THE CONTRACTOR OSE ENCOUNTER A PREVIOUSLY UNDESTRICTURE AND STRUCTURES OF DETERMINES THAT ONE CENTRACTOR OF THE UTILITIES MAY NOT STRUCTURE, OF DETERMINES THAT ONE CENTRACTOR OF THE UTILITIES STRUCTURES STRUCTURES SHOWN ON THESE PLANS IS INCORRECTLY LOCATED. THE CONTRACTOR







Speedw

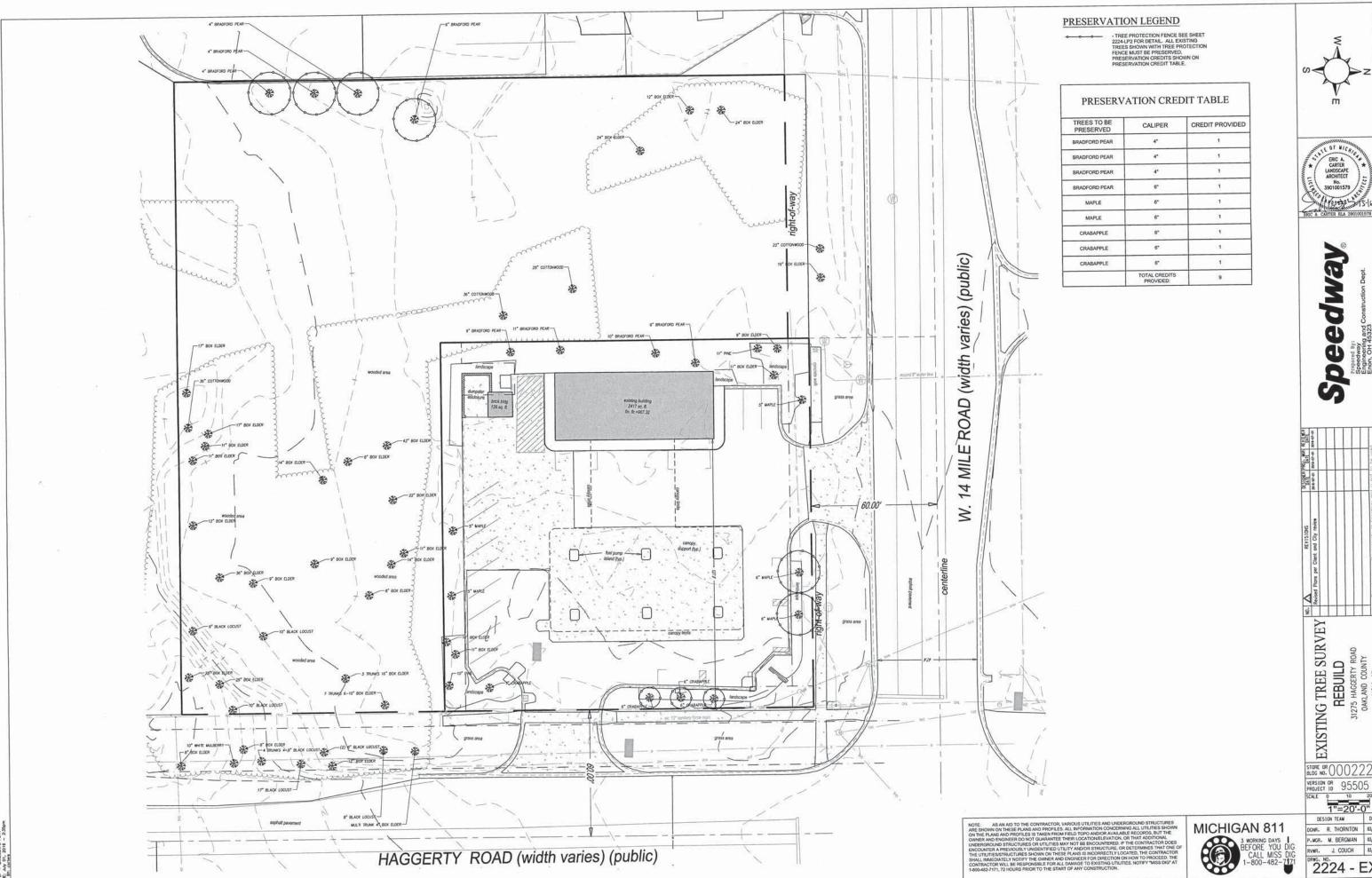
PLAN

PLANTING PI REBUILD 31275 HAGGERTY ROAD OAKLAND COUNTY NOW, MI

POND VERSION OR 95505

DESIGN TEAM

DGNR. R. THORNTON 03/02/16 P.MGR. M. BERGMAN 03/02/16 RYWR. J. COUCH 03/02/16 DRWG. NO. 2224 - LP2







Speedway

	NO.	REVISIONS	DESIGNER	PROJECT	NE DA
TYLL X		Revised Plans per Client and City review	2016-07-01	2016-07-01	2010-0
VEY					
					l car
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EXISTING TREE SURV

REBUILD

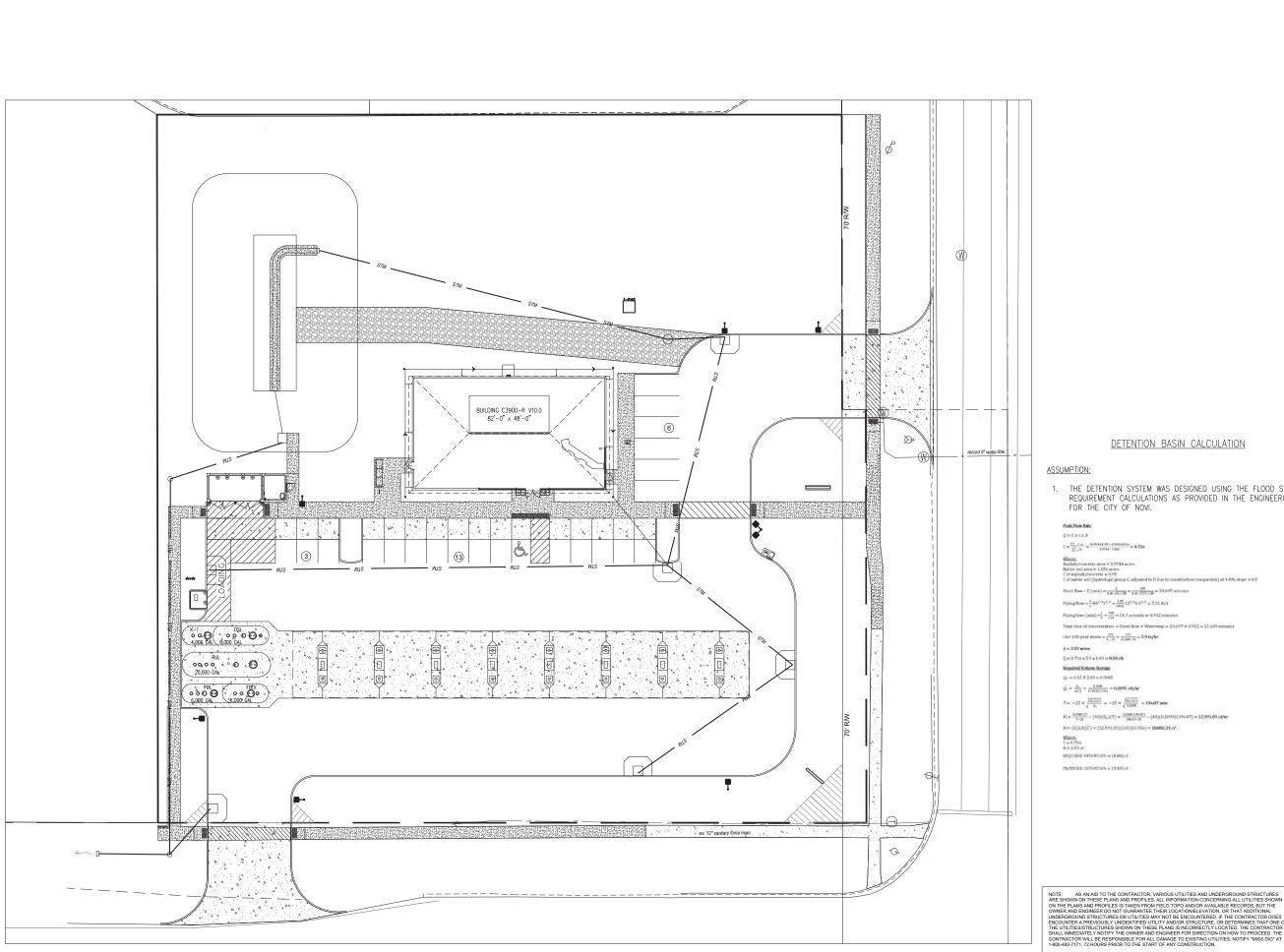
31275 HAGGERTY ROAD

OAKLAND COUNTY

NOW, MI

STORE OR OOO2224
VERSION OR PROJECT ID 95505

P.MGR. M. BERGMAN 03/02/16
RVWR. J. COUCH 03/02/16 2224 - EX





Speedway

DETENTION BASIN CALCULATION

ASSUMPTION:

 THE DETENTION SYSTEM WAS DESIGNED USING THE FLOOD STORAGE VOLUME REQUIREMENT CALCULATIONS AS PROVIDED IN THE ENGINEERING DESIGN MANUAL FOR THE CITY OF NOVI.

 $\zeta = \frac{\sum_{i=1}^{n} \ell_{i} a_{i}}{\sum_{i=1}^{n} a_{i}} = \frac{m.9944 \times 960 - (1.866 \times 95)}{0.5744 + 1.986} = 0.716$

Sheet flow – $T_{x}(\min) = \frac{U}{0.00 \sqrt{50 \times 100}} = \frac{100}{0.00 \sqrt{3.51 \times 100}} = 20.697 \text{ minutes}$ Piping flow = $\frac{1}{\pi}Rh^{2/3}S^{1/2} = \frac{149}{0012}12^{2/3}0.5^{1/2} = 7.31 \text{ ft/s}$

i for 100-year storm = $\frac{275}{7_1+25} = \frac{275}{21\cdot609+25} = 5.9$ in/hr

A = 2.03 acres $Q = 0.716 \times 5.9 \times 2.03 = 8.58 \text{ cfs}$

Required Volume Storage

 $Q_{\rm c} = \frac{q_{\rm c}}{4(0)} = \frac{0.006}{(2.00)(0.756)} = 0.2095 \text{ cfs/ac}$

 $T = -25 + \sqrt{\frac{18,342.5}{Q_s}} = -25 + \sqrt{\frac{18,342.5}{0.2095}} = 196.87 \text{ min}$

 $V_{\rm s} = \frac{16.500\,(T)}{T+25} - (40)(Q_{\rm o})(T) = \frac{16.500\,(196.87)}{196.87 \times 25} - (40)(0.2095)(196.87) = 12,991.03\,ct/sc$ $V_{i}=(V_{i})(A)(C)=(12.991.03)(2.03)(0.716)=18882.21 ef$

REQUIRED DETENTION = 18,882 cf

Ö.	REVISIONS	DESIGNER	DESIGNER PROJ. MGR. DATE DATE	REVIEWE DATE
-	REVISED PER CITY COMMENTS RECEIVED 05/13/16	R.THORNTON 05/25/16		J.COUCH 05/25/1
2.	REVISED PER CITY COMMENTS RECEIVED 07/06/16	R.THORNTON 07/15/16		J.COUCH 07/15/1
	This drawing is the property of Speedway and is not to be used or reproduced without expressed written consent of Speedway.	d is not t	o be use	-0

STORM WATER
MANAGEMENT PLAN
REBUILD
31275 HAGGERTY ROAD
OAKLAND COUNTY
NOVI, MI

STORE OR BLDG NO. 0002224 VERSION OR 95505

ALE 0 10 20 1"=20'-0" DESIGN TEAM DATE

DCNR. R. THORNTON 04/15/16 P.MGR. J. COUCH 04/15/16

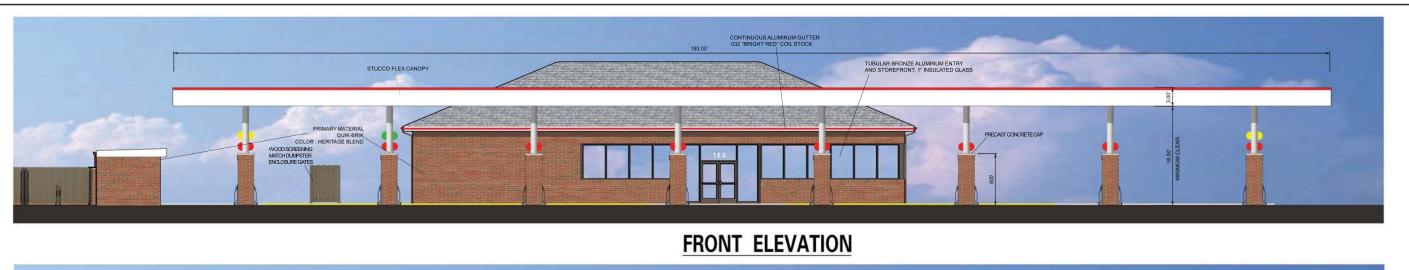
RVWR. B. BAIRD 04/15/16

DRWG. NO.

2224 - SWMP

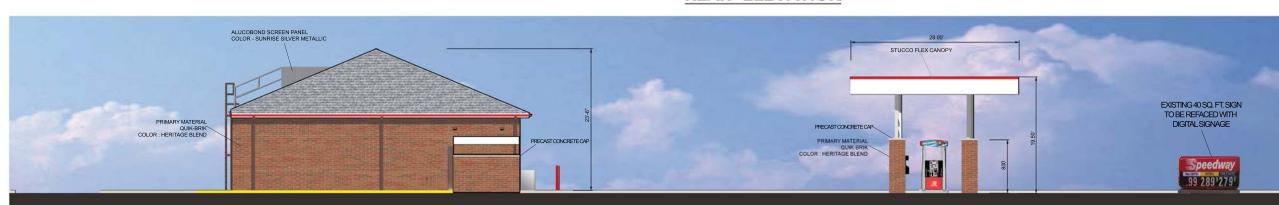
MICHIGAN 811

3 WORKING DAYS I
BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171





MAIN SERVICE / DOWN SPOUTS , LADDER, AND GAS LINES - COLOR - BRONZE **REAR ELEVATION**



LEFT ELEVATION



RIGHT ELEVATION

Speedway

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Square Footage

Rear Elevation

Glass Store F

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Brick

Egress door Total

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Square Footage

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Square Footage

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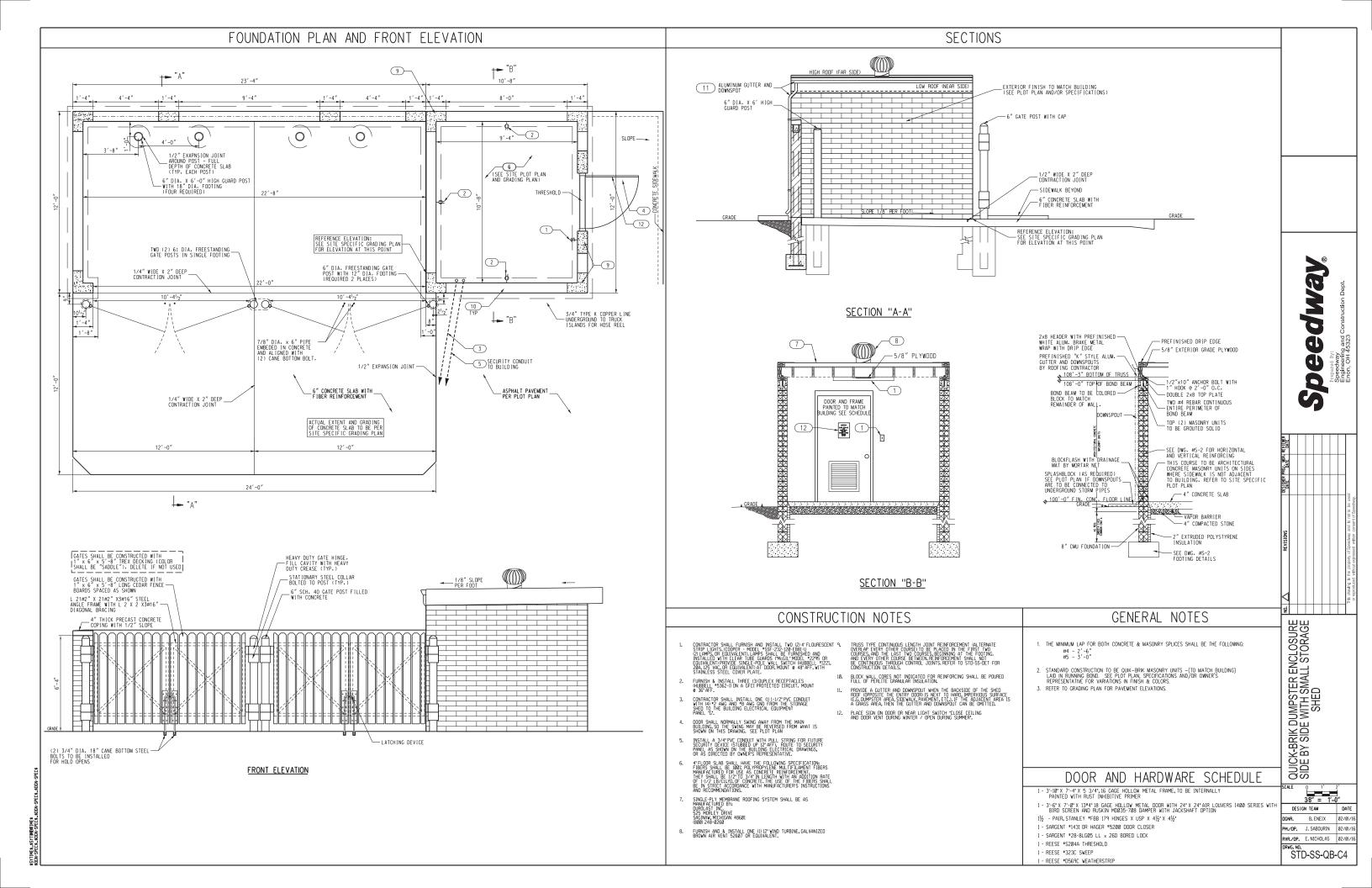
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BUILDING ELEVATIONS REBUILD

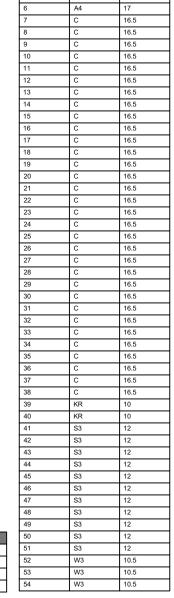
STORE OR 2224 ERSION OR 95505 18" = 1'-0" DESIGN TEAM 2224-ELE



LABEL

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MTG. HT.



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- ALL AREA LIGHTS ON 15 FT. POLE MOUNTED ON 2 FT. CONCRETE BASE

FOOTCANDLE LEVELS CALCULATED AT GRADE USING INITIAL LUMEN VALUES								
LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN			
PAVED AREA	5.05	29.7	0.7	7.21	42.43			
UNDEFINED	0.85	8.4	0.0	N.A.	N.A.			
UNDER CANOPY	47.47	60	24	1.98	2.50			

		UNDER CA	NOPY			47.47	60	24	1.98	2.50		54	W3	10.5
							_							
ARRANGEMENT	LUMENS	LLF	ARR. WATTS	TOTAL WATTS	MANUFACTURER [DESC	SCRIPTION					
SINGLE	14251	1.040	139	834	Cree Inc		BXSP	BXSPCHT4MEF57K-ULBZ						
SINGLE	13251	1.040	134	4288	CREE, INC.		CAN-	CAN-304-SL-RS-06-E-UL-WH-700-57K						
SINGLE	2483	1.040	37.4	74.8	Cree	Inc				RLA-ł	(R6-	-30L-40K-120V-10	V	
SINGLE	2960	1.040	37	407	Cree	Inc.				SFT-2	228-	5M-RM-03-D-UL-\	WH-350-IC	
SINGLE	4031	1.040	42.96	128.88	Cree Inc			XSPV	PWA03MC-UZ					

REV.	BY	DATE
R1	FNE	6/23/16

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DESCRIPTION
REVISED PER NEW SITE PLAN.

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BUILDING C3900-R V10

HAGGERTY, ROAD (width varies) (public)

82'-0" x 48'-0"

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SCALE: LAYOUT BY:

1" = 20' FNE

DWG SIZE: DATE:

DUTBY: SPEEDWAY #2224
NOVI, MI
DRAWNO NUMBER:
RL-3637-S1-R1

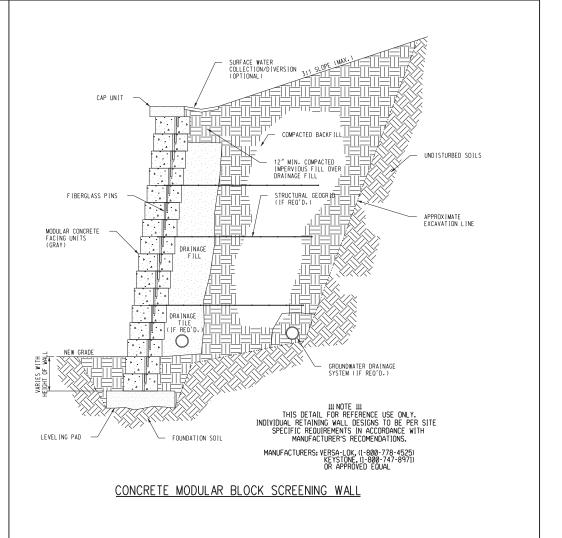
rla
PAGE 1 OF 5

STANDARD CONCRETE MASONRY UNIT (CMU) RETAINING WALL SECTION

ALTERNATE: AN UNDERDRAIN SYSTEM SHALL BE USED INSTEAD OF THE PIPE DRAINS WHEN SPECIFIED. THE UNDERDRAIN SHALL BE 4'PERFORATED AND FILTERED P.V.C. PIPE. THE PIPE SHALL BE LOCATED ON TOP OF THE BASE BEHIND THE WALL AS SHOWN, OR AS OTHERWISE SPECIFIED. THE PIPE SHALL OUTLET TO THE STORM DRAINAGE AS INDICATED ON THE PLOT PLAN. THE 1"STONE SHALL CONTINUE TO THE BOTTOM OF THE 4"PIPE.

REINFORCEMENT DETAILS								
А	В	С	D	E	VERTICAL REINFORCEMENT - "Y"	TOP FOOTING REINFORCEMENT - "Z"		
3'-4"	12"	2'-8"	9,	4"	NO. 4 @ 32" O.C.	NO. 4 @ 27" O.C.		
4'-0"	12"	3'-0"	9"	6'	NO. 4 @ 32" O.C.	NO. 4 @ 27" O.C.		
4'-8"	12"	3'-3"	10"	6,	NO. 4 @ 32° O.C.	NO. 4 @ 27" O.C.		
5'-4"	14"	3'-8"	10"	10"	NO. 4 @ 24' O.C.	NO. 4 @ 25" O.C.		
6'-0"	15"	4'-2"	12"	10"	NO. 4 @ 16" O.C.	NO. 4 @ 30° O.C.		
6'-8"	16"	4'-6"	12"	12"	NO. 6 @ 24" O.C.	NO. 4 @ 17" O.C.		
7'-4"	18"	4'-10"	12"	16'	NO. 7 @ 32" O.C.	NO. 5 @ 26" O.C.		
8'-0"	20"	5'-4"	12"	16'	NO. 7 @ 24' O.C.	NO.5 @ 20" O.C.		

IF THE NOTES SHOWN ON THESE DRAWINGS CONFLICT WITH SPEEDWAY LLC STANDARDS SPECIFICATIONS, THEN THE NOTES ON THE DRAWINGS TAKE PRECEDENCE. PROJECT MOR. SHALL BE NOTIFIED.



NOTES AND DETAILS

WALL PREFERENCE:

ATTEMPT TO GRADE SITE SO THAT NO RETAINING WALL IS REQUIRED

GENERAL GUIDELINE TO FOLLOW (SEE MANUFACTURER'S DRAWINGS FOR SITE SPECIFIC DESIGN):
WALL HEIGHT 0'-6' - USE MODULAR RETAINING WALL SYSTEM (KEYSTONE BLOCK OR EQUIVALENT DESIGN)
WALL HEIGHT 6' AND HIGHER - USE MODULAR BLOCK RETAINING WALL (REDI-ROCK OR EQUIVALENT DESIGN)
OR
OR

- CAST-IN-PLACE RETAINING WALL

OTHER DESIGN CONSIDERATIONS:

OF INSTALLATION

- POURED IN-PLACE CONCRETE - ON SITE CONTRACTORS HOWEVER WILL REQUIRE SIGNIFICANT PREP TIME

- MODULAR BLOCK WALL - OUICK PROCESS ONCE BASE LAYER IS COMPLETE HOWEVER GEOGRIDS AND OTHER

AMENITIES (POLES, GUIDE RAIL POSTS, ETC.) MAY BE NECESSARY

SURROUNDING CONDITIONS
IS WALL COMPLETELY VERTICAL OR DOES WALL SKEWED BACK AT AN ANGLE
- NEARBY PROPERTY LINES AND EXISTING STRUCTURES WILL AFFECT WALL SLOPE AND SHOULD BE CONSIDERED IN DESIGN

A VEHICULAR GUARD RAIL OR PEDESTRIAN HAND RAIL SHALL BE ADDED TO THE PLAN WHEN A 24" MINIMUM DROP RETAINING WALL IS USED IN PROXIMITY TO FREQUENTLY TRAVELED AREAS. ANY DROP OVER 10' SHALL REQUIRE SPECIAL CONSIDERATION AND CONSULT WITH A PE FOR APPROPRIATE DESIGN.

-WHEN DIRECTION OF TRAFFIC IS PARALLEL TO RETAINING WALL: ADD GUARD RAIL WHEN DROP IS GREATER THAN 24"

-WHEN DIRECTION OF TRAFFIC IS PERPENDICULAR TO RETAINING WALL WITH ADJACENT SIDEWALK BETWEEN PAVEMENT AND RETAINING WALL:

ADD A NON-IMPACT PEDESTRIAN HAND RAIL ON TOP OF THE RETAINING WALL WHEN DROP IS GREATER THAN 2' AND LESS THAN 10'

-WHEN DIRECTION OF TRAFFIC IS PERPENDICULAR TO RETAINING WALL WITH ONLY GRASSED AREA BETWEEN PAVEMENT AND RETAINING WALL:

ADD GUARD RAIL IN YARD AREA PAST THE CURB THEN ADD A HAND RAIL ON TOP OF THE RETAINING WALL OR LANDSCAPING FEATURE AS A VISUAL DETERRENT WHEN DROP IS GREATER THAN 2' AND LESS THAN 10'

MASONRY:

MASONRY WORK SHALL CONFORM TO ALL REQUIREMENTS OF THE CURRENT ACI/ASCE 530 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES", WITH THE FOLLOWING SUPPLEMENTAL REQUIREMENTS:

- A. MINIMUM 28-DAY COMPRESSIVE STRENGTH OF THE MASONRY (f'm) SHALL BE 1,500 PSI.
- B. HOLLOW CONCRETE MASONRY UNITS SHALL BE GRADE N. TYPE I. NORMAL WEIGHT. IN ACCORDANCE WITH ASTM C90. MINIMUM 28-DAY COMPRESSIVE STRENGTH OF UNITS SHALL BE 2.000 PSI BASED ON THE NET AREA.
- C. MORTAR FOR EXTERIOR CONCRETE MASONRY SHALL BE TYPE S. IN ACCORDANCE WITH ASTM C270.
- D. MORTAR FOR INTERIOR MASONRY SHALL BE TYPE N IN ACCORDANCE WITH ASTM C270.
- E. MORTAR FOR SETTING BED AND GROUT SHALL BE TYPE M IN ACCORDANCE WITH ASTM C270.
- F. REINFORCING STEEL SHALL BE DEFORMED AND CONFORM TO ASTM A615, A616, OR A617, GRADE 60, WITH A MINIMUM YIELD STRESS (fy) OF 60,000 PSI. REINFORCING SHALL BE HELD IN POSITION AT INTERVALS NOT TO EXCEED 192 BAR DIAMETERS.
- G. WIRE REINFORCING SHALL CONFORM TO ASTM A82. STANDARD TRUSS-TYPE DUR-D-WAL REINFORCING (OR APPROVED EQUAL). SEE GENERAL NOTES FOR PLACEMENT.

CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF THE CURRENT ACT 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", WITH THE FOLLOWING SUPPLEMENTAL REQUIREMENTS:

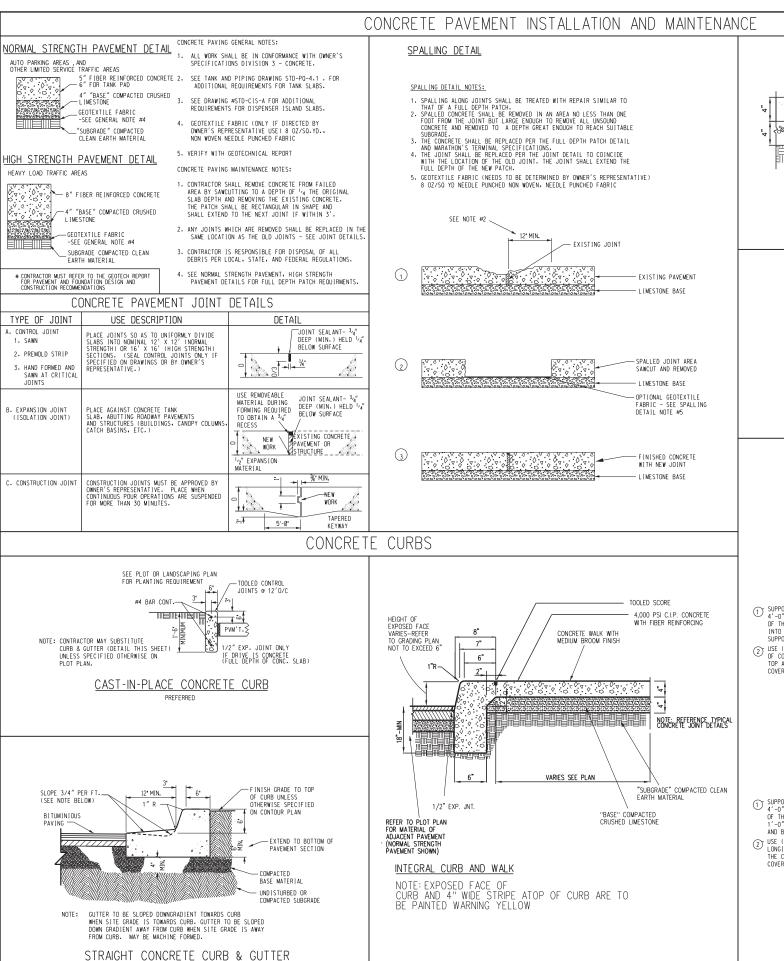
- A. ALL CONCRETE SHALL BE NORMAL WEIGHT, WITH AGGREGATES CONFORMING TO ASTM C33.
- B. CONCRETE SHALL DEVELOP THE FOLLOWING 28-DAY COMPRESSIVE STRENGTH (f'c = 4,000 PSI.): FLOOR SLABS - 4,000 PSI FOUNDATIONS - 4,000 PSI
- C. REINFORCING STEEL SHALL BE DEFORMED AND CONFORM TO AG15, AG16, OR AG17, GRADE 60, WITH A MINIMUM YIELD STRESS (f_g) OF 60.000 PSI.
- D. CONCRETE COVER ON REINFORCING STEEL SHALL BE 3" UNLESS OTHERWISE NOTED.

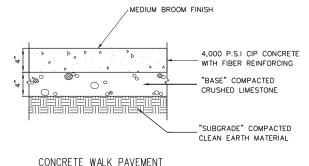


WORKSHEET
D EARTH (MSE) WALLS RETAINING

> 1/4" = 1'-0" DESIGN TEAM NR. F. NICHOLAS 82/81/16 J. FRYE B. BAIRD 02/01/16 STD-SRW-1

реедиау

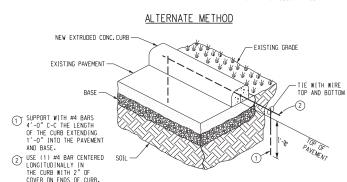




__CONCRETE CURB SHOULDER PAVED AREA -FXISTING 4:1 MAX FOR MOWARIE SINDE. LOW MAINTENANCE GROUND COVER FOR SLOPES GREATER THAN 4:1. SEE PLOT OR LANDSCAPING PLAN FOR PLANTING REQUIREMENT

PAVEMENT BERM

PREFERRED METHOD - EXISTING GRADE NEW EXTRUDED CONC. CURB EXISTING PAVEMENT BASE -SUPPORT WITH #4 BARS OF THE CURB EXTENDING INTO THE SOIL ENOUGH TO SUPPORT DURING THE POUR. ② USE (2) #4 BARS WITH 3" OF COVER ON SIDES. TOP AND BOTTOM AND 2' COVER ON ENDS OF CURB - BOTTOM OF CURB POUR APPROX. 1'-0" BELOW GRADE



COLD WEATHER CURB INSTALLATION FOR USE WHEN COLD WEATHER CONDITIONS CAUSE ASPHALT

PAVEMENT TO BE PLACED BEFORE THE CONCRETE CURB.

ASPHALT PAVEMENT INSTALLATION AND MAINTENANCE ASPHALT SEALING

- 1. SURFACE CLEANING: NHALE CLEANING:
 THE SURFACE TO BE SEALED SHALL BE FREE FROM DIRT
 AND OTHER FOREIGN MATTER. ANY ACCUMULATIONS OF OIL
 OR GREASE SHALL BE CLEANED OFF THE PAVEMENT WITH
 DETERGENT SOLUTION. THE RESIDUE OF WHICH SHALL BE
 THOURDUGHLY WASHED AWAY WITH CLEAN WATER BEFORE SEALANT IS APPLIED.
 - THE SEAL COATING MATERIAL SHALL BE COMPRISED OF A RUBBERIZED COAL-TAR PITCH EMULSION AND SHALL MEET OR EXCEED FEDERAL SPECIFICATION R-P-355e. SUPPLIED IN CONCENTRATEOF FORM. IT SHALL BE DIJUTED A MINIMUM OF 15%, AND A MAXIMUM OF 25% WITH FRESH. CLEAN WATER. THE SEALANT MATERIAL SHALL CONTAIN 5-6. LBS.
 PER CALLON OF FINE. CLEAN, DRY SILICA SAND MEETING THE FOLLOWING GRADATION:

SIEVE SIZE % PASSING

THE SEALANT SHALL BE APPLIED TO THE PAVEMENT IN TWO COATS AT THE RATE OF 0.08 TO 0.12 CALLONS PER SOUARE YARD. A LATEX ADDITIVE MAY ALSO BE ADDED TO THE SEALANT TO ALLOW FOR OUICKER DRYING TIME IN THOSE AREAS SPECIFIED BY OWNER'S REPRESENTATIVE.

NORMAL STRENGTH PAVEMENT

PARKING AREAS , AND OTHER LIMITED



HIGH STRENGTH PAVEMENT

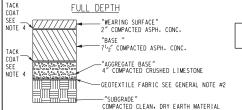
HEAVY LOAD TRAFFIC AREAS

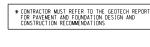
ASPHALT PAVEMENT GENERAL NOTES:

- 1. ALL WORK SHALL BE IN CONFORMANCE WITH OWNER'S SPECIFICATIONS FOR ASPHALTIC CONCRETE PAVING
- 2. GENTEXTUE FARRIC (NEEDS TO BE DETERMINED BY
- 3. VERIFY WITH GEOTECHNICAL REPORT

ASPHALT PAVEMENT MAINTENANCE NOTES:

- CONTRACTOR SHALL REMOVE ASPHALT FROM FAILED AREA BY SAWCUTTING A RECTANGULAR SHAPE AT LEAST 3" BEYOND THE DAMAGED AREA. TWO OF THE EDGES MUST BE AT RIGHT ANGLES TO THE DIRECTION OF TRAFFIC.
- 2. SUBGRADE MUST BE REMOVED TO SOLID GROUND AND REPLACED IN ACCORDANCE WITH THE FULL DEPTH PATCH DETAIL AND OWNER'S SPECIFICATIONS.
- 3. CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF ALI DEBRIS PER LOCAL. STATE, AND FEDERAL
- 4. TACK COAT REQUIRED IF INSTALLING ON SEPARATE POURS. SEE SPEEDWAY SPECIFICATIONS FOR TIMING AND TEMPERATURE GUIDELINES FOR POURS.





ASPHALT OVERLAY DETAIL

ASPHALT SUBBASE

CONCRETE SUBBASE



-1 1/2" WEARING COURSE

ASPHALT OVERLAY FABRIC

SEE NOTE #7 (OPTIONAL)

-EXISTING CONCRETE

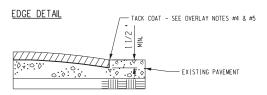
- LEVELING COURSE - DEPTH TO BE

DETERMINED BY PAVEMENT CONDITION.

1. THE OVERLAY SHALL BE PLACED IN ACCORDANCE WITH 2. ALL FALLED AREAS SHALL BE REPAIRED WITH PROPER PATCHES BEFORE OVERLAY IS PLACED.

OVERLAY DETAIL NOTES:

- 3. IF THE SURFACE IS DISTORTED. THE CONTRACTOR WILL CONSTRUCT LEVELING COURSES TO RESTORE PROPER LINE AND CROSS SECTION.
- 4. THE PAVEMENT SHALL BE THOUROUGHLY CLEANED AND A TACK COAT OF ASPHALT SHALL BE APPLIED BEFORE THE OVERLAY IS PLACED.
- 5. ALL VERTICAL SURFACES COMING IN CONTACT WITH THE OVERLAY SHALL BE SPRAYED OR PAINTED WITH A UNIFORM COATING OF EMULSIFIED ASPHALT IMMEDIATELY PRIOR TO PAVEMENT CONSTRUCTION.
- 6. CONTRACTOR IS RESPONSIBLE FOR ENSURING PROPER SURFACE DRAINAGE. PONDING OR PUDDLING OF WATER ON THE FINAL SURFACE WILL BE UNACCEPTABL
- 7. OPTIONAL ASPHALT OVERLAY FABRIC. DETERMINED BY ENGINEER, SHALL BE AMOPAVE NONWOVEN CONSTRUCTION FABRIC.



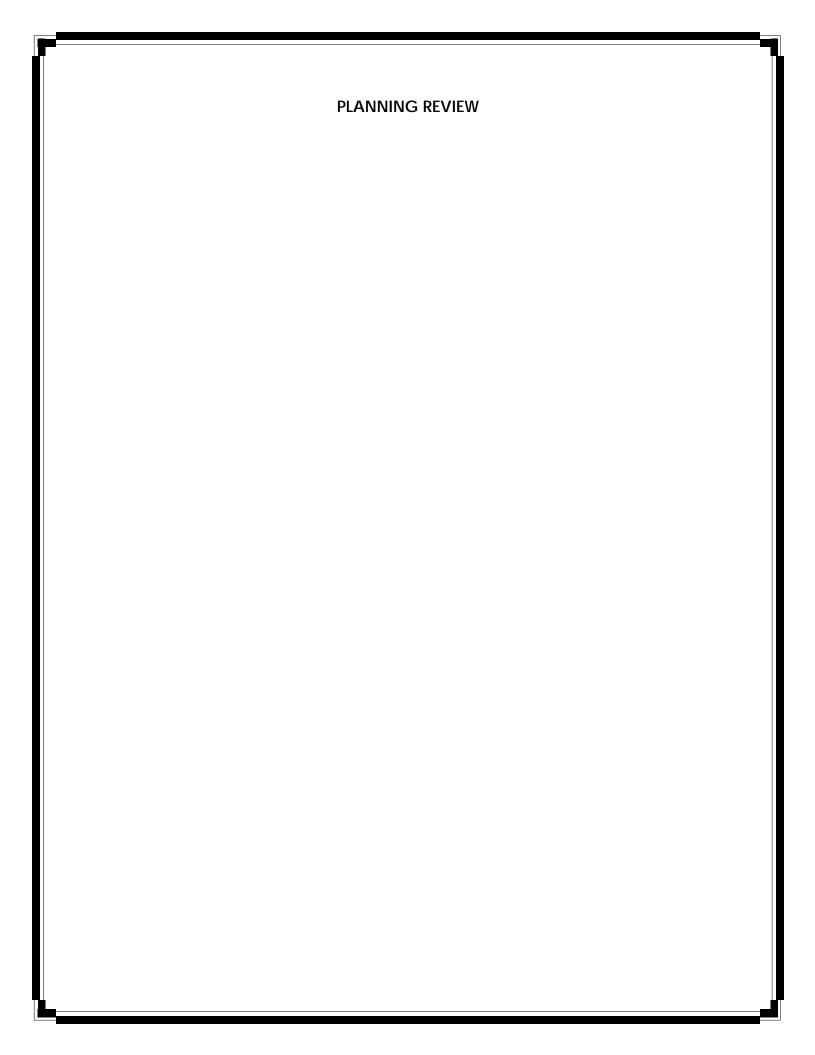
WHERE OVERLAY IS NOT SPECIFIED FOR ENTIRE EXISTING SURFACE. INTERFACE BETWEEN THE NEW OVERLAY AND THE OLD PAYEMENT SURF SHALL BE PER THE ABOVE DETAIL. FEATHERING OF THE ASPHALT TO MEET THE EXISTING PAVEMENT WILL NOT BE ACCEPTABLE.

PAVEMENT DESIGN TEAM J.FRYE

dway Ū Q O

CURBING I

AS SHOWN GNR. F.NICHOLAS 82-81-16 B.BAIRD 02-01-16 STD-CPC-1





PLAN REVIEW CENTER REPORT

August 11, 2016

Planning Review

Speedway at 14 Mile & Haggerty JSP16-13 with PRO Rezoning 18.714

Petitioner

McBride Dale Clarion

Review Type

Rezoning Request from OST (Office Service Technology) & B-3 (General Business) to B-3 (General Business) with Planned Rezoning Overlay (PRO)

Property Characteristics

• Site Location: Southwest corner of 14 Mile Rd. and Haggerty Rd. (Section 1)

• Site Zoning: OST – Office Service Technology

• Adjoining Zoning: North: Commercial (Commerce Charter Township);

Northeast: Commercial (West Bloomfield Township);

East: Commercial (Farmington Hills);

South: OST West: OST

Current Site Use: Speedway Gas Station and Convenience Store & Undeveloped

Adjoining Uses: North: Shopping plaza;

Northeast: Shopping Plaza; East: CVS, Shopping plaza;

South: Undeveloped

West: Flagstar Bank and Office plaza
School District: Walled Lake Consolidated School District

Site Size: 0.70 Acres (Existing) + 1.33 Acres (Rezoning) = 2.03 Acres (Total)

Project Summary

The petitioner is requesting a Zoning Map amendment for a 2.03 acre property on the west of Haggerty Road and south of 14 Mile Road (Section 1) from OST (Office Service Technology) & B-3 (General Business) to B-3 (General Business) utilizing the Planned Rezoning Overlay (PRO) option. The applicant states that the rezoning request is necessary to allow the rebuild of the Speedway gas station and convenience store on a larger site. This will allow the applicant to update and rebuild the whole site.

The PRO option creates a "floating district" with a conceptual plan attached to the rezoning of a parcel. As part of the PRO, the underlying zoning is proposed to be changed (in this case from OST to B-3) and the applicant enters into a PRO agreement with the City, whereby the City and the applicant agree to tentative approval of a conceptual plan for development of the site. Following final approval of the PRO concept plan and PRO agreement, the applicant will submit for Preliminary and Final Site Plan approval under standard site plan review procedures. The PRO runs with the land, so future owners, successors, or assignees are bound by the terms of the agreement, absent modification by the City of Novi. If the development has not begun within two (2) years, the rezoning and PRO concept plan expires and the agreement becomes void.

The applicant has proposed a 4,000 sq. ft. convenience store and 5,400 sq. ft. fuel canopy over 8 double-sided fuel dispensers. Razing the 2,417 sq. ft. existing building and 6 double-sided fuel

dispensers. As part of the redevelopment, existing driveways will be shifted away from the intersection and aligned with the driveways across 14 Mile Road and Haggerty Road. Speedway is proposing to dedicate approximately 10 ft. of ROW along 14 Mile Road. There will be an aboveground detention basin in the southwest corner of the enlarged property.

The Master Plan and Zoning Committee met on August 17, 2016 to discuss the rezoning because it does not follow the Future Land Use Map recommendation for the site. The committee provided some comments regarding the plan.

Master Plan for Land Use

The Future Land Use Map of the 2010 City of Novi Master Plan for Land Use identifies this property and all adjacent land within the City as office research development technology. The proposal would follow objectives listed in the Master Plan for Land Use including the following:

- 1. <u>Objective:</u> The City, working with the development community and partners, should continue to foster a favorable business climate. <u>The proposal would allow an existing business to expand, provide an update to the visual aesthetic at an entryway to the City, and provide an estimated 5 more jobs, \$5 million in sales volume, \$235 million in sales tax, and \$3.1 million in investment.</u>
- 2. <u>Objective:</u> Support and strengthen existing businesses, as it is easier to keep a business in the City than attract a new one to fill a vacant facility. <u>The proposal would allow an existing business to expand and develop a vacant parcel.</u>

Existing Zoning and Land Use

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

Land Use and Zoning: For Subject Property and Adjacent Properties

	Existing Zoning	Existing Land Use	Master Plan Land Use Designation
Subject Property	OST: Office Service Technology	Undeveloped	Office Research Technology Development
Northern Parcels	B-2: Community Business (Commerce Charter Twp)	Shopping Plaza (Grocery, Bank, Cleaners, Restaurants)	Community Commercial
Northeast Parcels	B-1: Local Business (West Bloomfield Twp)	Shopping Plaza	General Business
Eastern Parcels	B-2: Community Business (Farmington Hills)	Commercial (CVS), Shopping Plaza	Shopping Center Type Business
Southern Parcels	OST: Office Service Technology	Undeveloped	Office Research Technology Development
Western Parcels	OST: Office Service Technology	Bank, Office Plaza	Office Research Technology Development

Compatibility with Surrounding Land Use

The surrounding land uses are shown on the above chart. The compatibility of the proposed PRO concept plan with the zoning and uses on the adjacent properties should be considered by the Planning Commission in making the recommendation to City Council on the rezoning request with the PRO option.



The properties to the north, northeast, and east are developed commercial. All properties immediately adjacent to the south of the subject property are predominantly underdeveloped or vacant. The properties to the west are developed office.

The properties to the **north** across 14 Mile Rd. have a shopping plaza with a Kroger, Bank, and various other retail and restaurants.

The properties to the **northeast** across 14 Mile Rd. and Haggerty Rd. have a shopping plaza with a Walgreens, FedEx, and various other retail and restaurants.

The properties to the **east** across Haggerty Rd. have a stand-alone CVS and a shopping plaza with an animal hospital and various retail and restaurants.

The properties to the **south** are vacant, undeveloped land with some wetlands and woodlands.

The properties immediately adjacent to the west have a bank and medical office building.

Comparison of Zoning Districts

The following table provides a comparison of the current (OST) and proposed (B-3) zoning classifications.

		OST Zoning		B-3 Zoning
		(Existing)		(Proposed)
Principal	1.	Professional office buildings, offices, and	1.	Retail businesses use
Permitted		office sales and service activities	2.	Retail business service uses
Uses	2.	Data processing and computer centers	3.	Dry cleaning establishments, or pick-up
	3.	Laboratories		stations, dealing directly with the
	4.	Research, testing, design, and		consumer
		development, technical training, an	4.	Business establishments which perform
		design of pilot or experimental products		services on the premises
	5.	Hotels and business motels	5.	Professional services
	6.	Colleges, universities, and other such	6.	Retail business or retail business service
		post-secondary institutions of higher		establishments
		learning, public or private, offering	7.	Professional and medical offices
		courses in general, technical, or religious		including laboratories
		education	8.	Fueling station

	OST Zoning	B-3 Zoning
	(Existing)	(Proposed)
	7. Motion picture, television, radio and photographic production facilities 8. Medical offices, including laboratories and clinics 9. Facilities for human care 10. Off-street parking lots 11. Publicly owned and operated parks, parkways and outdoor recreational facilities 12. Publicly-owned buildings, telephone exchange buildings, and public utility offices, but no including storage yard, transformer stations, substations or gas regulator stations 13. Financial institution uses with drive-in facilities as an accessory use only 14. Public or private indoor and private outdoor recreational facilities 15. Day care centers and adult day care centers 16. Secondary uses 17. Site down restaurants 18. Other uses similar to the above uses and subject to the same conditions s noted 19. Accessory building and uses customarily incidental and integral to any of the	9. Auto wash 10. Bus passenger stations 11. New and used car salesroom, showroom, or office 12. Other uses similar to the above uses 13. Tattoo parlors 14. Publicly owned and operated parks, parkways, and outdoor recreational facilities 15. Accessory structures and uses customarily incident to the above permitted uses 16. Public or private health and fitness facilities and clubs 17. Microbreweries 18. Brewpubs
Special Land Uses	above permitted uses 1. Retail businesses use 2. Retail business service uses 3. Restaurants, including sit down 4. Fast food drive-through restaurants	 Outdoor space for exclusive sale of new or used automobiles, campers, recreation vehicles, mobile home, or rental or trailers or automobiles Motel Business in the character of a drive-in or open front store Veterinary hospitals or clinics Plant materials nursery Public or private indoor and private outdoor recreational facilities Mini-lube or oil change establishments Sale of produce and seasonal plant materials outdoors Restaurant in the character of a fast food carryout, drive-in, fast food drive-through, or fast food sit-down
Building Height	46 ft. or 3 stories, whichever is less	30 ft.
Building Setbacks	All: 50 ft.	Front: 30 ft. Side: 15 ft. Rear: 20 ft.
Parking Setbacks	All: 20 ft.	Front: 20 ft. Side/Rear: 10 ft.

Infrastructure Concerns

Engineering

The Staff Engineer has reviewed the PRO Concept Plan and request for rezoning. In summary, the concept plan provided with the request proposed a 3,936 sq. ft. retail building with a

demand of 3 REUs which is less than the current zoning. Therefore, the plan would have negligible impact on the utilities.

Traffic

The City's traffic consultant has reviewed the PRO Concept Plan and performed an initial trip generation estimate and a Rezoning Traffic Impact Study is not warranted for this expansion.

Major Conditions of Planned Rezoning Overlay Agreement

The Planned Rezoning Overlay process involves a PRO concept plan and specific PRO conditions in conjunction with a rezoning request. The submittal requirements and the process are codified under the PRO ordinance (Section 7.13.2). Within the process, which is completely voluntary by the applicant, the applicant and City Council can agree on a series of conditions to be included as part of the approval.

The applicant is required to submit a conceptual plan and a list of terms that they are willing to include with the PRO agreement. The applicant has submitted a conceptual plan showing the general layout of the rebuilt convenience store and fuel station, detention pond, and landscaping. The applicant has provided a narrative describing the proposed public benefits.

- 1. Install a "Welcome to Novi" sign along the 14 Mile Road property line.
- 2. Dedicate 10 ft. of ROW along 14 Mile Road.
- 3. Redevelop the site with a building and canopy that is architecturally consistent with current zoning regulations.
- 4. Pedestrian access is improved: (a) Sidewalks will be extended the length of the expanded property and will close gaps in the sidewalk system and (b) sidewalk connections from the convenience store to 14 Mile Road and Haggerty Road are provided.
- 5. Safety improvements: (a) relocation of driveway away from 14 Mile and Haggerty intersection and to align with opposing driveway and (b) on-site circulation and visibility with new canopy.

Ordinance Deviations

Section 7.13.2.D.i.c(2) permits deviations from the strict interpretation of the Zoning Ordinance within a PRO agreement. These deviations must be accompanied by a finding by City Council that "each Zoning Ordinance provision sought to be deviated would, if the deviation were not granted, prohibit an enhancement of the development that would be in the public interest, and that approving the deviation would be consistent with the Master Plan and compatible with the surrounding areas." Such deviations must be considered by City Council, who will make a finding of whether to include those deviations in a proposed PRO agreement. The proposed PRO agreement would be considered by City Council after tentative approval of the proposed concept plan and rezoning.

The concept plan submitted with an application for a rezoning with a PRO is not required to contain the same level of detail as a preliminary site plan. Staff has reviewed the concept plan inasmuch detail as possible to determine what deviations from the Zoning Ordinance are currently shown. In many cases, additional information is required to make a determination if a deviation is required. The applicant may choose to revise the concept plan to better comply with the standards of the Zoning Ordinance, or may proceed with the plan as submitted with the understanding that those deviations would have to be approved by City Council in a proposed PRO agreement. The following are deviations from the Zoning Ordinance and other applicable ordinances requested by the applicant:

- 1. Asphalt shingle, flat metal panel, and brick Section 9 façade waiver.
- 2. Deviation to allow the driveway on 14 Mile Road to be located approximately 121 ft. from the neighboring driveway to the west. The variation is requested to allow the existing driveway on 14 Mile Road to align with the opposing driveway on the north side of 14 Mile Road. The

current driveway is approximately 119 ft. from the intersection, while the relocated driveway is approximately 203 ft. from the intersection. The new driveway location will improve safety and site distance at the intersection.

Applicant Burden under PRO Ordinance

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

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

Public Benefit under PRO Ordinance

Section 7.13.2.D.ii states that the City Council must determine that the proposed PRO rezoning would be in the public interest and the public benefits of the proposed PRO rezoning would clearly outweigh the detriments:

- 1. Install a "Welcome to Novi" sign along the 14 Mile Road property line.
- 2. Dedicate 10 ft. of right-of-way along 14 Mile Road.
- 3. Redevelop the site with a building and canopy that is architecturally consistent with current zoning regulations.
- 4. Pedestrian access is improved: (a) Sidewalks will be extended the length of the expanded property and will close gaps in the sidewalk system and (b) sidewalk connections from the convenience store to 14 Mile Road and Haggerty Road are provided.
- 5. Safety improvements: (a) relocation of driveway away from 14 Mile and Haggerty intersection and to align with opposing driveway and (b) on-site circulation and visibility with new canopy.

The proposed benefits should be weighed against the proposal to determine if they clearly outweigh any detriments of the proposed rezoning. Of the 5 benefits listed, three – architectural improvements, pedestrian access, and safety improvements – would be requirements of any new development on the subject property under the existing zoning. The two others – "Welcome to Novi" sign and right-of-way dedication along 14 Mile Road – would be considered enhancements that would benefit the public that would not be required as part of a development under the

existing zoning. However, it should be noted that while it is not required the dedication of right-of-way is typical of developments.

Recommendation

Approval of the **PRO Concept Plan is recommended** because the rezoning request fulfills two objectives of the Master Plan for Land Use by fostering a favorable business climate and strengthening an existing business. The rebuild and expansion of this site provides an update to the visual aesthetic at an entryway to the City, modern fuel dispensers and convenience store, and replacement of underground storage tanks. The rezoning will also have negligible impact on the utilities due to expected utility demand reduced from 4 residential equivalent units to 3, minimal impact on available water capacity, pressure, and flow, and no apparent impact of the downstream sanitary sewer. Finally, the plan improves existing non-conformities (minimum site size from 0.7 acres to 2.03 acres, location of driveways away from intersection, and upgraded stormwater management).

The plan conforms to the requirements of the Zoning Ordinance, with additional details required with the next site plan submittal. The PRO agreement and concept plan approval are step one in the process; the applicant will still need to seek the required approvals from Planning Commission for the Preliminary Site Plan, Section 9 Façade Waiver, and Stormwater Management Plan.

Other Reviews:

- a. <u>Engineering Review:</u> Not recommended at this time with changes needed on the next submittal.
- b. <u>Landscape Review:</u> **Recommended for Approval** with comments to be addressed on the next submittal.
- c. <u>Wetland and Woodland Reviews:</u> It was determined at Pre-Application and again with PRO Concept Plan submittal that there are no regulated wetlands or woodlands on site. No further review is needed.
- d. <u>Traffic Review:</u> **Recommended for Approval** with comments to be addressed on the next submittal.
- e. Facade Review: Recommended for a Section 9 Façade Waiver.
- f. <u>Fire Review:</u> **Recommended for Approval** with comments to be addressed on the next submittal.

Response Letter

This Site Plan is scheduled to go before the Planning Commission on September 14, 2016. Please provide the following <u>no later than September 7, 2016 at Noon</u> if you wish to keep the schedule.

- 1. A response letter addressing **ALL** the comments from **ALL** the review letters.
- 2. A PDF version of all the Site Plan drawings that were dated 7/6/2016 (less than 10 MB). **NO CHANGES MADE.**
- 3. A color rendering of the Site Plan, if any.

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 kmellem@cityofnovi.org.

Kirsten Mellem, Planne



PLANNING REVIEW CHART: B-3 General Business District

Review Date: August 11, 2016 **Review Type:** Concept PRO

Project Name: Speedway at 14 Mile and Haggerty

Plan Date: 7.15.2016

Prepared by: Kirsten Mellem, Planner

Contact: E-mail: kmellem@cityofnovi.org Phone: 248.347.0484

Items in **Bold** need to be addressed by the applicant prior to the approval of the Preliminary Site Plan. Items <u>underlined</u> need to be addressed prior to the approval of the Final Site Plan.

Item	Required Code	Proposed Med Coo		Comments
Zoning and Use Red	quirements			
Master Plan (adopted August 25, 2010)	Office Research Development Technology	Fueling Station and Retail Food	Yes	
Area Study	The site does not fall under any special category	NA	Yes	
Zoning (Effective Dec. 25, 2013)	B-3: General Business District & OST: Office Service Technology	B-3	Yes	Proposing PRO Rezoning (See Sec.7.13.2 for details)
Uses Permitted (Sec 3.1.12.B & C)	Sec 3.1.12.B Principal Uses Permitted. Sec 3.1.12.C Special Land Uses	Rebuild of fueling station with addition of retail food business	Yes	Permitted Use under B-3
Fueling Stations An	d Minor Automobile Service Est	tablishments (Sec. 4.29)		
Curb Cuts for Entrances (Sec 4.29.1.A)	Entrances shall be no close than 100 ft. from street intersections or from adjacent residential districts	Changes to entrances proposed, 100 ft. from intersection	Yes	
Minimum Site Size (Sec 4.29.1.B)	Minimum lot area shall be 1 acre	Combining lots to equal 2.03 acres	Yes	Lot combination required prior to Final Site Plan approval
Location of Fueling station (Sec 4.29.1.C)	 Minimize the impact on residential districts, OS-1, OSC or B-1 Ample space for vehicles waiting for service or picked up after service 	NA NA	NA NA	
	- Sufficient stacking space shall be provided at the pump	Show stacking spaces on site plan	Yes	

Item	Required Code	Proposed	Meets Code	Comments
Canopies (Sec 4.29.1.D) (Sec. 4.19.2.C.i)	 Attached canopies shall comply with building setback requirements Detached canopies shall comply with Section 4.19: Canopies shall be 15 ft. from Right-of-way 	NA 52 ft. proposed	NA Yes	
Height, bulk, densit	y and area limitations (Sec 3.1.	12)		
Frontage on a Public Street. (Sec. 5.12)	Frontage on a Public Street is required	14 Mile and Haggerty	Yes	
Minimum Zoning Lot Size (Sec 3.6.2.D)	Except where otherwise provided in this Ordinance, the minimum lot area and width, and the maximum percent of lot coverage shall be determined on the basis of off-street parking, loading, greenbelt screening, yard setback or usable open space.	2.03 acres Minimum required is 1 acre (per section 4.29)	Yes	
Open Space Area				
Maximum % of Lot Area Covered (By All Buildings)	(Sec 3.6.2.D)		NA	
Building Height (Sec. 3.1.23.D)	30 ft.	23.6 ft. provided in project narrative	Yes	
Building Setbacks ((Sec 3.1.23.D)			
Front (east)	30 ft.	137 ft.	Yes	
Exterior Side (north)	30 ft. (Sec. 3.6.2.C)	100 ft. and 110 ft.	Yes	
Interior Side (south)	15 ft.	108 ft.	Yes	
Rear (west)	20 ft.	110 ft.	Yes	
Parking Setback (S	ec 3.1.23.D)			
Front (east)	20 ft.	108 ft.	Yes	
Exterior Side (north)	10 ft.	68 ft. and 78 ft.	Yes	
Interior Side (south)	10 ft.	38 ft.	Yes	
Rear (west)	10 ft.	111 ft.	Yes	
Note To District Star	ndards (Sec 3.6.2)			

Item	Required Code	Proposed	Meets Code	Comments	
Exterior Side Yard Abutting a Street (Sec 3.6.2.C)	All exterior side yards abutting a street shall be provided with a setback equal to the front yard setback requirement of the district in which located.	100 ft. proposed 30 ft. required	Yes		
Minimum Lot Area (Sec. 3.6.2.D)	The minimum lot area and width, and the maximum percent of lot coverage shall be determined on the basis of off-street parking, loading, greenbelt screening, yard setback or usable open space requirements	Proposed	Yes		
Off-Street Parking in Front Yard (Sec 3.6.2.E)	Off-street parking shall be permitted in the front yard, except that said parking shall observe the minimum off-street parking setback requirements in Sec. 3.1 and 5.5.3	Proposed	Yes		
Parking Setback from Residential District (Sec 3.6.2.L)	Wherever property directly abuts or is adjacent to residentially zoned property, the minimum parking setback shall be 20 ft.	NA	NA		
Wetland/ Watercourse Setback (Sec 3.6.2.M)	Refer to Sec 3.6.2 for more details.	NA	NA		
Parking setback screening (Sec 3.6.2.P)	Required parking setback area shall be landscaped per sec 5.5.3.	Landscape plan is provided	Yes	See landscape letter for additional details	
Modification of parking setback requirements (Sec 3.6.2.Q)	Refer to Sec 3.6.2 for more details	None proposed	NA		
Parking, Loading, and Dumpster Requirements					
Number of Parking Spaces	1 space per 200 sq. ft. of usable floor area + accessory uses; 3 spaces minimum	38 parking spaces proposed	Yes		
Fueling Station without accessory service garage (Sec.5.2.12.E)	1 per fueling station 16 fueling stations 3,936/200 = 20 spaces 36 spaces required				

Item	Required Code	Proposed	Meets Code	Comments
Parking Space Dimensions and Maneuvering Lanes (Sec. 5.3.2)	 90° Parking: 9 ft. x 19 ft. 24 ft. two way drives 9 ft. x 17 ft. parking spaces allowed along 7 ft. wide interior sidewalks as long as detail indicates a 4" curb at these locations and along landscaping 	All parking spaces are proposed to be 9 ft. x 19 ft. Proposed drives are 24 ft. wide	Yes	
Parking stall located adjacent to a parking lot entrance (public or private) (Sec. 5.3.13)	Shall not be located closer than twenty-five (25) feet from the street right-of-way (ROW) line, street easement or sidewalk, whichever is closer	NA	NA	
End Islands (Sec. 5.3.12)	 End Islands with landscaping and raised curbs are required at the end of all parking bays that abut traffic circulation aisles. The end islands shall generally be at least 8 feet wide, have an outside radius of 15 feet, and be constructed 3' shorter than the adjacent parking stall as illustrated in the Zoning Ordinance 	None proposed	NA	
Barrier Free Spaces Barrier Free Code (2012 Michigan Building Code)	 2 barrier free parking spaces required for 26-50 parking requirement Every 6 or fraction of six accessible parking spaces, at least one shall be van- accessible 	1 van accessible spaces proposed	No	Provide one more ADA/Barrier Free parking space.
Barrier Free Space Dimensions Barrier Free Code (2012 Michigan Building Code)	 8' wide with an 8' wide access aisle for van accessible spaces 5' wide with a 5' wide access aisle for regular accessible spaces 	8 ft. wide spaces with 8 ft. wide access aisle proposed.	Yes	
Barrier Free Signs Barrier Free Code	One sign for each accessible parking space.	None proposed	Yes	
Minimum number of Bicycle Parking (Sec. 5.16.1)	2 spaces required for fueling stations	2 spaces proposed	Yes	

Item	Required Code	Proposed	Meets Code	Comments
Bicycle Parking General requirements (Sec. 5.16)	 No farther than 120 ft. from the entrance being served When 4 or more spaces are required for a building with multiple entrances, the spaces shall be provided in multiple locations Spaces to be paved and the bike rack shall be inverted "U" design Shall be accessible via 6 ft. paved sidewalk 	20 ft. proposed NA Proposed 7 ft. proposed	Yes NA Yes	
Bicycle Parking Lot layout (Sec 5.16.6)	Parking space width: 6 ft. One tier width: 10 ft. Two tier width: 16 ft. Maneuvering lane width: 4 ft. Parking space depth: 2 ft. single, 2 ½ ft. double	6 ft. proposed	Yes	
Loading Spaces (Sec. 5.4.2)	 Loading, unloading space shall be provided in the rear yard at a ratio of 10 sq. ft. for each front foot of building Except in the case of a double frontage lot, loading-unloading, as well as trash receptacles may be located in an interior side yard beyond the minimum side yard setback requirement of the district; location subject to approval by the City. 	820 sq. ft. of loading area required. (240+551+168 = 959 sq. ft. proposed) Located in the front yard	Yes No	Deviation in the PRO should be requested
Dumpster (Sec 4.19.2.F)	 Located in rear yard or interior side yard in case of double frontage Attached to the building OR No closer than 10 ft. from building if not attached Not located in parking setback If no setback, then it cannot be any closer than 10 ft, from property line. Away from Barrier free Spaces 	Proposed in the front yard NA 45 ft. from building Not in setback, 38 ft. from lot line NA Proposed away from barrier free	No NA Yes Yes NA Yes	Deviation in the PRO should be requested

Item	Required Code	Proposed	Meets	Comments
	•		Code	
Dumpster Enclosure (Sec. 21-145. (c))	 Screened from public view A wall or fence 1 ft. higher than height of refuse bin And no less than 5 ft. on 	Yes Yes	Yes	
	three sides - Posts or bumpers to protect the screening	Yes		
	Hard surface pad.Screening Materials:	Yes		
	Masonry, wood or evergreen shrubbery	Yes Yes		
Lighting and Other	Equipment Requirements			
Exterior lighting (Sec. 5.7)	Photometric plan and exterior lighting details needed at time of Final Site Plan submittal	Photometric plan provided	Yes	
Roof top equipment and wall mounted utility equipment (Sec. 4.19.2.E.ii)	- All roof top equipment must be screened and all wall mounted utility equipment must be enclosed and integrated into the design and color of the building	Proposed	Yes	
Roof top appurtenances screening	Roof top appurtenances shall be screened in accordance with applicable facade regulations, and shall not be visible from any street, road, or adjacent property	Proposed	Yes	
B-3 District Required	d Conditions (Sec 3.10.3)			
Outdoor Storage of above ground storage tanks (Sec 3.10.3)	- No truck well, loading dock, overhead door or other type of service bay door shall face a major thoroughfare, nor an	No proposed service doors	NA	
	abutting residential district. - Pedestrian exits or emergency doors are permitted on such building facades.	Proposed	Yes	
Sidewalk Requirem	ents			
Sidewalks (Sec. 7.4.2 of the Engineering Design Manual)	- A 6 ft. – 8 ft. wide sidewalk or roadside pathway shall be constructed along all arterial and collector roads	6 ft. wide sidewalk connection proposed on 14 Mile. Existing sidewalk on Haggerty is	Yes	

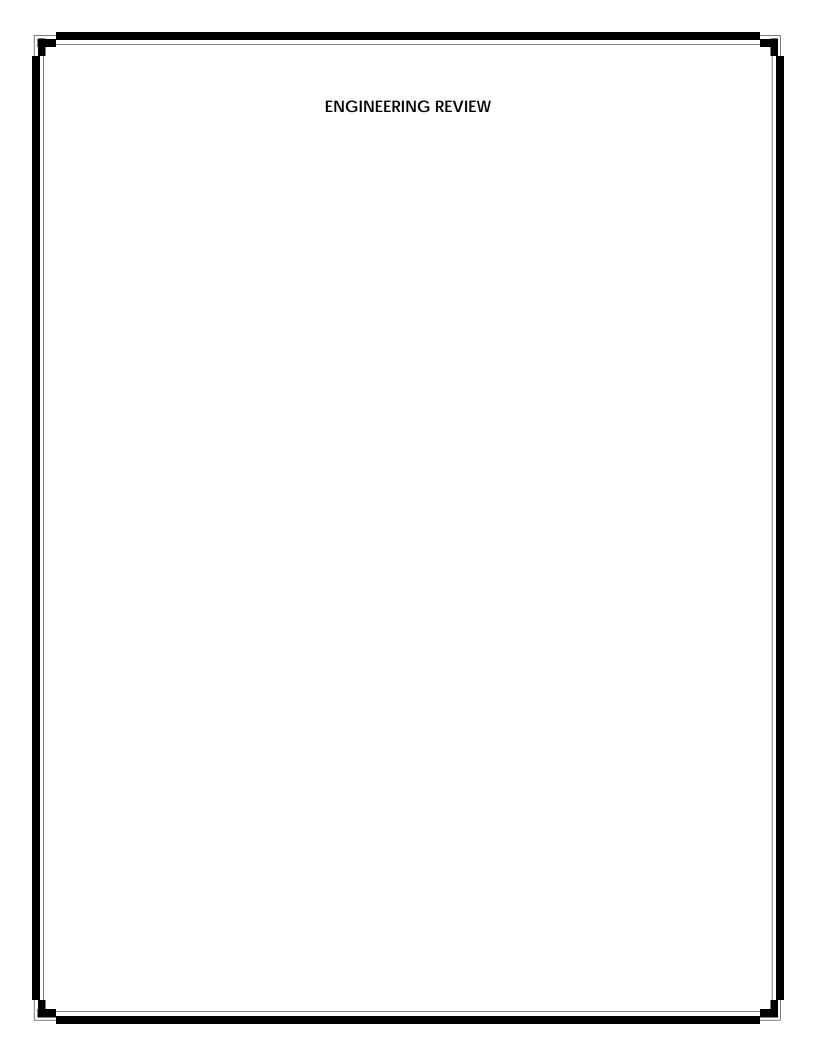
Item	Required Code	Proposed	Meets Code	Comments
	except in industrial districts	5 ft. wide.		
Pedestrian Connectivity	Whether the traffic circulation features within the site and location of automobile parking areas are designed to assure safety and convenience of both vehicular and pedestrian traffic both within the site and in relation to access streets	Sidewalk connection to 14 Mile and Haggerty Roads provided.	Yes	
Building Code and	Other Design Standard Require	ments		
Building Code	Building exits must be connected to sidewalk system or parking lot.	Proposed	Yes	
Design and Construction Standards Manual	Land description, Sidwell number (metes and bounds for acreage parcel, lot number(s), Liber, and page for subdivisions).	Some details provided	No	Provide parcel numbers on the ALTA plans.
General layout and dimension of proposed physical improvements	Location of all existing and proposed buildings, proposed building heights, building layouts, (floor area in sq. ft.), location of proposed parking and parking layout, streets and drives, and indicate sq. ft. of pavement area (indicate public or private).	Provided	Yes	
Economic Impact	 Total cost of the proposed building & site improvements Number of anticipated jobs created (during construction & after building is occupied) 	- Redevelopment would increase from 13 to 20 employees Sales volume would increase from \$11.7 million to \$16.25 million Sales tax generation would increase from \$614,000 to \$850,000 Estimated redevelopment cost is \$3.1 million.	Yes	
Development/ Business Sign	Signage if proposed requires a permit.Exterior Signage is not	2 signs proposed; one ground and one wall	NA	For sign permit information contact Jeannie Niland

Item	Required Code	Proposed	Meets Code	Comments
	regulated by the Planning Division or Planning Commission.			248-347-0438.
Rezoning Signage Site Plan and Development Manual, Chapter 3	Applicant must install rezoning sign a minimum of 15 days prior to the Planning Commission Hearing. Dimensions and locations specified in the Site Plan Manual.	Proposed	No	Provide the height of the letters on the sign.
Lighting and Photoi	metric 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	Photometric plan provided.	Yes	
Lighting Plan (Sec. 5.7.A.1)	Site plan showing location of all existing & proposed buildings, landscaping, streets, drives, parking areas & exterior lighting fixtures	Proposed	Yes	
Lighting Plan (Sec.5.7.A.2)	Specifications for all proposed & existing lighting fixtures: Photometric data Fixture height Mounting & design Glare control devices Type & color rendition of lamps Hours of operation Photometric plan illustrating all light sources that impact the subject site, including spill-over information from neighboring properties	Fixture height is proposed to be 15 ft. pole on 2 ft. concrete pad; total is 17 ft. high The store operation is 24/7 and lighting associated with store operation from dusk to dawn.	Yes	
Required Conditions (Sec. 5.7.3.A)	Height not to exceed maximum height of zoning district (or 25 ft. where adjacent to residential districts or uses)	30 ft. maximum 17 ft. proposed	Yes	
Required Conditions (Sec. 5.7.3.B)	 Electrical service to light fixtures shall be placed underground Flashing light shall not be 	Proposed	Yes	

Item	Required Code	Proposed	Meets Code	Comments
	permitted Only necessary lighting for security purposes & limited operations shall be permitted after a site's hours of operation			
Required Conditions (Sec.5.7.3.E)	Average to minimum light level of the surface being lit to the lowest light of the surface being lit not to exceed 4:1	Average light proposed is 2.16:1	Yes	
Required Conditions (Sec. 5.7.3.F)	Use of true color rendering lamps such as metal halide is preferred over high & low pressure sodium lamps	LED proposed	Yes	
Min. Illumination (Sec. 5.7.3.k)	 Parking areas: 0.2 min Loading & unloading areas: 0.4 min Walkways: 0.2 min Building entrances, frequent use: 1.0 min Building entrances, infrequent use: 0.2 min 	Lighting minimums and maximums proposed	Yes	
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	NA	NA	
Cut off Angles (Sec. 5.7.3.L)	 Cut off angles of fixtures must be 90° adjacent to residential districts Max illumination at the property line shall not exceed 0.5 foot candle 	NA	NA	

NOTES:

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





PLAN REVIEW CENTER REPORT

08/12/2016

Engineering Review

Speedway - Rebuild - PRO JSP16-0013

Applicant

EMRO MARKETING CO

Review Type

Concept Plan

Property Characteristics

Site Location:
 S. of 14 Mile Rd. and W. of Haggerty Rd.

Site Size: 2.03 acresPlan Date: 07/15/16

Design Engineer:

Project Summary

- Construction of an approximately 3,936 square-foot retail building and associated parking. Site access would be provided by new curb cuts onto 14 Mile Rd. and Haggerty Rd. replacing the existing curb cuts closer to the intersection. The 5/6-foot wide sidewalks along the 14 Mile Rd. and Haggerty Rd. frontages would be completed.
- Water service would be provided by 1 or 1.5-inch domestic lead from the existing 8inch water main stub on the south side of 14 Mile Rd.
- Sanitary sewer service would be provided a 6-inch sanitary lead from the existing sanitary sewer on the south side of 14 Mile Rd.
- Storm water would be collected by a single storm sewer collection system and detained in an on-site basin.

Recommendation

Approval of the Concept Plan and the Concept Storm Water Management Plan is NOT recommended.

Comments:

The Concept Plan does not meet the general requirements of Chapter 11 of the Code of Ordinances, the Storm Water Management Ordinance and/or the Engineering Design Manual. The following items must be addressed prior to resubmittal:

- 1. The grade of the drive approach shall not exceed 2-percent within the first 25 feet of the intersection. The drive on Haggerty is shown at 9.2-percent. Consider alternate drive locations to reduce the drive slope.
- 2. Revise the grading, storm sewer, and drainage areas to capture more of the southern portion of the site.

Additional Comments (to be addressed prior to the Final Site Plan submittal):

General

- 3. Provide a note on the plans that all work shall conform to the current City of Novi standards and specifications.
- 4. The City standard detail sheets are not required for the Final Site Plan submittal. They will be required with the Stamping Set submittal. They can be found on the City website (www.cityofnovi.org/DesignManual).
- 5. The plans are not to the specified scale.
- 6. Provide a minimum of two ties to established section or quarter section corners.
- 7. A right-of-way permit will be required from the City of Novi and Oakland County.
- 8. Soil borings shall be provided for a preliminary review of the constructability of the proposed development (roads, basin, etc.). Borings identifying soil types, and groundwater elevation should be provided at the time of Preliminary Site plan.
- 9. Clearly distinguish between proposed improvements and existing features of the site.
- 10. Provide a traffic control sign table listing the quantities of each sign type proposed for the development. Provide a note along with the table stating all traffic signage will comply with the current MMUTCD standards.
- 11. Provide a note that compacted sand backfill shall be provided for all utilities within the influence of paved areas, and illustrate on the profiles.
- 12. Provide a construction materials table on the Utility Plan listing the quantity and material type for each utility (water, sanitary and storm) being proposed.
- 13. Provide a note stating if dewatering is anticipated or encountered during construction a dewatering plan must be submitted to the Engineering Department for review.

Water Main

14. The proposed water lead is connecting to a water main that is served by Commerce Township. Contact Commerce Township for review and any additional requirements.

Sanitary Sewer

- 15. Verify the location of the existing sanitary sewer.
- 16. Provide the size of the existing sanitary sewer.

- 17. Note on the construction materials table that 6-inch sanitary leads shall be a minimum SDR 23.5, and mains shall be SDR 26.
- 18. Provide a note on the Utility Plan stating the sanitary lead will be buried at least 5 feet deep where under the influence of pavement.
- 19. Provide the slope of the proposed sanitary lead. A minimum slope of 1% is required.

Storm Sewer

- 20. Provide type of H.D.P.E pipe proposed for storm sewer.
- 21. H.D.P.E. pipe is not permitted in the R.O.W. Storm sewer in the R.O.W. must be class IV R.C.P.
- 22. Provide profiles for all storm sewer 12-inches or larger.
- 23. A minimum cover depth of 3 feet shall be maintained over all storm sewers. 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 <u>cannot</u> 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.
- 24. The structure numbers do not appear to match the callouts on the table on sheet CU.

Storm Water Management Plan

- 25. The Storm Water Management Plan for this development shall be designed in accordance with the Storm Water Ordinance and Chapter 5 of the new Engineering Design Manual.
- 26. Provide drawings, details, and a cross-section for the proposed basin outlet.
- 27. An adequate maintenance access route to the basin outlet structure and any other pretreatment structures shall be provided (15 feet wide, maximum slope of 1V:5H, and able to withstand the passage of heavy equipment). Verify the access route does not conflict with proposed landscaping.
- 28. Provide a 5-foot wide stone bridge allowing direct access to the standpipe from the bank of the basin during high-water conditions (i.e. stone 6-inches above high water elevation). Provide a detail and/or note as necessary.
- 29. 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.
- 30. The primary outlet standpipe shall be designed with a secondary outer pipe with numerous holes. The stone filter would rest against this outer pipe and would help protect the design standpipe from clogging.
- 31. Provide release rate calculations for the three design storm events (first flush, bank full, 100-year).
- 32. 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.

- 33. A 4-foot wide safety shelf is required one-foot below the permanent water surface elevation within the basin.
- 34. Provide a cross-section of the basin.
- 35. Clearly show the emergency overland flow route for the proposed basin.
- 36. If a wet basin is proposed with a 3 foot permeant water level.

Paving & Grading

- 37. Provide a note on the Grading Plan stating the right-of-way pathway will match existing grades at both ends.
- 38. Provide cross-sections of the proposed pavement.
- 39. The right-of-way sidewalk 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 8-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 8 inches across the drive approach. Provide additional spot grades as necessary to verify the maximum 2-percent cross-slope is maintained along the walk.
- 40. The City standard straight-faced curb (MDOT C-4 curb detail) shall be provided. Revise details accordingly.
- 41. Provide top of curb/walk and pavement/gutter grades to indicate height of curb adjacent to parking stalls or drive areas.
- 42. Curbing and walks adjacent to the end of 17-foot stalls shall be reduced to 4-inches high, rather than the standard 6-inch height to be provided adjacent to 19-foot stalls. Provide additional details as appropriate.

Off-Site Easements

- 43. Any off-site utility easements anticipated must be executed by both parties **prior to final approval of the plans**. Drafts of the easement shall be submitted at the time of the Preliminary Site Plan submittal for review, and shall be approved by the City prior to final signatures.
 - a. A temporary grading easement is required from the property owner to the south.

The following must be provided at the time of Concept Plan resubmittal:

44. A letter from either the applicant or the applicant's engineer <u>must</u> be submitted with the revised concept highlighting the changes made to the plans addressing each of the comments listed above <u>and indicating the revised sheets involved</u>.

The following must be submitted at the time of Final Site Plan submittal:

45. An itemized construction cost estimate must be submitted to the Community Development Department at the time of Final Site Plan submittal 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 cost estimate must be itemized* for each utility (water, sanitary, storm sewer), on-site paving, right-of-

way paving (including proposed right-of-way), grading, and the storm water basin (basin construction, control structure, pretreatment structure and restoration).

The following must be submitted at the time of Stamping Set submittal:

- 46. A draft copy of the maintenance agreement for the storm water facilities, as outlined in the Storm Water Management Ordinance, must be submitted to the Community Development Department with the Final Site Plan. Once the form of the agreement is approved, this agreement must be approved by City Council and shall be recorded in the office of the Oakland County Register of Deeds.
- 47. Executed copies of any required <u>off-site</u> utility easements must be submitted to the Community Development Department.

The following must be addressed prior to construction:

- 48. 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).
- 49. 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. Once determined, a grading permit fee must be paid to the City Treasurer's Office.
- 50. A Soil Erosion Control Permit must be obtained from the City of Novi. Contact Sarah Marchioni in the Community Development Department (248-347-0430) for forms and information.
- 51. A permit for work within the right-of-way of 14 Mile Rd. and Haggerty Rd. must be obtained from the City of Novi. The application is available from the City Engineering Division and should be filed at the time of Final Site Plan submittal. Please contact the Engineering Division at 248-347-0454 for further information.
- 52. A permit for work within the right-of-way of 14 Mile Rd. and Haggerty Rd. must be obtained from the Road Commission for Oakland County. Please contact the RCOC (248-858-4835) directly with any questions. The applicant must forward a copy of this permit to the City. Provide a note on the plans indicating all work within the right-of-way will be constructed in accordance with the Road Commission for Oakland County standards.
- 53. Construction Inspection Fees to be determined once the construction cost estimate is submitted must be paid prior to the pre-construction meeting.
- 54. A storm water performance guarantee, equal to 1.2 times the amount required to complete storm water management and facilities as specified in the Storm Water Management Ordinance, must be posted at the Treasurer's Office.
- 55. A street sign financial guarantee in an amount to be determined (\$400 per traffic control sign proposed) must be posted at the Treasurer's Office.

56. Permits for the construction of each retaining wall must be obtained from the Community Development Department (248-347-0415).

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 Jeremy Miller at (248) 735-5694 with any questions.

CC:

Rob Hayes, Engineering

heremy of Miller

Kirsten Mellem, Community Development

MEMORANDUM



TO: BARBARA MCBETH, CITY PLANNER

FROM: JEREMY MILLER, STAFF ENGINEER

SUBJECT: REVIEW OF REZONING IMPACT ON PUBLIC UTILITIES

REZONING 18.709, SPEEDWAY PRO

DATE: AUGUST 10, 2016

The Engineering Division has reviewed the planned rezoning overlay (PRO) request for the 1.33 gross acres located on the west side of Haggerty Road and south side of 14 Mile Road. The applicant is requesting to rezone 1.33 acres from OST to B-3 as part of a planned rezoning overlay. The Master Plan for Land Use indicates a master planned density of 2.8 units per acre, equivalent to the current B-3 zoning on the property. While the applicant is proposing to rezone the property to B-3 (1.8 units per acre density), a concept plan has been provided as part of the PRO.

Utility Demands

A residential equivalent unit (REU) equates to the utility demand from one single family home. If the area were developed under the current zoning, demand on the utilities for the site would be approximately 4 REUs. The proposed B-3 zoning would yield 3 REUs, a decrease of 1 REUs over the current zoning and the master plan utility demand.

Water System

The project is located within the High Water Pressure District. Water service is currently available from an 8-inch diameter main from the north under 14 Mile Rd. This water main is under the jurisdiction of Commerce Township. Review of the plan by Commerce Township is required. The proposed rezoning would have minimal impact on available capacity, pressure and flows in the water system.

Sanitary Sewer

The project is located within the Commerce Township Sewer District. Sanitary service is currently available from an 8-inch diameter main on the south side of 14 Mile Rd. The proposed rezoning is not anticipated to have an apparent impact on the capacity of the downstream sanitary sewer.

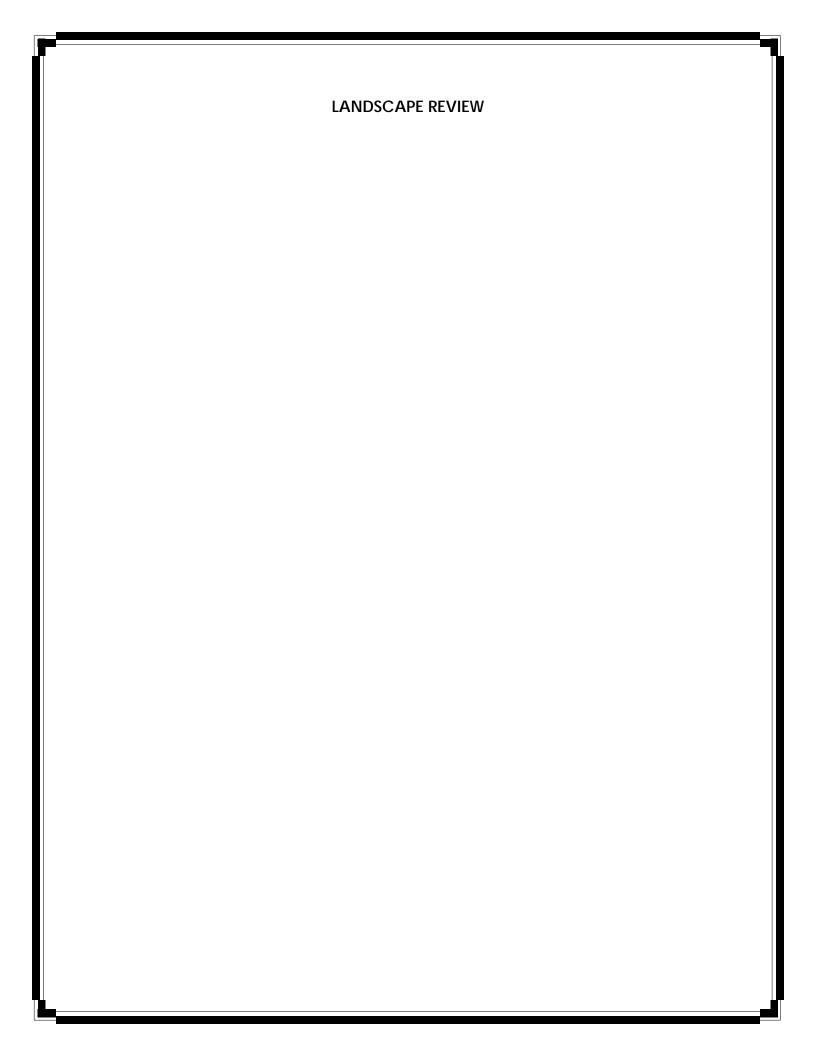
Summary

cc:

The concept plan provided with the PRO request proposes a 3,936 retail building with a demand of 3 REUs which is less than the current zoning. Therefore, the plan would have negligible impact on the utilities.

Rob Hayes, P.E.; City Engineer

Ben Croy, P.E.; Water and Sewer Senior Manager





PLAN REVIEW CENTER REPORT

July 22, 2016

Preliminary Site Plan - Landscaping

Speedway Rebuild - 14 Mile Rd & Haggerty Rd

Review TypeProject NumberPreliminary Site Plan Landscape ReviewJSP16-0013

Property Characteristics

Site Location: Southwest corner of 14 Mile Road and Haggerty Road

Site Zoning: OST – Proposed B-3 with PRO

Adjacent Zoning: OST, Commerce Township, Farmington Hills

Plan Date: July 1, 2016

Recommendation:

This project is **recommended for approval** with the understanding that the items listed below will be addressed satisfactorily in the Final Site Plans.

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 Preliminary Site Plan submittal. Please follow guidelines of the Zoning Ordinance and Landscape Design Guidelines. This review is a summary and not intended to substitute for any Ordinance. Please consult the Landscape Chart for more detailed discussions of some items.

EXISTING ELEMENTS

Existing and proposed overhead and underground utilities, including hydrants.(LDM 2.e.(4))

- 1. Existing and proposed utilities are shown on landscape plans.
- 2. Please clearly indicate the fire hydrant location.

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

- 1. All existing trees, tree removals and trees to be saved are shown on plans.
- 2. Tree protection fencing and fencing details have been provided.

LANDSCAPING REQUIREMENTS

Adjacent to Public Rights-of-Way - Berm (Wall) & Buffer (Zoning Sec. 5.5.3.B.ii and iii)

- 1. Twenty foot greenbelt provided meets requirements.
- 2. Required berm is provided but needs to be modified to provide minimum height of 3 feet.
- 3. Required canopy and subcanopy trees are provided for all requirements except the Haggerty Road greenbelt. Seven credits for preserved trees are used, but the landscaping still requires either 9 deciduous canopy/large evergreen trees, or 2 decidous canopy trees and 7 more subcanopy trees.

Street Tree Requirements (Zoning Sec. 5.5.3.E.i.c and LDM 1.d.)

The required number of street trees along both 14 Mile and Haggerty Roads are provided. 18 subcanopy trees are used along Haggerty Rd instead of 9 canopy trees due to nearby overhead lines.

Parking Lot Landscaping (Zoning Sec. 5.5.3.C)

- 1. Please combine two 168sf islands in east bay into one and only plant one large deciduous canopy tree in it to provide better survival for that tree
- 2. Do not count area of islands/corners where no trees are planted.

Parking lot Perimeter Landscaping (Zoning Sec 5.5.3.C.iii footnote)

Gingko trees are planted too close together for their mature size. Please provide better spacing for the trees in order to provide better chances for survival. If total requirement for perimeter trees can't be met (i.e. a tree needs to be removed from the crowded areas), that is acceptable.

Storm Basin Landscape (Zoning Sec 5.5.3.E.iv and LDM 1.d.(3))

- 1. All required detention basin landscaping is provided.
- 2. Please specify a seed mix for the detention basin that does not include crown vetch, and is composed of native Michigan plants.

<u>Transformer/Utility Box and Fire Hydrant Plantings (LDM 1.3 from 1-5, Zoning Sec 5.5.3.C.ii.d</u> Please add shrubs to the west of the transformer per the city standard detail.

<u>Building Foundation Landscaping (Zoning Sec. 5.5.3.D)</u>

- 1. Foundation landscaping needs to be provided around the entire building.
- 2. Areas with just lawn cannot be counted as foundation landscape area.
- 3. Please see the Landscape Chart for additional information regarding this requirement.

OTHER REQUIREMENTS

Plant List, Notations and Details (LDM 2.h. and t.)

All have been provided satisfactorily.

Cost estimates for Proposed Landscaping (LDM 2.t.)

Cost estimates will be needed for Final Site Plans.

<u>Irrigation (LDM 1.a.(1)(e) and 2.s)</u>

An irrigation plan for all landscaped areas is required as part of the Final Site Plans.

Proposed topography. 2' contour minimum (LDM 2.e.(1))

Proposed grading is provided on the landscape plans.

Snow Deposit (LDM.2.q.)

The Meader

Snow deposit areas have been noted on the plans.

Corner Clearance (Zoning Sec 5.9)

Required corner clearances are provided.

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

LANDSCAPE REVIEW SUMMARY CHART

Review Date: July 22, 2016

Project Name: JSP16 – 0013: SPEEDWAY – 14 MILE RD & HAGGERTY

Plan Date: July 1, 2016

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. <u>Underlined</u> items need to be addressed for Final Site Plan.

Item	Required	Proposed	Meets Code	Comments
Landscape Plan Requir	ements (LDM (2)			
Landscape Plan (Zoning Sec 5.5.2, LDM 2.e.)	 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 	Yes	Yes	1"=20', 1"=10'
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	
Landscape Architect contact information (LDM 2.b.)	Name, Address and telephone number of RLA	Yes	Yes	
Sealed by LA. (LDM 2.g.)	Requires original signature	Yes	Yes	
Miss Dig Note (800) 482-7171 (LDM.3.a.(8))	Show on all plan sheets	Yes	Yes	
Zoning (LDM 2.f.)	Include all adjacent zoning	Yes	Yes	Ex. Zoning B-3/OST, proposed zoning B- 3/PRO; OST west and south, Farmington Hills east, Commerce Township north
Survey information (LDM 2.c.)	 Legal description or boundary line survey 	Yes	Yes	Sheets 1-3

Item	Required	Proposed	Meets Code	Comments
	Existing topography			
Existing plant material Existing woodlands or wetlands (LDM 2.e.(2))	 Show location type and size. Label to be saved or removed. Plan shall state if none exists. 	Yes	Yes	Sheet 2, Sheets L-5 through L-9
Soil types (LDM.2.r.)	 As determined by Soils survey of Oakland county Show types, boundaries 	Yes	Yes	Sheet 2224-LP3
Existing and proposed improvements (LDM 2.e.(4))	Existing and proposed buildings, easements, parking spaces, vehicular use areas, and R.O.W	Yes	Yes	
Existing and proposed utilities (LDM 2.e.(4))	Overhead and underground utilities, including hydrants	Yes	Yes	
Proposed grading. 2' contour minimum (LDM 2.e.(1))	Provide proposed contours at 2' interval	Yes	Yes	Sheets 5-7
Snow deposit (LDM.2.q.)	Show snow deposit areas on plan	Yes	Yes	Please label as "Snow deposit area"
LANDSCAPING REQUIRE	MENTS			
Parking Area Landscap	e Requirements LDM 1.c. &	Calculations (LDM 2.0	.)	
General requirements (LDM 1.c)	Clear sight distance within parking islandsNo evergreen trees	Yes	Yes	
Name, type and number of ground cover (LDM 1.c.(5))	As proposed on planting islands	NA		Note indicates that seed or sod is shown on Soil Erosion Control Plan but that sheet was not included in set.
General (Zoning Sec 5.	5.3.C.ii)			
Parking lot Islands (a, b. i)	 A minimum of 300 SF to qualify 6" curbs Islands minimum width 10' BOC to BOC 	Sufficient area, but 1 island has no plantings, 2 islands only 163.8 sf each	Yes/No	 Don't count area of 401sf island at northeast entry if no tree is planted in it. Please combine two 163.8sf islands (at northern end of bay) to form one large island with 1 large canopy tree.
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	Yes/No		Spaces at north end of building can be shortened to provide more building

Item	Required	Proposed	Meets Code	Comments
	ft.			foundation landscape area.
Contiguous space limit (i)	Maximum of 15 contiguous spaces	Yes	Yes	
Plantings around Fire Hydrant (d)	No plantings with matured height greater than 12' within 10 ft. of fire hydrants	TBD	TBD	 Please add note stating trees to be kept10 feet away from utility structures and fire hydrants. It appears that no plants are near hydrant, but it isn't clear that structure east of north entrance is a fire hydrant. Please clearly label any/all fire hydrant(s) on landscape plan.
Landscaped area (g)	Areas not dedicated to parking use or driveways exceeding 100 sq. ft. shall be landscaped	Yes	Yes	
Clear Zones (LDM 2.3.(5))	25 ft corner clearance required. Refer to Zoning Section 5.5.9	Yes	Yes	
Berms, Walls and ROW	Planting Requirements			
Berms				
Gradual slopes are electric contours Berm should be locate conflict with utilities.	a maximum slope of 33%. ncouraged. Show 1ft. ted on lot line except in structed with 6" of top soil.			
Residential Adjacent to	Non-residential (Sec 5.5.3.	A) & (LDM 1.a)		
Berm requirements (Zoning Sec 5.5.A)	Refer to Residential Adjacent to Non- residential berm requirements chart	NA		Site is not adjacent to residential areas.
Planting requirements (LDM 1.a.)	LDM Novi Street Tree List	NA		
Adjacent to Public Righ	nts-of-Way (Sec 5.5.B) and (LDM 1.b)		
Berm requirements (Zoning Sec 5.5.3.A.(5))	Refer to ROW landscape screening requirements chart for corresponding requirements.	Yes	Yes	Berms provided.
Cross-Section of Berms	(LDM 2.j)			

Item	Required Proposed Meets Code		Comments		
Slope, height and width	 Label contour lines Maximum 33% Constructed of loam with 6" top layer of topsoil. 	No cross section detail provided.	Yes	Please add a typical berm cross section detail showing slope, crest width, minimum height, construction materials.	
Type of Ground Cover		Yes	Yes	Seed or sod. Please label which on landscape plan.	
Setbacks from Utilities	Overhead utility lines and 15 ft. setback from edge of utility or 20 ft. setback from closest pole	Yes	Yes	Yes	
Walls (LDM 2.k & Zoning	Sec 5.5.3.vi)			<u> </u>	
Material, height and type of construction footing	Freestanding walls should have brick or stone exterior with masonry or concrete interior	NA		No walls proposed.	
Walls greater than 3 ½ ft. should be designed and sealed by an Engineer		NA			
ROW Landscape Scree	ning Requirements (Sec 5.5.	.3.B. ii)			
Greenbelt width (2)(3) (5)	20 ft.	20 ft	Yes		
Min. berm crest width	2 ft.	Yes	Yes		
Minimum berm height (9)	3 ft.	No	No	 It appears the berm along Haggerty Road does not meet minimum height requirement of 3 feet along entire frontage. Variation in height is provided as required, but minimum height must be maintained along entire berm. Please increase berm height to meet minimum height requirement. 	
3' wall	(4)(7)	NA			
Canopy deciduous or large evergreen trees Notes (1) (10)	 1 tree per 35 l.f. 14 Mile Rd: 300/35=9 trees Haggerty Rd: 300/35 = 	14 Mile Rd: 12 trees Haggerty Rd: 0 large evergreen or deciduous canopy	Yes/No	Either 2 deciduous canopy trees/large evergreen trees and 7 more subcanopy trees	

Item	Required	Proposed	Meets Code	Comments
	9 trees	trees . 7 credits for preserved trees used.		or 9 deciduous canopy trees or large evergreen trees should be added to the Haggerty Road greenbelt.
Sub-canopy deciduous trees Notes (2)(10)	 1 tree per 20 l.f.; 14 Mile Rd: 300/20=15 trees Haggerty Rd: 300/20 = 15 trees 	14 Mile Rd: 15 trees Haggerty Rd: 21 trees	Yes/No	See above.
Canopy deciduous trees in area between sidewalk and curb (Novi Street Tree List)	 1 tree per 35 l.f. 14 Mile Rd: 300/35=9 trees Haggerty Rd: 300/35 = 9 trees 	14 Mile Rd: 9 trees Haggerty Rd: 18 subcanopy trees (overhead line)	Yes	
Screening of outdoor storage, loading/unloading (Zoning Sec. 3.14, 3.15, 4.55, 4.56, 5.5)		None		Additional shrubs should be placed south of south walk to screen loading zone and gasoline tank area from property to south.
Transformers/Utility boxes (LDM 1.e from 1 through 5)	 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 	Screening on north east and south sides of transformer		Please add line of shrubs on west side of transformer per screening detail.
Foundation Plantings	 8 square feet of landscape area per 1 If of building perimeter Landscaping on all four sides of building, minimum width of 4 ft 60% of sides facing roads to be landscaped 260 If * 8 ft = 2,080 sf 	2,343 sf	No	 Landscaping must surround the building. Lawn areas do not count as foundation landscaping. If sufficient area is not available immediately adjacent to building, alternate areas can be provided to make up the difference. Note: Shrubs along parking perimeter are not required by code. Those areas could be counted toward foundation landscaping. If they are to count, please

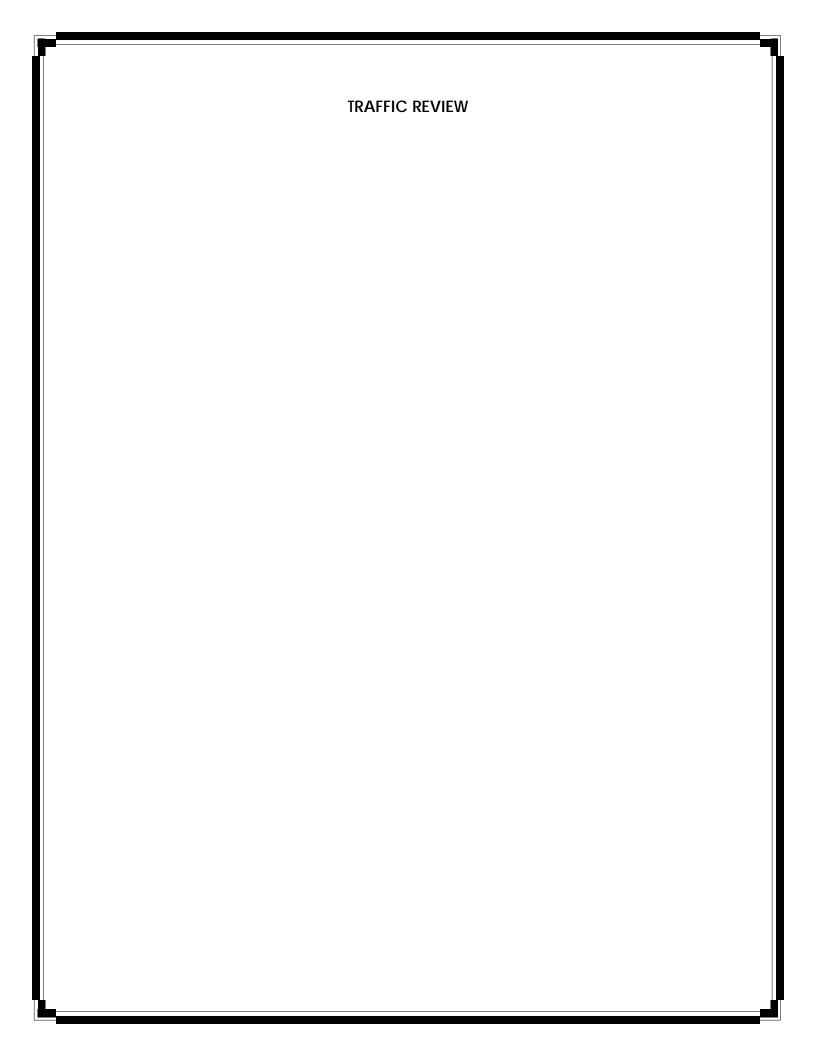
Item	Required	Proposed	Meets Code	Comments
				provide their areas in square feet. Note, the total island area of the large islands on the north side cannot count toward both foundation and parking lot island landscaping, but you can split the total area between uses. Please revise the totals if the island is to be split between requirements.
Detention/Retention Ba	sin Requirements (Sec. 5.5.3	3.E.iv)		
Planting requirements (Sec. 5.5.3.E.iv)	 Clusters shall cover 70-75% of the basin rim area 10" to 14" tall grass along sides of basin Refer to wetland for basin mix 	Large native shrubs around more than 70% of basin rim.	Yes	Please specify a mix using native Michigan plants for the detention basin and include the mix contents on the plan.
LANDSCAPING NOTES, I	DETAILS AND GENERAL REQU	JIREMENTS		
Landscape Notes - Utili	ze City of Novi Standard No	otes		
Installation date (LDM 2.1. & Zoning Sec 5.5.5.B)	Provide intended date	March 15-Nov 15	Yes	
Maintenance & Statement of intent (LDM 2.m & Zoning Sec 5.5.6)	 Include statement of intent to install and guarantee all materials for 2 years. Include a minimum one cultivation in June, July and August for the 2-year warranty period. 	Yes	Yes	Please revise note #5 to state guarantee for 2 years.
Plant source (LDM 2.n & LDM 3.a.(2))	Shall be northern nursery grown, No.1 grade	Yes	Yes	
Irrigation plan (LDM 2.s.)	A fully automatic irrigation system and a method of draining is required with Final Site Plan	No		Need for final site plan
Other information	Required by Planning Commission	NA		
(LDM 2.u) Establishment period (Zoning Sec 5.5.6.B)	2 yr. Guarantee	Yes	Yes	Please revise note #5 to state guarantee for 2 years.

Item	Required	Proposed	Meets Code	Comments
Approval of substitutions. (Zoning Sec 5.5.5.E)	City must approve any substitutions in writing prior to installation.	Yes	Yes	
Plant List (LDM 2.h.) - In	clude all cost estimates			
Quantities and sizes		Yes	Yes	
Root type		Yes	Yes	
Botanical and common names	Refer to LDM suggested plant list	Yes	Yes	Please note that llex glabra does not do well in this area in exposed situations such as those proposed. Please substitute a more hardy shrub in place of that species.
Type and amount of lawn		Yes	Yes	Seed or sod. Quantities of each will be needed for Final Site plan. Seed mixes for each area will need to be specified on the plan.
Cost estimate (LDM 2.t)	 For all new plantings, mulch and sod as listed on the plan 	Yes	Yes	Need for Final Site Plan. Use standard costs on Community Development website.
Planting Details/Info (LE	DM 2.i) – Utilize City of Novi	Standard Details	·	
Canopy Deciduous Tree		Yes	Yes	
Evergreen Tree		NA		
Shrub	Refer to LDM for detail	Yes	Yes	
Perennial/ Ground Cover	drawings	Yes	Yes	
Tree stakes and guys. (Wood stakes, fabric guys)		Yes	Yes	
Tree protection fencing	ee protection Located at Critical Root		Yes	Please revise detail to show fence at 1 foot outside of dripline.
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)) Substitutions to landscape standards for preserved canopy trees outside woodlands/		Yes	Yes	Existing trees to be saved along Haggerty and 14 Mile can be counted toward

Item	Required Proposed Meets Code			Comments	
	wetlands should be approved by LA. Refer to Landscape tree Credit Chart in LDM			requirement.	
Plant Sizes for ROW, Woodland replacement and others (LDM 3.c)	Canopy Deciduous shall be 3" and sub-canopy deciduous shall be 2.5" caliper. Refer to section for more details	Yes	Yes		
Plant size credit (LDM3.c.(2))	NA	No			
Prohibited Plants (LDM 3.d)	No plants on City Invasive Species List	Yes	Yes	Please do not use any seed mixes with crown vetch, which is very invasive.	
Recommended trees for planting under overhead utilities (LDM 3.e)	Label the distance from the overhead utilities	Yes	Yes	Subcanopy trees used as street trees alongPlease label distance.	
Collected or Transplanted trees (LDM 3.f)		Yes		Please add notes for transplanted trees from Landscaped Design Manual.	
Nonliving Durable Material: Mulch (LDM 4)	 Trees shall be mulched to 4" depth and shrubs, groundcovers to 3" 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.





AECOM 27777 Franklin Road Suite 2000 Southfield, MI 48034 www.aecom.com 248 204 5900 tel 248 204 5901 fax

Memorandum To	Barbara McBeth, AICP	Page	1	
CC	Kirsten Mellem			
Subject	JSP 16-0013 Speedway at Haggerty - Preliminary - Traffic Review			
From	Matt Klawon, PE			
Date	September 9, 2016			

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

GENERAL COMMENTS

- 1. The project, Speedway #2224, is proposing to enlarge their site by purchasing the adjoining property as well as redevelop the convenience store. The project is located in the southwest corner of 14 Mile Road and Haggerty Road. Both roads are under the Road Commission for Oakland County's jurisdiction. The expanded site will add:
 - a. four additional fueling positions
 - b. larger convenience market
- 2. The existing site is zoned B-3 General Business District and the adjoining property is zoned OS-T Office Service Technology District. The applicant is requesting a zoning change from B-3 and OS-T to a B-3/PRO District.

TRAFFIC IMPACTS

 AECOM performed an initial trip generation estimate based on the ITE Trip Generation Manual, 9th Edition, as follows:

ITE Code: 945 – Gasoline/Service Station with Convenience Market

Development-specific Quantity: 4 new fueling positions Zoning Change: B-3 and OS-T to a B-3/PRO District



Trip Generation Summary				
	City of Novi Threshold	Estimated Trips (Permitted under existing zoning)	Estimated Trips (Permitted under proposed zoning)	Proposed Development
AM Peak- Hour, Peak- Direction Trips	100	N/A	N/A	21
PM Peak- Hour, Peak- Direction Trips	100	N/A	N/A	27
Daily (One- Directional) Trips	750	N/A	N/A	651

2. The number of *additional* trips does not exceed the City's threshold of more than 750 trips per day or 100 peak direction trips per either the AM or PM peak hour. AECOM recommends performing the following traffic impact study in accordance with the City's requirements:

Traffic Impact Study Recommendation		
Type of Study	Justification	
None	Not warranted.	

3. The number of *additional* trips does not exceed the City's threshold of more than 1,000 trips per day for a Rezoning Traffic Impact Study (RTIS), and therefore, a RTIS is not warranted.

EXTERNAL SITE ACCESS AND OPERATIONS

The following comments relate to the external interface between the proposed development and the surrounding roadway(s).

- 1. The driveway entrance widths are in compliance with City standards.
- 2. Driveway radii should be labeled in order to ensure compliance with City standards.
- 3. The proposed driveway along Haggerty Road is being shifted to the south and is now located in part of the existing taper section, which is not ideal if it can be avoided
- 4. The applicant should review Figure IX.11 of the City's Code of Ordinances and provide the applicable taper and/or acceleration/deceleration lanes as required.
 - a. A gasoline station with convenience market with 16 fueling stations is expected to generate 217 trips during the PM peak hour based on the ITE Trip Generation Manual, 9th Edition (ITE Code 945). If equal distribution were to be assumed at both driveways and among left and right-turning vehicles, there would be approximately 27 right turning vehicles during the PM peak hour at each of the site driveways.



- b. According to Southeast Michigan Council of Governments (SEMCOG) traffic count data, the following two-way, 24-hour volumes exist:
 - i. 14 Mile Road (Welch to Haggerty, 2012) = 14,868
 - ii. Haggerty Road (13 Mile to 14 Mile, 2012) = 15,720
- c. Based on the SEMCOG two-way, 24-hour volumes and the estimated number of right turns into the site, right turn tapers are warranted at both site driveways.
- 5. Sight distances should be labeled in the next submittal to ensure that the requirements listed in Figure VIII-E of the City's standards are met.
- 6. The applicant is requesting a variance for driveway spacing along 14 Mile Road. The proposed driveway is located 121' from the neighboring driveway to the west but it aligns with the existing driveway on the north side of 14 Mile Road.
- 7. The applicant should request a City Council variance for the driveway on Haggerty Road. While the proposed Speedway driveway aligns with the CVS driveway on the east side of Haggerty Road, there is a second shopping center driveway less than 200' to the south, which does not meet opposite side driveway spacing requirements.

INTERNAL SITE OPERATIONS

The following comments relate to the on-site design and traffic flow operations.

- 1. General traffic flow operations is adequate throughout the site with the exception of the following concerns.
 - a. Trucks can adequately maneuver through the site.
 - b. The location of the trash dumpster and loading/unloading area is not in conflict with any parking spaces or pedestrian access.
- 2. Parking facilities
 - a. The number of parking spaces provided is adequate.
 - b. The design of the parking spaces meets City standards. Note that the parking spaces along the building and in the adjacent parking lot could be reduced to 17' in length if a 4" curb is provided and the sidewalk is constructed at 7'. Such alterations could allow for an increased area of green space.
 - c. Bicycle parking requirements are met.
- 3. Aisle width requirements are met.
- 4. The applicant should include radii and end island details throughout the site.
 - a. End islands are required to be 3' shorter than the parking space per Section 5.3.12 of the City's Zoning Ordinance.
 - b. The end island at the north end of the parking bay should have a minimum outside radius of 15' per Section 5.3.12 of the City's Zoning Ordinance
- 5. The proposed sidewalk is adequate and the applicant should include design details in the next submittal to ensure compliance with ADA requirements.
- 6. The applicant should include all signing and pavement marking information to verify compliance with the Michigan Manual on Uniform Traffic Control Devices (MMUTCD).

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



Sincerely,

AECOM

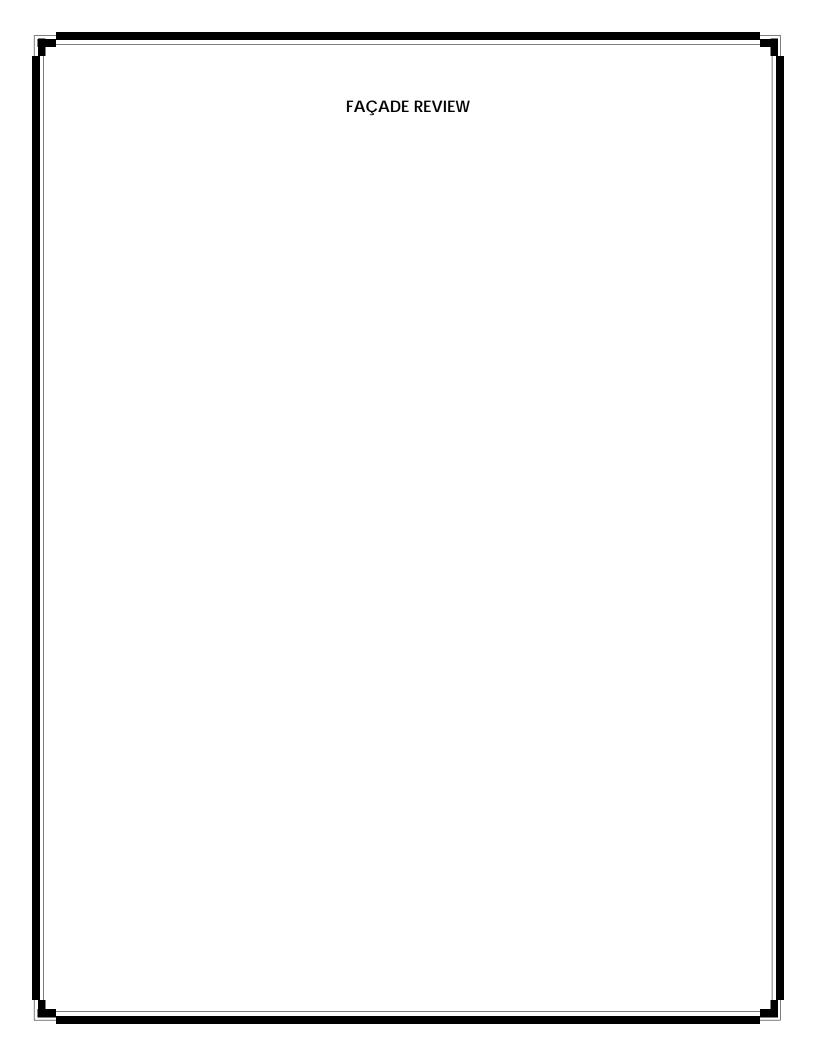
Paula K. Johnson, PE

Paula K. Johnson

Reviewer

Matthew G. Klawon, PE

Manager, Traffic Engineering and ITS Engineering Services







August 8, 2016

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

Review Status Summary:

Section 9 Waiver Recommended, applicant must provide sample board.

Re: FACADE ORDINANCE - Facade Review – Preliminary Site Plan

Speedway PRO, PSP16-0100

Façade Region: 1, Zoning District: B-3/PRO

Dear Ms. McBeth:

The following is the Facade Review for Final Site Plan Approval of the above referenced project based on the drawings prepared by Speedway Engineering, dated 4/7/16. The percentages of materials proposed for each façade are as shown in the tables below. The maximum and minimum percentages allowed by the <u>Schedule Regulating Façade Materials</u> of Ordinance Section 5.15 are shown in the right hand column. Materials in non-compliance with the Façade Chart, if any, are highlighted in bold. A color sample board was not provided at the time of this review.

Canopy (5,400 S.F.)	East (Front)	West (Rear)	South	North	Ordinance Maximum (Minimum)
Brick	20%	20%	30%	30%	100% (30%)
Flat Metal (Stucco Canopy)	71%	71%	59%	59%	50%
Trim (Painted Column)	9%	9%	11%	11%	15%

Building (8,200 S.F.)	East (Front)	West (Rear)	South	North	Ordinance Maximum (Minimum)
Brick	44%	55%	65%	65%	100% (30%)
Asphalt Shingles	51%	35%	30%	30%	25.0%
Flat Metal (RTU Screen)	0%	5%	2%	2%	50.0%
Trim (Gutter, Red)	5%	5%	3%	3%	15%

As shown above the minimum percentage of Brick is not provided on the east and west facades and the percentage of Flat Metal Panels exceeds the maximum amount allowed by the Ordinance on all facades of the canopy and the percentage of Asphalt Shingles exceeds the maximum amount allowed by the Ordinance on all facades of the building. The design is in general compliance with Section 5.15.12 of the Façade Ordinance that requires that not less than 30% of the façade of the canopy be of a material identical to a material used on the building. A Section 9 Waiver would be required for the above indicated deviations from the Façade Ordinance (highlighted in bold).

Recommendation –It is our recommendation that the design is consistent with the intent and purpose of the Façade Ordinance and that a Section 9 Waiver be granted for the overage Flat Metal Panels and Asphalt Shingles and the underage of Brick. This recommendation is contingent upon a sample board showing the color of all materials being provided not less than 7 days prior to the Planning Commission meeting. It should be noted that the red color used on both the gutter and canopy must be a subdued tone consistent with Section 5.15.2 of the Ordinance, which prohibits intense colors. Additionally, the undefined material used in the equipment well area must be Brick or other material consistent with the façade chart. It should be noted that the use of accent illumination on the building or canopy is considered inconsistent with Section 5.15.2 the Façade Ordinance.

Notes to the Applicant:

- 1. It should be noted that any roof top equipment must be screened from view from all on-site and off-site vantage points using compliant materials consistent with the building design.
- 2. Inspections The Façade Ordinance requires inspection(s) for all projects. Materials displayed on the approved sample board will be compared to materials delivered to the site. It is the applicant's responsibility to request the inspection of each façade material at the appropriate time. Inspections may be requested using the Novi Building Department's Online Inspection Portal with the following link. Please click on "Click here to Request an Inspection" under "Contractors", then click "Façade".

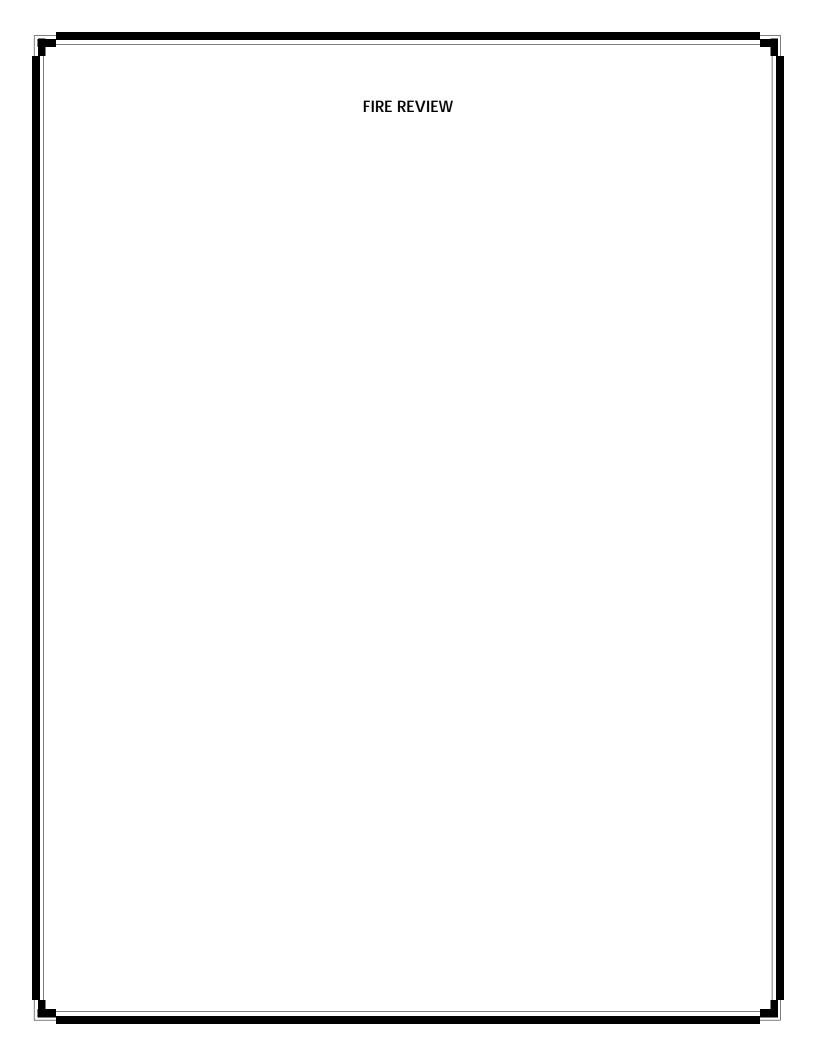
http://www.cityofnovi.org/Services/CommDev/OnlineInspectionPortal.asp.

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

Sincerely,

DRN & Architects PC

Douglas R. Necci, AIA





July 29, 2016

TO: Barbara McBeth- City Planner Kirsten Mellem- Plan Review Center

RE: Speedway, 31275 Haggerty

PSP#16-0100

Project Description: Renovation of existing station

Comments:

- 1) The dispensing area of a self-service gas station shall at all times be in clear view of the operator or attendant. Placing or allowing any obstacle to come between the dispensing area and the remote control console location is prohibited. Mirrors may be utilized to provide adequate visual control.
- 2) Two-way electronic voice communication shall be provided between the dispensing area of a self-service gas station and the remote control console unless unaided voice communications may be readily heard over all conditions of operation considering distance, noise levels, obstructions and enclosures.
- 3) A self-service gas station shall be equipped with a fire extinguisher having a minimum classification of 2A:40B:C located within thirty (30) feet of each dispensing device.
- 4) A self-service gas station shall be equipped with an approved switch or circuit breaker at the remote control console location to permit the shutting off of power to all dispensing devices in the event of an emergency. The switch or circuit breaker shall be clearly identified and easily accessible. An operator or attendant shall be in constant attendance and control of the switch or circuit breaker.
- 5) "Knox Box" to be installed on building exterior as required. Item will need to be noted on plans and installed in approved location per Fire Marshal's office.

CITY COUNCIL

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Mayor Pro Tem Dave Staudt

Gwen Markham

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City Manager Pete Auger

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

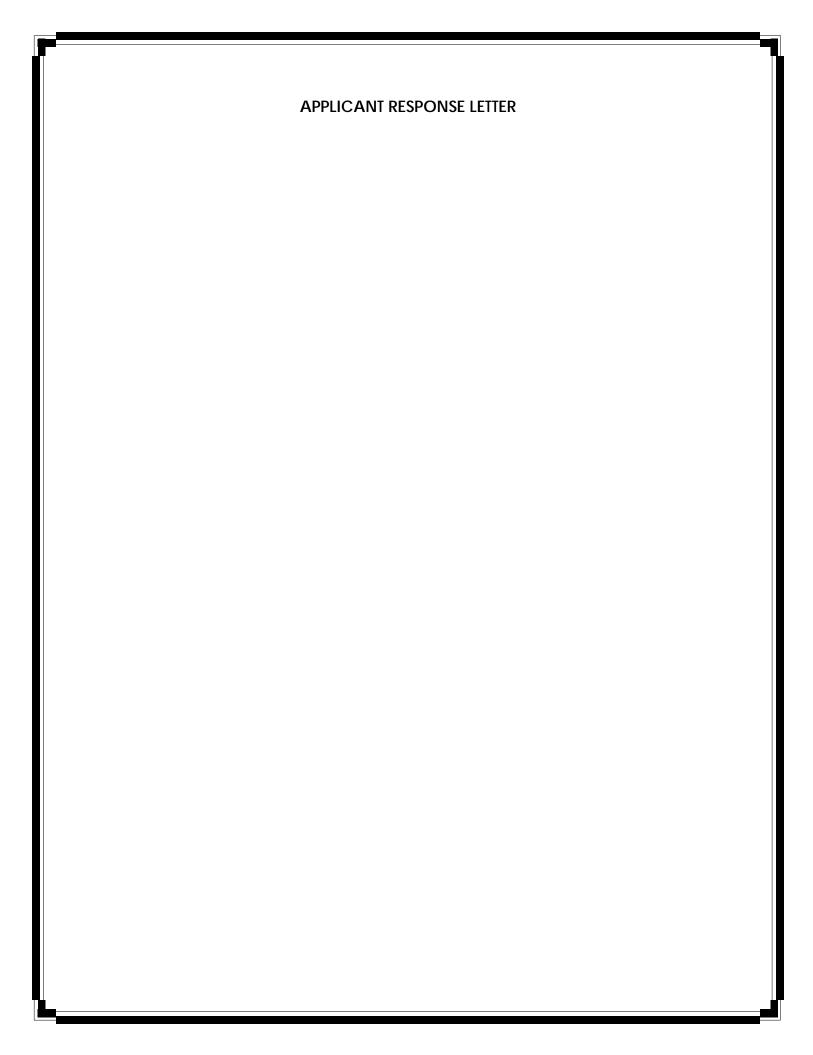
cityofnovi.org

Recommendation: Please note emergency pump shut down and fire extinguisher locations on future submittals.

Approved with above comment

Sincerely,

Joseph Shelton- Fire Marshal City of Novi – Fire Department





September 6, 2016

Ms. Kirsten Mellem Planner City of Novi 45175 Ten Mile Road Novi, Michigan 48375

Via Email

RE: JSP16-13 – Speedway – 31275 Haggerty Road – Comment Response Letter

Dear Kirsten:

The following responses are provided to the comments received from the Plan Center Review Report dates August 11, 2016 for the proposed expansion and reconstruction of Speedway #2224 at 31275 Haggerty Road, Novi, Michigan.

Community Development Department – Kirsten Mellem, Planner (Responses are provided in bolded comments received on the Planning Review Chart dated August 11, 2016.)

- Parking Setback Screening See landscape letter for additional details.
 Response: Comment was addressed in the Landscape Comment Response letter from Weihe Engineering.
- 2. Barrier Free Spaces Provide one more ADA/Barrier Free parking space. Response: An additional ADA/barrier free parking space will be added to the site plan.
- 3. Design and Construction Standards Manual Provide parcel numbers on the ALTA plans.

Response: The parcel number will be added to the ALTA plans.

4. Rezoning Signage – Provide the height of the letters on the sign.

Response: The height of the letters was addressed directly with staff. A revised plan was transmitted to staff on August 17, 2016 and approved prior to signs being created and posted.

Engineering Department – Jeremy Miller, Engineer Comment responses provided under separate cover.

Community Development Department – Rick Meader, Landscape Architect Comment responses provided under separate cover.

Community Development Department – Traffic Review – Paula Johnson, P.E. & Matt Klawon, P.E., AECOM

Planning Zoning Development Services

(The responses below are from the comments received on August 1, 2016.)

- External Site Access and Operations:
 - o The driveway radii will be labeled on final site plans.
 - o Speedway will work with the City of Novi to design and properly illustrate the taper areas as identified in the comment letter.
 - o Sight distances will be labeled on the revised plans.
 - o Speedway is requesting approval of the driveways as shown on the plans.
- Internal Site Operations
 - o The parking islands will be modified to conform with the standards of the landscape regulations and the comments provided in the letter.
 - O Design details of the sidewalks will be provided to ensure compliance with ADA standards.
 - All required signage and pavement markings will be provided on final engineering plans.

Community Development Department – Architectural Review – Doug Necci, DRN & Associates

- 1. Speedway is requesting a waiver for the asphalt shingles as shown on the building elevations. See sheet 2224-ELE.
- 2. Speedway is requesting approval of the elevations as provided in the submittal packet.
- 3. Speedway will work with staff on the revised elevations to ensure compliance with City regulations.

Fire Department - Joseph Shelton - Fire Marshal

- 1. Speedway will work with the Fire Marshal to ensure compliance with this regulation.
- 2. Final details will be provided on the construction plans.
- 3. Final details and locations are provided on the construction plans.
- 4. These will be installed and the locations will be provided on the final site plans.
- 5. A knox box will be installed and the details will be provided on the final plans.

Please review the responses and contact me immediately if additional information is needed. Thank you for your continued assistance with this project.

Sincerely,

Robert C. Sweet

Enclosures cc: Mike Bergman, Speedway Justin Couch, Speedway Ryan Roosen, Speedway MDC #3675



September 6, 2016

Mr. Jeremy Miller City of Novi Engineering Department 45175 Ten Mile Road, Novi, Michigan 48375

RE: JSP 16-13 - Speedway - 31275 Haggerty Road - Engineering Comment Response Letter

Dear Jeremy:

The following responses are provided based on the comments received on August 11, 2016 related to the expansion and reconstruction of Speedway #2224 at 31275 Haggerty Road, Novi, Michigan.

Comments:

1. The grade of the drive approach shall not exceed 2-percent within the first 25 feet of the intersection. The drive on Haggerty is shown at 9.2-percent. Consider alternate drive locations to reduce the drive slope.

Response: The approach grades within the first 25 feet of the intersection have been revised to not exceed 2%.

2. Revise the grading, storm sewer, and drainage areas to capture more of the southern portion of the site.

Response: A majority of the Southern portion drains towards the detention basin or onto our site. There is a yard drain in the South East corner to catch some of the runoff where our site is higher than the neighbor closer to the approach.

General

3. Provide a note on the plans that all work shall conform to the current City of Novi standards and specifications.

Response: Said not will be added to the final set.

4. The City standard detail sheets are not required for the Final Site Plan submittal. They will be required with the Stamping Set submittal. They can be found on the City website (www.cityofnovi.org/DesignManual).

Response: Said detail sheets will be added to the final set.

5. The plans are not to the specified scale.

Response: This will be corrected.

- 6. 6. Provide a minimum of two ties to established section or quarter section corners. **Response: A minimum of two ties will be shown on the CS plan.**
- 7. A right-of-way permit will be required from the City of Novi and Oakland County. **Response: This permit will be obtained as necessary.**

- 8. Soil borings shall be provided for a preliminary review of the constructability of the proposed development (roads, basin, etc.). Borings identifying soil types, and groundwater elevation should be provided at the time of Preliminary Site plan.

 Response: A new sheet will be created to show the boring locations and the boring logs will be provided.
- 9. Clearly distinguish between proposed improvements and existing features of the site. **Response: This will be done on the CS plan.**
- 10. Provide a traffic control sign table listing the quantities of each sign type proposed for the development. Provide a note along with the table stating all traffic signage will comply with the current MMUTCD standards.

Response: A maintenance of traffic plan will be assembled to address this.

11. Provide a note that compacted sand backfill shall be provided for all utilities within the influence of paved areas, and illustrate on the profiles.

Response: This will be called out and shown on the CU plan.

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

Response: This will be shown on the CU plan.

13. Provide a note stating if dewatering is anticipated or encountered during construction a dewatering plan must be submitted to the Engineering Department for review.

Response: This note will be added to the CS plan.

Water Main

14. The proposed water lead is connecting to a water main that is served by Commerce Township. Contact Commerce Township for review and any additional requirements.

Response: Commerce Township will be contacted for review as requested.

Sanitary Sewer

15. Verify the location of the existing sanitary sewer.

Response: We will search for as-builts or perform additional survey work if necessary.

16. Provide the size of the existing sanitary sewer.

Response: We will search for as-builts or perform additional survey work if necessary.

17. Note on the construction materials table that 6-inch sanitary leads shall be a minimum SDR 23.5, and mains shall be SDR 26.

Response: This will be addressed on the CU plan.



18. Provide a note on the Utility Plan stating the sanitary lead will be buried at least 5 feet deep where under the influence of pavement.

Response: This will be addressed on the CU plan.

19. Provide the slope of the proposed sanitary lead. A minimum slope of 1% is required. **Response: This will be addressed on the CU plan.**

Storm Sewer

20. Provide type of H.D.P.E pipe proposed for storm sewer.

Response: This will be addressed on the CU plan.

21. H.D.P.E. pipe is not permitted in the R.O.W. Storm sewer in the R.O.W. must be class IV R.C.P.

Response: This will be addressed on the CU plan.

22. Provide profiles for all storm sewer 12-inches or larger.

Response: This will be address by a new CU sheet.

23. A minimum cover depth of 3 feet shall be maintained over all storm sewers. Currently, a few pipe sections do not meet this standard. Grades shall be elevated and minimum pipe slopes shall be used to maximize the cover depth. In situations where the minimum cover cannot be achieved, Class V pipe must be used with an absolute minimum cover depth of 2 feet. An explanation shall be provided where the cover depth cannot be provided.

Response: We will try to meet the 3' cover, but certain to stay below the 2' minimum on our CU plan.

24. The structure numbers do not appear to match the callouts on the table on sheet CU. Response: This will be addressed accordingly on the table.

Storm Water Management Plan

25. The Storm Water Management Plan for this development shall be designed in accordance with the Storm Water Ordinance and Chapter 5 of the new Engineering Design Manual. Response: A SWMPP plan will be put together.

26. Provide drawings, details, and a cross-section for the proposed basin outlet.

Response: This will be provided on a new CU sheet.

27. An adequate maintenance access route to the basin outlet structure and any other pretreatment structures shall be provided (15 feet wide, maximum slope of 1V:5H, and able to withstand the passage of heavy equipment). Verify the access route does not conflict with proposed landscaping.

Response: This will be shown on the CS, CG and LP plans.



28. Provide a 5-foot wide stone bridge allowing direct access to the standpipe from the bank of the basin during high-water conditions (i.e. stone 6-inches above high water elevation). Provide a detail and/or note as necessary.

Response: The requested bridge will be shown on the CS plan.

29. Provide an access easement for maintenance over the storm water detention system and the pretreatment structure. Also, include an access easement to the detention area from the public road right-of-way.

Response: The requested access easement will be provided as necessary.

30. The primary outlet standpipe shall be designed with a secondary outer pipe with numerous holes. The stone filter would rest against this outer pipe and would help protect the design standpipe from clogging.

Response: The outlet standpipe will be designed accordingly.

31. Provide release rate calculations for the three design storm events (first flush, bank full, 100-year).

Response: These calculations will be provided.

32. 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.

Response: This will be done and shown on the newly created BP plan.

33. A 4-foot wide safety shelf is required one-foot below the permanent water surface elevation within the basin.

Response: This will be shown on the CU plan.

34. Provide a cross-section of the basin.

Response: This will be provided on a new CU sheet.

35. Clearly show the emergency overland flow route for the proposed basin.

Response: Arrows will be provided to clearly show the flow route.

36. If a wet basin is proposed with a 3 foot permanent water level.

Response: No wet basin proposed.

Paving & Grading

37. Provide a note on the Grading Plan stating the right-of-way pathway will match existing grades at both ends.

Response: This will be shown on the CU plans.

38. Provide cross-sections of the proposed pavement.

Response: This will be provided on a new CPC sheet.



39. The right-of-way sidewalk 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 8-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 8 inches across the drive approach. Provide additional spot grades as necessary to verify the maximum 2-percent cross-slope is maintained along the walk.

Response: Additional spot grades will be provided on the CG plan.

40. The City standard straight-faced curb (MDOT C-4 curb detail) shall be provided. Revise details accordingly.

Response: The requested detail will be provided on the CS plan.

41. Provide top of curb/walk and pavement/gutter grades to indicate height of curb adjacent to parking stalls or drive areas.

Response: All spot elevations requested will be provided on the CG plan.

42. Curbing and walks adjacent to the end of 17-foot stalls shall be reduced to 4-inches high, rather than the standard 6-inch height to be provided adjacent to 19-foot stalls. Provide additional details as appropriate.

Response: All stalls are 19' in length.

Off-Site Easements

- 43. Any off-site utility easements anticipated must be executed by both parties prior to final approval of the plans. Drafts of the easement shall be submitted at the time of the Preliminary Site Plan submittal for review, and shall be approved by the City prior to final signatures.
 - a. A temporary grading easement is required from the property owner to the south.

Response: This temporary easement will be handled prior to any work.

The following must be provided at the time of Concept Plan resubmittal:

44. A letter from either the applicant or the applicant's engineer must be submitted with the revised concept highlighting the changes made to the plans addressing each of the comments listed above and indicating the revised sheets involved.

Response: This will be done when the plans are resubmitted.

The following must be submitted at the time of Final Site Plan submittal:

45. An itemized construction cost estimate must be submitted to the Community Development Department at the time of Final Site Plan submittal 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 cost estimate must be itemized for each utility (water, sanitary, storm sewer), on-site paving, right-of way paving (including proposed right-of-way), grading, and the storm water basin (basin construction, control structure, pretreatment structure and restoration).

Response: The requested cost estimate will be provided.



The following must be submitted at the time of Stamping Set submittal:

46. A draft copy of the maintenance agreement for the storm water facilities, as outlined in the Storm Water Management Ordinance, must be submitted to the Community Development Department with the Final Site Plan. Once the form of the agreement is approved, this agreement must be approved by City Council and shall be recorded in the office of the Oakland County Register of Deeds.

Response: The requested agreement will be put together as necessary.

47. Executed copies of any required off-site utility easements must be submitted to the Community Development Department.

Response: These will be provided as necessary.

The following must be addressed prior to construction:

- 48. 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).
- 49. 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. Once determined, a grading permit fee must be paid to the City Treasurer's Office.
- 50. A Soil Erosion Control Permit must be obtained from the City of Novi. Contact Sarah Marchioni in the Community Development Department (248-347-0430) for forms and information.
- 51. A permit for work within the right-of-way of 14 Mile Rd. and Haggerty Rd. must be obtained from the City of Novi. The application is available from the City Engineering Division and should be filed at the time of Final Site Plan submittal. Please contact the Engineering Division at 248-347-0454 for further information.
- 52. A permit for work within the right-of-way of 14 Mile Rd. and Haggerty Rd. must be obtained from the Road Commission for Oakland County. Please contact the RCOC (248-858-4835) directly with any questions. The applicant must forward a copy of this permit to the City. Provide a note on the plans indicating all work within the right-of-way will be constructed in accordance with the Road Commission for Oakland County standards.
- 53. Construction Inspection Fees to be determined once the construction cost estimate is submitted must be paid prior to the pre-construction meeting.
- 54. A storm water performance guarantee, equal to 1.2 times the amount required to complete storm water management and facilities as specified in the Storm Water Management Ordinance, must be posted at the Treasurer's Office.



- 55. A street sign financial guarantee in an amount to be determined (\$400 per traffic control sign proposed) must be posted at the Treasurer's Office.
- 56. Permits for the construction of each retaining wall must be obtained from the Community Development Department (248-347-0415).

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 review the responses and contact me immediately if additional information is needed. Thank you for your continued assistance with this project.

Sincerely,

Robert C. Sweet

Enclosures

cc: Michael Bergman, Speedway Justin Couch, Speedway Ryan Roosen, Speedway



September 2, 2016

Mr. Rick Meader Novi Landscape Architect 45125 W. Ten Mile Road Novi, Michigan 48375 (248) 735-5621 rmeader@cityofnovi.org

RE: JSP 16-0013

Dear Mr. Meader:

This letter is in response to your comment email dated July 22, 2016 for the above referenced project. We have prepared the following responses to the plan review comments listed below.

EXISTING ELEMENTS:

2. *Comment:* Please clearly indicate the fire hydrant location.

Response: Hydrant is located West of existing entrance on W 14 Mile Rd. A note

will be added to identify hydrant.

LANDSCAPING REQUIREMENTS:

2. Comment: Required berm is provided but needs to be modified to provide minimum

height of 3 feet.

Response: The berm is shown as high as possible while still satisfying the

maximum 4:1 slope.

2. Comment: Required canopy and subcanopy trees are provided for all requirements

except the Haggerty Road greenbelt. Seven credits for preserved trees are used, but the landscaping still requires either 9 deciduous canopy/large evergreen trees, or 2 deciduous canopy trees and 7 more subcanopy trees.

Response: The requested 2 Deciduous and 7 subcanopy trees will be provided.

PARKING LOT LANDSCAPING (ZONING SEC. 5.5.3.C):

1. Comment: Please combine two 168sf islands in east bay into one and only plant one large deciduous canopy tree in it to provide better survival for that tree.



Response: Please clarify.

2. Comment: Do not count area of islands/corners where no trees are planted..

Response: Noted.

PARKING LOT PERIMETER LANDSCAPING (ZONING SEC 5.5.3.Ciii footnote):

Comment: Gingko trees are planted too close together for their mature size. Please

provide better spacing for the trees in order to provide better chances for survival. If total requirement for perimeter trees can't be met (i.e. a tree

needs to be removed from the crowded areas), that is acceptable.

Response: Will review and modify accordingly.

STORM BASIN LANDSCAPE (ZONING SEC 5.5.3.E.iv and LDM 1.d(3)):

2. Comment: Please specify a seed mix for the detention basin that does not include

crown vetch, and is composed of native Michigan plants.

Response: Will modify accordingly.

BUILDING FOUNDATION LANDSCAPING (ZONING SEC. 5.5.3.D):

1. Comment: Foundation landscaping needs to be provided around the entire building.

Response: Landscaping on East side of parking to count towards foundation

plantings.

2. *Comment:* Areas with just lawn cannot be counted as foundation landscape area.

Response: Noted.

3. Comment: Please see the Landscape Chart for additional information regarding this

requirement.

Response: Noted.

SNOW DEPOSIT (LDM.2.q):



Comment: Please label as "Snow deposit area"

Response: This will be changed to the "Snow deposit area"

PARKING LOT ISLANDS(a,b.i);

1. Comment: Don't count area of 401sf island at northeast entry if no tree is planted in

it.

Response: Noted.

2. Comment: Please combine two 163.8sf islands (at northern end of bay) to form one

large island with 1 large canopy tree.

Response: Will modify to show one island at 327.6 sf (each is 163.8 sf currently)

CURBS AND PARKING STALL REDUCTIN (c):

Comment: Spaces at north end of building can be shortened to provide more building

foundation landscape area.

Response: We are opting to go with the 19' parking stalls to hinder car overhang

on the sidewalk.

PLANTINGS AROUND FIRE HYDRANT (c):

3. *Comment:* Please clearly label any/all fire hydrant(s) on landscape plan.

Response: Fire Hydrant will be labeled.

BERMS: SLOPE, HEIGHT AND WIDTH

Comment: Please add a typical berm cross section detail showing slope, crest width,

minimum height, construction materials.

Response: Will show accordingly.

BERMS: TYPE OF GROUND COVER



Comment: Seed or sod. Please label which on landscape plan.

Response: Seed should be shown unless required to be sod.

ROW LANDSCAPE SCREENING REQUIREMENTS – MINIMUM BERM HEIGHT

2. Comment: Please increase berm height to meet minimum height requirement.

Response: The berm is shown as high as possible while still satisfying the

maximum 4:1 slope.

CNAOPY DECIDUOUS OR LARGE EVERGREEN TREES

Comment: Either 2 deciduous canopy trees/large evergreen trees and 7 more

subcanopy trees or 9 deciduous canopy trees or large evergreen trees

should be added to the Haggerty Road greenbelt.

Response: Will be added.

SUB-CANOPY DECIDUOUS TREES

Comment: See above.

Response: See above.

SCREENING OF OUTDOOR STORAGE, LOADIN/UNLOADING

Comment: Additional shrubs should be placed south of south walk to screen loading

zone and gasoline tank area from property to south.

Response: Will be added.

TRANSFORMERS/UTILITY BOXS

Comment: Please add line of shrubs on west side of transformer per screening detail.

Response: Typically a electric provider requires the side that opens to be clear of

shrubs.

FOUNDATION PLANTINGS

1. Comment: Landscaping must surround the building.



Response: Noted. Shrubs on East side of parking to count.

2. Comment: Lawn areas do not count as foundation landscaping.

Response: Noted.

3. Comment: If sufficient area is not available immediately adjacent to building,

alternate areas can be provided to make up the difference.

Response: Noted.

4. Comment: Note: Shrubs along parking perimeter are not required by code. Those

areas could be counted toward foundation landscaping. If they are to count, please provide their areas in square feet. Note, the total island area of the large islands on the north side cannot count toward both foundation and parking lot island landscaping, but you can split the total area between uses. Please revise the totals if the island is to be split

between requirements.

Response: Noted. Will use this as foundation planting replacement.

PLANTING REQUIREMENTS

Comment: Please specify a mix using native Michigan plants for the detention basin

and include the mix contents on the plan.

Response: Noted.

MAINTENACE & STATEMENT OF INTENT

Comment: Please revise note #5 to state guarantee for 2 years.

Response: Noted.

ESTABLISHMENT PERIOD

Comment: Please revise note #5 to state guarantee for 2 years.

Response: Noted.

PLANT LIST: BOTANICAL AND COMMON NAMES

Comment: Please note that Ilex glabra does not do well in this area in exposed



situations such as those proposed. Please substitute a more hardy shrub in place of that species.

Response: Noted.

PLANTING DETAILS/INFO: TREE PROTECTION FENCING

Comment: Please revise detail to show fence at 1 foot outside of dripline.

Response: Noted.

OTHER PLANT MATERIAL REQUIREMENTS: PROHIBITED PLANTS

Comment: Please do not use any seed mixes with crown vetch, which is very invasive.

Response: Noted.

OTHER PLANT MATERIAL REQUIREMENTS: RECOMMENDED TREES FOR PLANTING UNDER OVERHEAD UTILITIES

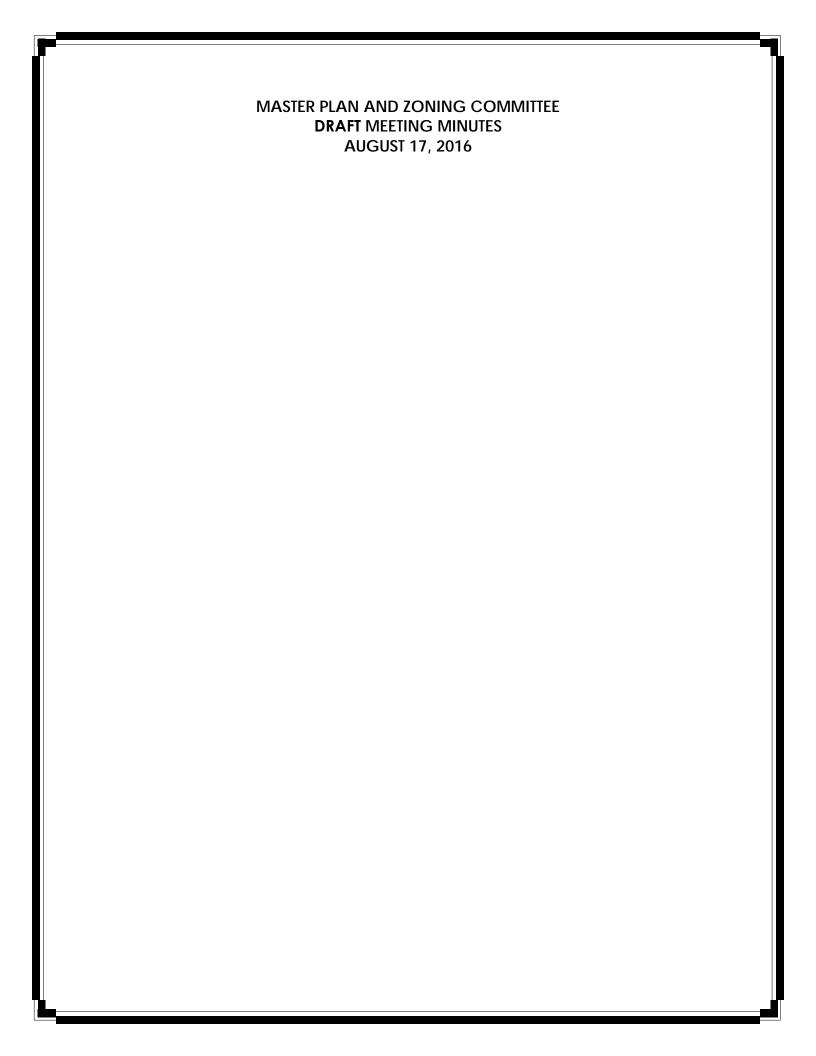
Comment: Subcanopy trees used as street trees alongPlease label distance.

Response: Noted.

Should you have any further questions or requests for additional information pertaining to this project review, please contact me at 317-846-6611.

Sincerely,

Eric Carter, R.L.A.
Project Manager, Commercial Development





MASTER PLAN AND ZONING COMMITTEE

City of Novi Planning Commission
August 17, 2016 at 6:00 p.m.
Novi Civic Center – Mayor's Conference Room
45175 W. Ten Mile, Novi, MI 48375
(248) 347-0475
DRAFT Minutes

CALL TO ORDER

The meeting was called to order at 6:00 p.m.

ROLL CALL

Present: Members Robert Giacopetti and Mark Pehrson

Not Present: Member Michael Lynch

Staff Present: Barbara McBeth, Kirsten Mellem, David Gilliam

APPROVAL OF AGENDA

Moved by Pehrson, seconded by Giacopetti.

VOICE VOTE ON AGENDA APPROVAL, MOTION MADE BY MEMBER GIACOPETTI AND SECONDED BY MEMBER PEHRSON:

A motion to approve the August 17, 2016 Master Plan and Zoning Committee agenda. *Motion carried 2-0.*

AUDIENCE PARTICIPATION AND CORRESPONDENCE

None

DISCUSSION ITEMS

A. Rezoning request from RM-1, Low-Density Multiple-Family to P-1, Vehicular Parking Review and provide comments on the rezoning request for property east of Novi Road and south of Grand River Ave.

City Planner Barb McBeth presented the application from Feldman Automotive to rezone 0.9-acre of a 1.67-acre property on the south side of Grand River Ave. between Novi Road and Meadowbrook Road (Section 23) from RM-1 (Low-Density Multiple-Family) to P-1 (Vehicular Parking). The Future Land Use Map recommends TC Gateway as the anticipated future use of the property. Since the rezoning is not consistent with the Future Land Use Map, the request has been brought before the Master Plan and Zoning Committee for discussion.

Member Giacopetti commented on the vision and future of the Grand River Corridor and the TC district stating that a dealership is not necessarily one of the uses in that vision. He asked if the property owners had any intentions of moving to another location that is larger and could accommodate the parking needs. The applicant stated that there are limited areas in Novi that would provide the required features. Member Pehrson stated that the parcel is an odd shape and would be limited on its development potential. He mentioned another property in the area that has sat vacant for many years because of its odd shape and location; it is not the intent to see that happen again. The Members were in consensus that the PRO option doesn't make sense for this property. The Traffic Impact Study would also

be unnecessary since there would be less trips made since the vehicles would be closer to the dealership and not at an off-site facility. The Members ultimately had no objection to the proposed rezoning application. The required public hearing will be held on September 14, 2016 at 7:00pm.

B. Rezoning request from OST, Office Service Technology to B-3, General Business with Planned Rezoning Overlay (PRO)

Review and provide comments on the rezoning request for property at the southwest corner of 14 Mile Road and Haggerty Road.

Planner Kirsten Mellem presented the application for rezoning from OST and B-3 to B-3 with PRO. The petitioner is requesting to rezone a 2.03 acre property on the west of Haggerty Road and south of 14 Mile Road (Section 1) from OST (Office Service Technology) and B-3 (General Business) to B-3 (General Business) utilizing the Planned Rezoning Overlay (PRO) option. The Future Land Use Map recommends Office Research Technology as the zoning. Since the rezoning is not consistent with the Future Land Use Map, the request has been brought before the Master Plan and Zoning Committee for discussion.

The applicant has proposed a 4,000 square foot convenience store and 5,400 square foot fuel canopy over 8 double-sided fuel dispensers. This would include razing the existing 2,417 square foot building and 6 double-sided fuel dispensers. As part of the redevelopment, existing driveways will be shifted away from the intersection and aligned with the driveways across 14 Mile Road and Haggerty Road. Speedway is proposing to dedicate approximately 10 feet of ROW along 14 Mile Road to the Road Commission for Oakland County. There will be an above-ground detention basin in the southwest corner of the enlarged property.

Member Giacopetti asked about the aesthetics of the new building stating that this location is very prominent and we would expect a great look at this entry point into the city. The sheets with the elevations were reviewed and the applicant stated that this is one of the top 10 locations in the state. All Speedway stations are corporate owned, which provides quality assurance of product and brand. The investment by Speedway will result in additional employees.

Another question was raised regarding the 30 feet of landscaped area that will be undeveloped on the west side of the parcel. The applicant stated that they intent to landscape and keep as a buffer since the site grades and other constraints prevent them from developing it. Staff pointed out that while this buffer is not required, it is a nice feature to buffer between the proposed development and the existing bank and office building, which currently provide no buffer at the property line. Member Pehrson stated that this proposal fits the area, is a great upgrade for the corner, and has no other concerns. The required public hearing will be held on September 14, 2016 at 7:00pm.

C. Approval of the February 17, 2016 Master Plan and Zoning Committee meeting minutes

VOICE VOTE ON MEETING MINUTES APPROVAL, MOTION MADE BY MEMBER GIACOPETTI AND SECONDED BY MEMBER PEHRSON:

A motion to approve the February 17, 2016 Master Plan and Zoning Committee Meeting minutes. Motion carried, 2-0.

ADJOURN

Moved by Giacopetti, seconded by Pehrson. The meeting was adjourned at 6:39pm.