



CITY of NOVI CITY COUNCIL

Agenda Item 4
May 23, 2016

SUBJECT: Consideration of a request from Neptune Center for a variance from Section 11-239(b) of the Design and Construction Standards of the City Code, which requires parking areas and maneuvering lanes to be hard-surfaced and curbed, to allow the applicant to construct a parking area that has no curb on parcel number 22-15-451-009.

SUBMITTING DEPARTMENT: Department of Public Services, Engineering Division *BTC RJA*

CITY MANAGER APPROVAL: *[Signature]*

BACKGROUND INFORMATION:

Neptune Center, located on Grand River west of Novi Road, has an approved site plan and has completed most of the construction of a new 20,019 square foot building and parking lot. The Design and Construction Standards Section 11-239(b) requires that "the entire parking area including parking spaces and maneuvering lanes are required to be hard-surfaced and curbed." The project limits for Neptune Center encompassed only the extreme southern portion of the site adjacent to Grand River. The existing area to the north of the project limits for Neptune Center is a gravel parking/storage area that has been in use since at least 1974.

The approved site plan included a concrete curb and sidewalk along the north side of the new asphalt parking area behind the newly constructed building which separates the new asphalt parking from the old gravel area behind the new building (see attached plan). As the project is nearing completion, the applicant is requesting a variance to relieve the requirement for curb (and sidewalk) along the north side of the new asphalt parking area. The variance would permit unimpeded access between the new parking area and the existing gravel area as shown in the attached photos. (The curb is an ordinance requirement, thus the subject of the variance, while the adjacent sidewalk is a site plan requirement and would require a revised final site plan).

The applicant has submitted a Design and Construction Standards Variance Request to not construct the curb as described above (see attached application). The applicant claims that required curb "becomes an obstacle to the truck movement into the building from the north." The presence of vehicles parked in the newly constructed parking area should also pose an obstacle, however the applicant states that since those spaces are for employees "management of those spaces is easily controlled by the general manager when the need for straight truck access is required." These operational concerns should have been addressed during the site plan review of the project. In one discussion with the applicant, the applicant indicated to staff that the curb was shown on the plan only to get site plan approval without the intent to ever construct it. This statement conflicts with the operational issues identified in the application.

The variance request was reviewed by various City departments using the criteria in Section 11-10 of the ordinance. There were no concerns expressed in the reviews by the Landscape Architect, Fire Department, or DPS Field Operations staff.

Community Development and DPS Engineering are recommending *denial* of the variance for the following reasons:

- Because the applicant owns the area north of the new parking lot and it is part of the same parcel, there is the potential to redesign this parking area to accommodate the business's vehicles to address the operational issue while still meeting the ordinance. The applicant has not shown that the application of the ordinance standard on this site is infeasible or otherwise presents an exceptional difficulty, nor has it demonstrated that enforcement of the ordinance on this site would be any more difficult or impractical than it would be on any other site where the ordinance has been applied.
- The alternative proposed by the applicant is not adequate for the intended use and substantially deviates from the performance that would be obtained by strict enforcement of the standards for the following reasons:
 - Curb and gutter serves a drainage purpose to guide and direct the flow of storm water within the parking area to the storm water collection system for treatment and storage prior to discharge and protects the edge of the parking lot from erosion.
- The granting of the variance would be detrimental to the public health and welfare because the proposed alternative increases the concern for erosion of material from the site, as well as for transport and deposition of suspended solids into the adjacent wetlands and possibly onto adjacent properties. The applicant has not provided any data or information to refute this claim; therefore, staff believes that there is a risk of injury to the wetland and the adjacent property owners.

The final site plan was approved by City staff on May 19, 2015 with the required curb and sidewalk shown.

The application package, asserted justifications, relevant ordinance sections, and a recent supplementary submittal from the applicant along with the relevant ordinance sections along with a memo discussing this new information are attached.

RECOMMENDED ACTIONS:

Denial of a request from Neptune Center. for a variance from Section 11-239(b) of the Design and Construction Standards of the City Code, which requires parking areas and maneuvering lanes to be hard-surfaced and curbed on parcel number 22-15-451-009 for the following reasons:

- Because the applicant owns the area north of the new parking lot and it is part of the same parcel, there is the potential to redesign this parking area to accommodate the business’s vehicles to address the operational issue while still meeting the ordinance. The applicant has not shown that the application of the ordinance standard on this site is infeasible or otherwise presents an exceptional difficulty, nor has it demonstrated that enforcement of the ordinance on this site would be any more difficult or impractical than it would be on any other site where the ordinance has been applied.
- The alternative proposed by the applicant is not adequate for the intended use and substantially deviates from the performance that would be obtained by strict enforcement of the standards for the following reasons:
 - Curb and gutter serves a drainage purpose to guide and direct the flow of storm water within the parking area to the storm water collection system for treatment and storage prior to discharge and protects the edge of the parking lot from erosion.
- The granting of the variance would be detrimental to the public health and welfare because the proposed alternative increases the concern for erosion of material from the site, as well as for transport and deposition of suspended solids into the adjacent wetlands and possibly onto adjacent properties. The applicant has not provided any data or information to refute this claim; therefore, staff believes that there is a risk of injury to the wetland and the adjacent property owners.

OR

Approval of a request from Neptune Center for a variance from Section 11-239(b) of the Design and Construction Standards of the City Code, which requires parking areas and maneuvering lanes to be hard-surfaced and curbed, to allow the applicant to construct a parking area that has no curb on parcel number 22-15-451-009 because City Council finds that the applicant has demonstrated:

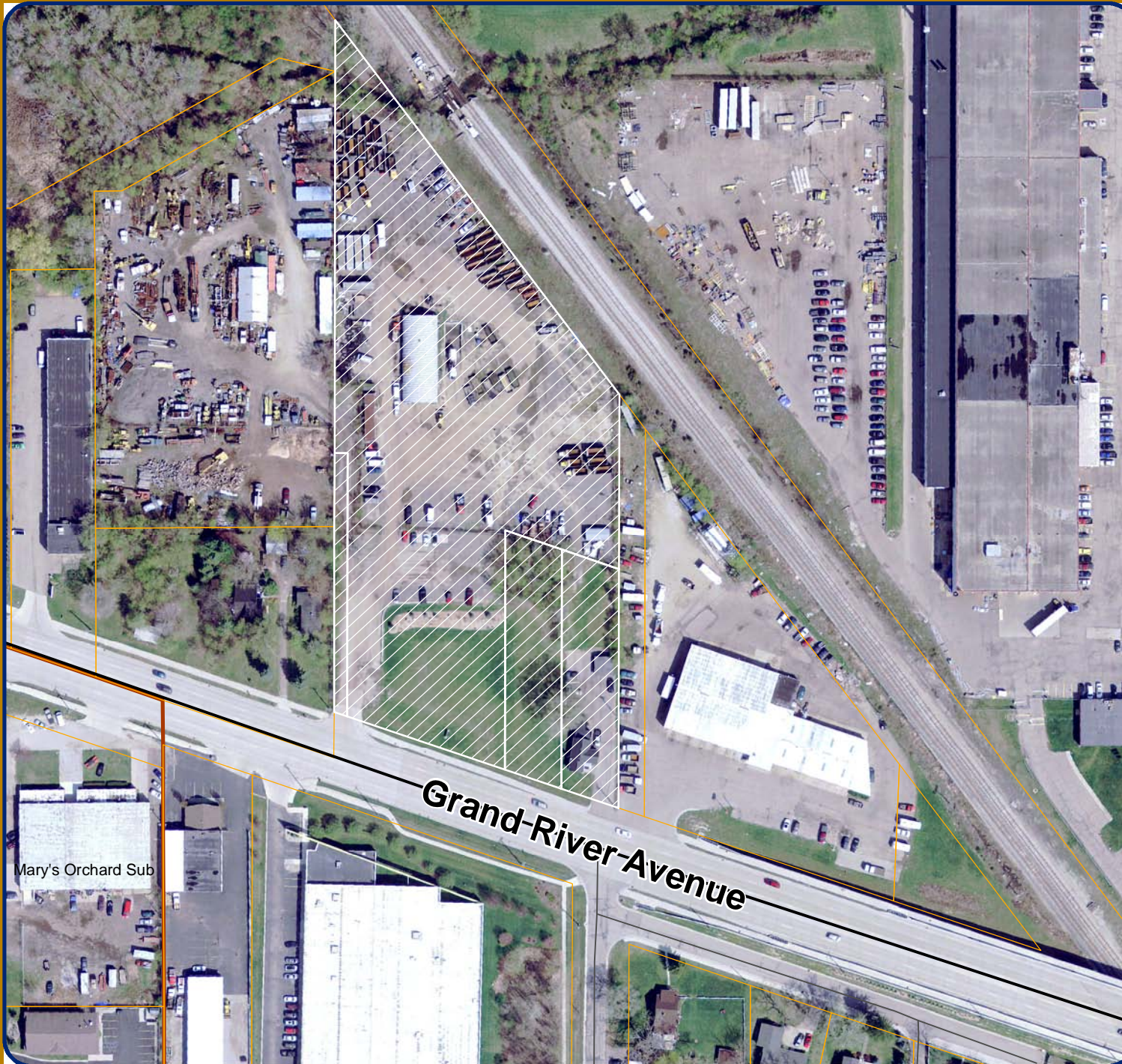
- The application of the ordinance standard on this site is infeasible or otherwise presents an exceptional difficulty, nor has it demonstrated that enforcement of the ordinance on this site would be any more difficult or impractical than it would be on any other site where the ordinance has been applied.
- The alternative proposed by the applicant is adequate for the intended use and does not substantially deviate from the performance that would be obtained by strict enforcement of the standards.
- The granting of the variance would not be detrimental to the public health and welfare.

	1	2	Y	N
Mayor Gatt				
Mayor Pro Tem Staudt				
Council Member Burke				
Council Member Casey				

	1	2	Y	N
Council Member Markham				
Council Member Mutch				
Council Member Wrobel				

JSP14-10 Neptune Center

Location



Map Legend

 Subject Properties



1 inch = 167 feet

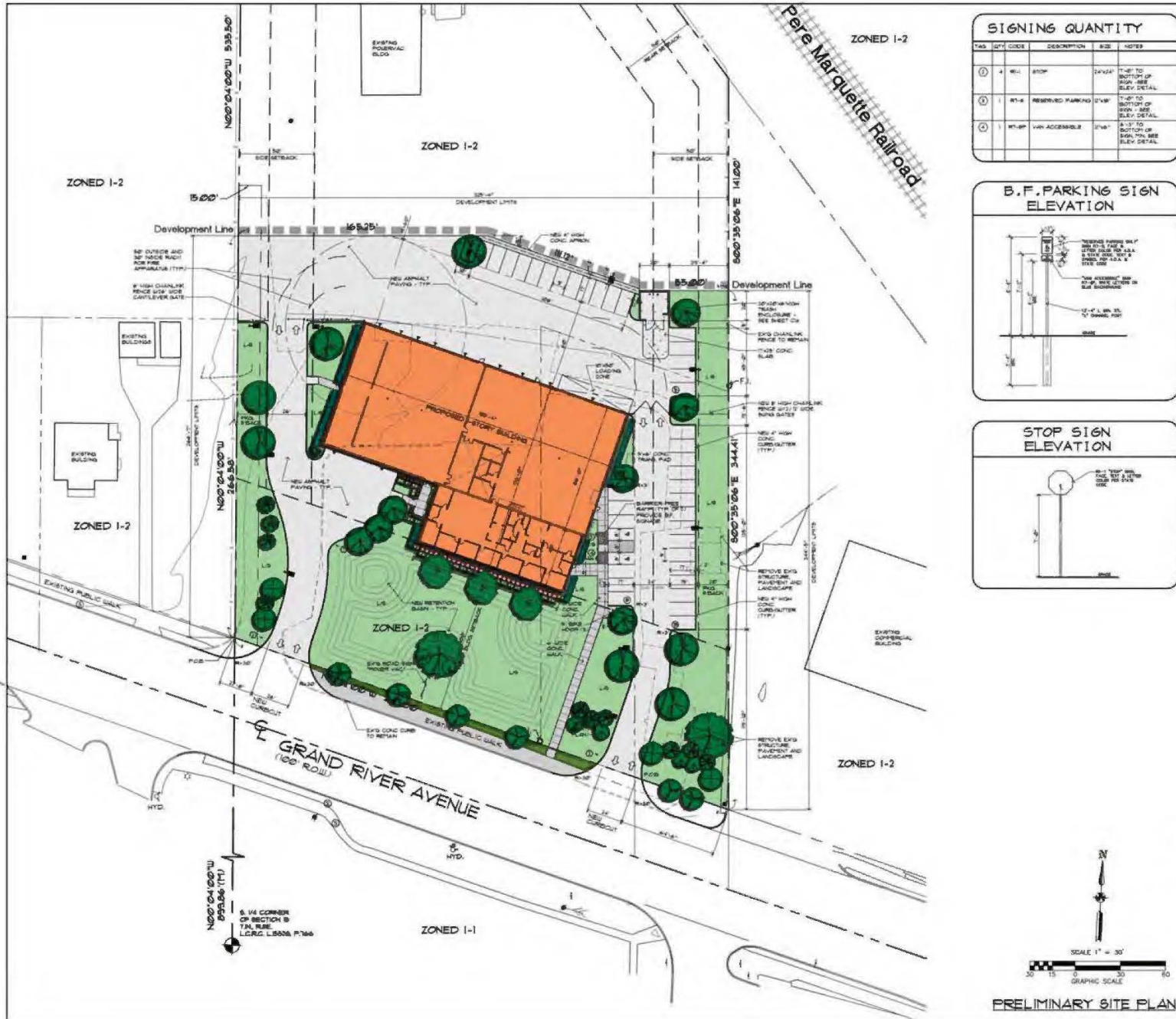


City of Novi
Planning Division
Community Development Dept.
45175 W Ten Mile Rd
Novi, MI 48375
cityofnovi.org

Map Author: Kristen Kapelanski
Date: 02-19-15
Project: Neptune Center JSP14-10
Version #: 1.0

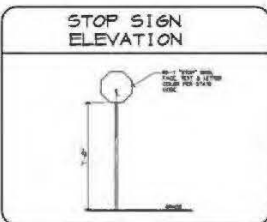
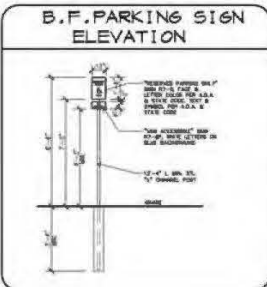
MAP INTERPRETATION NOTICE

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



SIGNING QUANTITY

TAB	SET	CODE	DESCRIPTION	SIZE	NOTES
1	A	REL.	STOP	24"x24"	7'-0" TO BOTTOM OF SIGN SEE ELEV. DETAIL
1	B	RT-1	RESERVED PARKING	2'x8'	7'-0" TO BOTTOM OF SIGN SEE ELEV. DETAIL
1	C	RT-200	WAY ACCESSIBLE	2'x8'	8'-0" TO BOTTOM OF SIGN SEE ELEV. DETAIL



LAND/BUILDING/PARKING DATA AND NOTES

ZONING CLASSIFICATION: I-2 GENERAL INDUSTRIAL
 ADJACENT ZONING (W, N & E): I-2 GENERAL INDUSTRIAL
 ADJACENT ZONING (SOUTH): I-1 LIGHT INDUSTRIAL

PROPOSED NEPTUNE CENTRE DEVELOPMENT AREA:
 GROSS AREA = 101,832 SF OR 2.34 AC.
 TOTAL GROSS PROPOSED BUILDING AREA: 20,616 SF

LAND AREA 44300 GRAND RIVER:
 EXISTING POWER YARD GROSS AREA: 170,468 SF OR 3.91 AC.
 LAND AREA RECENTLY ACQUIRED:
 44240 AREA: 17,285 SF OR 0.40 AC.
 44220 AREA: 17,378 SF OR 0.40 AC.

TOTAL GROSS AREA: 34,562 SF OR 0.79 AC.
 LAND AREA GROSS ACROSS EASEMENT (ACQUISITION):
 SHARED EASEMENT AREA: 4,404.81 SF OR 0.10 AC.
 LAND AREA OVERALL:
 TOTAL COMBINED (SHARED AREA/TOTAL): 209,560.20 SF OR 4.81 AC.

BUILDING HEIGHT:
 ALLOWED: 80 FEET MAXIMUM
 PROVIDED: BARNHOUSE = 28'-0" OFFICE = 14'-0"

BUILDING ORIENTATION ON SITE:
 BUILDING FRONT FACE TO BE ORIENTED PARALLEL TO FRONT PROPERTY LINE

BUILDING SETBACKS REQUIRED:
 FRONT YARD SETBACK: 100 FEET
 SIDE YARD SETBACK: 10 FEET
 REAR YARD SETBACK: 50 FEET

BUILDING SETBACKS PROVIDED:
 FRONT YARD SETBACK: 100 FEET
 SIDE YARD SETBACK (WEST): 10 FEET, 5 BODIES
 SIDE YARD SETBACK (EAST): 10 FEET, 5 BODIES
 REAR YARD SETBACK: 50 FEET

PARKING SETBACK:
 REQUIRED AND PROVIDED: 30 FEET

PARKING REQUIRED:
 WHOLESALE AND WHOLESALE ESTABLISHMENTS:
 (1) SPACE PER 700 S.F. USABLE FLOOR AREA
 14.881 S.F./700 S.F. = 20.9 OR 21 SPACES
 OFFICE:
 (1) SPACE PER 322 S.F. USABLE FLOOR AREA
 3.282 S.F./322 S.F. = 14.78 OR 15 SPACES

TOTAL PARKING REQUIRED: 36 SPACES

BARrier-FREE SPACES REQUIRED: 2 SPACES

PARKING PROVIDED:
 STANDARD SPACES PROVIDED: 36 SPACES
 NUMBER OF B.F. SPACES PROVIDED: 2 SPACES
 TOTAL SPACES PROVIDED: 40 SPACES

BIKE/PARKING REQUIRED:
 3% OF REQUIRED PARKING
 36 SPACES x 0.03 = 1.08

BIKE/PARKING PROVIDED: 2 SPACES

BIKE/PARKING PROVIDED: 3 SPACES

LOADING/UNLOADING AREA REQUIRED:
 (1) SPACE @ 10' x 50' = 500 SF

LOADING/UNLOADING AREA PROVIDED:
 (1) SPACE @ 10' x 50' = 500 SF

BEFORE YOU DIG
 CALL MISS DIG.
 800-482-7171
 (TOLL FREE)

PARKING INFORMATION

TOTAL SPACES	40
36 SPACES 8' x 19'-0" @ 90'	
2 B.F. SPACES 8' x 20'-0" @ 90'	
0 SPACES 8' x 8' @ 60'	
0 SPACES 8' x 8' @ 12'	

ARCHITECT/PLANNER
 Dorchner/Martin Associates, Inc.
 2980 Greenfield Rd., Suite 101
 Southfield, Michigan 48076
 (248) 351-1000
 Fax: (248) 351-1221
 e-mail: emartin@dorchnermartin.com
 www.dorchnermartin.com

SURVEYOR
 MORAN & PAUL ENGINEERS
 46777 BORDERS AVE.
 PONTIAC, MI 48342
 TEL: (248) 332-7937

CIVIL ENGINEER
 MORAN & PAUL ENGINEERS
 46777 BORDERS AVE.
 PONTIAC, MI 48342
 TEL: (248) 332-7937

SITE LOCATION

PROJECT STREET ADDRESS
 44300 GRAND RIVER AVE. SECTION 15

CITY: NOVI STATE: MICHIGAN COUNTY: OAKLAND

NO.	DATE	DESCRIPTION	BY
1	2-11-15	OWNER BUILDING CONCEPT REVIEW	DMA
2	2-12-15	SUBMIT FOR PRE-APPLICATION REVIEW/PLS	DMA
3	2-12-15	SUBMIT FOR PRELIMINARY SITE PLAN REVIEW	DMA

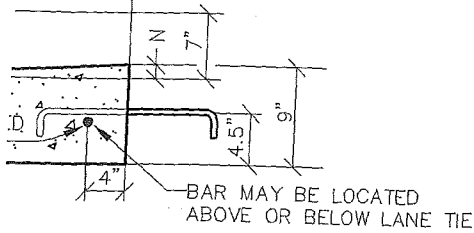
ARCHITECT SEAL

NEPTUNE CENTRE
 CONTRACT NO. 1 DAVID JAMES 44300 GRAND RIVER, NOVI, MICHIGAN 48076 SECTION 15
 P.L. (248) 812-8874 FAX: (248) 912-8973
 NEPTUNE PROPERTY MANAGEMENT, LLC

STATUS DATE BY
DATE DRAWN 2-11-15 **DMA**
PLAN CHECKED
AS-BUILT

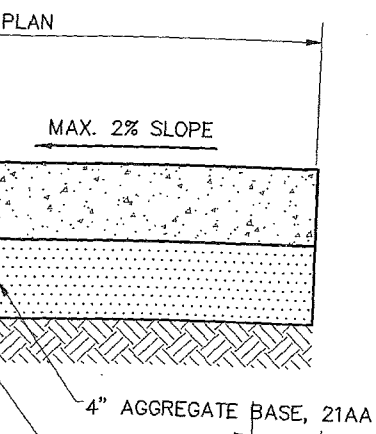
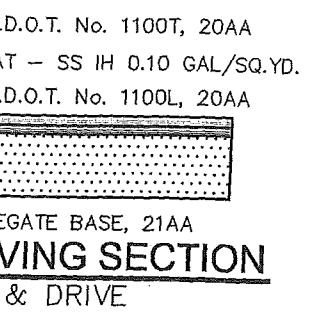
REN1

SCALE 1" = 30'
 GRAPHIC SCALE
PRELIMINARY SITE PLAN

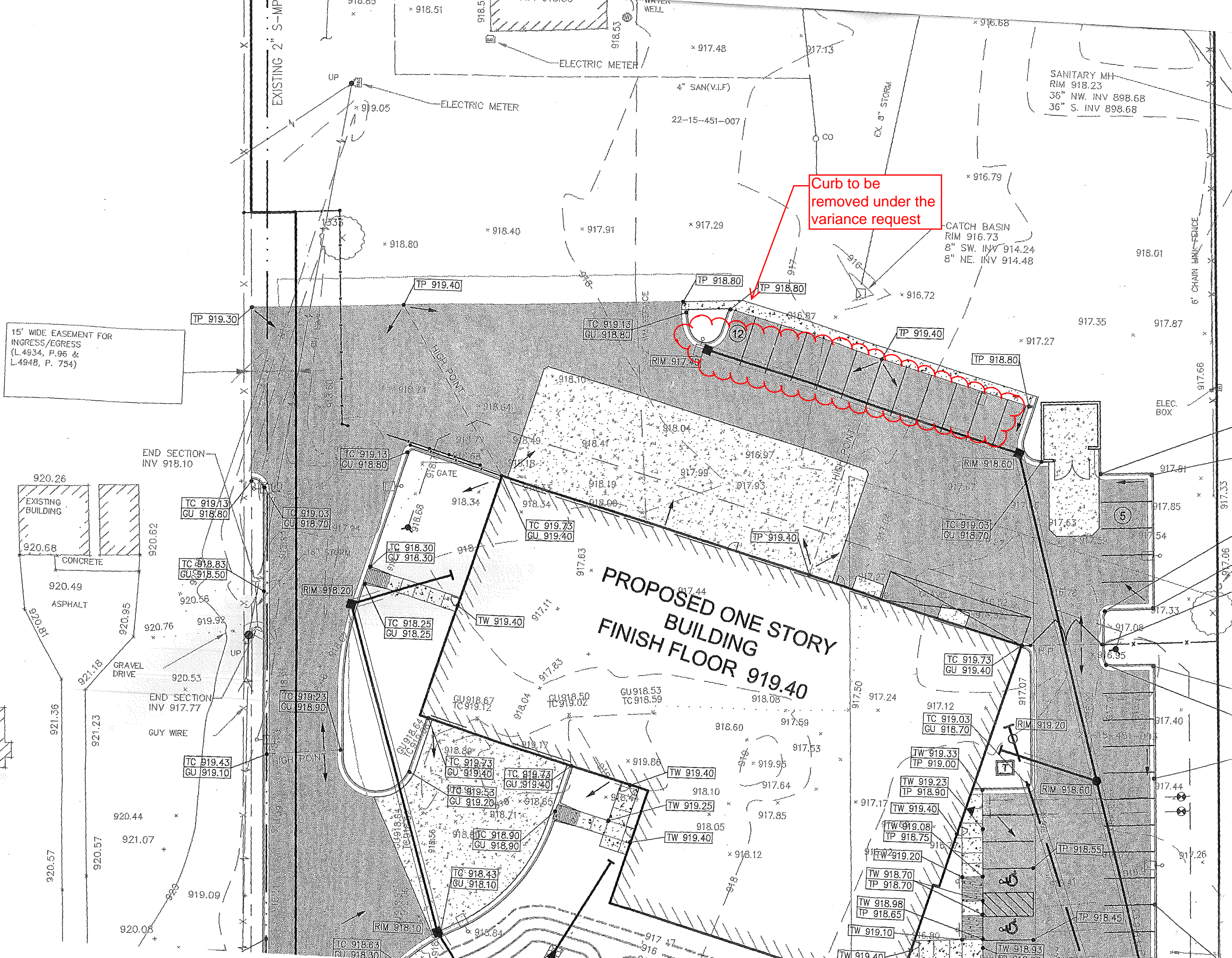
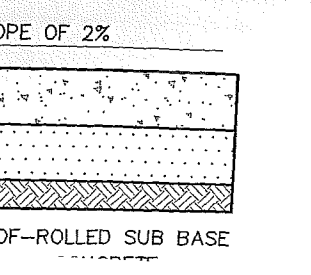


LANE TIES	CONCRETE CU. YD./LIN. FT.
OMITTED	0.0632

IRB AND GUTTER DETAIL C-4
N.T.S.



CURB AND WALK
N.T.S.



Curb to be removed under the variance request

PROPOSED ONE STORY BUILDING FINISH FLOOR 919.40

15' WIDE EASEMENT FOR INGRESS/EGRESS (L.4934, P.96 & L.4948, P. 754)

SANITARY MH
RIM 918.23
36" NW. INV 898.68
36" S. INV 898.68

CATCH BASIN
RIM 916.73
8" SW. INV 914.24
8" NE. INV 914.48

END SECTION INV 918.10

END SECTION INV 917.77

ASIN

PHOTOS OF NEARLY COMPLETED SITE
NEPTUNE CENTER



Sec. 11-239. - Driveways and parking lots.

(b) Design standards.

(1) Driveway and parking lot surfacing requirements.

Exceptions will be made for private utility service driveways for facilities providing an accessory use. Minimum pavement standards include: For asphalt pavement, three (3) inches asphalt over eight (8) inches aggregate base; for concrete pavement, six (6) inches concrete over properly compacted subgrade. Core reports are required to be provided by the contractor for asphalt paving at the direction of the city engineer. All curbing must be concrete; no asphalt curbs will be allowed.

(2) Subgrade requirements.

- a. All pavement surfaces must be supported upon a prepared subgrade that has been compacted to at least ninety-five (95) percent of maximum unit weight in accordance with MDOT standards. When unstable subgrade materials, i.e., peat, muck, marl, wet clays, etc., are encountered, excavation and removal of such unstable materials and replacement to plan subgrade with approved materials compacted in place shall be required. Approved materials shall include slag, crushed stone, gravel, coarse sand, or other materials approved by the engineer.
- b. Should it be found that the excavation, removal and replacement of unstable subgrade material is impractical due to excessive depths, alternate pavement structure designs must be submitted to and approved by the engineer prior to pavement installation.

(3) Pavement layout and schematics. Parking spaces, maneuvering lanes, driveways, and end islands shall conform in size and configuration to the requirements of section 2506, Appendix A, "Zoning Ordinance." No parking areas shall be permitted in the future road right-of-way as designated in the city master plan for land use.

(4) Drainage and grading requirements.

a. Pavement grading.

1. Generally the minimum pavement slopes shall be one (1) percent. Lesser slopes may be used if existing topography prohibits a one (1) percent slope and only upon approval by the engineer.
2. Maximum driveway slopes shall be eight (8) percent.
3. Maximum parking lot slopes shall be eight (8) percent.

b. Drainage.

1. All paved areas shall be drained to dispose of all surface waters accumulated in the parking area in a manner which will preclude unrestricted drainage of water onto adjacent property unless otherwise approved by the city engineer.
2. The disposal of stormwaters from all paved surfaces shall conform to the requirements of articles IV, V and VI of this chapter for the design and construction standards for storm sewers and grading.
3. The disposal of stormwaters to a roadside ditch shall receive the approval of the agency having jurisdiction over the roadway prior to final site plan approval. The discharge of surface waters to a recognized county drain shall receive the approval of the county drain commissioner's office prior to final site plan approval.
4. The discharge of stormwaters onto private property is not permitted unless written permission to do so is received from the affected property owners.

- (5) Parking lot access drive requirements. Fire apparatus access drives to and from buildings through parking lots shall have a minimum fifty (50) feet outside turning radius and designed to support a minimum of thirty-five (35) tons.

(Ord. No. 86-124, § 11.04, 4-21-86; Ord. No. 93-124.06, Pt. LXXXIII, LXXXIV, 2-1-93; Ord. No. 96-124.07, Pt. XXXXXX, 12-16-96; Ord. No. 99-124.11, Pt. XXXV, 7-26-99; Ord. No. 02-124.09, Pt. IV, 8-26-02; Ord. No. 07-124.16, Pt. II, 3-19-07)



JOHNSON ROSATI SCHULTZ JOPPICH PC

27555 Executive Drive Suite 250 ~ Farmington Hills, Michigan 48331
Phone: 248.489.4100 | Fax: 248.489.1726

Elizabeth Kudla Saarela
esaarela@jrsjlaw.com

www.johnsonrosati.com

May 16, 2016

Brian Coburn, Engineering Manager
City of Novi
Public Services
Field Services Complex
26300 Lee BeGole Drive
Novi, MI 48375

Re: **Neptune Center – Driveway and Parking Lot Design Standards**
Variance from Design and Construction Standards

Dear Mr. Wayne:

Our office has reviewed the proposed request for a variance from the City's Design and Construction Standards which would request that a portion of the parking lot for the Neptune Center Development remain as unpaved aggregate without a curb. City Ordinance requires that the entire parking area, including parking spaces and maneuvering lanes to be to be hard-surfaced and curbed. The property owner has requested a waiver from Section 11-239 (b) of the City of Novi Code, which states in relevant part:

Sec. 11-239. Driveways and parking lots.

(b) Design standards.

(1) Driveway and parking lot surfacing requirements. The entire parking area including parking spaces and maneuvering lanes are required to be hard-surfaced and curbed. Exceptions will be made for private utility service driveways for facilities providing an accessory use. Minimum pavement standards include: For asphalt pavement, three (3) inches asphalt over eight (8) inches aggregate base; for concrete pavement, six (6) inches concrete over properly compacted subgrade. Core reports are required to be provided by the contractor for asphalt paving at the direction of the city engineer. All curbing must be concrete; no asphalt curbs will be allowed.

Section 11-10 of the Ordinance Code permits the City Council to grant a variance from the Design and Construction Standards when a property owner shows all of the following:

(b) A variance may be granted when all of the following conditions are satisfied:

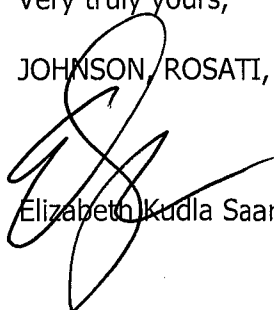
- (1) A literal application of the substantive requirement would result in exceptional, practical difficulty to the applicant;
- (2) The alternative proposed by the applicant shall be adequate for the intended use and shall not substantially deviate from the performance that would be obtained by strict enforcement of the standards; and
- (3) The granting of the variance will not be detrimental to the public health, safety or welfare, nor injurious to adjoining or neighboring property.

The applicant has provided information relating to the proposed variance indicating that the installation of a curb would impede truck maneuvering access on the site. Storm water drainage would be addressed by grading. In the event that City Council finds that the standards for a variance or waiver have been met, our office sees no legal impediment to granting the variance, subject to the condition that the Engineering Division has also reviewed and approve the proposed plan.

If you have any questions regarding the above, please call me.

Very truly yours,

JOHNSON, ROSATI, SCHULTZ & JOPPICH, P.C.



Elizabeth Kudla Saarela

EKS

C: Maryanne Cornelius, Clerk
Charles Boulard, Community Development Director
Matt Wiktorowski, Field Operations
Kirsten Mellem, Planner
Rick Meader, Landscape Architect
Jeff Johnson, Fire Department
Thomas R. Schultz, Esquire



Request for Variance Design and Construction Standards

RECEIVED

APR 19 2016

CITY OF NOVI
COMMUNITY DEVELOPMENT

Applicant Information

Name: Neptune Management

Address: 44300 Grand River Avenue

Novi, MI 48375

Phone No: 248.912.9974

Engineer Information

Name: Nowak & Fraus Engineers

Address: 46777 Woodward Avenue

Pontiac, MI 48342

Phone No: 248.332.7931

Applicant Status (please check one):

- Property Owner Developer Developer / Owner Representative
 Other _____

Project Name PowerVac of Michigan

Project Address/Location 44300 Grand River Avenue

Variance Request Partial relief from Section 11-239(b) City Code

Justification (attach additional pages if necessary)

See Attached Letter and Grading Plan

INTERNAL USE

Date Submitted: _____

Code Section from which variance is sought: _____

Submittal Checklist: One (1) copy of plan on 8.5 x 11 size paper
 \$100 Filing Fee (No fee for driveway width variance requests)

Request Status: APPROVED DENIED

Authorized By: _____

Authorization Date: _____



Dorchen/Martin Associates, Inc.
Architects/Planners

29895 Greenfield Road Suite 107
Southfield, Michigan 48076
248.557.1062
Fax: 248.557.1231
Cell: 248.224.3714
E-mail: fmartin@dorchenmartin.com
<http://www.dorchenmartin.com/>

April 18, 2016

Ms. Kristen Mellem, Planner
City of Novi Community Development Department
45175 West 10 Mile Road
Novi, MI 48375

Re: Neptune Centre Development
44300 Grand River
Novi, MI
D/MA File No: 13041

Dear Ms. Mellem:

Dorchen/Martin Associates, Inc. are the architects for Neptune Centre and are providing the following information and request for Neptune Management, the property owners. We have included an engineering Paving – Grading Plan for consideration.

The above referenced Neptune Centre is in the process of completing the easterly concrete approach to Grand River along with the final topcoat of asphalt for the approved paved areas. PowerVac of Michigan is the tenant and has been operating out of the facility since a temporary certificate of occupancy was issued late in 2015. Prior to operating out of the new facility in late 2015, the general manager determined that the required concrete curb detail for parking lots, Section 11-239(b) of the City Code, created an operational challenge for the maneuvering the larger “VAC” Trucks that are over 40 feet long on the north side of the building adjacent to the row of 12 employee parking spaces.

The challenge being that in many instances, it is necessary to drive the trucks “straight” into the storage and service doors on the north side of the building from the northerly portion of the property, north of the concrete curb at the 12 parking spaces. The Novi Design and Construction Standards require a concrete curb at the edge of the parking spaces and this becomes an obstacle to the truck movement into the building from the north only. It is important to note that in all other areas of the parking lot and drive approaches, the development meets the requirements of Section 11-239(b). Also, the area of parking in question north of the building is for employees; management of those spaces is easily controlled by the general manager when the need for straight in truck access is required. Thus, Neptune Development is requesting relief, or variance, from the concrete curbing requirement as described.

Ms. Kristen Mellem
Neptune Centre Development
April 18, 2016
Page 2

It is understood that a variance can be granted when all of the following conditions are satisfied:

1. *A literal application of the substantive requirement would result in exceptional practical difficulty to the applicant;*

Based on the daily maneuvering of 15 to 20 large VAC trucks, the required concrete curb provides a barrier that hampers efficient and safe maneuvering of these trucks on the north side of the building.

2. *The alternative proposed by the applicant shall be adequate for the intended use and shall not substantially deviate from the performance that would be obtained by strict enforcement of the standard;*

The proposed alternative of eliminating the curb and maintaining proper pavement drainage to the south demonstrates satisfactory performance – see attached Grading Plan. The northerly portion of the property adjacent to the parking asphalt pavement will be flush with the asphalt for the occasional truck traffic use for straight in access to the service and storage doors of the building.

3. *The granting of the variance will not be detrimental to the public health, safety or welfare, nor injurious to adjoining or neighboring property;*

The elimination of the required concrete curb north of the 12 parking spaces on the north side of the building will in no way compromise the public health, safety or welfare, nor be injurious to adjoining or neighboring properties. The area in question is not adjacent to any property lines, will be utilized by employees only and is not visible from Grand River. In addition, this service business rarely has outside visitors and in the event that visitors should arrive onsite, the parking to the east of the building completely conforms to the Code section in question.

Sincerely,

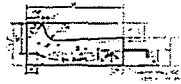


Frank Z. Martin, AIA, NCARB
Dorchen/Martin Associates, Inc.

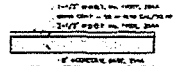
FZM/

Dave Janks, Neptune Management

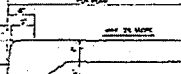
Enclosures



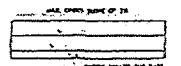
CONCRETE CURB AND GUTTER DETAIL C-4



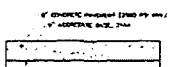
ASPHALT PAVING SECTION



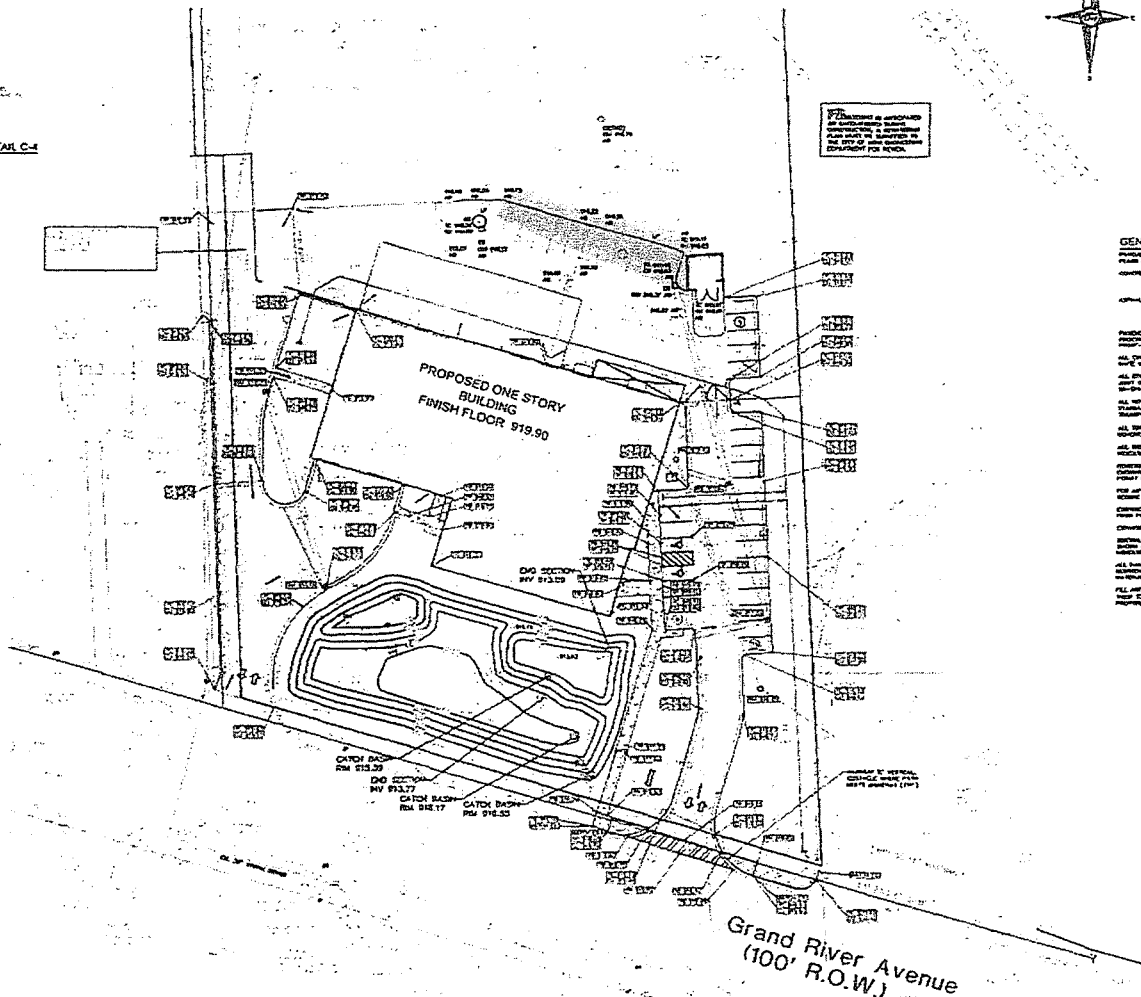
MONOLITHIC CURB AND WALK



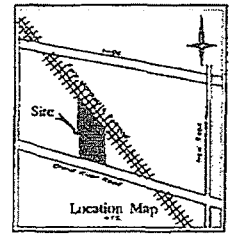
CONCRETE SIDEWALK SECTION



CONCRETE PAVEMENT SECTION



Grand River Avenue
(100' R.O.W.)



BUILDING DEPT. NOTE
 ALL CONCRETE SHALL BE COMPACTED WITH A ROLLER OR OTHER EQUIPMENT TO A MINIMUM OF 95% RELATIVE HUMIDITY. ALL CONCRETE SHALL BE CURED WITH A MINIMUM OF 7 DAYS. ALL CONCRETE SHALL BE PROTECTED FROM FREEZING TEMPERATURES FOR A MINIMUM OF 28 DAYS. ALL CONCRETE SHALL BE TESTED FOR STRENGTH AND CURING SHALL BE MONITORED TO A MINIMUM OF 7 DAYS.

GENERAL PAVING NOTES
 ALL PAVING SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE MICHIGAN DEPARTMENT OF TRANSPORTATION. ALL PAVING SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE MICHIGAN DEPARTMENT OF TRANSPORTATION. ALL PAVING SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE MICHIGAN DEPARTMENT OF TRANSPORTATION. ALL PAVING SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE MICHIGAN DEPARTMENT OF TRANSPORTATION.

ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT
4" ASPHALT	8,100	SF
4" CONCRETE	1,100	SF
4" MONOLITHIC CURB	200	LF
4" CONCRETE SIDEWALK	1,100	SF
4" CONCRETE PAVEMENT	1,100	SF

PAVING LEGEND

SYMBOL	DESCRIPTION
[Hatched Box]	IMPROVED SIDEWALK PROPOSED
[Solid Box]	PROPOSED SIDEWALK

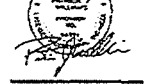
LEGEND

SYMBOL	DESCRIPTION
[Dashed Line]	EXISTING SIDEWALK
[Dotted Line]	EXISTING SIDEWALK
[Solid Line]	EXISTING SIDEWALK
[Hatched Line]	EXISTING SIDEWALK
[Dashed Line]	EXISTING SIDEWALK
[Dotted Line]	EXISTING SIDEWALK
[Solid Line]	EXISTING SIDEWALK
[Hatched Line]	EXISTING SIDEWALK



CIVIL ENGINEERS
 LAND SURVEYORS
 LAND PLANNERS

NEWARK & FRANK ENGINEERS
 4677 WOODWARD AVE.
 PONTIAC, MI 48342-3024
 TEL: (313) 332-7331
 FAX: (313) 332-8237



PROJECT
 41300 Grand River

CLIENT
 Power Mac of Michigan
 44300 Grand River Ave.
 Novi, MI 48075
 Cont. David Jenks
 Tel. 248 912-9474
 Fax. 248 912-9474

PROPERTY LOCATION
 Part of the NE 1/4 of Section
 15 T. 1 North, R. 11 East
 City of Novi,
 Oakland County, Michigan

TITLE
 Paving - Grading Plan



REVISIONS

NO.	DESCRIPTION
1	AS SHOWN

Prepared by:
 C. Hazen
 Checked by:
 P. Williams
 Approved by:
 P. Williams
 Date:
 March 31, 2015
 Scale: 1" = 30'
 SHEET NO.
 C773-02 C4