

cityofnovi.org

## CITY of NOVI CITY COUNCIL

**Agenda Item 3**  
**March 25, 2013**

**SUBJECT:** Approval of the request of Stucky Vitale Architects for Detroit Metropolitan Credit Union JSP12-69, for the Preliminary Site Plan, Woodland Permit and Stormwater Management Plan approval. The subject property is located at the northeast corner of the intersection of Main Street and Novi Road in the TC-1, Town Center District. The development area is 0.83 acres and the applicant is proposing an approximately 3,000 square foot Detroit Metropolitan Credit Union.

*Banks*

**SUBMITTING DEPARTMENT:** Community Development Department - Planning

**CITY MANAGER APPROVAL:**

**BACKGROUND INFORMATION:**

The applicant is proposing to construct a 3,000 square foot Detroit Metropolitan Credit Union with a proposed site size of 0.83 acres on the northeast corner of Main Street and Novi Road. The development area would be split off from a larger existing parcel.

A financial institution with accessory drive-through lanes is a permitted use in the TC-1, Town Center District. Accessory drive-through lanes at bank/credit union facilities are separate and distinct from regulations relating to drive-through restaurant uses.

All staff and consultant reviews recommended approval of the plan. The landscape review notes that a City Council waiver to allow a decorative fence with brick piers along the rights-of-way instead of the required brick wall is supported. The applicant has submitted the required sample board requested in the façade review letter. The removal of one landmark tree is proposed and will require a Woodland Permit.

For informational purposes, the applicant has provided a conceptual future development plan of the site and nearby vacant parcels. No plans have been submitted to the Planning Division for development on the nearby parcels. The applicant has indicated that a parcel split is intended and future property lines are shown on the plans. The review letters note that the intended parcel split must be completed prior to Stamping Set submittal, along with a confirmation of the cross-access easement for the shared access drive with the vacant properties to the north and east.

The Planning Commission held the required public hearing on the Preliminary Site Plan, Woodland Permit and Storm Water Management plan and has recommended approval of all three items. Relevant meeting minutes are attached.

**RECOMMENDED ACTION:** The following 3 motions are recommended:

**Motion 1**

Approval of the Preliminary Site Plan based on, with, and subject to the following:

- a. City Council approval to permit a decorative fence with brick piers along the rights-of-way in lieu of a brick wall;

- b. Subject to the conditions and items listed in the staff and consultant review letters being addressed on the Final Site Plan; and

This motion is made based on and subject to the site plan and site being in compliance with all applicable provisions of the Zoning Ordinance, including Articles 16, 24 and 25, and all applicable City Zoning Ordinance approvals, decisions, conditions and permits.

**Motion 2**

Approval of the Woodland Permit, based on, with and subject to the conditions and items listed in the staff and consultant review letters being addressed on the Final Site Plan. This motion is made because, with those items addressed, the Plan will be in compliance with Chapter 37 of the Code of Ordinances and all other applicable provisions of the Ordinance.

**Motion 3**

Approval of the Storm Water Management Plan, subject to the conditions and items listed in the staff and consultant review letters being addressed on the Final Site Plan. This motion is made because, with those items addressed, the Plan will be in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance.

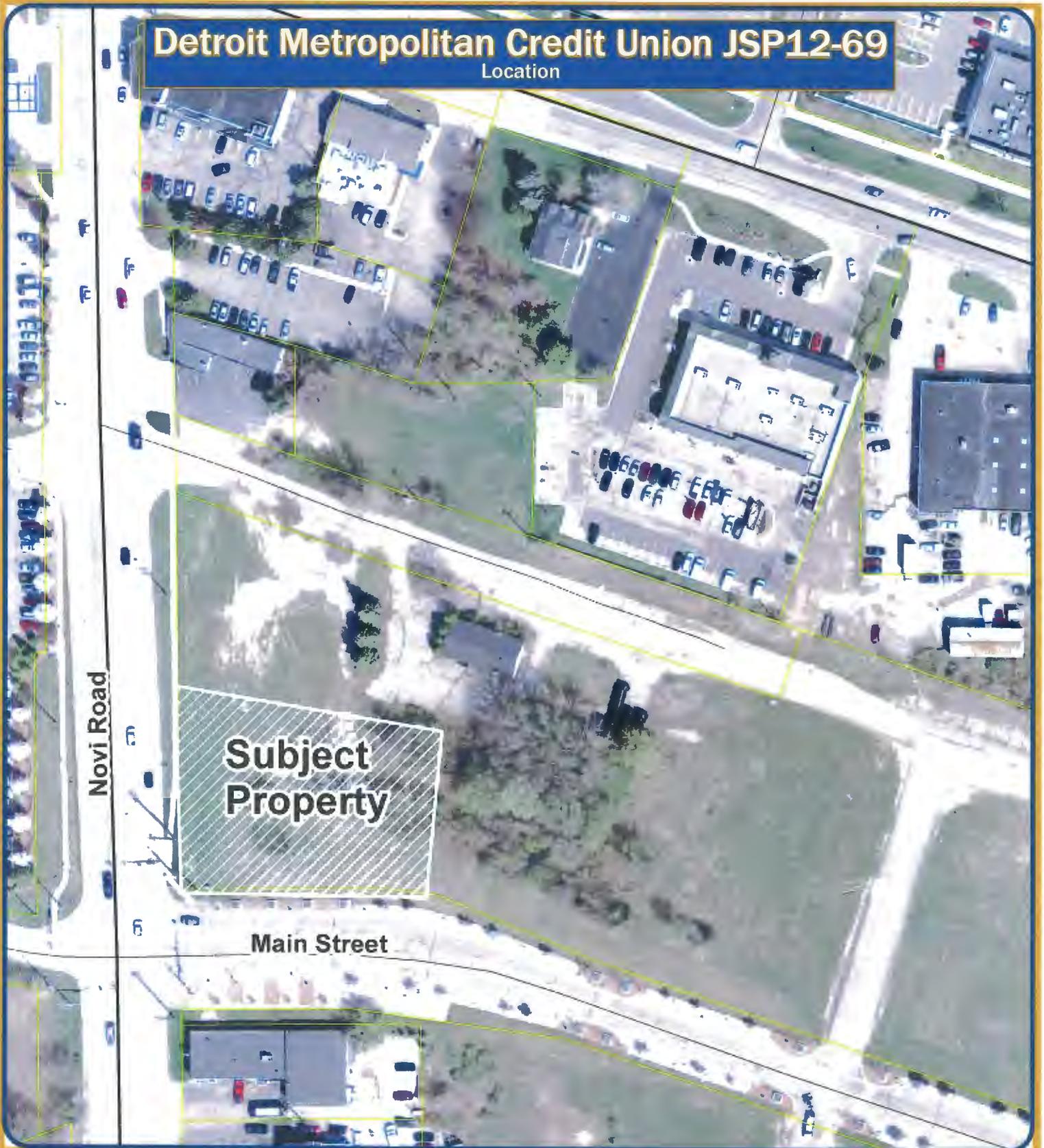
|                               | 1 | 2 | Y | N |
|-------------------------------|---|---|---|---|
| <b>Mayor Gatt</b>             |   |   |   |   |
| <b>Mayor Pro Tem Staudt</b>   |   |   |   |   |
| <b>Council Member Casey</b>   |   |   |   |   |
| <b>Council Member Fischer</b> |   |   |   |   |

|                                | 1 | 2 | Y | N |
|--------------------------------|---|---|---|---|
| <b>Council Member Margolis</b> |   |   |   |   |
| <b>Council Member Mutch</b>    |   |   |   |   |
| <b>Council Member Wrobel</b>   |   |   |   |   |

MAPS  
Location  
Zoning  
Future Land Use  
Natural Features

# Detroit Metropolitan Credit Union JSP12-69

Location



Map Author: Kristen Kapelanski  
Date: 03/06/13  
Project: Detroit Metro Credit Union JSP12-69  
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.



## City of Novi

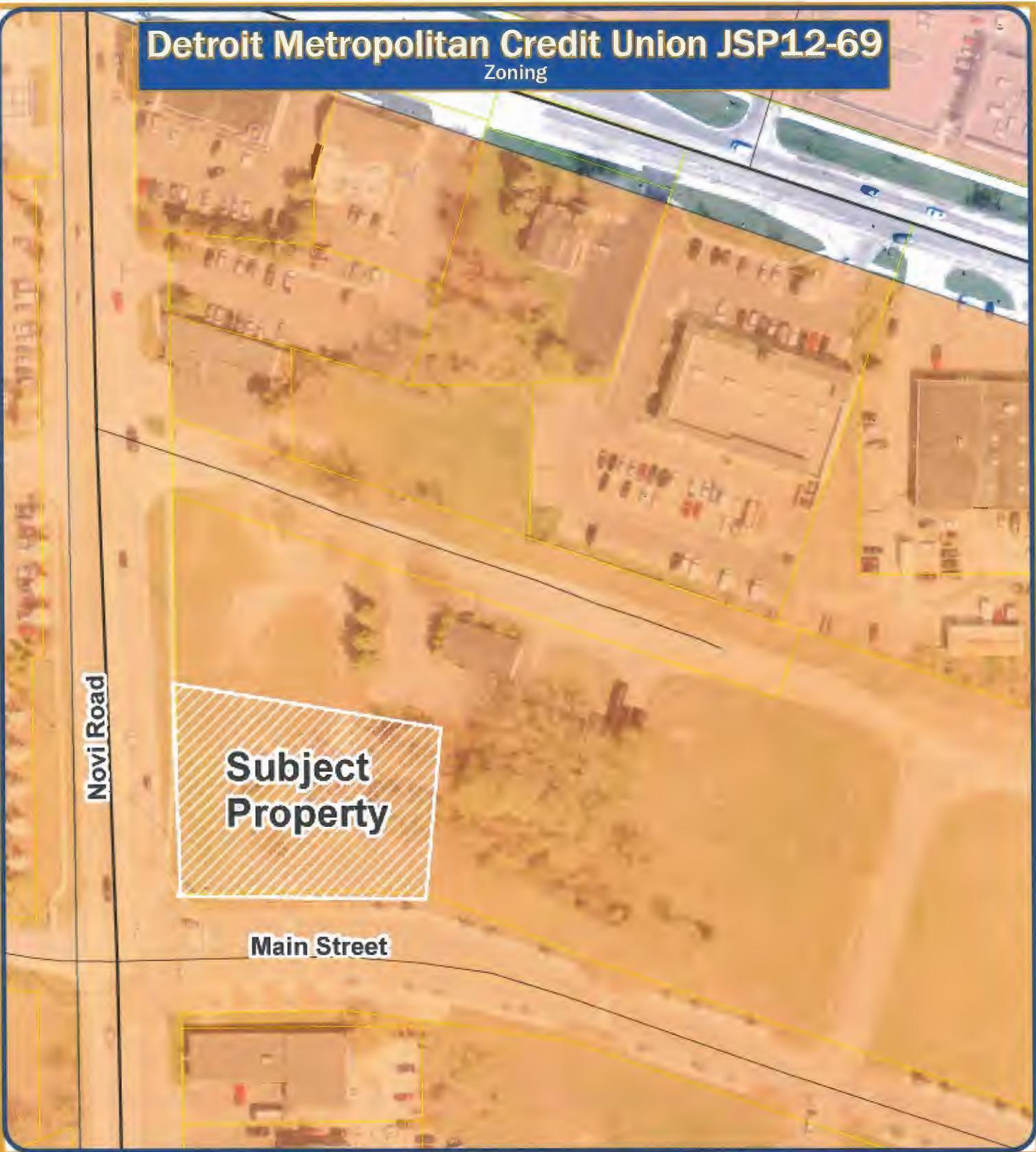
Planning Division  
Community Development  
45175 W Ten Mile Rd  
Novi, MI 48375  
cityofnovi.org



1 inch = 109 feet

# Detroit Metropolitan Credit Union JSP12-69

Zoning



Map Author: Kristen Kapelanski  
 Date: 03/06/13  
 Project: Detroit Metro Credit Union JSP12-69  
 Version #: 1.0

| Map Legend  |                               |
|---|-------------------------------|
|  | TC: Town Center District      |
|  | TC-1: Town Center -1 District |



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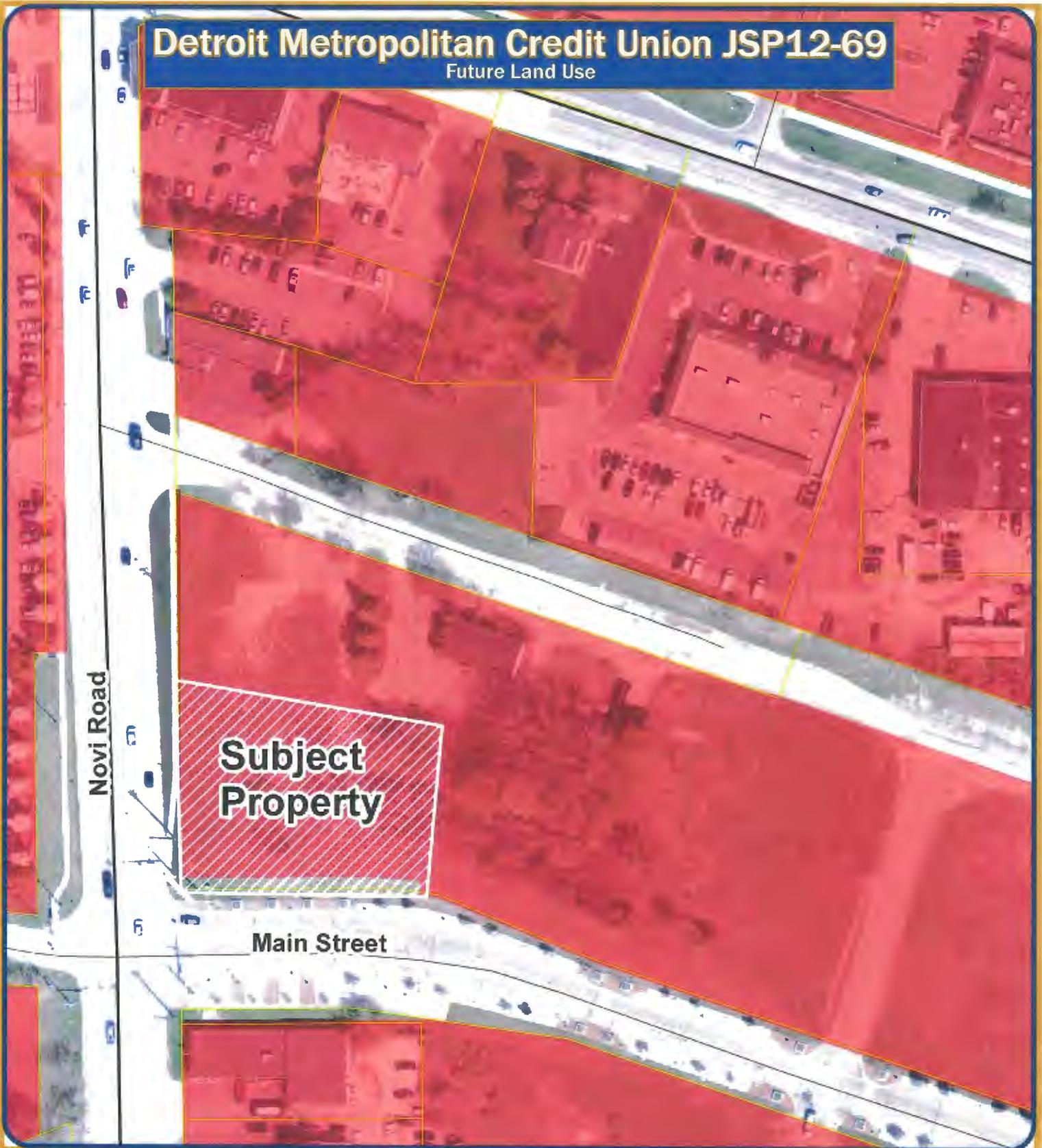
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# Detroit Metropolitan Credit Union JSP12-69

Future Land Use



Map Author: Kristen Kapelanski  
 Date: 03/06/13  
 Project: Detroit Metro Credit Union JSP12-69  
 Version #: 1.0

### Map Legend

 TC Commercial



## City of Novi

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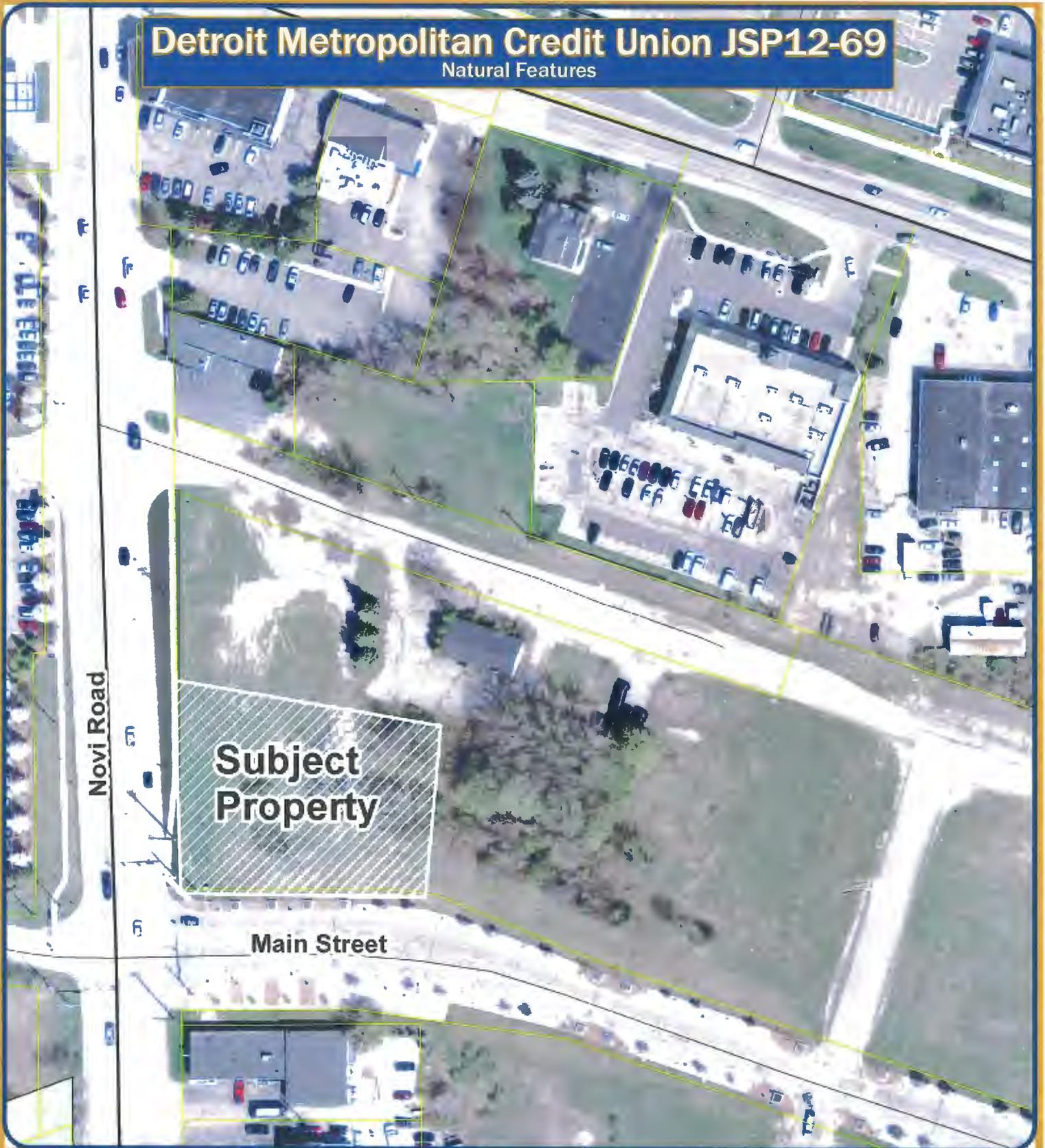


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# Detroit Metropolitan Credit Union JSP12-69

## Natural Features



Map Author: Kristen Kapelanski  
 Date: 03/06/13  
 Project: Detroit Metro Credit Union JSP12-69  
 Version #: 1.0

### Map Legend

-  Wetlands
-  Woodlands

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### City of Novi

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1 inch = 109 feet

**SITE PLAN**

NOVI ROAD  
(120' WIDER.O.W.)



MAIN STREET  
(VARIABLE WIDTH R.O.W.)

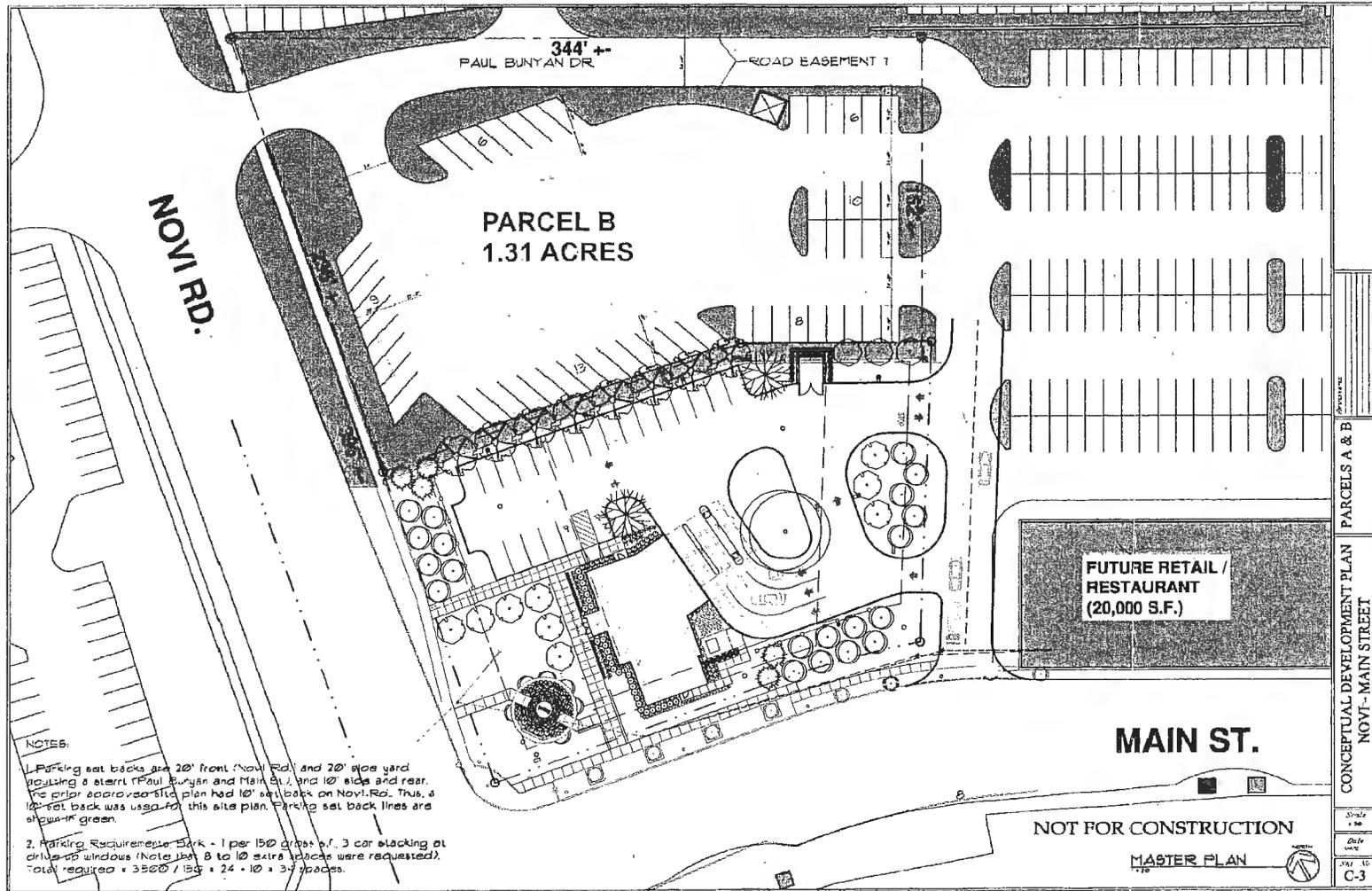
ARCHITECTURAL SITE PLAN  
PRELIMINARY



Detroit Metropolitan Credit Union - New Facility  
Novi, Michigan

2012.023 Date: 03.06.13

© 2013 STUCKY VITALE ARCHITECTS, INC.

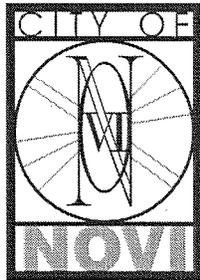


**NOTES:**

1. Parking set backs are 20' front (Novi Rd.) and 20' side yard (including a street (Paul Bunyan and Main St.) and 10' side and rear. For prior approval site plan had 10' set back on Novi Rd. Thus, a 10' set back was used for this site plan. Parking set back lines are shown in green.
2. Parking Requirements: Park - 1 per 150 gross sq. ft. 3 car stacking at drive-up windows (Note that 8 to 10 extra spaces were requested). Total required = 3500 / 150 = 24 + 10 = 34 spaces.

CONCEPTUAL FUTURE  
DEVELOPMENT OF  
SURROUNDING PARCELS

**DRAFT PLANNING COMMISSION  
MEETING MINUTES  
MARCH 13, 2013 - EXCERPT**



# PLANNING COMMISSION MINUTES

CITY OF NOVI

Regular Meeting

**March 13, 2013 7:00 PM**

Council Chambers | Novi Civic Center | 45175 W. Ten Mile  
(248) 347-0475

## CALL TO ORDER

The meeting was called to order at or about 7:00 PM.

## ROLL CALL

**Present:** Member Anthony, Member Lynch, Chair Pehrson, Member Gutman, Member Zuchlewski

**Absent:** Member Prince, Member Greco

**Also Present:** Barbara McBeth, Deputy Director of Community Development; Beth Kudla-Saarela, City Attorney; Kristen Kapelanski, Planner; David Beschke, Landscape Architect; Adam Wayne, Engineer

## PLEDGE OF ALLEGIANCE

Member Lynch led the meeting attendees in the recitation of the Pledge of Allegiance.

## APPROVAL OF AGENDA

Moved by Member Lynch, seconded by Member Zuchlewski:

## VOICE VOTE ON THE AGENDA APPROVAL MOTION MADE BY MEMBER LYNCH AND SECONDED BY MEMBER ZUCHLEWSKI:

**Motion to approve the March 13, 2013 Planning Commission Agenda. Motion carried 5-0.**

## PUBLIC HEARINGS

### 1. DETROIT METROPOLITAN CREDIT UNION, JSP12-69

Public hearing at the request of Stucky Vitale Architects for the recommendation to City Council regarding the Preliminary Site Plan, Woodland Permit and Stormwater Management Plan. The subject property is located in Section 23 at the northeast corner of the intersection of Main Street and Novi Road in the TC-1, Town Center District. The development area is .83 acres and the applicant is proposing an approximately 3,000 sq. ft. Detroit Metropolitan Credit Union.

Planner Kapelanski said the applicant is proposing to construct an approximately 3,000 sq. ft. Detroit Metropolitan Credit Union at the northeast corner of Main Street and Novi Road. The credit union parcel would be split off from the larger parcel that currently exists. The property is surrounded by vacant land to the north and west, Ace Cutting equipment on the opposite side of Main Street to the south and City Center Plaza on the opposite of Novi Road to the east. The subject property is zoned TC-1, Town Center and is bordered by TC-1 zoning on all sides. The Future Land Use map indicates TC Commercial Uses for the subject property and the surrounding properties. There is one landmark tree on the property, located near the center of the site. The applicant is proposing removal of this tree, which will require a woodland permit. There are no regulated wetland areas on the property.

The applicant is proposing a 3,000 sq. ft. financial institution with an accessory drive-through use. Drive-through lanes as an accessory use at a financial institution have typically been permitted in the TC and TC-1 District. This is separate from the standards relating to drive-through restaurants. The planning review recommends approval noting development on parcels larger than 5 acres in the TC-1 District requires the approval of the City Council after the review and recommendation of the Planning Commission. The landscape review recommends approval of the plan noting City Council approval is required to permit a decorative fence with brick piers along the rights-of-way in lieu of a brick wall. Staff supports this waiver. The woodland review recommends approval of the plan indicating the removal of the previously mentioned landmark tree. The façade review recommends approval of the plan. The applicant has submitted the required materials sample board. The engineering, traffic and fire reviews all recommend

approval of the plan.

Mike Blanic of Stucky Vitale Architects said as Kristen stated we are here tonight to present our plan for the 3,000 sq. ft. new credit union with the ATM lane and two additional drive-thru lanes. We've worked closely with the City Planning Department and the plan you see before you is a result of that effort. We've created that node in the corner as a pedestrian friendly corner with some landscaping and a bench and some pavers. We're trying to be sensitive to the district that we're in and meet all those requirements.

No one from the audience wished to speak and there was no correspondence. Chair Pehrson closed the public hearing.

Member Lynch said the only issue was the fence with the brick wall and that's really not an issue. The applicant has submitted the sample board that was requested. This looks like a wonderful addition to the property and it looks like you've done a very nice job.

Moved by Member Gutman and seconded by Member Lynch:

**ROLL CALL VOTE ON THE PRELIMINARY SITE PLAN APPROVAL MOTION MADE BY MEMBER GUTMAN AND SECONDED BY MEMBER LYNCH:**

**In the matter of Detroit Metropolitan Credit Union, JSP12-69, motion to recommend approval of the Preliminary Site Plan subject to the following:**

- a. City Council approval to permit a decorative fence with brick piers along the rights-of-way in lieu of a brick wall; and**
- b. The conditions and items listed in the staff and consultant review letters being addressed on the Final Site Plan**

**because it is otherwise in compliance with Article 16, Article 24 and Article 25 of the Zoning Ordinance and all other applicable provisions of the Ordinance. Motion carried 5-0.**

Moved by Member Gutman and seconded by Member Lynch:

**ROLL CALL VOTE ON THE WOODLAND PERMIT APPROVAL MOTION MADE BY MEMBER GUTMAN AND SECONDED BY MEMBER LYNCH:**

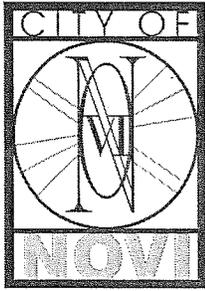
**In the matter of Detroit Metropolitan Credit Union, JSP12-69, motion to recommend approval of the Woodland permit, subject to the conditions and items listed in the staff and consultant review letters being addressed on the Final Site Plan submittal because the plan is otherwise in compliance with Chapter 37 of the Code of Ordinances and all other applicable provisions of the Ordinance. Motion carried 5-0.**

Moved by Member Gutman and seconded by Member Lynch:

**ROLL CALL VOTE ON THE STORMWATER MANAGEMENT PLAN APPROVAL MOTION MADE BY MEMBER GUTMAN AND SECONDED BY MEMBER LYNCH:**

**In the matter of Detroit Metropolitan Credit Union, JSP12-69, motion to recommend approval of the Stormwater Management Plan, subject to the conditions and items listed in the staff and consultant review letters being addressed on the Final Site Plan because it is otherwise in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance. Motion carried 5-0.**

**PLANNING REVIEW**



# PLAN REVIEW CENTER REPORT

February 28, 2013

## Planning Review

Detroit Metropolitan Credit Union

**JSP12-69**

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### Petitioner

Stucky Vitale Architects

### Review Type

Preliminary Site Plan

### Property Characteristics

- Site Location: Northeast corner of the intersection of Main St. and Novi Rd. (Section 23)
- Site Zoning: TC-1, Town Center
- Adjoining Zoning: North, South, East and West: TC-1
- Current Site Use: Vacant
- Adjoining Uses: North: Vacant; South: Ace Cutting Equipment (across Main St.); West: vacant; East: City Center Plaza (across Novi Rd.)
- School District: Novi Community District
- Existing Site Size: 7.23 acres
- Proposed Site Size: 0.83 acres
- Plan Date: 01-28-13

### Project Summary

The applicant is proposing to construct an approximately 3,000 sq. ft. Detroit Metropolitan Credit Union on vacant land located at the northeast corner of Main St. and Novi Rd. The applicant has proposed splitting the parcel off from the existing larger parcel. Associated parking and landscaping would also be constructed. Accessory drive-through banking lanes are proposed.

### Recommendation

**Staff recommends approval of the Preliminary Site Plan.** There are only minor planning related items to be addressed on the Final Site Plan submittal. Prior to proceeding to the Planning Commission, the applicant should submit the require façade materials sample board. See the façade review letter for additional information.

### Ordinance Requirements

This project was reviewed for conformance with the Zoning Ordinance with respect to Article 16 (TC-1, Town Center District), Article 24 (Schedule of Regulations), Article 25 (General Provisions) and any other applicable provisions of the Zoning Ordinance. Items in **bold** below must be addressed by the applicant.

1. Minor Items: There are minor items noted in the planning review chart. **The applicant should adjust the plans accordingly for the Final Site Plan submittal.**
2. Photometric Plan: **There are minor items to be addressed on the lighting review chart. The applicant should provide a paper copy of the photometric plan with the Final Site Plan submittal.**
3. City Council Approval: In the TC-1 District, proposed developments on parcels over 5 acres in area must be approved by the City Council after the review and recommendation of the Planning Commission.
4. Parcel Split: The applicant has indicated and the plan shows a proposed parcel split. This must be completed before Stamping Sets can be stamped approved by the Planning Division.
5. Shared Access Drive: The main entrance to the subject property is accessed via a shared drive to be located on a parcel separate from the subject property and terminating 175 feet north of Main St. **The applicant should provide additional information regarding where the shared drive will lead or where it will connect to existing drives and buildings and future development sites.**

## Planning Review

Detroit Metropolitan Credit Union  
JSP12-69

February 28, 2013

Page 2 of 2

6. Drive-through Lanes: Drive-through lanes are considered a permitted accessory use to a financial institution in the TC-1 District and have been permitted in other locations as a typical complementary use. Please note this standard for drive-through lanes is separate and distinct from Zoning Ordinance regulations for drive-through restaurants in the TC-1 District. The proposed drive-through lanes meet the standards for dimensional requirements, stacking spaces and circulation and buffering.
7. Signage: Exterior Signage is not regulated by the Planning Division or Planning Commission. Please contact Jeannie Niland (248.347.0438) for information regarding sign permits.3

### Site Addressing

The applicant should contact the Building Division for an address prior to applying for a building permit. Building permit applications cannot be processed without a correct address. The address application can be found on the Internet at [www.cityofnovi.org](http://www.cityofnovi.org) under the forms page of the Community Development Department.

Please contact Jeannie Niland [248.347.0438] in the Community Development Department with any specific questions regarding addressing of sites.

### Pre-Construction Meeting

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

### Chapter 26.5

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

### Response Letter

A letter from either the applicant or the applicant's representative addressing comments in this and other review letters is required prior to consideration by the Planning Commission and with the next plan submittal.

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



Kristen Kapelanski, AICP, Planner  
248-347-0586 or [kkapelanski@cityofnovi.org](mailto:kkapelanski@cityofnovi.org)

**Planning Review Summary Chart**  
 Detroit Metro Credit Union JSP12-69  
 Plan Dated: 01-28-13  
 Preliminary Site Plan

| Item                                 | Required  | Proposed                | Meets Requirements? | Comments  |
|--------------------------------------|---|-------------------------|---------------------|---|
| Master Plan                          | TC Commercial   | No change proposed      | Yes                 |   |
| Zoning                               | TC-1  | TC-1                    | Yes                 |   |
| Use (Sec. 1602)                      | Retail businesses, restaurants, offices and service establishments  | Drive-thru credit union | Yes                 |   |
| Building Height (Sec. 2400)          | Maximum 65 feet   | 21'                     | Yes                 |   |
| <b>Building Setbacks (Sec. 2400)</b> |   |                         |                     |   |
| Front (west)                         | Between 80 and 137 feet from centerline of Novi Rd.   | 128 feet                | Yes                 |   |
| Exterior Side (south)                | Max. 10 ft.<br>Min. 0 ft.   | 10 feet                 | Yes                 |   |
| Interior Side (north)                | 0 feet  | 75 feet                 | Yes                 |   |
| Rear (east)                          | 0 feet  | 81 feet (to canopy)     | Yes                 |   |
| <b>Parking Setbacks (Sec. 2400)</b>  |   |                         |                     |   |
| Front (west)                         | 20 feet and screened by a brick wall or berm  | 26 feet                 | Yes                 |   |
| Exterior Side (south)                |   | 20 feet                 |                     |   |
| Interior Side (north)                |   | 10 feet                 |                     |   |
| Rear (east)                          |   | 10 feet                 |                     |   |
| Number of Parking Spaces (Sec. 2505) | Bank: One space for every 150 sq. ft. gross floor area.<br><br>3,000 sq. ft. / 150 = 20 spaces required   | 22 spaces proposed      | Yes                 |   |
| Parking Space Dimensions (Sec. 2506) | 90-degree spaces should be 9 feet wide by 19 feet deep with a 24-foot wide aisle; when adj. to landscaping, spaces can be 17 feet deep, with a 2 foot overhang into the landscaped area | 9' x 17'                | Yes                 | A 4" curb should be shown wherever 17' spaces are proposed. |

| Item   | Required  | Proposed   | Meets Requirements? | Comments |
|--|---|--|---------------------|----------|
| Barrier Free Spaces (Barrier Free Code)                        | 1 van accessible required   | 2 van accessible provided  | Yes                 |          |
| Barrier Free Space Dimensions (Barrier Free Code)              | 8' wide with a 5' wide access aisle (8' wide access aisle for van accessible)   | 8' x 17'   | Yes                 |          |
| Barrier Free Signs (Barrier Free Design Graphics Manual)       | One barrier free sign is required per space.  | Signs shown  | Yes                 |          |
| Open Space (Sec. 1603)   | 15% open space required   | 42% open space provided  | Yes                 |          |
| Stacking Spaces for Drive-through (Sec. 2506)                  | 3 vehicles inclusive of the vehicle at the window   | 3 vehicles shown in each lane  | Yes                 |          |
| Drive-through Lane Delineated (Sec. 2506)                      | Drive-through lanes shall be striped, marked, or otherwise delineated.  | Striping provided  | Yes                 |          |
| Bypass Lane for Drive-through (Sec. 2506)                      | Drive-through facilities shall provide 1 bypass lane. Such bypass lane shall be a minimum of 18' in width, unless otherwise determined by the Fire Marshal. | 24' bypass lane shown  | Yes                 |          |
| Width and Centerline Radius of Drive-through Lanes (Sec. 2506) | Drive-through lanes shall have a minimum 9' width and centerline radius of 25'.   | 9' width<br>Centerline radius of 25'   | Yes                 |          |
| Drive-through Lanes Separation (Sec. 2506)                     | Drive-through lanes shall be separate from the circulation routes and lanes necessary for ingress to, and egress from, the property.                        | Drive-through lanes are situated near the center of the site so as not to interfere with the general circulation routes. | Yes                 |          |
| Dumpster and Refuse  | Refuse must be contained  | Dumpster set back 6 feet from nearest  | Yes                 |          |

| Item   | Required   | Proposed   | Meets Requirements? | Comments  |
|--|--|--|---------------------|---|
| (Chapter II, Sec. 16-20; Chapter II Sec. 21, division 8; Appendix A Sec. 2520.1; & Appendix A Sec. 2503.1.D) | <p>properly</p> <p>For dumpsters:</p> <p>Screen wall or fence required for all dumpsters, must be at least five feet in height, and provided on three sides. Enclosure to match building materials</p> <p>No detached accessory building shall be located closer than ten (10) feet to any main building nor shall it be located closer than (6) feet to any interior side lot or rear lot line.</p> | <p>property line and 98 feet from building.</p> <p>Screening of 6 feet provided on three sides to match building façade.</p> |                     |   |
| Town Center Features   | Decorative features and pedestrian plazas are required   | Plaza proposed at the southwest corner of the site.  | Yes                 | <b>See the landscape review letter for additional information.</b>  |
| Exterior Signs   | Exterior Signage is not regulated by the Planning Division or Planning Commission.   |  |                     | Please contact <u>Jeannie Niland (248.347.0438)</u> in the neighborhood services division if new signage is proposed. |
| Exterior Lighting (Sec. 2511)  | Photometric plan and exterior lighting details needed at final site plan.  |  | N/A                 |   |

Prepared by Kristen Kapelanski, (248) 347-0586 or [kkapelanski@cityofnovi.org](mailto:kkapelanski@cityofnovi.org)

### Lighting Review Summary Chart

Detroit Metropolitan Credit Union JSP12-69

Plan Date: 01-28-13

| Item                                   | Required  | Meets Requirements? | Comments  |
|--|---|---------------------|---|
| Intent (Section 2511.1)                | Establish appropriate minimum levels, prevent unnecessary glare, reduce spillover onto adjacent properties, reduce unnecessary transmission of light into the night sky   | Yes                 |   |
| Lighting plan (Section 2511.2.a.1)     | Site plan showing location of all existing and proposed buildings, landscaping, streets, drives, parking areas and exterior lighting fixtures   | Yes                 |   |
| Lighting Plan (Section 2511.2.a.2)     | Specifications for all proposed and existing lighting fixtures including: <ul style="list-style-type: none"> <li>▪ Photometric data</li> <li>▪ Fixture height</li> <li>▪ Mounting &amp; design</li> <li>▪ Glare control devices</li> <li>▪ Type and color rendition of lamps</li> <li>▪ Hours of operation</li> <li>▪ Photometric plan</li> </ul> | <b>No</b>           | <b>The applicant should add the hours of operation to the photometric plan.</b> |
| Required conditions (Section 2511.3.a) | Height not to exceed maximum height of zoning district or 25 feet where adjacent to residential districts or uses.  | Yes                 |   |
| Required Notes (Section 2511.3.b)      | <ul style="list-style-type: none"> <li>- Electrical service to light fixtures shall be placed underground</li> <li>- No flashing light shall be permitted</li> <li>- Only necessary lighting for security purposes and limited operations shall be permitted after a site's hours of operation.</li> </ul>  | <b>No</b>           | <b>The applicant should add the required notes to the photometric plan.</b>     |
| Required                               | Average light level of  | Yes                 |   |

| Item   | Required  | Meets Requirements? | Comments |
|--|---|---------------------|----------|
| conditions<br>(Section 2511.3.e)                                       | the surface being lit to the lowest light of the surface being lit shall not exceed 4:1.  |                     |          |
| Required conditions<br>(Section 2511.3.f)                              | Use of true color rendering lamps such as metal halide is preferred over high and low pressure sodium lamps.  | Yes                 |          |
| Minimum Illumination<br>(Section 2511.3.k)                             | <ul style="list-style-type: none"> <li>- Parking areas- 0.2 min</li> <li>- Loading and unloading areas- 0.4 min</li> <li>- Walkways- 0.2 min</li> <li>- Building entrances, frequent use- 1.0 min</li> <li>- Building entrances, infrequent use- 0.2 min</li> </ul> | Yes                 |          |
| Maximum Illumination adjacent to Non-Residential<br>(Section 2511.3.k) | When site abuts a non-residential district, maximum illumination at the property line shall not exceed 1 foot candles   | Yes                 |          |
| Cut off Angles<br>(Section 2511.3.1(2))                                | All cut off angles of fixtures must be 90 degrees when adjacent to residential districts  | Yes                 |          |

**ENGINEERING REVIEW**



## PLAN REVIEW CENTER REPORT

February 28, 2013

### Engineering Review

Detroit Metropolitan Credit Union  
JSP12-0069

---

#### Petitioner

Stucky Vitale Architects, applicant

#### Review Type

Preliminary Site Plan

#### Property Characteristics

- Site Location: N. of Main Street E. of Novi Rd
- Site Size: 0.887 acres
- Plan Date: January 28, 2013

#### Project Summary

- Construction of an approximately 3,000 square-foot building and associated parking. Site access would be provided an ingress/egress easement over the proposed driveway connecting to Main Street.
- Water service would be provided by a 2-inch domestic lead from the existing 12-inch water main on Main Street along with an additional hydrant west of the proposed development.
- Sanitary sewer service would be provided by extending an 8-inch sanitary sewer onto the development as a public utility.
- Storm water would be collected by a single storm sewer collection system and detained in an underground detention system prior to discharging into the storm sewer network on Novi Rd.

#### Recommendation

Approval of the Preliminary Site Plan and Preliminary Storm Water Management Plan is recommended.

**Comments:**

The Preliminary Site Plan meets the general requirements of Chapter 11, the Storm Water Management Ordinance and the Engineering Design Manual with the following items to be addressed at the time of Final Site Plan submittal (further engineering detail will be required at the time of the final site plan submittal):

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

**General**

1. Provide a note on the plans that all work shall conform to the current City of Novi standards and specifications.
2. The City standard detail sheets are not required for the Final Site Plan submittal. They will be required with the Stamping Set submittal.
3. Submit IWC Non-Domestic form to the City of Novi.

**Water Main**

4. Provide a profile for the proposed water main with the pipe invert and stationing of all valves, fittings, flanges, hydrants, blow-offs, high and low points, and any other appurtenances.
5. Three (3) sealed sets of revised utility plans along with the MDEQ permit application (1/07 rev.) for water main construction and the Streamlined Water Main Permit Checklist should be submitted to the Engineering Department for review, assuming no further design changes are anticipated. Utility plan sets shall include only the cover sheet, any applicable utility sheets and the standard detail sheets.

**Sanitary Sewer**

6. Revise the sanitary sewer easement to a 20 ft wide easement centered on the proposed sanitary sewer.
7. Provide a profile of the proposed sanitary sewer showing a minimum cover of 4 feet.
8. Provide the service area and basis of design for the proposed sanitary sewer extension.
9. Five (5) sealed sets of revised utility plans along with the MDEQ permit application (11/07 rev.) for sanitary sewer construction and the Streamlined Sanitary Sewer Permit Certification Checklist should be submitted to the Engineering Department for review, assuming no further design changes are anticipated. Utility plan sets shall include only the cover sheet, any applicable utility sheets and the standard detail sheets. Also, the MDEQ can be contacted for an expedited review by their office.

**Storm Sewer**

10. Provide a profile of the proposed storm sewer showing a minimum cover of 3 feet. Indicate all structure types and diameters.

11. Provide hydraulic calculations verifying that the storm sewer network on Novi Rd is capable of accepting the proposed discharge from the site.

#### Storm Water Management Plan

12. 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.
13. Denote an overland route for storm water that would occur in the event that the underground system cannot accept flow. This route shall be directed to a recognized drainage course or drainage system. Verify that any structures accepting overland flow are capable of handling the 100-year flood capacity.
14. Provide an underground detention system cross-section with critical elevations (bankfull and 100-year storm hydraulic grade lines) demonstrating that the detention system is 3 feet above ground water and has the required 1 foot of freeboard between the high water elevation and the subgrade below the pavement.
15. Revise the composite 'c' factor calculation to ' $26,227/38,637=0.68$ ' from ' $38,637/26,227=0.68$ ' as shown.

#### Paving & Grading

16. Provide a minimum of 6 spot elevations where the pathway crosses the driveway (one at each corner and two in the center of the driveway on each side of the pathway). Spot elevations shall also be provided to demonstrate a level landing adjacent to each side of the pathway crossing.
17. No more than 1/4" vertical obstacle shall be allowed at each transition between the pathway and the drive approach.
18. Revise the sidewalk cross-section to show 4" thick of 4000 psi concrete (8" thick through commercial/industrial drives) over 6" thick of 21AA crushed limestone. The stone base shall extend a minimum of 1" beyond the forms.

#### Off-Site Easements

19. All off-site water and sanitary sewer easements must be dedicated as a public easement.

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

20. A letter from either the applicant or the applicant's engineer must be submitted with the Final Site Plan highlighting the changes made to the plans addressing each of the comments listed above and indicating the revised sheets involved.
21. 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:**

22. 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.
23. An executed copy of the private ingress/egress easement for shared use of the drive entry from Main Street must be submitted to the Community Development Department.
24. An executed copy of the 20-foot wide easement for the water main to be constructed on the site must be submitted to the Community Development Department.
25. A draft copy of the 20-foot wide easement for the sanitary sewer to be constructed on the site must be submitted to the Community Development Department.
26. An executed copy of the 20-foot wide easement for the sanitary sewer to be constructed off- site must be submitted to the Community Development Department.
27. Executed copies of any required off-site utility easements must be submitted to the Community Development Department.

**The following must be addressed prior to construction:**

28. 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).
29. 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.
30. 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.
31. A permit for work within the right-of-way of Main Street must be obtained from the City of Novi. The application is available from the City Engineering Department and should be filed at the time of Final Site Plan submittal. Please contact the Engineering Department at 248-347-0454 for further information.

32. A permit for work within the right-of-way of Novi 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.
33. A permit for water main construction must be obtained from the MDEQ. This permit application must be submitted through the City Engineer after the water main plans have been approved.
34. A permit for sanitary sewer construction must be obtained from the MDEQ. This permit application must be submitted through the City Engineer after the sanitary sewer plans have been approved.
35. Construction Inspection Fees to be determined once the construction cost estimate is submitted must be paid prior to the pre-construction meeting.
36. A storm water performance guarantee, equal to 1.5 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.
37. An incomplete site work performance guarantee for this development will be calculated (equal to 1.5 times the amount required to complete the site improvements, excluding the storm water facilities) as specified in the Performance Guarantee Ordinance. This guarantee will be posted prior to TCO, at which time it may be reduced based on percentage of construction completed.
38. 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.
39. Permits for the construction of each retaining wall must be obtained from the Community Development Department (248-347-0415).

Please contact Adam Wayne at (248) 735-5648 with any questions.



cc: Ben Croy, Engineering  
Brian Coburn, Engineering  
Kristen Kapelanski, Community Development Department  
Tina Glenn, Water & Sewer Dept.

**TRAFFIC REVIEW**

February 11, 2013

Barbara McBeth, AICP  
Deputy Director of Community Development  
City of Novi  
45175 W. Ten Mile Rd.  
Novi, MI 48375

**SUBJECT: Detroit Metropolitan Credit Union, JSP12-0069,  
Traffic Review of Preliminary Site Plan, PSP13-0046**

Dear Ms. McBeth:

At your request, we have reviewed the above and offer the following recommendation and supporting comments.

### **Recommendation**

We recommend approval of the preliminary site plan, subject to the items shown below in **bold** being satisfactorily addressed on the final site plan.

### **Site Description**

What is the applicant proposing, and what are the surrounding land uses and road network?

1. The applicant is proposing to construct a 3,000-s.f. credit union with three drive-through lanes (one equipped with an ATM). Vehicular access would be provided via a new, two-lane shared access drive along the east side of the site that would (presumably) be shared by others in the future. Pedestrian access would be provided via sidewalk stubs to the Main Street and Novi Road sidewalks.

### **Trip Generation & Traffic Study**

Was a traffic study submitted and was it acceptable? How much new traffic would be generated?

2. A 3,000-s.f. financial institution with three drive-through lanes can be expected to generate 444 one-way vehicular trips per weekday, 36 in the AM peak hour (21 entering and 15 exiting) and up to 100 in the PM peak hour (49 entering and 51 exiting, based on the number of drive-through lanes). Since the maximum number of peak-hour, peak-direction trips would be less than 75, a formal traffic study is not required.

### **Vehicular Access Locations**

Do the proposed "driveway" locations meet City spacing standards?

3. Yes. The proposed shared drive would be 228 ft east of Novi Road, or well in excess of the minimum same-side driveway spacing (105 ft for 25 mph) to both the west and east. The opposite-side spacing standard does not apply to a Non-Residential Collector such as Main.

### **Vehicular Access Improvements**

Will there be any improvements to the abutting road(s) at the proposed access point(s)?

4. No. Based on existing PM peak-hour volumes on Main (recently counted for the Panera Drive-Through study), Main adjacent to the subject site appears to now be serving roughly 2,000 vehicles per day. Neither a left-turn passing lane nor a right-turn deceleration lane and/or taper are therefore warranted (based on DCS Figures IX.8 and IX.10).
5. The proposed shared driveway would end 175 ft north of the north curb of Main Street. As also shown on our attached aerial photo, this would end that driveway just a few feet short of existing pavement that connects to Paul Bunyon. **The applicant should either extend the shared drive all the way to Paul Bunyon and equip it with 20-ft corner radii there, or effectively barricade it at the extent of extension currently proposed.**
6. **The owner and the party responsible for operating and maintaining the shared drive (if different than the owner) need to be specified on the site plan. Given that that drive would be on a parcel separate from the credit union, a general-purpose cross access easement acceptable to the City Attorney should be recorded by the owner of the property within which the new drive would lie.**

### **Access Drive Design & Control**

Are the proposed design, pavement markings, and signage satisfactory?

7. The width and south curb returns of the shared drive are acceptably designed. **Per City and standard engineering practice, these elements should be dimensioned to back of curb.**
8. Per our pre-application comments of 1-17-13 and the City's Design and Construction Standards:
  - a. **The width of the site's (enter-only) south drive should be 16 ft, back-of-curb to back-of-curb** (the architectural plan proposes that width face-to-face, and the engineering plan proposes 17.5 ft back-to-back).
  - b. **The curb return radii at the south drive should be 20 ft on the north side and 5 ft on the south side, both referenced to back of curb** (again, the architectural and engineering plans differ from both each other and the standard).
  - c. **The curb return radii at the site's north (two-way) drive should be 20 ft, referenced to back of curb** (the architectural plan provides that dimension to face of curb).
9. **The final site plan should include a Signing and Pavement Marking Plan proposing:**
  - a. **An 18-inch-wide white stop bar on the shared drive, 4 ft in advance of the Main Street sidewalk, accompanied by a 20-ft-long double solid yellow centerline.**

- b. Two 24-inch STOP (R1-1) signs, one on the south end of the shared drive, 4 ft in advance of the Main Street sidewalk, and one on the exiting side of the north drive, 4 ft in advance of the property line.
  - c. Back-to-back (north- and south-facing) ONE WAY (R6-1) signs on the property line on the north side of the south drive (mounted, per the MMUTCD, at a 7-ft height).
  - d. A white pavement arrow pointing generally west from the *center* of the south drive (optional, but if this or any other pavement arrows are proposed, they should be white).
  - e. Signs and markings internal to the site, along with revised details, described below.
  - f. A note indicating that all signs and markings will comply with the *2011 Michigan Manual on Uniform Traffic Control Devices* (MMUTCD).
  - g. A Sign Quantities Table, listing each traffic and parking control sign by standard description, MMUTCD sign code, number of signs required, and number of posts required.
10. We see no need for the stop bar or word STOP on the pavement in the north drive, and recommend that they be deleted to reduce long-term maintenance requirements.

#### **Pedestrian Access**

Are pedestrians safely and reasonably accommodated?

11. To encourage proper sidewalk use, the 5-ft sidewalk widening behind the planter boxes on Main should be equipped with a 45-degree taper to the old walk at its east end.

#### **Circulation & Parking**

Can vehicles safely and conveniently maneuver through the site?

12. The landscape island immediately east of the drive-through lanes lacks the 15-ft corner radii generally required by Sec 2506.13 of the Zoning Ordinance. To address this situation, the plan should:
- a. Widen the west island by 5 ft east-to-west and apply a uniform 15-ft radius on the island's south end.
  - b. Shift the 25-ft-wide internal service drive 5 ft closer to the east side of the site.
  - c. Reduce the east island's two westerly curb radii to 15 ft (from the 20 ft proposed).
  - d. Show the dumpster shifted 5 ft east to keep it nominally centered relative to the relocated north-south service drive.

13. **All back-of-curb radii of 5 ft or more should be dimensioned on at least one sheet of the engineering plan. Generally, these radii should be expressed in whole feet (not half foot because the architect dimensioned standard radii to the face rather than back of curb).**
14. **A plan note should be included stating that all parking space dimensions (width as well as length) are referenced to the face of curb.**
15. **To comply with City policy that assumes a 2-ft parking overhang, the curb along the northernmost bank of parking stalls should be reduced in height to 4 inches. This should be indicated by a detail and/or note on sheet SP1.1 as well as revised elevations on sheet C-2. In a related matter, the Curb and Walk detail now appearing on sheet SP1.1 should be corrected to show a 4-inch (not 6-inch) walk height.**
16. **Per the MMUTCD and City policy:**
  - a. **Drive-through lane striping, undesignated parking space stripes, wheelchair symbols in the barrier-free parking spaces, and optional directional arrows must be white.**
  - b. **Crosshatching of the barrier-free access aisle, and striping of barrier-free spaces, must be blue. Abutting barrier-free and non-barrier-free parking spaces should be separated by abutting blue and white stripes.**
  - c. **Posts supporting the barrier-free signs should be at the back – not face – of the sidewalk.**
  - d. **The main barrier-free sign must be a RESERVED PARKING [wheelchair symbol] ONLY (R7-8) sign. The sign detail now appearing on sheet C-2 is incorrect.**
  - e. **The VAN ACCESSIBLE supplemental sign – to be used for both barrier-free spaces in this case – should be labeled with its MMUTCD code: R7-8P. Although these signs will be just behind the sidewalk, we recommend that a minimum mounting height of 6'-3" be used to enhance pedestrian safety.**

Sincerely,  
CLEARZONING, INC.



Rodney L. Arroyo, AICP  
President



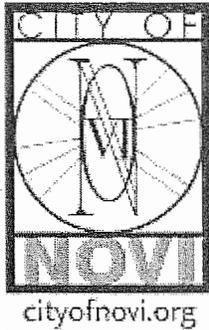
William A. Stimpson, P.E.  
Director of Traffic Engineering

Attachment: Aerial photo



Vicinity Aerial Photo for Proposed Detroit Metropolitan Credit Union

**LANDSCAPE REVIEW**



## PLAN REVIEW CENTER REPORT

February 21, 2013

### Landscape Preliminary Site Plan

Detroit Metro Credit Union JSP#12-69

#### Petitioner

Stucky Vitale Architects

#### Review Type

Preliminary Site Plan

#### Property Characteristics

- Site Location: Northeast corner of the intersection of Main St. and Novi Rd.
- Site Zoning: TC-1, Town Center
- Adjoining Zoning: North, South, East and West: TC-1
- Current Site Use: Vacant
- Adjoining Uses: North: Vacant; South: (across Main St.); West: vacant; East: City Center Plaza (across Novi Rd.)
- School District: Novi Community District
- Existing Site Size: 7.23 acres
- Proposed Site Size: 0.83 acres
- Plan Date: 01-28-13

#### Ordinance Considerations

##### TC-1 District (Sec. 1602)

1. Significant pedestrian orientation is a stated intent of the TC-1 District. Architectural amenities such as decorative paving, pedestrian scale lighting, small scale landscape features and focal points are in keeping with the intent and theme of the district. The Applicant has included a paved and landscape area on the prominent corner. A single bench has been proposed in the center of the space. The Applicant may consider shifting the bench back to sit at the edge of the paved space to make it more useable and pedestrian friendly.

*As this is a highly visible location, the Planning Commission may also wish to ask the Applicant to consider a more significant amenity in keeping with the intent of the Town Center District ordinance. Alternatives could be the inclusion of a more prominent feature such as artwork or a fountain to be provided by the Applicant.*

*Staff has also had discussions with the City of Novi's Parks, Recreation and Cultural Services Department. The Department is interested in a cooperative effort with the Applicant to provide artwork at this corner location. The Applicant is asked to consider making contact with the Parks Foundation and/or the Department, Jason Mangum, in order to initiate a dialogue. The City would seek an easement on the corner property in order to maintain the art. The Applicant would still remain responsible for maintenance of the property and landscape. It is intended that the artwork would be a standing sculpture, much*

like those currently located in Fuerst Park. The Fuerst Park sculptures are regularly rotated as part of a lease program. If any sculpture were proposed at this project location, it could be treated in the same manner under the same program.

2. The Applicant has included connecting walkways to the south and west sides of the building. Also added is a 5' wide walkway along Main Street allowing for pedestrians to maneuver around the existing raised tree planters. The planters are to be refurbished and will remain.

**Adjacent to Public Rights-of-Way – Berm (Wall) & Buffer (Sec. 2509.3.b.)**

1. A 3' tall decorative brick wall is required along the Novi Road and Main Street right-of-ways adjacent to parking and vehicular access areas. A decorative fence with brick piers may be used with the consent of the Planning Commission. It should be shown that the goal is to match the overall landscape scheme for development of the area. The Applicant has appropriately proposed decorative fencing with brick piers in areas adjacent to parking. Staff would support the use of the fencing as it is in keeping with the character of the district.
2. Right-of-way greenbelt planting calculations and plantings are required. A 20' wide landscape greenbelt is required. This greenbelt has been adequately provided. Calculations for the required landscape along the greenbelt frontages have been provided and requirements have been met.
3. Twenty five foot clear vision areas must be maintained and depicted on the plan at all vehicular intersections. This requirement has been met.

**Street Tree Requirements (Sec. 2509.3.b.)**

1. No Street Trees are required in Town Center District.

**Parking Landscape (Sec. 2509.3.c.)**

1. Interior Parking Landscape Area is required. Adequate landscape area has been provided.
2. Parking Lot Canopy Trees are required. Calculations show that 18 trees are required. This requirement has been met.
3. Please show snow storage areas on the plan as required.

**Parking Lot Perimeter Canopy Trees (Sec. 2509.3.c.(3))**

1. Perimeter Parking Lot Canopy Trees are required per 35 LF surrounding parking and access areas. This requirement has been met.

**Building Foundation Landscape (Sec. 2509.3.d.)**

1. A minimum 4' wide landscape bed is required around the entire building foundation with the exception of access areas. This requirement has been met.
2. A total of 8' x the length of the building foundation landscape area is required. This requirement has been met.

**Plant List (LDM)**

1. A Plant List per the requirements of the Ordinance and the Landscape Design Manual has been provided.

**Planting Notations and Details (LDM)**

1. Planting Notations and Details per the requirements of the Ordinance and the Landscape Design Manual have been provided.
2. A note on Sheet L-1 states that the landscape contractor shall maintain the landscape for a period of 1 year. The ordinance requires a guaranteed maintenance period of two years. Please adjust the note accordingly.

**Irrigation (Sec. 2509 3.f.(6)(b))**

1. An Irrigation Plan must be provided upon final stamping set submittal. Please provide a cost estimate for the irrigation system.

**General**

1. Please verify that all underground and overhead utilities, both existing and proposed, on the landscape plan.
2. Please provide details on the proposed signage.

*Please follow guidelines of the Zoning Ordinance and Landscape Design Guidelines. This review is a summary and not intended to substitute for any Ordinance. For the landscape requirements, see the Zoning Ordinance landscape section on 2509, Landscape Design Manual and the appropriate items in the applicable zoning classification.*

  
Reviewed by: David R. Beschke, RLA

WOODLAND REVIEW



Environmental Consulting & Technology, Inc.

February 27, 2013

Ms. Barbara McBeth  
Deputy Director of Community Development  
City of Novi  
45175 West Ten Mile Road  
Novi, MI 48375

Re: Detroit Metropolitan Credit Union (JSP12-0069)  
Woodland Review of the Preliminary Site Plan

Dear Ms. McBeth:

Environmental Consulting & Technology, Inc. (ECT) has reviewed the proposed Detroit Metropolitan Credit Union Preliminary Site Plan (Plan) prepared by Stucky Vitale Architects dated January 28, 2013. The Plan and supporting documentation were reviewed for conformance with the City of Novi Woodland Protection Ordinance Chapter 37.

The proposed project is located at the northeast corner of Novi Road and Main Street (Section 23). The proposed Plan would construct a 1-story (3,000 square foot) credit union, associated parking and utilities, and underground storm water detention system.

**Existing Conditions - Woodlands**

Based on our review of Novi aerial photos, Novi GIS, and the City of Novi Official Woodlands Map, this site does not appear to contain any areas that are designated as Regulated Woodlands. However a 40-inch tree has been indicated for removal on the Plan (*Topographic Survey, Sheet C-1*).

Based on the City of Novi Woodland Ordinance this tree is considered a landmark tree and is therefore regulated by the City of Novi Woodland Protection Ordinance. It should be noted that the Woodland Ordinance applies to the following:

*"Any individual tree with a diameter at breast height (d.b.h.) of thirty-six (36) inches or greater, irrespective of whether such tree is within a regulated woodland. A woodland use permit shall be required under section 37-26 before the conduct of any activity which has the effect of removing, damaging or destroying a tree with a d.b.h. of thirty-six (36) inches or greater".*

Several other relatively-large trees are located on the property but are not large enough to be considered landmark trees.

**The species and condition of the existing trees do not appear to be indicated on the Plan.**

**Proposed Impacts**

As stated above, the proposed site plan indicates the removal of one landmark sized tree. This 40" d.b.h. tree is located within the proposed access drive found on the east side of the proposed site.

2200 Commonwealth  
Blvd., Suite 300  
Ann Arbor, MI  
48105

(734)  
769-3004

FAX (734)  
769-3164

**Required Permits**

Based on information provided on the Plan, the proposed project will require a City of Novi Woodlands Use Permit.

**Comments**

1. The Applicant will be required to provide 4 woodland replacement credits for the removal of this tree.
2. Several items must be provided in subsequent Plan submittals in order to comply with site plan standards outlined in the updated Chapter 37 Woodland Protection Ordinance. The following information should be provided on subsequent Plans:
  - a. Condition and/or species of the existing trees;
  - b. The number of replacement credits that will be provided on-site;
  - c. The species/quantities/sizes and locations of replacement trees;
3. Per the City's Woodland Ordinance (Chapter 37, Article I – In General , Section 37-8 - Relocation or replacement of trees):

*Where tree relocation or replacement is not feasible... on the project property, the permit grantee shall pay into the city tree fund monies for tree replacement in a per tree amount representing the market value for the tree replacement as approved by the planning commission. The city tree fund shall be utilized for the purpose of woodland creation and enhancement, installation of aesthetic landscape vegetation, provision of care and maintenance for public trees and provision and maintenance of specialized tree care equipment. Tree fund plantings shall take place on public property or within right-of-ways with approval of the agency of jurisdiction.*

If suitable replacement locations will not be available on-site, a total of **\$400 per replacement tree that cannot be provided on site** shall be paid to the City Tree Fund. Any proposed payments to the City of Novi Tree Fund should be indicated on the Plan.

**Conclusion**

ECT believes that one tree (indicated as 40" d.b.h.) on the Plan is regulated under the Woodland Protection Ordinance and therefore the proposed project requires a Woodland Use Permit.

Additional information discussed above must be provided on subsequent Plan submittals in order to meet the site plan standards of the Woodland Protection Ordinance.

Detroit Metropolitan Credit Union (JSP12-0069)  
Woodland Review of the Preliminary Site Plan  
February 27, 2013  
Page 3 of 3

**Recommendation**

ECT recommends approval of the Preliminary Site Plan for Woodlands contingent on the Applicant addressing the comments noted above.

As always, if you have any questions regarding the contents of this letter, please feel free to contact our office.

Respectfully,

**ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.**



Peter Hill, P.E.  
Senior Associate Engineer

cc: David Beschke, City of Novi, Licensed Landscape Architect  
Kristen Kapelanski, AICP, City of Novi Planner  
Angela Pawlowski, City of Novi, Senior Customer Service

**FACADE REVIEW**



February 27, 2013

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

Re: **FACADE ORDINANCE - Facade Review – Final Site Plan**  
**Detroit Metropolitan Credit Union, PSP13-0046**  
 Façade Region: 1, Zoning District: TC-1

Dear Ms. McBeth;

The following is the Facade Review for Preliminary Site Plan Approval of the above referenced project based on the drawings prepared by Stucky Vitale Architects, dated 1/28/13. The percentages of materials proposed for each façade are as shown on the table below. The maximum percentages allowed by the Schedule Regulating Façade Materials (AKA Façade Chart) of Ordinance Section 2520 are shown in the right hand column. Materials in non-compliance with the Façade Chart, if any, are highlighted in bold. This project is located in the TC-1 District and is therefore also subject to Section 1603.9 of the Ordinance.

|                                  | West<br>(Front) | South | East | North | Ordinance Maximum<br>(Minimum) |
|----------------------------------|-----------------|-------|------|-------|--------------------------------|
| Brick                            | 79%             | 70%   | 85%  | 70%   | 100% (30%)                     |
| Flat Metal Panels                | 13%             | 22%   | 7%   | 22%   | 50%                            |
| Flat Metal Panels (Roof Screens) | 8%              | 8%    | 8%   | 8%    | 50%                            |
| All Flat Metal Panels combined   | 21%             | 30%   | 15%  | 30%   | 50%                            |

As shown above the percentages of all materials are in full compliance with the Façade Ordinance, Section 2520. Section 1603.9 of the Ordinance places additional requirements on building located in the TC-1 District; that exterior building facades “shall be primarily of brick and stone.” The proposed design has a minimum of 70% Brick on each façade and therefore complies with this requirement.

Please note that the required sample board was not provided at the time of this review. The sample board should be provided prior to the Planning Commission meeting. It should be noted that ribbed metal panels are not allowed by the Façade Chart. Therefore, the panels used on the roof screens must substantially match the Flat Metal Panels used on the building. This is not clearly noted on the drawings and should be clarified on the sample board.

The Site Plan indicates that a brick dumpster enclosure and decorative fence with brick columns are propose. The Ordinance requires that the dumpster enclosure brick match the main building. It is recommended that brick matching the building also be used on the fence columns. In any case all proposed brick, metal panel and other colors should be represented on the sample board.

**In summary, the proposed design appears to be in full compliance with Sections 2520 and 1603.9 of the Ordinance. A Section 9 Waiver is not required for this project.** This recommendation is contingent upon submittal of a sample board indicating carefully coordinated harmonious earth tone colors that are consistent with Section 2520.2 of the Ordinance, and roof screens that substantially matching the Flat Metal Panels used on the building.

**Notes to the Applicant:**

1. The Façade Ordinance requires inspection(s) for all projects. Materials displayed on the approved sample 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. Materials must be approved before installation on the building. Please use the Novi Building Department's Online Inspection Portal by following the link below. 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

**FIRE REVIEW**



November 7, 2012

January 18, 2013

**February 11, 2013 REVISED**

TO: Barbara McBeth, Deputy Director of Community Development  
Joseph Shelton, Fire Marshal

RE: Preliminary Site Plan – **Detroit Metro Credit Union**

**CITY COUNCIL**

**Mayor**  
Bob Gatt

**Mayor Pro Tem**  
Dave Staudt

Terry K. Margolis

Andrew Mutch

Justin Fischer

Wayne Wrobel

Laura Marie Casey

**City Manager**  
Clay J. Pearson

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

**Director of EMS/Fire Operations**  
Jeffery R. Johnson

**Assistant Chief of Police**  
Victor C.M. Lauria

**Assistant Chief of Police**  
Jerrod S. Hart

SP#: JSP12-0069  
PSP12-0041  
PSP13-0005  
**PSP13-0046**

**Project Description:**

New 2,985 Sq Ft. building (B-use group – Credit Union), on 3.8 total acre site.

**Comments:**

1. **CORRECTED on 1/18/13** - Parking lot turning radius is now acceptable. Fire Dept. requires a 50' outside and 30' inside turning for fire apparatus. Approach lane from Main Street is acceptable; however NW corner and SW corners of building site are not.
2. **CORRECTED on 2/11/13, (see note below)** - Only one Fire Hydrant location is shown on map, and is the existing hydrant for Main Street. Per IFC 2006 (sec 508.5.1), fire hydrants can be required by the fire code official to be located on main approach lanes if building is more than 400' from building. Also note: IFC 2006, Appendix C, section C104. Existing Hydrants shall not be considered if access roads do not connect causing obstructions. Landscape plans show obstructions. **Added Hydrant is now listed on plans and is within 260' of building.**

**Recommendation:**

The above plan has been reviewed and is now recommended for Approval.

Sincerely,

Andrew Copeland – Inspector II/CFPE  
City of Novi – Fire Dept.

cc: file

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

cityofnovi.org

**APPLICANT RESPONSE LETTER**



STUCKY VITALE ARCHITECTS

March 6, 2013

Barbara McBeth, AICP  
Deputy Director of Community Development  
City of Novi  
45175 West Ten Mile Road  
Novi, MI 48375

Re: Detroit Metropolitan Credit Union – New Facility  
Case No.: JSP 12-69  
Architects' Project No.: 2012.023

Dear Ms. McBeth:

Below are responses to preliminary review comments dated February 28, 2013. Items requiring action are noted below in italics.

**Ordinance Requirements**

**5. Shared Access Drive:** *Please see attached Conceptual Development Plan for proposed layout of drives at adjacent properties.*

**Lighting Review Summary Chart**

Lighting Plan (Section 2511.2.a.2): *Hours of operation will be added to photometric plan.*

Required Notes (Section 2511.3.b): *Required notes will be added to photometric plan.*

In response to the comments provided by **Clear Zoning, Inc.**

**Comment #5:** *Barricade will be provided at north end of shared drive; to be removed at time of future development.*

**Comment #6:** *Owner's attorney is currently working on agreement regarding use of shared drive.*

**Comment #7:** *Curb elements will be dimensioned to back of curb per City standard.*

**Comment #9:** *Final site plan submittal will include Signing and Pavement Marking Plan depicting items noted in comments 9a through 9g.*

Barbara McBeth, AICP  
City of Novi  
Project No. 2012.023  
March 6, 2013  
Page 2 of 2

**Comment #10:** *Stop bar and word STOP will be removed from plan at north drive.*

**Comment #11:** *45-degree taper will be added to east end of old walk on Main per comment.*

**Comment #15:** *Curb height at walk adjacent to parking will be reduced to 4" per comment.*

**Facade Review**

*A sample board indicating exterior materials and colors selected to comply with Section 2520.2 will be submitted prior to Planning Commission meeting.*

Sincerely,



Mike Blanek, AIA  
Associate

Attachment: Conceptual Development Plan

March 5, 2013

Mike Blaneck, AIA  
Stucky Vitale Architects  
27172 Woodward Avenue  
Royal Oak, MI 48067-0925

**Re: Detroit Metro Credit Union JSP#12-69**

**JAMES C. SCOTT & ASSOCIATES, INC.**

300 E. Long Lake Rd., Suite 120  
Bloomfield Hills, MI 48304  
(p) 248/646/6564  
(f) 248/646/4838  
www.jcsa-la.com

Mike,

The following are my responses to the comments provided by the City of Novi (dated 2/21/13) and Environmental Consulting & Technology, Inc. (dated 2/27/13) during their Preliminary Site Plan reviews of the Landscape Plans for the above referenced project. Please note that only those items requiring action are addressed below.

In response to the comments provided by the **City of Novi** (my responses are in *italics*):

**Parking Landscape (Sec. 2509.3.c)**

Item #3: Please show snow storage areas on the plan as required.  
*Snow Load areas are indicated on Sheet L-1.*

**Planting Notations and Details (LDM)**

Item #2: A note on Sheet L-1 states that the landscape contractor shall maintain the landscape for a period of 1 year. The ordinance requires a guaranteed maintenance period of two years. Please adjust the note accordingly.  
*This note has been adjusted as requested. The same note on Sheet L-3 has also been adjusted.*

**Irrigation (sec. 2509 3.f.(6)(b))**

Item #1: An Irrigation Plan must be provided upon final stamping set submittal. Please provide a cost estimate for the irrigation system.  
*An estimate for the irrigation system has been included in the Cost Estimate on Sheet L-3. An irrigation system will be provided for the stamping set, as requested.*

**General**

Item #1: Please verify that all underground and overhead utilities, both existing and proposed, are shown on the landscape plan.  
*All utilities have been verified and included on the Landscape Plan, Sheet L-1.*

Item #2: Please provide details on the proposed signage.  
*Please refer to the architectural plans for signage detailing.*

In response to the comments provided by **Environmental Consulting & Technology, Inc.** (my responses are in *italics*):

**Comment #1:** The applicant will be required to provided 4 woodland replacement credits for the removal of this (40" landmark) tree.  
*Four replacement trees are shown on the landscape plan (Sheet L-1) and the corresponding credits are included in the Planting Calculations presented on Sheet L-2.*

**Comment #2:** Several items must be provided in subsequent Plan submittals in order to comply with the site plan standards outlined in the updated Chapter 37 Woodland Protection Ordinance. The following information should be provided on subsequent Plans:

- a. Condition and/or species of the existing trees;  
*Please refer to the revised Topographic Survey, Sheet C-1.*
- b. The number of replacement credits that will be provided on site;  
*Four replacement trees are shown on the landscape plan (Sheet L-1) and the corresponding credits are included in the Planting Calculations presented on Sheet L-2.*
- c. The species/ quantities/ sizes and locations of replacement trees;  
*Four replacement trees are shown on the landscape plan (Sheet L-1). The species, quantities and sizes of these four trees are defined in the Proposed Planting Schedule and Cost Estimate shown on Sheet L-3.*

Please let me know if you have any questions.

Sincerely,  
JAMES C. SCOTT & ASSOCIATES, INC.



Ben Weaver



**KEM-TEC**

**& ASSOCIATES**  
Professional Engineers  
Professional Surveyors

www.kemtecsurvey.com

**EAST**  
22556 Gratiot Avenue  
Eastpointe, MI 48021-2312  
(586) 772-2222 Fax: (586) 772-4048  
(800) 295-7222

**WEST**  
300 E Stadium  
Ann Arbor, MI 48104-4365  
(734) 994-0888 Fax: (734) 994-0667  
(800) 433-6133

March 6, 2013

City of Novi  
45175 W. Ten Mile Road  
Novi, Michigan 48375

RE: DMCU Novi  
Engineering Review - JSP12-0069

Dear Adam,

Kem-Tec & Associates is in receipt of the City Engineering Review comments dated February 28, 2013. We acknowledge the comments and they will be addressed on the Final Site Plan drawings. The following items will be shown on the Final Site Plan drawings:

1. City standard notes
2. City standard detail sheets
3. Water main design and permitting
4. Sanitary sewer easement
5. Profile of sanitary sewer
6. Sanitary sewer basis of design
7. Sanitary design and permitting
8. Profiles of storm system
9. Paving and grading plans
10. Offsite easements
11. Cost Estimate

Please contact our office should you have any questions or require additional information.

Sincerely,

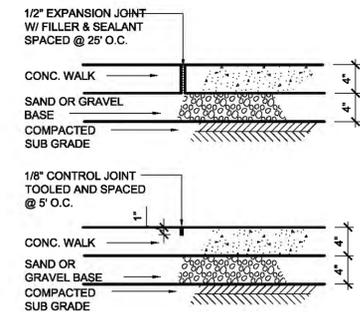
Matthew D. Kuehn, PE  
Kem-Tec & Associates



**LEGAL DESCRIPTION:**

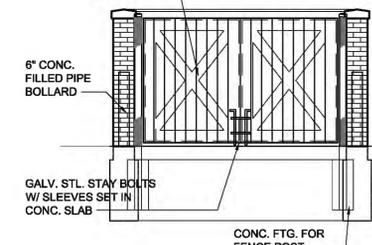
PARCEL A:  
PART OF UNIT 1 AND THE GENERAL COMMON ELEMENTS OF THE NORTH PART OF THE "MAIN MARKET CONDOMINIUM - REPLAT 1" AS RECORDED IN LIBER 39435, PAGE 230, OAKLAND COUNTY RECORDS, BEING PART OF THE NORTHWEST 1/4 SECTION 23, TOWN 1 NORTH, RANGE 8 EAST, NOV1, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS:  
COMMENCING AT THE NORTH WEST CORNER OF SECTION 23; THENCE S00°00'00"E 558.21 FEET ALONG THE WEST LINE OF SAID SECTION 23 AND THE CENTERLINE OF NOVI ROAD (120.00 FEET WIDE); THENCE N90°00'00"E 60.00 FEET TO THE EAST LINE OF SAID NOVI ROAD AND THE SOUTH LINE OF PAUL BUNYON ROAD (73.00 FEET WIDE); THENCE S00°00'00"E 157.87 FEET TO THE POINT OF BEGINNING; THENCE N90°00'00"E 183.00 FEET; THENCE S70°43'20"E 92 FEET; THENCE S21°51'23"E 146.09 FEET; THENCE THE FOLLOWING 2 COURSES ALONG THE NORTH LINE OF MAIN STREET, (1) 75.75 FEET ALONG A NON-TANGENT CURVE TO THE LEFT, HAVING A RADIUS OF 450.00 FEET, A CENTRAL ANGLE OF 9°38'42" AND A CHORD BEARING N85°28'46"W 75.66 FEET, (2) N90°00'00"W 140.03 FEET TO THE EAST LINE OF SAID NOVI ROAD; THENCE N00°00'00"E 160.00 FEET TO THE POINT OF BEGINNING.

CONTAINING ±0.887 ACRES.

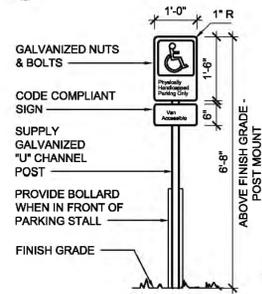


**12 WALKING JOINT**  
SCALE: 1"=1'-0"

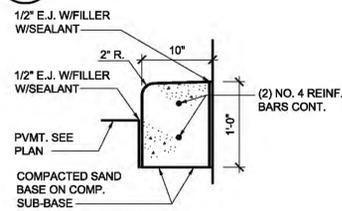
VERT. 1x6 CEDAR GATE W/ 2x6 CEDAR FRAME & CROSS BOLTS (INTERIOR SIDE) W/ HEAVY DUTY (GALV.) GATE HINGES AS REQUIRED.



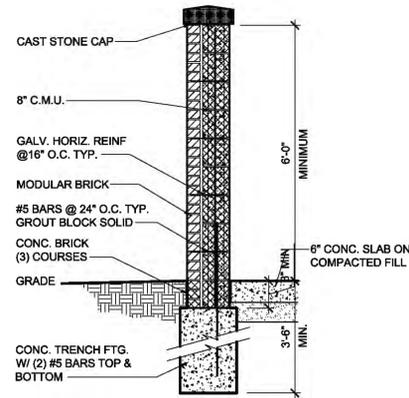
**10 SCREEN WALL**  
SCALE: 1/4"=1'-0"



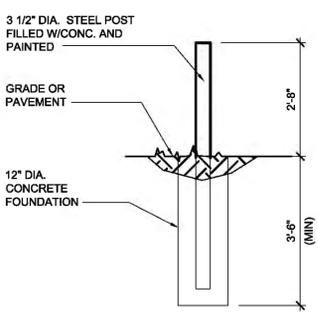
**8 SIGNAGE**  
SCALE: 1/2"=1'-0"



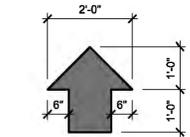
**5 CURB DRIVE-UP**  
SCALE: 1"=1'-0"



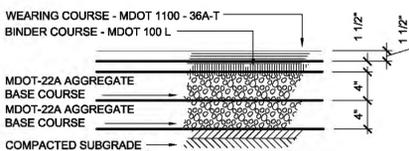
**11 SECTION AT DUMPSTER SCREEN**  
SCALE: 1/2"=1'-0"



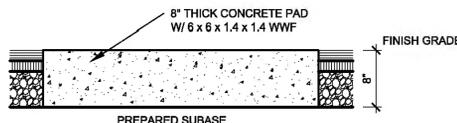
**9 GUARD POST**  
SCALE: 1/2"=1'-0"



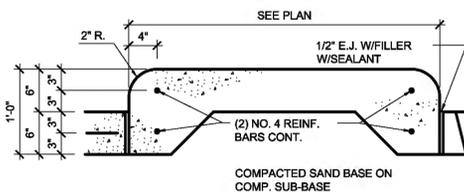
**7 ARROW**  
SCALE: 1/2"=1'-0"



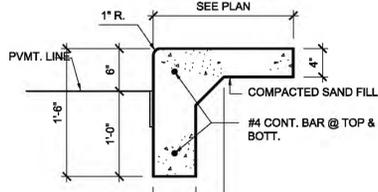
**4 ASPHALT PAVEMENT**  
SCALE: 1"=1'-0"



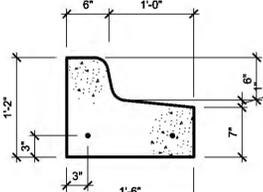
**6 DUMPSTER PAD**  
SCALE: NOT TO SCALE



**3 DRIVE-UP ISLAND**  
SCALE: 1"=1'-0"

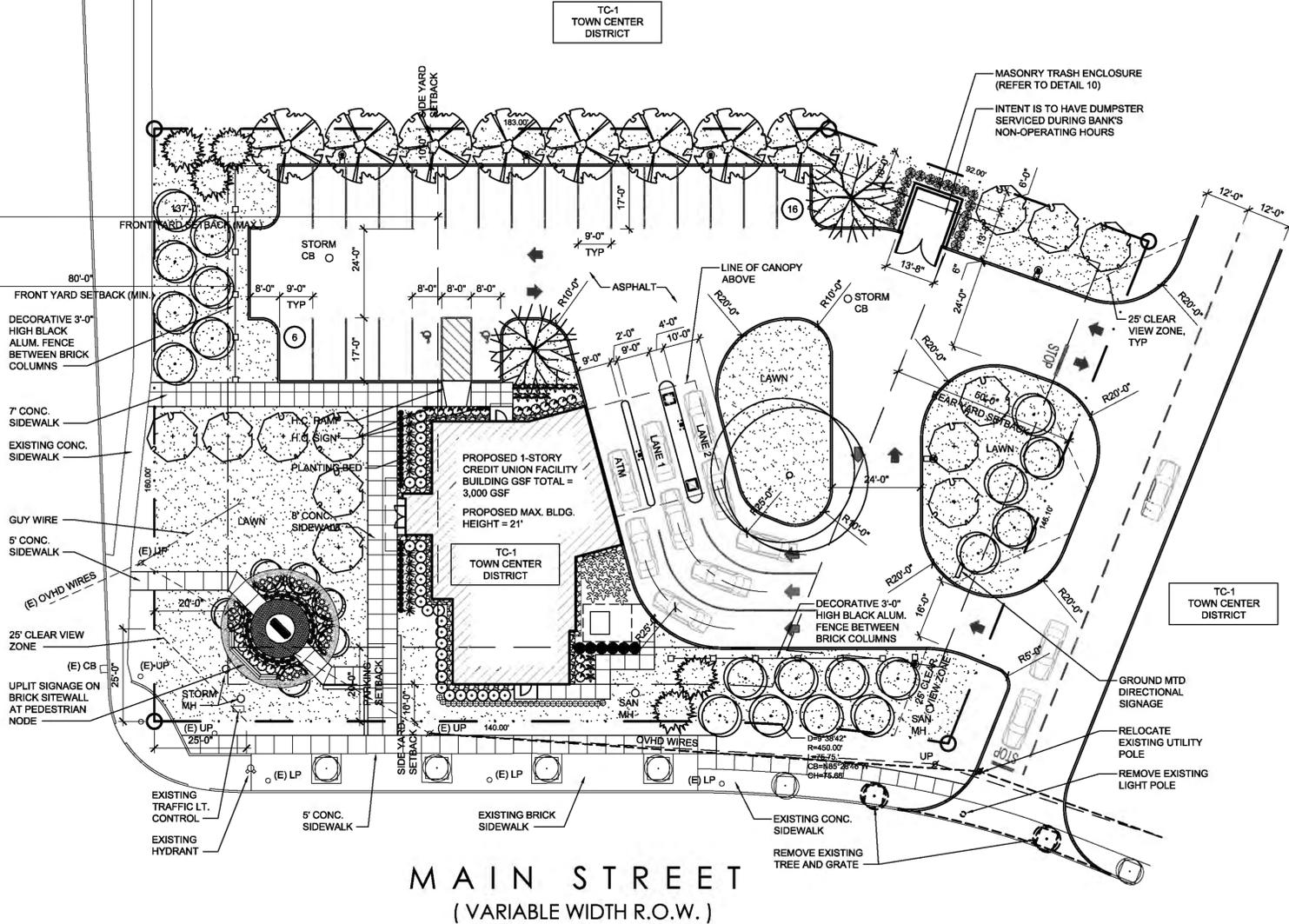


**2 CURB AND WALK**  
SCALE: 1"=1'-0"



**1 SPILL CURB**  
SCALE: 1"=1'-0"

NOVI ROAD  
(120' WIDER.O.W.)



**INTERIOR PLANTING CALCULATION**  
OPEN SPACE = 15% OF GROSS SITE AREA (MIN.)  
GROSS SITE AREA 38,638 S.F. x 15% = 5796 S.F. REQUIRED  
16,300 S.F. OPEN SPACE PROVIDED (HATCHED LAWN AREA AND LANDSCAPED AREAS)  
LANDSCAPE AT PARKING ISLANDS AND CANOPY TREES:  
(PARKING S.F.) x 10% + (VEHICULAR PAVING < 50,000 S.F.) x 5% + (VEHICULAR PAVING > 50,000 S.F.) x 1% = TOT. REQ. LANDSCAPE AT ISLANDS  
3468 S.F. x 10% + 12,020 S.F. x 5% + 0 S.F. x 1% = 347 + 601 + 0 = 948 S.F. REQ. LANDSCAPE AT PARKING ISLANDS  
CANOPY TREES AT PARKING AREAS REQUIRED = 948 / 75 = 12.64 THEREFORE 13 REQ.  
19 CANOPY TREES AND 6 EVERGREEN TREES (25 TREES TOTAL) PROVIDED

| LEGEND   |               |
|----------|---------------|
| [Symbol] | PROPERTY LINE |
| [Symbol] | LOT LINE      |
| [Symbol] | FIRE HYDRANT  |
| [Symbol] | LIGHT FIXTURE |
| [Symbol] | LIGHT FIXTURE |

| PARKING REQUIREMENTS:  |  |
|--|--|
| 1 SPACE FOR 150 G.S.F. AREA  |  |
| 3000 / 150 = 20 PARKING SPACES REQUIRED  |  |
| PROVIDED 22 PARKING SPACES   |  |
| 1 HC PER 25 PARKING SPACES = 1 REQUIRED  |  |
| PROVIDED 2 HC PARKING SPACES   |  |
| STACKING = 3 SPACES / DRIVE-THRU LANE = 12 REQUIRED                                  |  |
| BARRIER FREE ACCESS WILL BE PROVIDED AT ALL ENTRANCES AND EXITS                      |  |
| NOTE:<br>ALL LANDSCAPED AREAS TO BE PROVIDED W/ SPRINKLER SYSTEMS FOR 100% COVERAGE. |  |

**SVA**  
STUCKY VITALE ARCHITECTS  
27172 WOODWARD AVENUE  
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**Project :**  
DETROIT METROPOLITAN CREDIT UNION - NEW FACILITY  
NOVI RD + MAIN STREET  
NOVI, MI 48375  
SECTION 23

**Issued for :**  
PRE-APPLICATION MEETING 10.31.12  
OWNER REVIEW 11.21.12  
PRE-APPLICATION RESUBMISSION 01.03.13  
COORDINATION 01.25.13  
SPA APPROVAL 01.28.13

**Drawn by :**  
RJB  
**Checked by :**  
JAV, MJB

**Sheet Title :**  
ARCHITECTURAL SITE PLAN - PRELIMINARY

**Project No. :**  
2012.023

**Sheet No. :**  
SP1.1

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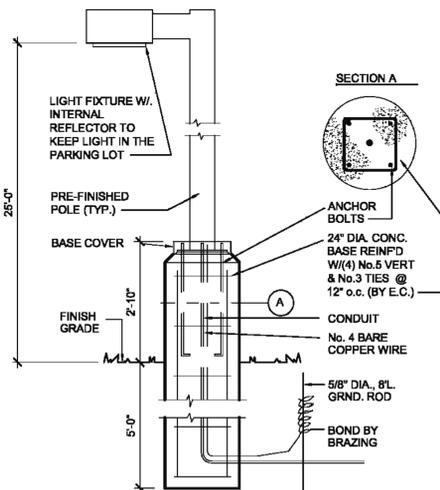
| Symbol | Label | Qty | Catalog Number                               | Description   | Lamp  | File                                      | Lumens   | LLF  | Watts |
|--------|-------|-----|--|---|---|---|----------|------|-------|
| □      | LA    | 8   | LITHONIA #DSX1<br>LED 230870040K<br>FT MVOLT | DSX1 LED WITH 2 LIGHT<br>ENGINES, 700mA<br>DRIVER, 400K LEDS,<br>TYPE FT OPTICS                               | ONE 142.7-WATT LED,<br>AIMED DOWN POS.                                      | DSX1_LED_2<br>308700_40K_F<br>T_MVOLT.ies | Absolute | 0.90 | 142.7 |
| ⊗      | LE    | 2   | GOTHAM #EVO<br>2710 GAR 120                  | 8" LED DOWNLIGHT,<br>2700K, 1000 LUMENS,<br>STANDARD<br>DISTRIBUTION WITH<br>CLEAR SEMI SPECULAR<br>REFLECTOR | LED   | EVO_27_10_6<br>AR_120.ies                 | Absolute | 0.90 | 18.4  |
| ○      | G     | 8   | LITHONIA #KB6<br>50M R5                      | 6 IN ROUND BOLLARD  | ONE 50 WATT CLEAR E-<br>17 METAL HALIDE,<br>VERTICAL BASE-DOWN<br>POSITION. | 84033107.IES                              | 3400     | 0.72 | 72    |

| Description        | Symbol | Avg    | Max     | Min    | Max/Min | Avg/Min |
|--------------------|--------|--------|---------|--------|---------|---------|
| OVERALL LTG VALUES | +      | 0.7 fc | 11.8 fc | 0.0 fc | N/A     | N/A     |
| PARKING LOT        | X      | 2.2 fc | 3.7 fc  | 0.7 fc | 5.3:1   | 3.1:1   |
| PROPERTY LINE      | +      | 0.8 fc | 1.7 fc  | 0.0 fc | N/A     | N/A     |

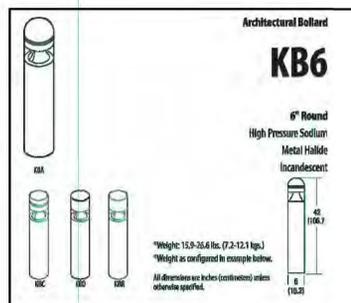
| No. | Label | Location    | MH   | Orientation | Tilt |
|-----|-------|-------------|------|-------------|------|
| 1   | LA    | 51.0 152.9  | 25.0 | 180.0       | 0.0  |
| 2   | LA    | 101.0 152.9 | 25.0 | 180.0       | 0.0  |
| 3   | LA    | 150.8 152.8 | 25.0 | 180.0       | 0.0  |
| 4   | LA    | 239.9 122.2 | 25.0 | 186.0       | 0.0  |
| 5   | LA    | 210.5 71.0  | 25.0 | -89.9       | 0.0  |
| 6   | LA    | 178.0 14.8  | 25.0 | -0.6        | 0.0  |
| 7   | LE    | 100.8 7.8   | 8.3  | 0.0         | 0.0  |
| 8   | LE    | 84.1 83.2   | 8.3  | 0.0         | 0.0  |
| 9   | G     | 8.9 41.2    | 3.0  | 0.0         | 0.0  |
| 10  | G     | 29.2 34.3   | 3.0  | 0.0         | 0.0  |
| 11  | G     | 43.2 20.5   | 3.0  | 0.0         | 0.0  |
| 12  | G     | 57.2 15.4   | 3.0  | 0.0         | 0.0  |
| 13  | G     | 57.2 32.3   | 3.0  | 0.0         | 0.0  |
| 14  | G     | 57.2 48.3   | 3.0  | 0.0         | 0.0  |
| 15  | G     | 57.2 84.1   | 3.0  | 0.0         | 0.0  |
| 16  | G     | 57.2 86.1   | 3.0  | 0.0         | 0.0  |

- NOTES**
- SEE MH COLUMN OF LUMINAIRE LOCATIONS FOR MOUNTING HEIGHTS.
  - SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTORS.
  - CALCULATIONS ARE SHOWN IN FOOTCANDLES AT GRADE.

THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING/FUTURE FIELD CONDITIONS. THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP. GBA DOES NOT ACT AS THE CIVIL OR STRUCTURAL ENGINEER AND DOES NOT DETERMINE BASE REQUIREMENTS. POLES SPECIFICATIONS ARE NOT INCLUDED WITH EXTERIOR LIGHTING PHOTOMETRIC ANALYSIS. THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICHIGAN ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.

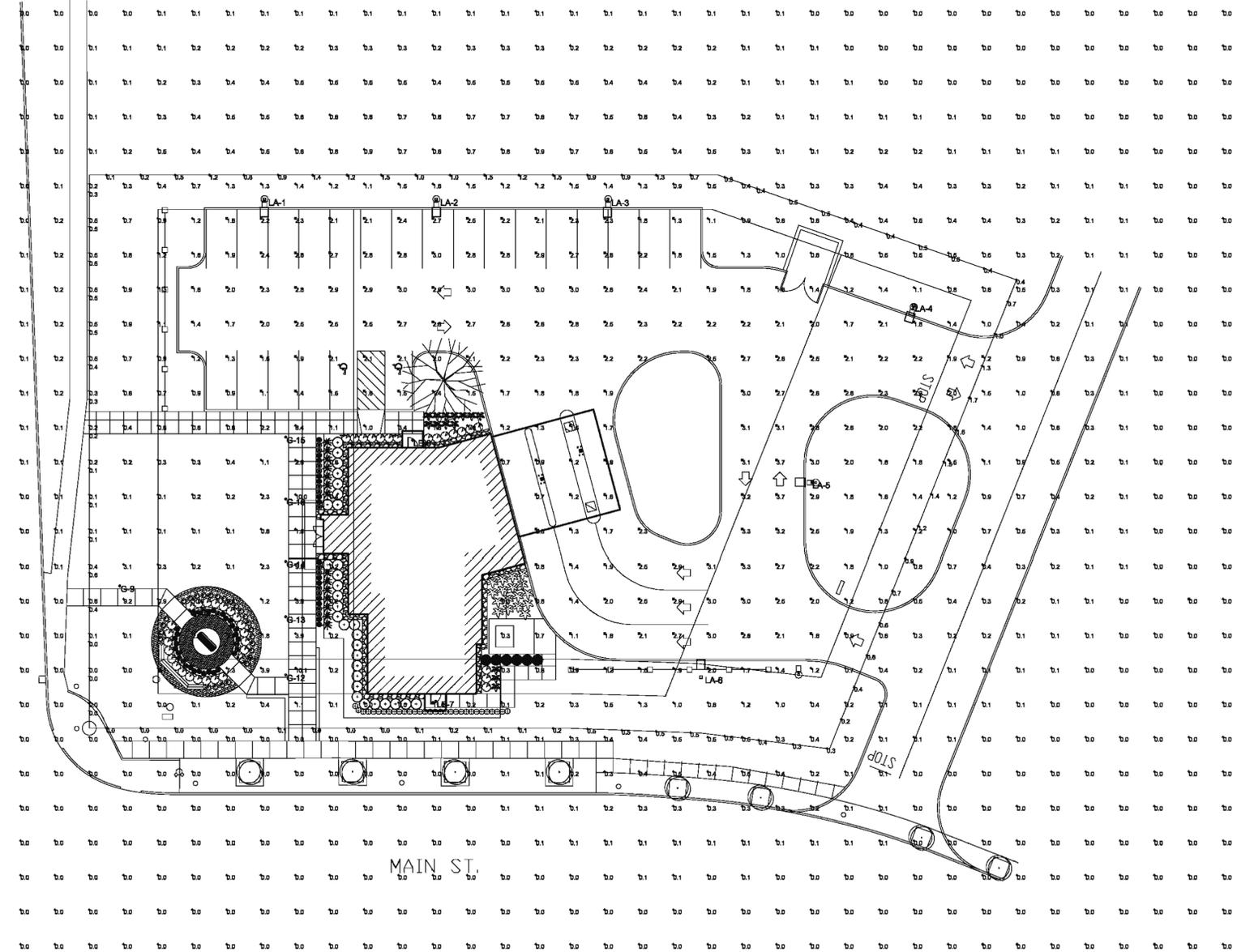


**X LIGHT POLE**  
SCALE: 1/2"=1'-0"

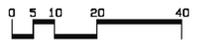


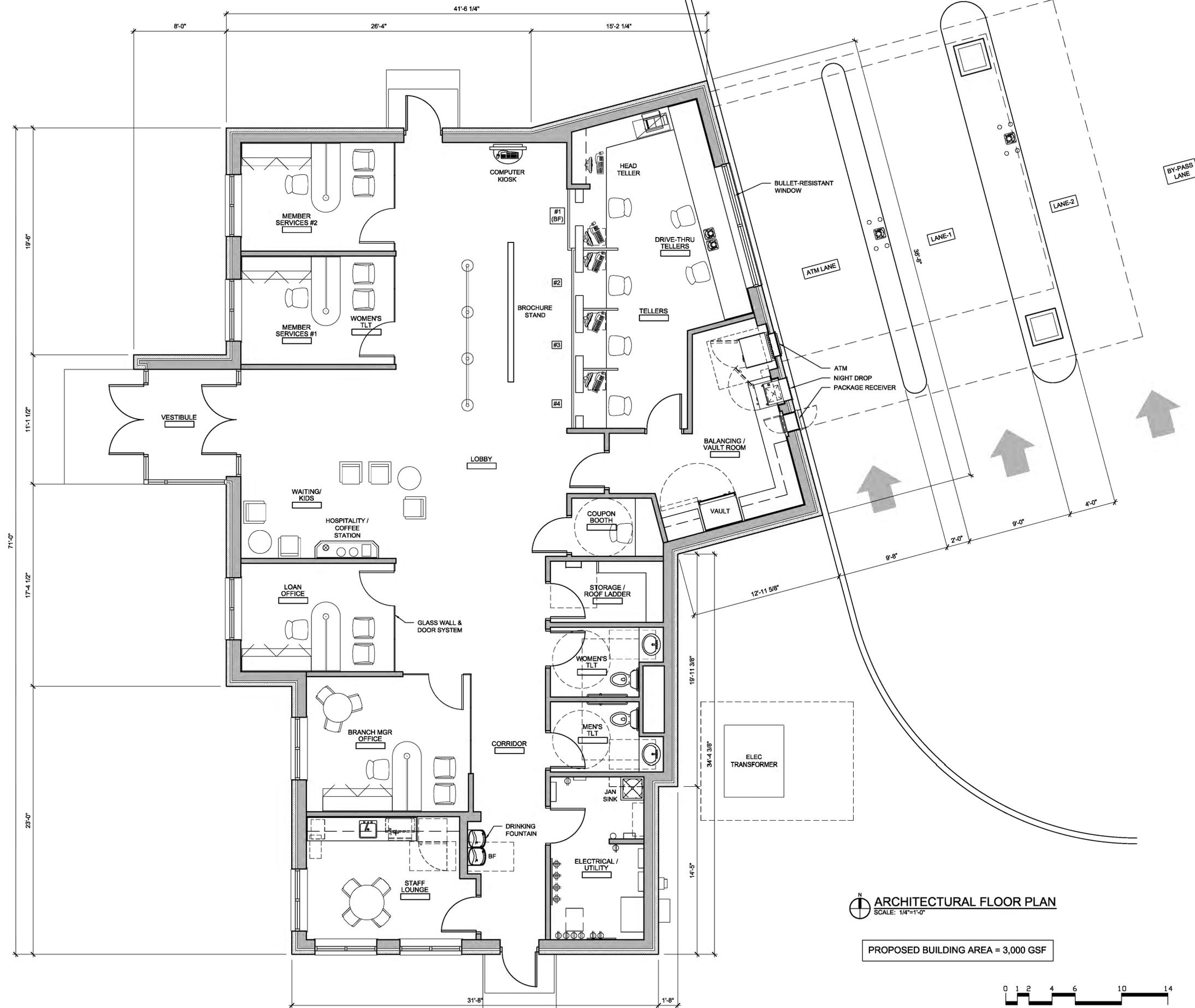
NOVI RD.

MAIN ST.



**TYPICAL LTG VALUES AT GRADE**  
SCALE: 1"=20'  
PRELIMINARY





**Project :**  
 DETROIT METROPOLITAN  
 CREDIT UNION -  
 NEW FACILITY  
 NOVI RD + MAIN STREET  
 NOVI, MI 48375  
 SECTION 23

**Issued for :**  
 PRE-APPLICATION  
 RESUBMISSION 01.03.13  
 SPA APPROVAL 01.28.13

**Drawn by :**  
 RJB  
**Checked by :**  
 JAV, MJB

**Sheet Title :**  
 ARCHITECTURAL  
 FLOOR PLAN

**Project No. :**  
 2012.023

**Sheet No. :**  
 A1.1

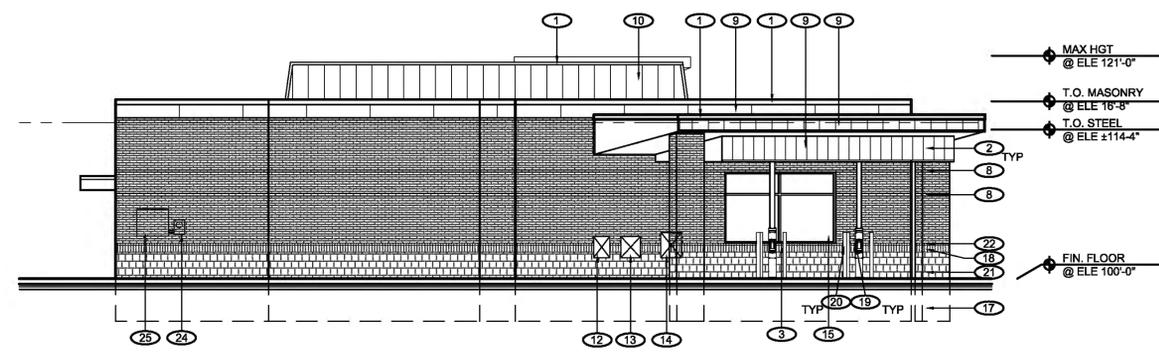
DO NOT SCALE DRAWINGS  
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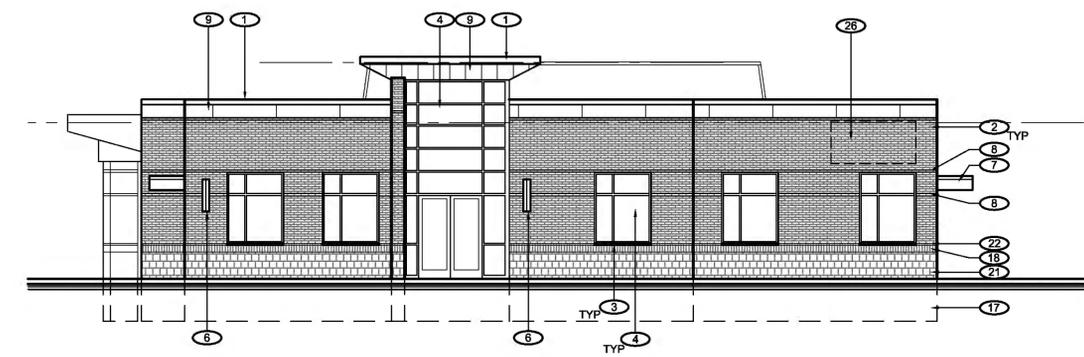
STUCKY VITALE ARCHITECTS  
 27172 WOODWARD AVENUE  
 ROYAL OAK, MI 48067-0925  
 P. 248.546.6700  
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 WWW.STUCKYVITALE.COM

**ELEVATION KEY NOTES:**

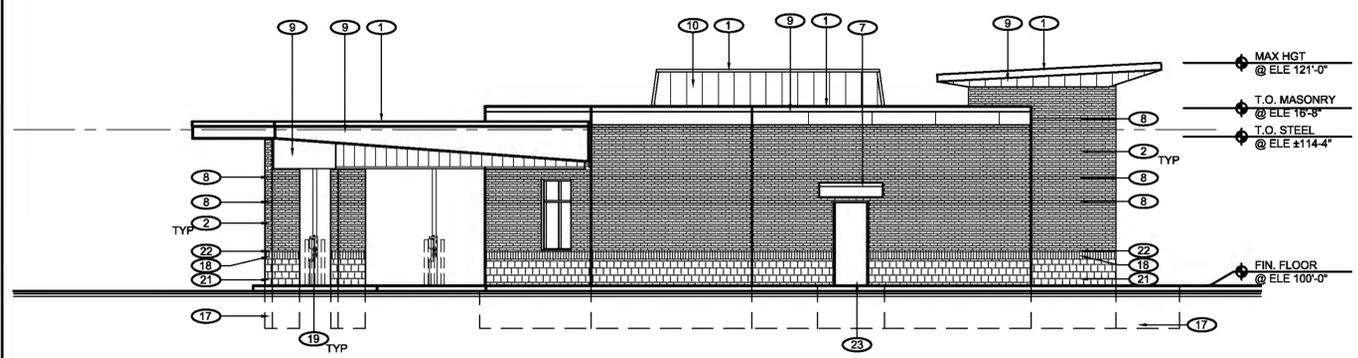
- 1 PREFINISHED METAL COPING SYSTEM
- 2 BRICK #1 RUNNING BOND; TYPICAL
- 3 BRICK #2 ROWLOCK SILL (MODULAR)
- 4 STOREFRONT SYSTEM, REFER TO WINDOW TYPES
- 5 AUTOMATIC ENTRANCE DOOR PUSH-BUTTON
- 6 WALL SCONCE LIGHT FIXTURE
- 7 PREFINISHED METAL CLAD CANOPY
- 8 RECESSED BRICK #1 STRETCHER COURSE
- 9 PREFINISHED FLUSH METAL PANEL SYSTEM
- 10 PREFINISHED METAL PANEL ROOF TOP EQUIPMENT SCREEN
- 11 LANE INDICATOR SIGNS, SUSPENDED
- 12 PACKAGE RECEIVER M.O., PAINTED
- 13 NIGHT DEPOSIT M.O.
- 14 ATM
- 15 BULLET-RESISTANT WINDOW BY OTHERS; CONTRACTOR TO COORDINATE INSTALL
- 16 WALL SIGN INDICATING CLEARANCE
- 17 CONCRETE FOUNDATION @ 42" BELOW FIN GRADE; MIN
- 18 BRICK #2 - SOLDIER COURSE (MODULAR)
- 19 VAT SYSTEM BY OTHERS; CONTRACTOR TO COORDINATE INSTALLATION
- 20 CONC. FILLED, PAINTED STEEL BOLLARD
- 21 BRICK #2 - RUNNING BOND (QUAD)
- 22 BRICK #2 - ROWLOCK COURSE (MODULAR)
- 23 PAINTED, GALV., H.M. DOOR AND FRAME AS SCHEDULED
- 24 ELECTRICAL SERVICE METER - PAINT TO MATCH ADJ. BRICK COLOR
- 25 CT CABINET - PAINT TO MATCH ADJ BRICK COLOR
- 26 WALL SIGN



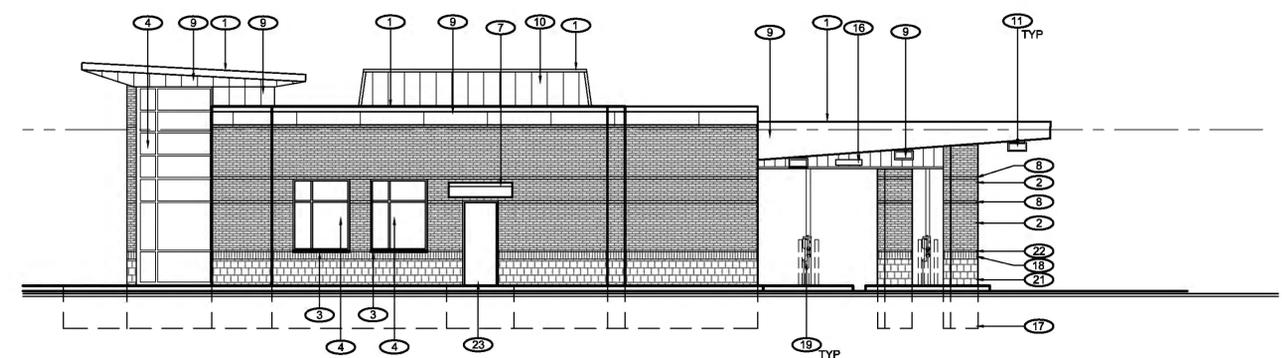
4 EAST ELEVATION  
 SCALE: 1/8" = 1'-0"



3 WEST ELEVATION  
 SCALE: 1/8" = 1'-0"



2 NORTH ELEVATION  
 SCALE: 1/8" = 1'-0"



1 SOUTH ELEVATION  
 SCALE: 1/8" = 1'-0"



| FACADE MATERIAL COVERAGE           |     |
|------------------------------------|-----|
| BRICK                              | 63% |
| GLASS / STOREFRONT                 | 11% |
| PREFIN. FLUSH METAL PANEL / COPING | 16% |
| PREFIN. METAL EQUIPMENT SCREEN     | 8%  |

**Project :**  
 DETROIT METROPOLITAN  
 CREDIT UNION -  
 NEW FACILITY  
 NOVI RD + MAIN STREET  
 NOVI, MI 48375  
 SECTION 23

**Issued for :**  
 PRE-APPLICATION  
 MEETING 10.31.12  
 PRE-APPLICATION  
 RESUBMISSION 01.03.13  
 SPA APPROVAL 01.28.13

**Drawn by :**  
 RJB  
**Checked by :**  
 JAV, MJB

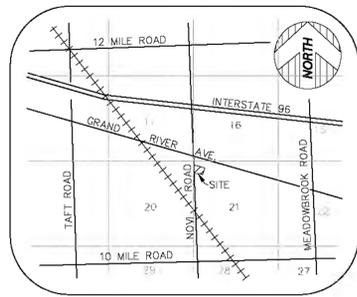
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 EXTERIOR  
 ELEVATIONS

**Project No. :**  
 2012.023

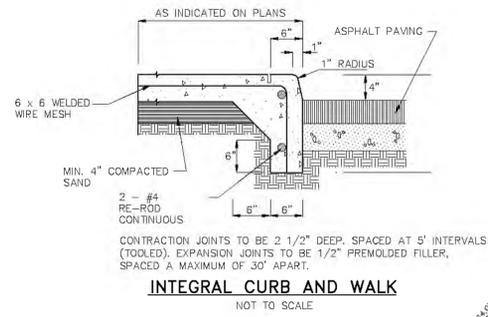
**Sheet No. :**  
 A4.1

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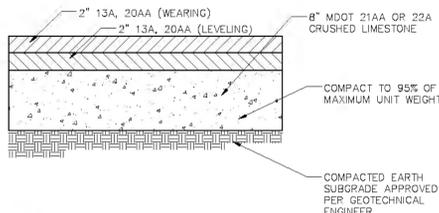




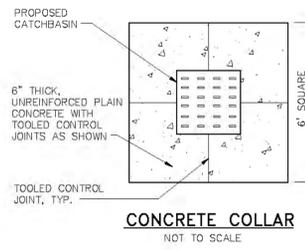
VICINITY MAP  
1"=5000'



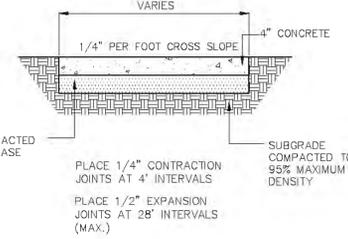
INTEGRAL CURB AND WALK  
NOT TO SCALE



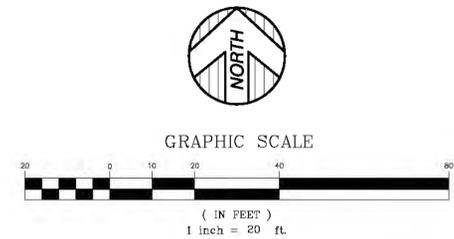
TYPICAL PAVEMENT DETAIL  
NOT TO SCALE



CONCRETE COLLAR  
NOT TO SCALE



CONCRETE SIDEWALK (ON-SITE)  
NOT TO SCALE



**GRADING NOTES:**

- TOTAL DISRUPTION AREA = 0.887 ACRES
- PRIOR TO THE START OF CONSTRUCTION A PERMIT FOR SOIL EROSION AND SEDIMENTATION CONTROL MUST BE OBTAINED FROM THE OFFICE OF THE OAKLAND COUNTY PUBLIC WORKS COMMISSION.
- PRIOR TO THE START OF CONSTRUCTION A CITY OF NOVI WOODLANDS USE PERMIT MUST BE OBTAINED.

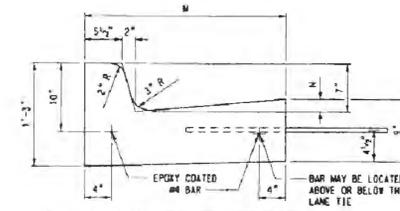
**PAVEMENT QUANTITIES**

|                   |           |
|-------------------|-----------|
| CONCRETE PAVEMENT | 3,503 SF  |
| ASPHALT PAVEMENT  | 20,586 SF |
| CONCRETE CURB     | 1,220 LF  |

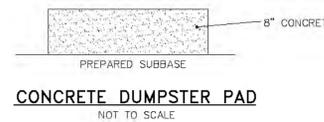
SITE CONTRACTOR TO VERIFY ALL QUANTITIES

**LEGEND**

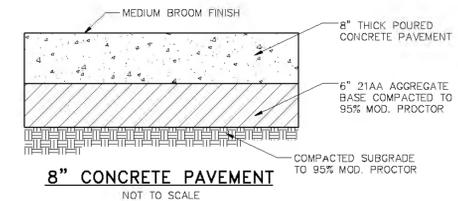
- XXX.XX EXISTING SPOT GRADE
- XXX.XX PROPOSED SPOT GRADE
- FF FINISH FLOOR
- G GUTTER GRADE
- TC TOP OF CURB GRADE
- TP TOP OF PAVEMENT GRADE
- TW TOP OF WALK GRADE
- FC FINISHED GRADE



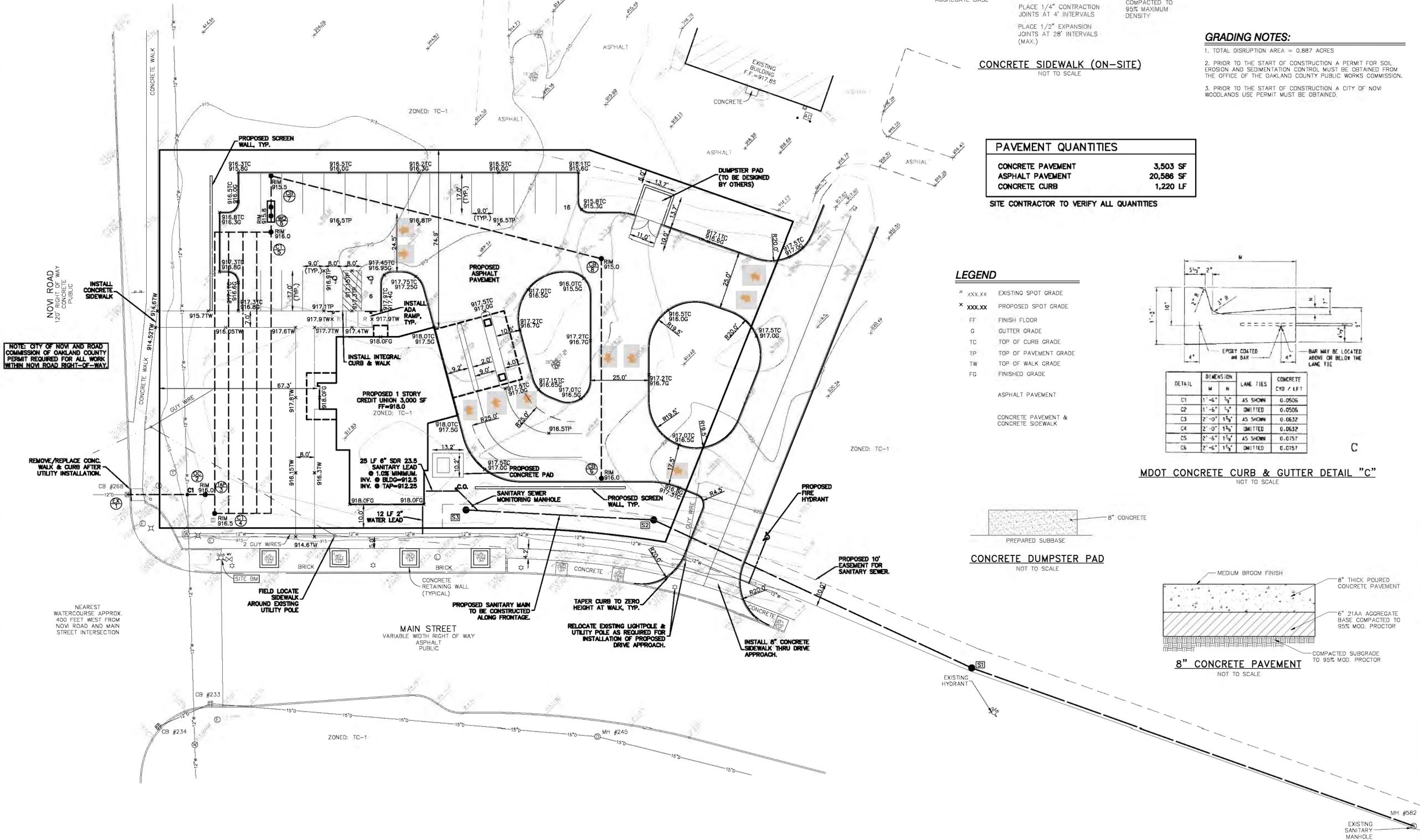
MDOT CONCRETE CURB & GUTTER DETAIL "C"  
NOT TO SCALE



CONCRETE DUMPSTER PAD  
NOT TO SCALE



8" CONCRETE PAVEMENT  
NOT TO SCALE



NOTE: CITY OF NOVI AND ROAD COMMISSION OF OAKLAND COUNTY PERMIT REQUIRED FOR ALL WORK WITHIN NOVI ROAD RIGHT-OF-WAY

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NOVI, MI 48375

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SPA APPROVAL 01.28.13

UTILITY WARNING  
UNDERGROUND UTILITY LOCATIONS AS SHOWN ON THE PLAN WERE OBTAINED FROM UTILITY OWNER AND NOT FIELD LOCATED.



THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF AND/OR RELOCATION OF ALL UTILITIES THAT MAY INTERFERE WITH CONSTRUCTION.

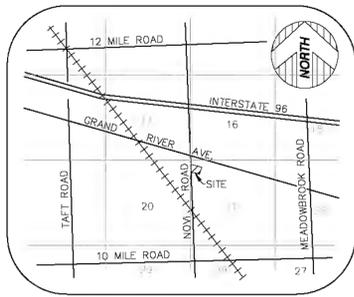
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING RECORDS. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES OTHER THAN THE STRUCTURE INVENTORY SHOWN HEREON. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S RESPONSIBILITY TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. FURTHER, CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OR OF ANY NEARBY STRUCTURES, OR OF ANY PERSONS ENGAGED IN THE WORK, OR OF ANY OTHER PERSONS.

Drawn by: DEH  
Checked by: MDK  
Sheet Title:  
**GRADING & UTILITY PLAN**

Project No.:  
**2012.023**

Sheet No.:  
**C-2**

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**VICINITY MAP**  
1"=5000'

**GENERAL SESC NOTES**

1. ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO STANDARDS AND SPECIFICATIONS OF OAKLAND COUNTY DRAIN COMMISSION.
2. DAILY INSPECTIONS SHALL BE MADE BY THE CONTRACTOR TO DETERMINE EFFECTIVENESS OF EROSION AND SEDIMENT CONTROL MEASURES. ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
3. EROSION AND ANY SEDIMENTATION FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES AND PONDS.
4. ALL MUD/DIRT TRACKED INTO EXISTING ROADS FROM THIS SITE, DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR. ALL MUD/DIRT TRACKED OR SPILLED ON PARKING SURFACES WITHIN THIS SITE SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
5. PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 5 CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED, WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISRUPTED AREA AFTER EARTH CHANGE HAS BEEN COMPLETED OR WHERE SIGNIFICANT EARTH CHANGE ACTIVITY CEASES, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED IMMEDIATELY. ALL TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED. ALL PERMANENT SOIL EROSION CONTROL MEASURES WILL BE IMPLEMENTED AND ESTABLISHED BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED.

**SOIL EROSION CONTROL NOTES**

1. ALL SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED AS INDICATED ON THE APPROVED PLAN PRIOR TO THE START OF ANY CONSTRUCTION.
2. ALL MUD TRACKED ONTO THE EXISTING ROADS FROM THE SITE DUE TO CONSTRUCTION OR THE DELIVERY OF MATERIALS SHALL BE REMOVED PROMPTLY.
3. DURING THE CONSTRUCTION OF THE BUILDINGS WITHIN THE SITE, THE DEVELOPER WILL ARRANGE TO HAVE THE PARKING AREAS SWEEP AND CLEANED AND INLET FILTERS CLEANED AS REQUIRED.

**SESC MAINTENANCE SCHEDULE/NOTES:**

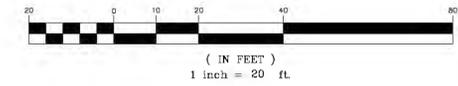
1. THE CONTRACTOR SHALL REGULARLY INSPECT THE SOIL EROSION/SEDIMENTATION DEVICES. THE FOLLOWING STEPS SHALL BE IMPLEMENTED IF ANY DAMAGE HAS RESULTED:
  2. SILT FENCE MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY BUILT-UP SEDIMENT WHEN THE SEDIMENT HEIGHT ACCUMULATES TO 1/3 TO 1/2 OF THE HEIGHT OF THE FENCE. THE CONTRACTOR IS RESPONSIBLE TO REMOVE, REPLACE, RETRENCH, OR REBACKFILL THE SILTATION FENCE SHOULD IT FAIL OR BE DAMAGED DURING CONSTRUCTION.
  3. INLET FILTERS MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY ACCUMULATED SILT OR OTHER DEBRIS.

**SOIL EROSION & SEDIMENTATION CONTROL NOTES:**

1. ALL CONSTRUCTION MUST BE CONFORMING TO THE CURRENT STANDARDS AND SPECIFICATIONS ADOPTED BY THE CITY OF NOV.
2. CALL MISS DIG (800-482-7171) OR (811) A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
3. ALL SOIL EROSION AND SILT MUST BE CONTROLLED AND CONTAINED ON SITE. ALL PUBLIC DRAINAGE STRUCTURES REQUIRING CLEANING SHALL BE COMPLETED PRIOR TO APPROVAL.
4. ALL EXCAVATION UNDER OR WITHIN 3 FEET OF PUBLIC PAVEMENT EXISTING OR PROPOSED, SHALL BE BACKFILLED AND COMPACTED WITH SAND (CLASS II MDOT) PER THE CITY OF NOV REQUIREMENTS.
5. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING PUBLIC UTILITIES AND PAVEMENT IN THE PUBLIC RIGHT-OF-WAY.
6. PRIOR TO THE ISSUANCE OF AN OCCUPANCY PERMIT, ALL RIGHT-OF-WAY AND STORM DETENTION WORK SHALL BE COMPLETED AND APPROVED, AND ALL REQUIRED AS-BUILT PLANS APPROVED.
7. THE SOIL EROSION CONTROL MEASURES WILL BE MAINTAINED WEEKLY AND AFTER EVERY STORM EVENT BY THE SITE CONTRACTOR.



**GRAPHIC SCALE**

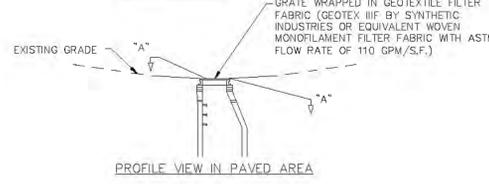
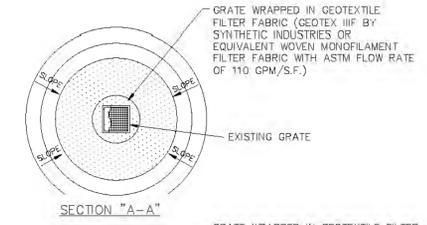


**SOIL MAP & LEGEND**

- 32B BLOUNT LOAM, 0 TO 4 PERCENT SLOPES
  - 59 URBAN LAND
- SEE G2 SOIL REPORT PROJECT NO. 110876 DATED: OCT. 29 2012 FOR SOIL BORINGS.

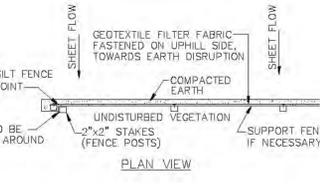
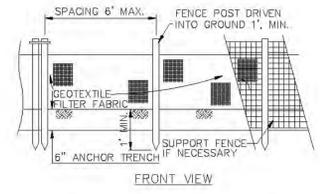
| SOIL EROSION QUANTITIES |        |
|-------------------------|--------|
| MUD MAT                 | 1 EA   |
| INLET FILTERS           | 6 EA   |
| SILT FENCE              | 850 LF |

SITE UTILITY CONTRACTOR TO VERIFY ALL QUANTITIES



**INLET FILTER**

NOT TO SCALE



**SILT FENCE DETAIL**

NOT TO SCALE

**SOIL EROSION LEGEND**

- LIMITS OF DISRUPTION
- SILT FENCE
- INLET FILTER
- DRAINAGE ARROW
- DRAINAGE LIMITS
- DRAINAGE AREA
- GRAVEL MUD MAT

**STANDARD DETAIL NOTE**

SEE OAKLAND COUNTY STANDARD STORM DRAIN NOTES AND DETAILS AND SOIL EROSION DETAIL SHEETS FOR MORE INFORMATION.

**SEQUENCE OF CONSTRUCTION:**

| DAY | ACTIVITY                             |
|-----|--------------------------------------|
| 1   | INSTALL SOIL EROSION MEASURES.       |
| 5   | REMOVE EXISTING PAVEMENT AND HOUSES. |
| 10  | INSTALL UNDERGROUND UTILITIES.       |
| 30  | INSTALL PAVEMENT.                    |
| 90  | BEGIN CONSTRUCTION OF BUILDING.      |
| 120 | INSTALL LANDSCAPING.                 |
| 150 | REMOVE SOIL EROSION MEASURES         |

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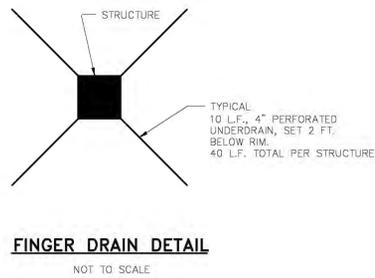
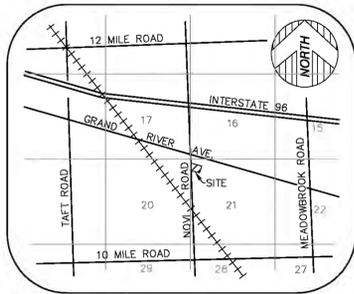
**811** Know what's below. Call before you dig.

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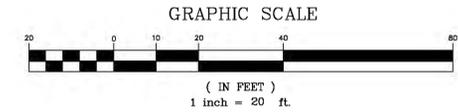
Drawn by: DEH  
Checked by: MDK  
Sheet Title: **SOIL EROSION & SEDIMENTATION CONTROL PLAN**  
Project No.: **2012.023**  
Sheet No.: **C-3**

DO NOT SCALE DRAWINGS  
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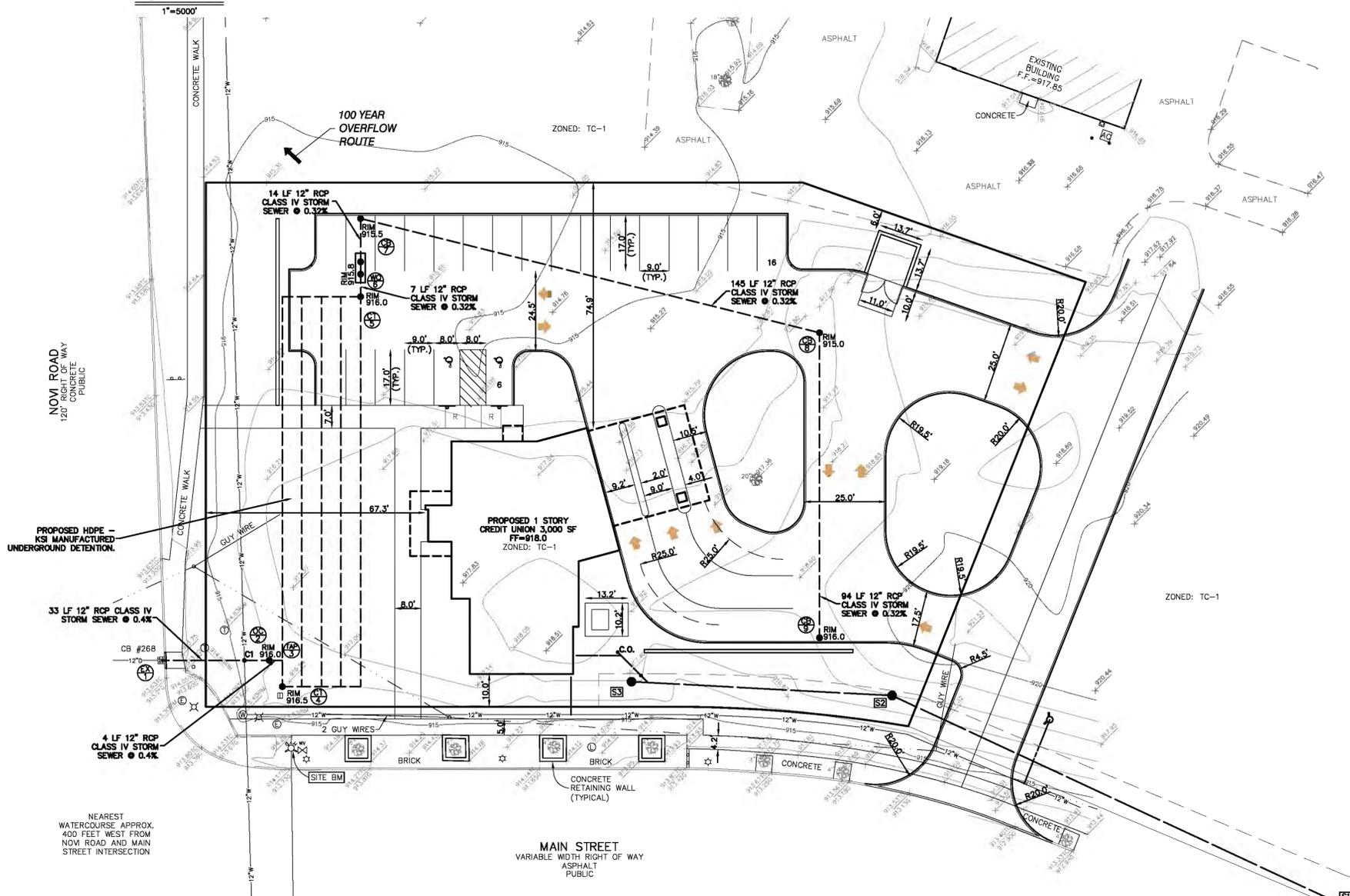


**STORM STRUCTURE SCHEDULE**

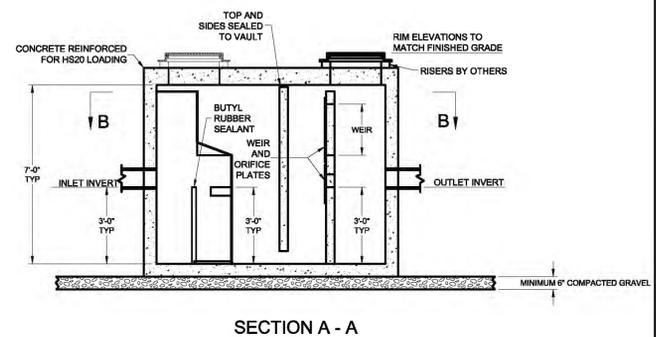
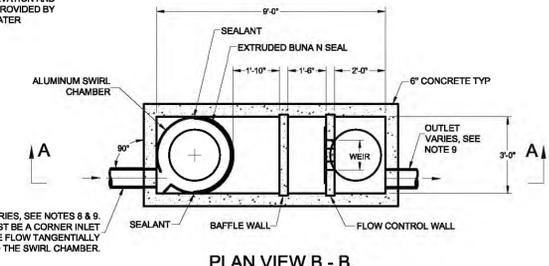
- ⊕ EXISTING STRUCTURE  
RIM=913.15  
12" INV. W=909.20  
12" INV. E=909.40
- ⊕ 6" DIA. OUTLET STRUCTURE  
EJW 1040 TYPE M1  
RIM=916.00  
12" INV. W=909.53  
12" INV. E=909.53
- ⊕ DETENTION SYSTEM TAP  
12" INV. W=909.55
- ⊕ 24" CORNER TEE  
EJW 1040 TYPE M1  
RIM=916.50  
48" INV. N=909.55  
48" INV. E=909.55
- ⊕ 24" CORNER TEE  
EJW 1040 TYPE M1  
RIM=916.30  
48" INV. W=909.75  
48" INV. S=909.75
- ⊕ WATER QUALITY UNIT  
RIM=916.10  
12" INV. S=909.77  
12" INV. N=909.77
- ⊕ 4" DIA. CATCH BASIN  
EJW 1040 TYPE M1  
RIM=915.50  
12" INV. W=909.84  
12" INV. SE=909.84
- ⊕ 4" DIA. CATCH BASIN  
EJW 1040 TYPE M1  
RIM=915.00  
12" INV. NW=910.30  
12" INV. S=910.30
- ⊕ 4" DIA. CATCH BASIN  
EJW 1040 TYPE M1  
RIM=916.00  
12" INV. N=910.60



**VICINITY MAP**



NOTE: VORTECHS SYSTEMS INSTALLED IN A BYPASS CONFIGURATION REQUIRE AN UPSTREAM DIVERSION STRUCTURE THAT SHALL BE DETAILED BY THE CONSULTING ENGINEER WITH ELEVATION AND WEIR WIDTH DATA PROVIDED BY CONTECH STORMWATER SOLUTIONS.



- NOTES:
- STORMWATER TREATMENT SYSTEM (SWTS) SHALL HAVE: PEAK TREATMENT CAPACITY: 18 CFS; SEDIMENT STORAGE: 0.76 CU YD; SEDIMENT CHAMBER DIA: 3' MIN.
  - SWTS SHALL BE CONTAINED IN ONE RECTANGULAR STRUCTURE.
  - SWTS REMOVAL EFFICIENCY SHALL BE DOCUMENTED BASED ON PARTICLE SIZE.
  - SWTS SHALL RETAIN FLOATABLES AND TRAPPED SEDIMENT UP TO AND INCLUDING PEAK TREATMENT CAPACITY.
  - SWTS INVERTS IN AND OUT ARE TYPICALLY AT THE SAME ELEVATION.
  - SWTS SHALL NOT BE COMPROMISED BY EFFECTS OF DOWNSTREAM TAILWATER.
  - SWTS SHALL HAVE NO INTERNAL COMPONENTS THAT OBSTRUCT MAINTENANCE ACCESS.
  - INLET PIPE MUST BE PERPENDICULAR TO THE STRUCTURE.
  - PIPE ORIENTATION MAY VARY; SEE SITE PLAN FOR SIZE AND LOCATION.
  - PURCHASER SHALL NOT BE RESPONSIBLE FOR ASSEMBLY OF UNIT.
  - MANHOLE FRAMES AND PERFORATED COVERS SUPPLIED WITH SYSTEM, NOT INSTALLED.
  - PURCHASER TO PREPARE EXCAVATION AND PROVIDE CRANE FOR OFF-LOADING AND SETTING AT TIME OF DELIVERY.
  - VORTECHS SYSTEMS BY CONTECH STORMWATER SOLUTIONS; PORTLAND, OR (800) 548-6887; SCARBOROUGH, ME (877) 967-8676; LINCOLN, MD (866) 740-3318.

PROPRIETARY INFORMATION - NOT TO BE USED FOR CONSTRUCTION PURPOSES

**CONTECH STORMWATER SOLUTIONS**

STANDARD DETAIL  
STORMWATER TREATMENT SYSTEM  
VORTECHS® MODEL 1000

DATE: 10/3/06 SCALE: NONE FILE NAME: STD1k DRAWN: JBS CHECKED: NDG

**PRE-DEVELOPEMENT SUMMARY**

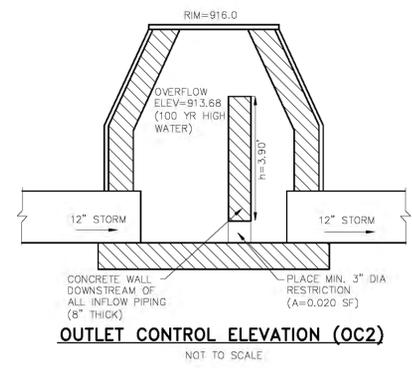
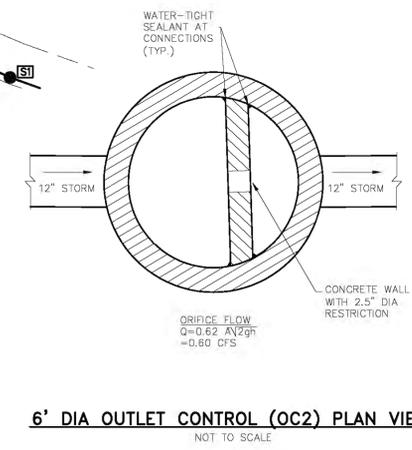
|        |                            |
|--------|----------------------------|
| C      | = 0.35                     |
| 1 10YR | = 175/(T+25) = 3.889 IN/HR |
| A      | = 0.887 ACRES              |
| Q=CIA  | = 1.21 CFS                 |

|                                   |                       |
|-----------------------------------|-----------------------|
| Required Storage =                | 7,784 ft <sup>3</sup> |
| Using 48" diameter pipe           | 12.56 cf per LF       |
| Required 48" diameter pipe =      | 620 LF                |
| Provided 48" diameter pipe =      | 623 LF                |
| Highest Invert Elevation =        | 909.70                |
| Highest Crown of Pipe Elevation = | 913.70                |
| 48" pipes are partially full      | 12.49 cf/LF of pipe   |

|  |                          |
|--|--------------------------|
| Area upstream of basin   | 0.887 acres              |
| Weighted runoff coefficient of upstream area   | 0.68 C-value             |
| Qa = Maximum allowable outflow from the site.  | 0.133 c.f.s.             |
| Qo = Maximum allowable outflow per acre imperviousness (c.f.s. / acre imperviousness)                    | 0.221 c.f.s./ac. imperv. |
| T100 = Storage time defined as the instant Storage begins until peak storage is obtained (min.)          | 191.2 min.               |
| Vs, 100 = Maximum volume of water stored in the detention basin per acre imperviousness                  | 12905 c.f./ac. imperv.   |
| Vt, 100 = Required volume of water stored in the detention basin for the design year storm in cubic feet | 7784 c.f.                |
| 48" PIPE =   | 12.56 SF / LF OF STORAGE |
| 623 LF OF 48" PIPE =   | 7,825 CF OF STORAGE      |

**POST-DEVELOPEMENT SUMMARY**

|           |                             |
|-----------|-----------------------------|
| SITE AREA | = 38,637 SF                 |
| BUILDING  | = 4,025 X 0.95 = 3,824 SF   |
| PAVEMENT  | = 17,147 X 0.95 = 16,290 SF |
| GREEN     | = 17,465 X 0.35 = 6,113 SF  |
| C FACTOR  | = 38,637/26,227 = 0.68      |



NOT FOR CONSTRUCTION

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KTA PROJECT NO. 12-00592

**Project:**  
DETROIT METROPOLITAN CREDIT UNION - NEW FACILITY  
NOVI RD + MAIN STREET  
NOVI, MI 48375

**Issued for:**  
PRE APPLICATION MEETING 10.31.12  
PRE APPLICATION RESUBMISSION 01.03.13  
SPA APPROVAL 01.28.13

**UTILITY WARNING**  
UNDERGROUND UTILITY LOCATIONS AS SHOWN ON THE PLAN, WERE OBTAINED FROM UTILITY OWNER AND NOT FIELD LOCATED.

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

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF AND/OR RELOCATION OF ALL UTILITIES THAT MAY INTERFERE WITH CONSTRUCTION.

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES OTHER THAN THE STRUCTURE INVENTORY SHOWN HEREON. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY CONTRACTORS' FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. FURTHER, CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF ANY NEARBY STRUCTURES, OR ANY PERSONS ENGAGED IN THE WORK, OR OF ANY OTHER PERSONS.

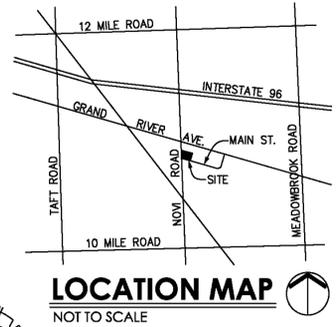
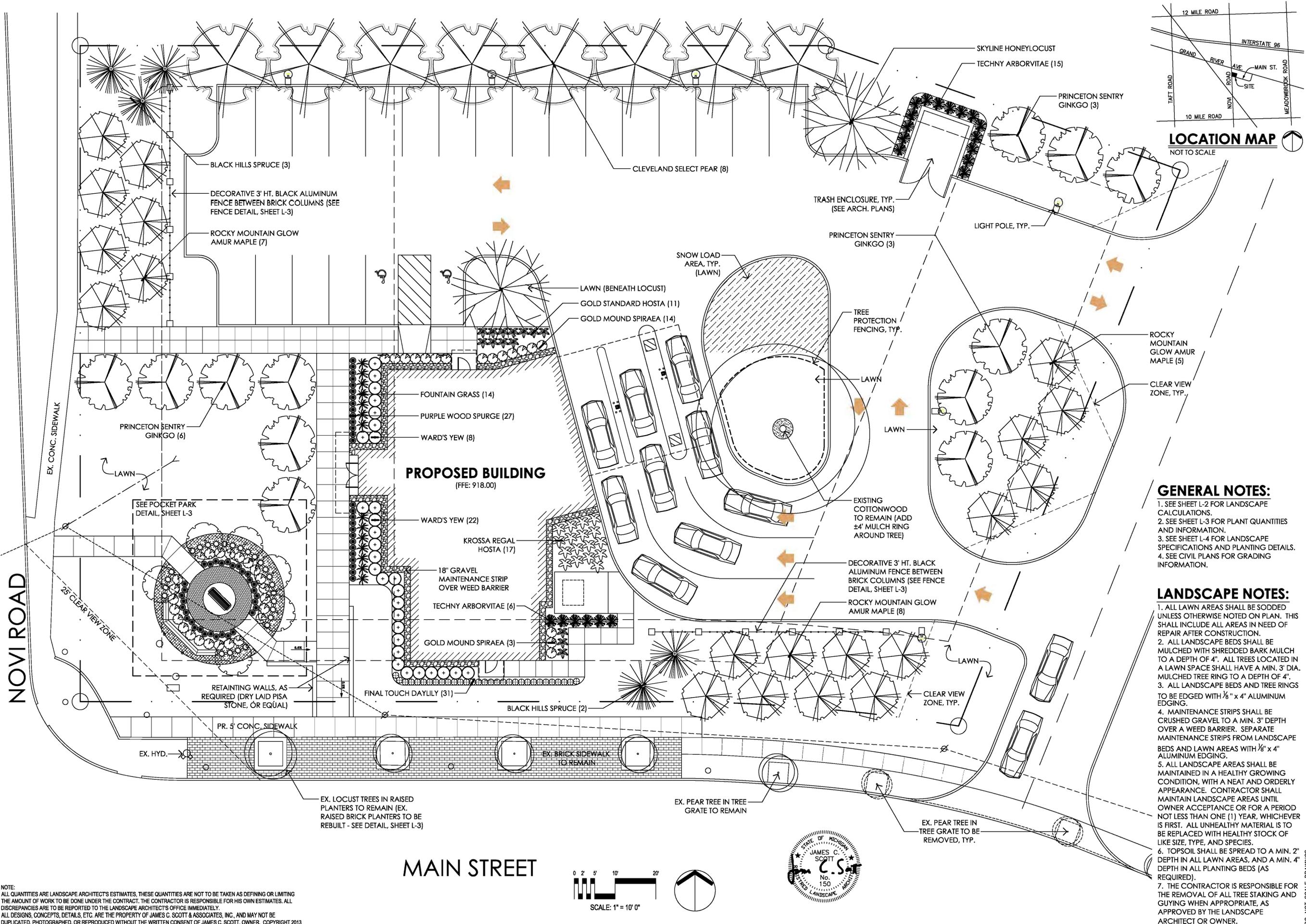
**Drawn by:** DEH  
**Checked by:** MDK

**Sheet Title:**  
STORM WATER MANAGEMENT PLAN

**Project No.:**  
2012.023

**Sheet No.:**  
C-4

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Project :  
 DETROIT METROPOLITAN CREDIT UNION - NEW FACILITY  
 NOVI RD & MAIN ST  
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 SECTION 23

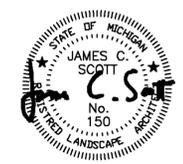
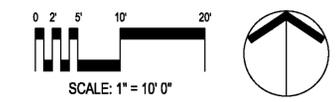
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 1.28.13

**GENERAL NOTES:**  
 1. SEE SHEET L-2 FOR LANDSCAPE CALCULATIONS.  
 2. SEE SHEET L-3 FOR PLANT QUANTITIES AND INFORMATION.  
 3. SEE SHEET L-4 FOR LANDSCAPE SPECIFICATIONS AND PLANTING DETAILS.  
 4. SEE CIVIL PLANS FOR GRADING INFORMATION.

**LANDSCAPE NOTES:**  
 1. ALL LAWN AREAS SHALL BE SODDED UNLESS OTHERWISE NOTED ON PLAN. THIS SHALL INCLUDE ALL AREAS IN NEED OF REPAIR AFTER CONSTRUCTION.  
 2. ALL LANDSCAPE BEDS SHALL BE MULCHED WITH SHREDDED BARK MULCH TO A DEPTH OF 4". ALL TREES LOCATED IN A LAWN SPACE SHALL HAVE A MIN. 3" DIA. MULCHED TREE RING TO A DEPTH OF 4".  
 3. ALL LANDSCAPE BEDS AND TREE RINGS TO BE EDGED WITH 1/2" x 4" ALUMINUM EDGING.  
 4. MAINTENANCE STRIPS SHALL BE CRUSHED GRAVEL TO A MIN. 3" DEPTH OVER A WEED BARRIER. SEPARATE MAINTENANCE STRIPS FROM LANDSCAPE BEDS AND LAWN AREAS WITH 1/2" x 4" ALUMINUM EDGING.  
 5. ALL LANDSCAPE AREAS SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION, WITH A NEAT AND ORDERLY APPEARANCE. CONTRACTOR SHALL MAINTAIN LANDSCAPE AREAS UNTIL OWNER ACCEPTANCE OR FOR A PERIOD NOT LESS THAN ONE (1) YEAR, WHICHEVER IS FIRST. ALL UNHEALTHY MATERIAL IS TO BE REPLACED WITH HEALTHY STOCK OF LIKE SIZE, TYPE, AND SPECIES.  
 6. TOPSOIL SHALL BE SPREAD TO A MIN. 2" DEPTH IN ALL LAWN AREAS, AND A MIN. 4" DEPTH IN ALL PLANTING BEDS (AS REQUIRED).  
 7. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL TREE STAKING AND GUYING WHEN APPROPRIATE, AS APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER.

NOVI ROAD

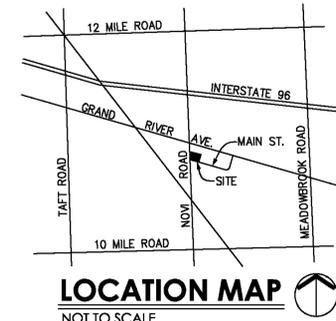
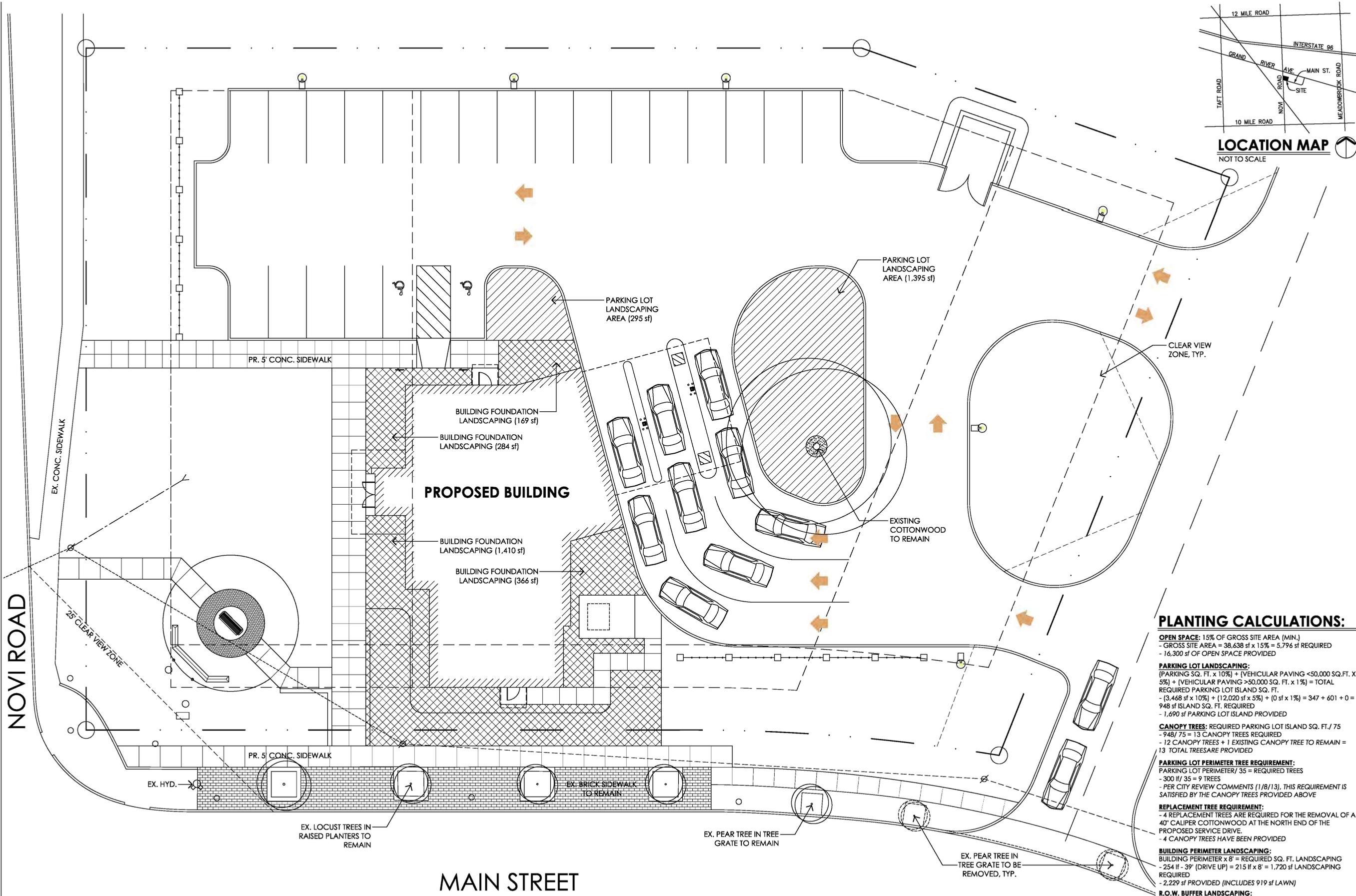
MAIN STREET



NOTE:  
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 BMW  
 Checked by :  
 JCS  
 Sheet Title :  
 LANDSCAPE PLAN  
 Project No. :  
 2012.023  
 Sheet No. :  
 L-1

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 CREDIT UNION -  
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 NOVI, MI 48375  
 SECTION 23

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**PLANTING CALCULATIONS:**

**OPEN SPACE:** 15% OF GROSS SITE AREA (MIN.)  
 - GROSS SITE AREA = 38,638 sf x 15% = 5,796 sf REQUIRED  
 - 16,300 sf OF OPEN SPACE PROVIDED

**PARKING LOT LANDSCAPING:**  
 (PARKING SQ. FT. x 10%) + (VEHICULAR PAVING <50,000 SQ. FT. x 1%) + (VEHICULAR PAVING >50,000 SQ. FT. x 1%) = TOTAL REQUIRED PARKING LOT ISLAND SQ. FT.  
 - (3,468 sf x 10%) + (12,020 sf x 5%) + (0 sf x 1%) = 347 + 601 + 0 = 948 sf ISLAND SQ. FT. REQUIRED  
 - 1,690 sf PARKING LOT ISLAND PROVIDED

**CANOPY TREES:** REQUIRED PARKING LOT ISLAND SQ. FT. / 75  
 - 948 / 75 = 13 CANOPY TREES REQUIRED  
 - 12 CANOPY TREES + 1 EXISTING CANOPY TREE TO REMAIN = 13 TOTAL TREES ARE PROVIDED

**PARKING LOT PERIMETER TREE REQUIREMENT:**  
 PARKING LOT PERIMETER / 35 = REQUIRED TREES  
 - 300 lf / 35 = 9 TREES  
 - PER CITY REVIEW COMMENTS (1/8/13), THIS REQUIREMENT IS SATISFIED BY THE CANOPY TREES PROVIDED ABOVE

**REPLACEMENT TREE REQUIREMENT:**  
 - 4 REPLACEMENT TREES ARE REQUIRED FOR THE REMOVAL OF A 40" CALIPER COTTONWOOD AT THE NORTH END OF THE PROPOSED SERVICE DRIVE.  
 - 4 CANOPY TREES HAVE BEEN PROVIDED

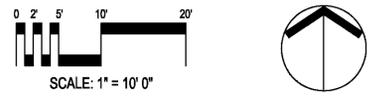
**BUILDING PERIMETER LANDSCAPING:**  
 BUILDING PERIMETER x 8' = REQUIRED SQ. FT. LANDSCAPING  
 - 254 lf - 39' (DRIVE UP) = 215 lf x 8' = 1,720 sf LANDSCAPING REQUIRED  
 - 2,229 sf PROVIDED (INCLUDES 919 sf LAWN)

**R.O.W. BUFFER LANDSCAPING:**  
 1 CANOPY OR EVERGREEN TREE IS REQUIRED PER 25' OF FRONTAGE AND 1 ORNAMENTAL TREE IS REQUIRED PER 15' OF FRONTAGE  
 - 376 / 25 = 16 CANOPY OR EVERGREEN TREES ARE REQUIRED  
 - 6 CANOPY + 5 EVERGREEN + 5 EXISTING = 16 TOTAL PROVIDED  
 - 376 / 15 = 26 ORNAMENTAL TREES ARE REQUIRED  
 - 26 ORNAMENTAL TREES ARE PROVIDED

NOVI ROAD

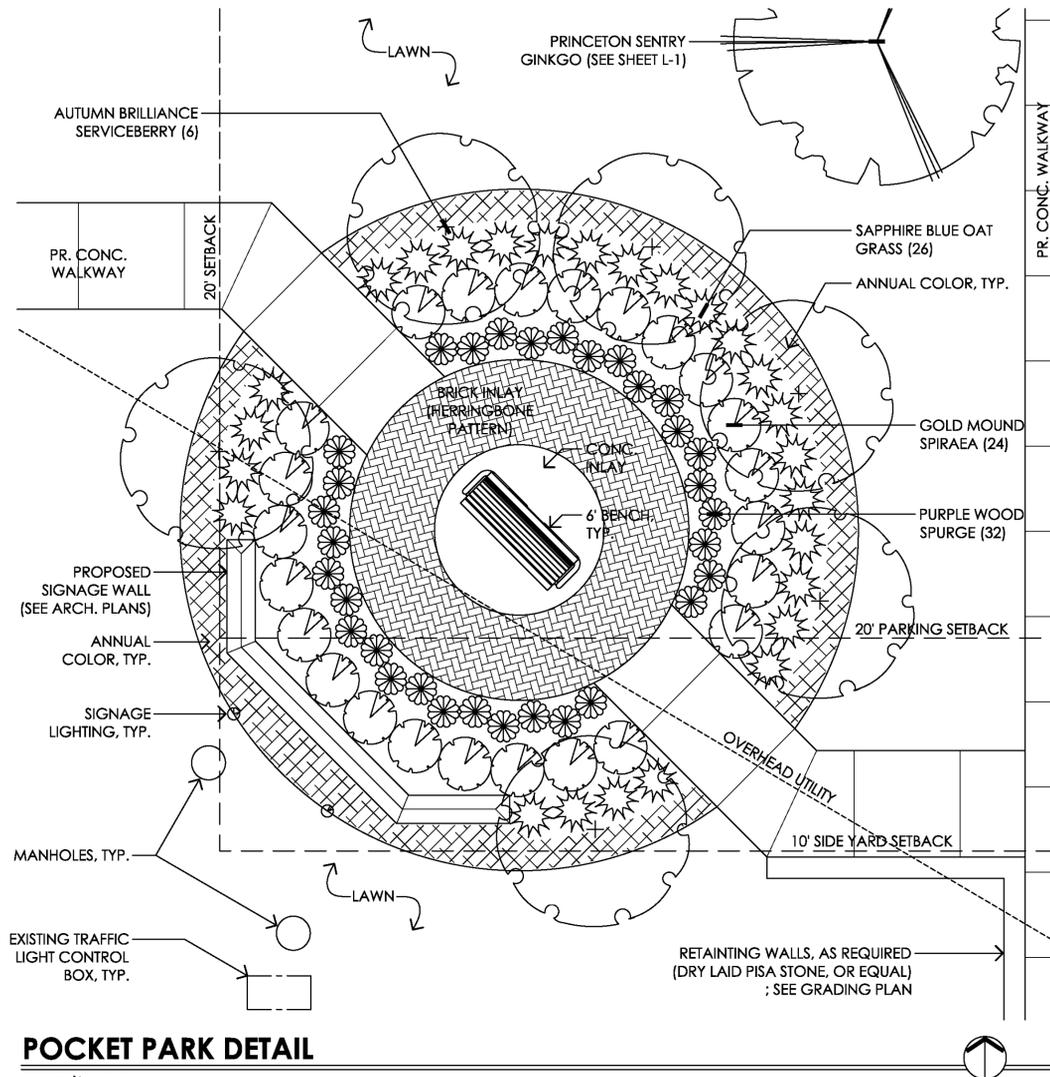
MAIN STREET

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 AREAS  
 Project No. :  
 2012.023  
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 L-2

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**POCKET PARK DETAIL**

SCALE: 1/4" = 1' 0"

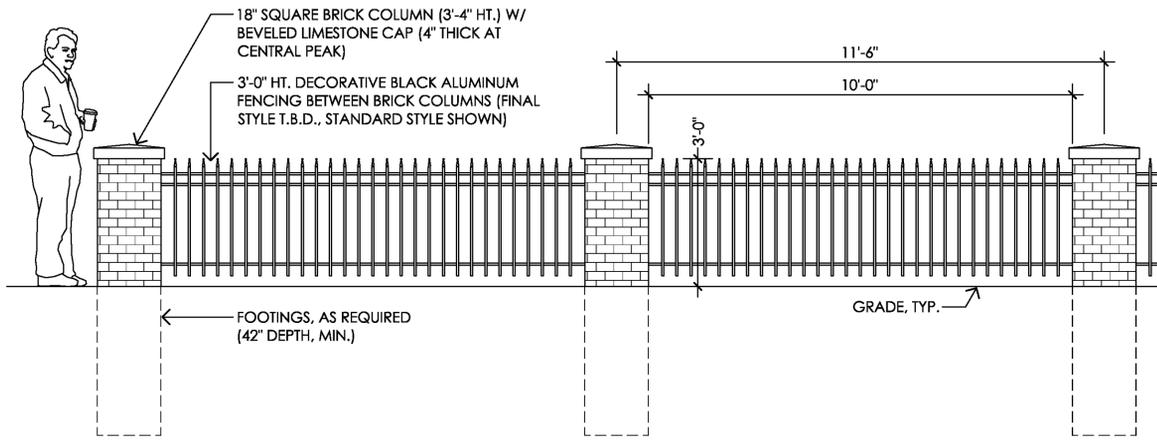
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**IRRIGATION NOTES**

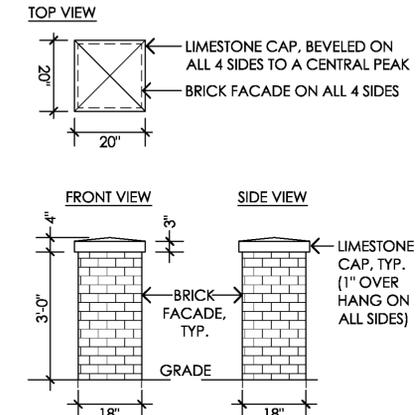
1. AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM SHALL BE PROFESSIONALLY DESIGNED PRIOR TO CONSTRUCTION. THIS SYSTEM SHALL BE AS EFFICIENT AS POSSIBLE, WHILE MINIMIZING THE AMOUNT OF OVERSPRAY AND RUNOFF.
2. THE IRRIGATION SYSTEM SHALL BE DESIGNED TO ADEQUATELY WATER THE PLANT MATERIAL PROPOSED ON THE PLAN. DRIP OR SPRAY HEADS SHALL BE USED IN ALL PLANTING BEDS AND ROTARY HEADS SHALL BE USED IN ALL LAWN AREAS.
3. PLANTING BEDS SHALL BE PLACED ON SEPARATE ZONES FROM LAWN AREAS.
4. OVERSPRAY OF ANY PUBLIC ROAD, SIDEWALK, PARKING AREA, OR BUILDING SHALL NOT BE PERMITTED. SLEEVING AND ADDITIONAL HEADS SHALL BE PROVIDED TO PREVENT THIS SITUATION.
5. PROPER SLEEVING SHALL BE PROVIDED TO SUPPLY IRRIGATION TO THE ENTRY AND PARKING LOT PLANTING ISLANDS.
6. ALL VALVES AND TIMERS SHALL BE EASILY ACCESSIBLE AND ADJUSTABLE IN ORDER TO REACH OPTIMAL PLANT HEALTH.

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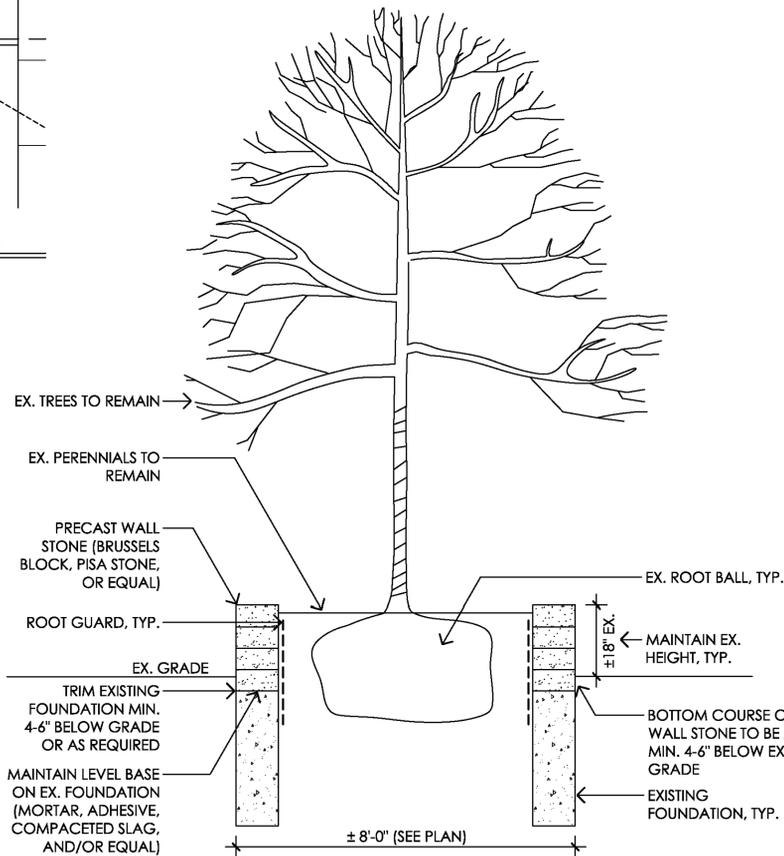
**FENCE DETAILS**

SCALE: 1/2" = 1' 0"



**COLUMN DETAILS**

SCALE: 1/2" = 1' 0"



**NOTES:**

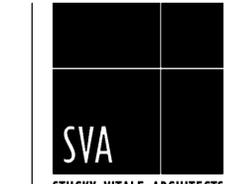
1. EXACT METHODS OF CONSTRUCTION OF THE EXISTING PLANTER BOXES IS UNKNOWN. THIS DETAIL ASSUMES THAT THERE IS A CONCRETE FOUNDATION TO THE FROST LINE AND THAT THERE IS A POURED CONCRETE OR MASONRY BLOCK WALL BEHIND THE EXISTING BRICK FACADE.
2. ALL WALL SECTIONS (FACADE, CORE/BACKING, AND CAPSTONE) ABOVE GRADE SHALL BE REMOVED AND DISCARDED.
3. PROPER CARE SHALL BE TAKEN TO PREVENT DAMAGE TO ANY EXISTING PLANT MATERIAL WITHIN THE PLANTER BOXES.

**PLANTER WORK DETAIL**

SCALE: 1/2" = 1' 0"

**PROPOSED PLANTING SCHEDULE & COST ESTIMATE**

| SYMB.         | QUAN. | COMMON NAME                       | BOTANICAL NAME                                | SIZE      | ROOT   | COMMENTS                         | UNIT             | TOTAL    |
|---------------|-------|-----------------------------------|---|-----------|--------|----------------------------------|------------------|----------|
| [Symbol]      | 2     | SKYLINE HONEY LOCUST              | GLEDITSIA TRIACANTHOS VAR. INERMIS 'SKYLINE'  | 3" CAL.   | B & B  | FULL EVEN CROWN; SPACED AS SHOWN | \$ 400           | \$ 800   |
| [Symbol]      | 8     | CLEVELAND SELECT PEAR             | PYRUS CALLERYANA 'CLEVELAND SELECT'           | 3" CAL.   | B & B  | FULL EVEN CROWN; 20' O.C.        | \$ 250           | \$ 2,000 |
| [Symbol]      | 12    | PRINCETON SENTRY GINKGO           | GINKGO BILOBA 'PRINCETON SENTRY'              | 3" CAL.   | B & B  | STRONG CENTRAL LEADER; 15' O.C.  | \$ 250           | 3,000    |
| [Symbol]      | 5     | BLACK HILLS SPRUCE                | PICEA GLAUCA VAR. DENSATA                     | 8' HT.    | B & B  | EVEN HABIT; 11' O.C.             | \$ 325           | \$ 1,625 |
| [Symbol]      | 20    | ROCKY MOUNTAIN GLOW AMUR MAPLE    | ACER GINNALA 'SCHMIDT'                        | 2.5" CAL. | B & B  | STRONG CENTRAL LEADER; 12' O.C.  | \$ 250           | \$ 5,000 |
| [Symbol]      | 6     | AUTUMN BRILLIANCE SERVICEBERRY    | AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE' | 8' HT.    | B & B  | CLUMP FORM; SPACED AS SHOWN      | \$ 250           | \$ 1,500 |
| [Symbol]      | 21    | TECHNY ARBORVITAE                 | THUJA OCCIDENTALIS 'TECHNY'                   | 5'-6" HT. | B & B  | EVEN HABIT; 3' O.C.              | \$ 50            | \$ 1,050 |
| [Symbol]      | 30    | WARD'S YEWE                       | TAXUS x MEDIA 'WARDII'                        | 24" SPR.  | B & B  | EVEN HABIT; 3' O.C.              | \$ 50            | \$ 1,500 |
| [Symbol]      | 41    | GOLD MOUND SPIRAEA                | SPIRAEA x BUMALDA 'GOLD MOUND'                | 18" HT.   | 3 GAL. | EVEN HABIT; 30' O.C.             | \$ 50            | \$ 2,050 |
| [Symbol]      | 17    | KROSSA REGAL HOSTA                | HOSTA 'KROSSA REGAL'                          | -         | 1 GAL. | FULL WELL ROOTED; 3' O.C.        | \$ 15            | \$ 255   |
| [Symbol]      | 14    | GOLD STANDARD HOSTA               | HOSTA 'GOLD STANDARD'                         | -         | 1 GAL. | FULL WELL ROOTED; 30' O.C.       | \$ 15            | \$ 210   |
| [Symbol]      | 14    | FOUNTAIN GRASS                    | PENNISETUM ALOPECUROIDES                      | -         | 1 GAL. | FULL WELL ROOTED; 30' O.C.       | \$ 15            | \$ 210   |
| [Symbol]      | 26    | SAPPHIRE BLUE OAT GRASS           | HELICOTRICHON SEMPERVIRENS 'SAPPHIRE'         | -         | 1 GAL. | FULL WELL ROOTED; 2' O.C.        | \$ 15            | \$ 390   |
| [Symbol]      | 31    | FINAL TOUCH DAYLILY               | HEMEROCALLIS 'FINAL TOUCH'                    | -         | 1 GAL. | FULL WELL ROOTED; 18" O.C.       | \$ 15            | \$ 465   |
| [Symbol]      | 59    | PURPLE WOOD SPURGE                | EUPHORBIA AMYGDALOIDES 'PURPUREA'             | -         | 1 GAL. | FULL WELL ROOTED; 18" O.C.       | \$ 15            | \$ 885   |
|               | 1,435 | SQ. YARDS SOD                     | -   | -         | -      | -                                | \$ 6             | \$ 8,610 |
|               | 21    | CU. YARDS SHREDDED HARDWOOD MULCH | -   | 4" DEPTH  | -      | -                                | \$ 65            | \$ 1,365 |
|               | 3     | CU. YARDS 10A LANDSCAPE STONE     | -   | 3" DEPTH  | -      | -                                | \$ 65            | \$ 195   |
| <b>TOTAL:</b> |       |                                   |   |           |        |                                  | <b>\$ 31,060</b> |          |



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BMW  
Checked by :  
JCS

Sheet Title :  
LANDSCAPE PLAN DETAILS

Project No. :  
2012.023

Sheet No. :  
L-3

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**TECHNICAL LANDSCAPE SPECIFICATIONS**

**1.1 CONTRACTOR QUALIFICATIONS**

The Landscape Contractor will be duly licensed by the appropriate authorities to handle plant materials. He will be covered by Public Liability and Property Insurance and his employee's covered by Workmen's Compensation Insurance. He will, upon request, furnish a list of major projects your organization has completed in the last five (5) years; A list of major construction projects your organization has underway.

**1.2 SITE PREPARATION**

A. Trees, brush or shrubs will not be pruned or removed from the site except as directed by the Landscape Architect. Competent personnel shall do all pruning and removal. All tree wounds larger than one inch (1") shall be painted with approved tree paint. Debris resulting from pruning and removal shall promptly be removed from the site.

B. If the Contractor is responsible for furnishing fillsoil, the material will be clean and well draining, free of any organic matter, debris, trash and heavy clay. Fillsoil shall be spread and compacted in layers that are not to exceed twelve inches (12") in depth and will be properly compacted by the contractor.

C. If the Contractor is responsible for rough grading he will grade the subgrade to within a rough grading tolerance to two inches (2") and to be true to line and section. All rocks, stumps and building debris will be removed prior to the spreading of topsoil. Every effort will be made to eliminate depressions, tracks, and soft spots.

D. The Contractor will be responsible for making himself familiar with all underground utilities, pipes and structures. Contractor shall take sole responsibility for cost incurred due to damage and replacement of said utilities.

E. The Contractor will verify all rights of way, easements, property lines and limits of work, etc. prior to commencing work.

F. The Contractor will coordinate all site layouts with Landscape Architect. Report any dimensional discrepancies to Landscape Architect prior to construction.

G. Any erosion and sedimentation from work on this site shall be contained on the site and not allowed to collect on any off-site areas or waterways. Waterways include both natural and man-made open ditches, streams, storm drains, etc.

H. The Contractor is responsible for replacement of any existing materials that are damaged during construction.

**1.3 FINISH GRADING**

A. Over the accepted subgrade, topsoil shall be spread over all lawn areas a minimum of two inches (2") unless otherwise specified. All stones larger than one and one-half inch (1 1/2"), rubble, concrete, sticks, and other objectionable materials that are exposed during fine raking, must be properly disposed of off-site. The Landscape Architect shall make the final determination as to what constitutes objectionable material. The Contractor is required to meet finish grades.

**1.4 TREE PROTECTION**

A. Prior to the initiation of any construction activity, approved tree protection shall be erected and will remain in place until construction is complete.

B. The following activities may not occur within the drip line of all protected trees on the site:  
 1. Storage of solvents, building materials, soil deposits, equipment, both idle and running, and vehicular parking  
 2. Stripping of topsoil and any other sublayer material  
 3. Grade changes of any kind

C. During construction, no wires, lines, etc. may be fastened in any form to any protected tree.

D. Care should be taken to prevent damage to any regulated trees located on adjacent properties that could be affected during construction.

E. When contracting utility services, notification must be given of the protected trees and all trenching is to be performed outside of the drip lines.

**1.5 PLANT MATERIAL**

A. All plant material called for in the plant list as shown on the drawing will be of minimum size specified or larger. The height and spread will be measured according to the horticultural standards of the American Association of Nurserymen. Trees will not be accepted if the balls of earth are loosened or broken. All plants shall be healthy vigorous stock, free from disease and with well-developed root systems. They shall be nursery grown, inspected by the Department of Agriculture's Bureau of Plant Industry, and subject to approval by the Landscape Architect.

B. No substitutions or changes of location, or plant types shall be made without the approval of the Landscape Architect. The Landscape Architect shall be notified of any discrepancies between the plans and field conditions prior to installation.

C. The Landscape Architect will have the prerogative to request the source of supply for all plant material to be used, before delivery is started. When specimen material is indicated or when the best interest of the Owner may be served, the Landscape Architect or their designated representative will have the right to inspect the material prior to delivery.

D. Only materials conforming to the requirements of these specifications or specimens approved by the Landscape Architect or authorized agents shall be used in the work. Any material that, after approval, has for any reason become unfit for use will not be incorporated into the work.

E. The Bidder will not modify his bid because of his inability to find a source of supply of plant material specified. If the Landscape Contractor can show satisfactory evidence before the contract is awarded that a particular species is not available, a substitution will be negotiated on the following basis:

1. Determine from the current catalog of the Lake County Nursery Exchange, Inc. Perry, Ohio 44081 and/or Landscape Supply Co. Taylor, Michigan 48180 the price of one plant to be substituted.

2. The price to be paid the Landscape Contractor for furnishing, planting, and quarantining each substituted item will be the same proportion to the bid price as the catalog price determined above.

NOTE: A particular nursery catalog is stipulated only to set-up, before the opening of bids, a rigid procedure for negotiating unit prices on material substituted in place of the specified material.

F. Trees will be measured in trunk diameter six inches (6") above ground line if the trunk is four inches (4") or less in diameter. If over four inches (4") in diameter, it shall be measured twelve inches (12") above the normal ground line. All trees shall have a straight trunk, except those otherwise indicated, and be free of bruises and blemishes. The tree crown shall be well formed structurally having sufficient twig growth to insure proper growth of the tree. All limbs shall radiate in a normal manner from the trunk.

G. Small ornamental trees will be measured on an average from the ground line to the tops of previous year's growth on the vertical branches. All plants, unless otherwise specified, shall be heavy types and may be inspected on the site before Contractor installs the material.

H. Multi-stemmed trees and shrubs will be measured at the average distance across the body of the plant from tip to tip of branches in their natural position, and at the average height.

I. Plants will be handled properly and protected during transportation to insure satisfactory condition at destination point. The Landscape Architect reserves the right to reject any plants that do not meet the above specifications.

J. Bare root stock and balled & burlapped plants will be carefully protected with wet straw, mulch, or other materials so that the plants will be stored with their roots in a moist and healthy condition, and shall be governed by weather conditions and the length of time that the root ball must remain above ground.

K. Trunks and branches of all trees will be carefully protected from injury of any kind during all operations of digging, loading and transporting. Any plants that are injured may be rejected by the Landscape Architect.

L. All plants so specified, will be balled and burlapped previous to shipment. Such plants shall be lifted from the ground in such a manner as to retain a firm ball of earth. The size of the ball will conform to AAN guidelines. Plants will not be accepted if the balls of earth are loosened or broken.

M. All plant material shall be planted plumb and at the correct depth, and shall be staked, guyed and wrapped, as soon as possible after planting. It will be at the discretion of the contractor to use the appropriate products and material so the plants will remain straight, properly aligned, and at the proper elevation for the guarantee period. The Owner has the option of having the contractor remove all staking and guying material at the end of the guarantee period.

N. All pruning will be performed on the job site by a competent plantman. All broken branches and roots will be removed in an approved manner providing a clean cut.

O. The Contractor will thin bare root plants by removing 1/3 of their branching. This will be done in an artful fashion so as not to destroy the natural character of the plant. Shearing will not be accepted except on hedges where all plants will be pruned to a uniform height and width.

**1.6 SOIL PREPARATION AND PLANTING**

A. The Contractor shall prepare such quantities of planting soil as may be required to install plants in accordance with the accepted practice of the American Association of Nurserymen and to the satisfaction of the Landscape Architect. Deciduous, and evergreen trees and shrubs, perennials, groundcover and ericaceous plants will be pocket planted using a soil mixture of three (3) parts topsoil and one (1) part peat.

NOTE: The Contractor will acidify the ericaceous soil with perlic sulfate to arrive at ph of 4.5

B. A general guideline for excavation of the plant pits follows:

| SIZE              | PLANT           | PIT SIZE *<br>Each Side | Bottom** |
|-------------------|-----------------|-------------------------|----------|
| 3" cal. Or less   | Deciduous Tree  | 8"                      | 8"       |
| More than 3" cal. | Deciduous Tree  | 12"                     | 12"      |
| 8" hl. or less    | Evergreen Tree  | 8"                      | 8"       |
| More than 8" hl.  | Evergreen Tree  | 12"                     | 12"      |
| Multi. Stem       | Tree/Lg. Shrub  | 8"                      | 8"       |
| Small to medium   | Deciduous Shrub | 6"                      | 6"       |
| Small to medium   | Evergreen Shrub | 6"                      | 6"       |
| 1 gal. Plus       | Perennials      | 3"                      | 3"       |

\* Soil conditions could modify these sizes  
 \*\* After excavation, backfill with existing soil so that root ball sits at proper grade

The Landscape Contractor shall install 4-6" of clean planting mix around the rootball of all newly planted trees, at the discretion of the Landscape Architect.

C. Metal and tar paper containers shall be removed from all container grown plant materials. Biodegradable paper mache' containers may be left in place, but additional holes shall be punched through the sides to provide adequate drainage. The upper coils of such containers should be removed so that they do not protrude above grade. The top one-half of burlap shall be removed from the top of the plant ball. All nylon cord or plastic type ropes shall be removed from the trunks to prevent future girdling.

D. The Contractor is responsible for the proper placement, alignment and setting of all plants. Care shall be taken to place all plants at their proper depth. In wet situations balled and burlapped plants may be planted slightly higher than their original grade.

E. All newly planted trees shall be staked and guyed as illustrated on the planting details and in accordance with current local nursery and landscape standards. The Landscape contractor shall be responsible for removal of all staking and guying materials when appropriate, as approved by the Landscape Architect.

**1.7 SEEDING**

A. Spread commercial fertilizer (15/30/15) evenly with a mechanical spreader at the rate of 150 lbs/acre and thoroughly incorporate into the topsoil to a depth of two inches (2"). Immediately before seeding, rework and moisten the surface.

B. Seed will be planted at the uniform rate of six (6) pounds per one thousand square feet (1,000 sq.ft.). Seed will be clean, new crop seed composed of the following mixtures:

|                     |     |
|---------------------|-----|
| Kentucky Blend      | 33% |
| Creeping Red Fescue | 33% |
| Fine Leaf Ryegrass  | 33% |

(unless otherwise specified on the plan)

All seed shall have a 97% purity rating. Certification of the seed mix will be provided to the Landscape Architect prior to any seeding operation, if so requested.

C. Incorporate all seeding by use of a billion seeder with roller to a minimum depth of one-half inch (1/2") or approved equal.

D. All seeded areas will be mulched with straw mulch or hydro mulch. This will be left to the discretion of the Contractor.

E. Any part of this area that fails to show a uniform germination shall be reseeded at no additional expense to the Owner and such reseeded shall continue until a dense lawn is established.

F. It is the intent of these specifications to obtain a finished lawn surface free of humps and depressions, and satisfactory for mowing with hand or mechanical mowers, and to establish an even dense, weed free turf of permanent grasses. Any part of the seeded area that fails to show a uniform growth shall be reseeded by the Contractor until a dense lawn is produced. Damage to the lawn areas resulting from erosion or Contractor's operations shall be repaired by the Contractor until the lawn is accepted.

**1.8 SODDING**

A. Seed mixture composition of the sod will be approved by the Landscape Architect prior to delivery on site. Sod will be laid over approved subgrade. Sod will have a uniform soilpad thickness of 5/8", plus or minus 1/4". Sod shall be harvested, delivered and transplanted within 36 hours. Sod will be weed free and placed flush at the joints so that no gaps occur.

B. Any area or amount of sod that dies shall be replaced at no additional expense to the Owner.

C. It is that intent of these specifications to obtain a finished lawn surface free of humps and depressions, and satisfactory for mowing with hand or mechanical mowers, and to establish an even dense, weed free turf of permanent grasses. Any part of the seeded area that fails to show a uniform growth shall be reseeded by the Contractor until a dense lawn is produced. Damage to the lawn areas resulting from erosion or Contractor's operations shall be repaired by the Contractor until the lawn is accepted.

**1.9 SEEDING AND SODDING MAINTENANCE**

A. Maintenance shall begin immediately after a portion of turf is installed and shall be the responsibility of the contractor for a period of 30 days. Also, one mowing of sodded lawn and two mowings of the seeded lawn will be required.

B. Maintenance shall also include, but not be limited to the watering, weeding, reseeding, resodding, rolling, trimming and other operations as necessary. The areas shall be kept watered with sprinklers or other approved methods during dry weather or when deemed necessary by the Landscape Contractor. The sod shall be thoroughly watered when initially laid. Note that a sprinkler irrigation system is typically planned, so the system should be operable at the time of sod installation.

**1.10 FERTILIZING AND WATERING OF PLANT MATERIAL**

A. Fertilizing is left to the discretion of the Contractor. In no case should dry type commercial fertilizers be placed in the root zone, unless they are the pelletized slow-release type, designed for this purpose.

B. All plants will be thoroughly watered in by the Contractor immediately after planting. Watering will be the Contractor's responsibility until the installation is accepted by the Owner. The Contractor will advise the Owner on the proper care of the new plantings and will be responsible for checking the condition of the plants as necessary and advise the Owner of any deficiency or excess of watering during the warranty period.

**1.11 EDGING**

A. Edging will be the type specified and installed where shown on the drawing.

B. All edging shall be installed uniform to the grade and in straight alignment.

C. Edging will be cut or perforated when installed in low areas, swales or any situation where drainage might be impeded.

D. Variation from the plan will not be allowed unless otherwise specified by the Landscape Architect.

**1.12 STONE MULCH**

A. All stone mulch specified on the plan will be of the type and size aggregate indicated and will be applied at the thickness specified on the plan.

B. The stone mulch material shall be consistent in size, shape, and color, will be of premium grade and washed clean prior to installation.

C. The stone mulch will be placed on top of Fabric Weed Barrier (Dupont Typer #3201 or equal) after the soil has been treated with an approved pre-emergent weed preventative. The pre-emergent weed preventative will be applied at a rate specified by the manufacturer.

**1.13 SHREDDED BARK MULCH**

A. All planting beds indicated on the plan shall contain a layer of Shredded Bark Mulch. Mulch shall be applied at the thickness specified on the plans. The finish grade shall conform to the surrounding grade.

B. The mulch material shall have a dark brown, fine shredded appearance with no large objectionable pieces. No wood chips will be allowed.

C. Approved pre-emergent weed preventative shall be applied to all mulched beds at a rate specified by the manufacturer.

D. All evergreen and deciduous trees in lawn areas will receive approximately ten (10) sq.ft. of Shredded Bark Mulch per tree at a four inch (4") minimum depth.

**1.14 WARRANTY/ GUARANTEE**

A. The Contractor will guarantee in writing all plant material to be true to name and in vigorous condition at time of planting. In addition, he will guarantee the life of all plant materials 100% for the period of one (1) year from the date of acceptance. Replacements shall be made during the next appropriate planting season.

B. The Contractor, at their discretion, may deem the guarantee void if plant failure is determined to be the result of any of the following conditions:  
 1. Storm and/or Wildlife damage  
 2. Failure to maintain per contractors written instruction(s)  
 3. Herbicide and/or Insecticide damage by other(s)  
 4. Transplanting by other(s)

C. The Contractor shall be responsible for furnishing the Owner with complete maintenance, watering, and fertilizing schedules, as required. The Contractor shall also provide periodic site visits to assure Owner compliance.

D. All construction will be guaranteed in writing against faulty workmanship and materials for the period of one (1) year.

**1.15 ACCEPTANCE & PAYMENT**

A. The job will be accepted when completed to the satisfaction of the Landscape Architect and Owner. The Landscape Architect shall have the authority to reject any material that does not meet the specifications or is improperly planted or placed. All debris resulting from the Landscape job will be removed and the beds properly graded and raked prior to acceptance.

All mud, dirt, and debris tracked onto existing roads from the site due to his construction duties shall be removed by the contractor.

Any damage caused by the Landscape Contractor to existing plants, structures, walks and lawns must be repaired prior to final payment.

B. Partial payments shall be made as various stages of the job are completed and accepted:

1. Construction
2. Planting
3. Sodding

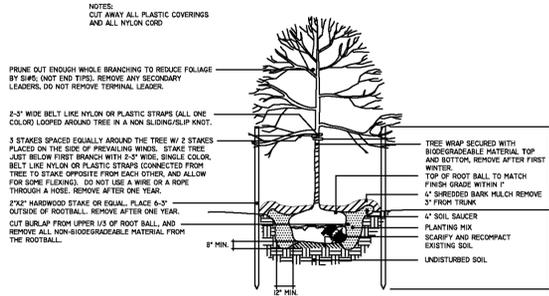
Ten percent (10%) of said payments shall be retained until the total contract is completed and accepted.

**1.16 MISCELLANEOUS NOTES**

A. Care should be taken by Contractor not to plant under or over utility lines, and easements, or in any location where existing utilities will interfere with the growth of plant material.

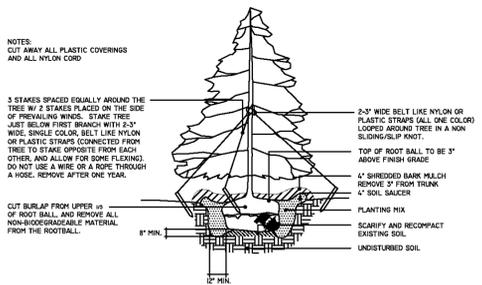
B. Contractor shall be responsible for checking plant and material quantities to ensure quantities on drawings and plant list (if provided) are the same. In the event of a discrepancy, the quantities on the plans shall prevail.

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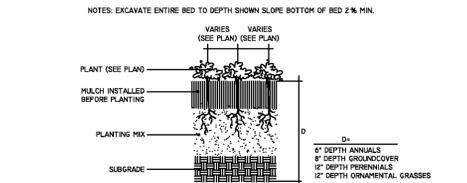
**DECIDUOUS TREE PLANTING**

NOT TO SCALE



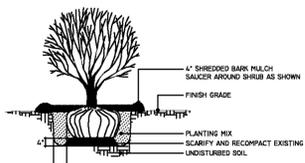
**EVERGREEN TREE PLANTING**

NOT TO SCALE



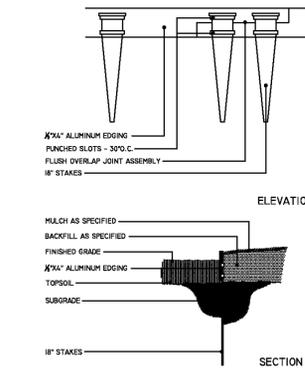
**GROUNDCOVER / PERENNIAL / ANNUAL PLANTING**

NOT TO SCALE



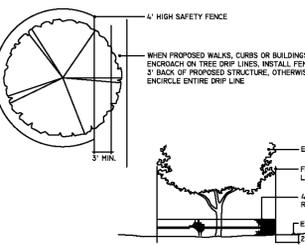
**SHRUB PLANTING DETAIL**

NOT TO SCALE



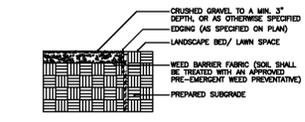
**ALUMINUM EDGING DETAIL**

NOT TO SCALE



**TREE PROTECTION DETAIL**

NOT TO SCALE



**MAINTENANCE STRIP DETAIL**

NOT TO SCALE

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 SPA APPROVAL  
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 JCS  
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 SPECIFICATIONS  
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