



## BECK NORTH UNIT 54 JSP16-36

### **BECK NORTH UNIT 54 JSP 16-36**

Public hearing at the request of Dembs Development, Inc. for Special Land Use, Preliminary Site Plan, Woodland Permit, and Stormwater Management Plan approval. The subject parcel is located in Section 4 east of Nadlan Drive and north of West Road. It is approximately 5.02 acres and zoned I-1 (Light Industrial). The applicant is proposing to build a 67,000 square foot speculative building in the Beck North Corporate Park with associated site improvements.

### **Required Action**

Approve/Deny the Special Land Use, Preliminary Site Plan, Woodland Permit, and Stormwater Management Plan.

REVIEW	RESULT	DATE	COMMENTS
Planning	Approval recommended	2-23-17	<ul style="list-style-type: none"> <li>• <b>Special Land Use approval required</b></li> <li>• <b>ZBA variance for height that exceeds 25 ft. (29'4" proposed) when abutting residential</b></li> <li>• Items to be addressed on Final Site Plan submittal</li> </ul>
Engineering	Approval recommended	3-7-17	<ul style="list-style-type: none"> <li>• <b>DCS variance for not meeting minimum frontage of 300 feet required to allow more than one full service driveway entrance to the site</b></li> <li>• Items to be addressed on Final Site Plan submittal</li> </ul>
Landscaping	Approval recommended	8-21-17	<ul style="list-style-type: none"> <li>• <b>Lack of 10 - 15 ft. landscaped berm between industrial and residential not provided due to preservation of 50 ft. woodlands buffer along east property line and screening with masonry wall and additional evergreens – Staff supported</b></li> <li>• <b>Waiver for use of evergreen species for greater than 25% of perimeter parking lot trees – Staff supported</b></li> <li>• <b>Reduction of required subcanopy trees for industrial subdivision frontage due to lack of space (9 provided; 16 required) – Staff supported</b></li> <li>• Items to be addressed on Final Site Plan submittal</li> </ul>
Woodlands	Approval recommended	8-17-17	<ul style="list-style-type: none"> <li>• Items to be addressed on Final Site Plan submittal</li> </ul>
Traffic	Approval recommended	3-3-17 7-19-17	<ul style="list-style-type: none"> <li>• <b>Waiver for driveway spacing between proposed drives and between west driveway and Unit 53 driveway (within 105 ft.) – Staff supported</b></li> <li>• Traffic Impact Assessment – submitted and recommended for approval.</li> </ul>
Façade	Approval recommended	3-1-17	<ul style="list-style-type: none"> <li>• Items to be addressed on Final Site Plan submittal</li> </ul>
Fire	Approval recommended	2-16-17	<ul style="list-style-type: none"> <li>• Items to be addressed on Final Site Plan submittal</li> </ul>

## MOTION SHEET

### Approval – Special Land Use Permit

In the matter of Beck North Unit 54 JSP16-36, motion to **approve** the Special Land Use Permit based on and subject to the following:

- a. The proposed use will not cause any detrimental impact on existing thoroughfares (*based on Traffic Consultant review letter and updated traffic study to be provided*);
- b. The proposed use will not cause any detrimental impact on the capabilities of public services and facilities (*as this area was already planned for development*);
- c. The proposed use is compatible with the natural features and characteristics of the land (*because the plan has minor impacts on existing natural features, will provide additional evergreen plantings, and a 50 foot conservation easement along the east parcel line*);
- d. The proposed use is compatible with adjacent uses of land (*because the proposed use conforms to the standards of the district and requirements for light industrial*);
- e. The proposed use is consistent with the goals, objectives, and recommendations of the City's Master Plan for Land Use (*make sure that light industrial and residential developments are compatible when located adjacent to each other AND ensure that Novi continues to be a desirable place for business investment*);
- f. The proposed use will promote the use of land in a socially and economically desirable manner (*as the proposed use will be in the planned corporate park*);
- g. The proposed use is (1) listed among the provision of uses requiring special land use review as set forth in the various zoning districts of this Ordinance, and (2) is in harmony with the purposes and conforms to the applicable site design regulations of the zoning district in which it is located; and
- h. Landscape waiver from Section 5.5.3.B.ii for lack of a 10-15 foot landscaped berm along the east property line adjacent to the residential district, which is hereby granted, for the following reasons:
  - i. There is a 50 foot woodland area between the proposed use and the adjacent residential areas,
  - ii. The applicant shall provide a six foot tall screen wall (as measured from the top of pavement) and a heavily screened landscape buffer along the southeast corner of the site,
  - iii. The applicant shall provide a 50 foot conservation easement along the east property line of their parcel, and
  - iv. The applicant shall provide additional evergreen plantings as determined at time of Final Site Plan by staff and consultants;
- i. Landscape waiver for use of evergreen species for greater than 25 percent of perimeter parking lot trees, which is hereby granted; and
- j. Landscape waiver from the Landscape Design Manual Section 1.d(2) for reduction in industrial subdivision landscaping as required along the industrial drive frontage (16 trees required; 9 provided), which is hereby granted;
- k. (*additional comments here if any*)

*(This motion is made because the plan is otherwise in compliance with Article 3, Article 4, Article 5, and Article 6 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)*

**- AND -**

### Approval – Preliminary Site Plan

In the matter of Beck North Unit 54 JSP16-36, motion to **approve** the Preliminary Site Plan based on and subject to the following:

- a. Zoning Board of Appeals variance for exceeding the maximum building height: 29 feet 4 inches proposed, 25 feet permitted.

- b. Same-side, opposite-side driveway spacing waiver from Section 11-216.D of the City of Novi Code of Ordinances to permit less distance between entrances on Nadlan Drive where a minimum of 105 feet is required, which is hereby granted;
- b. Applicant shall provide Traffic Impact Assessment update with Final Site Plan submittal;
- c. The findings of compliance with Ordinance standards in the staff and consultant review letters and the conditions and the items listed in those letters being addressed on the Final Site Plan; and
- d. *(additional conditions here if any)*

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

**- AND -**

**Approval – Woodland Permit**

In the matter of Beck North Unit 54 JSP16-36, motion to **approve** the Woodland Permit based on and subject to the following:

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

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

**- AND -**

**Approval – Stormwater Management Plan**

In the matter of Beck North Unit 54 JSP16-36, motion to **approve** the Stormwater Management Plan based on and subject to the following:

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

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

**- OR -**

**Denial – Special Land Use Permit**

In the matter of Beck North Unit 54 JSP16-36, motion to **deny** the Special Land Use Permit...*(because the plan is not in compliance with Article 4, Article 5, and Article 6 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)*

**- AND -**

**Denial – Preliminary Site Plan**

In the matter of Beck North Unit 54 JSP16-36, motion to **deny** the Preliminary Site Plan...*(because the plan is not in compliance with Article 3, Article 4, and Article 5 of the Zoning Ordinance and all other applicable provisions of the Ordinance.)*

**- AND -**

**Denial – Woodland Permit**

In the matter of Beck North Unit 54 JSP16-36, motion to **deny** the Woodland Permit... (because the plan is not in compliance with Chapter 37 of the Code of Ordinances and all other applicable provisions of the Ordinance.)

- AND -

**Denial – Stormwater Management Plan**

In the matter of Beck North Unit 54 JSP16-36, motion to **deny** the Stormwater Management Plan... (because the plan is not in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance.)

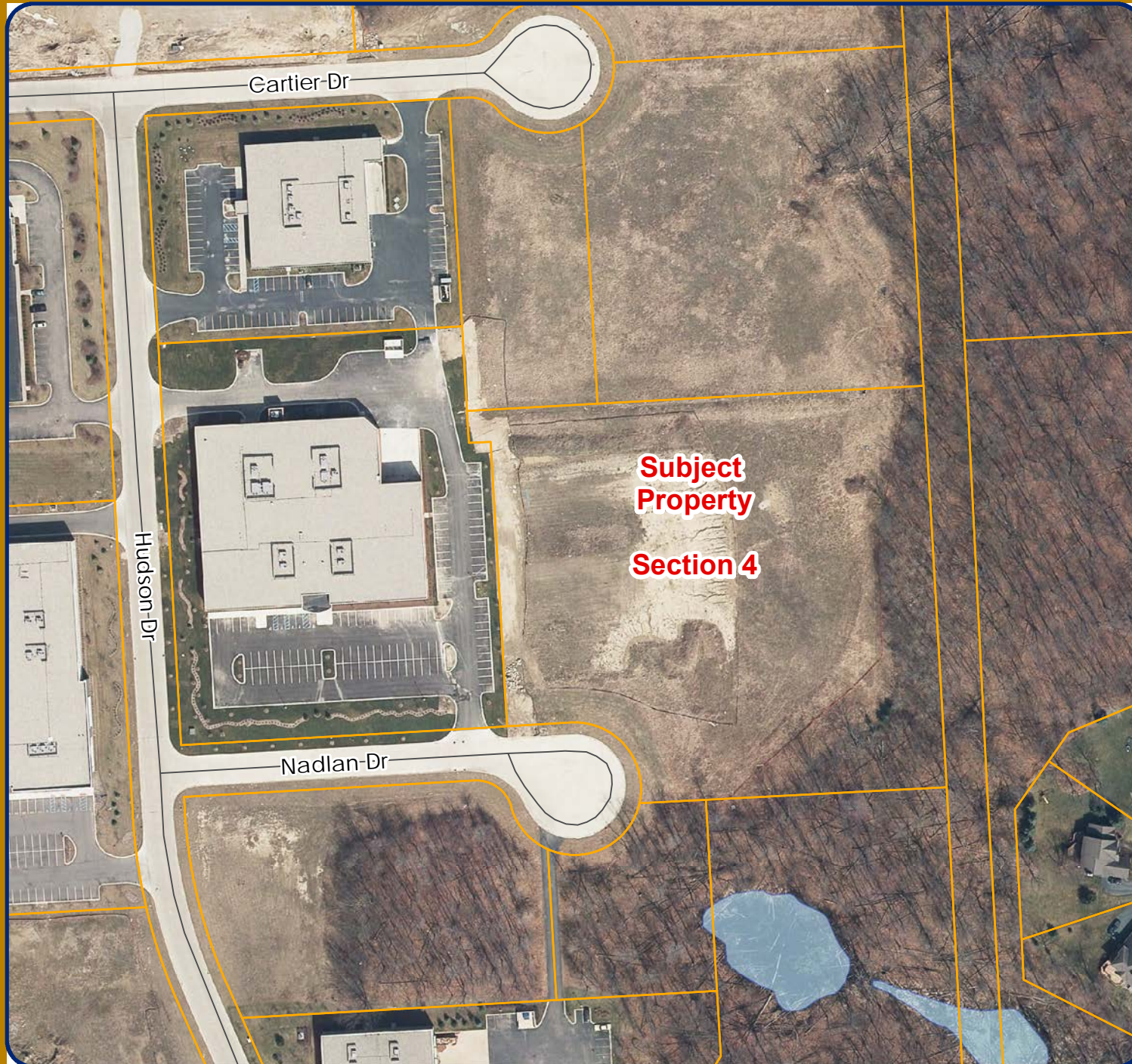


MAPS  
Location  
Zoning  
Future Land Use  
Natural Features

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# JSP16-36: Beck North Unit 54

## Location Map



**Subject  
Property**

**Section 4**



### LEGEND

 Sections



City of Novi

Community Development Department  
Civic Center  
45175 W Ten Mile Road  
Novi, MI 48375  
[www.cityofnovi.org](http://www.cityofnovi.org)

Map Author: Kirsten Mellem  
Date: 04/20/2017  
Project: JSP16-36 Beck North Unit 54  
Version #: 1



1 inch = 167 feet



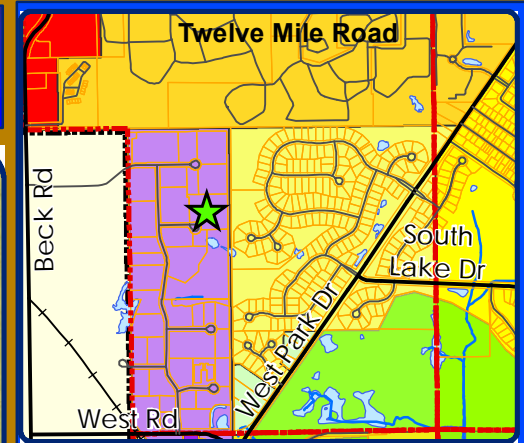
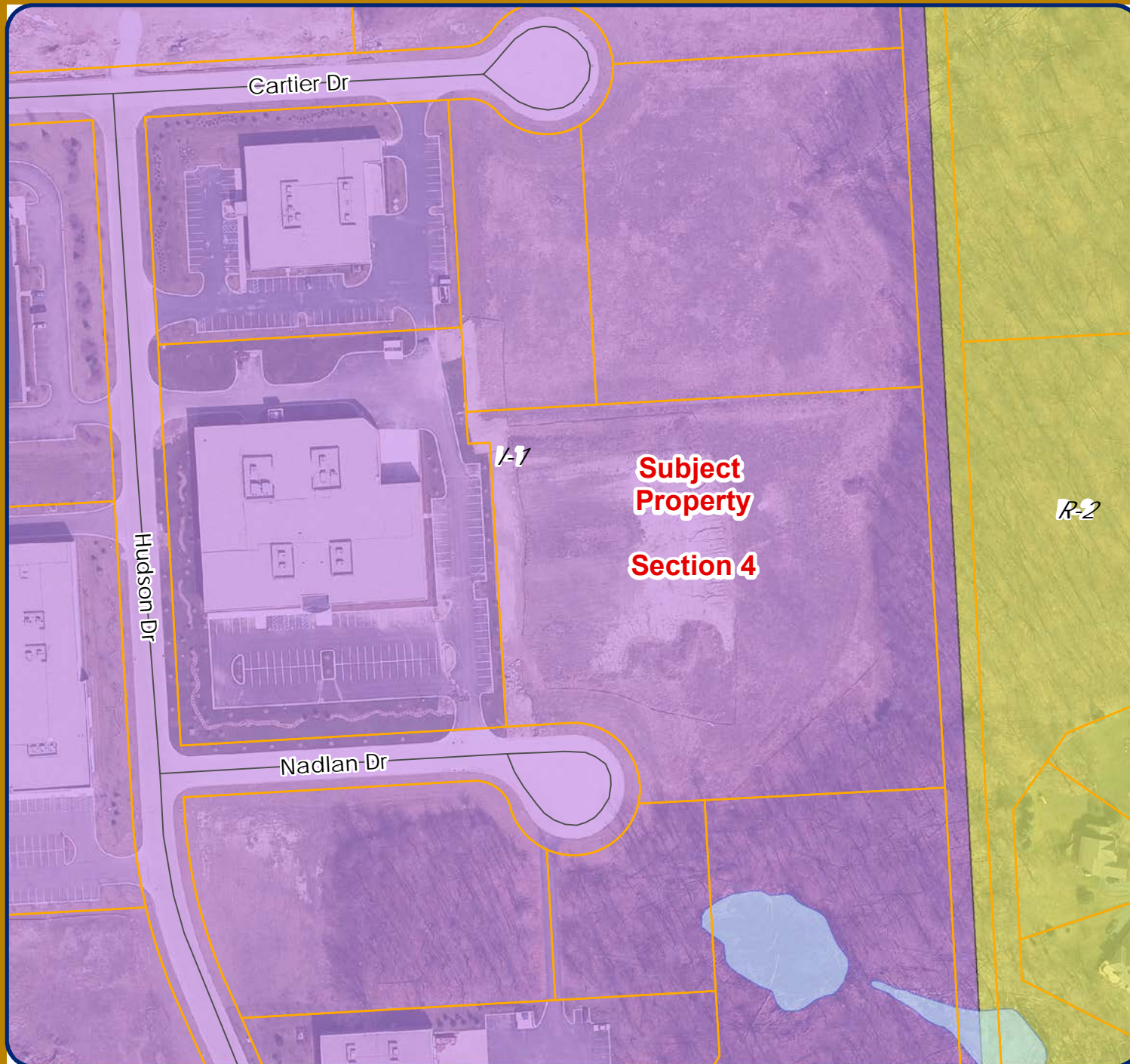
### MAP INTERPRETATION NOTICE

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



# JSP16-36: Beck North Unit 54

## Zoning Map



### LEGEND

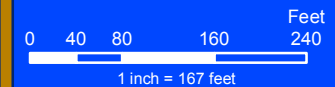
- Sections
- R-A: Residential Acreage
- R-1: One-Family Residential District
- R-2: One-Family Residential
- R-4: One-Family Residential District
- RM-1: Low-Density Multiple Family
- B-3: General Business District
- I-1: Light Industrial District
- I-2: General Industrial District



### City of Novi

Community Development Department  
Civic Center  
45175 W Ten Mile Road  
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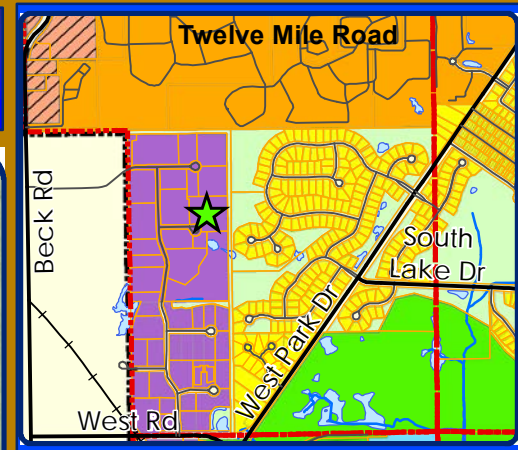
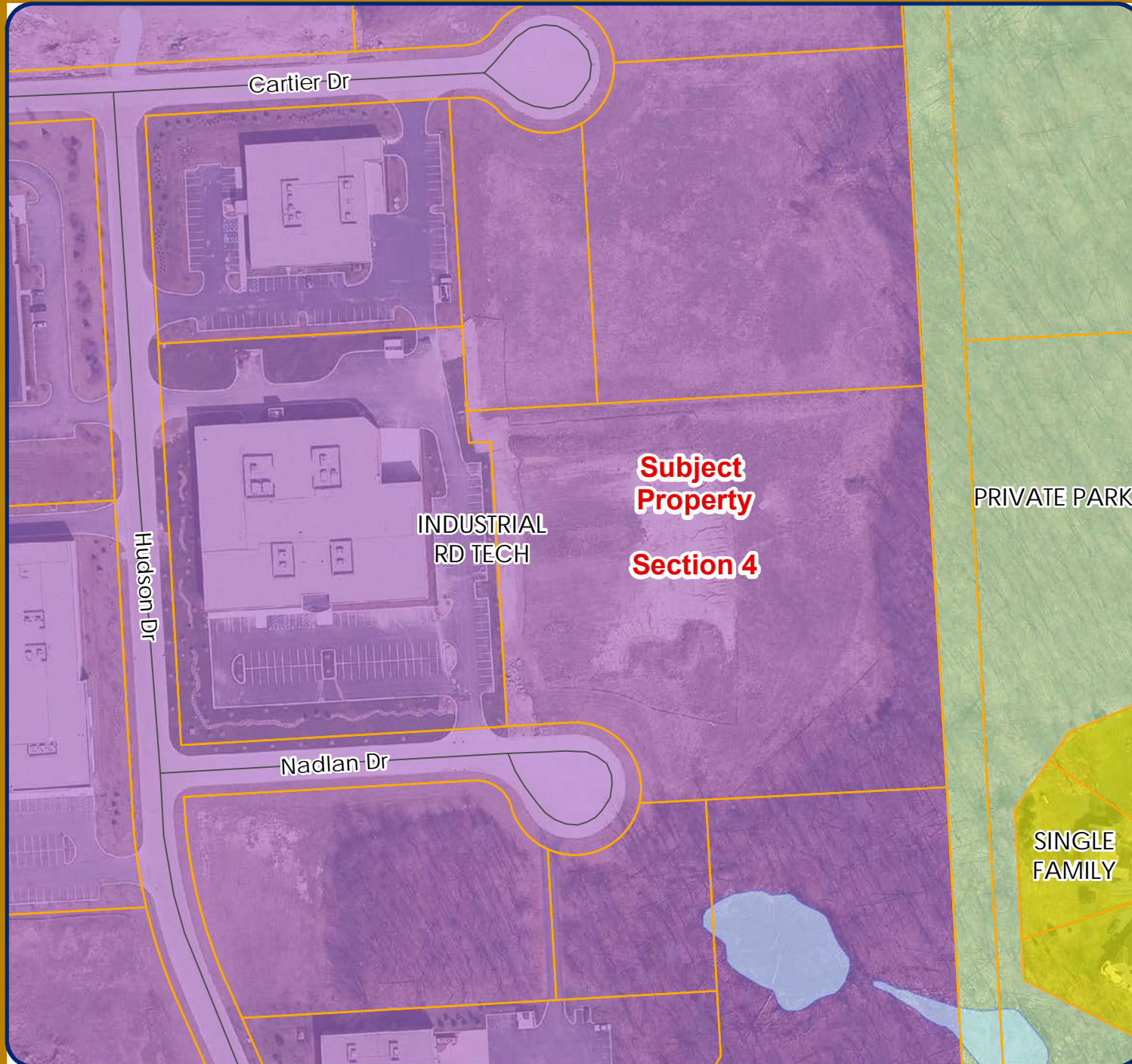
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# JSP16-36: Beck North Unit 54

## Future Land Use Map



**LEGEND**

Sections

**FUTURE LAND USE**

- Single Family
- Multiple Family
- Industrial RD Tech
- Community Commercial
- Public
- Public Park
- Private Park

**City of Novi**  
Community Development Department  
Civic Center  
45175 W Ten Mile Road  
Novi, MI 48375  
www.cityofnovi.org

Map Author: Kirsten Mellem  
Date: 04/20/2017  
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0 40 80 160 240 Feet  
1 inch = 167 feet

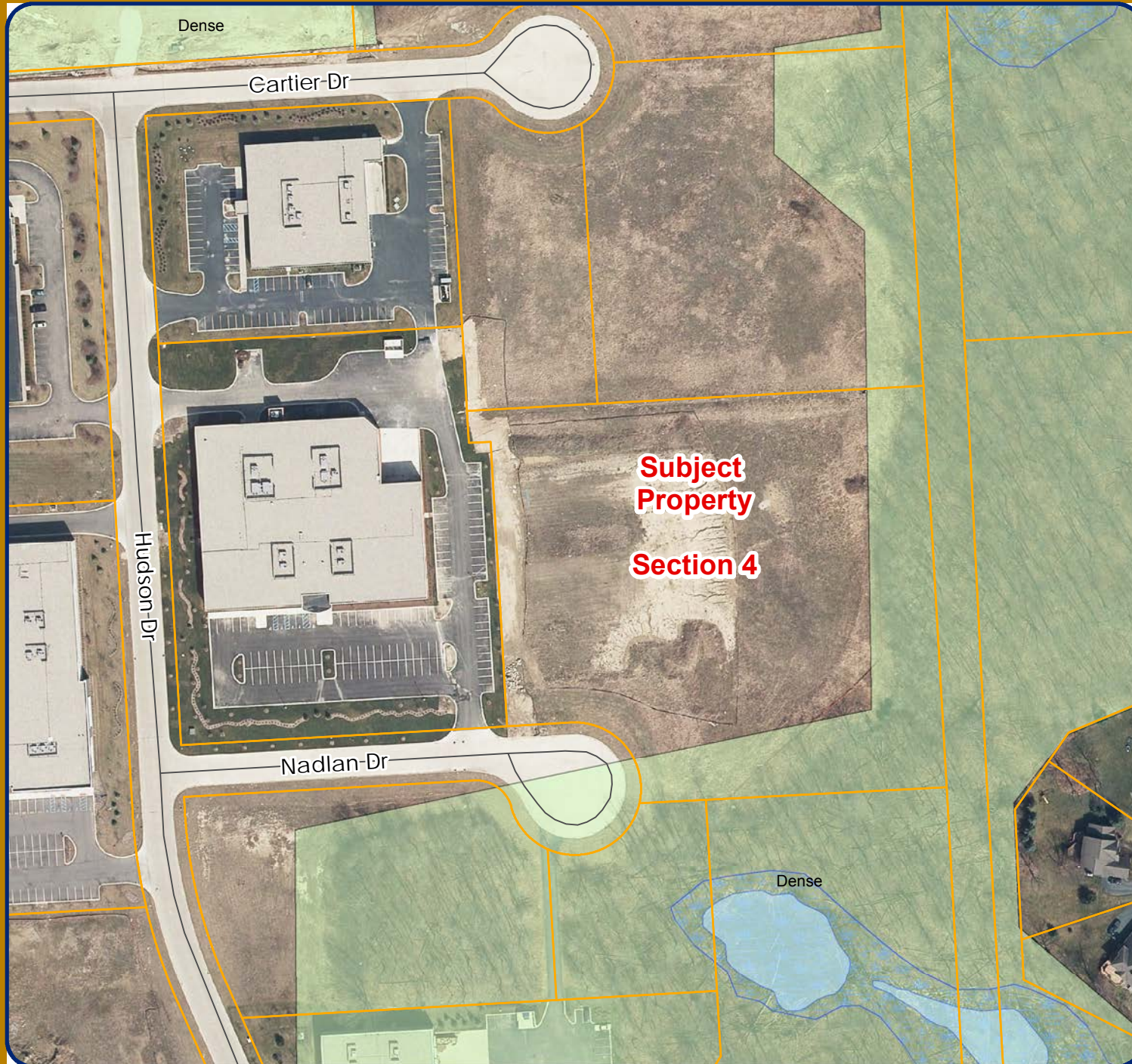
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# JSP16-36: Beck North Unit 54

## Natural Features Map



**LEGEND**

- Sections
- WETLANDS
- WOODLANDS

 **City of Novi**  
Community Development Department  
Civic Center  
45175 W Ten Mile Road  
Novi, MI 48375  
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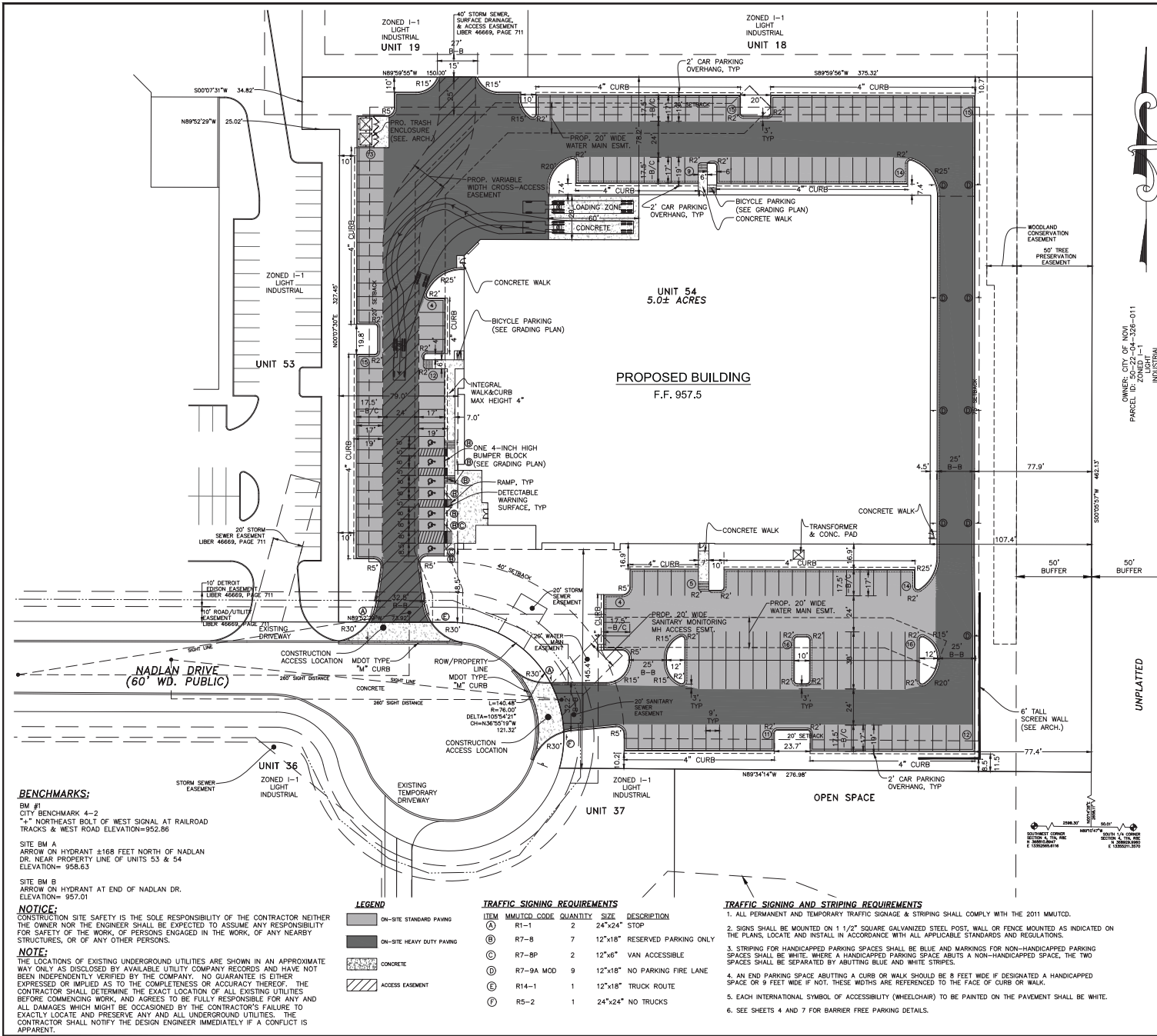
SITE PLAN

Full Site Plan Submittal available for review at the Community Development Department

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**SITE DATA:**  
 SITE AREA: 5.00 ACRES  
 PARCEL ID: 22-04-151-034  
 EXISTING/PROPOSED ZONING: I-1 LIGHT INDUSTRIAL  
 PROPOSED SPECULATIVE BUILDING SHELL: 25,177 S.F. OFFICE, 22,132 S.E. INDUSTRIAL/RESEARCH, 67,309 S.F. BUILDING TOTAL  
 40' FRONT MINIMUM  
 20' EACH SIDE MINIMUM  
 75' REAR MINIMUM

**REQUIRED BUILDING SETBACKS:**  
 40' FRONT MINIMUM  
 20' EACH SIDE MINIMUM  
 75' REAR MINIMUM

**REQUIRED PARKING:**  
 OFFICE: 23,830 S.F. (GROSS LEASABLE FLOOR AREA) / 222 S.F. = 108 SPACES  
 INDUSTRIAL/RESEARCH: 41,392 S.F. (USABLE FLOOR AREA) / 700 S.F. = 59 SPACES  
 167 TOTAL SPACES REQUIRED  
 179 TOTAL PARKING SPACES PROVIDED (INCLUDES 7 B.F. SPACES)

**REQUIRED BICYCLE PARKING:**  
 REQUIRED: 5% OF REQUIRED AUTO SPACES = 181 + 208 = 8 BICYCLE PARKING SPACES  
 PROVIDED: 8 BICYCLE PARKING SPACES

**FRONT YARD (EAST SIDE) PARKING CALCULATIONS:**  
 PARKING OCCUPANCY REQUIRED: LESS THAN 50%  
 OPEN SPACE: 31.2%

**FIRE DEPARTMENT NOTES:**  
 1. WATER MAINS AND FIRE HYDRANTS SHALL BE INSTALLED PRIOR TO CONSTRUCTION ABOVE FOUNDATION.  
 2. THE BUILDING ADDRESS IS TO BE POSTED FACING THE STREET THROUGHOUT CONSTRUCTION. THE ADDRESS IS TO BE AT LEAST 3" HIGH ON A CONTRASTING BACKGROUND.  
 3. FIRE APPARATUS ACCESS DRIVES TO AND FROM BUILDINGS THROUGH PARKING LOTS SHALL HAVE A MINIMUM FIFTY (50) FEET OUTSIDE TURNING RADIUS AND DESIGNED TO SUPPORT A MINIMUM OF THIRTY-FIVE (35) TONS.  
 4. IMMEDIATE ACCESS TO FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED AT ALL TIMES AND WITHOUT OBSTRUCTION BY FENCES, BUSHES, TREES, WALLS OR ANY OTHER OBJECT FOR A MINIMUM OF 3 FEET.  
 5. IN ANY BUILDING OR STRUCTURE REQUIRED TO BE EQUIPPED WITH A FIRE DEPARTMENT CONNECTION, THE CONNECTION SHALL BE LOCATED WITHIN ONE HUNDRED (100) FEET OF A FIRE HYDRANT.

**GENERAL SITE NOTES:**  
 1. ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOVI STANDARDS AND SPECIFICATIONS.  
 2. STORM WATER CULVERTS TO BECK NORTH PHASE II DEVELOPMENT DISSIPATION BASINS AND ULTIMATELY INTO EXISTING WETLANDS.  
 3. ROOFTOP EQUIPMENT MUST BE SCREENED PER ORDINANCE REQUIREMENTS.  
 4. EXTERIOR LIGHTING MUST COMPLY WITH SECTION 2511 OF THE CITY OF NOVI CODE.  
 5. RIGHT OF WAY PERMIT IS REQUIRED FROM THE CITY OF NOVI FOR ANY WORK IN THE NADLAN DRIVE RIGHT-OF-WAY.  
 6. ALL SIGNS SHALL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES (CHAPTER 28) OF THE CITY OF NOVI, AND WHERE REQUIRED SHALL BE RENEWED AND APPROVED BY THE DEPARTMENT OF BUILDING AND SAFETY AND A PERMIT ISSUED. NO SIGNS (OTHER THAN TYPICAL TRAFFIC CONTROL SIGNS) ARE APPROVED AS PART OF THIS SITE PLAN APPROVAL. PRIOR TO ERECTION OF A SIGN, AN APPLICATION AND APPROPRIATE SUBMISSIONS SHALL BE MADE TO THE BUILDING DEPARTMENT FOR REVIEW, APPROVAL AND ISSUANCE OF A SIGN PERMIT.  
 7. ALL PARKING AND TRAFFIC CONTROL SIGNS SHALL COMPLY WITH THE DESIGN AND PLACEMENT REQUIREMENTS OF THE "2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (2011 MUTCD).  
 8. NOTIFY THE CITY OF NOVI A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.  
 9. CALL MISS DIG (811) A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.  
 10. ALL SOIL EROSION AND SILT MUST BE CONTROLLED AND CONTAINED ON-SITE.  
 11. ALL EXCAVATION WORK OR WITHIN A 1 ON 1 INFLUENCE OF PUBLIC PAVEMENT, EXISTING OR PROPOSED, SHALL BE BACKFILLED AND COMPACTED WITH SAND (CLASS II MOTT).  
 12. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES.  
 13. PRIOR TO ISSUANCE OF AN OCCUPANCY PERMIT, ENGINEERING SITE INSPECTION IS REQUIRED.  
 14. IF DETERIORATION IS ANTICIPATED OR ENCOUNTERED DURING CONSTRUCTION THE CONTRACTOR IS REQUIRED TO SUBMIT A DETERIORATION PLAN TO THE CITY ENGINEERING DIVISION FOR REVIEW.  
 15. ONLY NECESSARY LIGHTING FOR SECURITY PURPOSES AND LIMITED OPERATIONS SHALL BE USED AFTER THE SITE'S HOURS OF OPERATION.  
 16. NO FLASHING LIGHTING WILL BE USED ON THE SITE.  
 17. NO OUTSIDE STORAGE SHALL BE PERMITTED.  
 18. NO TRUCKS WILL BE CLEANED OR SERVICED OUTSIDE THE BUILDING.  
 19. AS REQUIRED BY THE CITY OF NOVI, SOUND LEVELS OF BUILDING OCCUPANT OPERATIONS, INCLUDING THE OPERATION OF ROOFTOP MECHANICAL EQUIPMENT, SHALL NOT EXCEED 55 DECIBELS DURING NIGHT THE HOURS AND 60 DECIBELS DURING DAY THE HOURS. VERIFICATION OF THE CONFORMANCE MAY BE REQUIRED AT THE TIME OF OCCUPANCY.  
 20. REFUSE PICK-UP SHALL BE LIMITED TO THE HOURS OF 7:00 A.M. TO 5:00 P.M. PREVAILING TIME.  
 21. WINDOWS AND DOORS OF NON-OFFICE USE AREAS OF STRUCTURES IN AN I-1 DISTRICT MAY NOT BE LEFT OPEN.  
 22. TENANT SHOULD CHECK WITH THE PLANNING DEPARTMENT PRIOR TO LEASING SPACE TO ENSURE USE IS CONSISTENT WITH SPECIAL LAND USE CRITERIA.  
 23. TRUCKS SHALL NOT USE THE DRIVE ON THE EAST SIDE OF THE BUILDING TO ACCESS THE LOADING DOCK, BUT CAN ONLY USE THE DRIVE ON THE WEST SIDE OF THE BUILDING.

COMMERCIAL SURVEYING  
 SITE ENGINEERING  
 BOUNDARY SURVEYS  
 TOPOGRAPHIC SURVEYS  
 PARCEL SURVEYS  
 CONSTRUCTION LAYOUT

RESIDENTIAL SURVEYING  
 SITE CONFORMANCE  
 MULTI-FAMILY  
 CONSTRUCTION LAYOUT

ALPINE ENGINEERING, INC.  
 ONE, BUSINESS & EAST SERVICES  
 46894 WEST ROAD  
 SUITE 119  
 NOVI, MICHIGAN 48277  
 (248) 262-7950 (BUS)  
 (248) 292-2760 (CELL)  
 WWW.ALPINE-INC.NET



DEBMS DEVELOPMENT, INC.  
 PRELIMINARY SITE PLAN  
 BECK NORTH CORPORATE PARK - UNIT 54  
 SECTION: 4  
 RANGEBE  
 OAKLAND COUNTY MICHIGAN

**BENCHMARKS:**  
 BM #1  
 CITY BENCHMARK 4-2  
 1/4" NORTHEAST BOLT OF WEST SIGNAL AT RAILROAD TRACKS & WEST ROAD ELEVATION=952.66

SITE BM A  
 ARROW ON HYDRANT ±168 FEET NORTH OF NADLAN DR. NEAR PROPERTY LINE OF UNITS 53 & 54  
 ELEVATION= 958.63

SITE BM B  
 ARROW ON HYDRANT AT END OF NADLAN DR.  
 ELEVATION= 957.01

**NOTICE:**  
 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 PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

**NOTE:**  
 THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AS DISCLOSED BY AVAILABLE UTILITY COMPANY RECORDS AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE COMPANY. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF A CONFLICT IS APPARENT.

**LEGEND**

- ON-SITE STANDARD PAVING
- ON-SITE HEAVY DUTY PAVING
- CONCRETE
- ACCESS EASEMENT

**TRAFFIC SIGNING REQUIREMENTS**

ITEM	MUTCD CODE	QUANTITY	SIZE	DESCRIPTION
(A)	R1-1	2	24"x24"	STOP
(B)	R7-8	7	12"x18"	RESERVED PARKING ONLY
(C)	R7-8P	2	12"x6"	VAN ACCESSIBLE
(D)	R7-9A MOD	9	12"x18"	NO PARKING FIRE LANE
(E)	R14-1	1	12"x18"	TRUCK ROUTE
(F)	RS-2	1	24"x24"	NO TRUCKS

**TRAFFIC SIGNING AND STRIPING REQUIREMENTS**

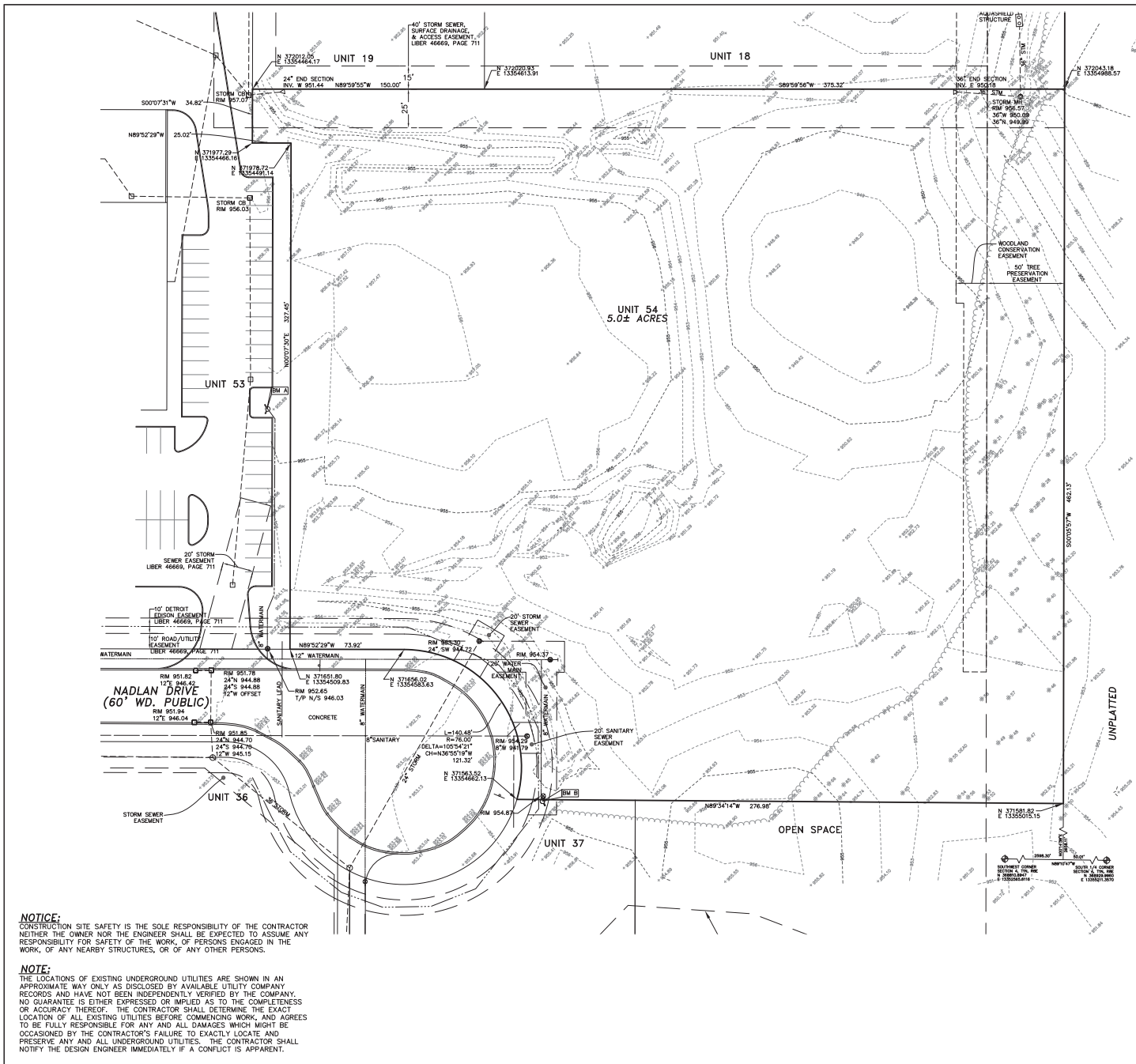
- ALL PERMANENT AND TEMPORARY TRAFFIC SIGNAGE & STRIPING SHALL COMPLY WITH THE 2011 MUTCD.
- SIGNS SHALL BE MOUNTED ON 1 1/2" SQUARE GALVANIZED STEEL POST, WALL OR FENCE MOUNTED AS INDICATED ON THE PLANS, LOCATE AND INSTALL IN ACCORDANCE WITH ALL APPLICABLE STANDARDS AND REGULATIONS.
- STRIPING FOR HANDICAPPED PARKING SPACES SHALL BE BLUE AND MARKINGS FOR NON-HANDICAPPED PARKING SPACES SHALL BE WHITE. WHERE A HANDICAPPED PARKING SPACE ADJUTS A NON-HANDICAPPED SPACE, THE TWO SPACES SHALL BE SEPARATED BY ABUTTING BLUE AND WHITE STRIPES.
- AN END PARKING SPACE ADJUTING A CURB OR WALK SHOULD BE 8 FEET WIDE IF DESIGNATED A HANDICAPPED SPACE OR 9 FEET WIDE IF NOT. THESE WIDTHS ARE REFERENCED TO THE FACE OF CURB OR WALK.
- EACH INTERNATIONAL SYMBOL OF ACCESSIBILITY (WHEELCHAIR) TO BE PAINTED ON THE PAVEMENT SHALL BE WHITE.
- SEE SHEETS 4 AND 7 FOR BARRIER FREE PARKING DETAILS.

OWNER, CITY OF NOVI  
 PARCEL ID: 22-04-151-034  
 ZONING: I-1 LIGHT INDUSTRIAL

UNPLANNED

DATE: 2016-06-01  
 DRAWN BY: JG  
 CHECKED BY: SD/TC  
 CIP:  
 SCALE: 1/8" = 30' FT  
 14-308





**DESCRIPTION:**  
 UNIT 54 OF "BECK NORTH CORPORATE PARK", AS RECORDED IN LIBER 35825, PAGE 628 OF OAKLAND COUNTY RECORDS, OAKLAND COUNTY, MICHIGAN.

ALSO, DESCRIBED AS:  
 COMMENCING AT THE NORTHEAST CORNER OF HUDSON DRIVE (60 FEET WIDE) AND NADLAN DRIVE (60 FEET WIDE), "BECK NORTH CORPORATE PARK", AS RECORDED IN LIBER 35825, PAGE 628 OF OAKLAND COUNTY RECORDS, OAKLAND COUNTY, MICHIGAN, AS AMENDED; THENCE S89°52'22"E 374.92 FEET TO THE POINT OF BEGINNING; THENCE N00°07'30"E 327.45 FEET; THENCE N89°52'29"E 25.02 FEET; THENCE N00°07'30"E 34.82 FEET; THENCE S89°59'55"E 150.00 FEET; THENCE S89°59'56"E 375.32 FEET; THENCE S00°05'57"W 462.13 FEET; THENCE N89°34'14"W 353.50 FEET; THENCE 140.48 FEET ALONG A NON-TANGENT CURVE TO THE LEFT, RADIUS 76.00 FEET, CHORD BEARING N36°55'19"W 121.32 FEET; THENCE N89°52'29"E 73.92 FEET TO THE POINT OF BEGINNING, CONTAINING 5.00 ACRES OF LAND, MORE OR LESS, AND BEING SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.

**BENCHMARKS:**  
 BM #1  
 CITY BENCHMARK 4-2  
 \* NORTHEAST BOLT OF WEST SIGNAL AT RAILROAD TRACKS & WEST ROAD ELEVATION=952.86  
 SITE BM A  
 ARROW ON HYDRANT ±168 FEET NORTH OF NADLAN DR. NEAR PROPERTY LINE OF UNITS 53 & 54 ELEVATION= 958.63  
 SITE BM B  
 ARROW ON HYDRANT AT END OF NADLAN DR. ELEVATION= 957.01

- LEGEND:**
- EX. CATCH BASIN
  - EX. STORM MANHOLE
  - EX. END SECTION
  - EX. SANITARY MANHOLE
  - EX. CLEANOUT
  - EX. WATER GATE VALVE
  - EX. COMMUNICATIONS MANHOLE
  - EX. HYDRANT
  - EX. WATER VALVE
  - EX. WATER SHUTOFF
  - EX. GAS SHUTOFF
  - EX. GAS VENT
  - EX. ELECTRIC MANHOLE
  - EX. HANDHOLE
  - EX. PEDESTAL
  - EX. TRANSFORMER
  - EX. LIGHTPOLE
  - EX. UTILITY POLE
  - EX. GUY ANCHOR
  - EX. COMMUNICATION MANHOLE
  - EX. GENERIC MANHOLE
  - EX. TREE LINE
  - EX. TREE TAG
  - EX. SANITARY SEWER
  - EX. STORM SEWER
  - EX. WATER MAIN
  - EX. ELECTRIC CABLE
  - EX. COMMUNICATION
  - EX. FENCE
  - EX. SIGN
  - EX. POST/BOLLARD
  - EX. FLAGPOLE

**NOTICE:**  
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**COMMERCIAL**  
 SITE PLANNING  
 SURVEYING  
 ALTA SURVEYS  
 TOPOGRAPHIC SURVEYS  
 INDUSTRIAL & MULTI-UNIT  
 PARCEL SPLITS  
 CONSTRUCTION LAYOUT

**RESIDENTIAL**  
 SUBDIVISIONS  
 MULTI-FAMILY  
 CONSTRUCTION LAYOUT

**ALPINE ENGINEERING, INC.**  
 CIVIL ENGINEERS & LAND SURVEYORS  
 4892 WEST ROAD  
 NOV, MICHIGAN 48377  
 (248) 288-3701 (BUS)  
 (248) 288-3701 (CELL)  
 WWW.ALPINE-INC.COM

**811**  
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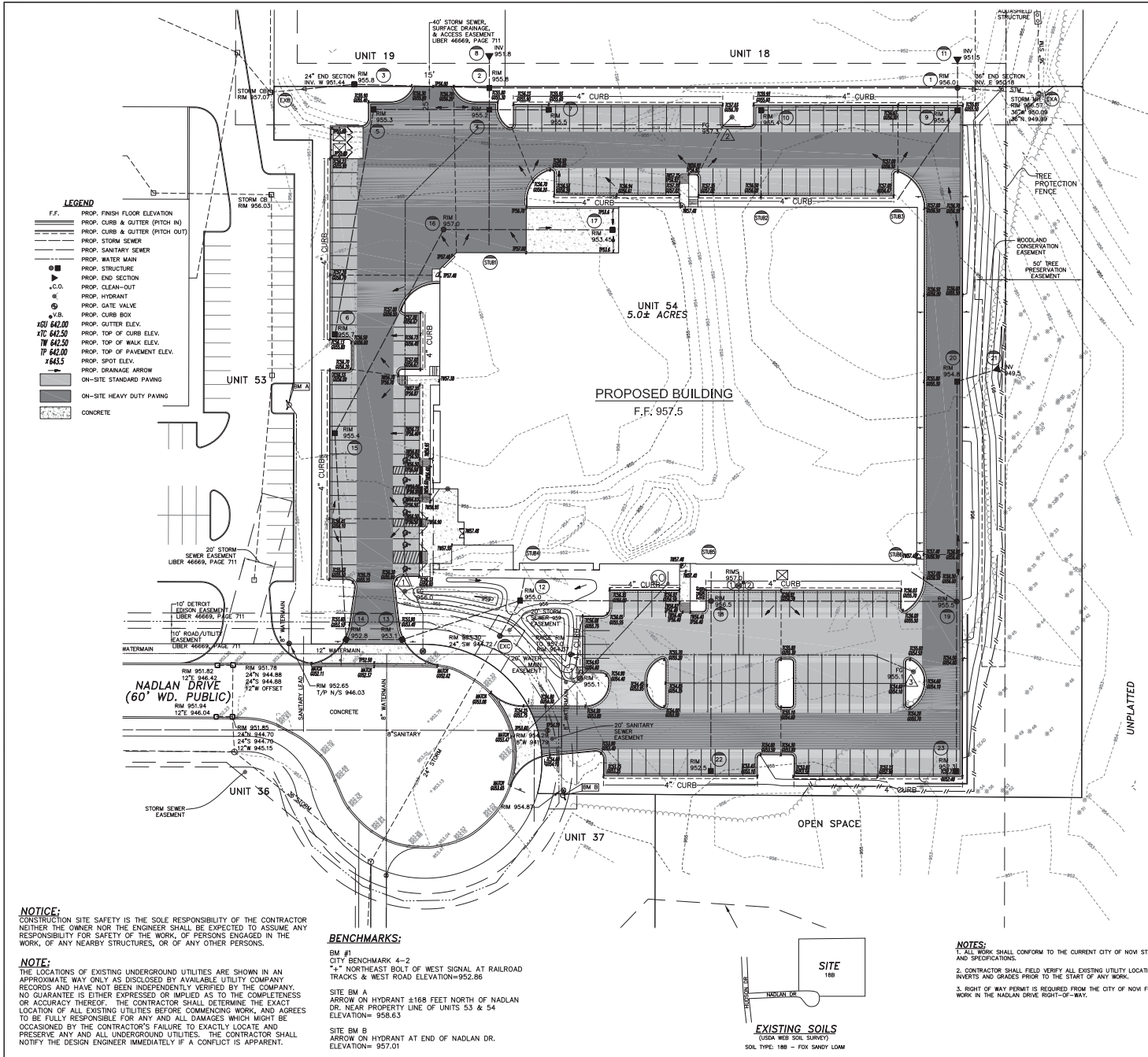
CLIENT: DEMBS DEVELOPMENT, INC.  
 PROJECT: TOPOGRAPHIC SURVEY  
 BECK NORTH CORPORATE PARK - UNIT 54  
 SECTION 4  
 TOWNSHIP 17N  
 RANGE 8E  
 COUNTY OAKLAND  
 STATE MICHIGAN

REVISED  
 2016/06/21 PRE-APP SUBMITTAL  
 2017/02/06 PSP SUBMITTAL  
 2017/08/03 REVISE PER CITY/CLIENT

DATE: 2016-06-01  
 DRAWN BY: TG  
 CHECKED BY: SD/TG

FBK:  
 CWP:

SCALE: 1" = 30' ±  
 14-306



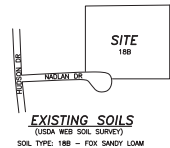
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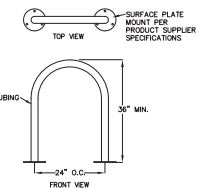
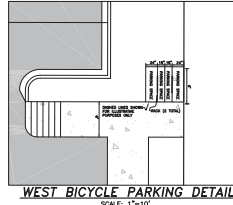
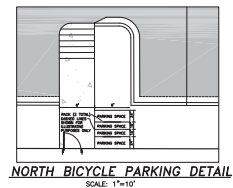
**BENCHMARKS:**  
BM #1  
CITY BENCHMARK 4-2  
\*\*+\* NORTHEAST BOLT OF WEST SIGNAL AT RAILROAD TRACKS & WEST ROAD ELEVATION=952.86

SITE BM A  
ARROW ON HYDRANT ±168 FEET NORTH OF NADLAN DR. NEAR PROPERTY LINE OF UNITS 53 & 54  
ELEVATION= 958.63

SITE BM B  
ARROW ON HYDRANT AT END OF NADLAN DR.  
ELEVATION= 957.01

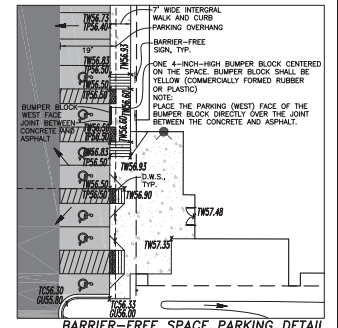


**NOTES:**  
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2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS, INVERTS AND GRADES PRIOR TO THE START OF ANY WORK.  
3. RIGHT OF WAY PERMIT IS REQUIRED FROM THE CITY OF NOV FOR ANY WORK IN THE NADLAN DRIVE RIGHT-OF-WAY.

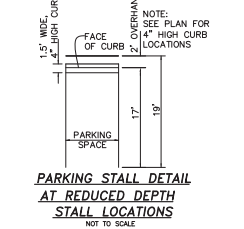


**ILLUSTRATIVE BIKE RACK DETAIL**

**BICYCLE PARKING NOTES:**  
1. ALL BICYCLE PARKING SPACES SHALL BE PAVED AND ADJACENT TO A BICYCLE RACK OF THE INVERTED "U" DESIGN. THAT IS SOLID, CANNOT BE EASILY REMOVED WITH COMMON TOOLS, PROVIDES AT LEAST TWO (2) CONTACT POINTS FOR A BICYCLE, IS AT LEAST THREE (3) FEET IN HEIGHT, AND PERMITS THE LOCKING OF A BICYCLE THROUGH THE FRAME AND ONE (1) WHEEL WITH A STANDARD U-LOCK OR CABLE IN AN UPRIGHT POSITION. THE RACK SHALL BE SECURELY ANCHORED IN CONCRETE OR ASPHALT. ALTERNATIVE INSTALLATIONS AND DESIGNS MAY BE CONSIDERED IF THE PROPOSED RACK DESIGN FUNCTIONS SIMILAR TO THE INVERTED "U" DESIGN.  
2. ALL BICYCLE PARKING FACILITIES SHALL BE ACCESSIBLE FROM ADJACENT STREETS AND PATHWAYS VIA A PAVED ROUTE THAT HAS A MINIMUM WIDTH OF SIX (6) FEET.  
3. ALL BICYCLE PARKING FACILITIES SHALL BE SEPARATED FROM AUTOMOBILE PARKING SPACES AND ACCESS ANGLES BY A RAISED CURB, LANDSCAPE AREA, SIDEWALK, OR OTHER METHOD THAT COMPLES WITH ALL CITY ORDINANCES.



**BARRIER-FREE SPACE PARKING DETAIL**



**PARKING STALL DETAIL AT REDUCED DEPTH STALL LOCATIONS**

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PARCEL SPLITS  
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CONSTRUCTION LAYOUT

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CLIENT:

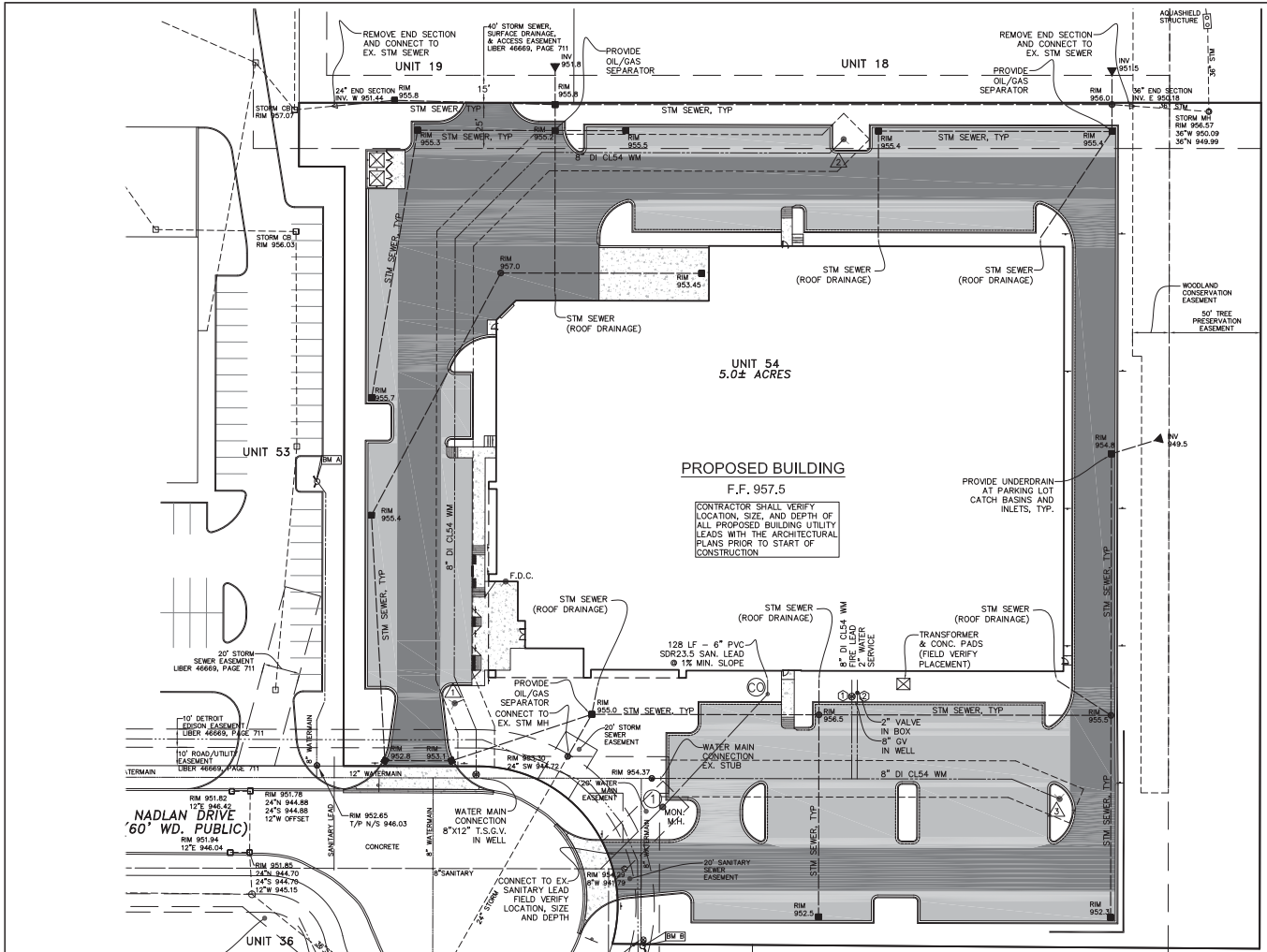
**PRELIMINARY GRADING PLAN**  
BECK NORTH CORPORATE PARK - UNIT 54  
SECTION 4  
TOWNSHIP 17 N  
RANGE 5 E  
COUNTY OF NOV  
MICHIGAN

REVISIONS:  
2016/06/21 PRE-APP SUBMITTAL  
2017/02/06 PSP SUBMITTAL  
2017/08/03 REVISION PER CITY/CLIENT

DATE: 2016-06-01  
DRAWN BY: TG  
CHECKED BY: SD/TG

FRK:  
CWF:  
SCALE: 1"=30' HORIZONTAL  
1"=10' VERTICAL

14-306



**PROPOSED BUILDING**  
F.F. 957.5

CONTRACTOR SHALL VERIFY LOCATION, SIZE, AND DEPTH OF ALL PROPOSED BUILDING UTILITY LEADS WITH THE ARCHITECTURAL PLANS PRIOR TO START OF CONSTRUCTION.

**LEGEND:**

- |   |                            |
|---|----------------------------|
| □ | EX. CATCH BASIN            |
| ○ | EX. STORM MANHOLE          |
| ○ | EX. END SECTION            |
| ○ | EX. SANITARY MANHOLE       |
| ○ | EX. CLEANOUT               |
| ○ | EX. WATER GATE VALVE       |
| ○ | EX. COMMUNICATIONS MANHOLE |
| ○ | EX. HYDRANT                |
| ○ | EX. WATER VALVE            |
| ○ | EX. WATER SHUTOFF          |
| ○ | EX. GAS SHUTOFF            |
| ○ | EX. GAS VENT               |
| ○ | EX. ELECTRIC MANHOLE       |
| ○ | EX. PEDESTAL               |
| ○ | EX. TRANSFORMER            |
| ○ | EX. COMMUNICATION MANHOLE  |
| ○ | EX. GENERIC MANHOLE        |
| ○ | EX. SANITARY SEWER         |
| ○ | EX. STORM SEWER            |
| ○ | EX. WATER MAIN             |
| ○ | EX. ELECTRIC CABLE         |
| ○ | EX. COMMUNICATION          |
| ○ | EX. SIGN                   |

**OPEN SPACE**

- |   |                                 |
|---|---------------------------------|
| — | F.F.                            |
| — | PROP. CURB & GUTTER (PITCH IN)  |
| — | PROP. CURB & GUTTER (PITCH OUT) |
| — | PROP. STORM SEWER               |
| — | PROP. SANITARY SEWER            |
| — | PROP. WATER MAIN                |
| — | PROP. STRUCTURE                 |
| — | PROP. END SECTION               |
| — | PROP. CLEAN-OUT                 |
| — | PROP. HYDRANT                   |
| — | PROP. GATE VALVE                |
| — | PROP. CURB BOX                  |
| — | ON-SITE STANDARD PAVING         |
| — | ON-SITE HEAVY DUTY PAVING       |
| — | CONCRETE                        |
| — | ACCESS EASEMENT                 |
| — | PROP. UTILITY CROSSING          |

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**BENCHMARKS:**

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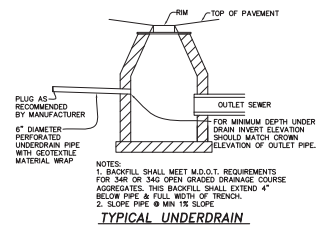
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ELEVATION= 958.63

SITE BM B  
ARROW ON HYDRANT AT END OF NADLAN DR.  
ELEVATION= 957.01

- UTILITY NOTES:**
1. ALL WORK SHALL CONFORM TO THE CURRENT CITY OF NOV STANDARDS AND SPECIFICATIONS.
  2. PROPOSED WATER MAIN SHALL HAVE AT LEAST 6 FEET OF COVER PER CITY OF NOV REQUIREMENTS.
  3. COMPACTED SAND BACKFILL SHALL BE PROVIDED FOR ALL UTILITIES WITHIN THE INFLUENCE OF PAVED AREAS.
  4. 18" MINIMUM VERTICAL CLEARANCE SHALL BE PROVIDED AT ALL UTILITY CROSSINGS. DIP WATER MAIN PER THE CITY OF NOV STANDARDS AND SPECIFICATIONS, AS NECESSARY.
  5. PROPOSED SANITARY LEAD SHALL BE BURIED WITH AT LEAST 5 FEET WHEN UNDER INFLUENCE OF PAVEMENT.
  6. 6-INCH SANITARY LEADS SHALL BE A MINIMUM PVC SDR 23.5, AND MAINS SHALL BE PVC SDR 26.
  7. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS, INVERTS AND GRADES PRIOR TO THE START OF ANY WORK.

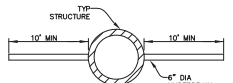
ZONED: R-2 ONE FAMILY RESIDENTIAL DISTRICT

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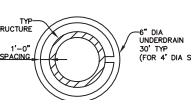


**TYPICAL UNDERDRAIN**

NOTES:  
1. BACKFILL SHALL MEET M.D.O.T. REQUIREMENTS FOR 3/4" OR 1/2" OPEN GRADED DRAINAGE COURSE AGGREGATES. THIS BACKFILL SHALL EXTEND 4" BELOW PIPE & FULL WIDTH OF TRENCH.  
2. SLOPE PIPE @ MIN 1% SLOPE



**TYPICAL UNDERDRAIN PARALLEL W/ CURB**



**TYPICAL UNDERDRAIN IN PARKING LOT**

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INDUSTRIAL & MULTI-UNIT  
CONSTRUCTION LAYOUT

**SURVEYING**  
ALTA SURVEYS  
TOPOGRAPHIC SURVEYS  
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**DEMERS DEVELOPMENT, INC.**

**PRELIMINARY UTILITY PLAN**

BECK NORTH CORPORATE PARK - UNIT 54  
SECTION 4  
CITY OF NOV  
OAKLAND COUNTY, MICHIGAN

CLIENT:

REVISED

2016/06/21 PRE-APP SUBMITTAL

2017/02/06 PSP SUBMITTAL

2017/08/03 REVISE PER CITY/CLIENT

DATE: 2016-06-01

DRAWN BY: TG

CHECKED BY: SD/TG

FRK:

SCALE: 1" = 30' ±

14-306

**5**



**DOWNSTREAM OFF-SITE TREATMENT STRUCTURE:**

**Aqua-Swirl™ Specifications**

**GENERAL**  
This specification shall govern the performance, materials and fabrication of the Stormwater Treatment System.

**SCOPE OF WORK**  
The Aqua-Swirl™ Concentrator shall be provided by AquaSwirl™, Inc., 2723 Kanawha Drive, Chattanooga, TN (423-470-8888) and shall adhere to the following material and performance specifications at the specified design flow, and storage capacities.

**MATERIALS**

- A. Stormwater Treatment System shall be made from high-density polyethylene (HDPE) resin meeting the following requirements:
  - 1) HDPE Material - The HDPE material supplied under this specification shall be high density, high molecular weight as supplied by manufacturer. The HDPE material shall conform to ASTM D3350-02 with minimum cell classification values of 3454K4.
  - 2) PHYSICAL PROPERTIES OF HDPE COMPOUND
    - a) Density - the density shall be no less than 953 g/cm<sup>3</sup> as referenced in ASTM D 1505.
    - b) Heat Deflection - the heat deflection strength shall be no greater than 0.15 g/10 minutes when tested in accordance with ASTM D 2344 - Condition 1922.16.
    - c) Flex Modulus - Flexural modulus shall be 110,000 to less than 160,000 psi as referenced in ASTM D 290.
    - d) Tensile Strength at Yield - tensile strength shall be 3,000 to less than 3,500 psi as referenced in ASTM D 438.
    - e) Slow Crack Growth Resistance shall be greater than 100 hours (PENT Test) as referenced in ASTM F 1473 or greater than 5000 hours (ESCC) as referenced in ASTM D 1983 (optional).

- C. The inlets and outlets shall be extension welded on the inside and outside of the structure using accepted welding practice.
- D. The arched baffle wall shall be constructed from HDPE and shall be extension welded to the interior of the treatment chamber using accepted welding methods with concrete made at 180 degree of each end.
- E. HDPE lifting supports may be provided on the exterior of the Stormwater Treatment System in such a way as to allow the prevention of undue stress to critical components of the Stormwater Treatment System during loading, off-loading and moving operations. The lifting supports shall be constructed as an integral part of the treatment chamber and extension welded using accepted welding practices.
- F. Top of the treatment chamber shall be built to the requirements of the drawings. Deep burial applications shall require a reinforced HDPE top.

Reinforced concrete pads spanning the treatment chamber will be required with traffic rated frames and covers when the Stormwater Treatment System is used in traffic areas. A professional engineer shall approve the design of the concrete pad and the calculations must be included in the submittal.

The manufacturer upon request can supply anti-floitation buoyancy calculations. In addition, typical drawings of the AquaSwirl™ Stormwater Treatment System with concrete anti-floitation structures can be provided. Anti-floitation structure design and approval are ultimately the responsibility of the specifying engineer. The contractor shall provide the anti-floitation structures.

**INSTALLATION**

- A. Excavation and Bedding  
The trench and trench bottom shall be constructed in accordance with ASTM D 2321, Section 6, Trench Excavation, and Section 7, Installation. The HDPE Stormwater Treatment System shall be installed on a stable base consisting of 12 inches of Class II stone materials (angular, crushed stone or rock, crushed gravel, large void content, containing little or no fines) as defined by ASTM D 2321, Section 5, Materials, and compacted to 95% proctor density.

**SUBMITTALS**

The Contractor shall be provided with dimensional drawings and, when specified, utilize these drawings as the basis for preparation of shop drawings showing details for construction and reinforcing. Shop drawings shall be annotated to indicate all materials to be used and all applicable standards for materials, required tests of materials and design assumptions for structural analysis. Shop drawings shall be prepared at a scale of not less than 1/4 inch per foot. Three (3) hard copies of said shop drawings shall be submitted to the Specifying Engineer for review and approval.

**QUALITY CONTROL INSPECTION**

- A. Materials  
The quality of materials, the process of manufacture, and the finished sections shall be subject to inspection by the Specifying Engineer. Such inspection may be made at the place of manufacture, or on the work site after delivery, or at both places. The sections shall be subject to rejection at any time if material conditions fail to meet any of the specification requirements, even though sample sections may have been accepted as satisfactory at the place of manufacture. Sections rejected after delivery to the site shall be marked for identification and shall be removed from the site at once. All sections, which are damaged beyond repair after delivery will be replaced. If already installed, they shall be repaired to the Specifying Engineer's acceptable levels, if permitted, or removed and replaced, entirely at the Contractor's expense.
- B. Inspection  
All sections shall be inspected for general appearance, dimensions, soundness, etc.
- C. Defects  
Structural defects may be repaired, subject to the acceptance of the Specifying Engineer, after demonstration by the manufacturer that strong and permanent repairs will be made. The Specifying Engineer will first acceptance of the components shall carefully inspect repairs.

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f) Hydraulic Design Basis shall be 1,000 cfs at 23 degrees C when loaded in accordance with AS174 D 2837.  
g) Color - black with minimum 2% carbon black.

**PERFORMANCE**

- A. The Stormwater Treatment System shall include a 12-inch inner diameter (ID) circular hydrodynamic flow-through treatment chamber with the incoming water. A tangential inlet shall be provided to induce a swirling flow pattern that will cause sedimentary solids to accumulate in the bottom center of the chamber in such a way as to prevent re-suspension of captured particles. An overflow outlet shall be provided in such a way as to prevent floatable liquid oils and solids from exiting the treatment chamber while enhancing the swirling action of the stormwater.
- B. The Stormwater Treatment System shall have a sediment storage capacity of \_\_\_\_\_ cubic feet and be capable of capturing \_\_\_\_\_ gallons of petroleum hydrocarbons. The Stormwater Treatment System shall have a treatment capacity of \_\_\_\_\_ cubic feet per second (CFS). The Stormwater Treatment System shall be capable of removing floating trash and debris, floatable oils and 80% of total suspended solids from stormwater entering the treatment chamber.
- C. Service access to the Stormwater Treatment System shall be provided via 30-inch inner diameter (ID) access cover(s) over the treatment chamber such that no confined space entry is required to perform routine inspection and maintenance functions.

**TREATMENT CHAMBER CONSTRUCTION**

- A. The treatment chamber shall be constructed from solid wall high-density polyethylene (HDPE) ASTM F 714 cell class 3454K4. For sizes above 63-inch OD, the treatment chamber shall be constructed from profile wall HDPE ASTM F 894 RSC 250 pipe or solid wall HDPE.
- B. The bottom thickness of the treatment chamber will be determined in accordance with ASTM F 1759. Calculations must be provided to justify the thickness of the bottom.
- C. All required safety precautions for Stormwater Treatment System installation are the responsibility of the Contractor.
- D. Backfill Requirements  
Backfill materials shall be Class II or III stone materials (well graded gravels, granular sands, containing little or no fines) as defined by ASTM D 2321, Section 5, Materials and compacted to 90% proctor density. Class I materials are acceptable. Backfill and bedding materials shall be free of debris. Backfilling shall conform to ASTM F 1759, Section 4.2, Design Assumptions. Backfill shall extend at least 1.5 feet beyond the edge of the Swirl Concentrator for the full height to sub grade and extend laterally into undisturbed soils.
- E. Pipe Couplings  
Pipe couplings to and from the Stormwater Treatment System shall be Fernox®, Mission™ or equal type flexible boot with stainless steel tension bands. A metal shear guard shall be used to protect the flexible boot.

**DIVISION OF RESPONSIBILITY**

- A. Stormwater Treatment System Manufacturer  
The Manufacturer shall be responsible for delivering the Stormwater Treatment System to the site. The system includes the treatment chamber with debris baffle, inlet and outlet stubs, the lifting supports, 30-inch ID service access cover(s) to grade with temporary cover, and manhole frame(s) and cover(s).
- B. Contractor  
The Contractor shall be responsible for preparing the site for the system installation including, but not limited to, temporary shoring, excavation, cutting and removing soil, new pipe, bedding, and compaction. The Contractor shall be responsible for furnishing the means to lift the system components by the delivery truck. The Contractor shall be responsible for providing any concrete anti-floitation/anti-creep restraints, anchors, collars, etc. with any pipe or connection device required. The Contractor shall be responsible for field cutting, if necessary, HDPE service access items to grade. The Contractor shall be responsible for sealing the pipe connections to the Stormwater Treatment System, backfilling and furnishing all labor, tools, and materials needed.

**Aqua-Swirl™ Sizing Chart (English)**

Aqua-Swirl™ Model	Unit Chamber Diameter (ft)	Maximum Step-Out Pipe Outer Diameter (in)	Water Quality Treatment Flow (MGD)	Oil/Debris Storage Capacity (gal)	Sediment Capacity (cu ft)
AS-2	2.50	8	1.1	37	10
AS-3	3.25	10	1.6	110	20
AS-4	4.25	12	1.8	332	32
AS-5	5.00	12	2.4	442	45
AS-6	6.00	14	3.0	632	65
AS-7	7.00	16	3.6	840	90
AS-8	8.00	18	4.2	1120	115
AS-9	9.00	20	4.8	1420	145
AS-10	10.0	22	5.4	1750	180
AS-12	12.0	24	6.8	2530	270
AS-XXX	Custom	---	> 26	---	---

1) The Aqua-Swirl™ Concentrator provides full treatment of the "first flush" which the peak design storm is directed and channelled through the main conveyance pipe. Please refer to your local municipality for more information.

2) Flow regulator approval are establishing "water quality treatment flow rate" for their area based on the initial treatment of pollutants into the storm drainage system. The treatment flow rate of the Aqua-Swirl™ system is engineered to meet or exceed the local water quality treatment criteria. The "water quality treatment flow rate" locally represents approximately 80% at 80% of the total runoff coefficient.

The design and construction of the Aqua-Swirl™ generally entails some degree of customization. For assistance in design and specific pricing using historical data, please refer to an AquaSwirl™ representative or visit our website at [www.AquaSwirl.com](http://www.AquaSwirl.com). CAD details and specifications are available upon request.

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**BASIN E UPPER RUNNING TOTAL RUNOFF COEFFICIENT CALCULATION**

LAND USE	AREA (A) (acres)	RUNOFF COEFFICIENT (C)
Pavement/Street/Building	11.68	0.90
Grass	10.29	0.20
<b>TOTAL AREA</b>	<b>21.97</b>	

CHALUTE THE WEIGHTED RUNOFF COEFFICIENT:  

$$C = \frac{C_1(A_1 + C_2A_2) + (10.29 \times 0.20)}{21.97}$$

$$C = 0.57$$

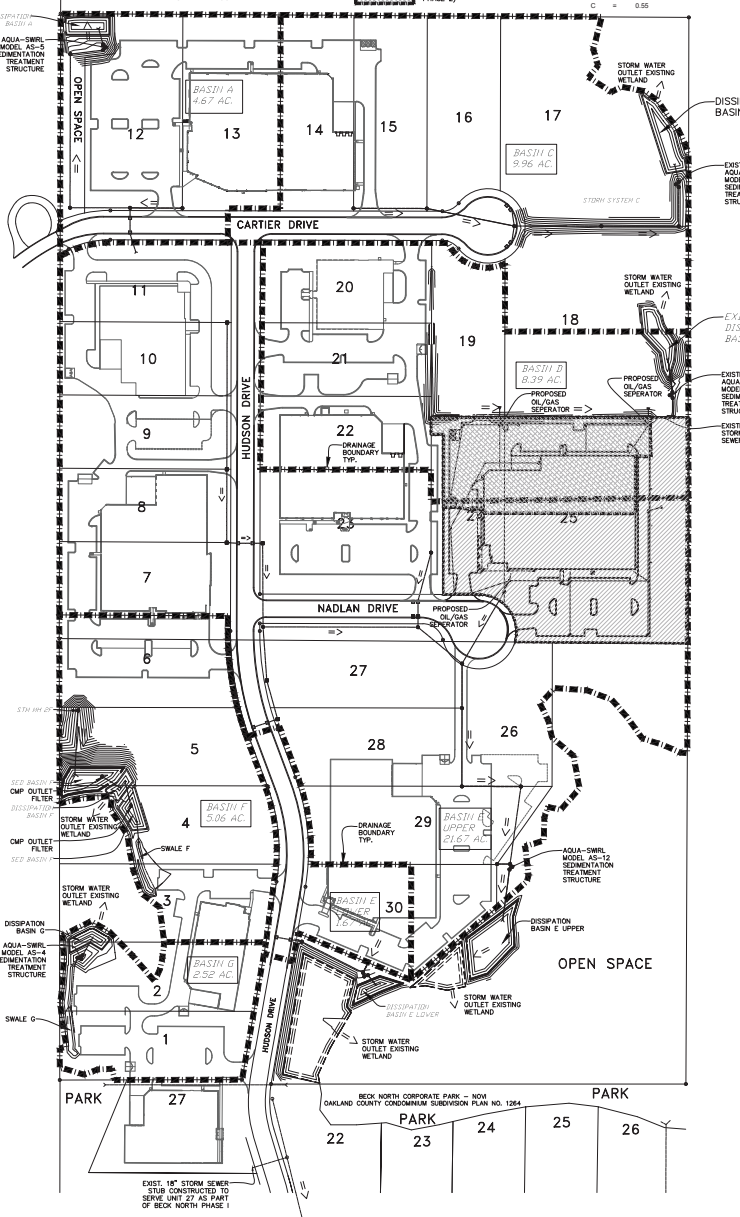
**BASIN D RUNNING TOTAL RUNOFF COEFFICIENT CALCULATION**

LAND USE	AREA (A) (acres)	RUNOFF COEFFICIENT (C)
Pavement/Street/Building	4.14	0.90
Grass	4.15	0.20
<b>TOTAL AREA</b>	<b>8.29</b>	

CHALUTE THE WEIGHTED RUNOFF COEFFICIENT:  

$$C = \frac{C_1(A_1 + C_2A_2) + (4.15 \times 0.20)}{8.29}$$

$$C = 0.55$$



**STORM WATER DRAINAGE NARRATIVE:**

PROPOSED NORTHERLY ON-SITE STORM WATER WILL PASS THROUGH A PROPOSED ON-SITE OIL/GAS SEPARATOR PRIOR TO OUTFLOW INTO AN EXISTING 36" DIAMETER STORM SEWER. THE STORM WATER WILL THEN PASS THROUGH AN EXISTING SEDIMENTATION TREATMENT STRUCTURE AND THEN INTO AN EXISTING DISSIPATION BASIN. THE DISSIPATION BASIN OUTFLOWS INTO ADJACENT EXISTING WETLANDS. THE PROPOSED STORM WATER OUTFLOWS INTO AN APPROVED SYSTEM AS DESIGNED BY OTHERS.

THE PROPOSED ULTIMATE 10-YR FLOW TO THE EXISTING 36" DIAMETER STORM SEWER IS: Q = 24.2 CFS (FROM UNIT 54 STORM CALC'S)

A 36" DIAMETER STORM SEWER @0.02X HAS A CAPACITY OF 29.8 CFS.

PROPOSED SOUTHERLY ON-SITE STORM WATER WILL PASS THROUGH A PROPOSED ON-SITE OIL/GAS SEPARATOR PRIOR TO OUTFLOW INTO AN EXISTING 24" DIAMETER STORM SEWER. THE STORM WATER WILL THEN PASS THROUGH AN EXISTING SEDIMENTATION TREATMENT STRUCTURE AND THEN INTO AN EXISTING DISSIPATION BASIN. THE DISSIPATION BASIN OUTFLOWS INTO ADJACENT EXISTING WETLANDS. THE PROPOSED STORM WATER OUTFLOWS INTO AN APPROVED SYSTEM AS DESIGNED BY OTHERS.

THE PROPOSED 10-YR FLOW TO THE EXISTING 24" DIAMETER STORM SEWER IS: Q = 24.2 CFS (FROM UNIT 54 STORM CALC'S)

AN 24" DIAMETER STORM SEWER @0.02X HAS A CAPACITY OF 7.8 CFS.

UNIT 54-100 YEAR STORM DETENTION DESIGN (OKLAHOMA COUNTY DESIGN METHOD)

LAND USE	AREA (A) (acres)	RUNOFF COEFFICIENT (C)
Pavement/Street/Building	2.44	0.90
Grass	1.56	0.20
<b>TOTAL AREA</b>	<b>4.00</b>	

CHALUTE THE WEIGHTED RUNOFF COEFFICIENT:  

$$C = \frac{C_1(A_1 + C_2A_2) + (1.56 \times 0.20)}{4.00}$$

$$C = 0.58$$

Calculation of Required Discharge/Acre  

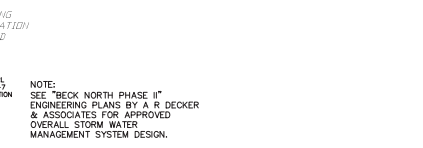
$$Q = (Q_0)(A)(C) = 0.22 \text{ cfs/acre Imperv.}$$

$$Q = 25 + (0.0325 \times 50) / 0.5 = 191.51 \text{ min.}$$

Storage Volume Required  

$$V = (16500)(T)(1+2S) = 4000(T) = 12,000.49$$

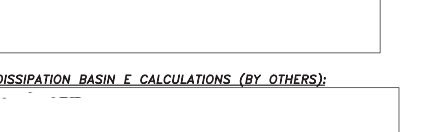
$$V = (V)(A)(C) = 43,892 \text{ cu ft}$$



**DISSIPATION BASIN D CALCULATIONS (BY OTHERS):**



**DISSIPATION BASIN E CALCULATIONS (BY OTHERS):**



COMMERCIAL SITE PLANNING  
INDUSTRIAL & MULTI-UNIT HOUSING PROJECTS  
SURVEYING  
ALTA SERVICES  
BIOLOGICAL SERVICES  
MULTI-FAMILY PARCEL SURVEY  
CONSTRUCTION LAYOUT

RESIDENTIAL SUBDIVISIONS  
MULTI-FAMILY CONSTRUCTION LAYOUT



Know what's Below  
Call before you dig.

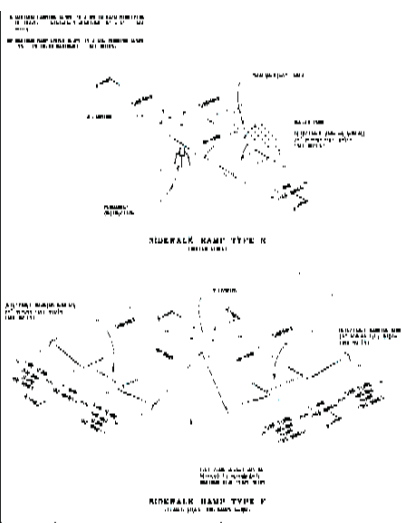
DEMOS DEVELOPMENT, INC.  
PRELIMINARY OVERALL STORM WATER MANAGEMENT PLAN  
SECTION 4  
BECK NORTH CORPORATE PARK - UNIT 54  
TOWNSHIP 14N  
RANGE 3E  
SECTION 4  
CITY OF ANTON  
OKLAHOMA  
MICHIGAN

CLIENT: DEMOS DEVELOPMENT, INC.  
REVISED  
2016/06/21 PRE-APP SUBMITTAL  
2017/02/06 P&P SUBMITTAL  
2017/08/03 REUSE PER CITY/CLIENT

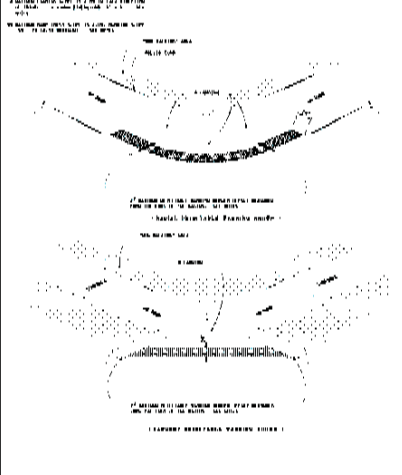
DATE: 2016-06-01  
DRAWN BY: TG  
CHECKED BY: SD/TG

SCALE: 1"=100'  
14-306

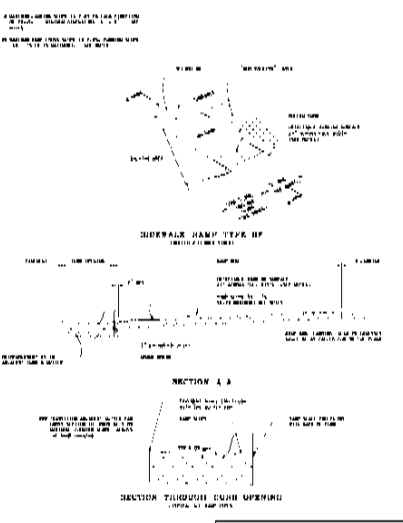
THIS SHEET NOT TO BE USED FOR CONSTRUCTION



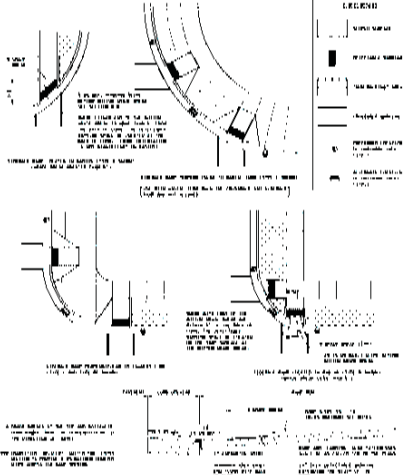
MICHIGAN DEPARTMENT OF TRANSPORTATION		SECTION: R 20 J	
DATE: 11/17/17	SCALE: 1/4" = 1'-0"	PROJECT: BECK NORTH CORPORATE PARK - UNIT 54	DATE: 11/17/17
DESIGNER: ALPINE ENGINEERING, INC.	DATE: 11/17/17	CLIENT: DEMBS DEVELOPMENT, INC.	SCALE: 1/4" = 1'-0"



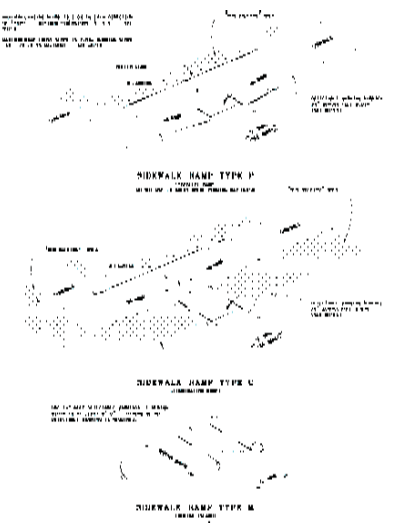
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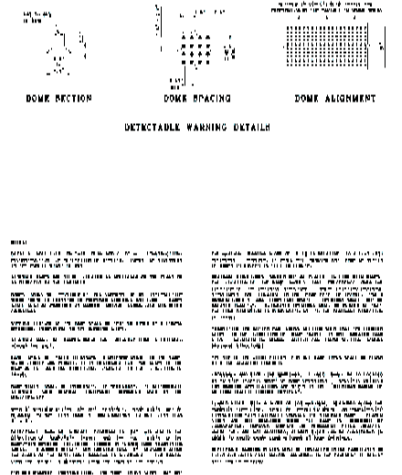
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DATE: 11/17/17	SCALE: 1/4" = 1'-0"	PROJECT: BECK NORTH CORPORATE PARK - UNIT 54	DATE: 11/17/17
DESIGNER: ALPINE ENGINEERING, INC.	DATE: 11/17/17	CLIENT: DEMBS DEVELOPMENT, INC.	SCALE: 1/4" = 1'-0"



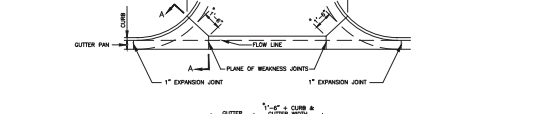
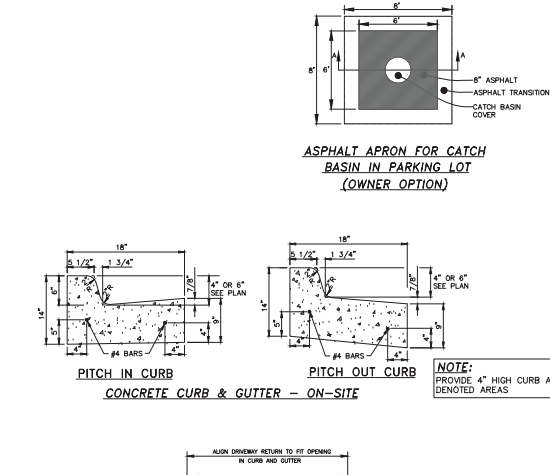
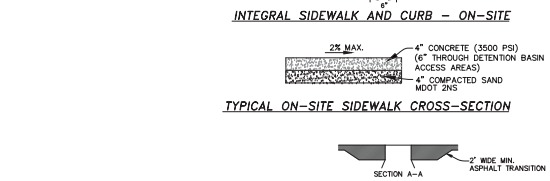
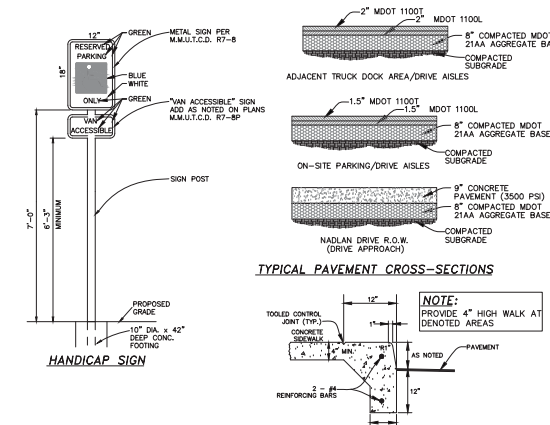
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DESIGNER: ALPINE ENGINEERING, INC.	DATE: 11/17/17	CLIENT: DEMBS DEVELOPMENT, INC.	SCALE: 1/4" = 1'-0"



MICHIGAN DEPARTMENT OF TRANSPORTATION		SECTION: R 20 J	
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MICHIGAN DEPARTMENT OF TRANSPORTATION		SECTION: R 20 J	
DATE: 11/17/17	SCALE: 1/4" = 1'-0"	PROJECT: BECK NORTH CORPORATE PARK - UNIT 54	DATE: 11/17/17
DESIGNER: ALPINE ENGINEERING, INC.	DATE: 11/17/17	CLIENT: DEMBS DEVELOPMENT, INC.	SCALE: 1/4" = 1'-0"



COMMERCIAL SURVEYING SITE ENGINEERING TOPOGRAPHIC SURVEYS INDUSTRIAL SURVEYS UNIT CONSTRUCTION LAYOUT

RESIDENTIAL SURVEYING SITE ENGINEERING TOPOGRAPHIC SURVEYS INDUSTRIAL SURVEYS UNIT CONSTRUCTION LAYOUT

ALPINE ENGINEERING, INC.  
ONE THUMBUP & SAND SERVICES

4689 WEST ROAD  
SUITE 109  
HOWLAND, MICHIGAN 48877

(517) 255-7975 (BUS)  
(517) 255-7975 (CELL)  
(248) 925-2765 (FAX)  
WWW.ALPINE-INC.NET

811  
Know what's below  
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CLIENT: DEMBS DEVELOPMENT, INC.

REVISED

2016/06/21 PRE-APP SUBMITTAL

2017/02/06 PSP SUBMITTAL

2017/08/03 REVISE PER CITY/CLIENT

DATE: 2016-06-01

DRAWN BY: TC

CHECKED BY: SD/TC

SCALE: 1/4" = 1'-0"

14-306

BECK NORTH CORPORATE PARK - UNIT 54  
SECTION: 4  
TOWNSHIP: HOWLAND COUNTY  
MICHIGAN

DETAIL SHEET

7





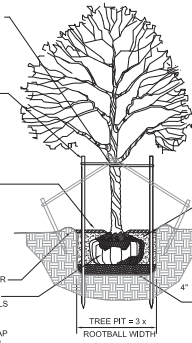
NOTE:  
GUY DECIDUOUS TREES ABOVE 3' CAL. STAKE DECIDUOUS TREES BELOW 3' CAL.

STAKE TREES AT FIRST BRANCH USING 2" X 3" WIDE BELT-LIKE NYLON OR PLASTIC STRAPS. ALLOW FOR SOME MINIMAL FLEXING OF THE TREE. REMOVE AFTER ONE YEAR.

2" X 2" HARDWOOD STAKES, MIN. 36" ABOVE GROUND FOR UPRIGHT, 18" IF ANGLED. DRIVE STAKES A MIN. 18" INTO UNDISTURBED GROUND OUTSIDE ROOTBALL. REMOVE AFTER ONE YEAR.

MULCH 4" DEPTH WITH SHREDDED HARDWOOD BARK, NATURAL IN COLOR. LEAVE 3" CIRCLE OF BARE SOIL AT BASE OF TREE TRUNK. PULL ANY ROOT BALL DIRT EXTENDING ABOVE THE ROOT FLARE AWAY FROM THE TRUNK SO THE ROOT FLARE IS EXPOSED TO AIR.

REMOVE ALL NON-Biodegradable MATERIALS COMPLETELY FROM THE ROOTBALL. CUT DOWN WIRE BASKET AND FOLD DOWN BURLAP FROM TOP 1/2 OF THE ROOTBALL.



NOTE:  
TREE SHALL BEAR SAME RELATION TO FINISH GRADE AS IT BORE ORIGINALLY OR SLIGHTLY HIGHER THAN FINISH GRADE UP TO 6" ABOVE GRADE. IF DIRECTED BY LANDSCAPE ARCHITECT FOR HEAVY CLAY SOIL AREAS.

DO NOT PRUNE TERMINAL LEADER. PRUNE ONLY DEAD OR BROKEN BRANCHES.

REMOVE ALL TAGS, STRING, PLASTICS AND OTHER MATERIALS THAT ARE UNSIGHTLY OR COULD CAUSE GIRDLING.

PLANTING MIXTURE: AMEND SOILS PER SITE CONDITIONS AND REQUIREMENTS OF THE PLANT MATERIAL.

SCARIFY SUBGRADE AND PLANTING PIT SIDES. RECOMPACT BASE OF TO 4" DEPTH.

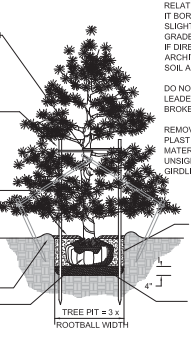
NOTE:  
GUY EVERGREEN TREES ABOVE 12' HEIGHT, STAKE EVERGREEN TREES BELOW 12' HEIGHT.

STAKE TREES AT FIRST BRANCH USING 2" X 3" WIDE BELT-LIKE NYLON OR PLASTIC STRAPS. ALLOW FOR SOME MINIMAL FLEXING OF THE TREE. REMOVE AFTER ONE YEAR.

2" X 2" HARDWOOD STAKES, MIN. 36" ABOVE GROUND FOR UPRIGHT, 18" IF ANGLED. DRIVE STAKES A MIN. 18" INTO UNDISTURBED GROUND OUTSIDE ROOTBALL. REMOVE AFTER ONE YEAR.

MULCH 4" DEPTH WITH SHREDDED HARDWOOD BARK, NATURAL IN COLOR. LEAVE 3" CIRCLE OF BARE SOIL AT BASE OF TREE TRUNK. PULL ANY ROOT BALL DIRT EXTENDING ABOVE THE ROOT FLARE AWAY FROM THE TRUNK SO THE ROOT FLARE IS EXPOSED TO AIR.

REMOVE ALL NON-Biodegradable MATERIALS COMPLETELY FROM THE ROOTBALL. CUT DOWN WIRE BASKET AND FOLD DOWN BURLAP FROM TOP 1/2 OF THE ROOTBALL.



NOTE:  
TREE SHALL BEAR SAME RELATION TO FINISH GRADE AS IT BORE ORIGINALLY OR SLIGHTLY HIGHER THAN FINISH GRADE UP TO 6" ABOVE GRADE. IF DIRECTED BY LANDSCAPE ARCHITECT FOR HEAVY CLAY SOIL AREAS.

DO NOT PRUNE TERMINAL LEADER. PRUNE ONLY DEAD OR BROKEN BRANCHES.

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SCARIFY SUBGRADE AND PLANTING PIT SIDES. RECOMPACT BASE OF TO 4" DEPTH.

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PRUNE ONLY DEAD OR BROKEN BRANCHES.

REMOVE ALL TAGS, STRING, PLASTICS AND OTHER MATERIALS THAT ARE UNSIGHTLY OR COULD CAUSE GIRDLING.

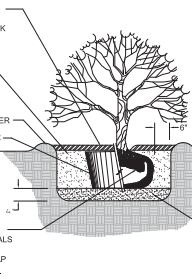
PLANTING MIXTURE: AMEND SOILS PER SITE CONDITIONS AND REQUIREMENTS OF THE PLANT MATERIAL. MOUND EARTH TO FORM SAUCER.

REMOVE COLLAR OF ALL FIBER POTS. POTS SHALL BE CUT TO PROVIDE FOR ROOT GROWTH. REMOVE ALL NONORGANIC CONTAINERS COMPLETELY.

MULCH 3" DEPTH WITH SHREDDED HARDWOOD BARK, NATURAL IN COLOR. PULL BACK 3" FROM TRUNK.

REMOVE COLLAR OF ALL FIBER POTS. POTS SHALL BE CUT TO PROVIDE FOR ROOT GROWTH. REMOVE ALL NONORGANIC CONTAINERS COMPLETELY.

REMOVE ALL NON-Biodegradable MATERIALS COMPLETELY FROM THE ROOTBALL. FOLD DOWN BURLAP FROM TOP 1/2 OF THE ROOTBALL.



SCARIFY SUBGRADE AND PLANTING PIT SIDES. RECOMPACT BASE OF TO 4" DEPTH.

Seal:



Title:  
Landscape Details

Project:

Proposed Building  
Novi, Michigan

Prepared for:

Alpine Engineering  
46892 West Road  
Novi, Michigan 48377  
248.926.3701

Revision:	Issued:
Submission	June 21, 2016
Revised	February 6, 2017
Revised	July 31, 2017
Revised	August 1, 2017
Revised	August 3, 2017

Job Number:

16-040

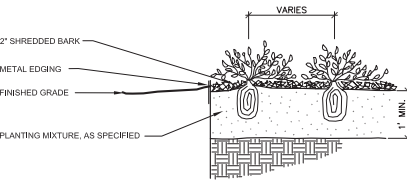
Drawn By: Checked By:

jca

jca

Sheet No.

## DECIDUOUS TREE PLANTING DETAIL



## PERENNIAL PLANTING DETAIL

Not to scale



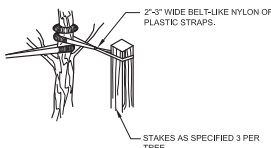
STAKING/GUYING LOCATION

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

DOWNHILL SLOPE OR PREVAILING WIND



GUYING DETAIL

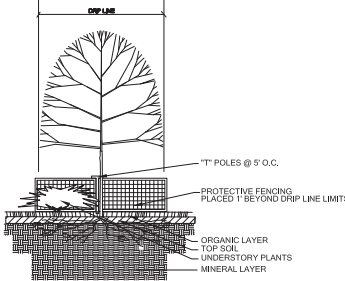


STAKING DETAIL

## TREE STAKING DETAIL

Not to scale

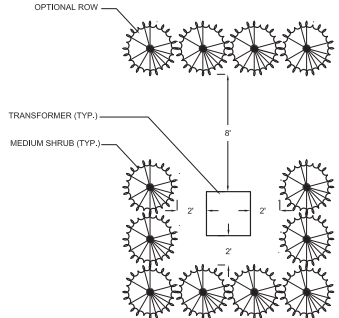
## EVERGREEN TREE PLANTING DETAIL



1. Shrub Plants or Wood Change Grows Trees May Be Installed at or Beyond the Outer Limits
2. Use of 2" x 2" Hardwood Stakes
3. Stakes Shall Be Installed at or Beyond the Outer Limits of Those Trees to be Staked
4. Stakes Shall Be Installed at or Beyond the Outer Limits of Those Trees to be Staked
5. Stakes Shall Be Installed at or Beyond the Outer Limits of Those Trees to be Staked
6. Stakes Shall Be Installed at or Beyond the Outer Limits of Those Trees to be Staked
7. Stakes Shall Be Installed at or Beyond the Outer Limits of Those Trees to be Staked

## TREE PROTECTION DETAIL

Not to scale



## TRANSFORMER SCREENING DETAIL

Not to scale

## SHRUB PLANTING DETAIL

NOT TO SCALE

## LANDSCAPE NOTES

1. All plants shall be north Midwest American region grow. No. 1 grade plant materials, and shall be true to name, free from physical damage and wind burn.
2. Plants shall be full, well-branched, and in healthy vigorous growing condition.
3. Plants shall be watered before and after planting its complete.
4. All trees must be staked, fertilized and mulched and shall be guaranteed to exhibit a normal growth cycle for at least two (2) full years following City approval.
5. All material shall conform to the guidelines established in the most recent edition of the American Standard for Nursery Stock.
6. Provide clean backfill soil, using material stockpiled on site. Soil shall be screened and free of any debris, foreign material, and stones.
7. "Agiform" tabs or similar slow-release fertilizer shall be added to the planting pits before being backfilled.
8. Amended planting pits shall consist of 1/3 screened topsoil, 1/3 sand and 1/3 peat, mixed well and spread to the depth as indicated in planting details.
9. All plantings shall be mulched per planting details located on this sheet.
10. The Landscape Contractor shall be responsible for all work shown on the landscape drawings and specifications.
11. No substitutions or changes of location, or plant types shall be made without the approval of the Landscape Architect.
12. The City of Novi Landscape Architect shall be notified in writing of any discrepancies between the plans and field conditions prior to installation.
13. The Landscape Contractor shall be responsible for maintaining all plant material in a vertical condition throughout the guaranteed period.
14. The Landscape Architect shall have the right, at any stage of the installation, to reject any work or material that does not meet the requirements of the plans and specifications, if requested by owner.
15. Contractor shall be responsible for checking plant quantities to ensure quantities on drawings and plant list are the same. In the event of a discrepancy, the quantities on the plans shall prevail.
16. The Landscape Contractor shall seed and mulch or sod (as indicated on plans) all areas disturbed during construction, throughout the contract term.
17. A pre-emergent weed control agent, "Preen" or equal, shall be applied uniformly on top of all mulching in all planting beds.
18. All landscape areas shall be provided with an underground automatic sprinkler system.
19. Sod shall be two year old "Baron/Cherubolph" Kentucky Blue Grass grown in a sod nursery on loam soil.

## CITY OF NOVI NOTES

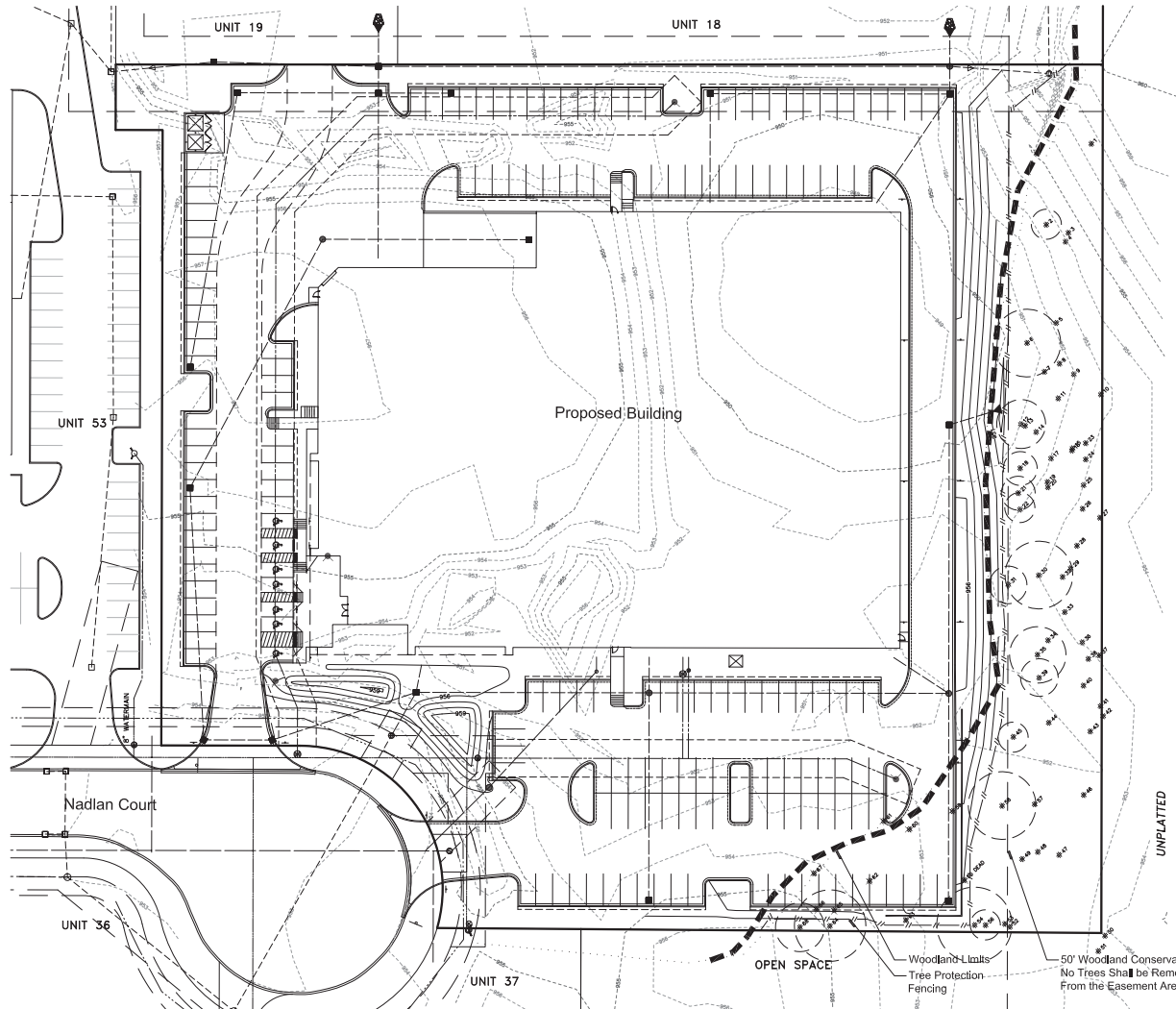
1. All landscape islands shall be backfilled with a sand mixture to facilitate drainage.
2. All proposed landscape islands shall be curbed.
3. All landscape areas shall be irrigated.
4. Overhead utility lines and poles to be relocated as directed by utility company of record.
5. Evergreen and canopy trees shall be planted a minimum of 10' from a hydrant, and manhole, 15' from overhead wires.
6. All plant material shall be guaranteed for two (2) years after City Approval and shall be installed and maintained according to City of Novi standards. Replace Falling Material as soon as possible. One callation per month shall occur in July-August.
7. All proposed street trees shall be planted a minimum of 4' from both the back of curb and proposed walks.
8. All tree and shrub planting beds shall be mulched with shredded hardwood bark, spread to minimum depth of 4". All lawn area trees shall have a 4" diameter circle of shredded hardwood mulch 3' away from trunk. All perennial, annual and ground cover beds shall receive 2" of dark colored bark mulch as indicated on the plan file. Mulch is to be free from debris and foreign material, and shall contain no pieces of inconsistent size.
9. All Substitutions or Deviations from the Landscape Plan Must be Approved in Writing by the City of Novi Prior to their installation.

NOTES:  
THE APPROXIMATE DATE OF INSTALLATION FOR THE PROPOSED LANDSCAPE WILL BE BETWEEN MARCH/NOVEMBER 2017.  
THE SITE WILL BE MAINTAINED BY THE DEVELOPER IN ACCORDANCE WITH THE STANDARDS SET FORTH IN THE CITY OF NOVI ZONING ORDINANCE. THIS INCLUDES WEEDING AND WATERING AS REQUIRED BY NORMAL MAINTENANCE PRACTICES.  
DEVELOPER SHALL BE RESPONSIBLE FOR REPLACING ANY TREES WITHIN UTILITY EASEMENTS THAT ARE DAMAGED THROUGH NORMAL MAINTENANCE OR REPAIRS.  
PLANT MATERIALS SHALL BE GUARANTEED FOR 2 YEARS AND SHALL BE MAINTAINED IN ACCORDANCE WITH CITY ORDINANCES. WARRANTY PERIOD BEGINS AT THE TIME OF CITY APPROVAL. WATERING AS NECESSARY SHALL OCCUR DURING THE WARRANTY PERIOD.



Sheet No.

L-2



**Tree List**

TAG NO.	DIAMETER	COMMON NAME	BOTANICAL NAME	CONDITION	REMARKS	REQUIRED REPLACEMENT
1	16	Black Walnut	Juglans nigra	Good	Save	
2	8	American Elm	Ulmus americana	Good	Save	
3	9	Pin Oak	Quercus palustris	Good	Save	
4	9.9	Silver Maple	Acer saccharinum	Good	Save	
5	15	Pin Oak	Quercus palustris	Good	Save	
6	15,18	Pin Oak	Quercus palustris	Good	Save	
7	9	Bigtooth Aspen	Populus grandidentata	Good	Save	
8	9	Bigtooth Aspen	Populus grandidentata	Good	Save	
9	9	Bigtooth Aspen	Populus grandidentata	Good	Save	
10	9	Bigtooth Aspen	Populus grandidentata	Good	Save	
11	11	Bigtooth Aspen	Populus grandidentata	Good	Save	
12	13	Pin Oak	Quercus palustris	Good	Save/CRZ	2
13	9	Bigtooth Aspen	Populus grandidentata	Good	Save	
14	9	Bigtooth Aspen	Populus grandidentata	Good	Save	
15	9	Bigtooth Aspen	Populus grandidentata	Good	Save	
16	9	Bigtooth Aspen	Populus grandidentata	Good	Save	
17	7	Bigtooth Aspen	Populus grandidentata	Good	Save	
18	9	Bigtooth Aspen	Populus grandidentata	Good	Save	
19	9	Bigtooth Aspen	Populus grandidentata	Good	Save	
20	10	Bigtooth Aspen	Populus grandidentata	Good	Save	
21	9	Bigtooth Aspen	Populus grandidentata	Good	Save	
22	6.8	Silver Maple	Acer saccharinum	Good	Save	
23	9	Bigtooth Aspen	Populus grandidentata	Good	Save	
24	9	Bigtooth Aspen	Populus grandidentata	Good	Save	
25	10	Bigtooth Aspen	Populus grandidentata	Good	Save	
26		Dead			Save	
27	10	Black Walnut	Juglans nigra	Good	Save	
28	9	Bigtooth Aspen	Populus grandidentata	Good	Save	
29	8	Black Cherry	Prunus serotina	Good	Save	
30	18	Red Oak	Quercus rubra	Good	Save	
31	10	Bigtooth Aspen	Populus grandidentata	Good	Save/CRZ	1
32	9	Bigtooth Aspen	Populus grandidentata	Good	Save	
33	8	Bigtooth Aspen	Populus grandidentata	Good	Save	
34	8	Bigtooth Aspen	Populus grandidentata	Good	Save	
35	15	Black Cherry	Prunus serotina	Good	Save	
36	9	Bigtooth Aspen	Populus grandidentata	Good	Save	
37	9	Bigtooth Aspen	Populus grandidentata	Good	Save	
38	10	Bigtooth Aspen	Populus grandidentata	Good	Save	
39	10	Black Walnut	Juglans nigra	Good	Save	
40	11	Bigtooth Aspen	Populus grandidentata	Good	Save	
41	9	Bigtooth Aspen	Populus grandidentata	Good	Save	
42	8	Bigtooth Aspen	Populus grandidentata	Good	Save	
43	14	Black Walnut	Juglans nigra	Good	Save	
44	8	American Elm	Ulmus americana	Good	Save	
45	8	Bigtooth Aspen	Populus grandidentata	Good	Save	
46	9	Black Walnut	Juglans nigra	Good	Save	
47	12	Pin Oak	Quercus palustris	Good	Save	
48	15	Pin Oak	Quercus palustris	Good	Save	
49	10	Pin Oak	Quercus palustris	Good	Save	
50	20	Bitternut Hickory	Carya cordiformis	Good	Save	
51	17	Red Maple	Acer rubrum	Good	Save	
52	16	Red Oak	Quercus rubra	Good	Save	
53	19	Red Oak	Quercus rubra	Good	Save	
54	20	Red Oak	Quercus rubra	Good	Save/CRZ	2
55		Dead			Remove	0
56	8	American hornbeam	Carpinus caroliniana	Good	Save	
57	9	Black Walnut	Juglans nigra	Good	Save	
58	18	Black Walnut	Juglans nigra	Good	Save/CRZ	2
59	9	Black Walnut	Juglans nigra	Good	Remove	1
60	17	Black Walnut	Juglans nigra	Good	Remove	2
61	8	Black Walnut	Juglans nigra	Good	Remove	1
62	8	Pin Oak	Quercus palustris	Good	Remove	1
63	12	Red Oak	Quercus rubra	Good	Save	
64	19	Red Oak	Quercus rubra	Good	Save/CRZ	2
65	13	Red Oak	Quercus rubra	Good	Remove	2
66	12	Red Oak	Quercus rubra	Good	Remove	2
67	16	Pin Oak	Quercus palustris	Good	Remove	2
68	13	Black Cherry	Prunus serotina	Good	Save/CRZ	2
<b>Required Replacement</b>						<b>22</b>

**Woodland Summary**

Total Trees	68 Trees
Less Non-Regulated Trees:	
Dead Trees	2 Trees
Net Regulated Trees	66 Regulated Trees
Regulated Trees Removed	15 Trees (Including CRZ Impact)
Regulated Trees Preserved	53 Trees (80%)
Replacement Required	
Trees 8" - 11"	4 Trees
Trees 11" - 20"	9 trees x 2= 18 Trees
Trees 20" - 30"	0 trees x 3= 0 Trees
Trees 30"+	0 Trees
Multi-Stemmed Trees	0 Trees
Replacement Required	22 Trees

Key  
 Removed Tree

Seal:



Title:

**Woodland Plan**

Project:

**Proposed Building  
 Novi, Michigan**

Prepared for:

Alpine Engineering  
 46892 West Road  
 Novi, Michigan 48337  
 248.926.3701

Revision:

Issued:

Submission	June 21, 2016
Revised	February 6, 2017
Revised	July 31, 2017
Revised	August 1, 2017
Revised	August 3, 2017

Job Number:

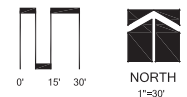
16-040

Drawn By:

Checked By:

jca

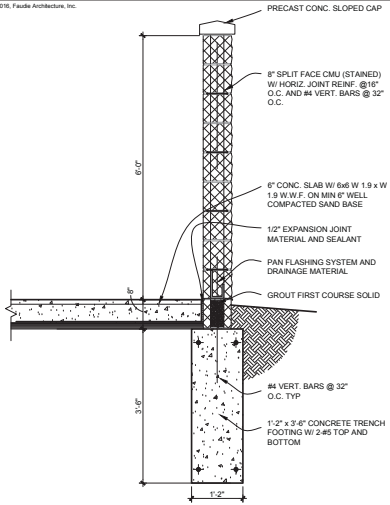
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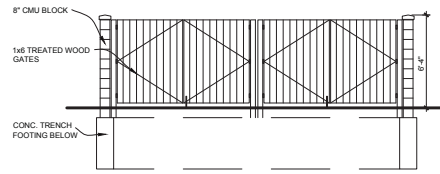






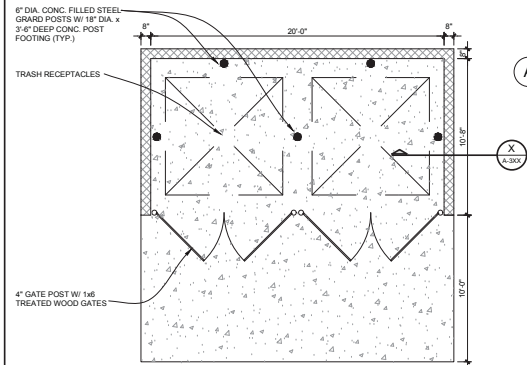
**DUMPSTER ENCLOSURE SECTION**  
SCALE: 3/4" = 1'-0"

4



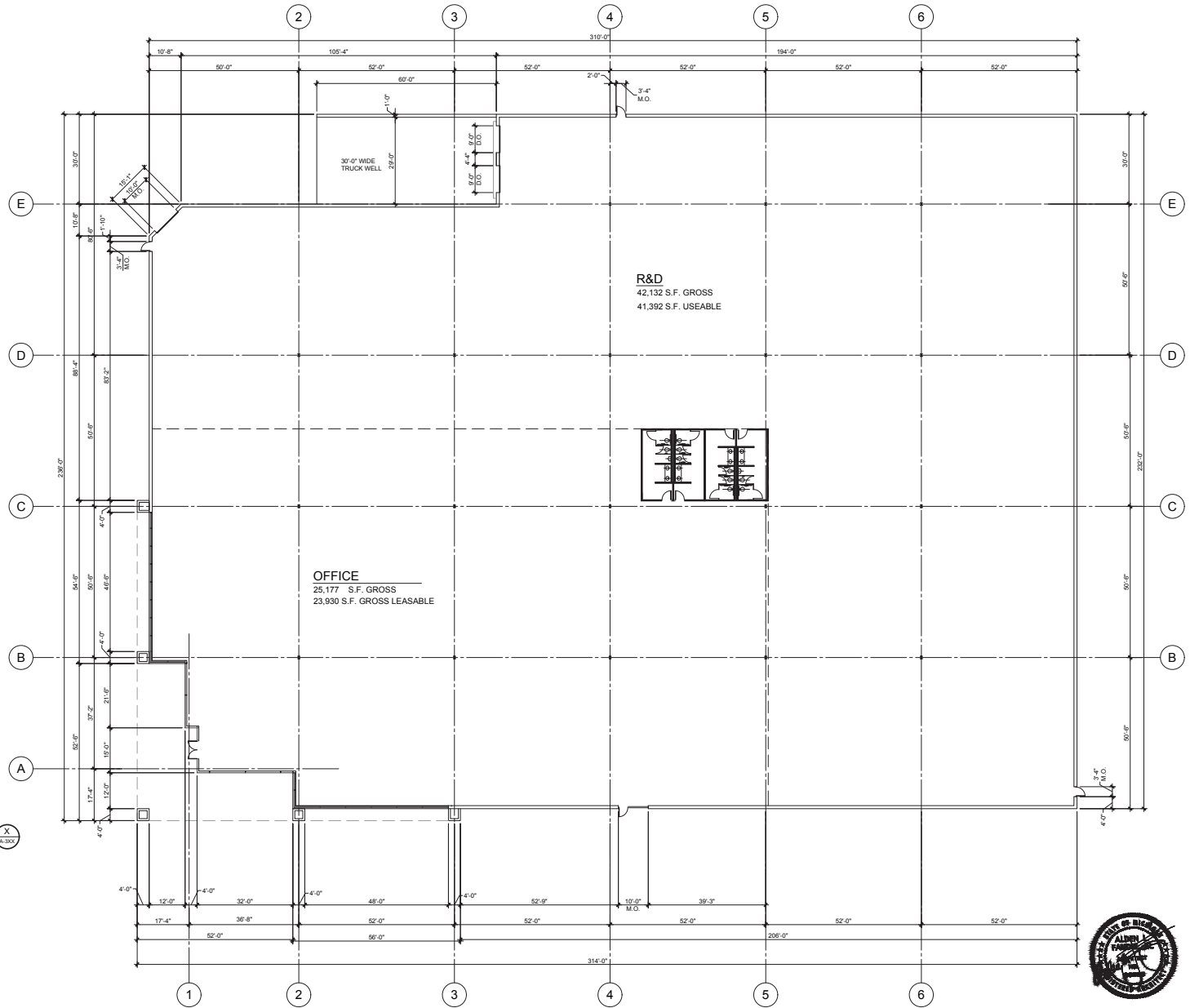
**DUMPSTER ENCLOSURE ELEVATION**  
SCALE: 1/4" = 1'-0"

3



**DUMPSTER ENCLOSURE PLAN**  
SCALE: 1/4" = 1'-0"

2



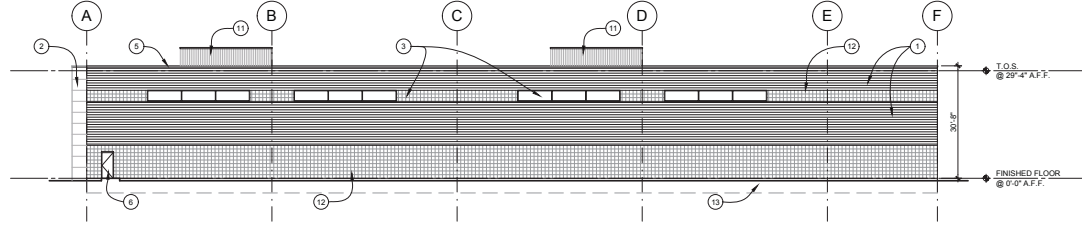
**PRELIMINARY FLOOR PLAN - TOTAL BUILDING: 67,309 S.F. GROSS FLOOR AREA**  
SCALE: 1/16" = 1'-0"

NORTH 1



**BUILDING FACADE MATERIAL BREAKDOWN**  
 TOTAL MATERIAL SQUARE FOOTAGE: 7,050 S.F.  
 (EXCLUDES VISION GLASS & OPENINGS)

SPLIT FACED CMU:	4,253 S.F.	= 60.3%
STRIATED SCORED CMU:	2,424 S.F.	= 34.4%
ACM:	123 S.F.	= 1.7%
FLUSH METAL RTU SCREEN:	250 S.F.	= 3.6%



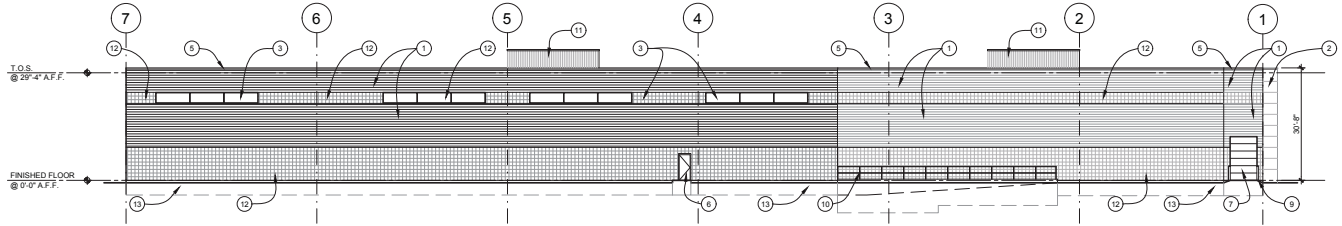
**EAST ELEVATION**

SCALE: 1/16" = 1'-0"

4

**BUILDING FACADE MATERIAL BREAKDOWN**  
 TOTAL MATERIAL SQUARE FOOTAGE: 9,430 S.F.  
 (EXCLUDES VISION GLASS & OPENINGS)

SPLIT FACED CMU:	5,764 S.F.	= 61.1%
STRIATED SCORED CMU:	3,293 S.F.	= 34.9%
ACM:	123 S.F.	= 1.3%
FLUSH METAL RTU SCREEN:	250 S.F.	= 2.7%



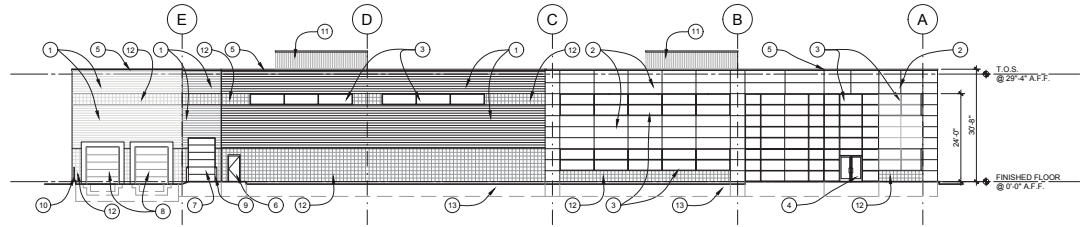
**NORTH ELEVATION**

SCALE: 1/16" = 1'-0"

3

**BUILDING FACADE MATERIAL BREAKDOWN**  
 TOTAL MATERIAL SQUARE FOOTAGE: 5,370 S.F.  
 (EXCLUDES VISION GLASS & OPENINGS)

SPLIT FACED CMU:	2,342 S.F.	= 43.8%
STRIATED SCORED CMU:	1,251 S.F.	= 23.3%
ACM:	1,527 S.F.	= 28.4%
FLUSH METAL RTU SCREEN:	250 S.F.	= 4.7%



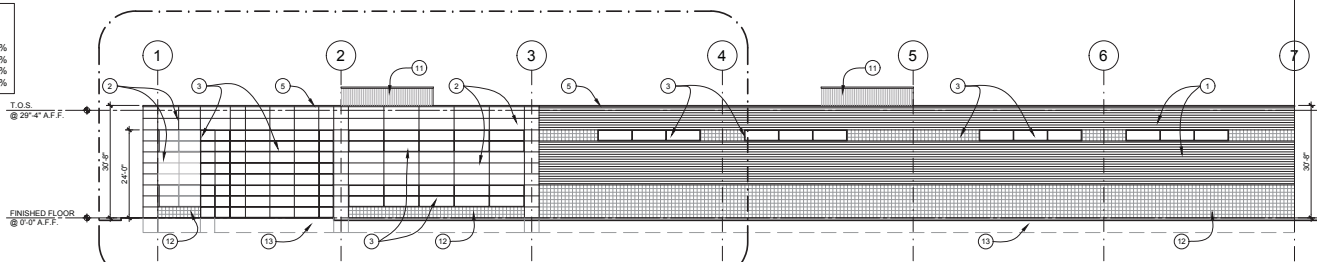
**WEST ELEVATION**

SCALE: 1/16" = 1'-0"

1

**BUILDING FACADE MATERIAL BREAKDOWN**  
 TOTAL MATERIAL SQUARE FOOTAGE: 7,955 S.F.  
 (EXCLUDES VISION GLASS & OPENINGS)

SPLIT FACED CMU:	3,845 S.F.	= 48.3%
STRIATED SCORED CMU:	2,315 S.F.	= 29.1%
ACM:	1,545 S.F.	= 19.4%
FLUSH METAL RTU SCREEN:	250 S.F.	= 3.2%



**SOUTH ELEVATION**

SCALE: 1/16" = 1'-0"

1

**EXTERIOR MATERIAL SCHEDULE**

1	SPLIT-FACE CMU
2	ALUMINUM COMPOSITE METAL PANEL SYSTEM (ACM)
3	1" LOW 'E' INSUL. BLUE TINTED GLAZING IN CLEAR AND/OR ALUM. THERMAL BREAK FRAMES
4	CLEAR AND/OR ALUM. ENTRY DOOR W/ BLUE TINTED TEMPERED GLASS
5	PREFINISHED METAL COPING
6	3/4" H.M. DOOR AND FRAME PAINTED TO MATCH ADJACENT WALL COLOR
7	10'x12' SECTIONAL INSULATED OVERHEAD GRADE DOOR w/ MOTOR OPERATED OPENER & INSULATED
8	8'x10' SECTIONAL INSULATED OVERHEAD TRUCK DOCK DOOR w/ DOCK LEVELER, & SHELTER-SEAL
9	6" DIA. CONC. FILLED STEEL GUARD POSTS
10	1 1/2" dia. PAINTED STEEL PIPE GUARDRAIL
11	FLUSH METAL PANEL SIDING (ROOF SCREENING)
12	STRIATED CMU BLOCK
13	CONC. TRENCH FOOTING BELOW









# PLAN REVIEW CENTER REPORT

August 21, 2017

## Planning Review

Beck North Unit 54

JSP 16-36

### Petitioner

Dembs Development, Inc.

### Review Type

Revised Preliminary Site Plan

### Property Characteristics

<b>Section</b>	4	
<b>Site Location</b>	East of Beck Road and North of West Road in the Beck North Corporate Park; 46480 Nadlan Court	
<b>Site School District</b>	Walled Lake Consolidated School District	
<b>Site Zoning</b>	I-1: Light Industrial District	
<b>Adjoining Zoning</b>	North	I-1: Light Industrial District
	East	R-2: One-Family Residential
	West	I-1: Light Industrial District
	South	I-1: Light Industrial District
<b>Current Site Use</b>	Vacant	
<b>Adjoining Uses</b>	North	Vacant
	East	Residential
	West	Industrial/Office; Broad-Ocean Technologies
	South	Vacant
<b>Site Size</b>	5.02 Acres	
<b>Plan Date</b>	8-3-17	

### Project Summary

The applicant is proposing a 67,000+/- square foot speculative building in the Beck North Corporate Park with 167 parking spaces, two loading docks, and trash enclosure. A public hearing was held on May 24, 2017, where Planning Commission postponed their decision in order to give time for the developer and city staff to work together to resolve the issue of a screening barrier along the east property line. Staff met with the applicant and the following modifications have been proposed: removal of 5 parking spaces, additional landscaping along the east side, and a 6 foot wall near the southeast corner to screen the parking lot. The site plan is scheduled to go before Planning Commission for another public hearing on October 11, 2017.

### Recommendation

Approval of the *Revised Preliminary Site Plan is recommended*. The plan mostly conforms to the requirements of the Zoning Ordinance, with a few deviations listed in this and other review letters. **Planning Commission approval of the Special Land Use Permit, Preliminary Site Plan, and Storm Water Management Plan is required.**

### Special Land Use Considerations

The site plan is proposing a use that requires special land use approval by Planning Commission when abutting a residential district as detailed in Use Standard 4.45 Select I-1 and EXPO District Uses.

**Section 6.1.2.C of the Zoning Ordinance outlines specific factors the Planning Commission shall consider in the review of any Special Land Use:**

- i. Whether, relative to other feasible uses of the site, the proposed use will cause any detrimental impact on existing thoroughfares in terms of overall volumes, capacity, safety, vehicular turning patterns, intersections, view obstructions, line of sight, ingress and egress, acceleration/deceleration lanes, off-street parking, off-street loading/unloading, travel times and thoroughfare level of service.
- ii. Whether, relative to other feasible uses of the site, the proposed use will cause any detrimental impact on the capabilities of public services and facilities, including water service, sanitary sewer service, storm water disposal and police and fire protection to service existing and planned uses in the area.
- iii. Whether, relative to other feasible uses of the site, the proposed use is compatible with the natural features and characteristics of the land, including existing woodlands, wetlands, watercourses, and wildlife habitats.
- iv. Whether, relative to other feasible uses of the site, the proposed use is compatible with adjacent uses of land in terms of location, size, character, and impact on adjacent property or the surrounding neighborhood.
- v. Whether, relative to other feasible uses of the site, the proposed use is consistent with the goals, objectives, and recommendations of the City's Master Plan for Land Use.
- vi. Whether, relative to other feasible uses of the site, the proposed use will promote the use of land in a socially and economically desirable manner.
- vii. Whether, relative to other feasible uses of the site, the proposed use is
  - a. Listed among the provision of uses requiring special land use review as set forth in the various zoning districts of this Ordinance, and
  - b. Is in harmony with the purposes and conforms to the applicable site design regulations of the zoning district in which it is located.

**Ordinance Requirements**

This project was reviewed for conformance with the Zoning Ordinance with respect to Article 3 (Zoning Districts), Article 4 (Use Standards), Article 5 (Site Standards), and any other applicable provisions of the Zoning Ordinance. **Deviations from the Zoning Ordinance are listed below.**

**Ordinance Deviations**

1. Planning Commission waivers
  - i. Landscape waiver for lack of 10-15' tall landscaped berm between industrial and residential not provided due to preservation of 50 foot woods buffer along east property line. Supported.
  - ii. Landscape waiver for use of evergreen species for greater than 25% of perimeter parking lot trees. Supported.
  - iii. Landscape waiver for lack of 7 required subcanopy trees for industrial subdivision frontage are not provided due to lack of space for all plantings (16 required; 9 provided). Supported.
  - iv. Traffic waiver for driveway spacing between proposed drives and between west driveway and Unit 53 driveway because within 105 ft.
2. DCS Variance
  - i. Property does not meet minimum frontage of 300 feet required to allow more than one full service driveway entrance to the site.
3. Zoning Board of Appeals Variances
  - I. Height exceeds 25 ft. when abutting residential. Applicant is proposing 29'4", which does not include rooftop appurtenances.

**Please see the attached chart for information pertaining to ordinance requirements.** Items in **bold** below must be addressed and incorporated as part of the Final Site Plan submittal:

1. Changes to the Site Plan in Response to the Public Hearing Comments: **The applicant is asked to provide a narrative detailing the rationale for the items discussed at the public hearing including the height and size of the proposed building, screening and berm requirements, removal of parking spaces closest to the residential homes, and supplementing the woodland area. Please provide this narrative with the Planning Commission meeting submittal (due Sept. 6).**
2. Parking Calculations (Sec. 5.2.12): Refer to chart for more details. *Once the tenant is known, the parking calculations will need to be updated in order to verify conformance with the ordinance.*
3. I-1 District Required Conditions (Sec. 3.14.2): Unless otherwise provided, dealing directly with consumer at retail, is prohibited. *This is a speculative building and the applicant should consult with the Planning Department prior to leasing to ensure the use is consistent with the special land use criteria and other requirements of the ordinance.*
4. Maximum Building Height (Sec. 3.14.5.C): When abutting residential the height maximum is 25 feet. **The applicant is proposing a building that is 29'4" tall, which does not include the roof top appurtenances. The applicant is seeking a ZBA variance.**
5. Planning Commission Findings for Permitted Uses (Sec. 3.14.3): The scale, size, building design, façade materials, landscaping and activity of the use is such that current and future adjacent residential uses will be protected from any adverse impact. **Planning Commission will determine through site plan consideration if this standard is met by the applicant.**
6. Storage and Use of Material (Sec. 3.14.3): Storage of hazardous materials shall comply with city ordinances and applicant shall complete a City of Novi Hazardous Materials Checklist. *The applicant has provided the hazardous materials checklist, however since the tenant is still unknown this checklist will need to be updated once the tenant is known.*
7. Economic Impact Information: Refer to the chart for more details. **Please provide the requested information in your response letter prior to the Planning Commission Meeting.**

#### Other Reviews

- a. Landscape Review: **Landscape recommends approval.** Landscape review has identified waivers that may be required. Additional comments to be addressed with Final Site Plan.
- c. Woodlands Review: **Woodland recommends approval.** A City of Novi Woodland permit is required for the proposed impacts to regulated woodlands. Additional comments to be addressed with Final Site Plan.

#### NEXT STEP: Planning Commission Meeting

This Site Plan is scheduled to go before Planning Commission for public hearing on **September 13, 2017**. Please provide the following **no later than 12:00pm, September 6, 2017** if you wish to keep the schedule.

1. Original Revised Preliminary Site Plan submittal in PDF format (maximum of 10MB). **NO CHANGES MADE.**
2. A response letter addressing ALL the comments from ALL the review letters and **a request for waivers as you see fit.**

#### Electronic Stamping Set Submittal and Response Letter

Plans addressing the comments in all of the staff and consultant review letters should be submitted electronically for informal review and approval prior to printing Stamping Sets. A letter from either the applicant or the applicant's representative addressing comments in this and other review letters is requested to be submitted with the electronic stamping set.

#### Stamping Set Approval

Stamping sets are still required for this project. After having received all of the review letters from City staff the applicant should make the appropriate changes on the plans and submit **10 size 24" x 36"**

**copies with original signature and original seals,** to the Community Development Department for final Stamping Set approval. Plans addressing the comments in all of the staff and consultant review letters should be submitted electronically for informal review and approval prior to printing Stamping Sets.

### **Signage**

Exterior Signage is not regulated by the Planning Division or Planning Commission. Please contact Ordinance (248.735.5678) for information regarding sign permits.

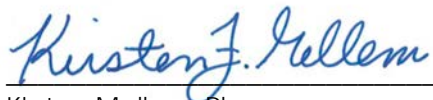
### **Pre-Construction Meeting**

**A Pre-Construction meeting is required for this project.** Prior to the start of any work on the site, Pre-Construction (Pre-Con) meetings must be held with the applicant's contractor and the City's consulting engineer. Pre-Con meetings are generally held after Stamping Sets have been issued and prior to the start of any work on the site. There are a variety of requirements, fees and permits that must be issued before a Pre-Con can be scheduled. 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.

If the applicant has any questions concerning the above review or the process in general, do not hesitate to contact me at 248.347.0484 or [kmellem@cityofnovi.org](mailto:kmellem@cityofnovi.org).



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Kirsten Mellem, Planner





## PLANNING REVIEW CHART

**Review Date:** August 21, 2017  
**Review Type:** Revised Preliminary Site Plan  
**Project Name:** **JSP 16-36 BECK NORTH UNIT 54**  
**Plan Date:** August 3, 2017  
**Prepared by:** Kirsten Mellem, Planner  
**E-mail:** kmellem@cityofnovi.org; **Phone:** 248.347.0484

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

Item	Required Code	Proposed	Meets Code	Comments
<b>Zoning and Use Requirements</b>				
<b>Master Plan</b> <i>(adopted Aug. 25, 2010)</i>	Industrial Research Development and Technology	No Change	Yes	Planning Commission approval for Preliminary site plan and special land use will be required
<b>Area Study</b>	The site does not fall under any special category	NA	NA	
<b>Zoning</b> <i>(Eff. Dec. 25, 2013)</i>	I-1: Light Industrial District	No Change	Yes	
<b>Uses Permitted</b> (Sec 3.1.18.B & C)	Sec 3.1.18.B Principal Uses Permitted. Sec 3.1.18.C Special Land Uses	67,000 sq. ft. light industrial building (26,800 sq. ft. office, 40,200 sq. ft. industrial/research)	Yes	Special land use when abutting a Residential District Area, property to the east is zoned R-2 (One-Family Residential). <b>Tenants should check with Planning Department prior to leasing space to ensure use is consistent with special land use criteria</b>
<b>Site History</b>				
As part of the original approval of the Beck North Corporate Park in 1999, there was much discussion regarding whether or not these parcels were adjacent to a residential district, as they relate to the 50 foot City owned, industrially zoned parcel that is located between these parcels and the residential district to the north. It was determined by the Planning Commission, and reinforced by the Zoning Board of Appeals, <b>that for planning purposes these parcels are to be considered adjacent to a residential district because zoning regulations cannot be circumvented by separating the parcel from the adjacent district by an undevelopable strip of land.</b> Therefore the industrial/research uses shall be treated as special land uses and have additional regulations in terms of building setbacks, building height, and orientation of loading docks.				
<b>Height, bulk, density and area limitations</b> (Sec 3.1.18)				
<b>Frontage on a Public Street.</b> <i>(Sec. 5.12)</i>	Frontage on a Public Street is required	Frontage on Nadlan Ct	Yes	

Item	Required Code	Proposed	Meets Code	Comments
<b>Access to Major Thoroughfare</b> (Sec. 5.13)	vehicular access shall be provided only to an existing or planned major thoroughfare or freeway service drive	Access to West Road/Thirteen Mile is provided	Yes	
<b>Minimum Zoning Lot Size</b> for each Unit in Ac (Sec 3.6.2.D)	Except where otherwise provided in this Ordinance, the minimum lot area and width, and the maximum percent of lot coverage shall be determined on the basis of off-street parking, loading, greenbelt screening, yard setback or usable open space		NA	
<b>Minimum Zoning Lot Size</b> for each Unit: Width in ft.			NA	
<b>Open Space Area</b>	----	31.2%	---	
<b>Maximum % of Lot Area Covered</b> (By All Buildings)	(Sec 3.6.2.D)	31.6%	Yes	
<b>Building Height</b> (Sec. 3.1.18.D) Sec. 3.14.5.C)	40 ft. 25 ft. abutting residential	29'4". Does not include roof top appurtenances	No	<b>Proposed height exceeds the maximum allowed. A Zoning Board of Appeals Variance will be required for this deviation. (10-10-17 ZBA meeting)</b>
<b>Building Setbacks</b> (Sec 3.1.18.D)				
Front (parallel to Cul-de-sac)	40 ft.	48.5 ft.	Yes	
Rear (north)	20 ft.	78.2 ft.	Yes	
Side (part south)	20 ft.	145.4 ft.	Yes	
Side (east)	150 ft.	107.4 ft.	Yes	
Side (west)	20 ft.	79 ft.	Yes	
<b>Parking Setback</b> (Sec 3.1.18.D)& Refer to applicable notes in Sec 3.6.2				
Front (parallel to Cul-de-sac)	40 ft. (See 3.6.2.E)	40 ft.	Yes	
Rear (north)	10 ft.	10.7 ft.	Yes	
Side (part south)	10 ft.	10.2 ft.	Yes	
Side (east)	100 ft.	77.4 ft.	Yes	
Side (west)	10 ft.	10 ft.	Yes	
<b>Note To District Standards</b> (Sec 3.6.2)				
<b>Exterior Side Yard Abutting a Street</b> (Sec 3.6.2.C)	All exterior side yards abutting a street shall be provided with a setback equal to front yard.	No side yard abutting street	NA	

Item	Required Code	Proposed	Meets Code	Comments
<b>Off-Street Parking in Front Yard</b> (Sec 3.6.2.E)	Not allowed unless: - the site is a minimum 2 acre site - does not extend into the minimum required front yard setback of the district - cannot occupy more than 50% of the area between min. front yard setback & bldg. setback - must be screened by brick wall or landscaped berm - lighting compatible with surrounding neighborhood	5 acres  Does not exceed 40 ft.  28%  Landscaping is provided to screen Lighting information not provided	NA	Applicant is not proposing parking in the front yard
<b>Off-Street Parking in Side and Rear Yards</b> abutting residential (Sec 3.6.2.F)	Shall not occupy more than fifty (50) percent of the area of the side or rear yard abutting a residential district; and	No parking proposed on east side abutting residential	Yes	
	Off-street parking shall be setback no less than one-hundred (100) feet from the residential district.	It is setback 110.4 ft. from residential district.	Yes	
<b>Setback from Residential District</b> (Sec 3.6.2.H)	I-1 and I-2 districts, five (5) feet of horizontal setback for each foot of building height, or one-hundred (100) feet, whichever is greater. Except when a side or rear yard is separated from a residential district by a railroad right-of-way, the right-of-way may be included as part of the setback requirement.	Abutting a residential district.  For 30 ft. high building, 150 ft. setback is required. A setback of 157.4 ft. is provided from the residential district.	Yes	
<b>Wetland/Watercourse Setback</b> (Sec 3.6.2.M)	A setback of 25 ft. from wetlands and from high watermark course shall be maintained.	No wetlands on site.	NA	
<b>Additional Height</b> (Sec 3.6.2.O)	Additional heights for selected building is allowed based on conditions listed in Sec 3.6.2.O	Applicant not requesting and not applicable	NA	
<b>Parking setback screening</b> (Sec 3.6.2.P)	Required parking setback area shall be landscaped per sec 5.5.3.	Parking lot is screened	Yes	<b>Please refer to landscape review for additional details</b>
<b>Modification of parking setback requirements</b> (Sec 3.6.2.Q)	The Planning Commission may modify parking setback requirements based on conditions listed in Sec 3.6.2.Q	Parking setbacks conform to the minimum required	NA	
<b>Parking, Loading and Dumpster Requirements</b>				

Item	Required Code	Proposed	Meets Code	Comments
<b>Number of Parking Spaces</b> Warehouses and wholesale establishments and related accessory offices (Sec.5.2.12.E)  Business offices or professional offices (Sec.5.2.12.D)	One (1) space for each seven hundred (700) square feet of usable floor area Total SF= 41,392 SF Parking = 59 Spaces  For buildings up to 100,000 SF 1 space for 222 SF GLA Total SF= 23,930 SF Parking = 108 Spaces  Total Required = 167 spaces	Total Proposed = 175 spaces	Yes	<b>Parking requirements will be confirmed when a use is proposed &amp; the number of employees in the largest working shift is identified</b>
<b>Parking Space Dimensions and Maneuvering Lanes</b> (Sec. 5.3.2)	- 90° Parking: 9 ft. x 19 ft. - 24 ft. two way drives - 9 ft. x 17 ft. parking spaces allowed along 7 ft. wide interior sidewalks as long as detail indicates a 4" curb at these locations and along landscaping	9 ft. x 19 ft. spaces 24 ft. wide drives 9 ft. x 17 ft. perimeter spaces along landscaping with 4" curbs	Yes	
<b>Parking stall located adjacent to a parking lot entrance</b> (public or private) (Sec. 5.3.13)	Shall not be located closer than twenty-five (25) feet from the street right-of-way (ROW) line, street easement or sidewalk, whichever is closer	40 ft. distance provided	Yes	
<b>End Islands</b> (Sec. 5.3.12)	- End Islands with landscaping and raised curbs are required at the end of all parking bays that abut traffic circulation aisles. - The end islands shall generally be at least 8 feet wide, have an outside radius of 15 ft., and be constructed 3' shorter than the adjacent parking stall.		Yes	
<b>Barrier Free Spaces</b> <i>Barrier Free Code</i>	6 barrier free parking spaces (for total 151 to 200) & 1 shall be van accessible	7 provided, 2 are van accessible	Yes	
<b>Barrier Free Space Dimensions</b> <i>Barrier Free Code</i>	- 8' wide with an 8' wide access aisle for van accessible spaces - 5' wide with a 5' wide access aisle for regular accessible spaces	Two types of accessible spaces are provided	Yes	
<b>Barrier Free Signs</b> <i>Barrier Free Code</i>	One sign for each accessible parking space.	Proposed	Yes	

Item	Required Code	Proposed	Meets Code	Comments
<b>Minimum number of Bicycle Parking</b> (Sec. 5.16.1)	Five (5) percent of required automobile spaces, minimum two (2) spaces 8 spaces required	8 bicycles spaces are proposed	Yes	
<b>Bicycle Parking General requirements</b> (Sec. 5.16)	<ul style="list-style-type: none"> <li>- No farther than 120 ft. from the entrance being served</li> <li>- When 4 or more spaces are required for a building with multiple entrances, the spaces shall be provided in multiple locations</li> <li>- Spaces to be paved and the bike rack shall be inverted "U" design</li> <li>- Shall be accessible via 6 ft. paved sidewalk</li> </ul>	Within 120 ft.  2 locations proposed  Paved and inverted "U" design  6 ft. paved sidewalk provided	Yes	
<b>Bicycle Parking Lot layout</b> (Sec 5.16.6)	Parking space width: 6 ft. One tier width: 10 ft. Two tier width: 16 ft. Maneuvering lane width: 4 ft. Parking space depth: 2 ft. single, 2 ½ ft. double	Bicycle parking layout is provided	Yes	
<b>Loading Spaces</b> (Sec. 5.4.3)	Loading area in the rear yard Loading area in interior side yard if it is adjacent to I, EXPO or EXO district	Loading zone and dock proposed in the rear yard	Yes	
<b>Accessory Structures</b>				
<b>Dumpster</b> (Sec 4.19.2.F)	<ul style="list-style-type: none"> <li>- Located in rear yard</li> <li>- Attached to the building or</li> <li>- No closer than 10 ft. from building if not attached</li> <li>- Not located in parking setback</li> <li>- If no setback, then it cannot be any closer than 10 ft, from property line.</li> <li>- Away from Barrier free Spaces</li> </ul>	Complies NA Complies  Complies  Complies	Yes	
<b>Dumpster Enclosure</b> (Sec. 21-145. (c))	<ul style="list-style-type: none"> <li>- Screened from public view</li> <li>- A wall or fence 1 ft. higher than height of refuse bin</li> <li>- And no less than 5 ft. on three sides</li> <li>- Posts or bumpers to protect the screening</li> <li>- Hard surface pad.</li> <li>- Screening Materials: Masonry, wood or evergreen shrubbery</li> </ul>	Complies 6' proposed  Complies  Complies  Concrete Wood	Yes	

Item	Required Code	Proposed	Meets Code	Comments
<b>Roof top equipment and wall mounted utility equipment</b> (Sec. 4.19.2.E.ii)	All roof top equipment must be screened and all wall mounted utility equipment must be enclosed and integrated into the design and color of the building	Roof top equipment proposed	Yes	
<b>Roof top appurtenances screening</b>	Roof top appurtenances shall be screened in accordance with applicable facade regulations, and shall not be visible from any street, road, or adjacent property.	Roof top equipment is screened	Yes	
<b>I-1 District Required Conditions (Sec 3.14)</b>				
<b>Outdoor Storage of above ground storage tanks</b> (Sec. 3.14.1.B.ii)	Outdoor placement of above-ground storage tanks of not more than 600-gallon capacity per tank and accessory to an otherwise permitted use. Additional conditions apply.	Not Proposed. A note is added to the plans	Yes	
<b>Outdoor Storage of recreational equipment</b> (Sec. 3.14.1.B.iii)		Not Proposed	NA	
<b>Other</b> (Sec 3.14.2)	Unless otherwise provided, dealing directly with consumer at retail, is prohibited.	Speculative building, specific use unknown	Yes?	<b>Tenants should check with Planning Department prior to leasing space to ensure use is consistent with special land use criteria. Provide note on site plan.</b>
<b>Adjacent to Freeway ROW</b> (Sec 3.14.4)	Where a permitted use abuts a freeway right-of way , special conditions listed in section 3.14.4 apply	Not adjacent to Freeway ROW	NA	
<b>Adjacent to Residential district (Sec 3.14.5)</b>				
<b>Truck well, loading dock or door</b> Sec. 3.14.5.A	<ul style="list-style-type: none"> <li>- Cannot be located on the side abutting residential</li> <li>- Shall be placed on the opposite side or on the wall at 90 degree angle to residential. Recessed by not less than 60 feet from the front wall</li> <li>- Discourage the truck path along residential side</li> </ul>	Truck well and trailer drive access located on the west side away from residential	Yes	<p><b>Add note to site plan that states: trucks shall not use the drive on the east side of the building to access the loading dock, but can only use the drive on the west side of the building.</b></p> <p><b>Add a "No Trucks" sign next to the loading dock as viewed going east.</b></p>
<b>Refuse pick-up,</b>	- Refuse pick-up shall be limited	Proposed on west	Yes	

Item	Required Code	Proposed	Meets Code	Comments
<b>off-street parking and areas used for vehicular repair, delivery, loading/unloading and transport</b> Sec. 3.14.5.B	to the hours of 7:00 a.m. to 5:00 p.m., prevailing time. - All off-street parking and areas used for vehicular repair, delivery, loading/unloading and transport shall be not be closer than one-hundred (100) feet from the boundary of a residential district and effectively screened	side of building. Note provided on site plan		
<b>Maximum Building Height</b> Sec. 3.14.5.C	25 ft. abutting residential	29' 4" . Does not include roof top appurtenances	<b>No</b>	<b>Proposed height exceeds the maximum allowed. A Zoning Board of Appeals Variance will be required for this deviation.</b>
<b>Additional Lighting requirements</b> Sec. 3.14.5.D	- Where a building wall faces an abutting residential district there shall be no floodlighting of such facade. - This shall not preclude the lighting of doorways on such facades.	A lighting plan is provided	Yes	
<b>Landscape berm and screening requirements</b> Sec. 3.14.5.E	The requirements of this section supersede standards at Section 5.5	A landscape plan is provided with some screening	<b>Yes</b>	<b>Please refer to landscape comments for further details</b>
<b>Operation requirements</b> Sec. 3.14.5.F	Windows and doors of non-office use areas of structures in an I-1 district may not be left open.		Yes	
<b>Planning Commission findings for permitted uses (Sec 3.14.3)</b>				
<b>Impacts on residential district</b> Sec 3.14.3.A	The scale, size, building design, facade materials, landscaping and activity of the use is such that current and future adjacent residential uses will be protected from any adverse impact	Adjacent to residential districts	Yes?	<u>It is a Planning Commission finding</u>
<b>Long term truck parking</b> Sec 3.14.3.B	No long term delivery truck parking on site	Not Proposed. A note is added to the plans.	Yes	
<b>Performance standards</b> Sec 3.14.3.C	The lighting, noise, vibration, odor and other possible impacts are in compliance with standards and intent of the article and performance	Speculative building, specific use unknown. A note is added to the plan indicating	Yes	

Item	Required Code	Proposed	Meets Code	Comments
	standards of Section 5.14	further verification of the conformance may be required at the time of occupancy.		
<b>Storage and/use of material</b> Sec 3.14.3.D	The storage and/or use of any volatile, flammable or other materials shall be fully identified in application and shall comply with any city ordinances regarding toxic or hazardous materials.	Checklist provided	Yes	<b>Applicant may need to update the hazardous checklist once a tenant has been identified.</b>
<b>Hazardous material checklist</b> Sec 3.14.3.E	Compliance of City's hazardous materials checklist	Checklist provided	Yes	
<b>Sidewalks and Pathways</b>				
<b>ARTICLE XI. OFF-ROAD NON-MOTORIZED FACILITIES</b> Sec. 11-256. Requirement. (c) & Sub. Ord. Sec. 4.05,	<ul style="list-style-type: none"> <li>- In the case of new streets and roadways to be constructed as part of the project, a sidewalk shall be provided on both sides of the proposed street or roadway.</li> <li>- Sidewalks along arterials and collectors shall be 6 feet or 8 feet wide as designated by the "Bicycle and Pedestrian Plan," but not along industrial service streets per Subdivision Ordinance</li> <li>- Whereas sidewalks along local streets and private roadways shall be five (5) feet wide.</li> </ul>	Nadlan Drive is an industrial street. No sidewalk is required.	Yes	
<b>Pedestrian Connectivity</b>	<ul style="list-style-type: none"> <li>- Whether the traffic circulation features within the site and parking areas are designed to assure safety and convenience of both vehicular and pedestrian traffic both within the site and in relation to access streets.</li> <li>- Building exits must be connected to sidewalk system or parking lot.</li> </ul>	Building entrances connected to parking lot & BF ramps	Yes	
<b>Other Requirements</b>				
<b>Exterior lighting</b> (Sec. 5.7)	Photometric plan and exterior lighting details needed at time	A lighting plan is provided	Yes	



Item	Required Code	Proposed	Meets Code	Comments
	of Final Site Plan submittal			
<b>Design and Construction Standards Manual</b>	Land description, Sidwell number (metes and bounds for acreage parcel, lot number(s), Liber, and page for subdivisions).	Provided	Yes	
<b>General layout and dimension of proposed physical improvements</b>	Location of all existing and proposed buildings, proposed building heights, building layouts, (floor area in square feet), location of proposed parking and parking layout, streets and drives, and indicate square footage of pavement area (indicate public or private).	Provided	Yes	
<b>Economic Impact Information</b>	<ul style="list-style-type: none"> <li>- Total cost of the proposed building &amp; site improvements</li> <li>- Number of anticipated jobs created (during construction &amp; after building is occupied, if known)</li> </ul>		No	<b>Provide information on total cost of the proposed building &amp; site improvements and number of anticipated jobs created during construction in response letter.</b>
<b>Development and Street Names</b>	Development and street names must be approved by the Street Naming Committee before Preliminary Site Plan approval.	Street name is approved.	NA	
<b>Development/ Business Sign</b>	Signage if proposed requires a permit.	None shown		<u>For sign permit information contact Jeannie Niland 248-347-0438.</u>
<b>Lighting and Photometric Plan (Sec. 5.7)</b>				
<b>Intent (Sec. 5.7.1)</b>	Establish appropriate minimum levels, prevent unnecessary glare, reduce spillover onto adjacent properties & reduce unnecessary transmission of light into the night sky	Provided	Yes	
<b>Lighting Plan (Sec. 5.7.A.1)</b>	Site plan showing location of all existing & proposed buildings, landscaping, streets, drives, parking areas & exterior lighting fixtures	Provided	Yes	
<b>Lighting Plan (Sec.5.7.A.2)</b>	Specifications for all proposed & existing lighting fixtures	Provided	Yes	
	Photometric data	Provided	Yes	

Item	Required Code	Proposed	Meets Code	Comments
	Fixture height	Provided	Yes	
	Mounting & design	Provided	Yes	
	Glare control devices	Provided	Yes	
	Type & color rendition of lamps	Provided	Yes	
	Hours of operation	Provided	Yes	
	Photometric plan illustrating all light sources that impact the subject site, including spill-over information from neighboring properties.	Provided	Yes	
<b>Required Conditions</b> (Sec. 5.7.3.A)	Height not to exceed maximum height of zoning district (or 25 ft. where adjacent to residential districts or uses)	25 ft. proposed	Yes	
<b>Required Conditions</b> (Sec. 5.7.3.B)	<ul style="list-style-type: none"> <li>- Electrical service to light fixtures shall be placed underground</li> <li>- Flashing light shall not be permitted</li> <li>- Only necessary lighting for security purposes &amp; limited operations shall be permitted after a site's hours of operation</li> </ul>	Notes provided	Yes	
<b>Required Conditions</b> (Sec.5.7.3.E)	Average light level of the surface being lit to the lowest light of the surface being lit shall not exceed 4:1	1.65:1 overall site	Yes	
<b>Required Conditions</b> (Sec. 5.7.3.F)	Use of true color rendering lamps such as metal halide is preferred over high & low pressure sodium lamps	LED proposed for all lights	Yes	
<b>Min. Illumination</b> (Sec. 5.7.3.k)	Parking areas: 0.2 min	0.3 min provided	Yes	
	Loading and unloading areas: 0.4 min	0.4 min provided	Yes	
	Walkways: 0.2 min	0.2 min provided	Yes	
	Building entrances, frequent use: 1.0 min	2.6 min provided	Yes	
	Building entrances, infrequent use: 0.2 min	0.5 min provided	Yes	

Item	Required Code	Proposed	Meets Code	Comments
<b>Max. Illumination adjacent to Non-Residential</b> (Sec. 5.7.3.K)	When site abuts a non-residential district, maximum illumination at the property line shall not exceed 1 foot candle	NA	NA	
<b>Cut off Angles</b> (Sec. 5.7.3.L)	When adjacent to residential districts: - All cut off angles of fixtures must be 90° - Maximum illumination at the property line shall not exceed 0.5 foot candle	90° cut off provided  Max illumination is 0.1 at property line adjacent to residential	Yes	

**NOTES:**

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



# PLAN REVIEW CENTER REPORT

03/07/2017

## Engineering Review

Beck North Unit 54

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### Applicant

BECK NORTH CORP PARK II LLC

### Review Type

Preliminary Site Plan

### Property Characteristics

- Site Location: Beck North Corporate Park, east end of Nadlan Drive
- Site Size: 5.0+/- acres
- Plan Date: 02/06/2017
- Design Engineer: Alpine Engineering

### Project Summary

- Construction of an approximately 67,309 square-foot office and industrial building and associated parking. Site access would be provided off of Nadlan Drive, an existing public roadway.
- Water service would be provided by connection to an existing water main stub and an 8-inch tap in the existing 12-inch water main at the southwest corner of the site. A 2-inch domestic lead and 8-inch fire lead would be provided to serve the building, along with additional hydrants on the site.
- Sanitary sewer service would be provided by connection to existing 8-inch sanitary sewer with a 6-inch sanitary sewer lead to the building.
- Storm water would be collected on the site and conveyed to the existing drainage dissipation basins serving the Corporate Park.

### Recommendation

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

**Comments:**

The Preliminary Site Plan does not meet the general requirements of the design and construction standards as set forth in Chapter 11 of the City of Novi Codified Ordinance, the Storm Water Management Ordinance and the Engineering Design Manual with the following items to be addressed at the time of revised Preliminary Site Plan submittal (further engineering detail will be required at the time of the final site plan submittal):

**Comments to be addressed prior to revised Preliminary Site Plan submittal:**

General

1. The property does not meet the minimum frontage of 300 feet required to allow more than one full service driveway entrance to the site. A secondary gated "emergency only" access drive is allowable.
2. Two points of access are required for fire safety. Consider ingress/egress easements and/or a combined drive approach with adjacent parcel and existing drive approach.
3. A driveway spacing waiver, granted by the Planning Commission, would be required for any new driveway entrance on this property within 105 feet (measured from edge of near curb to edge of near curb) of any other existing or proposed drive approach.
4. Soil borings shall be provided for a preliminary review of the constructability of the proposed development. Borings identifying soil types, and groundwater elevation should be provided at the time of Preliminary Site plan.

Paving & Grading

5. Provide notes on the Grading plan to match existing grades at any driveway paving in the right-of-way.
6. Clarify parking block locations and effective length of parking stalls where parking blocks are used.
7. Provide dimensions of parking stalls to the face of curb or walk. Other dimensions may be to back of curb and noted accordingly.
8. Provide at least a 3 foot buffer distance between the sidewalk and any fixed object including fire hydrants and light poles.
9. End islands shall conform to City standard island design, or variations of the standard design maintaining conformance with Section 2056 of Appendix A of the Zoning ordinance (i.e. 2 foot minor curb radius, 15 foot major curb radius, minimum width of 8 feet, 3 feet shorter than adjacent 19 foot parking stall).

Storm Water Management Plan

10. 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.
11. Provide Unit 54 storm calculations.

12. Provide an explanation of the c factors calculated for Basins D and E and clarify how the development of Unit 54 is accounted for in those c factors.

#### Off-Site Easements

13. Any off-site easements must be executed **prior to final approval of the plans**. Drafts of the easements and a recent title search shall be submitted to the Community Development Department with Preliminary Site plans, and shall be approved by the Engineering Division and the City Attorney prior to executing the easements.

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

#### Items to be included in Final Site Plan and addressed prior to Stamping sets:

##### Utilities

1. Provide a construction materials table on the Utility Plan listing the quantity and material type for each utility (water, sanitary, storm) being proposed.
2. Generally all proposed trees shall remain outside utility easements. Where proposed trees are required in a utility easement, the trees shall maintain a minimum 5-foot horizontal separation from any existing or proposed utility. All utilities and utility easements must be shown on the landscape plans to confirm the required separation is provided.
3. Show the locations of all light poles on the utility plan and indicate the typical foundation depth for the pole to confirm that no utility conflicts will occur. Light poles in a utility easement will require a License Agreement.

##### Water Main

4. Provide a profile for all water main 8-inch and larger.
5. In addition to the note on the plans that compacted sand backfill shall be provided for all utilities under the influence of paved areas, the sand backfill shall be illustrated on utility profiles sheets.
6. Provide water main modeling calculations demonstrating that the required water supply of 4,000 gpm will be available.
7. Provide three (3) signed and sealed sets of revised utility plans along with the MDEQ permit application (1/07 rev.) for water main construction. The Streamlined Water Main Permit Checklist should be submitted to the Engineering Division for review, assuming no further design changes are anticipated. Utility plan sets shall include only the cover sheet, any applicable utility sheets and the City's standard water main detail sheets.

#### Storm Sewer

8. A minimum cover depth of 3 feet shall be maintained over all storm sewers. In situations where the minimum cover cannot be achieved, Class V pipe must be used with an absolute minimum cover depth of 2 feet.
9. Provide a 0.1 foot drop in the downstream invert of all storm structures where a change in direction 30 degrees or greater occurs.
10. Storm manholes with differences in invert elevations exceeding two feet shall contain a 2 foot depth plunge pool.
11. Label all inlet storm structures on storm sewer profiles.
12. Provide a schedule listing the casting type and other relevant information for each proposed storm structure on the utility plan. Round castings shall be provided on all catch basins except curb inlet structures.

#### Soil Erosion and Sediment Control

13. A SESC permit is required. The review checklist detailing all SESC requirements is attached to this letter. An informal review will be completed with the Final Site Plan if SESC plans are included in the submittal.

#### General

14. Draft copies of any off-site utility easements, a recent title search, and legal escrow funds must be submitted to the Community Development Department for review and approval by the Engineering Division and the City Attorney prior to getting executed. **Off-site easements and agreements must be executed prior to stamping set drawings.**
15. A draft 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.
16. Draft copies of easements for the sanitary sewer and/or sanitary sewer monitoring manhole to be constructed on the site must be submitted to the Community Development Department.
17. The City standard detail sheets are not required for the Final Site Plan submittal. They will be required with the Stamping Set submittal. They can be found on the City website ([www.cityofnovi.org/DesignManual](http://www.cityofnovi.org/DesignManual)).
18. 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), and grading.
19. A right-of-way permit will be required from the City of Novi.

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

20. A pre-construction meeting shall be required prior to the commencement of any site work. Please contact Sarah Marchioni in the Community Development Department to setup a meeting (248-347-0430).
21. 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. There is no fee for this permit.
22. An NPDES permit must be obtained from the MDEQ since the site is over 5 acres in size. The MDEQ requires an approved plan to be submitted with the Notice of Coverage.
23. 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.
24. A permit for work within the right-of-way of Nadlan Drive must be obtained from the City of Novi. The application is available from the City Engineering Division and should be filed at the time of Final Site Plan submittal. Please contact the Engineering Division at 248-347-0454 for further information.
25. A permit for water main construction must be obtained from the MDEQ. This permit application must be submitted through the Water and Sewer Senior Manager after the water main plans have been approved.
26. Construction Inspection Fees, to be determined once the construction cost estimate is submitted, must be paid prior to the pre-construction meeting.
27. 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.

To the extent this review letter addresses items and requirements that require the approval of or a permit from an agency or entity other than the City, this review shall not be considered an indication or statement that such approvals or permits will be issued.

Please contact Darcy Rechten at (248) 735-5695 with any questions.

  
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cc: Theresa Bridges, Engineering  
George Melistas, Engineering  
Kirsten Mellem, Community Development  
Tina Glenn, Treasurers  
Kristen Pace, Treasurers  
Ben Croy, Water and Sewer





## CITY OF NOVI ENGINEERING DIVISION SOIL EROSION AND SEDIMENTATION CONTROL PLAN CHECKLIST

PROJECT:	SESC Application #: SE -
Contact Name:	DATE COMPLETED:
Phone Number:	DATE OF PLAN:
Fax Number:	<b>STATUS:</b> <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px; vertical-align: middle;"></span>

General Requirements – Following the initial Soil Erosion and Sedimentation Control permit application to the Community Development Department, all SESC plan revisions shall be submitted directly to the Engineering Department for further review and/or permit approval. One (1) copy of revised soil erosion plans, including response letter addressing the comments below, shall be submitted for each subsequent review until the plan has been given approval by the Engineering Department, at which point five (5) copies will be required for permit approval. Plans shall be signed and sealed, and the bond must be submitted to the Treasurer’s Office prior to permit issuance.

ITEM NO.	ITEM	Provided on Plans	COMMENTS
1.	Plan shall be at scale of not more than 1" = 200', include legal description, location, proximity to lakes, streams or wetlands, slopes, etc.	<input type="checkbox"/>	
2.	Plan shall include a soil survey or a written description of soil types of the exposed land area.	<input type="checkbox"/>	
3.	Plan shall show the limits of earth disruption.	<input type="checkbox"/>	
4.	Plan shall show tree protection fencing and location of trees to be protected.	<input type="checkbox"/>	
5.	Plan shall show all existing and proposed on-site drainage and dewatering facilities (i.e. structure details, rim elev., etc.)	<input type="checkbox"/>	
6.	Detailed sequence of construction shall be provided on plans structured similar to the following, supplemented with site specific items: 1) Install tracking mat, 2) Install temp. SESC measures, 3) Construct storm water basins and install treatment structures, if applicable, 4) Install storm sewer, with inlet protection to follow immediately, 5) Remove all temp. SESC measures once site is stabilized.	<input type="checkbox"/>	
7.	Plan must address maintenance of soil erosion and sedimentation control measures (temporary and permanent)	<input type="checkbox"/>	
8.	Provide a note stating if dewatering is anticipated or encountered during construction a dewatering plan must be submitted to the Engineering Division for review.	<input type="checkbox"/>	
9.	A grading plan shall be provided, or grade information shown on plan.	<input type="checkbox"/>	

10.	Note that it is the developer's responsibility to grade and stabilize disturbances due to the installation of public utilities.	<input type="checkbox"/>	
11.	The CSWO shall be listed on permit application.	<input type="checkbox"/>	
12.	Plan sealed by registered civil engineer with original signature.	<input type="checkbox"/>	
13.	An itemized cost estimate (Silt Fence, Inlet Filters, Topsoil/Seed/Mulch, Const. Access, etc.) shall be provided.	<input type="checkbox"/>	The SESC financial guarantee will be \$ . The SESC inspection fees will be \$ .
14.	Potential stockpile areas shall be shown on the plan, with note stating a ring of silt fence will be installed surrounding any stockpiled material.	<input type="checkbox"/>	
15.	Sediment basin: Provide filter on standpipe outlet structure until site is stabilized, then removed. Noted on plan and standpipe detail(s).	<input type="checkbox"/>	
16.	Provide a note on the plan stating the storm water basin will be stabilized prior to directing flow to the basin.	<input type="checkbox"/>	
17.	Pretreatment Structures: Noted to inspect weekly for sediment accumulation until site is stabilized, and will clean as required.	<input type="checkbox"/>	
18.	Attach the Oakland County standard detail sheet.	<input type="checkbox"/>	
19.	Construction mud tracking entrance: 75'x20', 6" of 1" to 3" stone, on geotextile fabric.	<input type="checkbox"/>	
20.	Silt fence: 6" anchor trench, stakes 6' on center. Prominent line type on plan, with legend.	<input type="checkbox"/>	
21.	Provide Silt Sack with overflow capability as the inlet protection, and provide detail on plans.	<input type="checkbox"/>	
22.	Catch basin inlet filters shall be provided on existing roadways along construction route for reasonable distance from site.	<input type="checkbox"/>	
23.	Street sweeping and dust control shall be noted on plan as responsibility of contractor.	<input type="checkbox"/>	
24.	Vegetation shall be established within 5 days of final grade, or whenever disturbed areas will remain unchanged for 30 days or greater. 3-4" of topsoil will be used where vegetation is required.	<input type="checkbox"/>	
25.	Vegetated buffer strips (25' wide wherever possible) shall be created or retained along the edges of all water bodies, water courses or wetlands.	<input type="checkbox"/>	
26.	Diversion berms or terracing shall be implemented where necessary.	<input type="checkbox"/>	
27.	All drainage ditches shall be stabilized with erosion control blanket and shall utilize check	<input type="checkbox"/>	

	dams as necessary. Drainage ditches steeper than 3% shall be sodded.		
28.	Slopes steeper than 1V:6H (16%) shall be stabilized with erosion control blanket. Add this note as a general note, and also in a prominent location near any berm, etc. where a significant slope is proposed.	<input type="checkbox"/>	
29.	All culvert end sections must contain grouted rip-rap in accordance with ordinance specifications.	<input type="checkbox"/>	

**ADDITIONAL COMMENTS:**

1. Please note that installation of silt fencing or tree protection fencing shall not occur prior to the initial City pre-construction meeting. When natural features exist on the site, inspection of staking may be required prior to installation of the fencing.

2.

Reviewed By:

**McBeth, Barb**

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**To:** Rechten, Darcy  
**Subject:** RE: JSP 16-36 Beck North Unit 54: Preliminary Site Plan Review Letters

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**From:** Bridges, Theresa  
**Sent:** Wednesday, April 12, 2017 2:29 PM  
**To:** McBeth, Barb; Mellem, Kirsten; Rechten, Darcy  
**Subject:** RE: JSP 16-36 Beck North Unit 54: Preliminary Site Plan Review Letters

Kirsten,

1. We have determined that 2 driveways are acceptable for the site given that fire trucks require 2 access points. Driveway spacing waivers will be required by the Planning Commission to address the lack of spacing. We would support the variances. Additionally, the eastern drive aisle around the building needs to be limited to emergency vehicles to ensure truck traffic will use the western driveway. The aisle should be gated at the northern and southern ends and may be reduced to 20' wide with signage indicating the "No Parking - Fire Lane" at a minimum of 75-foot spacing.
2. Engineering can recommend approval given the different interpretation of allowable number of driveways.

Thanks,  
Theresa



# PLAN REVIEW CENTER REPORT

August 21, 2017

## Revised Preliminary Site Plan - Landscaping

### Review Type

Revised Preliminary Site Plan Landscape Review

### Property Characteristics

- Site Location: Beck North Industrial Park – Unit 54 – Nadlan Dr.
- Site Acreage: 5.0 acres
- Site Zoning: I-1
- Adjacent Zoning: North, South, West: I-1, East: R-2
- Plan Date: 8/3/2017

### Ordinance Considerations

This project was reviewed for conformance with Chapter 37: Woodland Protection, Zoning Article 5.5 Landscape Standards, the Landscape Design Manual and any other applicable provisions of the Zoning Ordinance. Items in **bold** below must be addressed and incorporated as part of the Preliminary Site Plan submittal. Please follow guidelines of the Zoning Ordinance and Landscape Design Guidelines. This review is a summary and not intended to substitute for any Ordinance.

### Note:

As this plan has not received Preliminary Site Plan approval, the plan is being reviewed per the recently approved revisions. In certain cases this may result in a change in the number of trees required. Please see the accompanying landscape chart for detailed calculations.

### Recommendation

This project is **recommended for approval**. Please address the items below and on the attached Landscape Chart in the corrected Preliminary Site Plan and Final Site Plans.

### Waivers required

1. 10-15' tall landscaped berm between industrial and residential not provided due to preservation of 50 foot woods buffer along east property line. Supported.
2. Waiver to use evergreen species for greater than 25% of perimeter parking lot trees. Supported.

### Ordinance Considerations

Existing Soils (Preliminary Site Plan checklist #10, #17)

Provided.

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

1. Provided.
2. All trees are shown as being at least 10 feet from utility structures.

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

1. The border of the regulated woodland is provided, as are tree ids and locations for all existing trees on the site and adjacent to it. Chart is also provided.

2. **It appears that grading will occur within the drip line of many trees to be saved along the east end of the property. Please work to protect the root systems of those trees. See ECT's review for official woodland review.**

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

1. Property is not immediately adjacent to Residential. However, as it is adjacent to the tree buffer created for the residential subdivision east of the woods, the 10-15' landscaped berm is required.
2. **The applicant has removed the 5 space parking bay closest to the residential development, and proposes a 6 foot tall wall at the southeast corner of the parking lot to provide 100% screening of vehicle lights there, and significant sound blockage in that area.**
3. **Due to the above factors, the waiver request is supported by staff.**

Industrial Subdivision Landscaping (LDM 1.d(2))

1. One deciduous canopy tree is required per 35 lf of frontage. With 215 lf of frontage, less the 60' of access ways on Nadlan Court, 4 trees are required. 5 are provided.
2. One subcanopy tree is required per 40 lf of frontage, for a total of 16 trees. 9 are provided.
3. 2 shrubs per 40 lf of frontage are required, for a total of 8 shrubs. 32 are provided.
4. None of the additional massing of grasses, perennials, annuals and bulbs are provided. **Please add this element to the landscape. Some of the excess landscaping mentioned above can be reduced to help provide space and money for these plantings.**

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

1. Based on the vehicular use areas, 2,625 sf of landscape island area and 16 deciduous canopy trees are required. Per the plan, 3,150 sf of islands and 39 trees are provided.
2. **In order to be considered as landscape islands for the purpose of breaking up long bays of parking, they need to have at least 10 feet wide and have 200sf of landscape area, with a deciduous canopy tree planted in it. Please increase the size of the islands as required and plant a deciduous canopy tree in each of the islands.**

Parking Lot Perimeter Canopy Trees (Zoning Sec. 5.5.3.C.(3) Chart footnote)

1. Based on the 1780 lf of perimeter, 51 canopy trees are required (1/35lf) and 51 are provided, 33 (65%) of which are evergreens.
2. The revised ordinance allows 25% of perimeter trees to be evergreens. **A landscape waiver for the additional evergreens is required, but is supported by staff because they will provide better year-round screening for the adjacent residences.**

Loading Zone screening (Zoning Sec. 3.14, 3.15, 4.55, 4.56, 5.5)

The loading zone is sufficiently screened from the residential subdivision by the building.

Building Foundation Landscape (Zoning Sec 5.5.3.D.)

Based on the perimeter, 8888 sf of foundation landscape area is required. 8890 sf are provided, and well over 60% of the building visible from Nadlan Court is landscaped, exceeding the requirement.

Plant List (LDM 2.h. and t.)

The plant list provided conforms to the requirements of the city and no invasive species are used.

Planting Notations and Details (LDM)

1. Planting details are provided.

2. If the *Amelanchier canadensis* are multi-stem, please provide a multi-stem planting detail.
3. If the applicant would like to reduce the required tree mulch depth from 4" to 3", and the shrub/perennial depth from 3" to 2", that would be acceptable.

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

Not applicable as no changes are proposed to the regional detention basin.

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

Irrigation plans for landscaped areas are required for Final Site Plan.

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

Provided.

Snow Deposit (LDM.2.q.)

Provided.

Proposed trees to be saved (Sec 37 Woodland Protection 37-9, LDM 2.e.(1))

Trees to be removed are clearly marked.

Corner Clearance (Zoning Sec 5.9)

Corner clearance at exit sign is met.

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



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Rick Meader – Landscape Architect

## LANDSCAPE REVIEW SUMMARY CHART

**Review Date:** August 21, 2017  
**Project Name:** JSP16 – 0036: Beck North Unit 54  
**Plan Date:** 8/3/2017  
**Prepared by:** Rick Meader, Landscape Architect E-mail: [rmeader@cityofnovi.org](mailto:rmeader@cityofnovi.org);  
 Phone: (248) 735-5621

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

**Note: This review utilizes the recently approved changes to the Landscape Ordinance and Landscape Design Manual.**

Item	Required	Proposed	Meets Code	Comments
<b>Landscape Plan Requirements (LDM (2))</b>				
<b>Landscape Plan</b> <i>(Zoning Sec 5.5.2, LDM 2.e.)</i>	<ul style="list-style-type: none"> <li>▪ New commercial or residential developments</li> <li>▪ Addition to existing building greater than 25% increase in overall footage or 400 SF whichever is less.</li> <li>▪ 1"=20' minimum with proper North. Variations from this scale can be approved by LA</li> <li>▪ Consistent with plans throughout set</li> </ul>	Yes	Yes	Scale: 1"=30'
<b>Project Information</b> <i>(LDM 2.d.)</i>	Name and Address	Yes	Yes	
<b>Owner/Developer Contact Information</b> <i>(LDM 2.a.)</i>	Name, address and telephone number of the owner and developer or association	Yes	Yes	Cover Sheet
<b>Landscape Architect contact information</b> <i>(LDM 2.b.)</i>	Name, Address and telephone number of RLA	Yes	Yes	
<b>Sealed by LA.</b> <i>(LDM 2.g.)</i>	Requires original signature	Yes	Yes	
<b>Miss Dig Note</b> <i>(800) 482-7171 (LDM.3.a.(8))</i>	Show on all plan sheets	Yes	Yes	
<b>Zoning</b> <i>(LDM 2.f.)</i>	Include all adjacent zoning	Site: I-1 North, South, West: I-1, East: R-2	Yes	
<b>Survey information</b> <i>(LDM 2.c.)</i>	<ul style="list-style-type: none"> <li>▪ Legal description or boundary line survey</li> <li>▪ Existing topography</li> </ul>	Yes	Yes	Sheet 3



Item	Required	Proposed	Meets Code	Comments
<b>Existing plant material Existing woodlands or wetlands</b> (LDM 2.e.(2))	<ul style="list-style-type: none"> <li>▪ Show location type and size. Label to be saved or removed.</li> <li>▪ Plan shall state if none exists.</li> </ul>	Yes	Yes	1. Sheet L-3 2. It appears that there are a number of trees along the proposed tree fence whose driplines extend into the area of grading and may be adversely affected by the construction, even though they are shown as being saved. 3. <b>Please refer to ECT's comments regarding Woodlands.</b>
<b>Soil types</b> (LDM.2.r.)	<ul style="list-style-type: none"> <li>▪ As determined by Soils survey of Oakland county</li> <li>▪ Show types, boundaries</li> </ul>	Yes	Yes	Sheet 4
<b>Existing and proposed improvements</b> (LDM 2.e.(4))	Existing and proposed buildings, easements, parking spaces, vehicular use areas, and R.O.W	Yes	Yes	
<b>Existing and proposed utilities</b> (LDM 2.e.(4))	Overhead and underground utilities, including hydrants	Yes	Yes	
<b>Proposed grading. 2' contour minimum</b> (LDM 2.e.(1))	Provide proposed contours at 2' interval	Yes	Yes	
<b>Snow deposit</b> (LDM.2.g.)	Show snow deposit areas on plan	Yes	Yes	
<b>LANDSCAPING REQUIREMENTS</b>				
<b>Parking Area Landscape Requirements LDM 1.c. &amp; Calculations (LDM 2.o.)</b>				
<b>General requirements</b> (LDM 1.c)	<ul style="list-style-type: none"> <li>▪ Clear sight distance within parking islands</li> <li>▪ No evergreen trees</li> </ul>	Yes	Yes	
<b>Name, type and number of ground cover</b> (LDM 1.c.(5))	As proposed on planting islands	Yes	Yes	
<b>General (Zoning Sec 5.5.3.C.ii)</b>				
<b>Parking lot Islands</b> (a, b. i)	<ul style="list-style-type: none"> <li>▪ A minimum of 200 SF to qualify</li> <li>▪ Minimum of 200sf per tree planted in an island.</li> <li>▪ 6" curbs</li> </ul>	Yes	Yes/No	<b>1.</b> In order to satisfy the requirement for parking lot islands to break up the expanses of parking bays into 15 spaces

Item	Required	Proposed	Meets Code	Comments
	<ul style="list-style-type: none"> <li>▪ Islands minimum width 10' BOC to BOC</li> </ul>			<p>or more, those islands must meet the size requirements for landscape islands and have deciduous canopy trees planted in them.</p> <ol style="list-style-type: none"> <li>2. <b>Please widen and increase the area of islands adjacent to the pathways from the north and west parking lots to the doors to 10 feet wide and 200sf landscape area.</b></li> <li>3. <b>Please plant trees in all islands used to break up parking bays.</b></li> <li>4. <b>Please adjust storm line passing through island south of entry on south side of building to allow 5' clearance for tree to be planted in that island.</b></li> <li>5. <b>Please add parking space and dimensions to plan set – perhaps sheet 4.</b></li> </ol>
<b>Curbs and Parking stall reduction (c)</b>	Parking stall can be reduced to 17' and the curb to 4" adjacent to a sidewalk of minimum 7 ft.	Yes	Yes	
<b>Contiguous space limit (j)</b>	Maximum of 15 contiguous spaces	Yes	Yes	<b>Please see note above regarding islands.</b>
<b>Plantings around Fire Hydrant (d)</b>	No plantings with matured height greater than 12' within 10 ft. of fire hydrants	Yes	Yes	
<b>Landscaped area (g)</b>	Areas not dedicated to parking use or driveways exceeding 100 sq. ft. shall be landscaped	Yes	Yes	
<b>Clear Zones (LDM 2.3.(5))</b>	25 ft corner clearance required. Refer to Zoning Section 5.5.9	Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
<b>Category 1: For OS-1, OS-2, OSC, OST, B-1, B-2, B-3, NCC, EXPO, FS, TC, TC-1, RC, Special Land Use or non-residential use in any R district (Zoning Sec 5.5.3.C.iii)</b>				
A = Total square footage of parking spaces not including access aisles x 10%	$A = \text{Area} \times 10\% = \text{sf}$	NA		
B = Total square footage of additional paved vehicular use areas (not including A) under 50,000 SF) x 5%	$B = \text{Area} \times 5\% = \text{sf}$	NA		
C = Total square footage of additional paved vehicular use areas (not including A or B) over 50,000 SF) x 1 %	$C = \text{Area} \times 1\% = \text{sf}$	NA		
<b>Category 2: For: I-1 and I-2 (Zoning Sec 5.5.3.C.iii)</b>				
A. = Total square footage of vehicular use areas x 5%	<ul style="list-style-type: none"> <li>▪ <math>A = 5\% * \text{xx sf} = \text{xx sf}</math></li> <li>▪ <math>50,000 \times 5\% = 2,500 \text{ sf}</math></li> </ul>			
B = Total square footage of additional paved vehicular use areas over 50,000 SF x 0.5%	<ul style="list-style-type: none"> <li>▪ <math>C = 0.5\% * \text{xx sf} = \text{xx SF}</math></li> <li>▪ <math>(75,088-50,000) * 0.5\% = 125 \text{ sf}</math></li> </ul>			
<b>All Categories</b>				
D = A+B or A+C Total square footage of landscaped islands	$2500 + 125 = 2625 \text{ SF}$	3,087 SF	Yes	See notes above regarding parking lot islands.
E = D/75 Number of canopy trees required	$2625/200 = 13 \text{ Trees}$	36 trees	Yes	<ol style="list-style-type: none"> <li>1. Please add the additional trees mentioned above in the islands serving to break up the parking bays.</li> <li>2. Please revise the tree locations and spacing per the new requirements for 1 tree per 200sf of island landscape area.</li> </ol>
<b>Perimeter Green space</b>	<ul style="list-style-type: none"> <li>▪ 1 Canopy tree per 35 lf</li> <li>▪ <math>1780 \text{ lf}/35 = 51 \text{ trees}</math></li> </ul>	51 trees	Yes	<ol style="list-style-type: none"> <li>1. 33 of them are evergreen trees</li> <li>2. Normally, all but 25% of perimeter trees need to be deciduous canopy</li> </ol>

Item	Required	Proposed	Meets Code	Comments
				<p>trees but since the evergreens provide additional winter screening of the building from adjacent residential property, this discrepancy is accepted, and supported.</p> <p>3. Please include the perimeter tree symbol designations on the legend.</p>
Parking land banked	NA	No		
<b>Berms, Walls and ROW Planting Requirements</b>				
<b>Berms</b>				
<ul style="list-style-type: none"> <li>▪ All berms shall have a maximum slope of 33%. Gradual slopes are encouraged. Show 1ft. contours</li> <li>▪ Berm should be located on lot line except in conflict with utilities.</li> <li>▪ Berms should be constructed with 6" of top soil.</li> </ul>				
<b>Residential Adjacent to Non-residential (Sec 5.5.3.A) &amp; (LDM 1.a)</b>				
<p><b>Berm requirements</b>                      (Zoning Sec 5.5.A)</p>	<p>Site is adjacent to residential on east so a landscaped berm 10-15 ft high with a 6 foot wide crest is required.</p>	<p>No</p>	<p>No</p>	<ol style="list-style-type: none"> <li>1. As the 50 foot wide woods are being preserved, a landscape waiver for the required berm is requested.</li> <li>2. The parking bay nearest the adjacent residential property has been removed and a 6 foot tall wall is proposed along the southeast corner of the parking lot to block lights and parking lot noise.</li> <li>3. Please provide a detail indicating the appearance and materials of the wall, as well as grading of the top of the wall versus the top of pavement to verify the blocking height</li> </ol>

Item	Required	Proposed	Meets Code	Comments
				of the wall. <b>4. Based on the proposed wall and proposed large evergreen trees planted behind it, the waiver request is supported by staff, assuming the effective height of the wall is sufficient.</b>
<b>Planting requirements (LDM 1.a.)</b>	LDM Novi Street Tree List	NA		
<b>Adjacent to Public Rights-of-Way (Sec 5.5.B) and (LDM 1.b)</b>				
<b>Berm requirements (Zoning Sec 5.5.3.A.(5))</b>	Per Zoning Ordinance 3.6.2.E, since parking is within the front yard, a brick wall or landscaped berm that is 2.5 feet tall, as measured from the parking lot surface, is required in front of the parking areas.	Yes		1. Site is in industrial subdivision. However, due to the site configuration, the berm or wall should extend across the entire cul-de-sac frontage of the parcel. 2. The required berm has been provided in front of the building but is not provided on the outsides of the entries due to lack of distance. This is accepted.
<b>Cross-Section of Berms (LDM 1.d(2))</b>				
Slope, height and width	<ul style="list-style-type: none"> <li>▪ Label contour lines</li> <li>▪ Maximum 33% slope</li> <li>▪ Constructed of loam</li> <li>▪ 6" top layer of topsoil</li> </ul>	Yes		1. Detail is provided. <b>2. Please revise to show that the berm is constructed of loam with a 6" top layer of topsoil.</b>
Type of Ground Cover		NA		
Setbacks from Utilities	Overhead utility lines and 15 ft. setback from edge of utility or 20 ft. setback from closest pole	NA		A note indicates that there are no overhead wires. This is satisfactory.
<b>Walls (LDM 2.k &amp; Zoning Sec 5.5.3.vi)</b>				
<b>Material, height and type of construction footing</b>	Freestanding walls should have brick or stone exterior with masonry or concrete	None		

Item	Required	Proposed	Meets Code	Comments
	interior			
<b>Walls greater than 3 ½ ft. should be designed and sealed by an Engineer</b>		Screening wall is proposed at east end of parking lot.		<ol style="list-style-type: none"> <li>1. Please provide a detail for the wall proposed at the east end of the south parking lot.</li> <li>2. Please also provide the top of wall and adjacent top of pavement elevations to ensure screening height is sufficient.</li> <li>3. Wall will need to be designed, signed and sealed by an engineer.</li> </ol>
<b>ROW Landscape Screening Requirements (Sec 5.5.3.B. ii)</b>				
<b>Greenbelt width</b> (2)(3) (5)	Parking: 25 ft.			
Min. berm crest width	Parking: 3 ft.	Varies		
Minimum berm height (9)	2.5 feet high	3 ft high		
3' wall	(4)(7)	None at ROW		
<b>Canopy deciduous or large evergreen trees</b> Notes (1) (10)	<ul style="list-style-type: none"> <li>▪ Parking: 1 tree per 40 lf</li> <li>▪ <math>xx/40 = x</math> trees</li> </ul>	NA		Site is in industrial subdivision. See below.
<b>Sub-canopy deciduous trees</b> Notes (2)(10)	<ul style="list-style-type: none"> <li>▪ Parking: 1 tree per 30 lf</li> <li>▪ <math>xx/30 = x</math> trees</li> </ul>	NA		Site is in industrial subdivision. See below.
<b>Canopy deciduous trees in area between sidewalk and curb</b> (Novi Street Tree List)	<ul style="list-style-type: none"> <li>▪ Parking: 1 tree per 45 lf</li> <li>▪ <math>xx/45 = x</math> trees</li> </ul>	NA		Site is in industrial subdivision so no street trees are required.
<b>Non-Residential Zoning Sec 5.5.3.E.iii &amp; LDM 1.d (2)</b>				
Refer to Planting in ROW, building foundation landscape, parking lot landscaping and LDM				
<b>Interior Street to Industrial subdivision</b> (LDM 1.d.(2))	<ul style="list-style-type: none"> <li>▪ 1 canopy deciduous or 1 large evergreen per 35 l.f. along ROW</li> <li>▪ <math>(215-60)/35 = 4</math> trees</li> <li>▪ 1 sub canopy tree per 40 l.f. of total linear frontage</li> <li>▪ <math>(215-60)/40 = 4</math> subcanopy trees</li> <li>▪ 2 shrubs per 40 lf of total linear frontage</li> <li>▪ <math>2 * (215-60)/40 = 8</math> shrubs</li> <li>▪ Plant massing of</li> </ul>	<ul style="list-style-type: none"> <li>▪ 5 deciduous canopy trees</li> <li>▪ 9 subcanopy trees</li> <li>▪ 32 junipers</li> </ul>	Yes/No	<ol style="list-style-type: none"> <li>1. Required canopy and additional plantings are provided.</li> <li>2. <b>Waiver for 6 subcanopy trees is not required.</b></li> <li>3. <b>Please provide additional massing per requirement.</b></li> <li>4. Other greenbelt plantings can be reduced per new requirements if</li> </ol>

Item	Required	Proposed	Meets Code	Comments
	ornamental grasses, perennials and/or annuals and bulbs for 25% of ROW			desired.
<b>Screening of outdoor storage, loading/unloading</b> (Zoning Sec. 3.14, 3.15, 4.55, 4.56, 5.5)		Yes	Yes	The loading zone is screened from the residential property to the east by the building.
<b>Transformers/Utility boxes</b> (LDM 1.e from 1 through 5)	<ul style="list-style-type: none"> <li>▪ A minimum of 2ft. separation between box and the plants</li> <li>▪ Ground cover below 4" is allowed up to pad.</li> <li>▪ No plant materials within 8 ft. from the doors</li> </ul>	Yes	Yes	
<b>Building Foundation Landscape Requirements (Sec 5.5.3.D)</b>				
<b>Interior site landscaping SF</b>	<ul style="list-style-type: none"> <li>▪ Equals to entire perimeter of the building x 8 with a minimum width of 4 ft.</li> <li>▪ 1111 lf x 8ft = 8888 SF</li> </ul>	8,890 sf	Yes	
Zoning Sec 5.5.3.D.ii. All items from (b) to (e)	If visible from public street a minimum of 60% of the exterior building perimeter should be covered in green space	Yes	Yes	All of frontage except paved entries is landscaped.
<b>Detention/Retention Basin Requirements (Sec. 5.5.3.E.iv)</b>				
<b>Planting requirements</b> (Sec. 5.5.3.E.iv)	<ul style="list-style-type: none"> <li>▪ Clusters shall cover 70-75% of the basin rim area</li> <li>▪ 10" to 14" tall grass along sides of basin</li> <li>▪ Refer to wetland for basin mix</li> </ul>	NA		No on-site detention is provided – storm water goes to regional basin.
<b>LANDSCAPING NOTES, DETAILS AND GENERAL REQUIREMENTS</b>				
<b>Landscape Notes – Utilize City of Novi Standard Notes</b>				
<b>Installation date</b> (LDM 2.i. & Zoning Sec 5.5.5.B)	Provide intended date	Mar-Nov 2017	Yes	<b>Please revise to 2018.</b>
<b>Maintenance &amp; Statement of intent</b> (LDM 2.m & Zoning Sec 5.5.6)	<ul style="list-style-type: none"> <li>▪ Include statement of intent to install and guarantee all materials for 2 years.</li> <li>▪ Include a minimum one cultivation in June, July and August</li> </ul>	Yes	Yes	

Item	Required	Proposed	Meets Code	Comments
	for the 2-year warranty period.			
<b>Plant source</b> (LDM 2.n & LDM 3.a.(2))	Shall be northern nursery grown, No.1 grade.	Yes	Yes	
<b>Irrigation plan</b> (LDM 2.s.)	A fully automatic irrigation system and a method of draining is required with Final Site Plan	No		<u>Need for final site plan</u>
<b>Other information</b> (LDM 2.u)	Required by Planning Commission	NA		
<b>Establishment period</b> (Zoning Sec 5.5.6.B)	<b>2 yr. Guarantee</b>	Yes	Yes	
<b>Approval of substitutions.</b> (Zoning Sec 5.5.5.E)	City must approve any substitutions in writing prior to installation.	Yes	Yes	
<b>Plant List (LDM 2.h.) – Include all cost estimates</b>				
Quantities and sizes	Refer to LDM suggested plant list	Yes	Yes	
Root type		Yes	Yes	
Botanical and common names		Yes	Yes	
Type and amount of lawn		Yes	Yes	
Cost estimate (LDM 2.t)	For all new plantings, mulch and sod as listed on the plan	Yes	Yes	<u>Need for final site plan</u>
<b>Planting Details/Info (LDM 2.i) – Utilize City of Novi Standard Details</b>				
Canopy Deciduous Tree	Refer to LDM for detail drawings	Yes	Yes	<b>If Amelanchier canadensis are multi-stem trees, please add multi-stem planting detail.</b>
Evergreen Tree		Yes	Yes	
Shrub		Yes	Yes	
Perennial/ Ground Cover		Yes	Yes	
Tree stakes and guys. (Wood stakes, fabric guys)		Yes	Yes	
Tree protection fencing	Located at Critical Root Zone (1' outside of dripline)	Yes	Yes	
<b>Other Plant Material Requirements (LDM 3)</b>				
<b>General Conditions</b> (LDM 3.a)	Plant materials shall not be planted within 4 ft. of property line	Yes	Yes	



Item	Required	Proposed	Meets Code	Comments
<b>Plant Materials &amp; Existing Plant Material</b> (LDM 3.b)	Clearly show trees to be removed and trees to be saved.	Yes	Yes	Sheet L-3
<b>Landscape tree credit</b> (LDM3.b.(d))	Substitutions to landscape standards for preserved canopy trees outside woodlands or wetlands should be approved by LA. Refer to Landscape tree Credit Chart in LDM	No		
<b>Plant Sizes for ROW, Woodland replacement and others</b> (LDM 3.c)	Canopy Deciduous shall be 3" and sub-canopy deciduous shall be 2.5" caliper. Refer to section for more details	Yes	Yes	
<b>Plant size credit</b> (LDM3.c.(2))	NA	No		
<b>Prohibited Plants</b> (LDM 3.d)	No plants on City Invasive Species List	No	Yes	
<b>Recommended trees for planting under overhead utilities</b> (LDM 3.e)	Label the distance from the overhead utilities	NA		
<b>Collected or Transplanted trees</b> (LDM 3.f)		No		
<b>Nonliving Durable Material: Mulch</b> (LDM 4)	<ul style="list-style-type: none"> <li>▪ Trees shall be mulched to 3" depth and shrubs, groundcovers to 2" depth</li> <li>▪ Specify natural color, finely shredded hardwood bark mulch. Include in cost estimate.</li> <li>▪ Refer to section for additional information</li> </ul>	Yes	Yes	<b>You may reduce the required depth of mulch on the planting details per the reduced depth listed here, if desired.</b>

**NOTES:**

1. This table is a working summary chart and not intended to substitute for any Ordinance or City of Novi requirements or standards.
2. The section of the applicable ordinance or standard is indicated in parenthesis. For the landscape requirements, please see the Zoning Ordinance landscape section 5.5 and the Landscape Design Manual for the appropriate items under the applicable zoning classification.
3. Please include a written response to any points requiring clarification or for any corresponding site plan modifications to the City of Novi Planning Department with future submittals.

ECT Project No. 170136-0200

August 17, 2017

Ms. Barbara McBeth, AICP  
City Planner  
Community Development Department  
City of Novi  
45175 W. Ten Mile Road  
Novi, Michigan 48375

Re: Beck North Unit 54 (JSP16-0036)  
Woodland Review of the Revised Preliminary Site Plan (PSP17-0121)

Dear Ms. McBeth:

Environmental Consulting & Technology, Inc. (ECT) has reviewed the Revised Preliminary Site Plan for the proposed Beck North Unit 54 project prepared by Alpine Engineering, Inc. dated August 3, 2017 and stamped "Received" by the City of Novi Community Development Department on August 4, 2017 (Plan). The Plan was reviewed for conformance with the City of Novi Woodland Protection Ordinance Chapter 37.

**ECT recommends approval of the Revised Preliminary Site Plan for woodlands with the condition that the Applicant satisfactorily address the items noted in the "Woodland Comments" section of this letter prior to approval of the Final Site Plan.**

The following woodland related items are required for this project:

Item	Required/Not Required/Not Applicable
Woodland Permit	Required
Woodland Fence	Required
Woodland Conservation Easement	Required

The purpose of the Woodlands Protection Ordinance is to:

- 1) *Provide for the protection, preservation, replacement, proper maintenance and use of trees and woodlands located in the city in order to minimize disturbance to them and to prevent damage from erosion and siltation, a loss of wildlife and vegetation, and/or from the destruction of the natural habitat. In this regard, it is the intent of this chapter to protect the integrity of woodland areas as a whole, in recognition that woodlands serve as part of an ecosystem, and to place priority on the preservation of woodlands, trees, similar woody vegetation, and related natural resources over development when there are no location alternatives;*

- 2) *Protect the woodlands, including trees and other forms of vegetation, of the city for their economic support of local property values when allowed to remain uncleared and/or unharvested and for their natural beauty, wilderness character of geological, ecological, or historical significance; and*
- 3) *Provide for the paramount public concern for these natural resources in the interest of health, safety and general welfare of the residents of the city.*

The proposed project is located off of Nadlan Drive within the Beck North Corporate Park development in Section 4 (east of Hudson Drive; north of West Road and east of N. Beck Road).

The Plan proposes the construction of a proposed, speculative light industrial building (containing approximately 25,000 square feet of office space and approximately 42,000 square feet of industrial/research floor area), associated parking and utilities.

Based on our review of the application, Novi aerial photos, Novi GIS, the City of Novi Official Wetlands and Woodlands Maps (see Figure 1, attached) it appears as if this proposed project site contains City-Regulated Woodlands along the eastern edge of the site.

What follows is a summary of our findings regarding on-site woodlands associated with the proposed project.

#### **Woodlands**

The site does contain areas noted as City of Novi Regulated Woodlands. The area designated as Regulated Woodland is located along the southern and eastern section of the site (see Figure 1). The current Plan includes a *Woodland Plan* (Sheet L-3). The *Woodland Plan* includes a Tree List and Woodland Summary that indicates the existing trees and the proposed tree removals.

Based on the Woodland Plan and our site inspection, on-site woodland contains bigtooth aspen (*Populus grandidentata*), black walnut (*Juglans nigra*), red oak (*Quercus rubra*), silver maple (*Acer saccharinum*), pin oak (*Quercus palustris*), American elm (*Ulmus americana*), and black cherry (*Prunus serotina*).

#### **Woodland Impact Review & Required Replacements**

The Plan indicates a total of sixty-eight (68) total surveyed trees on-site. Two (2) of the trees surveyed are listed as 'dead', therefore the site contains a total of sixty-six (66) regulated trees. These trees are located within the area designated as Regulated Woodland on the City of Novi's Regulated Woodland map. In terms of habitat quality and diversity of tree species, the woodland areas on the project site are of good quality. The majority of the woodland areas consist of relatively-mature growth trees of good. This wooded area does appear to provide a significant level of environmental benefit, and the subject property is located directly adjacent to a wooded/natural corridor that extends both north and south of the development. In terms of a scenic asset, wind block, noise buffer or other environmental asset, the woodland areas proposed for impact are considered to be of good quality. The current plan

proposes to impact only several trees as the majority of the lot had already been cleared for development of the overall Beck North Corporate Park.

As shown, the Plan proposes the removal of eight (8) of the sixty-six (66) regulated trees on-site (12% removal). This includes one (1) dead tree (i.e., Tree No. 55). It should be noted that the City of Novi replacement requirements pertain to regulated trees with d.b.h. greater than or equal to 8 inches and located within the areas designated as woodland on the City's Regulated Woodland Map. The replacement requirements also pertain to any tree greater than or equal to 36-inches in diameter.

A *Woodland Summary* Table has been included on Sheet L-3 (*Woodland Plan*). The Applicant has noted the following woodland impacts associated with the project:

- Total Trees: 68 (includes dead (2) & unregulated trees)
- Net Regulated Trees: 66
- Regulated Trees Removed: 8 (12% removal)
- Regulated Trees Preserved: 58 (88% preservation)
  
- Stems to be Removed 8" to 11": 4 x 1 replacement (Requiring 4 Replacements)
- Stems to be Removed 11" to 20": 9 x 2 replacements (Requiring 18 Replacements)
- Stems to be Removed 20" to 30": 0 x 3 replacements (Requiring 0 Replacements)
- Stems to be Removed 30"+: 0 x 4 replacements (Requiring 0 Replacements)
- Multi-Stemmed Trees (0 trees): (Requiring 0 Replacements)
  
- Total Woodland Replacement Trees Required: **22** (Previous Plan required 13)

It should be noted that the purpose of the City of Novi Woodland Protection Ordinance (Chapter 37) is to:

1. *Provide for the protection, preservation, replacement, proper maintenance and use of trees and woodlands located in the city in order to minimize disturbance to them and to prevent damage from erosion and siltation, a loss of wildlife and vegetation, and/or from the destruction of the natural habitat. In this regard, it is the intent of this chapter to protect the integrity of woodland areas as a whole, in recognition that woodlands serve as part of an ecosystem, and to place priority on the preservation of woodlands, trees, similar woody vegetation, and related natural resources over development when there are no location alternatives;*
  
2. *Protect the woodlands, including trees and other forms of vegetation, of the city for their economic support of local property values when allowed to remain uncleared and/or unharvested and for their natural beauty, wilderness character of geological, ecological, or historical significance; and*

3. *Provide for the paramount public concern for these natural resources in the interest of health, safety and general welfare of the residents of the city.*

A Woodland Permit from the City of Novi would be required for proposed impacts to any trees 8-inch DBH or greater and located within an area designated as City Regulated Woodland, or any tree 36-inches DBH regardless of location on the site. Such trees shall be relocated or replaced by the permit grantee. All deciduous replacement trees shall be two and one-half (2 ½) inches caliper or greater and all coniferous replacement trees shall be six (6) feet in height (minimum). All Woodland Replacement trees shall be species that are listed on the City's Woodland Tree Replacement Chart (attached).

It should be noted that the current Plan proposes to provide a total of seven (7) required Woodland Replacement tree credits on-site and the remaining fifteen (15) Woodland Replacement Credits will be paid to the City of Novi Tree Fund. The on-site Woodland Replacements are indicated on the *Landscape Plan* (Sheet L-1) and include:

- 7 x 2.5-inch tulip tree (*Liriodendron tulipifera*).

A Woodland Replacement Performance financial guarantee for the planting of replacement trees will be required. This financial guarantee will be based on the number of on-site woodland replacement trees (credits) being provided at a per tree value of \$400. The Woodland Replacement Performance financial guarantee will be **\$2,800** (7 On-site credits x \$400/Credit).

Based on a successful inspection of the installed on-site Woodland Replacement trees, the Woodland Replacement Performance Guarantee shall be returned to the Applicant. A Woodland Maintenance and Guarantee bond equal to twenty-five percent (25%) of the value of the original Woodland Replacement material will then be kept for a period of 2-years after the successful inspection of the tree replacement installation. The City's minimum required Woodland Maintenance and Guarantee bond amount is **\$1,000**.

#### **Woodland Comments**

The following are repeat comments from our Woodland Review of the Preliminary Site Plan (PSP17-0016) dated February 28, 2017. The current status of each comment follows in ***bold italics***:

1. It should be noted that this Lot contains a 50-foot wide Tree Preservation Easement along the eastern edge (defined in the Master Deed – Ninth Amendment, Liber 47451, dated September 29, 2014). Also included along the eastern edge of the development site is a Woodland Conservation Easement (defined in the Conservation Easement documents Liber 42076, date stamped May 17, 2010). It should be noted that no existing trees are being removed from within the 50-foot wide Tree Preservation Easement. In addition all thirteen (13) proposed Woodland Replacement trees appear to be located within the Woodland Conservation Easement. Please indicate and label the Woodland Conservation Easement on the Landscape Plan (Sheet L-1) to ensure that the proposed Woodland Replacement trees are in fact all located within this easement.



***This comment has been partially addressed. It should be noted that Sheet L-1 currently includes a total of seven (7) on-site Woodland Replacement Trees (as opposed to the 13 previously provided). While the boundary of the 50-foot Woodland Conservation Easement has been indicated on Sheet L-1, the seven (7) Woodland Replacement trees do not appear to be graphically displayed as being within this easement. Please review and revise the Plan in order to locate the Woodland Replacement trees within this easement.***

2. In addition to the eight (8) trees proposed for removal, five (5) trees to be preserved appear to be located within approximately 5-feet of the limits of disturbance. It is ECT's assessment that the silt fence and tree protection fence will be located within the dripline and critical root zone (CRZ) of these 5 trees. The critical root zone (CRZ) as defined by the Woodland Ordinance means a circular area around a tree with a radius measured to the tree's longest dripline radius plus 1 foot. These trees are:

- Tree #68 (13" black cherry – requires 2 Woodland Replacement Credits if disturbed);
- Tree #64 (19" red oak – requires 2 Woodland Replacement Credits if disturbed );
- Tree #63 (12" red oak – requires 2 Woodland Replacement Credits if disturbed);
- Tree #45 (8" bigtooth aspen – requires 1 Woodland Replacement Credits if disturbed);
- Tree #31 (10" bigtooth aspen – requires 1 Woodland Replacement Credits if disturbed).

It should be noted that the Woodland Ordinance (Sec. 37-9. Tree protection during construction) notes the following:

(a) Before development, land clearing, filling or any land alteration for which a use permit is required by this chapter commences, the developer shall be required to erect for the protection of remaining trees barriers as approved by the city. Such protection shall be maintained and remain in its approved location until such time as it is authorized to be removed by the city or issuance of a final certificate of occupancy. The location of such barriers from protected trees shall be the same separation as is required for trench excavation pursuant to section 11-50 of this Code. During construction, no attachments or wires shall be attached to any of such trees so protected. The construction of barriers shall comply with the following:

(1) Woodland areas shall be separated from construction areas by the installation of "barrier" fencing either of plastic or wood slat materials, a copy of the fence detail is available from the Parks, Recreation and Forestry Department or the Community Development Department. These materials shall be attached to five-foot "T" poles spaced at five-foot intervals and shall have a tree protection sign affixed to the fence every 50 foot in such a manner to be clearly visible to workers near the site. The use of chain link fence may also be required by the planning commission in the case of specimen trees or exceptionally valuable

woodland or wetland areas. This barrier shall be installed at the critical root zone (CRZ) perimeter of the on-site trees to be protected prior to initiating project construction. Should it not be possible to place the protection fencing at the CRZ of a regulated tree due to practical hardship, the applicant may provide replacement value for the tree into the City Tree Fund. The applicant may also choose to allow the tree in question to remain at his or her option. Accurate critical root zones must be depicted on the site plan for all regulated trees within 50' of proposed grading or construction activities.

ECT recommends that the applicant depict the critical root zone for these five (5) trees on the Plan. If the proposed site work/grading cannot be kept outside of the CRZ of these trees, the applicant shall provide eight (8) additional Woodland Replacement Credits on-site or to the City of Novi Tree Fund. The Plan should be reviewed and revised as necessary.

***This comment has been addressed. It should be noted the current Plan includes a total of six (6) trees to be preserved for which the limits of disturbance boundary falls within the Critical Root Zone of these trees. This has been indicated on the Woodland Plan (Sheet L-3) and the applicant will provide the required eleven (11) Woodland Replacement Credits for these trees.***

3. The Woodland Replacement Performance financial guarantee for the planting of replacement trees will be \$8,400 [21 (13 + 8 CRZ trees) Woodland Replacement Credits required x \$400/credit].

Based on a successful inspection of the installed on-site Woodland Replacement trees, the Woodland Replacement Performance Guarantee shall be returned to the Applicant. A Woodland Maintenance and Guarantee bond equal to twenty-five percent (25%) of the value of the original Woodland Replacement material will then be kept for a period of 2-years after the successful inspection of the tree replacement installation. The City has a minimum Woodland Maintenance Guarantee value of \$1,000.

***This comment still applies; however the Woodland Replacement Performance financial guarantee for the planting of on-site Woodland Replacement trees shall now be \$2,800 (7 on-site Woodland Replacements x \$400/Credit). After a successful inspection of the installed Woodland Replacement trees this financial guarantee will be returned to the applicant. The Woodland Maintenance Guarantee will be \$1,000.***

4. Replacement material should not be located 1) within 10' of built structures or the edges of utility easements and 2) over underground structures/utilities or within their associated easements. In addition, replacement trees spacing should follow the *Plant Material Spacing Relationship Chart for Landscape Purposes* found in the City of Novi *Landscape Design Manual*.

***This comment still applies.***

Beck North Unit 54 (JSP16-0036)  
Woodland Review of the Revised Preliminary Site Plan (PSP17-0121)  
August 17, 2017  
Page 7 of 10

5. The Applicant will be required to pay the City of Novi Tree Fund at a value of \$400/credit for any Woodland Replacement tree credits that cannot be placed on-site.

***This comment still applies. It should be noted that a payment to the City of Novi Tree Fund of \$6,000 (15 Woodland Replacement Credits x \$400/Credit) is currently required for this Plan. The applicant has noted that fifteen (15) Woodland Replacement Credits will be paid to the City of Novi Tree Fund on the Landscape Plan (Sheet L-1).***

**Recommendation**

ECT recommends approval of the Revised Preliminary Site Plan for woodlands with the condition that the Applicant satisfactorily address the items noted in the "Woodland Comments" section of this letter prior to approval of the Final Site Plan.

If you have any questions regarding the contents of this letter, please contact us.

Respectfully submitted,  
**ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.**



Pete Hill, P.E.  
Senior Associate Engineer

cc: Sri Komaragiri, City of Novi Planner  
Rick Meader, City of Novi Landscape Architect  
Kirsten Mellem, City of Novi Planner

Attachments: Figure 1 – City of Novi Regulated Wetland & Woodland Map  
Site Photos



**Figure 1.** City of Novi Regulated Wetland & Woodland Map. Regulated Woodland areas are shown in green and regulated Wetland areas are shown in blue. The approximate overall property boundary is indicated in red.



**Site Photos**



**Photo 1.** Looking northeast from Nadlan Drive towards area of City-regulated woodlands (ECT, February 28, 2017).



**Photo 2.** Looking northeast from Nadlan Drive towards area of City-regulated woodlands (ECT, February 28, 2017).



**Photo 3.** Looking east northeast towards area of City-regulated woodlands (ECT, February 28, 2017).



**Photo 4.** Looking east along south side of site towards area of City-regulated Woodlands (ECT, February 28, 2017).





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

**Project name:**  
 JSP16-0036 Beck North #54 Preliminary Traffic Review

**From:**  
 AECOM

**Date:**  
 March 3, 2017

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

**CC:**  
 Sri Komaragiri, Kirsten Mellem, George Melistas,  
 Theresa Bridges, Richelle Leskun, Darcy Rechten

# Memo

**Subject:** Beck Road North #54 Traffic Review

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

## GENERAL COMMENTS

1. The applicant, Dembs Development, Inc., is proposing a 67,309 square foot office/industrial building on the north side of Nadlan Drive, which is located on the east side of Hudson Drive. Hudson Drive is a north/south collector roadway that is located between Beck Road and W Park Drive. All surrounding roadways are within the City of Novi's jurisdiction.
2. The lot is currently zoned I-1 (light industrial). There are not any proposed zoning changes at this time.
3. The site has two proposed driveways, both of which are located on a cul-de-sac of Nadlan Drive.
4. Variances/Waivers
  - a. The applicant has requested a waiver for the driveway spacing between the proposed west driveway and the existing driveway for Unit 53.

## TRAFFIC IMPACTS

1. AECOM performed an initial trip generation estimate based on the ITE Trip Generation Manual, 9<sup>th</sup> Edition, as follows:

ITE Code: 710 (General Office Building) and 110 (General Light Industrial)  
 Development-specific Quantity: 26,924 sq. ft. gross floor area (office) and 40,385 sq. ft. gross floor area (industrial)  
 Zoning Change:

Trip Generation Summary					
	City of Novi Threshold	Estimated Trips (Office)	Estimated Trips (Industrial)	Total	Analysis

<b>AM Peak-Hour, Peak-Direction Trips</b>	100	59	N/A	59	Fitted Curve Equation
<b>PM Peak-Hour, Peak-Direction Trips</b>	100	91	N/A	91	Fitted Curve Equation
<b>Daily (One-Directional) Trips</b>	750	485	200	685	Fitted Curve Equation

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

Traffic Impact Study Recommendation	
Type of Study	Justification
Traffic Impact Assessment	The PM peak hour trips is expected to generate between 75-100 directional trips thereby warranting a traffic impact assessment (TIA).

## EXTERNAL SITE ACCESS AND OPERATIONS

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

- Driveway widths and turning radii are generally compliant with City standards. However, please provide turning radii dimensions for the future-use driveway located on the north side of the property.
- The applicant has not proposed any changes to the existing state of Nadlan Drive.
- The development needs at least 300 feet of building frontage to be eligible for two driveways.
- Commercial properties must be spaced at least 105 feet apart from near approach curb to near approach curb on 25 mph roadways. Indicate on the plans that there is 105 feet between the two proposed Nadlan Drive driveways and the proposed west site driveway with the existing driveway for Unit 53. **The applicant has requested a Planning Commission waiver for the west driveway spacing. AECOM does not support this waiver due to the development’s ineligibility for a second driveway.**
- There are an adequate number of site access drives provided.
- Eliminate the ability for eastbound vehicles on Nadlan Drive to turn left into the west driveway which may be achieved by:
  - Placing a median island in the cul-de-sac
  - One-way driveway operation
  - Signing

## INTERNAL SITE OPERATIONS

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

1. General Traffic Flow
  - a. Large trucks and emergency access vehicles are able to access and maneuver throughout the site.
  - b. The loading zone and dumpster location are not expected to interfere with parking operations. However, the current location of the dumpster could limit access during future use of the northern driveway. Relocation or repositioning of the dumpster location should be considered.
2. Parking Facilities
  - a. The City of Novi Zoning Ordinance requires one parking space for every 222 sq. ft. of gross leasable floor area for office use and one parking space for every 700 sq. ft. of usable floor area of industrial use. The applicant has used the 100% of the gross floor area for gross leasable floor area and usable floor area resulting in 179 required parking spaces. The applicant has provided 180 parking spaces.
  - b. Parking space dimensions are generally in compliance with City standards.
  - c. The applicant has provided an end island or peninsula every 15 parking spaces, which is in compliance with City standards.
  - d. Parking end islands and peninsulas are generally in compliance with City standards. However, the parking peninsula located on the west side of the northernmost row of parking spaces has an outside radius of 10 feet. The applicant should increase the outside radius to 15 feet.
  - e. The site requires a minimum of six barrier free parking spaces and the applicant has provided seven barrier free parking spaces, two of which are van accessible.
  - f. The applicant has proposed 1" wide, 4" high parking blocks in the front of barrier free parking spaces with a four inch curb which reduces the length of the parking space below the required 17 feet. The applicant should remove the parking bricks from the barrier free spaces or provide more detail on the location of these bumper blocks to ensure the parking space dimensions are in compliance with City standards.
  - g. The City of Novi Zoning Ordinance requires nine bicycle parking spaces. The applicant has provided ten bicycle parking spaces. The bicycle parking spaces are in compliance with City standards.
3. Sidewalk Requirements
  - a. The applicant has proposed an internal sidewalk with a width of a minimum of five feet and seven feet adjacent to 17 foot parking spaces, which is in compliance with City of Novi standards.
  - b. External sidewalks are not being proposed for the development.
4. All on-site signing and pavement markings shall be in compliance with the Michigan Manual on Uniform Traffic Control Devices.
  - a. All signing is MMUTCD compliant.

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

Sincerely,

**AECOM**



Sterling J. Frazier, E.I.T.  
Reviewer, Traffic/ITS Engineer



Matthew G. Klawon, PE  
Manager, Traffic Engineering and ITS Engineering Services



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

**Project name:**  
JSP16-0036 Beck North Unit 54 Traffic Impact  
Assessment Review

**From:**  
AECOM

**Date:**  
July 19, 2017

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

**CC:**  
Sri Komaragiri, Kirsten Mellem, George Melistas,  
Theresa Bridges, Richelle Leskun, Darcy Rechten

# Memo

**Subject:** Beck North Unit 54 Traffic Impact Assessment Review

The traffic impact assessment (TIA) was reviewed to the level of detail provided and AECOM **recommends approval** for the applicant to move forward with the condition that the comments provided below are adequately addressed to the satisfaction of the City. It should be noted that AECOM is requesting additional support documentation and evaluation information as part of this review letter.

## General Comments

1. Beck North Unit 54 is a planned light industrial facility located on Nadlan Drive, east of Hudson Drive in the Beck North corporate park located within the city of Novi.
2. The site is 5-acres and the applicant is proposing a 67,309 square foot light industrial building which has 40,385 square feet and 26,924 square feet of floor area allocated to industrial use and office use, respectively.
3. The development will utilize two separate access points; both of which are located within the cul-de-sac at the east end of Nadlan Drive.
4. The report references Hudson Drive as Hudson Road within the existing traffic section.

## Existing Conditions

1. The TIA references the speed limit on Hudson Drive as two-lane roadway with a speed limit of 25 mph; however, in 2016 Hudson Drive was converted to a roadway with a TWLTL with one lane in each direction and a speed limit of 30 mph. The text should be updated accordingly.
2. Peak period turning movement counts were collected at the intersections of West Road & Hudson Drive and Cartier Drive and Hudson Drive on Wednesday, June 21, 2017 from 7:00-9:00am and 4:00-6:00pm.
3. The peak hours of traffic were determined to be 7:30-8:30am and 4:30-5:30pm.
4. The volume counts for Cartier Drive and Hudson Drive that were used in the existing traffic figure were not provided in Appendix I as stated. A count was provided in Appendix I for the intersection; however, it only contained off-peak data.

## Background Traffic

1. A build out year of 2018 was used in the TIA.
2. The study included two new developments that may be complete prior to the build-out of Beck North Unit 54. Square footages for these developments were obtained and trips were estimated for each.
3. The estimated trips of the future developments and a 1.5% growth factor of existing traffic were used to generate background traffic numbers.
4. The applicant should also include SEMCOG traffic data to support the 1.5% growth rate.

## Trip Generation

1. Two separate trip generation analyses were performed based on the two separate land uses of the site. One analysis estimated the trips based on the entire square footage under a light industrial land use and the second analysis estimated trips based on the separate land uses of light industrial and general office. It was determined that the second analysis that included land uses of light industrial and general office trip estimates was more conservative and therefore used in the study.
2. The study makes note that, in order to be more conservative, estimates were based on the trip rate and not the equation. It should be noted that the provided equation in the trip generation manual does not encompass the provided square footage for the light industrial land use. The general office land use correctly uses the equation and its estimates.
3. The TIA distributed trips based on existing traffic patterns and determined that a total percentage of 55% of vehicles will access the site from the west with only 10% of those trips utilizing Cartier Drive. Ninety percent of vehicles accessing the site will do so via turning on to Hudson Drive from West Road. The distribution also estimated a 50% ratio for egress traffic between both driveways. AECOM could not re-create the 45/45/10 split used within the report. The text should be revised to include the methodology behind the trip distribution percentages used in the report.
4. Site-generated trips were distributed throughout the roadway network based on the distribution ratios provided in the text.

## Future Conditions

1. Existing traffic, background traffic, and site-generated traffic were added together to determine the estimated traffic of the build-out year of 2018.

## Conclusions and Recommendations

1. Turn lanes are not required at either of the two access points of the development.
2. Provide updated speed limits and geometry within the text for Hudson Drive and correct the use of "Hudson Road" within the text.
3. Include the peak hour volume counts for Hudson Drive and Cartier Drive in Appendix 1.
4. Further elaborate on the methodology used in determining the trip distribution percentages.

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

Sincerely,

**AECOM**

Memo

A handwritten signature in blue ink, appearing to read "Sterling Frazier".

Sterling J. Frazier, E.I.T.  
Reviewer, Traffic/ITS Engineer

A handwritten signature in blue ink, appearing to read "Matthew G. Klawon".

Matthew G. Klawon, PE  
Manager, Traffic Engineering and ITS Engineering Services



July 6, 2017 (Revised July 21, 2017)

Mr. Glenn E. Jones  
Dembs Development, Inc.  
27750 Stansbury, Suite 200  
Farmington Hills, MI 48334

**RE: TRAFFIC IMPACT ASSESSMENT - PROPOSED UNIT 54 OF BECK NORTH CORPORATE PARK  
46480 NADLAN COURT, NOVI, MICHIGAN**

Dear Mr. Jones:

Parsons has completed a traffic impact assessment (TIA) on behalf of Dembs Development, Inc. to assess the impact of a new light industrial facility to be located on Nadlan Drive, east of Hudson Drive, between Cartier Drive and West Road in the City of Novi, Michigan. The 5-acre site is proposed to contain a 67,309 square foot (sf) light industrial building comprised of 40,385 sf of industrial/research use and 26,924 sf of office use. The development is proposed to be served by two access drives on the cul-de-sac at the end of Nadlan Drive. The facility is expected to be constructed within one year.

The purpose of the analysis was to address the City's traffic concerns by performing the analyses necessary for a traffic impact assessment as detailed in the City of Novi Site Plan and Development Manual.

The following summarizes the data collection and analysis activities:

#### Existing Roadway Conditions

West Road is primarily a two-lane, east-west roadway that extends approximately 2 miles from Wixom Road easterly to its terminus east of West Park Drive. The road has a posted speed limit of 35 mph and is under the jurisdiction of the City of Novi, which classifies the roadway as a minor arterial. CSX Railroad crosses West Road approximately 530' west of the West Road/Hudson Drive intersection. At the intersection of West Road and Hudson Drive, a westbound right turn lane and an eastbound left turn lane exist on West Road. Based on 24-hour traffic counts conducted in June 2017, West Road is carrying about 7,700 vehicles per day.

Hudson Drive is primarily a two-lane, north-south roadway with a two-way left-turn lane (TWLTL) that extends approximately 0.7 miles from West Road northly to its terminus at Cartier Drive. The roadway serves various businesses, has a posted speed limit of 30 mph, and is under the jurisdiction of the City of Novi, which classifies the roadway as a non-residential collector.

Cartier Drive is primarily a two-lane, east-west roadway that extends approximately 0.4 miles from Beck Road easterly to its terminus approximately 500 feet east of Hudson Drive. The road serves various businesses, has a posted speed limit of 25 mph, and is under the jurisdiction of the City of Novi. The City classifies the roadway as a non-residential collector.

### **Existing Traffic**

Peak period traffic turning movement counts were performed at the intersections of West Road and Hudson Drive and Cartier Drive and Hudson Drive on Wednesday, June 21, 2017 from 7:00 to 9:00 AM and from 4:00 to 6:00 PM. The peak hours of traffic were determined to occur from 7:30 to 8:30 AM and from 4:30 to 5:30 PM. The detailed turning movement count data is contained in Appendix I. The 2017 existing peak hour traffic volumes are illustrated on Figure 1.

### **Trip Generation**

The number of trips that would be generated by the proposed development was estimated based on data contained in the 9<sup>th</sup> Edition of the *Trip Generation Manual* published by the Institute of Transportation Engineers (ITE). Two trip generation analyses were conducted for comparison as shown in Tables 1 and 2; one consisting of separating out the office (ITE code 710) and general light industrial (ITE code 110) uses and one consisting of classifying the site as only a general light industrial use.

It was determined that although the ITE general light industrial land use shown in Table 2 includes a portion of office within its database, the trip generation summarized in Table 1 provides a more conservative analysis and therefore was used in this study. It should also be noted, the AM and PM peak hour trip generation calculated for the general light industrial land use shown in Table 1 was based on the trip rate and not the equation in order to also provide a more conservative analysis.

The estimated number of trips generated by the site was determined for the weekday A.M. and P.M. peak hours and daily traffic.

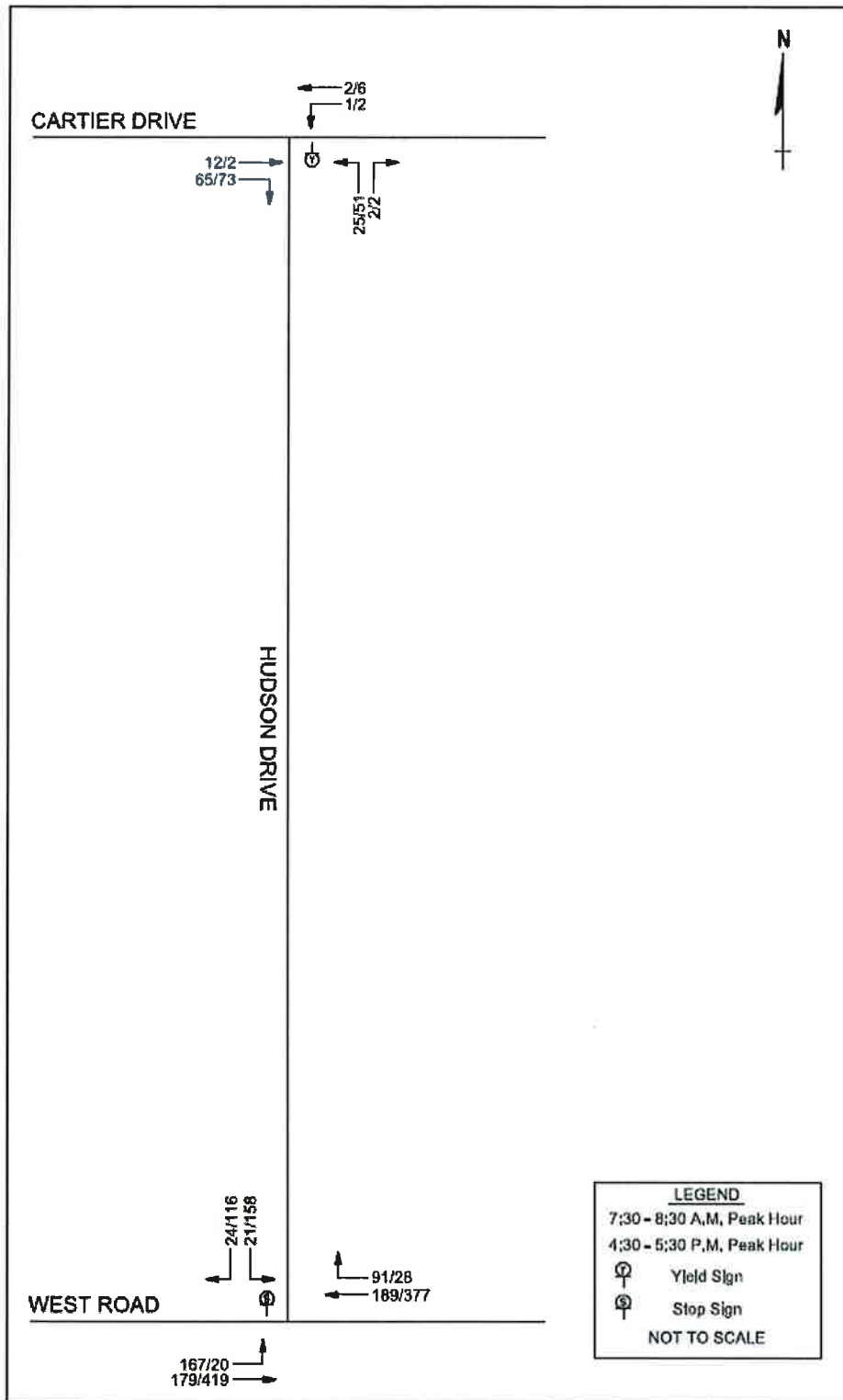


Figure 1 – Existing (2017) Peak Hour Traffic Volumes

Table 1  
**TRIP GENERATION – OFFICE AND LIGHT INDUSTRIAL**

Land Use	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Office Space (26,924 SF; ITE Code 710)	59	8	67	18	90	108
Gen. Light Industrial (40,385 SF; ITE Code 110)	33	4	37	5	34	39
<b>TOTAL</b>	<b>92</b>	<b>12</b>	<b>104</b>	<b>23</b>	<b>124</b>	<b>147</b>

Source: ITE Trip Generation Manual (9<sup>th</sup> Edition)

Table 2  
**TRIP GENERATION – LIGHT INDUSTRIAL**

Land Use	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Gen. Light Industrial (67,309 SF; ITE Code 110)	54	7	61	8	57	65
<b>TOTAL</b>	<b>54</b>	<b>7</b>	<b>61</b>	<b>8</b>	<b>57</b>	<b>65</b>

Source: ITE Trip Generation Manual (9<sup>th</sup> Edition)

**Trip Distribution**

The distribution of traffic was found by analyzing existing traffic patterns and logical routes that site traffic would take to access the site. Based on the existing turning movements on Hudson Drive at Cartier and at West Road, about 75% of traffic is going to and coming from West Road and 25% is going to and coming from Cartier. Recognizing that outbound site traffic destined for the I-96 freeway or points east and south would find it easier to make a right or left turn at West Road versus a left turn from Cartier to Beck Road, reducing the anticipated site traffic to 10% using Cartier was deemed reasonable. For this same reasoning, it is believed some traffic from businesses on Cartier are using Hudson Drive as an alternate route, thereby overstating the movements at Cartier and Hudson Drives. The distribution of existing traffic movements at West Road show an almost equal split between the east and west. The results of the directional distribution analysis are shown in Table 3 and the turning movement volumes are shown on Figure 2.

Table 3  
**DIRECTION OF APPROACH/DEPARTURE FOR NEW TRIPS**

To and From	Percent
The east on West Road	45
The west on West Road	45
The west on Cartier Drive	10

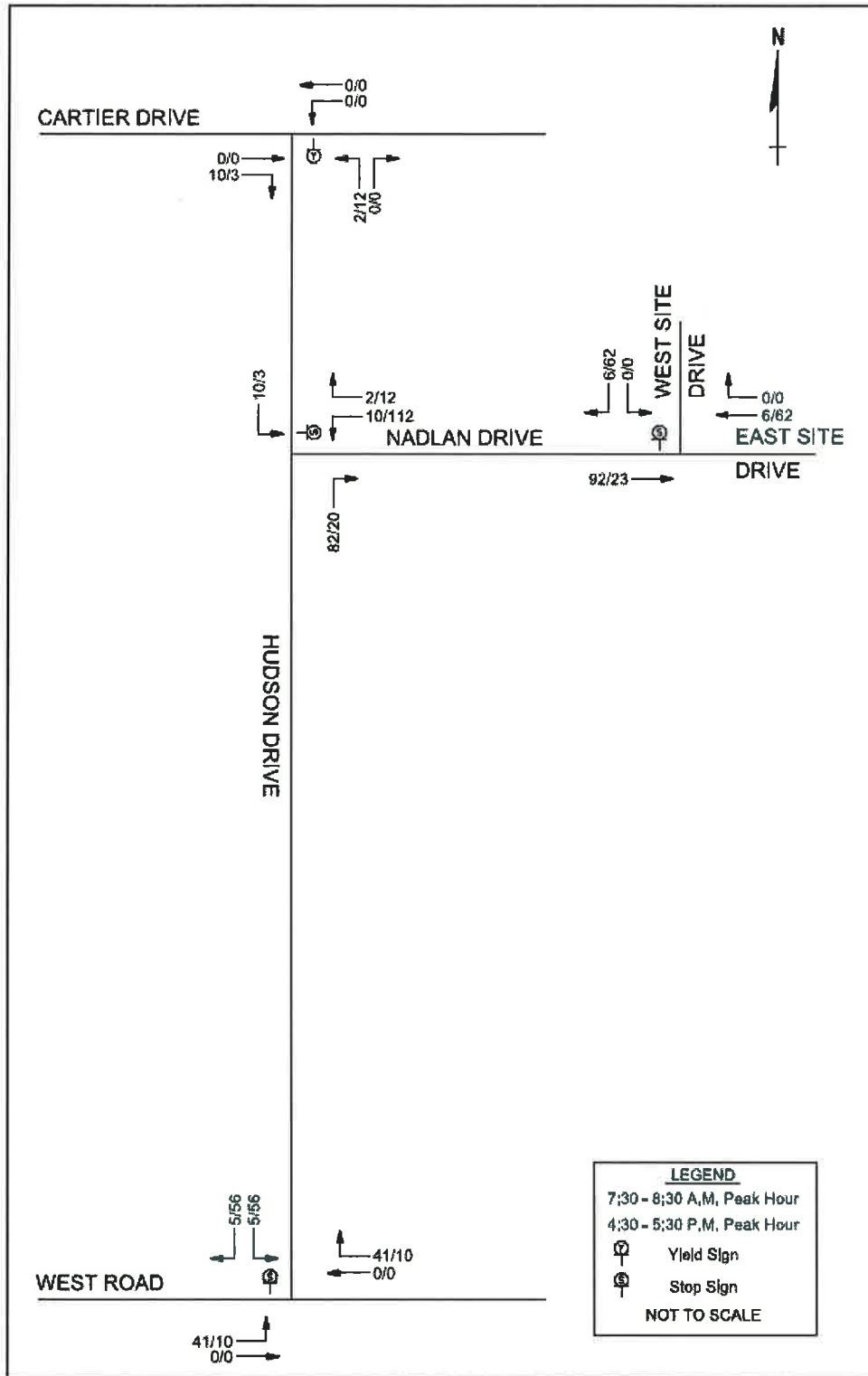


Figure 2 – Site Generated Peak Hour New Trips

**Background Traffic Conditions**

Background traffic takes into account the traffic conditions of the roadways at the projected site build-out year without the addition of the new site traffic. The analysis considers the following situations:

- i. The additional traffic on the roadway system that will be generated by approved developments in the area that may be completed by the time the build-out of the site occurs; and,
- ii. Traffic generated by other developments not known at this time that result in the inherent growth in traffic.

For this study, the build-out timeframe for the site is one year. It was determined through discussions with the City of Novi there are two new developments in the area that may be completed prior to build-out of the site. These developments are as follows: a one-story office building located east of Hudson Drive and North of West Road and a Light Industrial building located west of CSX Railroad and south of West Road that is awaiting tenancy. The main entrance for the industrial building is via Magellan Drive off Beck Road. The number of trips was determined for both the weekday A.M. peak hour and weekday P.M. peak hour of traffic for both background developments and are shown in Table 4.

Table 4  
**TRIP GENERATION – Approved Developments**

Land Use	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Office Space (21,437 SF; ITE Code 710)	49	7	56	17	85	102
Gen. Light Industrial (80,000 SF; ITE Code 110)	65	9	74	9	68	77
<b>TOTAL</b>	<b>114</b>	<b>16</b>	<b>130</b>	<b>26</b>	<b>153</b>	<b>179</b>

Source: ITE Trip Generation Manual (9<sup>th</sup> Edition)

A review of historic traffic counts over the past 10 years in the area was completed. Using 2007 SEMCOG traffic data (6,630 ADT) and 2017 24-hour tube counts conducted previously by Parsons (7,703 ADT), it was determined that the volumes along West Road displayed a compound average growth rate (CAGR) of 1.51 percent. As a result, a 1.5 percent growth factor for background traffic was deemed appropriate. Thus, the 2017 existing traffic volumes were increased by 1.5 percent for one year and the approved developments’ traffic was added to provide the resulting 2018 background traffic volumes illustrated on Figure 3.



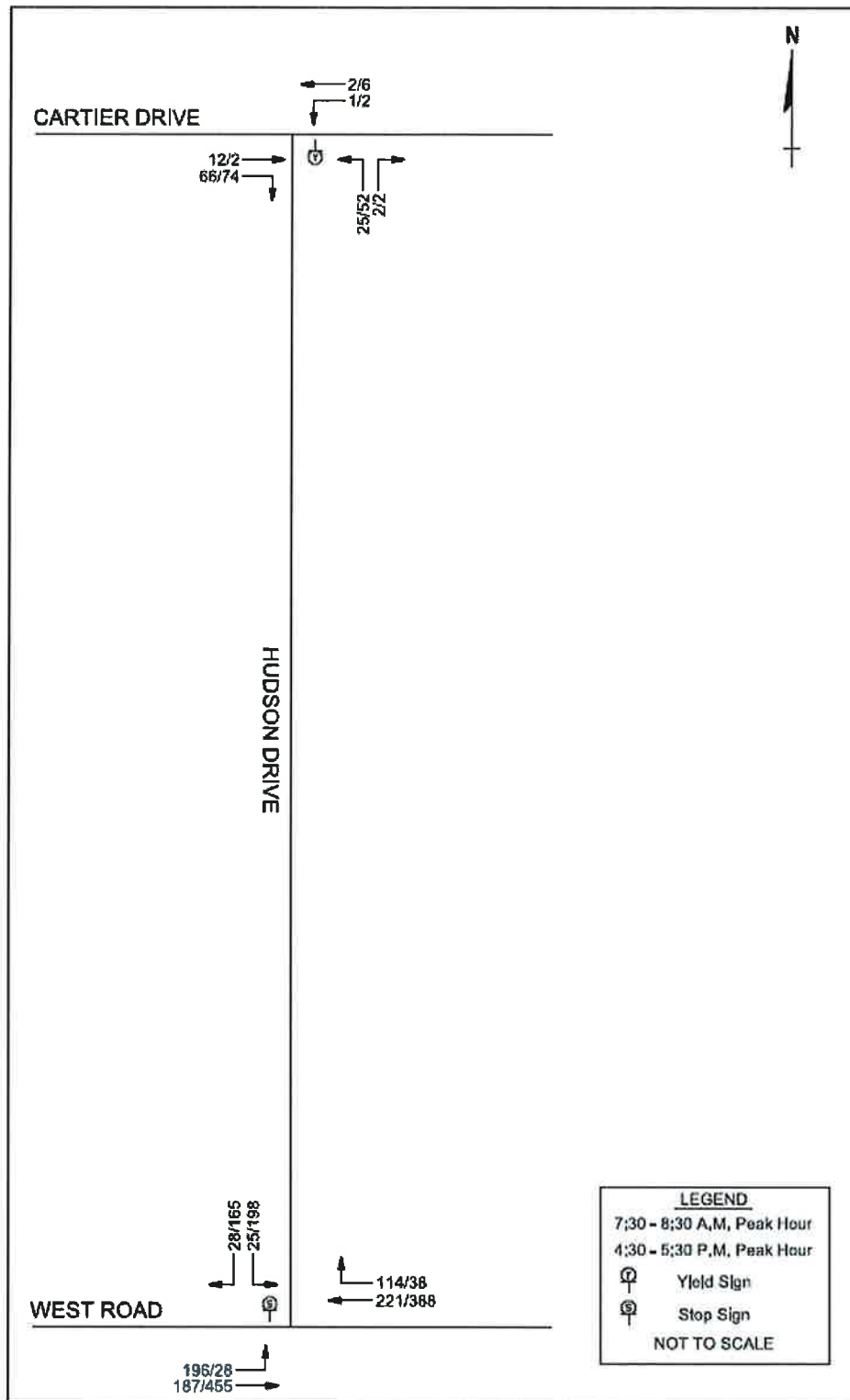


Figure 3 – Background (2018) Peak Hour Traffic Volumes

**Future Traffic Conditions**

The background traffic and the assignment of new site traffic were added together to create the 2018 total future turning movement volumes shown in Table 5 and Figure 4.

Table 5  
**TOTAL FUTURE TURNING MOVEMENT VOLUMES**

Intersection	Movement	AM Peak Hour			PM Peak Hour		
		Left	Right	Thru	Left	Right	Thru
West Road and Hudson Drive	Eastbound	237	--	187	38	--	455
	Westbound	--	155	221	--	48	388
	Southbound	30	33	--	254	221	--
Cartier Drive and Hudson Drive	Eastbound	--	76	12	--	77	2
	Westbound	1	--	2	2	--	6
	Northbound	27	2	--	64	2	--
Site Drives and Nadlan Drive	Eastbound	--	--	92	--	--	23
	Westbound	--	--	6	--	--	62
	Southbound	--	6	--	--	62	--

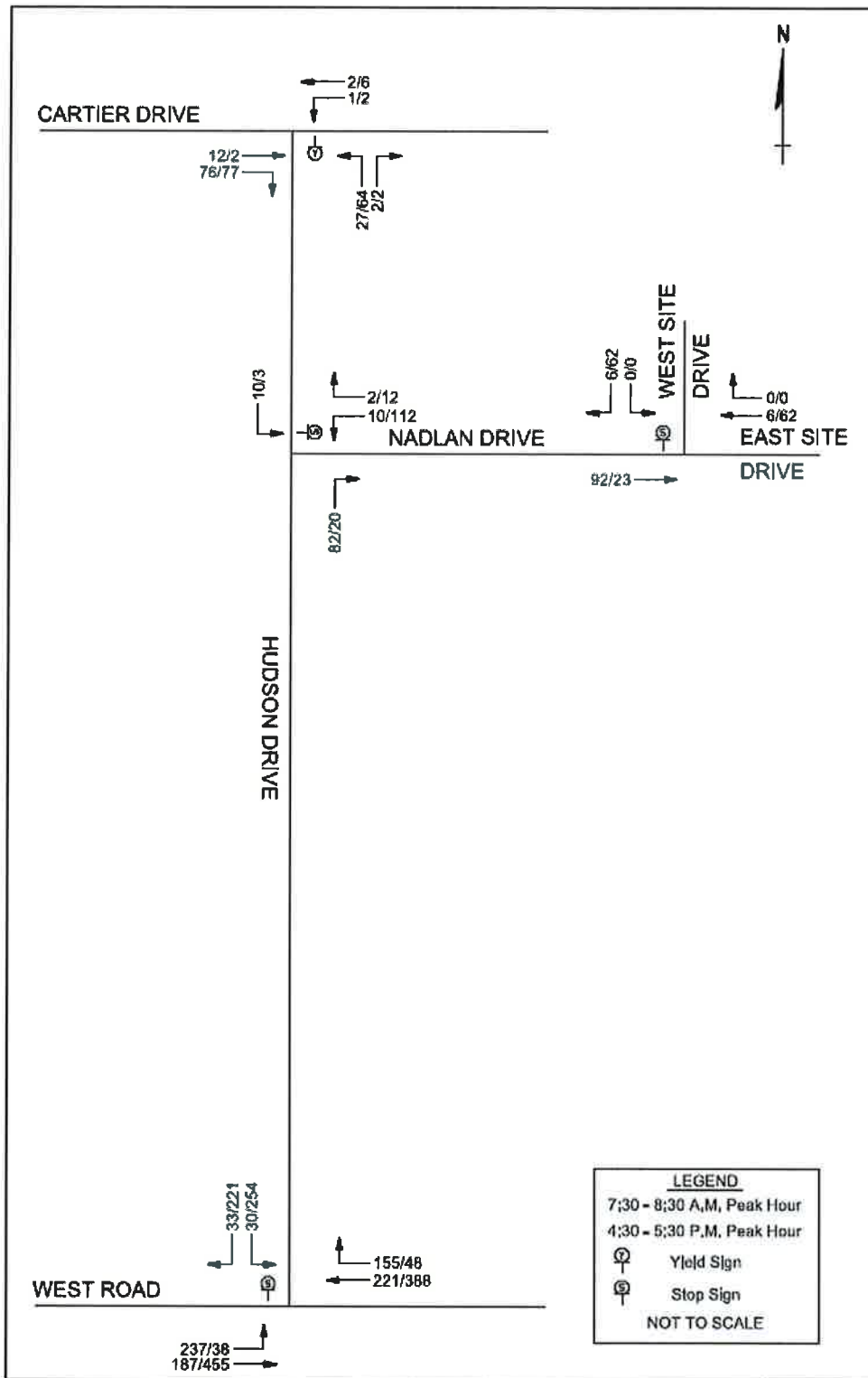


Figure 4 – Total Future (2018) Peak Hour Traffic Volumes

**Auxiliary Lane/Taper Requirements**

Given the fact that the site drives are located on a cul-de-sac, there will be no right turning movements from Nadlan Drive into the site drives; therefore there was no need to evaluate the right turn lane auxiliary lane warrants.

Since the City's traffic consultant's (AECOM) preliminary site plan review recommended eliminating the ability for eastbound vehicles on Nadlan Drive to turn left into the west driveway, the left turn auxiliary lane warrant does not apply here either. Therefore, neither site access drive will require a right or left turn auxiliary lane.

If you should require further information, please do not hesitate to contact us.

Very truly yours,

A handwritten signature in black ink, appearing to read "Eric J. Tripi". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Eric J. Tripi, PE, PTOE  
Regional Engineering Manager

## **APPENDIX I – TRAFFIC COUNT DATA**







# PARSONS

26777 Central Park Blvd, Suite 275  
Southfield, MI 48076

Default Comments  
Change These in The Preferences Window  
Select File/Preference in the Main Scree  
Then Click the Comments Tab

File Name : Cartier Drive at Hudson Drive  
Site Code : 11111111  
Start Date : 6/21/2017  
Page No : 1

## Groups Printed- Cars - Trucks

Start Time	From North					From East					From South					From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	14	0	0	0	14	17
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	24	0	0	0	24	28
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	8	0	8	10	3	0	0	13	21
07:45 AM	0	0	0	0	0	0	1	0	0	1	1	0	8	0	9	17	3	0	0	20	30
Total	0	0	0	0	0	0	1	0	0	1	1	0	23	0	24	65	6	0	0	71	96
08:00 AM	0	0	0	0	0	0	1	1	0	2	1	0	6	0	7	18	1	0	0	19	28
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	20	5	0	0	25	28
08:30 AM	0	0	0	0	0	0	0	2	0	2	1	0	3	0	4	12	3	0	0	15	21
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	7	0	7	7	0	0	0	7	14
Total	0	0	0	0	0	0	1	3	0	4	2	0	19	0	21	57	9	0	0	66	91
*** BREAK ***																					
04:00 PM	0	0	0	0	0	0	0	1	0	1	0	0	11	0	11	13	0	0	0	13	25
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	5	0	0	0	5	10
04:30 PM	0	0	0	0	0	0	0	1	0	1	1	0	16	0	17	31	0	0	0	31	49
04:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	8	0	8	13	2	0	0	15	24
Total	0	0	0	0	0	0	1	2	0	3	1	0	40	0	41	62	2	0	0	64	108
05:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	12	0	12	18	0	0	0	18	32
05:15 PM	0	0	0	0	0	0	3	1	0	4	1	0	15	0	16	11	0	0	0	11	31
05:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	15	0	16	10	0	0	0	10	26
05:45 PM	0	0	0	0	0	0	3	1	0	4	0	0	10	0	10	6	0	0	0	6	20
Total	0	0	0	0	0	0	8	2	0	10	2	0	52	0	54	45	0	0	0	45	109
Grand Total	0	0	0	0	0	0	11	7	0	18	6	0	134	0	140	229	17	0	0	246	404
Apprch %	0	0	0	0	0	0	61.1	38.9	0		4.3	0	95.7	0		93.1	6.9	0	0		
Total %	0	0	0	0	0	0	2.7	1.7	0	4.5	1.5	0	33.2	0	34.7	56.7	4.2	0	0	60.9	
Cars	0	0	0	0	0	0	10	6	0	16	4	0	130	0	134	218	17	0	0	235	385
% Cars	0	0	0	0	0	0	90.9	85.7	0	88.9	66.7	0	97	0	95.7	95.2	100	0	0	95.5	95.3
Trucks	0	0	0	0	0	0	1	1	0	2	2	0	4	0	6	11	0	0	0	11	19
% Trucks	0	0	0	0	0	0	9.1	14.3	0	11.1	33.3	0	3	0	4.3	4.8	0	0	0	4.5	4.7

## **APPENDIX II – SEMCOG TRAFFIC COUNT DATA**

# Traffic Counts

The Regional Traffic Counts Database is SEMCOG's central repository for traffic counts in the Southeast Michigan region. Traffic counts in this database were collected and provided to SEMCOG by county road commissions, local communities in Southeast Michigan, the Michigan Department of Transportation, and by consultants specializing in traffic data collection. Each count was taken during a continuous 24-hour period. The initial search results show the most recent Average Annual Daily Traffic (AADT) for the given location for the stated year. AADT are traffic volumes that are adjusted by a month and day of week factor to account for seasonal variations in traffic. By clicking on a AADT hyperlink, you will leave SEMCOG's website and will be directed to a more detailed report containing the AADT, Raw Traffic Count, and other information.

Seasonal adjustment factors are used to calculate average annual daily traffic (AADT) from short duration vehicle counts. These seasonal factors were developed using the Permanent Traffic Recorders (PTR) located in Southeast Michigan. The factors were averaged from each of these locations, thus resulting in adjustment factors by year and month for each day of the week. These adjustment factors can be applied to the raw counts in Southeast Michigan. An estimated AADT is produced by multiplying the factors times the raw counts. Click [seasonal adjustment factors](#) to download the factors.

For more information on traffic counts contact [Chade Saghir](#). SEMCOG also has a [Traffic Volume map](#) in the [Map Gallery](#).

## TRAFFIC COUNTS - Southeast Michigan

**Road Name**

 **Search Now**

[DOWNLOAD RESULTS \(.CSV\)](#)

Road Name	Dir.	Limits	Community	Year	AADT
West	EB	0.1 Mile East Of I75-Woodhaven Twp	Woodhaven	2005	<b><u>16,111</u></b>

<b>Road Name</b>	<b>Dir.</b>	<b>Limits</b>	<b>Community</b>	<b>Year</b>	<b>AADT</b>
West	WB	0.1 Mile East Of I75-Woodhaven Twp	Woodhaven	2005	<u>17,199</u>
West	2-WAY	0.1 Mile East Of Us-24(Telegraph)	Brownstown Twp	2015	<u>21,261</u>
West	EB	0.1 Mile East Of Us-24(Telegraph)	Brownstown Twp	2011	<u>8,936</u>
West	WB	0.1 Mile East Of Us-24(Telegraph)	Brownstown Twp	2011	<u>9,234</u>
West	2-WAY	0.1 Mile West Of Us-24(Telegraph)	Brownstown Twp	2015	<u>8,809</u>
West	EB	0.1 Mile West Of Us-24(Telegraph)	Brownstown Twp	2011	<u>5,421</u>
West	WB	0.1 Mile West Of Us-24(Telegraph)	Brownstown Twp	2011	<u>5,679</u>
West	2-WAY	0.25 Mile W Of Gudith (In Woodhaven)	Woodhaven	2015	<u>21,261</u>
West	EB	0.25 Mile W Of Gudith (In Woodhaven)	Brownstown Twp	2016	<u>10,427</u>
West	WB	0.25 Mile W Of Gudith (In Woodhaven)	Brownstown Twp	2016	<u>11,191</u>
West	EB	100 Feet East Of M-85 Fort St.	Trenton	2006	<u>7,016</u>
West	WB	100 Feet East Of M-85 Fort St.	Trenton	2006	<u>5,563</u>
West	EB	100 Feet West Of M-85 Fort St.	Trenton	2006	<u>9,097</u>
West	WB	100 Feet West Of M-85 Fort St.	Trenton	2006	<u>9,626</u>
West	EB	Allen To Grange	Trenton	2009	<u>17,850</u>
West	WB	Allen To Grange	Trenton	2015	<u>14,750</u>
West	2-WAY	Arsenal To Beech-Daly	Brownstown Twp	2003	<u>6,820</u>
West	2-WAY	At I-75 Overpass (In Woodhaven)	Woodhaven	2015	<u>38,684</u>
West	EB	At I-75 Overpass (In Woodhaven)	Woodhaven	2011	<u>20,346</u>
West	WB	At I-75 Overpass (In Woodhaven)	Woodhaven	2011	<u>11,788</u>
West	EB	Beck Rd To Unknown	Wixom	2007	<u>3,600</u>
West	WB	Beck Rd To Unknown	Novi	2007	<u>3,030</u>
West	2-WAY	Beech-Daly To Telegraph (Us-24)	Brownstown Twp	2014	<u>3,600</u>
West	EB	Beech-Daly To Telegraph (Us-24)	Brownstown Twp	2014	<u>3,560</u>
West	WB	Beech-Daly To Telegraph (Us-24)	Brownstown Twp	2014	<u>5,100</u>
West	2-WAY	Between Beech Daly And Arsenal (Brownstown Twp)	Brownstown Twp	2015	<u>8,809</u>
West	2-WAY	Between I-75 Int And Hall (In Woodhaven)	Woodhaven	2015	<u>32,876</u>
West	EB	Between I-75 Int And Hall (In Woodhaven)	Woodhaven	2011	<u>14,058</u>
West	WB	Between I-75 Int And Hall (In Woodhaven)	Woodhaven	2011	<u>13,964</u>
West	2-WAY	Between Merriman And Middlebelt (Huron Twp)	Huron Twp	2015	<u>731</u>

<b>Road Name</b>	<b>Dir.</b>	<b>Limits</b>	<b>Community</b>	<b>Year</b>	<b>AADT</b>
West	EB	Between Merriman And Middlebelt (Huron Twp)	Huron Twp	2015	<u>400</u>
West	WB	Between Merriman And Middlebelt (Huron Twp)	Huron Twp	2015	<u>424</u>
West	2-WAY	Between Newman And Manning (In Trenton)	Trenton	2015	<u>30,076</u>
West	EB	Between Newman And Manning (In Trenton)	Trenton	2016	<u>10,487</u>
West	WB	Between Newman And Manning (In Trenton)	Trenton	2016	<u>10,519</u>
West	2-WAY	Dickinson To Merriman	Huron Twp	2012	<u>580</u>
West	WB	East Of Wixom	Wixom	2014	<u>3,630</u>
West	2-WAY	Fort (M-85) To Jefferson	Trenton	2003	<u>13,040</u>
West	EB	Grange To Fort (M-85)	Trenton	2009	<u>10,420</u>
West	WB	Grange To Fort (M-85)	Trenton	2015	<u>12,740</u>
West	2-WAY	Gudith To Hall	Woodhaven	2009	<u>22,040</u>
West	EB	Gudith To Hall	Woodhaven	2004	<u>10,100</u>
West	EB	Hall To I-275 Freeway	Woodhaven	2004	<u>18,240</u>
West	WB	Hall To I-75 Freeway	Woodhaven	2004	<u>19,180</u>
West	2-WAY	Huron River Drive To Dickinson	Huron Twp	2003	<u>630</u>
West	2-WAY	Huron River Drive To Merriman	Huron Twp	2005	<u>517</u>
West	EB	I-75 Freeway To Allen	Woodhaven	2004	<u>17,930</u>
West	WB	I-75 Freeway To Allen	Woodhaven	2004	<u>18,490</u>
West	2-WAY	Inkster To Arsenal	Brownstown Twp	2003	<u>6,360</u>
West	2-WAY	Merriman To Middle Belt	Huron Twp	2003	<u>720</u>
West	2-WAY	Middle Belt To Inkster	Huron Twp	2003	<u>840</u>
West	2-WAY	Middlebelt Rd To Inkster Rd	Huron Twp	2015	<u>710</u>
West	EB	Middlebelt Rd To Inkster Rd	Huron Twp	2015	<u>360</u>
West	WB	Middlebelt Rd To Inkster Rd	Huron Twp	2015	<u>350</u>
West	EB	Mound To Van Dyke	Washington Twp	2008	<u>1,990</u>
West	WB	Mound To Van Dyke	Washington Twp	2008	<u>1,520</u>
West	NB	South Of Pontiac Trail	Novi	2012	<u>4,490</u>
West	EB	Telegraph (Us -24) To Gudith	Brownstown Twp	2009	<u>9,250</u>
West	WB	Telegraph (Us-24) To Gudith	Woodhaven	2009	<u>7,470</u>
West	2-WAY	Vining To Jefferson	Brownstown Twp	2011	<u>29,007</u>



<b>Road Name</b>	<b>Dir.</b>	<b>Limits</b>	<b>Community</b>	<b>Year</b>	<b>AADT</b>
West	NB	W Lincoln To W 11 Mile Rd	Royal Oak	2008	<u>250</u>
West	SB	W Lincoln To W 11 Mile Rd	Royal Oak	2008	<u>330</u>
West	EB	West Of I-75	Woodhaven	2005	<u>11,918</u>
West	WB	West Of I-75	Woodhaven	2005	<u>12,999</u>
West	EB	West Of Van Dyke Ave	Washington Twp	2012	<u>1,910</u>



March 1, 2017

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

*Façade Review Status Summary:*  
**Approved, Section 9 Waiver  
 recommended for overage of C.M.U.**

Re: **FACADE ORDINANCE - Façade Review**  
**Beck North Corporate Park Lot 54, PSP17-0016**  
 Façade Region: 3, Zoning District: I-1

Dear Ms. McBeth;

The following is the Façade Review for Final Site Plan Approval of the above referenced project based on the drawings prepared by Faudie Architecture, dated 2/7/17. 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 5.15 are shown in the right hand column. Materials in non-compliance with the Façade Chart, if any, are highlighted in bold. A sample board as required by Section 5.15.4.D of the Ordinance was not provided at the time of this review.

	West (Front)	South	East	North	Ordinance Maximum (Minimum)
Split Faced CMU	44%	45%	60%	61%	75%
Striated Score CMU	23%	30%	34%	35%	25%
Combined Percentage of C.M.U.	67%	75%	<b>94%</b>	<b>96%</b>	75%
Flat Metal Panel (ACM)	28%	22%	2%	1%	75%
Flat Metal Panels (RTU Screens)	5%	3%	4%	3%	50%

As shown above the combined percentage of Concrete Masonry Units (C.M.U) exceeds the maximum amount allowed by the Ordinance on the east and north façades. A Section 9 Waiver would be required for this deviation.

**Recommendation** - The overall design is substantially consistent with other nearby structures and will harmonize well within the Beck North Corporate Park. Therefore, it is our recommendation that the design is consistent with the intent and purpose of the Façade Ordinance and that a Section 9 Waiver be granted for the overage of combined types of Concrete Masonry Units (C.M.U.). A sample board indicating proposed colors of all materials should be provided not less than 5 days before the Planning Commission meeting.

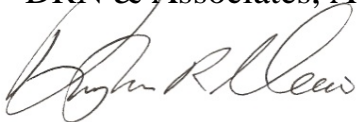
**Notes to the Applicant:**

1. Façade Ordinance requires inspection(s) for all projects. Materials displayed on the approved sample board will be compared to materials delivered to the site. It is the applicant's responsibility to request the inspection of each façade material at the appropriate time. Inspections may be requested using the Novi Building Department's Online Inspection Portal with the following link. Please click on "Click here to Request an Inspection" under "Contractors", then click "Façade".
2. The dumpster enclosure should be constructed of materials matching the primary structure.

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

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

Sincerely,  
DRN & Associates, Architects PC



Douglas R. Necci, AIA



February 16, 2017

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

**CITY COUNCIL**

**Mayor**  
Bob Gatt

**Mayor Pro Tem**  
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David E. Molloy

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

**Assistant Chief of Police**  
Erick W. Zinser

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

RE: Proposed to build a 67,309 square foot building.

PSP# 17-0016

**Project Description:**

Build a 67,309 square foot building in section 4.

**Comments:**

Turning radius on south east corner of the parking lot around the Island doesn't meet fire department standards.

**Recommendation:**

Approved with conditions.

Sincerely,

Kevin S. Pierce-Fire Marshal  
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

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46892 West Road, Suite 109  
Novi, Michigan 48377  
Phone: (248) 926-3701  
Fax: (248) 926-3765  
Web: www.alpine-inc.net

October 5, 2017

Barbara McBeth, AICP  
City of Novi Community Development Department  
45175 West 10 Mile Road  
Novi, Michigan 48375

Re: **Unit 54 Beck North Corporate Park  
Preliminary Site Plan Response Letter  
City of Novi Review# JSP16-36**

Dear Barbara:

This letter is in response to the Plan Review Center Report dated August 21, 2017 and received on October 5, 2017 for the above referenced project. Alpine offers the below comments in response to the review comments:

**Planning Review dated August 21, 2017**

- Please refer to Landry, Mazzeo & Dembinski, P.C. response letter dated 9/14/2017 to the City of Novi Planning Commission delivered on 9/15/17" (doc attached).
- A variance will be applied for the building height deviation.
- A note indicating that tenants should check with the Planning Department prior to leasing spaces to ensure use is consistent with special land use criteria is provided on sheet 2, Preliminary Site Plan.
- A note indicating trucks shall not use the drive on the east side of the building to access the loading dock, but can only use the drive on the west side of the building is provided on sheet 2, Preliminary Site Plan.
- Economic impact estimate to be provided by the applicant.

**Engineering Review dated March 7, 2017**

**General**

1. Through subsequent conversations with the City, it is our understanding that two (2) driveways will be acceptable with limitations to truck access. A driveway spacing waiver is requested.
2. See above response.
3. See above response.
4. Soil borings will be provided by the Applicant.

**Paving & Grading**

5. Additional notes to match existing pavement grades where the driveways connect are provided on sheet 4, Preliminary Grading Plan.
6. Additional information regarding the parking blocks is provided on sheet 4, Preliminary Grading Plan.
7. Additional parking dimensions are provided on sheet 2, Preliminary Site Plan.
8. The three (3)-ft required buffer between the sidewalk and any fixed objects is provided except at handicap signage locations and the building column near the main entrance.
9. The dimensions of the end islands are provided on sheet 2, Preliminary Site Plan.

**Storm Water Management Plan**

10. No comment.
11. Storm sewer calculations will be provided on the Final Site Plan.



12. Additional information regarding the c factor will be provided on the Final Site Plan.

Off-Site Easements

13. Off-site easements not required.

Utilities

1. A construction materials table will be provided on the Final Site Plan.
2. The separation between the utilities and trees will be verified and adjusted if necessary on the Final Site Plan.
3. Light pole locations with typical foundation depth will be shown at Final Site Plan.

Water Main

4. Water main profiles will be provided on the Final Site Plan.
5. Compacted sand backfill will be illustrated on the profiles on the Final Site Plan.
6. Water main flow calculations were provided by City on previous MDEQ permit applications.
7. The MDEQ water main permit will be applied for during the Final Site Plan review process.

Storm Sewer

8. The cover depth over the storm sewer will be verified for the Final Site Plan.
9. A minimum drop of 0.1' at storm structures will be verified for the Final Site Plan.
10. Any storm manholes with differences in invert elevations exceeding two (2)-ft will be proposed with a two (2)-ft plunge pool on the Final Site Plan.
11. Inlet storm structures will be labeled on the Final Site Plan utility profiles.
12. A casting schedule will be provided on the Final Site Plan.

Soil Erosion and Sediment Control

13. The SEESC permit will be applied for during the Final Site Plan review process.

General

14. Off-site easements not required.
15. Draft copy of water main easement will be provided.
16. Draft copy of sanitary sewer monitoring manhole easement will be provided.
17. Comment noted.
18. An itemized construction cost estimate will be submitted with the Final Site Plan.
19. A ROW permit will be applied for during the Final Site Plan review process.

The following must be addressed prior to construction:

20. -27. Items will be addressed as necessary prior to construction

**Landscape Review dated August 21, 2017**

Please see response letter by Allen Design.

**ECT Woodland Review dated August 17, 2017**

Please see response letter by Allen Design.

**AECOM Traffic Review dated March 3, 2017**

External Site Access and Operations

1. The turning radii dimensions for the future use driveway are provided on sheet 2, Preliminary Site Plan.
2. No comment.
3. Refer to the response above (Engineering Review General Comment #1)
4. Refer to the response above (Engineering Review General Comment #1)
5. No comment.
6. Additional clarification regarding site access and signage is provided on sheet 2, Preliminary Site Plan.

Internal Site Operations

1. General Traffic Flow
  - a. No comment.

- b. The location of the dumpster will be reviewed for the Final Site Plan.
- 2. Parking Facilities
  - a. No comment.
  - b. No comment.
  - c. No comment.
  - d. The specified radius is increased. See sheet 2, Preliminary Site Plan submittal.
  - e. No comment.
  - f. Additional detail regarding the parking blocks is provided on sheet 4, Preliminary Grading Plan.
  - g. No comment.
- 3. Sidewalk Requirements
  - a. No comment.
  - b. No comment.
- 4. All on-site signing and pavement markings shall be in compliance with the Michigan Manual on Uniform Traffic Control Devices.
  - a. No comment.

**Façade review dated March 1, 2017**

- 1. No comment.
- 2. Dumpster enclosure materials are consistent with the primary structure.

**Fire Department review dated February 16, 2017**

- 1. The required radius on southeast corner of the parking lot is increased on sheet 2, Preliminary Site Plan.

If you have any questions, please feel free to call our office at (248) 926-3701.

Regards,  
Alpine Engineering Inc.



Thomas Gizoni, PE

cc: Dembs Development, Inc.

October 5, 2017

Mr. Rick Meader, Landscape Architect  
**City of Novi Community Development**  
45175 West 10 Mile  
Novi, MI 48375

**RE: Beck North, Unit 54**

Dear Mr. Meader:

Below are our responses to your review of plans dated August 3, 2017.

Landscape Review


- The industrial subdivision landscape elements will be added to the plans.
- Parking lot island areas are indicated and contain a tree in islands 200 s.f. and larger.
- We will work with the engineer to provide the required parking islands to create a break every 15 spaces.
- The wall will be designed by others with details provided.
- The berm cross section will be revised indicating the top layer will be 6" topsoil.
- The installation date will be revised.

Woodland Review

- The Woodland Conservation Easement has been labeled on the plan. This area is currently wooded. Woodland replacement trees have been shown outside of the existing easement to prevent woodland disturbance.
- We will verify woodland replacement trees are located no closer than 10' from structures and utilities.

If you have any questions or comments regarding this response, please contact me at your convenience.

Sincerely,



James C. Allen  
**Allen Design L.L.C.**

L A W   O F F I C E S  
**LANDRY, MAZZEO & DEMBINSKI, P.C.**

D. B. LANDRY  
[dlandry@lmdlaw.com](mailto:dlandry@lmdlaw.com)

37000 GRAND RIVER AVENUE, SUITE 200  
FARMINGTON HILLS, MICHIGAN 48335  
[www.lmdlaw.com](http://www.lmdlaw.com)

TELEPHONE  
(248) 476-6900

FACSIMILE  
(248) 476-6564

September 14, 2017

City of Novi Planning Commission  
45175 Ten Mile Road  
Novi, MI 48375

RE:   Application Of Beck North Corporate Park Regarding Unit #54 JSP 16-36

Dear Planning Commission Members:

Dembs Development has applied for a site plan approval with Special Land Use for Unit #54 at the Beck North Corporate Park. This would be a 67,000-square foot building in the Beck North Industrial Park located north of West Road. On May 24, 2017, the Applicant appeared before the Planning Commission for a Public Hearing and a Request For Site Plan Approval with several landscape waivers. At the May 24, 2017 Hearing the Planning Commission voted unanimously to postpone the matter "... to give time for the Developer and to the City Staff to work together to resolve the issue of screening both in-whether its wall, berm, vegetation, trees or some combination, between the closest point of the industrial property and the residential homes as well as the other issues that were brought up today." (Planning Commission Minutes 5/24/17, p. 45). The Applicant has considered the comments of the Public and the Planning Commission, met with City Staff and made several changes to the Site Plan. This matter is currently scheduled for the Planning Commission Meeting of October 11, 2017.

The main issue in this matter is the adjacency between Unit #54 which is zoned I-1 and the R-2 property to the east. The Zoning Ordinance calls for a landscape berm between such zoned areas but the Zoning Ordinance specifically recognizes that a berm may not be necessary if the two properties are separated by mature dense woodlands which would have to otherwise be removed to install such a berm. That is exactly the situation which prevents itself here. The Applicant has requested a waiver of the requirement to install a berm in light of the extensive mature woodlands. The City Administration in fact supported that waiver request in its initial review of this Application back on February 27, 2017. At that time, the Landscape Review concluded "The Applicant may request a landscape waiver for the berm as the preserved woods provides the buffer. As the building's loading zone and entry are on the west side of the building and additional trees will be planted between the buffer and the drive, this will be supported by staff." (Landscape Review Report 2/27/17, p. 2). The purpose of this letter is to provide the Planning Commission with a historical context of this request. The Beck North Corporate Park (BNCP) has been the subject of numerous prior Planning Commission reviews and

**LANDRY, MAZZEO & DEMBINSKI, P.C.**

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Page 2

there have been extensive measures taken by the property owners over the years to mitigate the adjacency issue with the residential property to the east. Thus, this current request for Site Plan approval should not be considered in isolation, but rather, must be understood in context of the numerous measures which have been taken by the Applicant and its predecessors over the years. This letter will provide that history, the measures taken over the years to mitigate any potential adjacency concerns, the additional measures taken in the initial Site Plan submittal, the comments by the Planning Commission and Public on 5/24/17 and the additional measures taken by the Applicant in light of those concerns and after meeting with City Staff. We believe that all of these efforts and measures absolutely satisfy the requirements of the Novi Zoning Ordinance which specifically contemplates a waiver of the berm requirements to save mature woodlands by creating an alternative equally as attenuating as a berm. I will address the history of the project and the exact concerns raised at the May 24, 2017 Planning Commission Meeting.

**A. HISTORY OF THE PROPERTY.**

As with any adjacency issue between two different zoning properties the starting point should consider who was there first. If a person purchases property knowing it is adjacent to industrially zoned property such person cannot expect that anything other than an industrial use will be developed on the adjacent property. In this case all of the property in question was originally zoned industrial. Attached hereto as Exhibit A is a zoning map from 1983. At that time both the property on which BNCP was developed and the property on which Bristol Corners was developed was all zoned I-1. In 1984 the property on which Bristol Corners was developed was rezoned to R-2. (See Exhibit A). The City Council Minutes from 11/19/84 reveal that one consideration in rezoning to R-2 was that it would provide for a "cluster option" so that the Developer could use the rolling terrain. (See Exhibit A). Therefore, as we can see, the industrial zoned property "was here first" and the residential property came to the industrially zoned property. The cluster option discussed by the City Council back in 1984 recognized that when it comes to adjacency issues both property owners have an obligation to take measures to mitigate and any such obligation does not fall solely on one party of the other.

**B. MEASURES TAKEN THROUGH THE YEARS TO MITIGATE ADJACENCY.**

In 1998 a 50-foot strip of land all along the eastern border of BNCP was deeded by the Applicant's predecessor owner to the City. This has become known as a wildlife habitat corridor. Its zoning classification has remained I-1 but it is in fact own by the City. As part of the Phase I Approval for BNCP the Applicant requested a waiver of the berming

September 14, 2017

Page 3

requirement along its entire eastern border. The City Council approved the waiver of a berming requirement along most of the eastern border but required that the Applicant agree to a permanent maintenance agreement with respect to the wildlife habitat corridor. (See Exhibit B). The matter went back to the Planning Commission in 2001 and the Applicant and the City executed a "Landscape Easement" which required the Applicant to maintain the 50-foot wide habitat corridor. (Exhibit B). Thus, while the Applicant previously deeded the 50-foot strip to the City the Applicant has agreed to the obligation to maintain it in its natural state.

When BNCP applied for Phase II Site Plan Approval the Applicant agreed to an additional 50-foot wide strip to the west of the wildlife habitat corridor. In 2003 the Applicant agreed to do even more. The Applicant agreed to an additional 25 feet of setback and also agreed to a Conservation Easement for the second 50-foot strip. Thus, the Applicant has created 125 feet of setback from the residential district to the east with the first 50 feet under a Landscape Agreement, the second 50 feet under a Conservation Easement and an additional 25 feet for a total of 125-foot of setback from the residential property to the east.

In addition to the above, the Applicant agreed to pull back Nadlan Drive 150 feet to the west from its originally designed location in order to place it further away from the Bristol Corners residences. (See Exhibit B).

Therefore, the Applicant and its predecessors of BNCP over the years have agreed to create a 125-foot setback and be bound by Conservation and Landscape Easements and further agree to pull back Nadlan Drive to the west 150 feet. (See Exhibit B).

**C. NOVI ZONING ORDINANCE PROVISIONS FOR A WAIVER OF A LANDSCAPE BERM.**

Novi Zoning Ordinance Section 5.5 provides in pertinent part as follows:

5.5(1) Intent. The intent of this section is to achieve landscapes with creative placement and distinctive design that emphasized the preservation of existing natural resources and the use of native plant materials, and a diversity of plan species; preserve and enhance existing woodlands ... require appealing yet opaque visual and audible buffering between non-compatible land uses; and to



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utilize the best ecological concepts and environmental objectives with preservation as a priority ...

\* \* \*

### 3. Landscape Requirements.

#### a. Residential adjacent to Non-Residential.

i. Intent. To make provision for a visual buffer strip in each zoning and use classification when a non-residential use abuts or is adjacent to any residential zoning district.

ii. Requirements for obscuring landscape earth berms and walls ... and obscuring landscape earth berm and plantings as described, shall be proposed, approved, installed and maintained in connection with any development or use identified below.

Thus, as we review the Ordinance we see that the intent is to create an opaque visual and audible buffering while maintaining existing woodlands. Zoning Ordinance Section 3.14(5) specifically provides as follows:

Where a permitted use abuts a residential district, the following special conditions apply:

(E) For I-1 districts, adjacent to any residential district, an earth berm and plantings are required ... the requirements supersede standards at Section 5.5, provided, however, that pursuant to Section 5.5.3.A.vii *the Planning Commission may waive or modify the requirements for an earth berm or obscuring wall when adjacent to a woodland.* Woodland areas shall be of sufficient width and density to provide the visual and audial screening that the berm or wall would provide. (emphasis added)

Thus, the Zoning Ordinance itself provides for a waiver of the berm requirement specifically for I-1 districts that abut a residential district when the woodland areas are of

sufficient width and density to provide visual and audial screening. Thus, the waiver which the Applicant seeks at this time is specifically anticipated and called for in the Zoning Ordinance itself. The Applicant is asking for nothing more than what the Zoning Ordinance provides for.

**D. ADDITIONAL MEASURES TAKEN BY THE APPLICANT IN THE INITIAL DESIGN OF UNIT #54.**

In its design of Unit #54 the Applicant took the following measures to mitigate the adjacency issues to residences to the east. Please note that these measures were taken in addition to the measures which were historically taken.

-Move the dumpsters as far away as possible from the residential area, i.e., to the northwest corner of the site.

-Design the loading doors as far away as possible from the residential area, i.e., to the northwest corner of the building.

-Rendered the drive along the east side of the building without any loading zone and the only building access along this drive is via a man door only. Also, the Site Plan requires that "trucks shall not use the drive on the east side of the building to access the loading dock, but can only use the drive on the west side of the building".

**E. PLANNING COMMISSION MEETING OF MAY 24, 2017, PUBLIC COMMENT AND PLANNING COMMISSIONER'S INPUT.**

At the Public Hearing on May 24, 2017 three residents spoke and expressed the following concerns. Indeed, the Planning Commission recognized that some of the concerns were simply not applicable to the Site Plan Application:

-Objections to lighting - The Applicant's Site Plan complies with all of the City Zoning Ordinances regarding lighting.

-A resident heard steel drop from the south side of the entire corporate park. - This is not applicable to this Site Plan Application.

**LANDRY, MAZZEO & DEMBINSKI, P.C.**

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Page 6

-A resident heard dumpsters in the morning - This Site Plan requires that refuse pickup shall be limited to the hours 7:00 a.m. and 5:00 p.m. That is what the Zoning Ordinance requires.

-Fear of automobile headlights and noise from Nadlan Drive.

-Make the building smaller.

On May 24, 2017, the Planning Commission engaged in an extensive discussion of this proposed Site Plan. The following concerns were specifically addressed:

MR. ANTHONY: "Is there a way - so that the berm in a sense not when we look at the northern two-thirds of that landscaping - and again I'm on the right side or the eastern side of the property. So, from the southern line of the building and then moving south ..." (p. 29).

MR. ZUCHLEWSKI: "On the berm itself, does the berm have to be a landscape berm, or can it be a combination of landscape berm and may be a precast, prefab retaining wall in this corner like they have on the expressway for noise?" (p. 33).

MR. GIACOPETTI: "I think knowing who was moving in there might make me more inclined to support some of these waivers ..." (p. 39).

Thus, the concern with respect to noise and lighting appeared to be focused on the southeast corner of the site, which, is indeed the site closest to Bristol Corners. The Planning Commission specifically postponed this matter and gave the Applicant the directive to do the following:

My motion to postpone would be to postpone to give time for the Developer and to the City Staff to work together to resolve the issue screening both in - whether its wall, berm, vegetation, trees or some combination, between the closest point of the industrial property and the residential homes as

September 14, 2017

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well as the other issues that were brought up today. (Planning Commission Minutes, May 24, 2017, p. 45).

The Applicant indeed heard all of this, met with City Staff to resolve the issue of screening with, as directed, a combination of vegetation, trees and a wall between the Applicant's property and the closest point of the residences to the east. This is exactly what the Planning Commission charged the Applicant to do.

**F. ADDITIONAL CHANGES FROM THE INITIAL SITE PLAN APPLICATION.**

The concern at issue is noise and light in particular at the southeast corner of the site. In fact, in looking at the adjacency issue we find that there are only a few homes of Bristol Corners at the extreme southeast corner of the site. In fact, there is already dense mature woodlands between those homes and Unit #54. However, as we progress north the Bristol Corners' homes are set back farther away from the site. Thus, the real concern appears to be those few homes at the southeast corner of the site. The changes which have been made by the Applicant, after conferring with the City are as follows:

-Eliminate five parking spaces in the extreme southeast corner of the site.

-Add a solid wall of evergreen trees, 8-10 feet tall, all along the eastern boundary of the entire site within the 25-foot additional area adjacent to the building. This would include a planting of 33 8-10-foot evergreen trees to create an opaque visual and sound barrier all along the eastern border.

-Construct a 6-foot tall masonry wall at the southeast corner to block the vehicle headlights from both the parking lot and Nadlan Drive and to block sound. (See Exhibit C).

Therefore, the Applicant has addressed the concerns expressed at the 5/24/17 Planning Commission Meeting and is proposing to build a solid wall of evergreen trees along the entire eastern border and a second wall, a masonry wall, 6 feet tall, at the southeast corner of the site to block vehicle headlights and sound. This would indeed meet the requirements set forth in the Zoning Ordinance Section 3.14(5)(E).

It should also be noted that Applicant sent letters to each resident who spoke at the 5/24/17 Planning Commission Meeting inviting them to meet with the Applicant to

discuss the additional measures being taken “and discuss any of your concerns”. (See Exhibit D). To date, none of the individuals have indicating any willingness to meet or discuss anything with the Applicant.

**G. THE SIZE OF THE BUILDING AND ITS EXPECTED TENANTS.**

Some residents raised a claim that “the building should be smaller”. This raises the question, smaller than what? This property is zoned I-1. The City wants and needs and needs the corporate park to be successful. The City of Novi is proud of its ability to attract hi-tech businesses from all over the world to locate their North American research and development centers in Novi. prides itself on the diversity of its businesses. To be competitive, to be successful as a City, Novi must attract and maintain hi-tech, tax paying businesses. This means jobs and a tax base. This means attracting engineers to the City and their families. This means attracting buildings and industrial zoned areas that are not dirty, loud, smoke-belching sites. BNCP Unit #54 is designed to attract the hi-tech clean research and development tenants. First, it must be noted that Unit #14 *is in fact smaller*. At 67,000 square feet, it is smaller than the current tenant Mando which is 80,000 square feet and it is smaller than its immediate neighbor to the north, Unit #56, which is 75,000 square feet. It is most important to understand that while Unit #54 is smaller than its neighbors it must be of a certain size in order to attract the type of tenant that everyone desires. A research and development tenant needs first floor space for research and development technology and a second floor for office. That aspect - that size - is necessary to attract precisely the type of tenants everyone desires. This type of building configuration attracts the type of tenants that do not require the regular use of large semi-trucks for daily pickup and delivery. Indeed, a relatively small truck loading dock is included in Unit #54. Therefore, the layout of this building is specifically intended and will indeed attract the type of tenant which will be the least offensive to residential neighbors.

**H. SPECIAL LAND CRITERIA.**

The Applicant seeks a Special Land Use. The criteria is set forth in Novi Zoning Ordinance Section 6.1.2.C. There is no better evidence of the fact that Unit #54 satisfy these qualities then the fact that the Planning Commission recently approved a virtually identical I-1 use adjacent to residential at BNCP, i.e., Unit #56. That unit is also adjacent to residential. Applying the very same Special Land Use criteria the Planning Commission found that it met all the criteria. (See Exhibit E).

**I. SUMMARY.**

**LANDRY, MAZZEO & DEMBINSKI, P.C.**

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The efforts taken by the Applicant and its predecessor to address the adjacency issues with the property to the east have been consistent and cumulative. This Site Plan Application cannot be viewed in isolation. Over the years as BNCP has developed numerous mitigating measures have been taken. With the additional measures included in this Site Plan Application the Applicant has now taken the following cumulative measures - all of which meet the goals of the Zoning Ordinance by maintaining and protecting the existing mature woodlands:

- The Applicant has created a 125-foot buffer consisting of 50 foot wildlife habitat corridor which the Applicant maintains pursuant to a Landscape Easement, an additional 50-foot Conservation Easement and additional 25-foot zone.

- The Applicant has moved Nadlan Drive back 150 feet to the west.

- The Applicant has designed this unit to keep the loading zone and dumpsters as far away as possible from the residential area.

- The Applicant has limited vehicle use of the eastern drive.

- The Applicant has created a solid wall of evergreen trees along the entire eastern border.

- The Applicant has built a 6-foot high masonry wall along the southeast corner from the edge of the building to the south edge of the property which wraps around the corner. This, along with the wall of evergreens in fact creates two opaque walls along the southeast portion of the property blocking light and noise from the parking lot and Nadlan Drive.

*All of the above must be understood to be in addition to the already existing mature woodlands between the residences to the east and the border of BNCP. Given these cumulative measures taken by the Applicant, to require more of this Applicant would simply be excessive. Indeed, this application has the support of the City Administration.*

The Applicant respectfully requests that the Planning Commission approve the Special Land Use and approve this Site Plan with a Landscape Waiver.

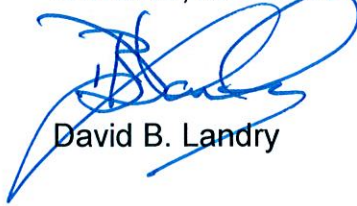
**LANDRY, MAZZEO & DEMBINSKI, P.C.**

September 14, 2017  
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Respectfully submitted,

LANDRY, MAZZEO & DEMBINSKI, P.C.

A handwritten signature in blue ink, appearing to read 'David B. Landry', is written over the printed name. The signature is stylized and somewhat cursive.

David B. Landry

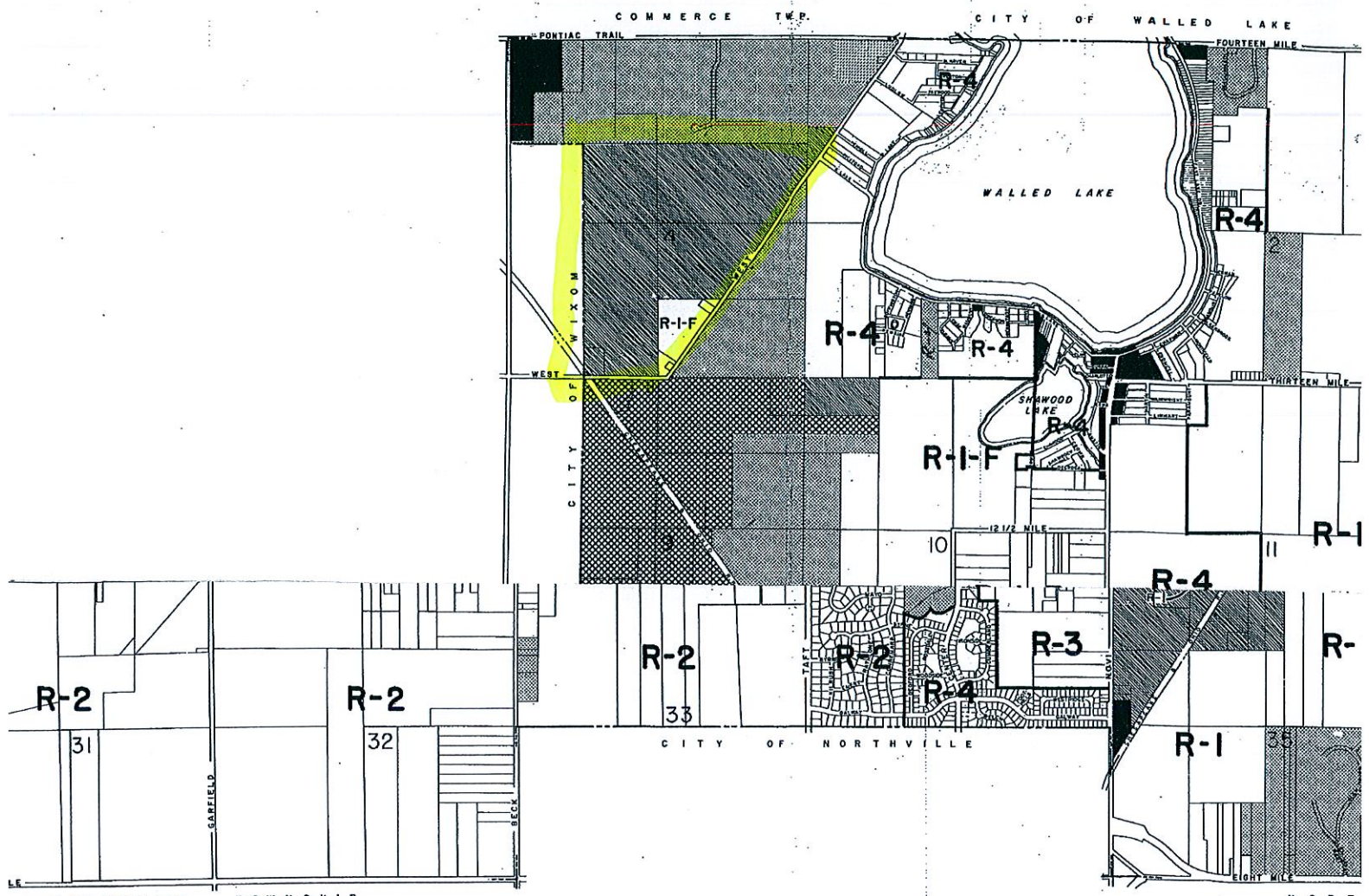
DBL/klm  
Enclosures



**EXHIBIT A**

**EXHIBIT A**

**EXHIBIT A**



- |  |      |                                    |
|--|------|------------------------------------|
|  | OS-1 | OFFICE SERVICE DISTRICT            |
|  | OSC  | OFFICE-SERVICE-COMMERCIAL DISTRICT |
|  | B-1  | LOCAL BUSINESS DISTRICT            |
|  | B-2  | COMMUNITY BUSINESS DISTRICT        |
|  | B-3  | GENERAL BUSINESS DISTRICT          |
|  | R-C  | REGIONAL CENTER DISTRICT           |
|  | FS   | FREEWAY SERVICE DISTRICT           |
|  | I-1  | LIGHT INDUSTRIAL DISTRICT          |
|  | I-2  | GENERAL INDUSTRIAL DISTRICT        |
|  | P-1  | VEHICULAR PARKING DISTRICT         |

AUTHENTICATED BY: \_\_\_\_\_  
 ADOPTED BY: \_\_\_\_\_  
 EFFECTIVE DATE: \_\_\_\_\_  
 MAYOR: \_\_\_\_\_  
 CITY CLERK: \_\_\_\_\_

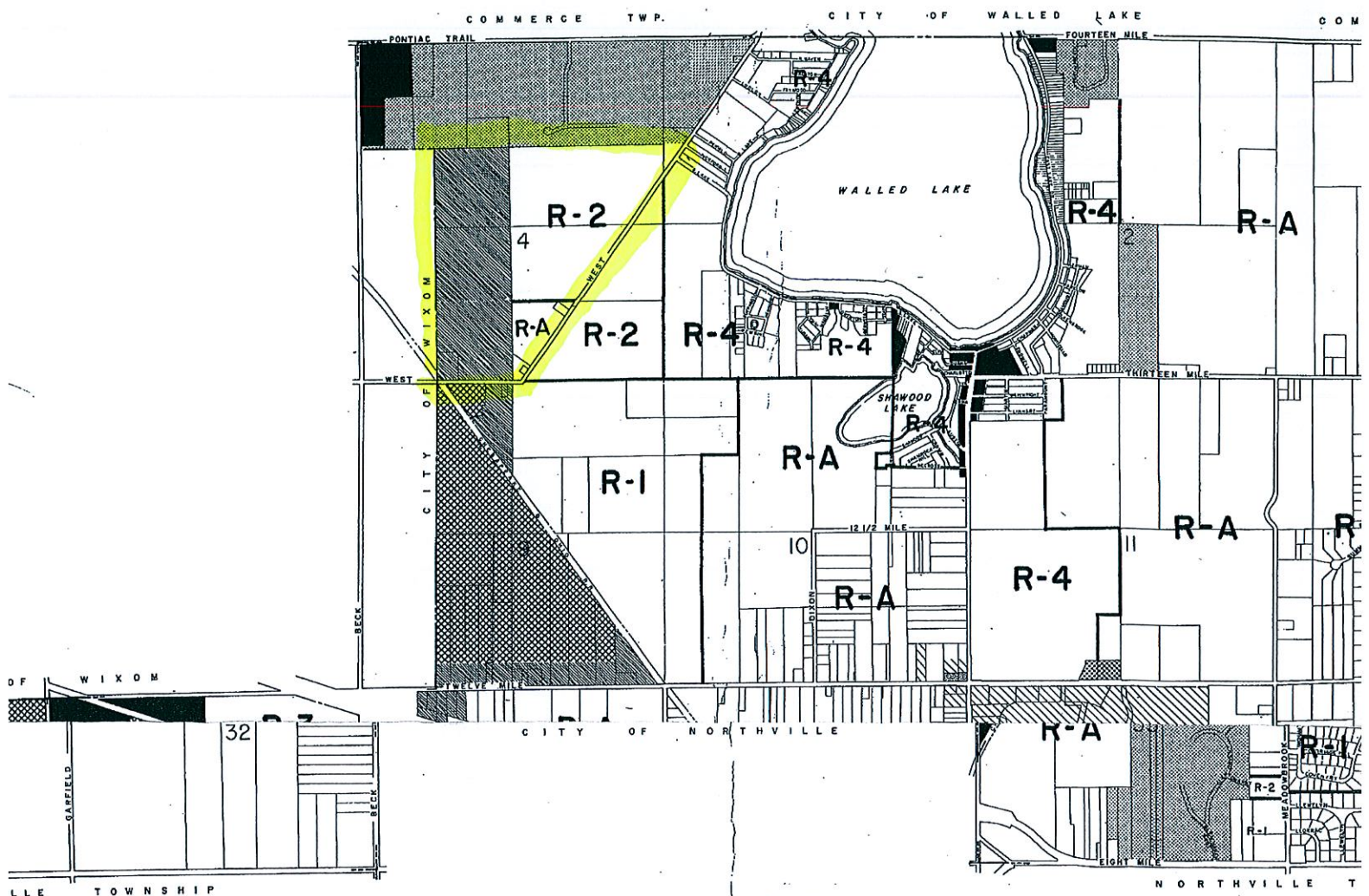
AMENDED TO:  
 OCT. 1978  
 MARCH 1976  
 NOV. 1976  
 SEPT. 1977  
 JAN. 1979  
 MAY 1979  
 NOV. 1981  
 JAN. 1983

1983

# ZONING DISTRICT MAP

CITY OF NOVI MICHIGAN





AGRICULTURAL	OS-1	OFFICE SERVICE DISTRICT
RESIDENTIAL DISTRICT	OSC	OFFICE-SERVICE-COMMERCIAL DISTRICT
RESIDENTIAL DISTRICT	B-1'	LOCAL BUSINESS DISTRICT
RESIDENTIAL DISTRICT	B-2	COMMUNITY BUSINESS DISTRICT
RESIDENTIAL DISTRICT	B-3	GENERAL BUSINESS DISTRICT
RESIDENTIAL DISTRICT	R-C	REGIONAL CENTER DISTRICT
MULTIPLE-FAMILY DISTRICT	FS	FREEWAY SERVICE DISTRICT
MULTIPLE-FAMILY DISTRICT	I-1'	LIGHT INDUSTRIAL DISTRICT
MULTIPLE-FAMILY DISTRICT	I-2	GENERAL INDUSTRIAL DISTRICT
COMMERCIAL DISTRICT	P-1	VEHICULAR PARKING DISTRICT
COMMERCIAL DISTRICT	TC	TOWN CENTER DISTRICT
COMMERCIAL DISTRICT	C	CONVENTION DISTRICT

AUTHENTICATED BY: \_\_\_\_\_  
 ADOPTED BY: \_\_\_\_\_  
 EFFECTIVE DATE: \_\_\_\_\_  
 MAYOR: \_\_\_\_\_  
 CITY CLERK: \_\_\_\_\_

AMENDED TO:  
 ORD. NO. 16,308 AUGUST 1985

1985

# ZONING DISTRICT MAP

CITY OF NOVI MICHIGAN

vilican - It  
 communit

To rezone a part of the E 1/2 of Section 4 and part of the NW 1/4 of Section 3, T.1N., R.8E., City of Novi, Oakland County, Michigan, being more particularly described as follows:

Beginning at the southeast corner of Section 4, thence Northerly along the east line of Section 4 to its intersection with the centerline of West Road; thence Northeasterly along the centerline of West Road to its intersection with the easterly extension of the north line of parcel 22-04-200-002; thence Westerly along the north line of parcel 22-04-200-002 and its easterly extension thereof to its intersection with the N-S 1/4 line of Section 4; thence Southerly along said north-south 1/4 line to its intersection with the south line of the N 1/2 of the SE 1/4 of Section 4; thence Easterly along said south line to its intersection with the centerline of West Road; thence Southwesterly along the centerline of West Road and its southerly extension thereof to its intersection with the south line of Section 4; thence Easterly along the south line of Section 4 to the point of beginning.

EXCEPTING THEREFROM: Any part of the above described lands taken, deeded, or used as a street, road or highway.

FROM: I-1 LIGHT INDUSTRIAL DISTRICT  
RM-1 LOW DENSITY MULTIPLE FAMILY RESIDENTIAL DISTRICT

TO: R-2 ONE-FAMILY RESIDENTIAL DISTRICT

ORDINANCE N<sup>o</sup> 18.378

ZONING MAP AMENDMENT N<sup>o</sup> 378  
CITY OF NOVI, MICHIGAN

ADOPTED BY THE CITY COUNCIL November 19, 1984

MAYOR

ROBERT SCHMID



GERALDINE STIPP

CLERK

SHT. 2 OF 2 1/84



Moved by Councilman Watson  
Seconded by Councilman Schroeder

RESOLVED, that Zoning Map Amendment No. 378, an amendment to the Zoning Ordinance, 84-18, be adopted with the portion of the area west of the north/south quarter line to remain I-1 in accordance with the recommendation of the Planning Board; and the portion east of that to be rezoned R-2 in accordance with the previous action of this Council and in conformance with the Master Plan.

Discussion

In response to Mayor Schmid's suggestion, Councilman Watson explained why he made this proposal. He said they had this argument before in terms of residential uses in the area. The R-1 is the least dense of our residential zonings. He is proposing that they continue that for the time being to see how the Master Plan goes into development. That R-2 allows for a Cluster Option, which is something which allows developers to use rolling terrain in existence there. It gives them a lot of flexibility. It has been master planned for residential. He thinks it is in conformance with a well thought out Master Plan for the City.

ROLL CALL: Council Members Karevich (No), Leininger (Yes), Schroeder (Yes), Smith (Yes), Watson (Yes), Mayor Schmid (Yes), and Council Member Hoyer (Yes).

Yeas (6) Nays (1-Karevich) Motion Carried

84-11-6249 2. Proposed Zoning Map Amendment 18.383

It was then,

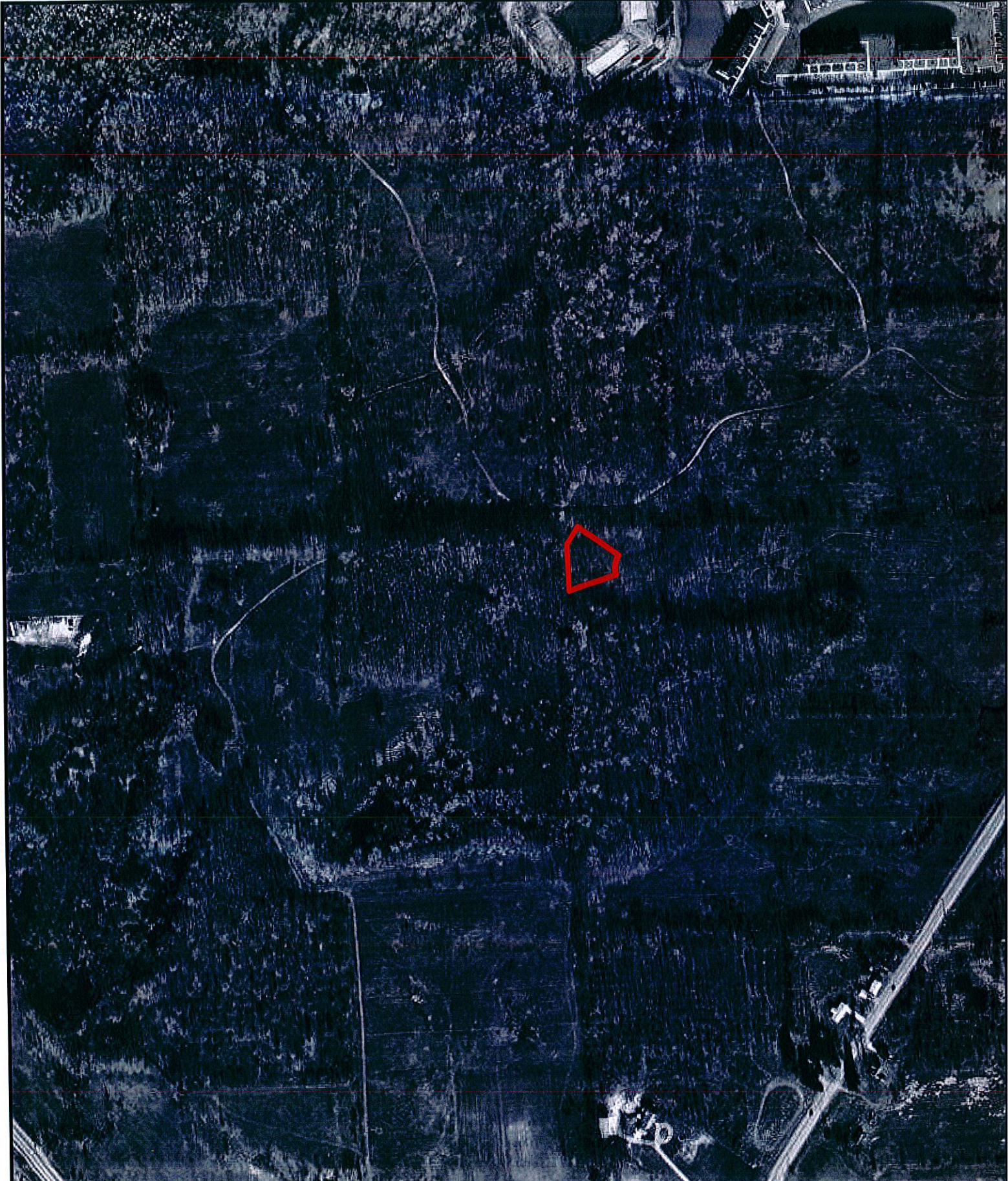
Moved by Councilman Leininger  
Seconded by Councilman Watson









That Proposed Zoning Map Amendment 18.383 be denied, and the property left as I-1.

Discussion



# 30361 Balfour Dr 1990




-  2 Foot Contours
-  5 Foot Contours
-  FEMA Base Flood Elevations
-  FEMA Cross Sections
-  100 yr - FEMA Floodplain
-  100 yr (detailed) - FEMA Floodplain
-  500 yr - FEMA Floodplain
-  FLOODWAY - FEMA Floodplain

Disclaimer: The information provided herewith has been compiled from recorded deeds, plats, tax maps, surveys and other public records. It is not a legally recorded map or survey and is not intended to be used as one. Users should consult the information sources mentioned above when questions arise. FEMA Floodplain data may not always be present on the map.

  
**L. Brooks Patterson**  
 Oakland County Executive

Date Created: 9/11/2017

  
**NORTH**  
 1 inch = 400 feet



# 30361 Balfour Dr 1997



- 2 Foot Contours
- 5 Foot Contours
- FEMA Base Flood Elevations
- FEMA Cross Sections
- 100 yr - FEMA Floodplain
- 100 yr (detailed) - FEMA Floodplain
- 500 yr - FEMA Floodplain
- FLOODWAY - FEMA Floodplain

Disclaimer: The information provided herewith has been compiled from recorded deeds, plats, tax maps, surveys and other public records. It is not a legally recorded map or survey and is not intended to be used as one. Users should consult the information sources mentioned above when questions arise. FEMA Floodplain data may not always be present on the map.



L. Brooks Patterson  
Oakland County Executive

Date Created: 9/11/2017









# Untitled Map

1999

## Legend

-  30361 Balfour Dr
-  Kistler Instrument Corporation
-  Macprofessionals, Inc
-  Structural Images LLC

30361 Balfour Dr



800 ft

Google Earth

Image U.S. Geological Survey



**EXHIBIT B**

**EXHIBIT B**

**EXHIBIT B**

Mr. Watson said they could find a mechanism that would provide permanent maintenance.

Member Kramer would support it as presented subject to coming up with a legal mechanism to define permanent maintenance.

Mayor Pro Tem Lorenzo concurred with Member Kramer. She noted there were two issues before Council. The variance being requested with regard to placing the berm on the City easement that was a natural area. Secondly, a request from the petitioner to allow woodland replacement trees to be placed on the berm as opposed to another site where they have a woodlands permit. She would be agreeable, since this was a preservation easement, to allow those additional trees as replacement credits on this berm. However, she was concerned with the other item requested in that we allow credit 1-1 instead of 2-1. She would prefer to have two 7-foot evergreens or other woodland replacements on the berm than one 12 foot. The ordinance required this and it should be upheld because there would be more trees for preservation purposes. She would not support the 1-1 instead of 2-1.

Member DeRoche asked if natural plantings would require artificial irrigation to thrive? Ms. Lemke said the idea of natural planting was that it was self-sustaining and even the type of evergreens there would not need a lot of water and would not need maintenance unless diseased.

**CM-00-09-318**      **Moved by DeRoche, seconded by Csordas; MOTION CARRIED:  
To approve the landscape waiver for berm along easterly line of  
Beck North Corporate Site Condominium SP-00-13 located in  
Section 4 east of Beck and north of West Road zoned Light Industrial  
District I-1 with the stipulation that the City Attorney and woodland  
consultant agree to any financial or maintenance agreement to protect  
the best interest in the City of Novi going forward.**

## DISCUSSION

Mayor Pro Tem Lorenzo asked if this meant he was in support of their discussion or was he looking for another alternative?

Member DeRoche wanted it referred to the Attorney and Ms. Lemke to revisit the issue and if they are satisfied with the financial or maintenance agreement that they would be empowered to execute that and it would not come back before the Council.

Member Bononi would not support the motion because she felt they were moving further away from a solution then they were before. She agreed with Member Kramer and Mayor Pro Tem Lorenzo's comments on how this should be done was closer to a solution then what they originally had.

Mayor Clark thought the motion was to vague and would not support it.

**CM-00-09-319**      **Moved by Lorenzo, seconded by Kramer; MOTION CARRIED:  
Amendment**      **To include a perpetual maintenance agreement that the City  
Attorney would prepare to run with the land.**

Mr. Watson asked if she meant his office was to provide the appropriate mechanism to provide for that perpetual maintenance? She said that was correct



249147  
 LIBER 23455 PAGE 177  
 \$17.00 MISC. RECORDING  
 \$2.00 REORDNEMENTATION  
 02/17/2001 03:58:29 P.M. RECEIPT# 4422  
 PAID RECORDED - OAKLAND COUNTY  
 G. WILLIAM CADDELL, CLERK OF DEEDS

### LANDSCAPE EASEMENT

THIS EASEMENT for the establishment and maintenance of landscape, is granted by the City of Novi, a Michigan municipal corporation ("Grantor"), whose address is 45175 West Ten Mile Road, Novi, Michigan 48375, to Beck Corridors Partners Limited Partnership, a Michigan limited partnership ("Grantee"), whose address is 39000 County Club Drive, Farmington Hills, Michigan 48331, over, upon and through the following described premises situated in the City of Novi, Oakland County, State of Michigan, to wit:

Part of the W 1/4 of Section 4, T.1N., R.8E., City of Novi, Oakland County, Michigan, described as beginning at the S 1/4 corner of said Section 4; thence N00°14'38"E 2658.68 feet along the north-south 1/4 line of said Section 4 to the center post of said Section 4; thence N00°05'57"E 1330.11 feet along the north-south 1/4 line of said Section 4; thence N89°39'43"W 1334.84 feet; thence S00°07'29"W 50.00 feet; thence S89°39'43"E 1284.85 feet; thence S00°05'57"W 1280.32 feet to a point on the east-west 1/4 line of Section 4; thence S00°14'38"W 2658.05 feet; thence S89°10'47"E 50.00 feet to the point of beginning.  
 Containing 6.053 acres, more or less.

22-04-326-011

For consideration for the granting of this easement, the Grantee shall indemnify and hold harmless, the Grantor, from and against any and all detriments, damages, losses, claims, suits, costs or other expenses which the Grantor may suffer, or be subject to caused either wholly or in part, directly or indirectly, by reason of the use of the above premises pursuant to the rights granted herein.

As further consideration for the granting of this easement, Grantee and the Beck North Corporate Park-Novi Condominium Association, shall be responsible for the permanent maintenance of the berming and landscaping in accordance with the landscaping plan for Beck North Corporate Park, as approved by the City of Novi pursuant to site plan approval SP#00-13. The berming and landscaping permitted shall include and be limited in scope and area, to that which is described in the Woodlands Permit and approved Landscape Plan for the Beck North Corporate Park Condominium Development, which Permit and Landscape Plans which will remain on file with the City of Novi pursuant to site plan approval SP#00-13. The berming and landscaping

O.K. - LG

permitted in accordance with this easement is for the benefit of the Beck North Corporate Park-Novi Condominium, established on property located in the City of Novi, County of Oakland, State of Michigan, more particularly described in the attached and incorporated Exhibit A.

In the event that the Association shall at any time fail to carry out the responsibilities specified within this Document, and/or in the event of a failure to preserve and/or maintain such areas or facilities in reasonable order and condition, the City may serve written notice upon the Association setting forth the deficiencies in maintenance and/or preservation. Notice shall also set forth a demand that the deficiencies be cured within a stated reasonable time period, and the date, time and place of the hearing before the City Council, or such other Council, body or official delegated by the City Council, for the purpose of allowing the Association to be heard as to why the City should not proceed with the maintenance and/or preservation which has not been undertaken. At the hearing, the time for curing the deficiencies and the hearing itself may be extended and/or continued to a date certain. If, following the hearing, the City Council, or other body or official, designated to conduct the hearing, shall determine that maintenance and/or preservation have not been undertaken within the time specified in the notice, the City shall thereupon have the power and authority, but not obligation, to enter upon the property, or cause its agents or contractors to enter upon the property and perform such maintenance and/or preservation as reasonably found by the City to be appropriate. The reasonable cost and expense of making and financing such maintenance and/or preservation, including the cost of notices by the City and reasonable legal fees incurred by the City, plus an administrative fee in the amount of 20% of the total of all costs and expenses incurred, shall be paid by the Association, and such amount shall constitute a lien on an equal pro rata basis as to all of the lots on the property. The City may require the payment of such monies prior to the commencement of work. If such costs and expenses have not been paid within 30 days of a billing to Association, all unpaid amounts may be placed on the delinquent tax roll of the City, pro rata, as to each unit, and shall accrue interest and penalties, and shall be collected as, and shall be deemed delinquent real property taxes, according to the laws made and provided for the collection of delinquent real property taxes. In the discretion of the City, such costs and expenses may be collected by suit initiated against the Association, and, in such event the Association shall pay all court costs and reasonable attorney fees incurred by the City in connection with such suit.

This Easement runs with the land and shall be binding on and inure to the benefit of the parties hereto, their heirs, representatives, successors and assigns.

Signed in the presence of:

*Mary Ann Cabada*  
 MARY ANN CABADA S

CITY OF NOVI, a Michigan municipal Corporation.

*Richard J. Clark*  
 BY: Richard J. Clark, Mayor

Mary Ann Cornelius  
MARY ANN CORNELIUS

Maryanne Cornelius  
BY: Maryanne Cornelius, City Clerk

BECK CORRIDOR PARTNERS  
LIMITED PARTNERSHIP, a Michigan  
Limited partnership.

BY:  
FG40 Corporation, a Michigan  
Corporation, Its General Partner

Gail Oels Mills  
GAIL OELS MILLS

David Stewart  
BY: David Stewart, Vice President

Colleen D. Bergin  
STATE OF MICHIGAN )  
                                  )SS:  
COUNTY OF OAKLAND )

The forgoing instrument was acknowledged before me this 21<sup>st</sup> day of  
JUNE, 2001, by David Stewart, General Partner of Beck Corridor Partners Limited  
Partnership, a Michigan limited partnership.

Gail Oels Mills  
GAIL OELS MILLS Notary Public  
OAKLAND County, Michigan  
My Commission Expires: 9/30/2003

STATE OF MICHIGAN )  
                                  )SS:  
COUNTY OF OAKLAND )

On this 3 day of JULY, 2001, before me, a Notary Public, personally  
appeared RICHARD J. CLARK and MARYANNE CORNELIUS, who, being duly sworn, did



say that they are the Mayor and Clerk of the City of Novi and that they executed this agreement in their capacity as Mayor and Clerk for the City of Novi.

*Mary Ann Cabadas*  
Notary Public  
OAKLAND County, Michigan  
My Commission Expires:

MARY ANN CABADAS  
Notary Public, Oakland County, MI  
My Commission Expires Oct. 6, 2002

10-5-02

Drafted By:

Elizabeth M. Kudla, Esq.  
SECRET, WARDLE, LYNCH,  
HAMPTON, TRUAX AND MORLEY  
30903 Northwestern Highway  
Farmington Hills, MI 48333

When Recorded Return To:

Gary Bowman  
JCK & ASSOCIATES, INC.  
P.O. Box 759  
Novi, MI 48376

## EXHIBIT A

BECK NORTH CONDO SITE LEGAL DESCRIPTION

A PART OF THE SOUTHWEST 1/4 OF SECTION 4, TOWN 7 NORTH, RANGE 8 EAST, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN; BEING MORE PARTICULARLY DESCRIBED AS COMMENCING AT THE SOUTH 1/4 CORNER OF SAID SECTION 4; THENCE N.89° 10'47"W., 50.01 FEET (RECORDED); THENCE N.00° 14'38"E., 60.00 FEET (RECORDED) TO THE POINT OF BEGINNING 1; THENCE N.00° 14'38"E., 1696.60 FEET (RECORDED); THENCE DUE WEST, 845.43 FEET (CALCULATED); THENCE 93.10 FEET ALONG A CURVE TO THE LEFT, RADIUS 200.00 FEET AND CHORD BEARS S.03° 34'25"E., 92.26 FEET (CALCULATED); THENCE S.16° 54'31"E., 100.02 FEET (CALCULATED); THENCE 168.59 FEET ALONG A CURVE TO THE RIGHT, RADIUS 580.00 FEET AND CHORD BEARS S.08° 34'53"E., 168.00 FEET (CALCULATED); THENCE S.89° 10'46"E., 457.27 FEET (CALCULATED); THENCE 38.41 FEET ALONG A CURVE TO THE LEFT, RADIUS 42.00 FEET AND CHORD BEARS N.64° 37'17"E., 37.08 FEET (CALCULATED); THENCE 377.77 FEET ALONG A CURVE TO THE RIGHT, RADIUS 76.00 FEET AND CHORD BEARS S.00° 49'14"W., 92.75 FEET (CALCULATED); THENCE 38.41 FEET ALONG A CURVE TO THE LEFT, RADIUS 42.00 FEET AND CHORD BEARS N.62° 58'50"W., 37.08 FEET (CALCULATED); THENCE N.89° 10'46"W., 457.16 FEET (CALCULATED); THENCE S.00° 49'14"W., 489.17 FEET (CALCULATED); THENCE 124.59 FEET ALONG A CURVE TO THE LEFT, RADIUS 200.00 FEET AND CHORD BEARS S.17° 01'33"E., 122.59 FEET (CALCULATED); THENCE S.34° 52'20"E., 101.67 FEET (CALCULATED); THENCE 63.13 FEET ALONG A CURVE TO THE RIGHT, RADIUS 260.00 FEET AND CHORD BEARS S.27° 55'01"E., 62.87 FEET (CALCULATED); THENCE N.74° 08'56"E., 72.27 FEET (CALCULATED); THENCE 75.65 FEET ALONG A CURVE TO THE RIGHT, RADIUS 260.00 FEET AND CHORD BEARS N.82° 29'52"E., 75.50 FEET (CALCULATED); THENCE S.89° 03'59"E., 217.72 FEET (CALCULATED); THENCE 38.36 FEET ALONG A CURVE TO THE LEFT, RADIUS 42.00 FEET AND CHORD BEARS N.64° 32'25"E., 36.98 FEET (CALCULATED); THENCE 377.77 FEET ALONG A CURVE TO THE RIGHT, RADIUS 76.00 FEET AND CHORD BEARS S.00° 49'14"W., 92.75 FEET (CALCULATED); THENCE 38.41 FEET ALONG A CURVE TO THE LEFT, RADIUS 42.00 FEET AND CHORD BEARS N.62° 58'50"W., 37.08 FEET (CALCULATED); THENCE N.89° 03'59"W., 217.72 FEET (CALCULATED); THENCE 58.19 FEET ALONG A CURVE TO THE LEFT, RADIUS 200.00 FEET AND CHORD BEARS S.82° 29'05"W., 57.99 FEET (CALCULATED); THENCE S.74° 08'56"W., 73.86 FEET (CALCULATED); THENCE 38.69 FEET ALONG A CURVE TO THE RIGHT, RADIUS 260.00 FEET AND CHORD BEARS S.03° 26'33"E., 38.65 FEET (CALCULATED); THENCE S.00° 49'14"W., 264.37 FEET (CALCULATED); THENCE S.06° 18'46"E., 104.65 FEET (CALCULATED); THENCE S.00° 49'14"W., 63.00 FEET (CALCULATED); THENCE S.89° 10'47"E., 641.82 FEET (RECORDED) TO THE POINT OF BEGINNING 1, CONTAINING 24.6313 ACRES MORE OR LESS AND SUBJECT TO ANY AND ALL EASEMENTS AND RESTRICTIONS OF RECORD.

ALSO, A PART OF THE SOUTHWEST 1/4 OF SECTION 4, TOWN 1 NORTH, RANGE 8 EAST, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN; BEING MORE PARTICULARLY DESCRIBED AS COMMENCING AT THE SOUTH 1/4 CORNER OF SAID SECTION 4; THENCE N.89° 10'47"W., 778.23 FEET (RECORDED); THENCE N.00° 49'14"E., 80.00 FEET (RECORDED); THENCE N.89° 10'47"W., 192.00 FEET (RECORDED); THENCE N.00° 03'56"W., 432.25 FEET (RECORDED); THENCE N.89° 10'47"W., 354.04 FEET (RECORDED); THENCE N.00° 03'06"E., 410.04 FEET (RECORDED) TO THE POINT OF BEGINNING 3; THENCE N.00° 03'06"E., 642.18 FEET (RECORDED); THENCE N.00° 03'56"W., 202.04 FEET (RECORDED); THENCE N.89° 53'31"E., 372.74 FEET (CALCULATED); THENCE 119.71 FEET ALONG A CURVE TO THE LEFT, RADIUS 260.00 FEET AND CHORD BEARS S.03° 43'08"E., 118.65 FEET (CALCULATED); THENCE S.18° 54'31"E., 100.02 FEET (CALCULATED); THENCE 150.90 FEET ALONG A CURVE TO THE RIGHT, RADIUS 520.00 FEET AND CHORD BEARS S.08° 02'39"E., 160.28 FEET (CALCULATED); THENCE S.00° 49'14"W., 478.29 FEET (CALCULATED); THENCE N.89° 10'47"W., 425.49 FEET (CALCULATED) TO THE POINT OF BEGINNING 3, CONTAINING 8.0992 ACRES MORE OR LESS AND SUBJECT TO ANY AND ALL EASEMENTS AND RESTRICTIONS OF RECORD.

ALSO, A PART OF THE SOUTHWEST 1/4 OF SECTION 4, TOWN 1 NORTH, RANGE 8 EAST, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN; BEING MORE PARTICULARLY DESCRIBED AS COMMENCING AT THE SOUTH 1/4 CORNER OF SAID SECTION 4; THENCE N.89° 10'47"W., 778.23 FEET (RECORDED); THENCE N.00° 49'14"E., 80.00 FEET (RECORDED) TO THE POINT OF BEGINNING 2; THENCE N.89° 10'47"W., 192.00 FEET (RECORDED); THENCE N.00° 03'56"W., 432.25 FEET (RECORDED); THENCE N.89° 10'47"W., 354.04 FEET (RECORDED); THENCE N.00° 03'06"E., 350.03 FEET (RECORDED); THENCE S.89° 10'47"E., 424.89 FEET (CALCULATED); THENCE 161.97 FEET ALONG A CURVE TO THE LEFT, RADIUS 260.00 FEET AND CHORD BEARS S.17° 01'33"E., 159.36 FEET (CALCULATED); THENCE S.34° 52'20"E., 101.67 FEET (CALCULATED); THENCE 124.59 FEET ALONG A CURVE TO THE RIGHT, RADIUS 200.00 FEET AND CHORD BEARS S.17° 01'33"E., 122.59 FEET (CALCULATED); THENCE S.00° 49'14"W., 264.37 FEET (CALCULATED); THENCE S.07° 57'13"W., 104.69 FEET (CALCULATED); THENCE S.00° 49'14"W., 63.00 FEET (CALCULATED) TO THE POINT OF BEGINNING 2, CONTAINING 5.8845 ACRES MORE OR LESS AND SUBJECT TO ANY AND ALL EASEMENTS AND RESTRICTIONS OF RECORD, A TOTAL AREA OF 38.7150 ACRES MORE OR LESS.

*above legal is N/A  
 Beck North Corporate  
 Park-Novi OCC# 1264  
 22-04-377-000-enl*

VIA HAND DELIVERY

July 25, 2003

Planning Commission  
City of Novi  
45175 W. Ten Mile Rd.  
Novi, Michigan 48375-3024



NORTHERN  
EQUITIES  
GROUP

39000 COUNTRY CLUB DRIVE  
FARMINGTON HILLS, MI 48331  
(248) 848-6400 FAX (248) 848-6700

Re: Beck North Phase II  
Engineering and Site Condo Approval  
SP# 00-13I

Dear Commissioner:

On June 11, 2003, Northern Equities Group and Amson-Dembs Development, Inc. presented to the Planning Commission a plan for the construction of the roads and utilities and a site condominium for the Beck North Corporate Park – Phase II. Consideration for the plan was tabled for a later date. With this letter, we are submitting for your review revised overall plan depicting our responses to the concerns raised by both the Commissioners and the residents who attended the meeting. I would also like to remind the Commissioners of our previous letters, each dated June 6, 2003, agreeing to address the concerns raised by the consultants.

We have made some very significant changes to the plan which enhance and preserve more of the natural features of the property and protect the interests of the surrounding residents. Similar to the version submitted for the June 11, 2003, meeting, our proposals before you today came about with the full consultation of the city planning, engineering and woodland review staff. Also it should be noted that on the advice of the planning staff and in an effort to ease your review work load, an abridged set of plans was submitted, highlighting the major changes to the plan. This will account for some of the repetitive comments in the review letter. The Commission can rest assured that we have been diligently working towards addressing all of the consultants concerns.

The changes we propose are the following:

- In order to screen any proposed buildings on those lots adjoining Bristol Corners, we propose creating an additional 25 ft. setback, for a total of 125 feet minimum setback from the Bristol Corners property line along the east side of our property. Fifteen to twenty feet of that additional setback would be planted with 8 ft. evergreens (the evergreens are to be credited against the required replacement trees on a 1:1 basis), to create a tree buffer. The two areas in question are shaded on the submitted plan. This will meet the opacity concerns raised by many of the Commissioners. It will also serve to reduce any noise that may be transmitted in the resident's direction. These trees will preserve the natural features of the property better than a berm.



A berm would require the felling of many additional trees and is aesthetically less pleasing.

While we are willing to plant these trees today, we would request that the planting be done when buildings are developed so as to provide the trees with irrigation and therefore a greater chance of survival. They may also be subject to undue stress during construction of the buildings on the land adjacent to Bristol Corners. We will leave this up to the Commission. We will also defer to the Commission and the consultants on the question of a berm, but it is our opinion that the berm would not preserve the natural features of the property and is not in the best interests of the residents or the Park.

- Many of the commissioners thought the cul-de-sacs were too close to the residents. Therefore, we pulled both Cartier Drive and Nadlan Court to the west 150 ft. Now, the edge of Nadlan court is over 500 ft. and Cartier Drive is over 800 ft. from the closest house in Bristol Corners. As Commissioner Kocan pointed out, this will reduce adverse impacts on the residents.
- As Commissioner Kocan also pointed out, there was a concern about headlights from cars shinning into the resident's homes. In order to prevent this, we will plant the end of each cul-de-sac with 8' evergreens (as above) to provide year-round screening. We would also like to do this when a building is built in this area to provide irrigation for the tree.
- In order to lessen the reliance upon driveway spacing waivers, we have aligned the property lines of all of the lots along Hudson Drive.
- While not indicated on the plans, the path from Bristol Corners to Beck North which many residents raised concerns about has been obstructed with a small earthen berm placed on Beck North property.
- In order to further preserve the natural features of the property, we have replaced the storm pipe which was to run along the north property line in the woodland so that it will now run in the Cartier Drive ROW. This change will save approximately 1 acre of trees. As a whole, we are now disturbing 1.16 acres less than we previously proposed. Furthermore, if you take into consideration the number of areas we are now proposing to plant with evergreens, the site will only lose 2.63 acres of trees.

Many of the Commissioners were in favor of redesigning the road layout so as to create a "loop" road. Because this was a comment which ran through the entire meeting, we took a hard and creative look at this solution. A drawing of the concept was done and we have included a copy for your review. As you can see, there are a few problems with this design: (i) first, because lots 22 to 25 are surrounded by the loop road, there will be three front yard setbacks on the end lots and two on the middle lots, making the lots very



difficult to build upon, (ii) no more or less trees will be saved and (iii) because the orientation of lots 17 to 21 would be altered, most of the activity (i.e. truck traffic, off-loading, lights) will be focused closer to the residents, at the back of the building, rather than on the side of the building. The loop road alternative was considered seriously by Northern Equities Group, Amson-Dembs and each of our engineers. It was also discussed with the city planners and engineers. All of us came to the same conclusions as listed above.

During the last few months, we have had many meetings with the City's engineering department and Dr. Don Tilton to discuss the design of our storm water management plan. In addition, we have consulted the MDEQ. The result of these meetings is the well thought out, efficient and environmentally friendly plan that you reviewed on June 11, 2003. It should also be noted that we have received approval from the MDEQ for our storm water management plan.

Commissioners Paul and Nagy were concerned that our Storm Water Management Plan would allow warm water to flow into Wetlands A and F, thereby disrupting the current environment. In fact, our system, which was designed with the help of Dr. Tilton, slows down the water before it enters the wetlands from the very beginning of its journey. Our system, which uses a combination of pipes, water gardens, storm structures and velocity dissipation basins is very natural and is designed to slow the water down in order to clean the water out to a greater degree than if we relied solely on pipes.

In fact, in a normal, everyday rain, the storm runoff, if any, would take as much as 10 hours before it reached either wetland, losing any heat it may have picked up moving across the road/asphalt. In a large storm, the water would run off very quickly without being able to absorb any heat. The water reaching the wetlands will be at or near the same temperature as the rain entering the wetlands directly. Additionally, as Mr. Stewart mentioned at the meeting, we are enhancing and rehydrating a traditional wetland area, Wetland F.

After reviewing the various review letter received from the City, we have the following responses (please note the item numbers used correspond to the item numbers of each original comment):

#### **Planning Review**

The required notes will be added to the condominium plan.

#### **Wetland Review**

- 1) Additional labeling will be incorporated in the plans. The wetland mitigation area will correspond to the area impacted.
- 2) Wetland buffer impacts will be labeled and quantified on the plan.

- 3) A wetland mitigation plan will be completed by the July 30<sup>th</sup> meeting and will be submitted at final.
- 4) A wetland mitigation cost estimate will be submitted.
- 5) Protective fencing will be shown on the detail sheets for better clarity.
- 6) The MDEQ permit has been granted.

### **Woodland Review**

As a general comment, according to our calculations and including the trees we plan to replant as detailed above, the site will have 2.63 acres of reduced trees. As we have stated before, all efforts will be made to reduce this number even further.

1. Because we have moved the cul-de-sacs 150 ft. further away from the Bristol Corners residents, the tree survey we previously submitted does not cover all of the areas to be affected. We have already completed the survey for the new street location and can deliver it to Mr. DeBrincat this week.
2. Soil information will be added to the plan.
3. All of the City required details will be added to the plan.
4. The water level in the wooded wetland areas is not proposed to be modified. The storm water this site is discharging into these areas is "pass through" water. Each of these major areas have adequate outlets which allow our water to travel through and exit without detaining water in the woodland/wetlands area.
5. Elevation datum will be confirmed.
6. See No. 1 above.
7. A Cost analysis for the replacement trees will be provided.
8. The trees have been numbered using paint.
9. The zoning information will be provided on the plans.
10. A landscape plan for the 1:1 evergreens will be submitted. Otherwise, we plan on posting a bond and planting the trees at a later date.
11. We will agree to deliver to the City a Conservation Easement over the 50 feet west of the Habitat Corridor, along the shared property line with Bristol Corners once the Roads and Utilities have been installed.

### **Landscaping**

Amson-Dembs will consult with residents of the Bristol Corners development to address all of the screening alternatives proposed. The proposed installation of the 25 ft. of evergreens at the property line will go a long way towards meeting the screening requirement.

### **Engineering Review**

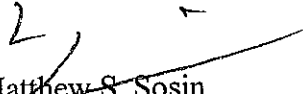
1. We have discussed this issue with the engineering department and will clarify on plans.
2. Note has been added on full set.
3. Separate soil boring plan was provided in previous submission.
4. Lot lines will be added on indicated sheets.
5. Note regarding water main crossing will be added.
6. Storm Water Management Plan will show clearly location and quality of discharge.
7. These calculations have been performed and will be added to the plans.
8. The disipation basins were sized to be 20% of the first flush volume. This volume is approximately one inch of rain fall, a very typical rain event. During this rain event the basin would fill up but not overflow. During a larger event the basin would fill up and then begin to overflow, while the basin is overflowing there is a good amount of water volume in the basin to help slow the incoming water and absorb the energy of the flow.
9. Details and sizing information will be provided on the plans.
10. Velocity Calculations will be provided on the plans for the swales.
11. A cost estimate will be provided for final approval.
12. A maintenance agreement will be drafted.
13. All easements will be submitted for approval. We have waited to do the easements until we have finalized the entire project layout.
14. All of the standard detail sheets will be provided.
15. We will apply for and procure an NPDES permit.

16. A right of way application has been submitted. If there is any miscommunication, we will resubmit.
17. We are ready to submit for this permit and are waiting for the engineering departments go-ahead.
18. We are ready to submit for this permit and are waiting for the engineering departments go-ahead.
19. Construction fees will be computed and paid.
20. As all of the proposed roads will be public and there are no other impervious surfaces at this time, it is our understanding that no regional detention charge should be assessed at this time.
21. A security deposit will be tendered at the appropriate time.
22. A performance guarantee will be tendered at the appropriate time.
23. Once we receive preliminary approval, we will submit revised plans for the soil erosion permit.

I believe that we have addressed the major concerns raised by both the Planning Commission and the residents who voiced their opinions. What we have presented is not just a compromise, but a very good and efficient plan which goes beyond the requirements of the ordinance for the continuing success of the Beck North Corporate Park.

We look forward to meeting with you to discuss these items in more detail and/or consider any other concerns you may have.

Sincerely,

  
Matthew S. Sosin  
Vice President

cc: Clay Pearson (via fax, (248) 735-5682)  
David Evancoe (via fax, (248) 735-5682)  
Tim Schmitt (via fax, (248) 735-5600)  
Brian Coburn (via fax, (248) 735-5683)  
Dr. Don Tilton (via fax, (734) 769-3164)  
Mike McGinnis (via fax, (248) 735-5682)  
Rod Arroyo (via fax, (248) 213-1793)  
Larry DeBrincat (via fax, (248) 356-0902)

21 then.

22 MEMBER REINKE: No. We just

23 need to leave the motion the way it is.

24 CHAIRWOMAN GRONACHAN: The

102

1 way it is, but to address the trees, when

2 they're going to be planted.

3 MR. SCHMITT: That is the

4 question we're asking, whether the Board

5 would like them planted now or whether they

6 would like them planted at the time of each

7 lot-

8 MEMBER BRENNAN: At the time

9 of development.

10 CHAIRWOMAN GRONACHAN: Time

11 of development.

12 MR. SCHMITT: Okay. Thank

13 you very much concerning that issue.

14 We actually have a couple of

15 other issues we need to clarify as well.

16 You mentioned the

17 conservation easement in your original

18 motion, I believe. Northern Equities had

19 suggested in their response letter of July

20 25, that they would agree to deliver the

21 City a conservation easement over the 50

22 feet west of the habitat corridor, which

23 would essentially be 50 additional feet of

24 setback, which is part of the ordinance

103

1 requirements. We would just like to

2 clarify that this is the Board's intent

3 that the areas of woodlands in this

4 additional 50 feet would be put under a

5 conservation easement as a result of this

6 approval as well.

7 CHAIRWOMAN GRONACHAN: Yes.

8 That's correct.

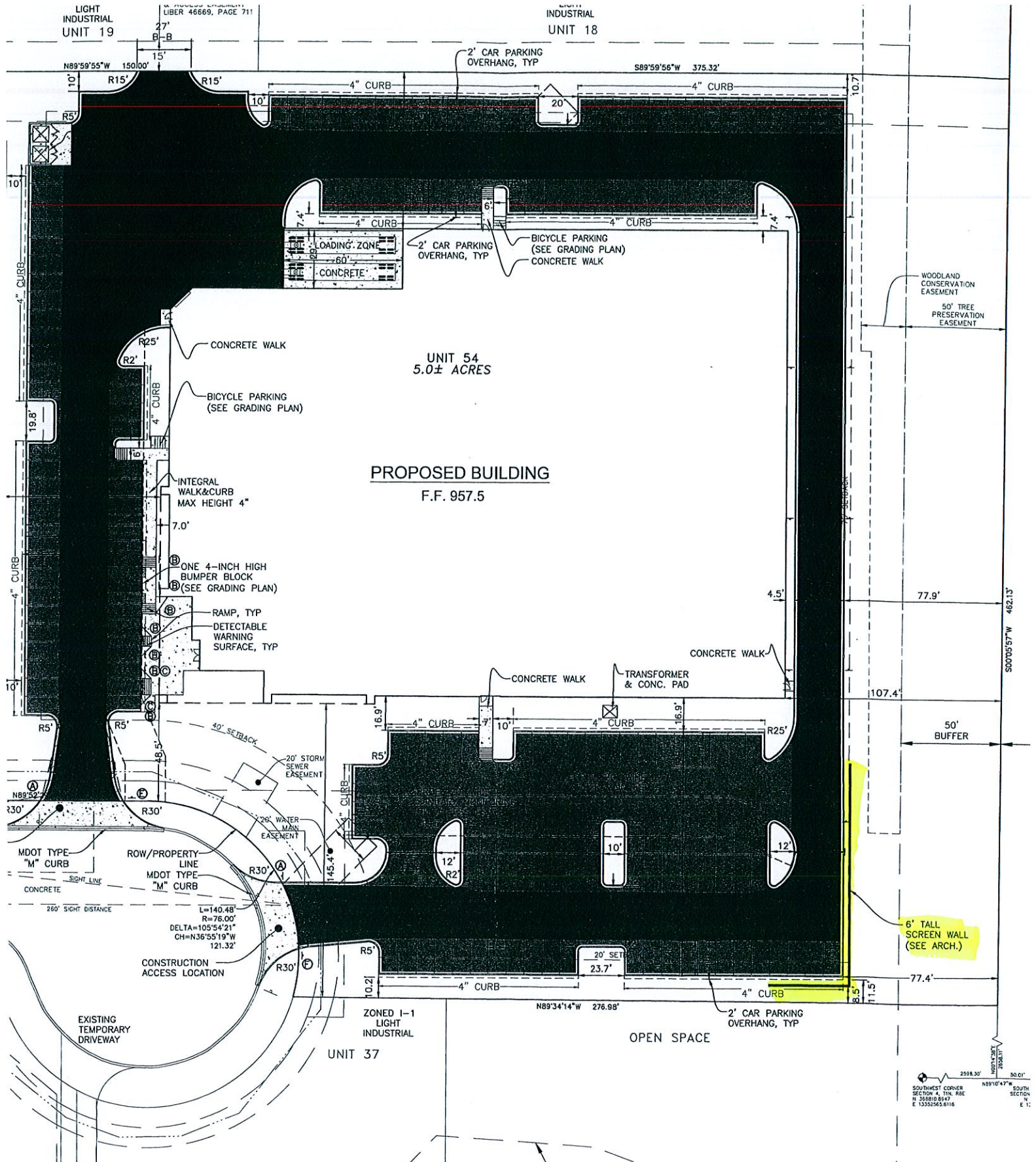
9 MR. SCHMITT: And lastly, I



**EXHIBIT C**

**EXHIBIT C**

**EXHIBIT C**



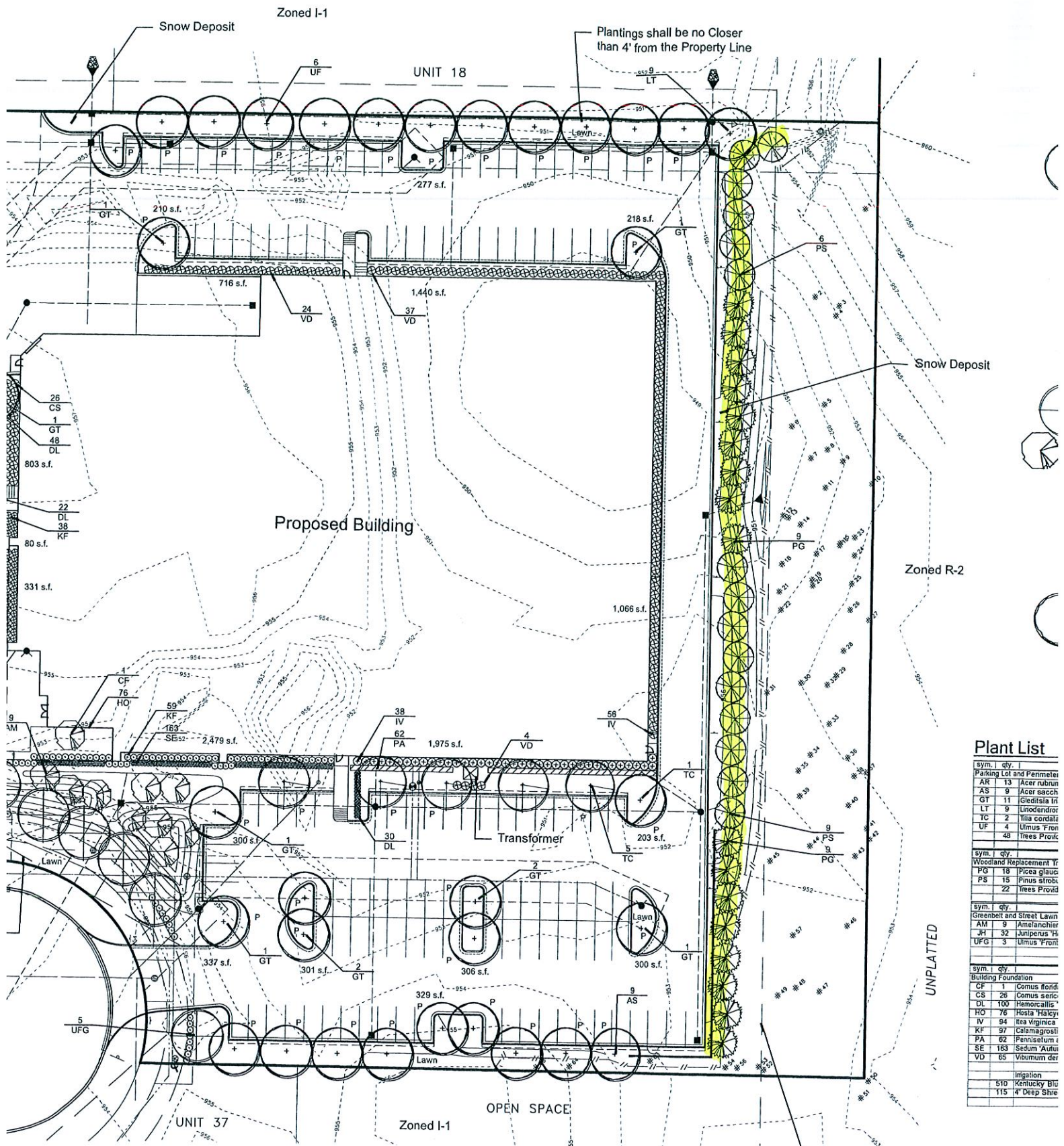
SOUTHWEST CORNER  
SECTION 4, T1N, R8E  
N 3581018447  
E 13352545.6116

2598.30'  
N59°10'47" S  
50.01'

50.01'

MOORE ENGINEERING





### Plant List

sym.	qty.	Plant Name
<b>Parking Lot and Perimeter</b>		
AR	13	Acer rubrum
AS	9	Acer sacch
GT	11	Gleditsia In
LT	9	Liriodendro
TC	2	Tilia cordata
UF	4	Ulmus 'Front
	48	Trees Provi
<b>Woodland Replacement Tr</b>		
PG	18	Picea glauc
PS	15	Pinus strob
	22	Trees Provi
<b>Greenbelt and Street Lawn</b>		
AM	9	Amelanchier
JH	32	Juniperus 'H
UFG	3	Ulmus 'Front
<b>Building Foundation</b>		
CF	1	Cornus florida
CS	26	Cornus serice
DL	100	Hemerocallis
HO	76	Hosta 'Halcy
IV	94	Itea virginica
KF	97	Calla magrostr
PA	62	Panicum s
SE	163	Sedum 'Autu
VD	65	Viburnum der
<b>Irriigation</b>		
	510	'Kentucky Blu
	115	'4' Deep Shie

UNPLANTED

it or Utility Structure.  
 erty Line.

PROPOSED 3'  
 HIGH EARTH BERM  
 W/ 1 ON 3 SIDE  
 SLOPES  
 AND A MIN. 2' FLAT  
 CROWN. BERM  
 SHALL HAVE 6" LOAM



Berm Detail

50' Woodland Conservation Easement -  
 No Trees Shall be Removed  
 From the Easement Area

**EXHIBIT D**

**EXHIBIT D**

**EXHIBIT D**

LAW OFFICES  
**LANDRY, MAZZEO & DEMBINSKI, P.C.**

D. B. LANDRY  
[dlandry@lmdlaw.com](mailto:dlandry@lmdlaw.com)

37000 GRAND RIVER AVENUE, SUITE 200  
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TELEPHONE  
(248) 476-6900

FACSIMILE  
(248) 476-6564

August 11, 2017

Mr. Laith Daman  
30369 Balfour Drive  
Novi, MI 48377

RE: Beck North Corporate Park Unit #54  
Our File No. DID 27070

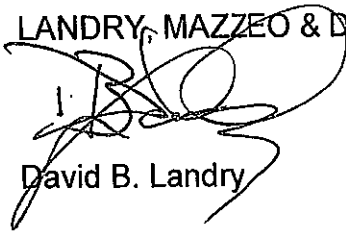
Dear Mr. Daman:

I represent Dembs Development who is the developer of Unit #54 at the Beck North Corporate Park to the west of your residence. You were present and spoke at the Novi Planning Commission Meeting of May 24, 2017 and expressed your concerns about the adjacency of this development to your home. Dembs Development has listened to your concerns and has made significant changes to its proposed site plan. A masonry wall is being added to the southeast portion of the development to block vehicle headlights and sound from Nadlan Drive and any vehicular headlights in the southeast portion of the parking lot. Several parking spaces have also been eliminated in the southeast portion of the parking lot. In addition, Dembs Development is adding a solid row of evergreen trees along the eastern boarder of its property within the first 25 feet of the conservation area immediately next to the building development.

I would welcome an opportunity to discuss these additional measures with you and discuss any of your concerns. Please feel free to contact me at your earliest convenience and I will be happy to meet with you.

Very truly yours,

LANDRY, MAZZEO & DEMBINSKI, P.C.

  
David B. Landry

DBL/klm



L A W   O F F I C E S  
**LANDRY, MAZZEO & DEMBINSKI, P.C.**

D. B. LANDRY  
[dlandry@lmdlaw.com](mailto:dlandry@lmdlaw.com)

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(248) 476-6564

August 11, 2017

Kelly Halloran  
30361 Balfour Drive  
Novi, MI 48377

RE: Beck North Corporate Park Unit #54  
Our File No. DID 27070

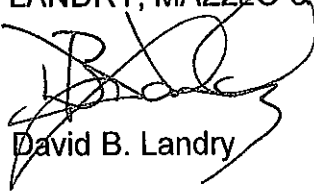
Dear Ms. Halloran:

I represent Dembs Development who is the developer of Unit #54 at the Beck North Corporate Park to the west of your residence. You were present and spoke at the Novi Planning Commission Meeting of May 24, 2017 and expressed your concerns about the adjacency of this development to your home. Dembs Development has listened to your concerns and has made significant changes to its proposed site plan. A masonry wall is being added to the southeast portion of the development to block vehicle headlights and sound from Nadlan Drive and any vehicular headlights in the southeast portion of the parking lot. Several parking spaces have also been eliminated in the southeast portion of the parking lot. In addition, Dembs Development is adding a solid row of evergreen trees along the eastern boarder of its property within the first 25 feet of the conservation area immediately next to the building development.

I would welcome an opportunity to discuss these additional measures with you and discuss any of your concerns. Please feel free to contact me at your earliest convenience and I will be happy to meet with you.

Very truly yours,

LANDRY, MAZZEO & DEMBINSKI, P.C.



David B. Landry

DBL/klm

LAW OFFICES  
**LANDRY, MAZZEO & DEMBINSKI, P.C.**

D. B. LANDRY  
[dlandry@lmdlaw.com](mailto:dlandry@lmdlaw.com)

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TELEPHONE  
(248) 476-6900

FACSIMILE  
(248) 476-6564

August 11, 2017

Linda Roberts  
30377 Balfour Drive  
Novi, MI 48377

RE: Beck North Corporate Park Unit #54  
Our File No. DID 27070

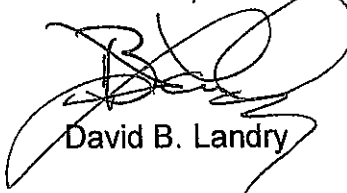
Dear Ms. Roberts:

I represent Dembs Development who is the developer of Unit #54 at the Beck North Corporate Park to the west of your residence. You were present and spoke at the Novi Planning Commission Meeting of May 24, 2017 and expressed your concerns about the adjacency of this development to your home. Dembs Development has listened to your concerns and has made significant changes to its proposed site plan. A masonry wall is being added to the southeast portion of the development to block vehicle headlights and sound from Nadlan Drive and any vehicular headlights in the southeast portion of the parking lot. Several parking spaces have also been eliminated in the southeast portion of the parking lot. In addition, Dembs Development is adding a solid row of evergreen trees along the eastern boarder of its property within the first 25 feet of the conservation area immediately next to the building development.

I would welcome an opportunity to discuss these additional measures with you and discuss any of your concerns. Please feel free to contact me at your earliest convenience and I will be happy to meet with you.

Very truly yours,

LANDRY, MAZZEO & DEMBINSKI, P.C.



David B. Landry

DBL/klm

**EXHIBIT E**

**EXHIBIT E**

**EXHIBIT E**



# PLANNING COMMISSION ACTION SUMMARY

CITY OF NOVI

Regular Meeting

**April 9, 2014 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 Baratta, Member Giacometti, Member Lynch, Chair Pehrson

**Absent:** Member Greco (Excused), Member Zuchlewski (Excused)

**Also Present:** Barbara McBeth, Deputy Director of Community Development; Sara Roediger, Planner; Kristen Kapelanski, Planner; Adam Wayne, Engineer; David Beschke, Landscape Architect; Tom Schultz, City Attorney; Pete Hill, City's Environmental Consultant.

## APPROVAL OF AGENDA

**Motion to approve the April 9, 2014 Planning Commission agenda. Motion carried 5-0.**

## PUBLIC HEARINGS

### 1. **BECK NORTH LOT 56, JSP14-07**

Public hearing at the request of Amson Dembs Development for Preliminary Site Plan, Special Land Use Permit, Woodland Permit, and Stormwater Management Plan approval. The subject property is located in Section 4, on the north side of Cartier Drive in the I-1, Light Industrial District. The subject property is approximately 5.5 acres and the applicant is proposing an 88,904 square foot speculative industrial building in the Beck North Corporate Park.

**In the matter of Beck North Lot 56, JSP14-07, motion to approve the Special Land Use permit based on the following findings:**

#### a. **Relative to other feasible uses of the site:**

- **The proposed use will not cause any detrimental impact on existing thoroughfares as indicated in the traffic review letters;**
- **Subject to satisfying the requirements in the Engineering Review the proposed use will not cause any detrimental impact on the capabilities of public service and facilities because the plan adequately addresses and provides for water and sanitary sewer service and management of stormwater volumes;**
- **Based on the number of trees being removed relative to the size of the building area, and because this is the location of a significant portion of the trees within Phase II of the Beck North Corporate Park, the Planning Commission finds that in order for the proposed use to be compatible with the natural features and characteristics of the land, the development of this parcel must be in full compliance with the Woodlands Ordinance in terms of tree replacements, in a manner that is acceptable to the City, which may include replacement of trees either on properties within the Beck North Corporate Park or on other properties owned/developed by the applicant;**
- **The proposed use is compatible with adjacent uses of land as indicated in the staff and consultant review letters;**
- **The proposed use is consistent with the goals, objectives and recommendations of the City's Master Plan for Land Use;**
- **The proposed use will promote the use of land in a socially and economically desirable**



manner;

- The proposed use is listed among the provision of uses requiring special land use review as set forth in the various zoning districts of this ordinance, and is in harmony with the purposes and conforms to the applicable site design regulations of the zoning district in which it is located.

This motion is made because the plan is otherwise in compliance with Article 19, Article 24 and Article 25 of the Zoning Ordinance and all other applicable provisions of the Ordinance. *Motion carried 5-0.*

In the matter of Beck North Lot 56, JSP14-07, motion to approve the Preliminary Site Plan based on and subject to the following:

- a. The findings of compliance with Ordinance standards in the staff and consultant review letters and the conditions and items listed in those letters being addressed on the Final Site Plan;
- b. The applicant will address the noise impact requirements prior to approval of the building permits;
- c. Planning Commission waiver of the required berms in the locations of existing woodlands with the condition that a conservation easement is provided is hereby granted;
- d. Planning Commission Section 9 façade waiver for the overage of CMU on the east and north facades is hereby granted as:
  - The proposed facades will be significantly screen by both on and off-site natural vegetation, and
  - The request is generally in keeping with the intent and purpose of Section 2520.
- e. Zoning Board of Appeals variance for the location of the loading dock as depicted which is supported by staff because the site is heavily buffered by existing regulated woodlands and wetlands both on and off the site, the closest residential building is located over 700 feet away, and the loading zone is recessed from the northernmost wall.
- f. Zoning Board of Appeals variance for the building height as depicted which is supported by staff because the site is heavily buffered by existing regulated woodlands and wetlands both on and off the site, and because the closest residential building is located over 700 feet away.

This motion is made because the plan is otherwise in compliance with Article 19, Article 24 and Article 25 of Zoning Ordinance and all other applicable provisions of the Ordinance. *Motion carried 5-0.*

In the matter of Beck North Lot 56, JSP14-07, motion to approve the Woodland Permit based on and subject to the following:

- a. The findings for compliance with Ordinance standards in the staff and consultant review letters and the conditions and items listed in those letters and the conditions and items listed in those letters and in the Special Land Use approval being addressed on the Final Site Plan.
- b. Full replacement of the trees being removed in accordance with the ordinance; provided, however, that the applicant shall be permitted to replace the trees on other properties within the Beck North Corporate Park development, or on other properties owned/developed by the applicant.
- c. Trees will be planted or payment will be made to the tree fund within three years.

This motion is made because the plan is otherwise in compliance with Chapter 37 of the Code of Ordinances and all other applicable provisions of the Ordinance. *Motion carried 5-0.*

In the matter of Beck North Lot 56, JSP14-07, motion to approve the Stormwater Management Plan subject to the findings of compliance with Ordinance standards in the staff and consultant review letters and the conditions and items listed in those letters being addressed on the Final Site Plan. This motion is made because the plan is otherwise in compliance with Chapter 11 of the Code of Ordinances and all other applicable provisions of the Ordinance. *Motion carried 5-0.*

## 2. ROSE SENIOR LIVING AT PROVIDENCE, JSP13-81

Public hearing at the request of Edward Rose and Sons for recommendation to City Council for approval of a Planned Suburban Low-Rise (PSLR) Overlay Development Agreement Application and Concept Plan. The subject property is 23.61 acres in Section 17 of the City of Novi and located on the north side of Eleven Mile Road and west of Beck Road. The applicant is proposing a 182 unit senior living facility.