



COMMUNITY DEVELOPMENT DEPARTMENT

45175 Ten Mile Road
Novi, MI 48375
(248) 347-0415 Phone
(248) 735-5600 Facsimile
www.cityofnovi.org

ZONING BOARD OF APPEALS STAFF REPORT

FOR: City of Novi Zoning Board of Appeals **ZONING BOARD APPEALS DATE:** June 14, 2016

REGARDING: 42445 WEST TEN MILE RD (PZ16-0020), Parcel 50-22-26-126-001

BY: Larry Butler, Deputy Director Community Development

I. GENERAL INFORMATION:

Applicant

Freund Andrus Construction

Variance Type

Dimensional Variance

Property Characteristics

Zoning District:	I-1 (Light Industrial)
Location:	North of Grand River Ave. and east of Novi Road
Parcel #:	50-22-26-126-001

Request

The applicant is requesting variances from the City of Novi Zoning Ordinance Section 4.19.2.F to allow location of a dumpster enclosure in the side yard of an existing parcel recently reoccupied and proposed for alteration. The parcel is zoned I-1.

II. STAFF COMMENTS:

Proposed Changes

The applicant is requesting approval to construct a dumpster enclosure and loading area in the side yard of the parcel proposed for development. The variance requests are required as a part of the Site Plan approval process.

III. RECOMMENDATION:

The Zoning Board of Appeals may take one of the following actions:

1. I move that we **grant** the variance in Case No. **PZ16-0020**, sought by _____, for _____ because Petitioner has shown practical difficulty requiring _____.
- (a) Without the variance Petitioner will be unreasonably prevented or limited with respect to use of the property because _____.

- (b) The property is unique because _____
_____.
- (c) Petitioner did not create the condition because _____
_____.
- (d) The relief granted will not unreasonably interfere with adjacent or surrounding properties because _____
_____.
- (e) The relief is consistent with the spirit and intent of the ordinance because _____
_____.
- (f) The variance granted is subject to:
 - 1. _____.
 - 2. _____.
 - 3. _____.
 - 4. _____.

2. I move that we **deny** the variance in Case No. **PZ16-0020**, sought by _____,
for _____ because Petitioner has not shown
practical difficulty requiring _____.

- (a) The circumstances and features of the property including _____ are not unique because they exist generally throughout the City.
- (b) The circumstances and features of the property relating to the variance request are self-created because _____
_____.
- (c) The failure to grant relief will result in mere inconvenience or inability to attain higher economic or financial return based on Petitioner's statements that _____.
- (d) The variance would result in interference with the adjacent and surrounding properties by _____.
- (e) Granting the variance would be inconsistent with the spirit and intent of the ordinance to _____
_____.

Should you have any further questions with regards to the matter please feel free to contact me at (248) 347-0423.

Larry Butler
Deputy Director Community Development
City of Novi



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ZONING BOARD OF APPEALS APPLICATION

APPLICATION MUST BE FILLED OUT COMPLETELY

I. PROPERTY INFORMATION (Address of subject ZBA Case)	
PROJECT NAME / SUBDIVISION 42445 W. 10mi - Durr Systems	
ADDRESS 42445 W. 10mi	LOT/SIUTE/SPACE #
SIDWELL # 50-22- <u>06</u> - <u>126</u> - <u>001</u>	May be obtain from Assessing Department (248) 347-0485
CROSS ROADS OF PROPERTY	

Application Fee: \$300.00
 Meeting Date: 6-14-16
 ZBA Case #: PZ 16-0020

IS THE PROPERTY WITHIN A HOMEOWNER'S ASSOCIATION JURISDICTION? <input type="checkbox"/> YES <input type="checkbox"/> NO	REQUEST IS FOR: <input type="checkbox"/> RESIDENTIAL <input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> VACANT PROPERTY <input type="checkbox"/> SIGNAGE
DOES YOUR APPEAL RESULT FROM A NOTICE OF VIOLATION OR CITATION ISSUED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	

II. APPLICANT INFORMATION			
A. APPLICANT		EMAIL ADDRESS john@freundandrus.com	CELL PHONE NO. 248.770.4815
NAME John Hester		TELEPHONE NO. 248.655.7099	
ORGANIZATION/COMPANY Freund Andrus Construction		FAX NO. 248.230.4792	
ADDRESS 307 W. 6th St.	CITY Royal Oak	STATE Mi	ZIP CODE 48067
B. PROPERTY OWNER <input type="checkbox"/> CHECK HERE IF APPLICANT IS ALSO THE PROPERTY OWNER			
Identify the person or organization that owns the subject property:		EMAIL ADDRESS patrick.wong@durrusa.com	CELL PHONE NO. 248.880.0107
NAME Patrick Wong		TELEPHONE NO. 248.450.2331	
ORGANIZATION/COMPANY Durr Systems, Inc.		FAX NO. 734.459.5837	
ADDRESS 26801 Northwestern Highway	CITY Southfield	STATE MI	ZIP CODE 48033

III. ZONING INFORMATION	
A. ZONING DISTRICT	
<input type="checkbox"/> R-A <input type="checkbox"/> R-1 <input type="checkbox"/> R-2 <input type="checkbox"/> R-3 <input type="checkbox"/> R-4 <input type="checkbox"/> RM-1 <input type="checkbox"/> RM-2 <input type="checkbox"/> MH <input type="checkbox"/> I-1 <input type="checkbox"/> I-2 <input type="checkbox"/> RC <input type="checkbox"/> TC <input type="checkbox"/> TC-1 <input type="checkbox"/> OTHER <u>F-1 I-1</u> <i>um</i>	
B. VARIANCE REQUESTED	
INDICATE ORDINANCE SECTION (S) AND VARIANCE REQUESTED:	
1. Section <u>4.19.2.F</u>	Variance requested <u>Dumpster location</u>
2. Section _____	Variance requested _____
3. Section _____	Variance requested _____
4. Section _____	Variance requested _____

IV. FEES AND DRAWINGS	
A. FEES	
<input type="checkbox"/> Single Family Residential (Existing) \$200 <input type="checkbox"/> (With Violation) \$250 <input type="checkbox"/> Single Family Residential (New) \$250 <input checked="" type="checkbox"/> Multiple/Commercial/Industrial \$300 <input type="checkbox"/> (With Violation) \$400 <input type="checkbox"/> Signs \$300 <input type="checkbox"/> (With Violation) \$400 <input type="checkbox"/> House Moves \$300 <input type="checkbox"/> Special Meetings (At discretion of Board) \$600	
B. DRAWINGS 1-COPY & 1 DIGITAL COPY SUBMITTED AS A PDF	
<ul style="list-style-type: none"> • Dimensioned Drawings and Plans • Site/Plot Plan • Existing or proposed buildings or addition on the property • Number & location of all on-site parking, if applicable 	<ul style="list-style-type: none"> • Existing & proposed distance to adjacent property lines • Location of existing & proposed signs, if applicable • Floor plans & elevations • Any other information relevant to the Variance application



ZONING BOARD OF APPEALS APPLICATION

V. VARIANCE

A. VARIANCE (S) REQUESTED

DIMENSIONAL USE SIGN

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

B. SIGN CASES (ONLY)

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

C. ORDINANCE

City of Novi Ordinance, Section 3107 – Miscellaneous

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

No order of the Board permitting a use of a building or premises shall be valid for a period longer than one-hundred and eighty-(180) days unless such use is establish within such a period; provided, however, where such use permitted is dependent upon the erection or alteration or a building such order shall continue in force and effect if a building permit for such erection or alteration is obtained within one-(1) year and such erection or alteration is started and proceeds to completion in accordance with the terms of such permit.

D. APPEAL THE DETERMINATION OF THE BUILDING OFFICIAL

PLEASE TAKE NOTICE:

The undersigned hereby appeals the determination of the Building Official / Inspector or Ordinance made

CONSTRUCT NEW HOME/BUILDING ADDITION TO EXISTING HOME/BUILDING SIGNAGE
 ACCESSORY BUILDING USE OTHER Dumpster enclosures

VI. APPLICANT & PROPERTY SIGNATURES

A. APPLICANT


Applicant Signature

4-14-2016
Date

B. PROPERTY OWNER

If the applicant is not the owner, the property owner must read and sign below:

The undersigned affirms and acknowledges that he, she or they are the owner(s) of the property described in this application, and is/are aware of the contents of this application and related enclosures.


Property Owner Signature

4/14/16
Date

VII. FOR OFFICIAL USE ONLY

DECISION ON APPEAL:

GRANTED DENIED

The Building Inspector is hereby directed to issue a permit to the Applicant upon the following and conditions:

Chairperson, Zoning Board of Appeals

Date



Community Development Department

45175 Ten Mile Road
Novi, MI 48375
(248) 347-0415 Phone
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REVIEW STANDARDS USE VARIANCE

For Use Variances: A use variance may be granted by the Zoning Board of Appeals only in cases where the applicant demonstrates in the official record of the public hearing that undue hardship exists by showing all of the following:

In the space below, and on additional paper if necessary, explain how the proposed project meets each of the following standards.

Standard #1. Cannot Be Reasonably Used.

Explain how the land, building or structure cannot be reasonably used for any of the uses permitted by right or by special land use permit in the zoning district in which it is located.

Standard #2. Circumstances or Physical Conditions.

Explain how the need for the requested variance is due to unique circumstances or physical conditions of the property involved, such as narrowness, shallowness, shape, water, topography, or similar physical conditions and is not due to the applicant's personal or economic hardship.

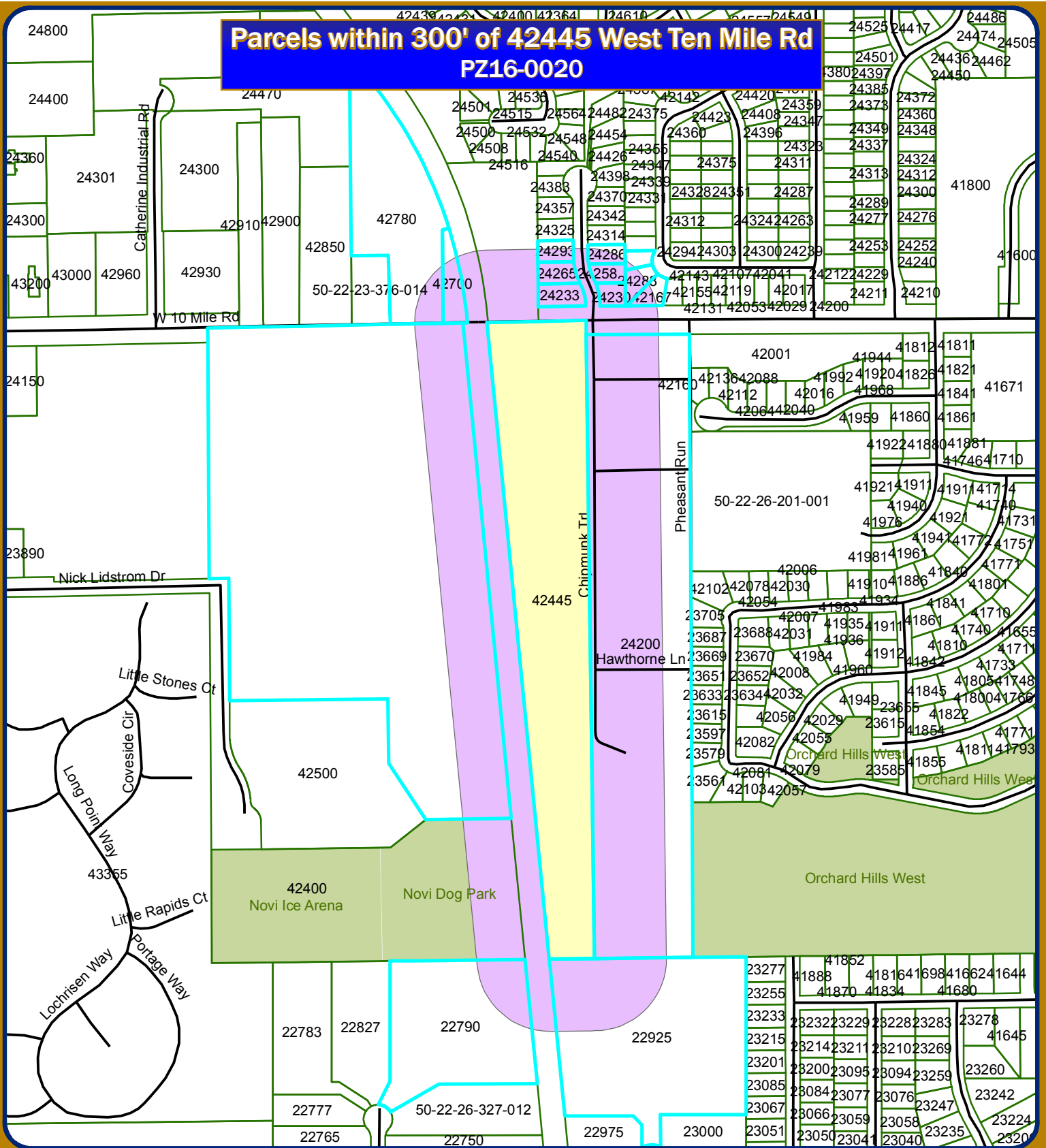
Standard #3. Character of the Neighborhood.

Explain how the proposed use will not alter the essential character of the neighborhood.

Standard #4. Not Self-Created.

Explain how the need for the requested variance is not the result of actions of the property owner or previous property owners (i.e., is not self-created).

Parcels within 300' of 42445 West Ten Mile Rd PZ16-0020



Map Author: Jon Gartha
 Date: May 18, 2016
 Project: Address List for 22-26-126-001
 Version #: 1.0

Amended By:
 Date:
 Department:

MAP INTERPRETATION NOTICE

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

Map Legend

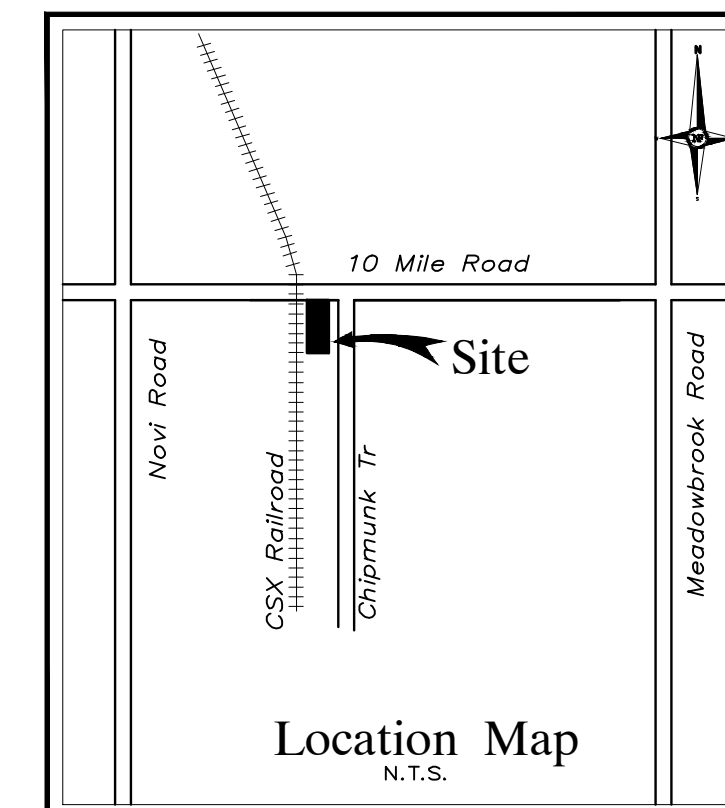
- 300' Buffer
 - Subject Property
 - Tax Parcel
- Municipality**
- Novi
 - Novi Twp.



City of Novi

IT Department
 GIS Division
 45175 Ten Mile Rd
 Novi, MI 48375
 cityofnovi.org





LEGEND

MANHOLE	EXISTING SANITARY SEWER
HYDRANT	SAN. CLEAN OUT
MANHOLE	GATE VALVE
UTILITY POLE	EXISTING WATER MAIN
	EXISTING STORM SEWER
	EX. R. Y. CATCH BASIN
	EXISTING BURIED CABLES
	OVERHEAD LINES
	LIGHT POLE
	SIGN

EXISTING VERSUS PROPOSED SITE RUN-OFF COMPARISON

PROJECT NO.	C590-01
PROJECT NAME:	Durr Systems
LOCATION:	Novi, MI
DATE:	10/27/2015
REVISED:	

Total Site Area	17.344	Acres
C - Water	1.000	
C - Lawn	0.350	
C-Roof/Pavement	0.950	
C-Gravel	0.850	

OVERALL SITE - EXISTING		
Surface Type	C-Factor	Area (Acres)
Water	1.000	0.523
Lawn	0.350	9.993
Roof/Pavement	0.950	6.711
Gravel	0.850	0.117
Weighted C Factor		0.605

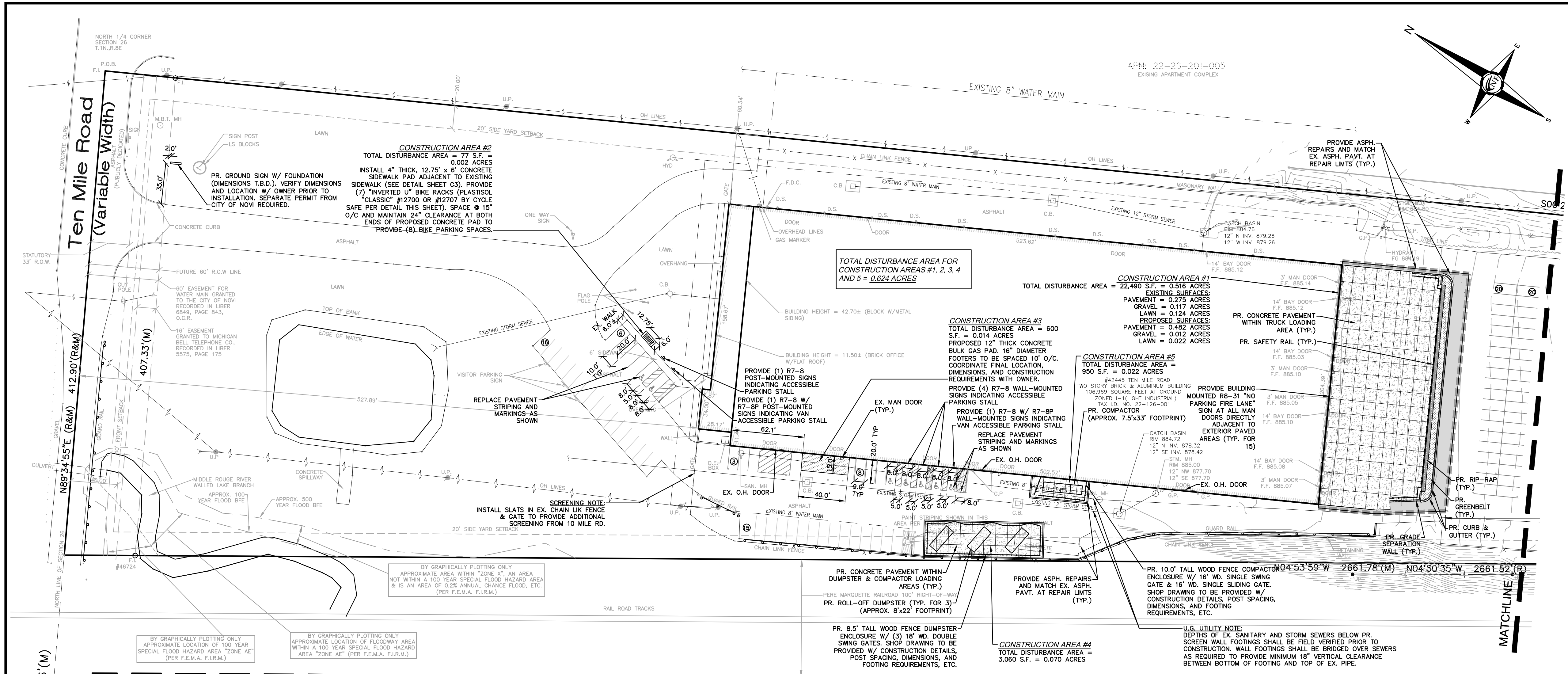
OVERALL SITE - PROPOSED		
Surface Type	C-Factor	Area (Acres)
Water	1.000	0.533
Lawn	0.350	9.991
Roof/Pavement	0.950	6.918
Gravel	0.850	0.012
Weighted C Factor		0.609

PROJECT NARRATIVE

DURR SYSTEMS WISHES TO IMPROVE AND EXPAND THE TRUCK LOADING AREA LOCATED ALONG THE SOUTH SIDE OF THE EXISTING BUILDING. THE EXISTING CONCRETE PAVEMENT AND ADJACENT GRAVEL AREA WILL BE REMOVED AND REPLACED WITH NEW CONCRETE PAVEMENT. THE PROPOSED TRUCK LOADING AREA WILL SERVICE FOUR EXISTING OVERHEAD DOORS, AND WILL FUNCTION AS AN "AT-GRADE" LOADING DOCK.

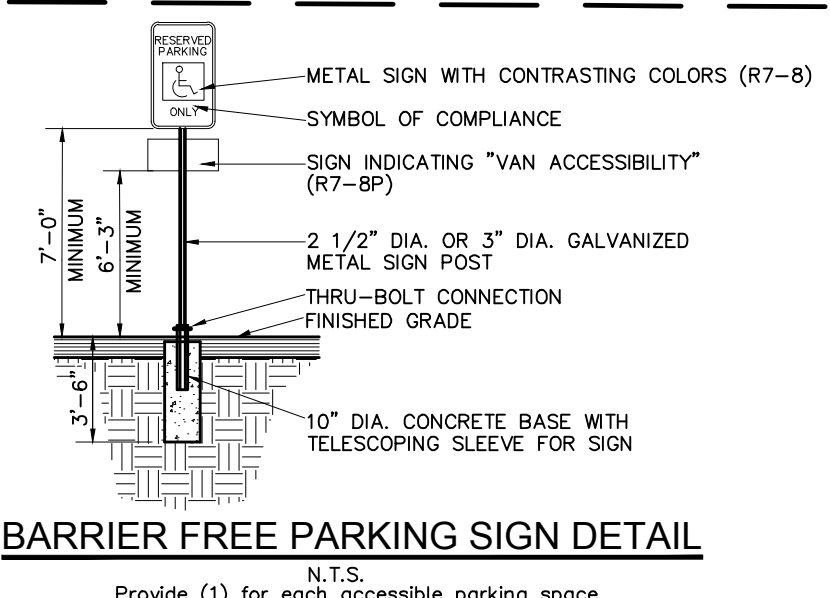


TYPE III B SIGNS - "NO PARKING FIRE LANE"
12" x 12" RB-31
RED LEGEND ON WHITE BACKGROUND
MOUNT TO BUILDING AT EGRESS DOORS



PAVEMENT MARKING & SIGN QUANTITIES TABLE

DESCRIPTION	QUANTITY	UNIT
4" WIDE PAVEMENT STRIPE (WHITE)	5,070	L.F.
4" WIDE PAVEMENT STRIPE (BLUE)	650	L.F.
3"x3" STANDARD SYMBOL OF ACCESSIBILITY (WHITE)	7	E.A.
POST MOUNTED BARRIER-FREE PARKING SIGN (R7-B)	2	E.A.
WALL MOUNTED BARRIER-FREE PARKING SIGN (R7-B)	2	E.A.
VAN ACCESSIBILITY SIGN (R7-8P)	2	E.A.
INSTALL "INVERTED U" BIKE RACK HOOP	7	E.A.
INSTALL BUILDING MOUNTED RB-31 SIGN	15	E.A.



- GENERAL SITE NOTES:**
- SCREENING ENCLOSURES ARE PROPOSED ON THESE PLANS FOR EXTERIOR COMPACTOR AND DUMPSTERS TO BE PLACED ON THE WEST SIDE OF THE BUILDING. ADDITIONAL SCREENING IS PROPOSED VIA INSTALLATION OF SLATS IN THE EXISTING CHAIN LINK FENCE & GATE LOCATED NEAR THE NORTHWEST BUILDING CORNER.
 - THIS EXISTING FACILITY IS A MANUFACTURING FACILITY. THERE WILL BE NO ON-SITE RETAIL SALES CONDUCTED AT THIS FACILITY.
 - THERE ARE NO LIGHTING IMPROVEMENTS PROPOSED FOR THIS PROJECT. THE EXISTING LIGHT POLES AND BUILDING WALL PACKS WILL REMAIN.
 - THERE SHALL BE NO LONG-TERM TRUCK PARKING AT THIS FACILITY.
- PAVEMENT MARKING AND SIGN NOTES:**
- ALL PROPOSED SIGNS, PAVEMENT STRIPING, AND OTHER PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE CITY OF NOVI AND MICHIGAN MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) REQUIREMENTS.
 - PAVEMENT MARKINGS SHALL MEET THE FOLLOWING REQUIREMENTS:
 - NON-BARRIER-FREE PARKING SPACES SHALL BE WHITE IN COLOR.
 - BARRIER-FREE PARKING SPACES AND CROSS-HATCHING SHALL BE BLUE IN COLOR.
 - WHEEL-CHAIR SYMBOLS SHALL BE WHITE IN COLOR.
 - WHEN BARRIER-FREE AND NON-BARRIER-FREE SPACES ARE ADJACENT TO ONE ANOTHER, THEY SHALL BE SEPARATED BY ADJUTING BLUE AND WHITE STRIPES.
 - BARRIER-FREE SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAIL ON THIS SHEET.
 - PARKING SPACE DIMENSIONS FOR WIDTH AND LENGTH ARE REFERENCED TO THE FACE OR CURB OR WALK.

SITE SUMMARY

SITE ZONING (PER CURRENT ZONING MAP): I-1 LIGHT INDUSTRIAL

PROPERTY ACREAGE: 17.655 ACRES

EXISTING BUILDING FOOTPRINT: 4,319 SFT

EXISTING OFFICES: 102,650 SFT

EXISTING WAREHOUSE: 106,969 SFT

TOTAL BUILDING: 211,529 SFT

BUILDING HEIGHT: 1-STORY OFFICE, 11.5' (+) HEIGHT
2-STORY WAREHOUSE, 42.7' (+) HEIGHT

REQUIRED BUILDING SETBACKS:
FRONT: 40 FEET
EACH SIDE: 20 FEET
REAR: 20 FEET

REQUIRED PARKING SETBACKS:
FRONT: 40 FEET
EACH SIDE: 10 FEET
REAR: 10 FEET

PARKING CALCULATIONS

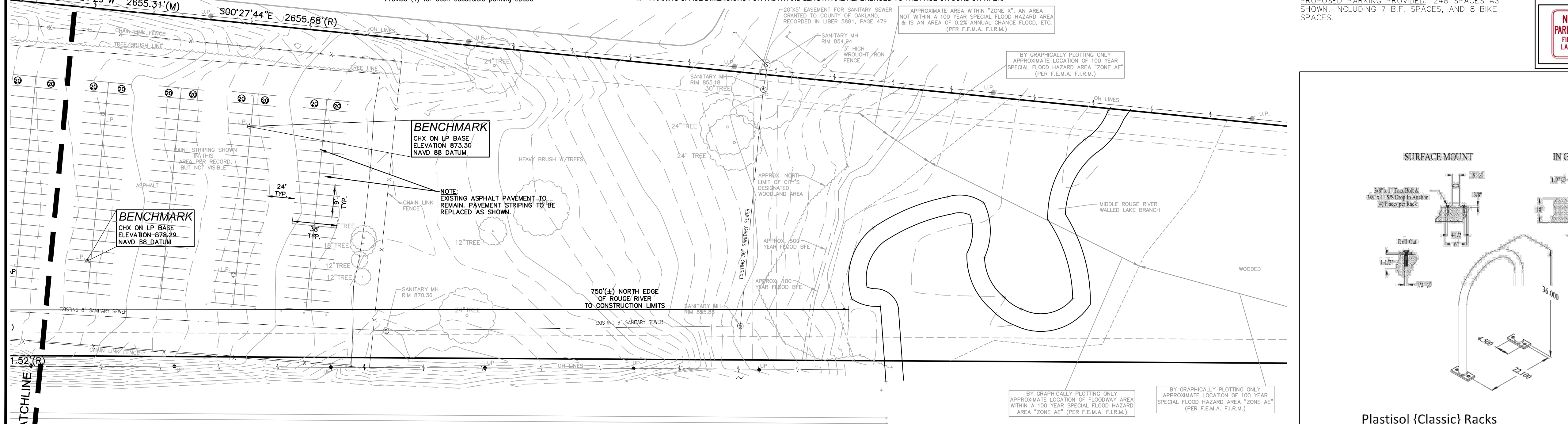
PARKING REQUIREMENTS
I-1 LIGHT INDUSTRIAL DISTRICT:
BASED ON TOTAL NUMBER OF EMPLOYEES:
5 PLUS 1 SPACE PER EACH 1.5 EMPLOYEES IN LARGEST WORKING SHIFT:
= 5 + 80 EMPLOYEES (LARGEST SHIFT) X 1.5 = 125 SPACES

BASED ON TOTAL BUILDING AREA:
1 SPACE FOR EVERY 700 S.F. OF GROSS BUILDING AREA
= (154,889 S.F. / 700 S.F. PER SPACE) = 153 SPACES

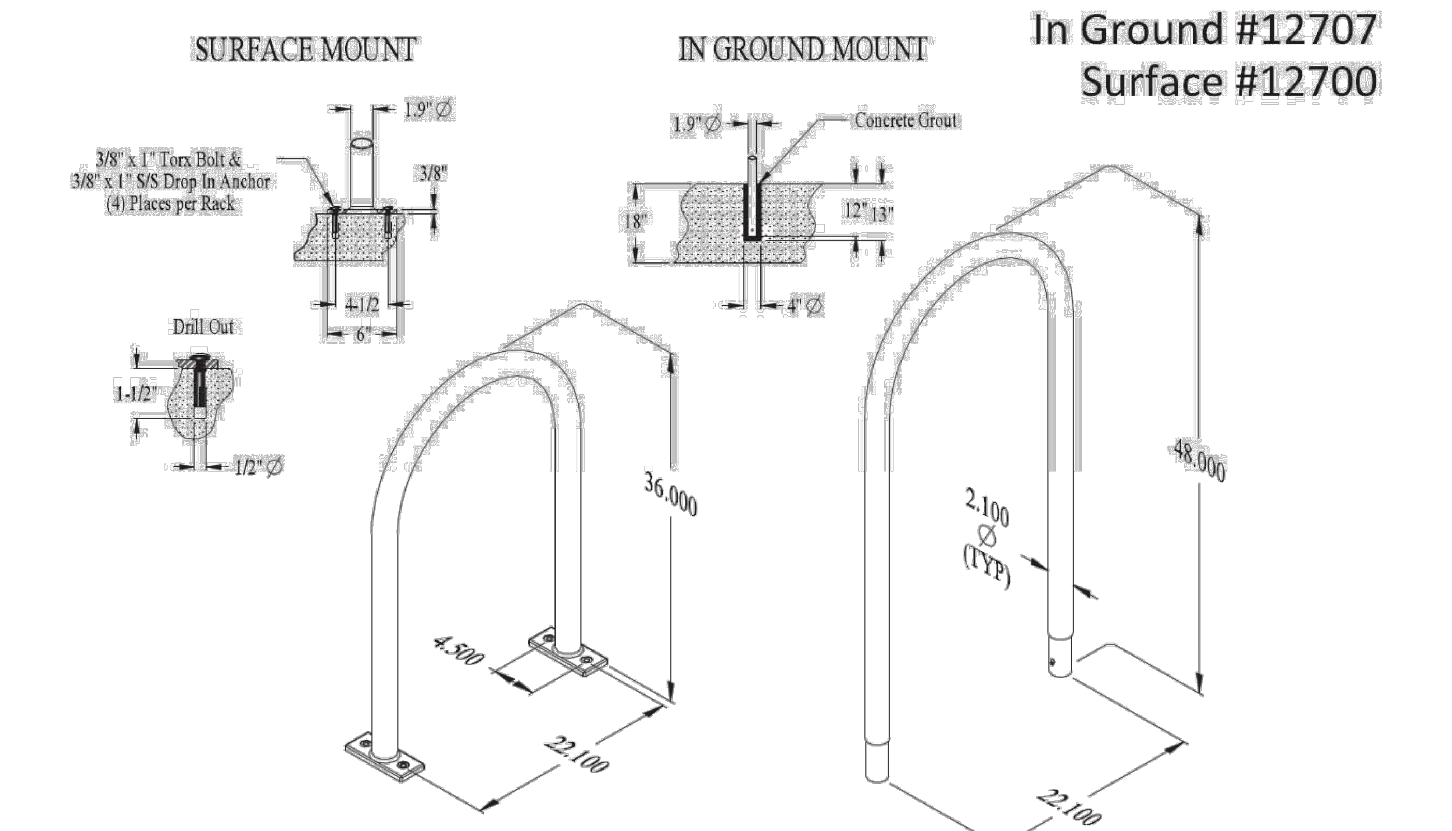
B.F. PARKING REQUIRED: 7 SPACES, INCLUDING 1 SPACE VAN-ACCESSIBLE

EXISTING PARKING PROVIDED: 256 SPACES AS SHOWN ON TOPOGRAPHICAL SURVEY, SHEET T1, INCLUDING 3 B.F. SPACES.

PROPOSED PARKING PROVIDED: 248 SPACES AS SHOWN, INCLUDING 7 B.F. SPACES, AND 8 BIKE SPACES.



Plastisol {Classic} Racks
Surface Mount {Dims} / In Ground Mount {Dims}



PROJECT
Durr Systems
42445 Ten Mile Road
City of Novi, Michigan

CLIENT
Freund Andrus Construction
307 W. 6th Street, Suite 200
Royal Oak, MI 48067

Contact:
Mr. Nick Freund
(248) 665-7099

PROJECT LOCATION
Part of the NW 1/4 of Section 26
T. 1 North, R. 8 East
City of Novi,
Oakland County, Michigan

SHEET
Overall Site Plan &
Storm Water Management
Plan (SWMP)



- REVISIONS**
- 09-22-15 Pre-Application Meeting Submitted
 - 10-08-15 Concept Plan for Owner Review
 - 11-18-15 Final Site Plan
 - 12-16-15 Stamping Set
 - 01-19-16 G.S. Wall Revisions
 - 02-15-16 Wall & Dumpster Revisions
 - 04-14-16 Dumpster Revisions

DRAWN BY:
R. Peery
DESIGNED BY:
P. Tulikangas
APPROVED BY:
B. Buchholz

DATE:
9-18-15

SCALE: 1" = 50'

NFE JOB NO. C590-01
SHEET NO. C1

SEAL

PROJECT
Durr Systems
42445 Ten Mile Road
City of Novi, Michigan

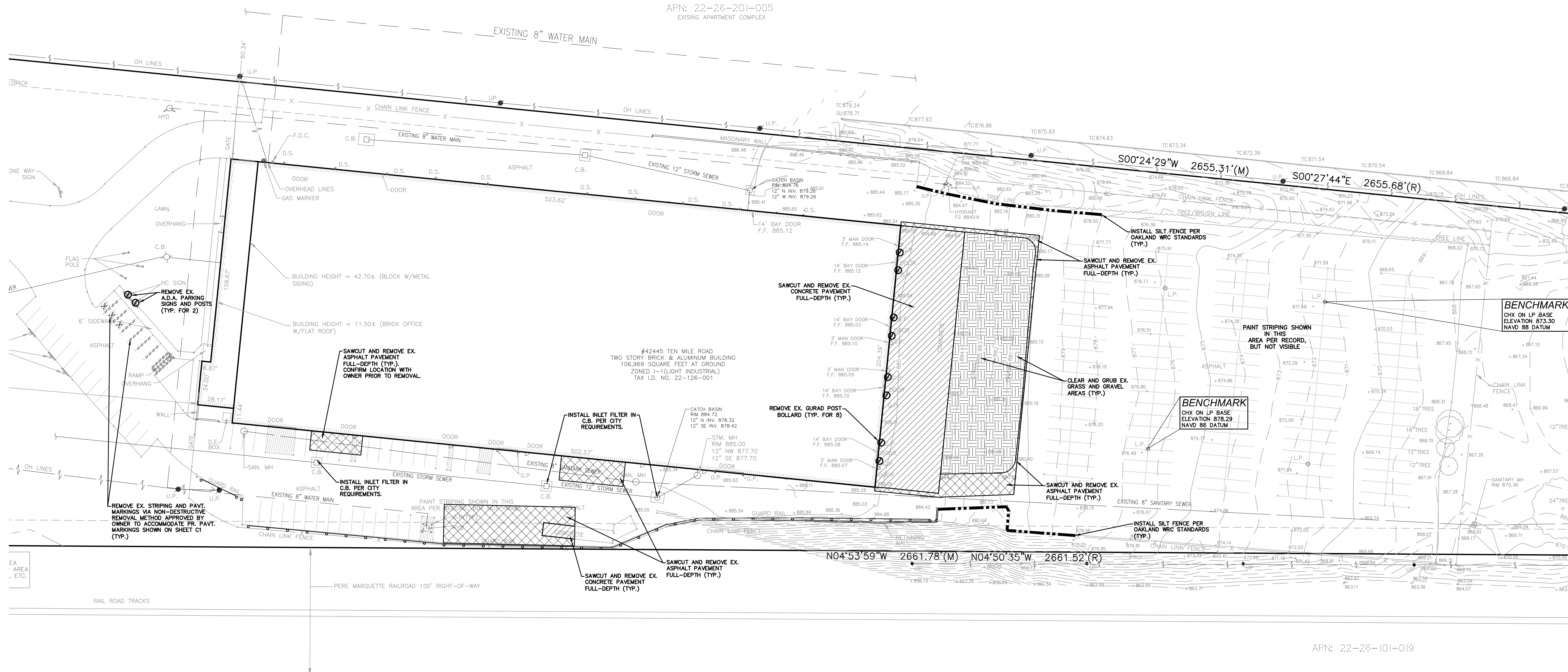
CLIENT
Freund Andrus Construction
307 W. 6th Street, Suite 200
Royal Oak, MI 48067

Contact:
Mr. Nick Freund
(248) 665-7099

PROJECT LOCATION
Part of the NW 1/4
of Section 26
T. 1 North, R. 8 East
City of Novi,
Oakland County, Michigan

SHEET
Demolition & SESC Plan

APN: 22-26-201-005
EXISTING APARTMENT COMPLEX



EROSION CONTROL NOTES

ACCORDING TO THE CITY OF NOVI, A SOIL EROSION PERMIT IS NOT REQUIRED FOR THIS SITE DUE TO THE TOTAL AREA OF DISRUPTION BEING LESS THAN 1 ACRE AND LOCATED MORE THAN 500' FROM THE NEAREST WATER BODY (ROUGE RIVER).

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THIS PLAN, OR AS DETERMINED NECESSARY BY THE OWNER OR OTHER GOVERNING AGENCY HAVING JURISDICTION.

PROPERTY DESCRIPTION: DURR SYSTEMS, 42445 TEN MILE ROAD, NOVI, MICHIGAN TAX I.D. No. 22-26-126-001

PROPERTY SIZE: 17.344 ACRES

AREA OF EARTH DISRUPTION: 0.624 ACRES

THE EARTH CHANGE WILL INCLUDE FULL-DEPTH PAVEMENT REMOVAL, EARTHWORK TO ESTABLISH PROPOSED PAVEMENT, WALL, AND FINISHED GRADE SUBGRADE ELEVATIONS, AND EARTH BALANCE.

ALL NON-PAVED AREAS ARE TO BE LANDSCAPED, SODDED AND/OR SEEDED AND MULCHED.

THE CONTRACTOR SHALL STORE ALL TOPSOIL ON-SITE IN AN AREA AGREED UPON BY THE OWNER OR OWNER'S REPRESENTATIVE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING SOIL EROSION AND SEDIMENTATION CONTROL DEVICES, AND FOR PROVIDING DUST CONTROL.

THE FOLLOWING SHALL APPLY UNDER INSTALLATION OF SOIL EROSION AND SEDIMENTATION CONTROL DEVICES:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING MUD MATS MADE OF LARGE COURSE AGGREGATE, AS NEEDED TO PROHIBIT CONSTRUCTION TRAFFIC FROM TRACKING DEBRIS AND SOILS ONTO ADJACENT ROADWAYS. ALL HAULING OPERATIONS MUST CONFORM TO LOCAL AND STATE LAW.
- THE CONTRACTOR SHALL PROVIDE PERMANENT STABILIZATION OF ALL DENUDED AREAS WITHIN 5 DAYS OF FINAL GRADE.
- IF SO DEEMED BY THE SITE INSPECTOR, THE CONTRACTOR SHALL IMMEDIATELY CEASE SITE WORK OPERATIONS, AND INSTALL EMERGENCY TEMPORARY EROSION CONTROL DEVICES (INCLUDING MUD MATS).
- TOPSOIL SHALL NOT BE STORED WITHIN PUBLIC RIGHT OF WAY. STOCKPILED SOILS SHALL BE PROPERLY COMPACTED AND/OR COVERED, WITH SILT FENCE SURROUNDING THE PILE.

ALL SESC MEASURES SHALL BE INSPECTED & REPAIRED AS NECESSARY AT A MINIMUM ONCE A WEEK AND AFTER EVERY STORM EVENT.

BURLAP IS NOT ALLOWED AND STRAW BALES CAN ONLY BE USED TO BACKUP SILT FENCES.

VEGETATION STABILIZATION SHALL BE ACHIEVED WITHIN 5 DAYS OF FINAL GRADE, OR WHENEVER DISTURBED AREAS REMAIN UNCHANGED FOR 30 DAYS OR GREATER, THREE TO FOUR INCHES (3.0\"/>

ALL SESC MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN COMPLIANCE WITH APPLICABLE CITY OF NOVI AND OAKLAND COUNTY REQUIREMENTS.

DUST SHALL BE CONTROLLED DAILY, OR AS NEEDED, TO A MINIMUM BY USE OF A WATER TRUCK AND/OR DUST CONTROL MATERIALS. PAVEMENT SHALL BE SWEEPED AND CLEANED ON A DAILY BASIS.

SEQUENCE OF CONSTRUCTION

- INSTALL SOIL EROSION & SEDIMENTATION CONTROL MEASURES.
- REMOVE TREES/SHRUBS/VEGETATION.
- REMOVE EXISTING BITUMINOUS PAVEMENT, CONCRETE CURB & GUTTER AND SIDEWALK.
- IN CONJUNCTION WITH MASS GRADING, STRIP EXISTING VEGETATION & TOPSOIL, STABILIZE GROUND WITH SUBGRADE UNDERLAYING TYPE II PER MDOT STANDARDS AT EXISTING SOFT SUBGRADE AREAS.
- PERFORM PAVEMENT SUBGRADE PREPARATION AND FILLING OPERATIONS FOR PROPOSED PAVEMENT. PERFORM PROOF ROLLING.
- INSTALL PAVEMENT SUBBASE, CONCRETE PAVEMENT, AND CURBING.
- INSTALL ASPHALT LEVELING COURSE.
- MAINTAIN ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH THE CITY'S REQUIREMENTS (ALL TIMES).
- COMPLETE INSTALLATION OF FINAL WEARING COURSE. INSTALL SIGNS AND BIKE RACKS.
- RESTORE DENUDED EARTH AREAS WITH TOPSOIL, SEED AND/OR SOD, PER THE LANDSCAPE PLAN.
- PUNCH LIST ITEMS. CLEAN PAVEMENT AND STRUCTURES OF ACCUMULATED DEBRIS IN CONJUNCTION WITH REMOVAL OF SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.

SOIL EROSION MAINTENANCE NOTE

THE OWNER SHALL BE RESPONSIBLE FOR MAINTAINING ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES WEEKLY AND AFTER EVERY STORM EVENT.

SOIL DATA

THIS SITE CONSISTS OF SOIL TYPES 10C \"MARLETTE SANDY LOAM, 6-12% SLOPES, 43 \"SLOAN MARLETTE ASSOCIATION SOIL,\" AND 99 \"URBAN LAND SOIL.\" BASED ON CURRENT INFORMATION OBTAINED FROM THE USDA NRCS SOIL SURVEY FOR OAKLAND COUNTY.

DEMOLITION NOTES

DEMOLITION OF SITE IMPROVEMENTS SHALL BE ALLOWED ONLY AFTER AN APPROVED PERMIT HAS BEEN SECURED FROM THE PUBLIC AGENCY HAVING JURISDICTION OVER SAID DEMOLITION.

FOR ANY DEMOLITION WITHIN PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL PAY FOR, AND SECURE, ALL NECESSARY PERMITS AND LIKEWISE SHALL ARRANGE FOR ALL SITE INSPECTIONS.

SITE DEMOLITION INCLUDES THE COMPLETE REMOVAL OF SITE IMPROVEMENTS AND OFF-SITE DISPOSAL. DEBRIS SHALL BE TRANSPORTED TO AN APPROPRIATE DISPOSAL FACILITY THAT IS LICENSED FOR THAT TYPE OF DEBRIS.

THE CONTRACTOR SHALL COORDINATE TRUCK ROUTES WITH THE MUNICIPALITY PRIOR TO COMMENCEMENT OF SITE DEMOLITION. ALL TRUCKS SHALL BE TARPED OR PROPERLY SECURED TO CONTAIN DEMOLITION DEBRIS PRIOR TO LEAVING SITE.

EXISTING ON-SITE UNDERGROUND UTILITIES AND BUILDING SERVICES HAVE BEEN INDICATED BASED UPON THE BEST AVAILABLE UTILITY RECORDS AND/OR ON-SITE INSPECTION. NO GUARANTEE IS MADE BY THE DESIGN ENGINEER, AS TO THE COMPLETENESS OR ACCURACY OF UTILITY DATA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF UTILITY INFORMATION (THE DESIGN ENGINEER MAKES NO GUARANTEE NOR ASSUMES ANY LIABILITY AS TO THE COMPLETENESS AND/OR ACCURACY OF UTILITY DATA).

PRIOR TO THE REMOVAL OR ABANDONMENT OF ANY EXISTING UNDERGROUND UTILITY OR BUILDING SERVICE LINES CALLED FOR IN THE PLANS OR DISCOVERED DURING EXCAVATION, THE CONTRACTOR MUST DETERMINE IF THE UTILITY LINE OR BUILDING SERVICE IS STILL IN USE. IF THE UTILITY LINE OR BUILDING SERVICE IS STILL IN USE/ACTIVE THE CONTRACTOR MUST TAKE ALL THE NECESSARY STEPS TO GUARANTEE THAT THE UTILITY LINE OR BUILDING SERVICE IS RECONNECTED WITHOUT AN INTERRUPTION IN SERVICE. THE RECONNECTION OF THE UTILITY LINE OR BUILDING SERVICE MUST BE IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE APPROPRIATE GOVERNMENTAL AGENCY OR PRIVATE UTILITY COMPANY.

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO SITE DEMOLITION.

* THE CONTRACTOR SHALL NOTIFY MISS DIG (1-800-482-7171) A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF THE SITE DEMOLITION.

THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITY POLES AND BUILDING SERVICES WITH THE DETROIT EDISON COMPANY. REMOVAL OF DETROIT EDISON ELECTRICAL SERVICES SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND REQUIREMENTS OF DETROIT EDISON.

THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITY POLES AND BUILDING SERVICES WITH AMERITECH. REMOVAL OF AMERITECH COMMUNICATION SERVICES SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND REQUIREMENTS OF AMERITECH.

THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITY POLES AND BUILDING SERVICES WITH THE APPROPRIATE CABLE MEDIA COMPANY. REMOVAL OF CABLE SERVICES SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND REQUIREMENTS OF THE CABLE COMPANY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF PRIVATE UTILITY COMPANIES AND COORDINATE UTILITY SERVICE SHUT OFF/DISCONNECT, PRIOR TO DEMOLITION OF EXISTING STRUCTURES OR PROPERTIES.

ALL UTILITY METERS SHALL BE REMOVED BY THE APPROPRIATE UTILITY COMPANY.

ANY ON-SITE STORM SEWER FACILITIES LOCATED DURING DEMOLITION SHALL BE REMOVED AND BULK HEADED AT THE PROPERTY LINE IF INDICATED FOR REMOVAL ON THE PLANS.

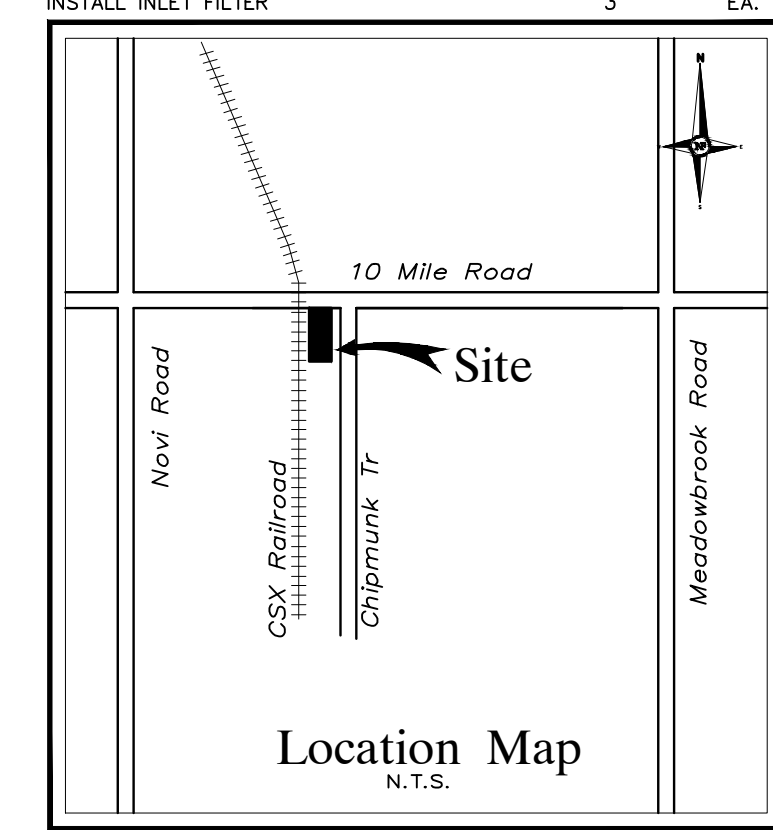
PRIOR TO BUILDING DEMOLITION, ALL HAZARDOUS MATERIAL SHALL BE REMOVED BY OTHERS. THE DEMOLITION CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER SHOULD ANY SUSPICIOUS MATERIAL BE FOUND.

ESTIMATED QUANTITIES

NOTE: THE BELOW QUANTITIES ARE FOR REFERENCE PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM HIS OWN QUANTITY TAKEOFFS & EARTHWORK CALCULATIONS PRIOR TO BIDDING.

DEMOLITION / SESC

DESCRIPTION	QUANTITY	UNITS
REMOVE EX. CONCRETE PAVEMENT FULL-DEPTH	1,160	S.Y.
REMOVE EX. ASPHALT PAVEMENT FULL-DEPTH	685	S.Y.
CLEAR AND GRUB GRASS/GRAVEL AREA	1,170	S.Y.
REMOVE EX. SIGN AND POST	2	EA.
REMOVE EX. GUARD POST BOLLARD	8	EA.
REMOVE EX. PAVEMENT STRIPING	250	L.F.
REMOVE EX. PAVEMENT MARKINGS	3	EA.
INSTALL SILT FENCE	270	L.F.
INSTALL INLET FILTER	3	EA.



DEMOLITION LEGEND

- SAWCUT AND REMOVE EX. ASPHALT PAVEMENT FULL-DEPTH
- SAWCUT AND REMOVE EX. CONCRETE PAVEMENT FULL-DEPTH
- CLEAR & GRUB GRASS/GRAVEL AREA FOR FUTURE PAVEMENT
- INDICATES EX. PAVT. MRKG. REMOVAL
- INDICATES EX. SIGN OR BOLLARD TO BE REMOVED
- INDICATES PR. SILT FENCE

SESC LEGEND

- MANHOLE - EXISTING SANITARY SEWER
- HYDRANT - SAN. CLEAN OUT
- GATE_VALVE - EXISTING WATERMAIN
- MANHOLE - EXISTING STORM SEWER
- EX. R. Y. CATCH BASIN
- UTILITY POLE - EXISTING BURIED CABLES
- GUY POLE - OVERHEAD LINES
- GUY WIRE - LIGHT POLE
- SIGN



REVISIONS

09-22-15	Pre-Application Meeting Submitted
10-08-15	Concept Plan for Owner Review
11-18-15	Final Site Plan
12-16-15	Stamping Set
01-19-16	G.S. Wall Revisions
02-15-16	Wall & Dumpster Revisions
04-14-16	Dumpster Revisions

DRAWN BY:
R. Peery
DESIGNED BY:
P. Tulikangas
APPROVED BY:
B. Buchholz
DATE:
9-18-15
SCALE: 1" = 40'
40 20 0 20 40 60
NFE JOB NO. SHEET NO.
C590-01 C2

SEAL

PROJECT
Durr Systems
42445 Ten Mile Road
City of Novi, Michigan

CLIENT
Freund Andrus Construction
307 W. 6th Street, Suite 200
Royal Oak, MI 48067

Contact:
Mr. Nick Freund
(248) 665-7099

PROJECT LOCATION
Part of the NW 1/4
of Section 26
T. 1 North, R. 8 East
City of Novi,
Oakland County, Michigan

SHEET
Paving & Grading Plan



Know what's Below
Call before you dig.

REVISIONS
09-22-15 Pre-Application Meeting Submittal
10-08-15 Concept Plan for Owner Review
11-18-15 Final Site Plan
12-16-15 Stamping Set
01-19-16 G.S. Wall Revisions
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DRAWN BY:
R. Peery

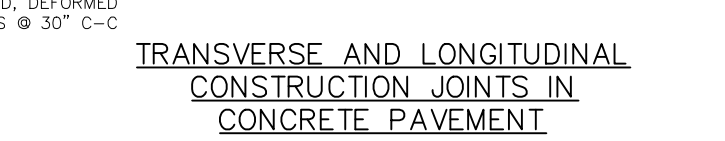
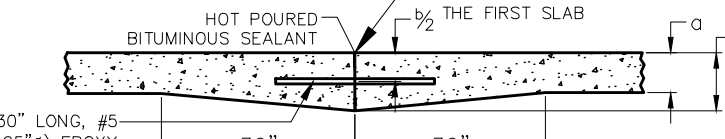
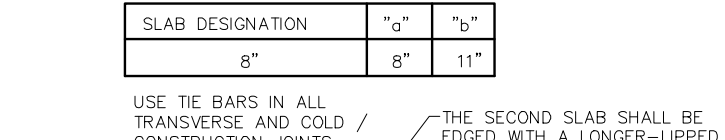
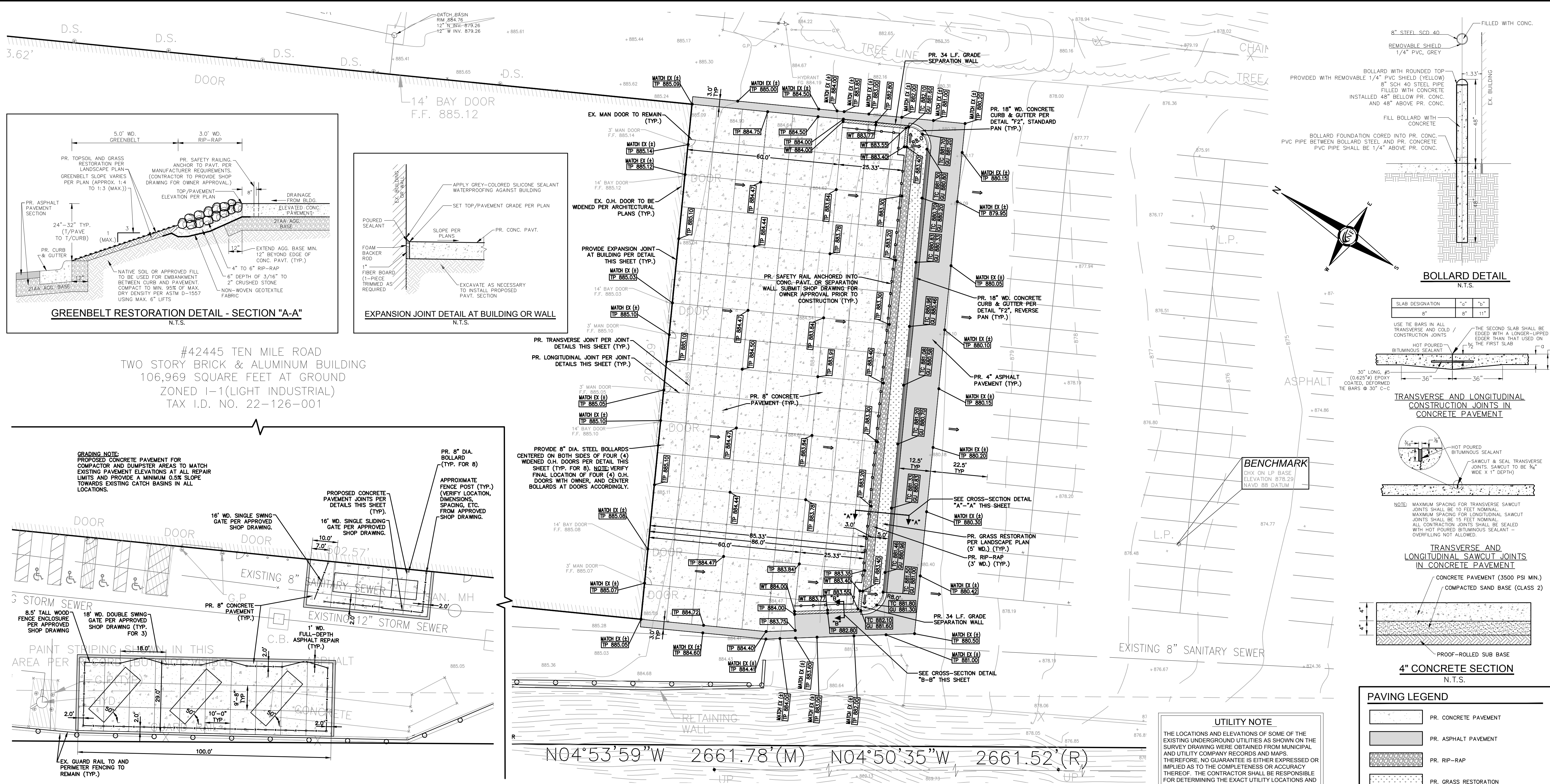
DESIGNED BY:
P. Tulikangas

APPROVED BY:
B. Buchholz

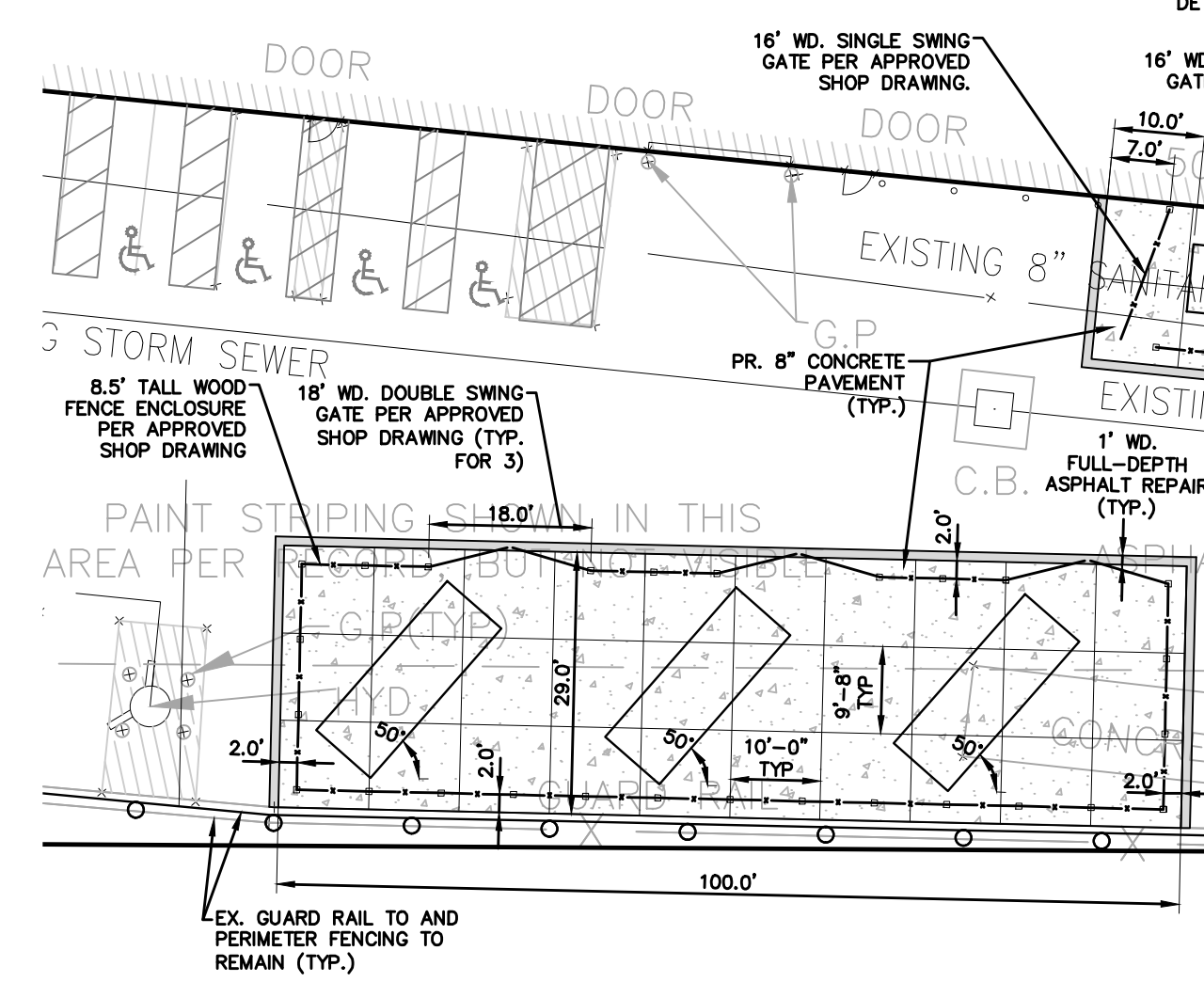
DATE:
9-18-15

SCALE: 1" = 20'

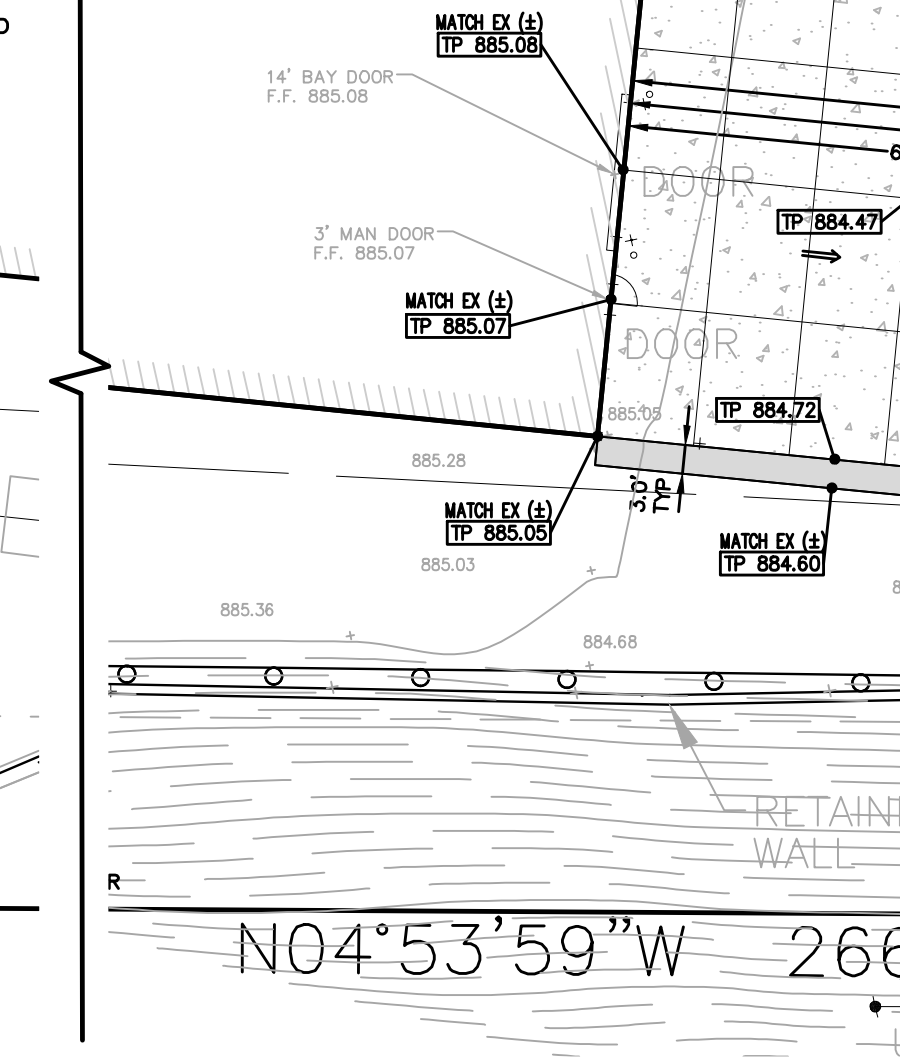
NFE JOB NO. SHEET NO.
C590-01 C3



GRADING NOTE:
PROPOSED CONCRETE PAVEMENT FOR COMPACTOR AND DUMPSTER AREAS TO MATCH EXISTING PAVEMENT ELEVATIONS AT ALL REPAIR LIMITS AND PROVIDE A MINIMUM 0.5% SLOPE TOWARDS EXISTING CATCH BASINS IN ALL LOCATIONS.



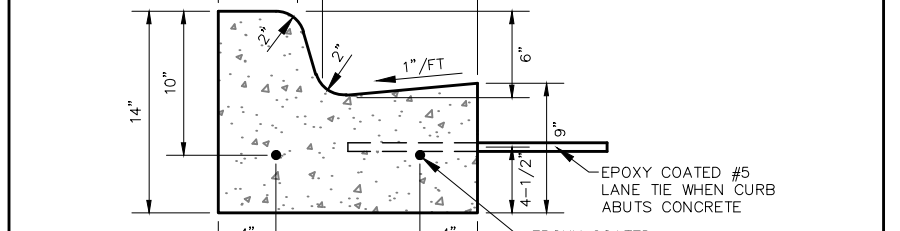
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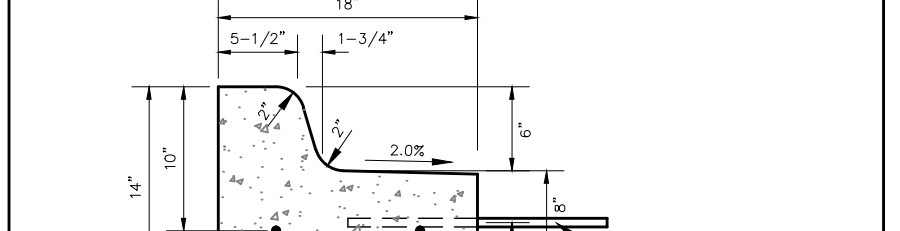
PAVING NOTES

- PAVEMENT SHALL BE OF THE TYPE, THICKNESS AND CROSS SECTION AS INDICATED ON THE PLANS AND AS FOLLOWS:
CONCRETE PAVEMENT & FLATWORK:
 BASE COURSE (PAVEMENT) - 21AA CRUSHED LIMESTONE AGGREGATE (10\"/>
- PAVEMENT BASE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT. EXISTING SUB-BASE SHALL BE PROOF-ROLLED IN THE PRESENCE OF THE ENGINEER TO DETERMINE STABILITY.
- ALL CONCRETE PAVEMENT JOINTS SHALL BE FILLED WITH HOT Poured RUBBERIZED ASPHALT JOINT SEALING COMPOUND IMMEDIATELY AFTER SAWCUT OPERATION. FEDERAL SPECIFICATION SS-S164.
- ALL TOP OF CURB ELEVATIONS, AS SHOWN ON THE PLANS, ARE CALCULATED FOR A 6\"/>
- ALL SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1993, SHALL BE INSTALLED AS INDICATED ON THE PLANS.
- CONSTRUCTION OF A NEW OR RECONSTRUCTED DRIVE APPROACH CONNECTING TO AN EXISTING CITY, STATE, OR COUNTY ROADWAY SHALL BE ALLOWED ONLY AFTER AN APPROVED PERMIT HAS BEEN SECURED FROM THE AGENCY HAVING JURISDICTION OVER SAID ROADWAY.
- FOR ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL PAY FOR AND SECURE ALL NECESSARY PERMITS AND LIKEWISE ARRANGE FOR ALL INSPECTION.
- EXISTING TOPSOIL, VEGETATION AND ORGANIC MATERIALS SHALL BE STRIPPED AND REMOVED FROM PROPOSED PAVEMENT AREA PRIOR TO PLACEMENT OF BASE MATERIALS (INCLUDED IN PAVING WORK).
- EXPANSION JOINTS SHOULD BE INSTALLED AT THE END OF ALL INTERSECTION RADII.
- SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1973, SHALL BE INSTALLED AS SHOWN AT ALL STREET INTERSECTIONS AND AT ALL BARRIER FREE PARKING AREAS AS INDICATED ON THE PLANS.
- ALL PAVEMENT AREAS SHALL BE PROOF-ROLLED UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF BASE MATERIALS AND PAVING MATERIALS.
- FILL AREAS SHALL BE MACHINE COMPACTED IN UNIFORM LIFTS NOT EXCEEDING 9 INCHES THICK TO 95% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT.
- R.A.P. NOT ALLOWED IN SURFACE / TOP COURSE OF ASPHALT.

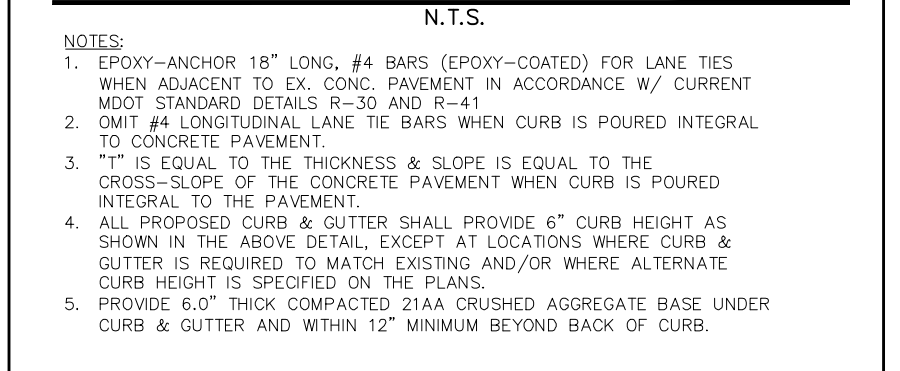
STANDARD CONC. \"F2\" CURB & GUTTER DETAIL



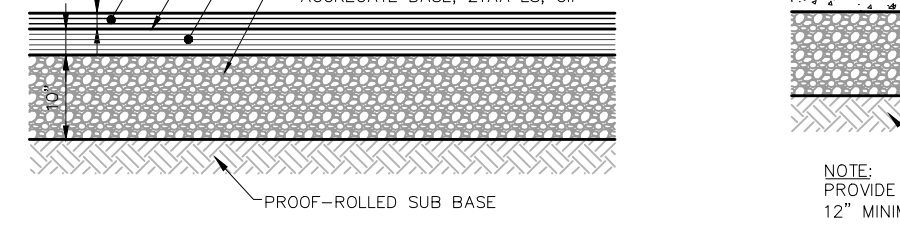
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REVERSE CONC. \"F2\" CURB & GUTTER DETAIL



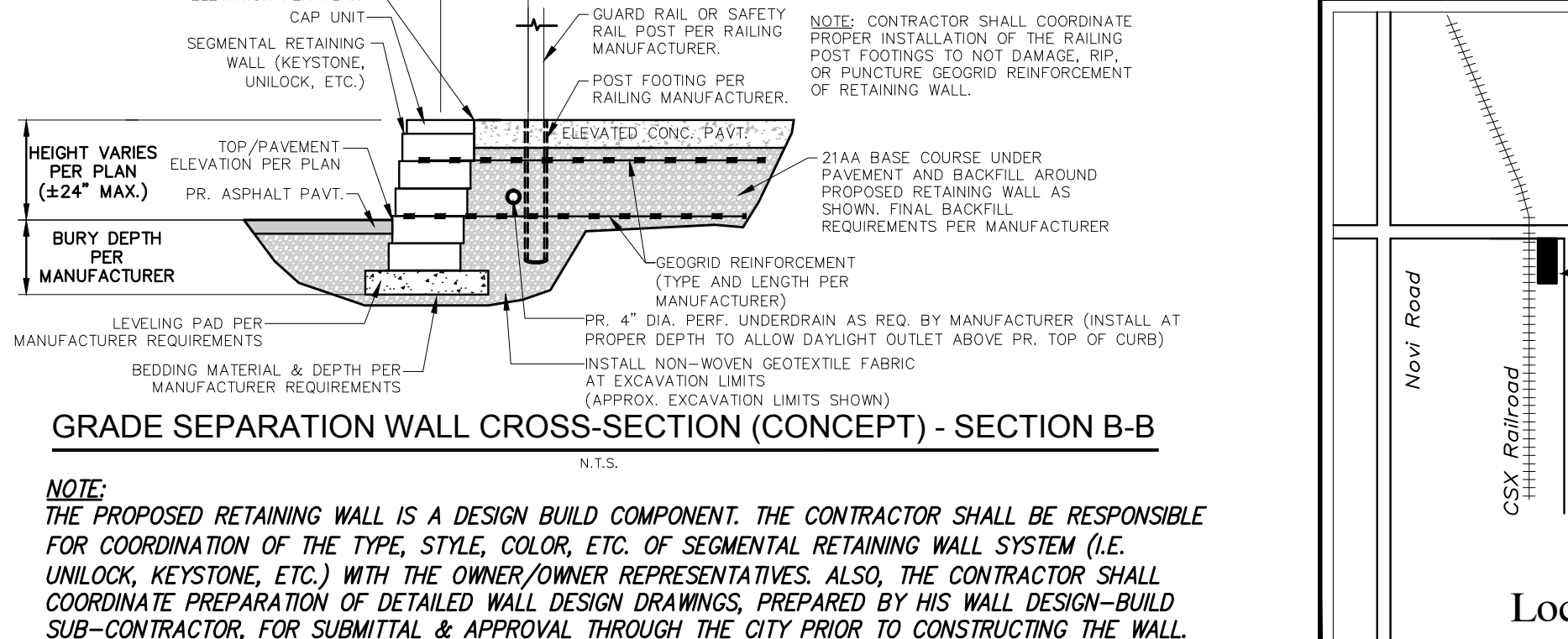
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CONCRETE PAVEMENT SECTION



GRADE SEPARATION WALL CROSS-SECTION (CONCEPT) - SECTION B-B



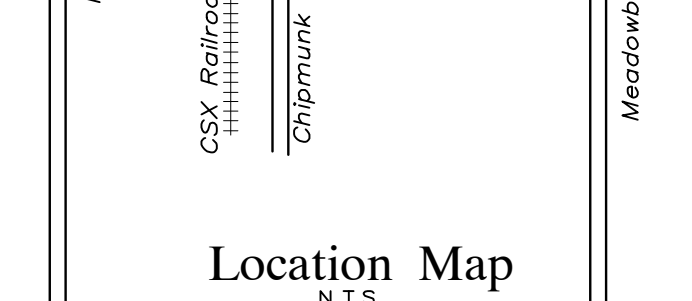
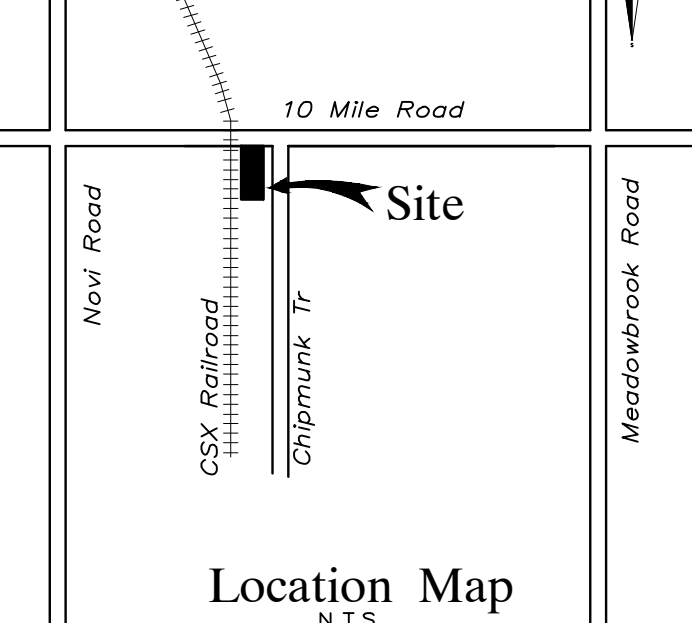
UTILITY NOTE
THE LOCATIONS AND ELEVATIONS OF SOME OF THE EXISTING UNDERGROUND UTILITIES AS SHOWN ON THE SURVEY DRAWING WERE OBTAINED FROM MUNICIPAL AND UTILITY COMPANY RECORDS AND MAPS. THEREFORE, NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

ESTIMATED QUANTITIES

NOTE: THE BELOW QUANTITIES ARE FOR REFERENCE PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM HIS OWN QUANTITY TAKEOFFS & EARTHWORK CALCULATIONS PRIOR TO BIDDING.

PAVING	DESCRIPTION	QUANTITY	UNITS
4\"/>	4\"/>	400	S.Y.
18\"/>	18\"/>	2,345	S.Y.
SAFETY RAIL	SAFETY RAIL	243	L.F.
INSTALL 8\"/>	INSTALL 8\"/>	16	EA.
4\"/>	4\"/>	59	S.Y.
4\"/>	4\"/>	77	S.F.
8.5\"/>	8.5\"/>	1	EA.
10\"/>	10\"/>	1	EA.

LEGEND





CIVIL ENGINEERS

LAND SURVEYORS

LAND PLANNERS

April 14, 2016

Mr. Christopher Gruba
Planner
City of Novi
45175 W. Ten Mile Road
Novi, MI 48375

Re: Durr Systems Project – 42445 Ten Mile Rd.
NFE # C590-01
City of Novi Reference No. JSP 15-67
Site Plan Revisions

Dear Mr. Gruba

On behalf of our client, Freund Andrus Construction, and the facility Owner, Durr Systems Inc. (Durr) we providing the following letter that serves to detail the revisions made to the plans as requested in the City of Novi's site plan revision submittal form.

Sheet C1-Overall Site Plan & Storm Water Management Plan (SWMP)

Plan revisions are detailed below:

1. The dumpster enclosure area on the western portion of the site has been reduced in size, along with the associated concrete and asphalt pavement repairs that are required to install the enclosure. The previous enclosure shown accommodated four dumpsters, and the new enclosure will accommodate three dumpsters.
2. The construction area #4 disturbance area callout and total disturbance area note have been revised to reflect the reduction in size of construction area #4 (western dumpster area noted above).

Sheet C2-Demolition & SESC Plan

Plan revisions are detailed below:

1. The pavement removal areas have been updated to reflect proposed reduction of construction area #4 (western dumpster area noted above).
2. The overall disturbance area has been updated in the soil erosion notes.

NOWAK & FRAUS ENGINEERS

Ms. Christopher Gruba
City of Novi
RE: Durr Systems – 42445 Ten Mile Rd. (JSP 15-67)
4/14/2016
Page 2

Sheet C3-Paving & Grading Plan

Plan revisions are detailed below:

1. The reduced-size western dumpster area is reflected on this sheet, and applicable callouts have been revised to show capacity for three dumpsters instead of the previous four. Applicable pavement quantity updates are reflected in the estimated quantities table.

Please review the attached documentation, and feel free to contact us if you have questions or require further documentation.

Sincerely,



Paul Tulikangas, P.E.
Project Engineer

Attachments:

- (7) Revised sets of plans w/ original seal and signatures
- (1) Completed Site Plan Revision Submittal Form