



# THE REDMOND COMPANY

W 2 2 8 N 7 4 5 WESTMOUND DRIVE, WAUKESHA, WISCONSIN 53 PHONE: ( 2 6 2 ) 5 4 9 - 9 6 0 0 FAX: ( 2 6 2 ) 5 4 9 - 1 3 1 4  
1 8 6 - 1 7 2 5

**THE REDMOND COMPANY**  
• DESIGN • CONSTRUCTION  
• CONSULTING • MANAGEMENT  
W228 N745 Westmound Drive  
Waukesha, Wisconsin 53186  
tel: 262.549.9600 fax:  
Innovative Approach. Unique Solutions.  
www.theredmondco.com

### PROJECT INFORMATION

**FIELDS JAGUAR  
LAND ROVER**  
1901 E. MORELAND  
WAUKESHA WI 53186

### ISSUANCE AND REVISIONS

### CITY APPROVALS

### REVISIONS

#	Description	Date

### SHEET INFORMATION

### OWNERSHIP AND USE OF DOCUMENTS

The drawings, specifications and other documents furnished by the Design/Builder are instruments of service and shall not become the property of the Owner whether or not the Project for which they are made is commenced. Drawings, specifications and other documents furnished by the Design/Builder shall not be used by the Owner on other projects, for additions to this project or for completion to use, liability and compensation. Submission or distribution of documents to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Design/Builder's or the Architect's common law copyrights or other reserved rights. The Owner shall own neither the documents nor the copyrights.

PROJECT NUMBER	16059
DATE	12.27.16
DRAWN BY	DRB

### Index

# G000

# FIELDS JAGUAR LAND ROVER

1901 E. MORELAND  
WAUKESHA WI 53186



### PROJECT TEAM

**OWNER**  
**FIELDS WAUKESHA**  
1901 E MORELAND  
WAUKESHA WI, 53186

**LANDSCAPE ARCHITECT**  
**INSITE LANDSCAPE DESIGN**  
11525 W. NORTH AVE  
WAUKESHA WI, 53226  
  
PROJECT CONTACT: MICHAEL DAVIS  
EMAIL: MDAVIS@INSITELANDSCAPE.COM  
P: 414.476.1204  
F: -

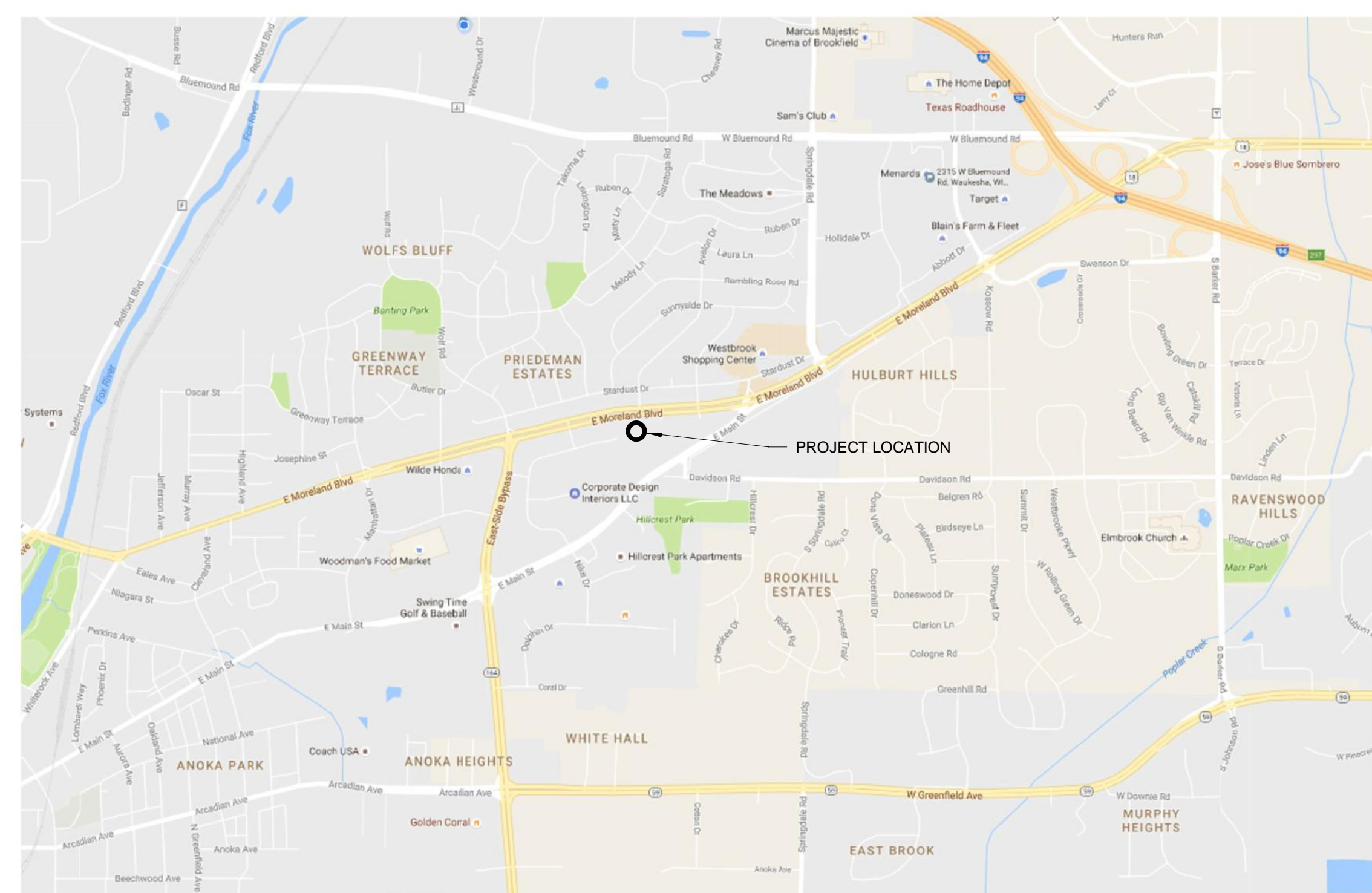
**ARCHITECT**  
**THE REDMOND COMPANY**  
W228 N745 WESTMOUND DRIVE  
WAUKESHA WI, 53186  
  
PROJECT CONTACT: JERRY MORTIER  
EMAIL: jmortier@theredmondco.com  
P: 262.896.8753  
F: 262.549.1314

**CIVIL ENGINEER**  
**VIERBICHER**  
999 FOURIER DRIVE  
MADISON WI, 53717  
  
PROJECT CONTACT: GARY BLAZEK  
EMAIL: GBLA@VIERBICHER.COM  
P: 608.826.0532  
F: 608.826.0530

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# ALTA/NSPS LAND TITLE SURVEY

## CLIENT

LGR LLC

## SITE ADDRESS

1859 & 1901 E. Moreland Blvd., Waukesha, Wisconsin.

## LEGAL DESCRIPTION

PARCEL I: All that part of the East 1/2 of Section 36, Township 7 North, Range 19 East, bounded and describe as follows: Beginning at a point on the center line of the U.S.H. "18" said point being North 85°45' East, 355.06 feet distant from the intersection of the North and South 1/4 line of Section 36 with the center line of said highway, thence South parallel with said 1/4 line, 492.10 feet; thence North 85°45' East 177.53 feet; thence North parallel with said 1/4 line, 492.10 feet to the center line of said highway; thence South 85°45' West along said center line, 177.53 feet to the place of beginning. Excepting therefrom the premises conveyed by Deed recorded in Volume 1028 of Deeds, Page 643, as Document No. 647455. Said land being in the City of Waukesha, County of Waukesha, State of Wisconsin.

PARCEL II: The West 1/2 of the following described parcel of land, to-wit: All that part of the East 1/2 of Section 36, Township 7 North, Range 19 East, bounded and described as follows: Beginning at a point on the center line of United States Highway #18, said point being North 85°45' East 532.59 feet distant from the intersection of the North and South 1/4 line of said Section 36 with the center line of said highway; thence South parallel with said 1/4 line of said Section 36 with the center line of said highway, thence South parallel with said 1/4 line of said Section 36 with the center line of said highway, thence South parallel with said 1/4 line 492.10 feet; thence North parallel with said 1/4 line 492.10 feet to the center line of said highway; thence South 85°45' West along said center line 355.04 feet to the place of beginning. Excepting those lands within the U.S.H. "18" right of way. Said land being in the City of Waukesha, County of Waukesha, State of Wisconsin.

PARCEL III: The Easterly 1 acre of that piece of land known as Parcel "G" and described as follows: All that part of the East 1/2 of Section 36, Township 7 North, Range 19 East, in the City of Waukesha, County of Waukesha, State of Wisconsin, bounded and described as follows: Beginning at a point on the center line of United States Highway #18, said point being North 85°45' East 177.53 feet distant from the intersection of the North and South quarter line of said Section 36 with the center line of said highway; thence South parallel with said quarter line 492.10 feet; thence North 85°45' East 177.53 feet; thence North parallel with said quarter line 492.10 feet to the center line of said highway; thence South 85°45' West along said center line 177.53 feet to the place of beginning. Excepting therefrom that portion of the above real estate described in Award of Damages recorded as Document No. 642800.

## BASIS OF BEARINGS

Bearings are referenced to the Wisconsin State Plane Coordinate System (South Zone), in which the West line of the NE 1/4 which bears N00°14'49"W.

## TITLE COMMITMENT

This survey was prepared based on Chicago Title Insurance Company Commitment No. CO-3354, effective date of May 18, 2015 which lists the following easements and/or restrictions from schedule B-I:

1, 5, 6, 7, 8 & 10, visible evidence shown, if any.

2, 3, 4, 9, 13 & 14, not survey related.

11. Access limitations set forth in Award of Damages recorded as Document No. 642800, amended by Quit Claim Deed recorded as Document No. 1173138 and also by Quit Claim Deed recorded as Document No. 1173139. **Affects site by location, shown**  
12. Easement(s) for the purpose(s) and rights incidental thereto, as granted in a document, granted to the City of Waukesha, for sanitary sewer purposes, recorded on August 20, 1992, as Document No. 1760001. **Does not affect site by location, shown**

## TITLE COMMITMENT

This survey was prepared based on Knight Barry Title Group Loan Policy No. G47-3805776, effective date of September 27, 2006 which lists the following easements and/or restrictions from schedule B-I:

2, 3, 4, 16, 17, 19, 20, 21 & 22, visible evidence shown, if any.

1, 5, 18, 23, 24 & 25, not survey related.

- Utility Easement recorded in the office of the Register of Deeds for Waukesha County, Wisconsin as Document No. 320565. **Affects property by location, shown.**
- Utility Easement recorded in the office of the Register of Deeds for Waukesha County, Wisconsin as Document No. 1254285. **Affects property by location, shown.**
- Restrictions on Access as disclosed in a Quit Claim Deed recorded in the office of the Register of Deeds for Waukesha County, Wisconsin on April 11, 1984, as Document No. 1252504. **Affects property by location, right to one access point, unable to determine exact location from record document.**
- Access Restrictions as contained in a Highway conveyance recorded in the office of the Register of Deeds for Waukesha County, Wisconsin as Document No. 637429. **Affects property by location, shown.**
- Utility Easement recorded in the office of the Register of Deeds for Waukesha County, Wisconsin as Document No. 991596. **Affects property by location, unable to determine exact location from record document.**
- Encroachment by asphalt located principal on the Northeast portion of the premises described in Schedule C hereof onto the Property located to the East to the extent of 0.8 feet as shown on a plat of survey prepared by Jahnke & Jahnke Associates Inc., dated August 23, 2004, as Job No. S-3762. The Company insures the insured against loss or damage (not exceeding the amount of this policy) resulting from the enforced removal of the above mentioned encroachment. **No encroachments of asphalt observed.**
- Encroachment of a retaining wall located principally on the Northeast portion of the premises described in Schedule C hereof onto the premises abutting to the North as shown on a plat of survey prepared by Jahnke & Jahnke Associates Inc., dated August 23, 2004, as Job No. S-3762. The Company insures the insured against loss or damage (not exceeding the amount of this policy) resulting from the enforced removal of the above mentioned encroachment. **No encroachments of retaining walls observed.**
- Utility easement for overhead wires affecting the North portion of the subject premises as describe in Schedule C hereof as shown on the plat of survey prepared by Jahnke & Jahnke Associates Inc., dated August 23, 2004, as Job No. S-3762. **Affects property by location, utility service lines shown.**
- Utility easement for gas, electric, telephone and sanitary sewer affecting the East portion of the subject premises as described in Schedule C hereof as shown on the plat of survey prepared by Jahnke & Jahnke Associates Inc., dated August 23, 2004, as Job No. S-3762. **Affects property by location, utility service lines shown.**
- Temporary Limited Easement and other matters contained in instrument recorded on May 9, 2012, as Document No. 3916783. **Affects property by location, shown.**

## PARKING SPACES

There are 252 regular parking spaces and 3 handicap spaces marked on this site.

## FLOOD NOTE

According to the flood insurance rate map of the County of Waukesha, Community Panel No. 55133C0214G, effective date of November 5, 2014, this site falls in Zone X (Areas determined to be outside the 0.2% annual chance floodplain).

## MUNICIPAL ZONING

Municipal Code: Waukesha Zoning Code Sec. 22.37  
Site is zoned: P-5 (Community Business District)  
Front setback: 50 feet  
Side setback: 10 feet  
Rear setback: 25 feet  
Maximum building height: 55 feet  
Parking restrictions: Two (2) customer parking spaces per salesperson, plus one (1) employee parking space per employee (including salespersons) for the work shift with the largest number of employees, and one (1) short-term bicycle parking space per 20,000 square feet of gross floor area, plus 1 long-term bicycle parking space per 12,000 square feet of gross floor area.

## LAND AREA

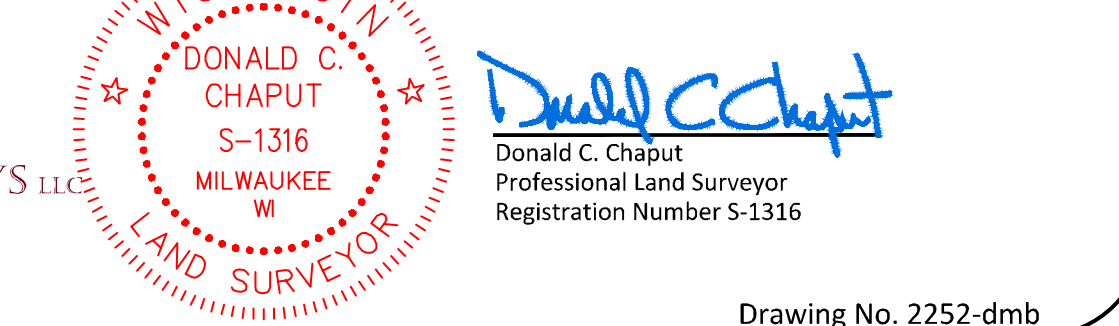
The Land Area of the subject property is 194,510 square feet or 4.4653 acres.

TO: LGR LLC  
Akerman Senterfitt  
JPMorgan Chase Bank, N.A.  
First American Title Insurance Company

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 7(a), 7(c), 8, 9, 11, 16, 18, 20, 21 and 22 of Table A hereof. The field work was completed on March 29, 2016.

Date of Map: April 7, 2016.

CHAPUT LAND SURVEYS, LLC  
234 W. FLORIDA STREET  
MILWAUKEE, WI 53204  
414-224-6068  
www.chaputlandsurveys.com

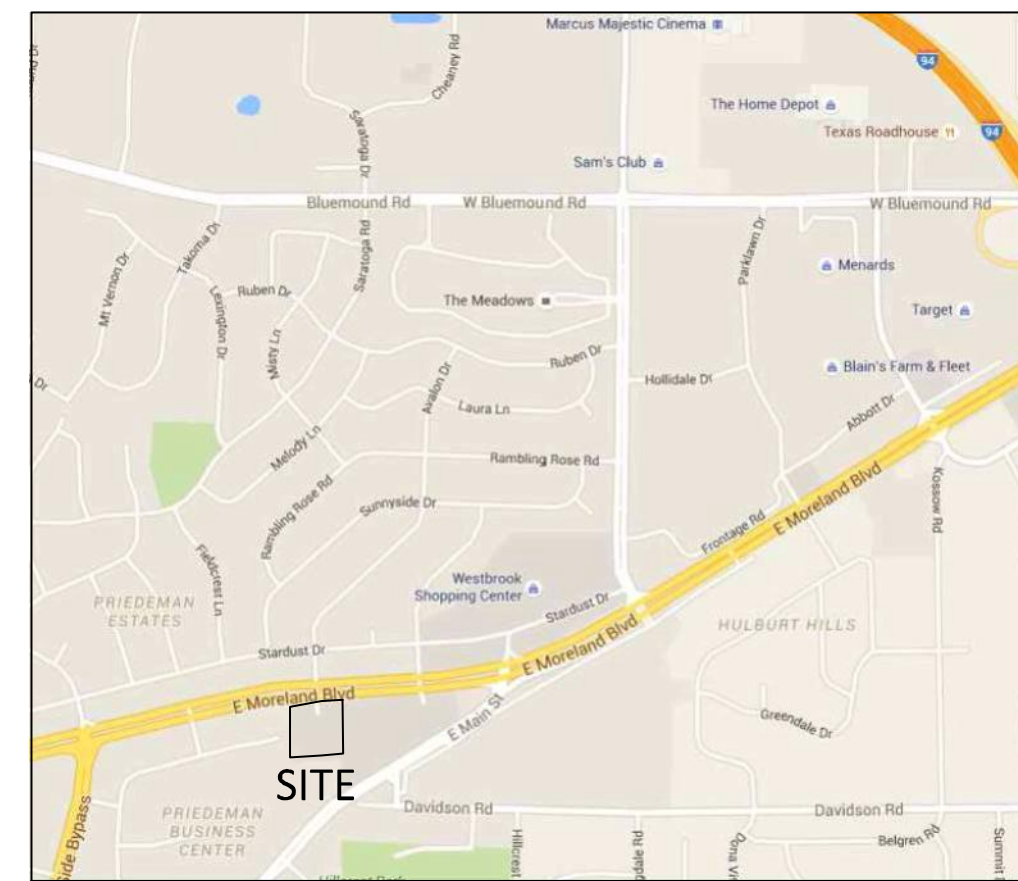


Drawing No. 2252-dmb

## LEGEND

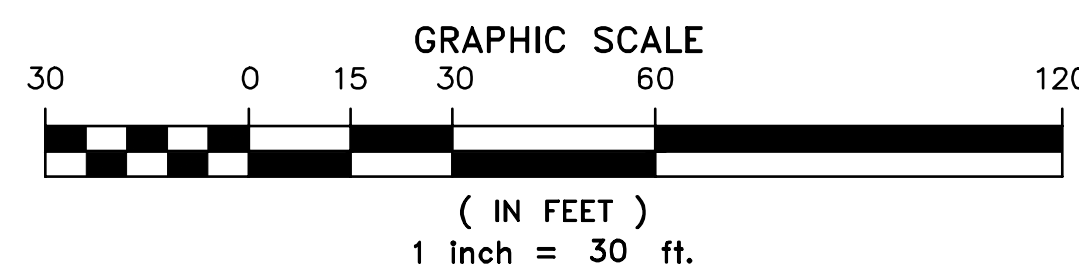
- INDICATES FOUND 1" IRON PIPE
- INDICATES SET 1" IRON PIPE
- + INDICATES FOUND CHISEL CROSS
- SANITARY MANHOLE
- SANITARY CLEANOUT OR VENT
- M.I.S. MANHOLE
- UNKNOWN MANHOLE
- STORM MANHOLE
- INLET (ROUND)
- INLET (SQUARE)
- CURB INLET
- STORM SEWER END SECTION
- GAS VALVE
- WATER VALVE
- HYDRANT
- WATER MANHOLE
- WATER SERVICE CURB STOP
- WELL HEAD
- STAND PIPE
- WALL INDICATOR VALVE
- POST INDICATOR VALVE
- LIGHT POLE
- SPOT/YARD LIGHT
- UTILITY POLE
- GUY POLE
- GUY WIRE
- ELECTRIC MANHOLE
- ELECTRIC PEDESTAL
- ELECTRIC METER
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- CABLE PEDESTAL
- CONTROL BOX
- FIBER OPTIC SIGN
- TRAFFIC LIGHT
- COMMUNICATION MANHOLE
- BOLLARD
- SOIL BORING/MONITORING WELL
- WATER SURFACE
- WETLANDS FLAG
- MARSH
- FLAGPOLE
- PARKING METER
- SIGN
- MAILBOX
- RAILROAD CROSSING SIGNAL
- HANDICAP SPACE
- CONIFEROUS TREE
- DECIDUOUS TREE
- SANITARY SEWER
- STORM SEWER
- WATERLINE
- MARKED GAS MAIN
- MARKED ELECTRIC
- OVERHEAD WIRES
- MARKED TELEPHONE
- MARKED CABLE TV LINE
- MARKED FIBER OPTIC
- FENCE

## VICINITY MAP



Horizontal datum is based on the Wisconsin State Plane Coordinate System Grid, South zone (NAD-27)

Vertical datum is based on National Geodetic Vertical Datum of 1929.

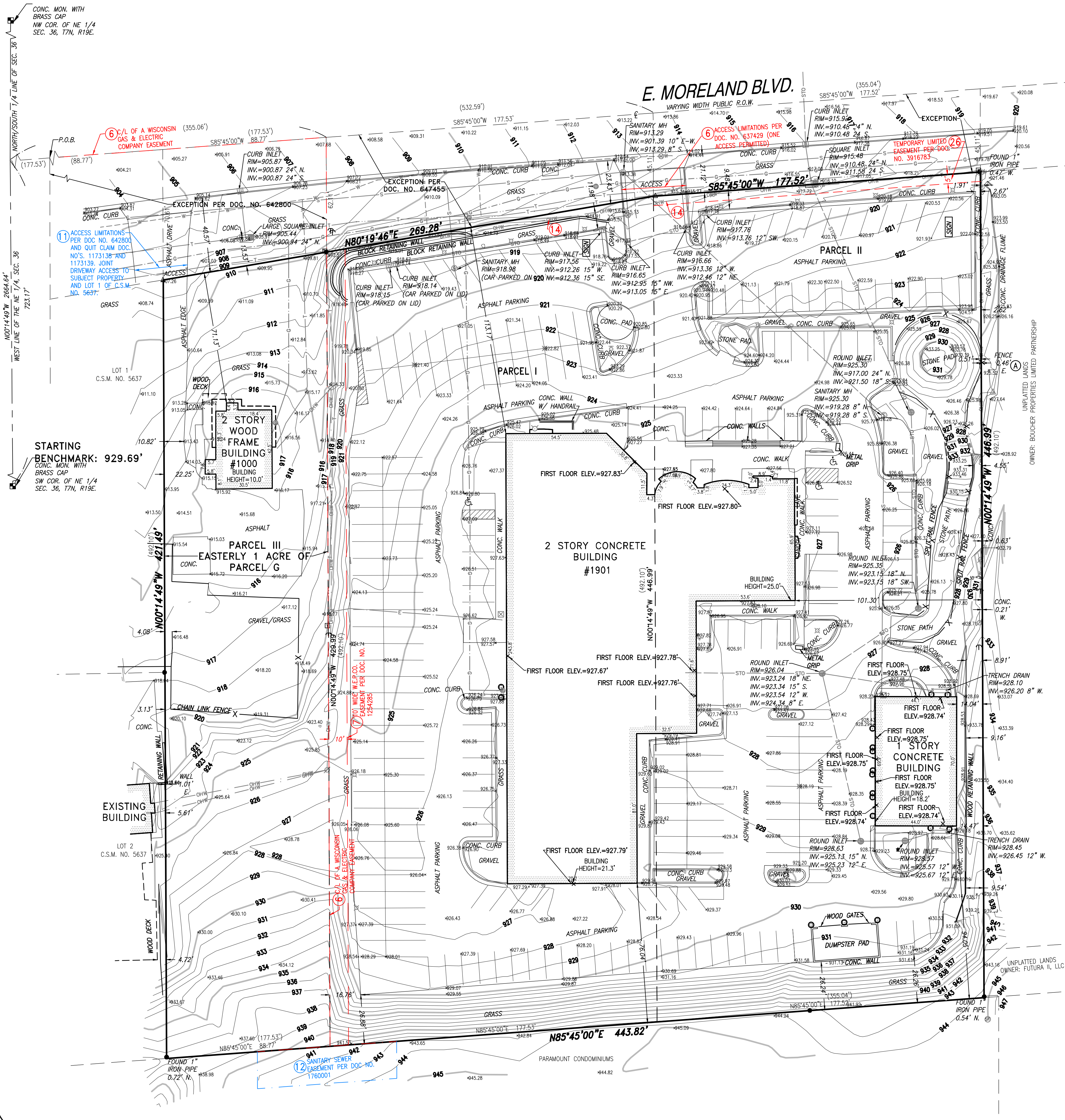


## ENCROACHMENT TABLE

A	FENCE 0.46 FEET EAST OF EAST LOT LINE
---	---------------------------------------

## TABLE "A" ITEMS

- Utility lines are shown from visible surface evidence, municipal plans and from plans and markings provided by Diggers Hotline, the One-call Utility Marking System (Wisconsin Statute 182.0175), Ticket Number 20161413515. This survey represents the underground utilities that participated with the request and were marked on the time of the survey. Additional utilities may exist, but were non-responsive to the request.
- There is no visible evidence of earth moving, building construction or building additions within recent months.
- There is no evidence on site of delineated wetlands areas.



STARTING BENCHMARK: 929.69'  
CONC. MON. WITH BRASS CAP  
SW COR. OF NE 1/4 SEC. 36, 17N, R19E.

6 1/2" OF A WISCONSIN GAS & ELECTRIC COMPANY EASEMENT

ACCESS LIMITATIONS PER DOC. NO. 642800 AND QUIT CLAIM DOC. NO. 1173138 AND 1173139. JOINT DRIVEWAY ACCESS TO SUBJECT PROPERTY AND LOT 1 OF C.S.M. NO. 5637.

2 STORY WOOD FRAME BUILDING #1000  
BUILDING HEIGHT=10.0'

PARCEL III  
EASTERLY 1 ACRE OF PARCEL G

EXISTING BUILDING

FOUND 1" IRON PIPE 0.72' N.

12 EASEMENT PER DOC. NO. 1760001

PARAMOUNT CONDOMINIUMS

UNPLATTED LANDS OWNER: BOUCHER PROPERTIES LIMITED PARTNERSHIP

UNPLATTED LANDS OWNER: FUTURA II, LLC





EXISTING STALL COUNT = 250  
 PROPOSED STALL COUNT = 316  
 STALL GAIN = 66

ZONING = B-5  
 PARKING SETBACKS  
 FRONT = 15'  
 SIDE & REAR = 5'  
 ADJACENT TO RESIDENTIAL = 25'

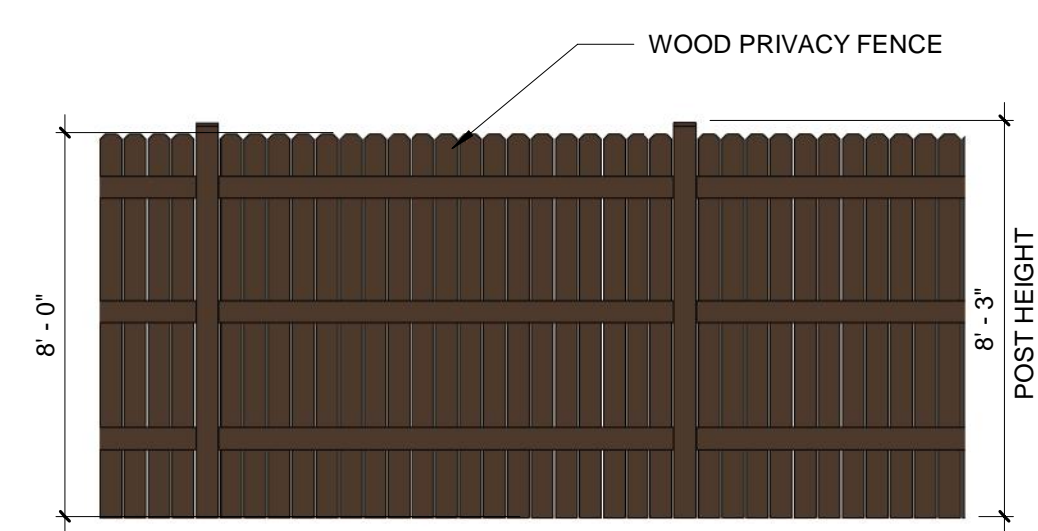
EXISTING SITE AREAS  
 ASPHALT = 92,267 SF  
 INTERNAL LANDSCAPE ISLANDS(4.3%) = 4,026 SF  
 CONCRETE WALKS = 6,819 SF  
**BUILDING FOOTPRINT = 24,836 SF**  
 TOTAL IMPERVIOUS = 128,507 SF

PROPOSED SITE AREA  
 ASPHALT = 118,364 SF  
 INTERNAL LANDSCAPE ISLANDS(5.4%) = 6,345 SF  
 CONCRETE WALKS = 6,922 SF  
**BUILDING FOOTPRINT = 33,010 SF**  
 TOTAL IMPERVIOUS = 158,296 SF

ADDED IMPERVIOUS = 29,789 SF  
 (.68 ACRE)

TOTAL DISTURBED LAND AREA = 58,875 SF  
 (1.35 ACRE)

BUILDING AREAS  
 REMOVED FROM CURRENT BUILDING = 1,220 SF  
 ADDITION = 9,394 SF  
 INTERIOR REMODEL AREA = 11,647 SF



(A5) Fence Panel  
 1/4" = 1'-0"



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PROJECT INFORMATION

**FIELDS JAGUAR  
 LAND ROVER**  
 1901 E. MORELAND  
 WAUKESHA WI 53186

ISSUANCE AND REVISIONS

**CITY APPROVALS**

REVISIONS

#	Description	Date

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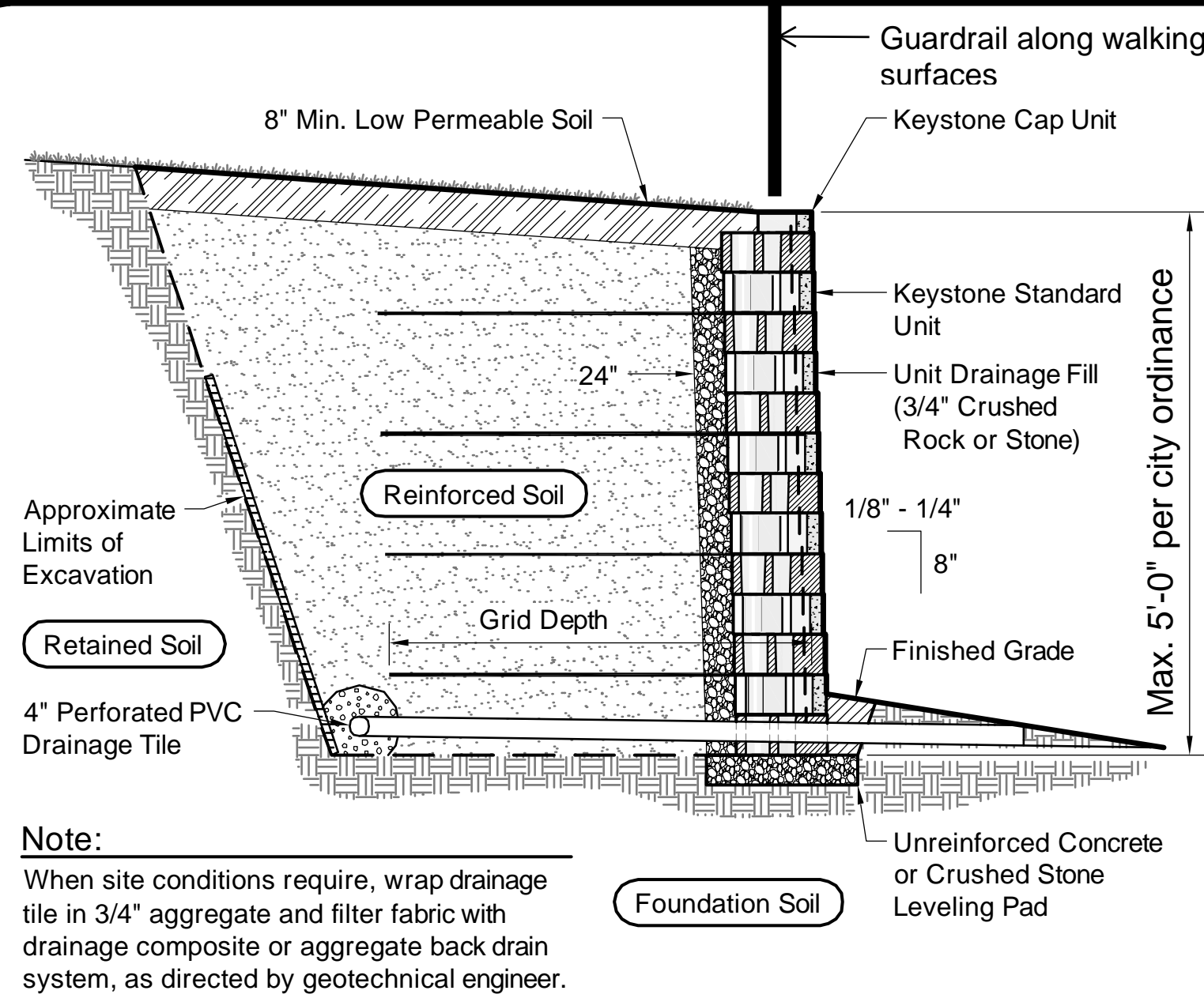
PROJECT NUMBER	16059
DATE	12.27.16
DRAWN BY	JM

Architectural Site Plan

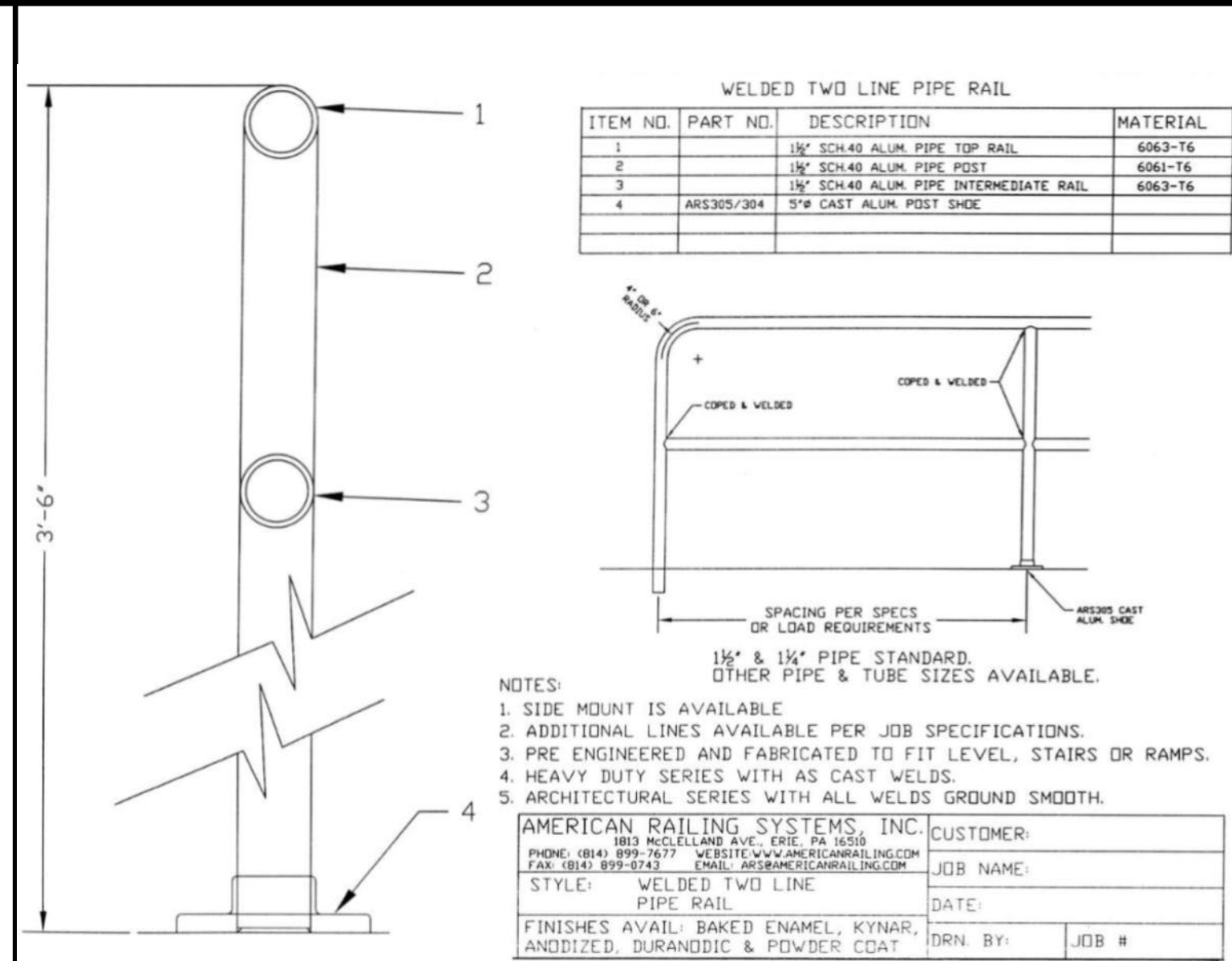
**AS100**

(A1) SITE PLAN  
 3/64" = 1'-0"

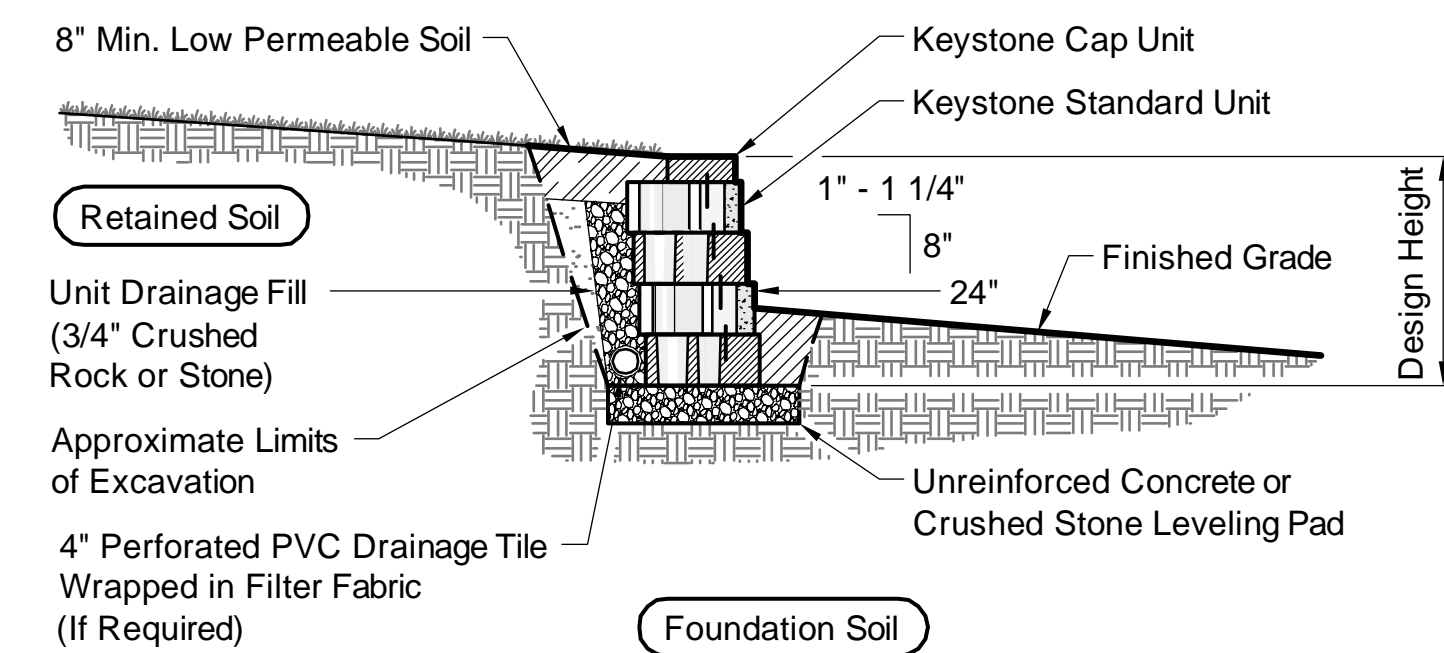




**Typical Reinforced Wall Section**  
Standard Unit - Near Vertical Setback



**Guardrail Detail**

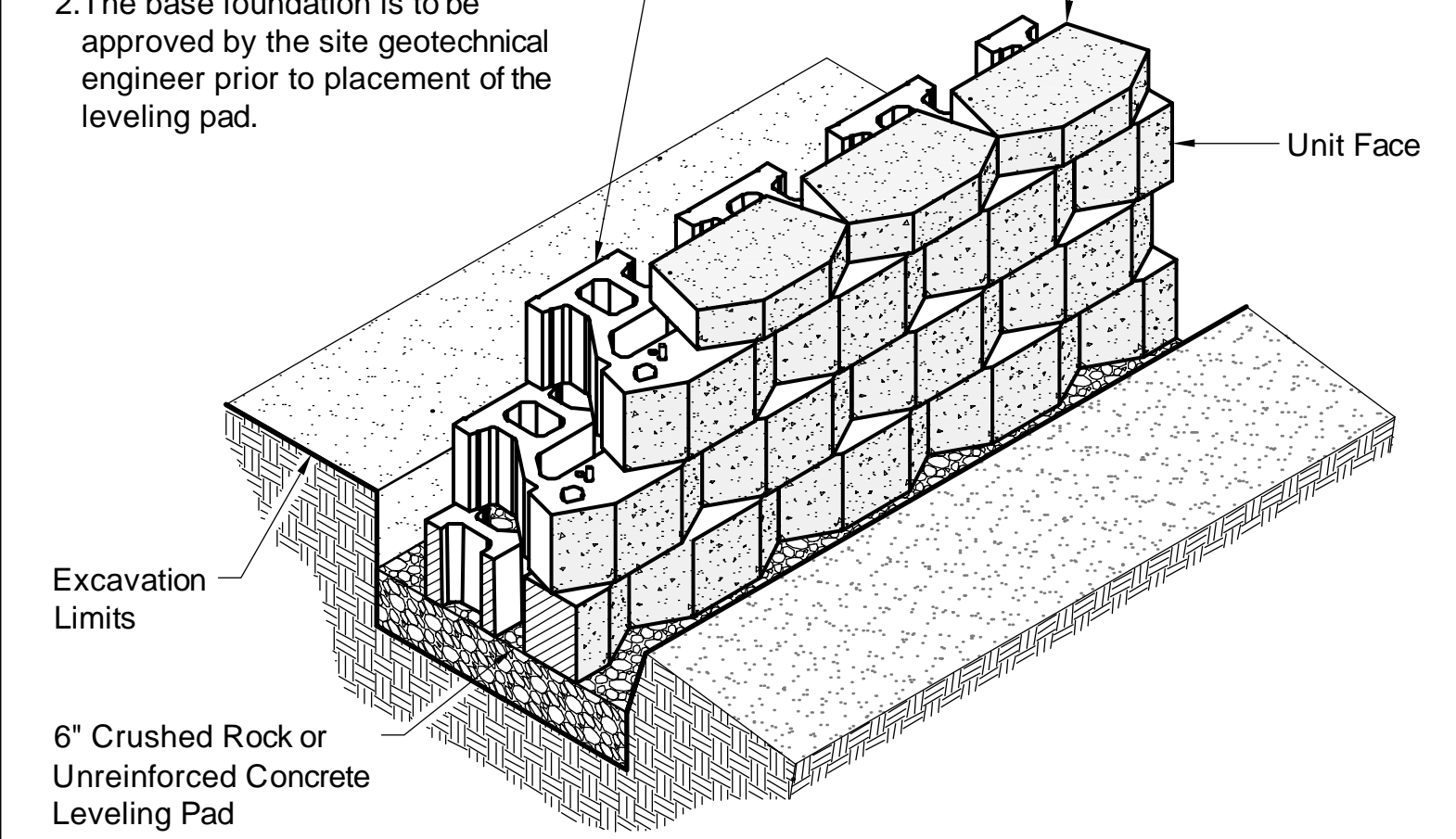


**Typical Gravity Wall Section**  
Standard Unit - 1\"/>

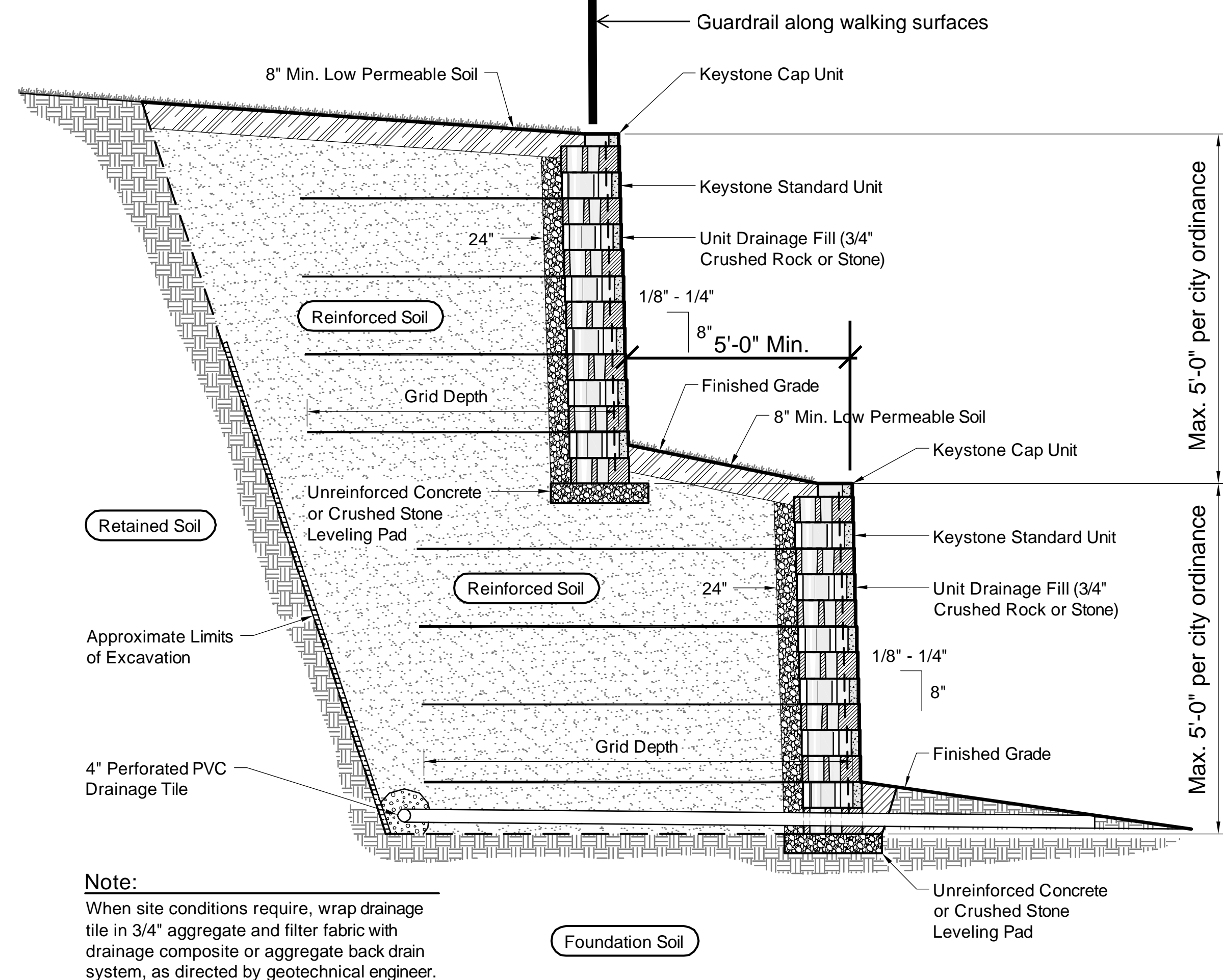
**Base Leveling Pad Notes:**

- The leveling pad is to be constructed of crushed stone or 2,000 psi± unreinforced concrete.
- The base foundation is to be approved by the site geotechnical engineer prior to placement of the leveling pad.

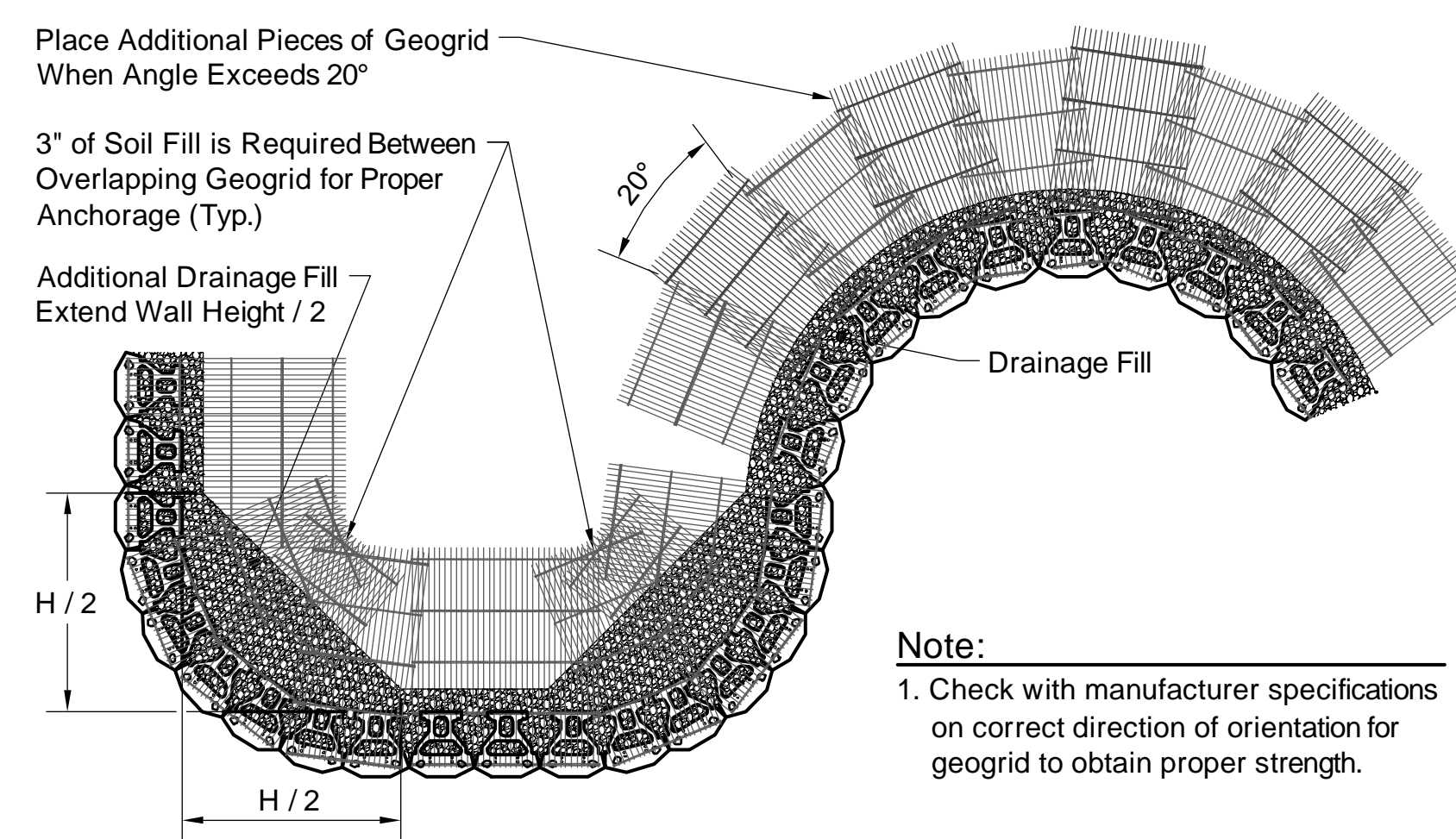
	Standard Unit	Cap Unit
*Width:	18"	18"
*Depth:	18"	10 1/2"
*Height:	8"	4"
*Weight:	102 lbs	45 lbs



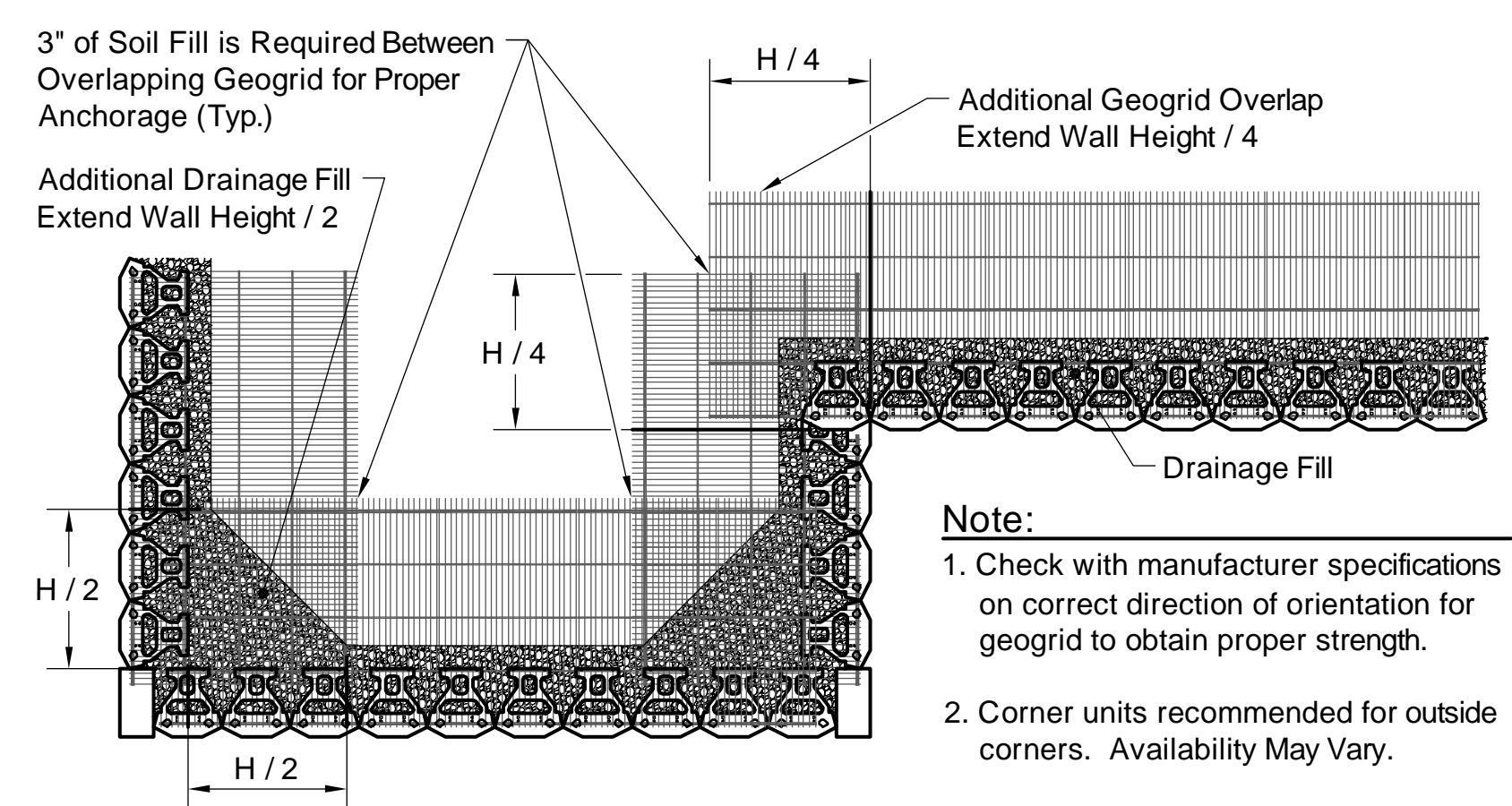
**Standard Unit/Base Pad Isometric Section View**  
\*Dimensions & Weight May Vary by Region



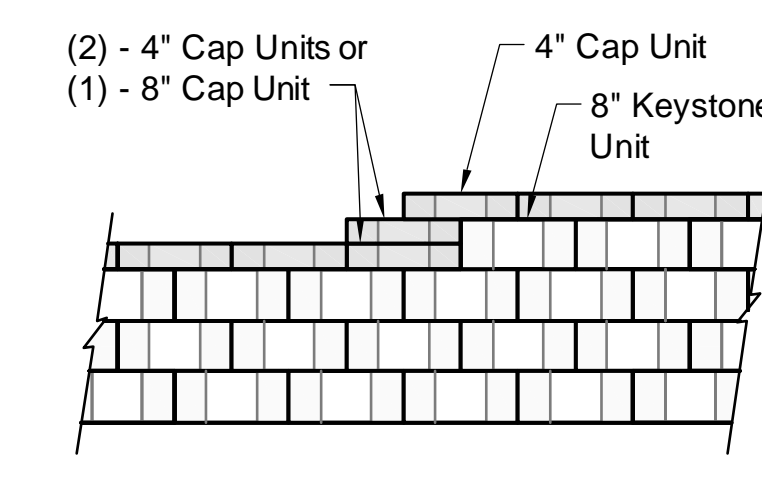
**Typical Reinforced Tiered Wall Section**  
Standard Unit - Near Vertical Setback



**Geogrid Installation on Curves**

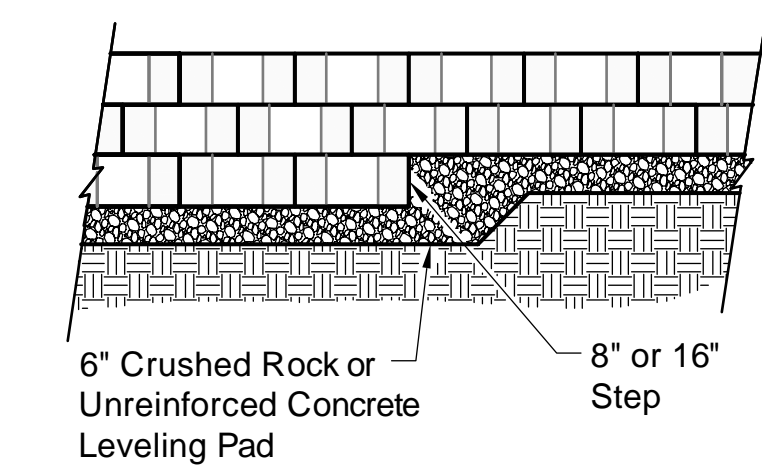


**Geogrid Installation at Corners**

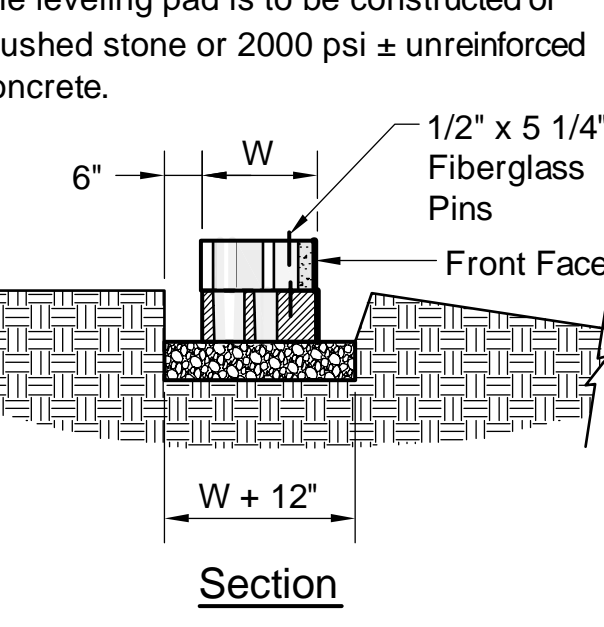


- Note:**
- Secure all cap units with Keystone Kapseal or equal.

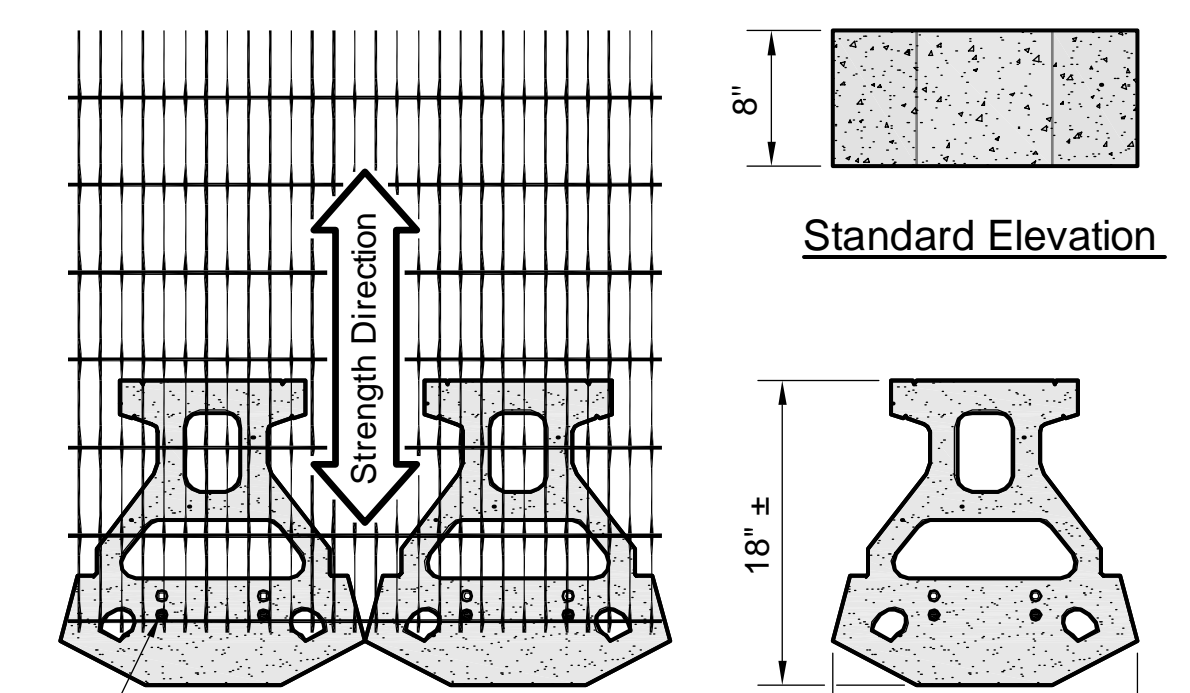
**Top of Wall Steps**



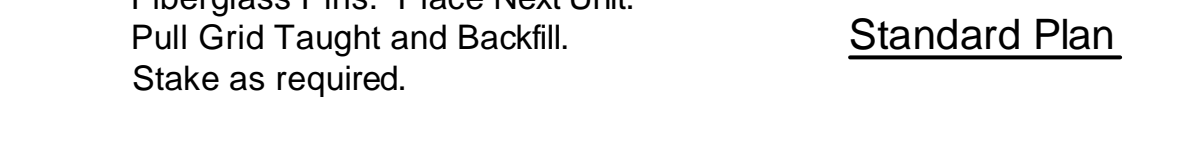
- Note:**
- The leveling pad is to be constructed of crushed stone or 2000 psi± unreinforced concrete.



**Leveling Pad Detail**



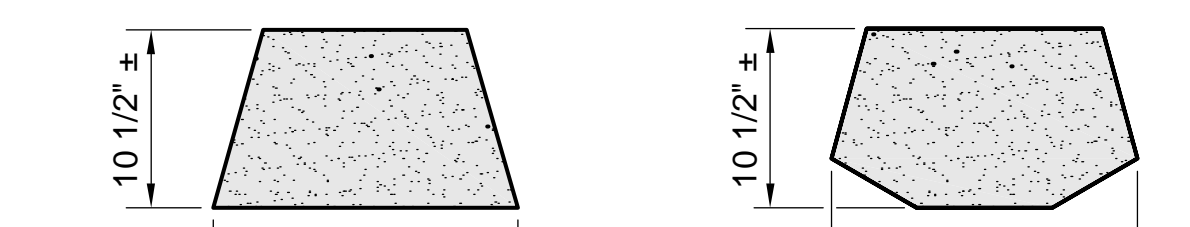
**Standard Elevation**



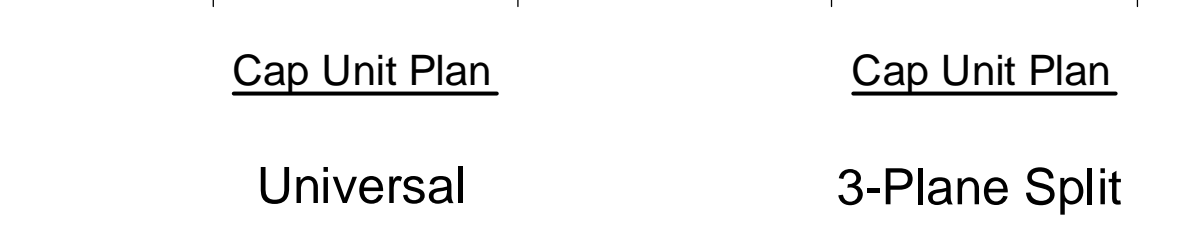
**Standard Plan**



**Grid & Pin Connection**



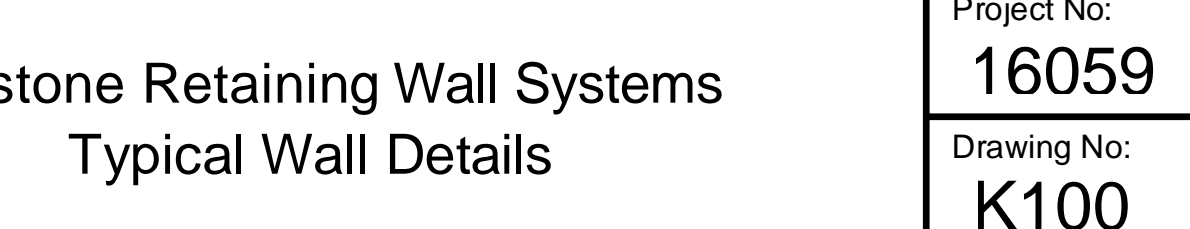
**Cap Unit Elevation**



**Cap Unit Plan**



**Universal Cap Unit Option**



**3-Plane Split Cap Unit Option**

Copyright 2003 Keystone Retaining Wall Systems

Design is for internal stability of the KEYSTONE wall structure only. External stability, including but not limited to foundation and slope stability is the responsibility of the Owner. The design is based on the assumption that the materials within the retained mass, methods of construction, and quality of materials conform to KEYSTONE's specification for this project.

This drawing is being furnished for this specific project only. Any party accepting this document does so in confidence and agrees that it shall not be duplicated in whole or in part, nor disclosed to others without the consent of Keystone Retaining Wall Systems, Inc.

No.	Date	Revision	By



A **QUNTECH** COMPANY  
4444 W 78th Street  
Minneapolis, MN 55435  
952-897-1040

Designed By:  
RKM  
Checked By:  
CDM  
Scale:  
No Scale

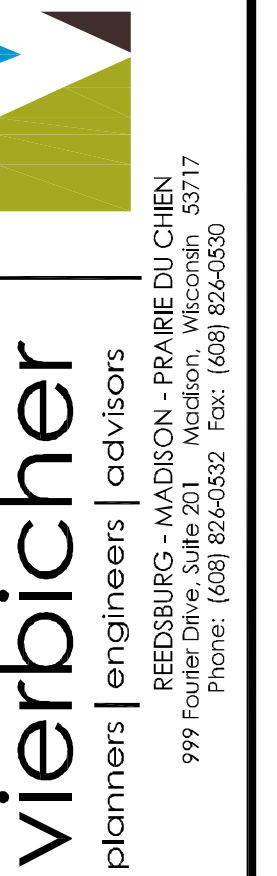
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**Standard Unit 18 - Tri Plane Face Details**  
Project:  
**Keystone Retaining Wall Systems  
Typical Wall Details**

Date:  
**12/27/16**  
Project No:  
**16059**  
Drawing No:  
**K100**

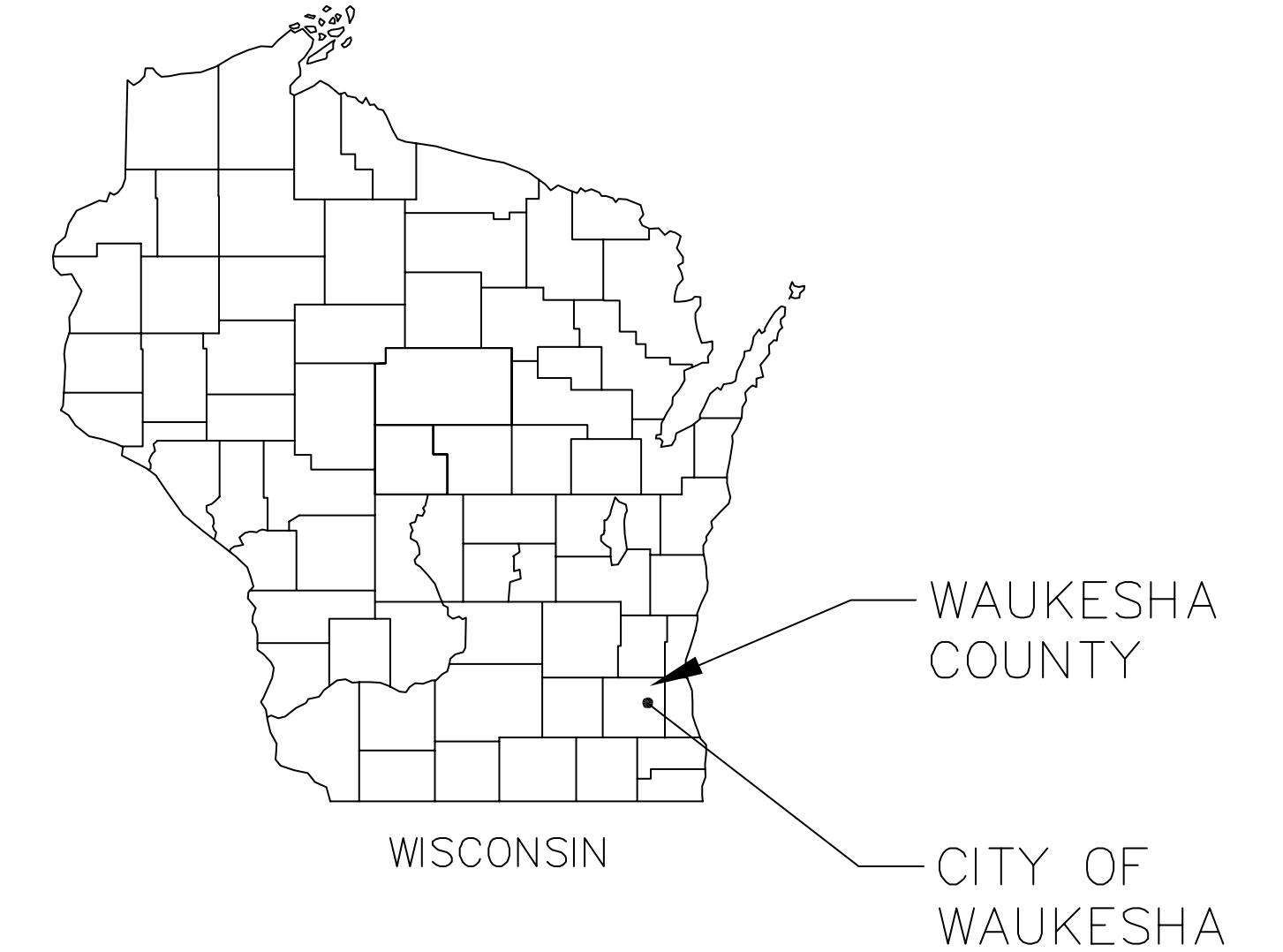
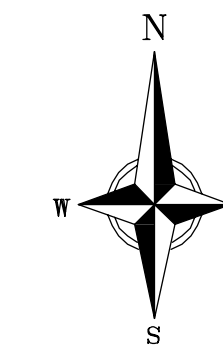
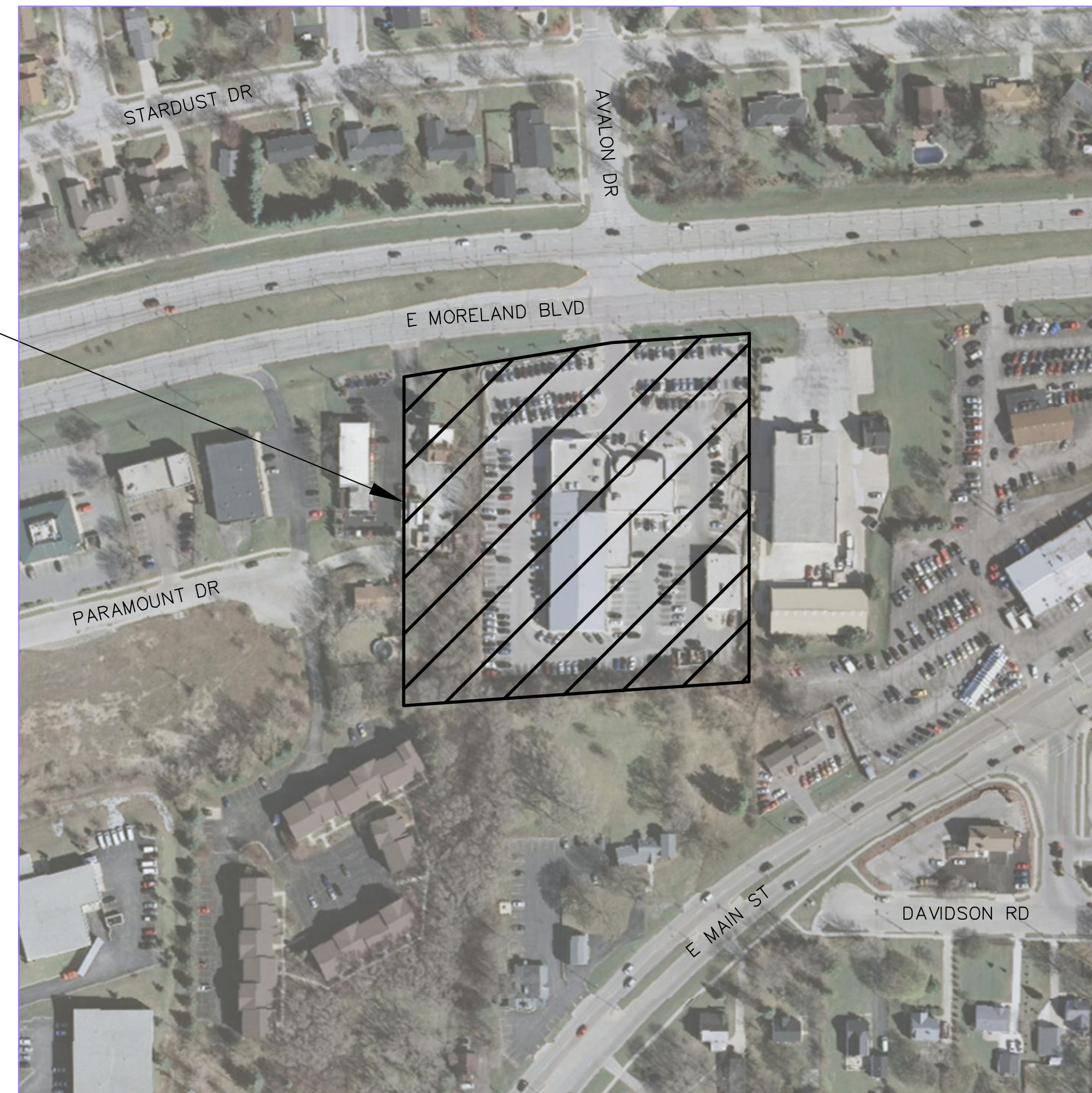


# Fields Jaguar-Land Rover-Volvo-Waukesha

Civil Engineering Plans  
City of Waukesha, Wisconsin



PROJECT LOCATION



SHEET NO.	DESCRIPTION
T1.0	TITLE SHEET
C1.0	EXISTING CONDITIONS PLAN
C2.0	DEMOLITION PLAN
C3.0	SITE PLAN
C4.0	GRADING PLAN
C4.1	EROSION CONTROL PLAN
C5.0	UTILITY PLAN
C6.0-C6.4	CONSTRUCTION DETAILS



SITE BENCHMARKS

CALL DIGGER'S HOTLINE  
1-800-242-8511  
TOLL FREE  
TELEFAX: 1-800-338-3860  
TDC (FOR HEARING IMPAIRED):  
1-800-542-2289  
WIS. STATUTE 182.0175 (1979)  
REQUIRES MINIMUM OF 3 WORKING DAYS  
NOTICE BEFORE YOU EXCAVATE.

CONC. MONUMENT  
W/BRASS CAP  
SW CORNER OF NE 1/4  
SEC. 36, T7N R19E,  
ELEV = 929.69

THE LOCATION OF EXISTING UTILITIES, BOTH UNDERGROUND AND OVERHEAD ARE APPROXIMATE ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT, BEFORE COMMENCING WORK, AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.

CALL DIGGER'S HOTLINE  
1-800-242-8511

Fields Jaguar-Land Rover-Volvo-Waukesha

Title Sheet

City of Waukesha

Waukesha County, Wisconsin

REVISIONS	NO.	DATE	REMARKS

SCALE AS SHOWN

DATE 1/20/2017

DRAFTER JGOL

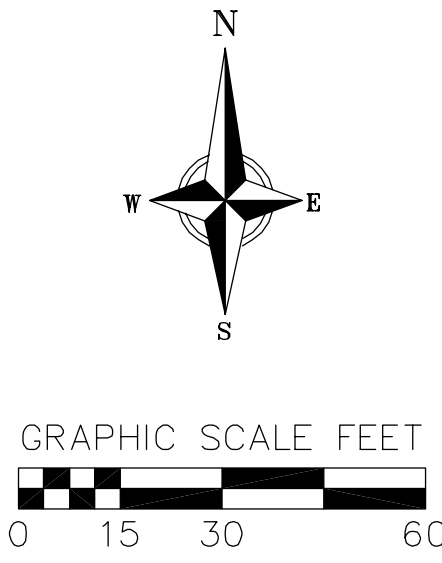
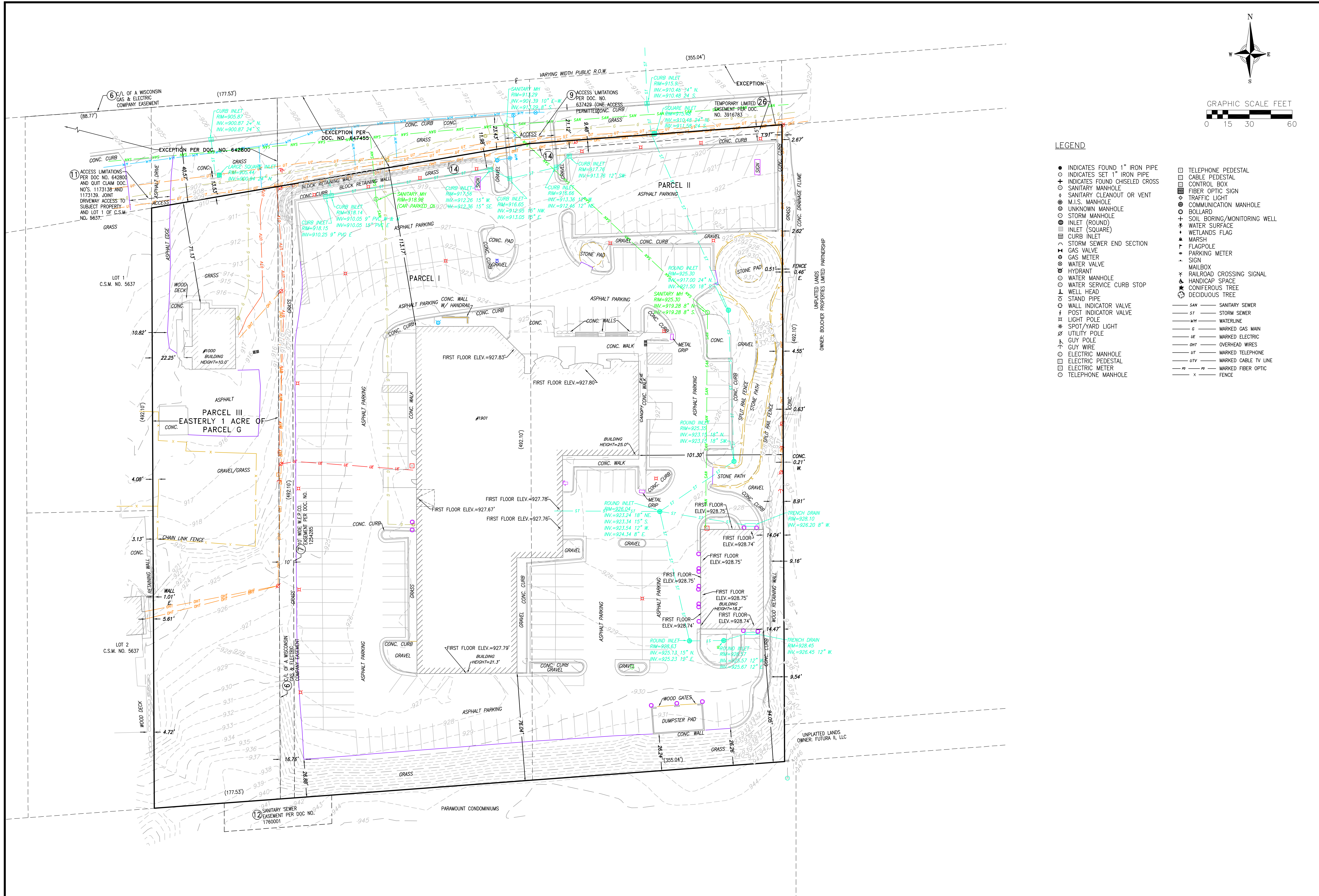
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PROJECT NO. 160333

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LEGEND

- INDICATES FOUND 1" IRON PIPE
- INDICATES SET 1" IRON PIPE
- + INDICATES FOUND CHISELED CROSS
- SANITARY MANHOLE
- ◇ SANITARY CLEANOUT OR VENT
- ⊙ M.I.S. MANHOLE
- ⊙ UNKNOWN MANHOLE
- ⊙ STORM MANHOLE
- INLET (ROUND)
- INLET (SQUARE)
- ▣ CURB INLET
- ⌒ STORM SEWER END SECTION
- ⊙ GAS VALVE
- ⊙ GAS METER
- ⊙ WATER VALVE
- ⊙ HYDRANT
- WATER MANHOLE
- WATER SERVICE CURB STOP
- ⊙ WELL HEAD
- ⊙ STAND PIPE
- ⊙ WALL INDICATOR VALVE
- ⊙ POST INDICATOR VALVE
- ⊙ LIGHT POLE
- ⊙ SPOT/YARD LIGHT
- ⊙ UTILITY POLE
- ⊙ GUY POLE
- ⊙ GUY WIRE
- ELECTRIC MANHOLE
- ELECTRIC PEDESTAL
- ELECTRIC METER
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- CABLE PEDESTAL
- CONTROL BOX
- FIBER OPTIC SIGN
- ⊙ TRAFFIC LIGHT
- ⊙ COMMUNICATION MANHOLE
- BOLLARD
- + SOIL BORING/MONITORING WELL
- ⊙ WATER SURFACE
- ⊙ WETLANDS FLAG
- ⊙ MARSH
- ⊙ FLAGPOLE
- ⊙ PARKING METER
- ⊙ SIGN
- ⊙ MAILBOX
- ⊙ RAILROAD CROSSING SIGNAL
- ⊙ HANDICAP SPACE
- ⊙ CONIFEROUS TREE
- ⊙ DECIDUOUS TREE
- SAN SANITARY SEWER
- ST STORM SEWER
- WH WATERLINE
- G MARKED GAS MAIN
- UE MARKED ELECTRIC
- OHT OVERHEAD WIRES
- UT MARKED TELEPHONE
- FO MARKED CABLE TV LINE
- FO MARKED FIBER OPTIC
- X FENCE

REVISIONS	NO.	DATE	REMARKS

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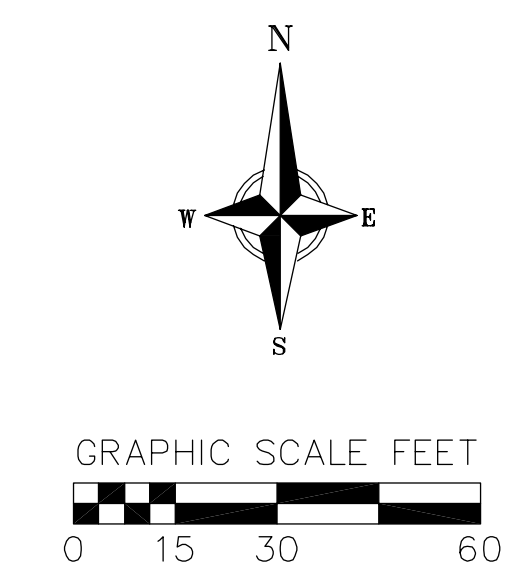
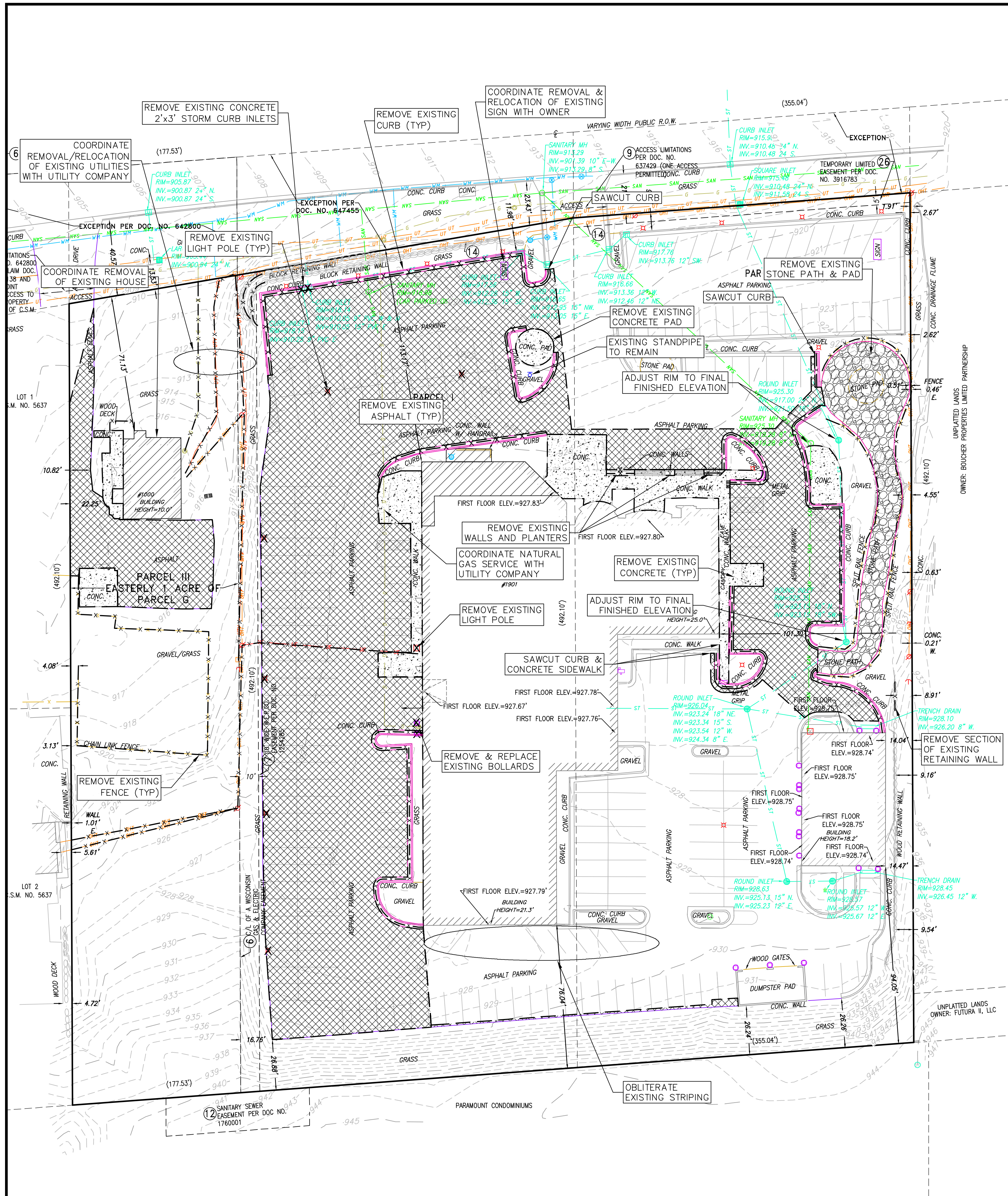
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- MAILBOX
- RAILROAD CROSSING SIGNAL
- HANDICAP SPACE
- CONIFEROUS TREE
- DECIDUOUS TREE
- CURB AND GUTTER REMOVAL
- ASPHALT REMOVAL
- CONCRETE REMOVAL
- BUILDING REMOVAL
- STONE PATH/PAD REMOVAL
- TREE REMOVAL
- SAWCUT
- UTILITY STRUCTURE REMOVAL
- UTILITY LINE REMOVAL
- FENCE REMOVAL
- FENCE REMOVAL

DEMOLITION NOTES:

1. CONTRACTOR SHALL KEEP ALL CITY STREETS FREE AND CLEAR OF CONSTRUCTION RELATED DIRT/DUST/DEBRIS.
2. COORDINATE EXISTING UTILITY REMOVAL/ABANDONMENT WITH LOCAL AUTHORITIES AND UTILITY COMPANIES HAVING JURISDICTION.
3. ALL SAWCUTTING SHALL BE FULL DEPTH TO PROVIDE A CLEAN EDGE TO MATCH NEW CONSTRUCTION. MATCH EXISTING ELEVATIONS AT POINTS OF CONNECTION FOR NEW AND EXISTING PAVEMENT, CURB, SIDEWALKS, ETC. ALL SAWCUT LOCATIONS SHOWN ARE APPROXIMATE AND MAY BE FIELD ADJUSTED TO ACCOMMODATE CONDITIONS, JOINTS, MATERIAL TYPE, ETC. REMOVE MINIMUM AMOUNT NECESSARY FOR INSTALLATION OF PROPOSED IMPROVEMENTS.
4. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED DURING CONSTRUCTION TO PUBLIC PROPERTY, PRIVATE PROPERTY OR UTILITIES.
5. EXISTING TOPOGRAPHIC INFORMATION IS BASED ON ALTA/NSPS LAND TITLE SURVEY BY CHAPUT LAND SURVEYS LLC DATED APRIL 7, 2016. CONTRACTOR SHALL VERIFY TOPOGRAPHIC INFORMATION PRIOR TO STARTING CONSTRUCTION.
6. CONTRACTOR SHALL PROVIDE AND SHALL BE RESPONSIBLE FOR ANY NECESSARY TRAFFIC CONTROL SIGNAGE AND SAFETY MEASURES DURING DEMOLITION AND CONSTRUCTION OPERATIONS WITHIN OR NEAR THE PUBLIC ROADWAY.
7. IF APPLICABLE, PROVIDE TREE PROTECTION FENCING PRIOR TO CONSTRUCTION OPERATIONS. MAINTAIN THROUGHOUT CONSTRUCTION.
8. CONTRACTOR SHALL OBTAIN ANY NECESSARY DEMOLITION AND UTILITY PLUGGING PERMITS.
9. THE LOCATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THE PLANS HAS BEEN DETERMINED FROM THE BEST AVAILABLE INFORMATION AND IS GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE OWNER AND THE ENGINEER DO NOT ASSUME RESPONSIBILITY IN THE EVENT THAT DURING CONSTRUCTION, UTILITIES OTHER THAN THOSE SHOWN MAY BE ENCOUNTERED, AND THAT THE ACTUAL LOCATION OF THOSE WHICH ARE SHOWN MAY BE DIFFERENT FROM THE LOCATION AS SHOWN ON THE PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING DIGGERS HOTLINE AND LOCATING ALL EXISTING UTILITIES TO ENSURE PROPER CLEARANCES FOR NEW UTILITIES.
10. ANY DAMAGE TO THE CITY PAVEMENT, INCLUDING DAMAGE RESULTING FROM CURB REPLACEMENT, WILL REQUIRE RESTORATION IN ACCORDANCE WITH THE CITY ENGINEERING PATCHING CRITERIA.
11. RIGHT OF WAY (ROW) AND PROPERTY LINES ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING PROPERTY CORNER MONUMENTATION. ANY MONUMENTS DISTURBED BY CONTRACTOR SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.
12. CONTRACTOR SHALL COORDINATE WITH DRY UTILITY COMPANY'S REGARDING ANY POTENTIAL CONFLICTS AND COORDINATE RELOCATIONS AS MAY BE REQUIRED. CONTRACTOR SHALL ALSO COORDINATE THE PROPOSED INSTALLATION OF NEW FACILITIES AS REQUIRED.

REVISIONS		NO.	DATE	REMARKS

SCALE AS SHOWN

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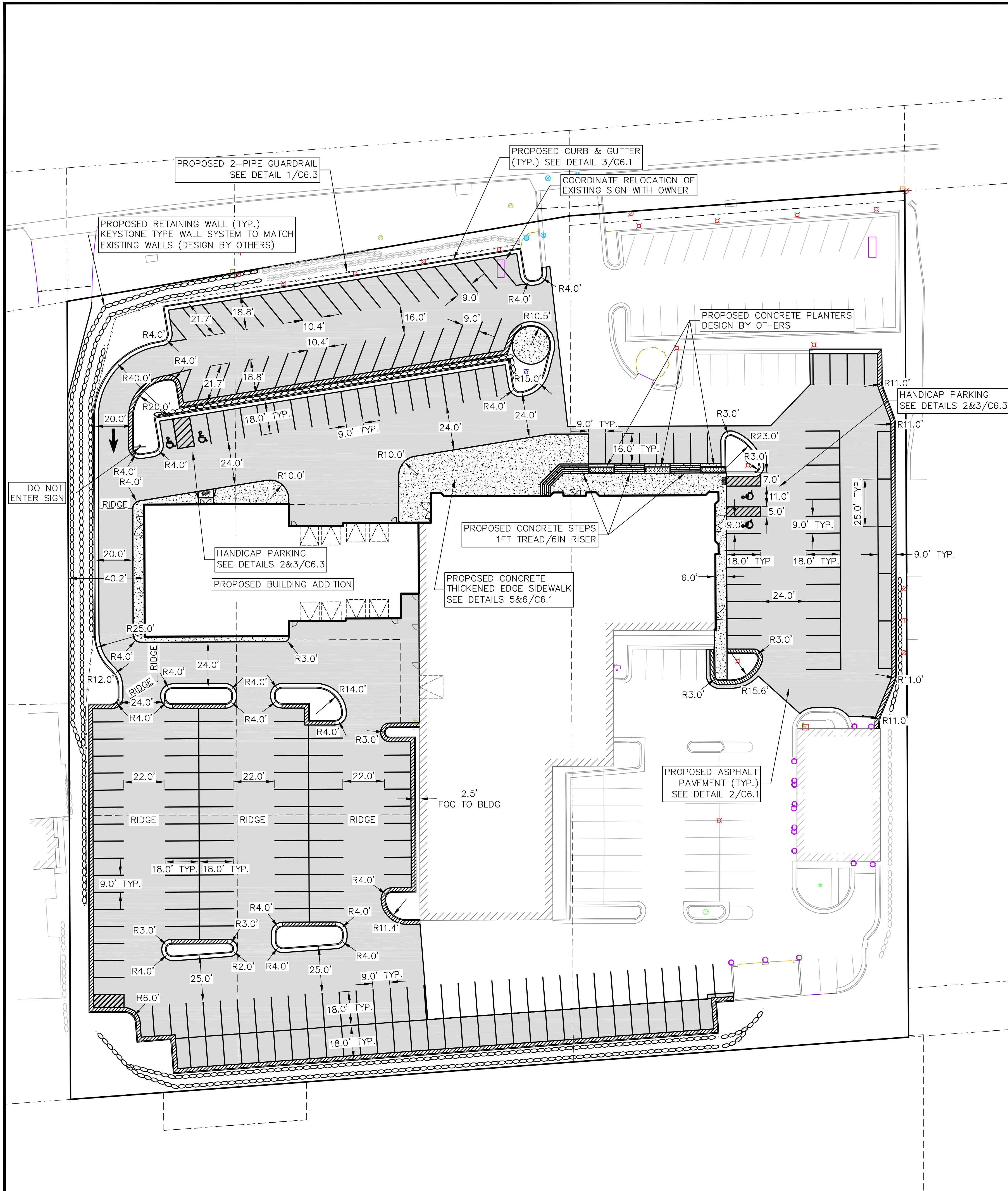
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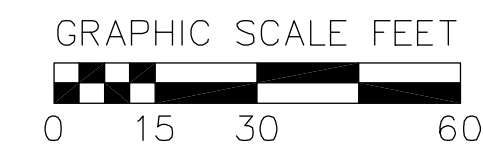
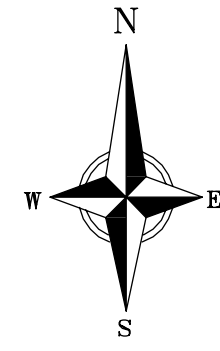




**LEGEND**

	PROPERTY BOUNDARY
	CURB AND GUTTER (REJECT CURB SHOWN HATCHED)
	PROPOSED 2-PIPE GUARDRAIL
	PROPOSED WOOD FENCE
	PROPOSED CONCRETE
	PROPOSED ASPHALT PAVEMENT
	PROPOSED SIGN
	PROPOSED LIGHT POLE
	PROPOSED BOLLARD
	PROPOSED ADA DETECTABLE WARNING FIELD
	PROPOSED HANDICAP PARKING

- SITE CONSTRUCTION NOTES:**
- SEE DETAILS FOR SPECIFIC INFORMATION PERTAINING TO CONCRETE, BASE COURSE, CURB & GUTTER AND PAVEMENT DETAILS.
  - CONTRACTOR TO OBTAIN ANY NECESSARY UTILITY CONNECTION, DEMOLITION, DRIVEWAY CONNECTION, RIGHT-OF-WAY AND EXCAVATION PERMITS PRIOR TO CONSTRUCTION.
  - DIMENSIONS RELATING TO CURB ARE TO FACE OF CURB.



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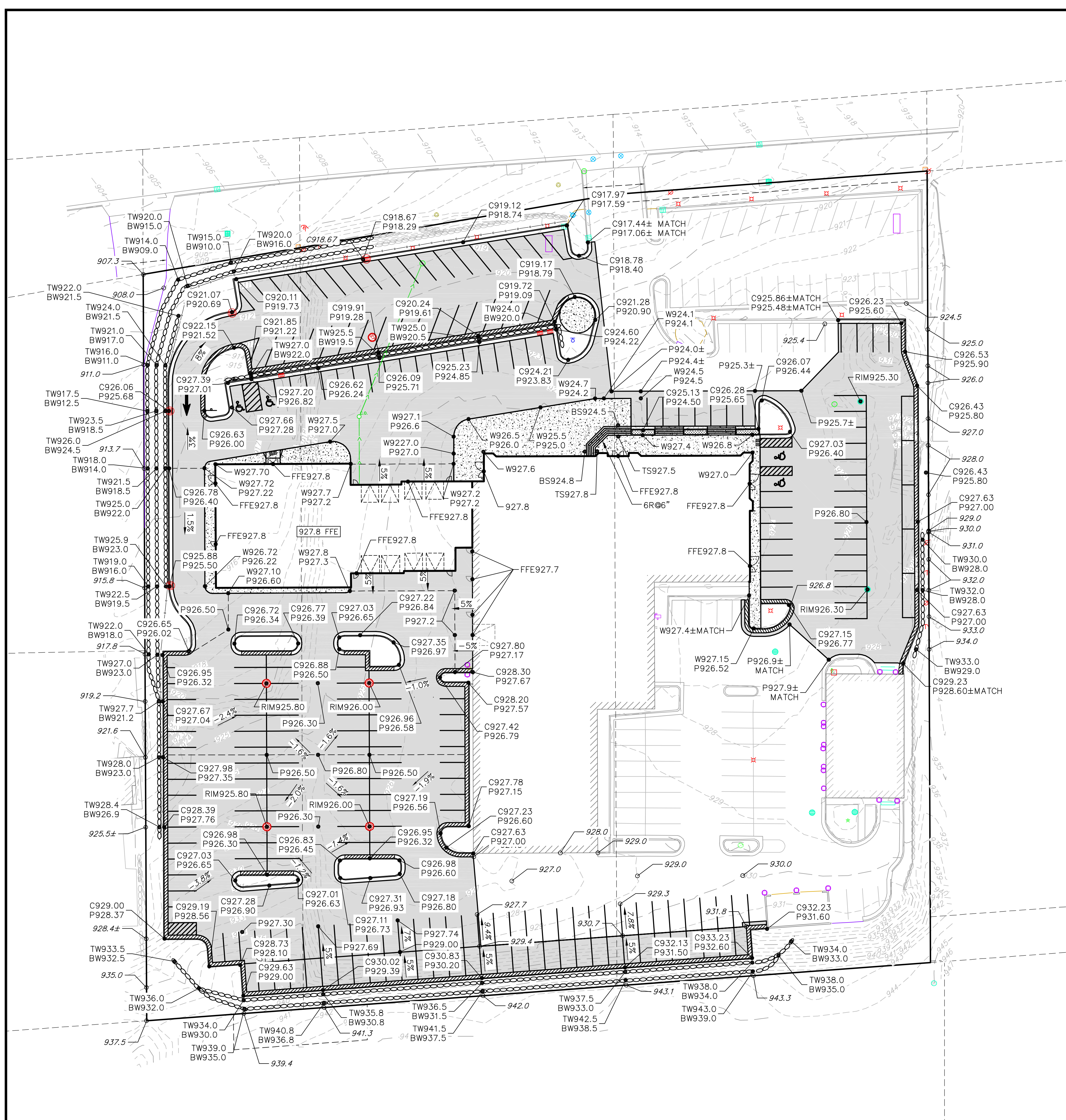
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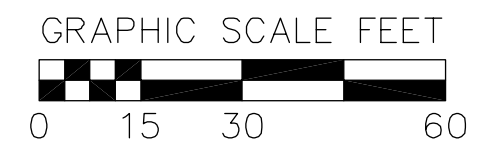
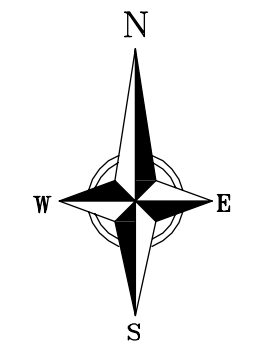
PROJECT NO. 160333





LEGEND

- 820- EXISTING MAJOR CONTOURS
- 818- EXISTING MINOR CONTOURS
- 820 PROPOSED MAJOR CONTOURS
- 818 PROPOSED MINOR CONTOURS
- 2.92% PROPOSED SLOPE ARROWS
- 1048.61 EXISTING SPOT ELEVATIONS
- 1048.61 PROPOSED SPOT ELEVATIONS



GRADING AND EROSION CONTROL NOTES:

1. INSTALL A 50'L X 20'W X 1.0'D TRACKING PAD PER DETAIL AT THE SITE ENTRANCE. THE TRACKING PAD SHALL BE MAINTAINED/REPAIRED AS NECESSARY TO ACCOMMODATE CONSTRUCTION.
2. THE CONTRACTOR IS REQUIRED TO MAKE EROSION CONTROL INSPECTIONS AT THE END OF EACH WEEK AND WHEN 0.5 INCHES OF RAIN FALLS WITHIN 24 HOURS. INSPECTION REPORTS SHALL BE PREPARED AND FILED AS REQUIRED BY THE DNR AND/OR CITY. ALL MAINTENANCE/REPAIR WILL FOLLOW AN INSPECTION WITHIN 24 HOURS.
3. INSTALL INLET FILTERS IN EXISTING CURB INLETS AND INLET PROTECTION AROUND FIELD INLETS.
4. UTILITY STRUCTURE RIM AND TOP OF CURB ELEVATIONS ON PLANS ARE APPROXIMATE. UTILITY STRUCTURES SHALL BE SET TO FINAL ELEVATIONS AFTER THE CURB & GUTTER AND BASE COURSE HAVE BEEN INSTALLED.
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6. SEE DETAIL SHEETS FOR EROSION CONTROL NOTES AND CONSTRUCTION SEQUENCE.
7. THE CONTRACTOR SHALL REMOVE ANY SEDIMENT TRACKED ONTO ADJACENT ROADS BY MEANS OF STREET SWEEPING (NOT FLUSHING) AT A MINIMUM OF THE END OF EACH WORK DAY OR MORE AS NEEDED.
8. RIGHT OF WAY (ROW) AND PROPERTY LINES ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING PROPERTY CORNER MONUMENTATION. ANY MONUMENTS DISTURBED BY CONTRACTOR SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.
9. FINAL GRADES SHALL BE ESTABLISHED ON PAVED SURFACES BY USING SPOT GRADES ONLY.
10. CROSS-SLOPE OF SIDEWALKS SHALL BE 2% (MAX) UNLESS OTHERWISE NOTED.
11. LONGITUDINAL GRADE OF SIDEWALK RAMPS SHALL NOT EXCEED 8.33% (1:12) AND SHALL BE IN ACCORDANCE WITH ADA REQUIREMENTS.
12. LONGITUDINAL GRADE OF SIDEWALK SHALL NOT EXCEED 5.0% OR THE ADJACENT STREET GRADE WHICHEVER IS GREATER.
13. ACCESSIBLE ROUTES SHALL BE 5% MAX LONGITUDINAL SLOPE AND 2% MAX CROSS SLOPE. ACCESSIBLE LOADING AREAS OR LANDINGS SHALL BE 2% MAX SLOPE IN ANY DIRECTION. RAMPS SHALL BE 8.33% MAX SLOPE.

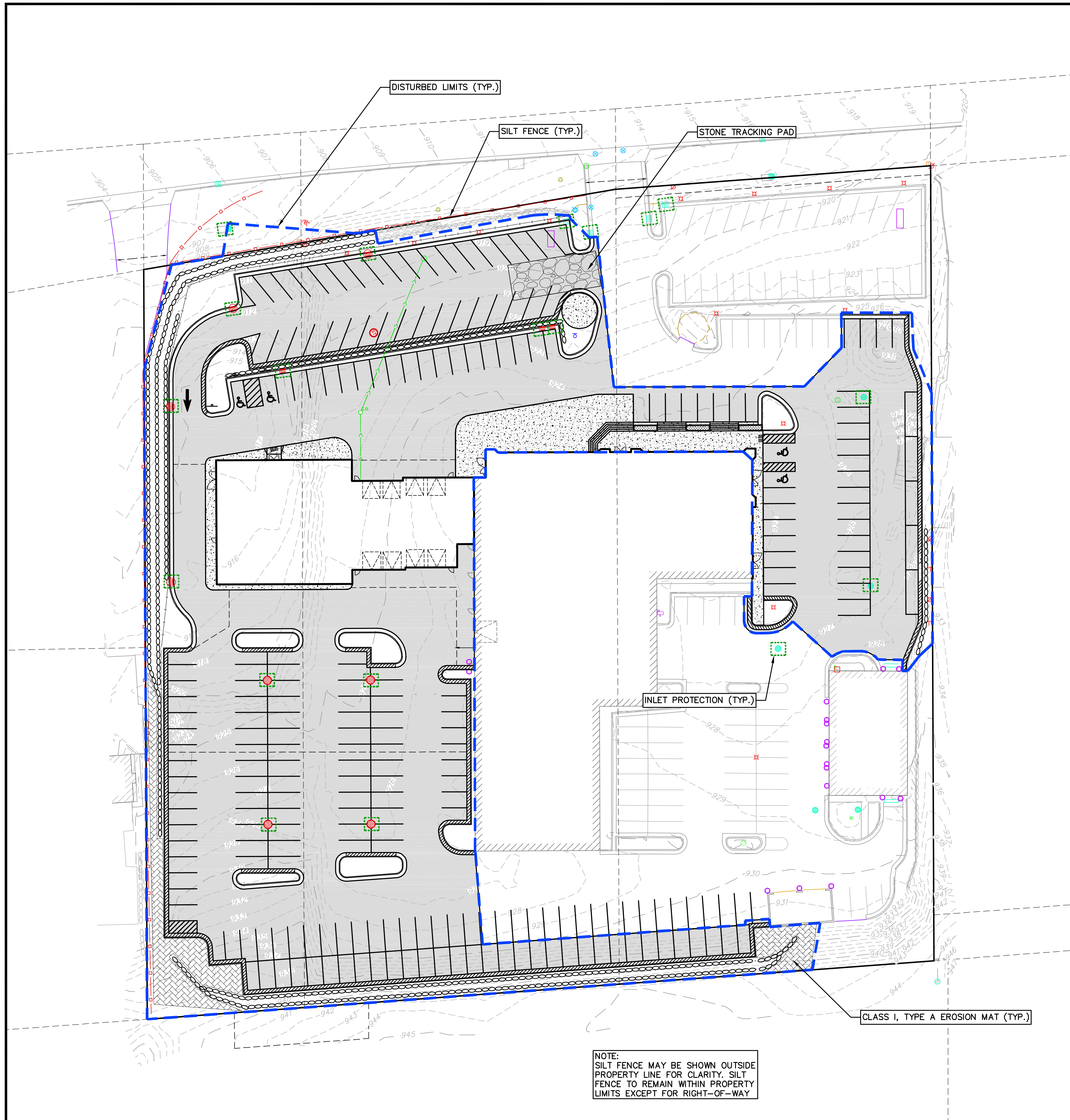
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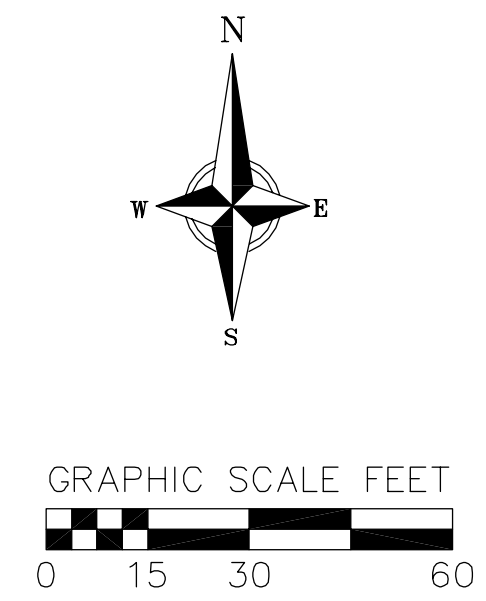
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- LEGEND**
- -820 - - EXISTING MAJOR CONTOURS
  - -818 - - EXISTING MINOR CONTOURS
  - (820)— PROPOSED MAJOR CONTOURS
  - (818)— PROPOSED MINOR CONTOURS
  - SILT FENCE
  - — — DISTURBED LIMITS

- INLET PROTECTION
- EROSION MAT CLASS I, TYPE A
- EROSION MAT CLASS I, TYPE B
- TRACKING PAD



**GRADING AND EROSION CONTROL NOTES:**

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**NOTE:**  
SILT FENCE MAY BE SHOWN OUTSIDE PROPERTY LINE FOR CLARITY. SILT FENCE TO REMAIN WITHIN PROPERTY LIMITS EXCEPT FOR RIGHT-OF-WAY

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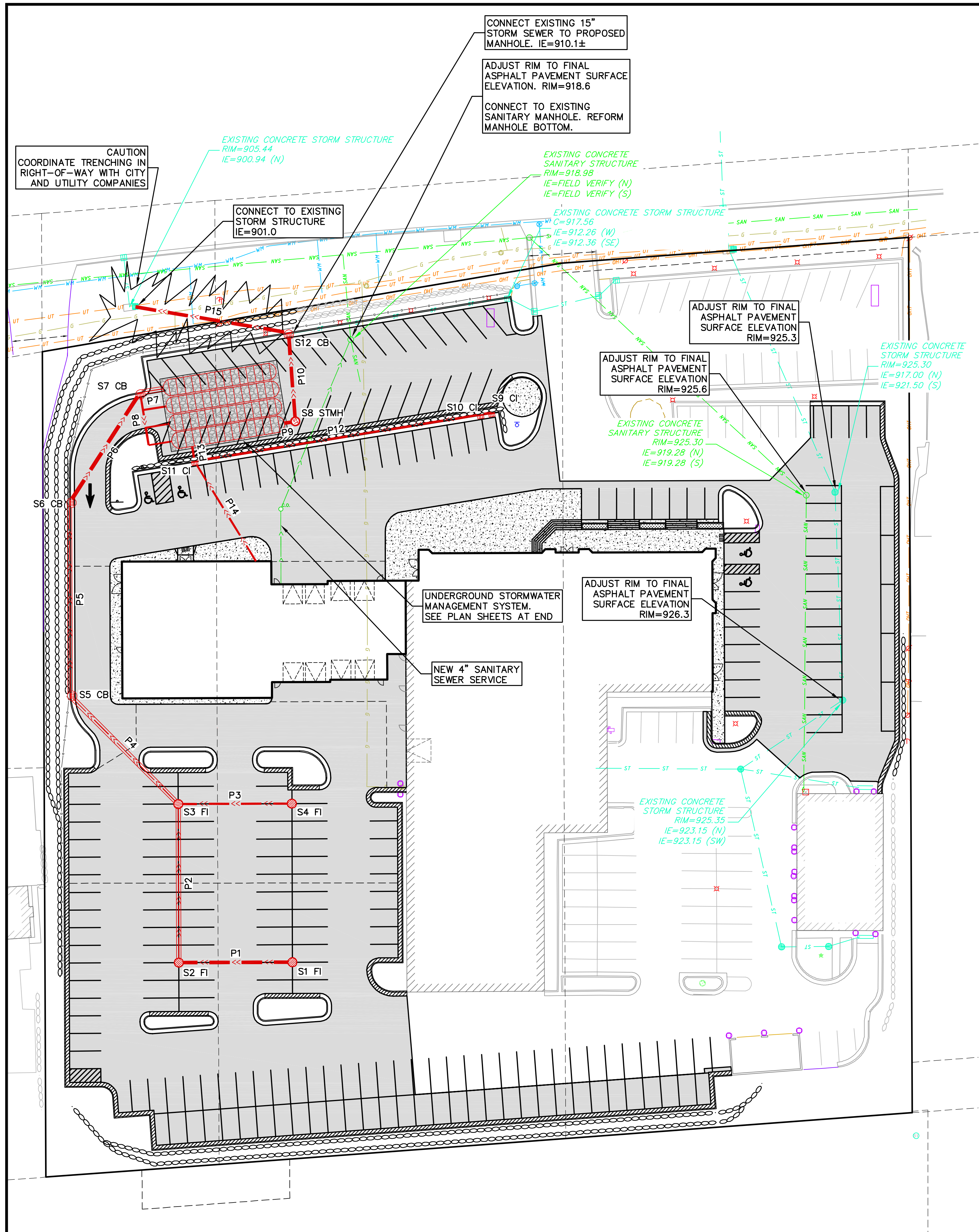
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STORM PIPE TABLE								
PIPE NAME	PIPE TYPE	SIZE (IN.)	FROM	TO	LENGTH (FT)	START INV	END INV	SLOPE
P1	HDPE	18	S2	S1	58	920.24	920.99	1.29%
P2	HDPE	24	S3	S2	81	919.87	920.24	0.46%
P3	HDPE	12	S3	S4	58	919.87	921.49	2.79%
P4	HDPE	24	S5	S3	78	919.25	919.87	0.79%
P5	HDPE	24	S6	S5	99	918.41	919.25	0.85%
P6	HDPE	21	S7	S6	67	916.00	918.41	3.60%
P7	HDPE	24	S7	S12	12	910.75	910.81	0.50%
P8	HDPE	12	S7	S9	27	913.72	913.72	0.00%
P9	HDPE	18	S8	S8	6	910.91	910.81	1.80%
P10	HDPE	18	S12	S8	45	909.90	910.81	2.00%
P11	HDPE	12	S10	S9	6	919.66	919.71	0.88%
P12	HDPE	12	S11	S10	148	918.55	919.66	0.75%
P13	HDPE	12	S11	S11	8	913.72	913.89	2.21%
P14	PVC	12	S11	S11	60	919.40	921.80	4.00%
P15	HDPE	18	S12	S12	79	901.00	908.92	10.00%

STORM STRUCTURE TABLE						
STRUCTURE NAME	STRUCTURE TYPE	FRAME	COVER	RIM/TC	INVERT	
S1	48" CONC FI	R-2578	TYPE C GRATE	926.00	920.99	
S2	48" CONC FI	R-2578	TYPE C GRATE	925.80	920.24	
S3	48" CONC FI	R-2578	TYPE C GRATE	925.80	919.87	
S4	48" CONC FI	R-2578	TYPE C GRATE	926.00	921.49	
S5	48" CONC CB	R-3065	TYPE A GRATE	925.88	919.25	
S6	48" CONC CB	R-3065	TYPE A GRATE	926.06	918.41	
S7	48" CONC CB	R-3065	TYPE A GRATE	921.07	910.81	
S8	48" CONC STMH	R-1550	SOLID LID	919.14	910.81	
S9	2' x 3' CI	R-3067	TYPE A GRATE	924.62	919.71	
S10	2' x 3' CI	R-3067	TYPE A GRATE	924.71	919.66	
S11	2' x 3' CI	R-3067	TYPE A GRATE	926.94	913.89	
S12	48" CONC CB	R-3065	TYPE A GRATE	918.67	908.92	

GRAPHIC SCALE FEET  
0 15 30 60

LEGEND

- STORM SEWER PIPE
- STORM SEWER MANHOLE
- STORM SEWER CURB INLET
- STORM SEWER CURB INLET W/MANHOLE
- STORM SEWER FIELD INLET
- ROOF DRAIN CLEANOUT
- SANITARY SEWER PIPE (GRAVITY)
- SANITARY SEWER CLEANOUT
- WATER MAIN
- FIRE HYDRANT
- WATER VALVE
- PROPOSED PIPE INSULATION
- GAS MAIN
- ELECTRIC SERVICE

ABBREVIATIONS

- STMH - STORM MANHOLE
- FI - FIELD INLET
- CI - CURB INLET
- CB - CATCH BASIN
- EW - ENDWALL
- SMH - SANITARY MANHOLE

- UTILITY NOTES:
- SANITARY & STORM SEWER LENGTHS SHOWN ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE. STORM SEWER END SECTIONS ARE INCLUDED IN THE LENGTH AND SLOPE OF THE PIPE.
  - CONTRACTOR SHALL INVESTIGATE ALL UTILITY CROSSINGS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY CONFLICTS.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL UTILITY STRUCTURES (MANHOLE RIMS, WATER VALVES, AND CURB STOPS), IF NECESSARY.
  - CONTRACTOR SHALL OBTAIN ANY NECESSARY WORK IN RIGHT-OF WAY, EXCAVATION, UTILITY CONNECTION, PLUGGING, ABANDONMENT, AND DRIVEWAY CONNECTION PERMITS PRIOR TO CONSTRUCTION.
  - FOR ALL SEWER AND WATER MAIN CROSSINGS: PROVIDE MINIMUM 18" SEPARATION WHEN WATER MAIN CROSSES BELOW SEWER AND MINIMUM 6" SEPARATION WHEN WATER MAIN CROSSES ABOVE SEWER.
  - INSTALL 1 SHEET OF 4"x8"x4" HIGH DENSITY STYROFOAM INSULATION AT ALL LOCATIONS WHERE STORM SEWER CROSSES WATER MAIN OR WATER LATERALS.
  - IF DEWATERING OPERATIONS EXCEED 70 GALLONS PER MINUTE OF PUMPING CAPACITY, A DEWATERING WELL PERMIT SHALL BE OBTAINED FROM THE DNR PRIOR TO STARTING ANY DEWATERING ACTIVITIES.
  - A COPY OF THE APPROVED UTILITY PLANS, SPECIFICATIONS AND PLUMBING PERMIT APPROVAL LETTER SHALL BE ON-SITE DURING CONSTRUCTION AND OPEN TO INSPECTION BY AUTHORIZED REPRESENTATIVES AND OTHER LOCAL INSPECTORS.
  - STORM BUILDING SEWER PIPE SHALL CONFORM TO ONE OF THE STANDARDS LISTED IN WISCONSIN PLUMBING CODE.
  - PRIVATE WATER SERVICES AND PRIVATE WATER MAINS SHALL CONFORM TO ONE OF THE STANDARDS LISTED IN WISCONSIN PLUMBING CODE.
  - PRIVATE WATER HYDRANTS SHALL BE YELLOW IN COLOR.
  - PRIVATE SANITARY SEWER AND LATERALS SHALL BE POLYVINYL CHLORIDE (PVC) ASTM D3034 - SDR 35 OR APPROVED EQUAL MATERIAL THAT CONFORMS TO ONE OF THE STANDARDS LISTED IN WISCONSIN PLUMBING CODE.
  - A MEANS TO LOCATE BURIED UNDERGROUND EXTERIOR NON METALLIC SEWERS/MAINS AND WATER SERVICES/MAINS MUST BE PROVIDED WITH TRACER WIRE OR OTHER METHODS IN ORDER TO BE LOCATED PER WISCONSIN PLUMBING CODE.
  - EXTERIOR WATER SUPPLY PIPING SETBACKS AND CROSSINGS SHALL BE IN ACCORDANCE WITH WISCONSIN PLUMBING CODE.
  - NO PERSON MAY ENGAGE IN PLUMBING WORK IN THE STATE UNLESS LICENSED TO DO SO.
  - SITE CONTRACTOR SHALL LEAVE SANITARY AND WATER LATERALS FIVE (5) FEET SHORT (HORIZONTALLY) FROM THE BUILDING. BUILDING PLUMBER SHALL VERIFY SIZE, LOCATION, AND INVERT ELEVATION OF PROPOSED SANITARY AND WATER LATERALS.
  - CONTRACTOR SHALL FIELD VERIFY THE SIZE, TYPE, LOCATION, AND ELEVATION OF EXISTING UTILITIES PRIOR TO INSTALLING ANY ON-SITE UTILITIES OR STRUCTURES. CONTACT ENGINEER PRIOR TO INSTALLATION IF DISCREPANCY EXISTS WITHIN THESE PLANS.
  - PROPOSED UTILITY SERVICE LINES SHOWN ARE APPROXIMATE. COORDINATE THE EXACT LOCATIONS WITH THE PLUMBING DRAWINGS. COORDINATE THE LOCATIONS WITH THE PLUMBING CONTRACTOR AND/OR OWNER'S CONSTRUCTION REPRESENTATIVE PRIOR TO INSTALLATION OF ANY NEW UTILITIES.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE RELOCATION OF ANY UTILITIES ENCOUNTERED AND REPLACEMENT OF ANY UTILITIES DAMAGED WITHIN INFLUENCE ZONE OF NEW CONSTRUCTION. CONTACT ENGINEER IF THE EXISTING UTILITIES VARY APPRECIABLY FROM THE PLANS.
  - ALL WATER MAIN AND SERVICES SHALL BE INSTALLED AT A MINIMUM DEPTH OF 6.5' FROM TOP OF FINISHED GROUND ELEVATION TO TOP OF MAIN.
  - IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THE EXISTING VALVES WILL HOLD THE PRESSURE TEST PRIOR TO CONNECTION. THE CITY IS NOT RESPONSIBLE FOR ANY COSTS INCURRED DUE TO THE CONTRACTOR NOT VERIFYING THAT THE EXISTING VALVE WILL HOLD THE PRESSURE TEST PRIOR TO CONNECTION. IF A NEW VALVE IS REQUIRED, THE APPLICANT WILL BE REQUIRED TO INSTALL ONE AT THEIR EXPENSE, AT THE POINT OF CONNECTION.
  - CLEAN OUT ALL EXISTING AND PROPOSED STORM INLETS AND CATCH BASINS AT THE COMPLETION OF CONSTRUCTION.
  - CONTRACTOR SHALL COORDINATE WITH DRY UTILITY COMPANY'S REGARDING ANY POTENTIAL CONFLICTS AND COORDINATE RELOCATIONS AS MAY BE REQUIRED. CONTRACTOR SHALL ALSO COORDINATE THE PROPOSED INSTALLATION OF NEW FACILITIES AS REQUIRED.
  - THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW BY THE ENGINEER, PRIOR TO PLACING AN ORDER OF ANY SUCH ITEM.
  - CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING SANITARY SEWER, STORM SEWER AND WATER MAIN PRIOR TO CONSTRUCTION TO ENSURE PROPER CLEARANCE OF THE NEW UTILITIES. CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES DURING CONSTRUCTION. ANY DAMAGE TO THE EXISTING UTILITIES AND ANY REPAIRS NEEDED AS A RESULT OF THE DAMAGE SHALL BE AT THE EXPENSE OF THE CONTRACTOR REGARDLESS OF THE LOCATION MARKED IN THE FIELD OR SHOWN ON THE PLANS.
  - THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING DIGGERS HOTLINE AND LOCATING ALL EXISTING UTILITIES AND ENSURE PROPER CLEARANCE OF NEW UTILITIES.

**vierbicher** engineers | architects | planners | advisors

REEDSBURG, MADISON, WAUKESHA, WAUKESHA, WISCONSIN 53177  
999 Foulmer Drive, Suite 201, Waukesha, Wisconsin 53177  
Phone: (608) 824-0532 Fax: (608) 824-0530

**Fields Jaguar-Land Rover-Volvo-Waukesha**

Utility Plan  
City of Waukesha  
Waukesha County, Wisconsin

NO.	DATE	REVISIONS	REMARKS

SCALE AS SHOWN

DATE 1/20/2017

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PROJECT NO. 160333

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**5.0**



# EROSION CONTROL MEASURES

- EROSION CONTROL SHALL BE IN ACCORDANCE WITH THE CITY OF WAUKESHA EROSION CONTROL ORDINANCE AND CHAPTER NR 216 OF THE WISCONSIN ADMINISTRATIVE CODE.
- CONSTRUCT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH WISCONSIN DNR TECHNICAL STANDARDS (<http://dnr.wi.gov/runoff/stormwater/techstds.htm>) AND WISCONSIN CONSTRUCTION SITE BEST MANAGEMENT PRACTICE HANDBOOK.
- INSTALL SEDIMENT CONTROL PRACTICES (TRACKING PAD, PERIMETER SILT FENCE, SEDIMENT BASINS, ETC.) PRIOR TO INITIATING OTHER LAND DISTURBING CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR IS REQUIRED TO MAKE EROSION CONTROL INSPECTIONS AT THE END OF EACH WEEK AND WHEN 0.5 INCHES OF RAIN FALLS WITHIN 24 HOURS. INSPECTION REPORTS SHALL BE PREPARED AND FILED AS REQUIRED BY THE DNR AND/OR CITY. ALL MAINTENANCE WILL FOLLOW AN INSPECTION WITHIN 24 HOURS.
- EROSION CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ACCEPTANCE OF THIS PROJECT. EROSION CONTROL MEASURES AS SHOWN SHALL BE THE MINIMUM PRECAUTIONS THAT WILL BE ALLOWED. ADDITIONAL EROSION CONTROL MEASURES, AS REQUESTED IN WRITING BY THE STATE OR LOCAL INSPECTORS, OR THE DEVELOPER'S ENGINEER, SHALL BE INSTALLED WITHIN 24 HOURS.
- A 3" CLEAR STONE TRACKING PAD SHALL BE INSTALLED AT THE END OF ROAD CONSTRUCTION LIMITS TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE ADJACENT PAVED PUBLIC ROADWAY. SEDIMENT TRACKING PAD SHALL CONFORM TO WISDNR TECHNICAL STANDARD 1057. SEDIMENT REACHING THE PUBLIC ROAD SHALL BE REMOVED BY STREET CLEANING (NOT HYDRAULIC FLUSHING) BEFORE THE END OF EACH WORK DAY.
- CHANNELIZED RUNOFF:** FROM ADJACENT AREAS PASSING THROUGH THE SITE SHALL BE DIVERTED AROUND DISTURBED AREAS.
- STABILIZED DISTURBED GROUND:** ANY SOIL OR DIRT PILES WHICH WILL REMAIN IN EXISTENCE FOR MORE THAN 7-CONSECUTIVE DAYS, WHETHER TO BE WORKED DURING THAT PERIOD OR NOT, SHALL NOT BE LOCATED WITHIN 25-FEET OF ANY ROADWAY, PARKING LOT, PAVED AREA, OR DRAINAGE STRUCTURE OR CHANNEL (UNLESS INTENDED TO BE USED AS PART OF THE EROSION CONTROL MEASURES). TEMPORARY STABILIZATION AND CONTROL MEASURES (SEEDING, MULCHING, TARPING, EROSION MATTING, BARRIER FENCING, ETC.) ARE REQUIRED FOR THE PROTECTION OF DISTURBED AREAS AND SOIL PILES, WHICH WILL REMAIN UN-WORKED FOR A PERIOD OF MORE THAN 14-CONSECUTIVE CALENDAR DAYS. THESE MEASURES SHALL REMAIN IN PLACE UNTIL SITE HAS STABILIZED.
- SITE DE-WATERING:** WATER PUMPED FROM THE SITE SHALL BE TREATED BY TEMPORARY SEDIMENTATION BASINS OR OTHER APPROPRIATE CONTROL MEASURES. SEDIMENTATION BASINS SHALL HAVE A DEPTH OF AT LEAST 3 FEET, BE SURROUNDED BY SNOWFENCE OR EQUIVALENT BARRIER AND HAVE SUFFICIENT SURFACE AREA TO PROVIDE A SURFACE SETTLING RATE OF NO MORE THAN 750 GALLONS PER SQUARE FOOT PER DAY AT THE HIGHEST DEWATERING PUMPING RATE. WATER MAY NOT BE DISCHARGED IN A MANNER THAT CAUSES EROSION OF THE SITE, A NEIGHBORING SITE, OR THE BED OR BANKS OF THE RECEIVING WATER. POLYMERS MAY BE USED AS DIRECTED BY DNR TECHNICAL STANDARD 1061 (DE-WATERING).
- WASHED STONE WEEPERS OR TEMPORARY EARTH BERMS SHALL BE BUILT PER PLAN BY CONTRACTOR TO TRAP SEDIMENT OR SLOW THE VELOCITY OF STORM WATER.
- SEE DETAIL SHEETS FOR RIP-RAP SIZING. IN NO CASE WILL RIP-RAP BE SMALLER THAN 3" TO 6".
- INLET FILTERS ARE TO BE PLACED IN STORMWATER INLET STRUCTURES AS SOON AS THEY ARE INSTALLED. ALL PROJECT AREA STORM INLETS NEED WISCONSIN D.O.T. TYPE D INLET PROTECTION. THE FILTERS SHALL BE MAINTAINED UNTIL THE OWNER HAS ACCEPTED THE BINDER COURSE OF ASPHALT.
- RESTORATION (SEED, FERTILIZE AND MULCH) SHALL BE PER SPECIFICATIONS ON THIS SHEET UNLESS SPECIAL RESTORATION IS CALLED FOR ON THE LANDSCAPE PLAN.
- SEED, FERTILIZER AND MULCH SHALL BE APPLIED WITHIN 7 DAYS AFTER FINAL GRADE HAS BEEN ESTABLISHED. IF DISTURBED AREAS WILL NOT BE RESTORED IMMEDIATELY AFTER ROUGH GRADING, TEMPORARY SEED SHALL BE PLACED.
- FOR THE FIRST SIX WEEKS AFTER RESTORATION (E.G. SEED & MULCH, EROSION MAT, SOD) OF A DISTURBED AREA, INCLUDE SUMMER WATERING PROVISIONS OF ALL NEWLY SEEDED AND MULCHED AREAS WHENEVER 7 DAYS ELAPSE WITHOUT A RAIN EVENT.
- EROSION MAT (CLASS I, TYPE A URBAN PER WISCONSIN D.O.T. P.A.L.) SHALL BE INSTALLED ON ALL SLOPES 3:1 OR GREATER BUT LESS THAN 1:1.
- EROSION MAT (CLASS I, TYPE B URBAN PER WISCONSIN D.O.T. P.A.L.) SHALL BE INSTALLED ON THE BOTTOM (INVERT) OF ROADSIDE DITCHES/SWALES AS SHOWN ON THIS PLAN, 1 ROLL WIDTH.
- SILT FENCE OR EROSION MAT SHALL BE INSTALLED ALONG THE CONTOURS AT 100 FOOT INTERVALS DOWN THE SLOPE ON THE DISTURBED SLOPES STEEPER THAN 5% AND MORE THAN 100 FEET LONG THAT SHEET FLOW TO THE ROADWAY UNLESS SOIL STABILIZERS ARE USED.
- INSTALL MINIMUM 6'-7' WIDE EROSION MAT ALONG THE BACK OF CURB AFTER TOPSOIL HAS BEEN PLACED IF THIS AREA WILL NOT BE SEEDED AND MULCHED WITHIN 48 HOURS OF PLACING TOPSOIL.
- SILT FENCE TO BE USED ACROSS AREAS OF THE LOT THAT SLOPE TOWARDS A PUBLIC STREET OR WATERWAY. SEE DETAILS.
- SEDIMENT SHALL BE CLEANED FROM CURB AND GUTTER AFTER EACH RAINFALL AND PRIOR TO PROJECT ACCEPTANCE.
- ALL CONSTRUCTION ENTRANCES SHALL HAVE TEMPORARY ROAD CLOSED SIGNS THAT WILL BE IN PLACE WHEN THE ENTRANCE IS NOT IN USE AND AT THE END OF EACH DAY.
- ANY PROPOSED CHANGES TO THE EROSION CONTROL PLAN MUST BE SUBMITTED AND APPROVED BY ENGINEER, THE CITY OF WAUKESHA OR PERMITTING MUNICIPALITY.
- THE CITY, OWNER AND/OR ENGINEER MAY REQUIRE ADDITIONAL EROSION CONTROL MEASURES AT ANY TIME DURING CONSTRUCTION.

## SEEDING RATES:

### TEMPORARY:

- USE ANNUAL OATS AT 3.0 LB./1,000 S.F. FOR SPRING AND SUMMER PLANTINGS.
- USE WINTER WHEAT OR RYE AT 3.0 LB./1,000 SF FOR FALL PLANTINGS STARTED AFTER SEPTEMBER 15.

### PERMANENT:

- USE WISCONSIN D.O.T. SEED MIX #40 AT 2 LB./1,000 S.F.

## FERTILIZING RATES:

### TEMPORARY AND PERMANENT:

- USE WISCONSIN D.O.T. TYPE A OR B AT 7 LB./1,000 S.F.

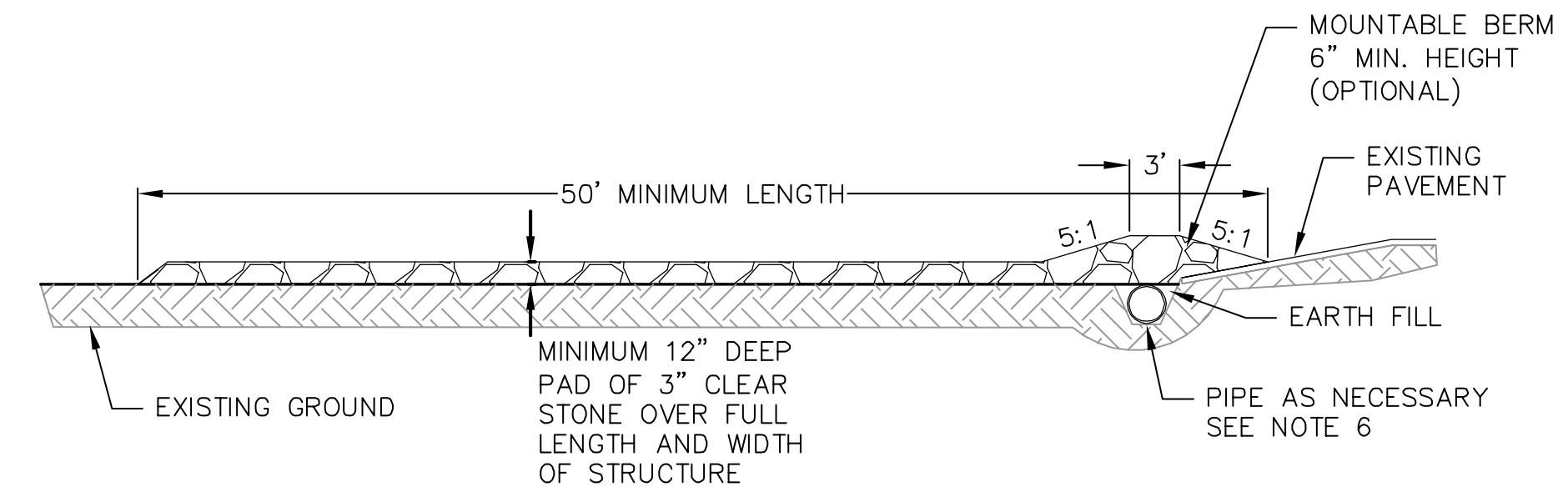
## MULCHING RATES:

### TEMPORARY AND PERMANENT:

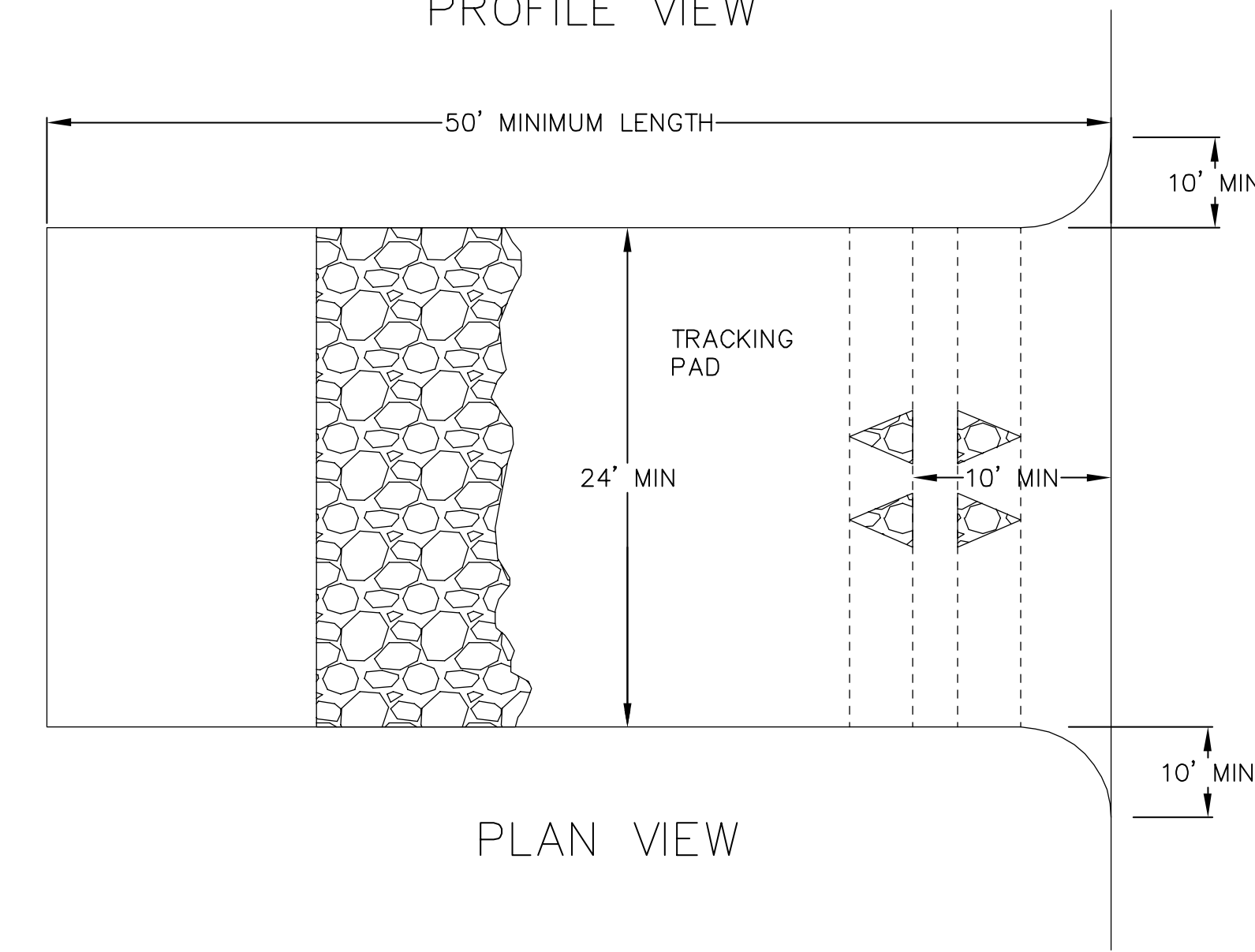
- USE 1/2" TO 1-1/2" STRAW OR HAY MULCH, CRIMPED PER SECTION 607.3.2.3, OR OTHER RATE AND METHOD PER SECTION 627, WISCONSIN D.O.T. STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION

## CONSTRUCTION SEQUENCE:

- INSTALL SILT FENCE, TRACKING PAD & INLET PROTECTION.
- STRIP & STOCKPILE TOPSOIL.
- INSTALL SILT FENCE AROUND PERIMETER OF TOPSOIL STOCK PILE
- ROUGH GRADE SITE
- CONSTRUCT UNDERGROUND UTILITIES
- INSTALL INLET PROTECTION WHERE NECESSARY
- INSTALL TOPSOIL & RESTORE
- CONSTRUCT PARKING LOT (STONE BASE, CURB & GUTTER AND SIDEWALK).
- REMOVE TRACKING PAD, SILT FENCE & INLET PROTECTION AFTER DISTURBED AREAS ARE RESTORED



PROFILE VIEW

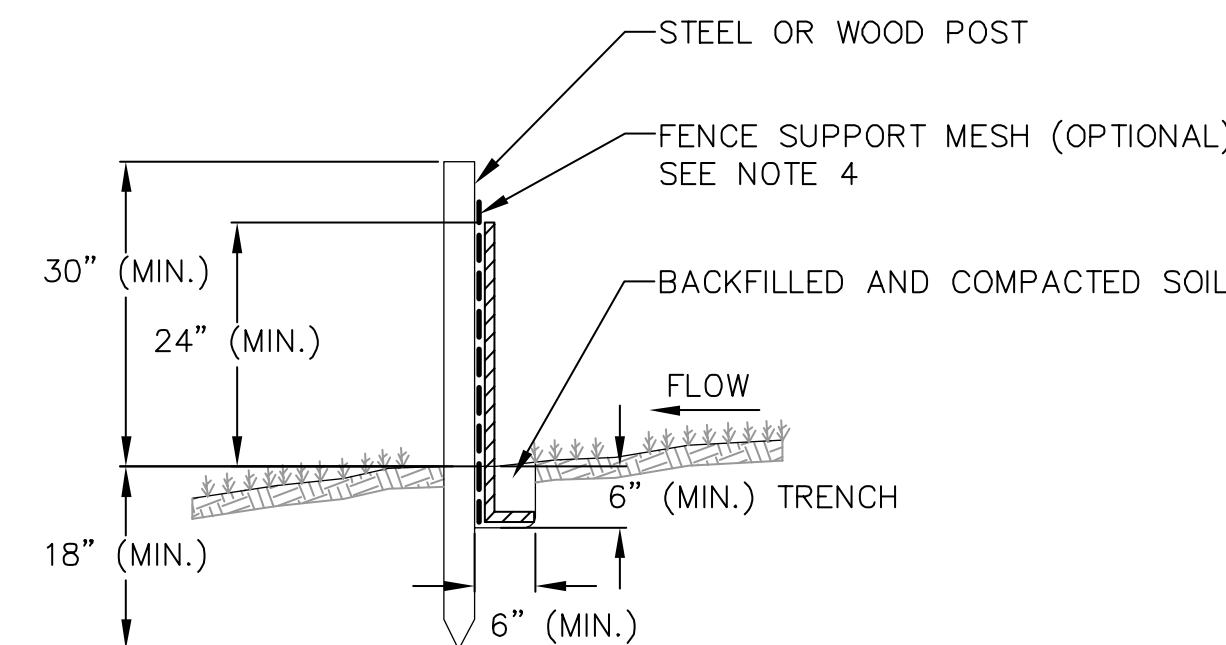


PLAN VIEW

- FOLLOW WISCONSIN DNR TECHNICAL STANDARD 1057 FOR FURTHER DETAILS AND INSTALLATION.
- LENGTH - MINIMUM OF 50'.
- WIDTH - 24' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- ON SITES WITH A HIGH GROUND WATER TABLE OR WHERE SATURATED CONDITIONS EXIST, GEOTEXTILE FABRIC SHALL BE PLACED OVER EXISTING GROUND PRIOR TO PLACING STONE. FABRIC SHALL BE WSDOT TYPE-HR GEOTEXTILE FABRIC.
- STONE - CRUSHED 3" CLEAR STONE SHALL BE PLACED AT LEAST 12" DEEP OVER THE ENTIRE LENGTH AND WIDTH OF ENTRANCE.
- SURFACE WATER - ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARDS CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE. MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND MINIMUM OF 6" STONE OVER THE PIPE. PIPE SHALL BE SIZED ACCORDING TO THE DRAINAGE REQUIREMENTS. WHEN THE ENTRANCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY A PIPE SHALL NOT BE NECESSARY. THE MINIMUM PIPE DIAMETER SHALL BE 6". CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF SAID PIPE.
- LOCATION - A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED WHERE CONSTRUCTION TRAFFIC ENTERS AND/OR LEAVES THE CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE TRACKING PAD.

## 1 TRACKING PAD

C6.0 NOT TO SCALE



## 2 SILT FENCE

C6.0 NOT TO SCALE

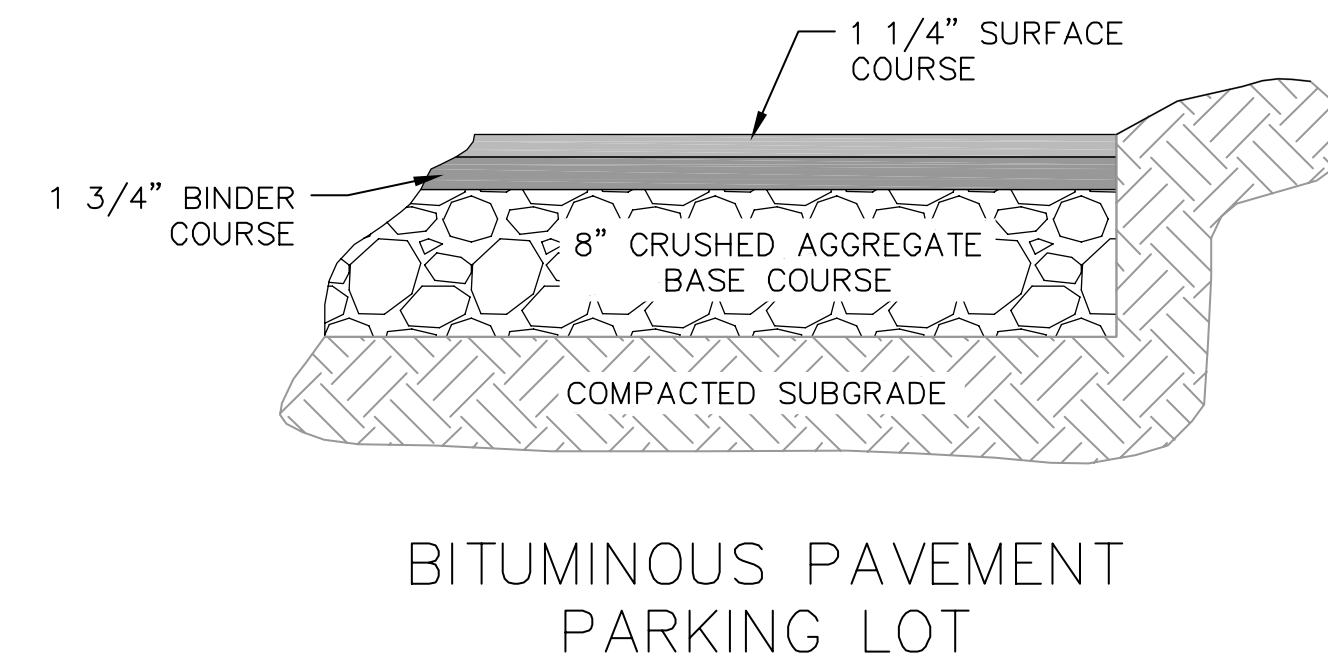
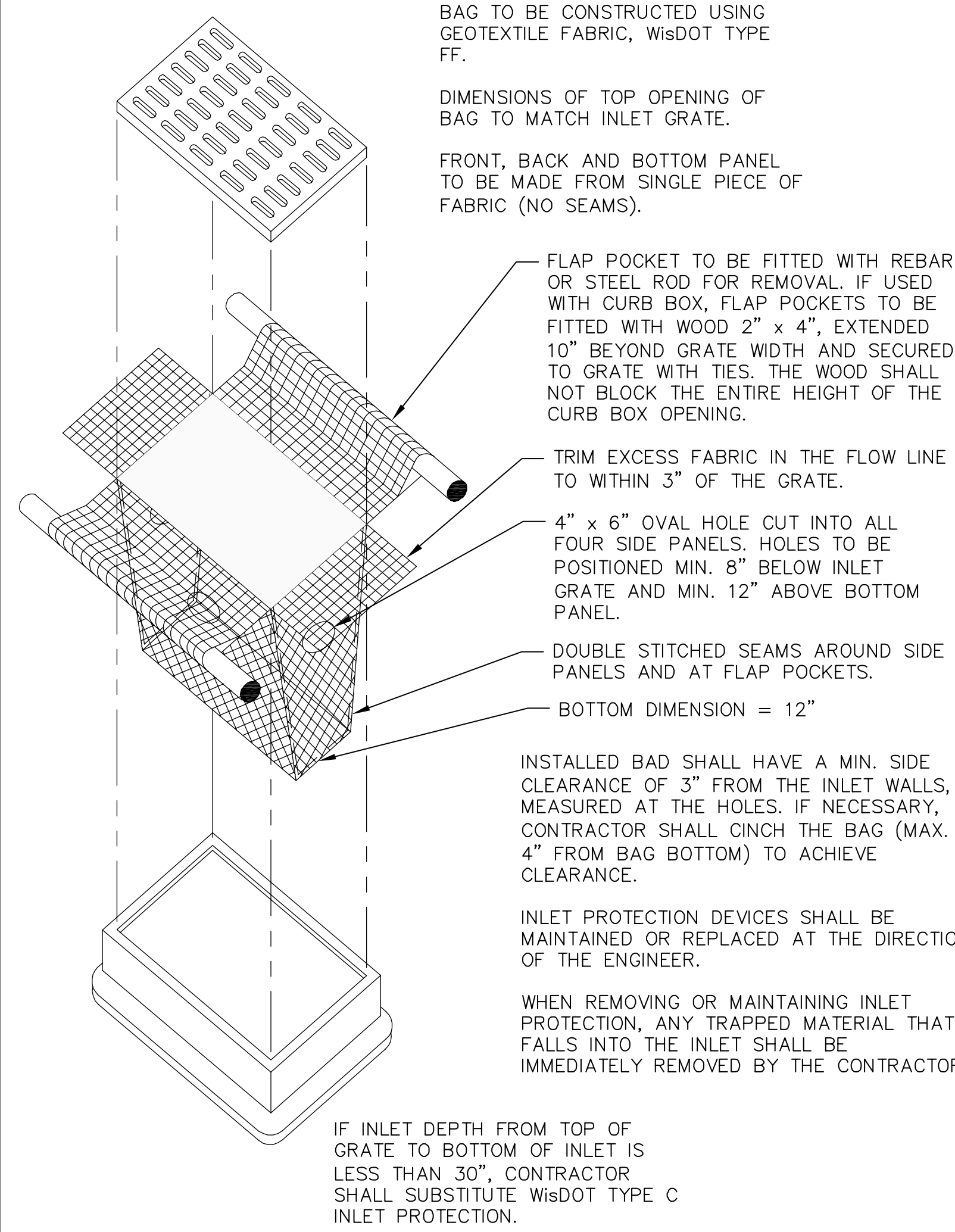
### NOTES:

- INSTALL SILT FENCE TO FOLLOW THE GROUND CONTOURS AS CLOSELY AS POSSIBLE.
- CURVE THE SILT FENCE UP THE SLOPE TO PREVENT WATER FROM RUNNING AROUND THE ENDS.
- POST SPACING WITH FENCE SUPPORT MESH = 10 FT. (MAX.)  
POST SPACING WITHOUT FENCE SUPPORT MESH = 6 FT. (MAX.)
- SILT FENCE SUPPORT MESH CONSISTS OF 14-GAUGE STEEL WIRE WITH A MESH SPACING OF 6 IN. X 6 IN. OR PREFABRICATED POLYMERIC MESH OF EQUIVALENT STRENGTH

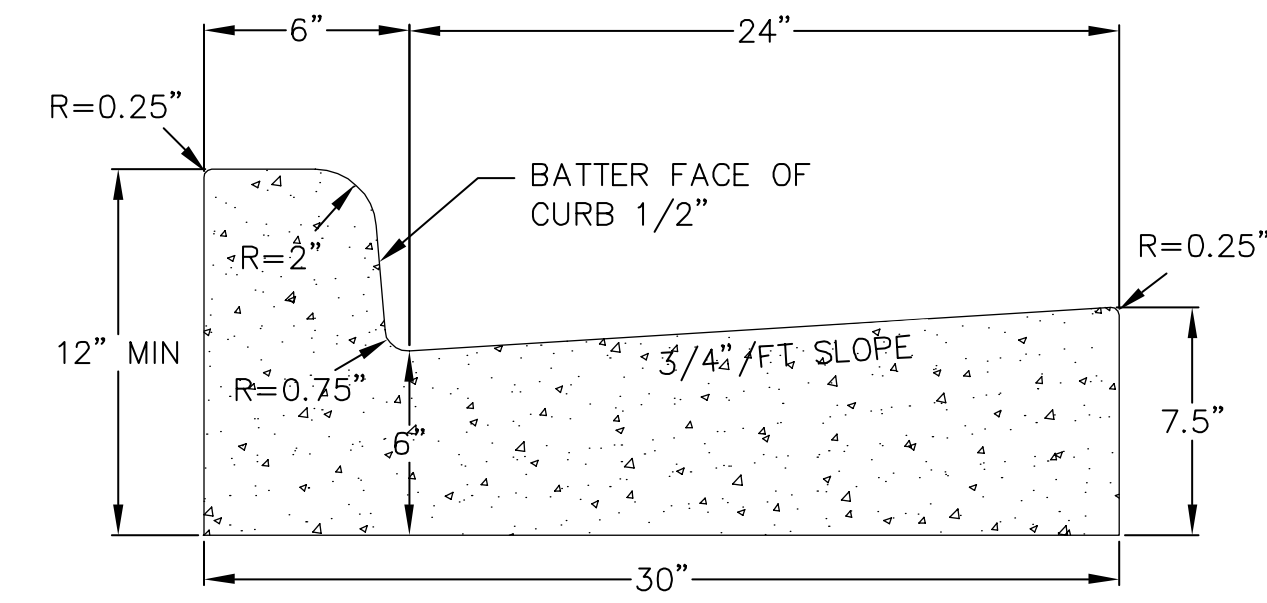
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DATE 1/20/2017
DRAFTER
JGOL
CHECKED GBLA
PROJECT NO. 160333

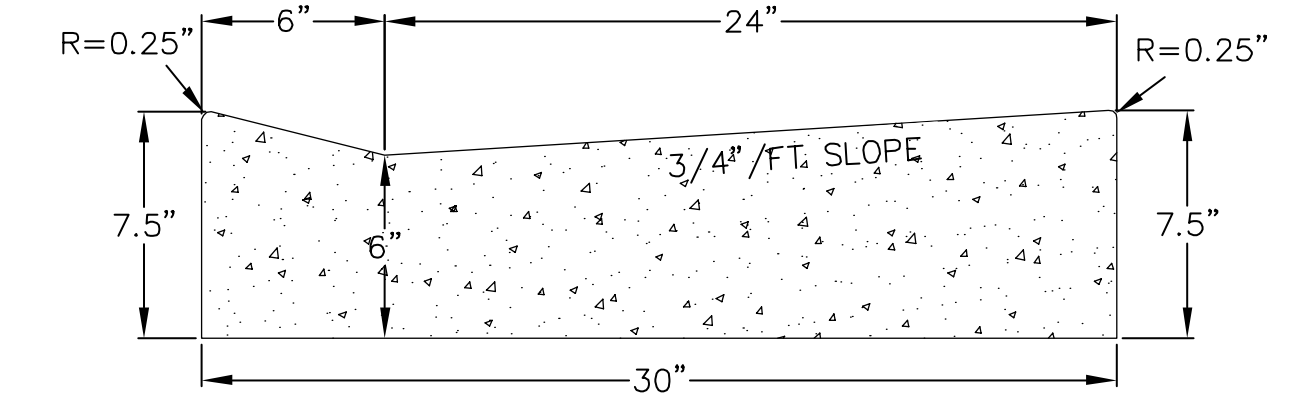




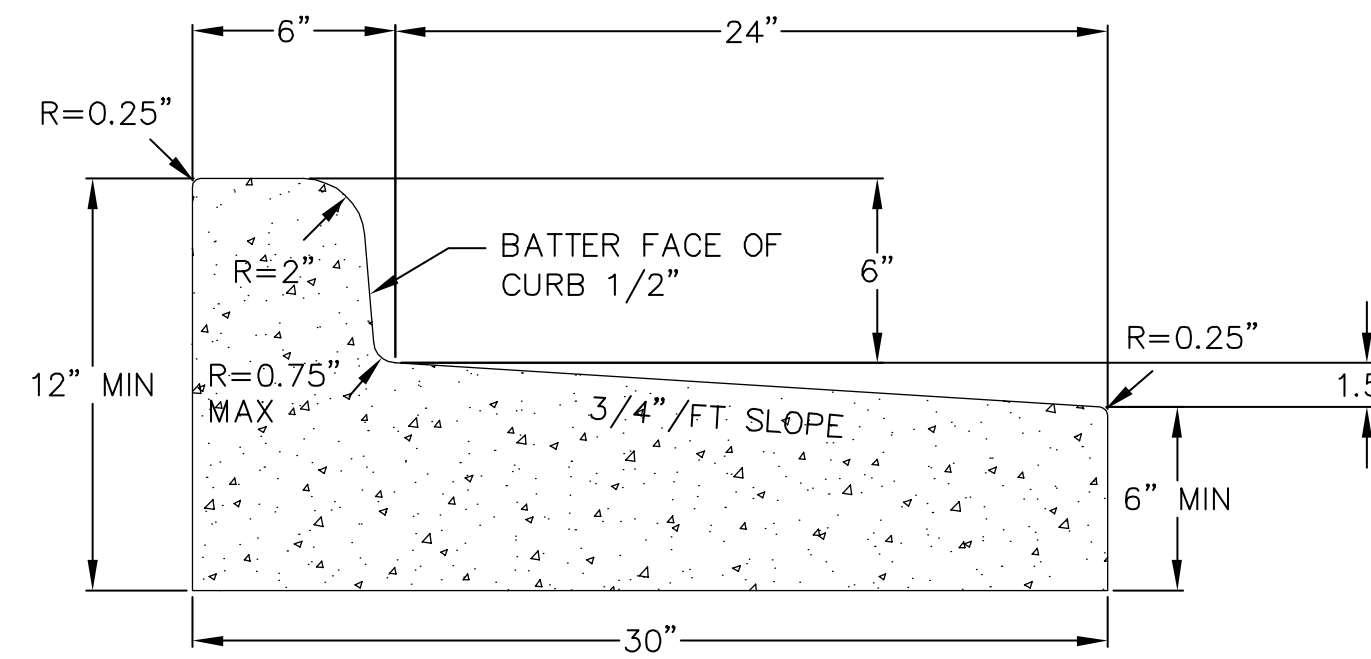
**2 SITE PAVEMENT**  
NOT TO SCALE



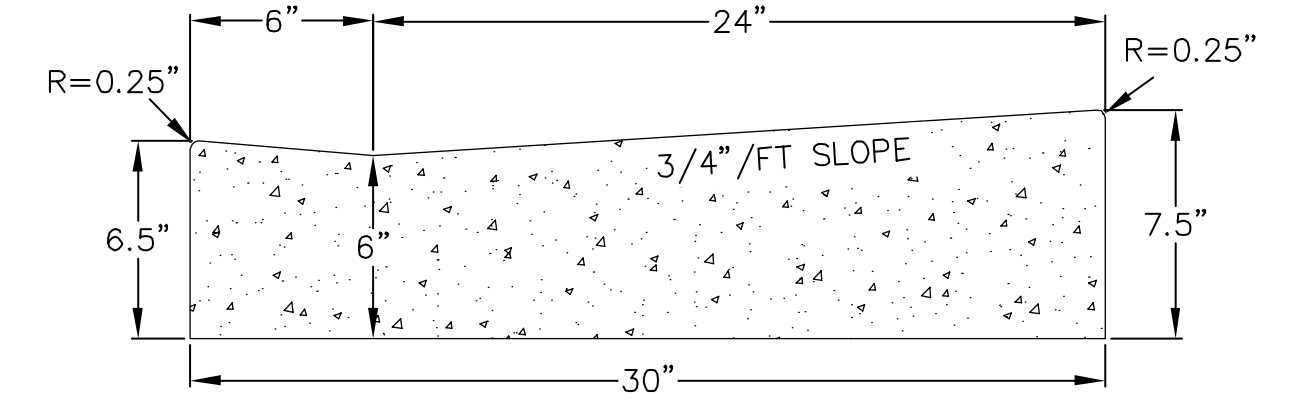
**CURB AND GUTTER CROSS SECTION**



**DRIVEWAY GUTTER CROSS SECTION**

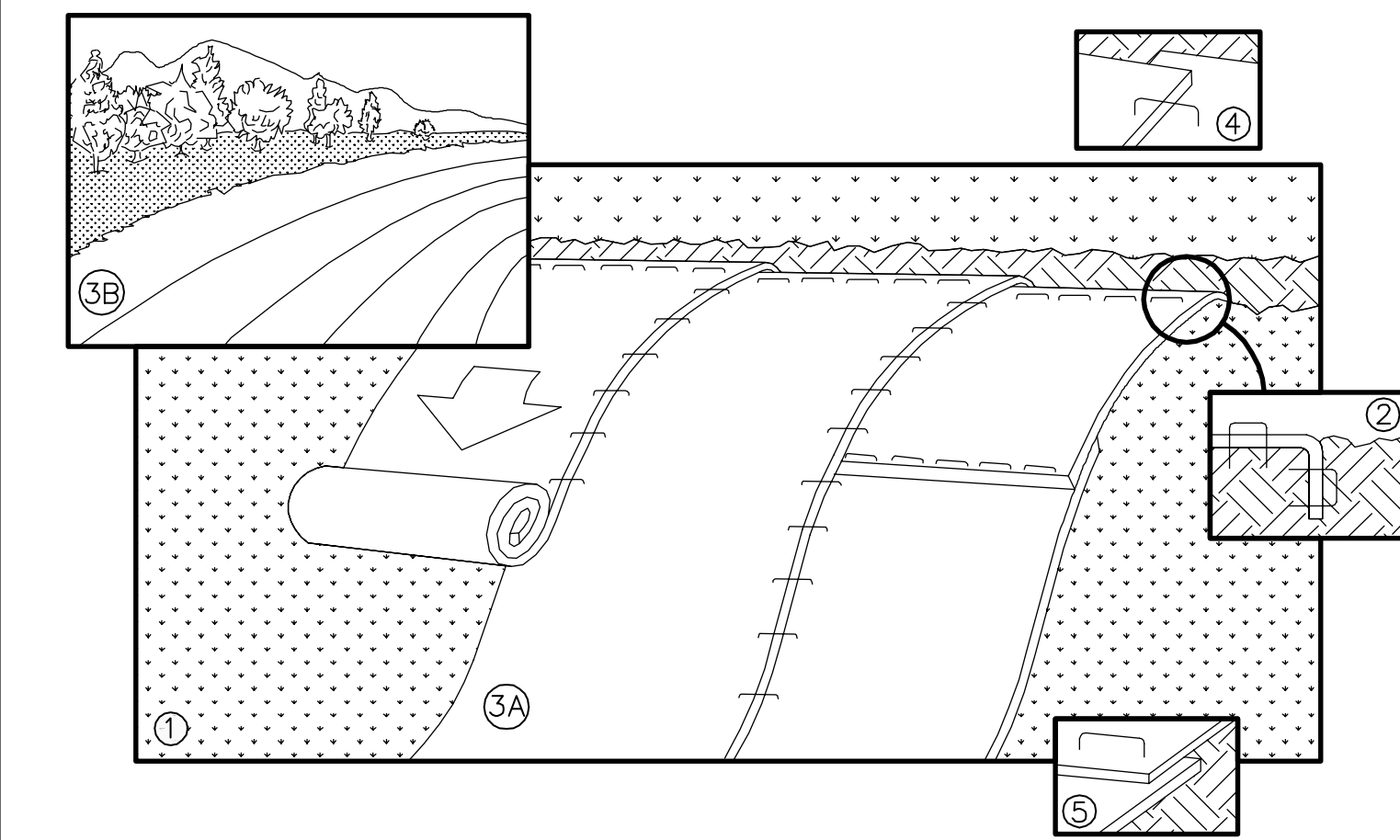


**CURB AND GUTTER REJECT SECTION**



**HANDICAP RAMP GUTTER CROSS SECTION**

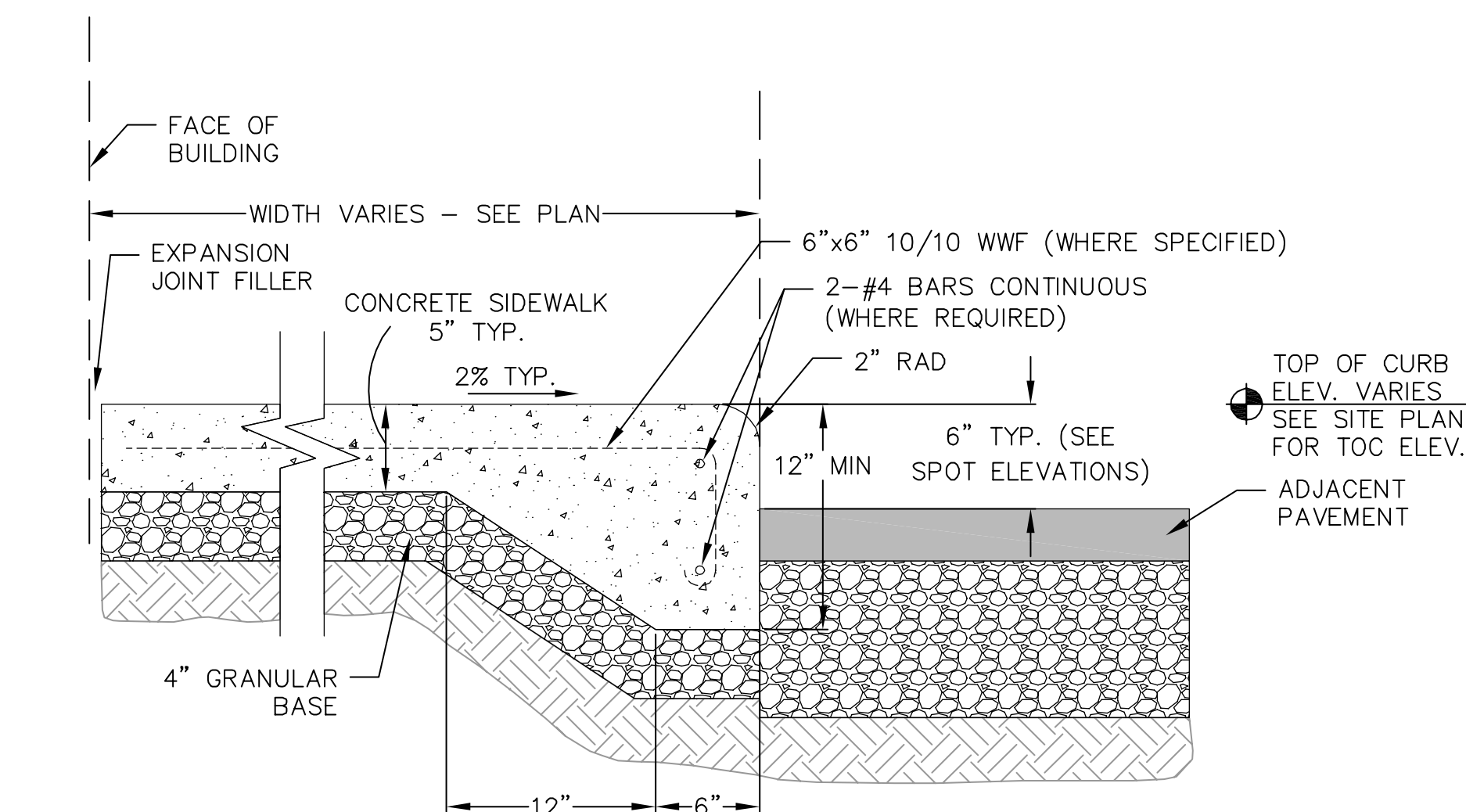
**1 INLET PROTECTION TYPE D**  
NOT TO SCALE



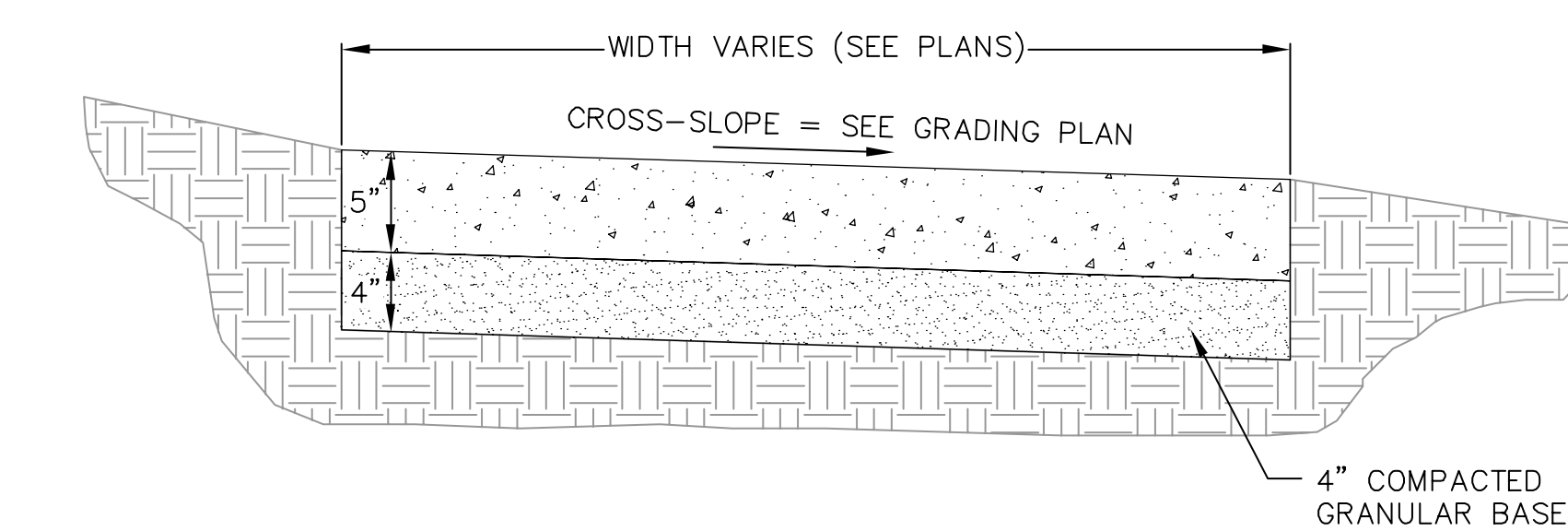
NOTE: REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE INSTALLATIONS.

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF FERTILIZER AND SEED.  
NOTE: WHEN USING CELL-O-SEED, DO NOT SEED PREPARED AREA.  
CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP BY 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS <A.> DOWN, OR <B.> HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.
6. ALL BLANKETS MUST BE SECURELY FASTENED TO THE SLOPE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS RECOMMENDED BY THE MANUFACTURER.

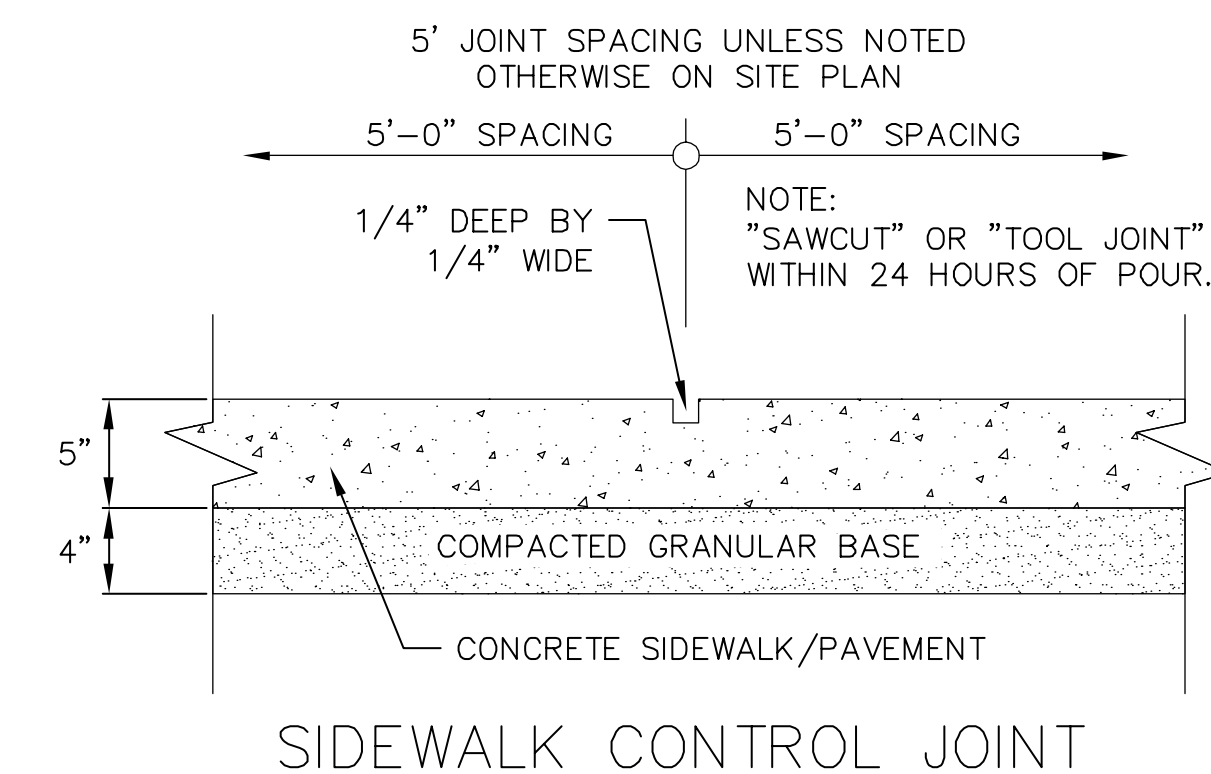
**5 THICKENED EDGE SIDEWALK DETAIL**  
NOT TO SCALE



**3 30" CONCRETE CURB AND GUTTER**  
NOT TO SCALE



**5" SITE CONCRETE SIDEWALK/PAVEMENT**



**SIDEWALK CONTROL JOINT**

**4 EROSION MAT**  
NOT TO SCALE

**6 5" CONCRETE SIDEWALK/PAVEMENT**  
NOT TO SCALE

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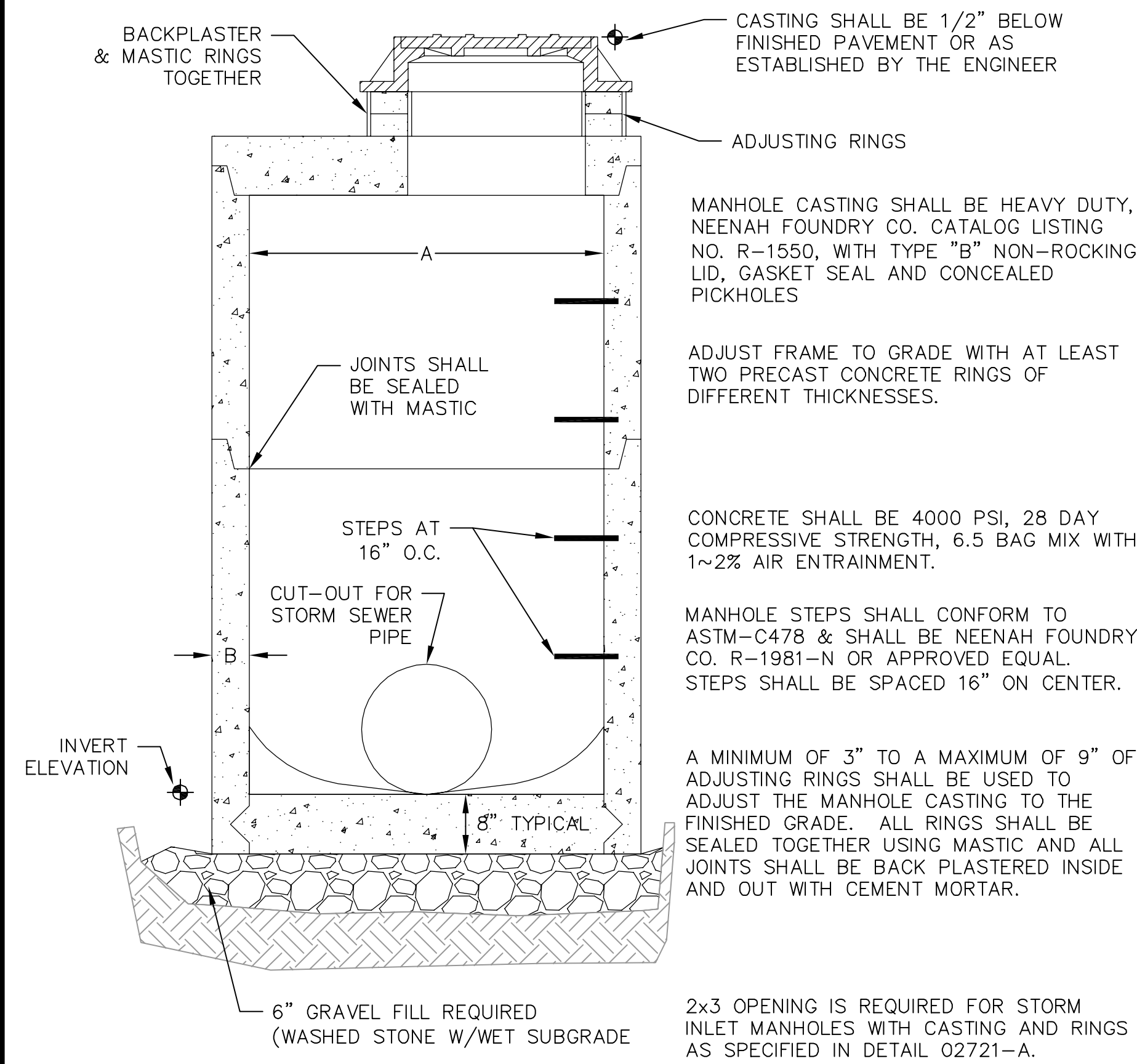
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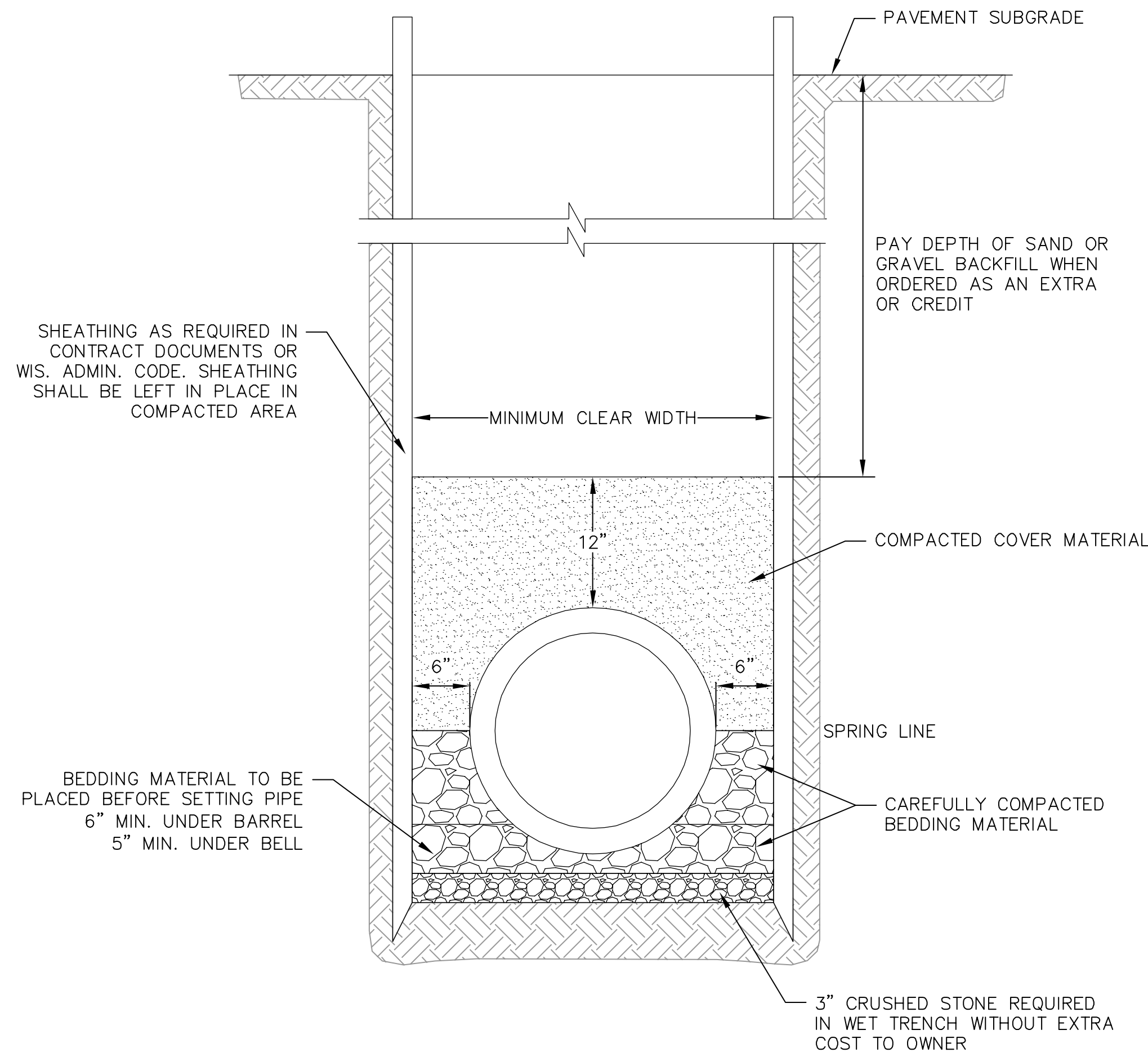




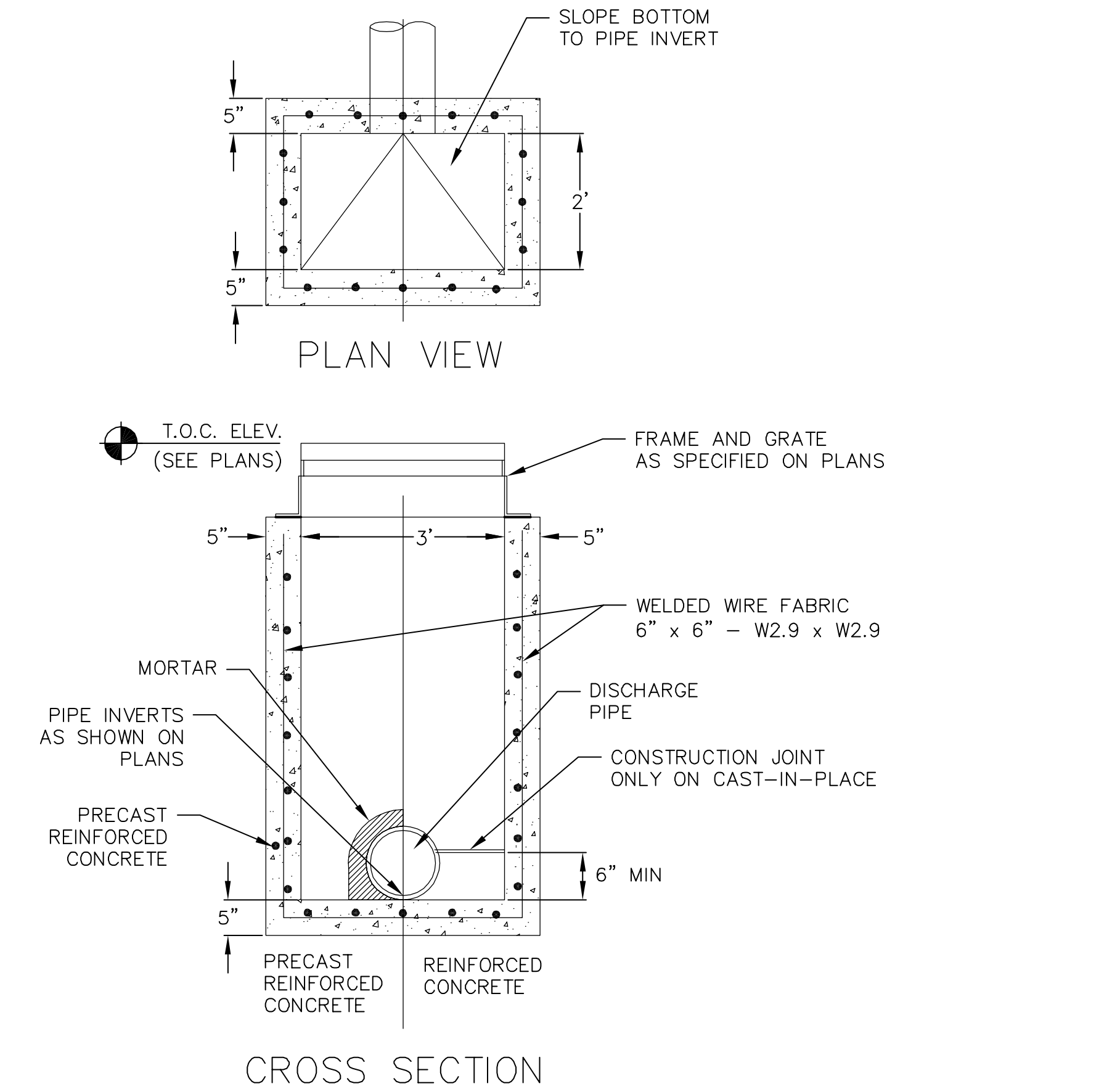
STORM MANHOLE DIMENSIONS

MANHOLE SIZE	DIMENSION	
	A	B (MIN.)
48"	48"	5"
60"	60"	6"
72"	72"	7"
84"	84"	7"
96"	96"	9"

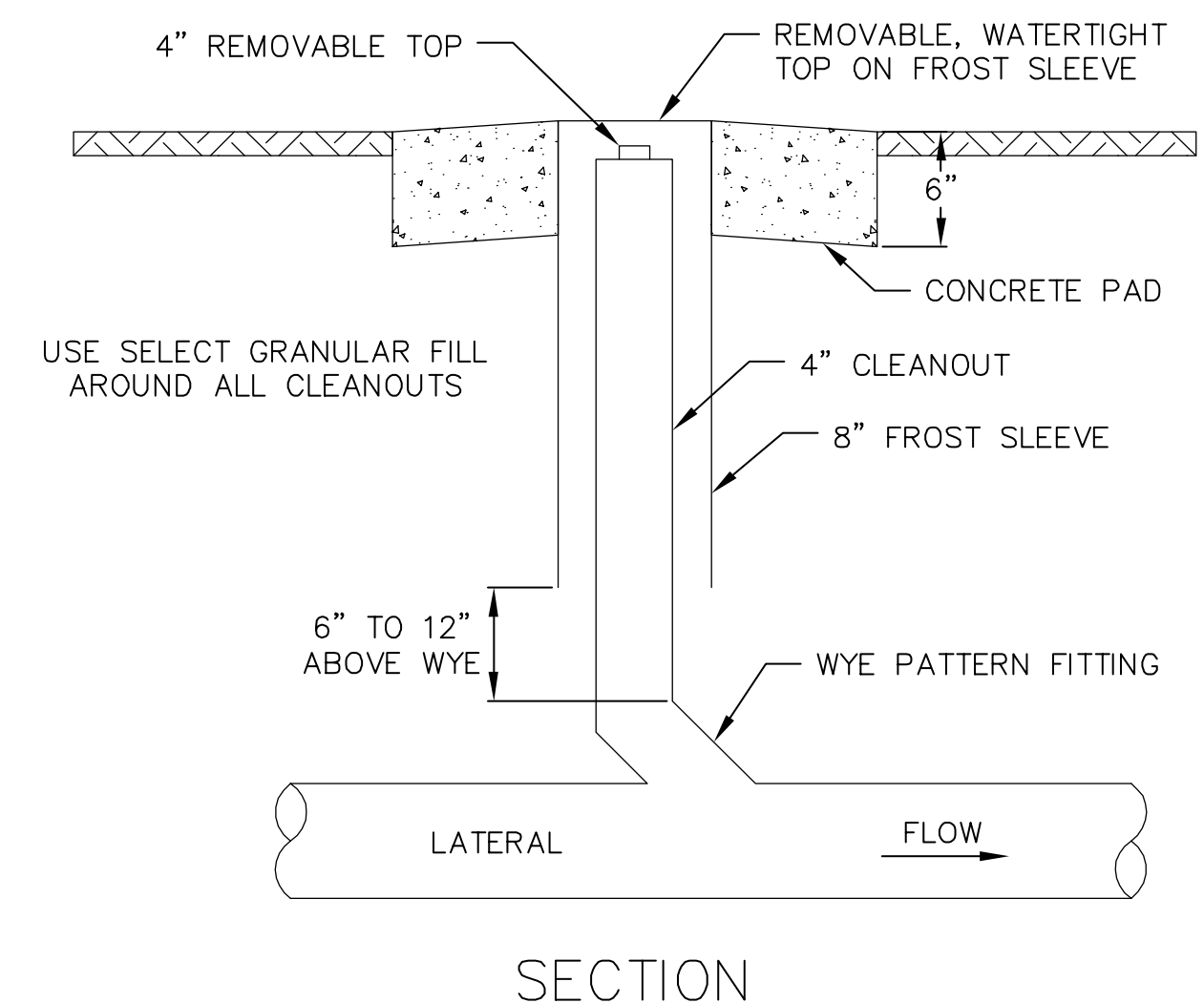
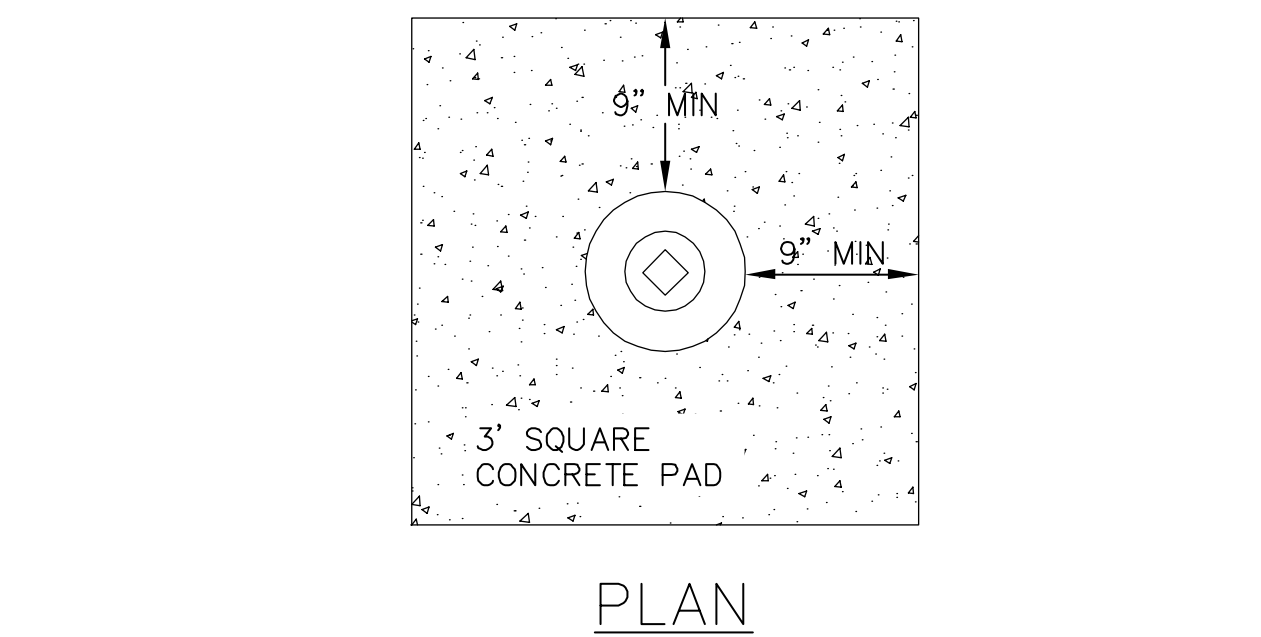
1 STORM SEWER MANHOLE  
C6.2 NOT TO SCALE



2 CLASS B BEDDING COMPACTED SECTION  
C6.2 NOT TO SCALE



3 CURB INLET - TYPE 3, 2' x 3' BASIN  
C6.2 NOT TO SCALE

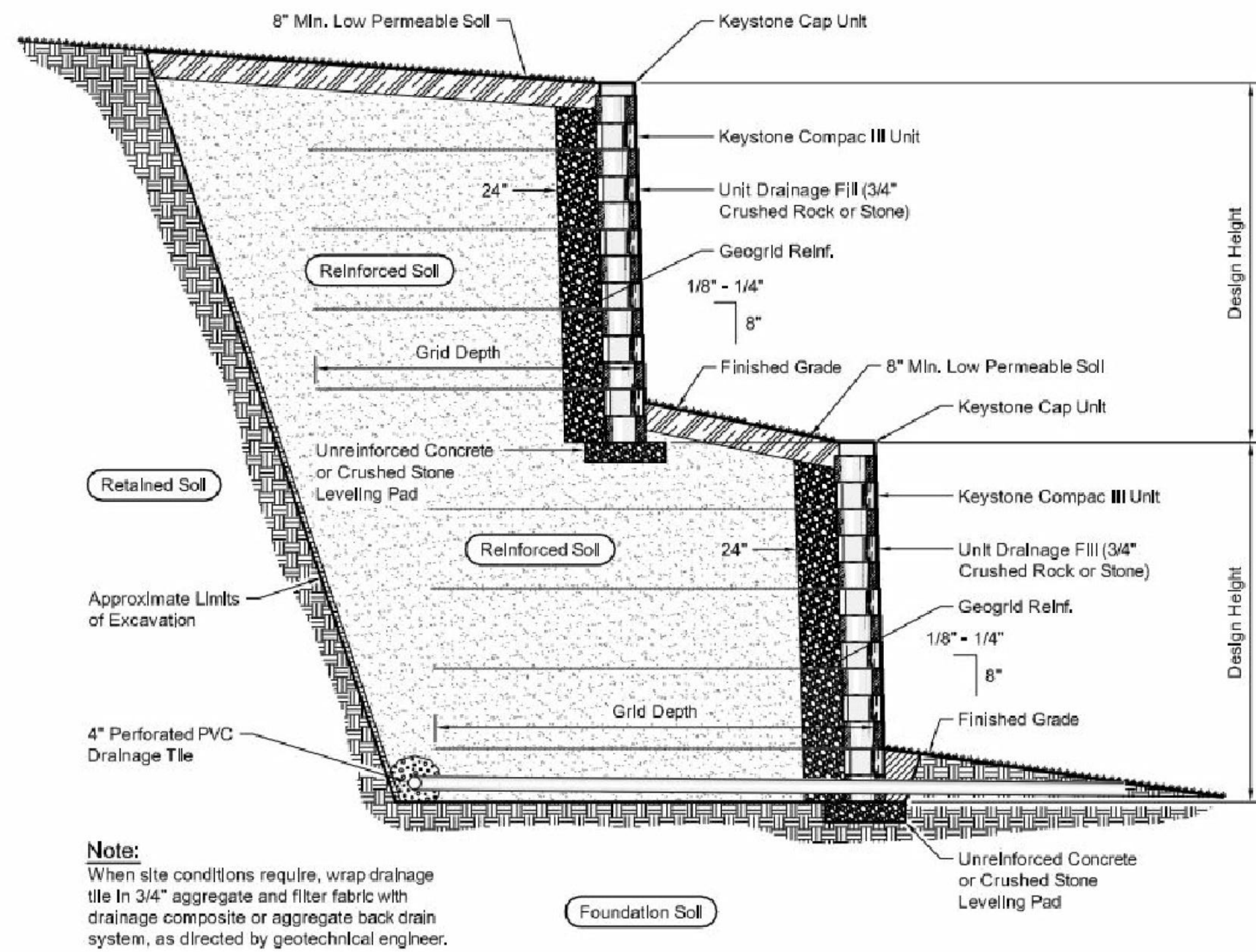


4 SANITARY CLEANOUT  
C6.2 NOT TO SCALE

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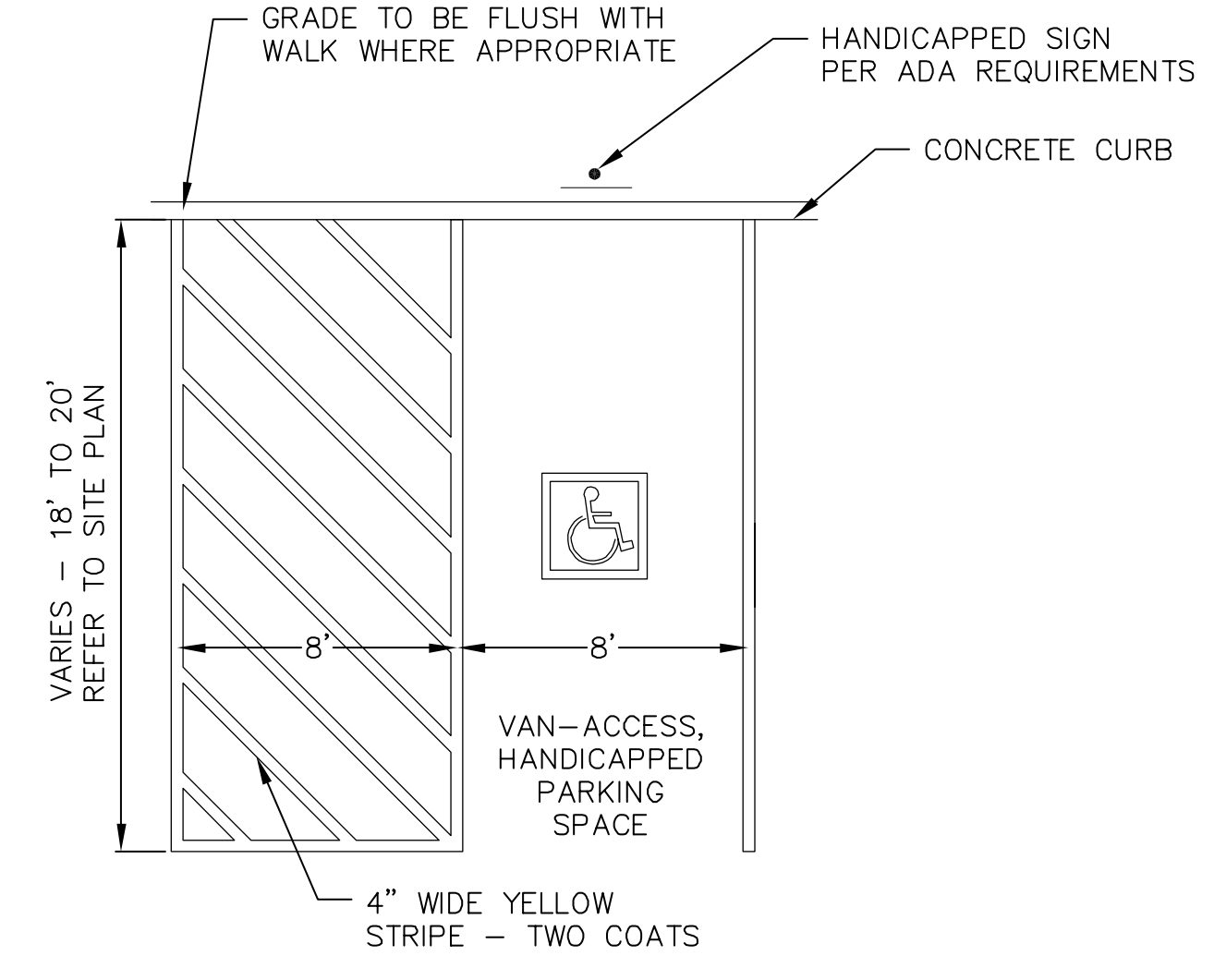
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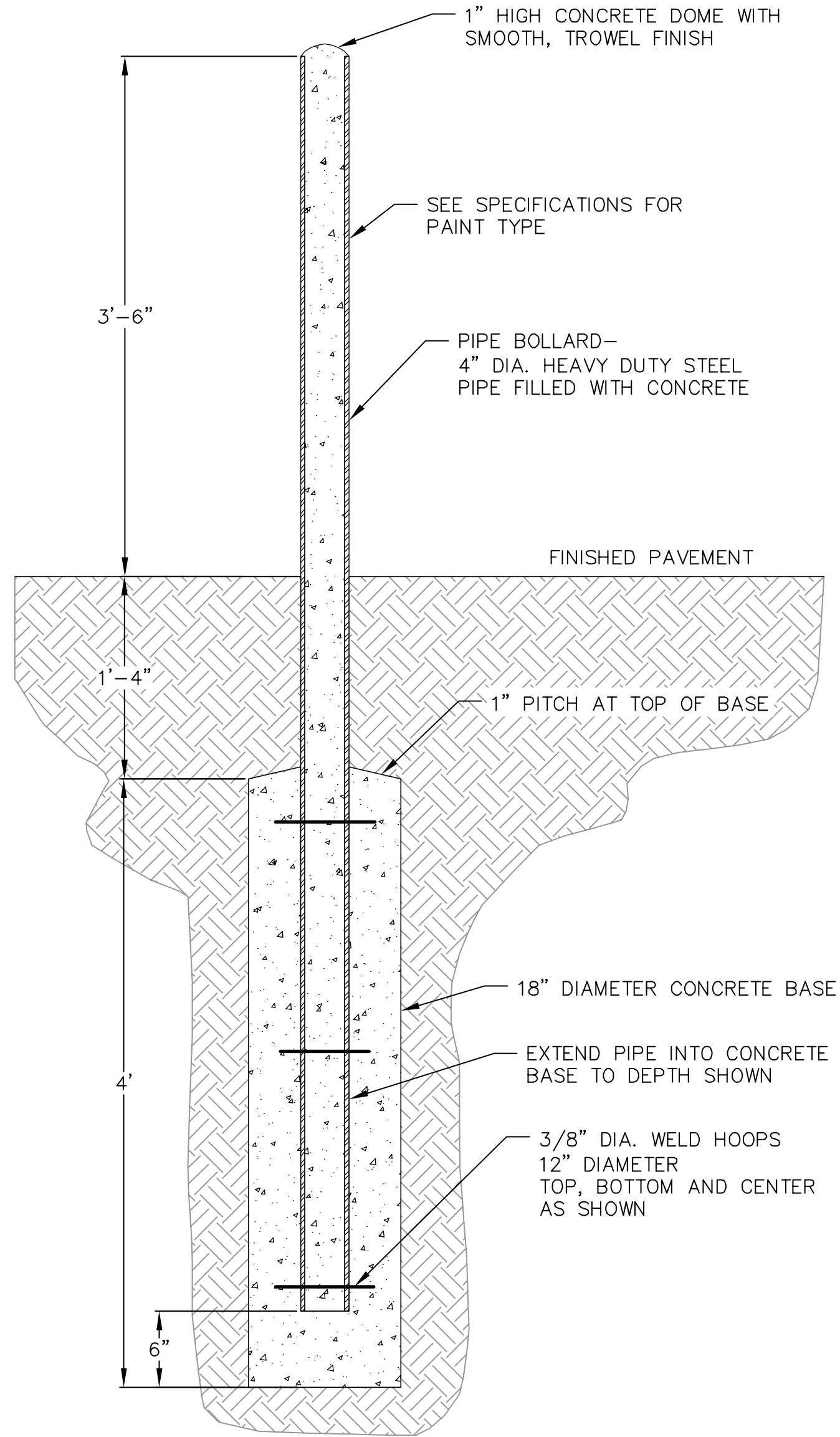


**1** KEYSTONE RETAINING WALL SYSTEM  
**C6.3** NOT TO SCALE

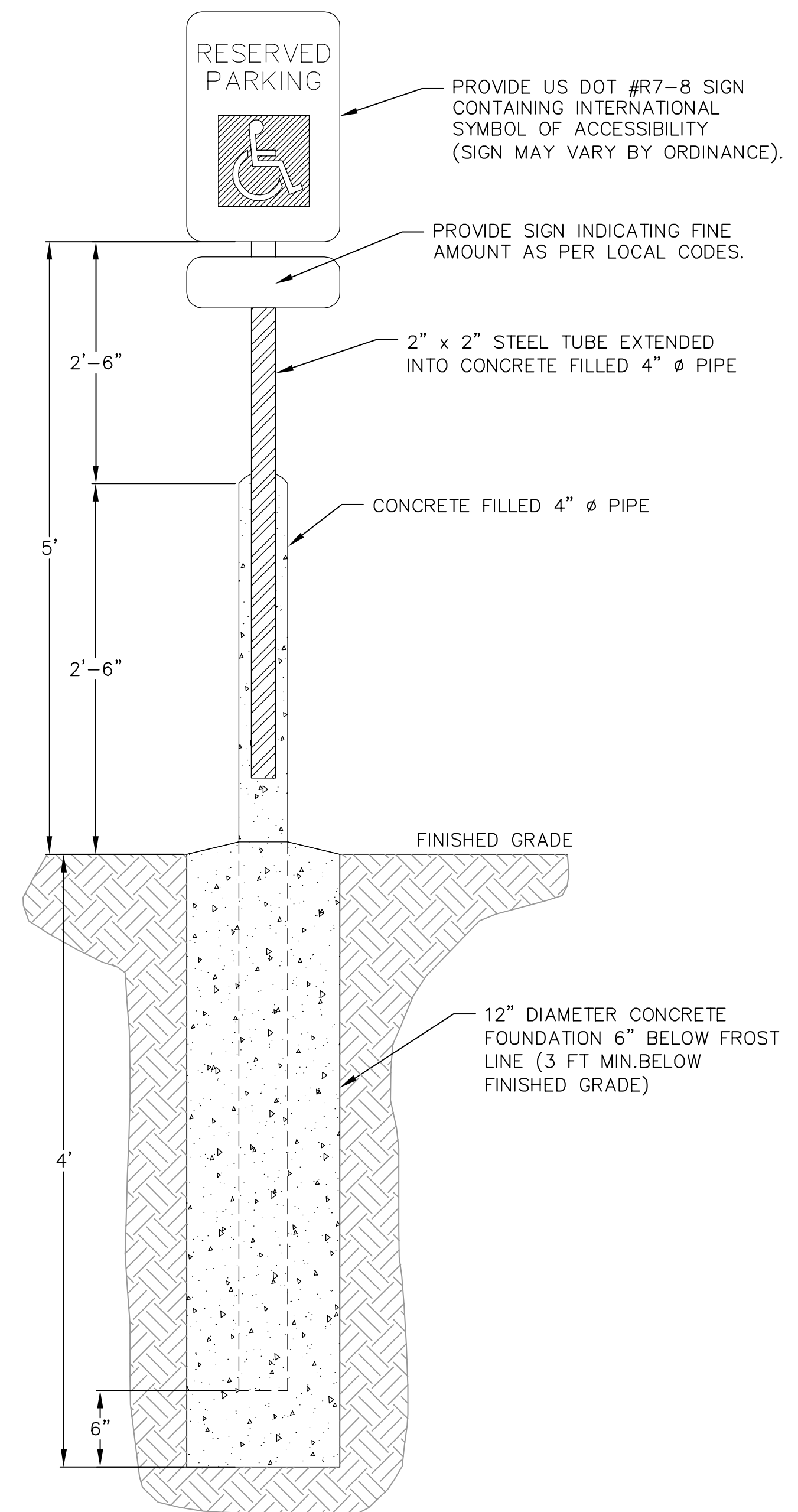
**Note:**  
 When site conditions require, wrap drainage tile in 3/4" aggregate and filter fabric with drainage composite or aggregate back drain system, as directed by geotechnical engineer.



**2** HANDICAP STRIPING  
**C6.3** NOT TO SCALE



**1** PIPE BOLLARD  
**1** NOT TO SCALE



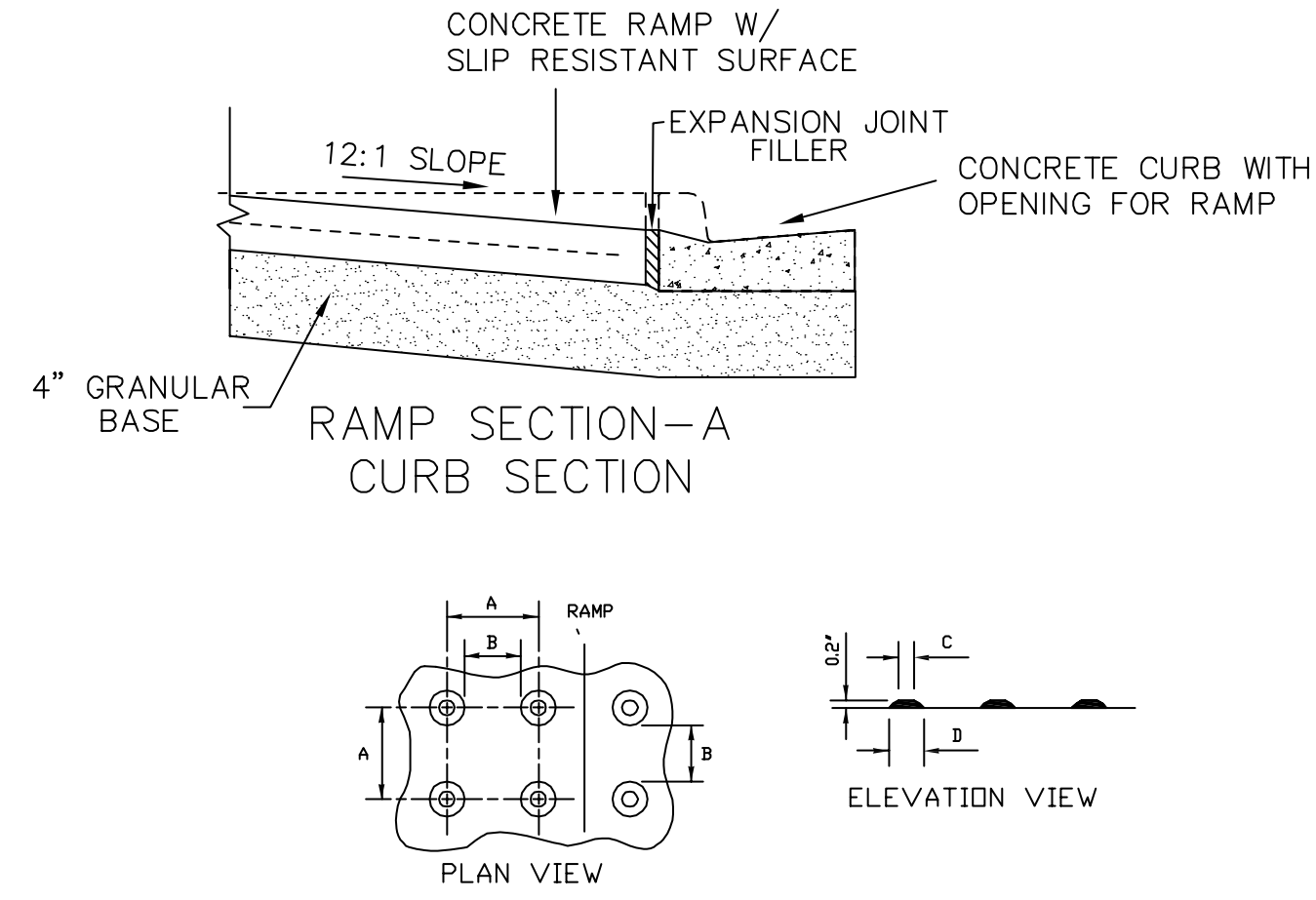
**3** HANDICAP PARKING SIGN  
**C6.3** NOT TO SCALE

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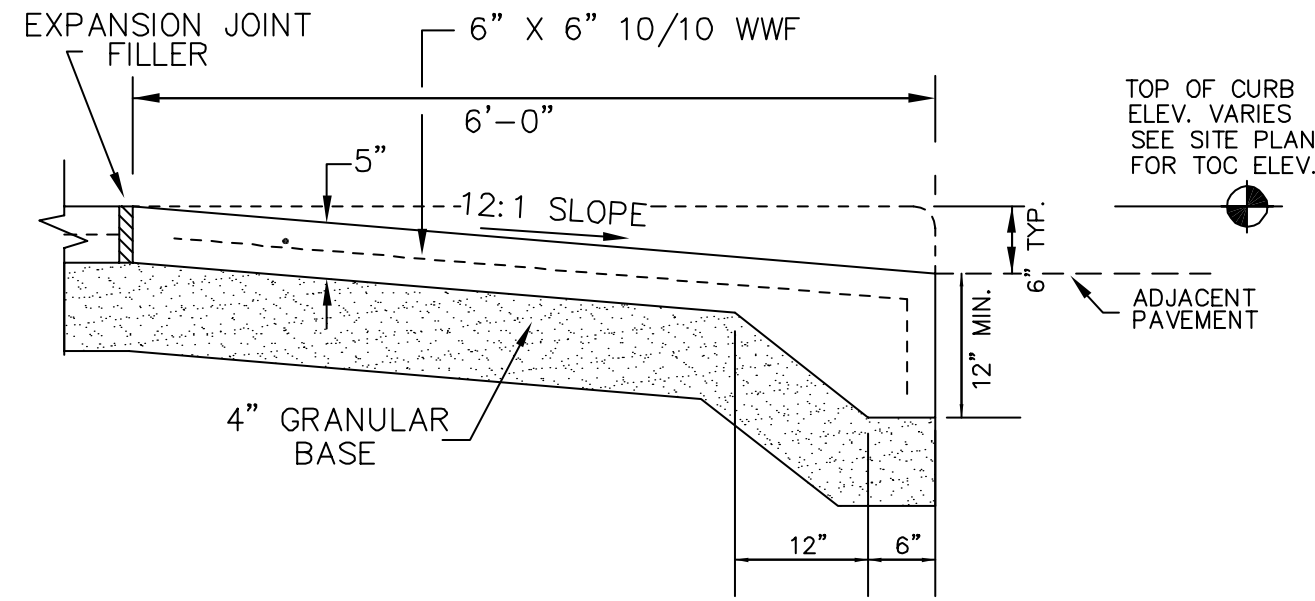
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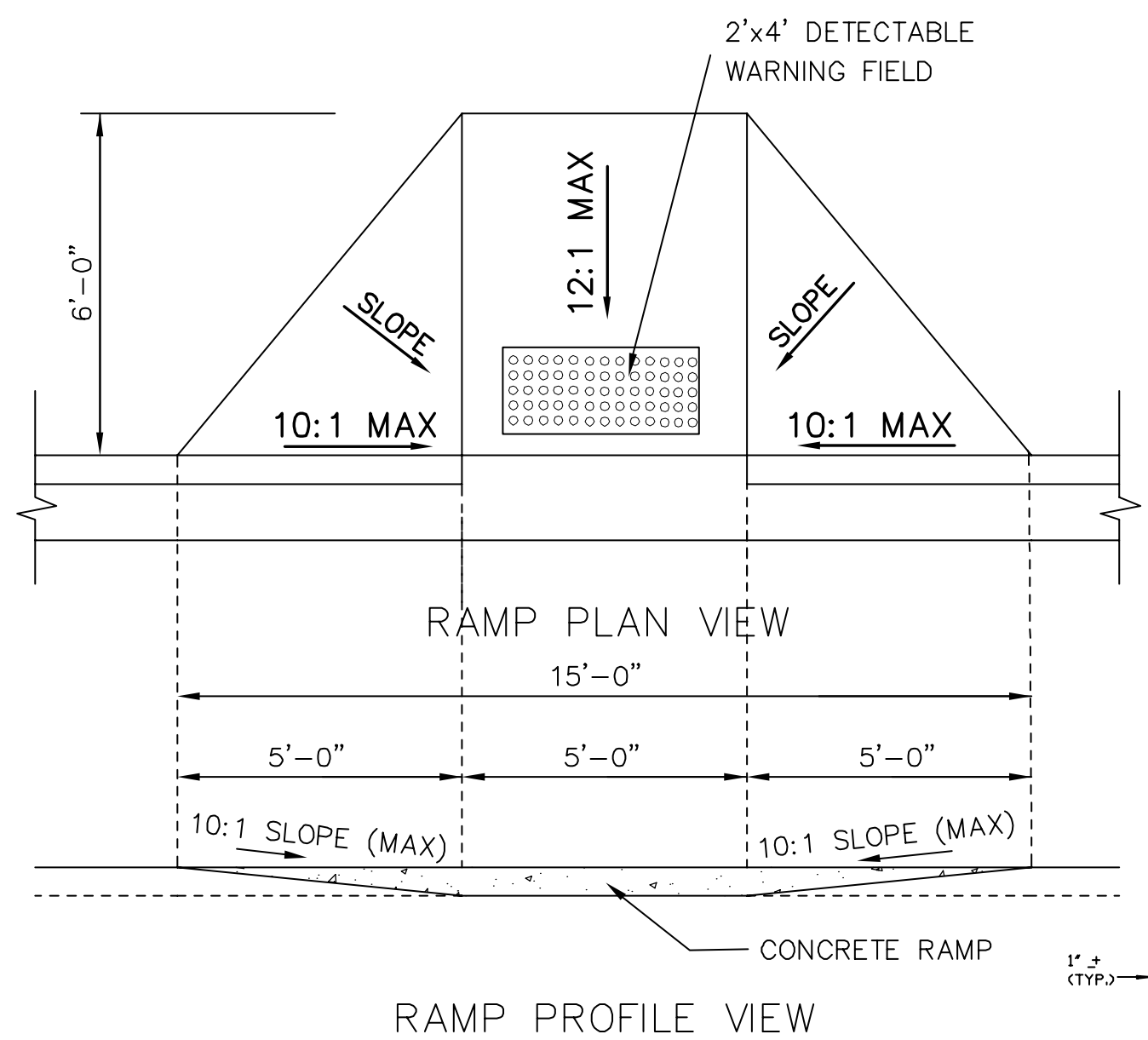


TRUNCATED DOMES  
DETECTABLE WARNING  
PATTERN DETAIL

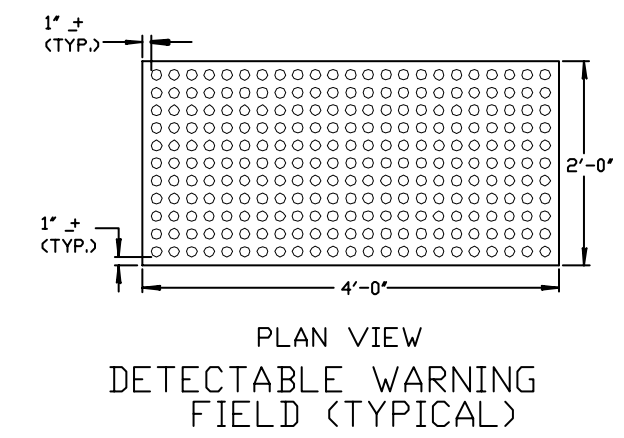
NOTE: 1) MATERIALS AND METHOD OF CONSTRUCTION FOR TRUNCATED DOMES SHALL BE SPECIFIED IN SPECIAL PROVISIONS OR AS REQUIRED BY THE VILLAGE ENGINEER  
2) COLOR SHALL BE A DISSIMILAR COLOR FROM THE ADJACENT PAVED SURFACE AND APPROVED BY THE OWNER AND ENGINEER



1 SIDEWALK/CURB RAMP DETAIL  
CS.4 NOT TO SCALE



GENERAL NOTES  
RAMP SHALL BE BUILT AT 12:1 OR FLATTER.  
WHEN NECESSARY, THE SIDEWALK ELEVATION  
MAY BE LOWERED TO MEET THE HIGH POINT  
ON THE RAMP.



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ADVANCED DRAINAGE SYSTEMS, INC.



# Redmond-Fields Volvo Waukesha

## STORMWATER CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH MC-4500 OR APPROVED EQUAL.
2. CHAMBERS SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
4. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
5. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
6. CHAMBERS SHALL BE DESIGNED AND ALLOWABLE LOADS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
7. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. THE CHAMBER MANUFACTURER SHALL SUBMIT THE FOLLOWING UPON REQUEST TO THE SITE DESIGN ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
  - a. A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY AASHTO FOR THERMOPLASTIC PIPE.
  - b. A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET. THE 50 YEAR CREEP MODULUS DATA SPECIFIED IN ASTM F2418 MUST BE USED AS PART OF THE AASHTO STRUCTURAL EVALUATION TO VERIFY LONG-TERM PERFORMANCE.
  - c. STRUCTURAL CROSS SECTION DETAIL ON WHICH THE STRUCTURAL EVALUATION IS BASED.
8. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

## IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-4500 CHAMBER SYSTEM

1. STORMTECH MC-4500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH MC-4500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR EXCAVATOR SITUATED OVER THE CHAMBERS.  
STORMTECH RECOMMENDS 3 BACKFILL METHODS:
  - STONESHOOTER LOCATED OFF THE CHAMBER BED.
  - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
  - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 9" (230 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
8. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm) MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
9. STONE SHALL BE BROUGHT UP EVENLY AROUND CHAMBERS SO AS NOT TO DISTORT THE CHAMBER SHAPE. STONE DEPTHS SHOULD NEVER DIFFER BY MORE THAN 12" (300 mm) BETWEEN ADJACENT CHAMBER ROWS.
10. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
11. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

## NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH MC-4500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
2. THE USE OF EQUIPMENT OVER MC-4500 CHAMBERS IS LIMITED:
  - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
  - NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
  - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

**USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.**

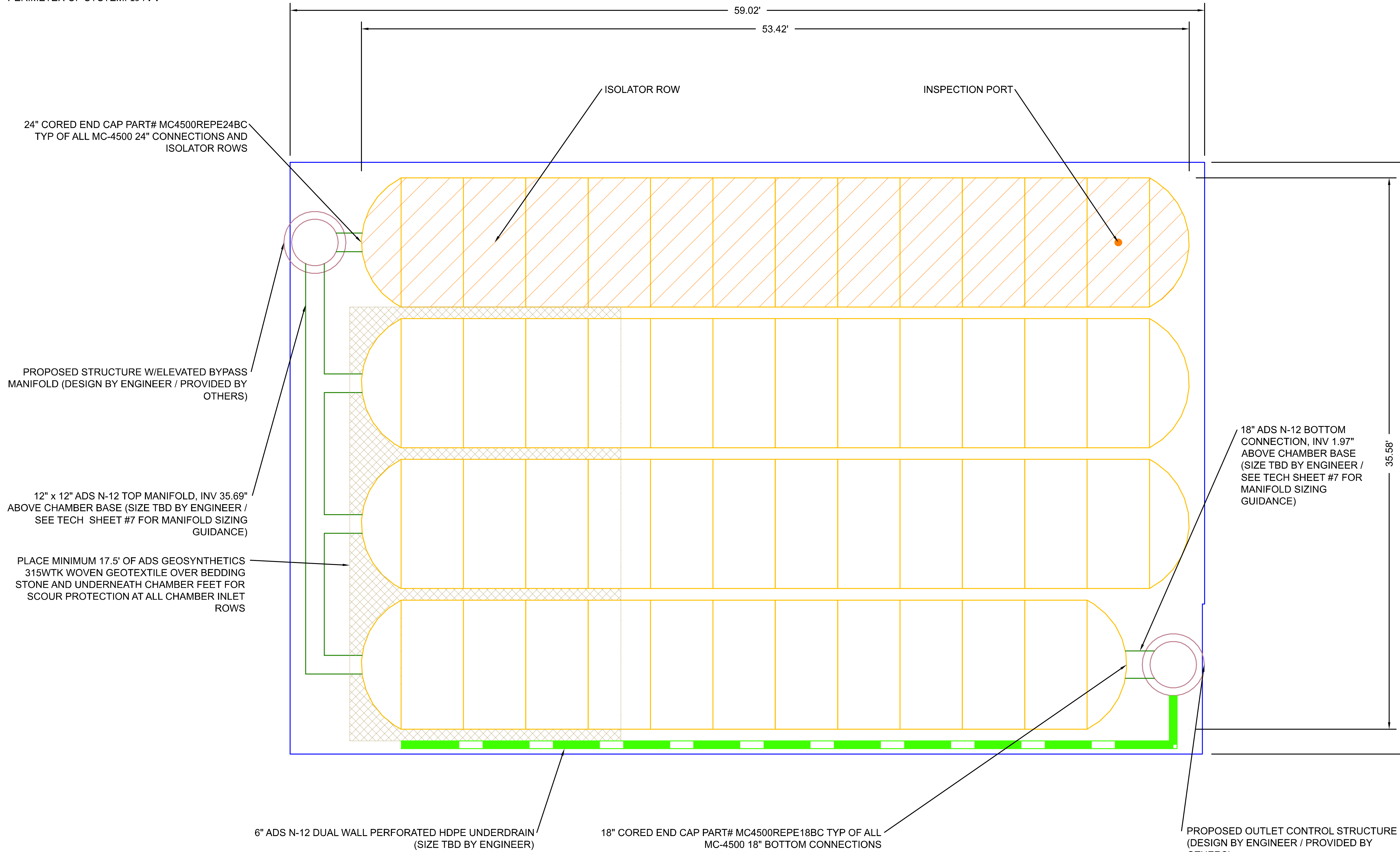
CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.



**CONCEPTUAL LAYOUT**

(47) STORMTECH MC-4500 CHAMBERS  
 (8) STORMTECH MC-4500 END CAPS  
 INSTALLED WITH 12" COVER STONE, 9" BASE STONE, 40% STONE VOID  
**INSTALLED SYSTEM VOLUME: 8511 CF**  
 AREA OF SYSTEM: 2252 FT<sup>2</sup>  
 PERIMETER OF SYSTEM: 194 FT

**COMPUTER GENERATED CONCEPTUAL LAYOUT - NOT FOR CONSTRUCTION**



Redmond-Fields Volvo Waukesha		DATE: 01/03/2017	DRAWN: JB
PROJECT #: Tool		CHECKED: ---	
REV	DRW	CHK	DESCRIPTION

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 70 INWOOD ROAD, SUITE 3 | ROCKY HILL, CT | 06067  
 860-529-8188 | 888-892-2894 | WWW.STORMTECH.COM

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 HILLIARD, OH 43026  
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**ADS**  
 ADVANCED DRAINAGE SYSTEMS, INC.

**NOT TO SCALE**

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SHEET  
**2 OF 6**

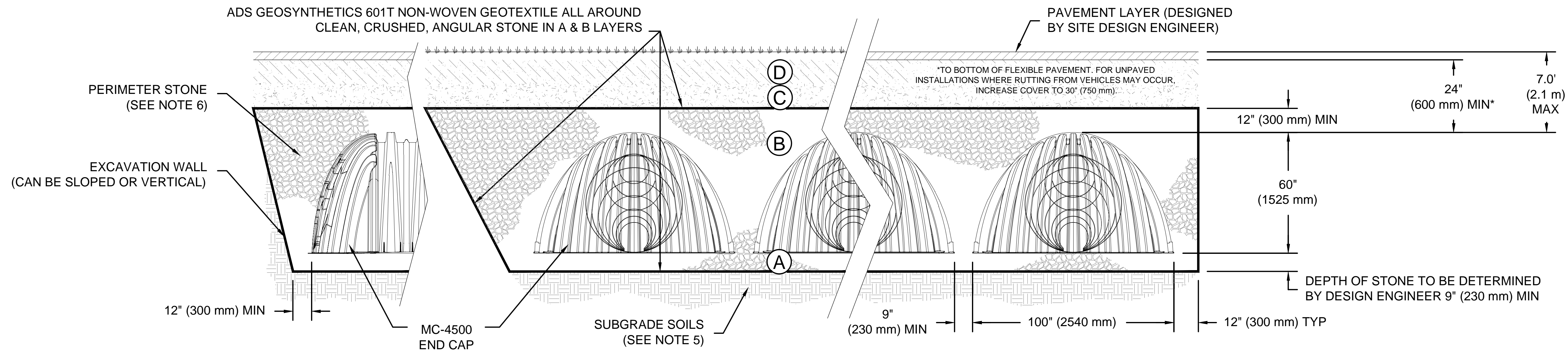


## ACCEPTABLE FILL MATERIALS: STORMTECH MC-4500 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	<b>FINAL FILL:</b> FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	<b>INITIAL FILL:</b> FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE.  MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 <sup>1</sup> A-1, A-2-4, A-3  OR  AASHTO M43 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	<b>EMBEDMENT STONE:</b> FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43 <sup>1</sup> 3, 4	NO COMPACTION REQUIRED.
A	<b>FOUNDATION STONE:</b> FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4-2 INCH (20-50 mm)	AASHTO M43 <sup>1</sup> 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. <sup>2 3</sup>

**PLEASE NOTE:**

1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



**NOTES:**

1. MC-4500 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. MC-4500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
4. THE "SITE DESIGN ENGINEER" REFERS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN AND LAYOUT OF THE STORMTECH CHAMBERS FOR THIS PROJECT.
5. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
6. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
7. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

Redmond-Fields Volvo  
Waukesha

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3 OF 6

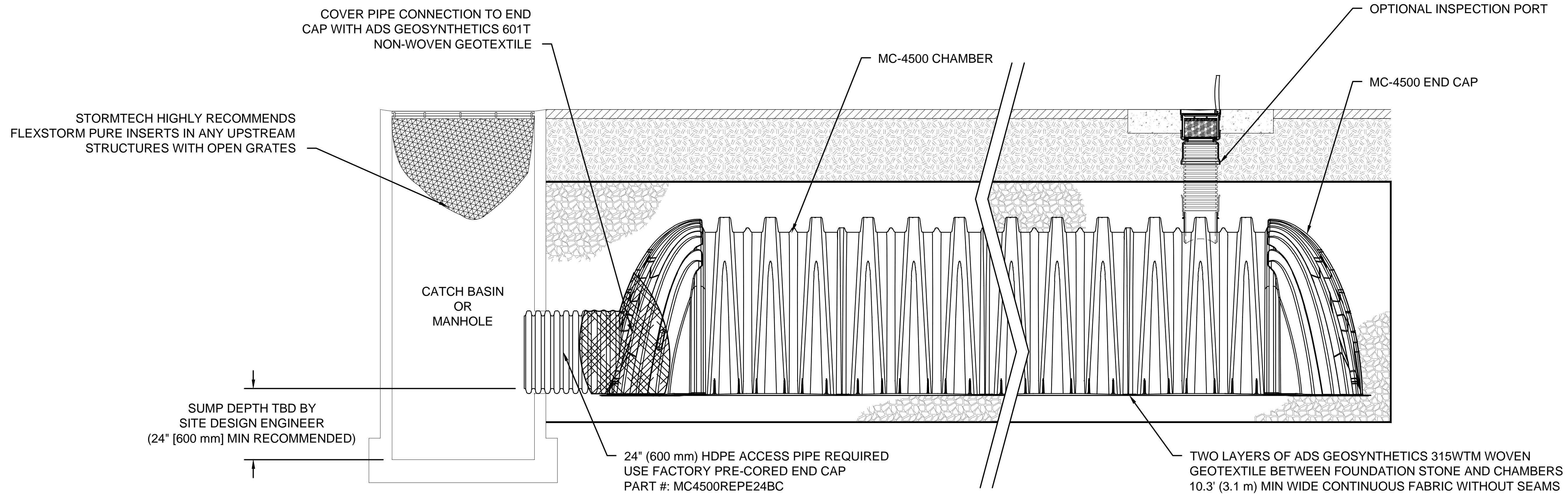


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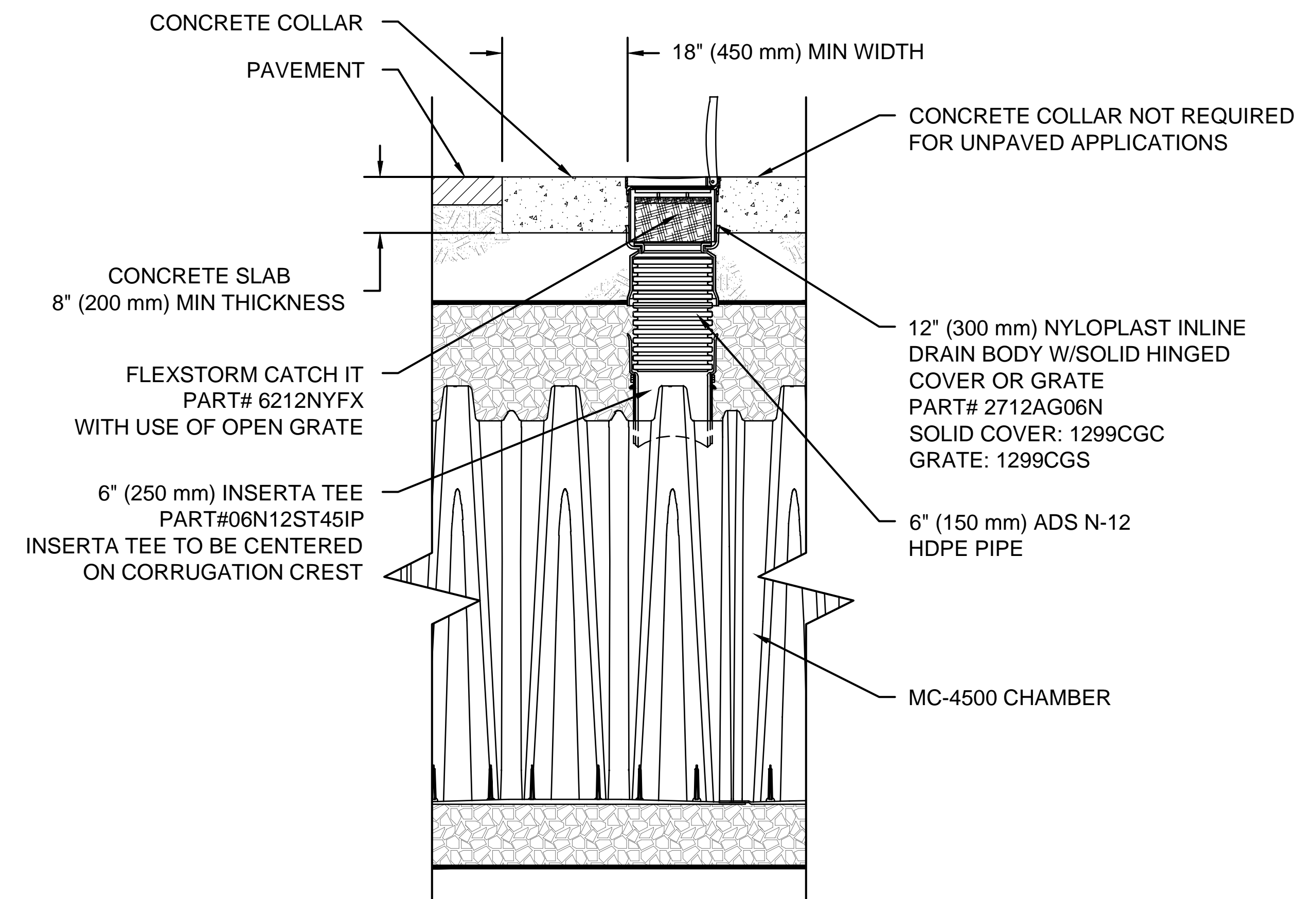
**MC-4500 ISOLATOR ROW DETAIL**  
NTS

**INSPECTION & MAINTENANCE**

- STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
  - A. INSPECTION PORTS (IF PRESENT)
    - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
    - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
    - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
    - A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
    - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
  - B. ALL ISOLATOR ROWS
    - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
    - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
      - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
      - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
    - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
  - A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
  - B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
  - C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

**NOTES**

- 1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- 2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



**MC-4500 6" INSPECTION PORT DETAIL**  
NTS

REV    DRW    CHK    DESCRIPTION

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PROJECT #:	Tool	CHECKED:	---

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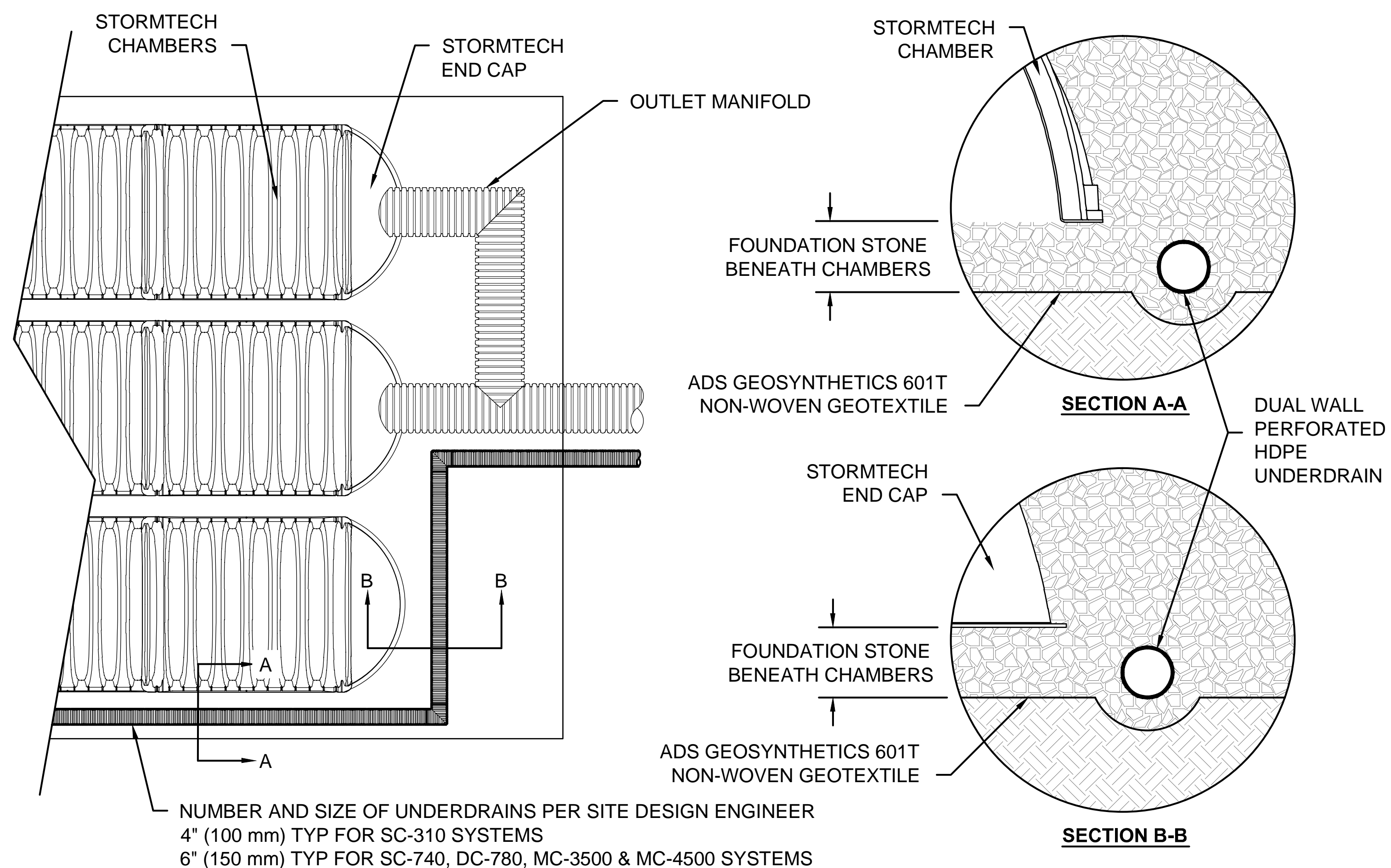


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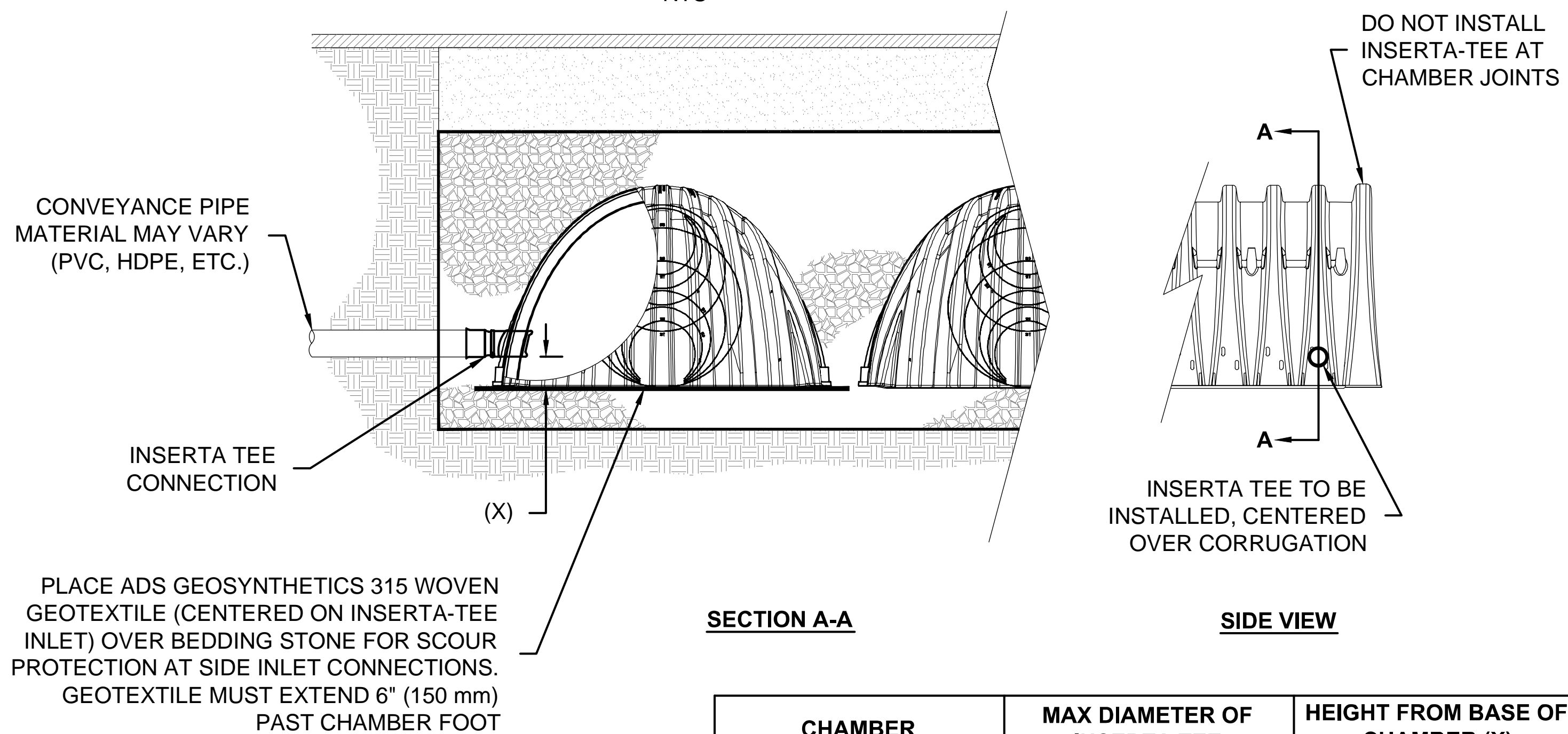
**UNDERDRAIN DETAIL**

NTS



**INSERTA TEE DETAIL**

NTS



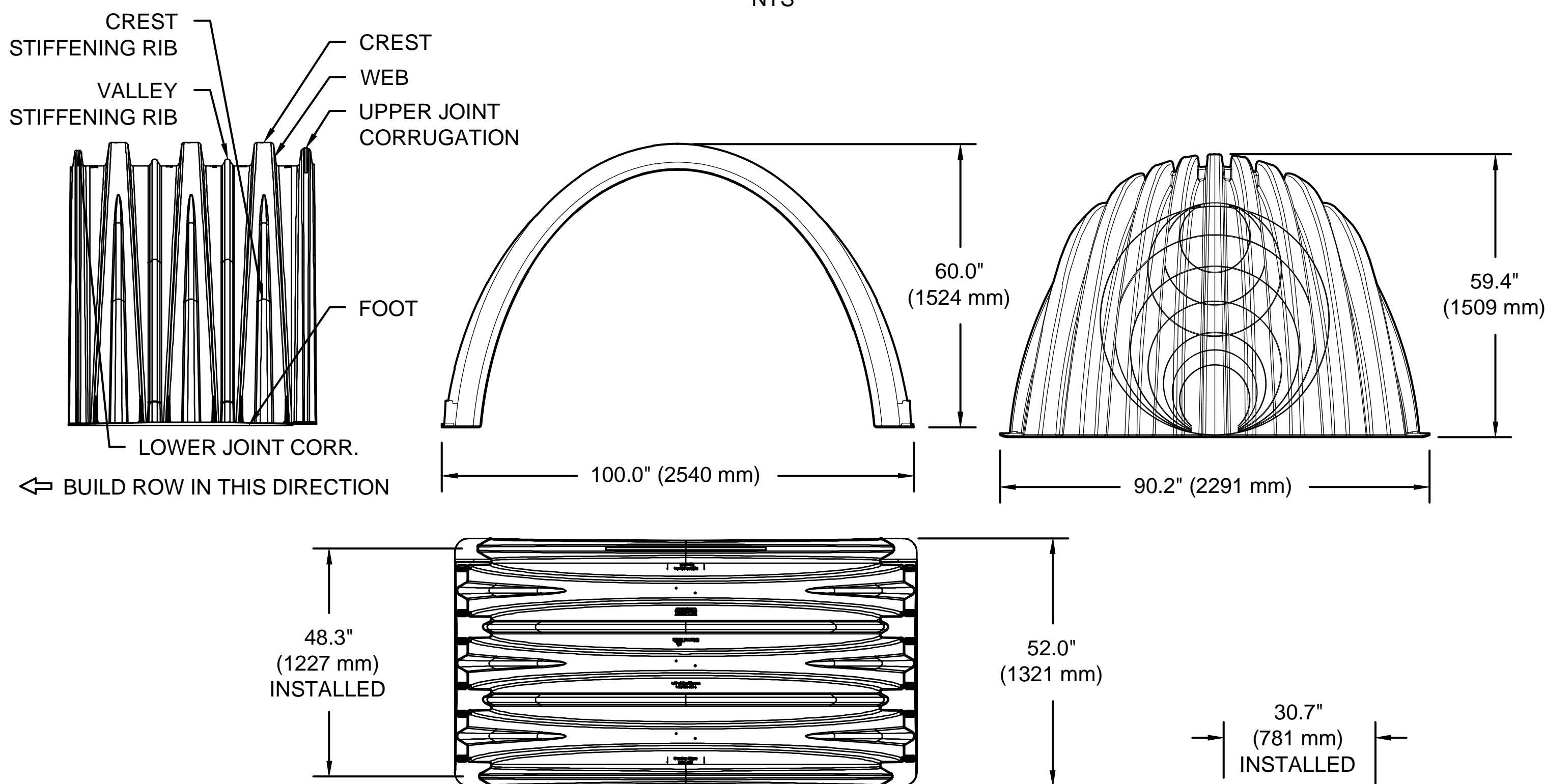
CHAMBER	MAX DIAMETER OF INSERTA TEE	HEIGHT FROM BASE OF CHAMBER (X)
SC-310	6" (150 mm)	4" (100 mm)
SC-740	10" (250 mm)	4" (100 mm)
DC-780	10" (250 mm)	4" (100 mm)
MC-3500	12" (300 mm)	6" (150 mm)
MC-4500	12" (300 mm)	8" (200 mm)

INSERTA TEE FITTINGS AVAILABLE FOR SDR 26, SDR 35, SCH 40 IPS GASKETED & SOLVENT WELD, N-12, HP STORM, C-900 OR DUCTILE IRON

**NOTE:**  
 PART NUMBERS WILL VARY BASED ON INLET PIPE MATERIALS. CONTACT STORMTECH FOR MORE INFORMATION.

**MC-4500 TECHNICAL SPECIFICATION**

NTS



**NOMINAL CHAMBER SPECIFICATIONS**

SIZE (W X H X INSTALLED LENGTH)	100.0" X 60.0" X 48.3"	(2540 mm X 1524 mm X 1227 mm)
CHAMBER STORAGE	106.5 CUBIC FEET	(3.01 m <sup>3</sup> )
MINIMUM INSTALLED STORAGE*	162.6 CUBIC FEET	(4.60 m <sup>3</sup> )
WEIGHT	130.0 lbs.	(59.0 kg)

**NOMINAL END CAP SPECIFICATIONS**

SIZE (W X H X INSTALLED LENGTH)	90.2" X 59.4" X 30.7"	(2291 mm X 1509 mm X 781 mm)
END CAP STORAGE	35.7 CUBIC FEET	(1.01 m <sup>3</sup> )
MINIMUM INSTALLED STORAGE*	108.7 CUBIC FEET	(3.08 m <sup>3</sup> )
WEIGHT	135.0 lbs.	(61.2 kg)

\*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION AND BETWEEN CHAMBERS, 12" (305 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"  
 STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

PART #	STUB	B	C
MC4500REPE06T	6" (150 mm)	42.54" (1.081 m)	---
MC4500REPE06B	---	---	0.86" (22 mm)
MC4500REPE08T	8" (200 mm)	40.50" (1.029 m)	---
MC4500REPE08B	---	---	1.01" (26 mm)
MC4500REPE10T	10" (250 mm)	38.37" (975 mm)	---
MC4500REPE10B	---	---	1.33" (34 mm)
MC4500REPE12T	12" (300 mm)	35.69" (907 mm)	---
MC4500REPE12B	---	---	1.55" (39 mm)
MC4500REPE15T	15" (375 mm)	32.72" (831 mm)	---
MC4500REPE15B	---	---	1.70" (43 mm)
MC4500REPE18TC	18" (450 mm)	29.36" (746 mm)	---
MC4500REPE18BC	---	---	1.97" (50 mm)
MC4500REPE24TC	24" (600 mm)	23.05" (585 mm)	---
MC4500REPE24BC	---	---	2.26" (57 mm)
MC4500REPE30BC	30" (750 mm)	---	2.95" (75 mm)
MC4500REPE36BC	36" (900 mm)	---	3.25" (83 mm)
MC4500REPE42BC	42" (1050 mm)	---	3.55" (90 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL

CUSTOM PRECURED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-4500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm) THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

Redmond-Fields Volvo  
 Waukesha

DATE: 01/03/2017  
 DRAWN: JB  
 PROJECT #: Tool  
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DESCRIPTION

REV

DRW

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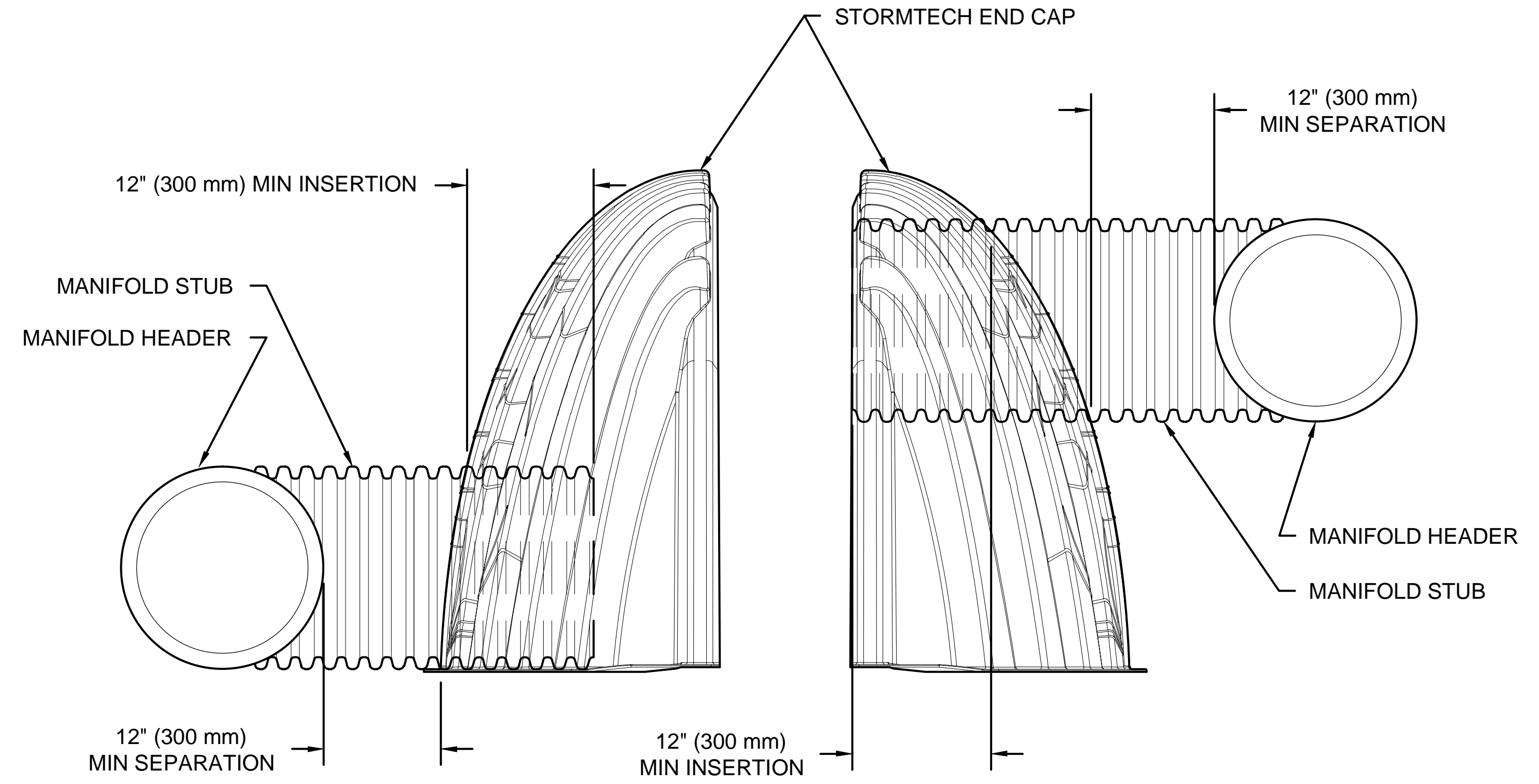
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 5 OF 6

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**MC-SERIES END CAP INSERTION DETAIL**

NTS



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

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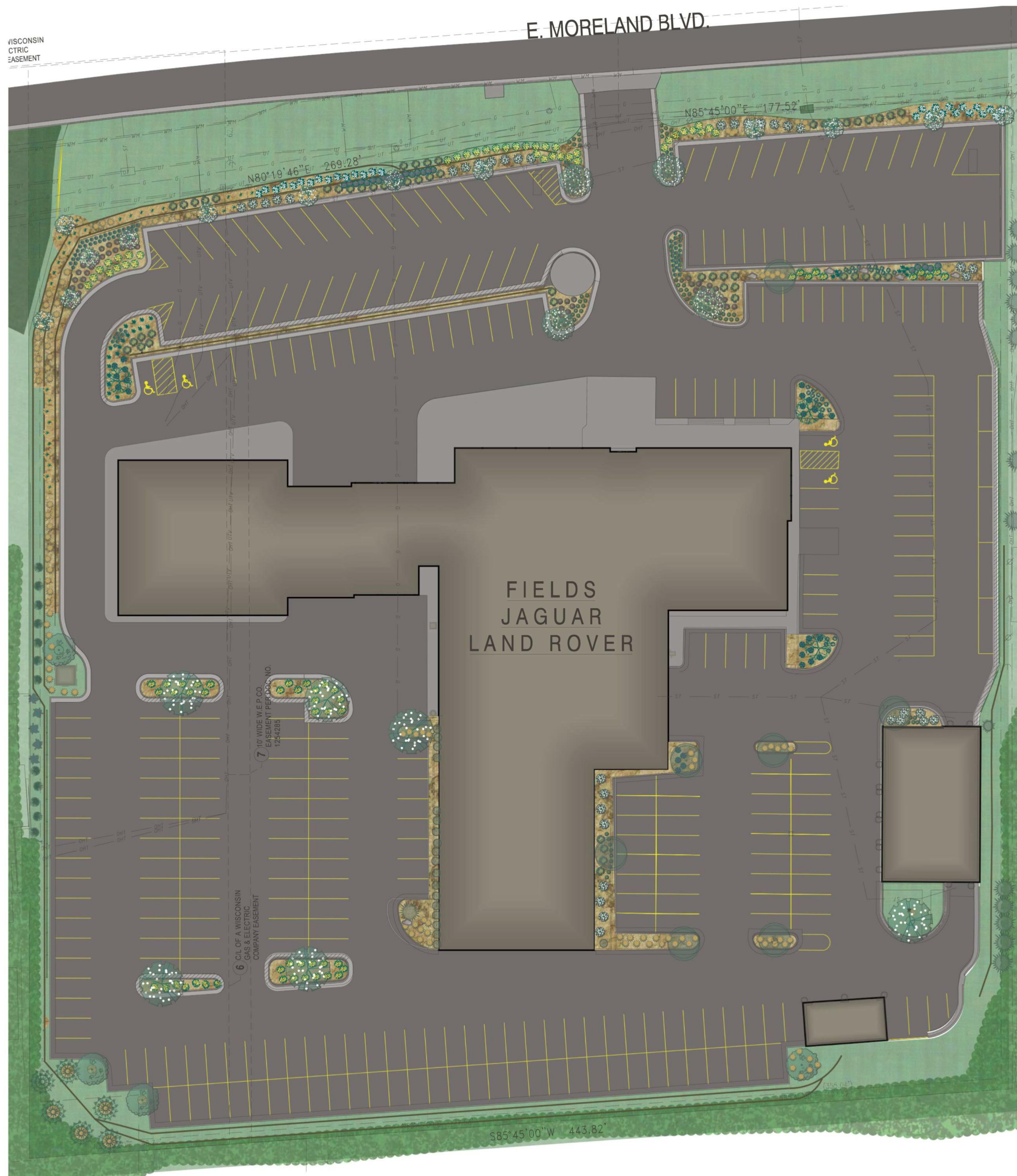
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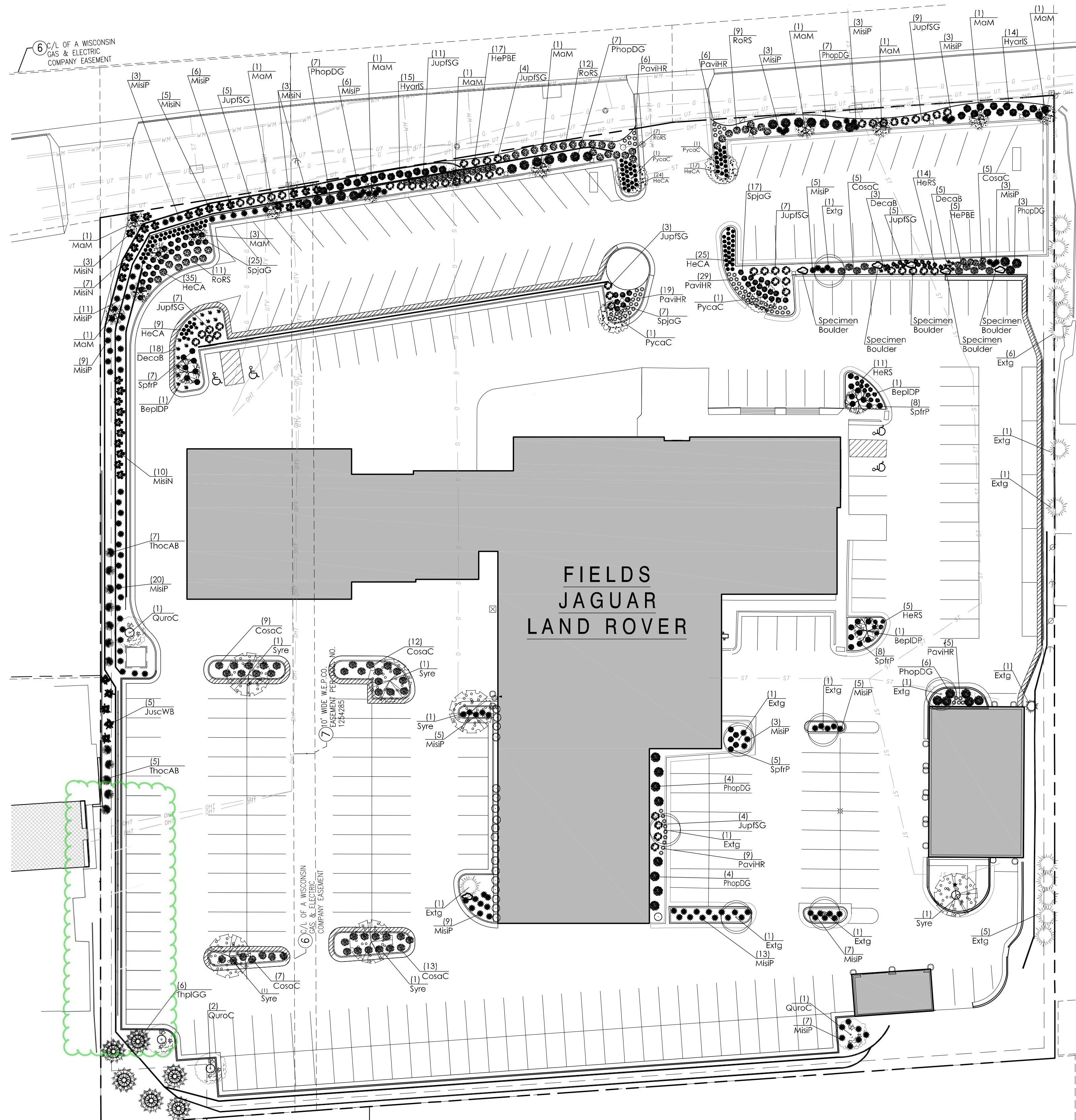
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Waukesha

DATE: 01/03/2017  
DRAWN: JB  
PROJECT #: Tool  
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1 PROPOSED LANDSCAPE PLAN

LANDSCAPE PLAN GENERAL NOTES

- \*\* PLANT MATERIAL SHOWN ON LANDSCAPE PLAN IS DEPICTED AT MATURE GROWTH. \*\*
- AT LEAST SEVENTY-TWO HOURS PRIOR TO ANY EXCAVATION, CONTRACTOR SHALL VERIFY UTILITY LOCATIONS AS GIVEN BY THE ELECTRIC, GAS, TELEPHONE, WATER, SEWER, AND CABLE TELEVISION COMPANIES, UTILITIES OR ENTITIES. REVIEW WITH OWNER'S REPRESENTATIVE SITE MECHANICAL, SITE ELECTRICAL AND LIGHTING, SITE GRADING AND DRAINAGE, SITE IRRIGATION AND ALL OTHER DRAWINGS PERTAINING TO UNDERGROUND UTILITY LOCATIONS, RECORD SET OF INFORMATION THE SAME AS IN POSSESSION OF OWNER'S REPRESENTATIVE. ALSO REVIEW OWNER'S 'MARK SETS' OF ALL OF THESE DRAWINGS IN POSSESSION OF THE CONTRACTOR OR OWNER. MARK ALL SUCH UTILITIES ON THE SITE PRIOR TO COMMENCING. COORDINATE WITH OWNER BEFORE AND DURING CONSTRUCTION. REPAIR ANY DAMAGE TO ANY SYSTEM THAT IS CAUSED BY LANDSCAPE CONTRACTOR AT NO COST TO OWNER.
  - ALL PLANTINGS SPECIFIED FOR THE FIELDS JAGUAR LAND ROVER PROJECT PLANTING TABLESHEET LSP1.1 SHALL COMPLY WITH STANDARDS AS DESCRIBED IN AMERICAN STANDARD OF NURSERY SHEET ANSI Z60.1 2014 AND ANSI STANDARDS FOR PLANTING 2012.
  - DEVIATIONS FROM THE APPROVED FIELDS JAGUAR LAND ROVER PROJECT PLANS SHALL BE NOTED ON THE RECORD DRAWING BY THE CONTRACTOR AND ONLY WITH PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE. VERBAL AGREEMENTS OR REVISIONS WITHOUT A CHANGE ORDER WILL NOT BE RECOGNIZED BY LANDSCAPE ARCHITECT AND OWNER.
  - ALL PLANTS MUST BE BID AND SELECTED PER THE SPECIES SPECIFIED ON THE PLANS. THE SIZES OF PLANT MATERIAL LISTED HEREIN IS A MINIMUM ACCEPTABLE SIZE. ADDITIONALLY, IF EXCESSIVE PRUNING REDUCES THE CROWN THE PLANT SHALL BE REPLACED.
  - PROTECT PUBLIC FROM CONSTRUCTION WITH BARRIERS AND BARRICADES.
  - ALL AREAS THAT WERE DISTURBED DURING CONSTRUCTION AND AREAS NOT COVERED WITH PAVEMENT, BUILDING, PLANTING BEDS, OR TREE PITS ARE TO BE TOPSOILED 3" DEEP (MIN.) AND SHALL BE SODDED/SEEDED WITH SPECIFIED LAWN GRASS. LANDSCAPE CONTRACTOR SHALL INCLUDE COST PER SQUARE YARD FOR ADDITIONAL SEED OPERATIONS AS MAY BE POSSIBLY REQUIRED TO REESTABLISH ADJACENT TURF GRASS AREAS WHICH MAY BECOME DAMAGED DURING THE CONSTRUCTION PROCESS OR TO REPAIR DAMAGE DONE BY OTHERS.

- CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL MATERIALS, TOOLS, EQUIPMENT, LABOR, AND PLANTS NECESSARY FOR PROPER PLANTING AND INSTALLATION OF ALL LANDSCAPE MATERIAL.
  - QUANTITIES ON PLANT MATERIALS LIST ARE FOR CONVENIENCE OF BIDDING ONLY. CONTRACTOR IS RESPONSIBLE FOR ALL PLANTS SHOWN ON LANDSCAPE PLANS AND COVERAGE OF ALL AREAS DELINEATED. THE PLANS ARE TO SUPERSERVE THE PLANT LIST IN ALL CASES.
  - CONTRACTOR IS RESPONSIBLE FOR ALL ESTIMATING AND BIDDING, ALL AREAS, QUANTITIES MATERIALS SHOULD BE FIELD VERIFIED WITH SITE CONDITIONS.
  - WHERE DISCREPANCIES OCCUR BETWEEN THE LANDSCAPE PLANS AND/OR ARCHITECTURAL AND/OR THE CIVIL DRAWINGS (AND ANY OTHER SITE DRAWINGS) THE DISCREPANCIES MUST BE BROUGHT TO THE LANDSCAPE ARCHITECTS ATTENTION FOR COORDINATION AND RESOLUTION.
  - ALL DISEASED, NOXIOUS OR INAPPROPRIATE MATERIALS SHALL BE REMOVED FROM THE PROPOSED SITE PRIOR TO THE START OF CONSTRUCTION AND DURING THE MAINTENANCE PERIOD.
  - GENERAL CONTRACTOR SHALL LEAVE THE SITE FREE OF CONSTRUCTION DEBRIS.
  - ALL LAWN AND PLANTING AREAS SHALL SLOPE TO DRAIN A MINIMUM OF 2% UNLESS NOTED OTHERWISE AND REVIEWED WITH OWNER'S REPRESENTATIVE FOR FINAL APPROVAL.
  - FINISH GRADES FOR SHRUB AND GROUND COVER AREAS SHALL BE HELD 1" BELOW TOP OF ADJACENT PAVEMENTS AND CURBS, UNLESS NOTED OTHERWISE ON THE PLANS. REFER TO LSP1.2 FOR FURTHER INFORMATION.
  - ALL PERENNIAL, ANNUAL AND GROUND COVER AREAS TO RECEIVE A BLEND OF ORGANIC SOIL AMENDMENTS PRIOR TO PLANTING. TILL THE FOLLOWING MATERIALS INTO EXISTING TOPSOIL TO A DEPTH OF APPROXIMATELY 8". A DEPTH OF 12" IN TREE PITS. PROPORTIONS AND QUANTITIES MAY REQUIRE ADJUSTMENT DEPENDING ON THE CONDITION OF EXISTING SOIL. REFER TO LSP1.2 FOR FURTHER INFORMATION.
- PER EVERY 100 SQUARE FEET ADD:  
 ONE - 2 CUBIC FOOT BALE OF PEAT MOSS, 2 POUNDS OF 5-10-5 GARDEN FERTILIZER, 1/4 CUBIC YARD OF COMPOSTED MANURE OR OTHER COMPOSTED, ORGANIC MATERIAL

- ALL SHRUBS TO BE POCKET PLANTED WITH A 50/50 MIX OF COMPOSTED, ORGANIC MATERIAL AND EXCESSIVE GRAVEL, CLAY AND STONES. REFER TO LSP1.2 FOR FURTHER INFORMATION.
- PLANT ALL TREES SLIGHTLY HIGHER THAN FINISHED GRADE AT ROOT FLARE. BACK FILL HOLE WITH 2/3 EXISTING TOPSOIL AND ORGANIC SOIL AMENDMENTS SPECIFIED IN NOTE 15. AVOID ANY AIR POCKETS. DISCARD ANY GRAVEL CLAY OR STONES. REFER TO LSP1.2 FOR FURTHER INFORMATION.
- ALL TREES TO BE INSTALLED, STAKED AND GUYED ACCORDING TO DETAILS. REFER TO ANSI STANDARDS FOR PLANTING 2012 AND DETAILS ON LSP1.2 FOR FURTHER INFORMATION.
- PROVIDE A 4'-0" - 5'-0" DIAMETER MULCH RING ALL LAWN TREES.
- ALL PLANTINGS TO BE WATERED AT THE TIME OF PLANTING, THROUGHOUT CONSTRUCTION AND UPON COMPLETION OF PROJECT AS REQUIRED.
- WHERE SPECIFIED, ALL PLANT BEDS, PITS AND TREE RINGS ARE TO RECEIVE A MINIMUM OF 2"-3" DRESSING OF SHREDDED HARDWOOD OAK BARK MULCH SHAVINGS FREE OF GROWTH, WEEDS, FOREIGN MATTER DETRIMENTAL TO PLANT LIFE OR GERMINATION INHIBITING INGREDIENTS. LANDSCAPE CONTRACTOR TO PROVIDE A SAMPLE TO OWNER FOR APPROVAL. CONTRACTOR TO TAKE CARE WITH INSTALLATION NOT TO DAMAGE OR COVER PLANTS. REFER TO LSP1.2 FOR FURTHER INFORMATION.
- LAWN INSTALLATION: CONTRACTOR TO FURNISH AND PREPARE TOPSOIL (3" MIN) AND SEED BED (REMOVE ALL STONES 1" OR LARGER), APPLY STARTER FERTILIZER AND SEED UNIFORMLY. PROVIDE A MULCH COVERING SUITABLE TO GERMINATE AND ESTABLISH TURF. EROSION CONTROL MESH SHOULD BE USED IN SWALES AND STEEP GRADES WHERE APPLICABLE. METHODS OF INSTALLATION MAY VARY AT THE DISCRETION OF CONTRACTOR. IT IS HIS/HER RESPONSIBILITY TO ESTABLISH AND GUARANTEE A SMOOTH, UNIFORM, QUALITY TURF. IF STRAW MULCH IS USED AS A COVERING, A TACKIFIER MAY BE NECESSARY TO AVOID WIND DAMAGE.

- REQUIRED SEED MIXES:  
**PERENNIAL GRASS SEED MIX REINDEER'S (262) 786-3300**  
 20% AMERICAN KENTUCKY BLUE GRASS  
 20% ALPINE KENTUCKY BLUE GRASS  
 20% LANGARA KENTUCKY BLUE GRASS  
 20% VICTORY CHEWINGS FESCUE  
 10% FESTA III PERENNIAL RYE GRASS  
 10% CUTLER PERENNIAL RYE GRASS  
 APPLY AT A RATE OF 175 POUNDS PER ACRE.  
 REFER TO SUPPLIER'S SPECIFICATIONS AND INSTALLATION CUT SHEETS FOR FURTHER INFORMATION
- DURING THE INITIAL "30 DAY MAINTENANCE PERIOD" THE LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE AND ON-GOING PLEASANT VISUAL ENVIRONMENT WHEREAS ANY PLANT WHICH IS NOT RESPONDING TO TRANSPLANTING OR THRIVING SHALL IMMEDIATELY BE REPLACED. NEW LAWNS SHALL WATERED AND REPAIRED AND WEEDS MUST CONSTANTLY BE REMOVED, NO EXCEPTIONS WILL BE GRANTED.
- ALL NEWLY PLANTED TREES AND SHRUBS ARE TO RECEIVE AN APPLICATION OF AN ANTI-TRANSPIRANT SPRAY THAT WILL EFFECTIVELY REDUCE THE WATER LOSS OF TRANSPIRATION OF PLANT MATERIAL AND REDUCE THE STRESS OF TRANSPLANTATION. IT IS RECOMMENDED AS PART OF THE ONGOING MAINTENANCE THAT ANY BROADLEAF EVERGREEN AND CONIFEROUS TREE AND SHRUBS (EXCLUDING ARBORVITAE) RECEIVE AN APPLICATION OF AN ANTI-DESICANT SPRAY TO REDUCE THE LOSS OF MOISTURE DUE TO WINTER DESICCATION.
- MAINTENANCE: THE OWNER SHALL TEND AND MAINTAIN ALL PLANT MATERIALS IN A HEALTHY GROWING CONDITION AS PER THE APPROVED PLAN. PLANTINGS SHALL BE REPLACED WHEN NECESSARY AND KEPT FREE FROM WEEDS & DEBRIS. ALL PLANTING MATERIAL WHICH IS DYING OR DAMAGED BEYOND RECOVERY SHALL BE REPLACED WITHIN SIX (6) MONTHS OR BY THE NEXT PLANTING SEASON, WHICHEVER COMES FIRST.
- LANDSCAPE / SITE DEMOLITION CONTRACTOR TO VERIFY LOCATIONS OF EXISTING TREES AND SHRUBS BE SALVAGED AND CLEARLY TAG THEM WITH MARKING TAPE AND CONSTRUCTION FENCE.

TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

WISCONSIN STATUTE 182.0175 (1974) REQUIRES A MINIMUM OF 3 DAYS NOTICE BEFORE YOU EXCAVATE (NOT INCLUDING SATURDAY, SUNDAY OR LEGAL HOLIDAYS)

UNDERGROUND SEWER AND UTILITY INFORMATION AS SHOWN IS OBTAINED FROM THE RECORDS OF MUNICIPALITY AND LOCAL UTILITY COMPANIES. THE ACCURACY OF WHICH CAN NOT BE GUARANTEED OR CERTIFIED TO.

THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS SURVEY ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN CALL THE MILWAUKEE UTILITY ALERT NETWORK

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

(800) 242-8511, (262) 432-7910  
(877) 500-9592  
www.DiggersHotline.com

Proposed Plant Material Table

Quantity	Code Name	Symbol	Scientific Name	Common Name	Planting Size	Comments
<b>Broadleaf Deciduous Tree</b>						
3	BepDP		Betula platyphylla 'Dakota Pinnacle'	Dakota Pinnacle Birch	2 1/2"-Cal - B&B	
13	MAM		Malus 'Mantle'	Mantle Flowering Crab	2 1/2"-Cal - B&B	
4	PycoC		Pyrus calleryana 'Chanticleer'	Chanticleer Pear	2 1/2"-Cal - B&B	
4	QuroC		Quercus robur 'Crimschmidt'	Crimson Spire English Oak	2 1/2"-Cal - B&B	
6	Syre		Syringa reticulata	Ivory Silk tree lilac	2 1/2"-Cal - B&B	
-	Extg		Existing	Existing	Existing	
<b>Broadleaf Evergreen</b>						
15	Abgra		Abelia grandiflora	Glossy abelia	Existing	
-	Extg		Existing	Glossy abelia	Existing	
<b>Conifer Evergreen Tree</b>						
5	JuscWB		Juniperus scopulorum 'Witchita Blue'	Wichita Blue upright juniper	7" - B&B	
7	ThocAB		Thuja occidentalis 'Art Boe'	North Pole Arborvitae	7" - B&B	
6	ThpGG		Thuja plicata 'Green Giant'	Green Giant Arborvitae	7" - B&B	
-	Extg		Existing	Existing	Existing	
<b>Broadleaf Deciduous Shrub</b>						
51	CosoC		Cornus sanguinea 'Cato'	Arctic Sun Red Twig Dogwood	18" - 24" - Cont	
29	HyatS		Hydrangea arborescens 'Invincible Spirit'	Invincible Spirit Hydrangea	18" - 24" - Cont	
36	PhopDG		Physocarpus opulifolius 'Dart's Gold'	Dart's Gold Ninebark	18" - 24" - Cont	
38	RoRS		Rosa x 'Radsunny'	Sunny Knock Out Rose	18" - 24" - Cont	
28	SprFP		Spiraea fritschiana 'J.N. Select A'	Pink-a-licious Spirea	18" - Cont	
49	SjpaG		Spiraea japonica 'Galen'	Double Play Artist Spirea	18" - Cont	
-	Extg		Existing	Existing	Existing	
<b>Conifer Evergreen Shrub</b>						
54	JupISG		Juniperus x pfitzeriana 'MonSan'	Sea of Gold Juniper	18" - 24" - B&B	
-	Extg		Existing	Existing	Existing	
<b>Perennial Grass</b>						
26	DecoB		Deschampsia caespitosa Bronzeschleier	Bronze Veil Tuft Hair Grass	1-Gal - Cont	
31	MisN		Miscanthus sinensis 'Nippon'	Nippon Maiden Grass	1-Gal - Cont	
121	MisP		Miscanthus sinensis 'Purpuracens'	Purple Silver Grass	1-Gal - Cont	
74	PavHR		Panicum virgatum 'Hot Rod'	Hot Rod Switch Grass	1-Gal - Cont	
<b>Perennial</b>						
110	HeCA		Hemerocallis x 'Chicago Apache'	Chicago Apache Daylily	4 1/2" pot	
22	HePBE		Hemerocallis x 'Prairie Blue Eyes'	Prairie Blue Eyes Daylily	4 1/2" pot	
30	HeRS		Hemerocallis x 'Ruby Spider'	Ruby Spider Daylily	4 1/2" pot	

**INSITE**  
 LANDSCAPE DESIGN  
 Landscape Architecture  
 and Master Planning Design Consulting

11525 W. North Avenue Suite 1B  
 Wauwatosa, WI 53226  
 Tel (414) 476-1204  
 www.insitelandscap.com  
 mDavis@insitelandscap.com

Project:  
**FIELDS JAGUAR LAND ROVER**  
 1901 E. Moreland Road  
 Waukesha, WI 53186

Issuance and Revisions:

Date	Number	Description
11/16/16		Plan Commission Submittal
12/07/16		Revisions Based on Plan Commission Comments
12/08/16		Revisions Based on New Civil Plan
12/27/16		Revisions Based on Site Changes

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Sheet Title:  
 PROPOSED LANDSCAPE PLAN,  
 GENERAL NOTES,  
 AND PLANT MATERIAL TABLE

Date of Drawing: 12/27/16  
 Scale: 1" = 30'-0"  
 Drawn By: MCD  
 Job Number: L16-076  
 Sheet Number:

LSP1.1

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L16-076 - Fields Jaguar Landrover - 12/27/2016



Project:

**FIELDS  
JAGAUER  
LAND ROVER**

1901 E. Moreland Road  
Waukesha, WI 53186

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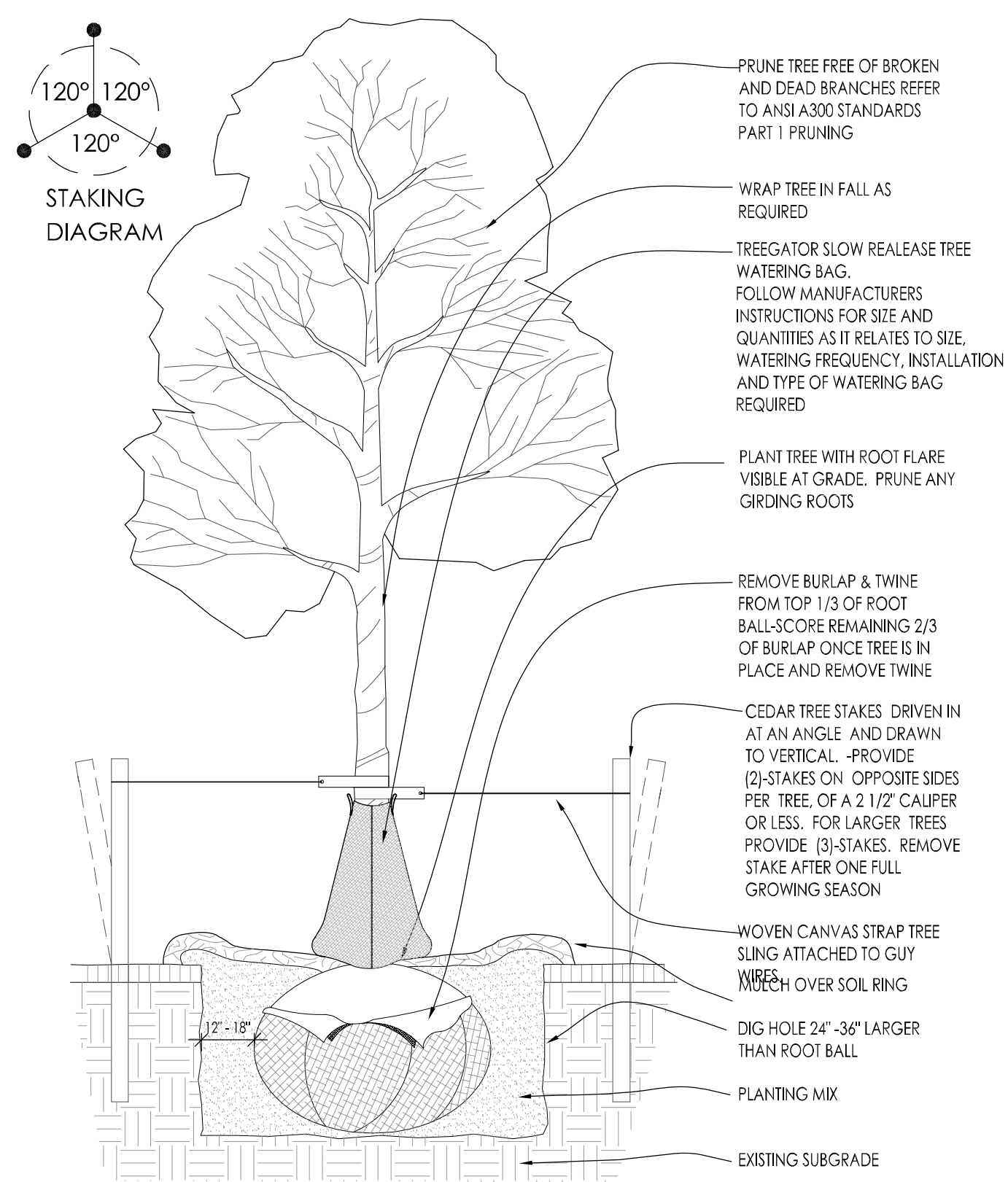
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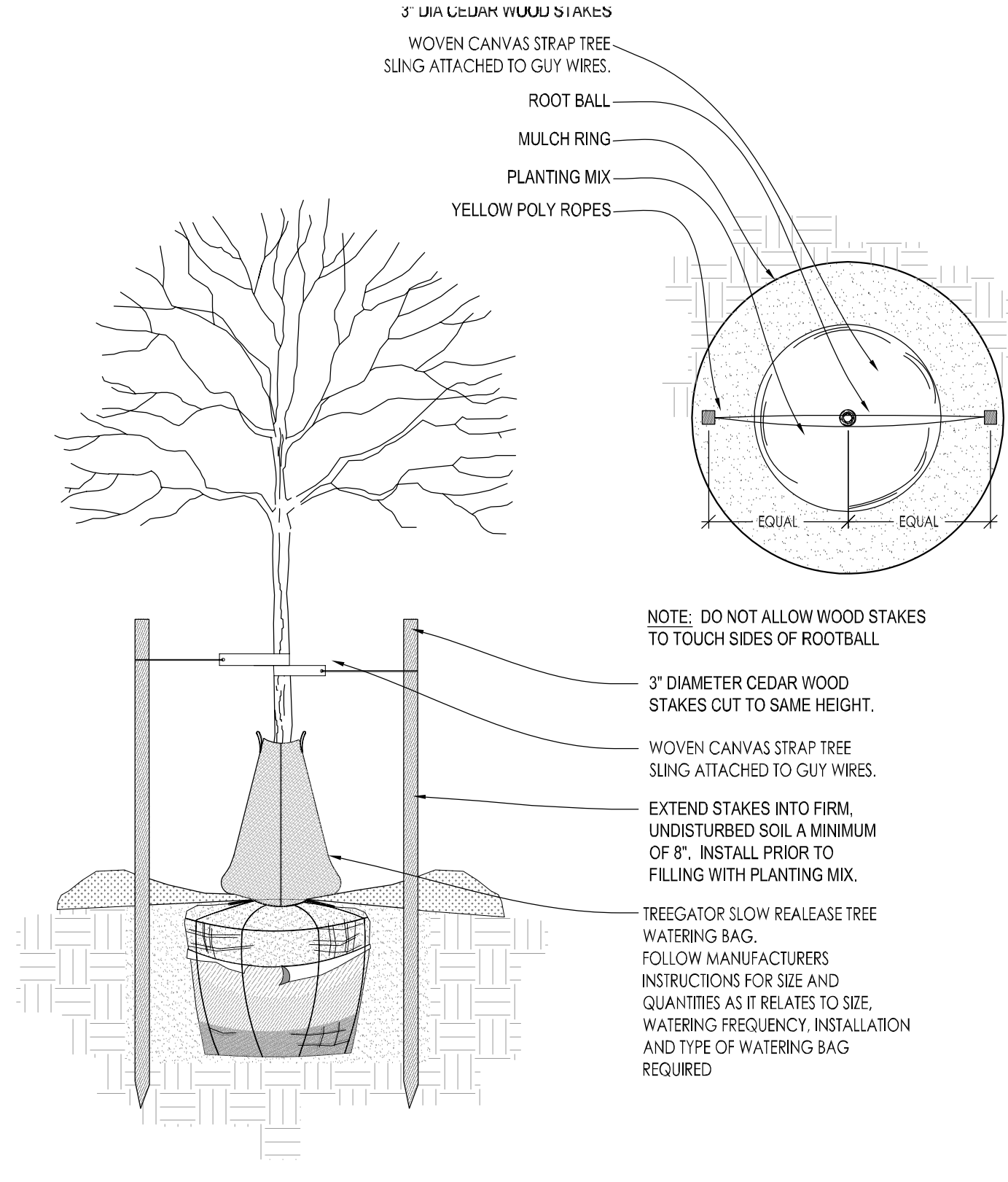
PROPOSED LANDSCAPE PLAN,  
PLANTING DETAILS

Date of Drawing:	12/27/16
Scale:	As Noted
Drawn By:	MCD
Job Number:	L16-076
Sheet Number:	

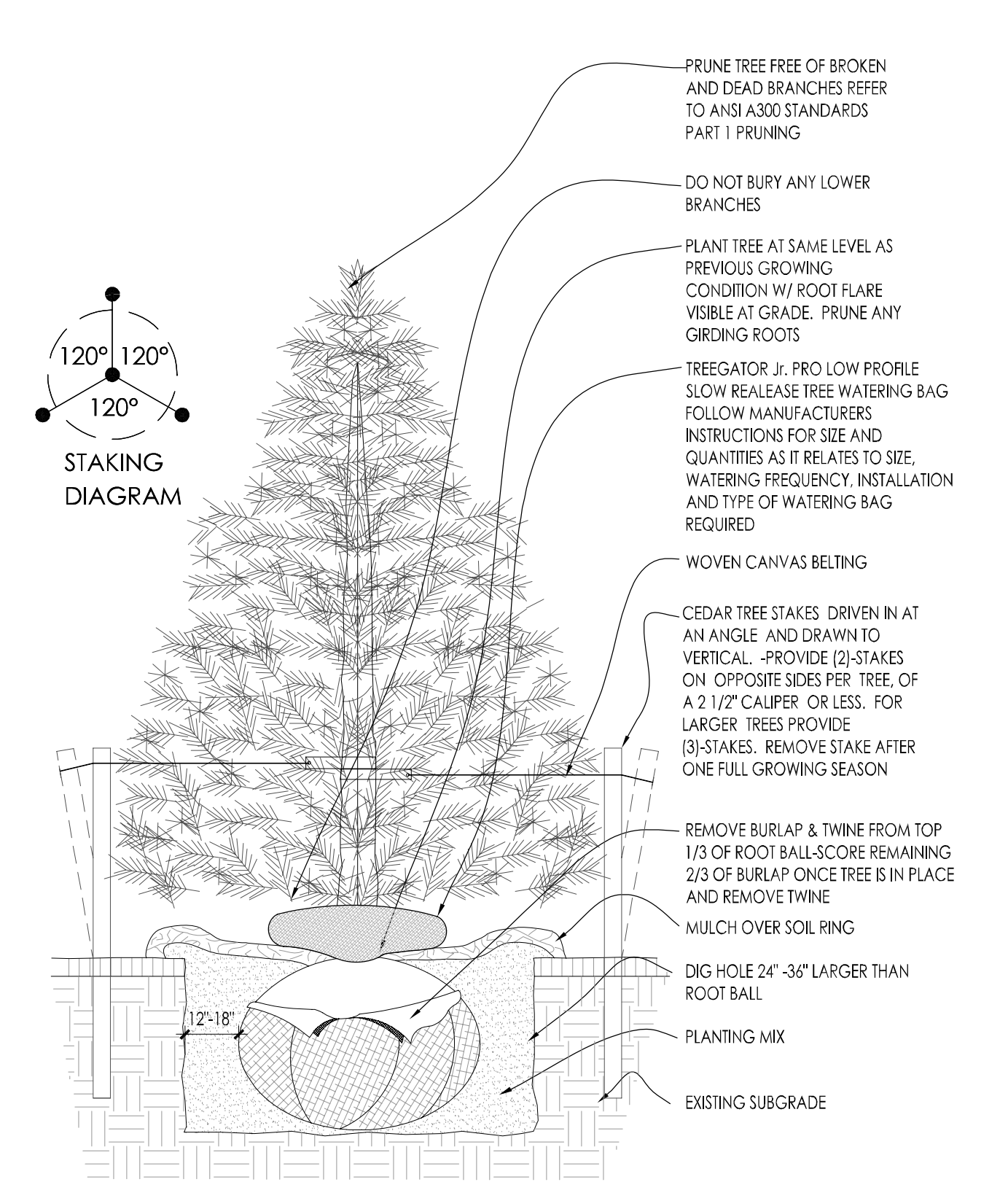
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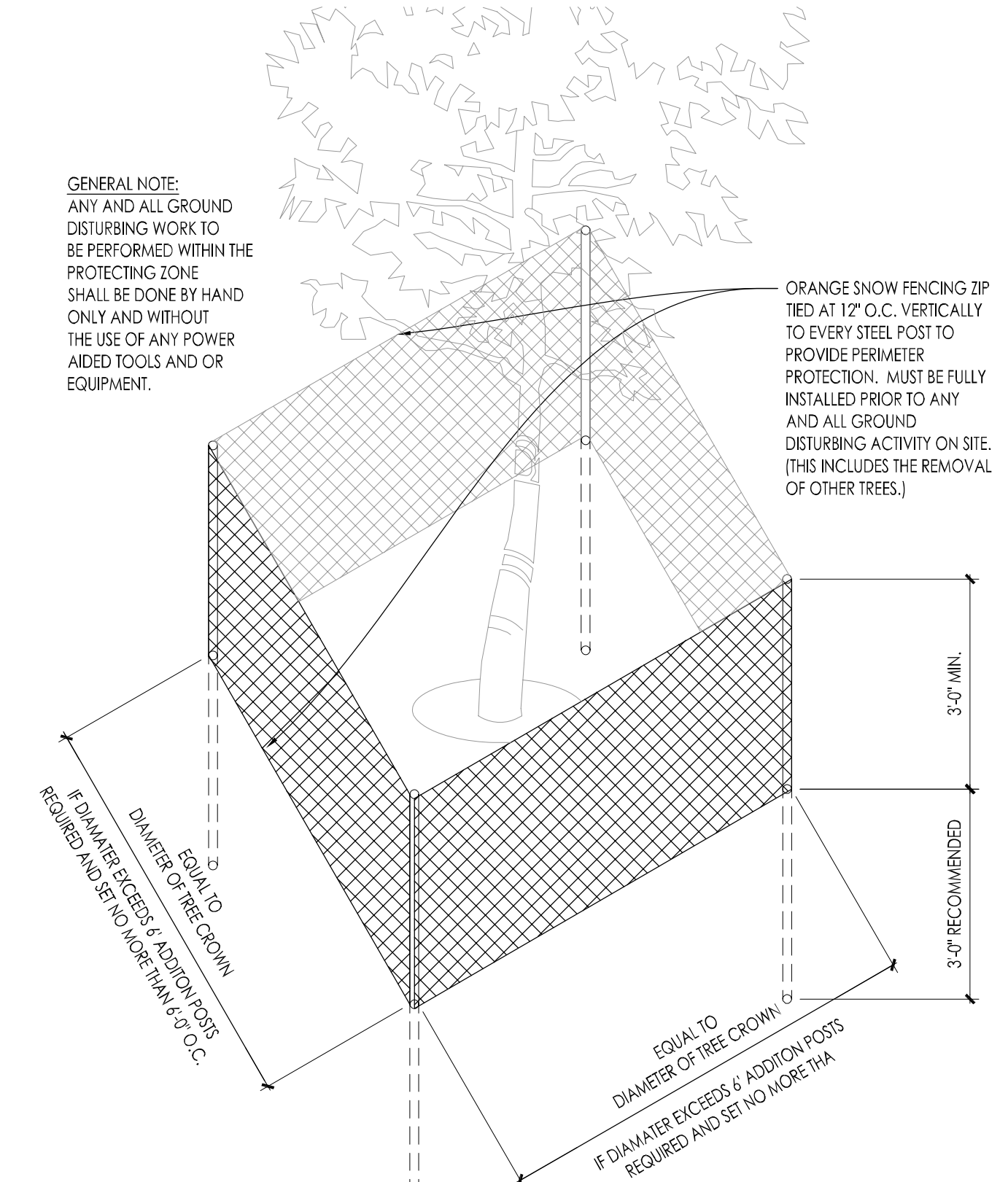
1 DECIDUOUS TREE PLANTING DETAIL SCALE: NONE



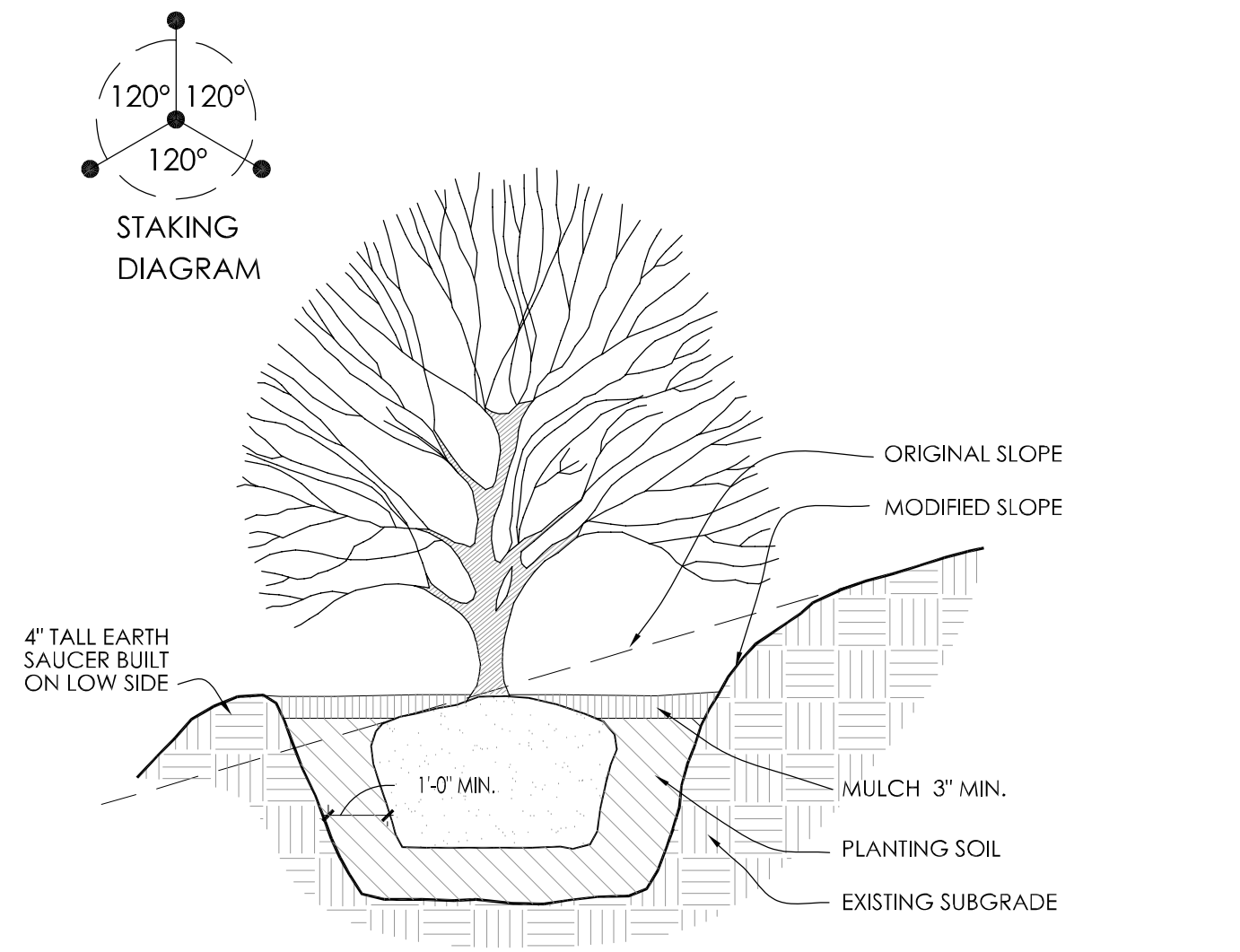
2 DECIDUOUS TREE STAKING PARKING ISLAND/RESTRICTED AREAS SCALE: NONE



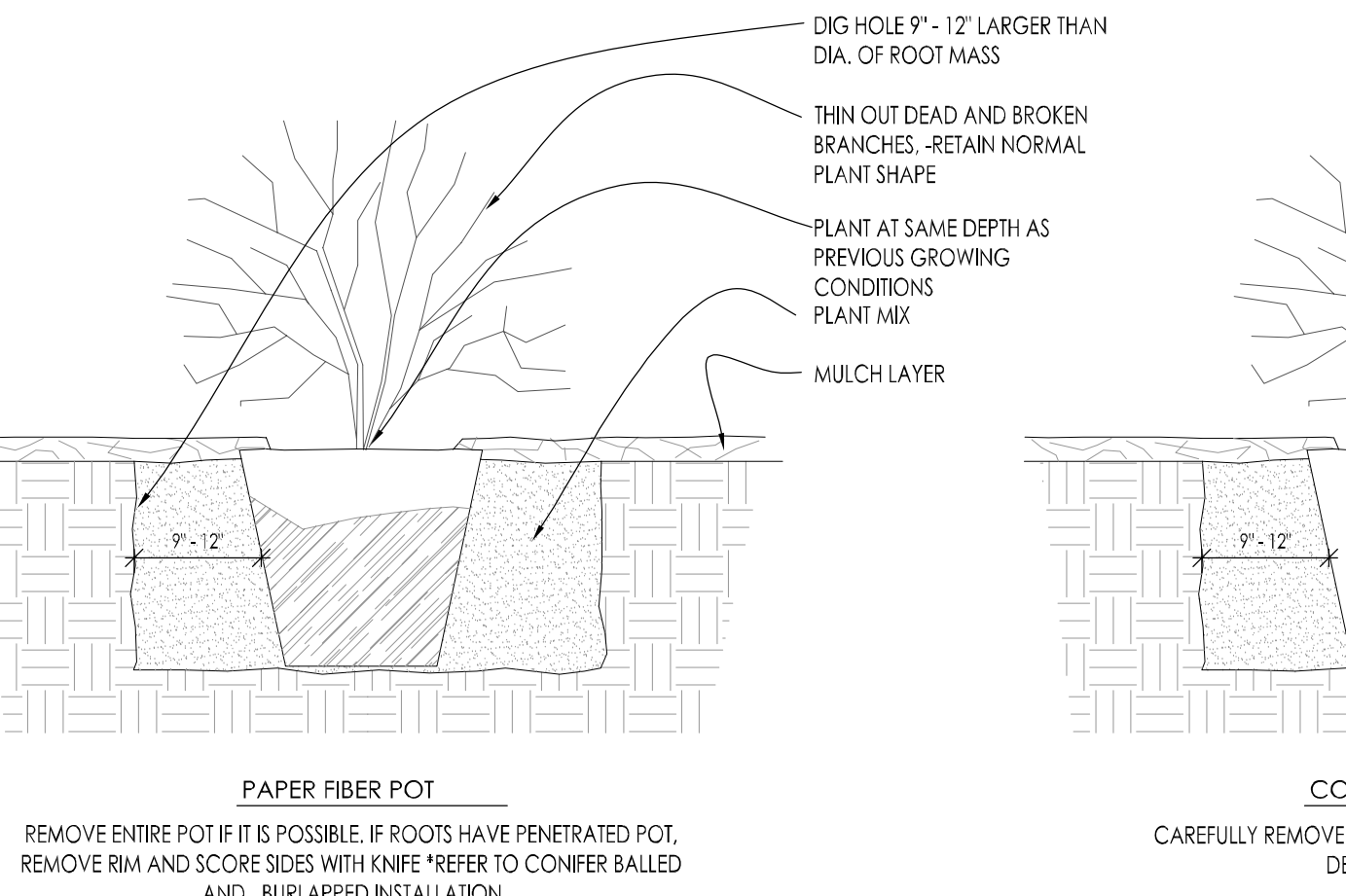
3 CONIFEROUS TREE PLANTING DETAIL SCALE: NONE



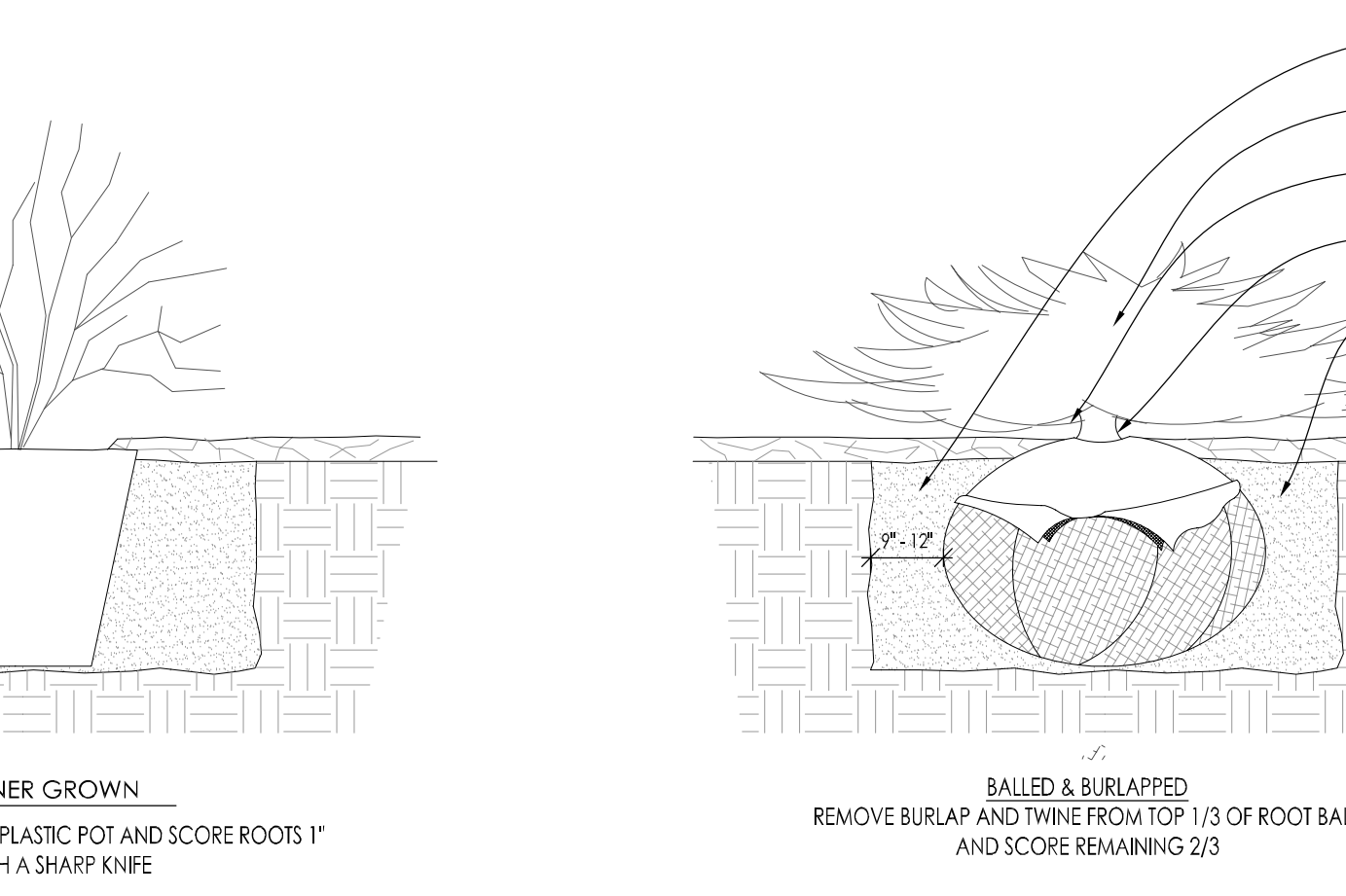
4 EXISTING TREE PROTECTION DETAIL SCALE: NONE



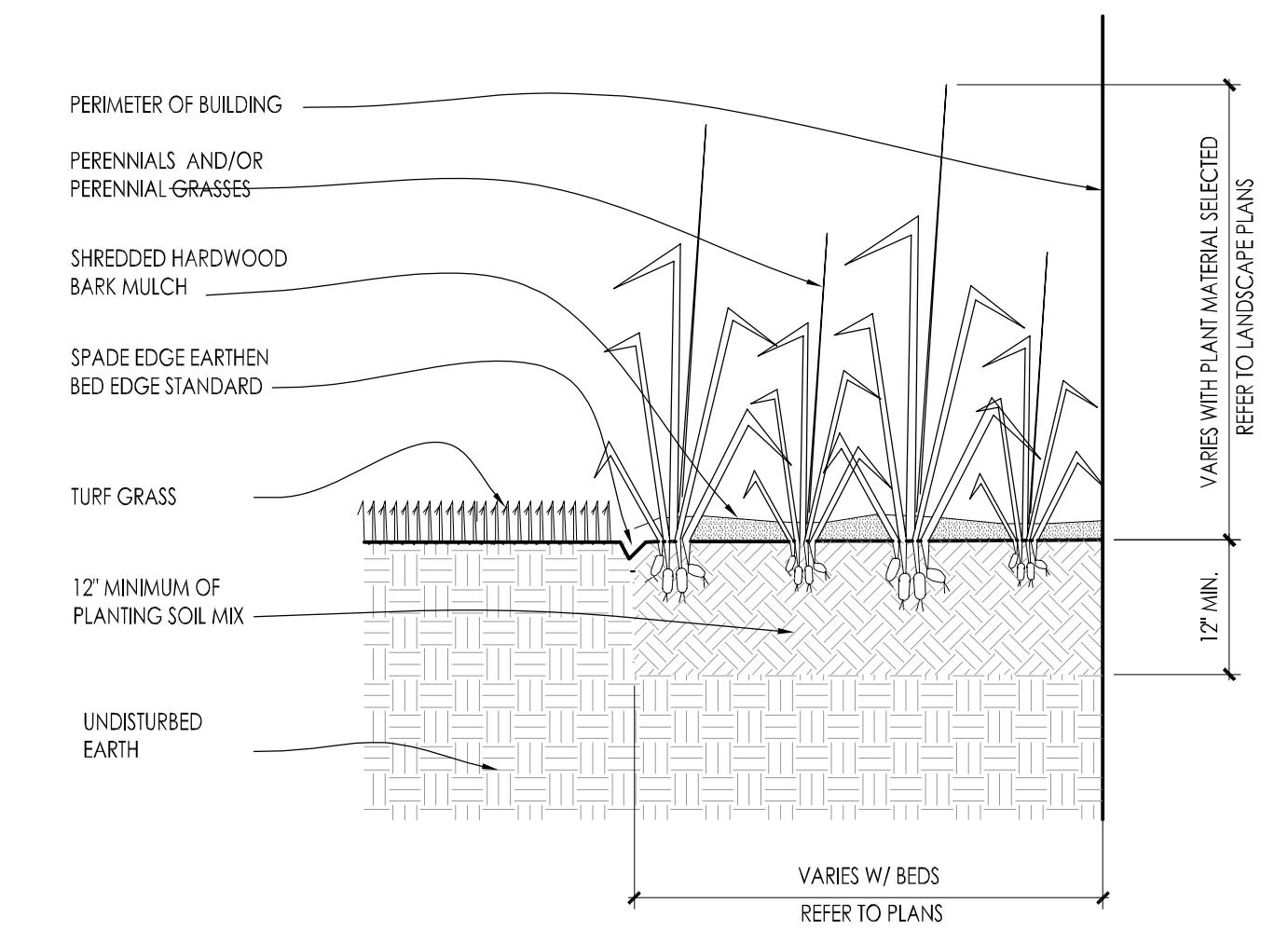
5 SLOPE PLANTING DETAIL SCALE: NONE  
REFER TO TYPICAL DECIDUOUS TREE DETAIL FOR STAKING



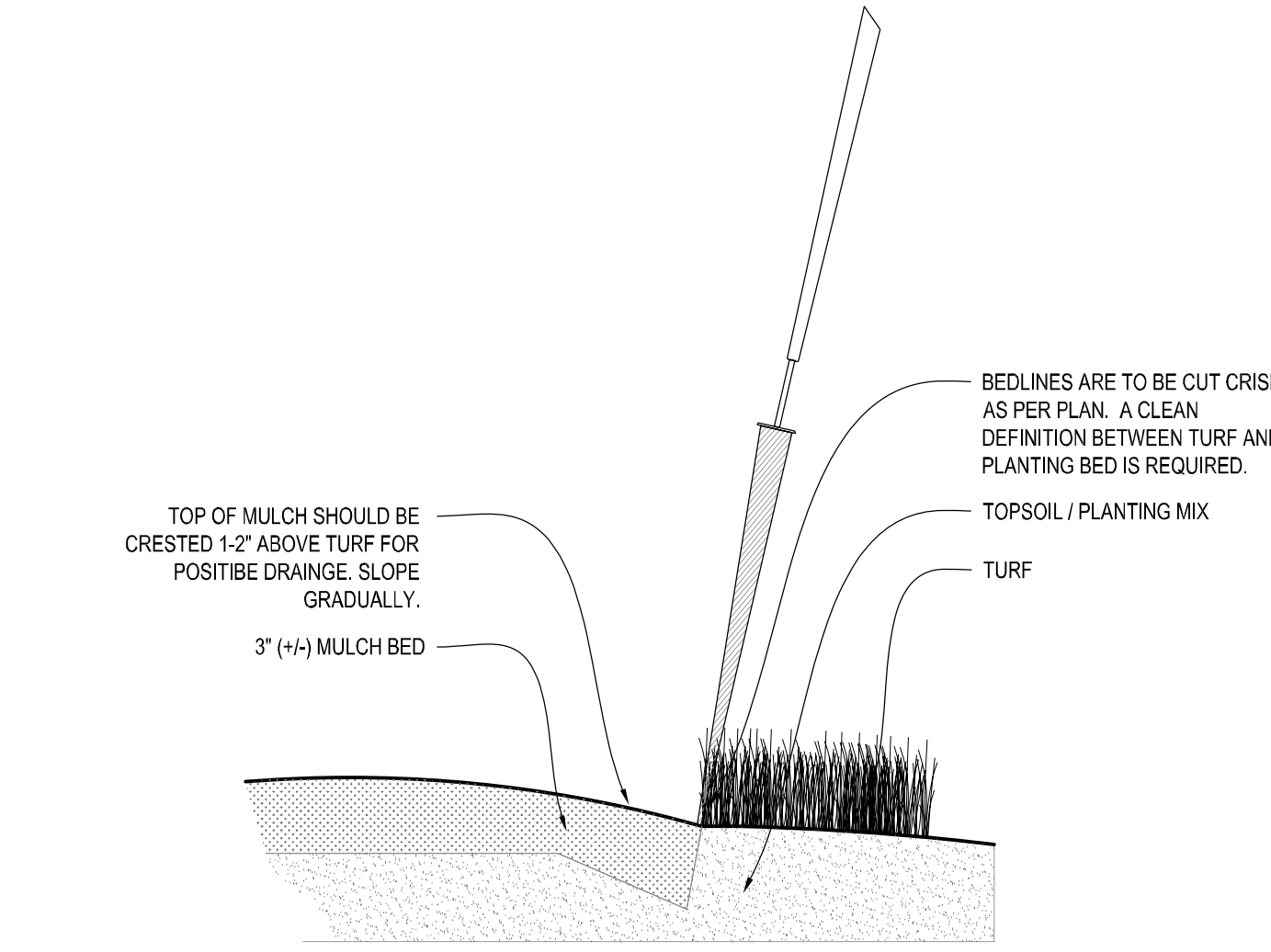
6 DECIDUOUS SHRUB PLANTING DETAIL SCALE: NONE



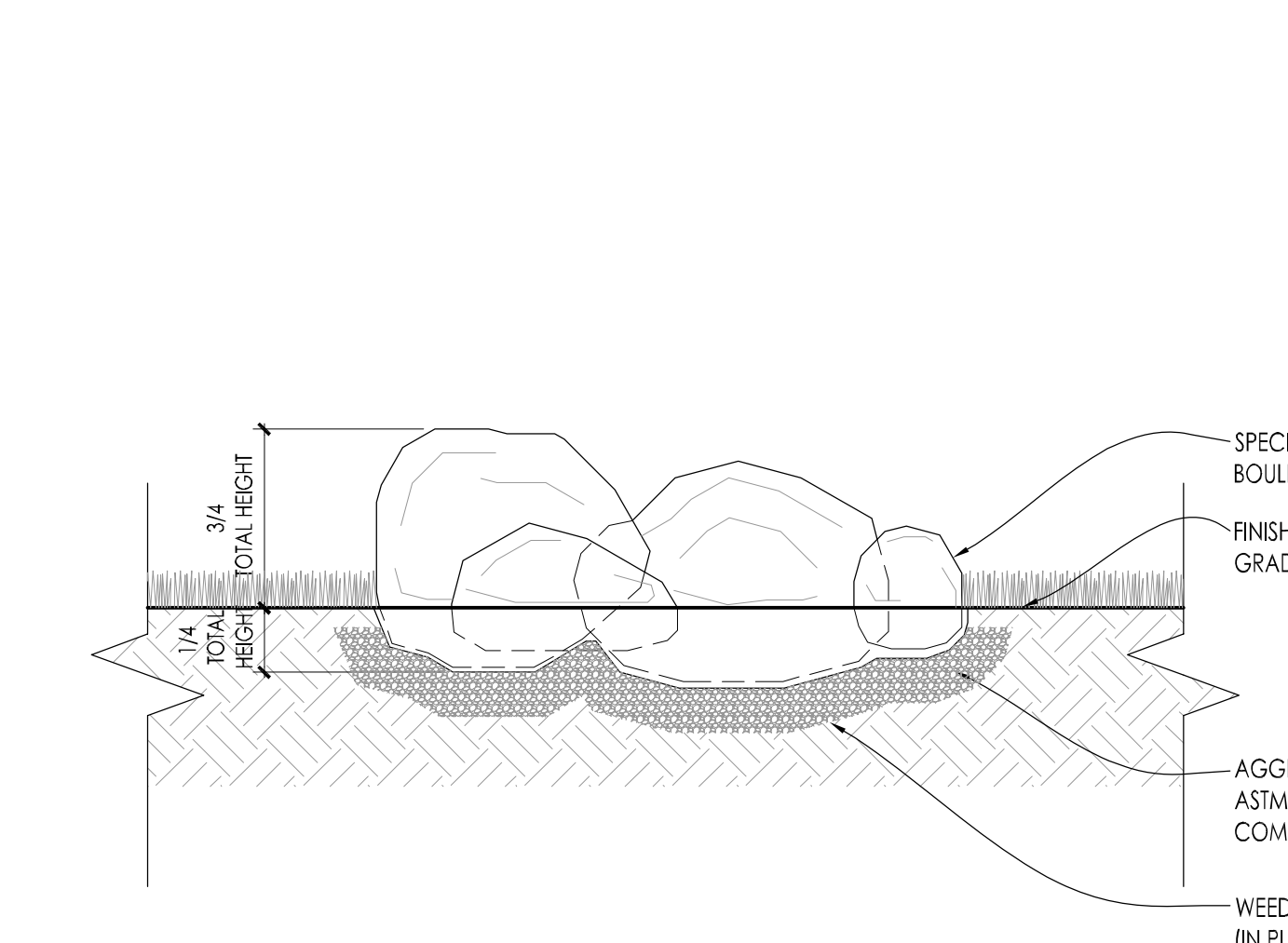
7 CONIFEROUS SHRUB PLANTING DETAIL SCALE: NONE



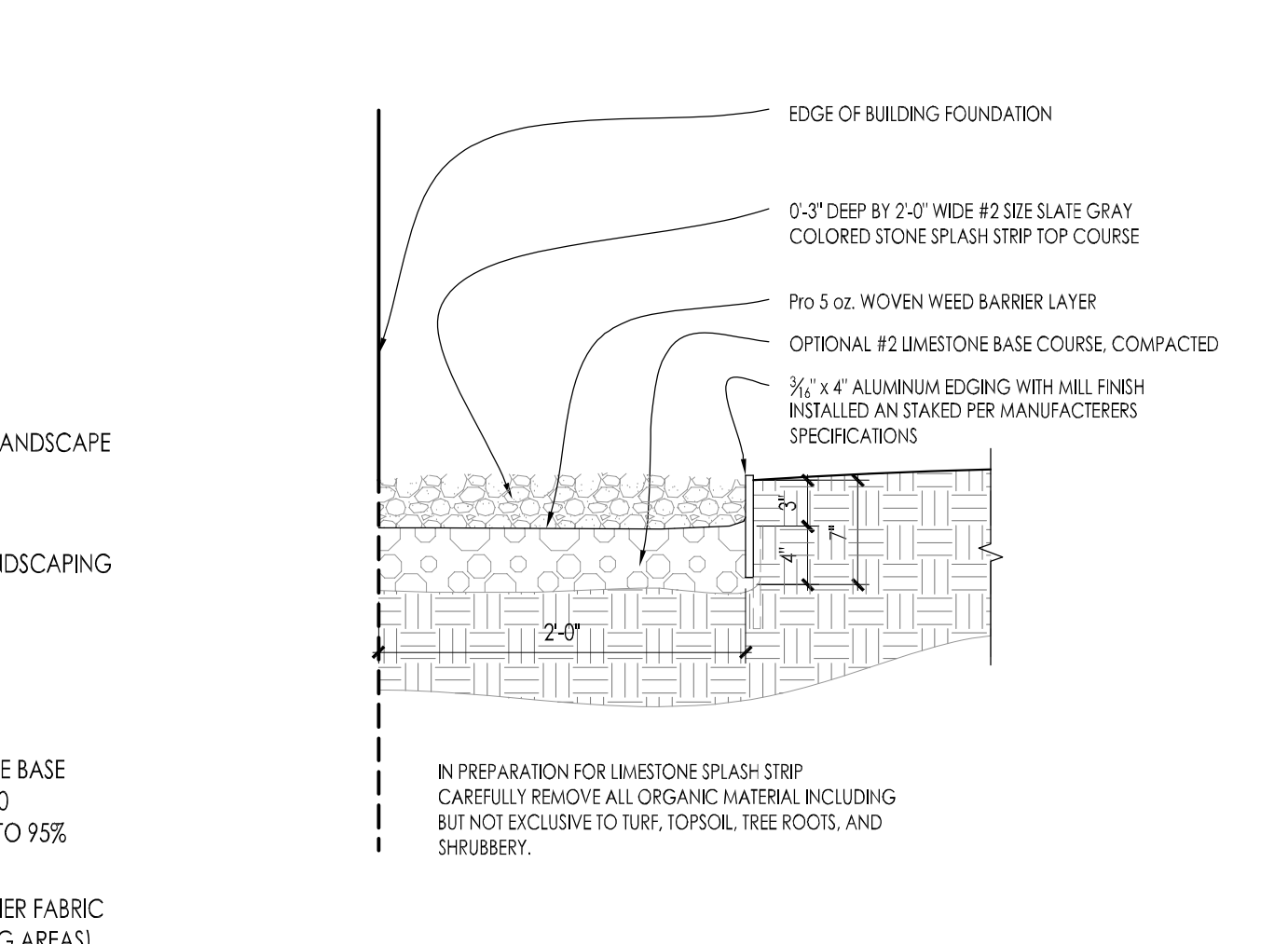
8 PERENNIAL BED PLANTING DETAIL SCALE: NONE



9 SPADE EDGE PLANT BED EDGE DETAIL SCALE: NONE



10 TYPICAL BOULDER INSTALLATION SCALE: NONE



11 COMPACTED GRAVEL SPLASH STRIP SCALE: 1\"/>

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 W228 N745 Westmound Drive  
 Waukesha, Wisconsin 53186  
 tel 262.549.9600 fax:  
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**PROJECT INFORMATION**

**FIELDS JAGUAR  
 LAND ROVER**  
 1901 E. MORELAND  
 WAUKESHA WI 53186

**ISSUANCE AND REVISIONS**

**CITY APPROVALS**

**REVISIONS**

#	Description	Date
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PROJECT NUMBER	16059
DATE	12.27.16
DRAWN BY	Author

Campus Plan

**A100**



**Department Legend**

- MANAGEMENT
- NEW CAR DELIVERY
- RETAIL
- SALES
- SHOWROOM
- SUPPORT
- WAITING / LOUNGE
- SERVICE
- PARTS
- WAITING
- ADMIN

**A2** CAMPUS PLAN  
 1/16" = 1'-0"





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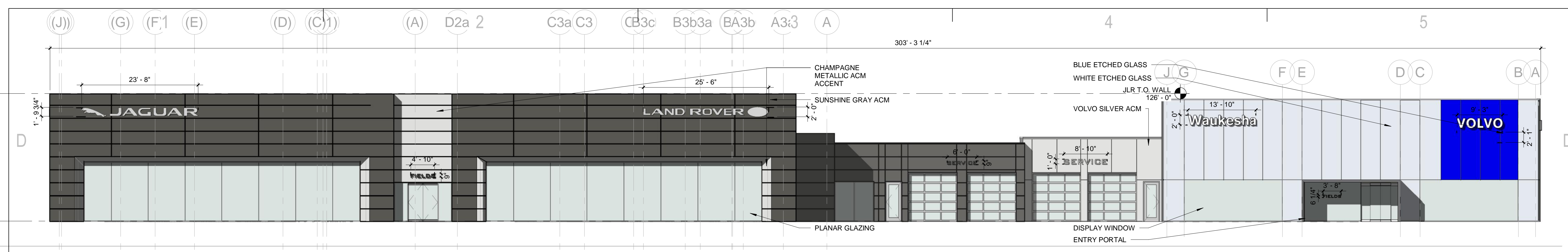
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PROJECT NUMBER	16059
DATE	12.27.16
DRAWN BY	Author

Exterior Elevations

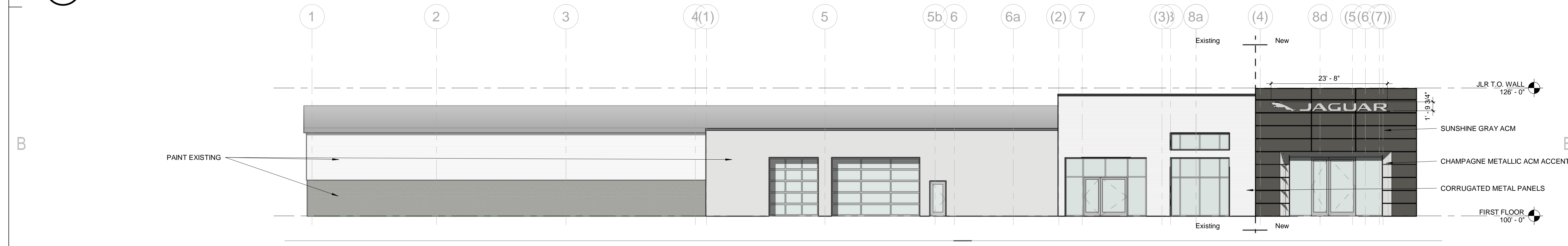
**A200**



**D1 NORTH ELEVATION**  
 3/32" = 1'-0"

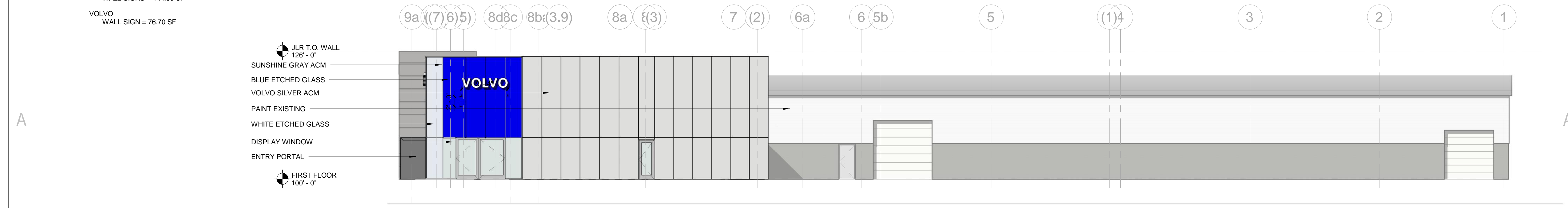


**C1 SOUTH ELEVATION**  
 3/32" = 1'-0"



**B2 EAST ELEVATION**  
 3/32" = 1'-0"

**SIGNAGE**  
 BUILDING FRONTAGE = 303'  
 ALLOWED SIGN AREA = 2.0 x 303' = 606 SF  
**JLR SIGNAGE**  
 WALL SIGNS = 144.89 SF  
**VOLVO**  
 WALL SIGN = 76.70 SF



**A2 WEST ELEVATION**  
 3/32" = 1'-0"





EXTERIOR RENDERING



VOLVO PROTOTYPICAL INTERIOR



VOLVO EXTERIOR RENDERING



VOLVO PROTOTYPICAL EXTERIOR EVENING VIEW



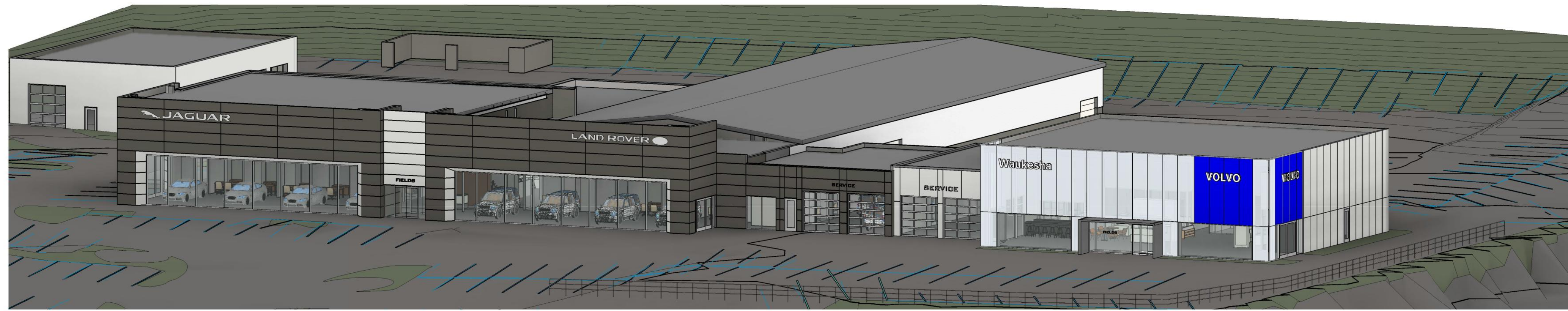
JLR INTERIOR REFERENCE



JLR EXTERIOR REFERENCE



JLR EXTERIOR REFERENCE



BIRDS EYE VIEW

REFERENCE IMAGES



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PROJECT NUMBER	16059
DATE	12.27.16
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Exterior Rendering

**A201**





Qty	Label	Arrangement	Lum. Lumens	Lum. Watts	LLF	Description
8	AF-E	SINGLE	36341	428.6	0.900	CREE + (1) ARE-EHO-AF-xx-12-E-UL-xx-1000-40K
2	OS3-2	2 @ 90 DEGRE	20860	134.2	0.900	CREE + (2) ARE-EHO-3M-12-UL-1000-40K
2	OS4	SINGLE	30657	426	0.900	ARE-EHO-4M-12-E-UL-1000-40K (1000mA)
3	OS5-2	BACK-BACK	84656	431.2	0.900	CREE + (2) ARE-EHO-5M-xx-12-E-UL-xx-1000-40K
9	OS5-4	4 @ 90 DEGRE	51224	132.4	0.900	CREE + (2) ARE-EHO-5S-12-UL-1000-40K
6	AMB-E	SINGLE	9015	132.8	0.900	For use with Series E Edge High Output 228.
2	OS5	SINGLE	12806	132.4	0.900	CREE + ARE-EHO-5S-12-UL-1000-40K

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PROP LINE	Illuminance	Fc	1.59	10.7	0.0	N.A.	N.A.
SITE	Illuminance	Fc	5.89	29.7	0.0	N.A.	N.A.
DISPLAY	Illuminance	Fc	10.48	12.3	8.0	1.31	1.54
FRONT LINE	Illuminance	Fc	23.23	29.7	10.7	2.17	2.78



**FIELD'S JAGUAR/VOLVO  
WAUKESHA, WISCONSIN**

**CREE EDGE HIGH OUT-PUT  
LIGHTING PLAN**