



| Summit Credit Union
1288 S. 1st Street
Phase 2 Freshwater Plaza
Milwaukee, WI

| Plan Commission



To: Milwaukee Plan Commission

Project: Summit Credit Union Branch Office
1288 S. 1st Street
Phase 2 Freshwater Plaza
Milwaukee, WI

Applicants' Contact: Summit Credit Union
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Madison Wisconsin 53718
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608-243-5000, extension 7974

Architect: Strang, Inc.
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Madison, WI 53703
Attn: Austen Conrad
608-276-9200

Civil Engineer: The Sigma Group, Inc.
1300 West Canal Street
Milwaukee, WI 53233
Attn: Christopher Carr
414-643-4200

Landscape Architect: The Sigma Group, Inc.
1300 West Canal Street
Milwaukee, WI 53233
Attn: Christopher Carr
414-643-4200

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File number 180435

Third Amendment to the DPD known as 1st and Greenfield (Freshwater Plaza) to permit the second part of Phase 2 development on the south outlet.

Statement of Intent

In accordance with the approved General Plan Development (GPD) file number 141111, the applicant is seeking approval for a Freshwater Plaza Detailed Planned Development (DPD) amendment for the property located at 1288 S. 1st Street.

Freshwater Plaza was rezoned from GPD to a Detailed Planned Development (DPD) known as 1st and Greenfield Phase 1 on December 16, 2014 per file number 141113. This permitted the first phase of the development which consisted of the Cermak grocery store and a mixed-use building.

The DPD was further amended in file 170499 to permit the development of the Phase 2 Lot 2 north outlet for a standalone Sherwin Williams Paint Store. The applicant is requesting that the DPD be further amended to permit the Phase 2 development of the Lot 2 south outlet for a standalone Summit Credit Union branch office with drive-thru.

This statement of intent and the accompanying drawings identified below constitute and support the DPD:

Sheet	Title
A001	Location Map and Site Photos
CSM	Certified Survey Map
C002	Erosion Control Plan
C001	Site Survey
C100	Site Plan
C200	Grading Plan
C300	Utility Plan
C400	Civil Details
C402	Civil Details
C500	Civil Specifications
C501	Civil Specifications
L100	Landscape Plan
L101	Landscape Details
LC100	Lighting Plan
PA209	Floor Plan
PC409A	North and South Elevations
PC409B	East and West Elevations
MA001	Exterior Building Materials
PA809	Exterior Signage

Phase 2 Lot 2 Site Information Summary

Phase 2 of Freshwater Plaza includes the development of Lot 2. The north outlet has already been permitted for a standalone retail building per file 170499. This requested amendment to the DPD is to permit the development of the Lot 2 south outlet. The development will consist of a single-story financial institution with drive-thru and adjacent accessory surface parking. The building is orientated with its long axis along the S. 1st street frontage to maximize the reinforcement of the street edge. See attached sheet C100 for site plan.

Parking

Per the approved GPD, the Lot 2 maximum parking ratio is 8.05 / 1000 square feet. The proposed parking ratio for the Lot 2 south outlot is 5.69 as shown below. Access to the parking lot is provided via a new curb cut along S. 1st Street. The site can also be accessed from the adjacent parking lot located to the east of the site which was constructed as part of phase 1 of Freshwater Plaza.

Use	Gross SF	Max Parking Ratio	Max Parking	Actual Parking	Actual Parking Ratio
Retail	3,693	8.05	29	21	5.69

Design Narrative

The site and building are designed in response to Summit Credit Union’s desire for a highly visible facility that reaches out to the community, while being responsive to the integrity of its contextual fabric. The massing and design composition of the building is such that it presents a pleasing face to the public realm on all four sides of the site. The design of the drive-up canopy is inextricably linked to the rest of the building in terms of design character and materials.

The building is orientated with its longest axis of 94’ positioned parallel to the S. 1st street frontage to maximize the reinforcement of the street edge. The building is set back 8’ from the property line versus 5’ in the GPD standards to provide better sightlines to the development-wide monument signage that was included as part of file 180044 (2nd Amendment to GPD). Building height to the top of the highest point is 24’.

Operational characteristics will be those of a typical financial institution. Two drive-through teller aisles and one drive-through ATM aisle will serve credit union members from their autos. The building will have a walk-in lobby for credit union members who wish to conduct business with a teller or financial adviser, and for people wishing to become members of the credit union. The “back of house” area will contain storage, a staff break room, and other support spaces.

Project Statistics

Gross Land Area	23,464 SF
Principal Building Land Coverage	3,693 gross square feet (GSF); 15.7% of site
Pervious Land Surface	3,258 SF; 13.9%
Impervious Land Surface	20,206 SF; 86.1%
Non-residential Square Footage	3,693 GSF; 15.7%
Number of Buildings	1
Maximum Dwelling Units	N/A
Bedrooms per Unit	N/A
Parking Spaces	21 stalls (including 1 handicapped accessible stall) 5.69 parking ratio

GPD District Standards Compliance

- 1) Uses: The proposed use is a financial institution. Per the GPD, this is an allowed use on the phase 2 Lot 2 outlots.
- 2) Design Standards:
 - a. Building setback: The GPD states that a building setback should be within 5’ of the property line. The proposed building is 8’ from the property line along S 1st Street and 3’ from the sidewalk

running along the development's access drive. The intent with the additional setback along S. 1st Street is to provide better visibility to the development-wide signage located to the north of the site.

- b. Minimum street frontage: The proposed building's footprint has an irregular shape. The building frontage within 10' of the property line constitutes a 32% street frontage percentage along S. 1st Street which complies with the minimum 30% street frontage required. That said, when all building frontage along S 1st Street is taken into consideration, the street frontage increases to 54%.
- c. Building Design Standards:

- i. Building Height: *"Minimum building height is 22 feet, measured to the top of parapet. This does not include taller limited special features."*

Proposed building complies with a 24' height to top of highest coping.

- ii. Building Orientation: *"Buildings shall face the public streets and access drive, having main entrances and windows along the front building façade. Blank walls and lack of, or locked doors, are not permitted"*

Proposed building is designed to be pleasing from all four side. The main entry is along S. 1st Street.

- iii. Façade Materials: *"High quality building materials, such as masonry, metal, glass, and stone should be utilized. Exterior finish systems such as EIFS shall not exceed 30% of the exterior wall area and shall not be used on the base of the building (from the ground to the first 6ft). Vinyl siding is prohibited"*

The proposed building uses high quality materials: Endicott Mangeses Ironspot brick, silver metallic ribbed metal panel, and aluminum storefront systems in a clear anodized aluminum finish. The only EIFS on the building is the underside of the eaves. There is no vinyl siding.

See attached sheet MA001 for photographs of exterior materials.

- iv. Special Features at S. 1st Street and Access Drive: *"Buildings located at the intersection to the development area shall have the most significant corner treatments, articulate the corner or visual termination on a building at the identified special corner or street end visual termination through use of elements such as larger windows, extruded elements, or additional pre-cast stone lines"*

The proposed building thoughtfully addresses the S. 1st Street and access drive intersection. The roof line of the building slopes up to the intersection to visually open up towards the intersection and to reinforce the edge of the intersection. This corner of the building is detailed using floor to ceiling glazing with three fabric decorative exterior shades to add visual interest. The intent is to have either images of happy people or geometric shapes printed on the fabric. See attached sheet MA001 for photos of an existing branch office in Monona, WI that had similar fabric elements.

- v. Glazing along S 1st Street: *"Glazing along S 1st Street frontages: Minimum glazed area, public street frontage 60%, Minimum glazed area, access drive frontage 15%, Minimum glazing zone height 6', Maximum height of glazing zone sill 2'-6", Glazing quality visible transmittance >= .65, Glazing alternative Available, see 295-605.2.i.3"*

The proposed building façade along S. 1st St. is 59.65% glazing, with a typical glazing zone sill of 2' – 8". The additional 2" in sill height is so that the brick can properly course out.

The access drive (north) façade is 83.4% glazing. Most of the façade is floor to ceiling glazing. Areas that do have brick below the glazing has a sill height of 2' – 8". The additional 2" in sill height is so that the brick can properly course out.

The Summit Credit Union brand typically uses glazing with 35% visible transmittance on their buildings for building performance and privacy reasons. Applicant is willing to reduce tinting along the S. 1st Street and the access drive façade to meet the GPD's 65% visible transmittance requirement.

- vi. Entrance Location: *"Every new building shall have a primary entrance door on the front façade. A primary door shall not be required on the front façade if there is a primary entrance door on a side façade and that door is within 20 feet of the front façade."*

The proposed building's main entry is located on the front façade along S. 1st Street.

- vii. Public Sidewalk Access: *"Were a lot is adjacent to a public sidewalk, each principal building on the lot shall be served by a clearly identifiable walkway leading from the public sidewalk to the entrance to the building. The presence of an access drive does not fulfill this requirement. All required pedestrian walkways shall be paved with non-asphalt materials. All required pedestrian access ways shall be at least 5 feet in width."*

Proposed site plan complies with these requirements. A walkway will connect the building entrance to the sidewalk along S. 1st Street. The pedestrian walkways will be clearly marked where they cross drive-thru entry and exit lanes. See attached sheet C100.

- viii. Safe Walkways: *"Provide direct, continuous, safe and accessible pedestrian walkways between public sidewalks, bike trails and public transportation stops and building entrances."*

Proposed site plan complies with these requirements. See attached sheet C100.

- 3) Density: N/A – Commercial Use.
- 4) Space Between Structures: N/A – Proposed lot development contains only one building.
- 5) Setbacks: The proposed building has the following setbacks relative to the property lines of the Lot 2 south outlet as described in the attached sheet CSM.
 - a. North (access drive) – 30' from property line, 3' from edge of sidewalk. (Access drive crosses outlet. See sheet CSM)
 - b. East – 62' - 6"
 - c. South – 57' - 6"
 - d. West (S 1st St.) – 8'
- 6) Screening: Trash enclosure, which will be located on the northeast side of the site, will be clad in the same brick as the building. A 36" tall masonry wall will be located to the west of the parking and will be clad in the same brick as the building.
- 7) Open Spaces: Phase 2 of Freshwater Plaza does not have a public open space.

- 8) Circulation, Parking, Loading: Access to the 22-space parking lot is provided via a new curb cut along South 1st Street. The site can also be accessed from the adjacent parking lot located to the east of the site which was constructed as part of phase 1 of Freshwater Plaza. Drive-thru circulation enters from the east side of the site and exits at the north side of the site onto the access drive. There are no loading areas.

The main pedestrian entrance will be on the S 1st Street façade and will be connected via sidewalks to S 1st Street and the adjacent parking..

The dumpster will be located on the northeast side of the site.

Four bicycle parking spaces will be provided on the site near the adjacent parking. See site plan C100

- 9) Landscaping: All vegetation will be of a quality consistent with the standards of the American association of nurserymen (ANSI 260.1) and will be maintained on an ongoing basis. See sheets L100 and L101 for landscaping plans and details.

The existing turf and landscaping will be maintained in an orderly fashion consistent with the zoning standards in place prior to this DPD amendment until the subject DPD is constructed.

- 10) Lighting: Proposed site lighting will comply with City of Milwaukee Ordinances. See attached lighting plan LC100.

- 11) Utilities: The use of above ground utility infrastructure will be limited to the degree that it is not possible or practical to place this infrastructure below grade. Utility connections to the building are anticipated to be located on the west and south side of the building. See sheet C300 for utility locations.

- 12) Signs: Proposed building signage will comply with Milwaukee Code of Ordinances table 295-605-5 LB2 Type A. The building will have the below listed signage. See sheet PA809 for signage elevations.

- a. Roof sign of 91 SF. 1 roof sign up to 150 SF is permitted under LB2 Type A.
- b. Wall signs: 1 wall sign per 25 lineal feet is allowed up to 50 SF in size for each sign.
 - i. West façade (S 1st St) – 94 linear feet. One wall sign of 16 SF.
 - ii. East façade – 88' - 7" linear feet. Two wall signs located 42 feet apart. Each 56 SF in size. Per 295-605(5)(b), signs are combining adjacent linear segments for increased allowable signage area.

Time Limit on Zoning: Per s. 295-907-2-c-11, for new and amended DPDs, the DPD zoning designation shall be null and void within 5 years from the effective date of the ordinance and the property shall be changed to GPD unless the criteria identified in 295-907-c-11-a and –b are met. The time period specified pursuant to subd. 11 may be extended only by ordinance amending the DPD, pursuant to s. 205-307.

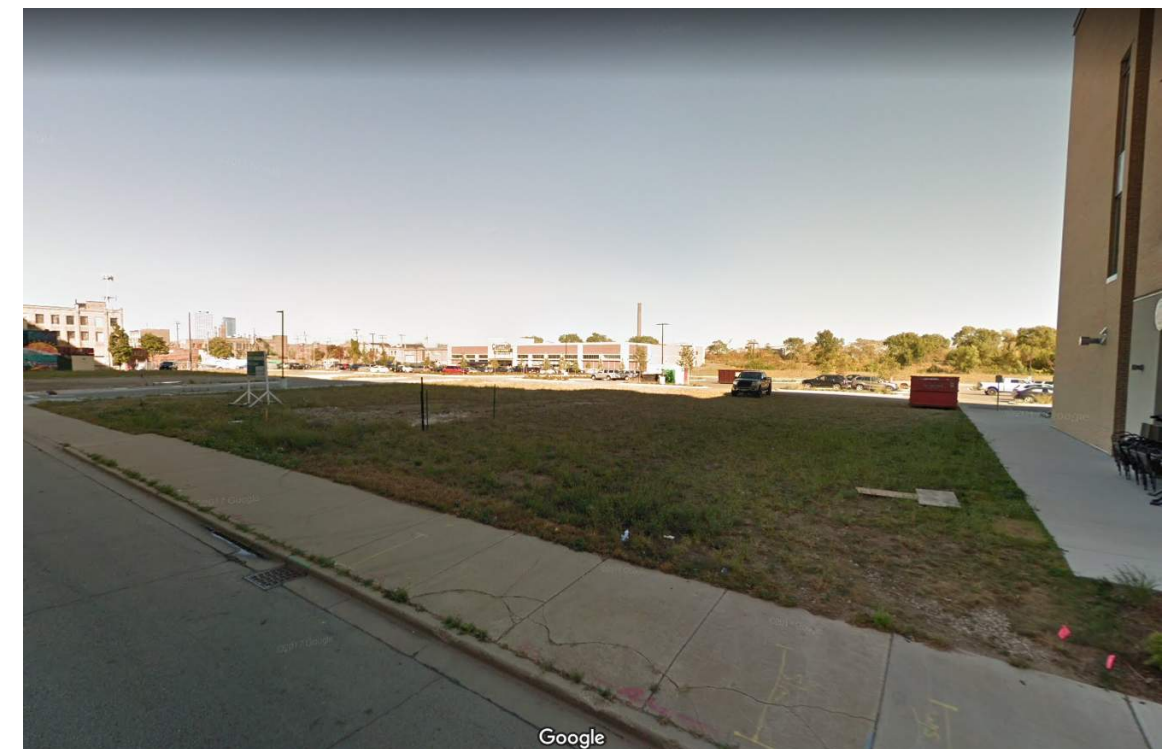
A001 - Location Map and Site Photos



Location Map



Northwest corner of site



Southwest corner of site



CERTIFIED SURVEY MAP NO. 8970

LOT 2, CERTIFIED SURVEY MAP NO. 8731, LOCATED IN THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 32, TOWNSHIP 7 NORTH, RANGE 22 EAST, CITY OF MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN.

TOTAL AREA
1.137 ACRES
49,510 SQ. FT.

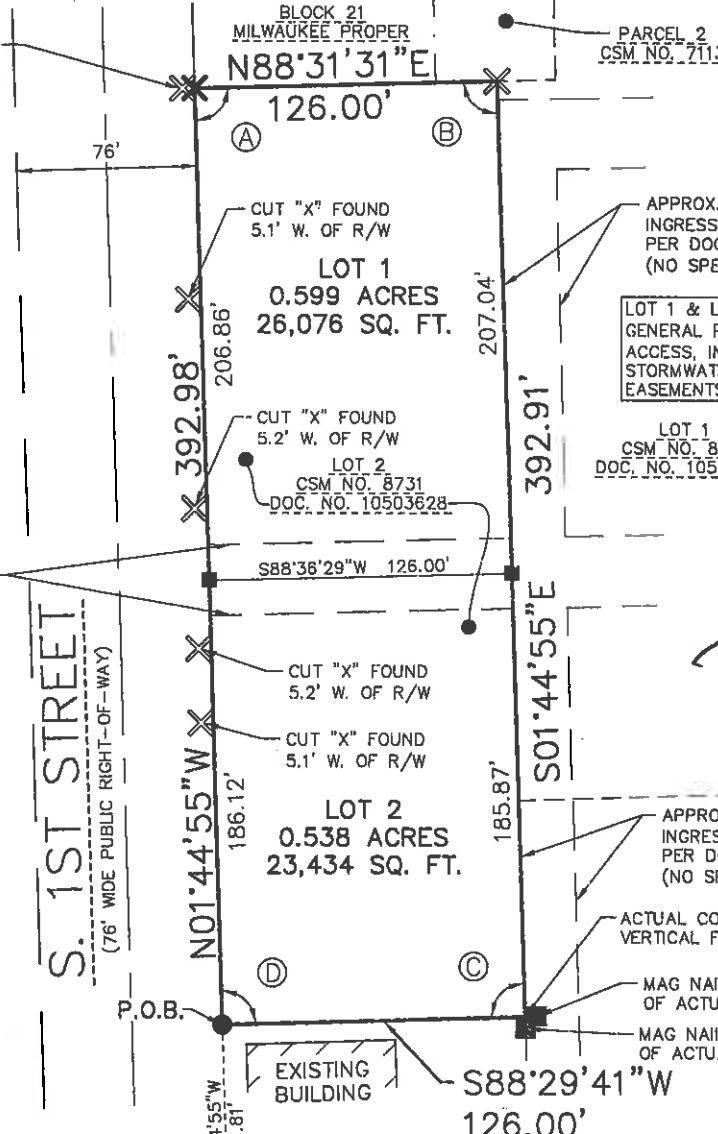
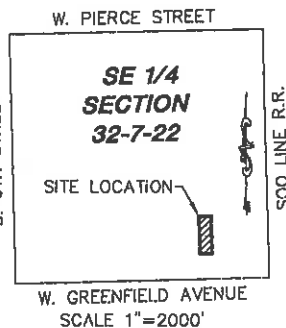
INTERIOR ANGLES	
A	89°43'34"
B	90°16'26"
C	89°45'24"
D	90°14'36"

TAX KEY: 4311302000

ZONING:

PLANNED DEVELOPMENT OVERLAY ZONE

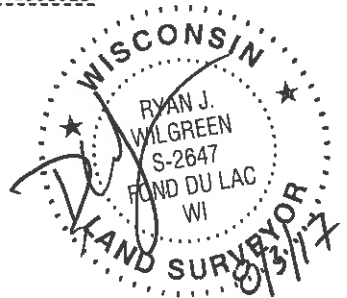
APPROX. LOCATION OF INGRESS/EGRESS EASEMENT PER DOC. #10503973 (NO SPECIFIC WIDTH GIVEN)



APPROX. LOCATION OF INGRESS/EGRESS EASEMENT PER DOC. #10503973 (NO SPECIFIC WIDTH GIVEN)

LOT 1 & LOT 2 ARE SUBJECT TO GENERAL PEDESTRIAN/VEHICULAR ACCESS, INGRESS/EGRESS, PARKING, STORMWATER, UTILITY AND SIGN EASEMENTS PER DOC. NO. 10503973.

LOT 1
CSM NO. 8731
DOC. NO. 10503628



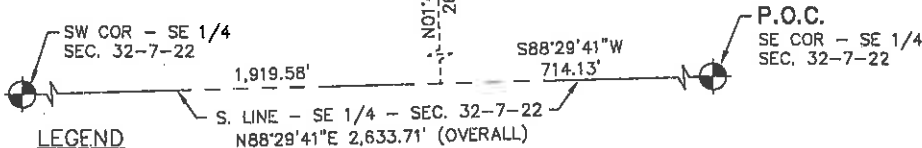
APPROX. LOCATION OF INGRESS/EGRESS EASEMENT PER DOC. #10503973 (NO SPECIFIC WIDTH GIVEN)

ACTUAL CORNER FALLS ON VERTICAL FACE OF CONCRETE CURB

MAG NAIL SET 5.0' E. OF ACTUAL CORNER

MAG NAIL SET 5.0' S. OF ACTUAL CORNER

LOT 3
CSM NO. 8731
DOC. NO. 10503628

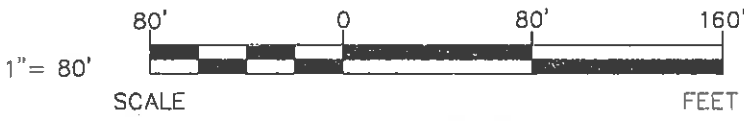


- LEGEND**
- - 3/4" x 18" REBAR SET WEIGHING 1.50 LBS/FT.
 - ✕ - CUT "X" FOUND
 - ✕ - CUT "X" SET IN CONCRETE
 - - MAG NAIL SET IN ASPHALT
 - ⊙ - BRASS CAPPED MON. FOUND

OWNER:
FRESHWATER PLAZA CORP.
1200 N. MAYFAIR ROAD, SUITE 310
MILWAUKEE, WI 53226

SHEET 1 OF 4 SHEETS

NORTH POINT REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (NAD27). THE SOUTH LINE OF THE SOUTHEAST QUARTER HAS A BEARING OF NORTH 88°-29'-41" EAST. (JAN. 2017 DATUM)



EXCEL
ENGINEERING Inc.
SURVEYING GROUP
PROJECT NO. 1605340

Always a Better Plan

100 CAMELOT DRIVE
FOND DU LAC, WI 54935
PHONE: (920) 926-9800
FAX: (920) 926-9801

INFRASTRUCTURE SERVICES DIVISION

Y. H. [Signature] 8/15/17
CENTRAL DRAFTING & RECORDS MANAGER

Z. N. [Signature] 8/15/2017
ENGR. IN CHARGE ENVIRON. ENGR.

CORRECT

J. Polenaka [Signature] 8/15/17
CITY ENGINEER

APPROVED

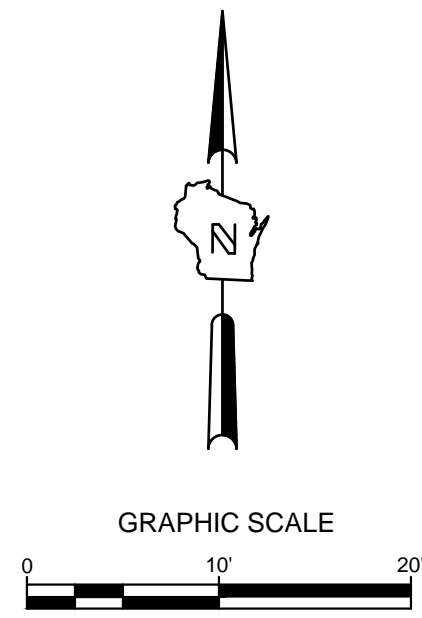
DEPARTMENT OF CITY DEVELOPMENT
CITY OF MILWAUKEE

JUN 30 2017
[Signature]
STAFF APPROVED

DOC. # 10724040

RECORDED:
10/27/2017 11:23 AM
JOHN LA FAVE
REGISTER OF DEEDS
MILWAUKEE COUNTY, WI
AMOUNT: 30.00

DOCUMENT RECEIVED DAMAGED



LEGEND:

— — — — —	SECTION 1/4 SECTION LINE
———	PROPERTY LINE
- - - - -	EASEMENT
-X-X-X-	CHAIN LINK FENCE
~~~~~	TREE LINE
OH — OH	OVERHEAD UTILITY LINE
E — E	ELECTRIC
T — T	TELEPHONE
FO — FO	FIBER OPTIC
CTV — CTV	CABLE TV
SAN — SAN	SANITARY SEWER
FM — FM	FORCE MAIN
ST — ST	STORM SEWER
W — W	WATER MAIN
G — G	GAS
— — — — —	EXISTING CONTOUR
○	MANHOLE
⊕	CATCH BASIN
●	CATCH BASIN (ROUND)
●	ROOF DRAIN
⊗	HYDRANT
⊗	WATER VALVE
⊗	GAS VALVE
○	UTILITY POLE
⊕	GUY WIRE
⊕	GAS METER
⊕	ELECTRIC METER
⊕	UTILITY PEDESTAL
⊕	TRAFFIC SIGNAL
⊕	LIGHT POLE
⊕	SOIL BORING
⊕	MONITORING WELL
○	IRON PIPE FOUND/SET
●	REBAR FOUND/SET
⊗	CHISELED CROSS FOUND/SET
⊕	PK NAIL FOUND/SET
⊕	SPIKE/NAIL
⊕	MONUMENT
⊕	BENCHMARK
⊕	SIGN
⊕	DECIDUOUS TREE
⊕	CONIFEROUS TREE
⊕	BUSH
⊕	POST

**GENERAL NOTES:**

1. THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS DRAWING IS BASED ON FIELD LOCATIONS AND/OR RECORDS FURNISHED BY MUNICIPALITIES AND UTILITY COMPANIES. THE LOCATION AND ACCURACY OF WHICH CANNOT BE GUARANTEED. THERE MAY BE ADDITIONAL UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
2. VERIFY ACTUAL LOCATIONS AND INVERTS IN THE FIELD. ANY POTENTIAL ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
3. DRAWING IS BASED ON FIELD SURVEY COMPLETED BY THE SIGMA GROUP ON DECEMBER 31, 2018.
4. THE VERTICAL DATUM FOR THE PROJECT SURVEY IS CITY OF MILWAUKEE DATUM. BENCHMARK FOR THE PROJECT SURVEY IS THE CITY STANDARD BENCHMARK 503 AT S. BARCLAY & E. WASHINGTON ST AT ELEVATION=8.574

SUMMIT CREDIT UNION  
 S FIRST ST & GREENFIELD AVE  
 MILWAUKEE, WISCONSIN

**SITE SURVEY**

NO. REVISION    DATE BY

DRAWING NO. 18079-SURVEY.DWG

DRAWN BY: ARF

DATE: 1/04/19

PROJECT NO: 18079

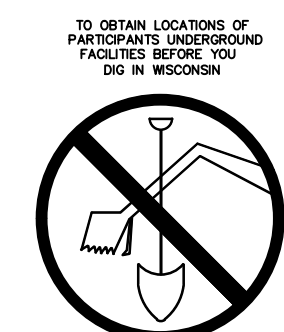
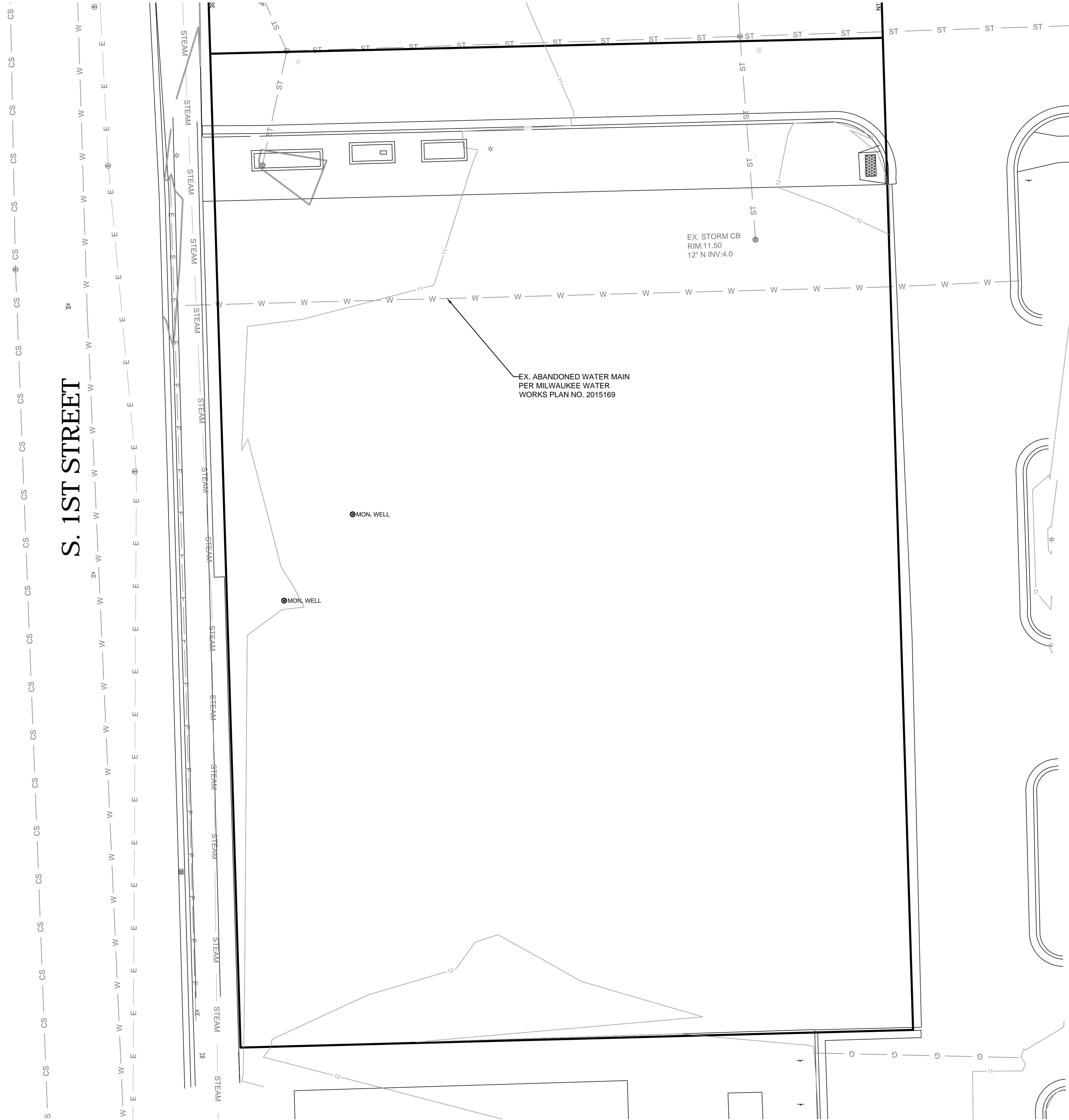
CHECKED BY: TPM

APPROVED BY: CTC

SHEET NO.:

**C001**

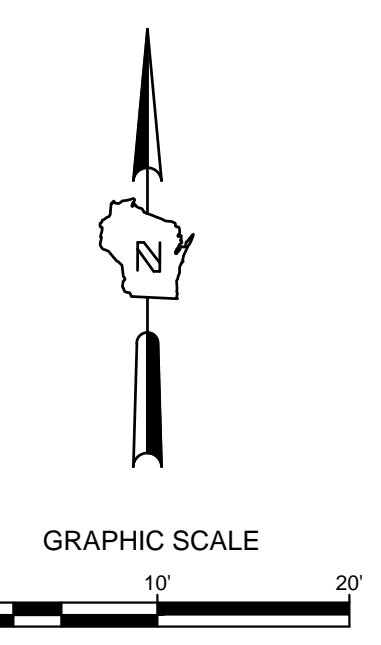
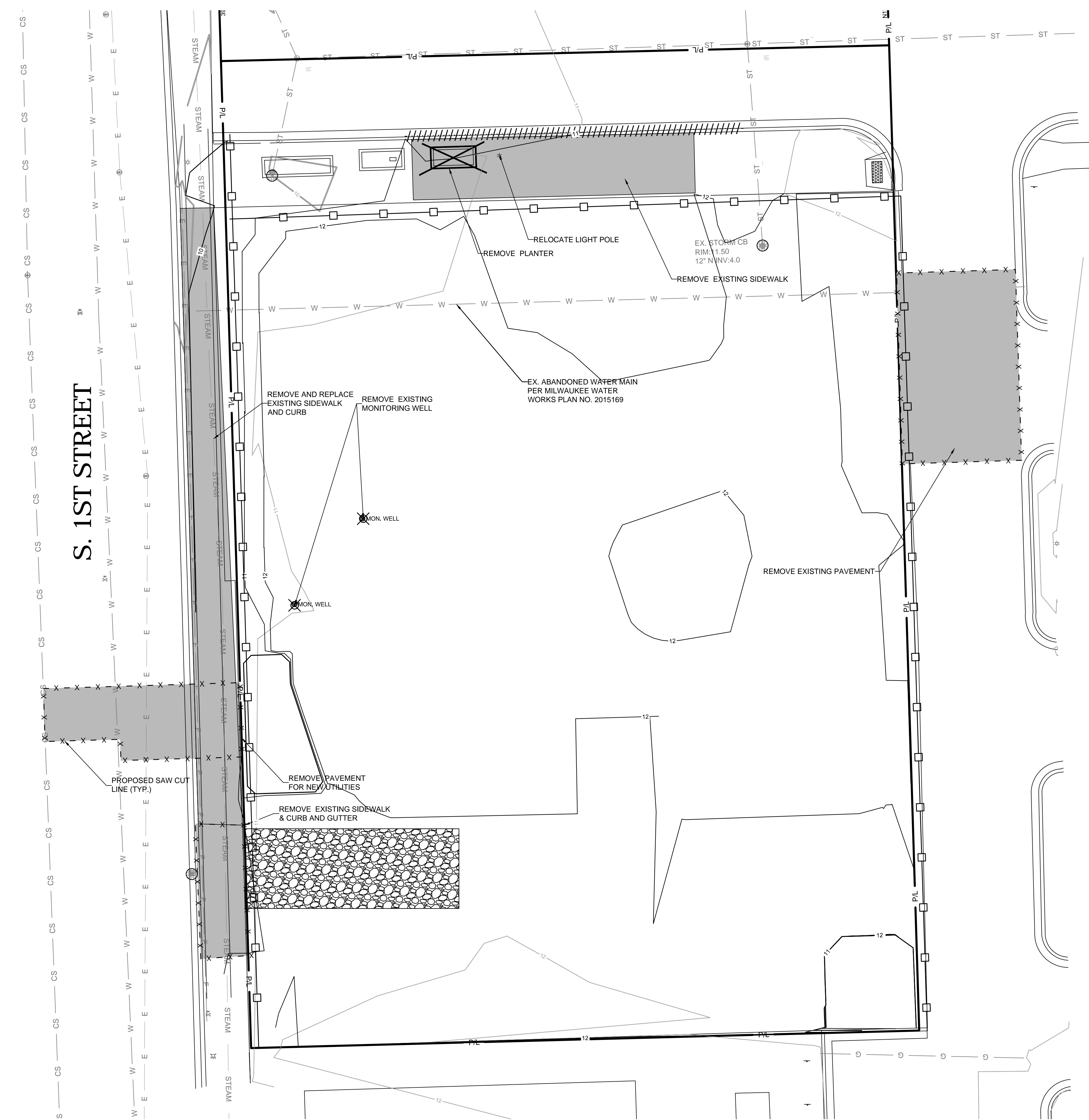
**S. 1ST STREET**



CALL DIGGERS HOTLINE  
 1-800-242-8511  
 TOLL FREE  
 WI STATUTE 182.075(9)43  
 REQUIRES 48 HOURS NOTICE  
 NOTICE BEFORE YOU EXCAVATE  
 MILW. AREA 259-1181

THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS MAP IS BASED ON FIELD MARKINGS AND INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED.





- LEGEND:**
- PROPOSED SILT LOG/ SEDIMENT LOG (A C400)
  - PROPOSED INLET PROTECTION (B C400)
  - PROPOSED TRACKING PAD (C C400)
  - 5' EXISTING CONTOUR
  - 5' PROPOSED CONTOUR
  - CURB REMOVAL
  - STRUCTURE REMOVAL
  - PAVEMENT REMOVAL
  - SAW CUT LINE

- GENERAL NOTES:**
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  2. VERIFY ACTUAL LOCATIONS AND INVERTS IN THE FIELD. ANY POTENTIAL ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
  3. WORK TO BE COMPLETED IS INDICATED IN BOLD TYPE LINES AND EXISTING CONDITIONS ARE INDICATED BY LIGHT TYPE LINES.
  4. ELECTRONIC CIVIL FILES ARE AVAILABLE UPON WRITTEN REQUEST. DO NOT USE ELECTRONIC CIVIL FILES TO LAYOUT FOUNDATIONS, COLUMN LINES, LIGHT POLES, OR OTHER NON CIVIL SITE WORK. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF BUILDING AND ARCHITECTURAL FEATURES.
  5. SEE SHEET C400 FOR A COMPLETE LIST OF EROSION CONTROL NOTES AND DETAILS. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO START OF LAND DISTURBING ACTIVITIES.
  6. DO NOT BEGIN LAND DISTURBING ACTIVITIES UNTIL AN EROSION CONTROL PERMIT IS OBTAINED FROM LOCAL JURISDICTION.

SUMMIT CREDIT UNION  
 S FIRST ST & GREENFIELD AVE  
 MILWAUKEE, WISCONSIN

EROSION CONTROL PLAN

NO. REVISION	DATE BY
DRAWING NO. 18079-DEMO&EROSION.DWG	
DRAWN BY: ARF	
DATE: 1/04/19	
PROJECT NO: 18079	
CHECKED BY: TPM	
APPROVED BY: CTC	
SHEET NO.:	

C002

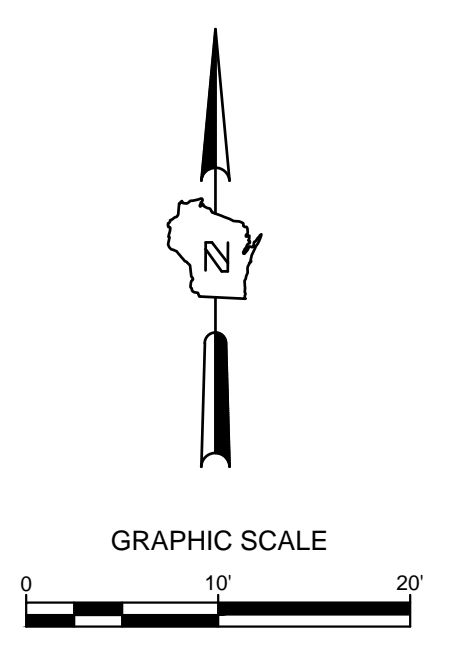
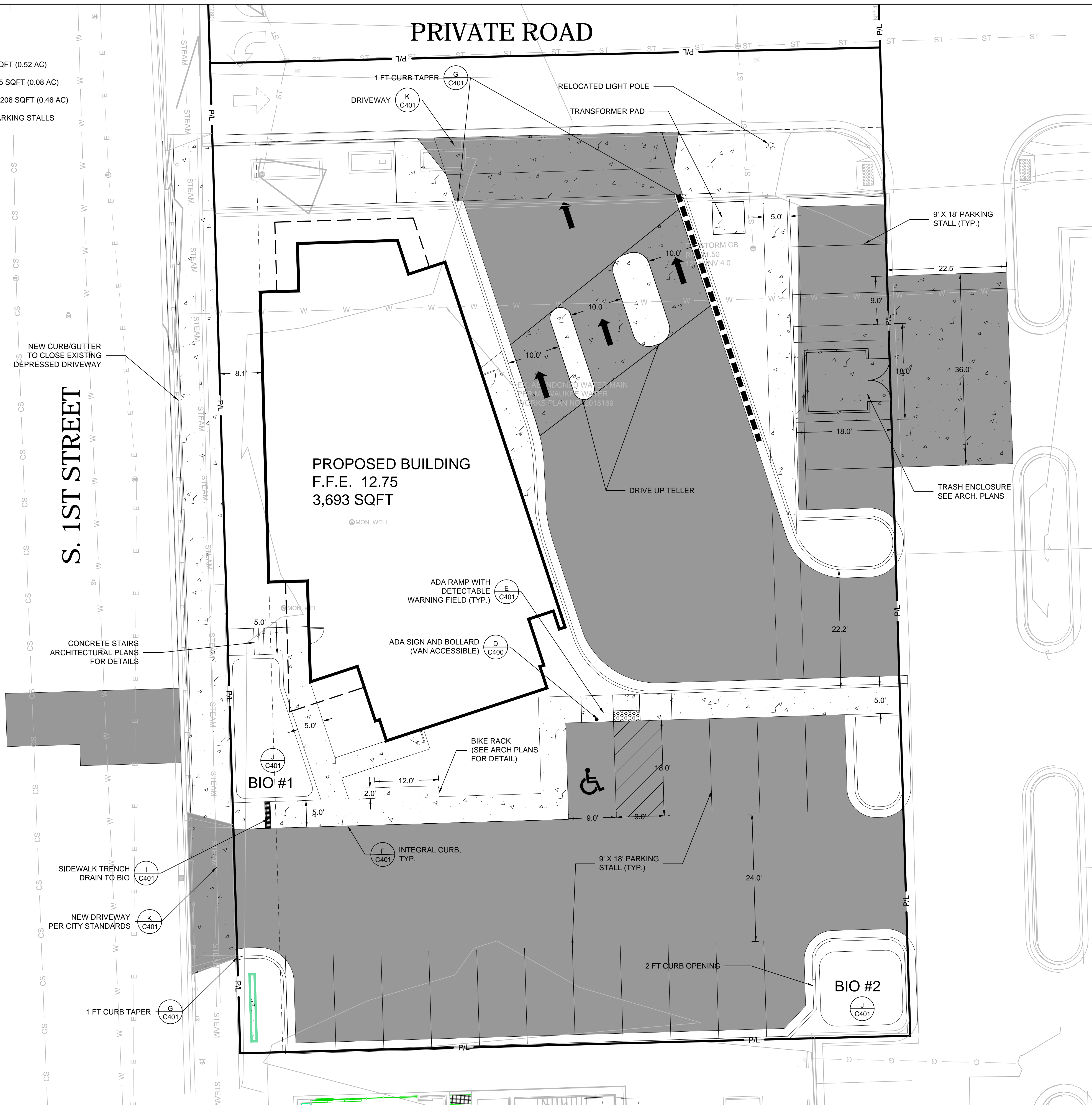
TO OBTAIN LOCATIONS OF PARTWATER UNDERGROUND FACILITIES BEFORE YOU DIG IN RECORDS

CALL DIGGERS HOTLINE  
 1-800-242-8511  
 TOLL FREE  
 WI STATE 182.075(974)  
 REQUIRES MIN. 3 WORK DAYS  
 NOTICE BEFORE YOU EXCAVATE  
 MILW. AREA 259-1181

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**SITE INFORMATION:**  
 TOTAL SITE = 23,441 SQFT (0.54 AC)  
 TOTAL DISTURBED AREA = 22,762 SQFT (0.52 AC)  
 EXISTING IMPERVIOUS AREA = 3,535 SQFT (0.08 AC)  
 PROPOSED IMPERVIOUS AREA = 20,206 SQFT (0.46 AC)  
 TOTAL PROPOSED PARKING = 21 PARKING STALLS



- LEGEND:**
- 5" THICK CONCRETE WALK (C401)
  - ASPHALT SURFACE (A C401)
  - CONCRETE PAVEMENT (B C401)
  - CURB & GUTTER (ACCEPT) (D C401)
  - CURB & GUTTER (REJECT) (D C401)
  - BOLLARD (H C401)

- GENERAL NOTES:**
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  4. ELECTRONIC CIVIL FILES ARE AVAILABLE UPON WRITTEN REQUEST. DO NOT USE ELECTRONIC CIVIL FILES TO LAYOUT FOUNDATIONS, COLUMN LINES, LIGHT POLES, OR OTHER NON CIVIL SITE WORK. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF BUILDING AND ARCHITECTURAL FEATURES.
  5. DIMENSIONS ARE FROM FACE OF CURB OR EDGE OF PAVEMENT.
  6. WORK WITHIN THE PUBLIC RIGHT OF WAY, INCLUDING BUT NOT LIMITED TO DRIVEWAY OPENINGS, SIDEWALK AND RAMPS, PAVING, AND CURB AND GUTTER SHALL BE COMPLETED PER MUNICIPAL AND/OR COUNTY REQUIREMENTS AND STANDARDS.

**S. 1ST STREET**

**PRIVATE ROAD**

**PROPOSED BUILDING**  
 F.F.E. 12.75  
 3,693 SQFT

**BIO #1**

**BIO #2**



CALL DIGGERS HOTLINE  
 1-800-242-8511  
 TOLL FREE  
 WI STATUTE 182.075(9)(4)  
 REQUIRES 3 WORK DAYS  
 NOTICE BEFORE YOU EXCAVATE  
 MILW. AREA 259-1181

THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS MAP IS BASED ON FIELD MARKINGS AND INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED.

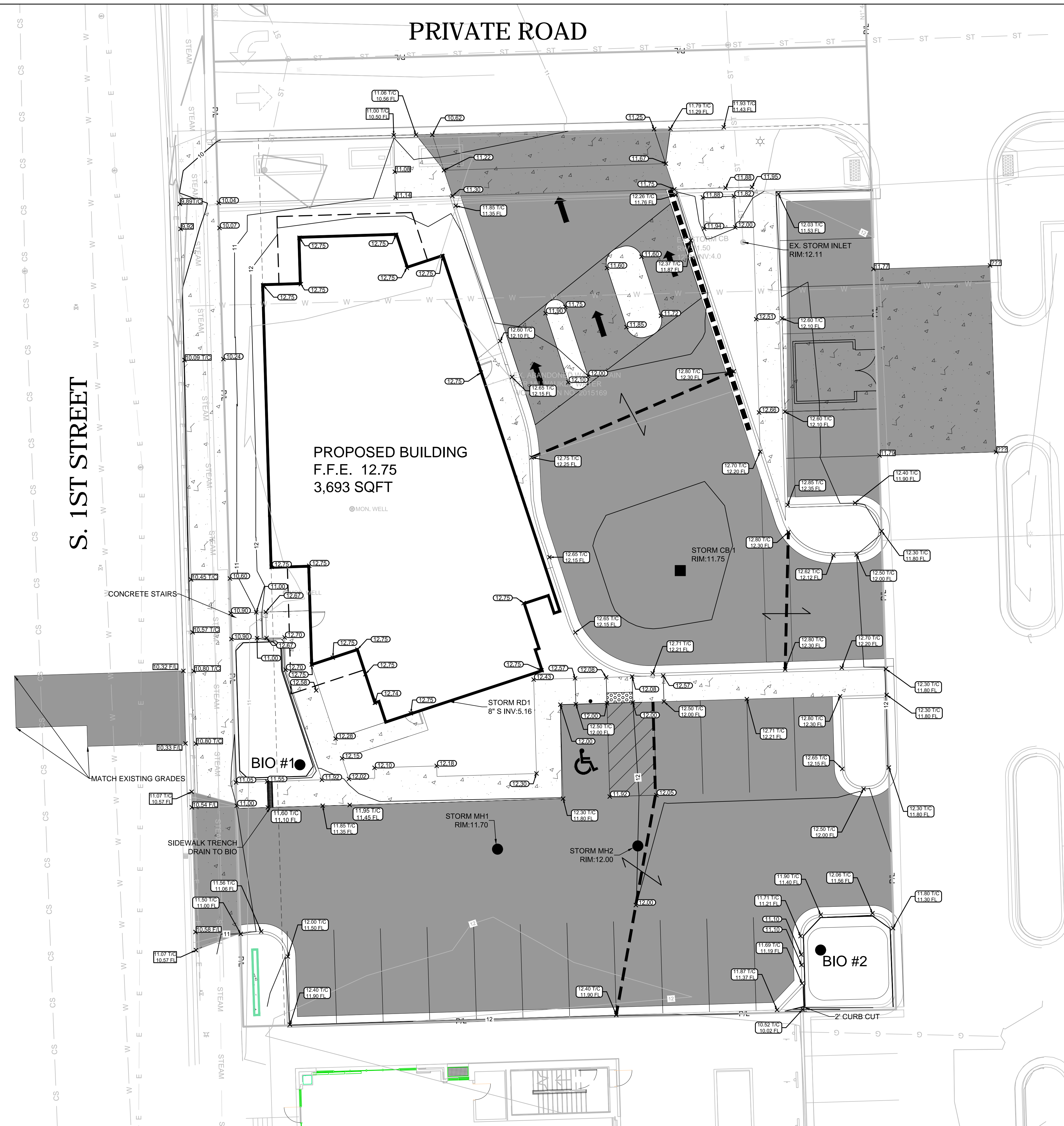
SUMMIT CREDIT UNION  
 S FIRST ST & GREENFIELD AVE  
 MILWAUKEE, WISCONSIN

**SITE PLAN**

NO. REVISION	DATE BY
DRAWING NO.	18079-SITE PLAN.DWG
DRAWN BY:	ARF
DATE:	1/04/19
PROJECT NO.:	18079
CHECKED BY:	TPM
APPROVED BY:	CTC
SHEET NO.:	

**C100**





**LEGEND:**

- ASPHALT SURFACE (A C401)
- CONCRETE PAVEMENT (B C401)
- 5" THICK CONCRETE WALK (C C401)
- CURB & GUTTER (ACCEPT) (D C401)
- CURB & GUTTER (REJECT) (D C401)
- 5' EXISTING CONTOUR
- 5' PROPOSED CONTOUR
- PROPOSED CURB & GUTTER SPOT GRADE  
T/C: TOP OF CURB GRADE  
FL: FLOW LINE CURB GRADE
- PROPOSED ASPHALT SPOT GRADE
- EXISTING SURFACE SPOT GRADE
- GRADE BREAK

- GENERAL NOTES:**
- THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS DRAWING IS BASED ON FIELD LOCATIONS AND/OR RECORDS FURNISHED BY MUNICIPALITIES AND UTILITY COMPANIES. THE LOCATION AND ACCURACY OF WHICH CANNOT BE GUARANTEED. THERE MAY BE ADDITIONAL UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
  - VERIFY ACTUAL LOCATIONS AND INVERTS IN THE FIELD. ANY POTENTIAL ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
  - WORK TO BE COMPLETED IS INDICATED IN BOLD TYPE LINES AND EXISTING CONDITIONS ARE INDICATED BY LIGHT TYPE LINES.
  - ELECTRONIC CIVIL FILES ARE AVAILABLE UPON WRITTEN REQUEST. DO NOT USE ELECTRONIC CIVIL FILES TO LAYOUT FOUNDATIONS, COLUMN LINES, LIGHT POLES, OR OTHER NON-CIVIL SITE WORK. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF BUILDING AND ARCHITECTURAL FEATURES.
  - DIMENSIONS ARE FROM FACE OF CURB OR EDGE OF PAVEMENT.
  - WORK WITHIN THE PUBLIC RIGHT OF WAY, INCLUDING BUT NOT LIMITED TO DRIVEWAY OPENINGS, SIDEWALK AND RAMPS, PAVING, AND CURB AND GUTTER SHALL BE COMPLETED PER MUNICIPAL AND/OR COUNTY REQUIREMENTS AND STANDARDS.
  - EARTHWORK SHALL BE IN ACCORDANCE WITH GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

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 MILWAUKEE, WISCONSIN

**GRADING PLAN**

NO. REVISION	DATE BY
DRAWING NO.	18079-GRADING PLAN.DWG
DRAWN BY:	ARF
DATE:	1/04/19
PROJECT NO.:	18079
CHECKED BY:	TPM
APPROVED BY:	CTC
SHEET NO.:	

**C200**

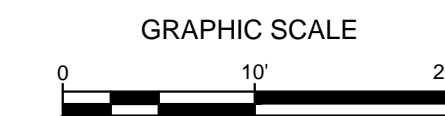
TO OBTAIN LOCATIONS OF PARTWATER DISCHARGE FACILITIES BEFORE YOU DIG IN RECORDS

CALL DIGGERS HOTLINE  
 1-800-242-8511  
 TOLL FREE

WI STATE 182.0175(94)  
 REQUIRES 3 WORK DAYS  
 NOTICE BEFORE YOU EXCAVATE  
 MILW. AREA 259-1181

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**LEGEND:**

- W --- PROPOSED WATER SERVICE
- SAN --- PROPOSED SANITARY SERVICE
- >--- PROPOSED STORM SEWER
- E --- PROPOSED ELECTRICAL SERVICE
- PROPOSED STORM MANHOLE (A C401)

**GENERAL NOTES:**

1. THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS DRAWING IS BASED ON FIELD LOCATIONS AND/OR RECORDS FURNISHED BY MUNICIPALITIES AND UTILITY COMPANIES. THE LOCATION AND ACCURACY OF WHICH CANNOT BE GUARANTEED. THERE MAY BE ADDITIONAL UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
2. VERIFY ACTUAL LOCATIONS AND INVERTS IN THE FIELD. ANY POTENTIAL ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
3. WORK TO BE COMPLETED IS INDICATED IN BOLD TYPE LINES AND EXISTING CONDITIONS ARE INDICATED BY LIGHT TYPE LINES.
4. ELECTRONIC CIVIL FILES ARE AVAILABLE UPON WRITTEN REQUEST. DO NOT USE ELECTRONIC CIVIL FILES TO LAYOUT FOUNDATIONS, COLUMN LINES, LIGHT POLES, OR OTHER NON CIVIL SITE WORK. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF BUILDING AND ARCHITECTURAL FEATURES.
5. ALL UTILITIES WITHIN 5 FEET OF PAVED AREAS SHALL REQUIRE GRANULAR BACKFILL. SLURRY BACKFILL IS REQUIRED FOR ALL WORK IN PUBLIC RIGHT OF WAY.
6. PRIVATE STORM INLETS IN PAVEMENT SHALL REQUIRE DRAIN TILE STUBS OF 10 FEET IN TWO DIRECTIONS FOR SUBDRAINAGE. RIM GRADE FOR STORM INLETS IN CURB AND GUTTER ARE FLOW LINE GRADES.
7. WORK IN PUBLIC RIGHT OF WAY SHALL FOLLOW MATERIAL AND INSTALLATION REQUIREMENTS PER MUNICIPAL AND/OR COUNTY.
8. PRIVATE STORM SEWER 12-INCH DIAMETER OR LARGER SHALL BE HDPE. BELOW 12-INCH DIAMETER SHALL BE PVC SDR-35 ASTM D3034. PRIVATE WATER MAIN SHALL BE CLASS 150 DR 18 PVC CONFORMING TO AWWA C-900. PRIVATE SANITARY SEWER SHALL BE PVC SDR-35 ASTM D3034.
9. COORDINATE FINAL LOCATION AND DESIGN OF PRIVATE UTILITY SERVICES (ELECTRIC, GAS, PHONE, CABLE) WITH UTILITY COMPANIES.
10. IF PROJECT IS DESIGN BUILD MEP, THE GENERAL CONTRACTOR IS REQUIRED TO PROVIDE FINAL SEWER AND WATER DESIGN SHOWING LOCATION, INVERTS AND SIZES TO THE ENGINEER FOR FINAL REVIEW AND VERIFICATION PRIOR TO STARTING UNDERGROUND UTILITY CONSTRUCTION.

**PRIVATE ROAD**

**S. 1ST STREET**

**PROPOSED BUILDING**  
 F.F.E. 12.75  
 3,693 SQFT

CONNECT TO EX. COMBINED SEWER PER CITY REQUIREMENTS 8" E INV:1.69±

CONNECT TO EX. 6" WM PER CITY REQUIREMENTS 2" E INV:2.80±

SAN. BLDG SERVICE 8" W INV:2.64  
 WATER SERVICE 2" W INV:3.50

STORM RD1 8" S INV:5.16

BIO #1

STORM OCS RIM:8.58 12" SE INV:4.75

STORM MH1 RIM:11.70 12" NW INV:4.67 8" N INV:5.00 12" E INV:4.67

STORM MH2 RIM:12.00 12" W INV:4.46 12" SE INV:4.46 12" N INV:4.46

STORM OCS-2 RIM:8.90 12" NW INV:4.75

BIO #2



CALL DIGGERS HOTLINE  
 1-800-242-8511  
 TOLL FREE  
 WI STATE 182.0175(974)  
 REQUIRES MIN. 3 WORK DAYS  
 NOTICE BEFORE YOU EXCAVATE  
 MILW. AREA 259-1181

THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS MAP IS BASED ON FIELD MARKINGS AND INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED.

SUMMIT CREDIT UNION  
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 MILWAUKEE, WISCONSIN

**UTILITY PLAN**

NO. REVISION DATE BY

DRAWING NO. 18079-UTILITY PLAN.DWG

DRAWN BY: ARF

DATE: 1/04/19

PROJECT NO: 18079

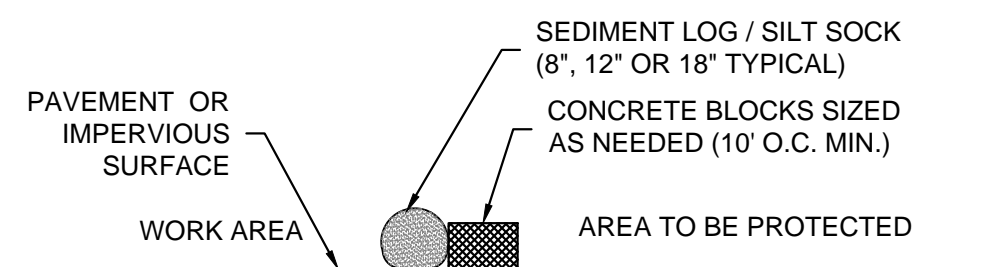
CHECKED BY: ####

APPROVED BY: ####

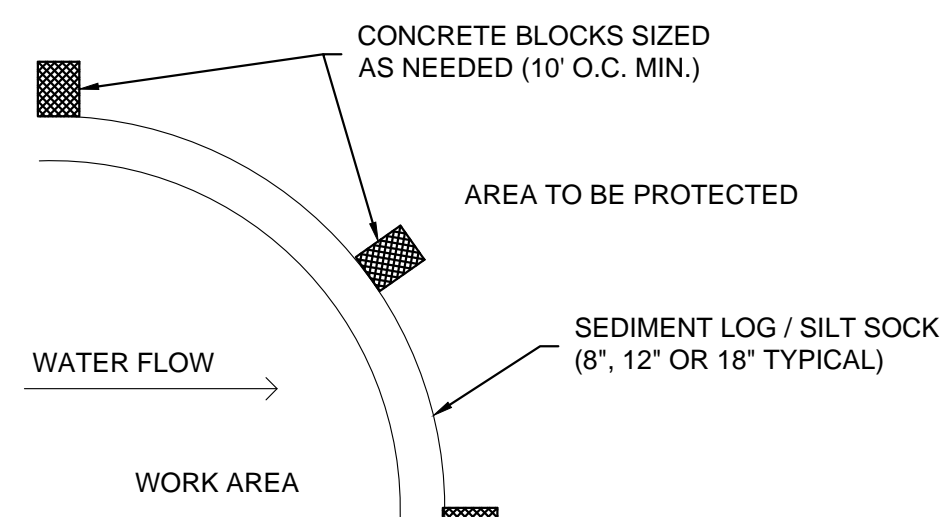
SHEET NO.:

**C300**





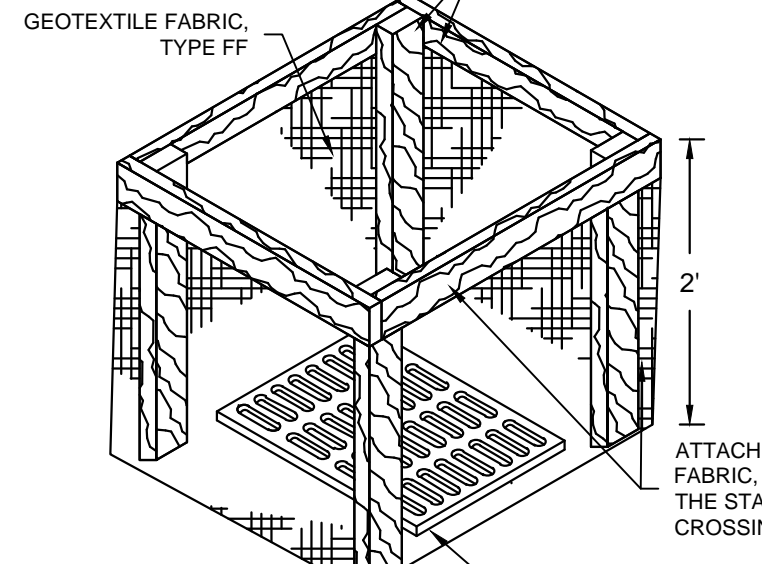
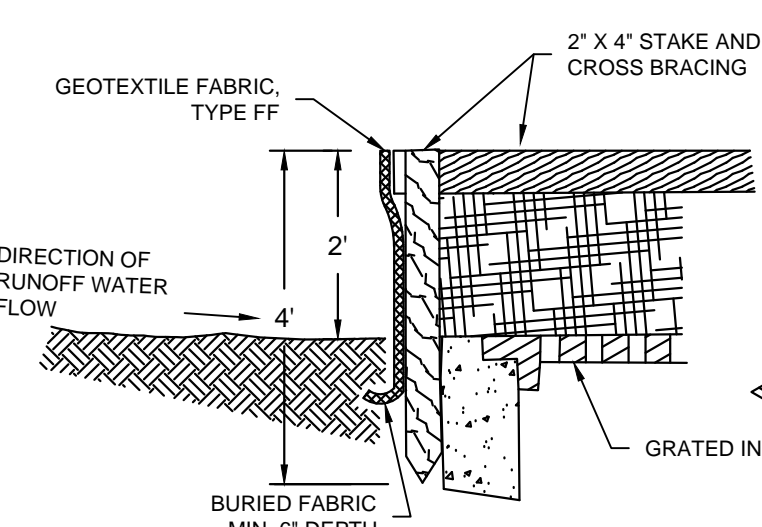
**SECTION A**



**PLAN A**

**SEDIMENT LOG / SILT SOCK ON PAVEMENT DETAIL**

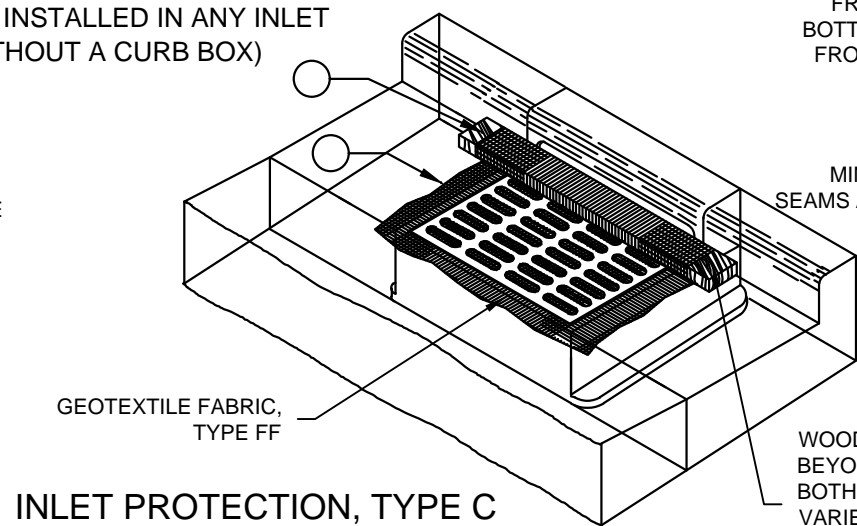
**A** NOT TO SCALE



**INLET PROTECTION, TYPE A**

- GENERAL NOTES**
1. MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.
  2. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.
  3. FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10' AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
  4. FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
  5. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

**INLET PROTECTION, TYPE B (WITHOUT CURB BOX) (CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)**

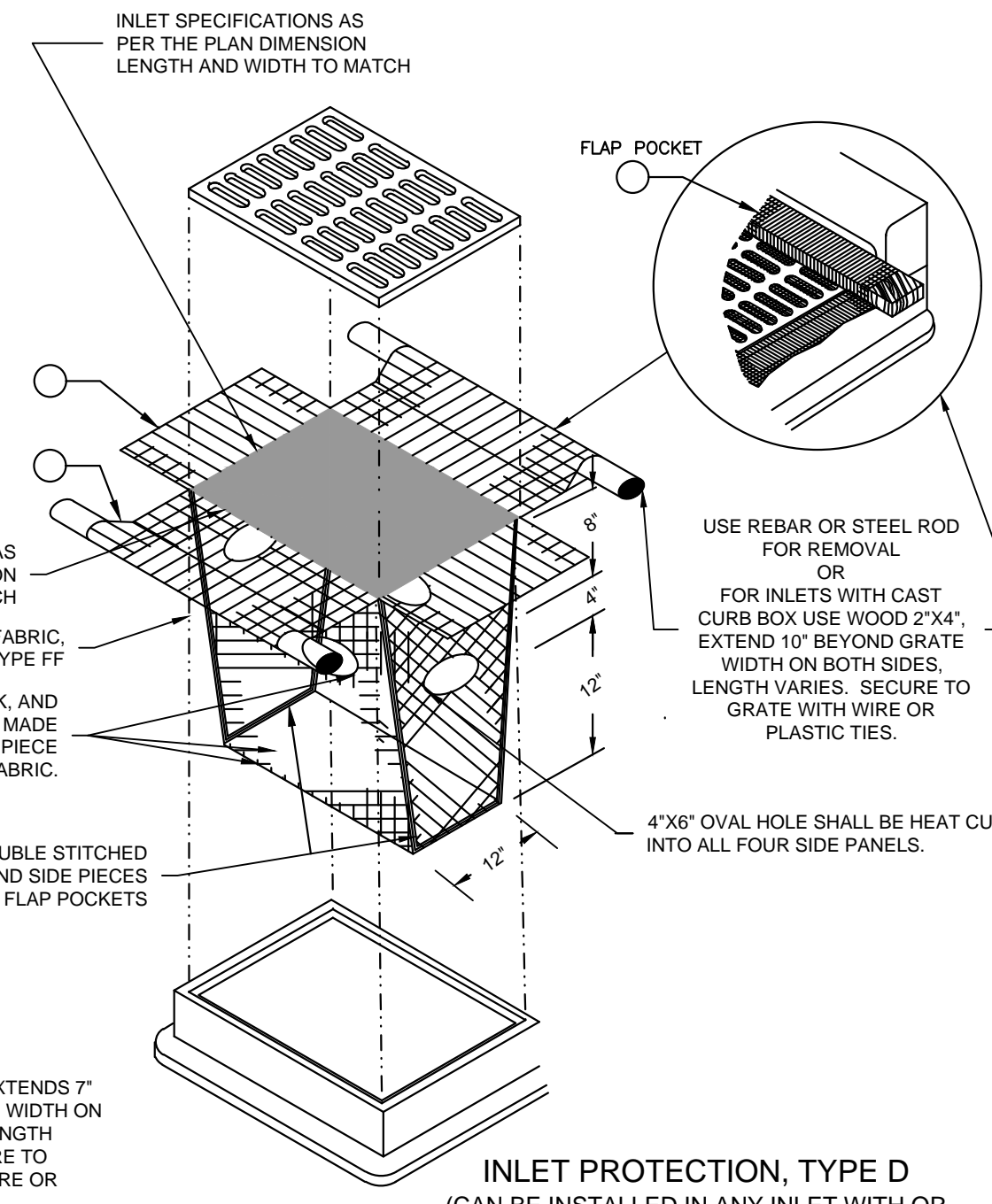


**INLET PROTECTION, TYPE C (WITH CURB BOX)**

- INSTALLATION NOTES**
- TYPE B & C**  
TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE. THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.
- TYPE D**  
DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE. THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

**B INLET PROTECTION TYPE A, B, C, AND D: WDNR TS-1060**

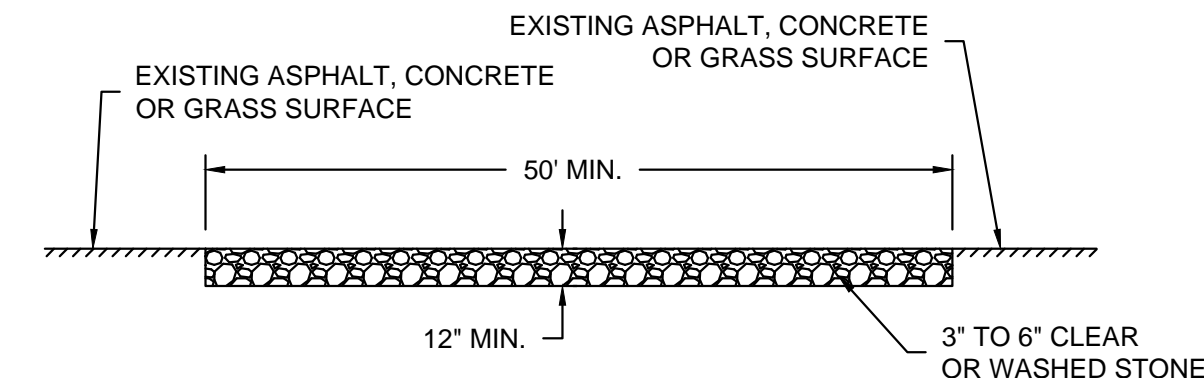
NOT TO SCALE



**INLET PROTECTION, TYPE D (CAN BE INSTALLED IN ANY INLET WITH OR WITHOUT A CURB BOX AS PER NOTE)**

- GENERAL NOTE:**  
INLET PROTECTION SHALL CONFORM TO WDNR CONSERVATION PRACTICE STANDARD #1060

THIS DRAWING IS BASED ON WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD DETAIL DRAWING 8 E 10-2



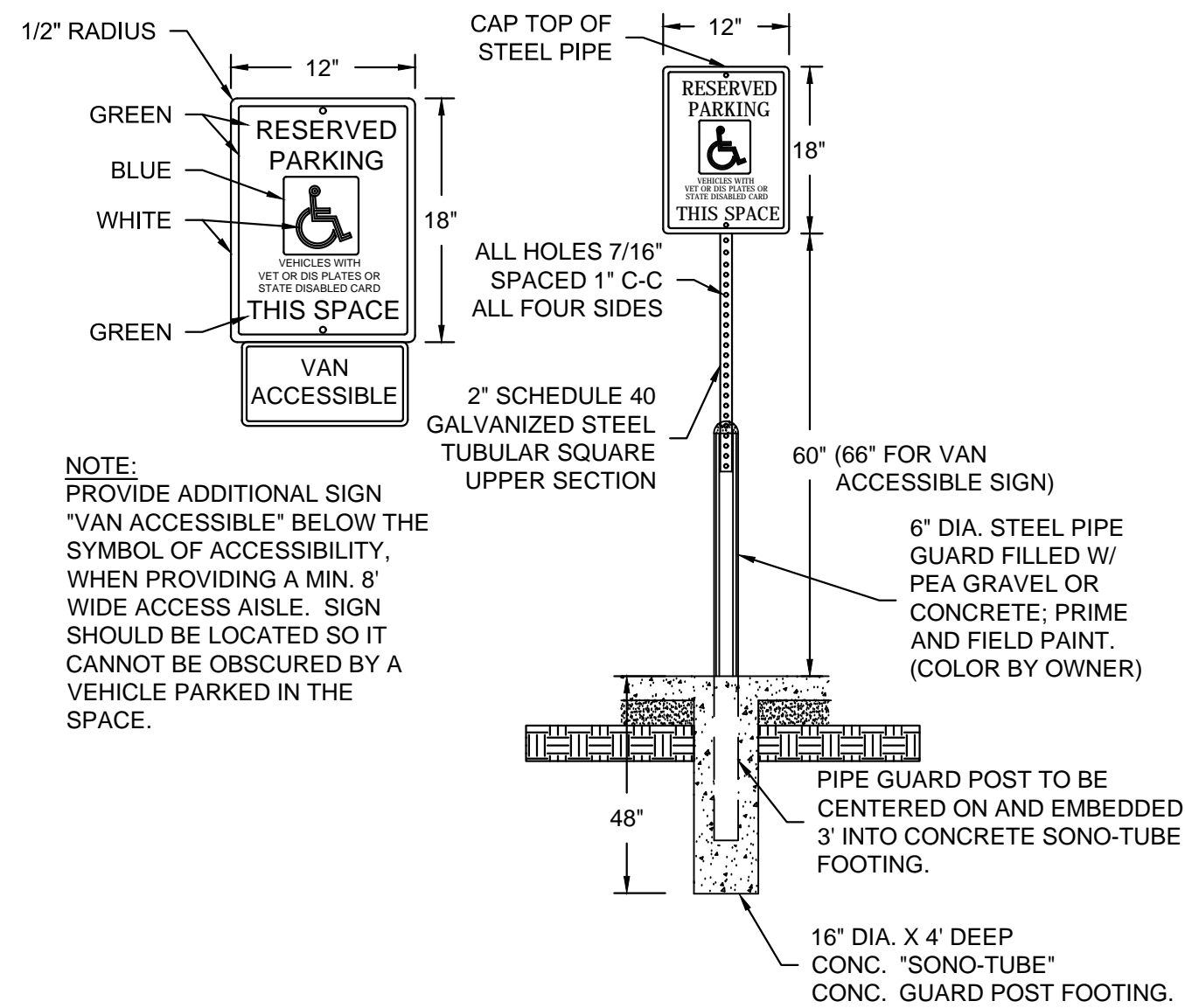
**GENERAL NOTE:**  
STONE TRACKING PAD SHALL CONFORM TO WDNR CONSERVATION PRACTICE STANDARD #1057

**CONSTRUCTION ENTRANCE/EXIT DETAIL: WDNR TS-1057**

**C** NOT TO SCALE

**EROSION CONTROL NOTES:**

1. CONSTRUCTION SITE EROSION CONTROL AND SEDIMENTATION CONTROL SHALL COMPLY WITH THE REQUIREMENTS OF THE LOCAL MUNICIPALITY AND SHALL EMPLOY EROSION CONTROL METHODS AS SHOWN AND SPECIFIED IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS.
2. ALL EROSION CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON THE SITE.
3. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED FOR STABILITY AND OPERATION AFTER A RAINFALL OF 0.5 INCHES OR MORE, BUT NO LESS THAN ONCE EVERY WEEK. MAINTENANCE OF ALL EROSION CONTROL STRUCTURES SHALL BE PROVIDED TO INSURE INTENDED PURPOSE IS ACCOMPLISHED. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP AND REMOVAL OF ALL SEDIMENT WHEN LEAVING PROPERTY. EROSION CONTROL MEASURES MUST BE IN WORKING CONDITION AT END OF EACH WORK DAY. DOCUMENT AND MAINTAIN RECORDS OF INSPECTIONS IN ACCORDANCE WITH WDNR NR216 REQUIREMENTS.
4. SILT FENCE SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE CONSTRUCTION PLANS. SEDIMENT DEPOSITS SHALL BE REMOVED FROM BEHIND THE SILT FENCE WHEN DEPOSITS REACH A DEPTH OF 6 INCHES. THE SILT FENCE SHALL BE REPAIRED OR REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
5. FILTER FABRIC SHALL BE INSTALLED BENEATH INLET COVERS TO TRAP SEDIMENT PER INLET PROTECTION DETAIL IN THE LOCATIONS SHOWN ON THE CONSTRUCTION PLANS.
6. EROSION CONTROL MEASURES SHALL BE MAINTAINED ON A CONTINUING BASIS UNTIL SITE IS FULLY STABILIZED.
7. PERIODIC STREET SWEEPING SHALL BE COMPLETED TO MAINTAIN ADJACENT STREETS FREE OF DUST AND DIRT.
8. SILT FENCE SHALL BE INSTALLED IN HORSESHOE FASHION AROUND ANY TOPSOIL AND FILL STOCKPILES.
9. SITE DEWATERING. WATER PUMPED FROM THE SITE SHALL BE TREATED BY SEDIMENT BASINS OR OTHER APPROPRIATE MEASURES SPECIFIED IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS. WATER MAY NOT BE DISCHARGED IN A MANNER THAT CAUSES EROSION OF THE SITE, ADJACENT SITES, OR RECEIVING CHANNELS.
10. WASTE AND MATERIAL DISPOSAL. ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, WASTEWATER, TOXIC MATERIALS, OR HAZARDOUS MATERIALS) SHALL BE PROPERLY DISPOSED AND NOT ALLOWED TO BE CARRIED OFF-SITE BY RUNOFF OR WIND.
11. TRACKING. EACH SITE SHALL HAVE GRAVELED ROADS, ACCESS DRIVES AND PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH TO PREVENT SEDIMENT FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD SHALL BE REMOVED BY STREET CLEANING TO THE SATISFACTION OF THE MUNICIPALITY, BEFORE THE END OF EACH WORKDAY. FLUSHING MAY NOT BE USED UNLESS SEDIMENT WILL BE CONTROLLED BY A SEDIMENT BASIN OR PRACTICE SPECIFIED IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS. NOTIFY MUNICIPALITY OF ANY CHANGES IN STABILIZED CONSTRUCTION ENTRANCE LOCATION.
12. SEDIMENT CLEANUP. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF A STORM EVENT SHALL BE CLEANED UP BY THE END OF THE NEXT WORKDAY. ALL OTHER OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE CLEANED UP BY THE END OF THE WORKDAY.
13. ALL DISTURBED GROUND LEFT INACTIVE FOR SEVEN OR MORE DAYS SHALL BE STABILIZED BY TEMPORARY OR PERMANENT SEEDING, MULCHING, SODDING, COVERING WITH TARPS, OR EQUIVALENT PRACTICE FOUND IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARD. IF TEMPORARY SEEDING IS USED, A PERMANENT COVER SHALL ALSO BE REQUIRED AS PART OF THE FINAL SITE STABILIZATION. SEEDING OR SODDING SHALL BE REQUIRED AS PART OF THE FINAL SITE STABILIZATION.
14. SOIL OR DIRT STORAGE PILES SHALL BE LOCATED A MINIMUM OF TWENTY-FIVE FEET FROM ANY DOWNSLOPE ROAD, LAKE, STREAM, WETLAND, OR DRAINAGE CHANNEL. STRAW BALE OR FILTER FABRIC FENCES SHALL BE PLACED ON THE DOWN SLOPE SIDE OF THE PILES. IF REMAINING FOR MORE THAN THIRTY DAYS, PILES SHALL BE STABILIZED BY MULCHING, VEGETATIVE COVER, TARPS OR OTHER MEANS.
15. WHEN THE DISTURBED AREA HAS BEEN STABILIZED BY PERMANENT VEGETATION OR OTHER MEANS, TEMPORARY PRACTICES, SUCH AS FILTER FABRIC FENCES, STRAW BALES, SEDIMENT AND SEDIMENT TRAPS, FOUND IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS SHALL BE REMOVED.
16. NOTIFY THE LOCAL MUNICIPALITY HAVING JURISDICTION WITHIN TWO WORKING DAYS OF COMMENCING ANY LAND DEVELOPMENT OR LAND DISTURBING ACTIVITY.
17. OBTAIN PERMISSION FROM THE LOCAL MUNICIPALITY HAVING JURISDICTION PRIOR TO MODIFYING THE EROSION CONTROL PLAN.
18. REPAIR ANY SILTATION OR EROSION DAMAGE TO ADJOINING SURFACES AND DRAINAGE WAYS RESULTING FROM LAND DEVELOPMENT OR LAND DISTURBING ACTIVITIES.
19. KEEP A COPY OF THE EROSION CONTROL PLAN ON SITE.
20. CONTRACTOR SHALL, TO THE EXTENT POSSIBLE, MINIMIZE DISTURBANCE OF EXISTING VEGETATION DURING CONSTRUCTION.
21. CONTRACTOR SHALL, TO THE EXTENT POSSIBLE, MINIMIZE COMPACTION OF TOPSOIL AND PRESERVE TOPSOIL IN GREENSPACE AREAS.
22. WASH WATER FROM VEHICLES AND WHEEL WASHING SHALL BE CONTAINED AND TREATED PRIOR TO DISCHARGE.
23. CONTRACTOR SHALL MAINTAIN SPILL KITS ON-SITE.
24. PERMANENT TURF SEEDING OF DISTURBED AREA MUST OCCUR PRIOR TO SEPTEMBER 15TH. IF ADEQUATE TIME IS NOT AVAILABLE TO APPLY PERMANENT SEEDING PRIOR TO SEPTEMBER 15TH, THEN DISTURBED AREAS SHALL BE TEMPORARILY SEED WITH AN ANNUAL RYE GRASS PER WDNR TECHNICAL STANDARD 1059, WHERE THE TEMPORARY SEEDING MUST OCCUR PRIOR TO OCTOBER 15TH.
25. IF TEMPORARY SEEDING IS NOT COMPLETED BY OCTOBER 15TH, APPLY SOIL STABILIZERS AND DORMANT SEED TO DISTURBED AREA PER WDNR TECHNICAL STANDARD 1050. INSPECT ANIONIC PAM APPLICATION AT A MINIMUM FREQUENCY OF EVERY TWO MONTHS AND REAPPLY AS NECESSARY.



**D HANDICAP SIGN & BOLLARD POST**

NOT TO SCALE

NO. REVISION DATE BY

DRAWING NO. 18079-DETAILS.DWG

DRAWN BY: ARF

DATE: 1/04/19

PROJECT NO: 18079

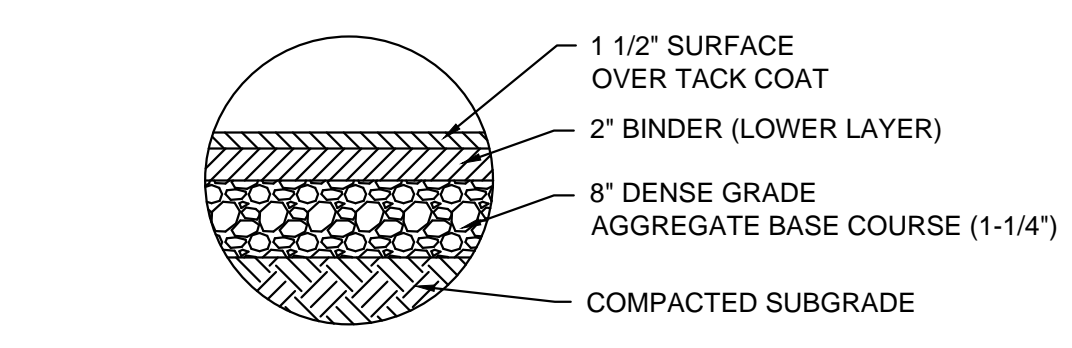
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APPROVED BY: CTC

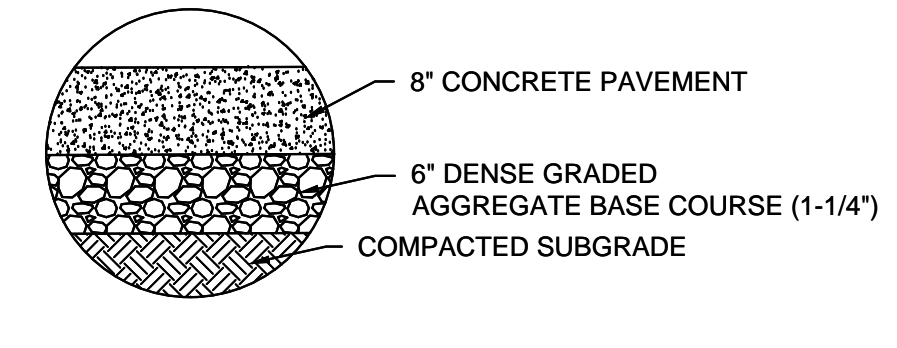
SHEET NO.:

**C400**

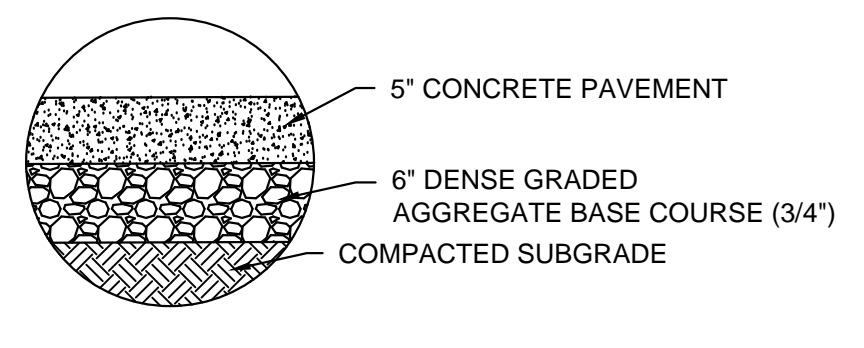




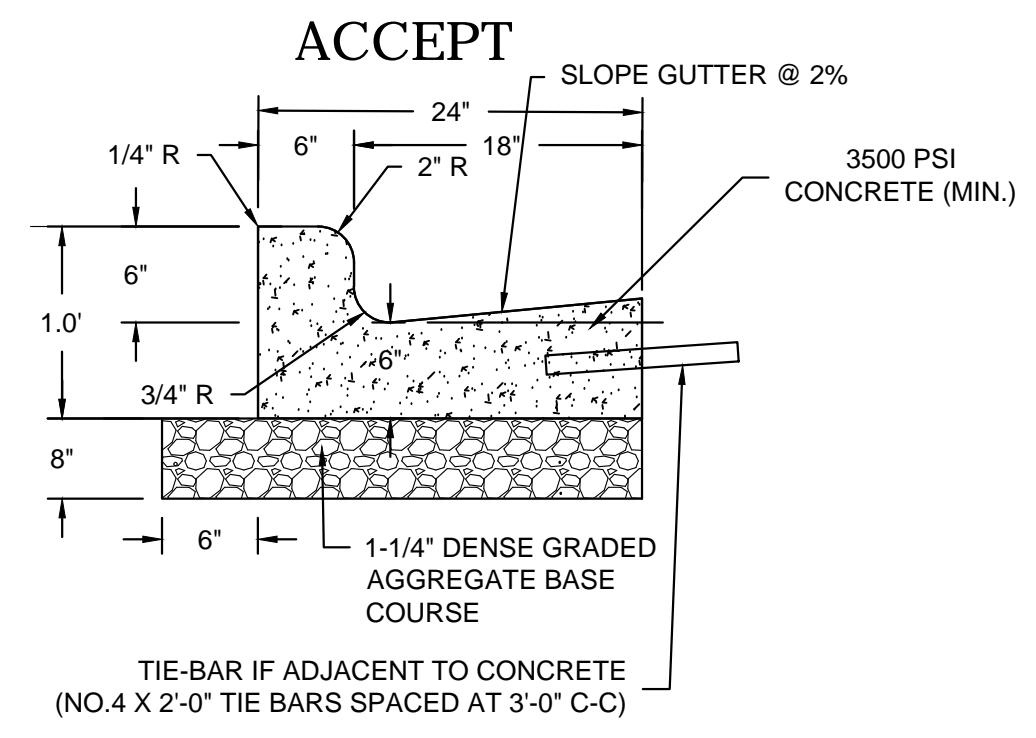
**A ASPHALT PAVEMENT SECTION**  
NOT TO SCALE



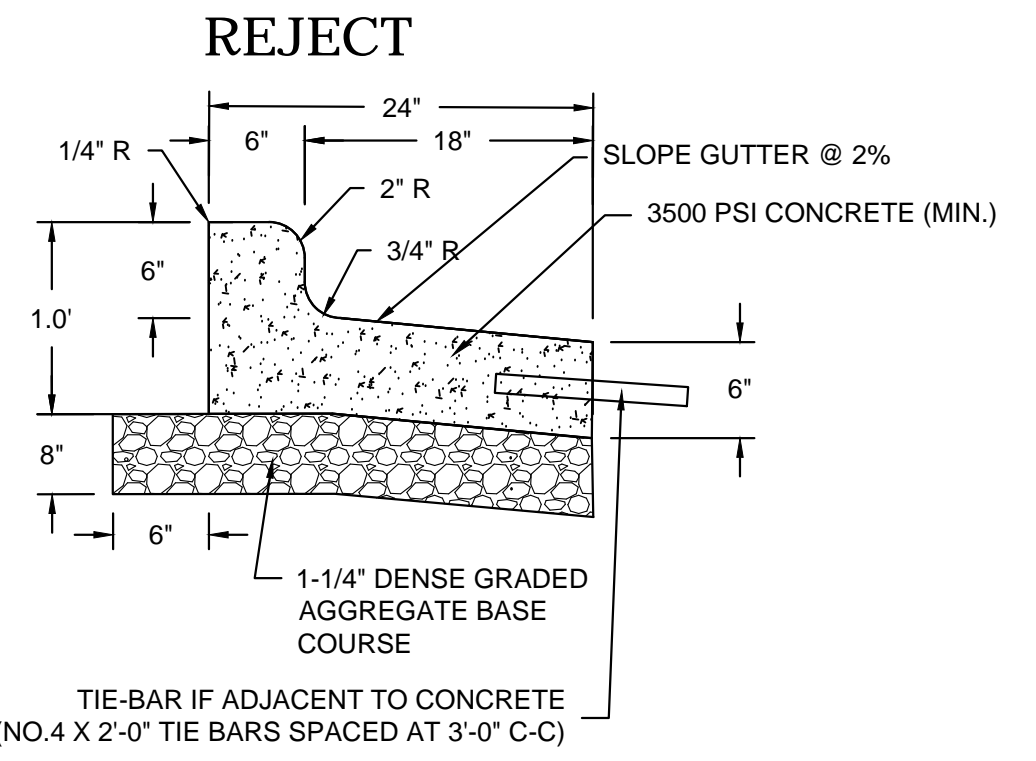
**B CONCRETE PAVEMENT SECTION**  
NOT TO SCALE



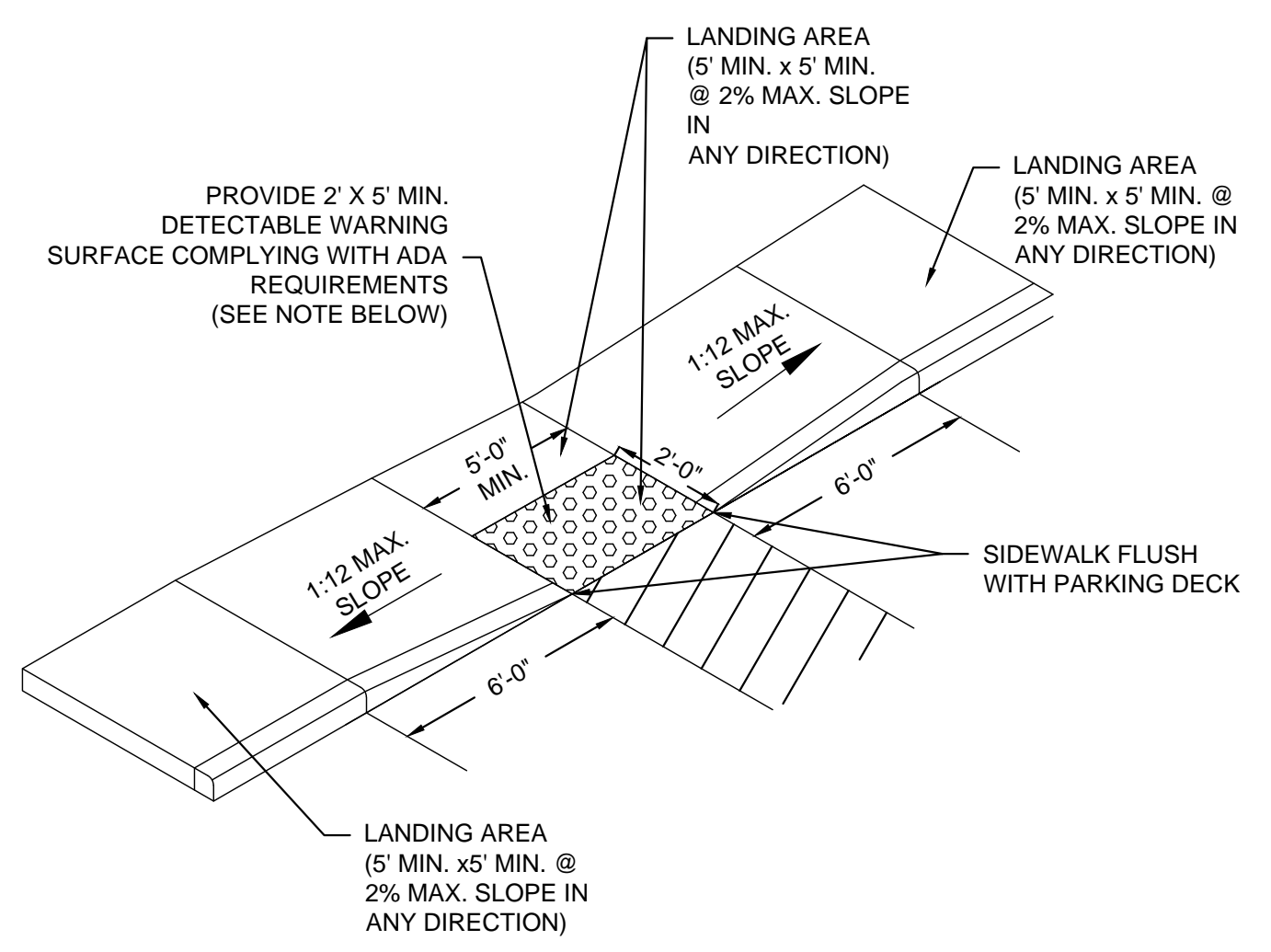
**C CONCRETE SIDEWALK SECTION**  
NOT TO SCALE



**D 24\"/>**

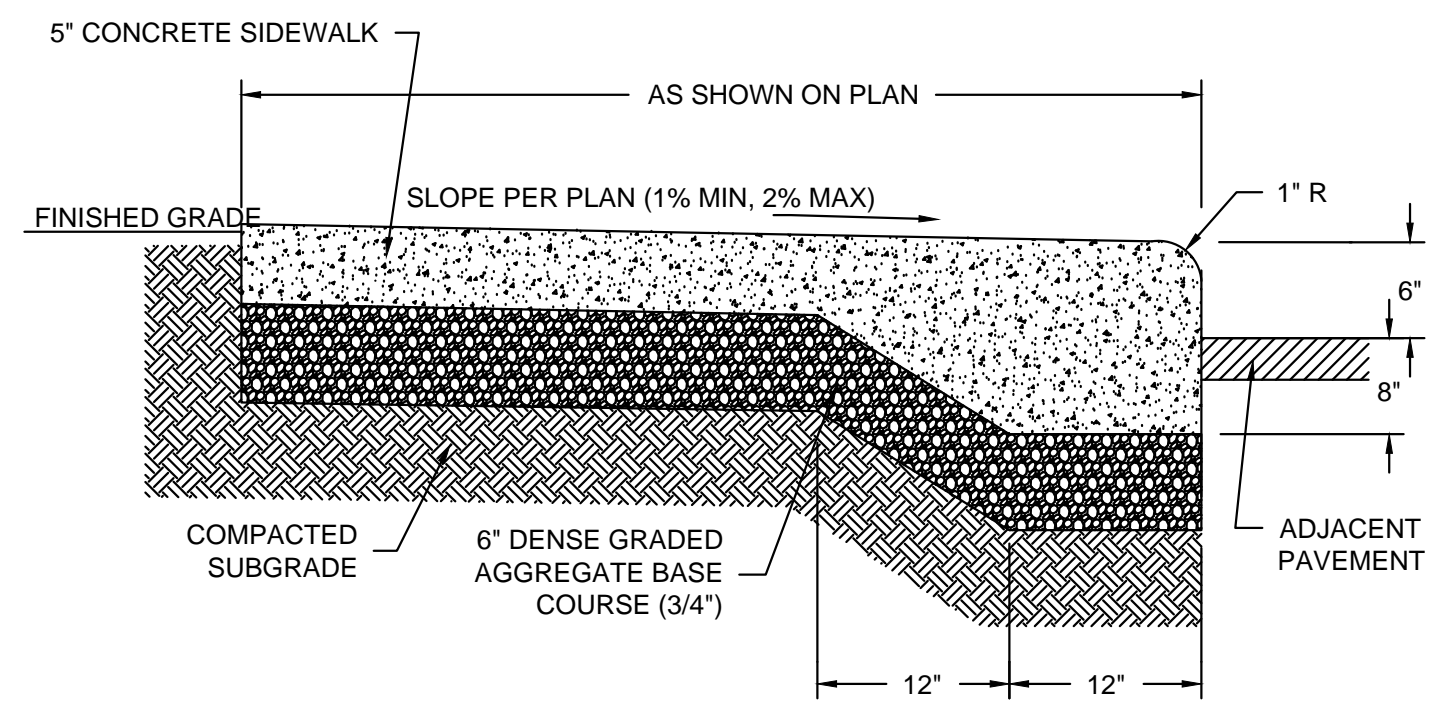


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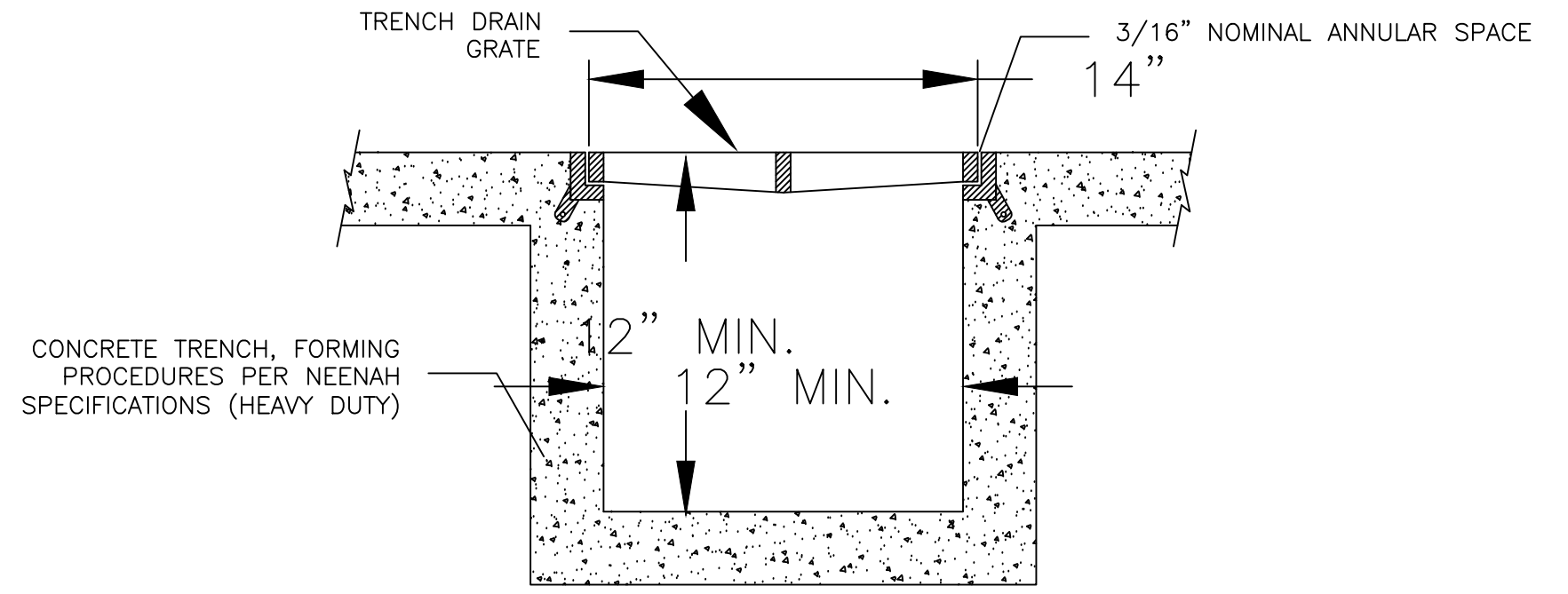


**E ADA RAMP DETAIL (TYPE 1)**  
NOT TO SCALE

- NOTES:**
- CONTRACTOR TO VERIFY ADA RAMP DETAIL WITH CITY AND ADJUST AS NEEDED.
  - PROVIDE DETECTABLE WARNING CONSISTING OF RAISED TRUNCATED DOMES OF SIZE, SPACING AND CONTRAST REQUIRED BY ADA GUIDELINES.
  - DETECTABLE WARNINGS SHALL BE PER CITY STANDARDS.

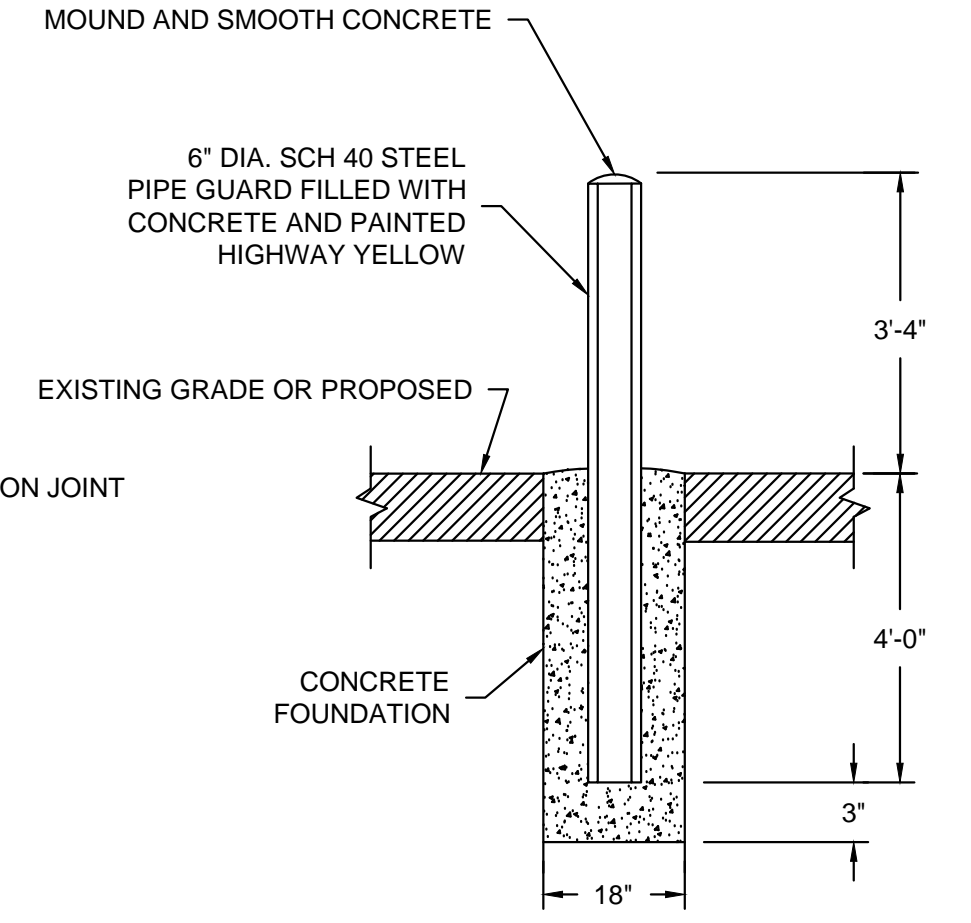


**F CONCRETE WALK WITH INTEGRAL CURB**  
NOT TO SCALE

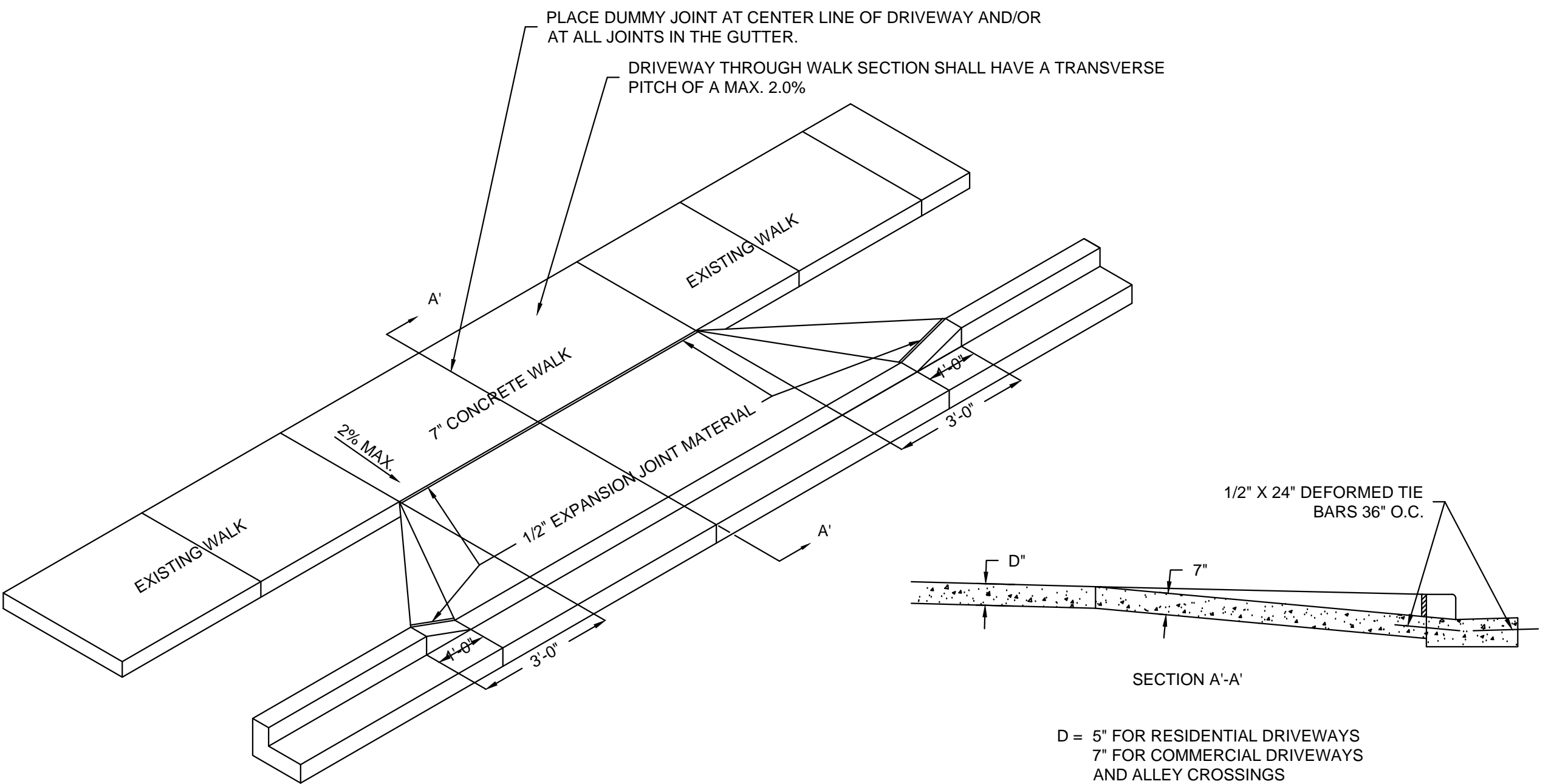


**G CURB TAPER**  
NOT TO SCALE

- NOTES:**
- IF SIDEWALK IS ADJACENT TO CURB TAPER, TAPER SHALL BE EXTENDED TO 10' TO MAINTAIN 5% MAX SLOPE ON WALK FOR ADA ACCESS



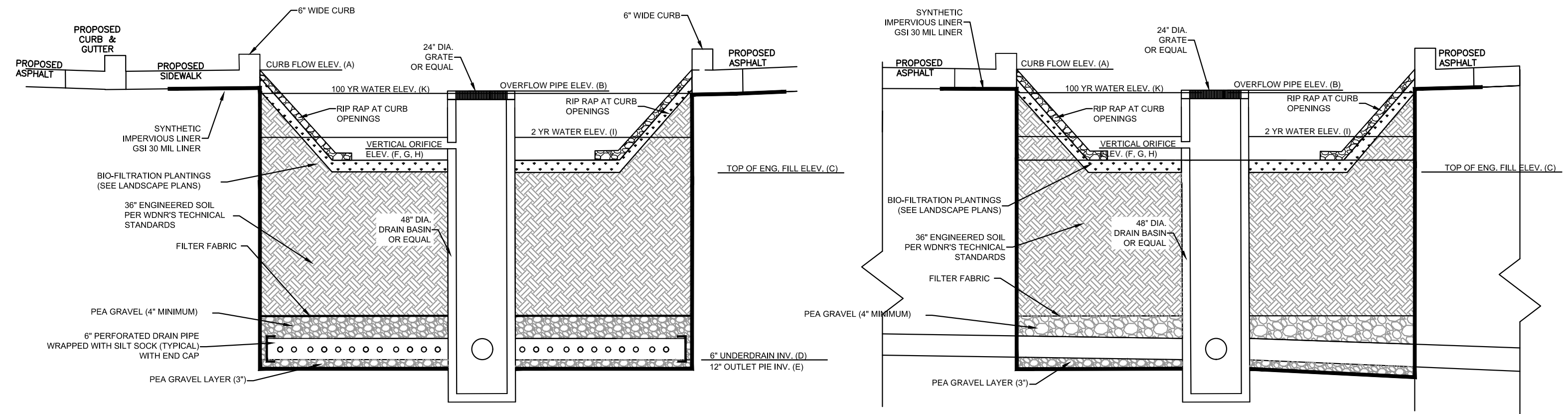
**H BOLLARD**  
NOT TO SCALE



**K CONCRETE DRIVEWAY (WITH CONCRETE WALK)**  
NOT TO SCALE

- NOTES:**
- IF LOCAL JURISDICTION HAS A TYPICAL DRIVEWAY DETAIL THAT DIFFERS FROM STANDARD DETAIL, LOCAL JURISDICTION SHALL OVERRIDE STANDARD DETAIL

**I TRENCH DRAIN**  
NOT TO SCALE



**J TYPICAL BIO-FILTRATION DETAILS**

BIO-FILTRATION SUMMARY TABLE											
BIO-FILTRATION AREA	(A) TOP OF POND (CURB FLOW LINE)	(B) OVERFLOW RIM ELEVATION	(C) TOP OF ENGINEERED FILL ELEVATION	(D) 6\"/>							
SUMMIT BIO-1 FORMER FUT BIO 16	11.00	9.83	8.08	4.75	12\"/>						
SUMMIT BIO-2 FORMER FUT BIO 14	11.10	9.83	8.40	4.75	12\"/>						

SUMMIT CREDIT UNION  
 S FIRST ST & GREENFIELD AVE  
 MILWAUKEE, WISCONSIN

DETAILS

NO. REVISION DATE BY

DRAWING NO. 18079-DETAILS.DWG

DRAWN BY: ####

DATE: ####

PROJECT NO: 18079

CHECKED BY: ####

APPROVED BY: ####

SHEET NO.:

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**GENERAL:**

- EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY, AND NO RESPONSIBILITY IS ASSUMED BY THE OWNER OR ENGINEER FOR THEIR ACCURACY OR COMPLETENESS.
- CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR SHALL HAVE SITE MARKED BY DIGGER'S HOTLINE AND SHALL HAVE PRIVATE UTILITIES MARKED BY A PRIVATE UTILITY LOCATOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL VERIFY ALL ELEVATIONS, LOCATIONS, AND SIZES OF EXISTING UTILITIES AND SHALL CHECK ALL UTILITY CROSSINGS AND PROPOSED CONNECTIONS FOR CONFLICTS/DISCREPANCIES PRIOR TO INITIATING CONSTRUCTION. REPORT ANY CONFLICTS OR DISCREPANCIES TO THE ENGINEER SO REDESIGN MAY OCCUR IF NEEDED.
- LENGTHS OF ALL UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLANS. LENGTHS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR.

**SITE CLEARING:**

- EXCEPT FOR STRIPPED TOPSOIL OR OTHER MATERIALS INDICATED TO REMAIN ON OWNER'S PROPERTY, CLEARED MATERIALS SHALL BECOME CONTRACTOR'S PROPERTY AND SHALL BE REMOVED FROM PROJECT SITE.
- MINIMIZE INTERFERENCE WITH ADJOINING ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES DURING SITE-CLEARING OPERATIONS.
- SALVABLE IMPROVEMENTS: CAREFULLY REMOVE ITEMS INDICATED TO BE SALVAGED AND STORE ON OWNER'S PREMISES WHERE INDICATED.
- UTILITY LOCATOR SERVICE: NOTIFY UTILITY LOCATOR SERVICE FOR AREA WHERE PROJECT IS LOCATED BEFORE SITE CLEARING.
- DO NOT COMMENCE SITE CLEARING OPERATIONS UNTIL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ARE IN PLACE.
- PROTECT AND MAINTAIN BENCHMARKS AND SURVEY CONTROL POINTS FROM DISTURBANCE DURING CONSTRUCTION.
- LOCATE AND CLEARLY FLAG TREES AND VEGETATION TO REMAIN OR TO BE RELOCATED.
- PROTECT EXISTING SITE IMPROVEMENTS TO REMAIN FROM DAMAGE DURING CONSTRUCTION; RESTORE DAMAGED IMPROVEMENTS TO THEIR ORIGINAL CONDITION, AS ACCEPTABLE TO OWNER.
- LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP OFF UTILITIES INDICATED TO BE REMOVED; ARRANGE WITH UTILITY COMPANIES TO SHUT OFF INDICATED UTILITIES.
- EXISTING UTILITIES: DO NOT INTERRUPT UTILITIES SERVING FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED BY THE OWNER AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY UTILITY SERVICES.
- FILL DEPRESSIONS CAUSED BY CLEARING AND GRUBBING OPERATIONS WITH SATISFACTORY SOIL MATERIAL UNLESS FURTHER EXCAVATION OR EARTHWORK IS INDICATED. PLACE FILL MATERIAL IN HORIZONTAL LAYERS NOT EXCEEDING A LOOSE DEPTH OF 8 INCHES, AND COMPACT EACH LAYER TO A DENSITY EQUAL TO ADJACENT ORIGINAL GROUND.
- REMOVE SOD AND GRASS BEFORE STRIPPING TOPSOIL.
- STRIP TOPSOIL TO WHATEVER DEPTHS ARE ENCOUNTERED IN A MANNER TO PREVENT INTERMINGLING WITH UNDERLYING SUBSOIL OR OTHER WASTE MATERIALS.
- STOCKPILE TOPSOIL MATERIALS AWAY FROM EDGE OF EXCAVATIONS WITHOUT INTERMINGLING WITH SUBSOIL. GRADE AND SHAPE STOCKPILES TO DRAIN SURFACE WATER. COVER TO PREVENT WINDBLOWN DUST.
- REMOVE EXISTING ABOVE- AND BELOW-GRADE IMPROVEMENTS AS INDICATED AND AS NECESSARY TO FACILITATE NEW CONSTRUCTION.
- SAWCUT ALL PAVEMENTS FULL DEPTH PRIOR TO REMOVAL; SAWCUTS SHALL BE IN STRAIGHT LINES PERPENDICULAR AND/OR PARALLEL TO EXISTING PAVEMENT JOINTS AND PAVEMENT EDGES.
- REMOVE SURPLUS SOIL MATERIAL, UNSUITABLE TOPSOIL, OBSTRUCTIONS, DEMOLISHED MATERIALS, AND WASTE MATERIALS INCLUDING TRASH AND DEBRIS, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
- SEPARATE RECYCLABLE MATERIALS PRODUCED DURING SITE CLEARING FROM OTHER NONRECYCLABLE MATERIALS. STORE OR STOCKPILE WITHOUT INTERMINGLING WITH OTHER MATERIALS AND TRANSPORT THEM TO RECYCLING FACILITIES.

**SITE WATER SERVICE:**

- COMPLY WITH STANDARDS OF STATE PLUMBING CODE (SPS CH. 382, 384), LOCAL WATER UTILITY REQUIREMENTS AND STANDARDS OF AUTHORITIES HAVING JURISDICTION FOR FIRE-SUPPRESSION AND WATER SERVICE PIPING INCLUDING MATERIALS, FITTINGS, APPURTENANCES, INSTALLATION, TESTING, SERVICE TAPS, ETC. IN CASE OF CONFLICT BETWEEN THESE SPECIFICATIONS AND STATE PLUMBING CODE OR LOCAL JURISDICTIONAL AUTHORITY, STATE PLUMBING CODE AND LOCAL JURISDICTIONAL AUTHORITY REQUIREMENTS GOVERN.
- DO NOT INTERRUPT SERVICE TO FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED BY OWNERS OF SUCH FACILITIES AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY WATER-DISTRIBUTION SERVICE.
- WATER SERVICE PIPING MAY BE EITHER DUCTILE IRON WATER PIPE OR PVC WATER PIPE AS ALLOWED BY THE LOCAL WATER UTILITY.
- DUCTILE IRON WATER PIPE CONFORMING TO THE REQUIREMENTS OF THE AMERICAN NATIONAL STANDARD FOR DUCTILE IRON PIPE, CENTRIFUGALLY CAST, AWWA C151/A21.51 - LATEST REVISION AND REQUIREMENTS OF CHAPTER 8.18.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
  - CLASS 52
  - CEMENT MORTAR LINING AND INTERNAL AND EXTERNAL BITUMINOUS COATS IN ACCORDANCE WITH SECTION 51.8 OF AWWA C151.
  - PUSH-ON GASKET PIPE
  - PLAIN RUBBER GASKETS
  - BONDING STRAPS TO PROVIDE ELECTRICAL CONDUCTIVITY WITHOUT FIELD TESTING
- JOINTS FOR DUCTILE IRON PIPE: JOINTS SHALL BE RUBBER GASKET JOINTS; CONFORM TO THE REQUIREMENTS OF AMERICAN NATIONAL STANDARD FOR RUBBER GASKET JOINTS FOR DUCTILE IRON PRESSURE PIPE AND FITTINGS (ANSI/AWWA C111/A21.11, LATEST EDITION)
- FITTINGS FOR DUCTILE IRON PIPE: CONFORM TO THE REQUIREMENTS OF AMERICAN NATIONAL STANDARD FOR DUCTILE IRON AND GRAY IRON FITTINGS, 3" THROUGH 48" FOR WATER ANSI/AWWA C110/A21.10, LATEST EDITION; CLASS 250 MECHANICAL JOINT PIPE FITTINGS; CEMENT LINED; ALL BELLS; ENTIRE FITTING TARRED; CONDUCTIVE MECHANICAL JOINT (NO LEAD) RUBBER GASKETS, FLANGES, AND BOLTS.
- PVC AWWA PIPE: AWWA C900, CLASS 200 WITH BELL END WITH GASKET AND WITH SPIGOT END AND MEETING REQUIREMENTS OF CHAPTER 8.20.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN. FITTINGS SHALL BE IN ACCORDANCE WITH CHAPTER 8.22.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN. PUSH-ON JOINT, DUCTILE IRON FITTINGS - AWWA C110 AND C111, MECHANICAL JOINT, DUCTILE IRON FITTINGS, AWWA C153, DUCTILE-IRON COMPACT PATTERN, GLANDS, GASKETS AND BOLTS: AWWA C111, DUCTILE IRON GLANDS, RUBBER GASKETS AND STEEL BOLTS.
- GATE VALVES: CONFORM TO AWWA C-500 AND STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN SUITABLE FOR DIRECT BURY.
- VALVE BOXES: CAST IRON CONFORMING TO ASTM DESIGNATION A-48, CLASS 20 AND STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
- FIRE HYDRANTS: TO MEET LOCAL STANDARDS.
- WATER MAIN CONNECTION: TAP WATER MAIN WITH SIZE AND LOCATION INDICATED ON PLAN IN ACCORDANCE WITH LOCAL WATER UTILITY REQUIREMENTS. COORDINATE CONNECTION WITH LOCAL WATER UTILITY.
- GENERAL WATER PIPE INSTALLATION: IN ACCORDANCE WITH CHAPTER 4.3.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
- INSTALL DUCTILE-IRON, WATER-SERVICE PIPING ACCORDING TO AWWA C600 AND CHAPTER 4.4.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
- ALL DUCTILE IRON PIPE SHALL BE ENCASED IN POLYETHYLENE PER AWWA C105, LATEST EDITION AND IN ACCORDANCE WITH CHAPTER 4.4.4 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN. ALL JOINTS AND FITTINGS SHALL HAVE POLYETHYLENE ENCASEMENT INSTALLED PER MANUFACTURER'S REQUIREMENTS AND PROCEDURES.
- INSTALL PVC AWWA PIPE ACCORDING TO ASTM F645 AND AWWA M23 AND CHAPTER 4.6.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
- INSTALL THRUST RESTRAINT AT ALL OFFSET FITTINGS USING MECHANICAL JOINT RESTRAINTS. CONCRETE THRUST BLOCKS MAY ONLY BE USED IF ALLOWED BY LOCAL WATER UTILITY.
- INSTALL WATER SERVICE PIPING SUCH THAT THERE IS A MINIMUM OF 6" OF COVER OVER THE TOP OF THE WATER SERVICE PIPING.
- BEDDING AND COVER FOR WATER SERVICE PIPING SHALL BE IN ACCORDANCE WITH SECTION 4.3.3 AND FILE NO. 36 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. TRENCH BACKFILL SHALL BE GRANULAR BACKFILL IN ACCORDANCE WITH SECTION 8.43.4 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION ON-SITE.

**SITE WATER SERVICE CONT.:**

- INSTALL TRACER WIRE FOR NON-METALLIC WATER SERVICES IN ACCORDANCE WITH SPS SECTION 382.40(8)(K). TRACER WIRE INSULATION COLOR SHALL BE BLUE FOR POTABLE WATER SERVICE PIPING.
- DUCTILE-IRON PIPING, RUBBER GASKETED JOINTS IN ACCORDANCE WITH SECTION 4.4.2 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
- PVC PIPING GASKETED JOINTS: USING JOINING MATERIALS ACCORDING TO AWWA C900. CONSTRUCT JOINTS WITH ELASTOMERIC SEALS AND LUBRICANTS ACCORDING TO ASTM D2774 OR ASTM D3139 AND PIPE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- CONDUCT HYDROSTATIC TESTS IN ACCORDANCE WITH CHAPTER 4.15.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
- CLEAN AND DISINFECT WATER SERVICE PIPING IN ACCORDANCE WITH SPS CHAPTER 82.40(8)(I) AND AWWA C651.

**SANITARY SEWERAGE:**

- ALL PRIVATE SANITARY SEWER WORK SHALL BE IN ACCORDANCE WITH THE DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES (DPS) PLUMBING CODE - CHAPTERS SPS 382 AND SPS 384 AND LOCAL MUNICIPAL REQUIREMENTS.
- ALL PUBLIC SANITARY SEWER WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION (STANDARD SPECIFICATIONS) AND LOCAL MUNICIPAL REQUIREMENTS.
- PVC SEWER PIPE AND FITTINGS: ASTM D 3034, SDR 35, WITH BELL-AND-SPIGOT ENDS WITH RUBBER GASKETED JOINTS IN ACCORDANCE WITH CHAPTER 8.10.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. JOINTS SHALL CONFORM TO ASTM D-3212.
- MANHOLES: STANDARD PRECAST REINFORCED CONCRETE MANHOLES CONFORMING TO ASTM C478, SECTION 8.39.0 OF THE STANDARD SPECIFICATIONS AND CONFORMING TO FILE NOS. 12, 13 AND 15 OF THE STANDARD SPECIFICATIONS. DIAMETER AND DEPTH AS INDICATED ON PLANS. MANHOLE SIZES TO BE VERIFIED BY CONTRACTOR AND SHOP DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW PRIOR TO ORDERING STRUCTURES.
- MANHOLES DEEPER THAN FOUR FEET SHALL BE PROVIDED WITH MANHOLE STEPS CONFORMING TO SECTION 8.40.0 OF THE STANDARD SPECIFICATIONS.
- SEWERS SHALL BE INSTALLED IN CONFORMANCE WITH SECTION 3.2.0 OF THE STANDARD SPECIFICATIONS. INSTALL PROPER SIZE INCREASERS, REDUCERS AND COUPLINGS WHERE DIFFERENT SIZES OR MATERIALS OF PIPES AND FITTINGS ARE CONNECTED. INSTALL TRACER PIPE OVER NON-METALLIC PIPING IN ACCORDANCE WITH SPS SECTION 382.30(11)(H) AND 382.36(7)(D).
- PIPE JOINT CONSTRUCTION: FOLLOW PIPING MANUFACTURER'S RECOMMENDATIONS; JOIN PVC SEWER PIPE ACCORDING TO ASTM D2321 AND ASTM D 3212 FOR ELASTOMERIC GASKET JOINTS. JOIN DISSIMILAR PIPE MATERIALS WITH NONPRESSURE-TYPE, FLEXIBLE COUPLINGS
- PROVIDE AND INSTALL CLEANOUTS IN ACCORDANCE WITH SPS CHAPTER 382.35. INSTALL CLEANOUTS AND RISER EXTENSIONS FORM SEWER PIPES TO PROPOSED GRADE. INSTALL PIPING SO CLEANOUTS OPEN IN DIRECTION OF FLOW IN SEWER PIPE. USE LIGHT DUTY, TOP LOADING CLASSIFICATION CLEANOUTS IN EARTH OR UNPAVED FOOT TRAFFIC AREAS; USE MEDIUM DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN PAVED FOOT TRAFFIC AREAS; USE HEAVY DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN VEHICULAR TRAFFIC AREAS. SET CLEANOUT FRAMES AND COVERS IN PAVEMENT AREAS FLUSH WITH PAVEMENT SURFACE.
- CLASS B COMPACTED TRENCH SECTION (FILE NO. NO. 4 OF STANDARD SPECIFICATIONS) SHALL BE UTILIZED. BEDDING AND COVER MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 8.43.0 OF THE STANDARD SPECIFICATIONS.
- TRENCH BACKFILL MATERIAL SHALL BE GRANULAR BACKFILL IN ACCORDANCE WITH SECTION 8.43.4 OF THE STANDARD SPECIFICATIONS BENEATH AND WITHIN FIVE FEET OF PAVEMENT AREAS; COMPACTED SPOIL BACKFILL IN ACCORDANCE WITH SECTION 8.43.5 OF THE STANDARD SPECIFICATIONS MAY BE USED BENEATH LANDSCAPE AREAS.
- MANHOLE INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 3.5.0 OF THE STANDARD SPECIFICATIONS. SET MANHOLE RIMS TO ELEVATIONS INDICATED ON PLANS.
- AFTER INSTALLATION OF SEWER PIPE CLEAN ALL DEBRIS FROM SEWER AND INSPECT INTERIOR OF PIPING TO DETERMINE WHETHER LINE DISPLACEMENT OR OTHER DAMAGE HAS OCCURRED. CONDUCT DEFLECTION TESTING OF INSTALLED PIPE IN ACCORDANCE WITH SECTION 3.2.6(I)(4) OF THE STANDARD SPECIFICATIONS; REPLACE ANY PIPE SECTION NOT PASSING THE DEFLECTION TESTING USING NEW PIPE MATERIALS. TEST NEW BUILDING SEWER IN ACCORDANCE WITH SECTION 5.4.0 OF THE STANDARD SPECIFICATIONS. REPLACE LEAKING PIPE USING NEW PIPE MATERIALS AAND REPEAT TESTING UNTIL LEAKAGE IS WITHIN ALLOWANCES SPECIFIED.

**STORM DRAINAGE:**

- ALL PRIVATE STORM SEWER WORK SHALL BE IN ACCORDANCE WITH THE DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES (DPS) PLUMBING CODE - CHAPTERS SPS 382 AND SPS 384 AND LOCAL MUNICIPAL REQUIREMENTS.
- ALL PUBLIC STORM SEWER WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION (STANDARD SPECIFICATIONS) AND LOCAL MUNICIPAL REQUIREMENTS.
- PVC SEWER PIPE AND FITTINGS: ASTM D 3034, SDR 35, WITH BELL-AND-SPIGOT ENDS WITH RUBBER GASKETED JOINTS IN ACCORDANCE WITH CHAPTER 8.10.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. JOINTS SHALL CONFORM TO ASTM D-3212.
- REINFORCED CONCRETE PIPE: ASTM C76 WITH BELL AND SPIGOT ENDS AND GASKETED JOINTS WITH ASTM C443 RUBBER GASKETS IN ACCORDANCE WITH CHAPTER 8.6.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
- HDPE PIPE: ADS N12 PIPE AS APPROVED ON THE DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES PLUMBING PRODUCT REGISTER.
- CATCH BASINS: STANDARD PRECAST CONCRETE CATCH BASINS CONFORMING TO CHAPTER 3.6.0 OF THE STANDARD SPECIFICATIONS AND IN GENERAL CONFORMANCE WITH FILE NO. 26 OF THE STANDARD SPECIFICATIONS. DEPTH AND DIAMETER AS INDICATED ON PLANS. CATCH BASIN SIZES TO BE VERIFIED BY CONTRACTOR AND SHOP DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW PRIOR TO ORDERING STRUCTURES.
- FRAMES AND GRATES: AS INDICATED ON PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING SPECIFIED FRAME/GRATE IS COMPATIBLE WITH STRUCTURE; IF NOT, NOTIFY ENGINEER.
- MANHOLES: STANDARD PRECAST REINFORCED CONCRETE MANHOLES CONFORMING TO ASTM C478, SECTION 8.39.0 OF THE STANDARD SPECIFICATIONS AND CONFORMING TO FILE NOS. 12, 13 AND 15 OF THE STANDARD SPECIFICATIONS. DIAMETER AND DEPTH AS INDICATED ON PLANS. MANHOLE SIZES TO BE VERIFIED BY CONTRACTOR AND SHOP DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW PRIOR TO ORDERING STRUCTURES.
- MANHOLES AND CATCH BASINS DEEPER THAN FOUR FEET SHALL BE PROVIDED WITH MANHOLE STEPS CONFORMING TO SECTION 8.40.0 OF THE STANDARD SPECIFICATIONS.
- SEWERS SHALL BE INSTALLED IN CONFORMANCE WITH SECTION 3.2.0 OF THE STANDARD SPECIFICATIONS. INSTALL PROPER SIZE INCREASERS, REDUCERS AND COUPLINGS WHERE DIFFERENT SIZES OR MATERIALS OF PIPES AND FITTINGS ARE CONNECTED. INSTALL TRACER PIPE OVER NON-METALLIC PIPING IN ACCORDANCE WITH SPS SECTION 382.30(11)(H) AND 382.36(7)(D).
- PROVIDE AND INSTALL CLEANOUTS IN ACCORDANCE WITH SPS CHAPTER 382.35. INSTALL CLEANOUTS AND RISER EXTENSIONS FORM SEWER PIPES TO PROPOSED GRADE. INSTALL PIPING SO CLEANOUTS OPEN IN DIRECTION OF FLOW IN SEWER PIPE. USE LIGHT DUTY, TOP LOADING CLASSIFICATION CLEANOUTS IN EARTH OR UNPAVED FOOT TRAFFIC AREAS; USE MEDIUM DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN PAVED FOOT TRAFFIC AREAS; USE HEAVY DUTY, TOP-LOADING CLASSIFICATION CLEANOUTS IN VEHICULAR TRAFFIC AREAS. SET CLEANOUT FRAMES AND COVERS IN PAVEMENT AREAS FLUSH WITH PAVEMENT SURFACE.
- CLASS B COMPACTED TRENCH SECTION (FILE NO. NO. 4 OF STANDARD SPECIFICATIONS) SHALL BE UTILIZED. BEDDING AND COVER MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 8.43.0 OF THE STANDARD SPECIFICATIONS.
- TRENCH BACKFILL MATERIAL SHALL BE GRANULAR BACKFILL IN ACCORDANCE WITH SECTION 8.43.4 OF THE STANDARD SPECIFICATIONS BENEATH AND WITHIN FIVE FEET OF PAVEMENT AREAS; COMPACTED SPOIL BACKFILL IN ACCORDANCE WITH SECTION 8.43.5 OF THE STANDARD SPECIFICATIONS MAY BE USED BENEATH LANDSCAPE AREAS.
- MANHOLE INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 3.5.0 OF THE STANDARD SPECIFICATIONS. SET MANHOLE RIMS TO ELEVATIONS INDICATED ON PLANS.
- CATCH BASIN INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 3.6 OF THE STANDARD SPECIFICATIONS. CATCH BASIN EXCAVATION AND PREPARATION SHALL BE IN ACCORDANCE WITH SECTION 3.5.4(A) AND (B) OF THE STANDARD SPECIFICATIONS. FRAMES AND GRATES SHALL BE SET TO THE ELEVATIONS SHOWN ON THE PLANS.
- AFTER INSTALLATION OF SEWER PIPE CLEAN ALL DEBRIS FROM SEWER AND INSPECT INTERIOR OF PIPING TO DETERMINE WHETHER LINE DISPLACEMENT OR OTHER DAMAGE HAS OCCURRED. CONDUCT DEFLECTION TESTING OF INSTALLED PIPE IN ACCORDANCE WITH SECTION 3.2.6(I)(4) OF THE STANDARD SPECIFICATIONS; REPLACE ANY PIPE SECTION NOT PASSING THE DEFLECTION TESTING USING NEW PIPE MATERIALS.

**EARTH MOVING:**

- ALL EARTH WORK SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER AND PROVIDED REPORTS. IN THE FIELD AND THESE SPECIFICATIONS. IN CASE OF CONFLICT BETWEEN THESE SPECIFICATIONS AND THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER, THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER SHALL GOVERN.
- CONTRACTOR SHALL PROVIDE MATERIAL TEST REPORTS FROM A QUALIFIED TESTING AGENCY INDICATING TEST RESULTS FOR CLASSIFICATION ACCORDING TO ASTM D2487 AND LABORATORY COMPACTION CURVES ACCORDING TO ASTM D 1557 FOR EACH ON-SITE AND OFF-SITE SOIL MATERIAL PROPOSED FOR FILL AND BACKFILL.
- CONTRACTOR SHALL PROVIDE PREECAVATION PHOTOS OR VIDEOS SHOWING EXISTING CONDITIONS OF ADJOINING STRUCTURES AND SITE IMPROVEMENTS THAT MIGHT BE MISCONSTRUED AS DAMAGE CAUSED BY EARTHWORK OPERATIONS.
- THE SITE IS KNOWN TO CONTAIN ENVIRONMENTALLY CONTAMINATED SOILS INCLUDING FOUNDRY SANDS. REFER TO THE REMEDIAL ACTION PLAN PREPARED BY THE SIGMA GROUP, INC. AND DATED JUNE 2014 FOR DETAILS. ON-SITE SOILS SHALL BE MANAGED IN ACCORDANCE WITH THE SOIL MANAGEMENT PLAN. ANY SOILS OR MATERIAL HAULED OFF SITE SHALL BE DISPOSED OF IN A LEGAL FASHION.
- OLD BUILDING FOUNDATIONS, BUILDING REMNANTS OR UNSUITABLE BACKFILL MATERIAL SHALL BE COMPLETELY REMOVED FROM WITHIN AND A MINIMUM OF 10 FEET BEYOND THE NEW BUILDING PAD AREAS. THE RESULTING EXCAVATION SHALL BE BACKFILLED WITH COMPACTED ENGINEERED FILL.
- FOUNDATIONS, FOUNDATION WALLS OR CONCRETE FLOOR SLABS SHALL BE REMOVED TO A MINIMUM OF TWO FEET BELOW PROPOSED SUBGRADE WITHIN PROPOSED PARKING AND GREENSPACE AREAS. BASEMENT SLABS LOCATED BELOW 2 FEET FROM PLANNED SUBGRADE ELEVATION MAY BE LEFT IN PLACE BUT SHALL BE BROKEN INTO MAXIMUM 6 INCH PIECES TO FACILITATE DRAINAGE.
- SATISFACTORY SOILS FOR FILL: ASTM D 2487 SOIL CLASSIFICATION GROUPS GW, GP, GM, SW, SP, AND SM OR A COMBINATION OF THESE GROUPS; FREE OF ROCK OR GRAVEL LARGER THAN 3 INCHES IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION, AND OTHER DELETERIOUS MATTER OR ANY SOIL GROUP OR COMBINATION OF GROUPS APPROVED OF BY THE PROJECT GEOTECHNICAL ENGINEER.
- UNSATISFACTORY SOILS FOR FILL: SOIL CLASSIFICATION GROUPS GC, SC, CL, ML, OL, CH, MH, OH, AND PT ACCORDING TO ASTM D 2487 OR A COMBINATION OF THESE GROUPS UNLESS DEEMED SATISFACTORY BY THE PROJECT GEOTECHNICAL ENGINEER. UNSATISFACTORY SOILS ALSO INCLUDE SOILS NOT MAINTAINED WITHIN 3 PERCENT OF OPTIMUM SOIL MOISTURE CONTENT AT THE TIME OF COMPACTION.
- AGGREGATE BASE COURSE BENEATH PAVEMENTS: SHALL BE 1-1/4" DENSE GRADED BASE COURSE CONFORMING TO SECTION 305 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION.
- ENGINEERED FILL: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE, AND NATURAL OR CRUSHED SAND, ASTM D 2940, WITH AT LEAST 90 PERCENT PASSING A 1-1/2-INCH (37.5-MM) SIEVE AND NOT MORE THAN 12 PERCENT PASSING A NO. 200 SIEVE OR ANY SOIL DEEMED ACCEPTABLE FOR ENGINEERED FILL BY THE PROJECT GEOTECHNICAL ENGINEER. ENGINEERED FILL SHALL BE FREE OF ORGANIC, FROZEN, OR OTHER DELETERIOUS MATERIAL AND HAVE A MAXIMUM PARTICLE SIZE LESS THAN 3 INCHES. CLAY FILLS SHALL HAVE A LIQUID LIMIT OF LESS THAN 49 AND PLASTICITY INDEX BETWEEN 11 AND 25.
- BEDDING COURSE FOR SEWERS AND WATER SERVICE: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE, AND NATURAL OR CRUSHED SAND CONFORMING TO THE REQUIREMENTS OF SECTION 8.43.2 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
- DRAINAGE COURSE BENEATH BUILDING SLABS: NARROWLY GRADED MIXTURE OF WASHED, CRUSHED STONE, OR CRUSHED OR UNCRUSHED GRAVEL, ASTM D 448, COARSE-AGGREGATE GRADING SIZE 57; WITH 100 PERCENT PASSING A 1-1/2-INCH (37.5-MM) SIEVE AND 0 TO 5 PERCENT PASSING A NO. 8 SIEVE.
- TRENCH BACKFILL MATERIAL SHALL BE GRANULAR BACKFILL IN ACCORDANCE WITH SECTION 8.43.4 OF THE STANDARD SPECIFICATIONS BENEATH AND WITHIN FIVE FEET OF PAVEMENT AREAS; COMPACTED SPOIL BACKFILL IN ACCORDANCE WITH SECTION 8.43.5 OF THE STANDARD SPECIFICATIONS MAY BE USED BENEATH LANDSCAPE AREAS.
- PIPE COVER MATERIAL: CONFORM TO SECTION 8.43.3 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
- PREVENT SURFACE WATER AND GROUND WATER FROM ENTERING EXCAVATIONS, FROM PONDING ON PREPARED SUBGRADES, AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA.
- SHORING, SHEETING AND BRACING: SHORE, BRACE OR SLOPE BANKS OF EXCAVATION TO PROTECT WORKWEN, BANKS, ADJACENT PAVING, STRUCTURES, AND UTILITIES TO MEET OSHA REQUIREMENTS. DESIGN OF TEMPORARY SUPPORT OF EXCAVATION IS THE RESPONSIBILITY OF THE CONTRACTOR.
- EXCAVATE TO SUBGRADE ELEVATIONS REGARDLESS OF THE CHARACTER OF SURFACE AND SUBSURFACE CONDITIONS ENCOUNTERED. UNCLASSIFIED EXCAVATED MATERIALS MAY INCLUDE ROCK, SOIL MATERIALS, AND OBSTRUCTIONS. NO CHANGES IN THE CONTRACT SUM OR THE CONTRACT TIME WILL BE AUTHORIZED FOR ROCK EXCAVATION OR REMOVAL OF OBSTRUCTIONS.
- PROOF-ROLL SUBGRADE BELOW THE BUILDING SLABS AND PAVEMENTS WITH FULLY LOADED TANDEM AXLE DUMP TRUCK OR RUBBER Tired VEHICLE OF SIMILAR SIZE AND WEIGHT, TYPICALLY 9 TONS/AXLE, WHERE COHESIVE SOILS ARE ENCOUNTERED OR WITH A SMOOTH DRUMMED VEHICLE OF SIMILAR SIZE AND WEIGHT, TYPICALLY 20 TONS/AXLE, WHERE GRANULAR SOILS ARE ENCOUNTERED. PROOF ROLL IN DRY WEATHER. PROOF ROLL IN PRESENCE OF PROJECT GEOTECHNICAL ENGINEER OR TECHNICIAN. SOILS THAT ARE OBSERVED TO RUT OR DEFLECT EXCESSIVELY UNDER THE MOVING LOAD (TYPICALLY >1") SHALL BE UNDERCUT AND REPLACED WITH PROPERLY COMPACTED ENGINEERED FILL. IN PAVEMENT AREAS WHERE UNDERCUTS ARE PERFORMED, THE EDGES OF THE OVEREXCAVATIONS SHALL BE FEATHERED INOT THE SURROUNDING SUITABLE SOIL SO THAT EDGE FAILURE OF THE OVEREXCAVATED AREA DOES NOT OCCUR.
- DUE TO CLAYEY SOILS, IF UNDERCUTS OCCUR WITHIN PAVEMENT AREAS AND THEY ARE BACKFILLED WITH GRANULAR SOILS, THE BOTTOM OF THE OVEREXCAVATION SHALL BE SLOPED TO A DRAIN TILE THAT IS IN KIND SLOPED TOWARD THE NEAREST STORM SEWER. MINIMUM SLOPES OF SUCH DRAIN TILES SHALL BE 0.5%.
- CONVENTIONAL DISKING AND AERATION TECHNIQUES SHALL BE USED TO DRY SOILS BEFORE PROOF ROLLING. ALLOT FOR PROPER DRYING TIME IN PROJECT SCHEDULE.
- ENGINEERED FILL SHALL BE PLACED IN MAXIMUM LIFTS OF EIGHT INCHES OF LOOSE MATERIAL AND COMPACTED WITHIN 3% OF OPTIMUM SOIL MOISTURE CONTENT VALUE AND A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST ASTM D1557. EACH LIFT OF COMPACTED ENGINEERED FILL SHALL BE OBSERVED AND TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER OR TECHNICIAN.
- EXISTING OLD FILL MATERIAL SHALL BE REMOVED BELOW FOOTINGS OR FOUNDATION SUPPORTING FILL. ENGINEERED FILL BELOW FOOTINGS SHOULD HAVE AN IN-PLACE DENSITY OF 95% OF THE MAXIMUM DRY DENSITY AND A MOISTURE CONTENT WITHIN 3% OF OPTIMUM AS DETERMINED BY ASTM D1557. ENGINEERED FILL BELOW FOOTINGS SHALL BE EVALUATED BY IN-FIELD DENSITY TESTS DURING CONSTRUCTION.
- WHERE UNSUITABLE BEARING SOILS ARE ENCOUNTERED IN A FOOTING EXCAVATION, THE EXCAVATION SHALL BE DEEPENED TO COMPETENT BEARING SOIL AND THE FOOTING LOWERED OR AN OVEREXCAVATION AND BACKFILL PROCEDURE PERFORMED. OVEREXCAVATION AND BACKFILL TREATMENT REQUIRES WIDENING THE DEPEENED EXCAVATION IN ALL DIRECTIONS AT LEAST 6 INCHES BEYOND THE EDGE OF THE FOOTING FOR EACH 12 INCHES OF OVEREXCAVATION DEPTH. THE OVEREXCAVATION SHALL BE BACKFILLED UP TO FOOTING BASE ELEVATION IN MAXIMUM 8 INCH LOOSE LIFTS WITH SUITABLE GRANULAR FILL MATERIAL AND COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AND A MOISTURE CONTENT WITHIN 3% OF OPTIMUM AS DETERMINED BY ASTM D1557. SOILS AT FOUNDATION BEARING ELEVATION IN THE FOOTING EXCAVATIONS SHALL BE OBSERVED AND TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER OR TECHNICIAN.
- A MINIMUM OF FOUR INCHES OF DRAINAGE COURSE MAT SHALL BE PLACED BELOW BUILDING FLOOR SLABS. DRAINAGE COURSE SHALL BE COMPACTED TO A MINIMUM OF 95% COMPACTION WITH RESPECT TO THE MODIFIED PROCTOR (ASTM D1557)
- UTILITY TRENCHES FOR SEWER AND WATER SHALL CONFORM TO CLASS B COMPACTED TRENCH SECTION IN ACCORDANCE WITH FILE NO. 4 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
- BACKFILL UTILITY TRENCHES IN 4 TO 6 INCH LOOSE LIFTS COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557. BACKFILL SHALL BE MOISTURE CONDITIONED TO BE WITH 3% OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D1557.
- UTILITY BEDDING PLACEMENT: CONFORM TO SECTION 3.2.6 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION. BEDDING MATERIEAL SHALL BE COMPACTED TO A MINIMUM OF 90% COMPACTION WITH RESPECT TO THE MODIFIED PROCTOR (ASTM D1557).
- COMPACTION TESTING OF UTILITY TRENCHES SHALL BE PERFORMED FOR EVERY 200 CUBIC YARDS OF BACKFILL PLACED OR EACH LIFT WITHIN 200 LINEAR FEET OF TRENCH, WHICHEVER IS LESS.
- AGGREGATE BASE COURSE BENEATH PAVEMENTS SHALL BE PLACED AND COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT WITHIN 3% OF OPTIMUM AS DETERMINED BY ASTM D1557. AGGREGATE BASE SHALL BE OBSERVED AND TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER OR TECHNICIAN.
- GRADING GENERAL: UNIFORMLY GRADE AREAS TO A SMOOTH SURFACE, FREE OF IRREGULAR SURFACE CHANGES. COMPLY WITH COMPACTION REQUIREMENTS AND GRADE TO CROSS SECTIONS, LINES, AND ELEVATIONS INDICATED. SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING.
- TESTING AGENCY: CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT GEOTECHNICAL ENGINEERING TESTING AGENCY TO PERFORM FIELD QUALITY-CONTROL TESTING.
- FOOTING SUBGRADE TESTING: EACH ISOLATED FOOTING SHALL INCLUDE AT LEAST ONE TEST PROBE. TEST PROBES SHALL BE PERFORMED EVERY 20 LINEAR FEET IN CONTINUOUS FOOTINGS.
- BUILDING SLAB AREA TESTING: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST 1 TEST PER LIFT FOR EVERY 2500 SQ. FT. OR LESS OF BUILDING SLAB, BUT IN NO CASE FEWER THAN 3 TESTS.
- PAVEMENT AREA TESTING: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY LIFT FOR EVERY 2,500 SQUARE FEET OF PAVEMENT AREA, BUT IN NO CASES FEWER THAN 3 TESTS.
- UTILITY TRENCH BACKFILL TESTING: ONE TEST FOR EACH 200 CUBIC YARDS OF FILL BACKFILL PLACED OR ONE TEST PER 200 LINEAR FEET OF TRENCH FOR EACH LIFT; WHICHEVER IS LESS.
- FOUNDATION WALL BACKFILL: AT EACH COMPACTED BACKFILL LAYER, AT LEAST 1 TEST PER LIFT FOR EACH 50 FEET OR LESS OF WALL LENGTH, BUT NO FEWER THAN 2 TESTS.
- WHEN TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.
- DISPOSAL: REMOVE SURPLUS SOIL AND WASTE MATERIAL, INCLUDING UNSATISFACTORY SOIL, TRASH, AND DEBRIS, AND LEGALLY DISPOSE OF IT OFF OWNER'S PROPERTY.



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SPECIFICATIONS

NO.	REVISION	DATE	BY
DRAWING NO.	18079-DETAILS.DWG		
DRAWN BY:	ARF		
DATE:	1/04/19		
PROJECT NO:	18079		
CHECKED BY:	TPM		
APPROVED BY:	CTC		
SHEET NO.:	C500		



**CONCRETE PAVING:**

1. THE COMPOSITION, PLACING AND CONSTRUCTION OF CONCRETE PAVEMENTS SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF SECTIONS 415, 416, 501, 601, AND 602 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION (WISDOT STANDARD SPECIFICATIONS) AND LOCAL MUNICIPAL REQUIREMENTS AND SPECIFICATIONS.
2. CONTRACTOR SHALL PROVIDE PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED - INCLUDE TECHNICAL DATA AND TESTED PHYSICAL AND PERFORMANCE PROPERTIES; JOB-MIX DESIGNS: CERTIFICATION THAT MIX MEETS OR EXCEEDS WISDOT STANDARD SPECIFICATIONS; AND MATERIAL CERTIFICATES CERTIFYING COMPLIANCE WITH WISDOT STANDARD SPECIFICATIONS.
3. MANUFACTURER QUALIFICATIONS: MANUFACTURER OF READY-MIXED CONCRETE PRODUCTS WHO COMPLIES WITH ASTM C 94/C 94M REQUIREMENTS FOR PRODUCTION FACILITIES AND EQUIPMENT AND APPROVED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.
4. CONCRETE GRADE: GRADE A OR GRADE A-2 CONFORMING TO SECTION 501.3.1.3 OF THE WISDOT STANDARD SPECIFICATIONS
5. AGGREGATES: CONFORM TO SECTION 501 OF THE WISDOT STANDARD SPECIFICATIONS. PROVIDE AGGREGATES FROM A SINGLE SOURCE.
6. WATER: ASTM C 94/C 94M AND SECTION 501 OF THE WISDOT STANDARD SPECIFICATIONS.
7. AIR-ENTRAINING ADMIXTURE: ASTM C 260 AND SECTION 501 OF THE WISDOT STANDARD SPECIFICATIONS.
8. CHEMICAL ADMIXTURES: PER SECTION 501 OF THE WISDOT STANDARD SPECIFICATIONS.
9. CURING MATERIALS IN ACCORDANCE WITH SECTION 415.3.12 OF THE WISDOT STANDARD SPECIFICATIONS.
10. EXPANSION JOINT MATERIAL: CONFORM TO SECTION 415.2.2 OF THE WISDOT STANDARD SPECIFICATIONS.
11. MEASURE, BATCH, AND MIX CONCRETE MATERIALS AND CONCRETE IN ACCORDANCE WITH SECTION 501 OF THE WISDOT STANDARD SPECIFICATIONS.
12. GENERAL EXECUTION: CONFORM TO SECTION 415 OF THE WISDOT STANDARD SPECIFICATIONS.
13. PROOFROLL SUBGRADE AND AGGREGATE BASE AS OUTLINED IN EARTH MOVING SPECIFICATION PRIOR TO PLACEMENT OF PAVEMENTS.
14. SET, BRACE, AND SECURE EDGE FORMS, BULKHEADS, AND INTERMEDIATE SCREED GUIDES FOR PAVEMENT TO REQUIRED LINES, GRADES, AND ELEVATIONS. INSTALL FORMS TO ALLOW CONTINUOUS PROGRESS OF WORK AND SO FORMS CAN REMAIN IN PLACE AT LEAST 24 HOURS AFTER CONCRETE PLACEMENT.
15. CLEAN FORMS AFTER EACH USE AND COAT WITH FORM-RELEASE AGENT TO ENSURE SEPARATION FROM CONCRETE WITHOUT DAMAGE.
16. JOINTS GENERAL: FORM CONSTRUCTION, ISOLATION, AND CONTRACTION JOINTS AND TOOL EDGINGS TRUE TO LINE WITH FACES PERPENDICULAR TO SURFACE PLANE OF CONCRETE. CONSTRUCT TRANSVERSE JOINTS AT RIGHT ANGLES TO CENTERLINE, UNLESS OTHERWISE INDICATED. CONFORM TO SECTION 415 OF THE WISDOT STANDARD SPECIFICATIONS
17. CONSTRUCTION JOINTS: SET CONSTRUCTION JOINTS AT SIDE AND END TERMINATIONS OF PAVEMENT AND AT LOCATIONS WHERE PAVEMENT OPERATIONS ARE STOPPED FOR MORE THAN ONE-HALF HOUR UNLESS PAVEMENT TERMINATES AT ISOLATION JOINTS.
18. ISOLATION JOINTS: FORM ISOLATION JOINTS OF PREFORMED JOINT-FILLER STRIPS ABUTTING CONCRETE CURBS, CATCH BASINS, MANHOLES, INLETS, STRUCTURES, WALKS, OTHER FIXED OBJECTS, AND WHERE INDICATED.
19. CONTRACTION JOINTS: FORM WEAKENED-PLANE CONTRACTION JOINTS, SECTIONING CONCRETE INTO AREAS AS INDICATED. CONSTRUCT CONTRACTION JOINTS FOR A DEPTH EQUAL TO AT LEAST ONE-FOURTH OF THE CONCRETE THICKNESS TO MATCH JOINTING OF EXISTING ADJACENT CONCRETE PAVEMENT.
20. EDGING: TOOL EDGES OF PAVEMENT, GUTTERS, CURBS, AND JOINTS IN CONCRETE AFTER INITIAL FLOATING WITH AN EDGING TOOL TO A 1/4-INCH RADIUS. REPEAT TOOLING OF EDGES AFTER APPLYING SURFACE FINISHES. ELIMINATE TOOL MARKS ON CONCRETE SURFACES.
21. CURBING: COMPLY WITH SECTION 601 OF THE WISDOT STANDARD SPECIFICATIONS.
22. SIDEWALKS: COMPLY WITH SECTION 602 OF THE WISDOT STANDARD SPECIFICATIONS.
23. MOISTEN AGGREGATE TO PROVIDE A UNIFORM DAMPENED CONDITION AT TIME CONCRETE IS PLACED.
24. FINISH CURBING IN ACCORDANCE WITH SECTION 601.3.5 OF THE WISDOT STANDARD SPECIFICATIONS.
25. FINISH SIDEWALK AND PATIO IN ACCORDANCE WITH SECTION 602.3.2.3 OF THE WISDOT STANDARD SPECIFICATIONS (LIGHT BROOM FINISH).
26. FINISH CONCRETE VEHICULAR PAVEMENTS AND PADS IN ACCORDANCE WITH SECTION 415.3.8 OF THE WISDOT STANDARD SPECIFICATIONS (ARTIFICIAL TURF DRAG FINISH).
27. PROTECT AND CURE SIDEWALK IN ACCORDANCE WITH SECTION 602.3.2.6 OF THE WISDOT STANDARD SPECIFICATIONS.
28. PROTECT AND CURE CURBING IN ACCORDANCE WITH SECTION 601.3.7 OF THE WISDOT STANDARD SPECIFICATIONS.
29. PROTECT AND CURE VEHICULAR CONCRETE PAVING IN ACCORDANCE WITH SECTION 415.3.12 OF THE WISDOT STANDARD SPECIFICATIONS.
30. REMOVE AND REPLACE CONCRETE PAVEMENT THAT IS BROKEN, DAMAGED, OR DEFECTIVE OR THAT DOES NOT COMPLY WITH REQUIREMENTS IN THIS SECTION.
31. PROTECT CONCRETE FROM DAMAGE. EXCLUDE TRAFFIC FROM PAVEMENT FOR AT LEAST 7 DAYS AFTER PLACEMENT.
32. MAINTAIN CONCRETE PAVEMENT FREE OF STAINS, DISCOLORATION, DIRT, AND OTHER FOREIGN MATERIAL. SWEEP CONCRETE PAVEMENT NOT MORE THAN TWO DAYS BEFORE DATE SCHEDULED FOR SUBSTANTIAL COMPLETION INSPECTIONS.

**ASPHALTIC PAVING:**

1. THE COMPOSITION, PLACING AND CONSTRUCTION OF ASPHALTIC PAVEMENTS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 450, 455, 460, 465, AND 475 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION (WISDOT STANDARD SPECIFICATIONS).
2. CONTRACTOR SHALL PROVIDE PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED - INCLUDE TECHNICAL DATA AND TESTED PHYSICAL AND PERFORMANCE PROPERTIES; JOB-MIX DESIGNS: CERTIFICATION THAT MIX MEETS OR EXCEEDS WISDOT STANDARD SPECIFICATIONS; AND MATERIAL CERTIFICATES CERTIFYING COMPLIANCE WITH WISDOT STANDARD SPECIFICATIONS.
3. MANUFACTURER QUALIFICATIONS: MANUFACTURER SHALL BE REGISTERED WITH AND APPROVED BY THE DOT OF THE STATE IN WHICH PROJECT IS LOCATED.
4. ENVIRONMENTAL LIMITATIONS: DO NOT APPLY ASPHALT MATERIALS IF BASE COURSE IS WET OR EXCESSIVELY DAMP OR IF THE FOLLOWING CONDITIONS ARE NOT MET: APPLY TACK COAT WHEN AMBIENT TEMPERATURE IS ABOVE 50 DEGREES FAHRENHEIT AND WHEN TEMPERATURE HAS NOT BEEN BELOW 35 DEGREES FAHRENHEIT FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION; PLACE ASPHALTIC CONCRETE SURFACE COURSE WHEN TEMPERATURE IS ABOVE 40 DEGREES FAHRENHEIT; BASE COURSE MAY BE PLACED WHEN AIR TEMPERATURE IS ABOVE 30 DEGREES FAHRENHEIT AND RISING. PROCEED WITH PAVEMENT MARKING ONLY ON CLEAN, DRY SURFACES. DO NOT APPLY BELOW THE MINIMUM PAVEMENT TEMPERATURE AS RECOMMENDED BY THE MANUFACTURER.
5. AGGREGATES SHALL BE IN ACCORDANCE WITH SECTION 460.2.2 OF THE WISDOT STANDARD SPECIFICATIONS.
6. ASPHALT MATERIALS SHALL BE IN ACCORDANCE WITH CHAPTER 455 OF THE WISDOT STANDARD SPECIFICATIONS.
7. PAVEMENT MARKING PAINT: PROVIDE PAINT FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION'S APPROVED PRODUCTS LIST. COLOR SHALL BE WHITE UNLESS INDICATED OTHERWISE ON PLANS.
8. HOT-MIX ASPHALT: ASPHALTIC BINDER COURSE AND SURFACE COURSE SHALL BE MIXTURE E-1 FOR REGULAR DUTY PAVEMENT AND E-1 FOR HEAVY DUTY PAVEMENT COMPLYING WITH THE WISDOT STANDARD SPECIFICATIONS.
9. AGGREGATE BASE COURSE BENEATH PAVEMENTS: SHALL BE 1-1/4" DENSE GRADED BASE COURSE CONFORMING TO SECTION 305 OF THE WISDOT STANDARD SPECIFICATIONS.
10. PAVEMENT PLACEMENT GENERAL: ASPHALT CONCRETE PAVING EQUIPMENT, WEATHER LIMITATIONS, JOB-MIX FORMULA, MIXING, CONSTRUCTION METHODS, COMPACTION, FINISHING, TOLERANCE AND PROTECTION SHALL CONFORM TO THE REQUIREMENTS OF THE APPROPRIATE SECTIONS OF THE WISDOT STANDARD SPECIFICATIONS.
11. PREPARE AND PROOFROLL SUBGRADES AND AGGREGATE BASE COURSE AS OUTLINED IN EARTH MOVING SPECIFICATIONS PRIOR TO PLACEMENT OF ASPHALT PAVEMENTS.
12. SWEEP LOOSE GRANULAR PARTICLES FROM SURFACE OF AGGREGATE BASE COURSE PRIOR TO PAVEMENT PLACEMENT. DO NOT DISLODGE OR DISTURB AGGREGATE EMBEDDED IN COMPACTED SURFACE OF BASE COURSE.
13. SPREAD AND FINISH ASPHALTIC MIXTURE IN ACCORDANCE WITH SECTION 450.3.2.5 OF THE WISDOT STANDARD SPECIFICATIONS. PAVEMENT THICKNESSES SHALL BE AS INDICATED ON THE PLANS.
14. PROMPTLY CORRECT SURFACE IRREGULARITIES IN PAVING COURSE BEHIND PAVER. USE SUITABLE HAND TOOLS TO REMOVE EXCESS MATERIAL FORMING HIGH SPOTS. FILL DEPRESSIONS WITH HOT-MIX ASPHALT TO PREVENT SEGREGATION OF MIX; USE SUITABLE HAND TOOLS TO SMOOTH SURFACE.
15. COMPACT ASPHALTIC PAVEMENT IN ACCORDANCE WITH SECTION 450.3.2.6 OF THE WISDOT STANDARD SPECIFICATIONS.
16. PROTECTION: AFTER FINAL ROLLING, DO NOT PERMIT VEHICULAR TRAFFIC ON PAVEMENT UNTIL IT HAS COOLED AND HARDENED. ERECT BARRICADES TO PROTECT PAVING FROM TRAFFIC UNTIL MIXTURE HAS COOLED ENOUGH NOT TO BECOME MARKED.
17. THICKNESS TOLERANCE: COMPACT EACH COURSE TO PRODUCE THE THICKNESS INDICATED WITHIN PLUS/MINUS 1/4 INCH FOR BINDER COURSE AND PLUS 1/4 INCH FOR SURFACE COURSE, NO MINUS.
18. SURFACE SMOOTHNESS TOLERANCE: COMPACT EACH COURSE TO PRODUCE A SURFACE SMOOTHNESS WITHIN THE FOLLOWING TOLERANCES AS DETERMINED BY USING A 10-FOOT STRAIGHTEDGE APPLIED TRANSVERSELY OR LONGITUDINALLY TO PAVED AREAS: BINDER COURSE: 1/4 INCH; SURFACE COURSE: 1/8 INCH. REMOVE AND REPLACE ALL HUMPS OR DEPRESSIONS EXCEEDING THE SPECIFIED TOLERANCES.
19. DO NOT APPLY PAVEMENT-MARKING PAINT UNTIL LAYOUT, COLORS, AND PLACEMENT HAVE BEEN VERIFIED WITH ENGINEER.
20. APPLY MARKINGS TO A DRY SURFACE FREE FROM FROST. REMOVE DUST, DIRT, OIL, GREASE, GRAVEL, DEBRIS OR OTHER MATERIAL THAT MAY PREVENT BONDING TO THE PAVEMENT.
21. APPLY PAINT AS THE MANUFACTURER SPECIFIES WITH MECHANICAL EQUIPMENT TO PRODUCE PAVEMENT MARKINGS, OF DIMENSIONS INDICATED, WITH UNIFORM, STRAIGHT EDGES. APPLY AT MANUFACTURER'S RECOMMENDED RATES AT A MINIMUM RATE OF 17.6 GALLONS/MILE FOR A CONTINUOUS 4" LINE.
22. TESTING AGENCY: CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS AND TO PREPARE TEST REPORTS.

**BIOFILTRATION BASIN:**

1. BIOFILTRATION BASIN SHALL BE CONSTRUCTED IN GENERAL ACCORDANCE WITH WDNR TECHNICAL STANDARD 1004: BIORETENTION FOR INFILTRATION AND THESE SPECIFICATIONS.
2. ENGINEERED SOIL MIX SHALL CONSIST OF A MIX OF 70 TO 85% SAND AND 15 TO 30% COMPOST BASED ON VOLUME. SAND SHALL MEET THE REQUIREMENTS FOR FINE AGGREGATE SAND SPECIFIED SECTION 501.2.5.3.4 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION OR MEET ASTM C33 (FINE AGGREGATE CONCRETE SAND).
3. PRIOR TO PLACEMENT IN THE BIOFILTRATION BASIN, THE ENGINEERED SOIL SHALL BE PREMIXED AND THE MOISTURE CONTENT SHALL BE LOW ENOUGH TO PREVENT CLUMPING AND COMPACTION DURING PLACEMENT.
4. THE ENGINEERED SOIL SHALL BE PLACED IN MULTIPLE LIFTS, EACH APPROXIMATELY 12 INCHES IN DEPTH.
5. ENGINEERED SOIL MIX SHALL BE FREE OF ROCKS, STUMPS, ROOTS, BRUSH OR OTHER MATERIAL OVER ONE INCH IN DIAMETER. NO OTHER MATERIALS SHALL BE MIXED WITH THEE PLANTING SOIL THAT MAY BE HARMFUL TO PLANT GROWTH OR BE A HINDRANCE TO PLANTING OR MAINTENANCE.
6. ENGINEERED SOIL AND GRAVEL SHALL BE IN ACCORDANCE WITH THE LATEST WDNR TECHNICAL STANDARD 1004.
7. PEA GRAVEL SHALL BE GRADED SUCH THAT MINIMUM PARTICLE SIZE IS LARGE ENOUGH TO PREVENT FALLING THROUGH PERFORATIONS OF THE UNDERDRAIN PIPE.
8. BIOFILTRATION BASIN DRAIN PIPE: 6-INCH SCHEDULE 40 PVC PIPE MEETING PERFORATION REQUIREMENTS OF AASHTO M278 HIGHWAY UNDERDRAIN SPECIFICATIONS WITH 3/8" PERFORATIONS ON 6" CENTERS WITH 4 HOLES PER ROW.
9. BEEHIVE INLET: NEENAH R-256I, OR EQUAL
10. RISER STRUCTURE: 36" DIAMETER PRECAST CATCH BASIN STRUCTURE WITH 24" TOP OPENING TO ACCOMMODATE BEEHIVE INLET. IN GENERAL ACCORDANCE WITH FILE NO. 26 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
11. GRAVEL STORAGE LAYER (IF INDICATED ON PLANS): COURSE AGGREGATE #2 IN ACCORDANCE WITH SECTION 501.2.5.4.4 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
12. FILTER FABRIC: GEOTEXTILE FABRIC IN ACCORDANCE WITH SECTION 645.2.4 OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION
13. EXCAVATE TO GRADES AS INDICATED ON PLANS.
14. CONSTRUCT TEMPORARY DIVERSION SWALES OR PROVIDE OTHER MEANS AS NECESSARY TO PREVENT CONSTRUCTION SITE RUNOFF FROM DISTURBED AREAS, AND RUNOFF FROM PERVIOUS AREAS WHICH HAVE NOT YET BEEN STABILIZED, FROM ENTERING THE BIORETENTION AREA.
15. CONSTRUCTION SHALL BE SUSPENDED DURING PERIODS OF RAINFALL OR SNOWMELT. CONSTRUCTION SHALL REMAIN SUSPENDED IF PONDED WATER IS PRESENT OR IF RESIDUAL SOIL MOISTURE CONTRIBUTES SIGNIFICANTLY TO THE POTENTIAL FOR SOIL SMEARING, CLUMPING OR OTHER FORMS OF COMPACTION.
16. COMPACTION AND SMEARING OF THE ENGINEERED SOIL AND TOP SOIL BENEATH THE FLOORS, IN THE SOIL PLANTING BED, AND THE SIDE SLOPES OF THE BASIN, AND COMPACTION OF THE ENGINEERED SOILS IN THE BASIN SHALL BE MINIMIZED. DURING SITE DEVELOPMENT, THE AREA DEDICATED TO THE BIOFILTRATION BASIN SHALL BE CORDONED OFF TO PREVENT ACCESS BY HEAVY EQUIPMENT. ACCEPTABLE EQUIPMENT FOR CONSTRUCTING THE BIOFILTRATION BASIN INCLUDES EXCAVATION HOES, LIGHT EQUIPMENT WITH TURF TYPE TIRES, MARSH EQUIPMENT OR WIDE-TRACK LOADERS.
17. IF COMPACTION OCCURS AT THE BASE OF THE BIOFILTRATION BASIN, THE SOIL SHALL BE REFRRACTURED TO A DEPTH OF AT LEAST 12 INCHES. IF SMEARING OCCURS, THE SMEARED AREAS OF THE INTERFACE SHALL BE CORRECTED BY RAKING OR ROTO-TILLING.
18. STEPS MAY BE TAKEN TO INDUCE MILD SETTLING OF THE ENGINEERED SOIL BED AS NEEDED TO PREPARE A STABLE PLANTING MEDIUM AND TO STABILIZE THE PONDING DEPTH. VIBRATING PLATE-STYLE COMPACTORS SHALL NOT BE UTILIZED.
19. ANY SEDIMENT ACCUMULATED IN THE BASIN DUE TO CONSTRUCTION ACTIVITIES SHOULD BE REMOVED AND THE ENGINEERED SOIL SHALL BE DEEP TILLED PRIOR TO PLANTING.
20. IMPERVIOUS LINER SHALL BE 45 MIL FIRESTONE EPDM (GSI PRODUCTS), OR 30 MIL PVC (GSI PRODUCTS), OR EQUAL.



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SPECIFICATIONS

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DRAWING NO. 18079-DETAILS.DWG

DRAWN BY: ARF

DATE: 1/04/19

PROJECT NO: 18079

CHECKED BY: TPM

APPROVED BY: CTC

SHEET NO.:

C501

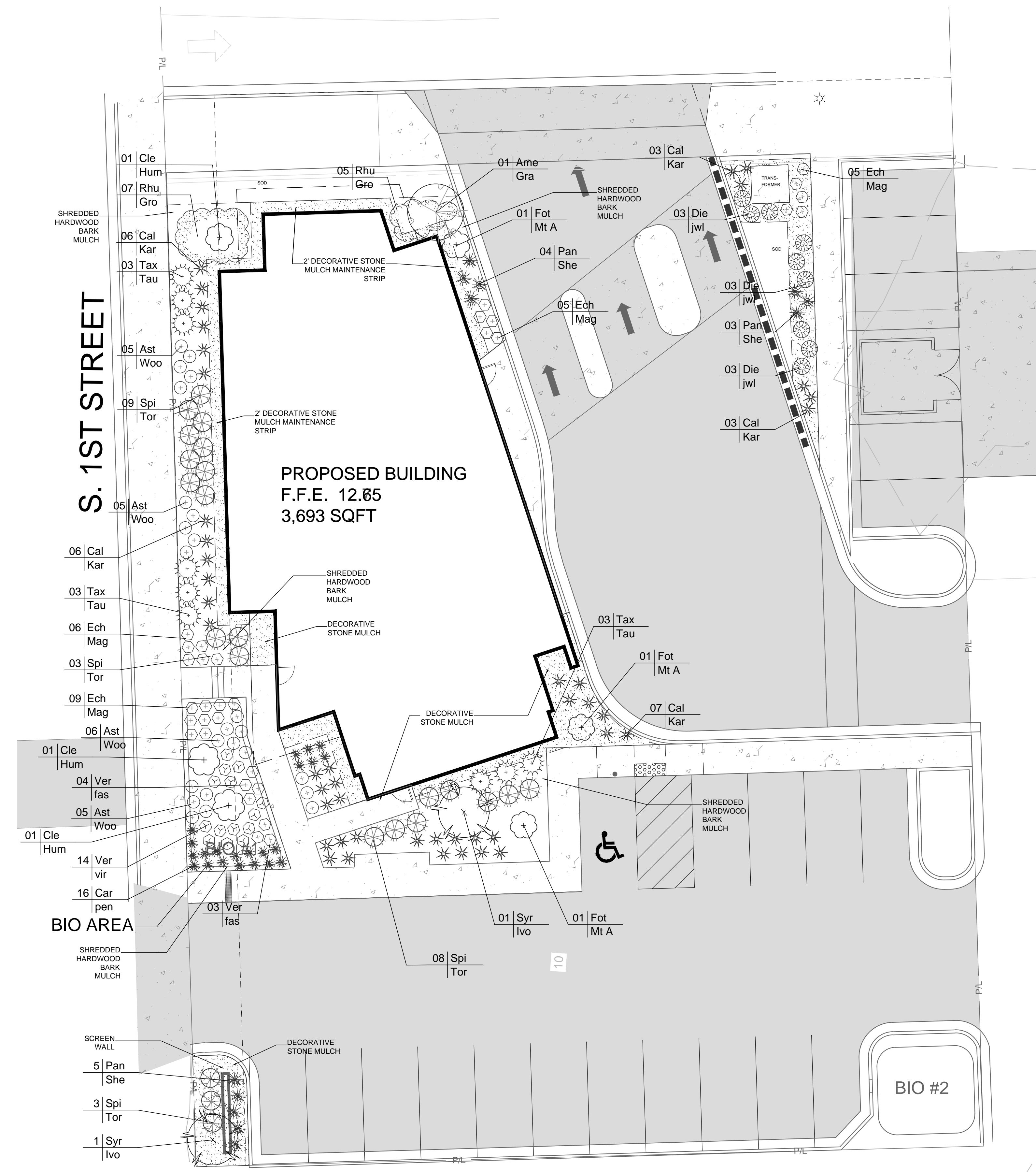




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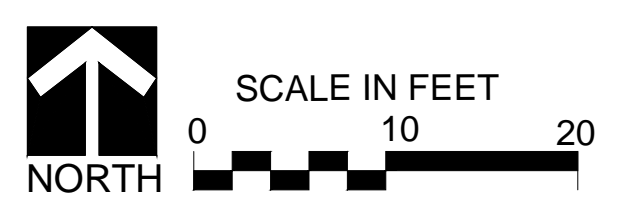
**PLANT SCHEDULE**

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	NOTES	AVERAGE MATURE SIZE
<b>Deciduous Trees</b>							
Ame / Aut	1	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	1 1/2"-2"	BB		25' ht. x 25' spread
Syr / Ivo	2	Syringa reticulata var. 'Ivory Silk'	Ivory Silk Japanese Lilac Tree	2 1/2"-2"	BB		20' ht. x 15' spread
<b>Evergreen Shrubs</b>							
Tax / Tau	9	Taxus x media 'Tauntoni'	Taunton Yew	18" - 24"	Cont.		4' ht. x 8' spread
<b>Deciduous Shrubs</b>							
Fot / Mou	3	Fothergilla major 'Mount Airy'	Mount Airy Fothergilla	30" - 36"	Cont.		6' ht. x 4' spread
Rhu / Gro	12	Rhus aromatica 'Gro-low'	Gro-low Sumac	2 gallon	Cont.		3' ht. x 7' spread
Spi / Tor	23	Spirea betulifolia 'Tor'	Tor Birchleaf Spirea	18" - 24"	Cont.		3' ht. x 3' spread
Cle / Hum	3	Clethra alnifolia 'Hummingbird'	Hummingbird Summersweet	36"	Cont.		4' ht. x 3' spread
Die / Jwl	9	Diervilla lonicera 'Jewel'	Jewel Dwarf Bush Honeysuckle	24"	Cont.		3' ht. x 3' spread
<b>Perennials</b>							
Ast / Woo	14	Aster dumosus 'Wood's Blue'	Wood's Blue Aster	1 gallon	Cont.		2' ht. x 2.5' spread, 2' flower ht., WI native
Ast / Pur	10	Aster novae-angliae 'Purple Dome'	Purple Dome New England Aster	1 gallon	Cont.		1.5' ht. x 2' spread, 2' flower ht.
Ech / Mag	28	Echinacea purpurea 'Magnus'	Magnus Purple Coneflower	1 gallon	Cont.		1' ht. x 2' spread, 2' flower ht.
Ver / vir	14	Veronicastrum virginicum	Culver's Root	1 gallon	Cont.		2.5' ht. x 2.5' spread, 4.5' flower ht.
Ver / fas	7	Vernonia fasciculata	Iron weed	1 gallon	Cont.		3' ht. x 3' spread, 3.5' flower ht., WI native
<b>Ornamental Grasses</b>							
Cal / Kar	45	Calamagrostis acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	1 gallon	Cont.		2' ht. x 2'+ spread, 5.5' flower ht.
Pan / She	9	Panicum virgatum 'Shenandoah'	Shenandoah Switch Grass	1 gallon	Cont.		4' ht. x 2.5' spread, 5' flower ht.
Car / pen	22	Carex pennsylvanica	Penn Sedge	1 gallon	Cont.		1' ht. x 2' spread, 1.5' flower ht.

**NOTE**

ALL DECORATIVE STONE MULCH BEDS AND MAINTENANCE STRIPS TO BE 2-3" DEPTH MEDIUM MISSISSIPPI STONE OVER BARRIER FABRIC WITH ALUMINUM METAL EDGE BETWEEN ADJOINING MULCH BEDS.

**1 SITE LANDSCAPE PLAN**  
 L100 SCALE: 1" = 10'-0"



**PRELIMINARY  
 NOT FOR CONSTRUCTION**

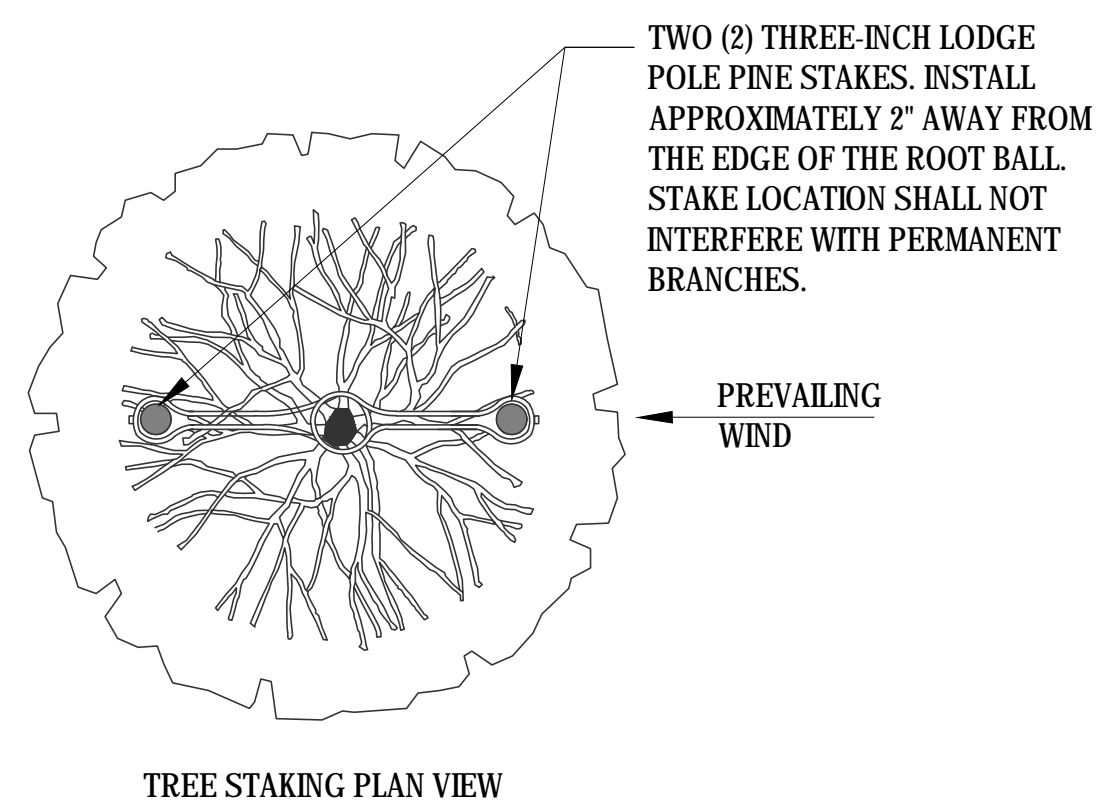
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 S FIRST ST & GREENFIELD AVE  
 MILWAUKEE, WISCONSIN

LANDSCAPE PLAN

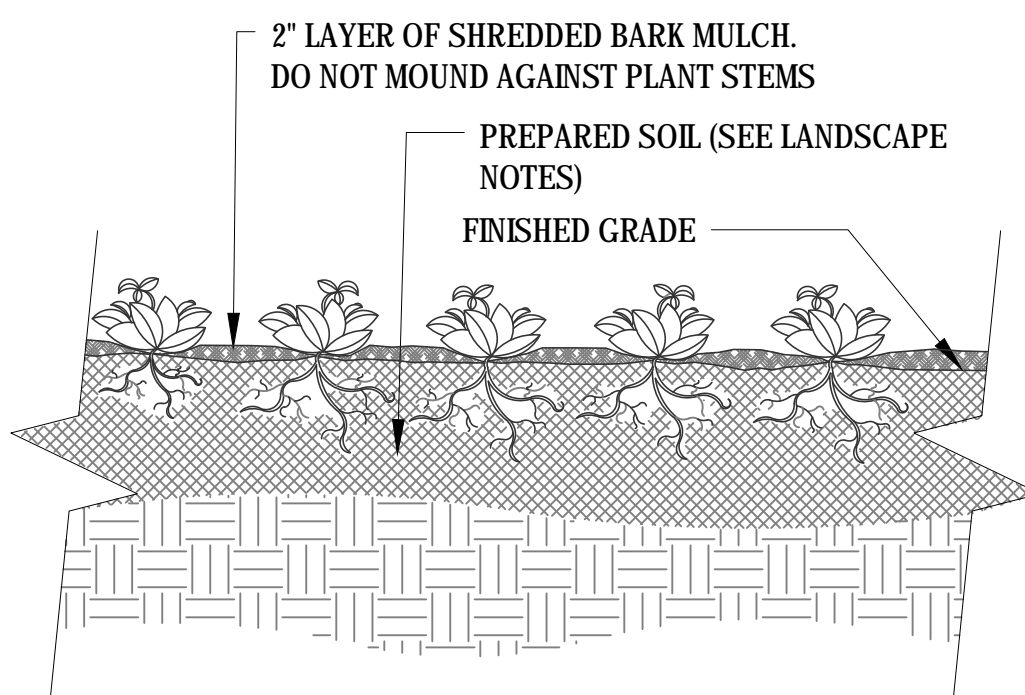
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**L100**

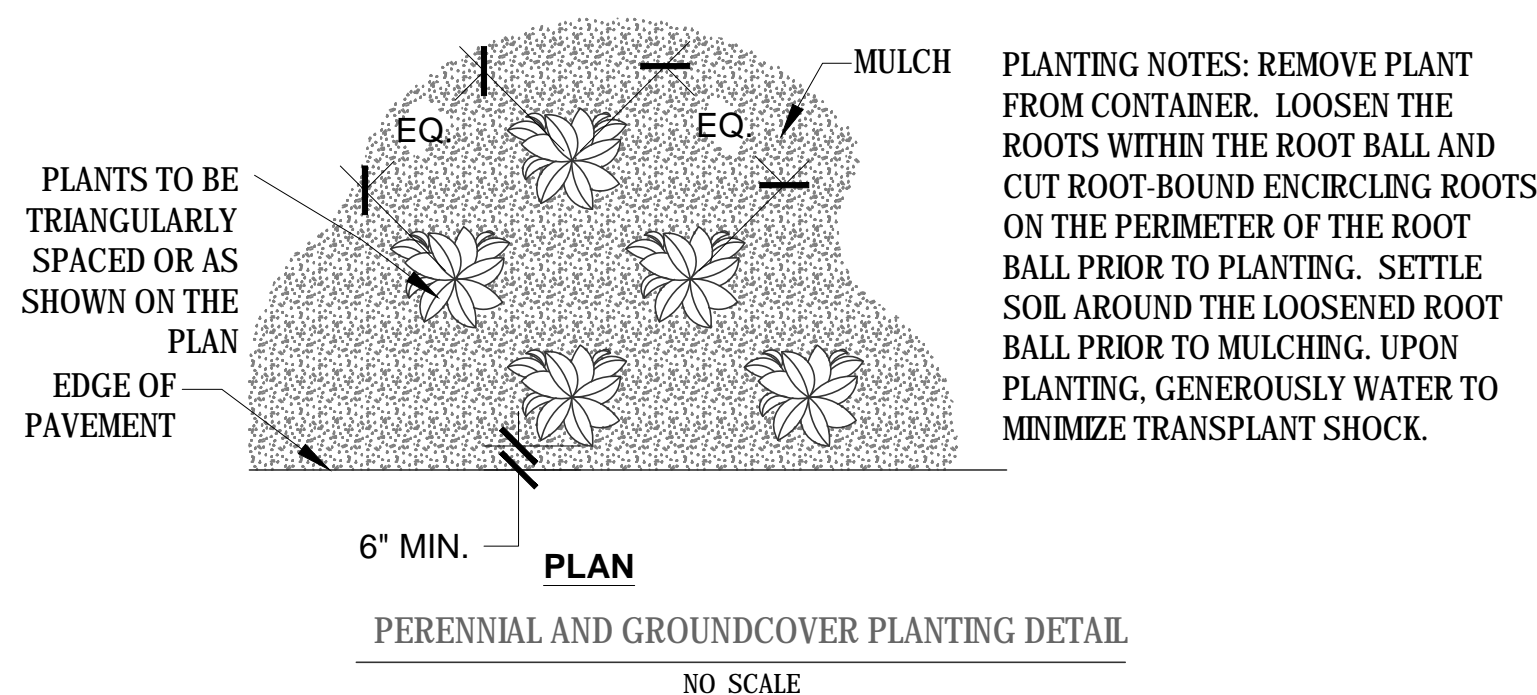




TREE STAKING PLAN VIEW



SECTION VIEW



PLAN TAKES PRECEDENCE OVER PLANT SCHEDULE IF DISCREPANCIES IN QUANTITIES EXIST. SPECIFICATIONS AND DETAILS TAKE PRECEDENCE OVER NOTES.

PLANT MATERIALS TO BE INSTALLED PER PLANTING DETAILS.

PROPOSED PLANT MATERIAL SHALL BE LOCATED AND STAKED AS SHOWN ON PLAN. LANDSCAPE ARCHITECT MUST APPROVE STAKING OF PLANT MATERIAL PRIOR TO DIGGING.

NO PLANT MATERIAL SUBSTITUTIONS WILL BE ACCEPTED UNLESS APPROVAL IS REQUESTED OF THE LANDSCAPE ARCHITECT BY THE LANDSCAPE CONTRACTOR PRIOR TO THE SUBMISSION OF BID AND/OR QUOTATION.

ADJUSTMENTS IN LOCATION OF PROPOSED PLANT MATERIALS MAY BE NEEDED IN FIELD. LANDSCAPE ARCHITECT MUST BE NOTIFIED PRIOR TO THE ADJUSTMENT OF PLANTS.

CONTRACTOR SHALL VERIFY PLANT QUANTITIES SHOWN ON THE PLAN AND PROVIDE A LIST TO THE CLIENT IDENTIFYING THE SPECIES AND SIZES TO BE USED THROUGHOUT THE PROJECT. THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY SUBSTANDARD PLANTING MATERIAL. REJECTED MATERIALS SHALL BE REMOVED FROM THE PROJECT SITE IMMEDIATELY.

ALL GRASS AREAS AND TREE AND SHRUB PLANTING BEDS SHALL RECEIVE A BLENDED TOPSOIL MIX TO A DEPTH OF SIX (6) INCHES. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS FOR A MINIMUM OF TEN (10) FEET.

SOIL PREPARATION FOR PERENNIAL AND GROUNDCOVER PLANTING BEDS SHALL BE AS FOLLOWS:

- REMOVE ALL ROOTS, LUMPS, STONES, SOD AND OTHER EXTRANEIOUS MATERIALS HARMFUL OR TOXIC TO PLANT GROWTH.
- PERENNIAL AND GROUNDCOVER PLANTING BEDS SHALL RECEIVE A TWELVE (12) INCH MIXTURE CONSISTING OF NINE (9) INCH BLENDED TOPSOIL, THREE (3) INCH PURPLE COW CLASSIC COMPOST (PURPLE COW ORGANICS, LLC (608) 831-0349 OR APPROVED EQUAL. ADD 1/2 LB OF 5-10-5 GARDEN FERTILIZER PER 100 SQUARE FEET AND ROTO-TIL AMENDMENTS INTO THE PLANTING SOIL. AVOID DAMAGE TO EXISTING TREE ROOTS WHERE APPLICABLE BY LIGHTLY WORKING AMENDMENTS INTO THE SOIL WITH A PITCH FORK.
- MIX AMENDED PLANTING SOIL, EITHER PRIOR TO PLANTING APPLY ON SURFACE OF PLANTING BED AND MIX THOROUGHLY BEFORE PLANTING.
- GRADE, RAKE, AND ROLL PLANTING BED WITH ROLLER WEIGHING NOT LESS THAN 25 LBS OR MORE THAN 100 LBS PER LINEAL FOOT SO AS TO LEAVE IN CONDITION TO PLANT.
- GRADE PLANTING BEDS TO A TWELVE (12) INCH CROWN AT CENTER.

PLANT MATERIAL (EXCEPT PERENNIAL AND GROUNDCOVER - SEE PREVIOUS NOTE) SHALL BE FERTILIZED UPON INSTALLATION WITH DRIED BONE MEAL, OTHER APPROVED FERTILIZER MIXED IN WITH THE PLANTING SOIL PER THE MANUFACTURER'S INSTRUCTIONS OR MAY BE TREATED FOR SUMMER AND FALL INSTALLATION WITH AN APPLICATION OF GRANULAR 0-20-20 OF 12 OZ. PER 2.5" CALIPER TREE AND 6 OZ. PER SHRUB WITH AN ADDITIONAL APPLICATION OF 10-10-10 THE FOLLOWING SPRING IN THE TREE SAUCER.

PLANT INSTALLATION NOTES:

LANDSCAPE CONTRACTOR SHALL COORDINATE THE PHASES OF CONSTRUCTION AND PLANTING INSTALLATION WITH OTHER CONTRACTORS WORKING ON THE SITE.

ALL WRITTEN DIMENSIONS SUPERSEDE SCALED DIMENSIONS.

THE CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES AND ADDITIONAL INFORMATION PRIOR TO COMMENCEMENT OF SITE CONSTRUCTION.

ROUGH GRADING AND DRAINAGE CONSTRUCTION IS TO BE COMPLETED PRIOR TO LANDSCAPE CONTRACTOR'S WORK. VERIFY ALL EXISTING SITE AND GRADING CONDITIONS PRIOR TO CONSTRUCTION.

ALL AREAS DISTURBED BY GRADING OR SITE CONSTRUCTION SHALL BE FINE GRADED, PLANTED, AND SODDED. NO PLANTS WILL BE INSTALLED UNTIL FINAL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.

LANDSCAPE CONTRACTOR SHALL REVIEW THE SITE FOR DEFICIENCIES IN THE PLANT MATERIAL SELECTIONS AND OTHER SITE CONDITIONS WHICH MIGHT NEGATIVELY AFFECT PLANT ESTABLISHMENT, SURVIVAL OR WARRANTY. UNDESIRABLE PLANT MATERIAL SELECTIONS OR SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK.

ALL MIXED PLANTING BEDS WITH PERENNIALS, GROUNDCOVER, SHRUBS, AND TREES SHALL RECEIVE A TWO (2) INCH TO (3) THREE INCH LAYER OF SHREDDED HARDWOOD MULCH WITH NO WEED BARRIER. ALL PLANTING BEDS WITH PERENNIALS AND OR GROUNDCOVER ONLY SHALL RECEIVE A TWO (2) INCH LAYER OF SHREDDED HARDWOOD MULCH WITH NO WEED BARRIER. ALL SHRUBS AND TREES PLANTED SINGLY OR TOGETHER IN BEDS SHALL RECEIVE A THREE (3) INCH LAYER OF SHREDDED HARDWOOD MULCH WITH NO WEED BARRIER. DO NOT ALLOW MULCH TO TOUCH STEMS OR TRUNKS OF PERENNIALS, SHRUBS, OR TREES. UNLESS OTHERWISE NOTED, NO LANDSCAPE FABRIC OR WEED BARRIER IS TO BE INSTALLED OVER PLANT BEDS.

UNLESS OTHERWISE SHOWN, ALL PERENNIALS AND SHRUBS TO BE PLANTED IN A TRIANGULAR ARRANGEMENT. FOR PLANTS NOT SHOWN INDIVIDUALLY, REFER TO SPACING SHOWN IN THE PLANT SCHEDULE AND DETAILS.

LANDSCAPE CONTRACTOR SHALL WARRANTY NEW PLANT MATERIAL THROUGH ONE CALENDAR YEAR FROM THE DATE OF THE OWNER ACCEPTANCE. NO PARTIAL ACCEPTANCE WILL BE CONSIDERED.

UNLESS NOTED OTHERWISE, THE APPROPRIATE DATES FOR SPRING PLANT MATERIAL INSTALLATION AND SEED/SOD PLACEMENT IS FROM THE TIME THE GROUND HAS THAWED TO JUNE 15.

FALL SODDING IS GENERALLY ACCEPTABLE FROM AUGUST 15 TO NOVEMBER 1. FALL SEEDING IS GENERALLY ACCEPTABLE FROM AUGUST 15 TO SEPTEMBER 15. ADJUSTMENTS TO SOD/SEED PLANTING DATES MUST BE APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT.

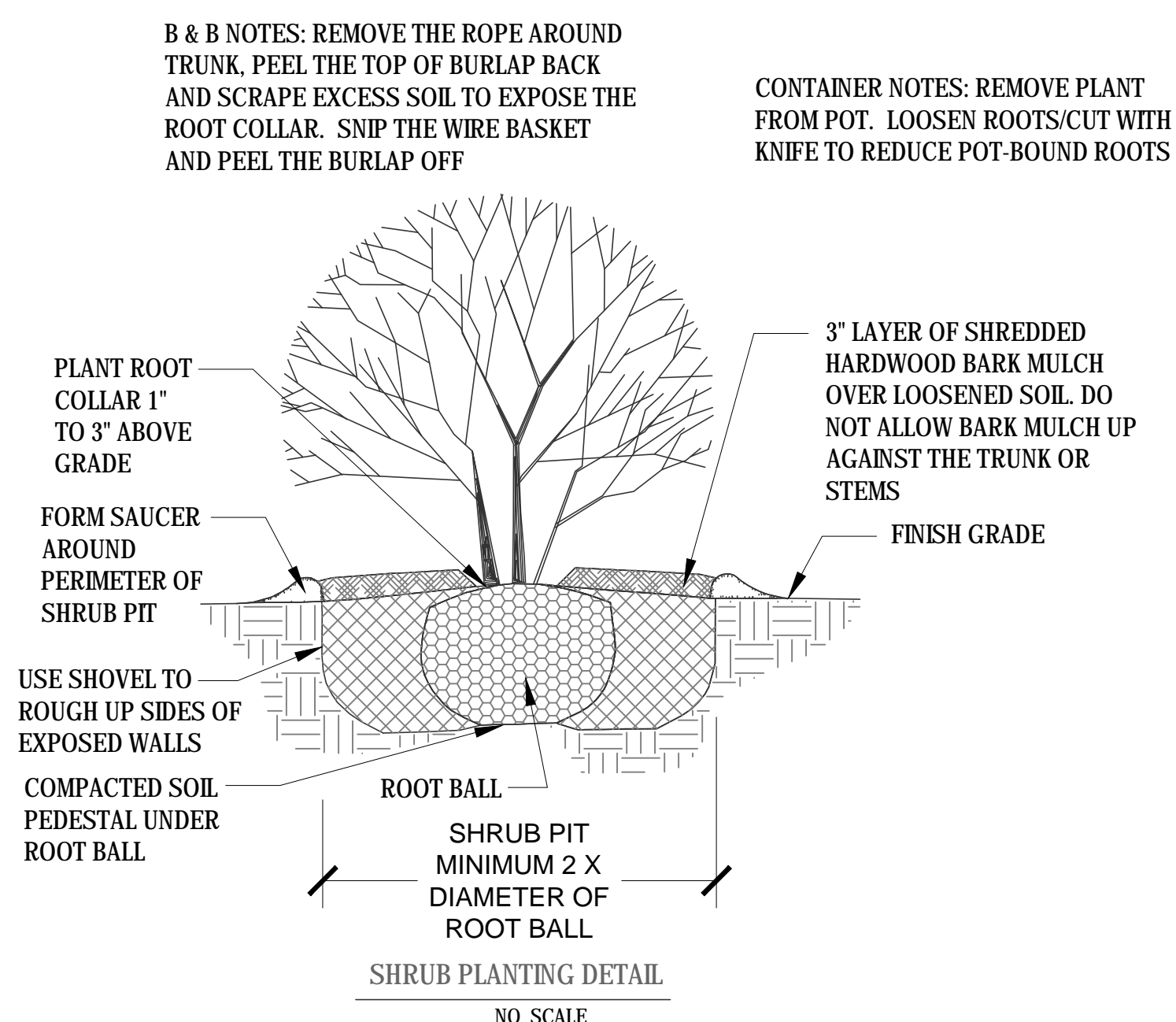
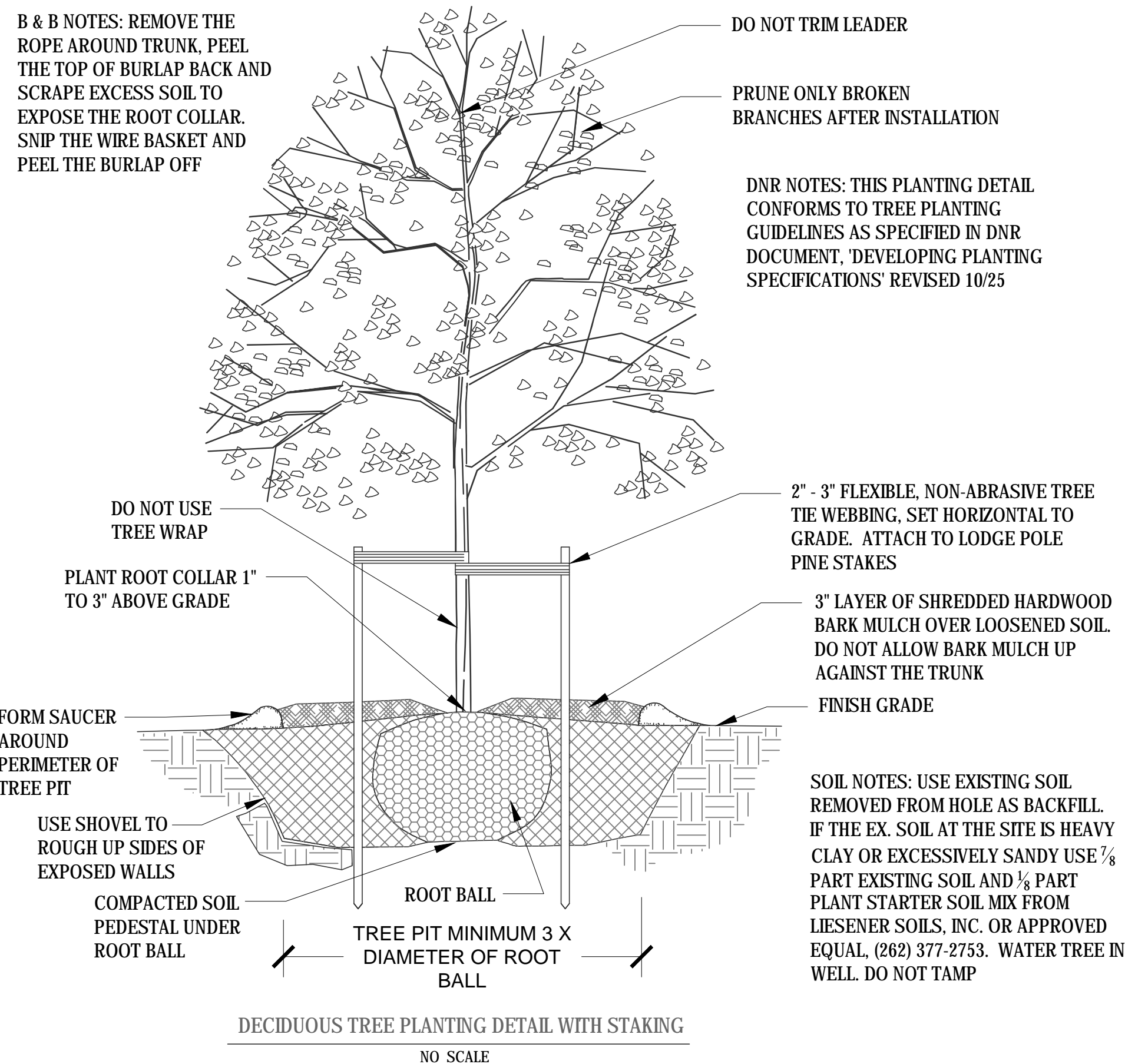
CONIFEROUS PLANTING IS GENERALLY ACCEPTABLE FROM AUGUST 15 TO OCTOBER 1. FALL DECIDUOUS PLANTING IS GENERALLY ACCEPTABLE FROM THE FIRST FROST UNTIL NOVEMBER 15. ADJUSTMENTS TO PLANTING DATES MUST BE APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT.

MAINTENANCE BORDERS, WHERE ILLUSTRATED, TO HAVE EDGER AND STONE MULCH AS INDICATED ON DRAWINGS OR IN SPECIFICATIONS.

MAINTENANCE BORDER - INSTALL A TWO (2) FEET WIDE MAINTENANCE BORDER BETWEEN THE FOUNDATION OF THE BUILDING AND TURF GRASS AREAS AS SHOWN ON THE PLAN. BORDER TO CONSIST OF 2.5 INCH LAYER OF MEDIUM MISSISSIPPI STONE OVER LANDSCAPE FABRIC AND EDGED WITH COMMERCIAL GRADE, PERMALOC 3/8" X 4" ALUMINUM BED EDGING IN MILL FINISH, OR APPROVED EQUAL. INSTALL EDGING PER SUPPLIER'S SPECIFICATIONS.

PLANT BED EDGING - INSTALL COMMERCIAL GRADE, PERMALOC 3/8" X 4" ALUMINUM BED EDGING IN MILL FINISH, OR APPROVED EQUAL. TO BE INSTALLED PER SUPPLIER'S SPECIFICATIONS.

UNLESS NOTED OTHERWISE, DO NOT STAKE DECIDUOUS TREES LESS THAN OR EQUAL TO 2.5 INCHES CALIPER DIAMETER AT BREAST HEIGHT (DBH) AND EVERGREEN TREES LESS THAN OR EQUAL TO 6 FEET IN HEIGHT. LARGER SIZED TREES SHALL BE STAKED PER PLANTING DETAILS UNLESS OTHERWISE NOTED ON THE PLAN.



PRELIMINARY  
NOT FOR CONSTRUCTION

NO. REVISION DATE BY

DRAWING NO.

DRAWN BY: NE/ MR

DATE: 01-04-2018

PROJECT NO:

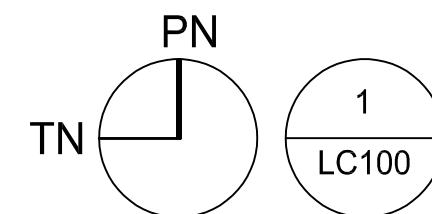
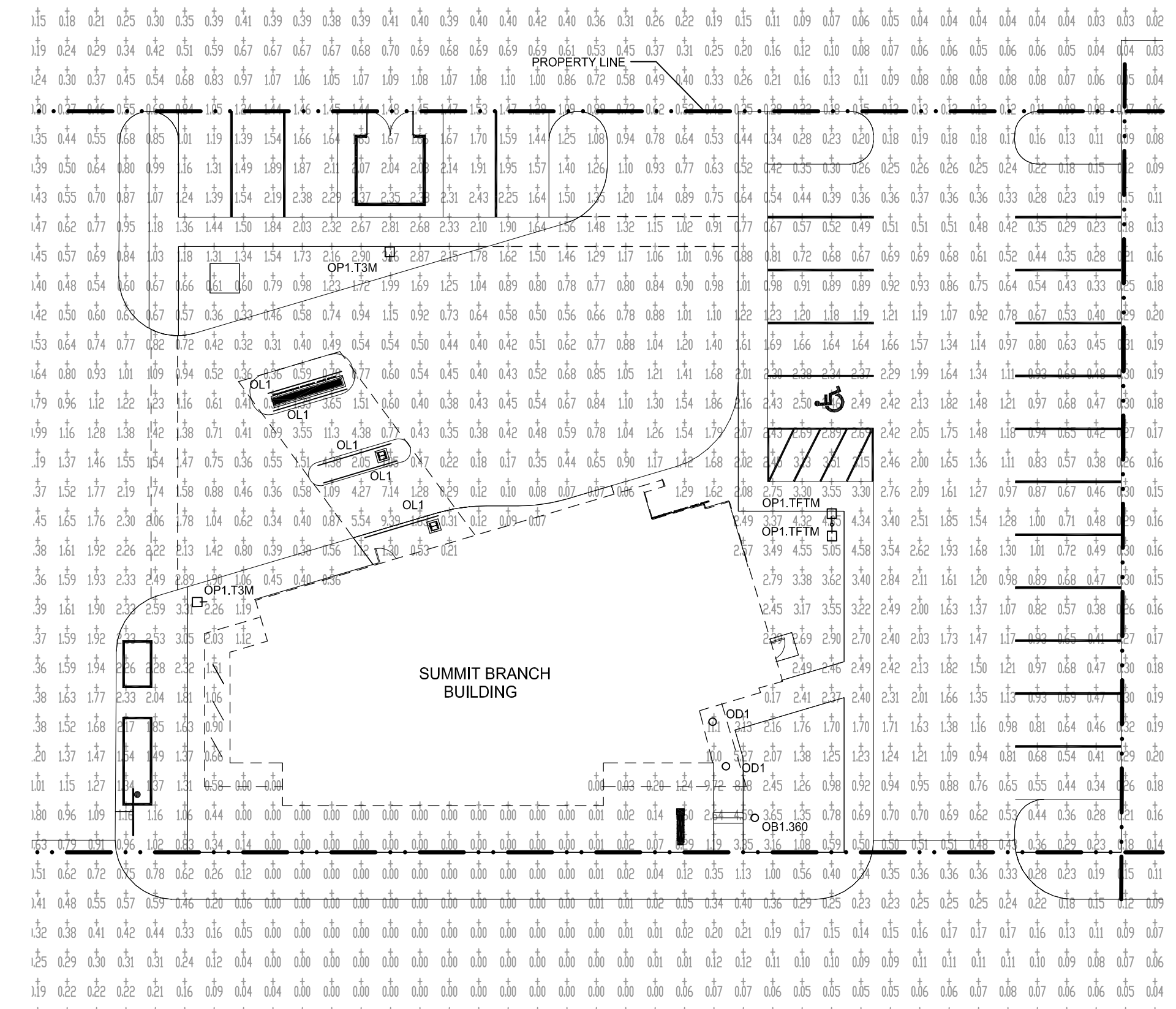
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LUMINAIRE SCHEDULE		
SYMBOL	LABEL	DESCRIPTION
○	OB1.360	360 DEGREE DISTRIBUTION BOLLARD, 4000K
□	OP1.T3M	LED SITE LIGHT ON 18 FT POLE WITH A 6 INCH TALL CONCRETE BASE, 4000K
□	OP1.TFTM	LED SITE LIGHT ON 18 FT POLE WITH A 6 INCH TALL CONCRETE BASE, 4000K
—	OL1	LINEAR AIMABLE UP-LIGHT MOUNTED IN STRUCTURE OF CANOPY, 4000K
○	OD1	EXTERIOR DOWNLIGHT, 4000K



**EXTERIOR LIGHTING CALCULATIONS**

SCALE 1" = 20'-0"

SCHEMATIC DESIGN SET   NOT FOR CONSTRUCTION			
NO.	REVISIONS DESCRIPTION	DATE	



SCHEMATIC DESIGN SET   NOT FOR CONSTRUCTION	
PROJECT TITLE	SUMMIT BRANCH - FIFTH WARD
PROJECT NO.	2018132
DATE:	01-10-2019
DRAWING SET	PLAN REVIEW

SCHEMATIC DESIGN SET   NOT FOR CONSTRUCTION	
SHEET NAME	EXTERIOR LIGHTING CALCULATIONS
PROJECT NO.	2018132
DATE:	01-10-2019
DRAWING SET	PLAN REVIEW

**LC100**

## LED Bollards with rotationally symmetrical distribution

**Post construction:** One piece extruded aluminum, with a one piece aluminum top housing and base, internally welded into an assembly. Die castings are marine grade, copper free ( $\leq 0.3\%$  copper content) A360.0 aluminum alloy.

**Enclosure:** Heavy walled, die-cast aluminum cap. Clear  $\frac{3}{16}$ " thick borosilicate glass with pure anodized aluminum cone reflector. Fully gasketed using high temperature silicone rubber O-ring gaskets.

**Electrical:** 14.4W LED luminaire, 20 total system watts,  $-20^{\circ}\text{C}$  start temperature. Integral 120V through 277V electronic LED driver, 0-10V, TRIAC, and ELV dimmable. LED module(s) are available from factory for easy replacement.

Standard LED color temperature is 3000K with a  $>80$  CRI. Available in

4000K ( $>80$  CRI); add suffix K4 to order.

**Note:** Due to the dynamic nature of LED technology, LED luminaire data on this sheet is subject to change at the discretion of BEGA-US. For the most current technical data, please refer to [www.bega-us.com](http://www.bega-us.com).

**Anchor base:** Heavy cast aluminum, slotted for precise alignment. Mounts to BEGA 79817 anchorage kit (supplied).

**Finish:** All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. Available in four standard BEGA colors: Black (BLK); White (WHT); Bronze (BRZ); Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

UL listed for US and Canadian Standards, suitable for wet locations. Protection class IP65.

**Luminaire Lumens:** 746



	Lamp	A	B	Anchorage
<b>99 570</b>	14.4W LED	6 1/2	39 3/8	<b>79 817</b>



Type:  
 BEGA Product:  
 Project:  
 Voltage:  
 Color:  
 Options:  
 Modified:

1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 FAX (805) 566-9474 [www.bega-us.com](http://www.bega-us.com)  
 ©copyright BEGA 2017 Updated 09/17

SUMMIT CREDIT UNION  
 FIFTH WARD

TYPE: OB1.360



Gotham Architectural Downlighting  
LED Downlights

**2" Incito®**  
Adjustable, Lensed

Solid-State Lighting  
(US and International Patents Pending)



FEATURES

**OPTICAL SYSTEM**

- Superior 100% virgin silicone refractive optic enables maximum dimensional stability and optical transmission with no discoloration over life.
- Primary control of distribution occurs in refractive optic allowing for aesthetic versatility with trim color and finish.
- Eleven preset distribution patterns allow designers to achieve various objectives.
- 3-Step MacAdam Ellipse.
- Self-flanged semi-specular or matte-diffuse lower trim utilized in combination with a highly transmissive softening lens.
- Field interchangeable optics.
- Wipe-down precision acrylic lens controls aperture brightness and enables consistent visual texture.

**MECHANICAL SYSTEM**

- Matte black enclosure ensures seamless integration into architecture.
- Post-installation vertical tilt and horizontal rotation adjustment possible from above or below ceiling.
- Accommodates 1/2" to 5/8" thick ceilings only.
- Full horizontal panning up to 365 degrees.
- 0-40° vertical tilt.
- Hot aiming below ceiling with indicator.
- Install from below architecture standard.
- Several additional mounting options available including new construction mounting pan, Chicago plenum, and Type IC.

- Standard ambient operating temperature: 25 °C. High ambient option available.
- Accommodates a wide range of applications including multiple plenum cross sections and ceiling thicknesses. Consult page 2.
- Light engine and driver are accessible from above or below ceiling.
- Flangeless trim option includes proprietary Gotham mud ring enabling seamless integration into drywall applications. Mud ring ships separately.

**ELECTRICAL SYSTEM**

- Solid-state LED light engine available in 2700 K, 3000 K, 3500 K or 4000 K color temperatures. Standard CRI: 80 typical. High CRI option available.
- Rated system life of >60,000 hours at 70% output.
- 120V TRIAC or ELV dimming and 0-10V dimming standard.
- Luminaire accepts parallel and branch circuit control wiring.

**LISTINGS**

- Fixtures are UL listed to meet US and Canadian standards; wet location listed.

**WARRANTY**

- 5-year limited warranty. Complete warranty terms located at: [www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx](http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx)

Note: Actual performance may differ as a result of end user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C.

ORDERING INFORMATION

**EXAMPLE: ICO ADJL 35/10 2AR LSS 20D MVOLT UGZ**

Series	Color temperature	Nominal lumen values ¹	Aperture/Trim color	Trim Style	Finish	Beam
<b>ICO ADJL</b>	<b>27/</b> 2700 K	<b>05</b> 500 lumens	<b>2AR</b> Clear	<b>(blank)</b> Self-flanged <b>FL</b> Flangeless	<b>LSS</b> Semi-specular <b>LD</b> Matte diffuse	<b>15D</b> 15° beam angle
	<b>30/</b> 3000 K	<b>07</b> 750 lumens	<b>2PR</b> Pewter			<b>20D</b> 20° beam angle
	<b>35/</b> 3500 K	<b>10</b> 1000 lumens	<b>2WTR</b> Wheat			<b>25D</b> 25° beam angle
	<b>40/</b> 4000 K	<b>15²</b> 1500 lumens	<b>2GR</b> Gold			<b>30D</b> 30° beam angle
						<b>35D</b> 35° beam angle
			<b>2WR³</b> White	<b>40D</b> 40° beam angle		
			<b>2BR³</b> Black	<b>45D</b> 45° beam angle		
				<b>3515D</b> Elliptical 35° x 15° beam angle		
				<b>5020D</b> Elliptical 50° x 20° beam angle		
				<b>5060D</b> Elliptical 50° x 60° beam angle		
				<b>6070D</b> Elliptical 60° x 70° beam angle		

Voltage	Driver	Options
<b>MVOLT⁴</b> 120 277	<b>UGZ⁵</b> Universal dimming to 1% (0-10V, 120V TRIAC or ELV)	<b>SF^{6,7}</b> Single fuse <b>TRW^{8,9}</b> White painted flange <b>TRBL^{9,10}</b> Black painted flange <b>CP¹¹</b> Chicago plenum <b>NPP16D^{6,7}</b> nLight® network power/relay pack with 0-10V dimming. <b>NPP16DER^{6,7}</b> nLight® network power/relay pack with 0-10V dimming. ER control fixtures on emergency circuit.
		<b>CRI90</b> High CRI (90+) <b>HAO²</b> High ambient (40°C) <b>ICAT²</b> IC/Airtight housing construction <b>NCH</b> New construction housing

ACCESSORIES order as separate catalog numbers (shipped separately)

<b>OPTC2¹²</b>	Additional optics available for field installation	<b>HS258</b>	2-5/8" Hole saw
<b>OPTC2 KIT</b>	Kit including a field interchangeable optic for each of the 13 preset beam distribution patterns	<b>HS234FL</b>	2-3/4" Hole saw for flangeless trim option
		<b>AW50</b>	Allen wrench (.050") for adjusting tilt

DATE	PROJECT	FIRM	TYPE
------	---------	------	------

THE L50 INCLUDES PATENTED OPTICAL DESIGN THAT DELIVERS THE WIDEST RANGE OF BEAM ANGLE OPTIONS FOR PRECISE COVE, WALL GRAZING, WALL WASHING OR LINE OF LIGHT APPLICATIONS. EXCLUSIVE FLIP TO FLAT™ HINGE DESIGN PROVIDES FLEXIBILITY WHEN MANAGING SMALL COVE DETAILS. TRÖV OFFERS SMOOTH, FLICKER FREE DIMMING DOWN TO 0%.

**FEATURES :**

- DIM TO 0%, ELV REVERSE PHASE
- 24 BEAM ANGLES
- MULTI-VOLT
- FLIP TO FLAT™
- 6 CCT OPTIONS
- 80+ AND 90+ CRI OPTIONS
- IP54 INTERIOR AND IP66 EXTERIOR OPTIONS



MODEL/ SIZE	INTERIOR/ EXTERIOR	LENGTH	POWER	CCT	CRI	VOLTAGE	OPTICS
L50	I E	12" 48"	02 04 06 08 10 12	WHITE CCT 22 27 30 35 40 50	MONO COLOR GR**** BL AM RD***	80 90* Blank For Color	MULT (120-277V)  GRAZING 9 x 9 9 x 17 9 x 29 9 x 59 15 x 15 15 x 23 15 x 35 15 x 65  COVE 120" Asym  LINE OF LIGHT LOL WASHING 25 x 25 25 x 33 25 x 45 25 x 75 39 x 9 55 x 25 40 x 40 40 x 48 40 x 60 40 x 90 45 x 15 70 x 40 70 x 70

**EXAMPLE:** L50-I-48-10-27-90-MULT-15x65 *90 CRI not available in 2200K or 5000K **120 is only available with Exterior option. See L35 spec sheet for interior cove options. ***Red is not available in 12W or 10W. ****Green is not available in 12W.

PERFORMANCE	WATTS	OPTIC	LUMEN OUTPUT	EFFICACY
	2W	ASYM	110 lm/LF ( 361 lm/m )	55 lm/W
	4W	ASYM	302 lm/LF ( 1037 lm/m )	76 lm/W
	6W	ASYM	482 lm/LF ( 1614 lm/m )	80 lm/W
	8W	ASYM	675 lm/LF ( 2224 lm/m )	84 lm/W
	10W	ASYM	785 lm/LF ( 2644 lm/m )	79 lm/W
	12W	ASYM	923 lm/LF ( 2752 lm/m )	77 lm/W

ALL LUMEN DATA IS FROM 4000K 80CRI FIXTURES. PLEASE SEE PHOTOMETRY SPEC SHEET FOR ADDITIONAL LUMEN DATA.

<b>COLOR RENDERING INDEX</b>	80+, 90+			
<b>COLOR CONSISTENCY</b>	2-STEP MACADAM ELLIPSE			
<b>LUMEN DEPRECIATION / RATED LIFE</b>	WATTS	L70 @ 25C	L70 @ 50C	L90 @ 25C   L90 @ 50C
	2W-12W	>150,000	>70,000	>50,000   >25,000

* CALCULATIONS FOR LED FIXTURES ARE BASED ON MEASUREMENTS THAT COMPLY WITH IES LM-80 TESTING PROCEDURES AND IES TM-21 CALCULATOR

<b>ELECTRICAL</b>	<b>POWER CONSUMPTION</b>	2W*/LF (6.6W/M); 4W/LF (13.2W/M); 6W/LF (19.8W/M); 8W/LF (26.4W/M); 10W/LF (33W/M); 12W/FL (39.6W/M) * 3W/LF (9.9W/M) at 220V -277V																																																																	
	<b>MAX FIXTURE RUN LENGTH</b>	<table border="1"> <thead> <tr> <th></th> <th colspan="2">2W/LF</th> <th colspan="2">4W/LF</th> <th colspan="2">6W/LF</th> <th colspan="2">8W/LF</th> <th colspan="2">10W/LF</th> <th colspan="2">12W/LF</th> </tr> <tr> <th>Volts</th> <th>Max Run all 1'</th> <th>Max Run all 4'</th> <th>Max Run all 1'</th> <th>Max Run all 4'</th> <th>Max Run all 1'</th> <th>Max Run all 4'</th> <th>Max Run all 1'</th> <th>Max Run all 4'</th> <th>Max Run all 1'</th> <th>Max Run all 4'</th> <th>Max Run all 1'</th> <th>Max Run all 4'</th> </tr> </thead> <tbody> <tr> <td>120</td> <td>214</td> <td>214</td> <td>186</td> <td>186</td> <td>152</td> <td>152</td> <td>114</td> <td>114</td> <td>91</td> <td>91</td> <td>76</td> <td>76</td> </tr> <tr> <td>220</td> <td>374</td> <td>392</td> <td>340</td> <td>340</td> <td>277</td> <td>277</td> <td>209</td> <td>209</td> <td>95</td> <td>167</td> <td>95</td> <td>139</td> </tr> <tr> <td>277</td> <td>374</td> <td>494</td> <td>374</td> <td>428</td> <td>349</td> <td>349</td> <td>263</td> <td>263</td> <td>95</td> <td>190</td> <td>95</td> <td>175</td> </tr> </tbody> </table>		2W/LF		4W/LF		6W/LF		8W/LF		10W/LF		12W/LF		Volts	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	120	214	214	186	186	152	152	114	114	91	91	76	76	220	374	392	340	340	277	277	209	209	95	167	95	139	277	374	494	374	428	349	349	263	263	95	190	95	175
	2W/LF		4W/LF		6W/LF		8W/LF		10W/LF		12W/LF																																																								
Volts	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'	Max Run all 1'	Max Run all 4'																																																							
120	214	214	186	186	152	152	114	114	91	91	76	76																																																							
220	374	392	340	340	277	277	209	209	95	167	95	139																																																							
277	374	494	374	428	349	349	263	263	95	190	95	175																																																							
	<b>POWER FACTOR</b>	4W, 6W, 8W, 10W, 12W >0.9, 2W<0.9																																																																	
	<b>OPERATING VOLTAGE DRIVER</b>	MULTIVOLT: 110-277VAC, 50/60 Hz																																																																	
	<b>STARTUP TEMPERATURE</b>	INTEGRAL TO FIXTURE; DE-RATED POWER AND SYNCHRONOUS START-UP AT FULL BRIGHTNESS																																																																	
	<b>OPERATING TEMPERATURE</b>	-40°F TO 122°F (-40°C TO 50°C)																																																																	
	<b>STORAGE TEMPERATURE</b>	-40°F TO 176°F (-40°C TO 80°C)																																																																	

ECOSENSE LIGHTING INC.  
837 NORTH SPRING STREET  
SUITE 103  
LOS ANGELES, CA 90012

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F • 310.496.6256  
T • 855.632.6736  
855.6.ECOSEN

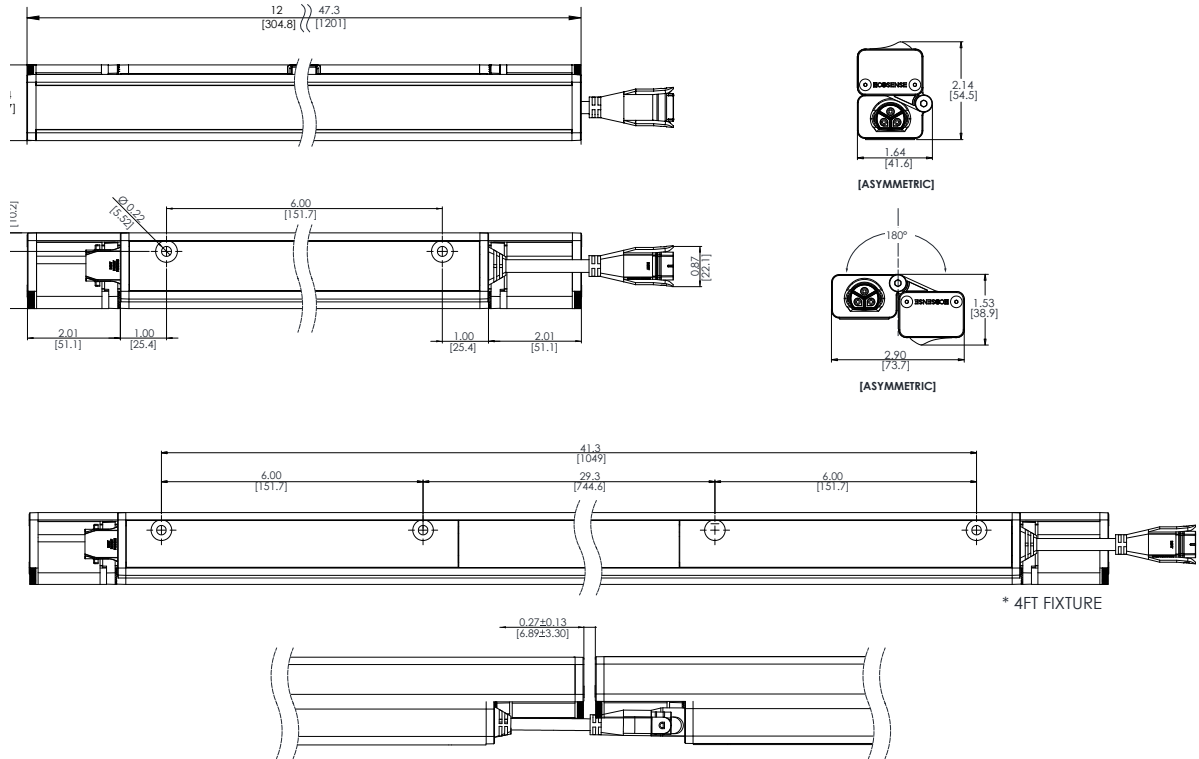
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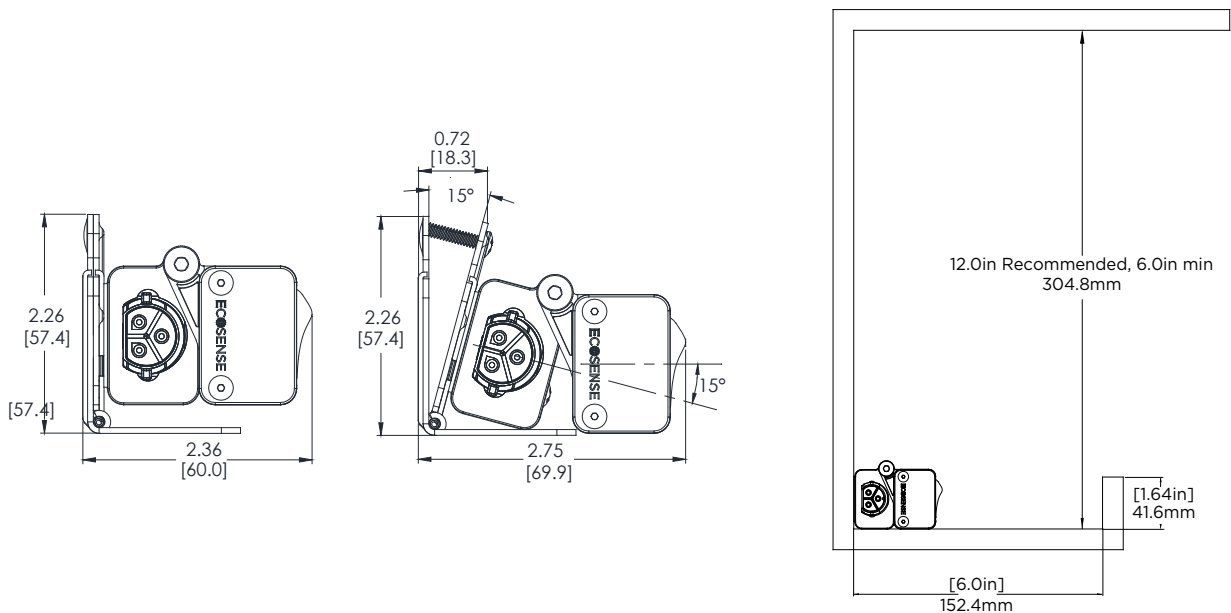
1/3

20171120

DATE	PROJECT	FIRM	TYPE
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Fine Adjustable L-Bracket:



ECOSENSE LIGHTING INC.  
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3/3

20171120



# D-Series Size 0 LED Area Luminaire



Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

## A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

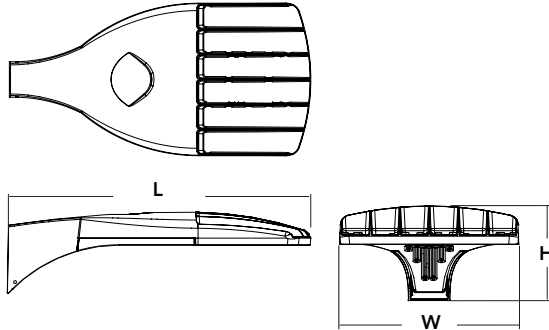
- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a **shaded background**. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability¹
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a **shaded background**¹

To learn more about A+, visit [www.acuitybrands.com/aplus](http://www.acuitybrands.com/aplus).

- See ordering tree for details.
- A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: [Link to Roam](#); [Link to DTL DLL](#)

### Specifications

EPA:	0.95 ft ² (.09 m ² )
Length:	26" (66.0 cm)
Width:	13" (33.0 cm)
Height:	7" (17.8 cm)
Weight (max):	16 lbs (7.25 kg)



A+ Capable options indicated by this color background.

### Ordering Information

**EXAMPLE: DSX0 LED P6 40K T3M MVOLT SPA DDBXD**

Series	LEDs	Color temperature	Distribution	Voltage	Mounting	
<b>DSX0 LED</b>	<b>Forward optics</b> P1 P4 P7 P2 P5 <b>P3</b> P6 <b>Rotated optics</b> P10 ¹ P12 ¹ P11 ¹ P13 ¹	30K 3000 K <b>40K 4000 K</b> 50K 5000 K AMBPC Amber phosphor converted ²	T1S Type I short T2S Type II short T2M Type II medium T3S Type III short <b>T3M Type III medium</b> T4M Type IV medium <b>TFTM Forward throw medium</b> T5VS Type V very short	T5S Type V short T5M Type V medium T5W Type V wide BLC Backlight control ^{2,3} LCCO Left corner cutoff ^{2,3} RCCO Right corner cutoff ^{2,3}	MVOLT ^{4,5} <b>120⁶</b> 208 ^{5,6} 240 ^{5,6} 277 ⁶ 347 ^{5,6,7} 480 ^{5,6,7}	<b>Shipped included</b> <b>SPA</b> Square pole mounting RPA Round pole mounting WBA Wall bracket SPUMBA Square pole universal mounting adaptor ⁸ RPUMBA Round pole universal mounting adaptor ⁸ <b>Shipped separately</b> KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) ⁹

Control options	Other options	Finish (required)
<b>Shipped installed</b> NLTAIR2 nLight AIR generation 2 enabled ¹⁰ PER NEMA twist-lock receptacle only (control ordered separate) ¹¹ PER5 Five-wire receptacle only (control ordered separate) ^{11,12} PER7 Seven-wire receptacle only (control ordered separate) ^{11,12} DMG 0-10V dimming extend out back of housing for external control (control ordered separate) PIR Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc ^{5,13,14} PIRH Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc ^{5,13,14} PIRHN Network, Bi-Level motion/ambient sensor ¹⁵ PIR1FC3V Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc ^{5,13,14}	PIRH1FC3V Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc ^{5,13,14} BL30 Bi-level switched dimming, 30% ^{5,16,17} BL50 Bi-level switched dimming, 50% ^{5,16,17} PNMTDD3 Part night, dim till dawn ^{5,18} PNMTSD3 Part night, dim 5 hrs ^{5,18} PNMT6D3 Part night, dim 6 hrs ^{5,18} PNMT7D3 Part night, dim 7 hrs ^{5,18} FAO Field adjustable output ¹⁹	<b>Shipped installed</b> HS House-side shield ²⁰ SF Single fuse (120, 277, 347V) ⁶ DF Double fuse (208, 240, 480V) ⁶ L90 Left rotated optics ¹ R90 Right rotated optics ¹ DDL Diffused drop lens ²⁰ <b>Shipped separately</b> BS Bird spikes ²¹ EGS External glare shield ²¹
		DDBXD Dark bronze DBLXD Black <b>DNAXD Natural aluminum</b> DWHXD White DDBTXD Textured dark bronze DBLTXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

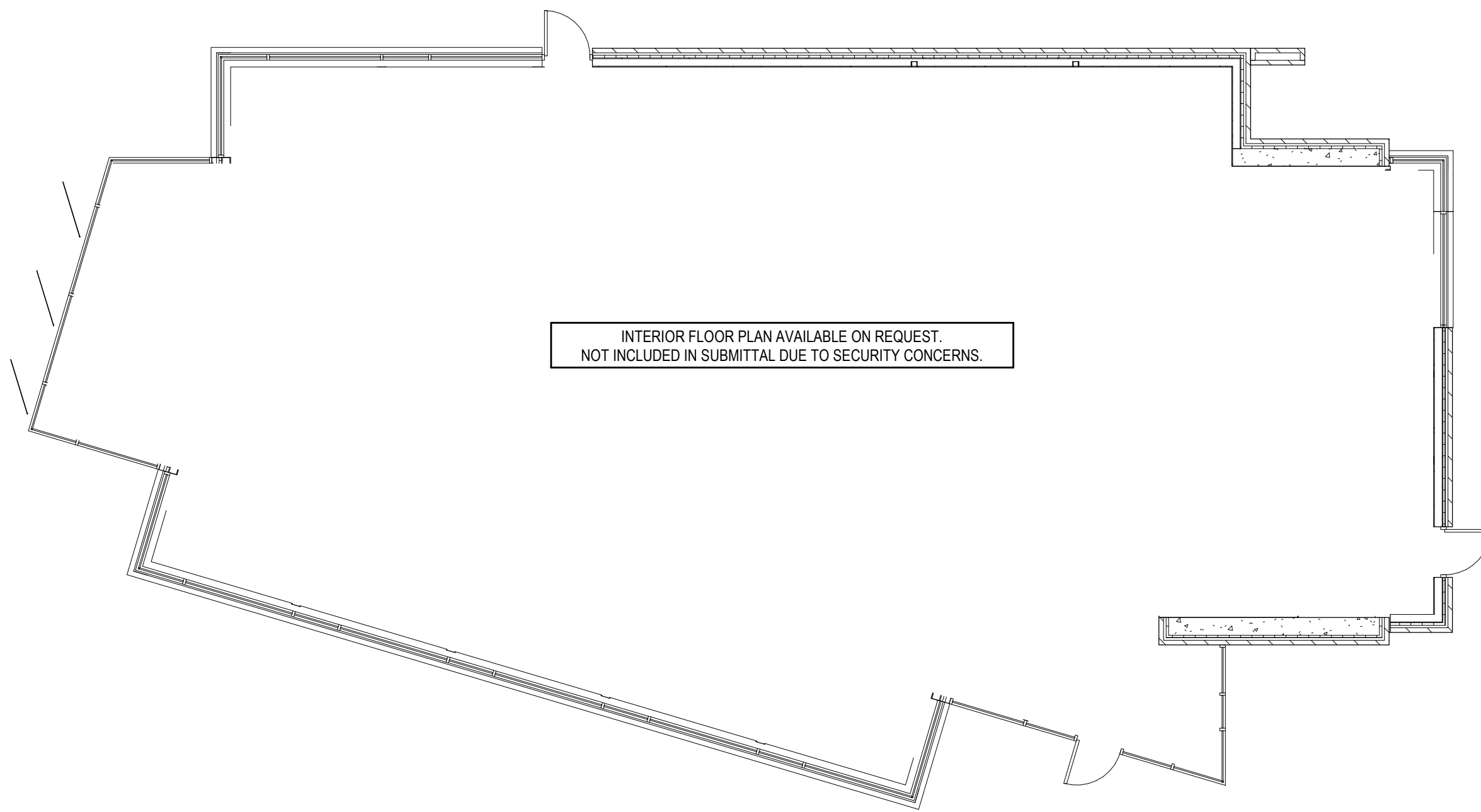


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DSX0-LED  
Rev. 03/21/18  
Page 1 of 7

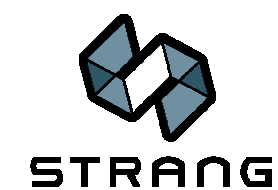
SUMMIT CREDIT UNION  
FIFTH WARD

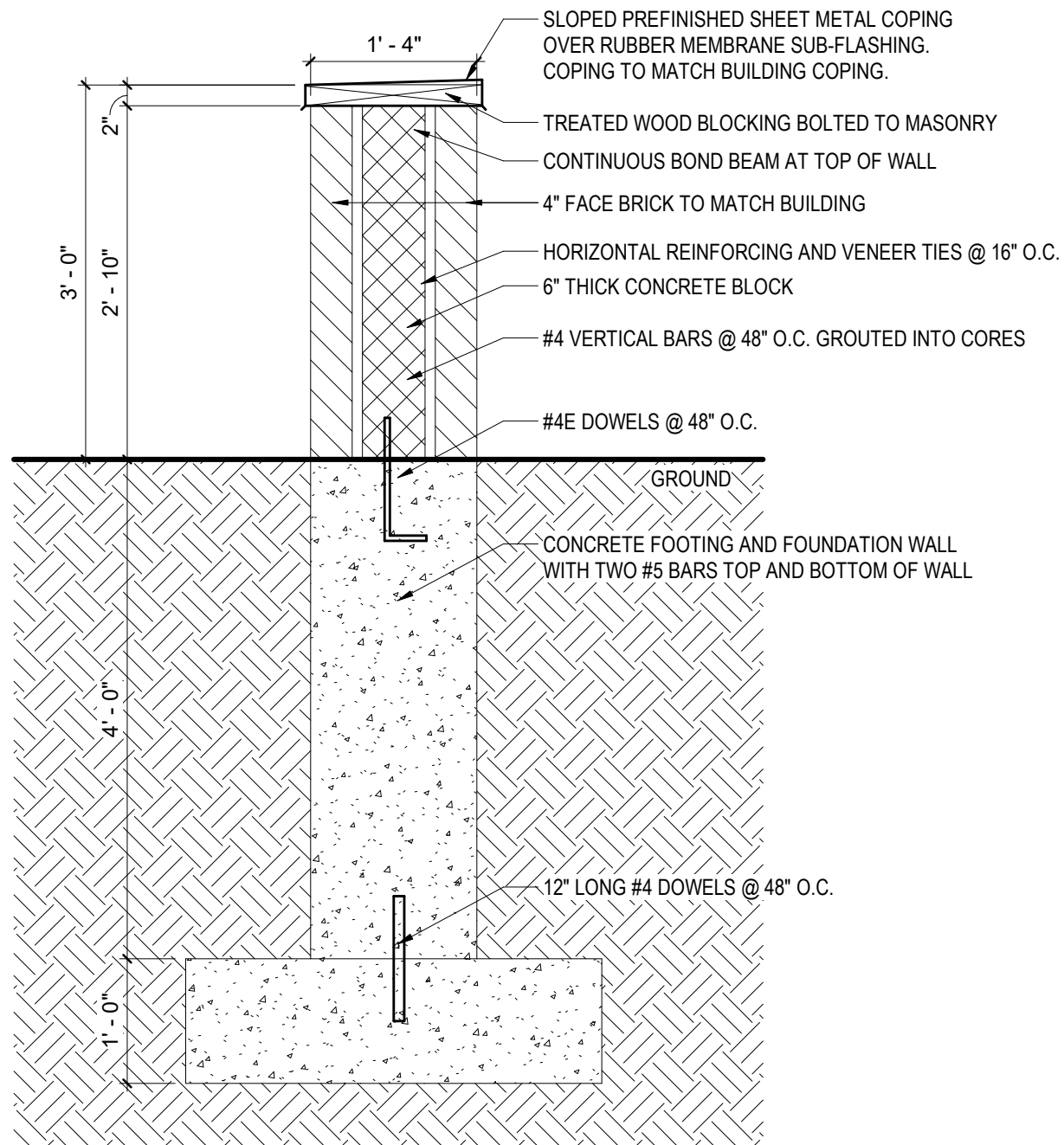
TYPE: OP1  
18' POLE



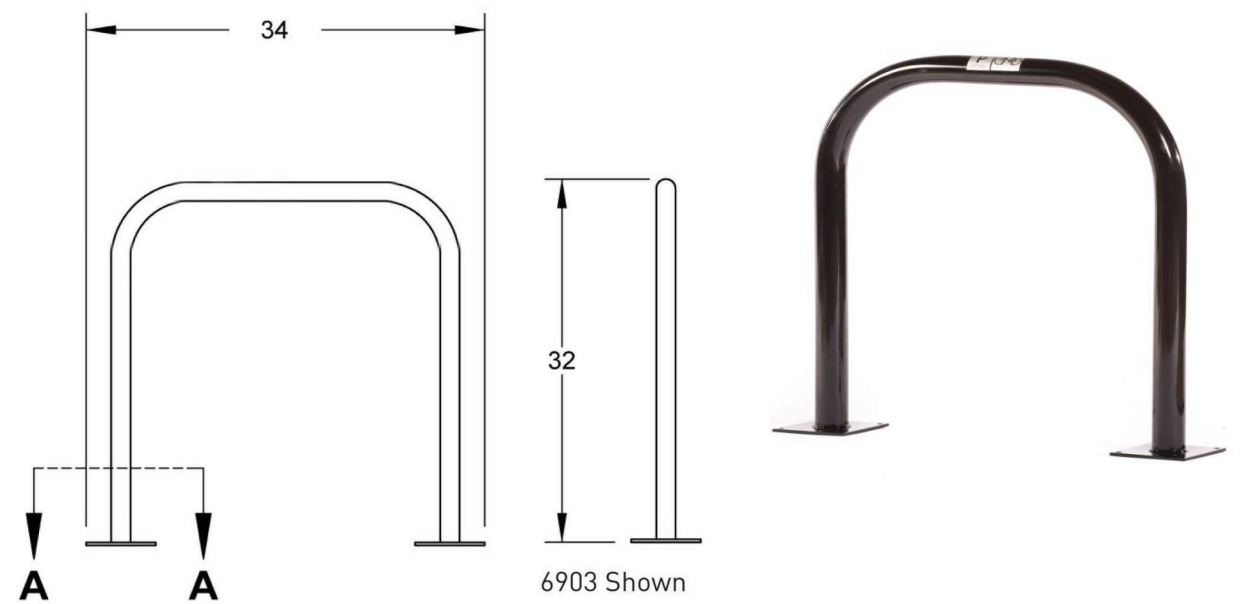
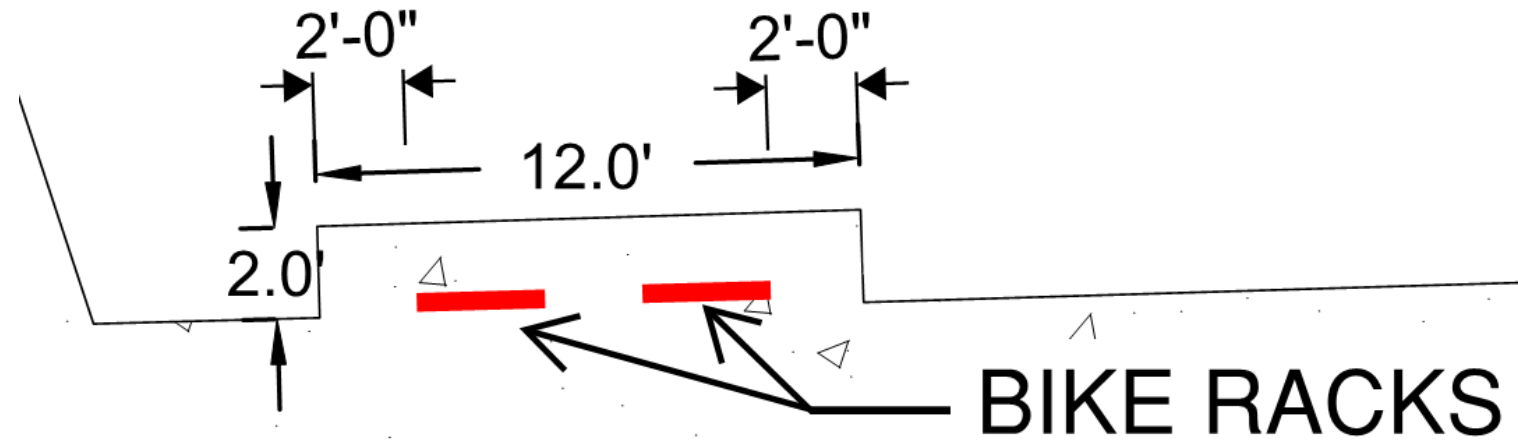
INTERIOR FLOOR PLAN AVAILABLE ON REQUEST.  
NOT INCLUDED IN SUBMITTAL DUE TO SECURITY CONCERNS.

PN  1 **FIRST FLOOR PLAN**  
PA209 SCALE: 1/8" = 1'-0"





1 **Screen Wall Section**  
A1 SCALE: 3/4" = 1'-0"

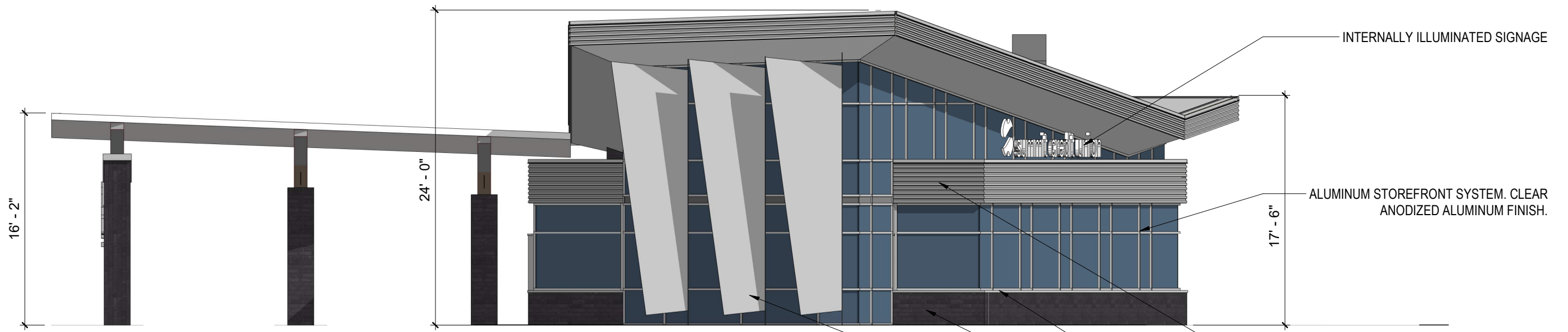


SARIS PARKING - BIKE DOCK  
FINISH: BLACK POWDER COAT

 SCU 5th Ward	Screen wall Details		DO NOT USE FOR CONSTRUCTION	
	PROJECT NO.	2018132		A1
	DATE			
	SCALE	3/4" = 1'-0"		

**BICYCLE PARKING**





1 **NORTH ELEVATION**  
 PA409A SCALE: 1/8" = 1'-0"

- INTERNALLY ILLUMINATED SIGNAGE
- ALUMINUM STOREFRONT SYSTEM. CLEAR ANODIZED ALUMINUM FINISH.
- SILVER METALLIC RIBBED METAL PANEL. MATCHES FINISH OF WINDOW FRAMES.
- SILVER METALLIC SILL FLASHING
- ENDICOTT MANGANESE IRONSPOT BRICK
- FABRIC SUNSHADE

LIGHT GREY TPO ROOF

NO ROOF TOP MECHANICAL UNITS.  
 BUILDING WILL USE A VRF SYSTEM.

SILVER METALLIC RIBBED METAL PANEL. MATCHES FINISH OF WINDOW FRAMES.

ALUMINUM STOREFRONT SYSTEM. CLEAR ANODIZED ALUMINUM FINISH.

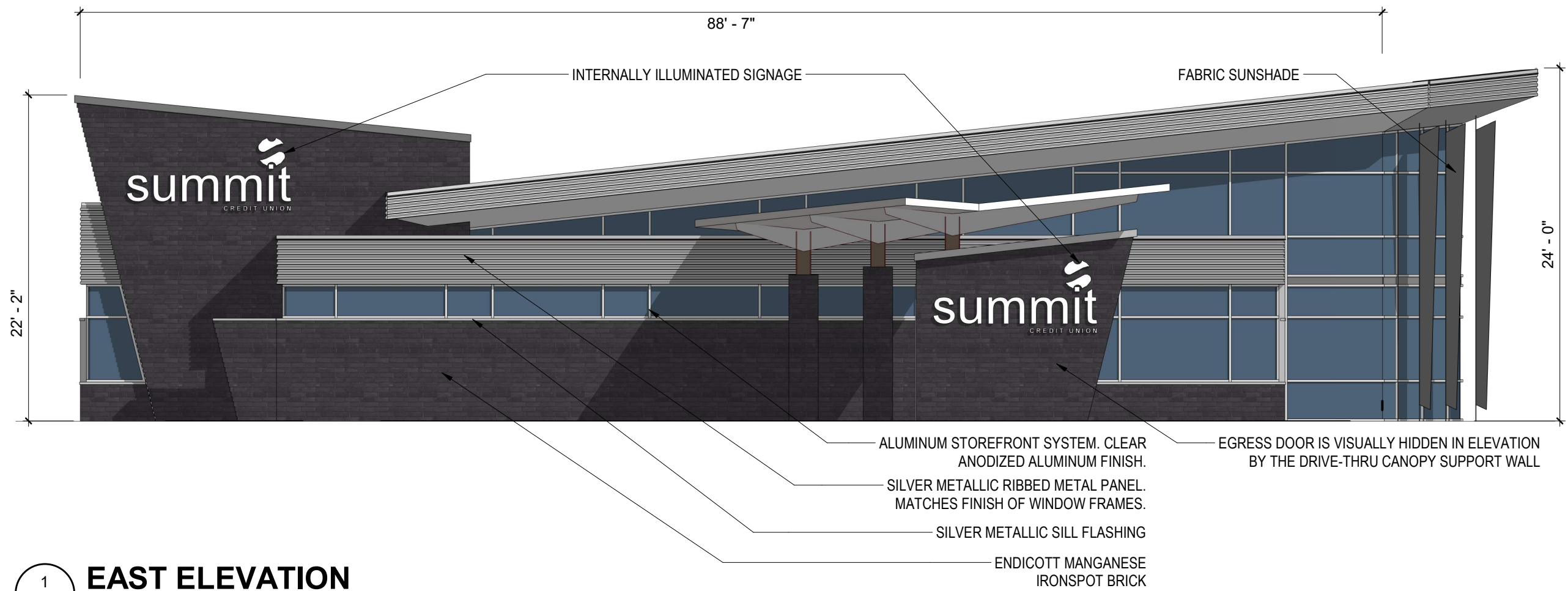
SILVER METALLIC SILL FLASHING

ENDICOTT MANGANESE IRONSPOT BRICK

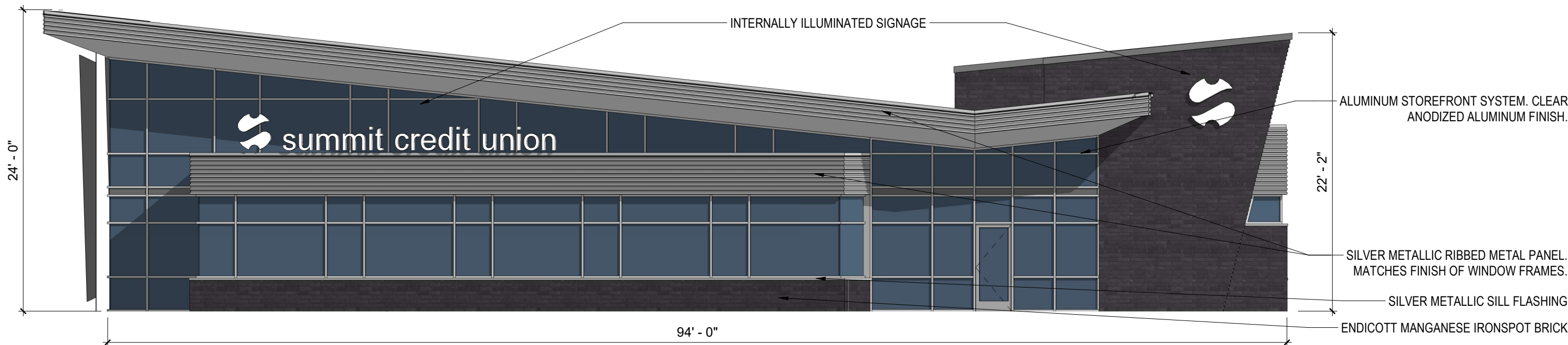


2 **SOUTH ELEVATION**  
 PA409A SCALE: 1/8" = 1'-0"

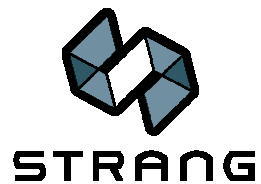




1 **EAST ELEVATION**  
 PA409B SCALE: 1/8" = 1'-0"

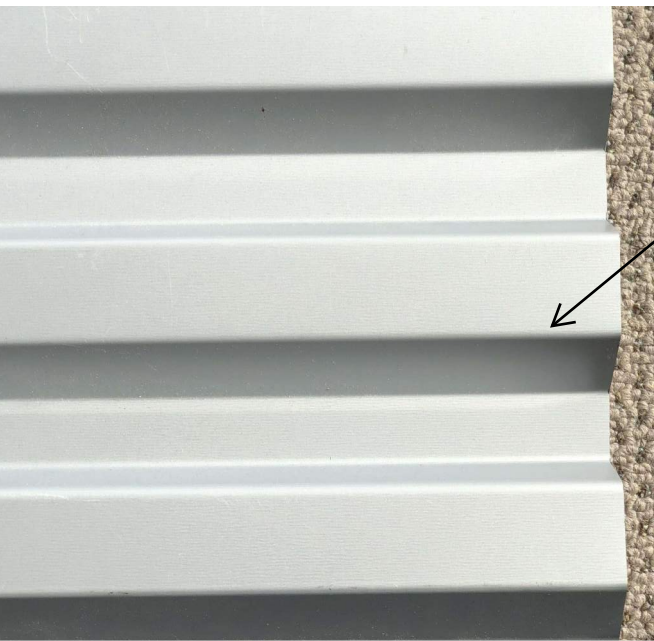


2 **WEST ELEVATION**  
 PA409B SCALE: 1/8" = 1'-0"





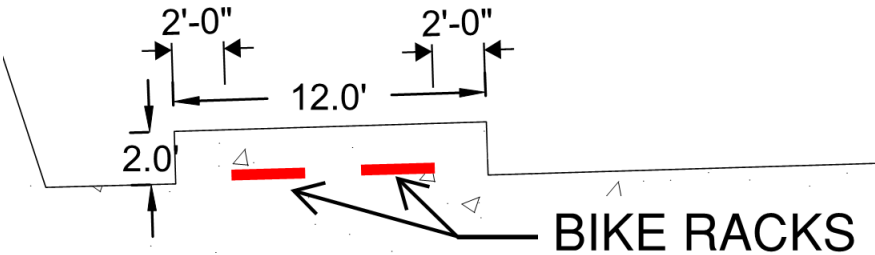
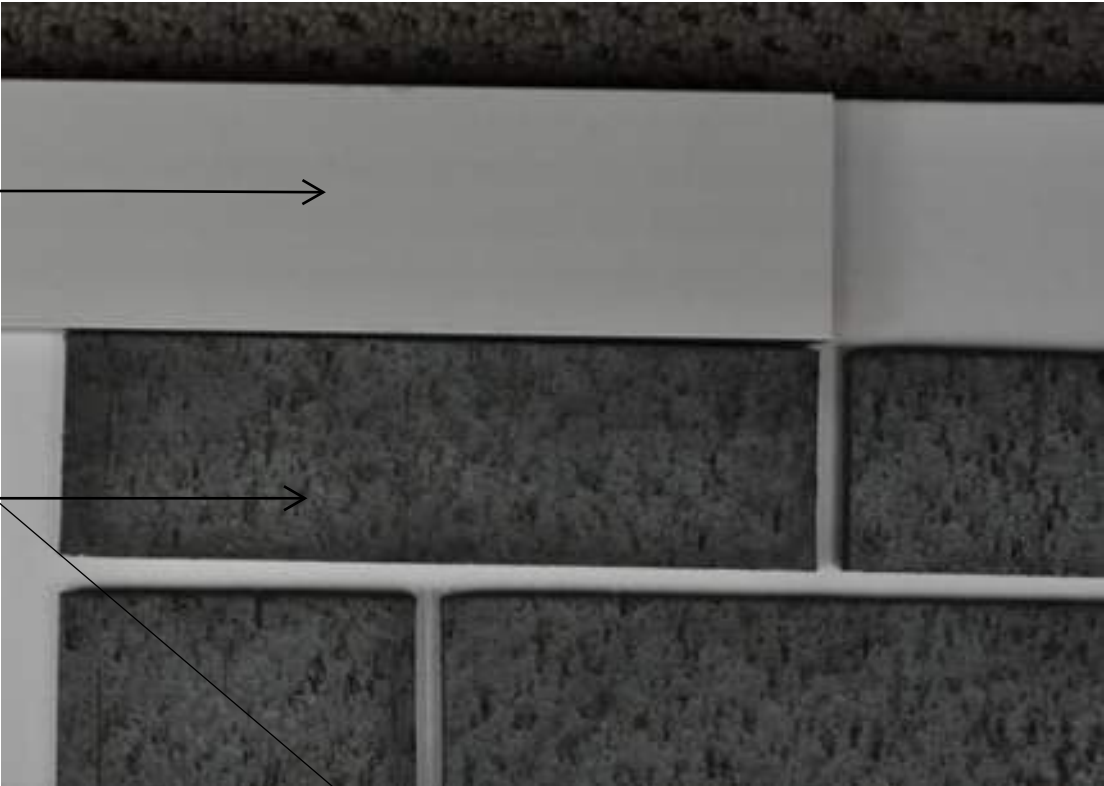
# MA001 - Exterior Building Materials



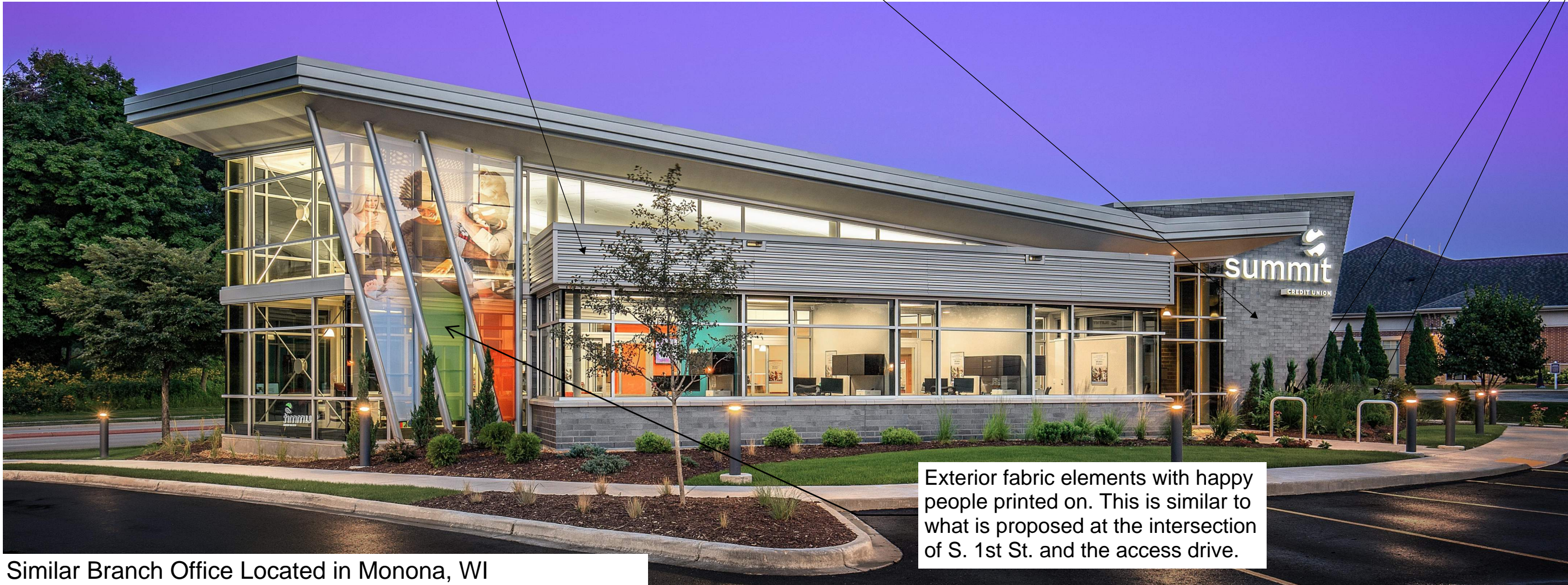
Clear Anodized Aluminum

Silver Metallic Ribbed Metal Panel

Endicott Manganese Ironspot Brick

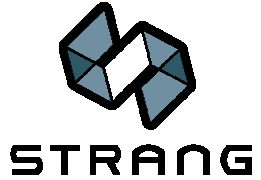


SARIS PARKING - BIKE DOCK  
FINISH: BLACK POWDER COAT

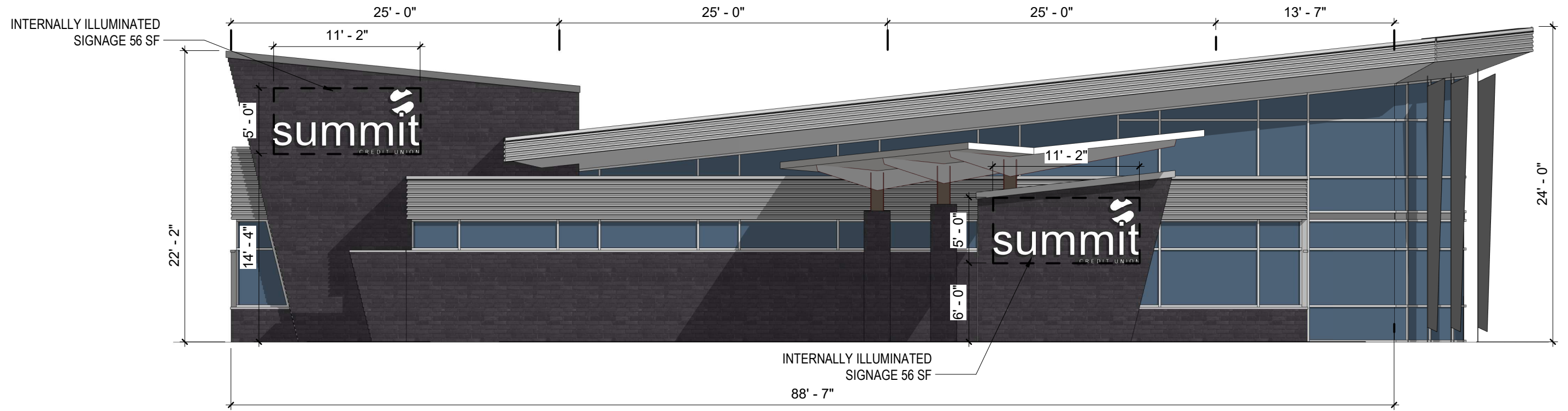


Similar Branch Office Located in Monona, WI

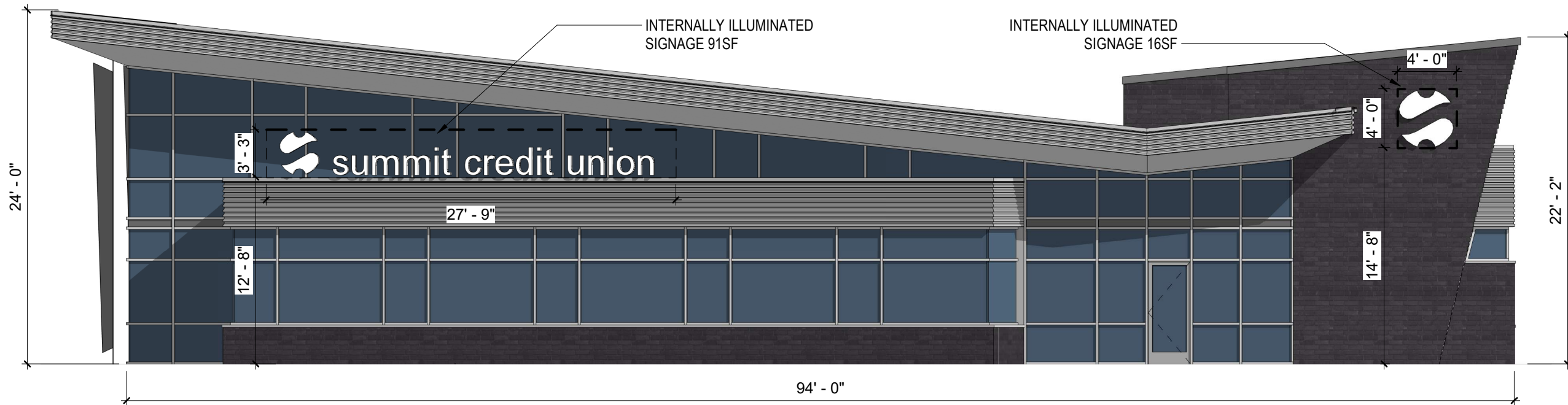
Exterior fabric elements with happy people printed on. This is similar to what is proposed at the intersection of S. 1st St. and the access drive.







1 **EAST ELEVATION**  
 PA809 SCALE: 1/8" = 1'-0"



2 **WEST ELEVATION**  
 PA809 SCALE: 1/8" = 1'-0"

