Known as 36 West Towne Mall, City of Madison, Dane County, Wisconsin

BEARING NORTH 07° 18' 26" EAST, THENCE SOUTH 89° 05' 14" EAST, 293.67 FEET; THENCE NORTH 00° 54' 46" EAST, 266.89 FEET THENCE SOUTH 89° 05' 14" EAST, 276.81 FEET; THENCE SOUTH 00° 54' 56" WEST, 132.64 FEET; THENCE SOUTH 89° 05' 14" EAST

DOCUMENT NO. 1786646; SEVENTH SUPPLEMENT TO EASEMENT, RESTRICTION AND OPERATING AGREEMENT RECORDED IN VOLUME 12447 OF RECORDS, PAGE 4, DOCUMENT NO. 2124846.

November 18, 2019 Survey No. 167972-KAC Prepared for: CBL Properties



CIVIL ENGINEER:



16745 W. Bluemound Road Brookfield, WI 53005-5938 (262) 781-1000 rasmith.com

RAS PROJECT: 3190329 CONTACT: MATT KOCOUREK, P.E.

OWNER/DEVELOPER:

CBL

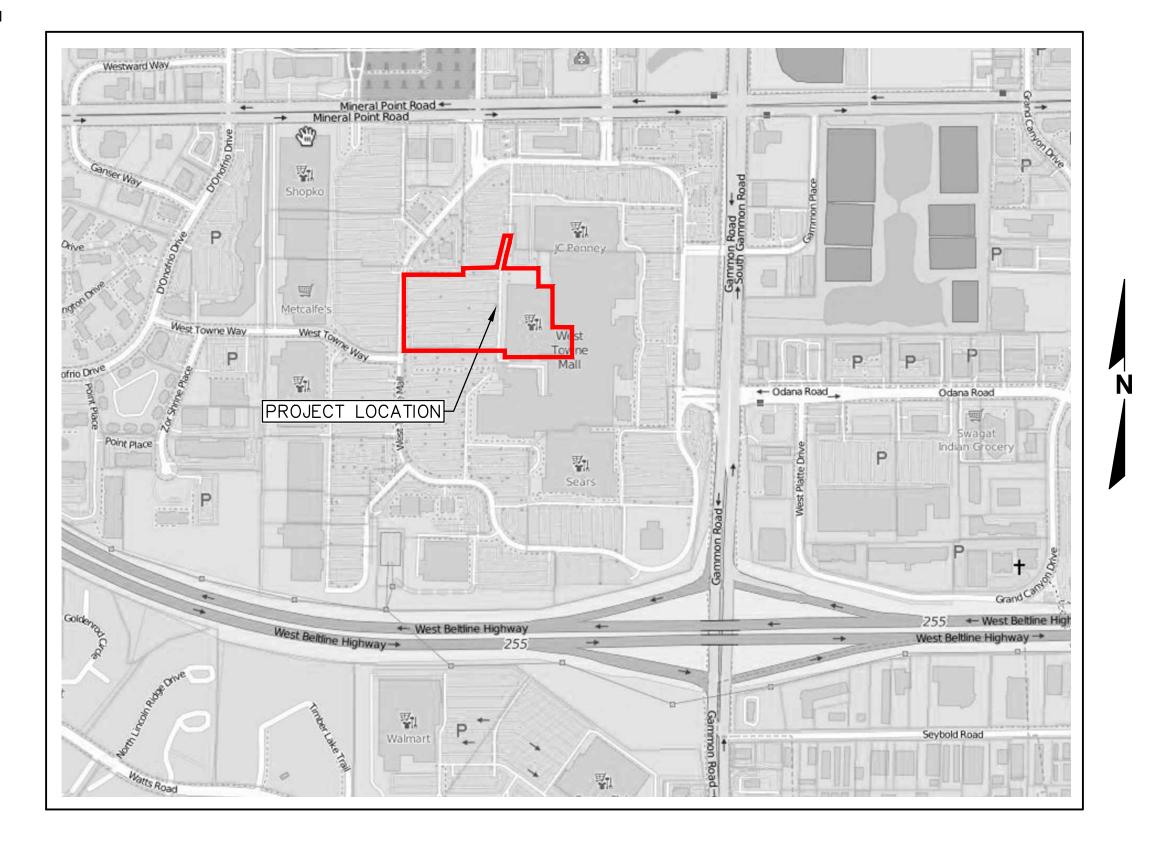
CBL Center, Suite 500 | 2030 Hamilton Place Boulevard | Chattanooga, TN 37421-6000

CONTACT: KEN WITTLER

WEST TOWNE MALL REDEVELOPMENT

CITY OF MADISON DANE COUNTY, WISCONSIN

VICINITY MAP



UTILITY CONTACTS / CITY OF MADISON DEPARTMENT CONTACTS:

STORM SEWER UTILITY:

CITY OF MADISON GREG FRIES, P.E. ASSISTANT CITY ENGINEER CITY-COUNTY BUILDING 210 MARTIN LUTHER KING, JR. BLVD. MADISON, WI 53703 PH: (608) 266-4751 EMAIL: GÉRIES@CITYOFMADISON.COM

ELECTRIC UTILITY: ALLIANT ENERGY DENISE GEVELINGER PH: (608) 845-1129 (608) 575-7833 SANITARY SEWER UTILITY: CITY OF MADISON GREG FRIES, P.E.

ASSISTANT CITY ENGINEER CITY-COUNTY BUILDING 210 MARTIN LUTHER KING, JR. BLVD. MADISON, WI 53703 PH: (608) 266-4751 EMAIL: GFRIES@CITYOFMADISON.COM

MADISON FIRE DEPARTMENT: BILL SULLIVAN

FIRE PROTECTION ENGINEER CITY OF MADISON FIRE DEPARTMENT 314 WEST DAYTON STREET MADISON, WI 53703 PH: (608) 261-9658 EMAIL: WSULLIVAN@CITYOFMADISON.COM

MADISON WATER UTILITY ADAM WIEDERHOEFT 119 EAST OLIN AVE. MADISON, WI 53713 PH: (608) 266-9121 EMAIL: AWIEDERHOEFT@MADISONWATER.ORG

GAS UTILITY:
MADISON GAS & ELECTRIC COMPANY STEVEN BEVERSDORF, P.E. 133 S BLAIR ST MADISON, WI 53788 PH: (608) 252-1552 OFFICE (608) 444-9620 MOBILE

PLAN INDEX

SHEET NO.	DESCRIPTION
C000	PROJECT INFORMATION
C001	EXISTING CONDITIONS
C100	DEMOLITION PLAN
C200	SITE PLAN
C300	GRADING & EROSION CONTROL PLAN
C301	PAVING PLAN - WEST
C302	PAVING PLAN - EAST
C400	UTILITY PLAN
C500	EROSION CONTROL DETAILS
C501	SITE DETAILS
C502	UTILITY DETAILS
C503	CONTECH DETAILS 1
C504	CONTECH DETAILS 2
C505	CONTECH DETAILS 3
C506	CONTECH DETAILS 4
C600	SPECIFICATIONS
L100	TREE INVENTORY
L101	LANDSCAPE PLAN - NORTH
L102	LANDSCAPE PLAN-SOUTH
l l	

PLAN DATE: JANUARY 8, 2020

REVISION	ISSUE DATE	ISSUED SHEETS	ISSUED FOR	
1	1/28/2020	ALL	BID SET	
2	2/4/2020	C200,C300,C400,	SIDEWALK REVISION	
		L101,L102		



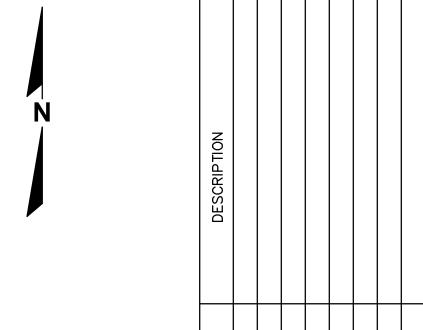
DATE: 01/08/20 SCALE: N.T.S. JOB NO. **3190329** PROJECT MANAGER:

MATTHEW P. KOCOUREK, P.E. DESIGNED BY: DVW

> CHECKED BY: RJY SHEET NUMBER

C000





16745 W. Blue Brookfield, WI 3

PROJECT LOCATION

CREATIVITY BEYOND ENGINEERING

TOWNE MALL REDVELOPMEN
CITY OF MADISON, WI

WEST

VOM MAUR REDEVELOPMENT VICINITY MAP

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SCALE: 1" = 150'

JOB NO. 3190329

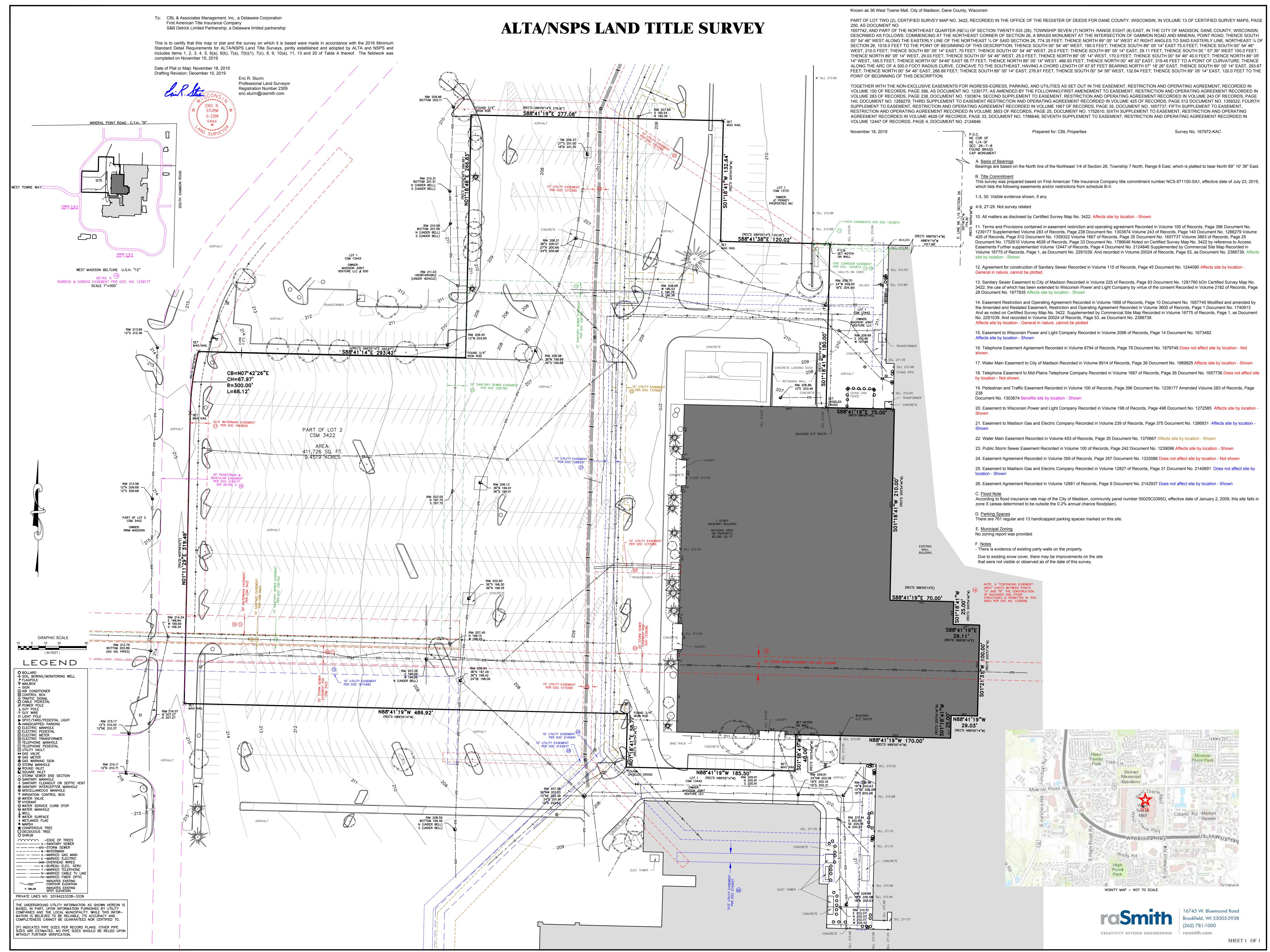
PROJECT MANAGER:
MATTHEW P. KOCOUREK, P.E.

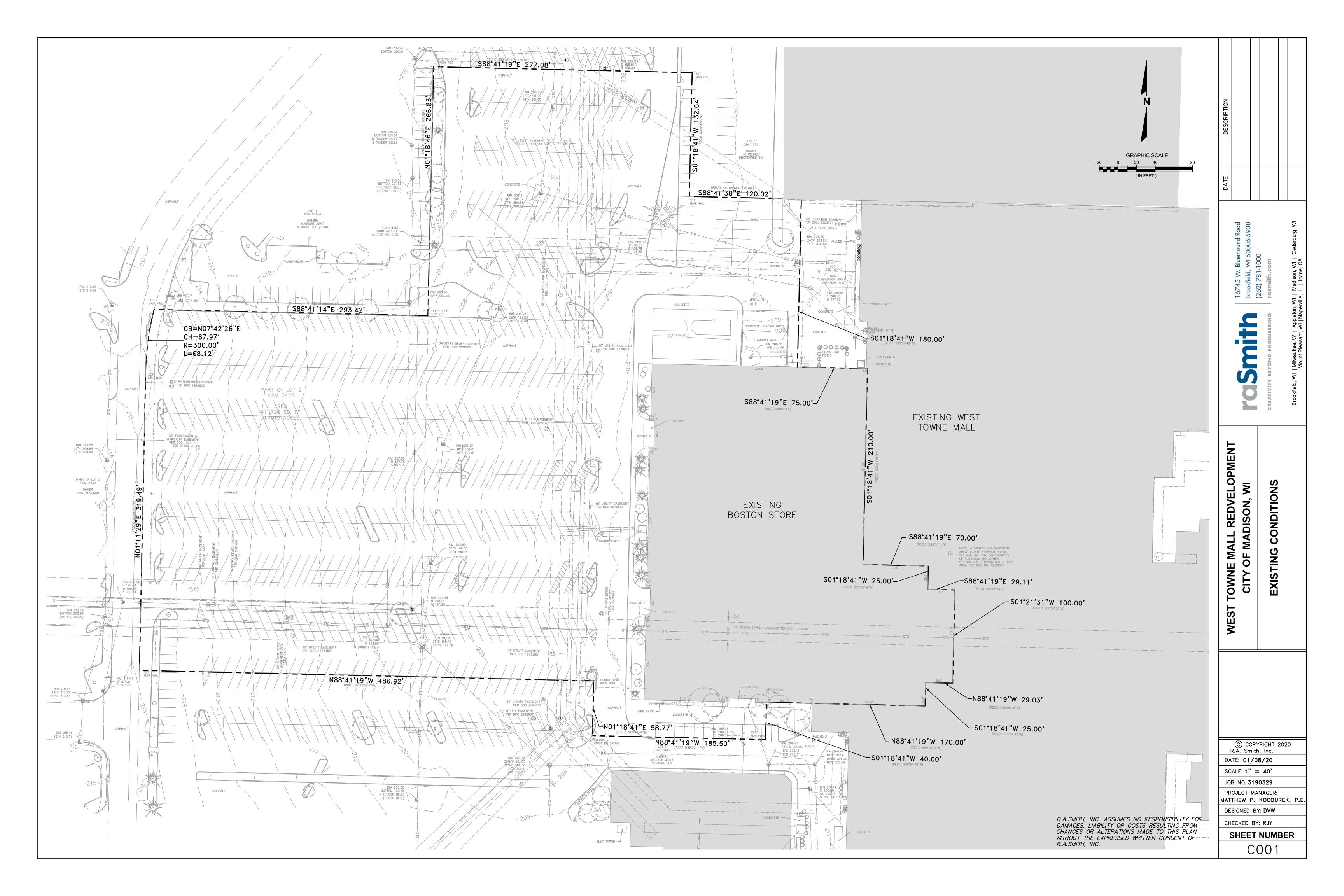
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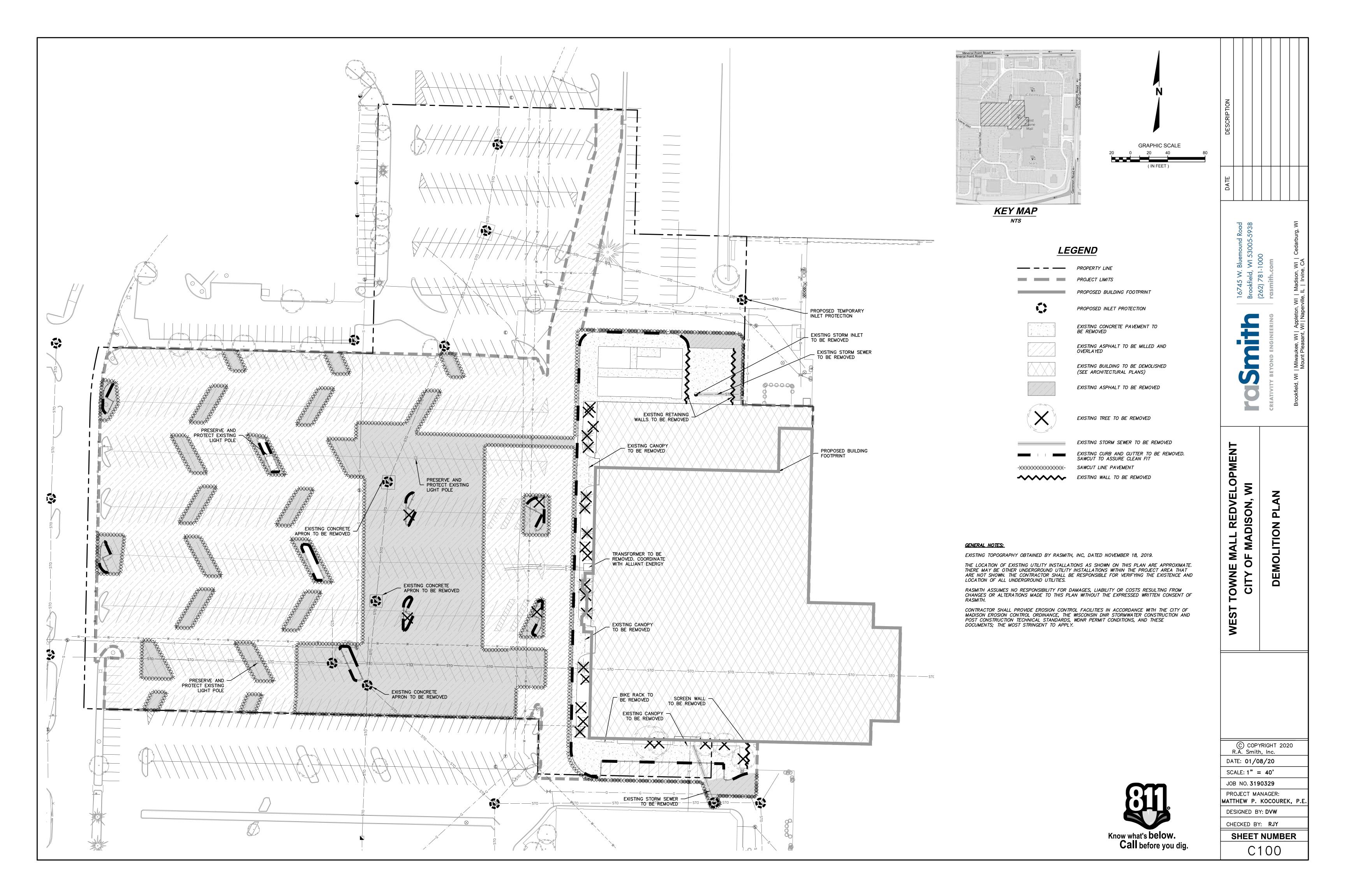
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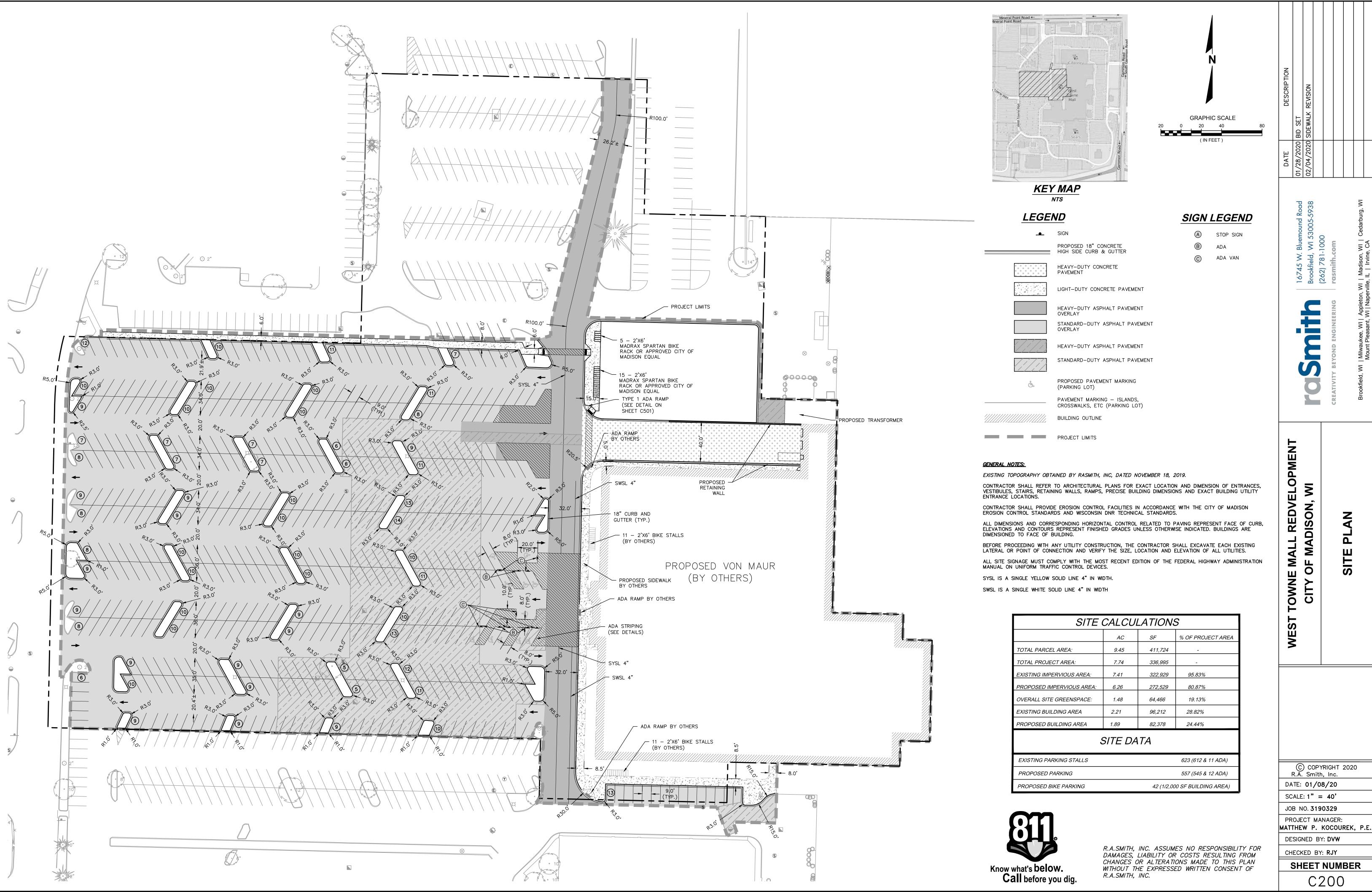
EXHIBIT

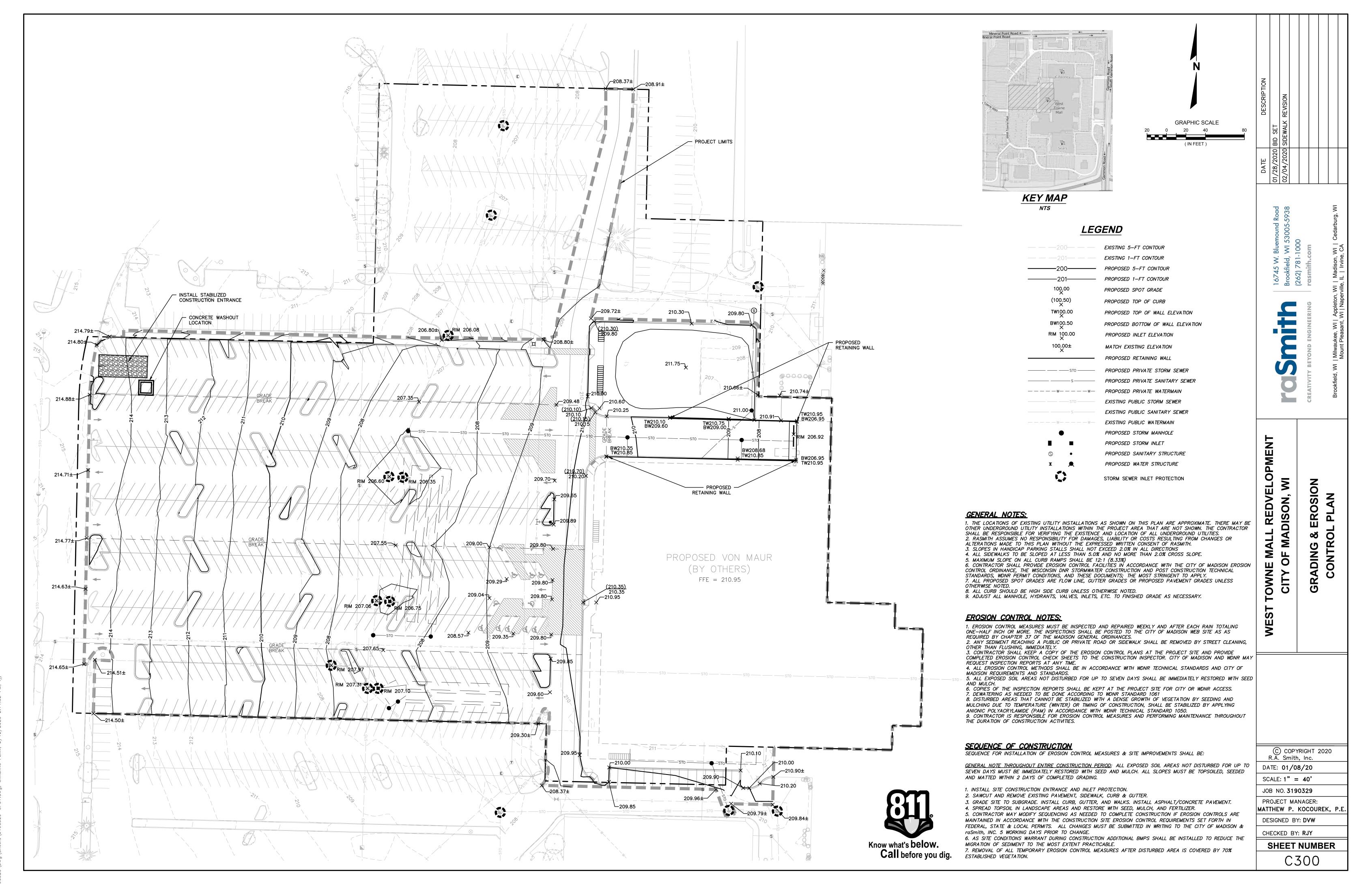
R.A.SMITH, INC. ASSUMES NO
RESPONSIBILITY FOR DAMAGES, LIABILITY
OR COSTS RESULTING FROM CHANGES OR
ALTERATIONS MADE TO THIS PLAN
WITHOUT THE EXPRESSED WRITTEN
CONSENT OF R.A.SMITH, INC.



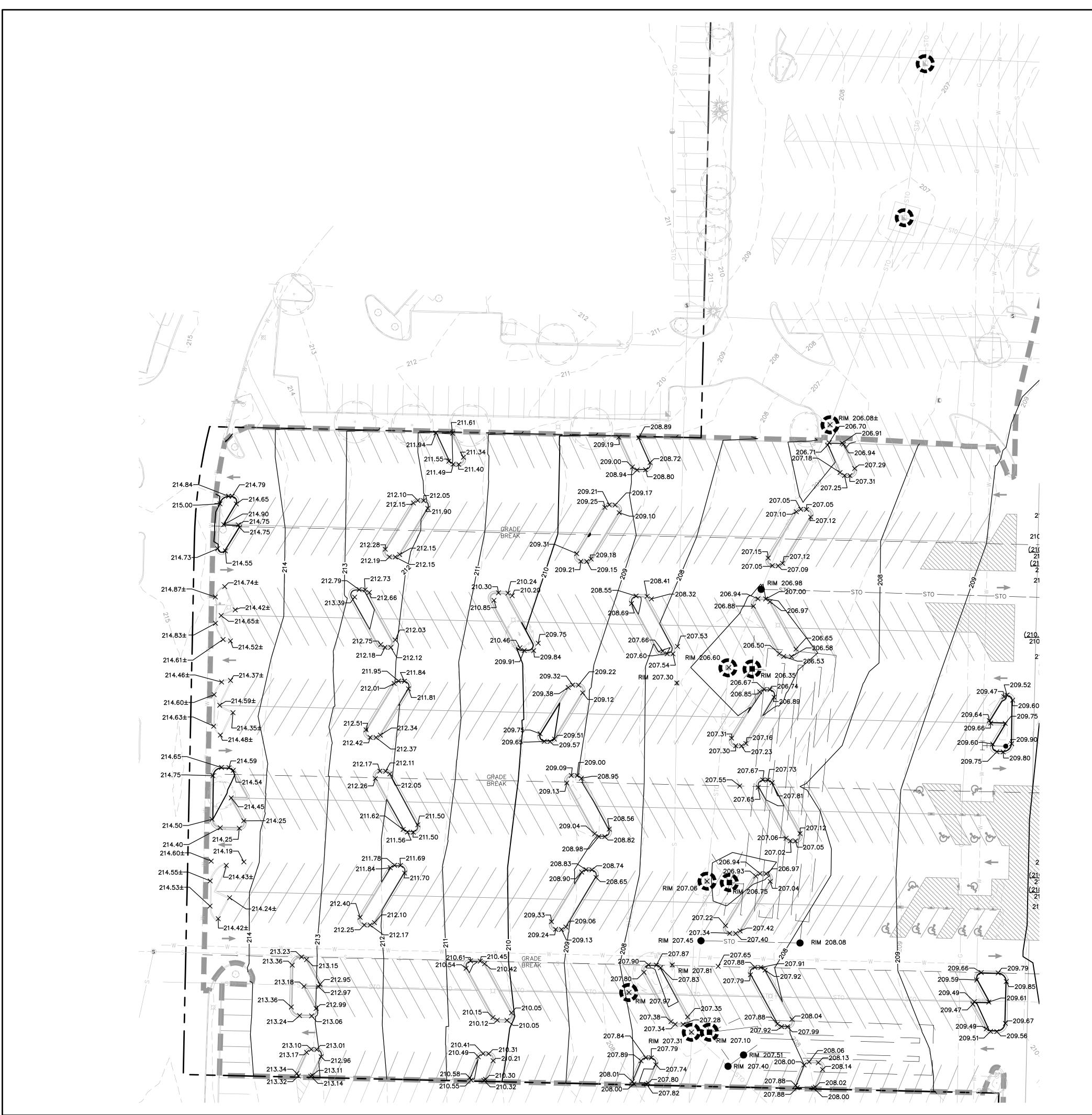




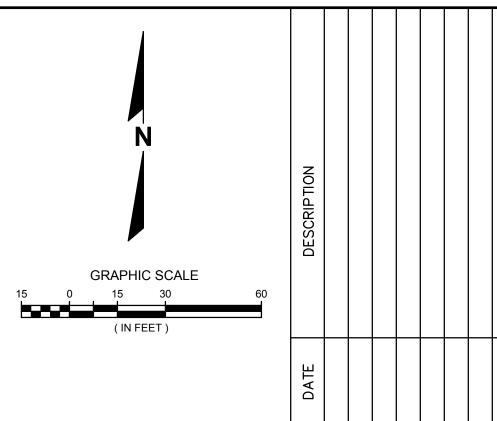




90339/Dwa/S/2020/2190329-GP01 dwa GRADING PLAN 2/12/2020 2:11:5







KEY MAP NTS

LEGEND

200 	EXISTING 5-FT CONTOUR
201	EXISTING 1-FT CONTOUR
200	PROPOSED 5-FT CONTOUR
201	PROPOSED 1-FT CONTOUR
100.00 ×	PROPOSED SPOT GRADE
(100.50) ×	PROPOSED TOP OF CURB
TW100.00	PROPOSED TOP OF WALL ELEVATION
BW100.50	PROPOSED BOTTOM OF WALL ELEVATION
RIM 100.00	PROPOSED INLET ELEVATION
100.00± ×	MATCH EXISTING ELEVATION
	PROPOSED RETAINING WALL
ST0	PROPOSED PRIVATE STORM SEWER
s	PROPOSED PRIVATE SANITARY SEWER
- — — — w— — — — w—	PROPOSED PRIVATE WATERMAIN
STO	EXISTING PUBLIC STORM SEWER
S	EXISTING PUBLIC SANITARY SEWER
w	EXISTING PUBLIC WATERMAIN
•	PROPOSED STORM MANHOLE
•	PROPOSED STORM INLET
⑤	PROPOSED SANITARY STRUCTURE
x A	PROPOSED WATER STRUCTURE
\Diamond	STORM SEWER INLET PROTECTION

GENERAL NOTES:

1. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES. 2. RASMITH ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF RASMITH. 3. SLOPES IN HANDICAP PARKING STALLS SHALL NOT EXCEED 2.0% IN ALL DIRECTIONS 4. ALL SIDEWALKS TO BE SLOPED AT LESS THAN 5.0% AND NO MORE THAN 2.0% CROSS SLOPE. 5. MAXIMUM SLOPE ON ALL CURB RAMPS SHALL BE 12:1 (8.33%)

6. CONTRACTOR SHALL PROVIDE EROSION CONTROL FACILITIES IN ACCORDANCE WITH THE CITY OF MADISON EROSION CONTROL ORDINANCE, THE WISCONSIN DNR STORMWATER CONSTRUCTION AND POST CONSTRUCTION TECHNICAL STANDARDS, WONR PERMIT CONDITIONS, AND THESE DOCUMENTS; THE MOST STRINGENT TO APPLY. 7. ALL PROPOSED SPOT GRADES ARE FLOW LINE, GUTTER GRADES OR PROPOSED PAVEMENT GRADES UNLESS OTHERWISE NOTED.

8. ALL CURB SHOULD BE HIGH SIDE CURB UNLESS OTHERWISE NOTED. 9. ADJUST ALL MANHOLE, HYDRANTS, VALVES, INLETS, ETC. TO FINISHED GRADE AS NECESSARY.

EROSION CONTROL NOTES:

1. EROSION CONTROL MEASURES MUST BE INSPECTED AND REPAIRED WEEKLY AND AFTER EACH RAIN TOTALING ONE—HALF INCH OR MORE. THE INSPECTIONS SHALL BE POSTED TO THE CITY OF MADISON WEB SITE AS AS REQUIRED BY CHAPTER 37 OF THE MADISON GENERAL ORDINANCES. 2. ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD OR SIDEWALK SHALL BE REMOVED BY STREET CLEANING, OTHER THAN FLUSHING, IMMEDIATELY. 3. CONTRACTOR SHALL KEEP A COPY OF THE EROSION CONTROL PLANS AT THE PROJECT SITE AND PROVIDE COMPLETED EROSION CONTROL CHECK SHEETS TO THE CONSTRUCTION INSPECTOR. CITY OF MADISON AND WDNR MAY REQUEST INSPECTION REPORTS AT ANY TIME.

4. ALL EROSION CONTROL METHODS SHALL BE IN ACCORDANCE WITH WDNR TECHNICAL STANDARDS AND CITY OF MADISON REQUIREMENTS AND STANDARDS. 5. ALL EXPOSED SOIL AREAS NOT DISTURBED FOR UP TO SEVEN DAYS SHALL BE IMMEDIATELY RESTORED WITH SEED 6. COPIES OF THE INSPECTION REPORTS SHALL BE KEPT AT THE PROJECT SITE FOR CITY OR WIDNR ACCESS.

7. DEWATERING AS NEEDED TO BE DONE ACCORDING TO WDNR STANDARD 1061 8. DISTURBED AREAS THAT CANNOT BE STABILIZED WITH A DENSE GROWTH OF VEGETATION BY SEEDING AND MULCHING DUE TO TEMPERATURE (WINTER) OR TIMING OF CONSTRUCTION, SHALL BE STABILIZED BY APPLYING ANIONIC POLYACRYLAMIDE (PAM) IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1050. 9. CONTRACTOR IS RESPONSIBLÉ FOR EROSION CONTROL MEASURES AND PERFORMING MAINTENANCE THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.

SEQUENCE OF CONSTRUCTION SEQUENCE FOR INSTALLATION OF EROSION CONTROL MEASURES & SITE IMPROVEMENTS SHALL BE:

ESTABLISHED VEGETATION.

GENERAL NOTE THROUGHOUT ENTIRE CONSTRUCTION PERIOD: ALL EXPOSED SOIL AREAS NOT DISTURBED FOR UP TO SEVEN DAYS MUST BE IMMEDIATELY RESTORED WITH SEED AND MULCH. ALL SLOPES MUST BE TOPSOILED, SEEDED AND MATTED WITHIN 2 DAYS OF COMPLETED GRADING.

- 1. INSTALL SITE CONSTRUCTION ENTRANCE AND INLET PROTECTION.
- 2. SAWCUT AND REMOVE EXISTING PAVEMENT, SIDEWALK, CURB & GUTTER.
- 3. GRADE SITE TO SUBGRADE. INSTALL CURB, GUTTER, AND WALKS. INSTALL ASPHALT/CONCRETE PAVEMENT. 4. SPREAD TOPSOIL IN LANDSCAPE AREAS AND RESTORE WITH SEED, MULCH, AND FERTILIZER. 5. CONTRACTOR MAY MODIFY SEQUENCING AS NEEDED TO COMPLETE CONSTRUCTION IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS SET FORTH IN

7. REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURES AFTER DISTURBED AREA IS COVERED BY 70%

FEDERAL, STATE & LOCAL PERMITS. ALL CHANGES MUST BE SUBMITTED IN WRITING TO THE CITY OF MADISON & raSmith, INC. 5 WORKING DAYS PRIOR TO CHANGE. 6. AS SITE CONDITIONS WARRANT DURING CONSTRUCTION ADDITIONAL BMPS SHALL BE INSTALLED TO REDUCE THE MIGRATION OF SEDIMENT TO THE MOST EXTENT PRACTICABLE.

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SCALE: 1" = 30'

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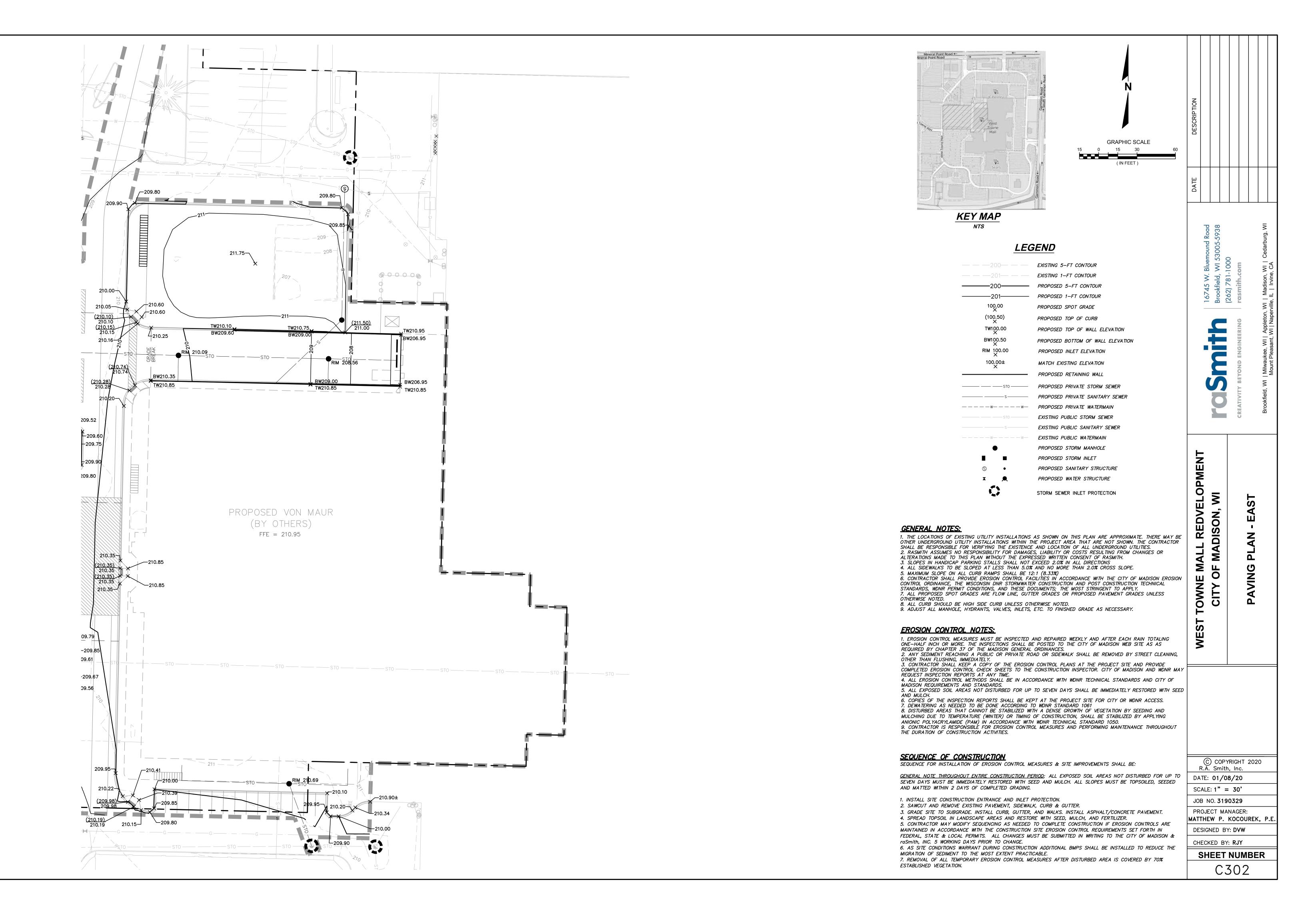
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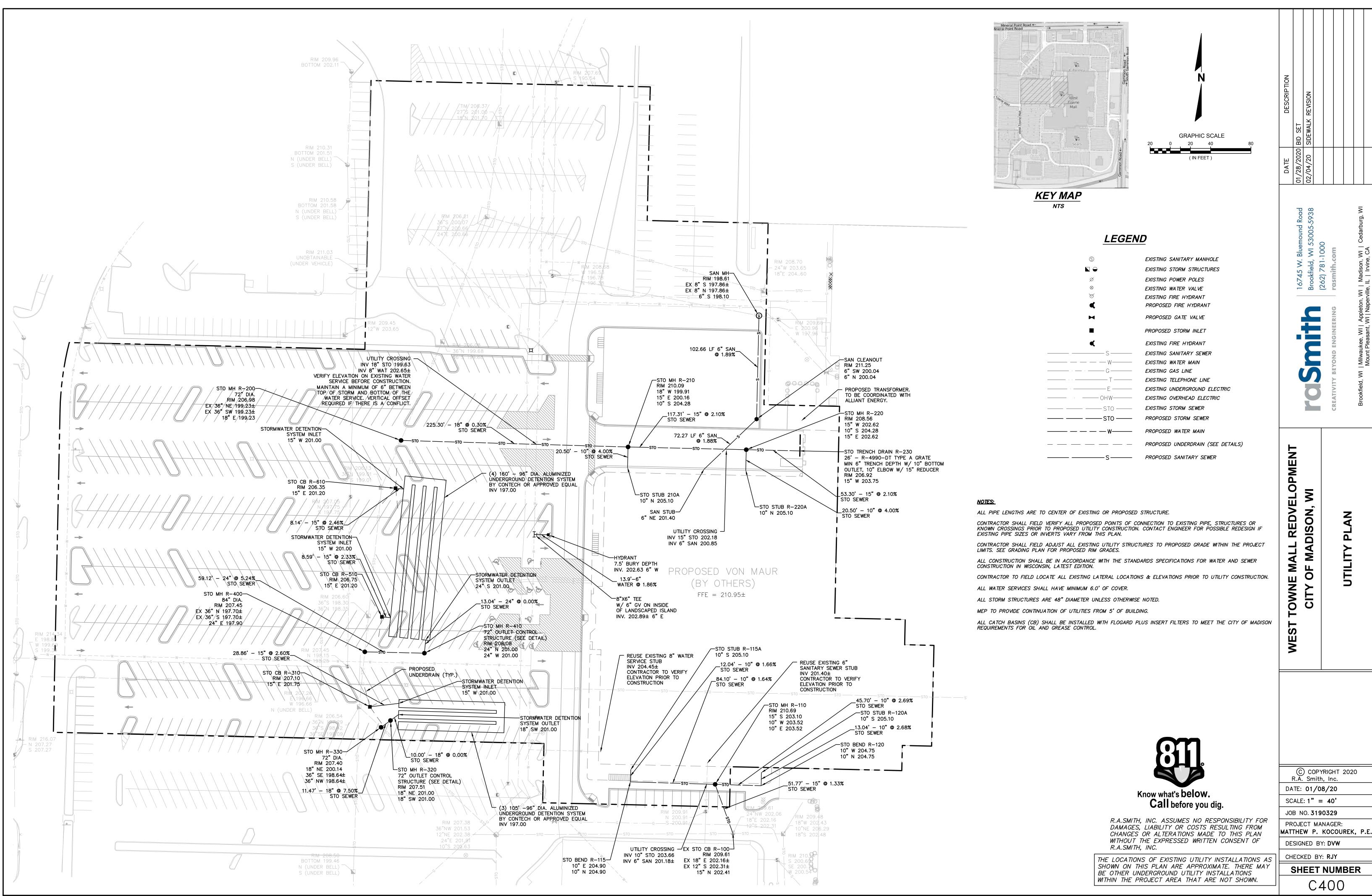
MATTHEW P. KOCOUREK, P.E. DESIGNED BY: DVW

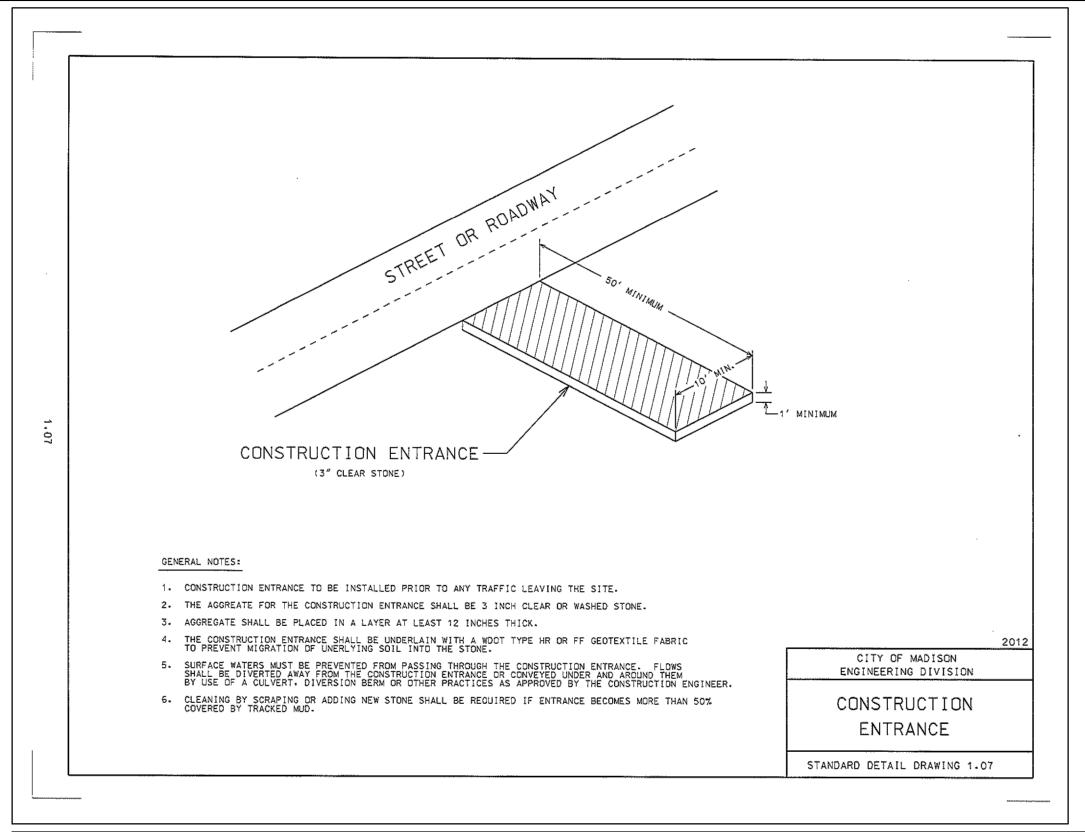
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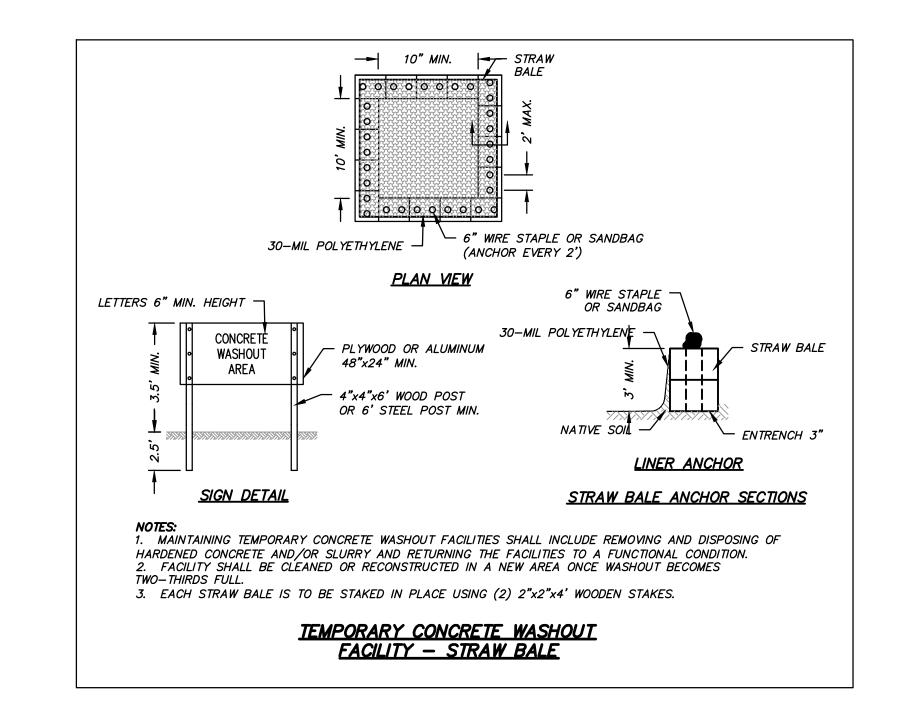
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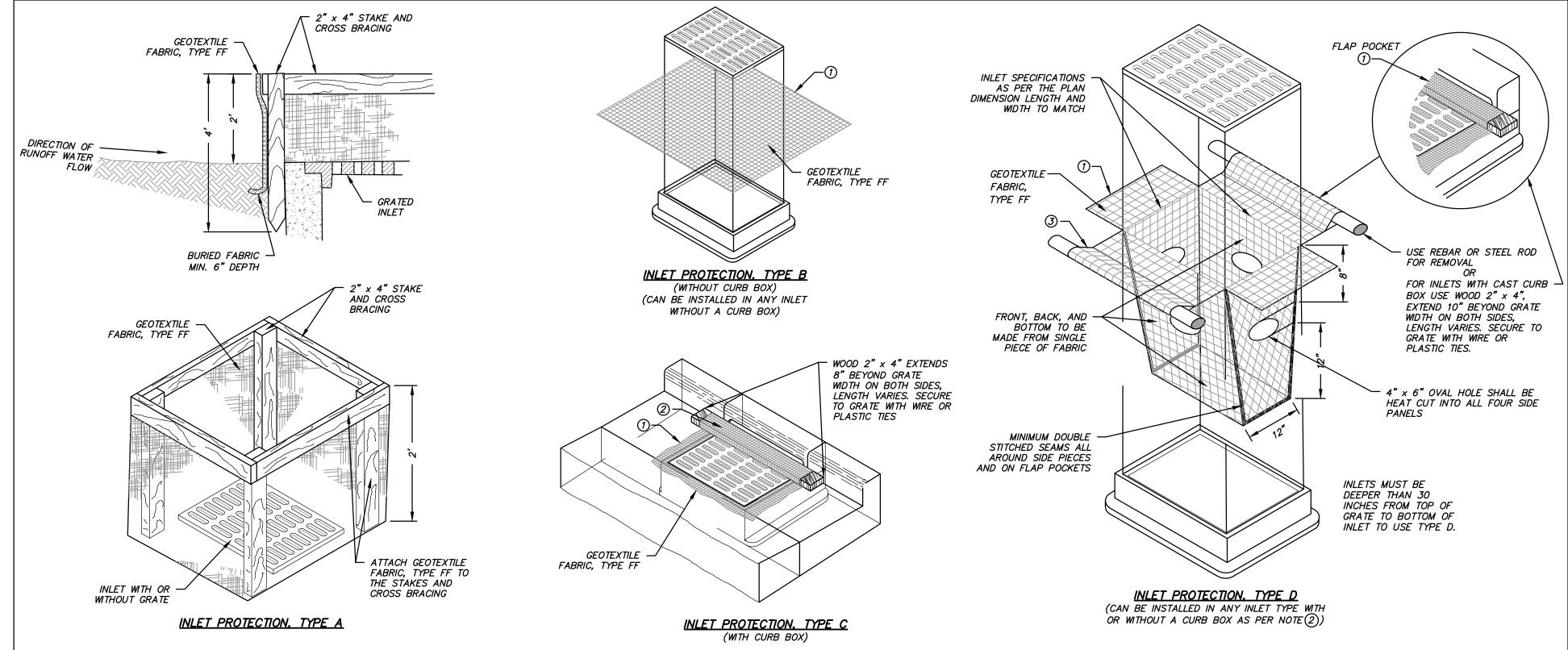












FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL. FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

GENERAL NOTES:

INLET PROTECTION DEVICES SHALL CONFORM TO WDNR CONSERVATION PRACTICE STANDARD 1060 AND BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE WISDOT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED IF ALLOWED BY

TYPE A IS TO BE USED PRIOR TO PAVING AND TYPED B, C, AND D ARE TO USED AFTER PAVING IS PLACED.

TYPE A SHALL BE USED AROUND INLETS AND UNPAVED AREAS UNTIL PERMANENT STABILIZATION METHODS HAVE BEEN ESTABLISHED.

TYPE B SHALL BE USED AFTER THE CASTING AND GRATE ARE IN PLACE.

TYPE C SHALL BE USED ON STREET INLETS WITH CURB HEADS.

TYPE D SHALL BE USED IN AREAS WHERE OTHER TYPES OF INLET PROTECTION ARE INCOMPATIBLE WITH ROADWAY AND TRAFFIC CONDITIONS (I.E. POSSIBLE SAFETY HAZARD IF PONDING OCCURS.)

INSTALLATION NOTES:

ENTERING THE INLET.

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

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.

MAINTENANCE:

REMOVE INLET PROTECTION DEVICES ONCE THE CONTRIBUTING DRAINAGE AREA IS STABILIZED WITH APPROPRIATE VEGETATION OR IMPERVIOUS AREA.

INLET PROTECTION SHALL BE, AT A MINIMUM, INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE DURING A 24-HOUR PERIOD.

SEDIMENT DEPOSITS SHALL BE REMOVED AND THE INLET PROTECTION DEVICE RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED BETWEEN 1/3 TO 1/2 THE DESIGN DEPTH OF THE DEVICE, OR WHEN THE DEVICE IS NO LONGER FUNCTIONING AS DESIGNED. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND STABILIZED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, DUE CARE SHALL BE TAKEN TO ENSURE SEDIMENT DOES NOT FALL INTO THE INLET AND IMPEDE THE INTENDED FUNCTION OF THE DEVICE. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

STORM DRAIN INLET PROTECTION DETAILS

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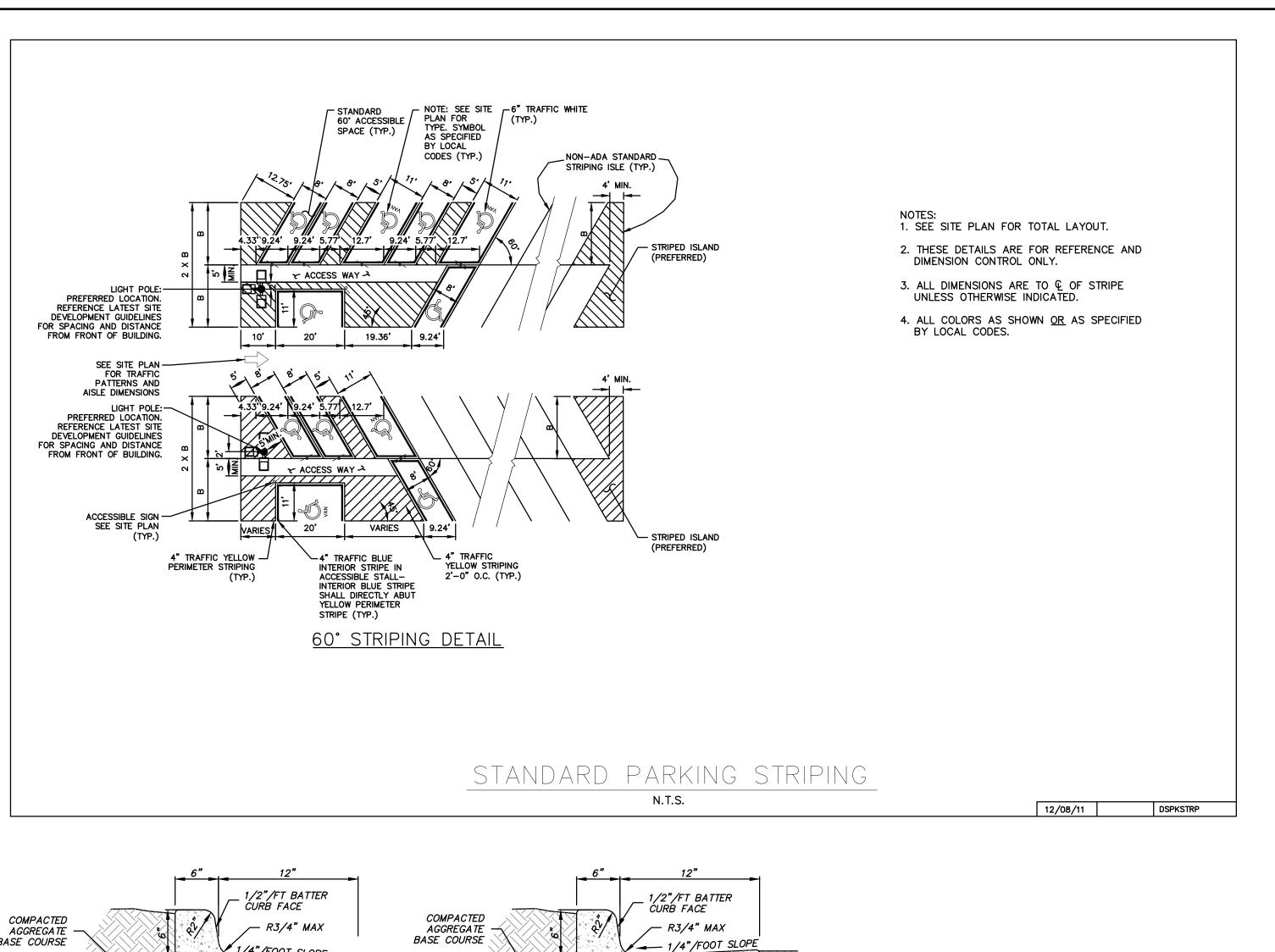
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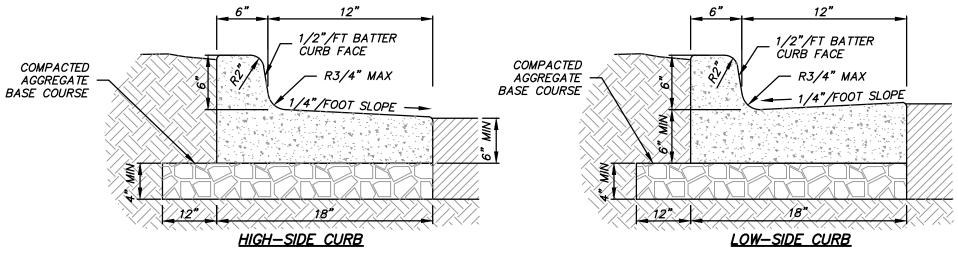
SCALE: N.T.S.

JOB NO. **3190329** PROJECT MANAGER:

MATTHEW P. KOCOUREK, P.E. DESIGNED BY: DVW

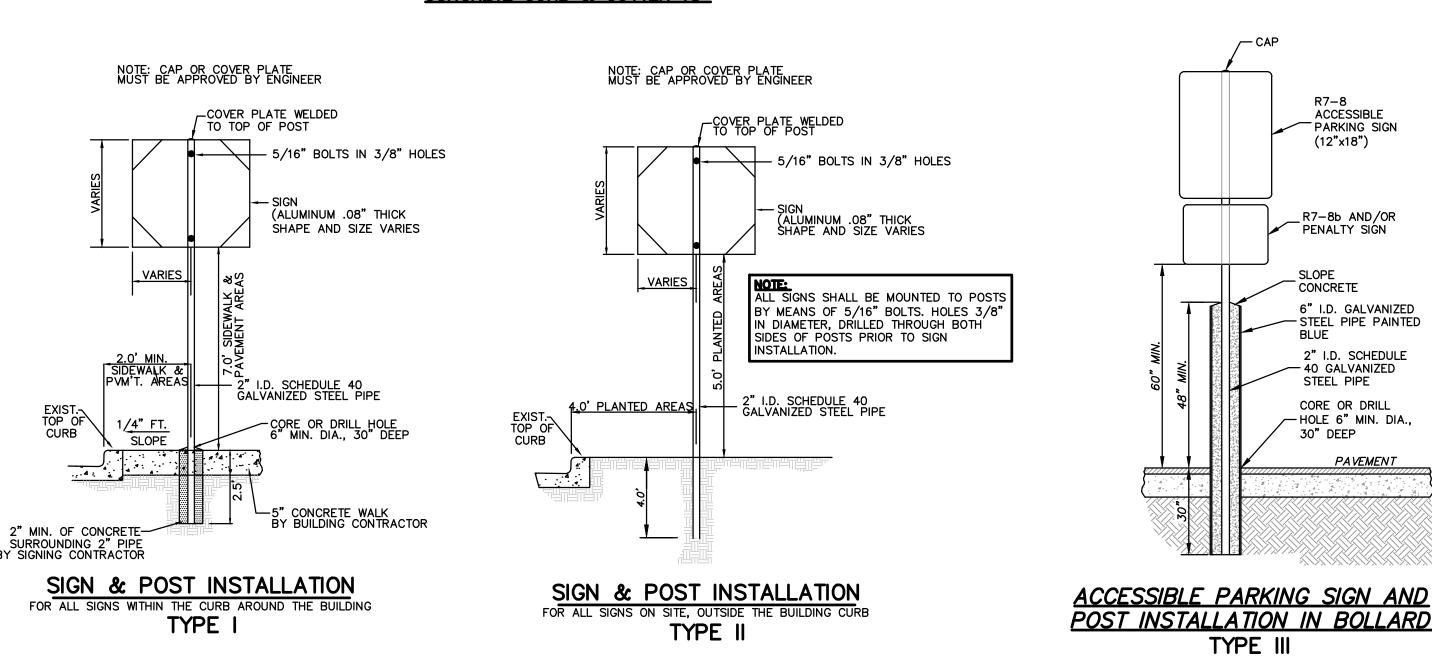
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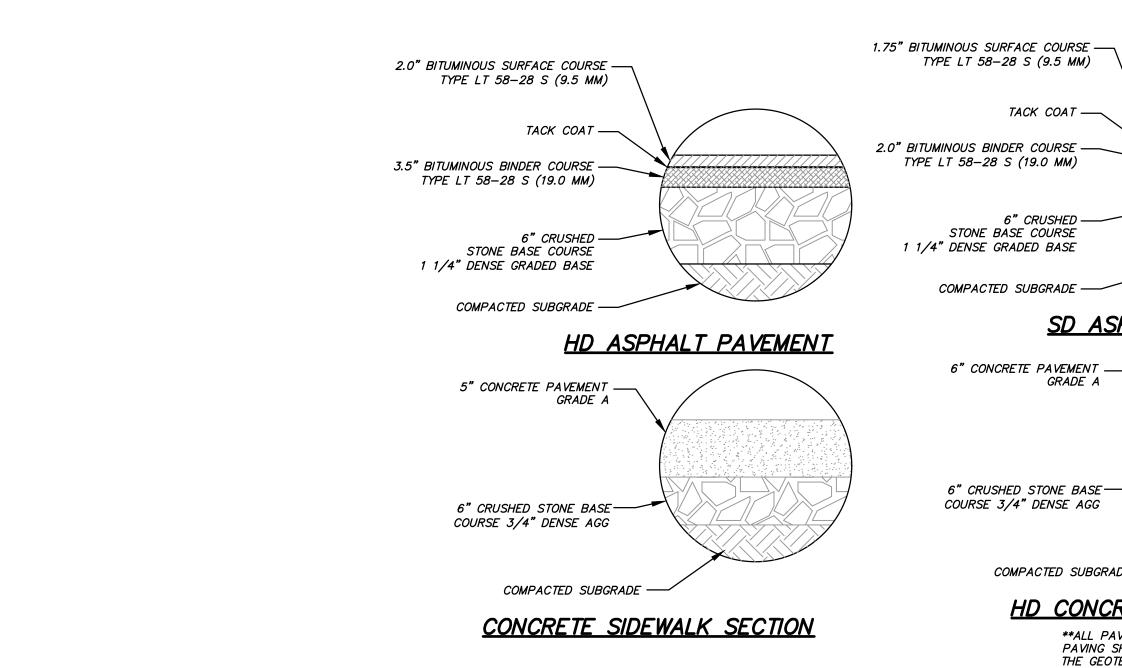


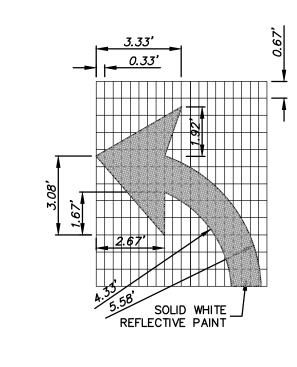


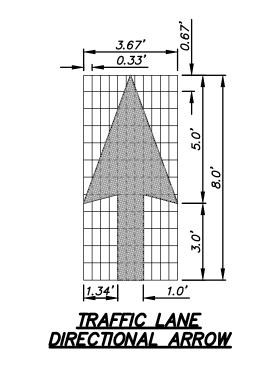
- A) 3500 PSI CONCRETE SHALL BE USED IN CONSTRUCTION OF THE CURB & GUTTER.
- B) THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE SLOPE OF THE GUTTER PAN. C) FOR DEPRESSED CURB HEAD SLOPE, USE THE SAME SLOPE AS ADJACENT SIDEWALK.
- D) THE BOTTOM OF THE CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDE MINIMUM 6" GUTTER THICKNESS MAINTAINED. TRANSVERSE CONTRACTION JOINTS SHALL BE CUT OR SAWED AT MAXIMUM 20 FOOT INTERVALS.
- E) 1/2" PREFORMED EXPANSION JOINT FILLER SHALL BE PLACED TRANSVERSELY IN THE CURB ABUTTING EXISTING CURB AND SIDEWALK, WALLS OR BUILDINGS, AND AT INTERVALS NOT TO EXCEED 300 FEET, WITH PREFERRED LOCATIONS BEING AT RADIUS POINTS OR ANGLE

CONCRETE CURB & GUTTER 18"









HD CONCRETE SECTION

**ALL PAVEMENT DESIGN AND PAVING SHALL BE VERIFIED WITH

THE GEOTECHNICAL ENGINEER.

SD ASPHALT PAVEMENT

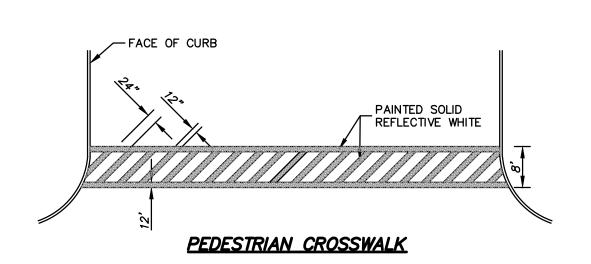
TACK COAT -

6" CRUSHED -

GRADE A

COMPACTED SUBGRADE -

TURNING ARROW



TYPE 1 CURB RAMP **NOTES:**1. SURFACE OF CURB RAMP SHALL HAVE A BROOM FINISH OR SIMILAR SLIP RESISTANT SURFACE.

DETECTABLE WARNING FIELD,
—FULL WIDTH & 2'-0" MIN. DEPTH
NEENAH 4984-24Q, OR EQUIV.

_8.33% MAXIMUM SLOPE

ON CURB HEAD

CONCRETE SIDEWALK

CONSTRUCT CONTROL -JOINTS (TYP.)

TRANSITION FACE
OF CURB FROM ___ FULL HEIGHT TO O" HEIGHT

4.0' MIN. LANDING

PENALTY SIGN WITH

REQUIRED BY STATE

STATE OF WISCONSIN

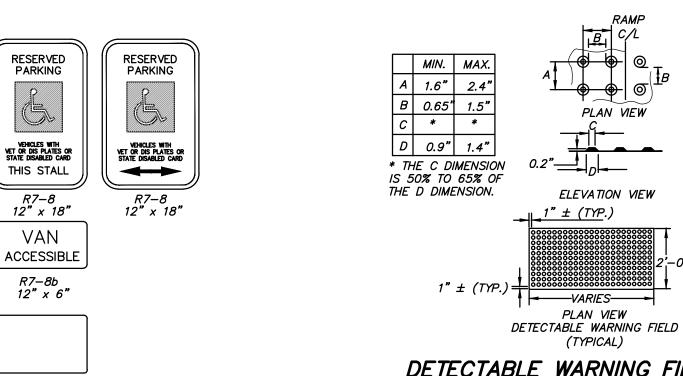
ACCESSIBLE PARKING SIGNS

WORDING AS

OR LOCAL LAW 12" x 9"

CURB PAN TO BE 2.00%

MAXIMUM. TRANSITION PAN— SECTION IF REQUIRED.

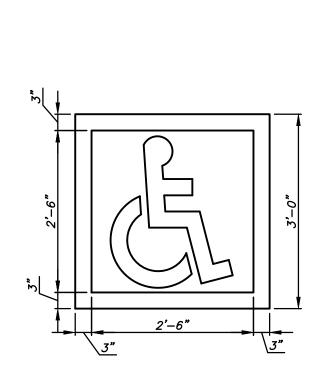


DETECTABLE WARNING FIELD (TRUNCATED DOMES)

- NOTES:

 1. DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT.
- 2. DETECTABLE WARNING FIELDS SHALL BE "NEENAH DETECTABLE WARNING PLATES" 4984-XXX, OR EQUIV. 3. CURB RAMP DETECTABLE WARNING FIELDS TO BE INSTALLED 6 TO 8 INCHES FROM THE FACE OF





ADA SYMBOL NOTES: A. ALL STROKES TO BE 3" WIDE. PROVIDE TWO COATS OF PAINT MINIMUM. C. BLUE BACKGROUND WITH WHITE SYMBOL.

D. LOCATE SYMBOL AT CENTER OF STALL WHERE SHOWN ON SITE PLAN.

E. ONE SYMBOL FOR EACH ADA PARKING SPACE.

ENT

REDVELOPA

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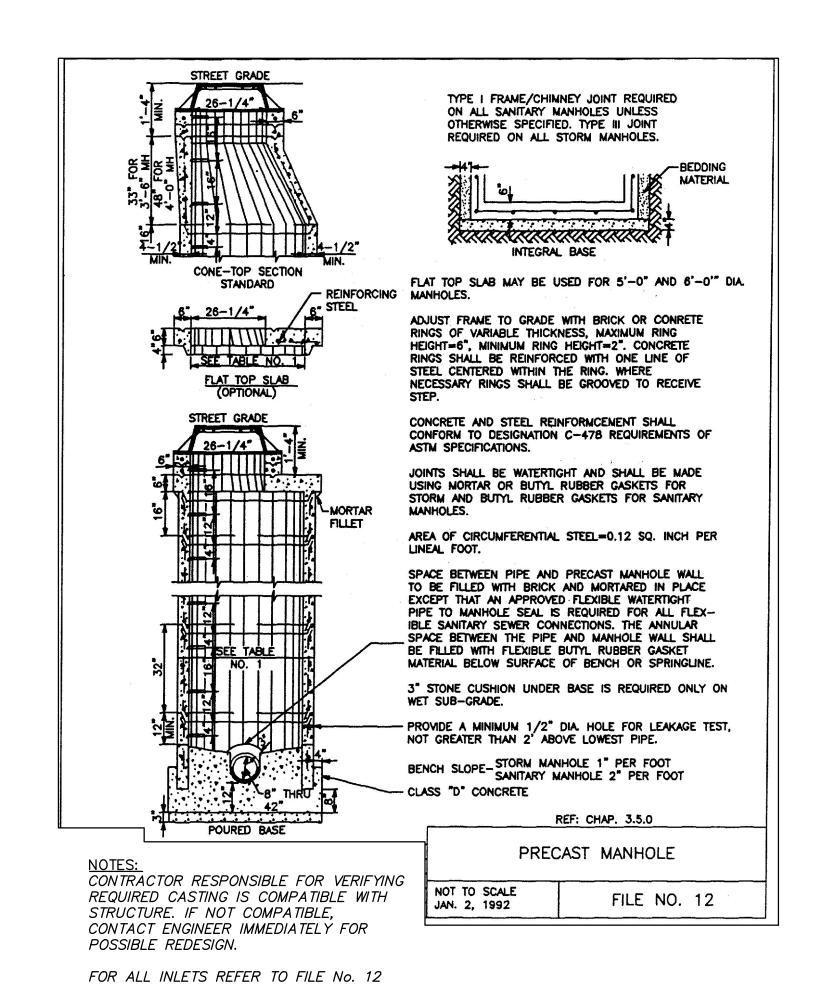
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SCALE: N.T.S.

JOB NO. **3190329**

PROJECT MANAGER: MATTHEW P. KOCOUREK, P.E. DESIGNED BY: DVW

CHECKED BY: RJY



STORM MANHOLE & INLET NOTES:

REFER TO FILE No. 12 (STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, DETAIL ON THIS SHEET), EXCEPT:

A. USE CASTING AS INDICATED BELOW: EXAMPLE - NEENAH R-FRAME (GRATE)

1.) INLETS IN CURB - NEENAH R-3067 (TYPE C)

2.) INLETS IN PAVEMENT - NEENAH R-2556 (TYPE G)

3.) INLETS IN GRASS AREAS - NEENAH R-2556 (TYPE G) 4.) INLETS AS NOTED - NEENAH BEEHIVE R-2560 (TYPE E1)

5.) INLETS IN DEPRESSED CURB — NEENAH R—3067—C (TYPE C)

B. USE 48" MINIMUM DIAMETER UNLESS INDICATED OTHERWISE ON PLAN C. CONTRACTOR RESPONSIBLE FOR VERIFYING REQUIRED CASTING IS COMPATIBLE WITH STRUCTURE. IF NOT COMPATIBLE, CONTACT ENGINEER IMMEDIATELY FOR POSSIBLE REDESIGN.

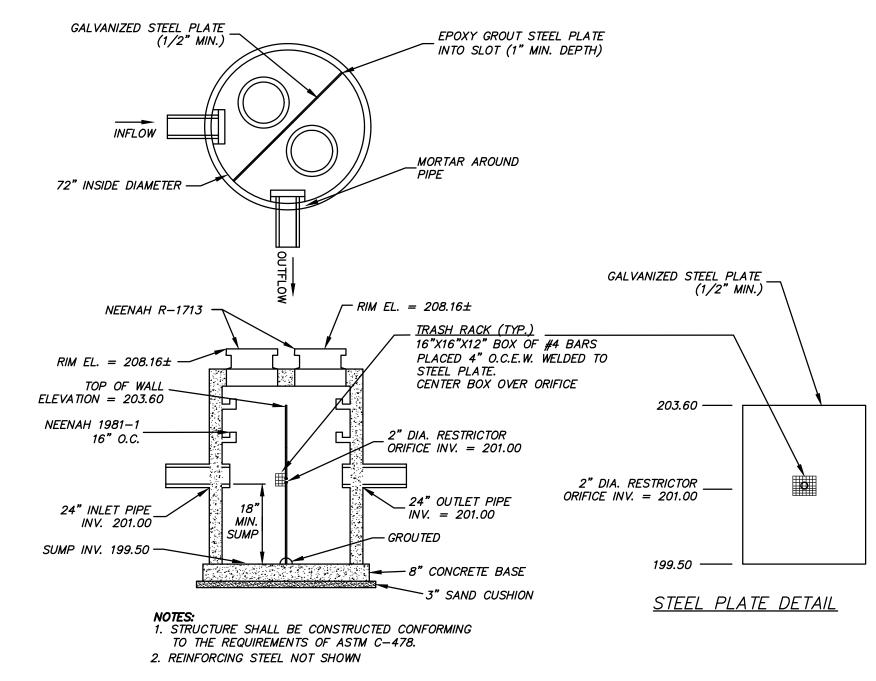
REFER TO CITY OF BROOKFIELD DETAIL, EXCEPT: A. USE CASTING AS INDICATED BELOW:

ALL MANHOLES - NEENAH R-1661

B. USE 48" MINIMUM DIAMETER UNLESS INDICATED OTHERWISE ON PLAN C. PIPE MATERIAL PER C1000 UNLESS INDICATED OTHERWISE ON PLAN.

D. CONTRACTOR RESPONSIBLE FOR VERIFYING REQUIRED CASTING IS COMPATIBLE WITH STRUCTURE. IF NOT COMPATIBLE,

CONTACT ENGINEER IMMEDIATELY FOR POSSIBLE REDESIGN.

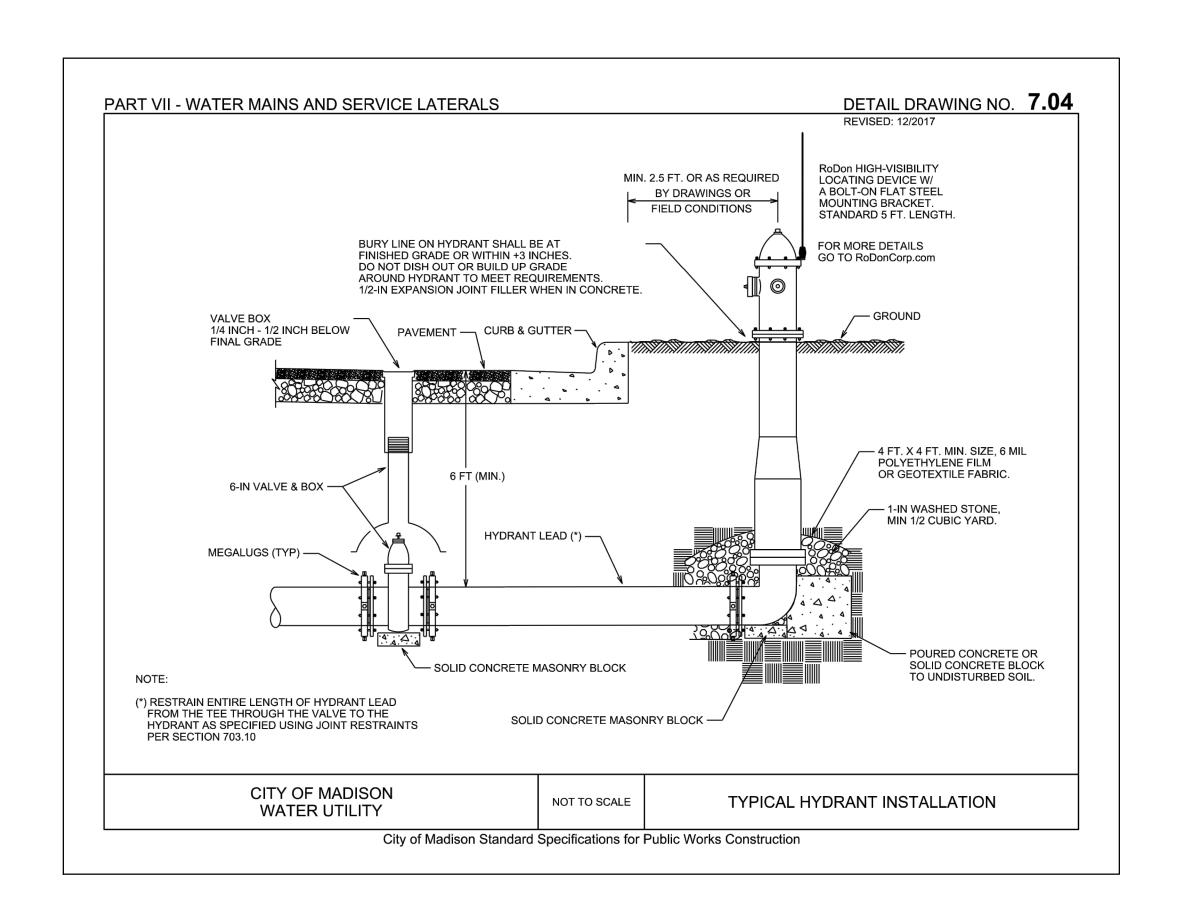


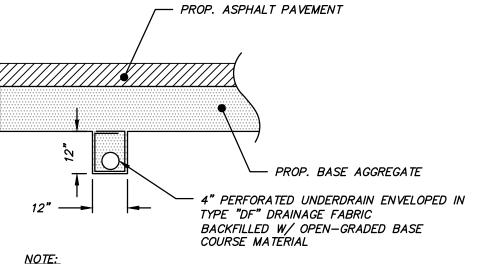
72" DIAMETER OUTLET CONTROL STRUCTURE DETAIL (NORTH SYSTEM - R-410)

STORM INLET DETAIL

(STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN,

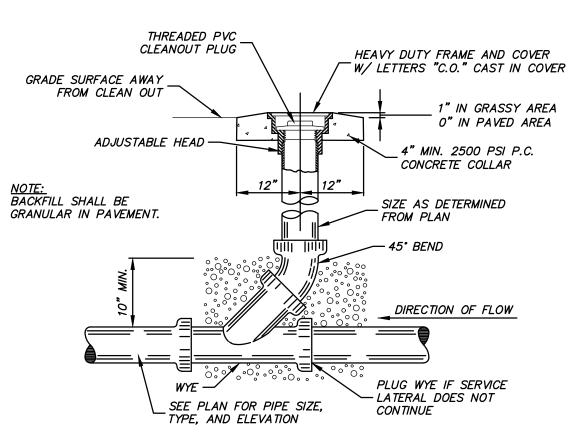
DETAIL ABOVE)



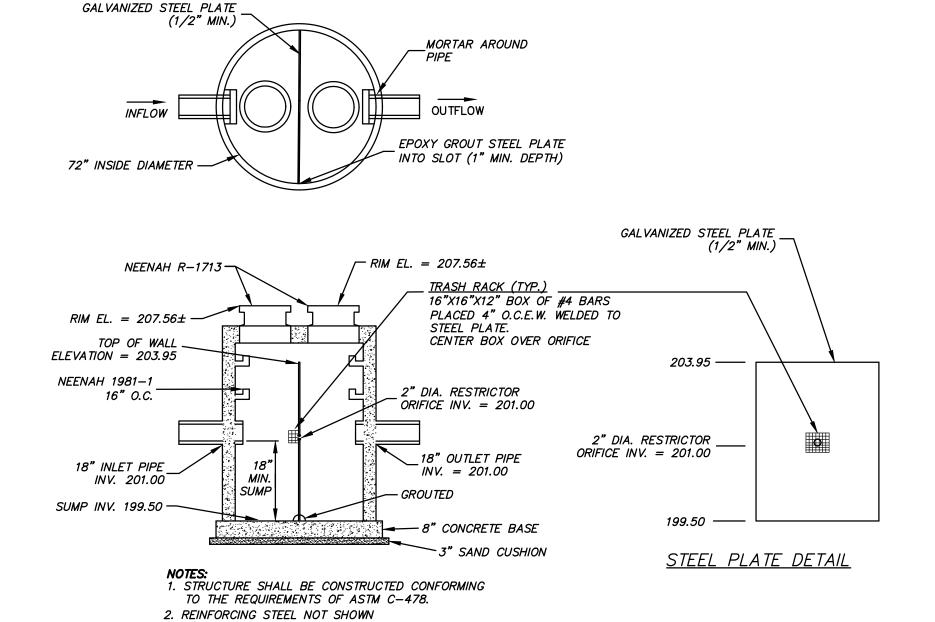


NOTE:
ASTM D-1785 PVC SCH 40 DRAINAGE PIPE WITH TYPICAL 4-ROW PATTERN CONFORMING TO ASTM F-758, INSTALL HOLES UP

UNDERDRAIN UNDER PAVEMENT



SEWER CLEAN-OUT DETAIL



72" DIAMETER OUTLET CONTROL STRUCTURE DETAIL (SOUTH SYSTEM - R-320)

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SCALE: N.T.S.

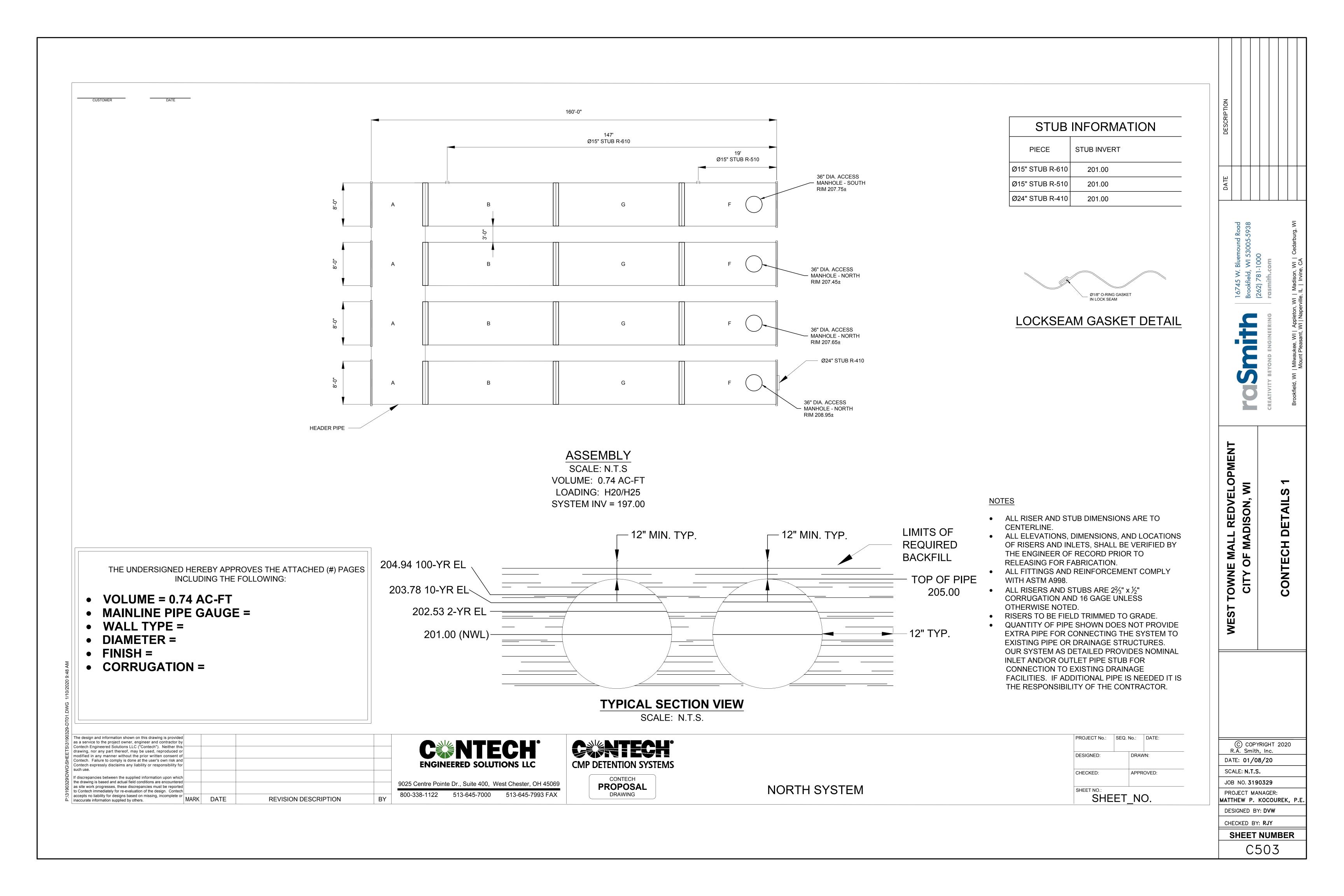
JOB NO. **3190329** PROJECT MANAGER:

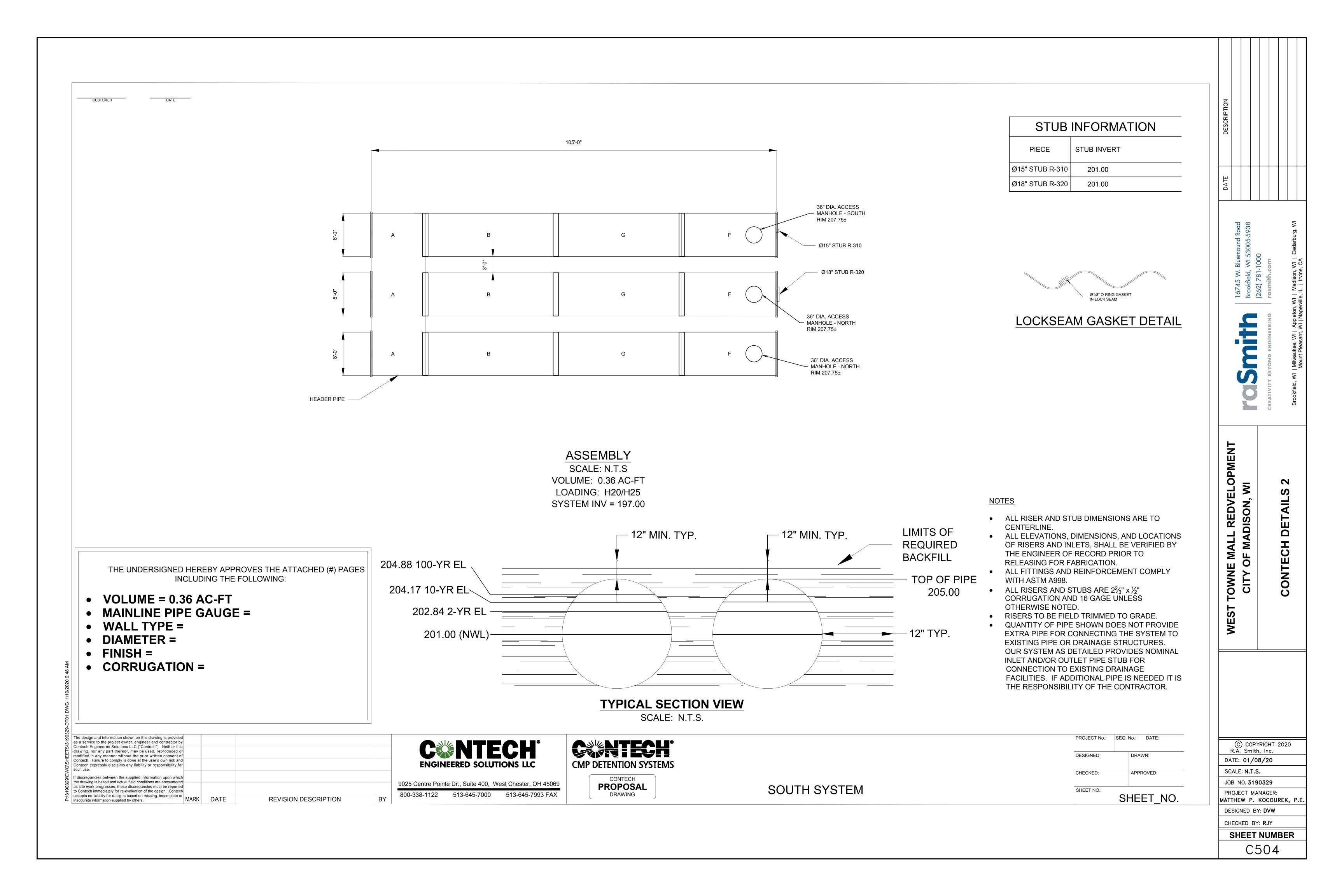
MATTHEW P. KOCOUREK, P.E.

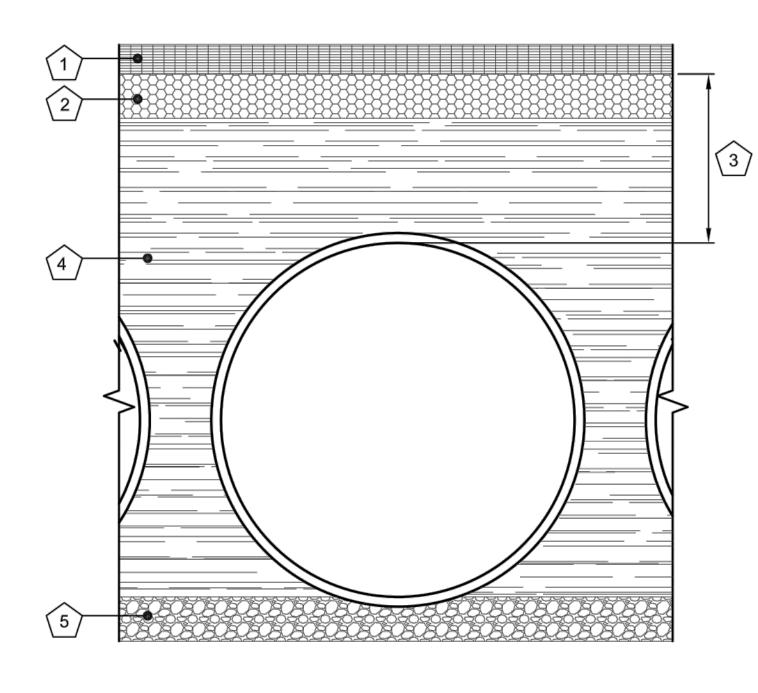
DESIGNED BY: DVW CHECKED BY: RJY

SHEET NUMBER

C502







KEY:

- 1. RIGID OR FLEXIBLE PAVEMENT
- 2. GRANULAR ROAD BASE
- 12" MIN. FOR DIAMETERS THROUGH 96"
 18" MIN. FOR DIAMETERS FROM 102" AND LARGER MEASURED TO TOP OF RIGID OR BOTTOM OF FLEXIBLE PAVEMENT.
- 4. SELECT GRANULAR FILL PER AASHTO M145 A1, A2 OR A3, OR APPROVED EQUAL. PLACED IN 8" LIFTS (COMPACTED TO MIN. 90% STANDARD DENSITY PER AASHTO T99.)
- 5. GRANULAR BEDDING, ROUGHLY SHAPED TO FIT THE BOTTOM OF PIPE, 4" TO 6" IN DEPTH

FOUNDATION/BEDDING PREPARATION

PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND BROUGHT BACK TO THE GRADE WITH A FILL MATERIAL AS APPROVED BY THE ENGINEER. ONCE THE FOUNDATION PREPARATION IS COMPLETE, 4" - 6" OF A WELL-GRADED GRANULAR MATERIAL SHALL BE PLACED AS THE BEDDING.

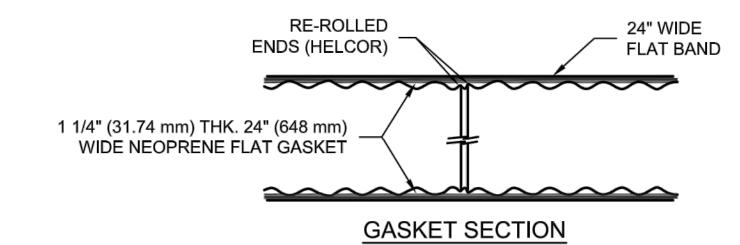
BACKFILL

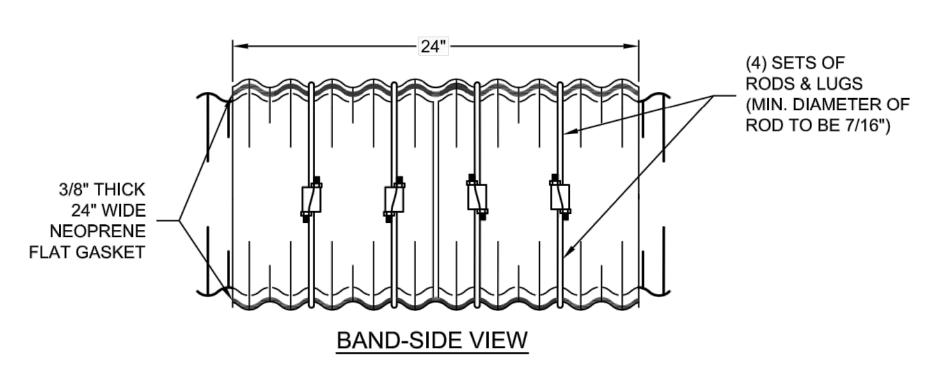
THE BACKFILL SHALL BE AN A1, A2 OR A3 GRANULAR FILL PER AASHTO M145, OR A WELL-GRADED GRANULAR FILL AS APPROVED BY THE SITE ENGINEER (SEE INSTALLATION GUIDELINES). THE MATERIAL SHALL BE PLACED IN 8" LOOSE LIFTS AND COMPACTED TO 90% AASHTO T99 STANDARD PROCTOR DENSITY. WHEN PLACING THE FIRST LIFTS OF BACKFILL IT IS IMPORTANT TO MAKE SURE THAT THE BACKFILL IS PROPERLY COMPACTED UNDER AND AROUND THE PIPE HAUNCHES. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO LIFT (16") DIFFERENTIAL BETWEEN ANY OF THE PIPES AT ANY TIME DURING THE BACKFILL PROCESS. THE BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE DETENTION SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON THE PIPE.

OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS, AS APPROVED BY SITE ENGINEER.

BACKFILL DETAIL

SCALE: N.T.S.





OPEN CELL NEOPRENE GASKET. ASTM SPECIFICATION D-1056, GRADE 2C3, SKINNED ALL FOUR SIDES OF ONE-PIECE CONSTRUCTION

NEOPRENE GASKET

GENERAL NOTES:

- 1. SLEEVE GASKET(S) ARE REQUIRED.
- SLEEVE GASKET MUST BE ONE PIECE; TOTAL WIDTH OF ONE SLEEVE MUST BE EQUAL OR EXCEED 24".
- MINIMUM OF TWO INDENTATION OF BAND MUST REST IN TWO INDENTATIONS ON EACH END OF PIPE.
- A MINIMUM OF FOUR RODS AND LUGS RE REQUIRED. TWO RODS AND LUGS ON EACH SIDE OF PIPE.
- RODS SHALL BE 7/8"Ø. ALL THREAD ROD IS NOT ACCEPTABLE. RODS MUST BE SMOOTH BAR TYPE.
- 6. GASKET TO BE LUBRICATED ON THE OUTSIDE BEFORE THE BAND IS APPLIED.

10-C BAND DETAIL

SCALE: N.T.S.

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DRAWING

Ø96" UNDERGROUND DETENTION SYSTEM

WEST TOWNE MALL

MADISON, WI

SITE DESIGNATION: WQ DETENTION

PROJECT No.:	SEQ. I	No.:	DATE:
551813	01	10	10/21/2016
DESIGNED:		DRAW	/N;
DRA			DRA
CHECKED:		APPR	OVED:
SHEET NO.:			_
	P2	OI	· 3

DESCRIPTION				
DATE				

rookfield, WI 53005-5938

REATIVITY BEYOND ENGINEERING

TOWNE MALL REDVELOPM
CITY OF MADISON, WI

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R.A. Smith, Inc.

DATE: 01/08/20

SCALE: N.T.S.

JOB NO. 3190329

PROJECT MANAGER:

MATTHEW P. KOCOUREK, P.E.

DESIGNED BY: DVW

CHECKED BY: RJY

CONSTRUCTION LOADS

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)					
	18-50	50-75	75-110	110-150		
	MINIMUM COVER (FT)					
12-42	2.0	2.5	3.0	3.0		
48-72	3.0	3.0	3.5	4.0		
78-120	3.0	3.5	4.0	4.0		
126-144	3.5	4.0	4.5	4.5		

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE

CONSTRUCTION LOADING DIAGRAM

SCALE: N.T.S.

MATERIAL SPECIFICATION

SCALE: N.T.S.

SPECIFICATION FOR CORRUGATED STEEL PIPE-ALUMINIZED TYPE 2 STEEL

<u>SCOPE</u>

THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE CORRUGATED STEEL PIPE (CSP) DETAILED IN THE PROJECT PLANS.

MATERIAL

THE ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M274 OR ASTM A929.

THE CSP SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF AASHTO M36 OR ASTM A760. THE PIPE SIZES, GAGES AND CORRUGATIONS SHALL BE AS SHOWN ON THE PROJECT PLANS.

ALL FABRICATION OF THE PRODUCT SHALL OCCUR WITHIN THE UNITED STATES.

HANDLING AND ASSEMBLY

SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF THE NATIONAL CORRUGATED STEEL PIPE ASSOCIATION (NCSPA)

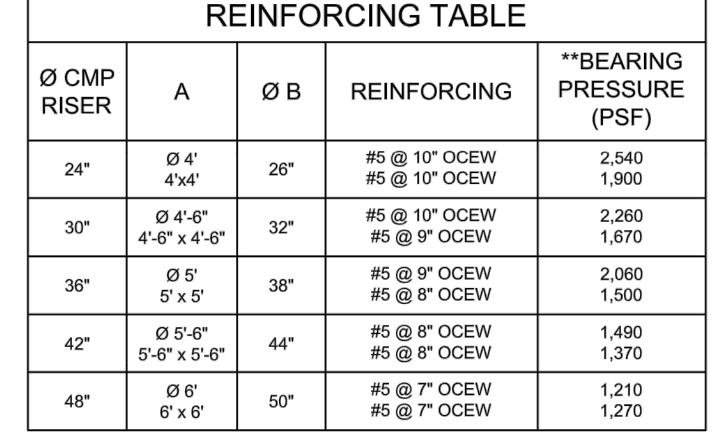
INSTALLATION

SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II OR ASTM A798 AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

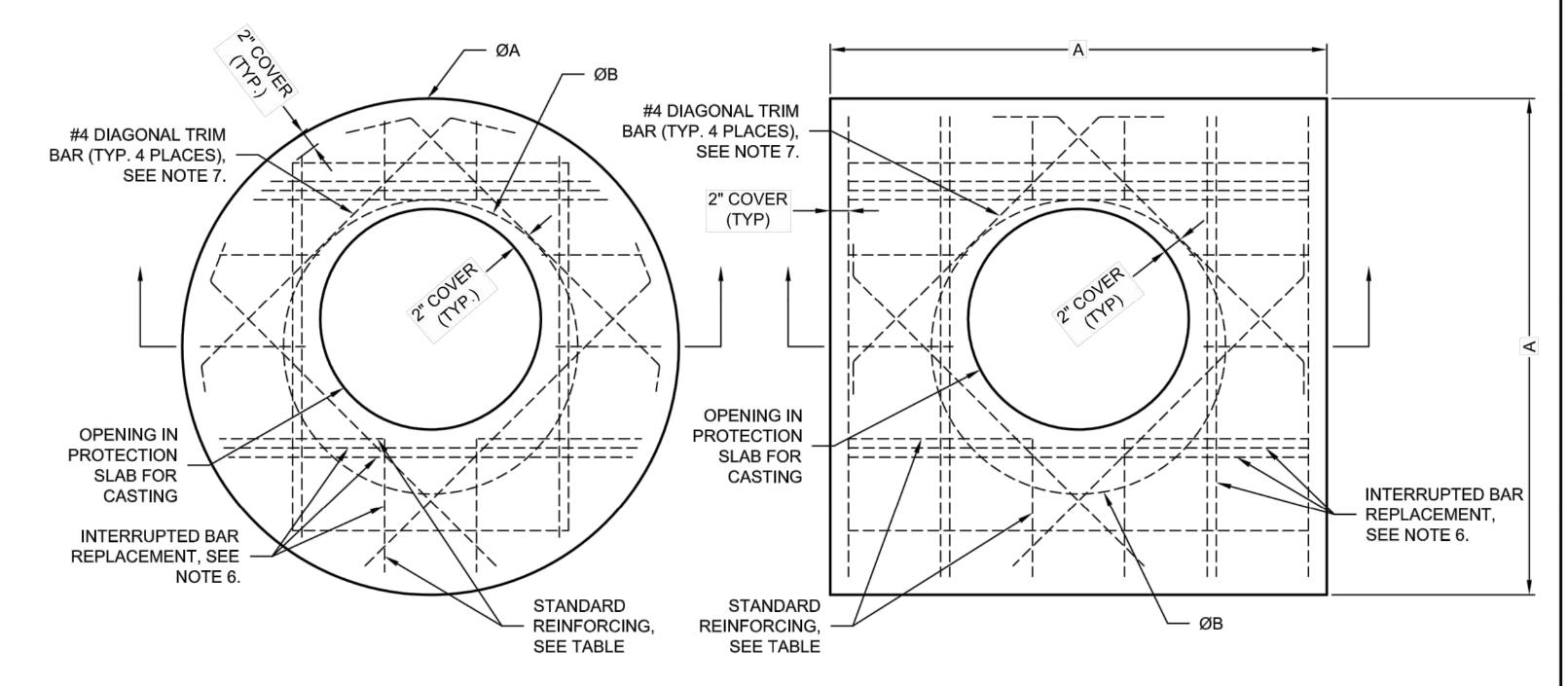
IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

Ø36" MAX., HS-25 ACCESS CASTING WITH GRADE RINGS AS REQUIRED, TO BE PROVIDED AND INSTALLED BY CONTRACTOR. MAY BE TOP MOUNTED (AS SHOWN) OR CMP PROTECTION SLAB - Ø CMP RISER GASKET MATERIAL SUFFICIENT TO PREVENT SLAB FROM BEARING ON RISER TO BE PROVIDED BY CONTRACTOR

SECTION VIEW



** ASSUMED SOIL BEARING CAPACITY



ROUND OPTION PLAN VIEW

NOTES:

- 1. DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION AND ACI 350.
- DESIGN LOAD HS25.
- 3. EARTH COVER = 1' MAX.
- 4. CONCRETE STRENGTH = 4,000 psi
- 5. REINFORCING STEEL = ASTM A615, GRADE 60.
- 6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.

SQUARE OPTION PLAN VIEW

- . TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
- 8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
- 9. DETAIL DESIGN BY DELTA ENGINEERS, ARCHITECTS AND LAND SURVEYORS, ENDWELL, NY.

MANHOLE CAP DETAIL

SCALE: N.T.S.

180						
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Ø96" UNDERGROUND DETENTION SYSTEM **WEST TOWNE MALL** MADISON, WI SITE DESIGNATION: WQ DETENTION

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JOB NO. **3190329** PROJECT MANAGER: MATTHEW P. KOCOUREK, P.E.

SCALE: N.T.S.

CHECKED BY: RJY

DESIGNED BY: DVW

SPECIFICATIONS

UNLESS OTHERWISE NOTED:

<u> DIVISION 1 — GENERAL REQUIREMENTS</u>

01 41 00 - REGULATORY REQUIREMENTS

- 1. THE LATEST EDITIONS OF THE FOLLOWING DOCUMENTS AND ANY SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS ON THIS PLAN
 - WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) STORM WATER TECHNICAL STANDARDS WISCONSIN EROSION CONTROL PRODUCT ACCEPTABILITY LIST
 - STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN (SSSWCW)
- WISCONSIN ADMINISTRATIVE CODE, SECTIONS SPS 382-387 WISCONSIN DEPARTMENT OF TRANSPORTATION (WISDOT) STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION
- FEDERAL HIGHWAY ADMINISTRATION MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
- WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD) UNITED STATES DEPARTMENT OF JUSTICE ADA STANDARDS
- UNITED STATES DEPARTMENT OF TRANSPORTATION ADA STANDARDS FOR TRANSPORTATION FACILITIES
- MUNICIPALITY DEVELOPMENT STANDARDS COUNTY DEVELOPMENT STANDARDS
- 2. THE OWNER, ENGINEER AND MUNICIPALITY SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF PERFORMING ANY CONSTRUCTION ACTIVITIES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING COPIES OF ALL PERMITS AND FOR ABIDING BY ALL PERMIT REQUIREMENTS AND RESTRICTIONS. 4. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE
- SHOP DRAWINGS AND/OR MANUFACTURER'S PRODUCT DATA SUBMITTALS ARE REQUIRED ONLY IF THE PRODUCT OR METHOD OF CONSTRUCTION IS DIFFERENT FROM THAT SPECIFIED OR IF REQUIRED BY THE MUNICIPAL ENGINEER.
- a. ALL DOCUMENTS SUBMITTED FOR REVIEW SHALL HAVE THE SPECIFIC MATERIAL, PART, SIZE, ETC. HIGHLIGHTED IN SOME FASHION. EXAMPLE: A FITTING CUT SHEET HAS MULTIPLE PRESSURE RATING FOR DIFFERENT SIZE BENDS. HIGHLIGHT THE PRESSURE CLASS & SIZE TO BE USED ON PROJECT. ALL SUBMITTALS NOT PROPERLY IDENTIFYING THE SPECIFIC MATERIAL BEING USED WILL BE REJECTED.
- b. CONTRACTOR SHALL SUBMIT A PDF COPY AND AN EXPLANATION AS TO HOW THE SUBSTITUTION MEETS THE PROPOSED DESIGN (PRODUCT SPECIFICATION SHEETS WITHOUT EXPLANATION WILL NOT BE ACCEPTED) TO THE OWNER'S REPRESENTATIVE OR ENGINEER FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL NOT PROCEED UNTIL THE OWNER'S APPROVAL IS GIVEN. IN PROJECT SCHEDULING CONTRACTOR SHALL ACCOUNT FOR 5 WORKING DAYS FOR SUBMITTAL REVIEW. IN THE EVENT SUCH SUBSTITUTION IS APPROVED, THE OWNER WILL REQUIRE FROM THE CONTRACTOR A CREDITED DEDUCTION FROM THE CONTRACT AMOUNT EQUAL TO ANY SAVINGS IN MATERIAL COST RESULTING FROM USE OF THE PROPOSED SUBSTITUTE.
- 6. THE CONTRACTOR SHALL ASSUME COMPLETE AND SOLE RESPONSIBILITY FOR THE QUALITY OF WORK. IF CHANGES OR ADJUSTMENTS ARE RECOMMENDED BY THE CONTRACTOR, THEY MAY BE MADE ONLY UPON WRITTEN APPROVAL OF THE OWNER OR HIS REPRESENTATIVE. a. ALL WORK SHALL BE DONE IN COMPLIANCE WITH THE CONTRACT DOCUMENTS. THE OWNER OR HIS REPRESENTATIVE SHALL DECIDE ALL
- QUESTIONS WHICH SHALL ARISE AS TO THE QUALITY AND ACCEPTABILITY OF MATERIALS FURNISHED. WORK PERFORMED. AND WORKMANSHIP. INTERPRETATION OF THE PLANS AND SPECIFICATIONS HE SHALL DETERMINE THE AMOUNT OF WORK PERFORMED AND MATERIALS FURNISHED. b. FAILURE OR NEGLIGENCE ON THE PART OF THE OWNER OR HIS REPRESENTATIVE TO CONDEMN OR REJECT SUBSTANDARD OR INFERIOR WORK OR MATERIALS SHALL NOT BE CONSTRUED TO IMPLY AN ACCEPTANCE OF SUCH WORK OR MATERIALS. IF IT BECOMES EVIDENT AT ANY TIME PRIOR TO THE FINAL ACCEPTANCE OF THE WORK BY THE OWNER. NEITHER SHALL IT BE CONSTRUED AS BARRING THE OWNER, AT ANY SUBSEQUENT TIME. FROM THE RECOVERY OF DAMAGES OR OF SUCH A SUM OF MONEY AS MAY BE NEEDED TO BUILD ANEW ALL PORTIONS OF
- THE SUBSTANDARD OR INFERIOR WORK OR REPLACEMENT OF IMPROPER MATERIALS WHEREVER FOUND. INSPECTORS EMPLOYED BY THE OWNER SHALL BE AUTHORIZED TO INSPECT ALL WORK DONE AND ALL MATERIAL FURNISHED. SUCH INSPECTION MAY EXTEND TO ALL OR ANY PART OF THE WORK AND TO THE PREPARATION, FABRICATION OR MANUFACTURE OF THE MATERIALS TO BE USED. THE INSPECTOR IS NOT AUTHORIZED TO REVOKE, ALTER OR WAIVE ANY REQUIREMENTS OF THE SPECIFICATIONS, NOR IS HE AUTHORIZED TO APPROVE OR ACCEPT ANY PORTION OF THE COMPLETED PROJECT. HE SHALL CALL THE ATTENTION OF THE CONTRACTOR TO ANY FAILURE OF THE WORK OR MATERIALS TO CONFORM TO THE SPECIFICATIONS AND CONTRACT, AND SHALL HAVE THE AUTHORITY TO REJECT MATERIALS. ANY DISPUTE BETWEEN THE INSPECTOR AND CONTRACTOR SHALL BE REFERRED TO THE OWNER OR HIS REPRESENTATIVE. ANY ADVICE WHICH THE INSPECTOR MAY GIVE THE CONTRACTOR SHALL IN NO WAY BE CONSTRUED AS BINDING THE ENGINEER IN ANY WAY OR
- RELEASING THE CONTRACTOR FROM FULFILLING ANY OF THE TERMS OF THE CONTRACT. ALL MATERIALS AND EACH PART OF DETAIL OF THE WORK SHALL BE SUBJECT AT ALL TIMES TO INSPECTION BY THE OWNER OR HIS AUTHORIZED REPRESENTATIVE OR THE AUTHORITY HAVING JURISDICTION AND THE CONTRACTOR WILL BE HELD STRICTLY TO THE TRUE INTENT OF THE SPECIFICATIONS IN REGARD TO QUALITY OF MATERIALS, WORKMANSHIP, AND THE DILIGENT EXECUTION OF THE CONTRACT. SUCH INSPECTION MAY INCLUDE MILL, PLANT OR SHOP INSPECTION, AND ANY MATERIAL FURNISHED UNDER THESE SPECIFICATIONS IS SUBJECT TO SUCH INSPECTION. THE OWNER OR HIS REPRESENTATIVES SHALL BE ALLOWED ACCESS TO ALL PART OF THE WORK, AND SHALL BE FURNISHED WITH SUCH INFORMATION AND ASSISTANCE BY THE CONTRACTOR AS IS DETERMINED BY THE OWNER OR HIS REPRESENTATIVE, TO
- MAKE A COMPLETE AND DETAILED INSPECTION. e. ALL WORKMANSHIP SHALL CONFORM TO THE BEST STANDARD PRACTICE. UNLESS OTHERWISE SPECIFIED, THE SPECIFICATIONS OR RECOGNIZED ASSOCIATION OF MANUFACTURERS AND CONTRACTORS OR INDUSTRIAL MANUFACTURERS SHALL BE USED AS GUIDES FOR THE STANDARDS OF
- ALL EXPOSED ITEMS OF WORK SHALL PRESENT A NEAT WORKMANLIKE APPEARANCE AND SHALL BE AS TRUE TO SHAPE AND ALIGNMENT AS POSSIBLE TO OBTAIN WITH MEASURING OR LEVELING INSTRUMENTS GENERALLY USED IN THE RESPECTIVE TYPES OF WORK. ITEMS OF WORK SHALL BE SOUND AND FULLY PROTECTED AGAINST DAMAGE AND PREMATURE DETERIORATION. IT IS SPECIFICALLY UNDERSTOOD THAT IN ALL QUESTIONS OF QUALITY AND ACCEPTABILITY OF WORKMANSHIP, THE CONTRACTOR AGREES TO ABIDE BY THE DECISION OF THE OWNER OR HIS
- ALL MATERIALS AND WORKMANSHIP NOT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS SHALL BE CONSIDERED AS DEFECTIVE, AND ALL SUCH MATERIALS, WHETHER IN-PLACE OR NOT, SHALL BE REJECTED AND SHALL BE REMOVED FROM THE WORK BY THE CONTRACTOR AT HIS EXPENSE. UPON FAILURE ON THE PART OF THE CONTRACTOR TO COMPLY WITH ANY ORDER OF THE OWNER RELATIVE TO THE PROVISIONS OF THIS ARTICLE, THE OWNER SHALL HAVE THE AUTHORITY TO REMOVE AND REPLACE SUCH DEFECTIVE MATERIAL AND TO DEDUCT THE COST OF REMOVAL AND REPLACEMENT FROM ANY MONIES DUE OR WHICH MAY BECOME DUE THE CONTRACTOR.
- THE CONTRACTOR SHALL KEEP A LEGIBLE COPY OF THE PLANS, SPECIFICATIONS, AND ALL PERMITS AT THE SITE OF THE WORK AT ALL TIMES. AT THE COMPLETION OF THE WORK AND PRIOR TO FINAL PAYMENT, THE CONTRACTOR SHALL PROVIDE THE OWNER OR HIS REPRESENTATIVE WITH A MARKED-UP SET OF DRAWINGS SHOWING ALL CHANGES OR VARIATIONS FROM THE ORIGINAL DRAWINGS. THESE CHANGES SHALL BE MADE ON A SET OF FIELD DRAWINGS AS THE WORK TAKES PLACE, AND NOT FROM MEMORY WHEN THE WORK IS DONE. THIS SET OF DRAWINGS SHOULD BE KEPT CLEAN IN A LOCATION AT THE SITE WHERE THE OWNER OR HIS REPRESENTATIVE MAY EXAMINE THEM. THE MARKED-UP DRAWINGS SHALL BE ACCURATE. ARBITRARY MARKINGS ARE OF NO VALUE. CAREFUL MEASUREMENTS SHALL BE
- MADE TO LOCATE UNDERGROUND EXTERIOR AND UNDERGROUND INTERIOR SEWERS, GAS LINES, WATER LINES, ELECTRICAL CONDUIT AND MISCELLANEOUS PIPIN 7. CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL, TRAFFIC CONTROL PLANS AND PERMITTING FOR ALL WORK TO BE COMPLETED ONSITE OR IN THE PUBLIC RIGHT—OF WAY.
- 01 70 00 EXECUTION & CLOSEOUT REQUIREMENTS
- 1. THE CONTRACTOR IS RESPONSIBLE FOR EXAMINING ALL EXISTING SITE CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL COMPARE WITH THIS PLAN.
- 2. EXISTING UTILITY INFORMATION IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY, BASED ON BEST AVAILABLE PUBLIC RECORDS. AS—BUILT DRAWINGS, AND FIELD OBSERVATIONS. NO RESPONSIBILITY IS ASSUMED BY THE OWNER OR ENGINEER FOR ACCURACY OR COMPLETENESS. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO THE TYPE AND NATURE OF EXISTING UTILITIES, AS MAY BE NECESSARY TO AVOID DAMAGE THERETO
- THE CONTRACTOR SHALL VERIFY ALL LOCATIONS, ELEVATIONS, AND SIZES OF EXISTING UTILITIES AND SHALL CHECK ALL PROPOSED UTILITY CONNECTIONS AND CROSSINGS PRIOR TO PROCEEDING WITH ANY WORK. ANY CONFLICTS SHALL BE REPORTED TO THE ENGINEER SO REDESIGN MAY OCCUR IF NEEDED. COST OF REPLACEMENT OR REPAIR OF EXISTING UTILITIES DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- AVAILABLE FROM THE OWNER. THE CONTRACTOR SHALL ABIDE BY THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND SUBSEQUENT RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER DURING CONSTRUCTION

4. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING SOIL CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. A GEOTECHNICAL REPORT MAY BE

- THE CONTRACTOR SHALL FIELD VERIFY ELEVATIONS OF THE BENCHMARKS AND HORIZONTAL CONTROL BY REFERENCING SHOWN COORDINATES TO KNOWN PROPERTY LINES, AND SHALL NOTIFY THE ENGINEER OF DISCREPANCIES IN EITHER VERTICAL OR HORIZONTAL CONTROL PRIOR TO PROCEEDING WITH ANY WORK
- . SURVEY BENCHMARKS AND CONTROL POINTS SHALL BE MAINTAINED AND PROTECTED FROM DISTURBANCE. 7. PROPERTY CORNERS SHALL BE CAREFULLY PROTECTED AT ALL TIMES. PROPERTY MONUMENTS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL
- BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- 8. ANY ADJACENT PROPERTIES OR ROAD RIGHT-OF-WAYS WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR. THE COST OF RESTORATION IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED.
- 9. PUBLIC ROADS SHALL NOT BE FULLY CLOSED TO TRAFFIC AT ANY TIME. ALL INGRESS AND EGRESS TRAFFIC TO THE PROJECT SITE SHALL BE LIMITED TO THE CONSTRUCTION ENTRANCE. 10. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING QUANTITIES, SHALL BID ON THEIR OWN ESTIMATE OF THE WORK REQUIRED, AND SHALL NOT RELY ON THE ENGINEER'S ESTIMATE.
- REQUESTS FOR CLARIFICATION WILL BE INTERPRETED BY THE OWNER/ENGINEER PRIOR TO AWARD OF CONTRACT, AND WHEN NECESSARY, OFFICIAL WRITTEN RESPONSES WILL BE ISSUED. OFFICIAL WRITTEN RESPONSES SHALL BE BINDING TO THE WORK. IN NO WAY SHALL VERBAL DIALOGUE CONSTITUTE OFFICIAL RESPONSE. 12. SHOULD ANY DISCREPANCIES BE DISCOVERED BY THE CONTRACTOR AFTER AWARD OF CONTRACT, NOTIFY OWNER/ENGINEER IN WRITING IMMEDIATELY.
- CONSTRUCTION OF ITEMS AFFECTED BY THE DISCREPANCIES SHALL NOT COMMENCE OR CONTINUE UNTIL AN OFFÍCIAL WRITTEN RESPONSE IS ISSUED. 13. ALL WORK SHALL BE GUARANTEED BY THE CONTRACTOR FOR A MINIMUM PERIOD OF 12 MONTHS FROM THE DATE OF FINAL ACCEPTANCE. THIS
- GUARANTEE SHALL INCLUDE ALL DEFECTS IN MATERIALS AND WORKMANSHIP. 14. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, THE ENGINEER, AND THE MUNICIPALITY, THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH
- THE CONSTRUCTION, INSTALLATION, AND TESTING OF THE WORK ON THIS PROJECT.

DIVISION 31 - EARTHWORK

- 31 10 00 SITE CLEARING & DEMOLITION
- WORK SHALL CONSIST OF DEMOLITION, ABANDONMENT, AND REMOVAL OF EXISTING FOUNDATIONS, WALLS, SLABS, FENCES, PIPING, PAVEMENTS, AND OTHER MANMADE ITEMS INTERFERING WITH NEW CONSTRUCTION. WORK SHALL ALSO CONSIST OF CLEARING AND GRUBBING OF TREES, SHRUBS, VEGETATION, ROOTS, STUMPS, RUBBISH, AND OTHER PERISHABLE MATTER INTERFERING WITH NEW CONSTRUCTION. ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE.
- 3. CALL 811 TO NOTIFY UTILITY PROVIDERS AND REQUEST FIELD LOCATION OF EXISTING UTILITIES WITHIN PROJECT LIMITS PRIOR TO ANY CONSTRUCTION RELATED ACTIVITIES.
- 4. INSTALL PERIMETER FENCING AS INDICATED PRIOR TO COMMENCING ANY CONSTRUCTION RELATED ACTIVITY.
- 5. CLEARLY IDENTIFY ALL VEGETATION TO BE PRESERVED AND/OR RELOCATED PRIOR TO CLEARING AND GRUBBING. 6. PROTECT EXISTING IMPROVEMENTS TO REMAIN DURING CONSTRUCTION. ANY DAMAGED IMPROVEMENTS SHALL BE RESTORED TO ORIGINAL CONDITION,
- OR AS OTHERWISE ACCEPTABLE TO THE OWNER. REMOVE EXISTING ABOVE-GRADE AND BELOW-GRADE IMPROVEMENTS AS INDICATED AND AS NECESSARY TO CONSTRUCT PROPOSED IMPROVEMENTS.
- 8. SAWCUT ALL PAVEMENT TO BE REMOVED IN STRAIGHT LINES TO FULL DEPTH. 9. DEMOLISH CONCRETE AND MASONRY IN SMALL SECTIONS. BREAK UP CONCRETE SLABS THAT ARE 2 FEET OR MORE BELOW PROPOSED SUBGRADE TO PERMIT DRAINAGE 10. DISCONNECT AND SEAL/CAP EXISTING UTILITIES TO BE REMOVED, RELOCATED, OR ABANDONED IN ACCORDANCE WITH REQUIREMENTS OF UTILITY
- PROVIDERS 11. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING OWNERSHIP OF AND COORDINATING NECESSARY REMOVAL AND/OR RELOCATION OF ALL EXISTING
- UTILITIES WITHIN THE PROJECT LIMITS. 12. DO NOT INTERRUPT UTILITY SERVICE TO EXISTING FACILITIES UNLESS PERMITTED BY THE OWNER.
- 13. VOIDS LEFT BY REMOVALS SHALL BE LEVELED TO PREVENT PONDING OF WATER.
- 14. REMOVE AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS, TRASH, AND DEBRIS FROM THE PROJECT SITE. RUBBISH, TRASH, GARBAGE, AND LITTER SHALL BE PLACED IN SEALED CONTAINERS THROUGHOUT CONSTRUCTION.

- 31 20 00 EARTH MOVING
- 1. WORK SHALL CONSIST OF STRIPPING AND STORAGE OF TOPSOIL, EXCAVATION, EMBANKMENT, IMPORTING OR EXPORTING MATERIAL TO ACHIEVE LAND BALANCE, COMPACTION, FINISH GRADING. SUBGRADE PREPARATION. AND REPLACEMENT OF TOPSOIL.
- ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE. 3. ALL EARTHWORK SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND SUBSEQUENT RECOMMENDATIONS
- THE GEOTECHNICAL ENGINEER DURING CONSTRUCTION BASED ON FIELD CONDITIONS, AND THESE REQUIREMENTS. THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER SHALL GOVERN.
- INCLUDE ROCK AND UNCLASSIFIED OBSTRUCTIONS, WHICH IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE WORK. 5. EXISTING FOUNDATIONS. BUILDING REMNANTS. AND UNSATISFACTORY MATERIAL SHALL BE COMPLETELY REMOVED FROM WITHIN AND A MINIMUM OF 10 FEET BEYOND BUILDING PAD AREAS. ANY RELATED EXCAVATION SHALL BE BACKFILLED WITH COMPACTED ENGINEERED FILL MATERIAL.

4. EXCAVATE TO SUBGRADE REGARDLESS OF THE CHARACTER OF SURFACE AND SUBSURFACE CONDITIONS ENCOUNTERED. EXCAVATED MATERIAL MAY

- EXISTING FOUNDATIONS, BUILDING REMNANTS, AND UNSATISFACTORY MATERIAL SHALL BE REMOVED TO A MINIMUM OF 2 FEET BELOW PROPOSED SUBGRADE WITHIN GREENSPACE AND PAVEMENT AREAS. ANY RELATED EXCAVATION SHALL BE BACKFILLED WITH COMPACTED ENGINEERED FILL MATFRIAI
- 7. AREAS SHALL BE GRADED TO WITHIN 1 INCH, MORE OR LESS, OF PROPOSED SUBGRADE. DEVIATIONS SHALL NOT BE CONSISTENT IN ONE
- 8. DISKING, HARROWNG, AND AERATION TECHNIQUES SHALL BE USED TO DRY SUBGRADE PRIOR TO PROOF ROLLING. 9. IN THE PRESENCE OF THE GEOTECHNICAL ENGINEER, PROOF ROLL SUBGRADE BELOW BUILDING PAD AND PAVEMENT AREAS DURING DRY WEATHER WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK WHERE COHESIVE SOILS ARE PREDOMINANT, AND WITH A SMOOTH DRUMMED VIBRATORY ROLLER WHERE GRANULAR SOILS ARE PREDOMINANT. SUBGRADE WHICH IS OBSERVED TO RUT OR DEFLECT EXCESSIVELY SHALL BE UNDERCUT IN
- ACCORDANCE WITH RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER. DO NOT PROOF ROLL WET OR SATURATED SUBGRADE. 10. THE CONTRACTOR SHALL MAINTAIN POSITIVE SITE DRAINAGE THROUGHOUT CONSTRUCTION. THIS MAY INCLUDE EXCAVATION OF TEMPORARY DITCHES OR PUMPING TO ALLEVIATE WATER PONDING. SURFACE WATER AND GROUNDWATER SHALL BE PREVENTED FROM ENTERING EXCAVATIONS, PONDING ON PREPARED SUBGRADES, AND FLOODING PROJECT SITE AND/OR SURROUNDING AREAS.
- THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR ALL EARTHWORK COMPUTATIONS AND FOR ACTUAL LAND BALANCE, INCLUDING UTILITY TRENCH SPOIL. THE CONTRACTOR SHALL IMPORT OR EXPORT MATERIAL AS NECESSARY TO COMPLETE THE PROJECT. 12. TOPSOIL REPLACEMENT DEPTH SHALL BE AS CALLED OUT ON THE CIVIL OR LANDSCAPE PLANS, OR A MINIMUM OF FOUR INCHES IF NOT CALLED OUT ON LANDSCAPE PLAN.
- 31 25 00 EROSION & SEDIMENTATION CONTROLS
- 1. WORK SHALL CONSIST OF INSTALLATION OF TEMPORARY AND PERMANENT PRACTICES FOR SEDIMENTATION CONTROL, EROSION CONTROL, SLOPE PROTECTION, AND REMOVAL OF PRACTICES UPON FINAL SITE STABILIZATION.
- ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE. INSTALLATION AND MAINTENANCE OF PRACTICES SHALL BE IN ACCORDANCE WITH THE APPLICABLE WONR TECHNICAL STANDARD. OR THE WISCONSIN CONSTRUCTION SITE BEST MANAGEMENT PRACTICE HANDBOOK IF A TECHNICAL STANDARD IS NOT AVAILABLE.
- ALL PRACTICES SHALL BE INSTALLED PRIOR TO COMMENCING ANY LAND DISTURBING CONSTRUCTION RELATED ACTIVITY. EARTHWORK ASSOCIATED WITH INSTALLATION OF PRACTICES MAY OCCUR CONCURRENTLY. 5. ALL PRACTICES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT AND WARRANTY PERIOD IN CONFORMANCE WITH PERMIT
- REQUIREMENTS. 6. ALL PRACTICES SHALL BE ROUTINELY INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL GREATER THAN 0.5 INCHES. THE CONTRACTOR IS REQUIRED TO PERFORM INSPECTIONS, KEEP A LOG, AND CONDUCT REPAIRS AS NEEDED.
- 7. ALL DISTURBED AREAS SHALL DRAIN TO A CONTROL PRACTICE AT ALL TIMES DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. DEPENDING UPON HOW THE CONTRACTOR GRADES THE SITE, IT MAY BE NECESSARY TO INSTALL ADDITIONAL CONTROL PRACTICES IN VARIOUS LOCATIONS THROUGHOUT THE PROJECT SITE. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL CONTROL PRACTICES NECESSARY TO PREVENT EROSION AND SEDIMENTATION.
- ALL DISTURBED GROUND LEFT INACTIVE FOR 7 DAYS SHALL BE STABILIZED WITH A TEMPORARY SEED MIXTURE AND MULCH. THE TEMPORARY SEED MIXTURE SHALL BE IN ACCORDANCE WITH SECTION 630 OF WISDOT STANDARD SPECIFICATIONS. WINTER WHEAT OR RYE SHALL BE USED FOR TEMPORARY SEED AFTER SEPTEMBER 1 9. DISTURBED AREAS THAT CAN NOT BE STABILIZED WITH A DENSE GROWTH OF VEGETATION DUE TO TEMPERATURE OR TIMING OF CONSTRUCTION
- SHALL BE STABILIZED BY APPLYING ANIONIC POLYACRYLAMIDE (PAM). 10. ALL ACTIVITIES ON THE PROJECT SITE SHALL BE CONDUCTED IN A LOGICAL SEQUENCE TO MINIMIZE THE AREA OF BARE SOIL EXPOSED AT ANY
- 11. DUST GENERATED BY CONSTRUCTION RELATED ACTIVITIES SHALL BE MINIMIZED BY USE OF WATERING, CALCIUM CHLORIDE SURFACE TREATMENT, CONSTRUCTION SCHEDULING, OR OTHER APPROPRIATE MEASURES.
- 12. THE CONTRACTOR SHALL BE PREPARED FOR DEWATERING CONDITIONS BY HAVING APPROPRIATE PUMPS AND FILTER BAGS ONSITE. ALL WATER FROM CONSTRUCTION DEWATERING SHALL BE TREATED PRIOR TO DISCHARGE FROM THE PROJECT SITE.
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CLEANLINESS OF THE PROJECT SITE AND PUBLIC ROADS DURING CONSTRUCTION. PUBLIC ROADS SHALL BE KEPT FREE OF SEDIMENT TRACKED FROM AREAS UNDER CONSTRUCTION BY DAILY SWEEPING OR OTHER APPROPRIATE
- 14. FINAL STABILIZATION OF LANDSCAPED AREAS SHALL BE IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN. 15. ALL SEEDED AREAS SHALL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN TO MAINTAIN A VIGOROUS DENSE VEGETATIVE COVER.

DIVISION 32 - EXTERIOR IMPROVEMENTS

32 12 00 - ASPHALT PAVING

- 1. WORK SHALL CONSIST OF FINE GRADING SUBGRADE, EXCAVATION BELOW SUBGRADE (IF NECESSARY), PLACEMENT OF CRUSHED STONE BASE,
- INSTALLATION OF HOT-MIX ASPHALT, PAVEMENT MARKING, SIGNAGE, AND CLEANUP. ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE.
- CRUSHED STONE BASE SHALL BE IN ACCORDANCE WITH SECTION 305 OF WISDOT STANDARD SPECIFICATIONS. 4. ASPHALTIC MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 455 OF WISDOT STANDARD SPECIFICATIONS.
- AGGREGATE SHALL BE IN ACCORDANCE WITH SECTION 460 OF WISDOT STANDARD SPECIFICATIONS.
- DO NOT CONDUCT ASPHALT PAVING IF ANY OF THE FOLLOWING CONDITIONS EXIST: CRUSHED STONE BASE IS WET OR EXCESSIVELY DAMP; TEMPERATURE IS BELOW 30 DEGREES FAHRENHEIT AT TIME OF BINDER COURSE INSTALLATION: TEMPERATURE HAS BEEN BELOW 35 DEGREES FAHRENHEIT WITHIN 12 HOURS PRIOR TO TACK COAT APPLICATION; TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT AT TIME OF SURFACE COURSE INSTALLATION
- 7. COMPACT ASPHALT IN ACCORDANCE WITH SECTION 450 OF WISDOT STANDARD SPECIFICATIONS. COMPACT ASPHALT TO PRODUCE THE THICKNESS INDICATED WITHIN PLUS/MINUS 1/4-INCH FOR BINDER COURSE, AND WITHIN PLUS 1/4-INCH FOR SURFACE COURSE (NO MINUS).
- APPLY TACK COAT BETWEEN ASPHALT COURSES AT A MINIMUM RATE OF 0.25 GAL/SY 9. NO TRAFFIC SHALL BE ALLOWED ON ASPHALT AFTER FINAL ROLLING UNTIL IT HAS COOLED AND HARDENED. 10. FINAL ASPHALT SURFACE SHALL BE WITHIN A 1/8-INCH TOLERANCE AS DETERMINED BY USING A 10-FOOT STRAIGHTEDGE APPLIED
- LONGITUDINALLY OR TRANSVERSELY. REMOVE AND REPLACE ALL RAISED AND DEPRESSED AREAS EXCEEDING TOLERANCE. 11. A SLOPE NO GREATER THAN 2% IN ALL DIRECTIONS AT ADA PARKING STALLS AND ADJACENT UNLOADING AREAS IS REQUIRED. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.
- 12. A SLOPE NO GREATER THAN 5% ALONG THE LENGTH OF THE ACCESSIBLE ROUTE IS REQUIRED. A SLOPE NO GREATER THAN 2% ACROSS THE WIDTH OF THE ACCESSIBLE ROUTE IS REQUIRED. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.
- 32 13 00 CONCRETE PAVING
- 1. WORK SHALL CONSIST OF FINE GRADING SUBGRADE, EXCAVATION BELOW SUBGRADE (IF NECESSARY), PLACEMENT OF CRUSHED STONE BASE, INSTALLATION OF CONCRETE, AND CLEANUP.
- ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE. CRUSHED STONE BASE SHALL BE IN ACCORDANCE WITH SECTION 305 OF WISDOT STANDARD SPECIFICATIONS.
- 4. CONCRETE SHALL BE GRADE A AIR-ENTRAINED IN ACCORDANCE WITH SECTION 501 OF WISDOT STANDARD SPECIFICATIONS, WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4.000 PSI. 5. AGGREGATE SHALL BE IN ACCORDANCE WITH SECTION 501 OF WISDOT STANDARD SPECIFICATIONS.
- 6. WATER SHALL BE IN ACCORDANCE WITH SECTION 501 OF WISDOT STANDARD SPECIFICATIONS AND ASTM C94 / C94M. AIR-ENTRAINING SHALL BE IN ACCORDANCE WITH SECTION 501 OF WISDOT STANDARD SPECIFICATIONS AND ASTM C260. 3. LIQUID CURING COMPOUND SHALL BE IN ACCORDANCE WITH SECTION 415 OF WISDOT STANDARD SPECIFICATIONS AND AASHTO M 148.
- CURBING SHALL BE IN ACCORDANCE WITH SECTION 601 OF WISDOT STANDARD SPECIFICATIONS. 10. SIDEWALK AND PATIO SHALL BE IN ACCORDANCE WITH SECTION 602 OF WISDOT STANDARD SPECIFICATIONS. 11. CONCRETE FORMS SHALL REMAIN IN PLACE AT LEAST 24 HOURS AFTER CONCRETE INSTALLATION AND SHALL BE CLEANED AFTER EACH USE.
- CONCRETE FORMS SHALL BE COATED WITH RELEASE AGENT TO ALLOW SEPARATION WITHOUT DAMAGE TO CONCRETE. 12. CONSTRUCTION AND CONTRACTION JOINTS SHALL BE IN ACCORDANCE WITH SECTION 415 OF WISDOT STANDARD SPECIFICATIONS. JOINT PATTERN SHALL FOLLOW ARCHITECTURAL PLANS IF AVAILABLE.

13. ISOLATION JOINTS SHALL CONSIST OF PREFORMED JOINT FILLER STRIPS ABUTTING CURBING, INLETS, CATCH BASINS, MANHOLES, STRUCTURES, AND

- OTHER FIXED OBJECTS 14. EDGES OF CONCRETE PAVEMENT, CURBING, SIDEWALK, PATIOS, AND JOINTS SHALL BE TOOLED IN CONCRETE AFTER INITIAL FLOATING WITH AN EDGING TOOL TO A 1/4-INCH RADIUS. REPEAT TOOLING AFTER APPLYING SURFACE FINISHES AND ELIMINATE TOOL MARKS ON SURFACES. 15. FINISH, CURE, AND PROTECT CURBING IN ACCORDANCE WITH SECTION 601 OF WISDOT STANDARD SPECIFICATIONS.
- 16. FINISH (LIGHT BROOM), CURE, AND PROTECT SIDEWALK AND PATIOS IN ACCORDANCE WITH SECTION 602 OF WISDOT STANDARD SPECIFICATIONS. 17. FINISH (ARTIFICIAL TURF DRAG), CURE, AND PROTECT VEHICULAR PAVEMENT AND PADS IN ACCORDANCE WITH SECTION 415 OF WISDOT STANDARD SPECIFICATIONS.
- 18. MAINTAIN CONCRETE FREE OF STAINS, DISCOLORATION, DIRT, AND OTHER FOREIGN MATERIAL. SWEEP CONCRETE PRIOR TO SUBSTANTIAL COMPLETION INSPECTION. 19. MAXIMUM DIFFERENCE BETWEEN CONCRETE SIDEWALKS AND ADJACENT PAVEMENT SURFACES SHALL NOT EXCEED 1/4-INCH VERTICAL. 20. A SLOPE NO GREATER THAN 2% IN ALL DIRECTIONS AT ADA PARKING STALLS AND ADJACENT UNLOADING AREAS IS REQUIRED. NOTIFY ENGINEER
- 21. A SLOPE NO GREATER THAN 5% ALONG THE LENGTH OF THE ACCESSIBLE ROUTE IS REQUIRED. A SLOPE NO GREATER THAN 2% ACROSS THE WIDTH OF THE ACCESSIBLE ROUTE IS REQUIRED. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK. 22. ALL HANDICAP ACCESSIBLE DOORWAYS REQUIRE AN EXTERIOR LANDING THAT IS A MINIMUM OF 5 FEET BY 5 FEET WITH A SLOPE NO GREATER THAN 2% IN ALL DIRECTIONS. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK. 23. REMOVE AND REPLACE CONCRETE THAT IS BROKEN, DAMAGED, DEFECTIVE, OR DOES NOT COMPLY WITH THE REQUIREMENTS LISTED ABOVE.
- 32 17 00 PAVEMENT MARKING & SIGNAGE

32 32 00 - RETAINING WALLS

OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.

- WORK SHALL CONSIST OF INSTALLATION OF PARKING LOT STRIPING, DIRECTION ARROWS, HANDICAP ACCESSIBLE SYMBOLS AND SITE SIGNAGE.). ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE. PAVEMENT MARKING PAINT SHALL BE IN ACCORDANCE WITH SECTION 646 OF WISDOT STANDARD SPECIFICATIONS AND WISDOT APPROVED PRODUCTS LIST. COLOR SHALL BE WHITE UNLESS NOTED OTHERWISE ON THIS PLAN. MARKINGS SEPARATING OPPOSING TRAFFIC SHALL BE YELLOW.
- 1. ALL PARKING LOT STRIPING SHALL BE 4—INCH WIDTH UNLESS NOTED OTHERWISE ON THIS PLAN. 5. BARRICADE WORK AREA DURING INSTALLATION AND UNTIL PAVEMENT MARKING PAINT IS DRIED. PROTECT ADJACENT AREAS FROM RECEIVING PAINT. 6. APPLY PAINT IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS TO PRODUCE MARKINGS AS INDICATED WITH UNIFORM, STRAIGHT EDGES. TEMPLATES SHALL BE PROFESSIONALLY MADE TO INDUSTRY STANDARDS.
- 7. APPLY PAINT TO CLEAN AND DRY SURFACE, FREE FROM FROST, TO ENSURE PROPER BONDING. 8. NOTIFY OWNER OF ANY UNSOUND CONDITIONS PRIOR TO COMMENCING WORK. APPLYING PAVEMENT MARKING PAINT CONSTITUTES CONTRACTOR'S ACCEPTANCE OF SURFACE AS SUITABLE FOR INSTALLATION.
- 1. WORK SHALL CONSIST OF FURNISHING DETAILED DESIGN, MATERIALS, LABOR, EQUIPMENT, SUPERVISION, AND DIRECTION TO CONSTRUCT RETAINING WALL SYSTEMS IN REASONABLY CLOSE CONFORMITY TO THE LINES, GRADES, AND DIMENSIONS SHOWN ON THIS PLAN. RETAINING WALLS SHOWN ON THIS PLAN ARE FOR GENERAL LOCATION AND MATERIAL REFERENCE ONLY.
- 2. ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE. 3. THE CONTRACTOR SHALL PROCURE DETAILED DESIGN CALCULATIONS AND DRAWINGS, PREPARED AND SEALED BY A PROFESSIONAL ENGINEER EXPERIENCED WITH RETAINING WALL DESIGN AND LICENSED IN THE STATE IN WHICH THE RETAINING WALLS ARE TO BE CONSTRUCTED. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL SURROUNDING STRUCTURES AND UTILITIES ARE PROTECTED FROM THE EFFECTS OF
- EXCAVATION AND PROVIDING ANY NECESSARY EXCAVATION SUPPORT. 5. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT CONSTRUCTION ADJACENT TO THE RETAINING WALLS DOES NOT DISTURB OR PLACE TEMPORARY LOADS ON THE RETAINING WALLS THAT EXCEED DESIGN LOADS.

DIVISION 33 - UTILITIES

33 10 00 - WATER DISTRIBUTION

- WORK SHALL CONSIST OF INSTALLATION AND TESTING OF THE WATER DISTRIBUTION SYSTEM AND ALL APPURTENANCES. . ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE.
- 3. ALL PUBLIC WATER DISTRIBUTION WORK SHALL BE IN ACCORDANCE WITH SSSWCW AND MUNICIPALITY DEVELOPMENT STANDARDS. 4. ALL PRIVATE WATER DISTRIBUTION WORK SHALL BE IN ACCORDANCE WITH WISCONSIN ADMINISTRATIVE CODE AND MUNICIPALITY DEVELOPMENT STANDARDS. 5. POLYVINYL CHLORIDE (PVC) PIPE SHALL BE SDR 18, CLASS 150 CONFORMING TO AWWA C900 WITH INTEGRAL ELASTOMERIC BELL AND SPIGOT JOINTS IN
- ACCORDANCE WITH SECTION 8.20.0 OF SSSWCW. 6. DUCTILE IRON PIPE (DIP) SHALL BE CLASS 150 CONFORMING TO AWWA C151 WITH RUBBER GASKETED JOINTS IN ACCORDANCE WITH SECTION 8.18.0 OF SSSWCW.
- POLYETHYLENE TUBING SHALL BE SDR 9 IN ACCORDANCE WITH SECTION 8.24.0 OF SSSWCW AND CONFORM TO AWWA C901.
- COPPER TUBING SHALL BE TYPE "K" IN ACCORDANCE WITH SECTION 8.24.0 OF SSSWCW AND CONFORM TO ASTM B88. BALL VALVES SHALL BE IN ACCORDANCE WITH SECTION 8.30.0 OF SSSWCW AND CONFORM TO AWWA C800 AND ASTM B62
- 10. GATE VALVES SHALL BE IN ACCORDANCE WITH SECTION 8.27.0 OF SSSWCW AND CONFORM TO AWWA C500. 11. BUTTERFLY VALVES SHALL BE IN ACCORDANCE WITH SECTION 8.28.0 OF SSSWCW AND CONFORM TO AWWA C504. 12. VALVE BOXES SHALL BE IN ACCORDANCE WITH SECTION 8.29.0 OF SSSWCW AND CONFORM TO ASTM A48. VALVE BOXES SHALL BE SIZE DD, SCREW TYPE, 3 PIECE ASSEMBLY, WITH COVERS MARKED "WATER". ALL VALVE BOXES SHALL BE SET TO PROPOSED GRADE, TRULY VERTICAL, AND SUPPORTED BY USE
- OF ADAPTOR. 13. HYDRANTS SHALL BE IN ACCORDANCE WITH SECTION 8.26.0 OF SSSWCW AND CONFORM TO AWWA C502. PUMPER NOZZLE SHALL BE PERPENDICULAR TO AND ORIENTED TOWARDS THE PAVEMENT. HYDRANTS SHALL BE ATTACHED BY MEANS OF TEE AND HAVE A GROUND LINE TO CENTER DISTANCE OF 18 TO
- 14. FITTINGS SHALL BE CLASS 150 IN ACCORDANCE WITH SECTION 8.22.0 OF SSSWCW, CONFORMING TO AWWA C110, AND PROVIDED WITH MECHANICAL JOINTS. 15. MECHANICAL JOINTS SHALL BE MADE WITH "COR TEN" NUTS AND BOLTS, OR CORROSION—RESISTANT EQUIVALENTS CONFORMING TO AWWA C111. 16. POLYETHYLENE WRAP SHALL BE IN ACCORDANCE WITH SECTION 8.21.0 OF SSSWCW AND PROVIDED FOR ALL METAL PIPES AND FITTINGS.
- 18. TRENCH SECTION SHALL BE IN ACCORDANCE WITH FILE NO. 36 OF SSSWCW. MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE OUTSIDE DIAMETER OF PIPE PLUS 20 INCHES. 19. PIPE BEDDING AND COVER MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 8.43.0 OF SSSWCW. MINIMUM COVER OVER PIPE SHALL BE 12 INCHES. 20. TRENCH BACKFILL MATERIAL SHALL BE MECHANICALLY COMPACTED GRANULAR BACKFILL IN ACCORDANCE WITH SECTION 8.43.4 OF SSSWCW BENEATH AND WITHIN 5 FEET OF PAVEMENT AREAS, AND SHALL BE SPOIL BACKFILL IN ACCORDANCE WITH SECTION 8.43.5 OF SSSWCW BENEATH GREENSPACE AREAS.

". THRUST RESTRAINT SHALL BE IN ACCORDANCE WITH SECTION 4.3.13 OF SSSWCW AND PROVIDED FOR ALL BENDS, CAPS, PLUGS, AND TEES.

- UNLESS ALTERNATIVE COMPACTION IS RECOMMENDED IN THE GEOTECHNICAL REPORT OR BY THE GEOTECHNICAL ENGINEER DURING CONSTRUCTION, IN WHICH CASE THE CONTRACTOR IS TO FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER. 21. CAUTION MUST BE FOLLOWED REGARDING THE COMPACTION OF ALL UTILITY TRENCHES. FLOODING OF BACKFILL MATERIAL IS NOT ALLOWED. 22. TRACER WIRE SHALL BE BLUE AND INSTALLED IN ACCORDANCE WITH SECTION 2.11.2 OF SSSWCW ON ALL BURIED NON-METALLIC PUBLIC WATER MAIN PIPE.
- PRIVATE WATER MAIN PIPE, AND BUILDING WATER SERVICE PIPE. TRACER WIRE SHALL BE INSULATED, SINGLE-CONDUCTOR, 12 GAUGE SOLID COPPER OR COPPER COATED STEEL WIRE, SECURED AT LEAST EVERY 10 FEET AND AT ALL BENDS, WITH ACCESS POINTS AT LEAST EVERY 300 FEET. 23. PROPOSED WATER SERVICES SHOWN ON THIS PLAN SHALL TERMINATE AT A POINT FIVE (5) FEET FROM THE EXTERIOR BUILDING WALL. 24. THE CONTRACTOR IS RESPONSIBLE FOR THE SIZE, TYPE AND NUMBER OF BENDS REQUIRED TO COMPLETE CONSTRUCTION, WHICH SHALL BE INCIDENTAL
- 25. THE CONTRACTOR SHALL ADJUST ALL VALVE BOXES TO FINISHED SURFACE UPON COMPLETION OF PAVING OPERATIONS. 26. THE CONTRACTOR IS RESPONSIBLE FOR PRESSURE TESTING AND SAFE WATER SAMPLING. HYDROSTATIC TESTING SHALL BE IN ACCORDANCE WITH SECTION 4.15.0 OF SSSWCW. DISINFECTION SHALL BE IN ACCORDANCE WITH SECTION 4.16.0 OF SSSWCW AND CONFORM TO AWWA C651. WATER MAINS SHALL BE FLUSHED AND TESTED IN THE PRESENCE OF THE WATER UTILITY OPERATOR.
- 33 30 00 SANITARY SEWERAGE

AND INCLUDED IN THE COST OF WORK.

- WORK SHALL CONSIST OF INSTALLATION AND TESTING OF THE SANITARY SEWERAGE SYSTEM AND ALL APPURTENANCES. ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE.
- ALL PUBLIC SANITARY SEWERAGE WORK SHALL BE IN ACCORDANCE WITH SSSWCW AND MUNICIPALITY DEVELOPMENT STANDARDS. 4. ALL PRIVATE SANITARY SEWERAGE WORK SHALL BE IN ACCORDANCE WITH WISCONSIN ADMINISTRATIVE CODE AND MUNICIPALITY DEVELOPMENT STANDARDS. 5. POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS SHALL BE SDR 35 CONFORMING TO ASTM D3034 FOR DEPTHS LESS THAN 18 FEET, AND SHALL BE SDR 18 CONFORMING TO AWWA COOO FOR DEPTHS GREATER THAN 18 FEET, BOTH WITH PUSH-ON RUBBER GASKETED JOINTS IN ACCORDANCE WITH SECTIONS
- 8.10.6 AND 8.41.4 OF SSSWCW. 6. MANHOLES SHALL BE PRECAST REINFORCED CONCRETE IN ACCORDANCE WITH SECTION 8.39.0 OF SSSWCW AND CONFORM TO ASTM C478. SIZES SHALL BE AS INDICATED AND VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING.
- TRENCH SECTION SHALL BE CLASS B IN ACCORDANCE WITH SECTION 3.2.6 OF SSSWCW. MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE OUTSIDE DIAMETER OF PIPE PLUS 20 INCHES. 8. PIPE BEDDING AND COVER MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 8.43.0 OF SSSWCW. MINIMUM COVER OVER PIPE SHALL BE 12 INCHES. TRENCH BACKFILL MATERIAL SHALL BE MECHANICALLY COMPACTED GRANULAR BACKFILL IN ACCORDANCE WITH SECTION 8.43.4 OF SSSWCW BENEATH AND WITHIN 5 FEET OF PAVEMENT AREAS, AND SHALL BE SPOIL BACKFILL IN ACCORDANCE WITH SECTION 8.43.5 OF SSSWCW BENEATH GREENSPACE AREAS,
- UNLESS ALTERNATIVE COMPACTION IS RECOMMENDED IN THE GEOTECHNICAL REPORT OR BY THE GEOTECHNICAL ENGINEER DURING CONSTRUCTION, IN WHICH CASE THE CONTRACTOR IS TO FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER. 10. CAUTION MUST BE FOLLOWED REGARDING THE COMPACTION OF ALL UTILITY TRENCHES. FLOODING OF BACKFILL MATERIAL IS NOT ALLOWED.
- 11. ALL CONNECTIONS TO EXISTING SANITARY SEWER PIPES AND STRUCTURES SHALL BE CORED CONNECTIONS, UNLESS NOTED OTHERWISE. PREFABRICATED WYE CONNECTIONS ARE REQUIRED FOR ALL BUILDING SANITARY SERVICE PIPES, UNLESS NOTED OTHERWISE. 12. CLEANOUTS AND RISER EXTENSIONS SHALL BE INSTALLED IN ACCORDANCE WITH SPS 382.35 FROM SEWER PIPES TO GROUND SURFACE. LIGHT DUTY
- LOADING CLASSIFICATION SHALL BE USED IN UNPAVED AREAS. MEDIUM DUTY LOADING CLASSIFICATION SHALL BE USED IN PAVED FOOT TRAFFIC AREAS. HEAVY DUTY LOADING CLASSIFICATION SHALL BE USED IN PAVED VEHICULAR TRAFFIC AREAS. FRAMES AND COVERS SHALL BE SET FLUSH WITH SURFACE. 13. TRACER WIRE SHALL BE GREEN AND INSTALLED IN ACCORDANCE WITH SECTION 2.11.2 OF SSSWCW ON ALL BURIED NON-METALLIC PUBLIC SANITARY SEWER PIPE, PRIVATE SANITARY INTERCEPTOR PIPE, AND BUILDING SANITARY SERVICE PIPE. TRACER WIRE SHALL BE INSULATED, SINGLE-CONDUCTOR, 12 GAUGE SOLID COPPER OR COPPER COATED STEEL WIRE, SECURED AT LEAST EVERY 10 FEET AND AT ALL BENDS, WITH ACCESS POINTS AT LEAST EVERY
- 14. PROPOSED SANITARY SERVICES SHOWN ON THIS PLAN SHALL TERMINATE AT A POINT FIVE (5) FEET FROM THE EXTERIOR BUILDING WALL. 15. THE CONTRACTOR SHALL ADJUST ALL MANHOLE RIMS TO FINISHED SURFACE UPON COMPLETIÓN OF PAVING OPERATIONS. 16. AFTER INSTALLATION OF SANITARY SEWERAGE SYSTEM, CLEAN ALL DEBRIS FROM SYSTEM AND INSPECT FOR DAMAGE. CONDUCT TESTING OF INSTALLED
- PIPE IN ACCORDANCE WITH SSSWCW. REPAIR ANY DAMAGE AND REPLACE ANY PIPE NOT PASSING TESTING. 33 40 00 - STORMWATER DRAINAGE
- WORK SHALL CONSIST OF INSTALLATION AND TESTING OF THE STORMWATER DRAINAGE SYSTEM AND ALL APPURTENANCES.
- 2. ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE. 3. ALL PUBLIC STORMWATER DRAINAGE WORK SHALL BE IN ACCORDANCE WITH SSSWCW AND MUNICIPALITY DEVELOPMENT STANDARDS. 4. ALL PRIVATE STORMWATER DRAINAGE WORK SHALL BE IN ACCORDANCE WITH WISCONSIN ADMINISTRATIVE CODE AND MUNICIPALITY DEVELOPMENT
- 5. REINFORCED CONCRETE PIPE (RCP) AND END SECTIONS SHALL BE IN ACCORDANCE WITH SECTION 8.6.0 OF SSSWCW AND CONFORM TO ASTM C76 WITH RUBBER GASKETED JOINTS CONFORMING TO ASTM C443. UNLESS NOTED OTHERWISE, 12-INCH DIAMETER PIPE SHALL BE CLASS V, 15-INCH DIAMETER PIPE
- SHALL BE CLASS IV, AND 18-INCH DIAMETER PIPE AND LARGER SHALL BE CLASS III. 6. CORRUGATED METAL PIPE (CMP) AND END SECTIONS SHALL BE 16 GAUGE CONFORMING TO ASTM A760.
- HIGH-DENSITY POLYETHYLÈNE (HDPE) PIPE AND FITTINGS SHALL BE ADS N12 AS APPROVED BY THE WISCONSIN DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES PLUMBING PRODUCTS REGISTER. 8. POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS SHALL BE SDR 35 CONFORMING TO ASTM D3034 WITH PUSH—ON RUBBER GASKETED JOINTS CONFORMING
- TO ASTM D3212. 9. MANHOLES SHALL BE PRECAST REINFORCED CONCRETE IN ACCORDANCE WITH SECTION 8.39.0 OF SSSWCW AND CONFORM TO ASTM C478. SIZES SHALL BE AS INDICATED AND VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING. 10. CATCH BASINS SHALL BE PRECAST REINFORCED CONCRETE IN ACCORDANCE WITH SECTION 3.6.0 OF SSSWCW AND CONFORM TO ASTM C478. SIZES SHALL
- BE AS INDICATED AND VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING. 11. INLETS SHALL BE PRECAST REINFORCED CONCRETE IN ACCORDANCE WITH SECTION 3.6.0 OF SSSWCW AND CONFORM TO ASTM C913. SIZES SHALL BE AS INDICATED AND VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING. 12. AREA DRAINS SHALL BE ADS NYLOPLAST AS APPROVED BY THE WISCONSIN DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES PLUMBING PRODUCTS
- 13. FRAMES AND GRATES SHALL BE AS INDICATED. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING FRAMES AND GRATES ARE COMPATIBLE WITH PRECAST STRUCTURES PRIOR TO ORDERING
- 14. TRENCH SECTION SHALL BE CLASS B IN ACCORDANCE WITH SECTION 3.2.6 OF SSSWCW. MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE OUTSIDE DIAMETER OF PIPE PLUS 20 INCHES. 15. PIPE BEDDING AND COVER MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 8.43.0 OF SSSWCW. MINIMUM COVER OVER PIPE SHALL BE 12 INCHES. 16. TRENCH BACKFILL MATERIAL SHALL BE MECHANICALLY COMPACTED GRANULAR BACKFILL IN ACCORDANCE WITH SECTION 8.43.4 OF SSSWCW BENEATH AND WITHIN 5 FEET OF PAVEMENT AREAS, AND SHALL BE SPOIL BACKFILL IN ACCORDANCE WITH SECTION 8.43.5 OF SSSWCW BENEATH GREENSPACE AREAS,
- UNLESS ALTERNATIVE COMPACTION IS RECOMMENDED IN THE GEOTECHNICAL REPORT OR BY THE GEOTECHNICAL ENGINEER DURING CONSTRUCTION, IN WHICH CASE THE CONTRACTOR IS TO FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER. 17. CAUTION MUST BE FOLLOWED REGARDING THE COMPACTION OF ALL UTILITY TRENCHES. FLOODING OF BACKFILL MATERIAL IS NOT ALLOWED.
- 18. ALL CONNECTIONS TO EXISTING STORM SEWER PIPES AND STRUCTURES SHALL BE CORED CONNECTIONS, UNLESS NOTED OTHERWISE. 19. FLEXIBLE COMPRESSION COUPLINGS SHALL BE USED IN THE CONNECTION OF DISSIMILAR PIPE MATERIALS. 20. CLEANOUTS AND RISER EXTENSIONS SHALL BE INSTALLED IN ACCORDANCE WITH SPS 382.35 FROM SEWER PIPES TO GROUND SURFACE. LIGHT DUTY LOADING CLASSIFICATION SHALL BE USED IN UNPAVED AREAS. MEDIUM DUTY LOADING CLASSIFICATION SHALL BE USED IN PAVED FOOT TRAFFIC AREAS.

HEAVY DUTY LOADING CLASSIFICATION SHALL BE USED IN PAVED VEHICULAR TRAFFIC AREAS. FRAMES AND COVERS SHALL BE SET FLUSH WITH SURFACE.

- 21. TRACER WIRE SHALL BE BROWN AND INSTALLED IN ACCORDANCE WITH SECTION 2.11.1 OF SSSWCW ON ALL BURIED NON-METALLIC PUBLIC STORM SEWER PIPE. PRIVATE STORM INTERCEPTOR PIPE. AND BUILDING STORM SERVICE PIPE. TRACER WIRE SHALL BE INSULATED, SINGLE-CONDUCTOR, 12 GAUGE SOLID COPPER OR COPPER COATED STEEL WIRE, SECURED AT LEAST EVERY 10 FEET AND AT ALL BENDS, WITH ACCESS POINTS AT LEAST EVERY 300 FEET. 22. FIELD TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE CONNECTED TO THE STORMWATER DRAINAGE SYSTEM. IF THIS CANNOT BE ACCOMPLISHED,
- THEN IT SHALL BE REPAIRED WITH NEW PIPE OF SIMILAR SIZE AND MATERIAL. DOCUMENTATION OF SUCH FIELD TILE SHALL BE PROVIDED TO THE OWNER. 23. PROPOSED STORM SERVICES SHOWN ON THIS PLAN SHALL TERMINATE AT A POINT FIVE (5) FEET FROM THE EXTERIOR BUILDING WALL. CONNECTIONS TO DOWNSPOUTS SHALL BE PER DETAILS ON THE BUILDING PLUMBING PLANS. THE EXACT LOCATION OF DOWNSPOUTS SHALL BE PER THE ARCHITECTURAL
- 24. THE CONTRACTOR SHALL ADJUST ALL MANHOLE RIMS AND INLETS TO FINISHED SURFACE UPON COMPLETION OF PAVING OPERATIONS. 25. AFTER INSTALLATION OF STORMWATER DRAINAGE SYSTEM, CLEAN ALL DEBRIS FROM SYSTEM AND INSPECT FOR DAMAGE. REPAIR ANY DAMAGE.



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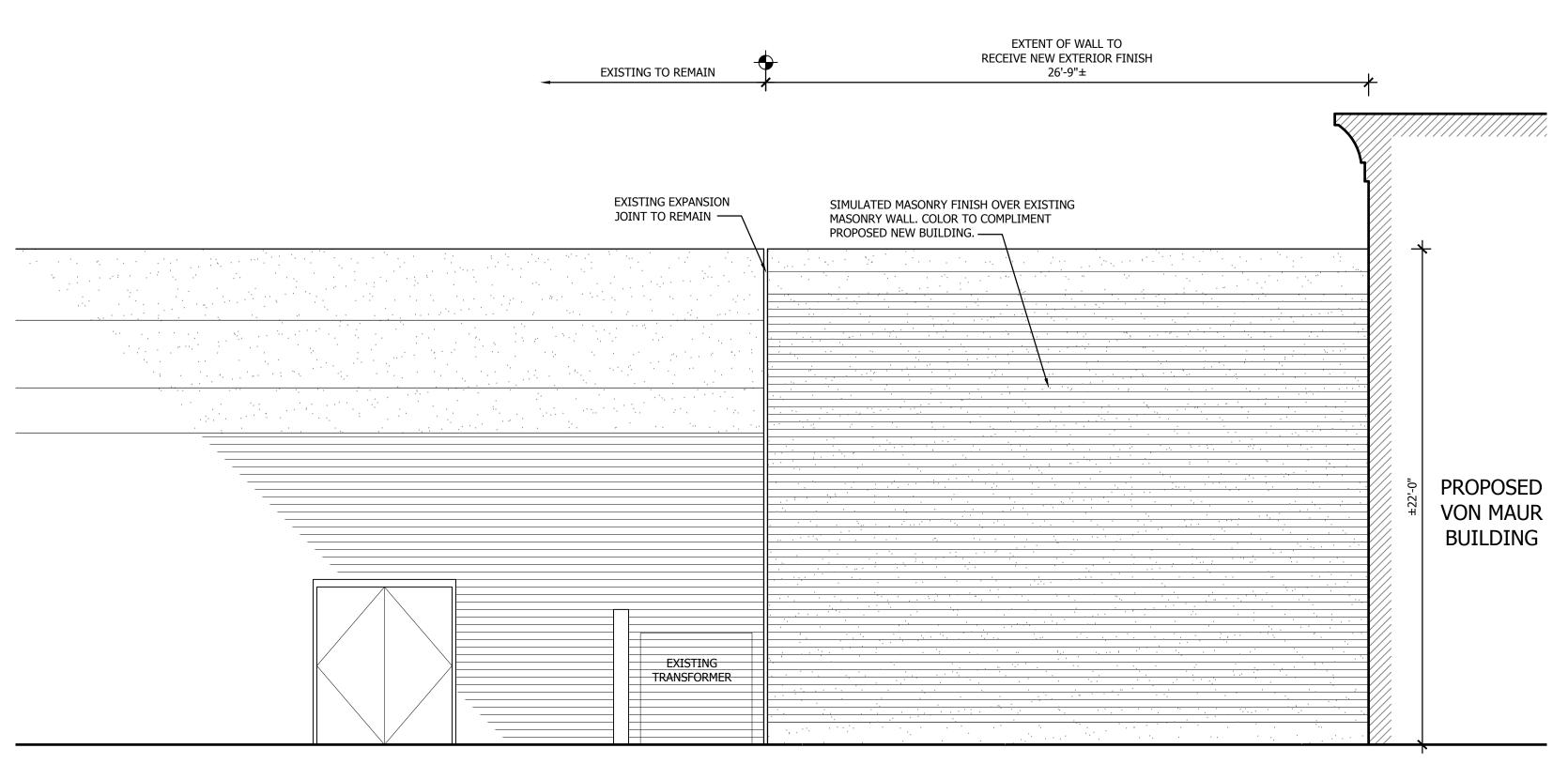
DATE: 01/08/20

SCALE: N.T.S. JOB NO. **3190329**

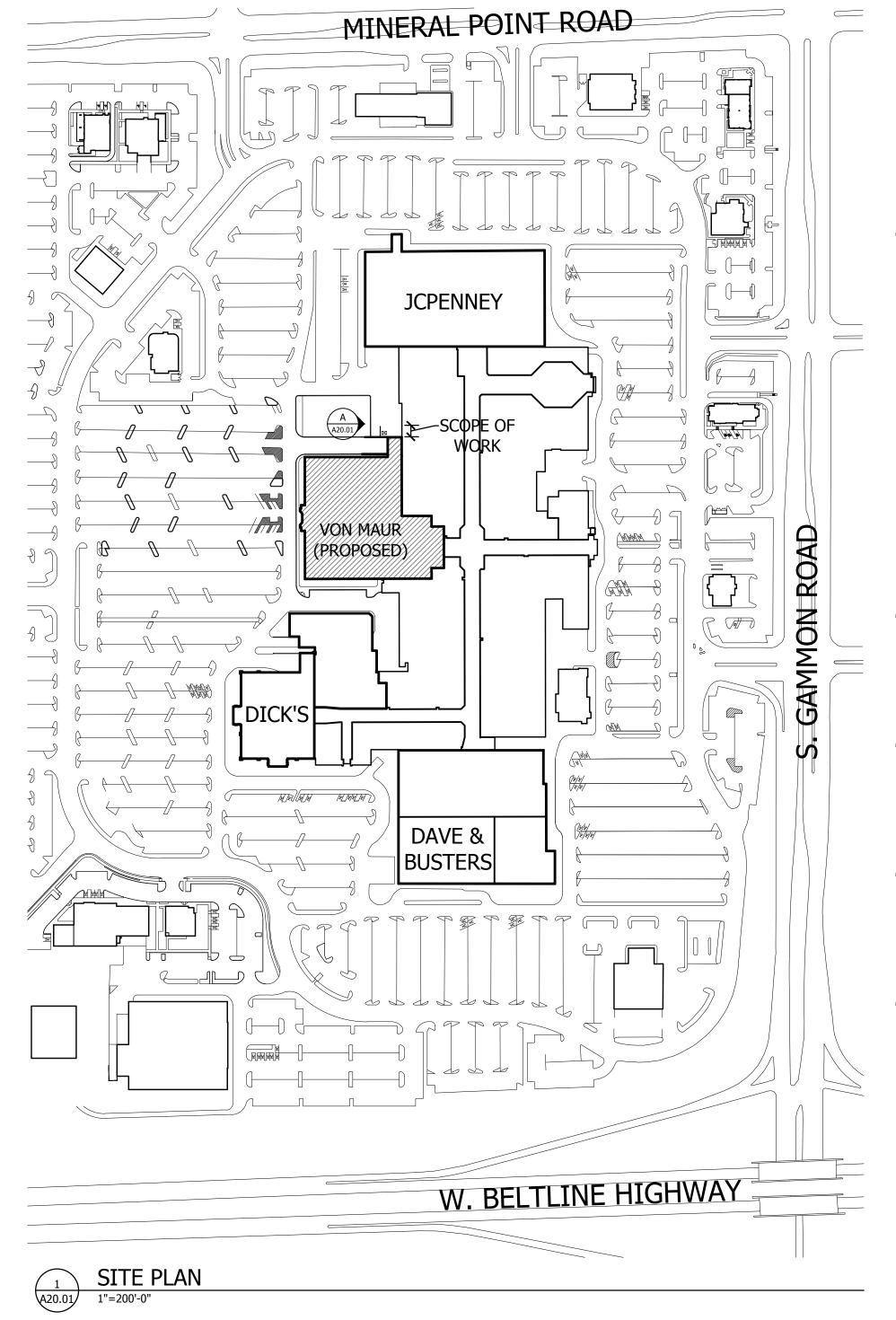
PROJECT MANAGER:

CHECKED BY: RJY

MATTHEW P. KOCOUREK, P.E. DESIGNED BY: DVW



A PROPOSED ELEVATON
A20.01 1/4"=1'-0"



NELSON

Nelco Architecture, Inc.

6000 Lombardo Center Suite 500 Cleveland, OH 44131 Phone: (216) 781-9144 WWW.NELSONWORLDWIDE.COM

CIVIL ENGINEER

raSmith

16745 WEST BLUEMOUND ROAD
BROOKFIELD, WI 53005

CBL PROPERTIES

CBL Center, Suite 500 I 2030 Hamilton Place Boulevard I Chattanooga, TN 37421-6000 p. (423) 855-0001 f. (423) 490-8662 I cblproperties.com I NYSE: CBL

WEST TOWNE MALL REDEVELOPMENT 66 W. TOWNE MALL MADISON, WI 53719

Issue: No: Date:
PLANNING REVIEW 12/16/19

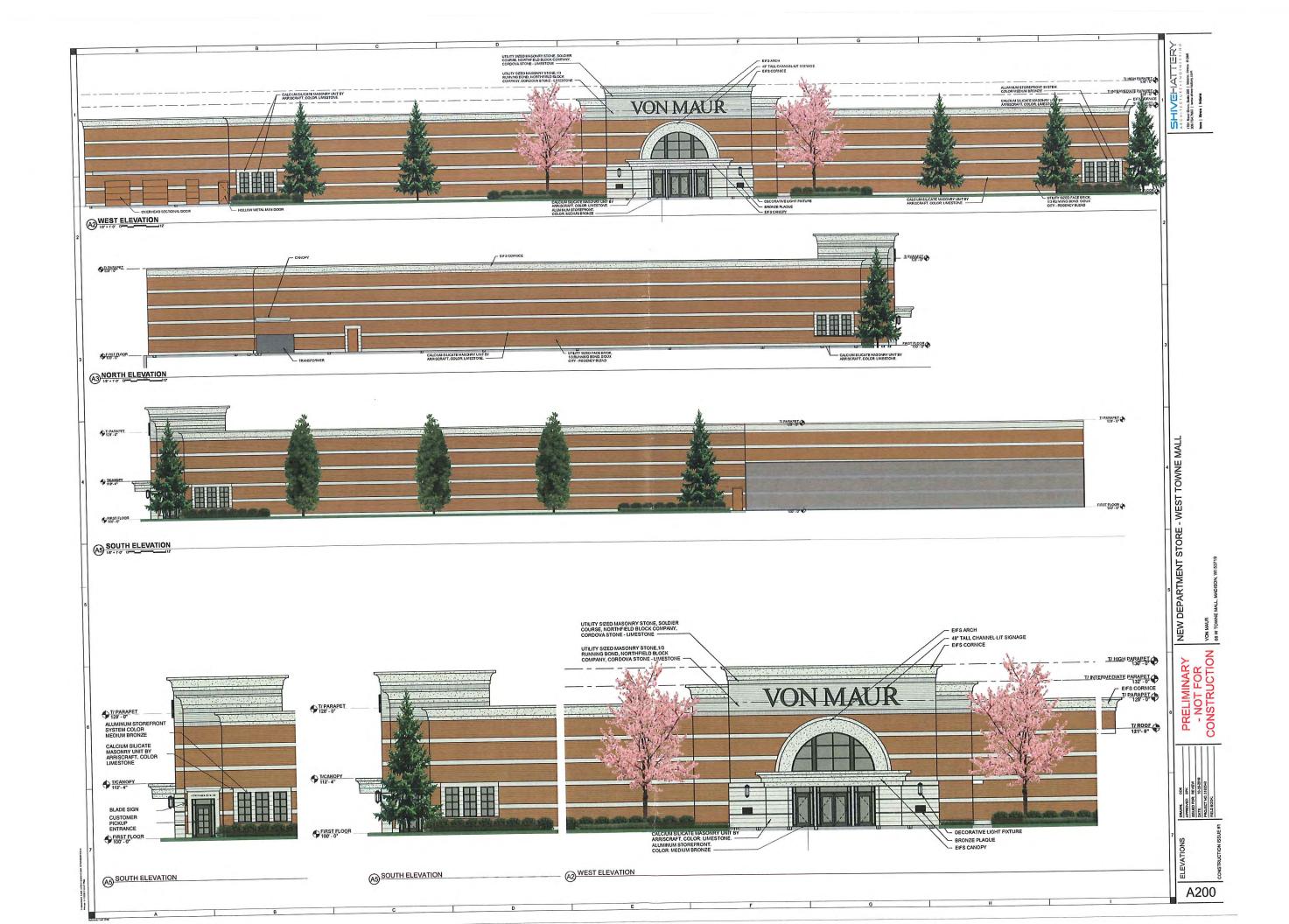
PLANNING REVIEW 12/16/19

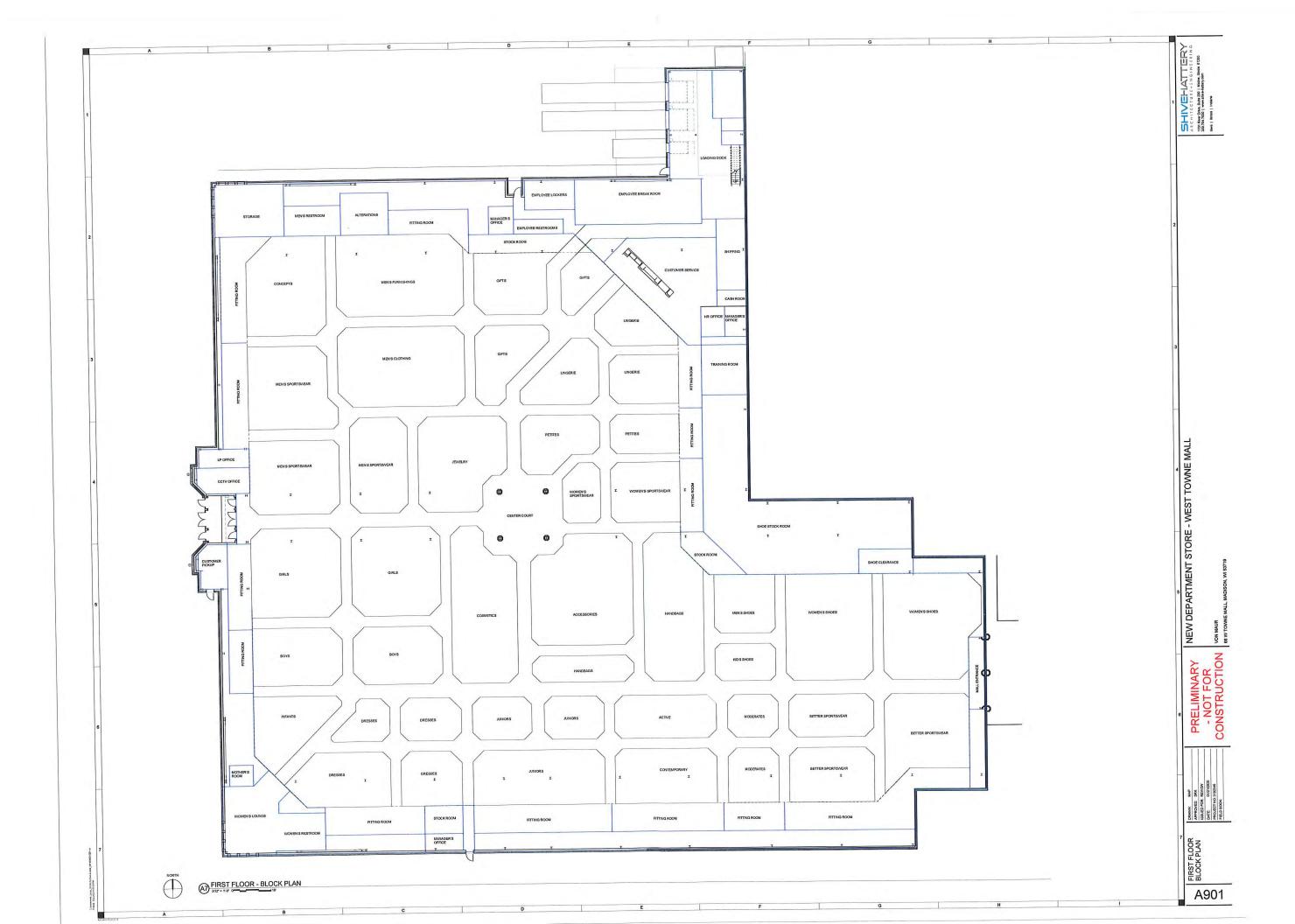
PROPOSED ELEVATIONS

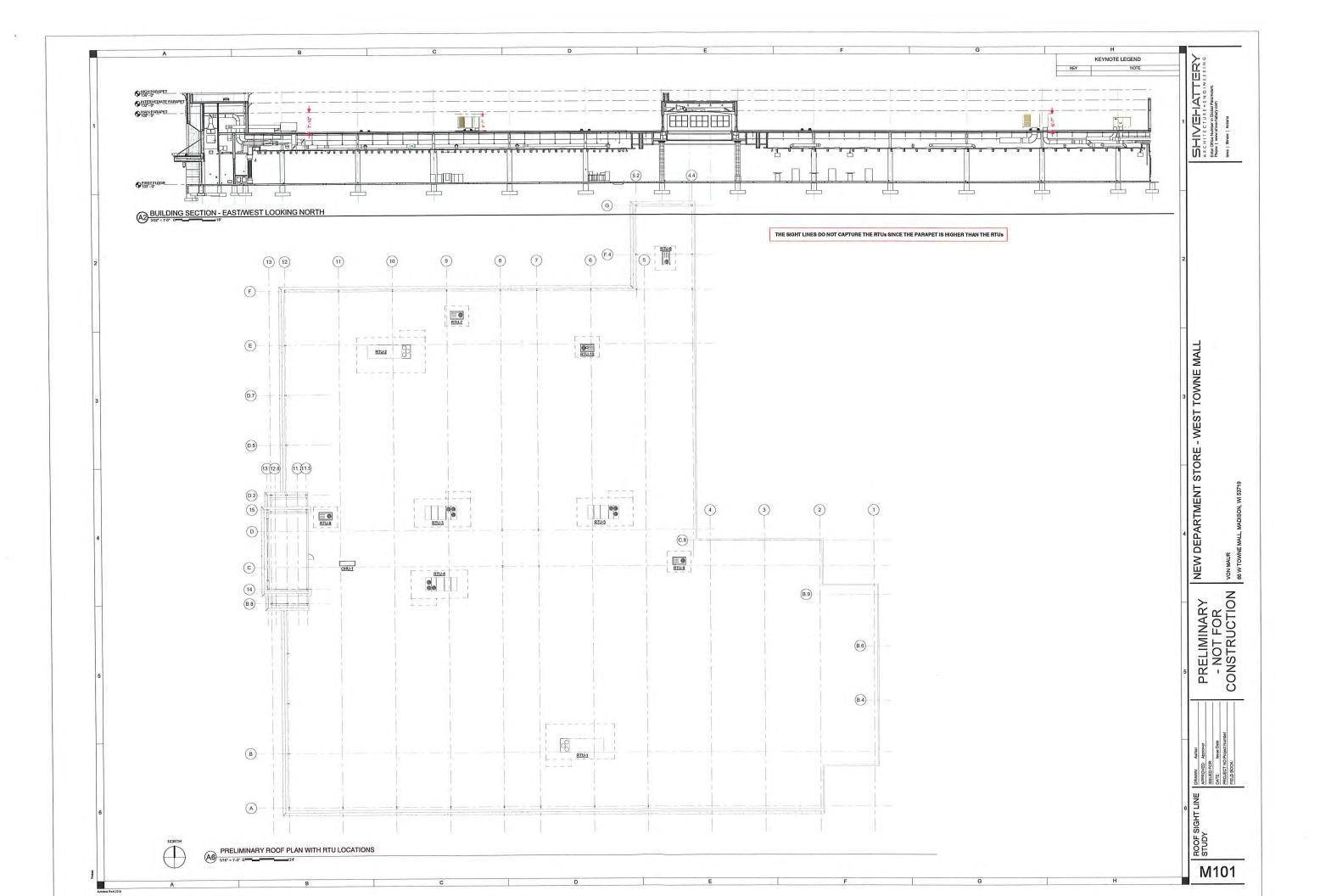
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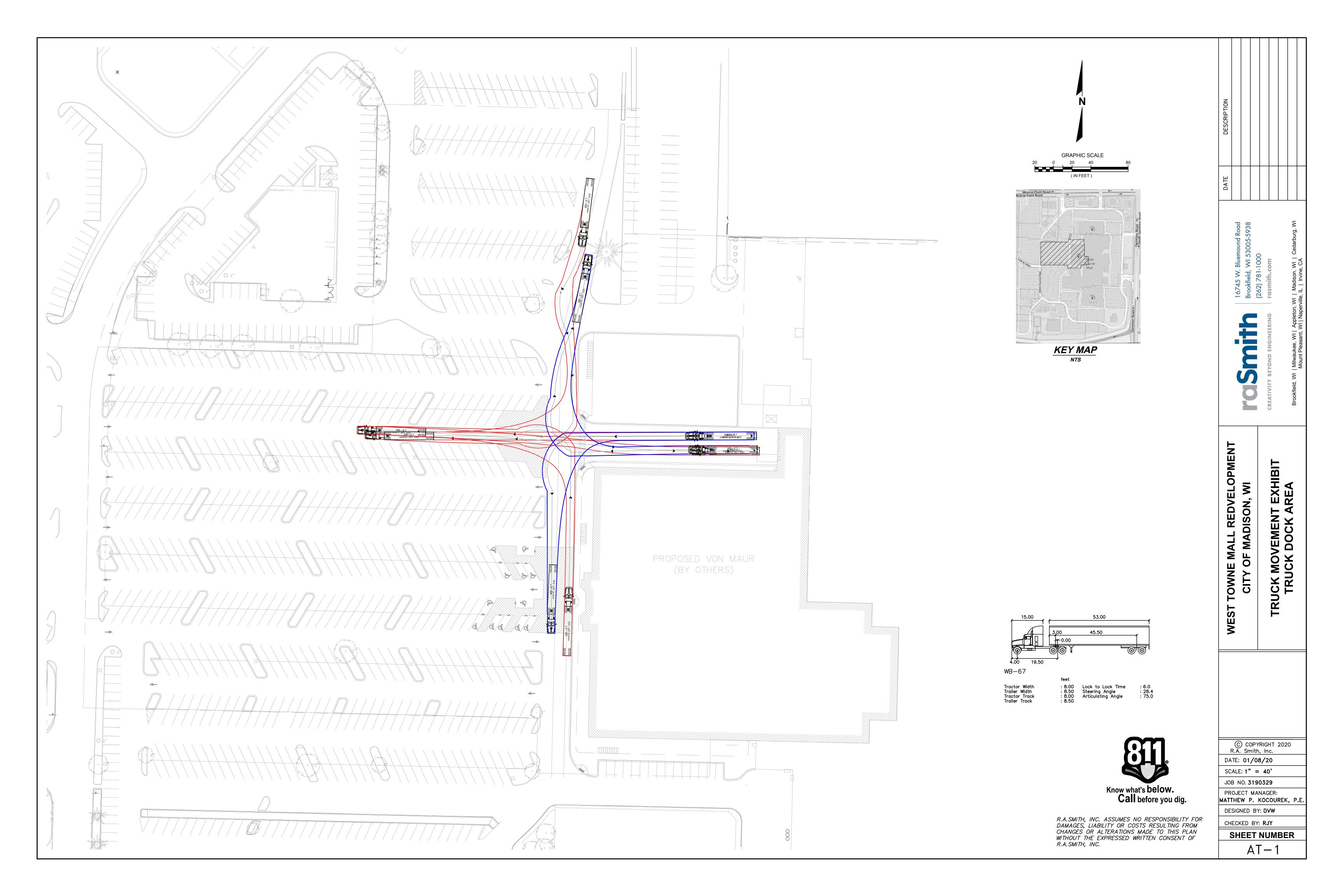
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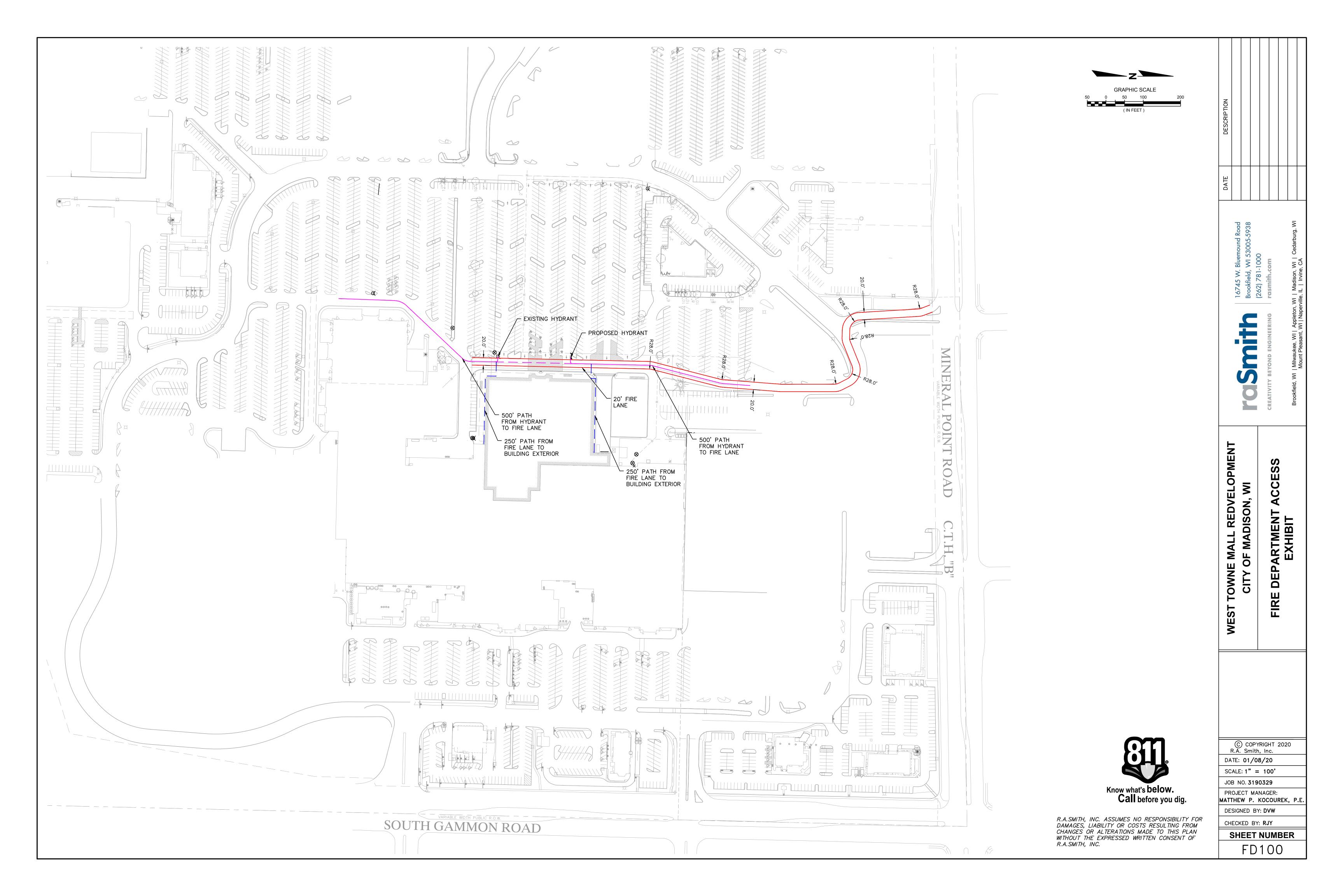
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City of Madison Fire Department

30 West Mifflin Street, 8th & 9th Floors, Madison, WI 53703-2579 Phone: 608-266-4420 • Fax: 608-267-1100 • E-mail: fire@cityofmadison.com

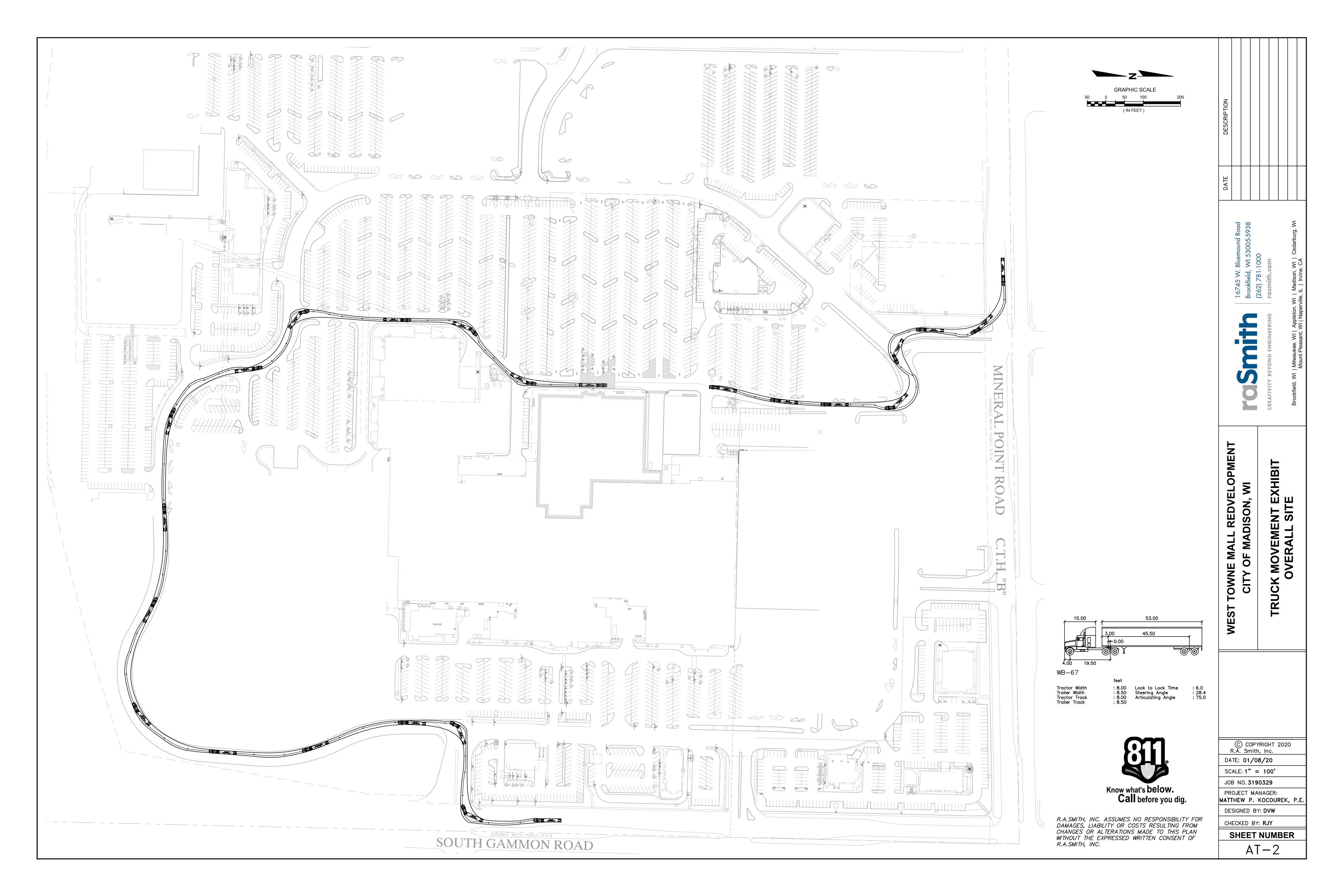
Project Address:	66 West Towne Mall, Madison, WI 53719
Contact Name & Pl	hone #: Jeff Yersin, P.E., (262) 317-3232

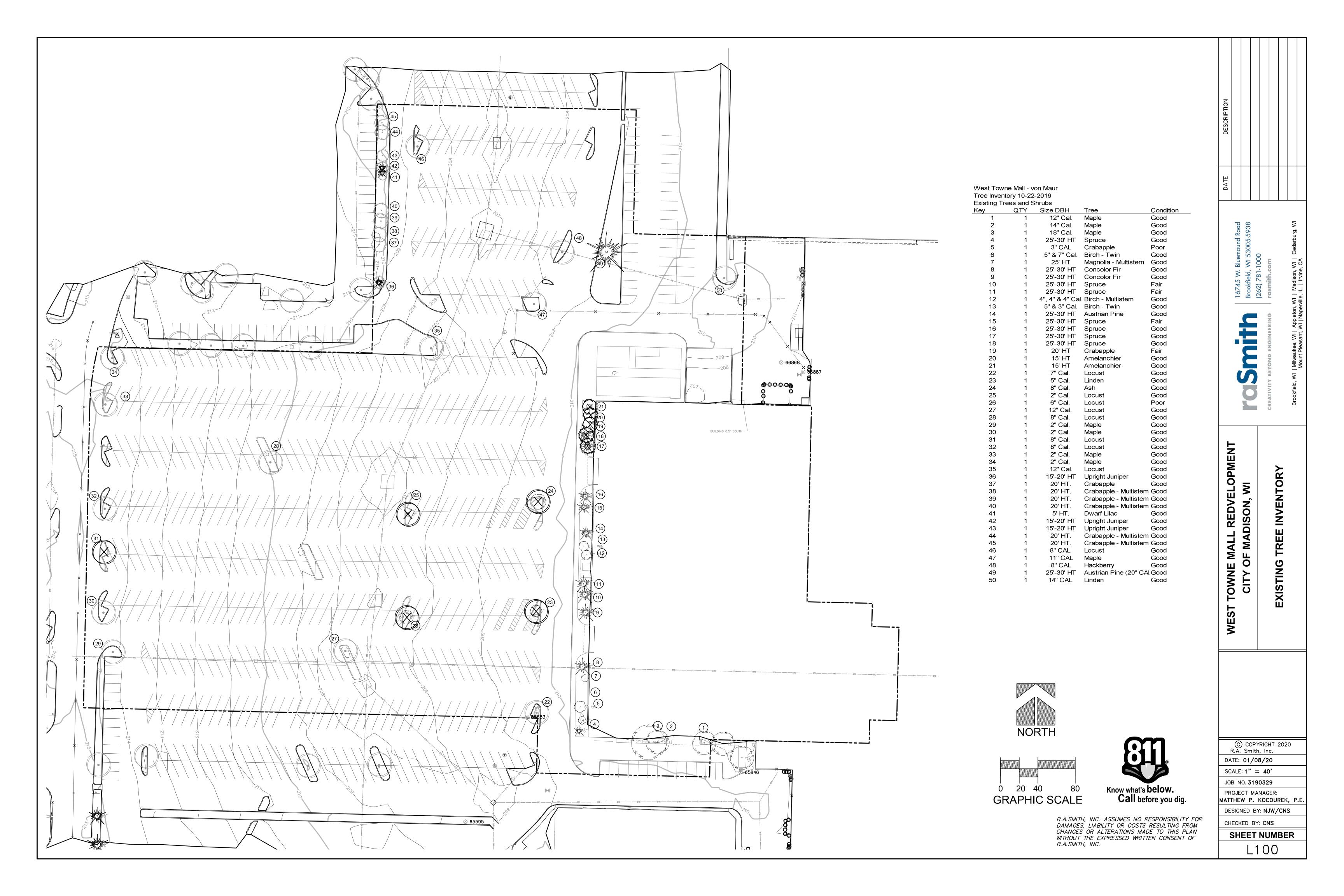
FIRE APPARATUS ACCESS AND FIRE HYDRANT WORKSHEET

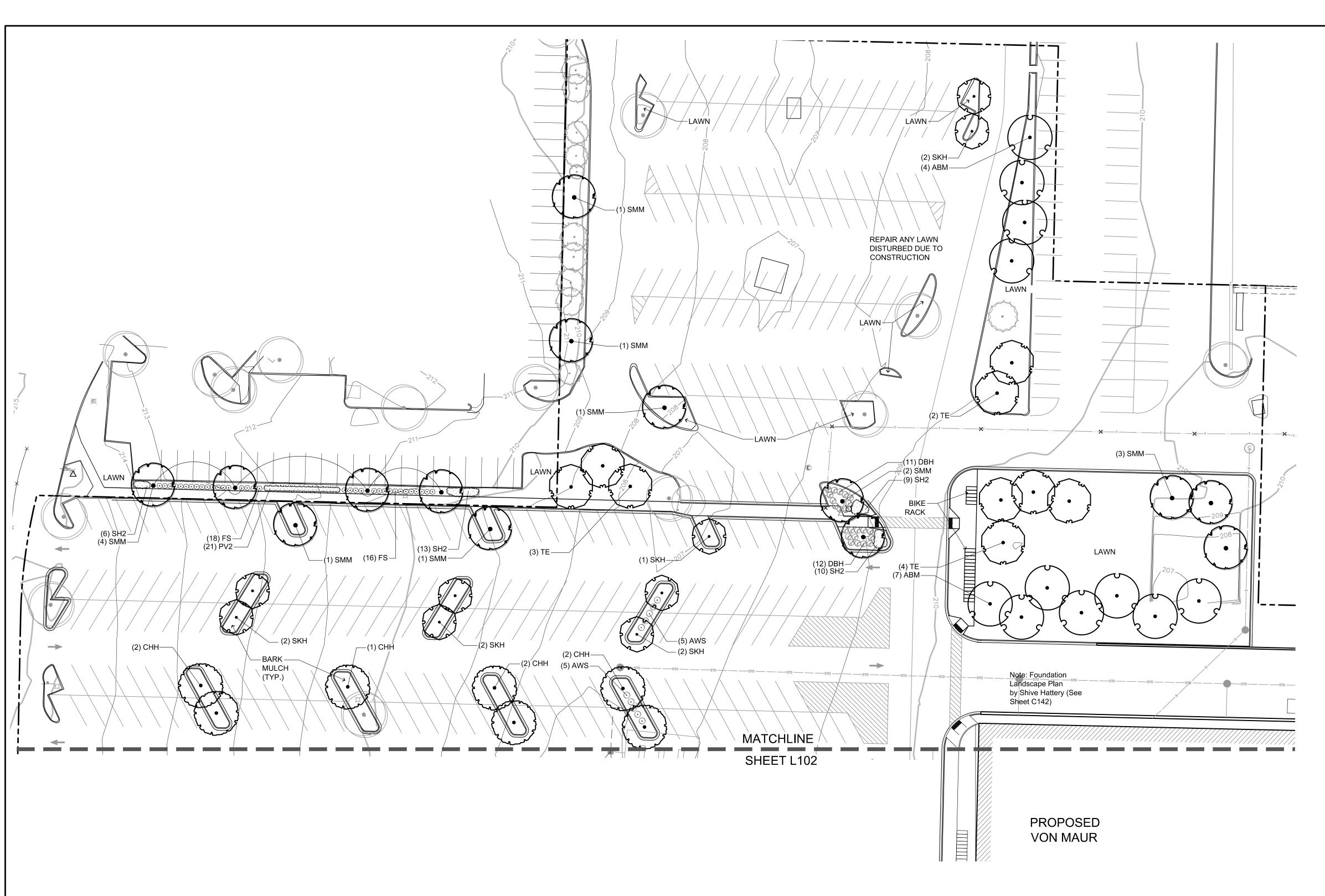
 Is the building completely protected by an NFPA 13 or 13R automatic fire sprinkler system? If non-sprinklered, fire lanes extend to within 150-feet of all portions of the exterior wall? If sprinklered, fire lanes are within 250-feet of all portions of the exterior wall? 	X Yes Yes X Yes	No No No	 N/A N/A N/A
 2. Is the fire lane constructed of concrete or asphalt, designed to support a minimum load of 85,000 lbs? a) Is the fire lane a minimum unobstructed width of at least 20-feet? b) Is the fire lane unobstructed with a vertical clearance of at least 13½-feet? c) Is the minimum inside turning radius of the fire lane at least 28-feet? d) Is the grade of the fire lane not more than a slope of 8%? e) Is the fire lane posted as fire lane? (Provide detail of signage.) f) Is a roll-able curb used as part of the fire lane? (Provide detail of curb.) g) Is part of a sidewalk used as part of the required fire lane? (Must support +85,000 lbs.) 	X Yes	No No No No No No No No	 N/A N/A N/A N/A N/A N/A N/A N/A N/A
3. Is the fire lane obstructed by security gates or barricades? If yes:a) Is the gate a minimum of 20-feet clear opening?b) Is an approved means of emergency operations installed, key vault, padlock or key switch?	☐ Yes ☐ Yes ☐ Yes	X No No No	N/A N/A N/A N/A
4. Is the Fire lane dead-ended with a length greater than 150-feet? If yes, does the area for turning around fire apparatus comply with IFC D103?	Yes Yes	X No No	N/A N/A
5. Is any portion of the building to be used for high-piled storage in accordance with IFC Chapter 3206.6 If yes, see IFC 3206.6 for further requirements.	Yes	X No	□ N/A
6. Is any part of the building greater than 30-feet above the grade plane?	Yes	X No	□ N/A
If yes, answer the following questions: a) Is the aerial apparatus fire lane parallel to one entire side of the building and covering at least 25% of the perimeter? b) Is the near edge of the aerial apparatus fire lane between 15' and 30' from the building? c) Are there any overhead power or utility lines located across the aerial apparatus fire lane? d) Are there any tree canopies expected to grow across the aerial fire lane? (Based on mature canopy width of tree species)	☐ Yes ☐ Yes ☐ Yes ☐ Yes ☐ Yes	 No No No No	X N/A X N/A X N/A X N/A X N/A X N/A
If yes, answer the following questions: a) Is the aerial apparatus fire lane parallel to one entire side of the building and covering at least 25% of the perimeter? b) Is the near edge of the aerial apparatus fire lane between 15' and 30' from the building? c) Are there any overhead power or utility lines located across the aerial apparatus fire lane? d) Are there any tree canopies expected to grow across the aerial fire lane? (Based on mature	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No	X N/A X N/A X N/A
If yes, answer the following questions: a) Is the aerial apparatus fire lane parallel to one entire side of the building and covering at least 25% of the perimeter? b) Is the near edge of the aerial apparatus fire lane between 15' and 30' from the building? c) Are there any overhead power or utility lines located across the aerial apparatus fire lane? d) Are there any tree canopies expected to grow across the aerial fire lane? (Based on mature canopy width of tree species) e) Does the aerial apparatus fire lane have a minimum unobstructed width of 26-feet? f) Is the space between the aerial lane and the building free of trees exceeding 20' in heights? 7. Are all portions of the required fire lanes within 500-feet of at least (2) hydrants?	☐ Yes☐ Yes☐ Yes☐ Yes☐ Yes	NoNoNoNoNoNo	X N/A
If yes, answer the following questions: a) Is the aerial apparatus fire lane parallel to one entire side of the building and covering at least 25% of the perimeter? b) Is the near edge of the aerial apparatus fire lane between 15' and 30' from the building? c) Are there any overhead power or utility lines located across the aerial apparatus fire lane? d) Are there any tree canopies expected to grow across the aerial fire lane? (Based on mature canopy width of tree species) e) Does the aerial apparatus fire lane have a minimum unobstructed width of 26-feet? f) Is the space between the aerial lane and the building free of trees exceeding 20' in heights?	☐ Yes	NoNoNoNoNoNoNo	X N/A X

Attach an additional sheet if further explanation is required for any answers.

This worksheet is based on MGO 34.503 and IFC 2012 Edition Chapter 5 and Appendix D; please see the codes for further information.





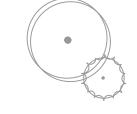


PLANT SCHEDULE NORTH

DECIDUOUS TREES	QTY	COMMON NAME	BOTANICAL NAME	SIZE	ROOT	REMARKS
ABM	11	Autumn Blaze Maple	Acer freemanii `Autumn Blaze`	2 1/2" CAL	B&B	Full, matching heads
SMM	14	State Street Miyabei Maple	Acer miyabei `Morton` TM	2 1/2" CAL	B&B	Full, matching heads
CHH	7	Chicagoland Hackberry	Celtis occidentalis `Chicagoland`	2 1/2" CAL	B&B	Full, matching heads
SKH	9	Street Keeper Honey Locust	Gleditsia triacanthos `Draves`	2 1/2" CAL	B&B	Full, matching heads
TE	9	Triumph Elm	Ulmus x `Morton Glossy` TM	2 1/2" CAL	B&B	Full, matching heads
DECIDUOUS SHRUBS	<u>QTY</u>	COMMON NAME	BOTANICAL NAME	SIZE	ROOT	REMARKS
DBH	23	Dwarf Bush Honeysuckle	Diervilla Ionicera	15" HT	CONT.	
AWS	10	Anthony Waterer Spiraea	Spiraea x bumalda `Anthony Waterer`	15" HT	CONT.	
FS	34	Froebel Spirea	Spiraea x bumalda `Froebelii`	15" HT	CONT.	
ORNAMENTAL GRASSES	<u>QTY</u>	COMMON NAME	BOTANICAL NAME	<u>SIZE</u>	ROOT	REMARKS
PV2	21	Cheyenne Sky Switch Grass	Panicum virgatum `Cheyenne Sky`	1 GAL	POT	18" Spacing
SH2	38	Tara Prairie Dropseed	Sporobolus heterolepis `Tara`	1 GAL	POT	18" Spacing



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EXISTING TREE TO REMAIN

LANDSCAPE CALCULATIONS

Landscape Calculations and distribution

(see Madison worksheet for calculations) Total Developed Area: 308,011 SF

REQUIRED:4,533 points

PROVIDED: 4,675 points 5) Development Frontage Landscape

Total Site area 308,011 SF

6) Interior Parking Lot Landscaping for changes to a developed site a minimum of 5% of paving shall be landscape islands & strips & peninsulas

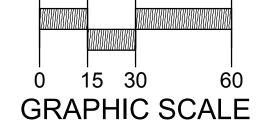
REQUIRED: 5% of 308,011 = 15,401 SF landscape PROVIDED: 20,174 SF

1 overstory deciduous tree for very 160 SF required landscape area

PROVIDED: Existing: 13 overstory deciduous trees and 6 ornamental trees (equal to 3 overstory trees) Proposed: : 78 overstory trees in parking lot & 3 overstory trees in foundation planting

Foundation planting by others





CITY OF MADISON LANDSCAPE WORKSHEET Section 28.142 Madison General Ordinance Project Location / Address West Towne Mall, Madison, WI Name of Project West Towne Mall Redevelopment Owner / Contact Ken Wittler Contact Phone 423-490-8385 Contact Email Ken.wittler@cblproperties.com ** Landscape plans for zoning lots greater than ten thousand (10,000) square feet in size MUST be prepared by a registered landscape architect. ** The following standards apply to all exterior construction and development activity, including the expansion of existing buildings, structures and parking lots, except the construction of detached single-family and two-family dwellings and their accessory structures. The entire development site must be brought up to compliance with this section unless all of the following conditions apply, in which case only the affected areas need to be brought up to compliance: (a) The area of site disturbance is less than ten percent (10%) of the entire development site during any ten-(10) (b) Gross floor area is only increased by ten percent (10%) during any ten-(10) year period. (c) No demolition of a principal building is involved. (d) Any displaced landscaping elements must be replaced on the site and shown on a revised landscaping plan. <u>Landscape Calculations and Distribution</u> Required landscaped areas shall be calculated based upon the total developed area of the property. Developed area is defined as that area within a single contiguous boundary which is made up of structures, parking, driveways and docking/loading facilities, but excluding the area of any building footprint at grade, land designated for open space uses such as athletic fields, and undeveloped land area on the same zoning lot. There are three methods for calculating landscape points depending on the size of the lot and Zoning District. (a) For all lots except those described in (b) and (c) below, five (5) landscape points shall be provided for each three hundred (300) square feet of developed area.

Total square footage of developed area ____ Total landscape points required _____ (b) For lots larger than five (5) acres, points shall be provided at five (5) points per three hundred (300) square feet for the first five (5) developed acres, and one (1) point per one hundred (100) square feet for all additional

Total square footage of developed area 308,011 SF Five (5) acres = 217,800 square feet

First five (5) developed acres = 3,630 points Remainder of developed area 90,211 SF Total landscape points required 4533

(c) For the Industrial - Limited (IL) and Industrial - General (IG) districts, one (1) point shall be provided per one hundred (100) square feet of developed area.

Total square footage of developed area _____ Total landscape points required ___

10/2013

Sub Totals

* Landscape points from building foundation

landscape plan (by others) **Tabulation of Points and Credits**

Plant Type/ Element	Minimum Size at	Points		Existing caping	New/ Proposed Landscaping		
Flant Type/ Element	Installation	romis	Quantity	Points Achieved	Quantity	Points Achieve	
Overstory deciduous tree	2½ inch caliper measured diameter at breast height (dbh)	35	13	455	78 * 3	2730 * 105	
Tall evergreen tree (i.e. pine, spruce)	5-6 feet tall	35	4	140	* 6	* 210	
Ornamental tree	1 1/2 inch caliper	15	6	90	* 2	* 30	
Upright evergreen shrub (i.e. arborvitae)	3-4 feet tall	10					
Shrub, deciduous	#3 gallon container size, Min. 12"-24"	3	1	3	68 * 64	204 * 192	
Shrub, evergreen	#3 gallon container size, Min. 12"-24"	4			8	32	
Ornamental grasses/ perennials	#1 gallon container size, Min. 8"-18"	2			10 * 232	20 * 464	
Ornamental/ decorative fencing or wall	n/a	4 per 10 lineal ft.					
Existing significant specimen tree	Minimum size: 2 ½ inch caliper dbh. *Trees must be within developed area and cannot comprise more than 30% of total required points.	14 per caliper inch dbh. Maximum points per tree: 200					
Landscape furniture for public seating and/or transit connections	* Furniture must be within developed area, publically accessible, and cannot comprise more than 5% of total required points.	5 points per "seat"					

Total Number of Points Provided 4675

 * As determined by ANSI, ANLA- American standards for nursery stock. For each size, minimum plant sizes shall conform to the specifications as stated in the current American Standard for Nursery Stock.

10/2013

DESIGNED BY: NJW

CHECKED BY: CNS **SHEET NUMBER**

DATE: 01/08/20

SCALE: 1" = 30'

JOB NO. **3190329**

PROJECT MANAGER:

VE MALL REDVELOPM

OWNE CITY O

ANDSCAPE

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MATTHEW P. KOCOUREK, P.E.

(2 ornamental trees equivalent to 1 overstory tree) REQUIRED: 15,401 SF / 160SF = 97 trees

7) Foundation Plantings

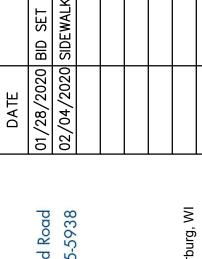
PLANT SCHEDULE SOUTH

DECIDUOUS TREES	QTY	COMMON NAME	BOTANICAL NAME	SIZE	ROOT	REMARKS
ABM	4	Autumn Blaze Maple	Acer freemanii `Autumn Blaze`	2 1/2" CAL	B&B	Full, matching heads
SMM	6	State Street Miyabei Maple	Acer miyabei `Morton` TM	2 1/2" CAL	B&B	Full, matching heads
CHH	10	Chicagoland Hackberry	Celtis occidentalis `Chicagoland`	2 1/2" CAL	B&B	Full, matching heads
SKH	12	Street Keeper Honey Locust	Gleditsia triacanthos `Draves`	2 1/2" CAL	B&B	Full, matching heads
DECIDUOUS SHRUBS	<u>QTY</u>	COMMON NAME	BOTANICAL NAME	SIZE	ROOT	REMARKS
SDN	18	Nikko Slender Deutzia	Deutzia gracilis `Nikko`	15" HT	CONT.	
AWS	25	Anthony Waterer Spiraea	Spiraea x bumalda `Anthony Waterer`	15" HT	CONT.	
EVERGREEN SHRUBS	<u>QTY</u>	COMMON NAME	BOTANICAL NAME	SIZE	ROOT	REMARKS
PJC	8	Kallay Compact Pfitzer Juniper	Juniperus chinensis `Kallays Compact`	18"SPD	CONT.	

NORTH

15 30

GRAPHIC SCALE



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REDVELO

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OWNE CITY O

MADIS

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

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DAMAGES, LIABILITY OR COSTS RESULTING FROM

CHANGES OR ALTERATIONS MADE TO THIS PLAN

WITHOUT THE EXPRESSED WRITTEN CONSENT OF

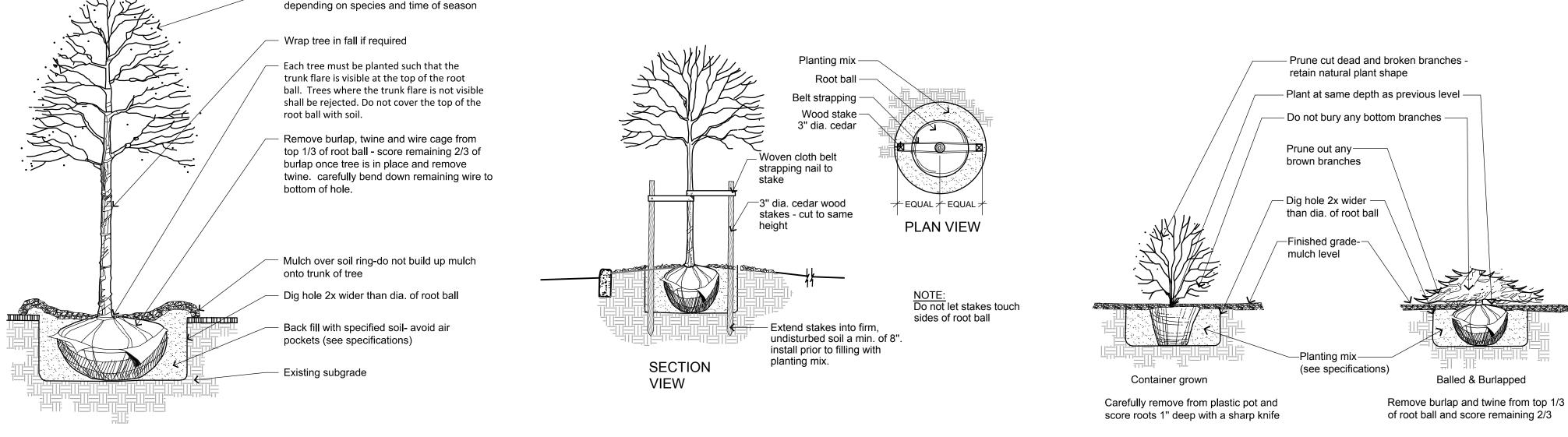
R.A.SMITH, INC.

GENERAL LANDSCAPE NOTES

- . Contractor responsible for contacting public and private underground utility locating service to have site marked prior to any digging or earthwork. 2. Contractor to verify all plant quantities shown on plant list and verify with plan. Report any discrepancies immediately to general contractor.
- representative reserves the right to inspect and potentially reject any plants that are inferior, compromised, undersized, diseased, improperly transported, installed
- 4. Any potential plant substitutions must be submitted in writing and approved by the general contractor or owner's representative prior to installation. All plants must be installed as per sizes shown on plant material schedule, unless approved by general contractor or owner's representative.
- 5. All seeded areas and planting beds require topsoil to be placed within 3" of finish grade during rough grading operations. All parking lot islands require topsoil placed to a minimum depth of 18" to insure long term plant health. These requirements should be coordinated between the general contractor, grading contractor and
- Tree planting (see planting detail): Plant all trees slightly higher than finished grade at root flare. Remove excess soil from top of root ball, if needed. Scarify side walls of tree pit prior to installation. Remove and discard non-biodegradable ball wrapping and support wire. Remove biodegradable burlap and wire cage (if applicable) from top one-third of rootball. Carefully bend remaining wire down to the bottom of hole once the tree has been placed into the hole and will no longer be moved. Score the remaining two-thirds of burlap and remove twine. Backfill pit with 80% existing soil removed from excavation and 20% plant starter mix blended prior to backfilling holes. Discard any gravel, heavy clay or stones. Avoid any air pockets and do not tamp soil down. When hole is two-thirds full, trees shall be watered thoroughly, and water left to soak in before
- Provide a 3" deep, 4 ft. diameter shredded hardwood bark mulch ring around all lawn trees. Do not build up any mulch onto trunk of any tree. Trees that are installed incorrectly will be replaced at the time and expense of the landscape contractor. Stake trees according to the staking detail.
- 7. Shrub planting: all shrubs to be pocket planted with a 50/50 mix of plant starter and topsoil. Install topsoil into all plant beds as needed to achieve proper grade and replace undesirable soil (see planting detail). Remove all excessive gravel, clay and stones from plant beds prior to planting. When hole is two-thirds full, shrubs shall be watered thoroughly and water left to soak in before proceeding.
- 8. Mulching: all tree and shrub planting beds to receive a 3" deep layer of high quality shredded hardwood bark mulch (not environmulch). All perennial planting areas to receive a 2" layer and groundcover areas a 1-2" layer of the same mulch. Do not mulch annual flower beds (if applicable). Do not allow mulch to contact plant stems
- 9. Edging: edge all planting beds with a 4" deep spaded edge (shovel cut or mechanical). Bedlines are to be cut crisp, as per plan. A clean definition between lawn area and plant bed is required.
- 10. Plant bed preparation: all perennial, ornamental grass, annual and groundcover areas are required to receive a blend of organic soil amendments prior to installation. Rototill the following materials, at the ratio given, into the required 18" of topsoil to a depth of approx. 8" -
- Per every 100 square feet of bed area add:
- 2 cu. ft. bale of peat moss 2 lbs. of 5-10-5 slow release fertilizer 1/4 cu. yard of composted manure
- 11.Lawn installation for all seeded turfgrass areas: remove / kill off any existing unwanted vegetation prior to seeding. Prepare the topsoil and seed bed by removing all
- surface stones 1" or larger and grading lawn areas to finish grade. Apply a starter fertilizer and specified seed uniformly and provide mulch covering suitable to germinate and establish turf. Provide seed and fertilizer mix information to general contractor prior to installation. Erosion control measures are to be used in swales and on steep grades, where applicable. Methods of installation may vary at the discretion of the landscape contractor on his/her responsibility to establish and guarantee a smooth, uniform, quality turf. A minimum depth of 3" of blended, prepared and non-compacted topsoil is required for all lawn areas. If straw mulch is used as a mulch covering, a tackifier may be necessary to avoid wind damage. Marsh hay containing reed canary grass is not acceptable as a mulch covering.
- An acceptable quality turf is defined as having no more than 10% of the total area with bare spots larger than 1 square foot and uniform coverage throughout all turf
- 12. Seed mix for lawn areas use only a premium quality seed mix installed at recommended rates. Premium blend seed mix example (or equivalent): 50% blended bluegrass, 25% creeping red fescue, 25% perennial rye applied at 5 lbs per 1,000 SF. Provide seed specifications to general contractor prior to installation.
- 13. Warranty and replacements: Trees, evergreens, and shrubs to be guaranteed (100% replacement) for a minimum of one (1) year from the date of substantial project completion. Perennials, groundcovers, and ornamental grasses to be guaranteed for a minimum of one growing season from the date of substantial project completion. Perennials, groundcovers, and ornamental grasses planted after September 1st shall be guaranteed through May 31st of the following year. Only one replacement per plant will be required during the warranty period, except for losses or replacements due to failure to comply with specified requirements.
- 14. The landscape contractor is responsible for the watering and maintenance of all landscape areas at time of planting and throughout construction until the substantial completion of the installation and acceptance by the owner. This includes all trees, shrubs, evergreens, perennials, ornamental grasses and turf grass. Work also includes weeding, edging, mulching (only if required), fertilizing, trimming, sweeping up grass clippings, pruning and deadheading.

GENERAL LANDSCAPE DETAILS

Prune tree as needed-methods vary



DECIDUOUS TREE STAKING FOR RESTRICTED AREAS

15. Project completion: upon substantial completion of the project, the landscape contractor is responsible to conduct a final review with the owner's representative and the general contractor to answer questions and insure that all specifications have been met. The landscape contractor is to provide watering and general ongoing maintenance instructions (in writing) for the new plantings and lawn to the owner and general contractor .

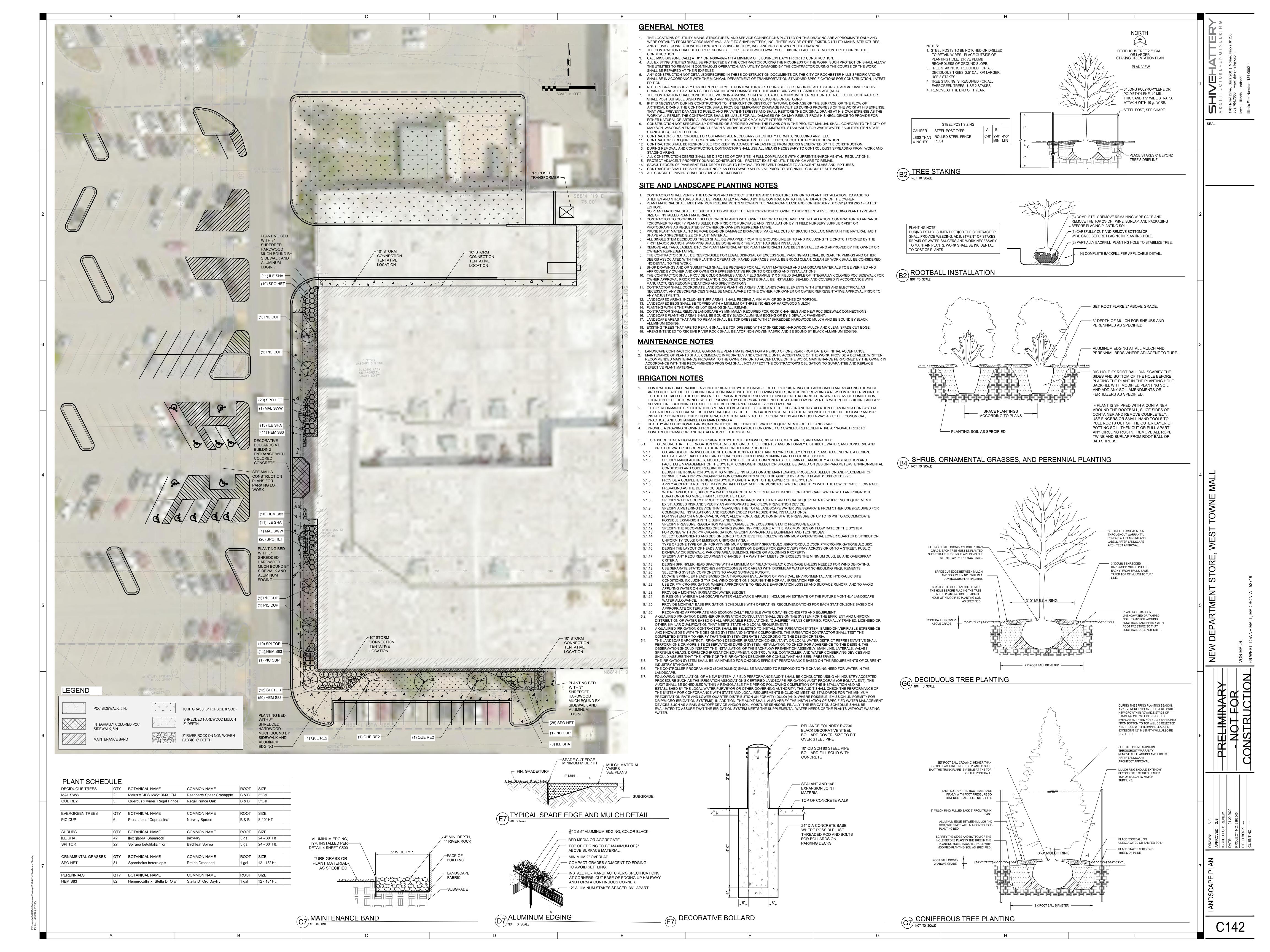
(C) COPYRIGHT 2020 R.A. Smith, Inc. DATE: 01/08/20

SCALE: 1" = 30'

JOB NO. **3190329** PROJECT MANAGER:

MATTHEW P. KOCOUREK, P.E.

DESIGNED BY: NJW CHECKED BY: CNS



OSQ Series

OSQ™ High Output LED Area/Flood Luminaire featuring Cree TrueWhite® Technology

Product Description

The OSQ™ High Output Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weathertight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. The OSQ high output luminaire is a suitable upgrade for HID applications with one or even multiple 1000 Watt luminaires.

Applications: Auto dealerships, parking lots, campuses, facade lighting, high-mast and general site lighting applications

Performance Summary

Utilizes Cree TrueWhite® Technology on 5000K Luminaires

NanoOptic® Precision Delivery Grid™ optic

Assembled in the U.S.A. of U.S. and imported parts

Initial Delivered Lumens: Up to 68,691

Efficacy: Up to 125 LPW

CRI: Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)

CCT: 3000K (+/- 300K), 4000K (+/- 300K), 5000K (+/- 300K), 5700K (+/- 500K)

Limited Warranty[†]: 10 years on luminaire/10 years on Colorfast DeltaGuard[®] finish

*See http://lighting.cree.com/warranty for warranty terms

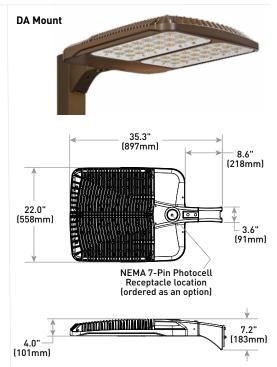
Accessories

Field-Installed							
Backlight Shield (One pair)	Bird Spikes	Hand-Held Remote					
OSQ-HO-BLSF	OSQ-HO-BRDSPK	XA-SENSREM					
- Front Facing Optics		 For successful implementation of the programmable 					
OSQ-HO-BLSR		multi-level option, a minimum of one hand-held					
- Rotated Optics		remote is required					

Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately: Example: Mount: OSQ-HO-AA-SV + Luminaire: OSQ-HO-A-NM-2ME-40L-40K-UL-SV

Mount (Luminaire must be ordered separately)						
05Q-Н0-						
OSQ-HO-AA Adjustable Arm OSQ-HO-DA Direct Arm	Color Options:	SV Silver BK Black	BZ Bronze WH White			



Lumen Package	Voltage	Weight		
40/50L	120-480V	70.0 lbs. (31.8kg)		
65L	120-480V	72.0 lbs. (32.7kg)		

OSQ-HO	A	NM									
Product	Version	Mounting	Optic		Optic		Lumen Package**	сст	Voltage	Color Options	Options
05Q-Н0	A	NM No Mount	Asymmetric 2ME* Type II Medium 3ME* Type III Medium Symmetric 5ME Type V Medium 5SH Type V Short 15D 15° Flood 250° 25° Flood	4ME* Type IV Medium AF* Automotive FrontlineOptic™ 40D 40° Flood 600 60° Flood 120D 120° Flood WSN Wide Sign	40L 50L 65L	30K 3000K -70 CRI 40K 4000K -70 CRI 50K 5000K -90 CRI 57K 570K -70 CRI	UL Universal 120-277V - All lumen packages UH Universal 347-480V - 40L & 50L lumen packages only UM Universal 208-480V - 65L lumen package only	BK Black BZ Bronze SV Silver WH White	F Fuse - When code dictates fusing, use time delay fuse - Available for U.S. applications only PML Programmable Multi-Level, up to 40' Mounting Height - Refer to PML spec sheet for details - Not available with 65L - Intended for downlight applications at 0° tilt Q9/08/07/Q6/05/Q4/Q3/Q2/Q1 Field Adjustable Output - Must select Q9, Q8, Q7, Q6, Q5, Q4, Q3, Q2, or Q1 - Not available with 65L when ordered w/R option - Offers full range adjustability - Refer to pages 13-15 for power and lumen values R NEMA® 7-Pin Protocell Receptacle - 7-pin receptacle per ANSI C136.41 - Intended for downlight applications with maximum 45° tilt - Factory connected 0-10V dim leads - 12" (305mm) seven-conductor leads exit luminaire - Photocell and shorting cap by others - Not available with 65L when ordered w/Q option RL Rotate Left - LED and optic are rotated to the left - Refer to RR/RL configuration diagram on page 11 for optic directionali RR Rotate Right - Refer to RR/RL configuration diagram on page 11 for optic directionali RR Rotate Right - Refer to RR/RL configuration diagram on page 11 for optic directionali		

* Available with Backlight Shield when ordered with field-installed accessory (see table above)

** Lumen Package selection codes identify approximate light output only. Actual lumen output levels vary depending on CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values













Rev. Date: V6 10/18/2018



Product Specifications

CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

CONSTRUCTION & MATERIALS

- Slim, low profile design minimizes wind load requirements
- Luminaire housing is rugged die cast aluminum with an integral, weathertight LED driver compartment and high-performance heat sink
- Convenient interlocking mounting method on direct arm mount. Mounting adaptor is rugged die cast aluminum and mounts to 3-6 (76-152mm) square or round pole, secured by two 5/16-18 UNC bolts spaced on 2" (51mm) centers
- Adjustable arm that mounts to a horizontal or vertical 2" (51mm) IP, 2.375-2.50" (60-64mm) O.D. steel tenon. Tenon length must be a minimum of 3.75" (95mm)
- Adjustable arm mount can be adjusted 180° in 5.0° increments
- Includes 12" (305mm) 18/5 or 16/5 leads exiting the luminaire. When ordered with R option, 12" (305mm) 18/7 or 16/7 leads are provided
- Designed for uplight and downlight applications
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Silver, bronze, black, and white are available
- Weight: See Dimension and Weight Chart on pages 1 and 12

ELECTRICAL SYSTEM

- Input Voltage: 120-277V, 208-480V or 347-480V, 50/60Hz, Class 1 drivers
- Power Factor: > 0.9 at full load
- Total Harmonic Distortion: < 20% at full load
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Designed with 0-10V dimming capabilities. For 65L SKUs with UL voltage, dimming control lines must be >1V when operated at 277V. Controls by others
- Refer to Dimming spec sheet for details
- Maximum 10V Source Current: 0.30mA
- Operating Temperature Range: -40°C to 40°C (-40° F to 104° F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Consult factory for CE Certified products
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- · RoHS compliant. Consult factory for additional details
- DLC and DLC Premium qualified versions available. Some exceptions apply. Please refer to https://www.designlights.org/search/ for most current information
- OSQ-H0 luminaires are enclosure rated IP66 per IEC 60598-1 when ordered without the R option
- Dark Sky Friendly, IDA Approved when ordered with 30K CCT and DA mount. Please refer to http://darksky.org/fsa/fsa-products/ for most current information
- CA RESIDENTS WARNING: Cancer and Reproductive Harm www.p65warnings.ca.gov

Electrical Data*										
	System Watts 120-480V	Total Current (A)								
Lumen Package		120V	208V	240V	277V	347V	480V			
40L	341	2.93	1.65	1.43	1.23	1.00	0.71			
50L	420	3.61	2.03	1.76	1.51	1.23	0.87			
65L	550	4.73	2.66	2.30	1.98	1.59	1.15			

^{*} Electrical data at 25° C (77°F). Actual wattage may differ by +/- 10% when operating between 120-480V +/- 10%

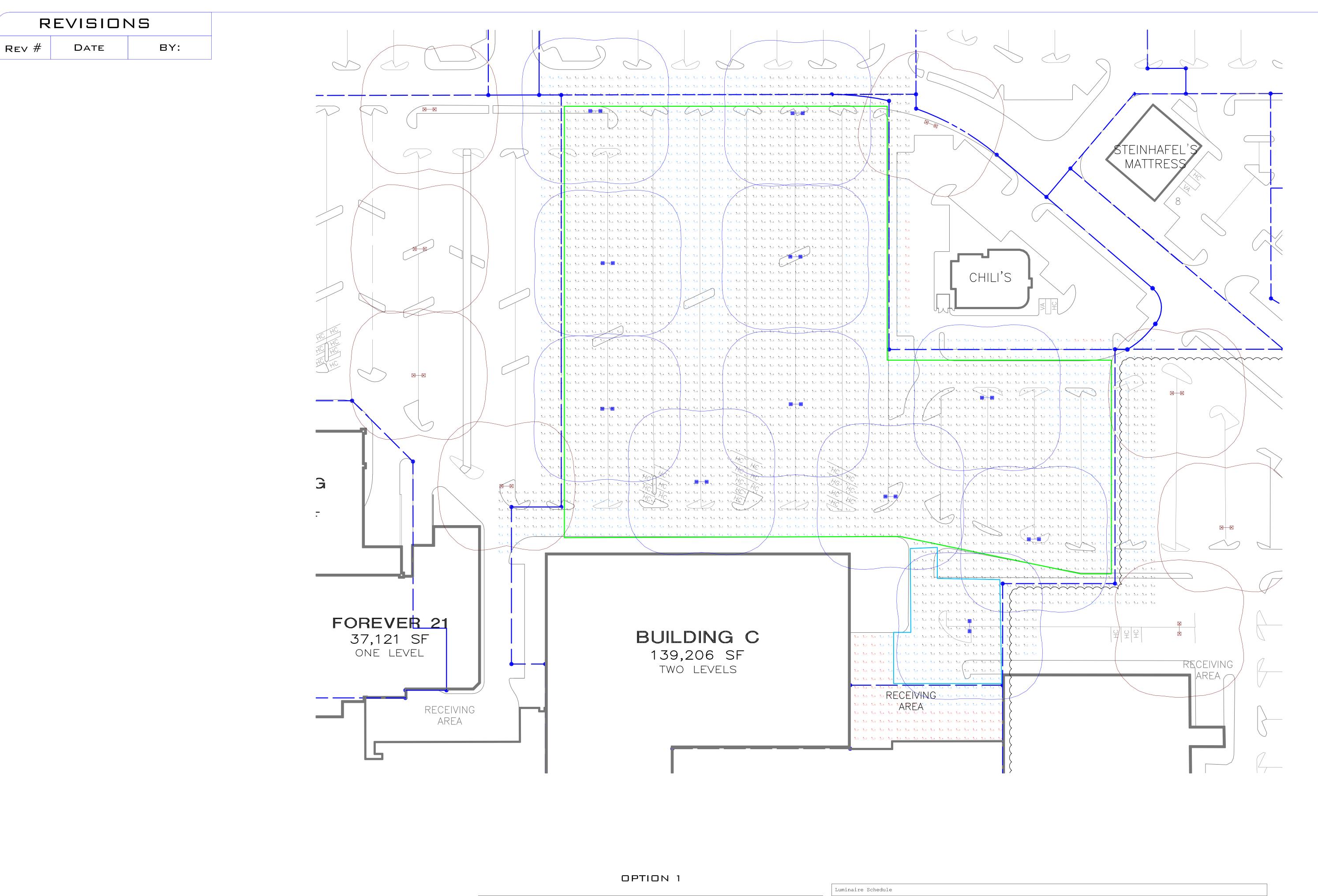
OSQ Serie	OSQ Series Ambient Adjusted Lumen Maintenance ¹							
Ambient	Optic	Initial LMF	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Projected²/ Calculated³ LMF	100K hr Projected²/ Calculated³ LMF		
5°C (41°F)	Asymmetric	1.04	1.02	1.01	1.00 ³	0.993		
5 C (41 F)	Symmetric	1.05	1.04	1.03	1.03 ²	1.022		
10°C	Asymmetric	1.03	1.01	1.00	0.993	0.983		
(50°F)	Symmetric	1.04	1.03	1.02	1.01 ²	1.00 ²		
15°C	Asymmetric	1.02	1.00	0.99	0.983	0.973		
(59°F)	Symmetric	1.02	1.02	1.01	1.00 ²	0.992		
20°C	Asymmetric	1.01	0.99	0.98	0.973	0.963		
(68°F)	Symmetric	1.01	1.01	1.00	0.992	0.982		
25°C	Asymmetric	1.00	0.98	0.97	0.963	0.953		
(77°F)	Symmetric	1.00	0.99	0.98	0.982	0.972		

Lumen maintenance values at 25°C (77°F) are calculated per TM-21 based on LM-80 data and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the

Temperature Zone Reference Document for outdoor average nighttime ambient conditions.

In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ([DUT) i.e. the packaged LED chip)

⁹In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)



BASED ON THE INFORMATION PROVIDED, ALL DIMENSIONS AND LUMINAIRE LOCATIONS SHOWN REPRESENT RECOMMENDED POSITIONS. THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING OR FUTURE FIELD CONDITIONS.

THIS LIGHTING PATTERN REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS UTILIZING CURRENT INDUSTRY STANDARD LAMP RATINGS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS AND OTHER VARIABLE FIELD CONDITIONS.

Calculation Summary								WLS149
Label	Avg	Max	Min	Avg/Min	Max/Min	PtSpcLr	PtSpcTb	Symbol
BLDG C SIDE PARKING	2.4	3.5	1.1	2.2	3.2	10	10	
BLDG C PARKING	2.4	3.6	1.1	2.1	3.3	10	10	

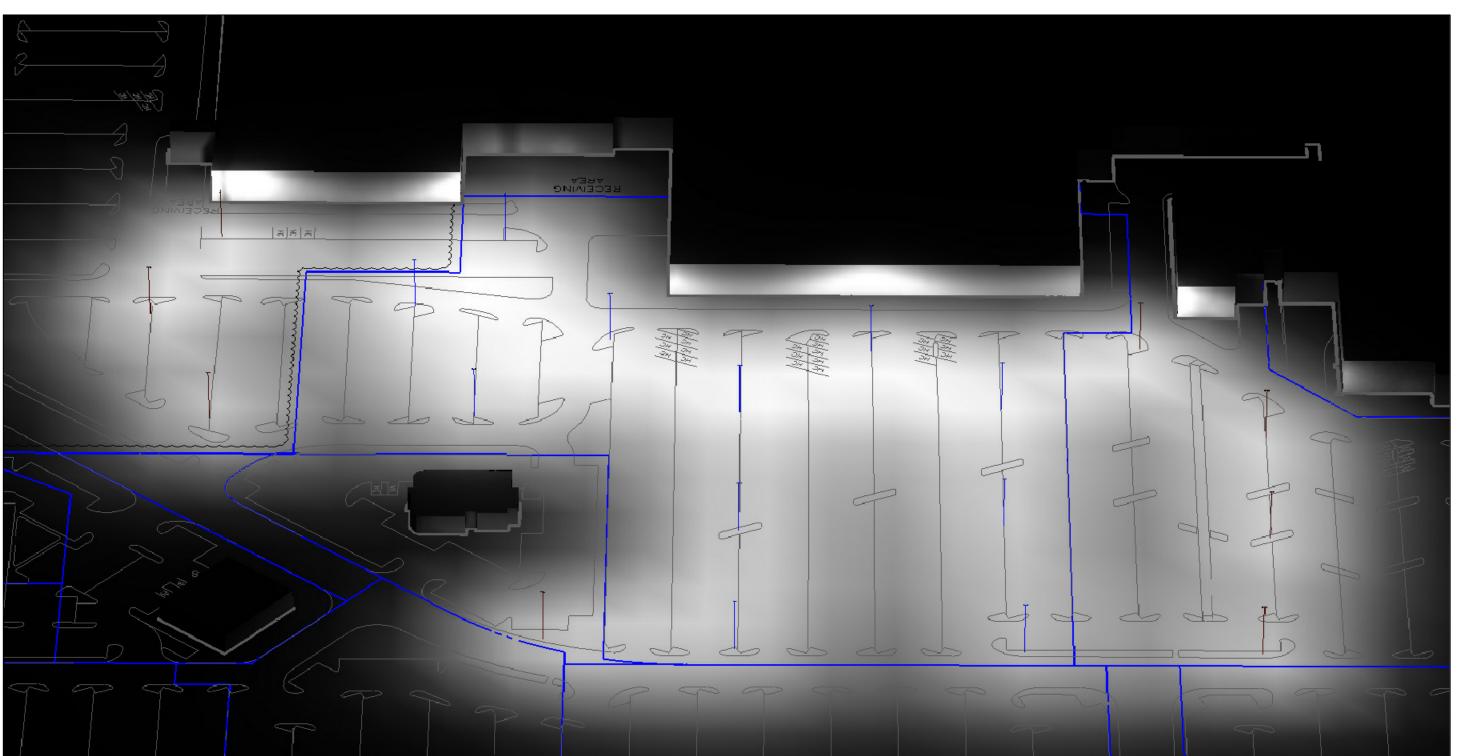
WLS14997 WES	ST TOWNE M	MALL MAI	DISON, WI P	M: KEVIN	PLEASE EMAIL KEVIN AT KFLETCHER@WLSLIGHTING.COM FOR PRICE	CING.
Symbol	Qty	Label	Lumens	LLF	Description	Lum. Watts
	11	A	N.A.	0.980	WLS-OSQ-HO-A-5SH-40L-40K 48' MOUNTING HEIGHT	341
	8	NAP-X1	110000	0.500	HOLO-PT5CP1-1000-MH-5 48' MOUNTING HEIGHT	1070

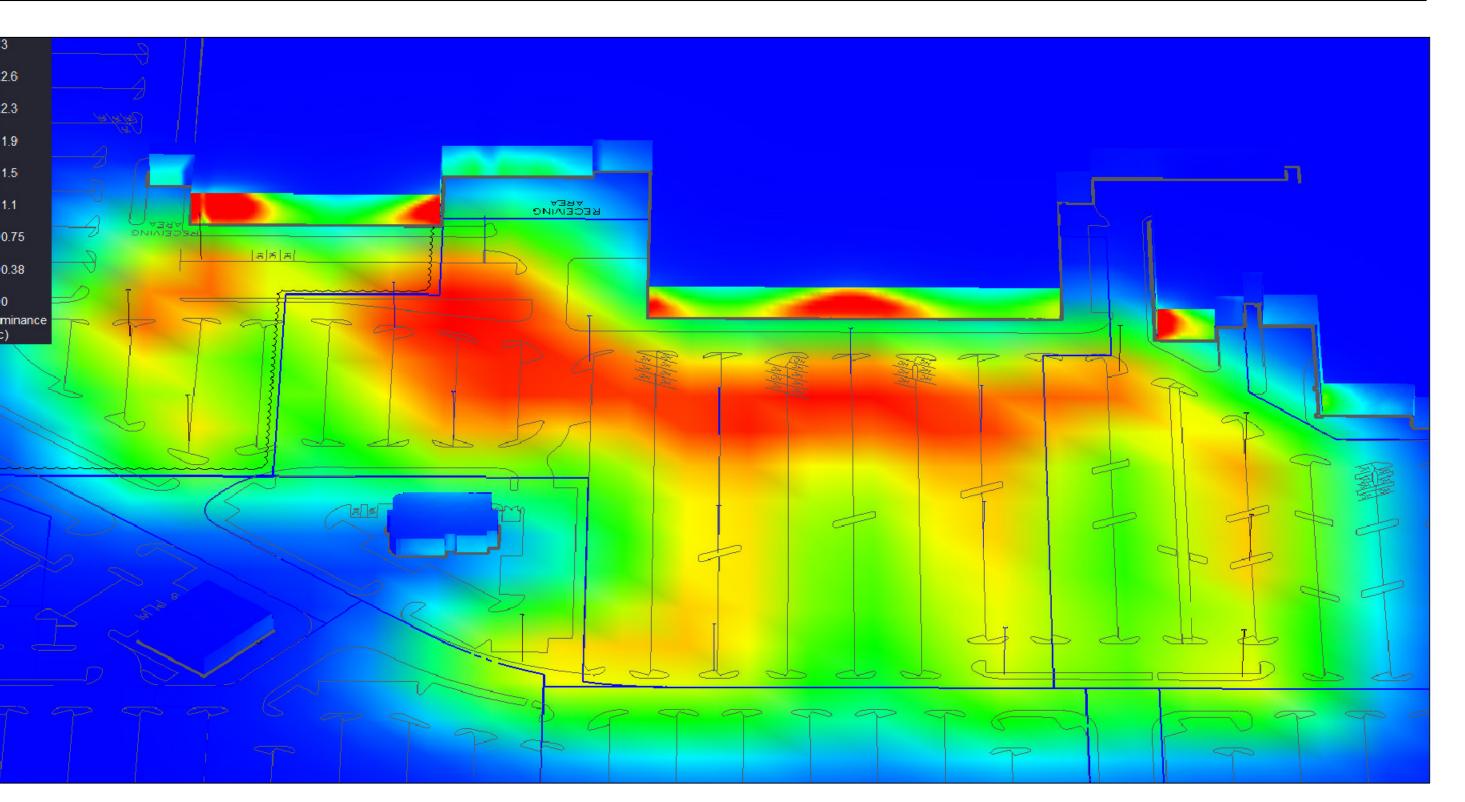
REVISIONS

DATE Rev#

BY:







CONDITIONS. THIS LIGHTING PATTERN REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS UTILIZING CURRENT INDUSTRY STANDARD LAMP RATINGS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS AND OTHER VARIABLE FIELD CONDITIONS.

BASED ON THE INFORMATION PROVIDED, ALL DIMENSIONS AND LUMINAIRE LOCATIONS SHOWN REPRESENT RECOMMENDED POSITIONS. THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING OR FUTURE FIELD









EXTERIOR BUILDING UPLIGHTING PROTOTYPE PHOTOS

PROJECT NO. 3192540

SHEET NO. EX-1

FXLED150SFY

Color: Bronze



Power Factor:

I FDs:

99.5% at 120V, 93.7% at 277V

results end TM-21 calculations

All values are typical (tolerance +/- 10%)

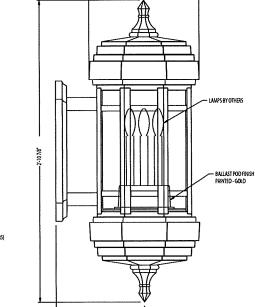
Multip-chip, high-output, long-life LEOs

100,000-hour LED lifespan based on IES LM-80

LED Characteristics

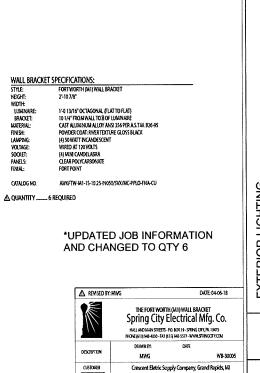
FEATURES CFL RAB Outdoor 3000K (Warm) 71 CRI 18264 119 LPW Horizontal Beam Angle (50%): 91.8°, Verlical Beam Angle (50%): 73.5° Horizontal Field Angle (10%): 121.0°, Vertical Field Angle (10%): 108.0°

KIMLIGHTING Compact Floodlight, LED 2.0 kl_cfl_led_spec.pdf VON MAUR GRAND RAPIDS TYPE NOTES CFL/WF/213KUV/CC FH-CFL/CC-P APPROVALS REVISED SUBMITTAL Certifications Die-cast housing with integral cooling • Second generation LED 2.0 ribs promote efficient transfer of heat. Three beam patterns, Wide Flood, Vertical Flood, and Narrow Flood distributions generate high A variety of mounting options. efficiencies and outstanding uniformity of • IP66 sealed optical chamber. **SPECIFICATIONS** Max Weight = 13 lbs. ORDERING CODE WF 21 3K UV cc 5F 120, 277 Line Volts **BL** Black VF Vertical Flood 4K 4000K 50 500mA DB Dark Bronze NF Narrow Flood 5K 5000K LG Light Gray PS Platinum Silve TT Titanium FH-CFL/CC-P WH White CC Custom Color FH-CFL Fixed Hood SM18 Surface Mount Tenon (SEE ADDITIONAL SUBMITALL PAGE) FS-CFL Full Shield J-27N Surface Mount JBR2/3/21/24 Brass In-Grade Architectural J-Box JW Architectural Wall Moun JBR4/5 Composite In-Grade Architectural J-Box JB1 Architectural J-Box JBR30 Brass In-Grade Staked J-Box J-25N Portable Spear Mount



-----1'-0 13/16' OCTAGONAL

CFL



WOODLAND MALL

10/2018

SB-30005

JCB

SCALE

VON MAUR WOODLAND MALL

 \supset ON WI. 53719 LIGHTING EXTERIOR PROJECT NO. 3192540

SHEET NO.

EX-3

I E E R I 61265

G - N - O

Ζģ

Technical Specifications Listings Color Consistency: Housing: **UL Listing:** 3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color Die-cast aluminum housing and door frame Suitable for wet locations. Suitable for ground Mounting: Color Stability: Heavy-duty Slinfitter for 2 3/8*OD pine IESNA LM-79 & LM-80 Testing: LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period Reflector: RAB LEO luminaires and LEO components have been Specular, vacuum-metalized polycarbonate tested by an independent laboratory in accordance Color Uniformity: with IESNA LM-79 and LM-80. Gaskets: RAB's range of CCT (Correlated Color Temperature) High-temperature silicone gaskets follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-This product is on the Design Lights Consortium (DLC) Finish: Qualified Products List and is eligible for rebates from Formulated for high-durability and long lasting color DLC Product Code: P00001730 Construction Green Technology: Electrical Mercury and UV-free. RoHS compliant components IP Rating: Optical Ingress Protection rating of IP66 for dust and water One Driver, Constant Current, Class 2, 2100mA 100-Maximum Ambient Temperature: NEMA Type: NEMA Beam Spread of 6H x 6V Suitable for use in 40°C (104°F) embient temperatures THD: Effective Projected Area: Sensor Characteristics 4.9% at 120V, 13.9% at 277V Field & Beam Angles:

Weight: 27.2 lbs

EPA = 2

Lens:

Cold Weather Starting:

Thermal Management:

Tempered glass lens

Minimum starting temperature is -40°C (-40°F)

Superior thermal management with external "Air-Flow"

Project:

Von Maur REVISED

Prepared By:

277V: 0.60A Input Watts: 153W

LMFETTIS

Driver Info Type: 120V:

Efficiency:

208V: 240V:

SUBMITTAL 11/9/2018

Constant Current

1.31A

0.80A

0.69A

Type:

Date:

LED Info

Color Accuracy:

L70 Lifespan:

Lumens: Efficacy:

Watts:

9/27/2018

F29/Heads