GENERAL NOTES

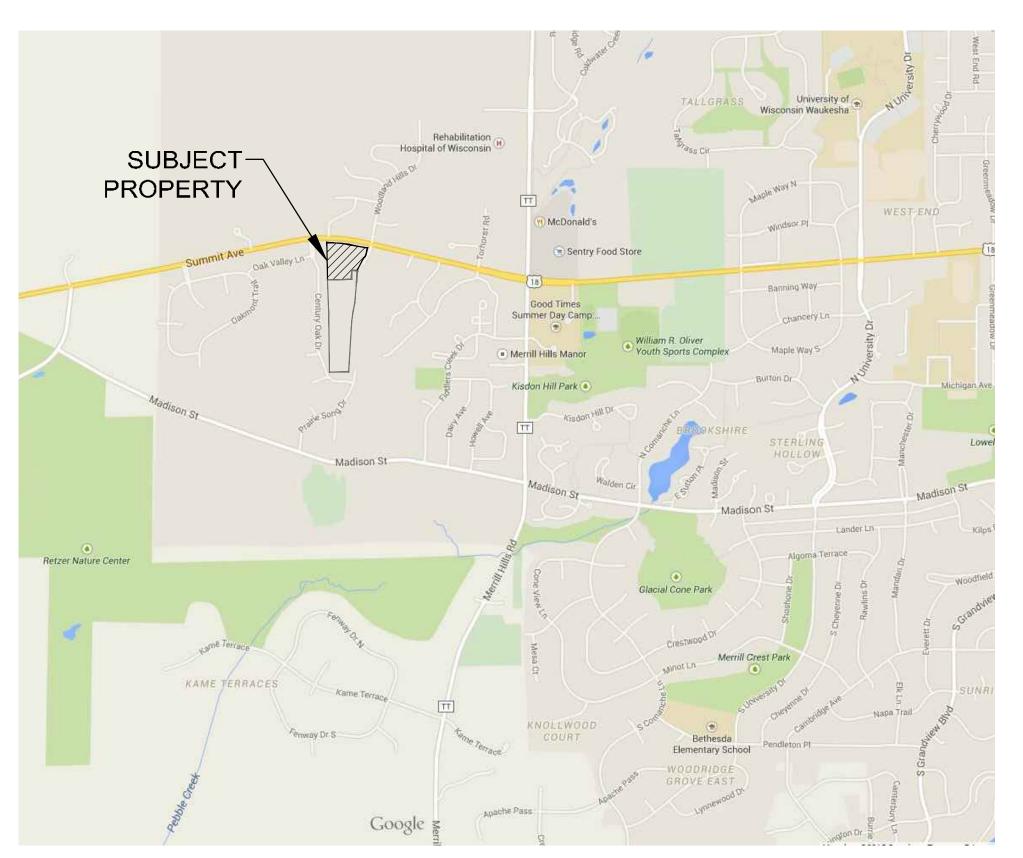
- . THE LATEST EDITIONS OF THE FOLLOWING DOCUMENTS AND ANY SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS ON THIS PLAN UNLESS OTHERWISE NOTED.
- -STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, 6TH EDITION
- -THE WISCONSIN D.O.T. STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION,
- LATEST EDITION
 -WDNR STORMWATER RUNOFF TECHNICAL STANDARDS.
- -WISDOT PAL APPROVED EROSION CONTROL MEASURES LIST, LATEST EDITION.
- -CITY OF WAUKESHA DEVELOPMENT STANDARDS.
 -CITY OF WAUKESHA STANDARDS AND SPECIFICATIONS.
- 2. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO MINIMIZE EROSION, WATER POLLUTION AND SILTATION CAUSED BY CONSTRUCTION OF THIS PROJECT. EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS.
- 3. EROSION CONTROL PLAN: PRIOR TO BEGINNING WORK, AN APPROVED EROSION CONTROL PLAN WILL BE PROVIDED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY IMPLEMENTING THE APPROVED PLAN.
- 4. THE CONTRACTOR SHALL FIELD VERIFY THE ELEVATIONS OF THE BENCHMARKS PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL ALSO FIELD VERIFY LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES, AND VERIFY FLOOR, CURB OR PAVEMENT ELEVATIONS WHERE MATCHING INTO EXISTING WORK. THE CONTRACTOR SHALL FIELD VERIFY HORIZONTAL CONTROL BY REFERENCING SHOWN COORDINATES TO KNOWN PROPERTY LINES. NOTIFY ENGINEER OF DISCREPANCIES IN EITHER VERTICAL OR HORIZONTAL CONTROL PRIOR TO PROCEEDING WITH WORK
- 5. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION (CALL DIGGERS HOTLINE AT 800-242-8511). COST OF REPLACEMENT OR REPAIR OF EXISTING UTILITIES DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATION SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- 6. EXISTING UTILITY INFORMATION IS SHOWN FROM SURVEY WORK, FIELD OBSERVATIONS, AVAILABLE PUBLIC RECORDS, AND AS-BUILT DRAWINGS. EXACT LOCATIONS AND ELEVATIONS OF UTILITIES SHALL BE DETERMINED PRIOR TO INSTALLING NEW WORK. EXCAVATE TEST PITS AS REQUIRED.
- 7. PROPERTY CORNERS SHALL BE CAREFULLY PROTECTED UNTIL THEY HAVE BEEN REFERENCED BY A PROFESSIONAL LAND SURVEYOR. PROPERTY MONUMENTS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- 8. ENGINEER SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF PERFORMING ANY CONSTRUCTION.
- 9. ALL TRENCHING SHALL BE PERFORMED ACCORDING TO OSHA STANDARDS.
- 10. ALL ITEMS SHALL INCLUDE ALL THE NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE.
- 11. THE CONTRACTOR SHALL CLEAN ALL ADJACENT STREETS OF ANY SEDIMENT OR DEBRIS BY SWEEPING BEFORE THE END OF THE WORKING DAY.
- 12. THE CONTRACTOR MUST AND IS REQUIRED TO NOTIFY THE CITY OF WAUKESHA SEWER AND WATER UTILITY A MINIMUM OF 7 DAYS IN ADVANCE OF WATER MAIN FILLING, WATER MAIN FLUSHING, WATER MAIN TESTING AND WATER MAIN CONNECTIONS. NO CONNECTION SHALL BE MADE TO THE EXISTING WATER SYSTEM UNTIL SAFE SAMPLES FROM THE NEW MAIN HAVE BEEN OBTAINED. THE CITY OF WAUKESHA WILL REQUIRE A METER WHEN FLUSHING THE WATER MAIN AFTER THE PRESSURE TEST AND SAFE WATER SAMPLE IS TAKEN.
- 13. CONTRACTOR SHALL NOTIFY THE CITY OF WAUKESHA 7 DAYS PRIOR TO STARTING ANY PUBLIC WATER MAIN AND CULVERT CONSTRUCTION.

ALL SITE IMPROVEMENTS AND CONSTRUCTION SHOWN ON THE PLANS SHALL CONFORM TO THE CITY OF WAUKESHA DEVELOPMENT HANDBOOK & INFRASTRUCTURE SPECIFICATIONS. WHERE THE PLANS DO NOT COMPLY, IT SHALL BE THE SOLE RESPONSIBILITY AND EXPENSE OF THE DEVELOPER TO MAKE REVISIONS TO THE PLANS AND/OR CONSTRUCTED INFRASTRUCTURE TO COMPLY.

PRAIRIE SONG COURTYARDS

CONDOMINIUM SUBDIVISION SITE DEVELOPMENT PLANS

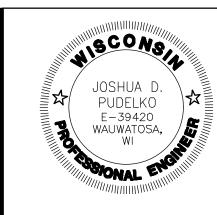
CITY OF WAUKESHA, WISCONSIN





SHEET INDEX

CIVII	
CIVIL	
T1 -	COVER SHEET
C1.0 -	OVERALL EXISTING SITE PLAN
C1.1 -	OVERALL PROPOSED SITE PLAN
C1.2 -	PROPOSED SITE PLAN
C2.0 -	GRADING & DRAINAGE PLAN
C2.1-C2.2 -	PROPOSED POND PLAN
C3.0 -	EROSION CONTROL PLAN
C4.0 -	UTILITY PLAN
C4.1 -	SANITARY SEWER & WATER MAIN PLAN & PROFILE
C4.2 -	STORM SEWER PLAN
C5.0 -	INTERSECTION DETAILS
C6.0-C6.2 -	CONSTRUCTION DETAILS
C6.3 -	CONSTRUCTION SPECIFICATIONS





4100 N. CALHOUN ROAD, SUITE 300 BROOKFIELD, WI 53005 PHONE: (262) 790-1480 FAX: (262) 790-1481 EMAIL: info@trioeng.com

IG COURTYARDS

KAIKIE SON OF WAUKESHA, WISC BIELINSKI COMMER 1830 MEADOW LN, SU

REVISION HISTORY		
ATE	DESCRIPTION	
1/11/19	CITY SUBMITTAL	

DATE:

NOVEMBER 11, 2019

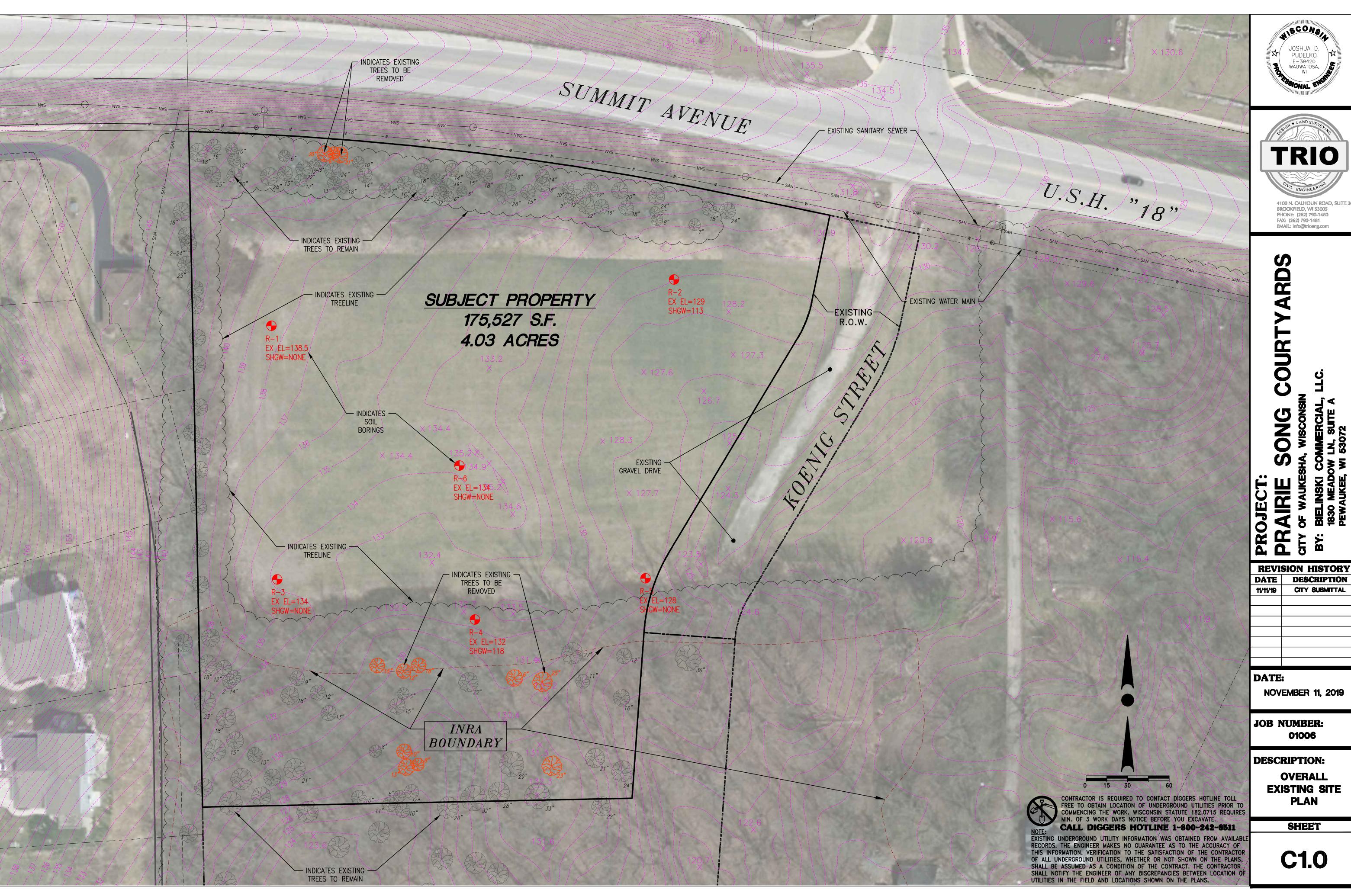
JOB NUMBER: 01006

DESCRIPTION:

COVER SHEET

SHEET

T



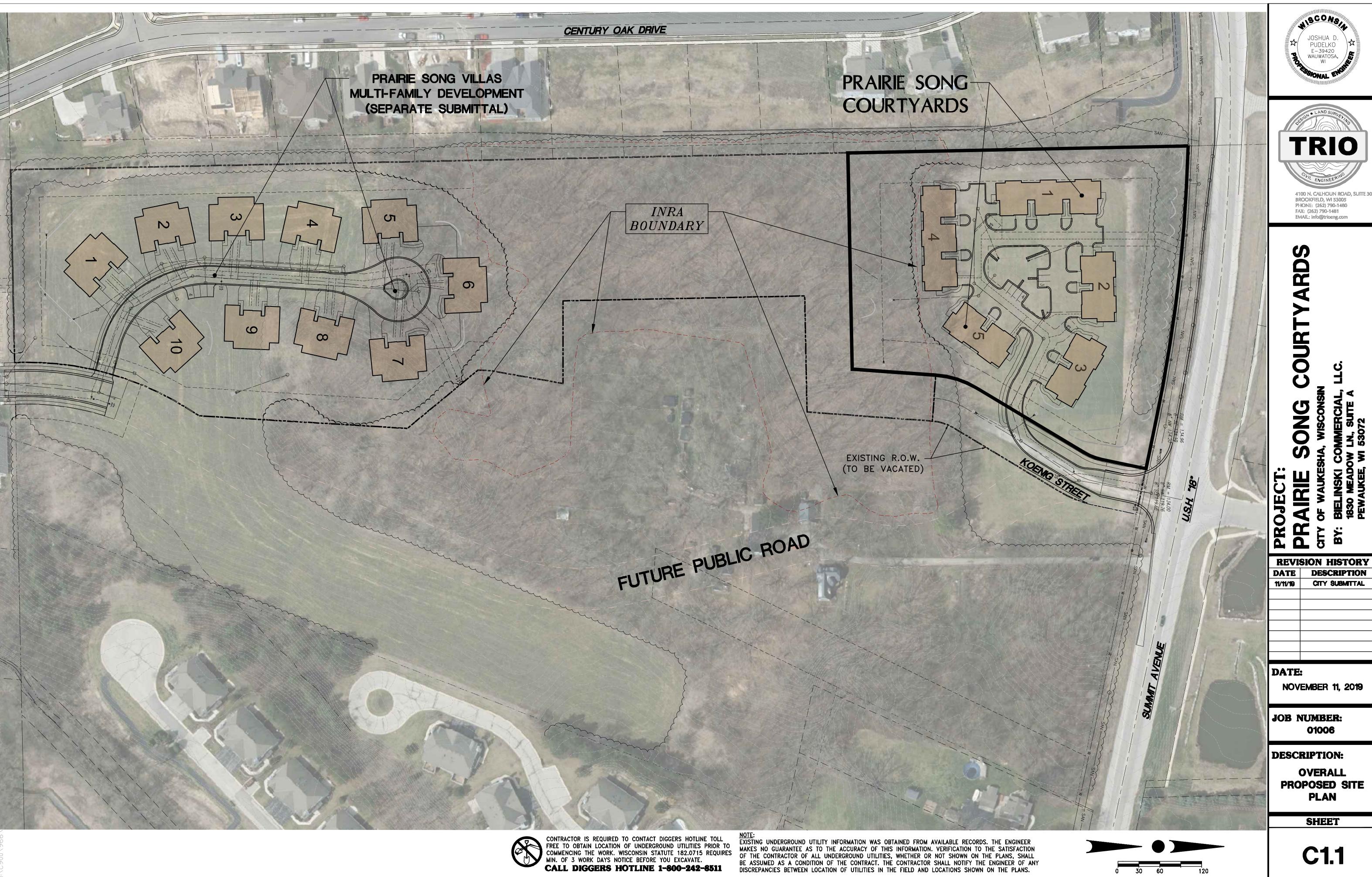




4100 N. CALHOUN ROAD, SUITE 300 BROOKFIELD, WI 53005 PHONE: (262) 790-1480

REVISION HISTORY DATE DESCRIPTION 11/11/19 CITY SUBMITTAL

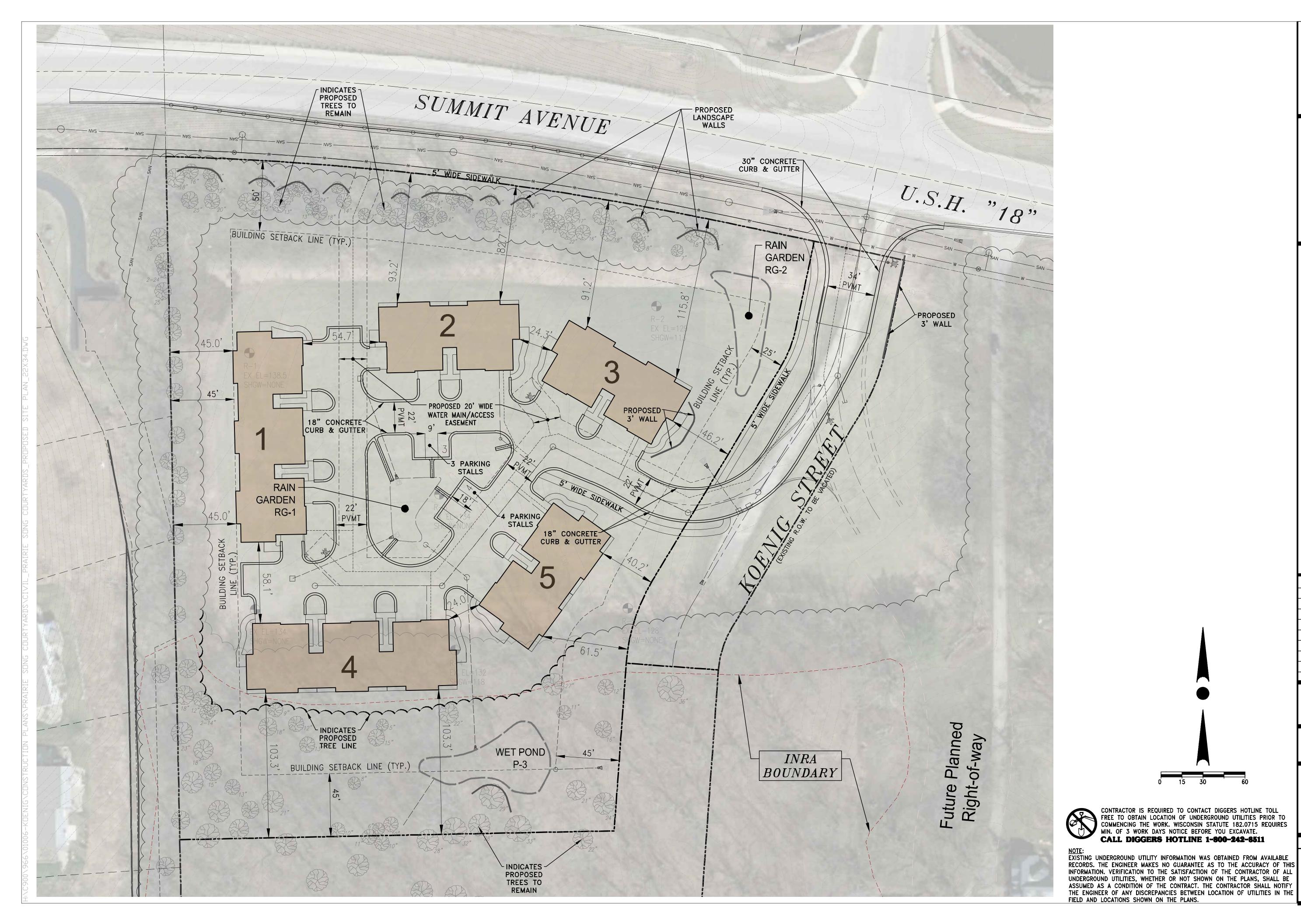
NOVEMBER 11, 2019





4100 N. CALHOUN ROAD, SUITE 300 BROOKFIELD, WI 53005 PHONE: (262) 790-1480 FAX: (262) 790-1481 EMAIL: info@trioeng.com

PROPOSED SITE







4100 N. CALHOUN ROAD, SUITE 300 BROOKFIELD, WI 53005 PHONE: (262) 790-1480 FAX: (262) 790-1481 EMAIL: info@trioeng.com

YARDS COURT

PROJI
PRAI
CITY OF 1
BY: BIEI
1830

REVISION HISTORY	
ATE	DESCRIPTION
/11/19	CITY SUBMITTAL

DATE:

NOVEMBER 11, 2019

JOB NUMBER: 01006

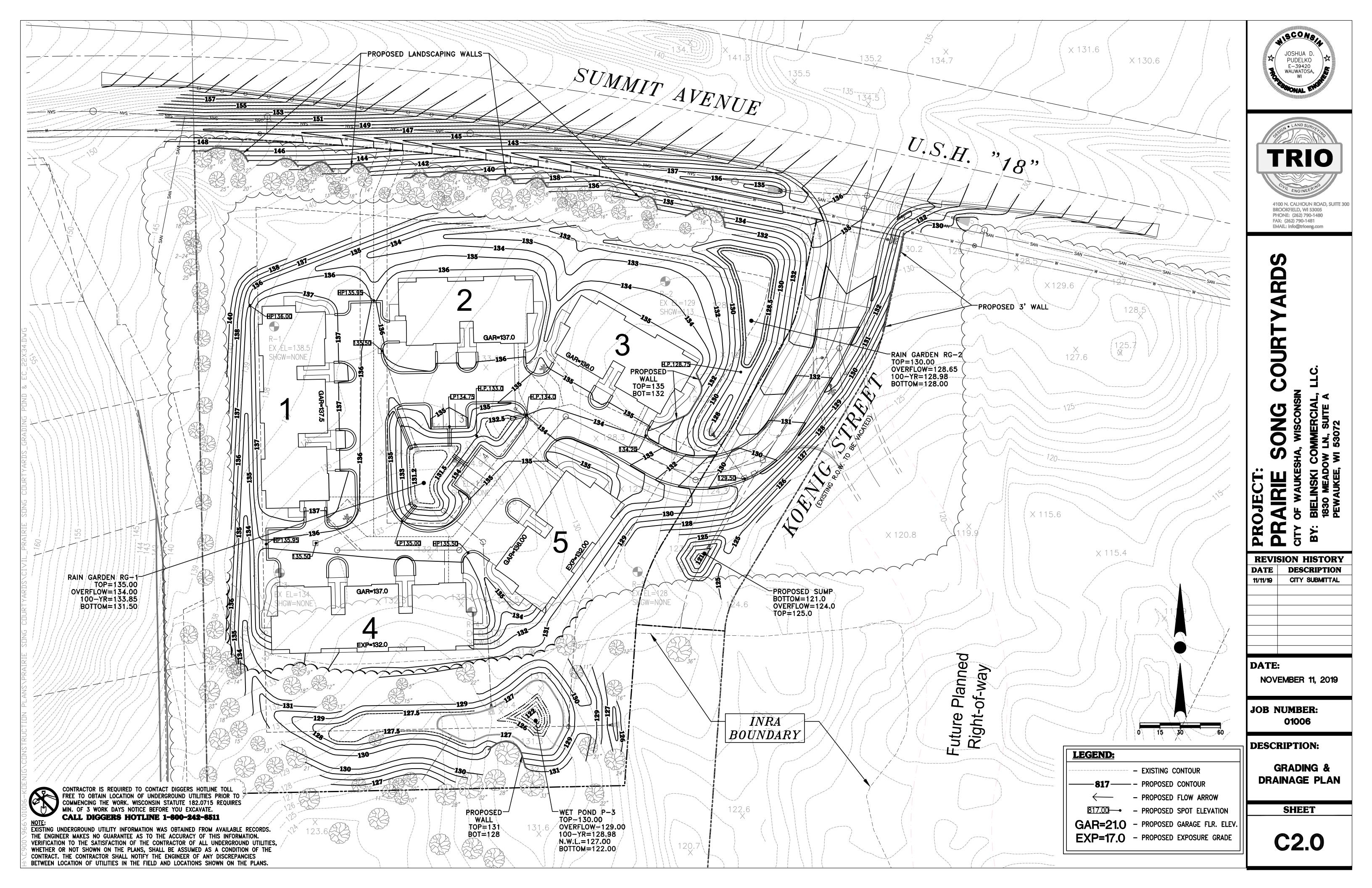
DESCRIPTION:

0 15 30 60

PROPOSED SITE **PLAN**

SHEET

C1.2



CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE. EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON THE PLANS. PER PLAN -|---10' MIN. ---| VARIES PER PLAN BOTTOM OF PROPOSED POND NOT TO SCALE NOTE: GRADES FOR TOP OF BERM, OVERFLOW SPILLWAY, AND BOTTOM OF POND SHALL BE PER PLAN.

-CLAY LINER MATERIALS SHOULD BE COMPACTED TO A MINIMUM OF 90 TO 92% DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR (ASTM D1557) **CALL DIGGERS HOTLINE 1-800-242-8511** -IF PREDOMINANTLY GRANULAR TEXTURE SOILS AND/OR GROUNDWATER INFLOW IS ENCOUNTERED AT OR BELOW THE BOTTOM ELEVATION OF THE POND, A "SACRIFICIAL" LIFT OF CLAYEY FILL MAY BE REQUIRED TO BE PLACED ALONG THE SIDEWALLS AND BASE PRIOR TO COMMENCING WITH ACTUAL LINER PLACEMENT/CONSTRUCTION TO AID IN ATTAINING A SATISFACTORILY COMPACTED LINER SECTION. THE PLACEMENT OF A "SACRIFICIAL" LAYER IS PARTICULARY BENEFICIAL IN CREATING A STABLE SUBBASE IN THE EVENT SLIGHT GROUNDWATER SEEPAGE OCCURS. - GEOTECHNICAL TESTING SHALL BE PERFORMED ON POTENTIAL CLAY LINER MATERIAL TO CONFIRM THAT SPECIFICATIONS ARE MET. -CLAY LINER SHALL EXTEND UP TO 2-YEAR WATER SURFACE ELEVATION. GAR=137.0 TOP OF BERM EXP=132.0 LEMERGENCY OVERFLOW WEIR (TO BE ARMORED WITH NA GREEN C350 MATTING OR EQUAL TO BASE OF SLOPE) ←OUTLET PIPE TYPICAL EMERGENCY OVERFLOW WEIR DETAIL 37.1'-10" HDPE @ S=1.34% 12" F.E.S. — IE=127.00 IE = 126.50WET POND OUTLET STRUCTURE & PIPE PROPOSED-WALL OUTLET PIPE + TOP=131 BOT=128 40.0'-4" HDPE 0/S=2.50%m- Trash grate bolted m-PROPOSED WET POND P-3 TO STRUCTURE 737.1 LF-10" OUTLET PIPE @ S=1.34% (HAALA INDUSTRIES INC.-ROUND MANHOLE POND N.W.L. - 127.00 SKIMMER - ITEM BOTTOM - 122.00 36" DIA. PRECAST → CONCRETE STRUCTURE RIM=128.20 #PS36-442 OR EQUIV.) TOP - 130.00 **SPILLWAY - 129.00** 100 YR. EL. - 128.98 6" ORIFICE -IE=127.60 10 YR. EL. - 128.16 2 YR. EL. - 127.68 3' DIA. 1 YR. EL. - 127.56 36" DIAMETER PRECAST-10" HDPE OUTLET PIPE -IE=127.00 CONCRETE STRUCTURE RAIN GARDEN BOTTOM-ELEV. = 127.006" ORIFICE ¬ WET POND P-3 OUTLET STRUCTURE DETAIL I.E. 127.60 TOP OF BERM EL.=130.00 OVERFLOW _=129.00_ 100-YEAR EL. 128.98 ∕−10" I.E. 127.00 TOP = 128.20/10' WIDE SAFETY SHELF -4" IE=127.00 AT 10H:1V SLOPE NORMAL WATER EL=127.00 6"-8" RIP-RAP AROUND CLAY ANTI-SEEP DAM ON-#4 @ 6" OC OUTLET PIPES AT 12" EACH WAY WET POND MIN. IN ALL DIRECTIONS CLAY ANTI-SEEP DAM ON AROUND THE PIPE OUTLET PIPES AT 12" MIN. IN ALL DIRECTIONS 2' CLAY LINER-AROUND THE PIPE BOTTOM (REFER TO CLAY OUTLET PIPE-LINER NOTES) EL=122.00 OUTLET PIPE 40.0'-4" HDPE 37.1'-10" HDPE @ S=2.50% @ S=1.34%



CLAY LINER NOTE:

-2' THICK CLAY LINER IN ACCORDANCE WITH WDNR TECH. STD. 1001 TYPE B, AND SOILS REPORT.



S

BROOKFIELD, WI 53005 PHONE: (262) 790-1480 FAX: (262) 790-1481 EMAIL: info@trioeng.com

ARD OURT ECT ROJI RAI Y OF 1836

PF	
REVISION HISTORY	
DATE	DESCRIPTION
11/11/19	CITY SUBMITTAL

DATE:

NOVEMBER 11, 2019

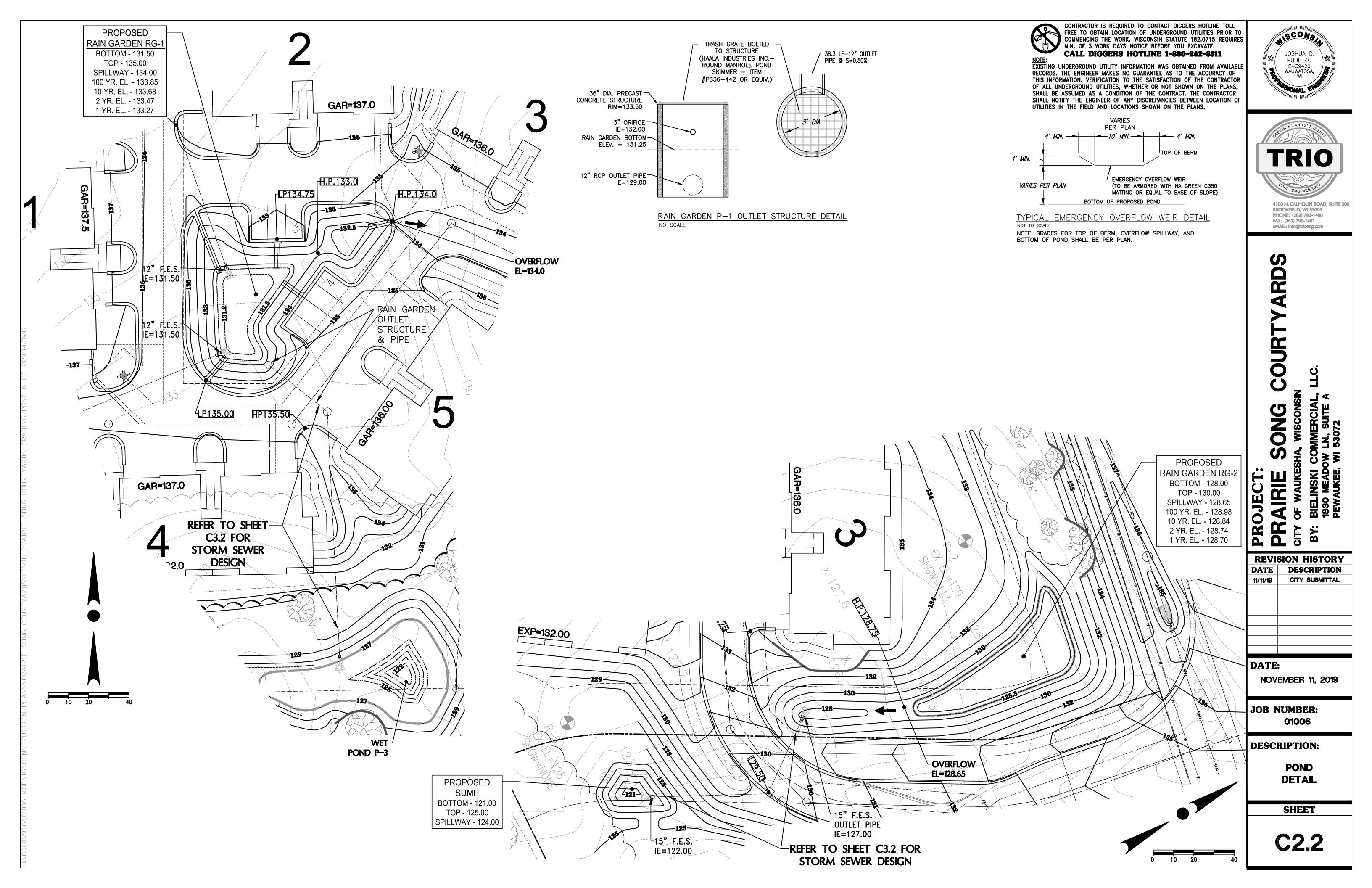
JOB NUMBER: 01006

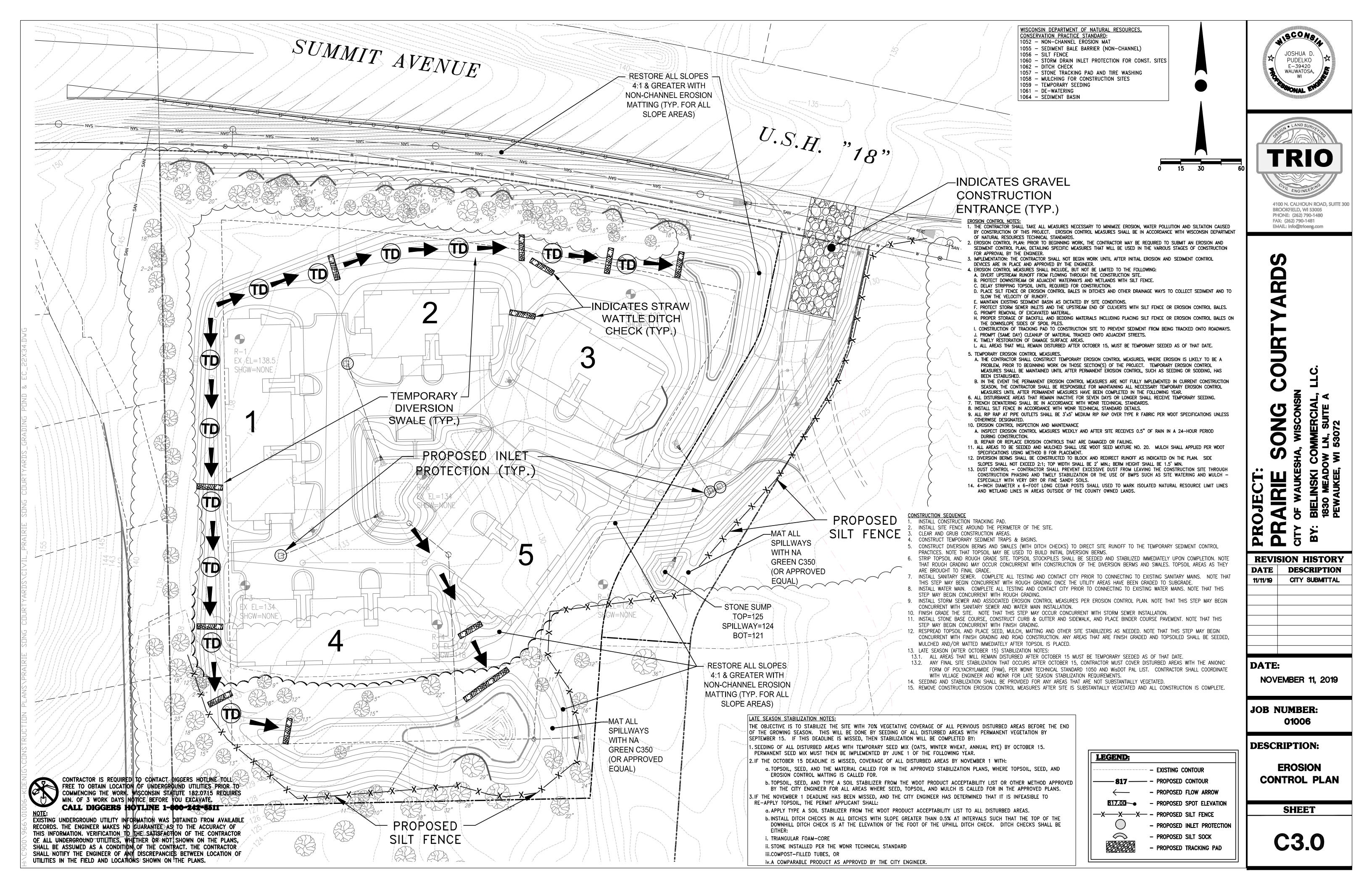
DESCRIPTION:

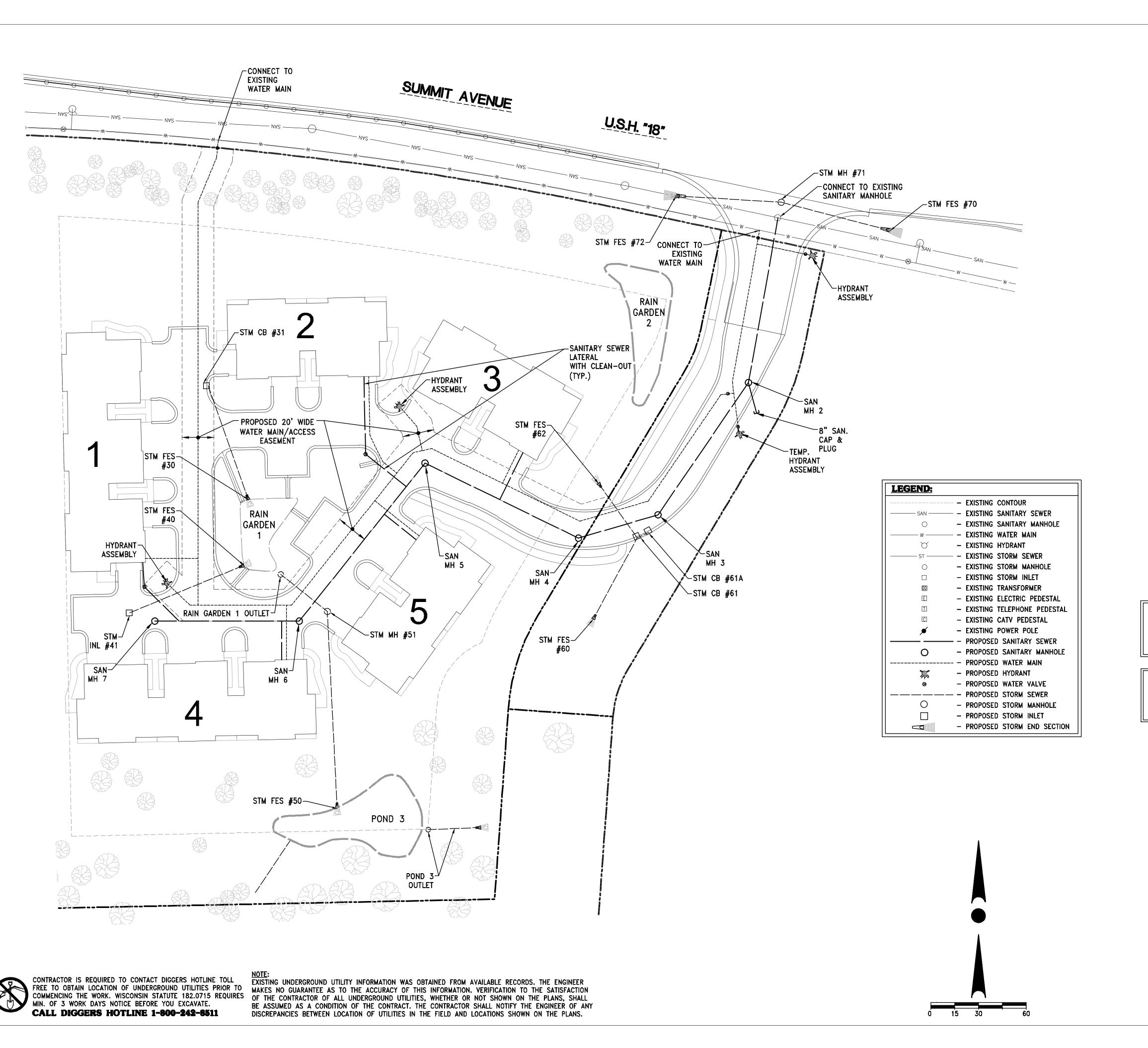
POND DETAIL

SHEET

C2.1







SANITARY SEWER NOTES

SANITARY SEWER

- ALL 8" PVC SEWER PIPE SHALL MEET THE REQUIREMENTS SET FORTH IN SECTION 8.10.0 (SSSWCW).
- ALL SANITARY MANHOLES SHALL BE 48" DIA. WITH A NEENAH R-1661 FRAME AND SELF-SEALING LID (NON LOCKING TYPE) WITH NO VENT HOLES AND MEET THE
- REQUIREMENTS SET FORTH IN SSSWCW.
- SDR-35 PVC PIPE SHALL BE USED FOR SANITARY SEWERS LESS THAN 16 FEET DEEP. C-900 PVC PRESSURE PIPE SHALL BE USED FOR SANITARY SEWERS DEEPER THAN 16
- MAPLE HEART BOARDS SHALL BE PROVIDED AT ALL SANITARY SEWER LATERAL END

CONTRACTOR SHALL INSTALL PLASTIC COATED TRACER WIRE (10 TO 14 GAUGE SOLID COPPER, OR COPPER COATED STEEL WIRE) PER COMM 82.30(11)(H). PLASTIC WIRE MAY BE TAPED TO PLASTIC DRAIN PIPE. IF ATTACHED, THE TRACER SHALL BE SECURED EVERY 6 TO 20 FEET AND AT ALL BENDS. TRACER WIRE SHALL HAVE ACCESS POINTS AT LEAST EVERY 300 FEET.

WATER MAIN NOTES

CONTACT WAUKESHA WATER UTILITY AT (262) 521-5272

• ALL 8" WATERMAIN CONSTRUCTED AS PART OF THIS PLAN SHALL BE PVC, C-900,

- CLASS 150 (DR-18).
- PVC PIPE SHALL HAVE PUSH-ON JOINTS WITH RUBBER GASKET. HYDRANTS SHALL BE SET AT 2 FT. BEHIND THE BACK OF CURB, WITH THE NOZZLE
- ELEVATION 20 INCHES ABOVE TOP OF CURB. ANCHOR TEES SHALL BE USED FOR EACH HYDRANT BRANCH.
- ALL WATERMAINS (AND SERVICES) CALLED FOR ON THESE PLANS ARE TO BE INSTALLED WITH CLASS "B" BEDDING AS SPECIFIED IN CH. 4.3.0, LAYING OF WATERMAIN, AND FILE NO. 36, PART VII (SSSWCW).

TRACER WIRE NOTE

CONTRACTOR SHALL INSTALL PLASTIC COATED TRACER WIRE (10 TO 14 GAUGE SOLID COPPER, OR COPPER COATED STEEL WIRE) PER COMM 82.30(11)(H). PLASTIC WIRE MAY BE TAPED TO PLASTIC PIPE. IF ATTACHED, THE TRACER SHALL BE SECURED EVERY 6 TO 20 FEET AND AT ALL BENDS. TRACER WIRE SHALL HAVE ACCESS POINTS AT LEAST EVERY 300 FEET.

STORM SEWER NOTES

STORM SEWER

- ALL PUBLIC STORM SEWER SHALL BE RCP (REINFORCED CONCRETE PIPE) WITH GASKETED JOINTS.
- STORM SEWER SHALL BE R.C.P. MEETING SECTION 8.6.0 (SSSWCW) AND BE RUBBER GASKETED MEETING THE REQUIREMENTS SET FORTH IN WSWS CHAPTER
- PIPE CLASSES:
- 12" DIA. RCP STORM SEWER SHALL BE CL-V
- 15" DIA. RCP STORM SEWER SHALL BE CL-IV
- 18" & ABOVE DIA. RCP STORM SEWER SHALL BE CL-III
- STORM MANHOLES SHALL BE 48" DIAMETER PRECAST CONCRETE FOR STORM MAINS OF 24" DIAMETER OR SMALLER WITH NEENAH R-1660 FRAMES & COVERS WITH 6 VENT HOLES.
- STORM MANHOLES IN EASEMENTS SHALL USE NEENAH R-1660 FRAMES WITH TYPE C GRATES.
- CATCH BASINS SHALL HAVE 24" SUMPS AND SHALL CONFORM TO FILE NO. 26 OF THE STANDARD SPECIFICATIONS WITH A NEENAH R-3067-C FOR VERTICAL CURB
- APPLICATIONS. FIELD INLETS USE A NEENAH R-2560-D8 TYPE BEEHIVE CASTING.

TRACER WIRE NOTE

• CONTRACTOR SHALL INSTALL PLASTIC COATED TRACER WIRE (10 TO 14 GAUGE SOLID COPPER, OR COPPER COATED STEEL WIRE) PER COMM 82.30(11)(H). PLASTIC WIRE MAY BE TAPED TO PLASTIC PIPE. IF ATTACHED, THE TRACER SHALL BE SECURED EVERY 6 TO 20 FEET AND AT ALL BENDS. TRACER WIRE SHALL HAVE ACCESS POINTS AT LEAST EVERY 300 FEET.

COMPACTION NOTE

THE DEVELOPER SHALL CONTRACT WITH A SOIL TESTING FIRM TO PERFORM COMPACTION TESTING ON TRENCHES FOR ALL PROJECTS. THE DEVELOPER WILL BE REQUIRED TO MEET A MINIMUM COMPACTION OF 90% STANDARD PROCTOR DENSITY IN THE BOTTOM 3 FEET AND A MINIMUM COMPACTION OF 95% STANDARD PROCTOR DENSITY IN THE TOP 3 FEET OF THE EXCAVATED MATERIAL ON GRANULAR BACKFILL.

BACKFILL NOTES

TRENCH BACKFILL

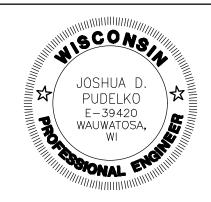
• BACKFILL FOR ALL TRENCHES SHALL BE 1 1/4" CRUSHED LIMESTONE TB (SECTION 305.2.2.1 OF THE WISDOT STD. SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION) UNLESS OTHERWISE NOTED IN THE PROFILE OR IN THE PROJECT SPECIFICATION.

NOTE:
ALL MATERIALS SHALL BE APPROVED BY THE CITY OF
WAUKESHA PUBLIC WORKS DEPARTMENT PRIOR TO INSTALLATION.

ALL SANITARY SEWER AND WATER MAIN SEWER TO BE INSTALLED IN ACCORDANCE WITH CITY OF WAUKESHA STANDARDS.

NOTE:
ALL APPLICATIONS AND FEES FOR UTILITIES MUST BE COMPLETED AND PAID PRIOR TO CONNECTION TO EXISTING UTILITIES.

ANY WORK IN THE RIGHT-OF-WAY AND ALL UTILITY CONNECTIONS TO BE INSPECTED BY THE CITY. NOTIFY CITY 72 HOURS IN ADVANCE OF CONNECTING TO SEWER.





4100 N. CALHOUN ROAD, SUITE 300 BROOKFIELD, WI 53005 PHONE: (262) 790-1480 FAX: (262) 790-1481 EMAIL: info@trioeng.com

ARD OUR

UNO PROJ PRAI

Ш

REVISION HISTORY DESCRIPTION DATE CITY SUBMITTAL

11/11/19

DATE:

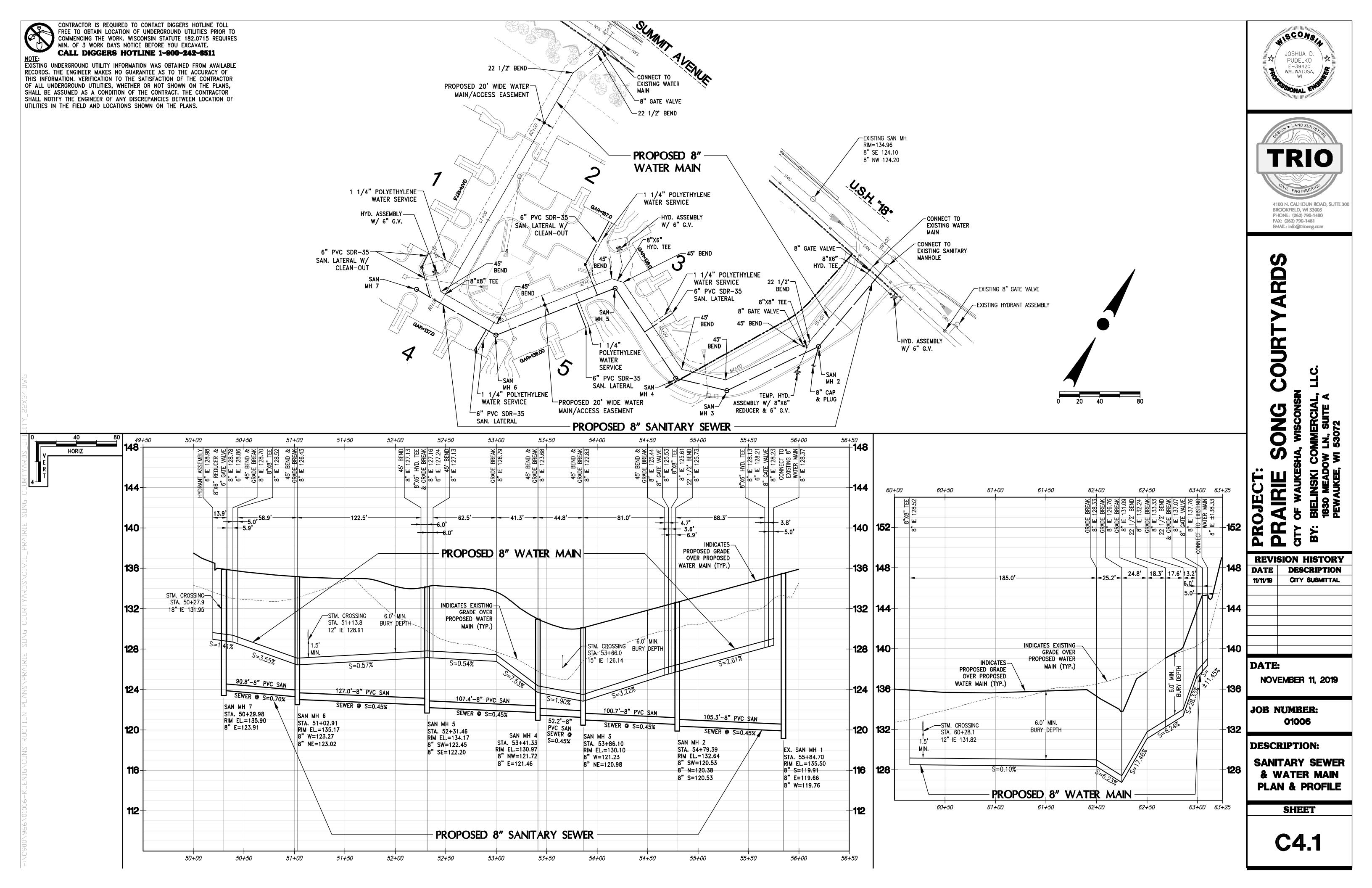
NOVEMBER 11, 2019

JOB NUMBER: 01006

DESCRIPTION: OVERALL SANITARY SEWER & WATER MAIN SYSTEM PLAN

SHEET

C4.0



CONTRACTOR IS REQUIRED TO CONTACT DIGGERS HOTLINE TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND UTILITIES PRIOR TO COMMENCING THE WORK. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

CALL DIGGERS HOTLINE 1-800-242-8511

EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN LOCATION OF





PHONE: (262) 790-1480 FAX: (262) 790-1481 EMAIL: info@trioeng.com

ARDS COURT UNO ONO ECT: ROJI RAI PEN 1836

<u> </u>	
REVI	SION HISTORY
DATE	DESCRIPTION
11/11/19	CITY SUBMITTAL

DATE:

NOVEMBER 11, 2019

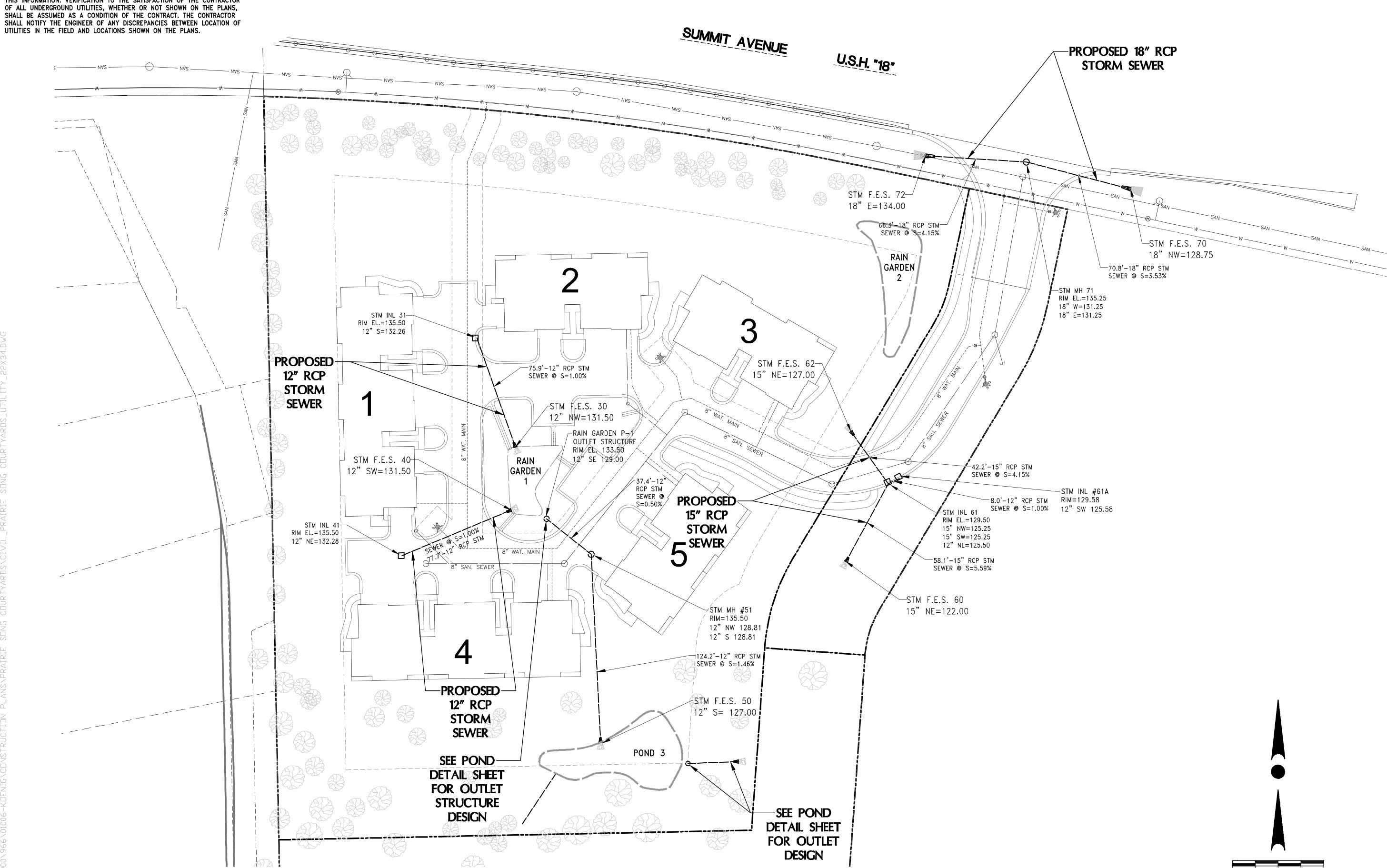
JOB NUMBER: 01006

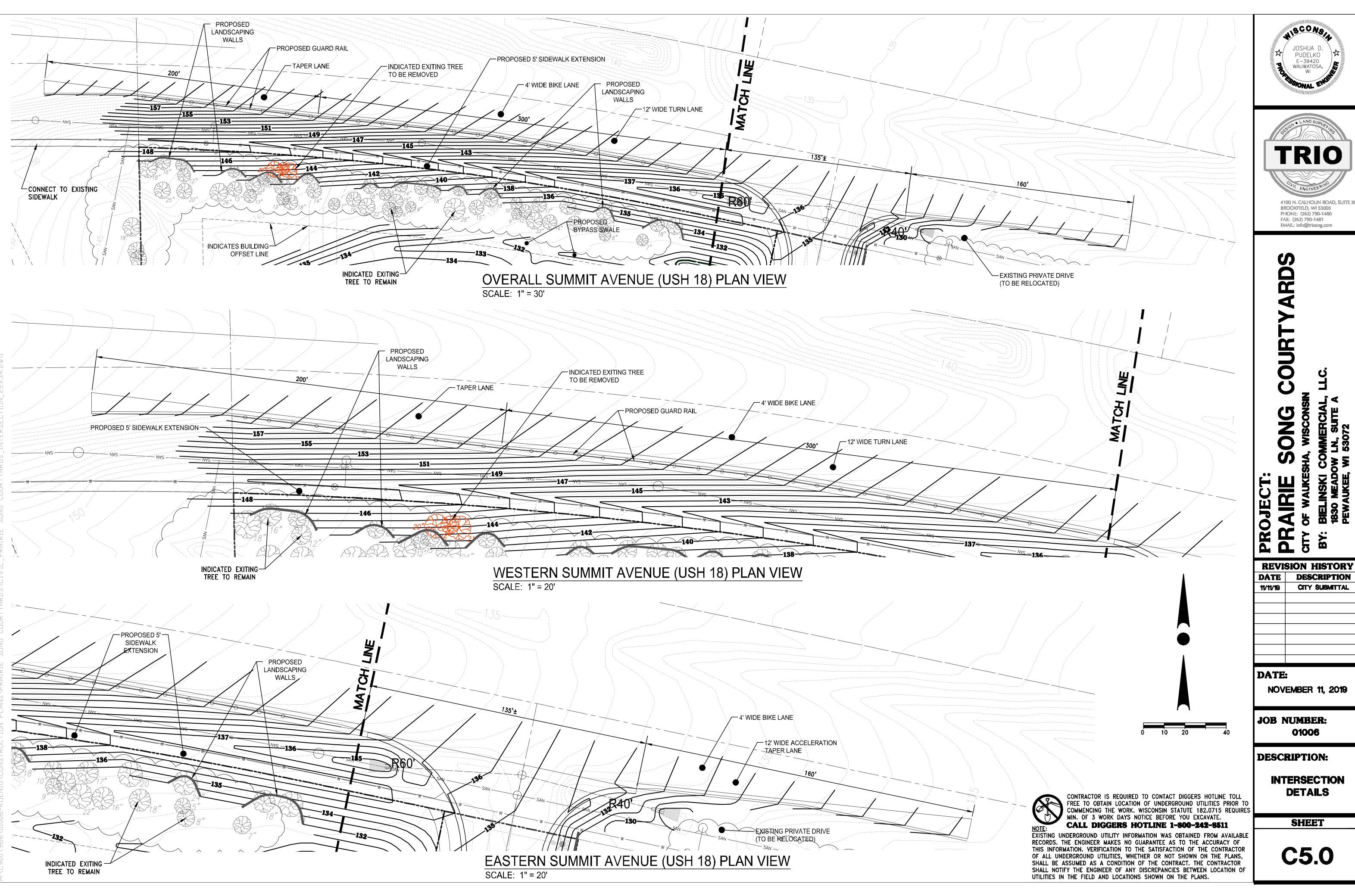
DESCRIPTION:

PROPOSED STORM SEWER

SHEET

C4.2





JOSHUA D. PUDELKO E-39420 WAUWATOSA,



4100 N. CALHOUN ROAD, SUITE 300 BROOKFIELD, WI 53005

P C	7 2 5 5	
REVISION HISTORY		
DATE	DESCRIPTION	
11/11/19	CITY SUBMITTAL	

NOVEMBER 11, 2019

01006

INTERSECTION **DETAILS**

C5.0

COMPLIANT DOCUMENTATION:

- THE LATEST EDITIONS OF THE FOLLOWING DOCUMENTS AND ANY SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS ON THIS PLAN UNLESS OTHERWISE NOTED.
- -STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, 6TH
- EDITION (SSSWCW) -THE WISCONSIN D.O.T. STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION
- -WDNR STORMWATER RUNOFF TECHNICAL STANDARDS. -WISDOT PAL APPROVED EROSION CONTROL MEASURES LIST, LATEST EDITION. -CITY OF WAUKESHA DEVELOPMENT STANDARDS, LATEST EDITION.

CONTRACTOR RESPONSIBILITY:

-EXISTING UNDERGROUND UTILITY INFORMATION WAS OBTAINED FROM AVAILABLE RECORDS AND FIELD SURVEY. THE ENGINEER MAKES NO GUARANTEE AS TO THE ACCURACY OF THIS INFORMATION. VERIFICATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE ASSUMED AS

DISCREPANCIES BETWEEN LOCATION OF UTILITIES IN THE FIELD AND LOCATIONS SHOWN ON -THE LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND

APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE

INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS ITEMS.

A CONDITION OF THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY

-THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE 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 AND SUB-CONTRACTOR(S) TO INITIATE MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THIS WORK. THE CONTRACTOR SHALL ALSO BE SOLELY RESPONSIBLE FOR ALL REQUIRED PERMITS, UNLESS OTHERWISE SPECIFIED.

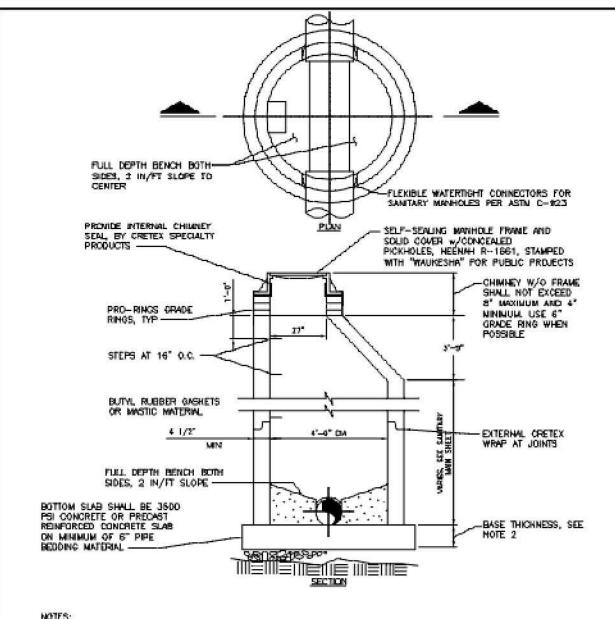
- -THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER AS CONSTRUCTION ACTIVITIES ARE COMPLETED TO PROVIDE CONSTRUCTION OVERSIGHT AND INSPECTION IN ACCORDANCE WITH THE COSTRUCTION INSPECTION PLAN.
- -THE OWNER WILL PROVIDE ALL SURVEYING AND CONSTRUCTION STAKING FOR THIS CONTRACT. THE CONTRACTOR SHALL EXERCISE CARE AND DILIGENCE IN PROTECTING THE SAME. ANY EXPENSE INCURRED FOR ADDITIONAL RESTAKING CAUSED BY CONTRACTOR'S NEGLECT MAY BE CHARGED TO THE CONTRACTOR AND DEDUCTED FROM THE SUMS DUE HIM UNDER THIS CONTRACT.
- —ALL TRENCHES SHALL BE BACKFILLED OR SECURELY PLATED DURING NON—WORKING HOURS.
- -CONTRACTOR SHALL BE PREPARED FOR DEWATERING CONDITIONS BY HAVING APPROPRIATE PUMPS AND FILTER BAGS ONSITE FOR DEWATERING AND REMOVAL OF ALL SEDIMENT PER CITY, COUNTY AND WDNR REQUIREMENTS PER TECHNICAL STANDARD 1061.

TRAFFIC CONTROL:

-PUBLIC ROADS SHALL NOT BE FULLY CLOSED TO TRAFFIC AT ANY TIME. ALL INGRESS AND EGRESS TRAFFIC TO THE PROJECT SHALL BE LIMITED TO THE GRAVEL ENTRANCE TO THE

CONSTRUCTION NOTES:

- 1. ALL WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, STATE OF WISCONSIN, LATEST EDITION, UNLESS OTHERWISE CALLED FOR ON THE PLANS, SPECIFICATIONS OR SPECIAL PROVISIONS.
- 2. ALL EROSION CONTROL MEASURES SPECIFIED ON THIS PLAN SHALL MEET THE DESIGN CRITERIA, STANDARDS AND SPECIFICATIONS AS SET FORTH IN THE DEPARTMENT OF NATURAL RESOURCES WISCONSIN BEST MANAGEMENT PRACTICE HANDBOOK AND TECHNICAL STANDARDS.
- 3. ALL EROSION CONTROL DEVICES (I.E., SILT FENCE, SILT SOCK, GRAVEL ENTRANCE, SILTATION BASIN, ETC.), SHALL BE INSTALLED PRIOR TO COMMENCING ANY GRADING OR UTILITY CONSTRUCTION. GRADING ASSOCIATED WITH INSTALLATION OF EROSION OR SEDIMENTARY PRACTICES MAY OCCUR CONCURRENTLY WITH INSTALLATION OF PRACTICES.
- 4. ALL ACTIVITIES ON THE SITE SHALL BE CONDUCTED IN A LOGICAL SEQUENCE TO MINIMIZE THE AREA OF BARE SOIL EXPOSED AT ANY ONE TIME. REFER TO THE CONSTRUCTION SEQUENCING PLAN FOR ADDITIONAL INFORMATION.
- 5. THE OWNER IS RESPONSIBLE FOR OBTAINING A GRADING AND/OR EROSION CONTROL PERMIT (OR ANY OTHER APPLICABLE PERMITS) PRIOR TO CONSTRUCTION.
- 6. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE, ALL TOWN UTILITY DEPARTMENTS, AND GOVERNMENT UNITS WHOSE PROPERTY MAY BE AFFECTED BY THE CONTRACTOR'S OPERATIONS AT LEAST THREE (3) DAYS BEFORE BREAKING GROUND. DIGGERS HOTLINE NUMBER IS 1-800-242-8511.
- 7. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CLEANLINESS OF THE PROJECT AND PUBLIC ROADWAYS DURING CONSTRUCTION PER THE REQUIREMENTS SET FORTH BY THE LOCAL AND COUNTY AGENCIES, STREETS SHALL BE KEPT FREE OF SILT OR DIRT TRACKED FROM AREAS UNDER CONSTRUCTION BY SWEEPING OR OTHER APPROPRIATE MEASURES. DUST GENERATED BY CONSTRUCTION ACTIVITIES SHALL BE MINIMIZED BY USE OF WATERING, CALCIUM CHLORIDE SURFACE TREATMENT, CONSTRUCTION SCHEDULING OR OTHER APPROPRIATE METHODS.
- 8. INLETS SHALL BE PROTECTED WITH AN EROSION BARRIER MEETING WDNR TECHNICAL STANDARD 1060 UNTIL THE AREA HAS BEEN STABILIZED. FREQUENT INSPECTION AND TIMELY MAINTENANCE IS REQUIRED.
- 9. UPON COMPLETION OF THE WORK AS SPECIFIED, RESPREAD A MINIMUM OF FOUR (4") INCHES OF SALVAGED TOPSOIL OVER ALL DISTURBED AREAS AND PROVIDE SEED, FERTILIZER AND MULCH PER THE STANDARD SPECIFICATIONS.
- 10. ALL DISTURBED AREAS SHALL BE REVEGATATED WITHIN SEVEN DAYS AFTER BEING DISTURBED USING THE SEED MIX SPECIFIED ON THE PLANS.
- 11. ALL EROSION CONTROL DEVICES SHALL BE ROUTINELY INSPECTED EVERY SEVEN DAYS AND WITHIN 24 HOURS OF A RAINFALL GREATER THAN 0.5 INCHES. CONTRACTOR IS REQUIRED TO PERFORM INSPECTIONS, KEEP A LOG, AND REPAIR BMP'S AS NEEDED.
- 12. REFER TO EROSION CONTROL PLAN FOR SITE EROSION CONTROL ELEMENTS, REQUIREMENTS.

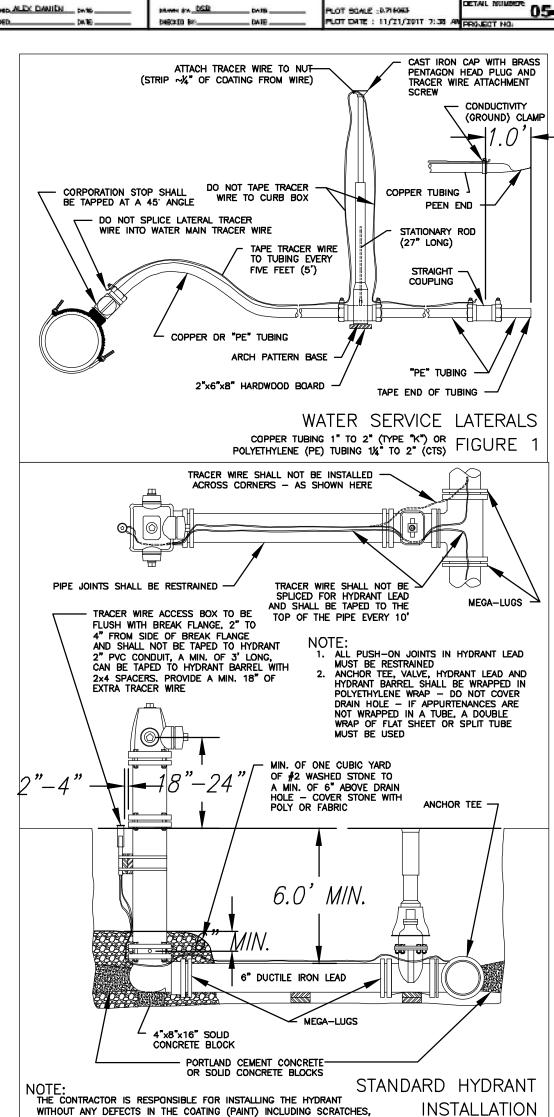


MANHOLE SECTIONS, BASES AND TOP SLABS SHALL BE PRECAST REINFORCED CONCRETE CONSTRUCTED IN ACCORDANCE WITH ASTM C-478.

2. THE BASE THICKNESS SHALL BE 8-INCHES FOR DEPTHS 10 FEET OR LESS AND 12-INCHES FOR DEPTHS OVER 10 FEET. JOINTS BETWEEN MANHOLE SECTIONS SHALL BE TONGUE AND GROOVE WITH COMPRESSION TYPE RUBBER GASKET CONFORMING TO ASTM C443 OR/AND APPROVED BITUMASTIC MATERIA 4. THE INVERT CHANNEL SHALL BE TROMELED SMOOTH, DENSE SURFACE AND A SEMICIRLE SHAPE CONFORMING TO THE INSIDE OF THE ADJACENT SEVER SECTIONS.

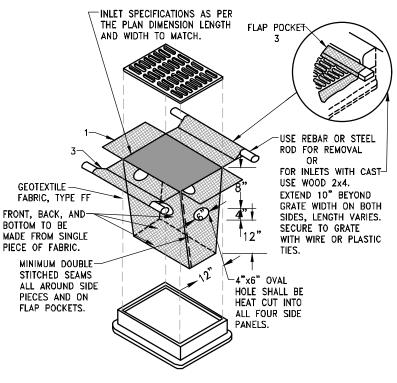
5. ALL PIPE SHALL BE GROUTED IN-PLACE INTO NEW MANHOLE WALLS, PROVIDE A WATERTIGHT, FLEXIBLE SEAL BETWEEN PIPE AND MANHOLE, CONNECTORS SHALL BE MANUFACTURED BY A-LOK PRODUCTS, INC OR EQUAL AND SHALL BE INSTALLED IN ACCORDANCE WITH WAYUFFCTURER'S B. MANHOLE CASTINGS SHALL BE NEEMAH R-1661 FRAME AND SELF-SEALING SOLID COVER WITH CONCEALED PICK-HOLES WITH THE "CITY OF WAUKESHA" & "DPW" ON PUBLIC MANHOLES.
7. ALL ANNULAR SPACES SHALL BE FILLED WITH A MASTIC OR CEMENTITIOUS FILLER.

STANDARD CONSTRUCTION DETAILS CITY OF WAUKESHA --SANITARY MANHOLE--DEPARTMENT OF PUBLIC WORKS HAMPONED ALEX DANIEN DATE



CHIPS OR RUST. ANY DEFECTS FOUND IN THE COATING (PAINT), THE CONTRACTOR SHALL REPAINT THE HYDRANT(S) PER THE WAUKESHA WATER UTILITY'S HYDRANT REPAINTING SPECIFICATION.

FIGURE 2



INLET PROTECTION, TYPE D (CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT

NO SCALE

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

WOOD POSTS-LENGTH 3'-4' 20" DEPTH IN GROUND

FABRIC ONLY

TIEBACK BETWEEN FENCE POST AND ANCHOR

ATTACH THE FABRIC TO THE POSTS WITH WIRE

STAPLES OR WOODEN LATH

FLOW DIRECTION -

SILT FENCE TIE BACK

(WHEN ADDITIONAL SUPPORT REQUIRED)

NO SCALE

SILT FENCE

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED

- 1. FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR
- 2. 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.

SUPPORT CORD +

WOVEN GEOTEXTILE FABRIC IS USED.

FLOW DIRECTION (2)

TRENCH DETAIL

SILT FENCE INSTALLATION DETAIL

3. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

A CURB BOX AS PER NOTE 2) INSTALLATION NOTES:

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"

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.

TWIST METHOD

HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE

① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT

3 WOOD POSTS SHALL BE A MINIMUM SIZE OF 1?" X 1?" OF OAK OR HICKORY.

This drawing based on Wisconsin

Standard Detail Drawing 8 E 9-6.

Department of Transportation

FLOW DIRECTION

- wood Post

GENERAL NOTES

② TRENCH SHALL BE A MINIMUM OF 4" MIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

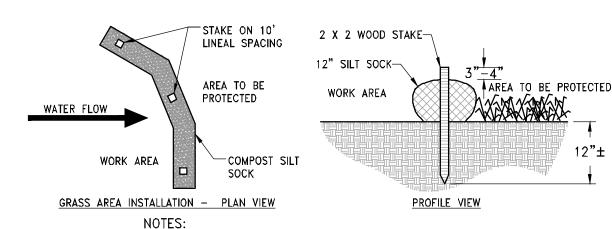
4 SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

(3) CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE

FOLLOWING TWO METHODS: A) OVERLAP THE END POSTS AND TWIST, OR

ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

STORM SEWER OR CULVERT



- ALL MATERIAL TO MEET MANUFACTURER'S SPECIFICATIONS
- REFER TO MANUFACTURERS AND/OR SUPPLIERS.

SECTION A-A

<u>PIPE DIA.</u>

12"

15"

18"

21"

24"

4.0'

4.5'

5.0'

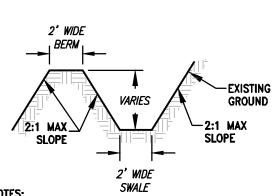
5.5'

7.0'

SPECIFICATIONS FOR INSTALLATION RECOMMENDATIONS. ACTUAL LOCATION MAY BE FIELD ADJUSTED TO MINIMIZE

DISTURBANCE TO EXISTING VEGETATION.

NO SCALE



1. TEMPORARY SEED/EROSION MAT/STABILIZE BERMS AND DITCHES IMMEDIATELY AS ANY SECTION IS COMPLETED PER WISDOT STD. SPEC. 2. REFER TO WISCONSIN DNR TECHNICAL STANDARD 1066 FOR

Property

DIVERSION BERM/SWALE DETAIL NO SCALE

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY FROM TRACKING PADS OR CONVEYED UNDER AND AROUND THEM BY USING A VARIETY OF PRACTICES, SUCH AS CULVERTS, WATER BARS, OR OTHER THE WIDTH SHALL SIMILAR PRACTICES. BE THE FULL WIDTH OF THE EGRESS THE AGGREGATE WILL CONSIST OF 3 TO 6 INCH CLEAR OR WASHED STONE. THE AGGREGATE SHALL BE PLACED IN A LAYER AT LEAST 12 INCHES THICK, ON SITES WITH A HIGH WATER TABLE, OR WHERE SATURATED CONDITIONS ARE EXPECTED DURING THE LIFE OF THE PRACTICE, STONE TRACKING PADS SHALL BE UNDERLAIN WITH A WISDOT TYPE R GEOTEXTILE FABRIC TO PREVENT MIGRATION OF UNDERLYING SOIL IN THE STONE

CONSTRUCTION ENTRANCE DETAIL

TEMPORARY DEWATERING GEOTEXTILE BAG

- IF DEWATERING IS REQUIRED, A GEOTEXTILE DEWATERING BAG
- MEETING THE SPECIFICATIONS IN THE TABLE TO THE RIGHT SHALL BE UTILIZED AS STATED ON THE EROSION CONTROL PLAN. REFER TO WDNR TECHNICAL STANDARDS 1061 AND MANUFACTURERS REQUIREMENTS FOR INSTALLATION AND
- MAINTENANCE REQUIREMENTS. CONTRACTOR MAY USE THRACE-LINQ, INC 275EX GEOTEXTILE BAG, OR FUNCTIONAL EQUIVALENT TO MEET TECHNICAL STANDARD
- REQUIREMENTS. CONTRACTOR MAY INSTALL HAY BALES AROUND DEWATERING BAG FOR STABILIZATION AS DICTATED BY SITE CONDITIONS.
- MAX FLOW RATE SHALL NOT EXCEED 70GPM GEOTEXTILE BAG SHALL BE LOCATED ON UNDISTURBED GROUND WITH ESTABLISHED VEGETATIVE COVER. DISCHARGES OF TREATED WATER FROM THE GEOTEXTILE FILTER BAG SHALL NOT FLOW OVER UNSTABILIZED GROUND.

		Value
faximum pparent pening Sizes	ASTM D-4751	0.212 mm
rab Tensile trength	ASTM D-4632	200 lbs.
fullen Burst	ASTM D-3786	350 psi
ermeability	ASTM D-4491	0.28 cm/sec
abric	Nominal Representative Weight	8 oz

Test Method

Type I

SCONS PUDELKO E - 39420WAUWATOSA,



4100 N. CALHOUN ROAD, SUITE 300 BROOKFIELD, WI 53005 PHONE: (262) 790-1480 FAX: (262) 790-1481

EMAIL: info@trioeng.com R

O

PROJ PR. **REVISION HISTORY** DATE DESCRIPTION CITY SUBMITTAL 11/11/19

DATE: **NOVEMBER 11, 2019**

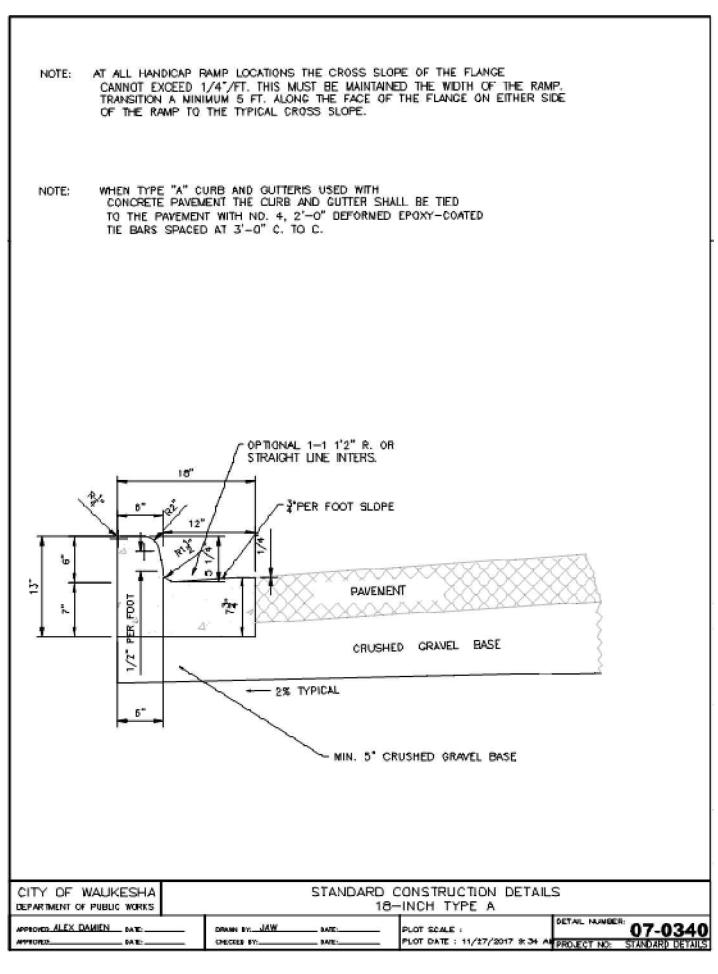
JOB NUMBER: 01006

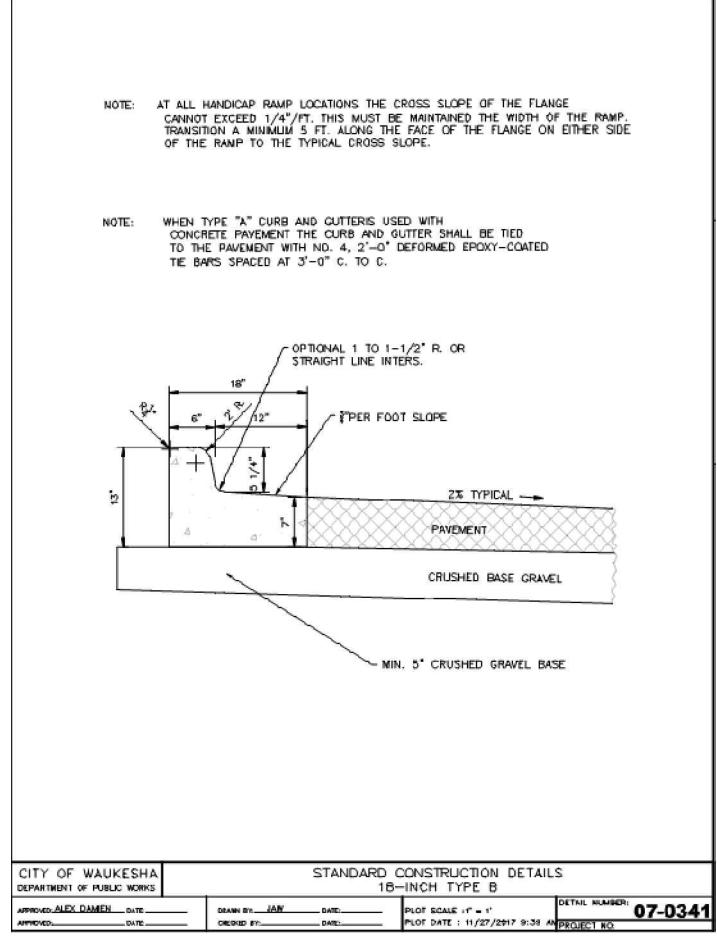
DESCRIPTION:

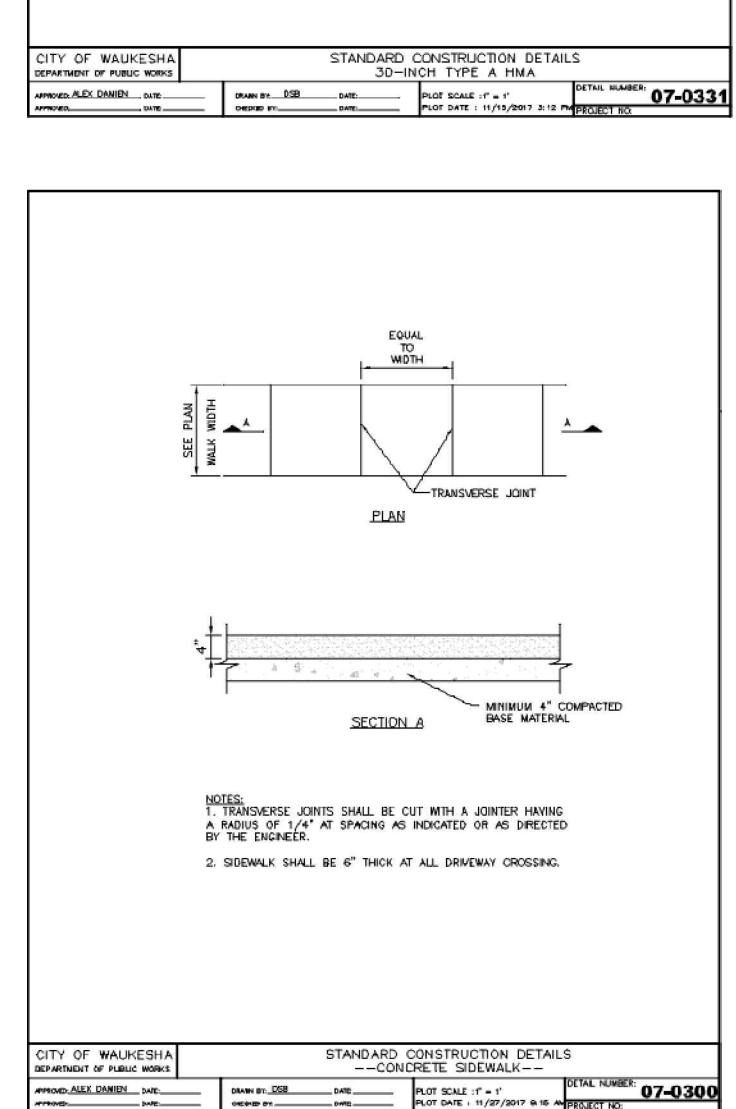
CONSTRUCTION DETAILS

SHEET

C6.0

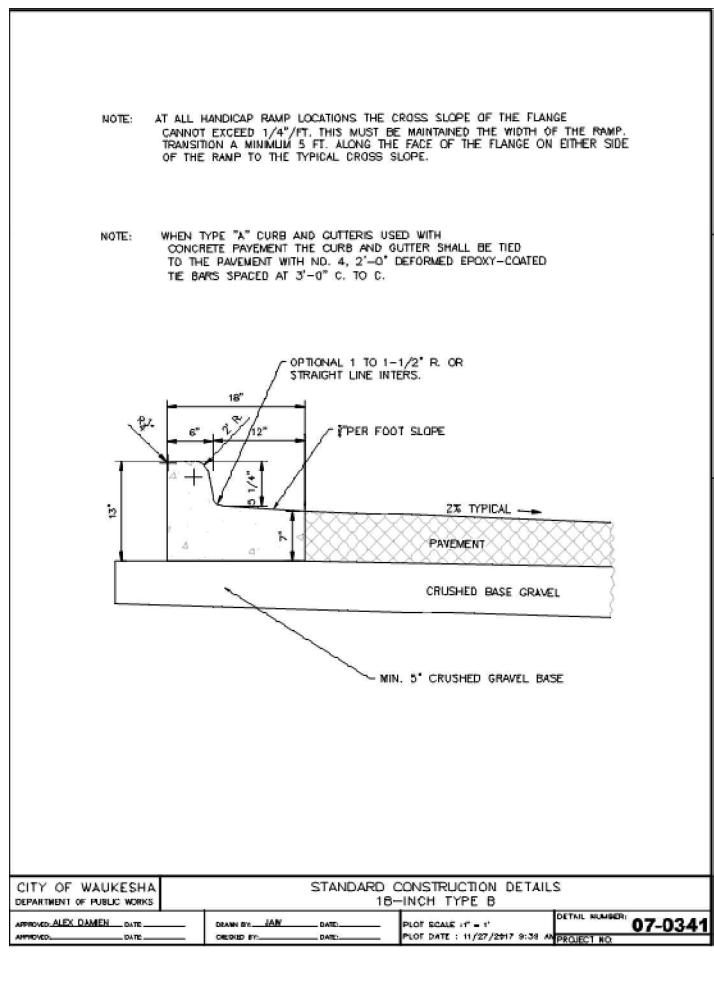


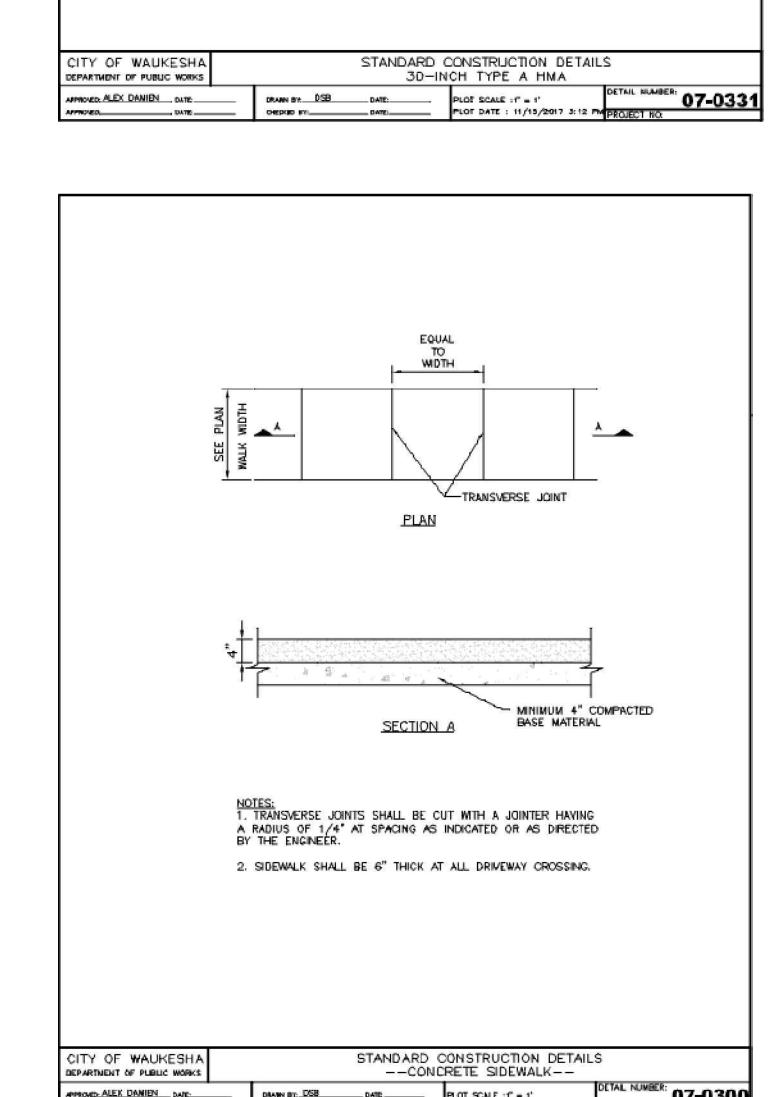


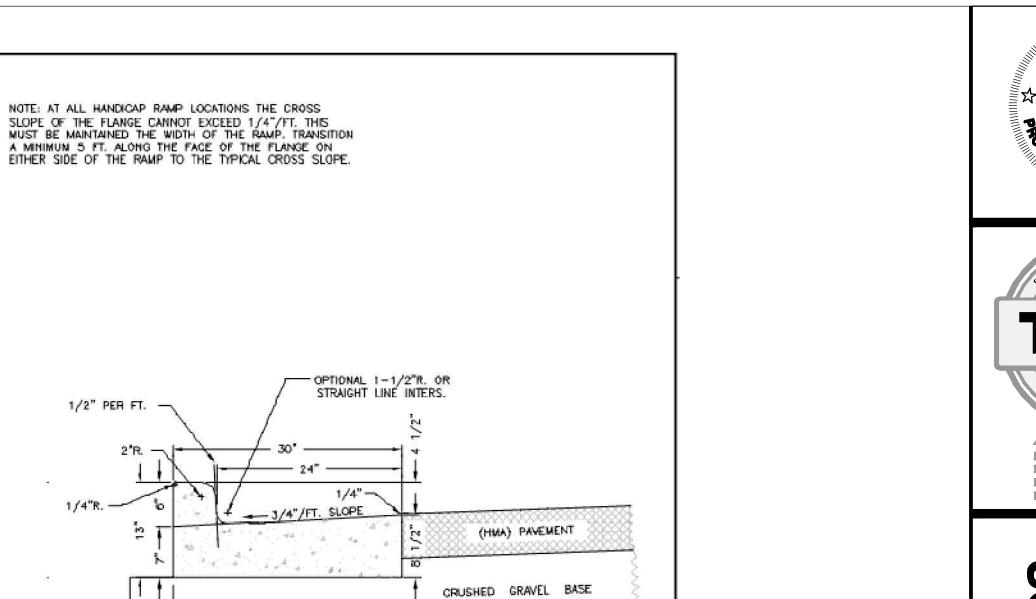


- Z% TYPICAL

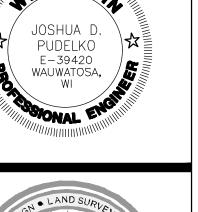
-NIN. 5" CRUSHED GRAVEL BASE













PHONE: (262) 790-1480 FAX: (262) 790-1481 EMAIL: info@trioeng.com

ARD OUR. UNO ONO

ECT PROJ

<u> </u>	
REVI	SION HISTORY
ATE	DESCRIPTION
V11/ 19	CITY SUBMITTAL

DATE:

NOVEMBER 11, 2019

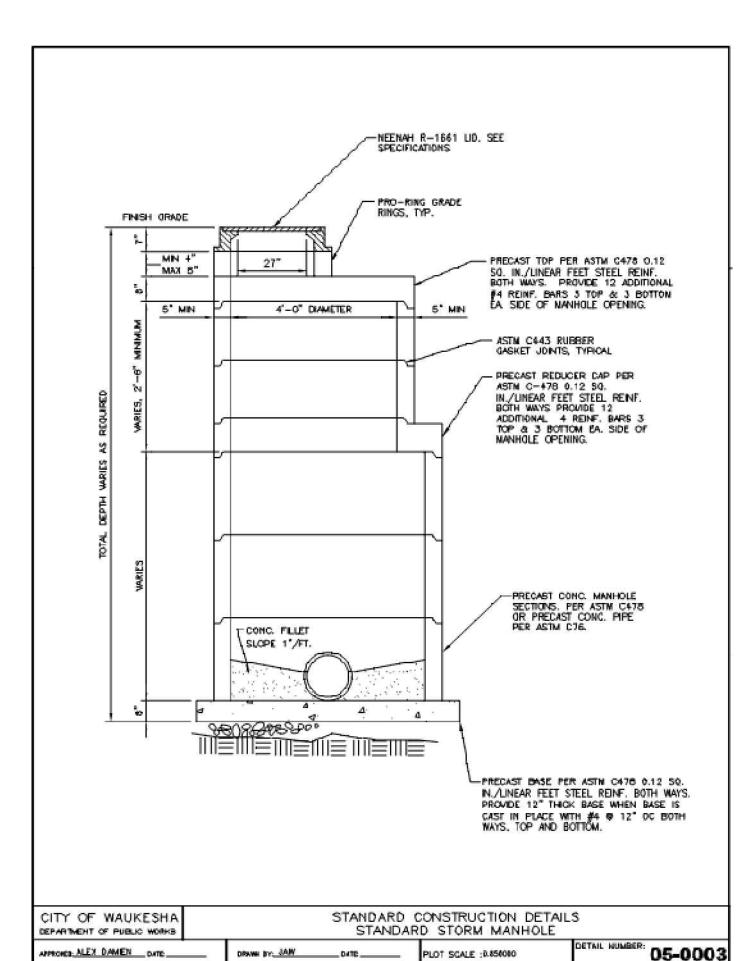
JOB NUMBER: 01006

DESCRIPTION:

CONSTRUCTION **DETAILS**

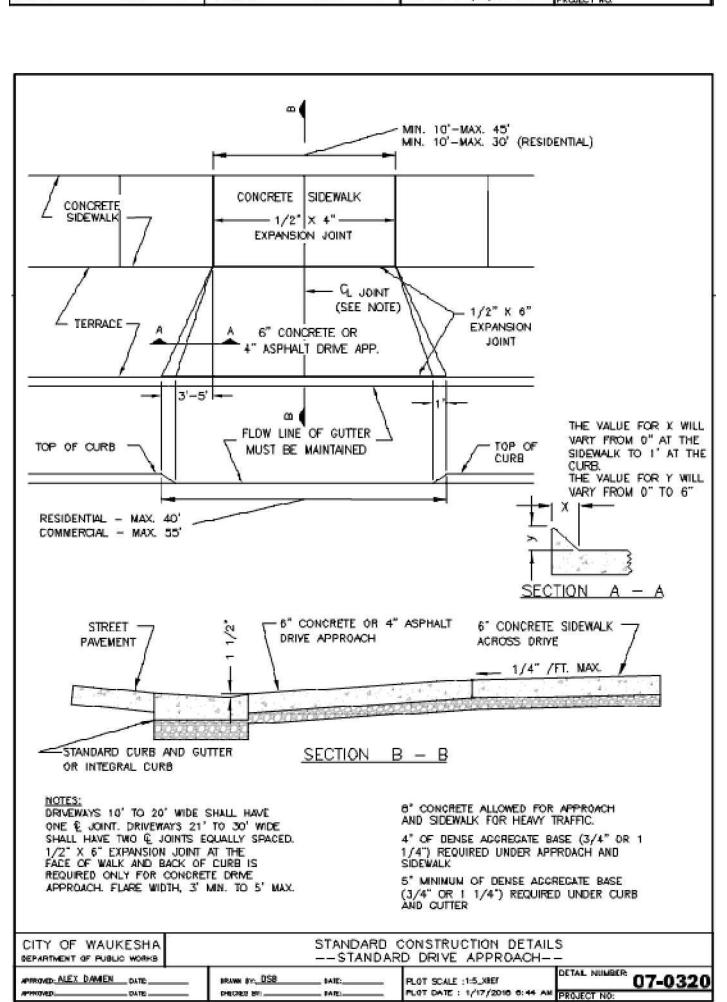
SHEET

C6.1



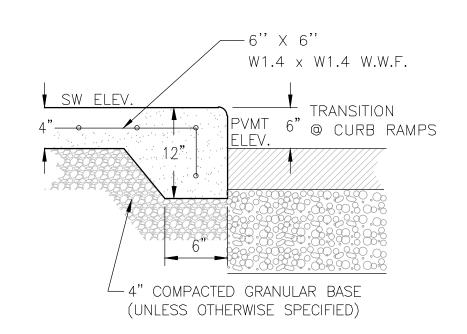
DATE _____

PLOT DATE : 11/21/2017 7:09 AM PROJECT No



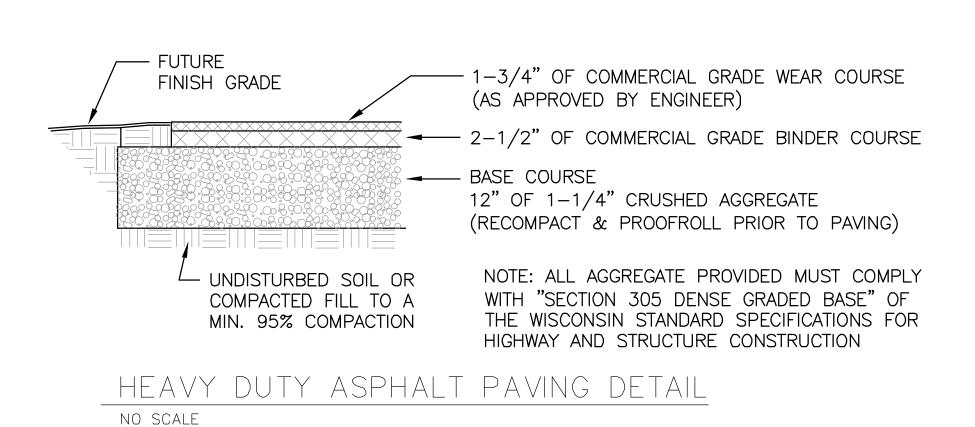
CITY STANDARD ROAD SECTION - 60' R.O.W.

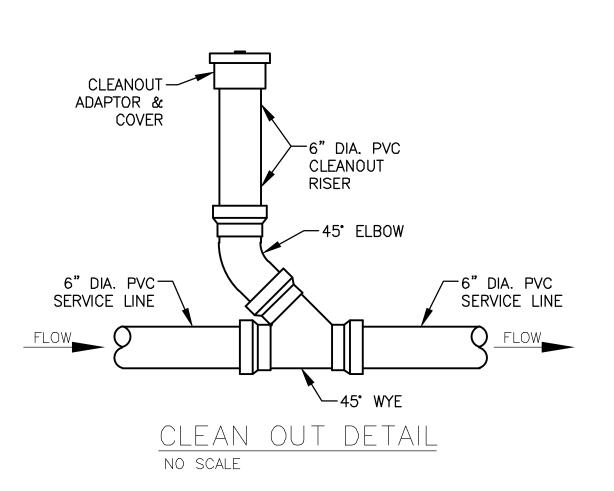
N.T.S.

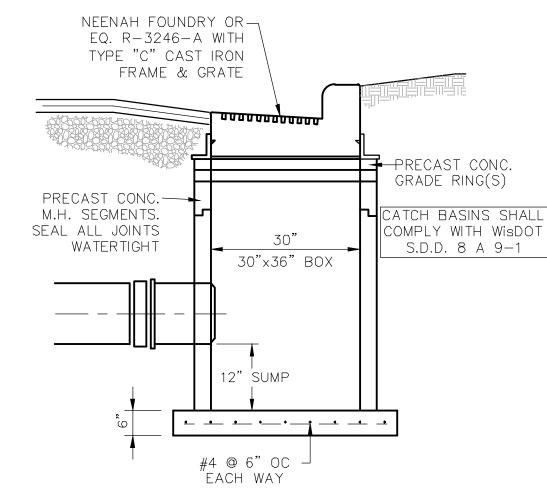


(WHERE SIDEWALK & BARRIER CURB

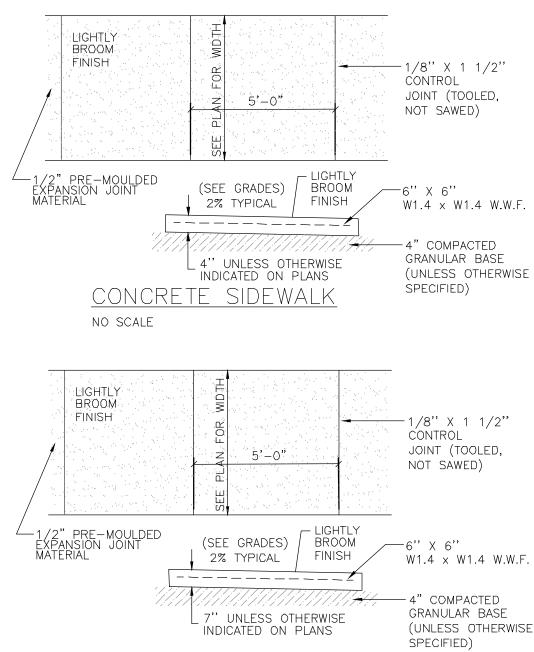
(WHERE SIDEWALK ADJOINS DRIVEWAYS/PARKING AREAS) NO SCALE







STORM SEWER CATCH BASIN NO SCALE



CONCRETE SIDEWALK AT DRIVEWAY APRON

JOSHUA D.
PUDELKO
E-39420
WAUWATOSA,
WI



4100 N. CALHOUN ROAD, SUITE 300 BROOKFIELD, WI 53005 PHONE: (262) 790-1480 FAX: (262) 790-1481 EMAIL: info@trioeng.com

PROJECT:
PROJECT:
PRAIRIE SONG COURTYARDS
ITY OF WAUKESHA, WISCONSIN
3Y: BIELINSKI COMMERCIAL, LLC.
1830 MEADOW LN, SUITE A
PEWAUKE, WI 53072

בי ב	<u> </u>	
REVISION HISTORY		
DATE	DESCRIPTION	
11/11/19	CITY SUBMITTAL	

DATE:

NOVEMBER 11, 2019

JOB NUMBER: 01006

DESCRIPTION:

CONSTRUCTION DETAILS

SHEET

C6.2

- 1. THE LATEST EDITIONS OF THE FOLLOWING DOCUMENTS AND ANY SUPPLEMENTS THERETO, SHALL GOVERN ALL
- CONSTRUCTION ITEMS ON THIS PLAN UNLESS OTHERWISE NOTED: a. WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) STORM WATER TECHNICAL STANDARDS
- b. WISCONSIN EROSION CONTROL PRODUCT ACCEPTABILITY LIST
- c.STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN (SSSWCW) d.WISCONSIN ADMINISTRATIVE CODE, SECTIONS SPS 382-387
- e. WISCONSIN DEPARTMENT OF TRANSPORTATION (WISDOT) STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION
- f. FEDERAL HIGHWAY ADMINISTRATION MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) q.CITY OF WAUKESHA DEVELOPMENT STANDARDS
- 2.THE OWNER, ENGINEER AND MUNICIPALITY SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF PERFORMING ANY
- 3.THE CONTRACTOR IS RESPONSIBLE FOR EXAMINING ALL EXISTING SITE CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND SHALL COMPARE WITH THIS PLAN.
- 4.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
- 5.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 OR DISCREPANCIES 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. 6.THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING SOIL CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. A GEOTECHNICAL REPORT IS AVAILABLE FROM THE OWNER. THE CONTRACTOR SHALL ABIDE BY THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.
- 7.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.
- 8.SURVEY BENCHMARKS AND CONTROL POINTS SHALL BE MAINTAINED AND PROTECTED FROM DISTURBANCE. 9.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 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. 11. 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 GRAVEL CONSTRUCTION ENTRANCE.
- 12. 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 WORK. 13. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING COPIES OF ALL PERMITS AND FOR ABIDING BY ALL PERMIT REQUIREMENTS AND RESTRICTIONS.
- 14. ALL ITEMS SHALL INCLUDE ALL NECESSARY MATERIALS AND LABOR TO COMPLETE THE ITEM IN PLACE.

- 1. 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
- 2.CONTACT DIGGERS HOTLINE AT 800-242-8511 TO NOTIFY UTILITY PROVIDERS AND REQUEST FIELD LOCATION OF EXISTING UTILITIES WITHIN PROJECT LIMITS PRIOR TO ANY CONSTRUCTION RELATED ACTIVITIES.
- 3.INSTALL PERIMETER FENCING AND TEMPORARY EROSION CONTROL PRACTICES AS INDICATED PRIOR TO COMMENCING ANY LAND DISTURBING CONSTRUCTION RELATED ACTIVITY.
- 4.CLEARLY IDENTIFY ALL VEGETATION TO BE PRESERVED AND/OR RELOCATED PRIOR TO CLEARING AND GRUBBING 5.PROTECT EXISTING IMPROVEMENTS TO REMAIN DURING CONSTRUCTION. ANY DAMAGED IMPROVEMENTS SHALL BE
- RESTORED TO ORIGINAL CONDITION, OR AS OTHERWISE ACCEPTABLE TO THE OWNER. 6.REMOVE EXISTING ABOVE-GRADE AND BELOW-GRADE IMPROVEMENTS AS INDICATED AND AS NECESSARY TO CONSTRUCT
- PROPOSED IMPROVEMENTS. 7. SAWCUT ALL PAVEMENT TO BE REMOVED IN STRAIGHT LINES TO FULL DEPTH.
- 8.DEMOLISH CONCRETE AND MASONRY IN SMALL SECTIONS. BREAK UP CONCRETE SLABS THAT ARE 2 FEET OR MORE BELOW PROPOSED SUBGRADE TO PERMIT DRAINAGE.
- 9.DISCONNECT AND SEAL/CAP EXISTING UTILITIES TO BE REMOVED, RELOCATED, OR ABANDONED IN ACCORDANCE WITH
- REQUIREMENTS OF UTILITY PROVIDERS. 10. DO NOT INTERRUPT UTILITY SERVICE TO EXISTING FACILITIES UNLESS PERMITTED BY THE OWNER
- 11. REMOVE AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS, TRASH, AND DEBRIS FROM THE PROJECT SITE.

EROSION CONTROL

- 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.
- 2.INSTALLATION AND MAINTENANCE OF PRACTICES SHALL BE IN ACCORDANCE WITH THE APPLICABLE WDNR TECHNICAL STANDARD, OR THE WISCONSIN CONSTRUCTION SITE BEST MANAGEMENT PRACTICE HANDBOOK IF A TECHNICAL STANDARD IS NOT AVAILABLE.
- 3.ALL PRACTICES SHALL BE INSTALLED PRIOR TO COMMENCING ANY LAND DISTURBING CONSTRUCTION RELATED ACTIVITY. EARTHWORK ASSOCIATED WITH INSTALLATION OF PRACTICES MAY OCCUR CONCURRENTLY.
- 4.ALL PRACTICES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT AND WARRANTY PERIOD IN
- CONFORMANCE WITH PERMIT REQUIREMENTS.
- 5.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.
- 6.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.
- 7.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.
- 8.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)
- 9.ALL ACTIVITIES ON THE PROJECT SITE SHALL BE CONDUCTED IN A LOGICAL SEQUENCE TO MINIMIZE THE AREA OF BARE SOIL EXPOSED AT ANY ONE TIME.
- 10. DUST GENERATED BY CONSTRUCTION RELATED ACTIVITIES SHALL BE MINIMIZED BY USE OF WATERING, CALCIUM CHLORIDE SURFACE TREATMENT, CONSTRUCTION SCHEDULING, OR OTHER APPROPRIATE MEASURES.
- 11. 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.
- 12. 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 MEASURES.

<u>EARTHWORK</u>

- 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
- 2.ALL EARTHWORK SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER AND THESE REQUIREMENTS. THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER SHALL GOVERN.
- 3.SATISFACTORY MATERIAL SHALL INCLUDE SOIL CLASSIFICATION GROUPS GW, GP, GM, SW, SP, AND SM AS ACCORDING TO ASTM D2487. IT SHALL BE FREE OF ROCK OR GRAVEL LARGER THAN 3 INCHES, FROZEN MATERIALS, VEGETATION, DEBRIS, AND ANY OTHER DELETERIOUS MATERIAL.
- 4.UNSATISFACTORY MATERIAL SHALL INCLUDE SOIL CLASSIFICATION GROUPS GC, SC, CL, ML, OL, CH, MH, OH, AND PT AS ACCORDING TO ASTM D2487. IT SHALL ALSO INCLUDE FILL MATERIAL NOT MAINTAINED WITHIN 3 PERCENT OF OPTIMUM MOISTURE CONTENT AT TIME OF COMPACTION.
- 5.ENGINEERED FILL MATERIAL SHALL INCLUDE A MIXTURE OF NATURAL OR CRUSHED STONE, GRAVEL, AND SAND AS ACCORDING TO ASTM D2940, WITH AT LEAST 90 PERCENT PASSING A 37.5-MM SIEVE AND NOT MORE THAN 12 PERCENT PASSING A NO. 200 SIEVE. IT SHALL BE FREE OF ORGANIC, FROZEN, OR OTHER DELETERIOUS MATERIAL AND HAVE A MAXIMUM PARTICLE SIZE OF 3 INCHES. CLAY CONTENT SHALL HAVE A LIQUID LIMIT OF LESS THAN 45 AND A PLASTICITY INDEX BETWEEN 11 AND 20.

- 6.EXCAVATE TO SUBGRADE REGARDLESS OF THE CHARACTER OF SURFACE AND SUBSURFACE CONDITIONS ENCOUNTERED. EXCAVATED MATERIAL MAY INCLUDE ROCK AND UNCLASSIFIED OBSTRUCTIONS, WHICH IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE WORK
- 7.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.
- 8.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 MATERIAL
- 9.FILL MATERIAL SHALL BE WITHIN 3 PERCENT OF OPTIMUM MOISTURE CONTENT, PLACED IN MAXIMUM LIFTS OF 8 INCHES, AND COMPACTED TO A MINIMUM OF 95 PERCENT MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR
- 10. AREAS SHALL BE GRADED TO WITHIN 1 INCH, MORE OR LESS, OF PROPOSED SUBGRADE. DEVIATIONS SHALL NOT BE CONSISTENT IN ONE DIRECTION.
- 11. DISKING, HARROWING, AND AERATION TECHNIQUES SHALL BE USED TO DRY SUBGRADE PRIOR TO PROOF ROLLING. 12. 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 COHESIZE 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. 13. 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 ENETERING EXCAVATIONS, PONDING ON PREPARED SUBGRADES, AND FLOODING PROJECT SITE AND/OR SURROUNDING AREAS.
- 14. 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.

- 1. WORK SHALL CONSIST OF INSTALLATION AND TESTING OF THE SANITARY SEWERAGE SYSTEM AND ALL APPURTENANCES. 2.ALL PUBLIC SANITARY SEWERAGE WORK SHALL BE IN ACCORDANCE WITH SSSWCW AND CITY OF WAUKESHA DEVELOPMENT STANDARDS.
- 3.ALL PRIVATE SANITARY SEWERAGE WORK SHALL BE IN ACCORDANCE WITH WISCONSIN ADMINISTRATIVE CODE AND CITY OF WAUKESHA DEVELOPMENT STANDARDS.
- 4.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 C900 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.
- 5.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.
- ADJUSTMENTS RINGS SHALL BE HDPE RINGS SEALED WITH BUTYL. 6. 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.
- 7.PIPE BEDDING AND COVER MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 8.43.0 OF SSSWCW. MINIMUM COVER OVER PIPE SHALL BE 12 INCHES.
- 8.TRENCH BACKFILL MATERIAL SHALL BE 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. SLURRY BACKFILL SHALL BE USED WITHIN 5 FEET OF LISBON ROAD PAVEMENT
- 9.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.
- 10. 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.
- 11. TRACER WIRE SHALL BE GREEN INSULATED SINGLE CONDUCTOR WIRE 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, 10 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.
- 12. 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.

- 1. WORK SHALL CONSIST OF INSTALLATION AND TESTING OF THE WATER DISTRIBUTION SYSTEM AND ALL APPURTENANCES. 2.ALL PUBLIC WATER SUPPLY WORK SHALL BE IN ACCORDANCE WITH SSSWCW AND CITY OF WAUKESHA DEVELOPMENT
- 3.ALL PRIVATE WATER SUPPLY WORK SHALL BE IN ACCORDANCE WITH WISCONSIN ADMINISTRATIVE CODE AND CITY OF WAUKESHA DEVELOPMENT STANDARDS.
- 4.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.
- 5.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. 6.POLYETHYLENE TUBING SHALL BE SDR 9 IN ACCORDANCE WITH SECTION 8.24.0 OF SSSWCW AND CONFORM TO AWWA
- 7.COPPER TUBING SHALL BE TYPE "K" IN ACCORDANCE WITH SECTION 8.24.0 OF SSSWCW AND CONFORM TO ASTM B88. 8.BALL VALVES SHALL BE IN ACCORDANCE WITH SECTION 8.30.0 OF SSSWCW AND CONFORM TO AWWA C800 AND ASTM
- 9.GATE VALVES SHALL BE IN ACCORDANCE WITH SECTION 8.27.0 OF SSSWCW AND CONFORM TO AWWA C500. 10. BUTTERFLY VALVES SHALL BE IN ACCORDANCE WITH SECTION 8.28.0 OF SSSWCW AND CONFORM TO AWWA C504. 11. 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. 12. 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 ANCHORING TEE AND HAVE A GROUND LINE TO CENTER DISTANCE OF 24 INCHES.
- 13. FITTINGS SHALL BE CLASS 150 IN ACCORDANCE WITH SECTION 8.22.0 OF SSSWCW, CONFORMING TO AWWA C110, AND PROVIDED WITH MECHANICAL JOINTS. 14. MECHANICAL JOINTS SHALL BE MADE WITH "COR TEN" NUTS AND BOLTS, OR CORROSION-RESISTANT EQUIVALENTS
- CONFORMING TO AWWA C111. 15. POLYETHYLENE WRAP SHALL BE IN ACCORDANCE WITH SECTION 8.21.0 OF SSSWCW AND PROVIDED FOR ALL METAL PIPES AND FITTINGS.
- 16. THRUST RESTRAINT SHALL BE IN ACCORDANCE WITH SECTION 4.3.13 OF SSSWCW AND PROVIDED FOR ALL BENDS. CAPS, PLUGS, AND TEES.
- 17. 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.
- 18. PIPE BEDDING AND COVER MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 8.43.0 OF SSSWCW. MINIMUM COVER OVER PIPE SHALL BE 12 INCHES. 19. TRENCH BACKFILL MATERIAL SHALL BE 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. SLURRY BACKFILL SHALL BE USED WITHIN 5 FEET OF LISBON ROAD PAVEMENT LIMITS.
- 20. TRACER WIRE SHALL BE 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 BLUE INSULATED. SINGLE-CONDUCTOR. 10 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.
- 21. 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.

- 1. WORK SHALL CONSIST OF INSTALLATION AND TESTING OF THE STORM DRAINAGE SYSTEM AND ALL APPURTENANCES. 2.ALL PUBLIC STORM DRAINAGE WORK SHALL BE IN ACCORDANCE WITH SSSWCW AND CITY OF WAUKESHA DEVELOPMENT STANDARDS.
- 3.ALL PRIVATE STORM DRAINAGE WORK SHALL BE IN ACCORDANCE WITH WISCONSIN ADMINISTRATIVE CODE AND CITY OF WAUKESHA DEVELOPMENT STANDARDS. 4.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.
- 5.CORRUGATED METAL PIPE (CMP) AND END SECTIONS SHALL BE 16 GAUGE CONFORMING TO ASTM A760. 6.HIGH-DENSITY POLYETHYLENE (HDPE) PIPE AND FITTINGS SHALL BE ADS N12 AS APPROVED BY THE WISCONSIN
- DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES PLUMBING PRODUCTS REGISTER. 7.POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS SHALL BE SDR 35 CONFORMING TO ASTM D3034 WITH PUSH-ON RUBBER GASKETED JOINTS CONFORMING TO ASTM D3212.
- 8.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
- 9.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 10. 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. 11. AREA DRAINS SHALL BE ADS NYLOPLAST AS APPROVED BY THE WISCONSIN DEPARTMENT OF SAFETY AND
- PROFESSIONAL SERVICES PLUMBING PRODUCTS REGISTER. 12. FRAMES AND GRATES SHALL BE AS INDICATED. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING FRAMES AND
- GRATES ARE COMPATIBLE WITH PRECAST STRUCTURES PRIOR TO ORDERING. 13. 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. 14. PIPE BEDDING AND COVER MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 8.43.0 OF SSSWCW. MINIMUM COVER
- OVER PIPE SHALL BE 12 INCHES. 15. TRENCH BACKFILL MATERIAL SHALL BE 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. SLURRY BACKFILL SHALL BE USED WITHIN 5 FEET OF LISBON
- ROAD PAVEMENT LIMITS. 16. ALL CONNECTIONS TO EXISTING STORM SEWER PIPES AND STRUCTURES SHALL BE CORED CONNECTIONS, UNLESS
- 17. 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.
- 18. TRACER WIRE SHALL BE 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.
- 19. AFTER INSTALLATION OF STORM DRAINAGE 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.

- 1. WORK SHALL CONSIST OF FINE GRADING SUBGRADE, EXCAVATION BELOW SUBGRADE (IF NECESSARY), PLACEMENT OF CRUSHED STONE BASE, INSTALLATION OF CONCRETE, AND CLEANUP.
- 2.CRUSHED STONE BASE SHALL BE IN ACCORDANCE WITH SECTION 305 OF WISDOT STANDARD SPECIFICATIONS. 3.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.
- 4.AGGREGATE SHALL BE IN ACCORDANCE WITH SECTION 501 OF WISDOT STANDARD SPECIFICATIONS.
- 5. WATER SHALL BE IN ACCORDANCE WITH SECTION 501 OF WISDOT STANDARD SPECIFICATIONS AND ASTM C94 / C94M. 6. AIR-ENTRAINING SHALL BE IN ACCORDANCE WITH SECTION 501 OF WISDOT STANDARD SPECIFICATIONS AND ASTM C260. 7.LIQUID CURING COMPOUND SHALL BE IN ACCORDANCE WITH SECTION 415 OF WISDOT STANDARD SPECIFICATIONS AND AASHTO M 148.
- 8.CURBING SHALL BE IN ACCORDANCE WITH SECTION 601 OF WISDOT STANDARD SPECIFICATIONS
- 9.SIDEWALK AND PATIO SHALL BE IN ACCORDANCE WITH SECTION 602 OF WISDOT STANDARD SPECIFICATIONS. 10. 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.
- 11. CONSTRUCTION AND CONTRACTION JOINTS SHALL BE IN ACCORDANCE WITH SECTION 415 OF WISDOT STANDARD SPECIFICATIONS.
- 12. ISOLATION JOINTS SHALL CONSIST OF PREFORMED JOINT FILLER STRIPS ABUTTING CURBING, INLETS, CATCH BASINS, MANHOLES, STRUCTURES, AND OTHER FIXED OBJECTS.
- 13. 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 ELIMNATE TOOL MARKS ON SURFACES.
- 14. FINISH, CURE, AND PROTECT CURBING IN ACCORDANCE WITH SECTION 601 OF WISDOT STANDARD SPECIFICATIONS. 15. FINISH (LIGHT BROOM), CURE, AND PROTECT SIDEWALK AND PATIOS IN ACCORDANCE WITH SECTION 602 OF WISDOT
- STANDARD SPECIFICATIONS. 16. FINISH (ARTIFICIAL TURF DRAG), CURE, AND PROTECT VEHICULAR PAVEMENT AND PADS IN ACCORDANCE WITH SECTION 415 OF WISDOT STANDARD SPECIFICATIONS.
- 17. MAINTAIN CONCRETE FREE OF STAINS, DISCOLORATION, DIRT, AND OTHER FOREIGN MATERIAL. SWEEP CONCRETE PRIOR TO SUBSTANTIAL COMPLETION INSPECTION.
- 18. REMOVE AND REPLACE CONCRETE THAT IS BROKEN, DAMAGED, DEFECTIVE, OR DOES NOT COMPLY WITH THE REQUIREMENTS LISTED ABOVE.

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. 2.CRUSHED STONE BASE SHALL BE IN ACCORDANCE WITH SECTION 305 OF WISDOT STANDARD SPECIFICATIONS. 3.ASPHALTIC MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 455 OF WISDOT STANDARD SPECIFICATIONS. 4.AGGREGATE SHALL BE IN ACCORDANCE WITH SECTION 460 OF WISDOT STANDARD SPECIFICATIONS.
- UNLESS INDICATED OTHERWISE ON THIS PLAN. 6.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;

5.PAVEMENT MARKING PAINT SHALL BE IN ACCORDANCE WITH WISDOT APPROVED PRODUCTS LIST. COLOR SHALL BE WHITE

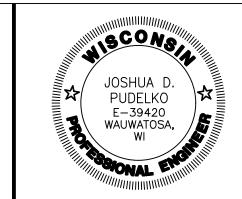
- TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT AT TIME OF SURFACE COURSE INSTALLATION. 7.COMPACT ASPHALT IN ACCORDANCE WITH SECTION 450 OF WISDOT STANDARD SPECIFICATIONS. COMPACT ASPHALT TO PRODUCE THE THICKNESS INDICATED WITHIN PLUS/MINUS 1/4-INCH FOR BINDER COURSE, AND WITHIN PLUS 1/4-INCH FOR SURFACE COURSE (NO MINUS).
- 8.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
- 11. APPLY PAVEMENT MARKINGS TO CLEAN AND DRY SURFACE, FREE FROM FROST, TO ENSURE PROPER BONDING, APPLY PAINT IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS TO PRODUCE MARKINGS AS INDICATED WITH UNIFORM, STRAIGHT EDGES.

RETAINING WALLS

- 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
- 2.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.

DISTURB OR PLACE TEMPORARY LOADS ON THE RETAINING WALLS THAT EXCEED DESIGN LOADS.

3.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. 4.THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT CONSTRUCTION ADJACENT TO THE RETAINING WALLS DOES NOT





PHONE: (262) 790-1480 FAX: (262) 790-1481 EMAIL: info@trioeng.com

BROOKFIELD, WI 53005

O Ō

4

A P 0 PR CITY

REVISION HISTORY		
DATE	DESCRIPTION	
11/11/19	CITY SUBMITTAL	

DATE:

NOVEMBER 11, 2019

JOB NUMBER: 01006

DESCRIPTION:

CONSTRUCTION **SPECIFICATIONS**

SHEET