

WATER AND SANITARY SEWER SERVICE INSTALLATIONS GENERAL NOTES:

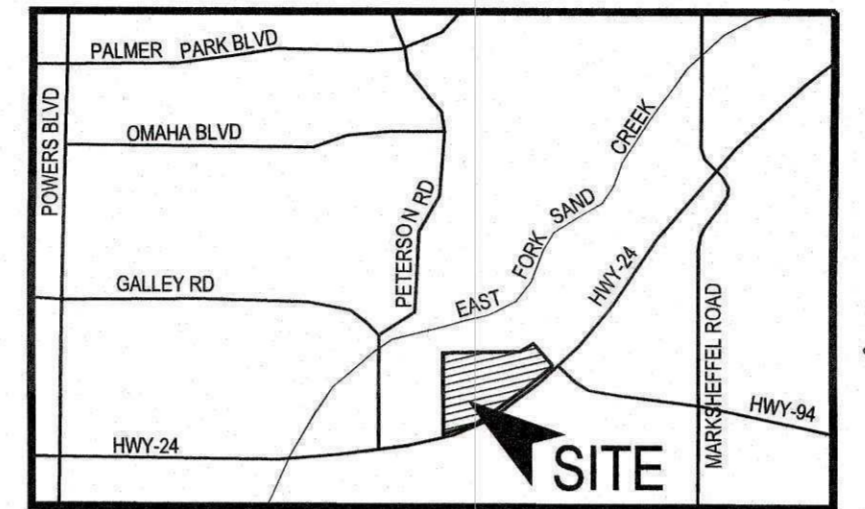
1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE CHEROKEE METROPOLITAN DISTRICT STANDARDS AND THE CITY OF COLORADO SPRINGS CONSTRUCTION STANDARDS UNLESS OTHERWISE NOTED. IN THE EVENT OF CONFLICTING STANDARDS CHEROKEE METROPOLITAN DISTRICT STANDARDS SHALL GOVERN.
2. ALL WATER SYSTEM MAINS PIPE MATERIAL SHALL BE POLYVINYL CHLORIDE (PVC) CLASS 200 (DR-14) PER AWWA C-900 AND ASTM D241 SPECIFICATIONS, EXCEPT WHERE NOTED. SPECIFICALLY, SECTIONS OF WATER PIPE THAT CROSS UNDER MAJOR DRAINAGE WAYS OR MAJOR THOROUGHFARES SHALL BE DUCTILE IRON PIPE.
3. ALL FITTINGS SHALL BE CONSTRUCTED OF GRAY-IRON MATERIAL AND FURNISHED WITH MECHANICAL JOINT ENDS. ALL FITTINGS SHALL HAVE A MINIMUM PRESSURE RATING OF 250 PSI AND SHALL BE WRAPPED WITH A 9-MIL THICKNESS POLYETHYLENE MATERIAL PER AWWA STANDARD C105.
4. ALL WATER PIPES SHALL BE INSTALLED WITH A MINIMUM COVER OF FIVE (5) FEET BELOW FINISHED GRADE.
5. ALL BENDS, TEES, FIRE HYDRANTS, BLOW-OFF, AND PLUGS AT DEAD END MAINS SHALL BE INSTALLED WITH CONCRETE THRUST BLOCKS.
6. VALVE BOXES SHALL BE TYLER SLIP; TYPE "C" CAST IRON VALVE BOX ASSEMBLY SERIES 6860 WITH NO. 160 OVAL BASE OR APPROVED EQUAL.
7. ALL WATER SYSTEM COMPONENTS SHALL BE FLUSHED AND CHLORINATED PER AWWA C-601, "DISINFECTING WATER MAINS" PRIOR TO ACCEPTANCE. THE CONTRACTOR SHALL PRODUCE A 25 MG/L SOLUTION BY ADHERING CHLORINE TABLETS TO THE PIPE SECTION WITH PERMATEX CLEAR TRV INSIDE THE SYSTEM. CHLORINATION SHALL OCCUR PRIOR TO HYDROSTATIC TESTING. THE CONTRACTOR SHALL OBTAIN A BACTERIOLOGICAL SAMPLE AFTER THE SYSTEM HAS BEEN FLUSHED. A CLEAN BACTERIOLOGICAL SAMPLE MUST BE OBTAINED PRIOR TO THE SYSTEM BEING PLACED INTO SERVICE.
8. HYDROSTATIC TESTING: ALL WATER SYSTEM MAINS SHALL BE FILED PRESSURE TESTED TO A MINIMUM OF 150 PSI OR 1 1/2 TIMES THE STATIC OPERATING PRESSURE, WHICHEVER IS GREATER. MAXIMUM ALLOWABLE LEAKAGE FOR EACH SECTION OF PIPE BETWEEN LINE VALVES SHALL NOT EXCEED THE FOLLOWING: *10 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY.
9. ALL VALVES SHALL CONFORM TO OPEN LEFT CONVENTION PER CHEROKEE METROPOLITAN DISTRICT STANDARDS.
10. WHEN IT IS NECESSARY TO RAISE OR LOWER WATER MAINS AT OTHER UTILITY CROSSINGS THE CONTRACTOR SHALL INSURE A MINIMUM CLEARANCE OF 18" WHERE POSSIBLE BETWEEN THE OUTSIDE DIAMETERS OF PIPES.
11. WHILE CONSTRUCTING THE WATER AND WASTE WATER SYSTEM THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT LEAST ONE "APPROVED FOR CONSTRUCTION" SET OF UPDATED PLANS AT ALL TIMES. APPROVED FIELD MODIFICATIONS TO THE PLAN SETS SHALL BE CLEARLY IDENTIFIED IN RED INK ON THE PLANS BY THE CONTRACTOR PER FIELD CONSTRUCTION. THESE AS-BUILT CHANGES SHALL BE DATED AND SUBMITTED TO THE ENGINEER OF RECORD. THE ENGINEER OF RECORD SHALL PREPARE A COMPLETE SET OF "AS CONSTRUCTED" DRAWINGS AND DELIVER THE SETS TO THE CHEROKEE METROPOLITAN DISTRICT PRIOR TO FINAL ACCEPTANCE OF THE WATER SYSTEM.
12. PRIOR TO TAPPING ANY EXISTING WATER MAIN THE CONTRACTOR SHALL SUBMIT AND RECEIVE APPROVAL FOR SAID TAP IN ACCORDANCE WITH THE CHEROKEE METROPOLITAN DISTRICT STANDARDS.
13. ALL NONMETALLIC PIPES SHALL HAVE TRACER WIRE ATTACHED TO ITS TOP DURING CONSTRUCTION. THE TRACER WIRE SHALL BE #12 AWG INSULATED COPPER WIRE WITH NO. 12 COPPER CONNECTIONS AND SHALL BE PERMANENTLY AFFIXED TO THE TOP OF THE PIPE USING TAPE AT 4' INTERVALS. TRACER WIRE SHALL BE JOINED 3-WAY OR 4-WAY LOCKABLE MECHANICAL CONNECTORS SPECIFICALLY MANUFACTURED FOR USE IN UNDERGROUND TRACER WIRE INSTALLATIONS. NON-LOCKING FRICTION FIT, TWIST-ON, OR TAPED CONNECTIONS ARE NOT PERMITTED. THE TRACER WIRE SHALL ALSO BE CORROSION BY EPOXY OR SILICON COATING. ROUTE TRACER WIRES TO SURFACE AT ALL VALVE BOXES.
14. THE CONTRACTOR ASSUMES RESPONSIBILITY FOR THE PROTECTION OF ALL UTILITIES DURING THE WORK. PRIOR TO EXCAVATION, CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO AT (800) 922-1987 AT LEAST TWO WORKING DAYS PRIOR TO DIGGING.
15. SANITARY SEWER PIPE SHALL CONFORM TO ASTM D3034 SDR35 PVC.
16. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF EXISTING INVERTS PRIOR TO INSTALLATION OF NEW SANITARY SEWER SYSTEM.
17. ALL SANITARY SEWER MANHOLES, LIDS, BASES AND OTHER APPURTENANCES SHALL BE IN ACCORDANCE WITH CHEROKEE METROPOLITAN DISTRICT STANDARD MANHOLE DETAILS (5' MIN DIAMETER). EXCEPT AS NOTED ON THESE PLANS, WHERE REQUIRED ON THESE PLANS, WATER TIGHT MANHOLES, LIDS AND CONNECTIONS SHALL BE PROVIDED BY COLORADO SPRINGS STANDARDS. ALL NEW MANHOLES (IF ANY) SHALL BE COATED & LINED PER CMD STANDARDS.
18. SANITARY SEWER SERVICE LINES SHALL BE LOCATED PER THE DETAIL ON THE UTILITY SERVICE PLAN, OR AT THE DIRECTION OF THE INSPECTOR.
19. OVERLOT GRADING AND STREET SUB-GRADE MUST BE WITHIN +/- ONE (1) FOOT PRIOR TO ANY UTILITY INSTALLATION.
20. TRACER WIRE IS TO BE INSTALLED WITH ALL SANITARY SEWER MAIN LINES AND SERVICES (FROM THE MAIN LINE TO THE BUILDING STRUCTURE). AS OUTLINED IN COMMENT #13.
21. MINIMUM DEPTH OF SANITARY SEWER IS 6 FEET OF COVER. THE FOLLOWING ALLOWABLE DEPTH RULES APPLY FOR BURY DEPTHS BETWEEN 1' AND 30' IN CONSIDERATION OF THE MINIMUM DEPTH SHALL BE APPLIED: (SEE CSU WASTEWATER LESS 2.5.B FOR MORE INFORMATION)
 - DEPTH GREATER THAN 4 FEET (AND LESS THAN 20'): MATERIAL TYPE DR 11 HDPE
 - DEPTH BETWEEN 2 & 4 FEET (AND UP TO 20 FEET): MATERIAL TYPE SDR 26 OR SDR 35 PVC/PS 46
 - DEPTH BETWEEN 1 & 2 FEET (AND BETWEEN 20 & 30 FEET): MATERIAL TYPE DIP.
22. WATER SERVICE MUST BE OVER THE SEWER AT ALL TIMES (MINIMUM 18" INCHES) OTHERWISE STEEL CASING MUST BE USED. SEWER SERVICE PIPE LOCATED WITHIN ONE FOOT OF THE WATER SERVICE LINE MUST BE CONSTRUCTED WITH SCH 40 PIPE OR DIP.
23. ALL EXTERIOR SEWER CLEAN OUTS (CO) MUST HAVE A CAST IRON, TRAFFIC RATED COVER, OR EQUIVALENT CONCRETE COLLAR.
24. UPON COMPLETION OF CONSTRUCTION AND PRIOR TO ACCEPTANCE BY THE DISTRICT, TWO (2) COPIES OF "AS-CONSTRUCTED" PLANS AND TWO (2) SETS OF ELECTRONIC DATA FILES OF THE PLANS SHALL BE SUBMITTED TO THE DISTRICT FOR RECORD.
 - a. THE TWO (2) COPIES SHALL BE COMPLETE WITH ALL "AS-CONSTRUCTED" INFORMATION TOGETHER WITH A CERTIFICATION BY THE PARTY RESPONSIBLE FOR CONSTRUCTION THAT ALL DATA THEREON IS ACCURATE AND REPRESENTS ACTUAL CONSTRUCTED CONDITIONS.
 - b. THE TWO PLAN SETS SHALL BE SUBMITTED ON SHEETS THAT ARE 22" X 34" IN SIZE.
 - c. THE PLAN SET SHALL BE ON A DURABLE MEDIA THAT CAN BE RUN THROUGH PHOTOCOPIING EQUIPMENT.
 - d. THE TWO ELECTRONIC DATA FORMATS SHALL BE SUBMITTED. THE FIRST ELECTRONIC DATA FILE SET SHALL BE IN AUTOCAD 2006 OR NEWER FORMAT WITH NO EXTERNAL REFERENCE DRAWINGS. ALL EXTERNAL REFERENCES MUST BE BOUND INTO THE DRAWING SET. THE SECOND SET OF ELECTRONIC DATA FILES SHALL BE IN ADOBE ACROBAT .PDF FORMAT.
 - e. "AS-CONSTRUCTED" PLANS SHALL BE SUBMITTED WITHIN TWO WEEKS OF COMPLETION OF THE WATER AND/OR SANITARY SEWER UTILITIES.
 - f. NO AUTHORIZATION TO CONNECT TO THE SYSTEM OR DISCHARGE TO THE SYSTEM WILL BE ALLOWED UNTIL THE "AS-CONSTRUCTED" DOCUMENTS HAVE BEEN RECEIVED AND ACCEPTED BY THE DISTRICT.
 - g. ALL PLANS, SPECIFICATIONS AND SUPPORTING DOCUMENTS SHALL BE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF COLORADO. ALL PLANS AND SPECIFICATIONS SHALL BEAR THE SEAL AND SIGNATURE OF SAID LICENSED PROFESSIONAL ENGINEER.

CROSSROADS MIXED USE FILING NO. 1

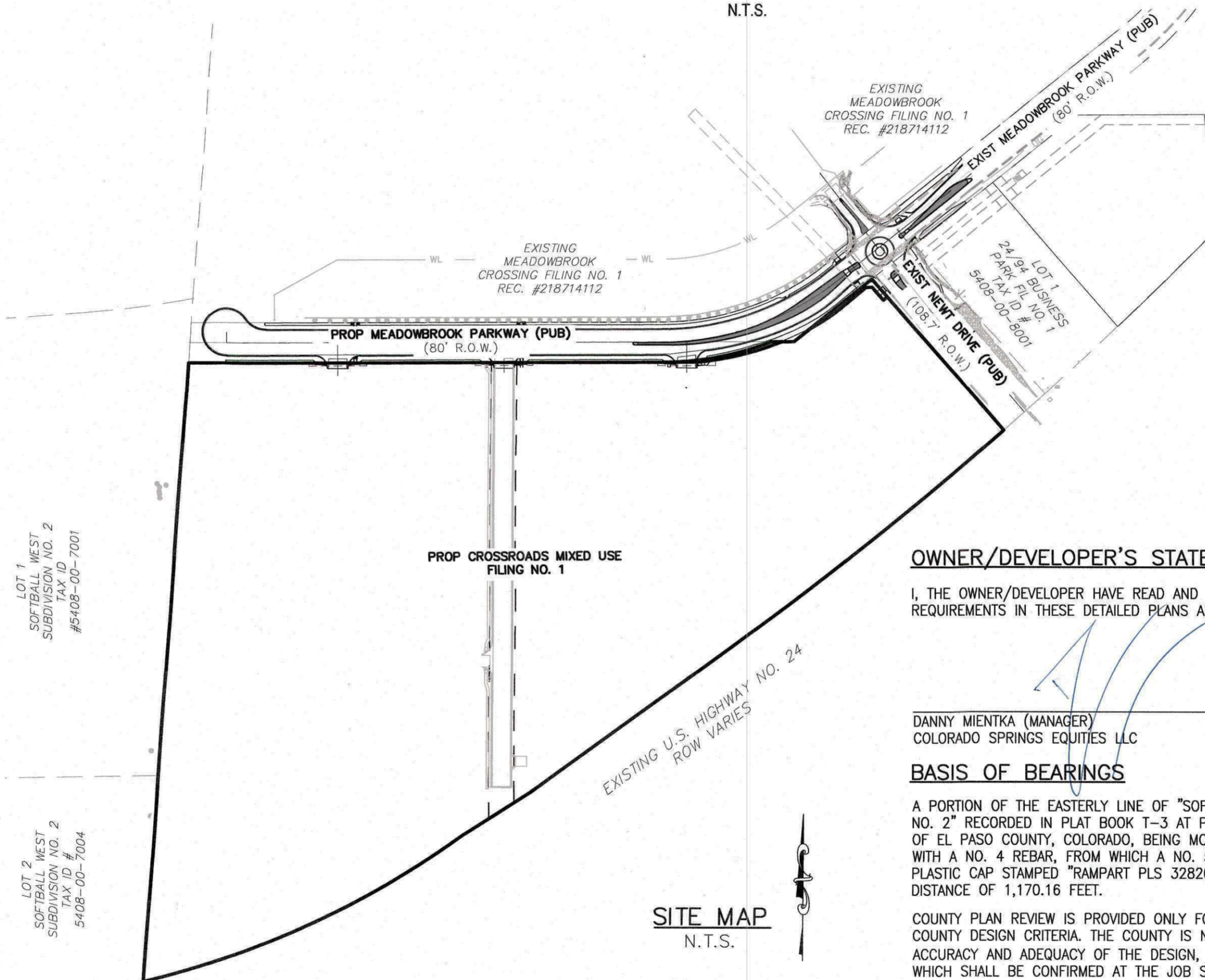
COUNTY OF EL PASO, STATE OF COLORADO

WATER & SANITARY UTILITY PLANS

MARCH 2022



VICINITY MAP
N.T.S.



SITE MAP
N.T.S.

OWNER/DEVELOPER'S STATEMENT:

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS IN THESE DETAILED PLANS AND SPECIFICATIONS.

DANNY MIENTKA (MANAGER)
COLORADO SPRINGS EQUITIES LLC
DATE: 3/31/2022

BASIS OF BEARINGS

A PORTION OF THE EASTERLY LINE OF "SOFTBALL WEST SUBDIVISION NO. 2" RECORDED IN PLAT BOOK T-3 AT PAGE 112 OF THE RECORDS OF EL PASO COUNTY, COLORADO, BEING MONUMENTED ON THE SOUTH WITH A NO. 4 REBAR, FROM WHICH A NO. 5 REBAR WITH BLUE PLASTIC CAP STAMPED "RAMPART PLS 32820" BEARS N03°58'20"E A DISTANCE OF 1,170.16 FEET.

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

APPROVED

JENNIFER IRVINE, P.E.
COUNTY ENGINEER / ECM ADMINISTRATOR

05/26/2022 9:05:31 AM
d.jirvine
EPC Planning & Community Development Department

SHEET INDEX

- SHEET 1 TITLE SHEET
- SHEET 2 WATER PLAN
- SHEET 3 WATER LOWERINGS AND DETAILS
- SHEET 4 SANITARY PLANS

AGENCIES:

- OWNER/DEVELOPER: COLORADO SPRINGS EQUITIES LLC
90 S. CASCADE AVE., SUITE 1500
COLORADO SPRINGS, CO 80903
DANNY MIENTKA (719) 448-4034
- CIVIL ENGINEER: M & S CIVIL CONSULTANTS, INC.
212 N. WAHSATCH, SUITE 305
COLORADO SPRINGS, CO 80903
VIRGIL A. SANCHEZ P.E. (719) 955-5485
- COUNTY ENGINEERING: EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT
2880 INTERNATIONAL CIRCLE, SUITE 110
COLORADO SPRINGS, CO 80910
GILBERT LAFORCE, P.E. (719) 520-6300
- TRAFFIC ENGINEERING: EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS
3275 AKERS DRIVE
COLORADO SPRINGS, CO 80922
JENNIFER IRVINE, P.E. (719) 520-6460
- WATER RESOURCES: CHEROKEE METROPOLITAN DISTRICT
6250 PALMER PARK BOULEVARD
COLORADO SPRINGS, CO 80915-1721
JEFF MUNGER
(719) 597-5080
- FIRE DISTRICT: CIMARRON HILLS FIRE DEPARTMENT
1835 TUSKEGEE PLACE
COLORADO SPRINGS, CO 80915
(719) 591-0960
- GAS DEPARTMENT: COLORADO SPRINGS UTILITIES
7710 DURANT DR.
COLORADO SPRINGS, CO 80947
TIM WENDT (719) 668-3556
- ELECTRIC DEPARTMENT: COLORADO SPRINGS UTILITIES
7710 DURANT DR.
COLORADO SPRINGS, CO 80947
TIM WENDT (719) 668-3556
- COMMUNICATIONS: QWEST COMMUNICATIONS
(U.N.C.C. LOCATORS) (800) 922-1987
AT&T (LOCATORS) (719) 635-3674

ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. SAID PLANS HAS BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE CHEROKEE METROPOLITAN DISTRICT. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS REPORT.



VIRGIL A. SANCHEZ, COLORADO P.E. #37160
FOR AND ON BEHALF OF M & S CIVIL CONSULTANTS, INC. DATE: 3/31/2022

WATER INSTALLATION CORROSION CONTROL REQUIREMENTS

REQUIRED, DESCRIBED AS FOLLOWS: PROVIDE CATHODIC PROTECTION & WRAP ALL METAL JOINTS, VALVES, PIPES AND HYDRANTS.

CHEROKEE METROPOLITAN DISTRICT WATER & WASTEWATER PLAN APPROVAL

THE CHEROKEE METROPOLITAN DISTRICT RECOGNIZES THE DESIGN PROFESSIONAL OF RECORD AS THE LICENSED ENGINEER HAVING RESPONSIBILITY FOR THE SUBMITTED DESIGN AND THE DISTRICT HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY. AS SUCH, THE APPROVAL GRANTED HEREIN IS FOR THE CONSTRUCTION OF THE FACILITIES AS REPRESENTED ON THESE DOCUMENTS. APPROVAL EXPIRES ONE (1) YEAR FROM THE DATE BELOW AND RESUBMITAL THESE PLANS FOR REVIEW AND APPROVAL IS REQUIRED IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.

APPROVED BY: *Jeff Munger* DATE: 3-31-2022

CIMARRON HILLS FIRE DEPARTMENT

ACCORDING TO THE MODELED CALCULATIONS REVIEWED BY THE GOVERNING WATER DISTRICT AND/OR COLORADO REGISTERED CIVIL ENGINEER/DESIGNER, THE THEORETICAL AVAILABLE FIRE FLOW AT NODE "FH-1" IS 2000 GPM UNDER MAXIMUM DAILY DEMAND CONDITIONS AT 28.3PSI RESIDUAL. THE ACTUAL FIRE FLOW MAY VARY DUE TO VARIOUS PARAMETERS. UPON DETAILED REVIEW OF THE AVAILABLE WATER SUPPLY, FIRE HYDRANT LOCATIONS AND HOSE LAY DISTANCES, THESE PLANS ARE HEREBY CONSIDERED APPROVED.

FIRE DEPARTMENT SIGNATURE: _____ DATE: _____

BENCHMARKS:

1. NATIONAL GEODETIC VERTICAL DATUM OF 1929, MONUMENT R76 SET IN TOP OF CONCRETE MONUMENT ELEVATION = 6286.32'
2. NATIONAL GEODETIC VERTICAL DATUM OF 1929, FOUND #5 REBAR AND ORANGE CAP PLS 32820 ELEVATION = 6325.50'

CROSSROADS MIXED USE FILING NO. 1

WATER & SANITARY UTILITY PLANS

PROJECT NO. 18-003 DATE: 03/23/2022

SCALE: HORIZONTAL: N/A VERTICAL: N/A

DESIGNED BY: CLP DRAWN BY: CLP CHECKED BY: WAS

WTO1 SHEET 1 OF 4

212 N. WAHSATCH AVE. STE. 305
COLORADO SPRINGS, CO 80903
PHONE: 719.955.5485

M & S CIVIL CONSULTANTS, INC.

FOR AND ON BEHALF OF M & S CIVIL CONSULTANTS, INC.

REGISTERED PROFESSIONAL ENGINEER
37160
03/24/22

REGISTERED PROFESSIONAL ENGINEER
37160
03/24/22

REVISIONS:

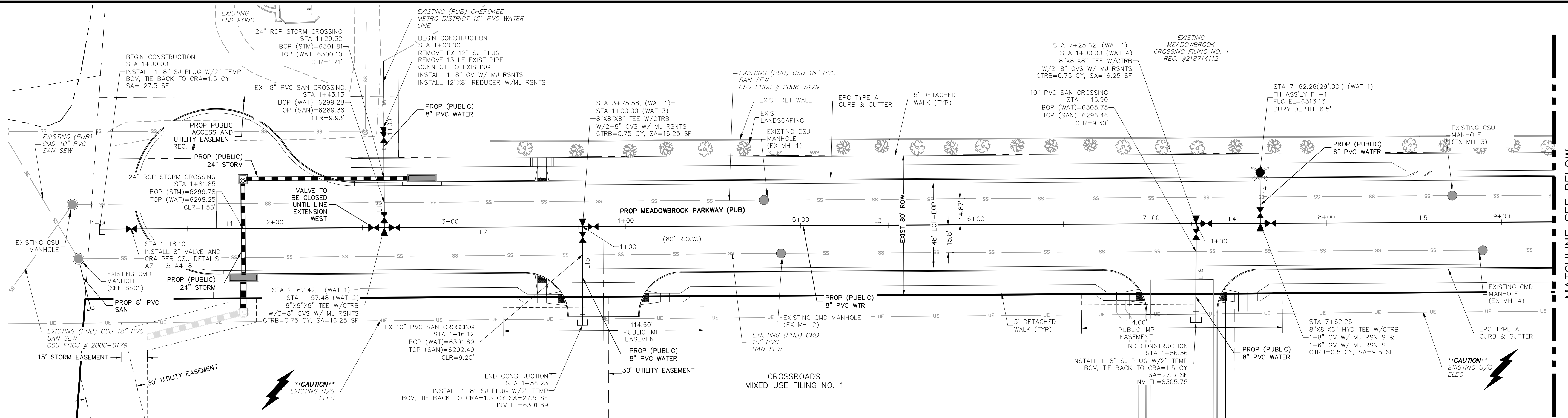
NO.	DATE	BY	DESCRIPTION

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CAUTION

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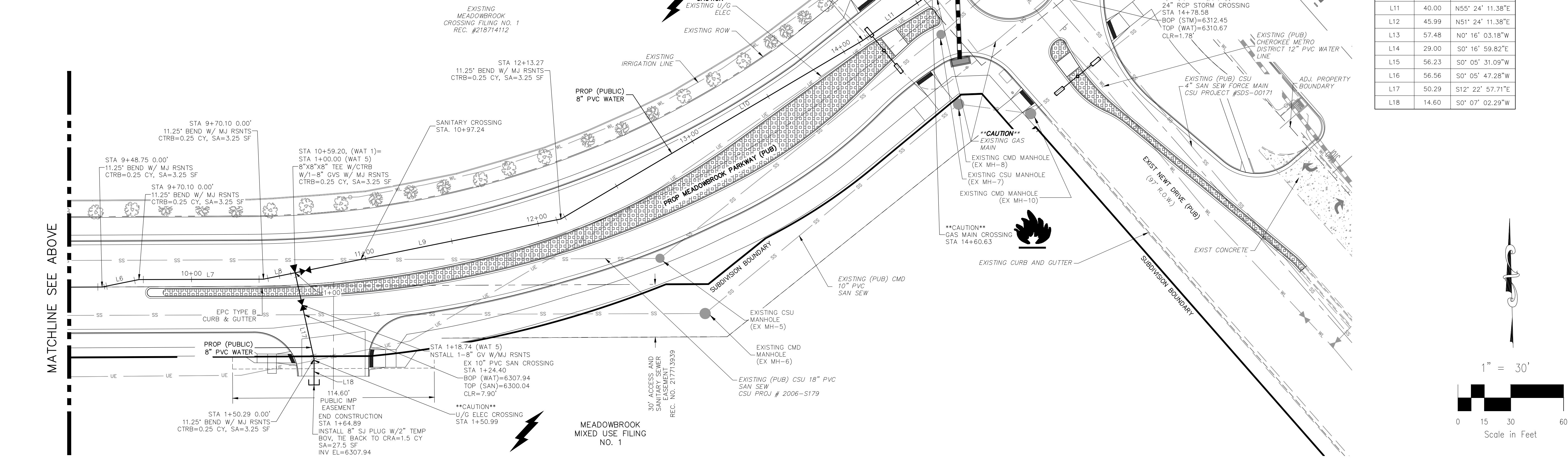




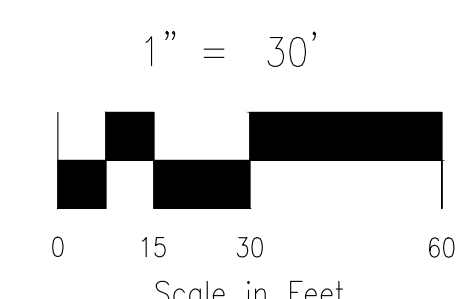
ABBREVIATION LEGEND

- CL CENTERLINE
- LT LEFT
- RT RIGHT
- C&G CURB AND GUTTER
- EL ELEVATION
- W WEST
- CONST CONSTRUCTION
- N NORTH
- WTR WATER
- S SOUTH
- STM STORM SEWER
- PUB PUBLIC
- EX EXISTING
- STA STATION
- SAN SANITARY SEWER
- NTS NOT TO SCALE
- PROP PROPOSED
- SAN SANITARY SEWER
- CMD CHEROKEE METROPOLITAN DISTRICT

EXISTING MANHOLE SUMMARY			
MANHOLE LABEL	APPROXIMATE EXISTING RIM ELEVATION	APPROXIMATE PROPOSED RIM ELEVATION	RAISE/LOWER
EX MH-1	6302.3'	6310.0'	+7.7'
EX MH-2	6303.0'	6309.7'	+6.7'
EX MH-3	6310.4'	6313.1'	+2.7'
EX MH-4	6311.0'	6312.8'	+1.8'
EX MH-5	6313.2'	6316.4'	+3.2'
EX MH-6	6315.0'	6315.9'	+0.9'
EX MH-7	6317.4'	6317.9'	+0.5'
EX MH-8	6317.0'	6318.1'	+1.1'
EX MH-9	6318.5'	6319.1'	+0.6'
EX MH-10	6318.0'	6318.5'	+0.5'



WATER LINE TABLE		
LINE NO	LENGTH	DIRECTION
L1	275.58	N89° 43' 00.18"E
L2	113.17	S89° 43' 00.02"W
L3	466.20	N89° 43' 00.14"E
L4	33.64	N89° 43' 00.18"E
L5	186.49	N89° 43' 00.18"E
L6	21.35	N78° 36' 48.78"E
L7	70.75	N89° 48' 35.75"E
L8	18.34	N78° 33' 35.75"E
L9	154.06	N78° 33' 35.75"E
L10	199.37	N59° 24' 11.38"E
L11	40.00	N55° 24' 11.38"E
L12	45.99	N51° 24' 11.38"E
L13	57.48	N0° 16' 03.18"W
L14	29.00	S0° 16' 59.82"E
L15	56.23	S0° 05' 31.09"W
L16	56.56	S0° 05' 47.28"W
L17	50.29	S12° 22' 57.71"E
L18	14.60	S0° 07' 02.29"W



CROSSROADS MIXED USE FILING NO. 1

DATE: 03/23/2022

WT02

SCALE: HORIZONTAL: 1"=30'

SCALE: VERTICAL: N/A

SHEET 2 OF 4

PROJECT NO. 18-003

DESIGNED BY: CLP

DRAWN BY: CLP

CHECKED BY: VAS

217 N. WARATCH AVE, STE 305
COLORADO SPRINGS CO 80903
PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

APPROVED BY: [Signature]

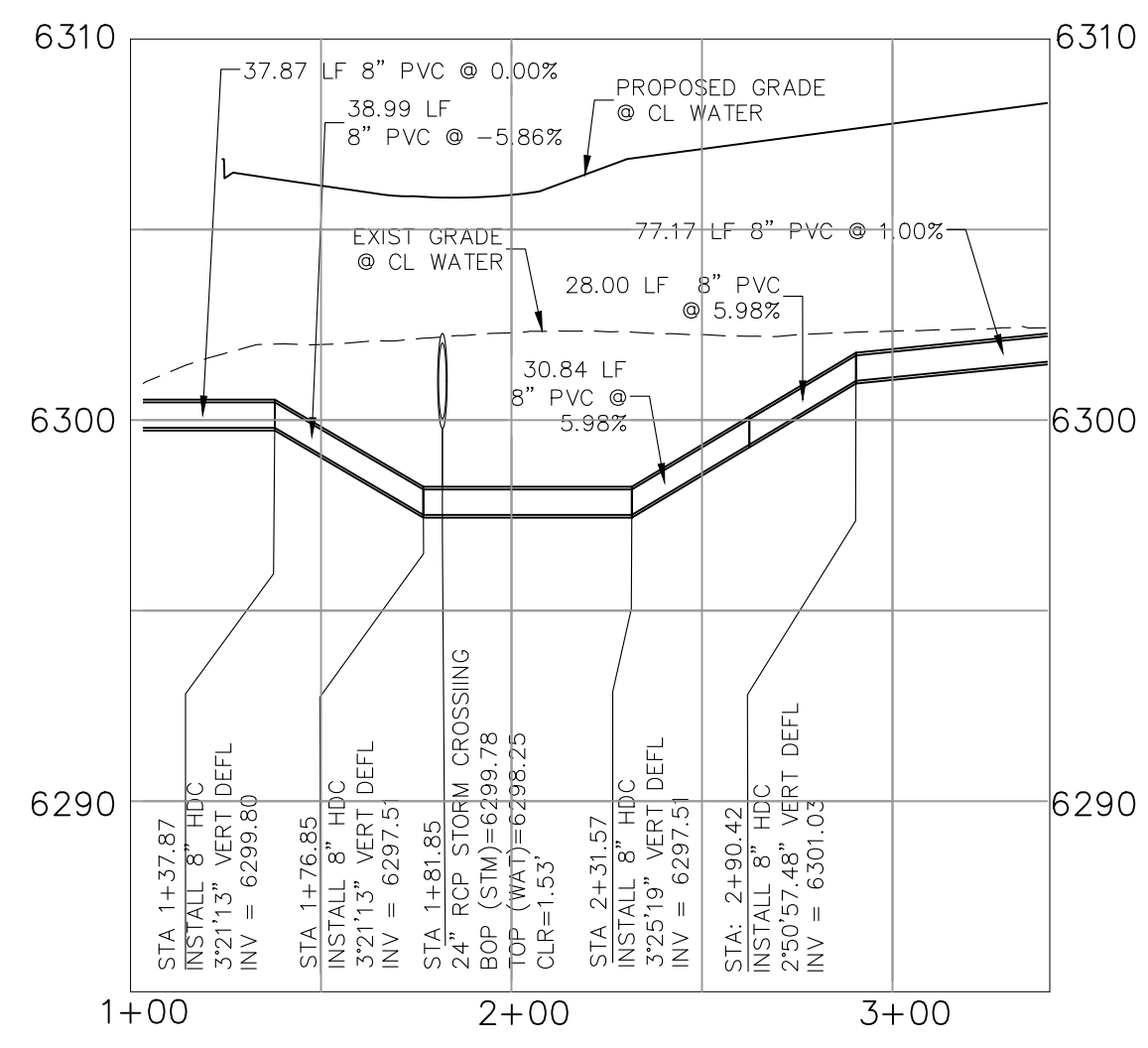
REVISIONS:

NO.	DATE	BY	DESCRIPTION

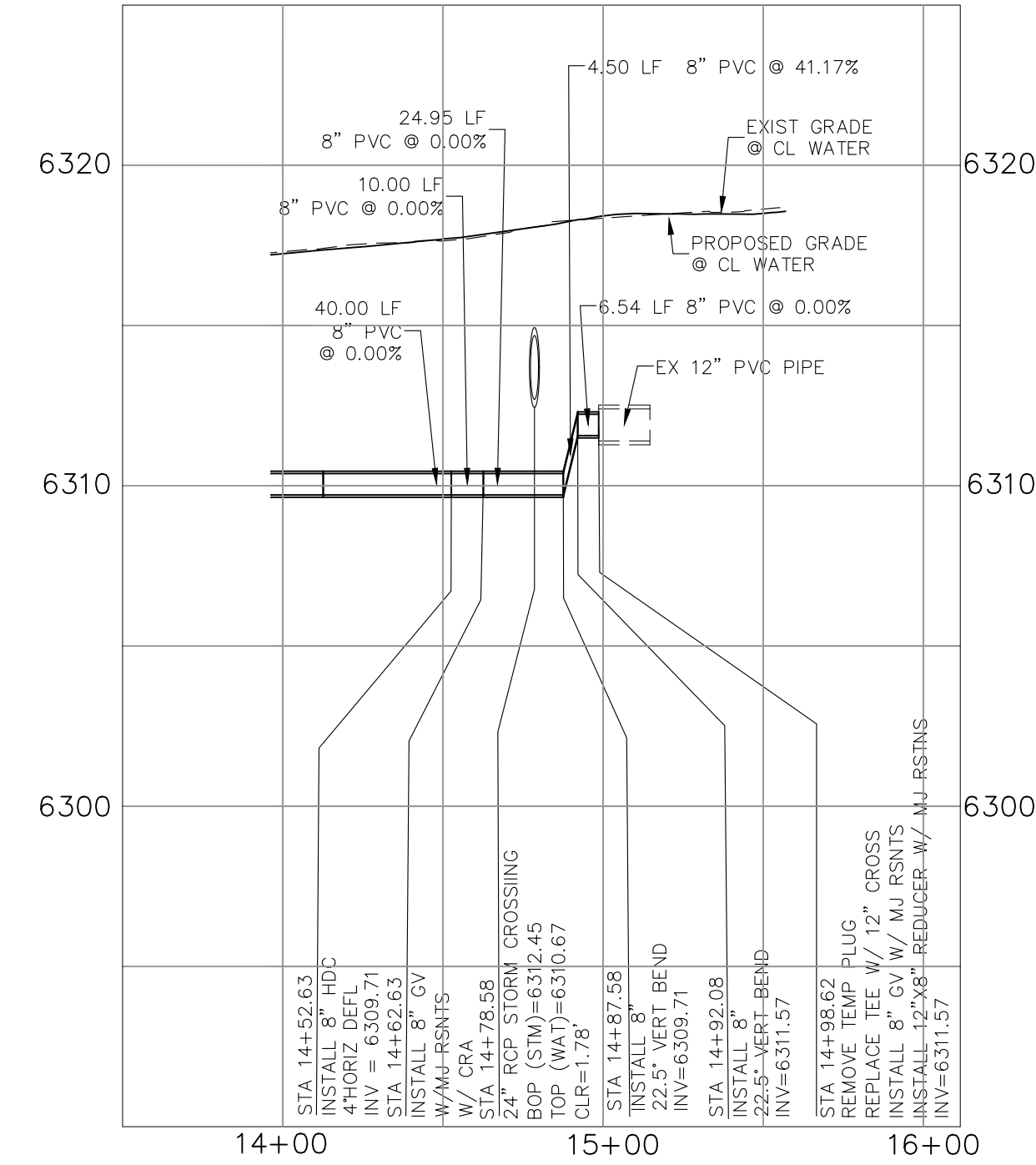
DATE:

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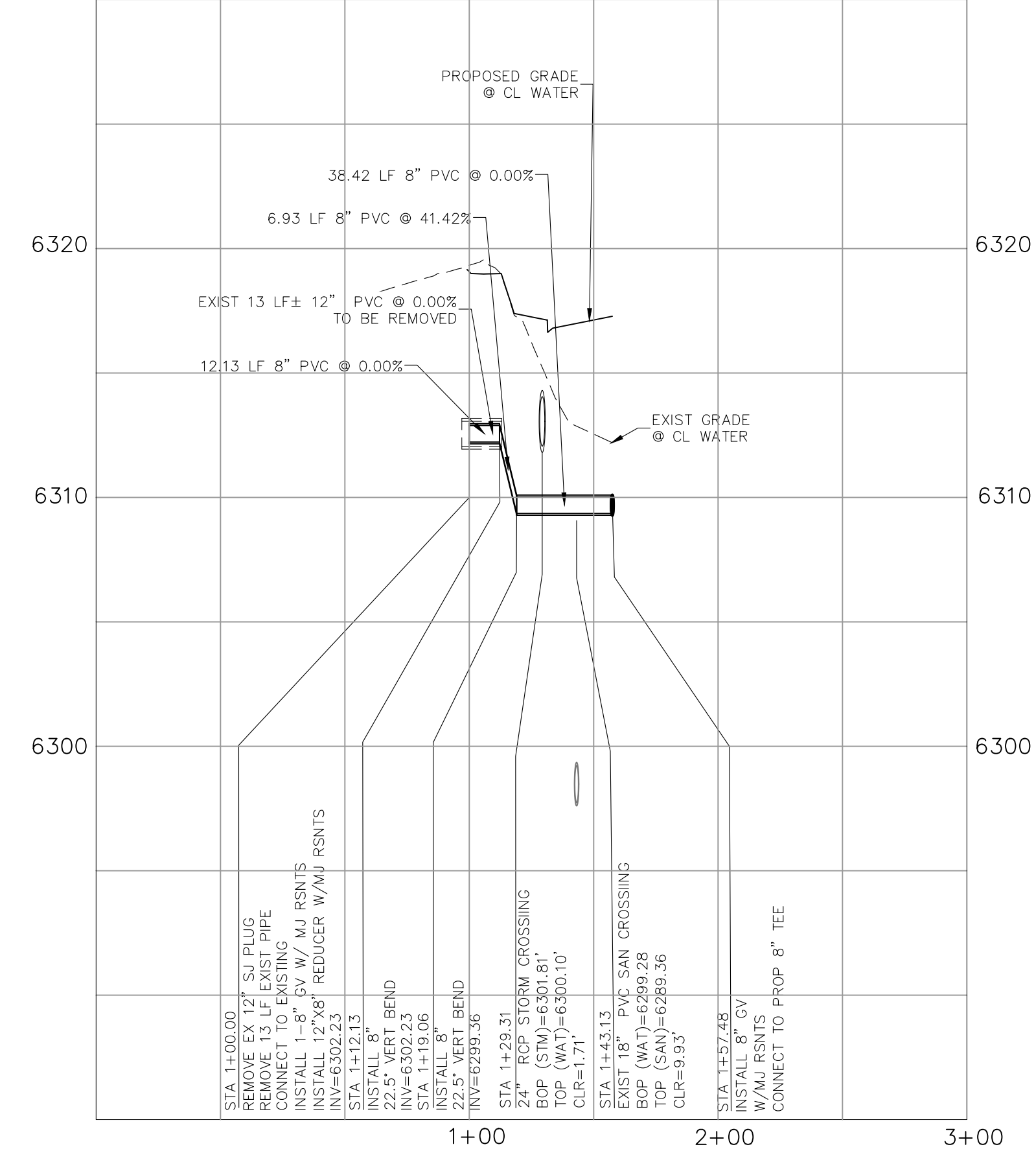
CAUTION



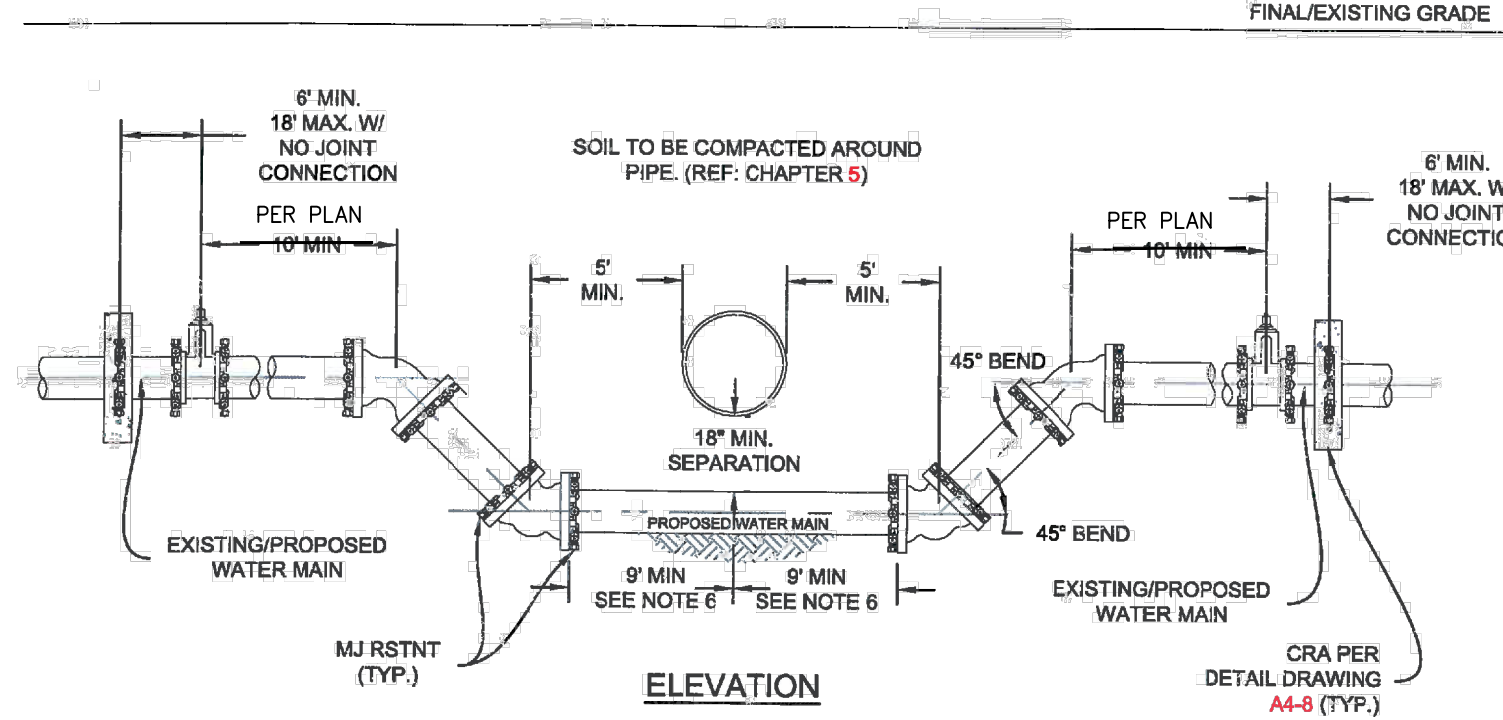
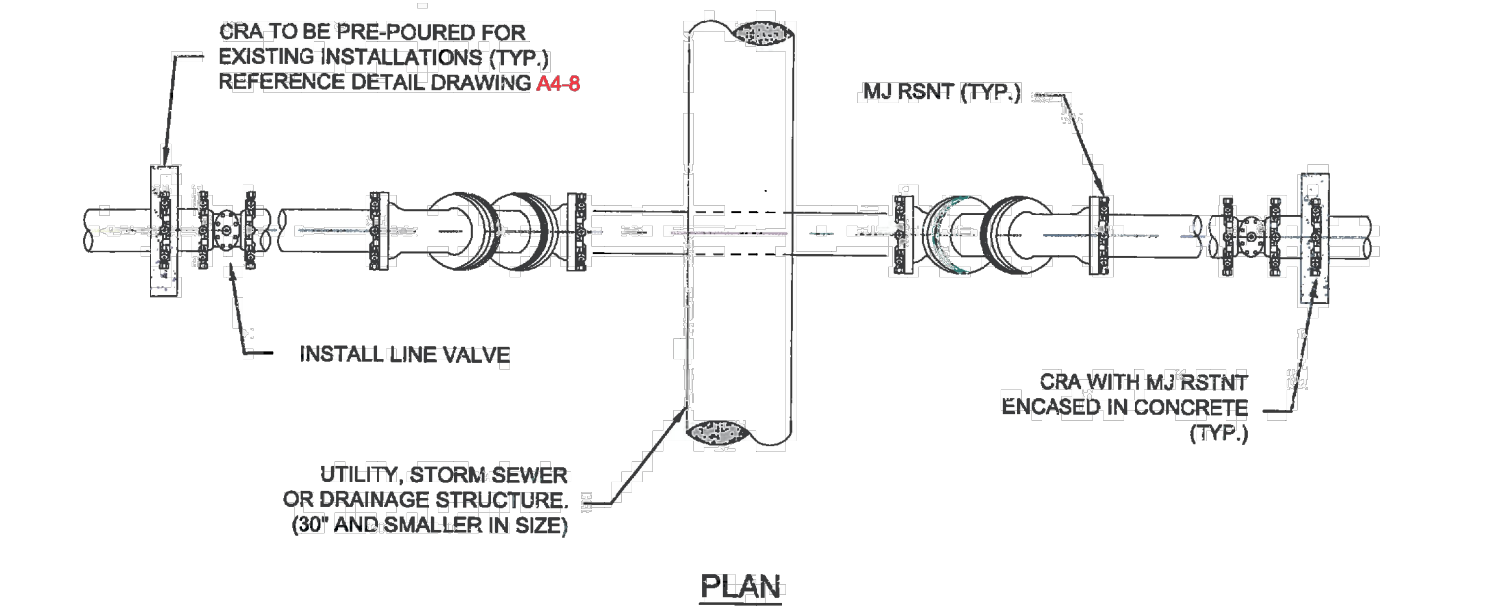
**MEADOWBROOK PARKWAY
STA 1+37.87 - 2+90.42**



**MEADOWBROOK PARKWAY
STA 14+52.63 - 14+98.62**



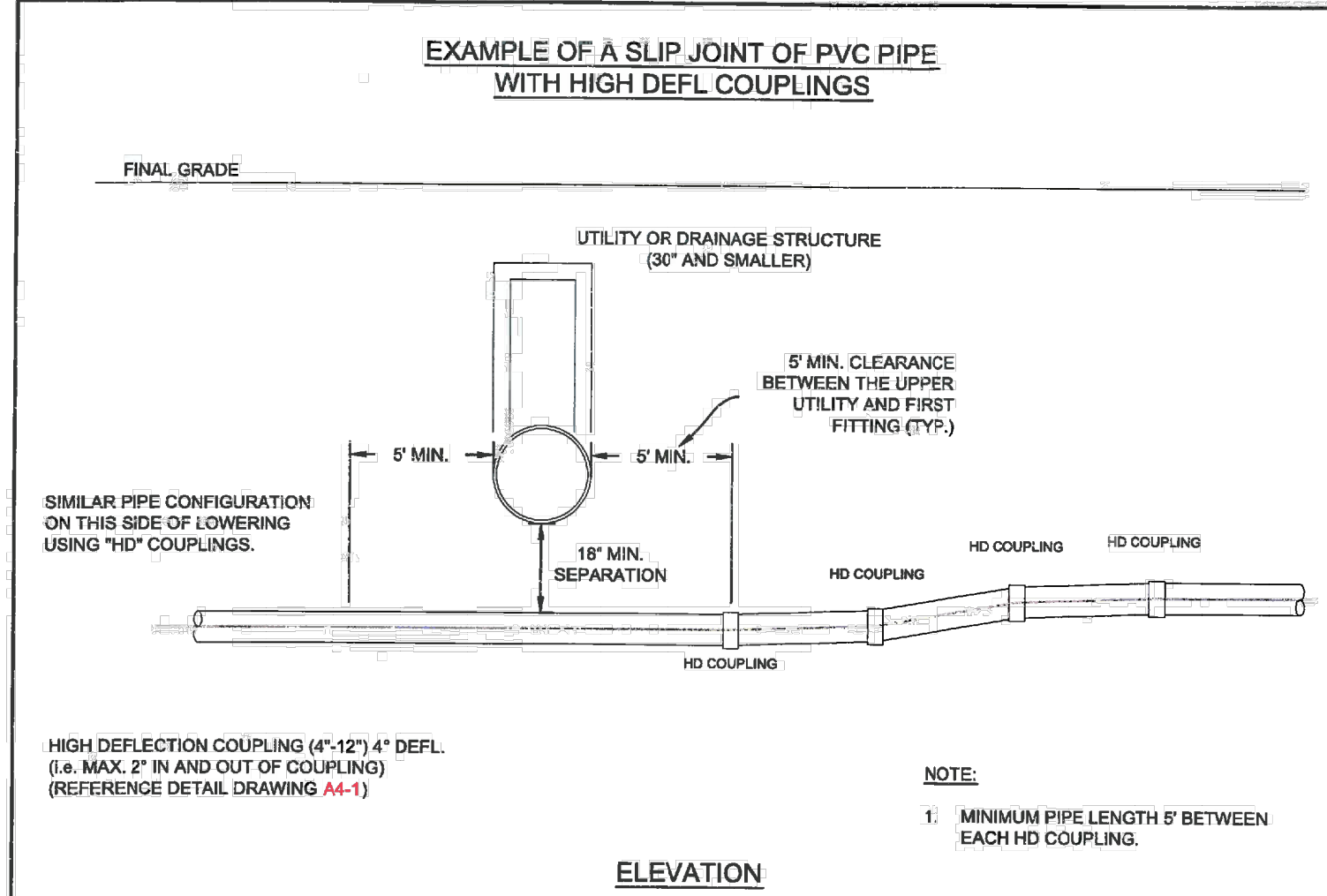
**MEADOWBROOK PARKWAY
STA 1+00.00 - 1+57.48**



- NOTES:**
1. ALL DUCTILE IRON FITTINGS AND PIPE SHALL BE CATHODICALLY PROTECTED PER SECTION 2.6.1.
 2. ALL FITTINGS SHALL HAVE MJ RESTRAINTS IN ACCORDANCE WITH CHAPTER 5.
 3. EXAMPLE CAN VARY DUE TO SITE CONDITIONS AND COLORADO SPRINGS UTILITIES INSPECTOR'S DIRECTION.
 4. RESTRAINED JOINTS ARE REQUIRED WITHIN LOWERING.
 5. NO TAPS OR TEES ARE ALLOWED WITHIN THE LOWERING.
 6. WHERE WATER MAIN CROSSES UNDER STORM SEWER, WASTEWATER OR NON-POTABLE WATER INFRASTRUCTURE, A MINIMUM OF 8 FEET REQUIRED BETWEEN THE CENTERLINE OF THE CROSSING AND THE FIRST JOINT. THIS MEETS THE REQUIREMENTS FOR SECONDARY CONTAINMENT AS DESCRIBED IN SECTION 2.6.H.2.

Colorado Springs Utilities
It's how we're all connected

**LOWERING DETAIL
UTILITY CROSSING 30\"/>**



PER SLIP JOINT OF PVC PIPE WITH HIGH DEFLECTION COUPLINGS

PIPE DATA	MPPS TOTAL (20%) DEFLECT W/ COUPL.	DESIGN DEFLECTION (80% MAX)		MIN. RADIUS FOR DEFLECTING CURVES WITH HIGH DEFLECT COUPLINGS
		(HORIZ. DEFL.)	(VERT. DEFL.)	
4"	1'00"	4'00"	0.89%	280'
6"	1'00"	4'00"	0.89%	280'
8"	1'00"	4'00"	0.89%	280'
12"	1'00"	4'00"	0.89%	280'

NO DEFLECTION COUPLINGS FOR 16\"/>

- NOTES:**
1. SEE DETAIL DRAWING A4-1 DETAIL FOR HORIZONTAL RADIUS.

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LOWERING WITH HIGH DEFLECTION COUPLINGS

A7-9
DATED 03/2014

CROSSROADS MIXED USE FILING NO. 1

WATER LOWERINGS AND DETAILS

PROJECT NO. 18-003 DATE: 03/23/2022

SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'

DESIGNED BY: CLP CHECKED BY: VAS

DRAWN BY: CLP SHEET 3 OF 4

WT03

217 N. WARATCH AVE., STE 305
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

REVISIONS:

NO.	DATE	BY	DESCRIPTION	APPROV. BY	DATE

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CAUTION

ABBREVIATION LEGEND

CL	CENTERLINE
LT	LEFT
RT	RIGHT
C&G	CURB AND GUTTER
EL	ELEVATION
W	WEST
CONST	CONSTRUCTION
N	NORTH
WTR	WATER
S	SOUTH
STM	STORM SEWER
PUB	PUBLIC
EX	EXISTING
STA	STATION
NTS	NOT TO SCALE
PROP	PROPOSED
SAN	SANITARY SEWER
CMD	CHEROKEE METROPOLITAN DISTRICT

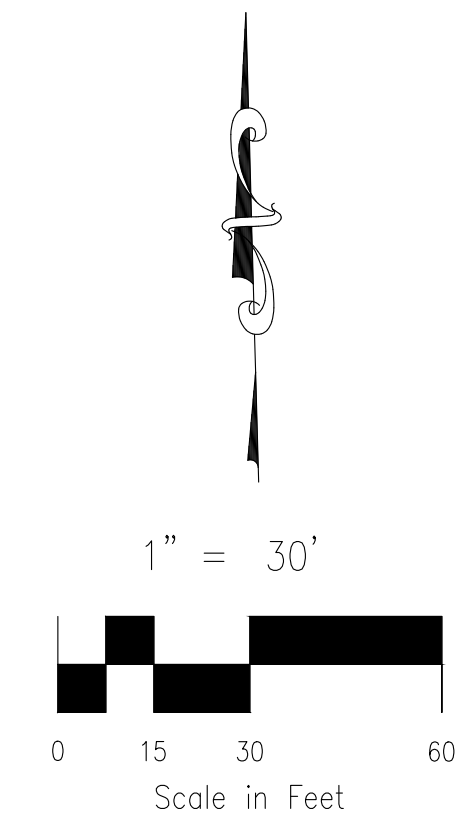
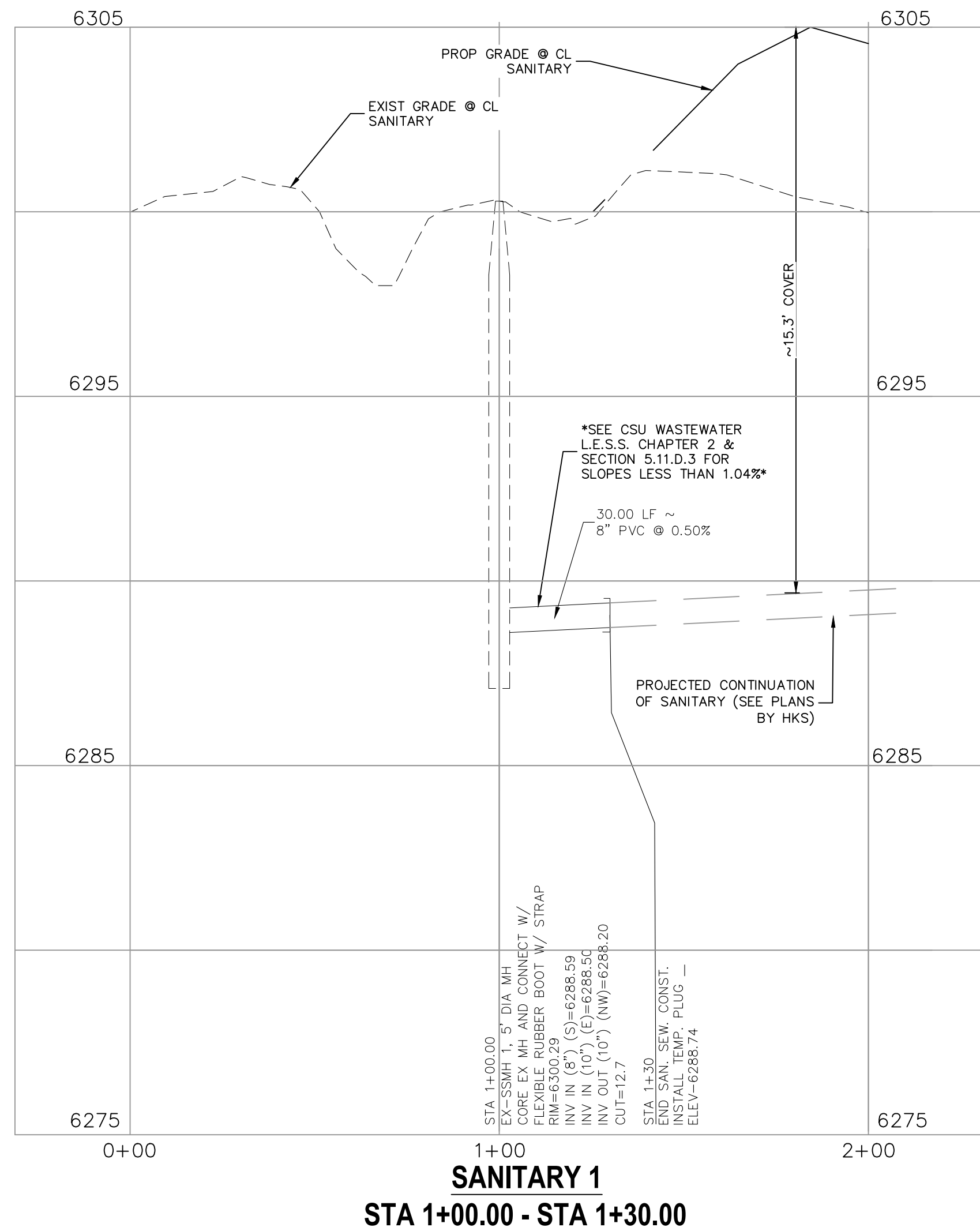
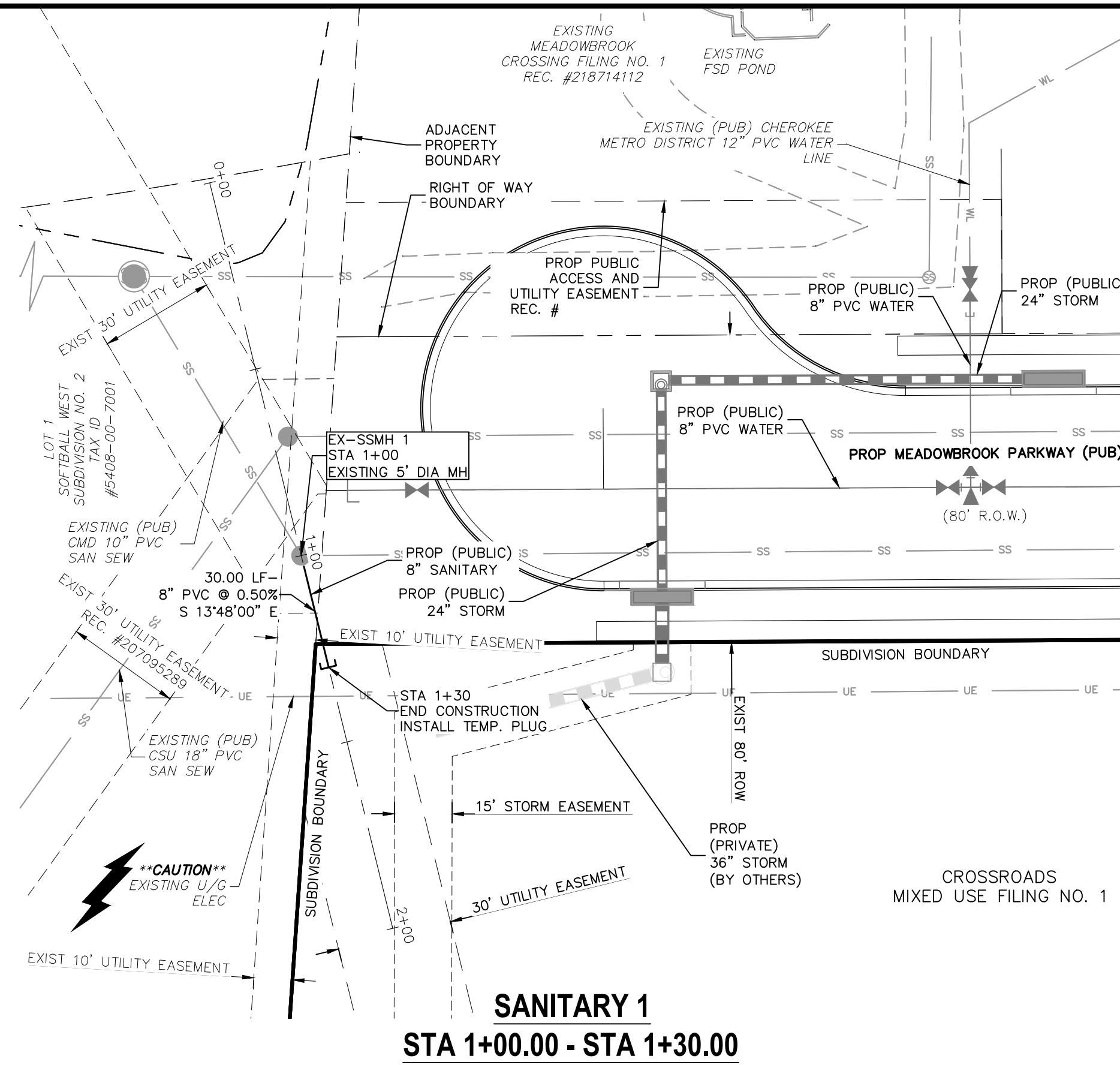
GENERAL:

- ALL CONSTRUCTION METHODS AND MATERIALS SHALL MEET COLORADO SPRINGS UTILITIES' WASTEWATER LINE EXTENSION AND SERVICE STANDARDS (WASTEWATER STANDARDS) OR APPROVED EQUAL BY CHEROKEE METROPOLITAN DISTRICT.
- THE CONTRACTOR SHALL OBTAIN LOCATES PRIOR TO ANY EXCAVATION.
- CHEROKEE METRO DISTRICT DOES NOT GUARANTEE THE ACCURACY OF LOCATIONS OF EXISTING PIPELINES, MANHOLES AND SERVICE LINES. IF FIELD CONDITIONS ARE FOUND TO BE DIFFERENT THAN SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE INSPECTOR AND THE ENGINEER OF RECORD IMMEDIATELY.
- NO TREES OR STRUCTURES ARE PERMITTED WITHIN FIFTEEN FEET (15') OF A WASTEWATER MAIN.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITY FACILITIES AS A RESULT OF HIS ACTIONS. THE CONTRACTOR SHALL MAKE ALL THE REQUIRED REPAIRS IMMEDIATELY TO THE SATISFACTION OF COLORADO SPRINGS UTILITIES.
- ALL FIELD STAKING SHALL COMPLY WITH THE WASTEWATER STANDARDS.
- ALL MANHOLES LOCATED WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO FINISH GRADE. IF MANHOLES ARE IN POOR CONDITION OR IF THE DISTANCE BETWEEN THE RING/COVER AND CONE OF THE MANHOLE EXCEEDS THE WASTEWATER STANDARDS, THE CONTRACTOR MAY BE REQUIRED TO REPLACE PART OR ALL OF THE EXISTING MANHOLES.
- REUSE OR SALVAGE OF ANY MATERIAL IS LEFT TO THE DISCRETION OF THE CHEROKEE METRO DISTRICT INSPECTOR.
- ALL TRENCH BACKFILL AND COMPACTION SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE CITY OF COLORADO SPRINGS STANDARD SPECIFICATIONS MANUAL.

SPECIFIC NOTES:

- SAWCUT BENCHING AS NECESSARY TO ACHIEVE CONNECTION
- REPLACE MANHOLE IF BENCHING ADJUSTMENTS CANNOT BE MADE TO SUIT THE CONNECTION
- SUMMARY PROVIDED BELOW CONTAINS APPROXIMATIONS OF EXISTING MANHOLE RIM ELEVATIONS. FIELD ADJUSTMENTS MAY BE REQUIRED TO MATCH GRADE. REFER TO SHEET WT02 FOR IDENTIFICATION.

EXISTING MANHOLE SUMMARY			
MANHOLE LABEL	APPROXIMATE EXISTING RIM ELEVATION	APPROXIMATE PROPOSED RIM ELEVATION	RAISE/LOWER
EX MH-1	6302.3'	6310.0'	+7.7'
EX MH-2	6303.0'	6309.7'	+6.7'
EX MH-3	6310.4'	6313.1'	+2.7'
EX MH-4	6311.0'	6312.8'	+1.8'
EX MH-5	6313.2'	6316.4'	+3.2'
EX MH-6	6315.0'	6315.9'	+0.9'
EX MH-7	6317.4'	6317.9'	+0.5'
EX MH-8	6317.0'	6318.1'	+1.1'
EX MH-9	6318.5'	6319.1'	+0.6'
EX MH-10	6318.0'	6318.5'	+0.5'



CROSSROADS MIXED USE FILING NO. 1

217 N. WABATCH AVE., STE. 305
COLORADO SPRINGS, CO 80903
PHONE: 719.955.5485

SANITARY PLANS

DATE: 03/23/2022

SCALE: HORIZONTAL: 1"=30'
VERTICAL: N/A

DESIGNED BY: CLP
DRAWN BY: CLP
CHECKED BY: VAS

PROJECT NO. 18-003

SS01

SHEET 4 OF 4

FOR AND ON BEHALF OF
M&S CIVIL CONSULTANTS, INC.

REVISIONS:

NO.	DATE	BY	DESCRIPTION

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CAUTION