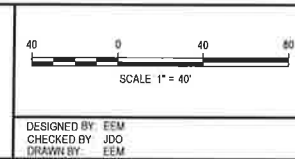


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DATE	REVISION COMMENTS
08-06-2021	
10-29-2021	PER COUNTY COMMENTS

HKS HARRIS KOCHER SMITH
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TRINISIC ACQUISITION COMPANY, LLC

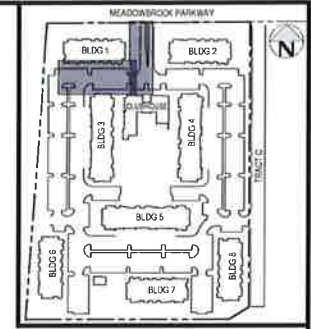
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 DRY UTILITY PLAN

PRELIMINARY
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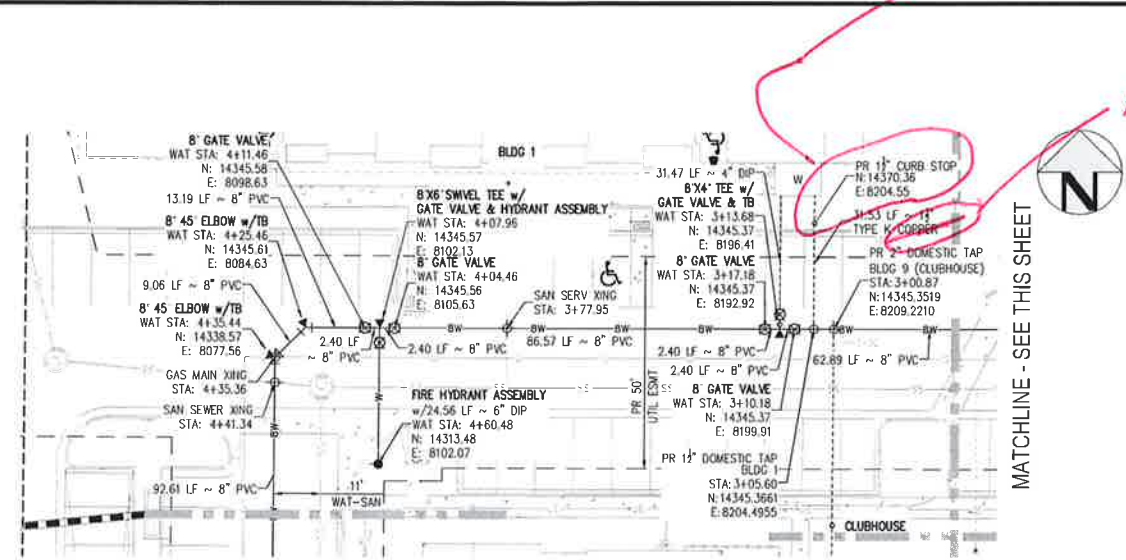
PROJECT #: 200823
 SHEET NUMBER
CD5
 CD5 OF 24

CURB STOP TO BE MIN 7' FROM EDGE OF FOUNDATION (TYP)

HOPE (TYP) - APPLY TO SHEETS WT3 THROUGH WT10



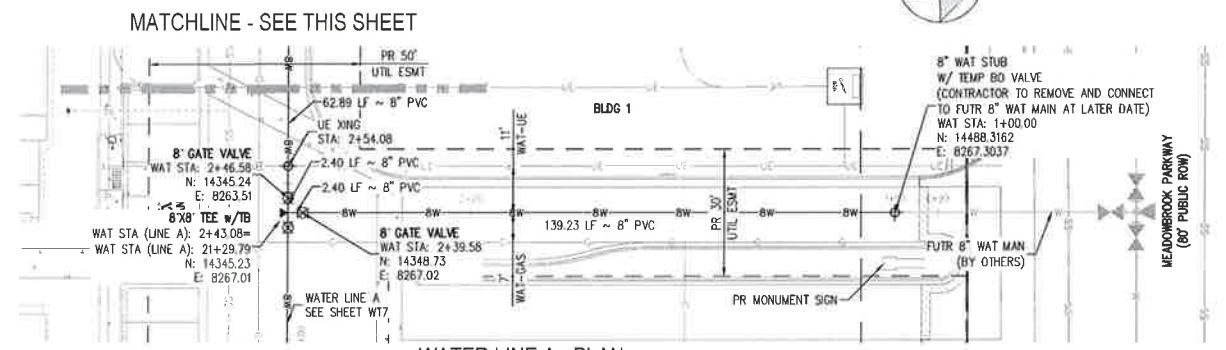
KEY MAP
SCALE: 1" = 200'



MATCHLINE - SEE SHEET WT4

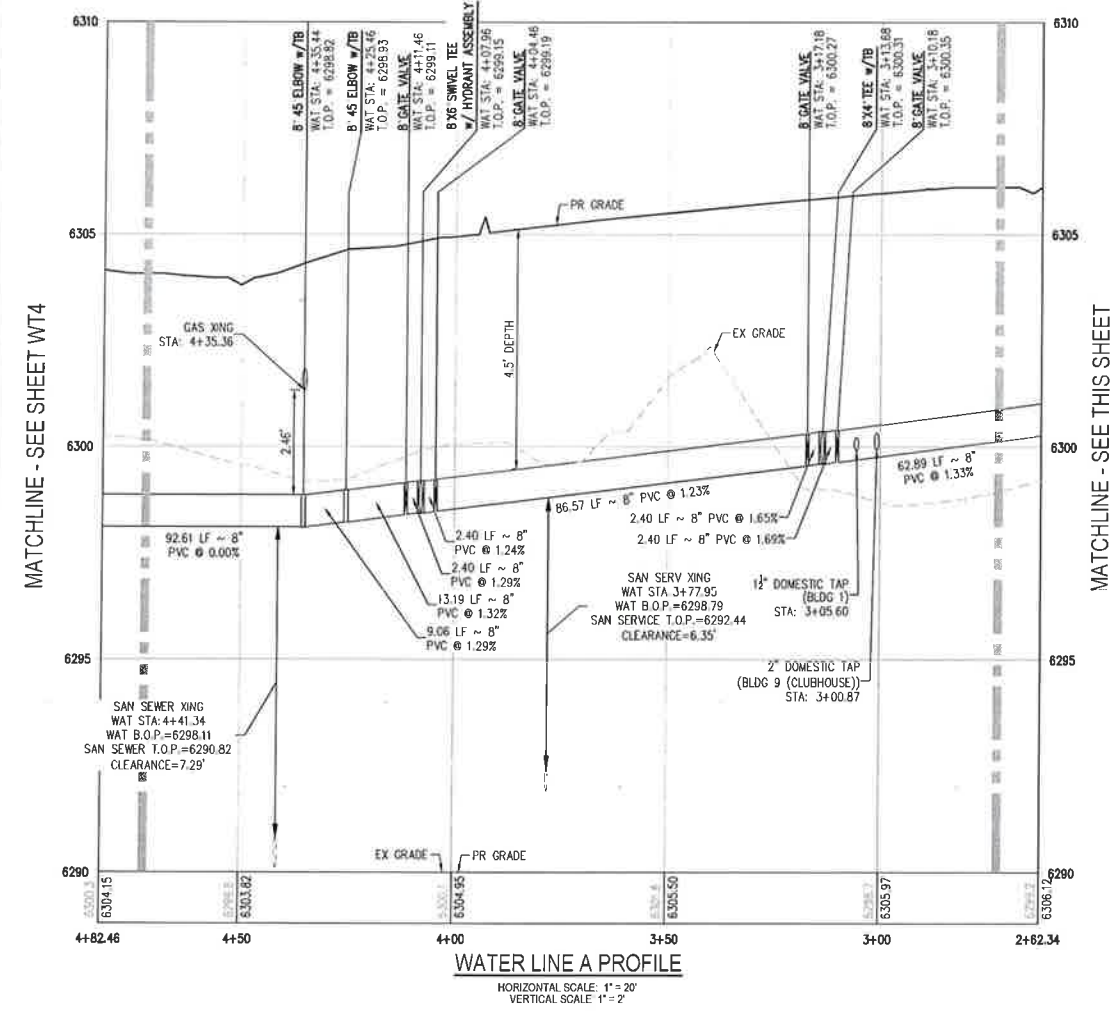
MATCHLINE - SEE SHEET WT10

WATER LINE A - PLAN
SCALE = 1" = 20'

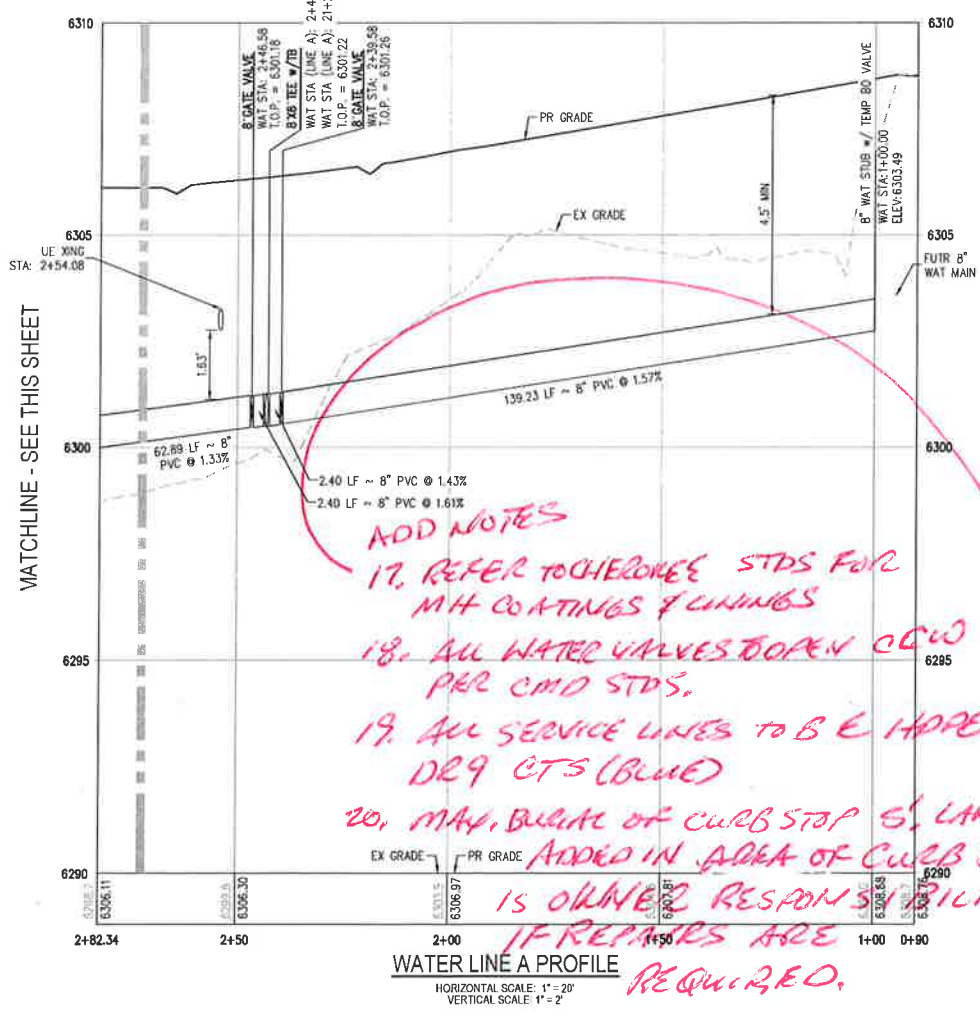


MATCHLINE - SEE THIS SHEET

WATER LINE A - PLAN
SCALE = 1" = 20'



WATER LINE A PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



WATER LINE A PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'

LEGEND:

- PROPOSED ZONE LOT BOUNDARY
- EXISTING SANITARY SEWER W/MANHOLE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING FIBER OPTIC
- EXISTING UNDERGROUND TELEPHONE
- EXISTING STORM LINE
- EXISTING FIRE HYDRANT
- EXISTING ELECTRIC POLE
- PROPOSED SANITARY SEWER W/ MANHOLE
- PROPOSED WATER LINE
- PROPOSED WATER SERVICE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM LINE
- PROPOSED GAS LINE
- PROPOSED FDC

NOTES:

1. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE VERTICAL/HORIZONTAL LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. STATIONING IS FROM CENTER LINE OF PIPE UNLESS OTHERWISE NOTED.
3. PIPE LENGTH IS FROM CENTER OF FITTING TO CENTER OF FITTING.
4. WATER MAIN DEFLECTION IS NOT TO EXCEED MANUFACTURER SPECIFICATION.
5. ALL CONSTRUCTION METHODS AND MATERIALS SHALL MEET COLORADO SPRINGS UTILITIES' WASTEWATER LINE EXTENSION AND SERVICE STANDARDS (WASTEWATER STANDARDS) WITH **CHANGES EXCEPTIONS**.
6. THE CONTRACTOR SHALL OBTAIN LOCATES PRIOR TO ANY EXCAVATION.
7. COLORADO SPRINGS UTILITIES 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.
8. NO TREES OR STRUCTURES ARE PERMITTED WITHIN FIFTEEN FEET (15') OF A WASTEWATER MAIN.
9. 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.
10. ALL FIELD STAKING SHALL COMPLY WITH THE WASTEWATER STANDARDS.
11. THE CONTRACTOR SHALL ENSURE THAT WASTEWATER SERVICE TO ADJACENT PROPERTIES IS MAINTAINED DURING CONSTRUCTION.
12. 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.
13. REUSE OR SALVAGE OF ANY MATERIAL IS LEFT TO THE DISCRETION OF THE COLORADO SPRINGS UTILITIES INSPECTOR.
14. ALL TRENCH BACKFILL AND COMPACTION SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE CITY OF COLORADO SPRINGS STANDARD SPECIFICATIONS MANUAL.
15. SECONDARY CONTAINMENT IS REQUIRED PER CSU WATER LESS STANDARD 2.6 H.2
16. WATER MAIN SHALL BE 5'-6" DEEP UNLESS OTHERWISE NOTED.

ADD NOTES

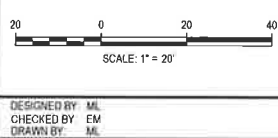
17. REFER TO HERONEE STDS FOR MHT COATINGS & LININGS
18. ALL WATER VALVES OPEN CCW PER CMD STDS.
19. ALL SERVICE LINES TO BE HOPE DR9 CTS (BLUE)
20. MAX. BURIAL OF CURB STOP IS LANDSCAPING ADDED IN AREA OF CURB STOP IS OWNER'S RESPONSIBILITY IF REPAIRS ARE REQUIRED.

CHANGE M.D &

FILEPATH: K:\03022\08\09\01\UTILITIES\WATER\WT3 - PLAN & PROFILE A.DWG LAYOUT LAYOUT DATE: 08-06-2021 10:40:50 BY: ETR/MS/MS



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Call before you dig.



DATE	REVISION COMMENTS
08-06-2021	ISSUE DATE
	PER COUNTY COMMENTS

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TRINIS ACQUISITION COMPANY, LLC

AURA AT CROSSROADS
WATER PLAN & PROFILE - LINE A

PRELIMINARY
NOT FOR
CONSTRUCTION

PROJECT #: 200823
SHEET NUMBER
WT3
3 OF 11

NO CHANGES TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH

METER SIZE	METER SPOOL LENGTH	BY-PASS DIA.	CONNECTION TYPE
1 1/2"	13"	1"	THREADED
2"	17"	1"	THREADED
3"	17"	3"	FLANGED
4"	20"	4"	FLANGED
6"	24"	6"	FLANGED

NOTES:

1. THE METER SHALL BE PROVIDED AND INSTALLED BY CHEROKEE METROPOLITAN DISTRICT.
2. METER LENGTHS VARY WITH CERTAIN TYPES OF METER. EXACT DIMENSIONS SHOULD BE OBTAINED FROM CHEROKEE METROPOLITAN DISTRICT REFERENCE SECTION 2.1 WATER METER LOOP REQUIREMENTS.
3. METERS MUST BE LOCATED ON THE LOWEST FLOOR OF THE STRUCTURE. METERS SHALL NOT BE INSTALLED IN CRAWL SPACES, AREAS ONLY ACCESSIBLE BY LADDER, OR UNDESIGNATED STORAGE AREAS.
4. THE METER LOOP SHALL BE CONSTRUCTED OF COPPER, DUCTILE IRON OR STEEL.
5. ALL FITTINGS IN THE METER LOOP SHALL BE SOLDERED, FIXED FLANGED OR THREADED.
6. THE METER MUST BE INSTALLED WITH THE CLEARANCE DIMENSIONS AS SHOWN ABOVE. ONE SIDE OF THE METER SHALL BE FREE FROM ANY OBSTRUCTION 3 MINIMUM CLEARANCE IS REQUIRED ABOVE AND IN FRONT OF THE METER. 24" MINIMUM CLEARANCE IS REQUIRED BETWEEN THE METER LOOP AND ELECTRICAL OUTLETS.
7. BRASS INLET AND OUTLET VALVES SHALL BE INSTALLED ON EACH SIDE OF THE METER. INLET AND OUTLET VALVES SHALL BE FULL OPENING GATE OR BALL VALVES WHICH CLOSE IN DIRECTION OF FLOW. NO CONNECTIONS ARE ALLOWED BETWEEN THE INLET AND OUTLET VALVES A MIN OF 6" IS REQUIRED BETWEEN VALVE AND METER FLANGES OR 2X THE DIAMETER OF METER, WHICHEVER IS GREATER.
8. A MINIMUM OF 5' OF COPPER IS REQUIRED AFTER THE METER EXCEPT WHERE A MANIFOLD (MANIFOLD) SYSTEM IS USED DIRECTLY AFTER THE METER AND IS SUPPORTED.
9. BRACING 1 1/2" & 2" METER SHALL BE AS SHOWN FOR METERS 3" OR GREATER SHALL BE DESIGNED TO ANCHOR WATER LOOP AND KEEP SECURED. SUPPORT SHALL BE ATTACHED TO FLOOR.
10. GROUNDING IS REQUIRED TO ELIMINATE POTENTIAL FOR DISCHARGE OF STATIC ELECTRICITY CAUSED BY FLOW OF WATER THROUGH PIPING CIRCUMFERENCE STRAP NOT REQUIRED ON PREFABRICATED LOOPS.
11. GAS FLEX LINE SERVICES SHALL BE LOCATED A MINIMUM OF 18" FROM THE METER LOOP.
12. A BACKFLOW PREVENTION ASSEMBLY IS REQUIRED. IT SHALL BE LOCATED BEFORE THE FIRST BRANCH LINE. FOR BACKFLOW PREVENTION ASSEMBLY REQUIREMENTS, INCLUDING LOCATION, SEE SECTION 2.1.
13. THE BACKFLOW PREVENTER SHALL BE SOLDERED OR FIXED FLANGED.

TYPICAL INSTALLATION FOR 1-1/2" THRU 6" METERS INSIDE BUILDING

Colorado Springs Utilities
DATE: 08-05-2021

NOTES:

1. MECHANICAL JOINT RESTRAINTS SHALL BE INSTALLED PER DETAIL DRAWINGS A4-4, A4-5, & CHAPTER 5.
2. TRACER WIRE AND GROUND LEVEL TEST BOX TO BE INSTALLED WITH EACH FIRE HYDRANT. PLACE TEST BOX WITHIN 6" FROM THE HYDRANT. REFERENCE DETAIL DRAWINGS A5-1 & A5-2 FOR FIRE HYDRANT LOCATION.
3. INSTALLATION OF A PRIVATE FIRE HYDRANT VALVE REQUIRE A SECONDARY VALVE INSTALLED AT THE PROPERTY LINE.
4. HYDRANT BASE BLOCK SHALL BE PLACED ON UNDEVELOPED EARTH.
5. DO NOT BLOCK W/EP HOLE WITH POLYURETHANE.
6. COVER DRAIN HOLES WITH POLYURETHANE PRIOR TO BACKFILL.
7. FOR HOSE HYDRANT CONNECTION SEE DETAIL DRAWING A5-3.
8. FOR PRIVATE FIRE HYDRANTS A SECONDARY VALVE SHALL BE INSTALLED ON THE PROPERTY LINE OR RIGHT-OF-WAY LINE.

FIRE HYDRANT INSTALLATION

Colorado Springs Utilities
DATE: 08-05-2021

NOTES:

1. TRENCH WALLS AND SHORING SHALL COMPLY WITH OSHA STANDARDS.
2. FOR HOSE TAPS USE A SERVICE LINE TAPPING SADDLE CONFORMANCE AT 90° SEE SECTION 2.1.6.
3. TO BE USED IN CONJUNCTION WITH SECTION 2.1.6 AND SECTION 3.1.6.
4. VACUUM COMPACTION CANNOT BE ACHIEVED UNDER THE WATER MAIN FLOW WILL SHALL BE USED.
5. SEE DETAIL DRAWING A8-10 FOR CATHODIC PROTECTION.

TAPPING DETAILS 3/4" THRU 2" FOR TYPE "K" COPPER

Colorado Springs Utilities
DATE: 08-05-2021

NOTES:

1. 4" WATER SERVICE LINES TYPICALLY REQUIRE A TEE AND VALVE PER SECTION 2.0. THIS DRAWING MAY ONLY BE USED AT THE DISCRETION OF COLORADO SPRINGS UTILITIES.
2. TRENCH WALLS AND SHORING SHALL COMPLY WITH OSHA STANDARDS.
3. VACUUM COMPACTION CANNOT BE ACHIEVED UNDER THE WATER MAIN FLOW WILL SHALL BE USED.
4. ATTACH ANODES FOR CATHODIC PROTECTION.

DETAILS FOR TAPS 4" AND OVER FOR DUCTILE OR PVC PIPE

Colorado Springs Utilities
DATE: 08-05-2021

NOTES:

1. MAN AND FIRE HYDRANT VALVES AND VALVE BOXES SHALL NOT BE IN THE CURB PAN, CURB OR SIDEWALK.
2. VALVE BOXES SHALL BE SUB TYPE PER CHAPTER 4.
3. DEBRIS CAPS SHALL BE INSTALLED AS CLOSE UNDER THE CAST IRON COVER WITHOUT INTERFERING WITH COVER OPERATIONS.
4. DEBRIS CAPS WITH FLEXIBLE SKIRTS SHALL BE TRIMMED TO PROVIDE A SMOOTH CONTACT WITH THE INTERIOR OF THE VALVE BOX FOR SERVICE LINES 4" AND GREATER. TRACER WIRE WILL BE BROUGHT UP IN THE SECONDARY VALVE BOX.

VALVE BOX INSTALLATION

Colorado Springs Utilities
DATE: 08-05-2021

NOTES:

1. REFERENCE SECTION 2.1 WATER SERVICE LINE DESIGN.
2. FOR AREAS WITH DEEPER FROST DEPTHS SEE SECTION 2.0.1.1 FOR DEPTH OF BURY REQUIREMENTS.
3. SEE DETAIL DRAWING B1-10 FOR NON-SINGLE-FAMILY RESIDENTIAL CONNECTION OUTSIDE METER DETAIL.

TYPICAL INSTALLATION FOR TYPE "K" COPPER SERVICE LINE, STOP BOX AND METER INSTALLATION 3/4" - 2"

Colorado Springs Utilities
DATE: 08-05-2021

NOTES:

1. IF APPROPRIATE LOCATION FOR DISCHARGED WATER CANNOT BE REACHED BY ROLLING THE BEND ADDITIONAL BENDS MAY BE REQUIRED BY THE COLORADO SPRINGS UTILITIES INSPECTOR.
2. COAT THE RODS, BEAM AND GALVANIZED STEEL PIPE. SEE DETAIL DRAWING A8-11.
3. ENTIRE BLOW-OFF ASSEMBLY MUST BE ADEQUATELY SUPPORTED. CONCRETE PAVEMENT STONES MAY BE REQUIRED.
4. PIPE DOCS APPROVED FOR USE IN POTABLE WATER SYSTEMS MUST BE USED ON ALL THREADED FITTINGS.
5. TEMPORARY BLOW-OFF VALVE ASSEMBLY SHALL BE INSPECTED BY THE COLORADO SPRINGS UTILITIES INSPECTOR PRIOR TO BACKFILL. BACKFILL COMPACTION TO BE SAME AS PIPE COMPACTION SPECIFICATIONS.
6. 2" GALVANIZED PIPE MUST BE RATED TO 250 PSI AND CONFORM TO NSF-61 SPECIFICATIONS.
7. THE COLORADO SPRINGS UTILITIES INSPECTOR MAY REQUIRE THE BACK ROD IN ADDITION TO THE MJ RESTRAINTS DEPENDING ON FIELD CONDITIONS AND SYSTEM PRESSURES. SEE THE BACK ROD DETAIL DRAWING A2-4.

TEMPORARY BLOW-OFF ASSEMBLIES- 4" - 8" MAINS WITH MECHANICAL JOINT PLUG

Colorado Springs Utilities
DATE: 08-05-2021

DELETE - REFER TO B1-6

DETAIL B1-6

Colorado Springs Utilities
DATE: 08-05-2021

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DESIGNED BY ML
CHECKED BY EM
DRAWN BY ML

DATE	REVISION COMMENTS
08-05-2021	ISSUE DATE
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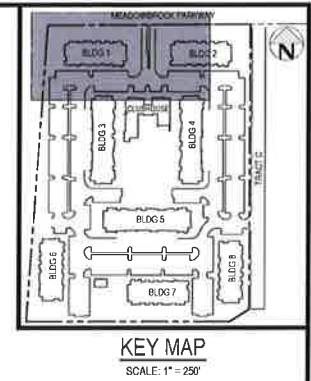
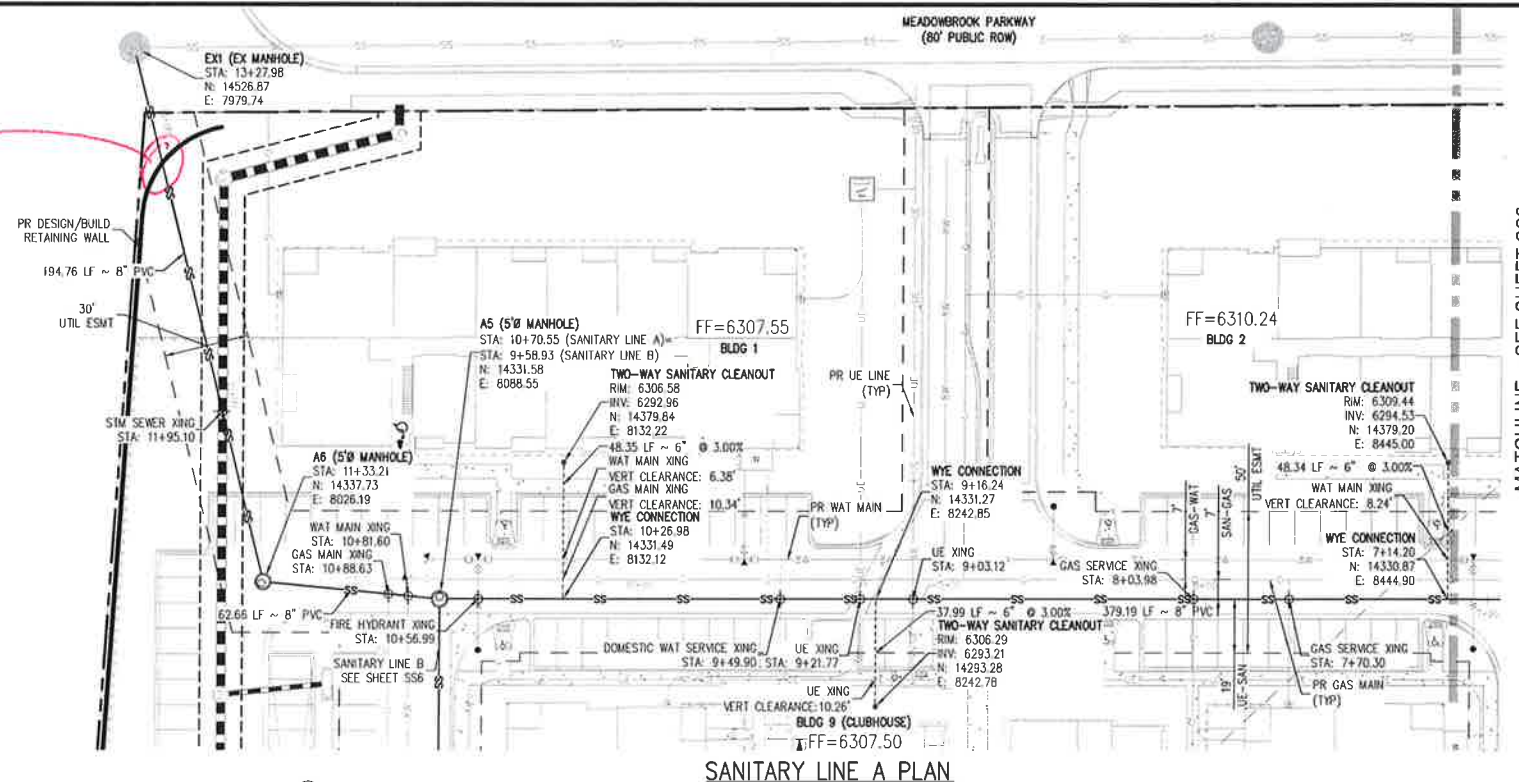
AURA AT CROSSROADS WATER DETAILS

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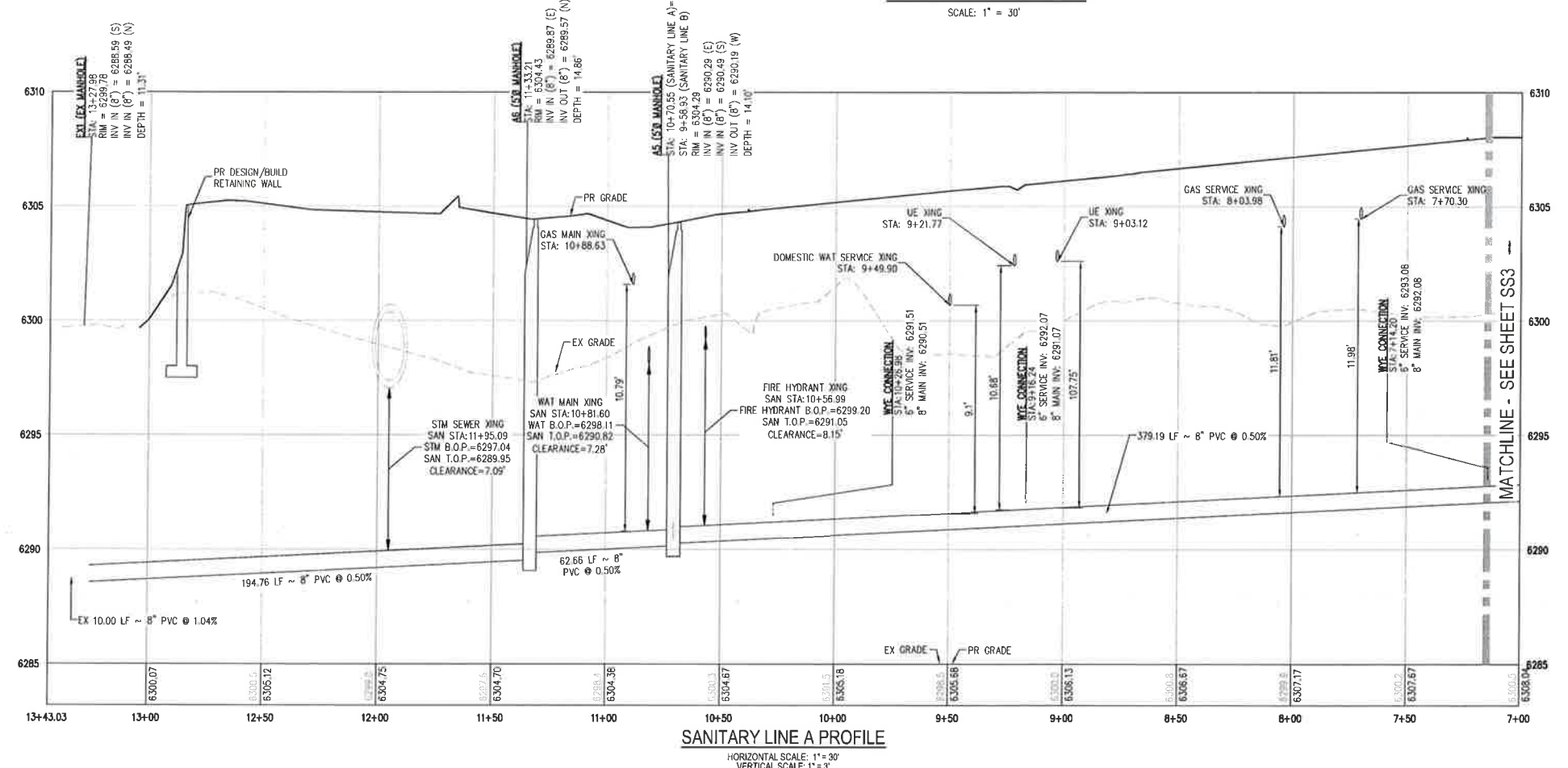
PROJECT #: 200823
SHEET NUMBER
WT11
11 OF 11

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

PROVIDE CASING ON 8" SEWER WHERE RETAINING WALL CROSSING SEWER



MATCHLINE - SEE SHEET SS3



MATCHLINE - SEE SHEET SS3

- GENERAL SANITARY NOTES:**
1. THE CONTRACTOR SHALL NOTIFY COLORADO 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
 2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE, AS SUPPLIED BY THE UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE, AND LOCATION OF EXISTING UTILITIES AND IMMEDIATELY NOTIFY HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND FACILITIES.
 3. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO START OF CONSTRUCTION.
 4. PIPE LENGTHS ARE MEASURED FROM CENTER OF MANHOLE TO CENTER OF MANHOLE. ALL COORDINATES ARE AT THE CENTER OF THE STRUCTURE UNLESS OTHERWISE INDICATED.
 5. ALL WORK, INCLUDING CORRECTION WORK, SHALL BE INSPECTED BY THE UTILITY PROVIDER'S REPRESENTATIVE WHO SHALL HAVE THE AUTHORITY TO HALT CONSTRUCTION WHEN THERE IS A LACK OF ADHERENCE TO STANDARD CONSTRUCTION PRACTICES.
 6. MAINTAIN A MINIMUM OF TEN FEET OF HORIZONTAL SEPARATION BETWEEN ALL SANITARY SEWER AND DOMESTIC WATER MAINS AND SERVICES IN ACCORDANCE WITH STATE OF COLORADO AND JURISDICTIONAL UTILITY PROVIDER SPECIFICATIONS.
 7. FOR ALL NON-CENTRIC MANHOLES, MANHOLE RINGS/COVERS AND STEPS LIDS SHALL BE ROTATED AS SHOWN IN PLAN VIEW.
 8. CONTRACTOR SHALL ADJUST ALL EXISTING RIM ELEVATIONS TO MATCH THE PROPOSED GRADE.
 9. ALL SANITARY SERVICE CLEANOUTS LOCATED ADJACENT TO A BUILDING SHALL BE TWO-WAY CLEANOUTS.
 10. THE CONTRACTOR IS RESPONSIBLE FOR:
 - a. OBTAINING ALL APPLICABLE LICENSES, BONDS, PERMITS, STANDARDS AND SPECIFICATIONS FOR SEWER MAIN INSTALLATION
 - b. VERIFYING THE LOCATION AND DEPTH OF EXISTING UTILITIES AND NOTIFYING THE ENGINEER OF ANY DISCREPANCIES
 - c. RESTORING ALL DISTURBED AREAS TO ORIGINAL CONDITION, OR AS INDICATED ON THE PLANS.

11. REFER TO CHEROKEE STDS FOR MIN COATING & LINING REQUIREMENTS

12. MIN. MIN DIA METRIC 5'-0"

(Notes typical SS4 - SS7)

FILEPATH: K:\020820\DESIGN\ENGINEERING\UTILITIES\SANITARY\SS - PLAN & PROFILE.DWG LAYOUT: LAYOUT1 (2)
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SCALE: 1" = 30'			
DESIGNED BY: ML	CHECKED BY: EM		
DRAWN BY: ML			

ISSUE DATE: 08-05-2021	DATE	REVISION COMMENTS
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TRINISIC ACQUISITION COMPANY, LLC

AURA AT CROSSROADS
SANITARY PLAN & PROFILE LINE A

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PROJECT #: 200823
SHEET NUMBER
SS4
4 OF 7