

# CLAREMONT BUSINESS PARK 2 FILING NO. 2

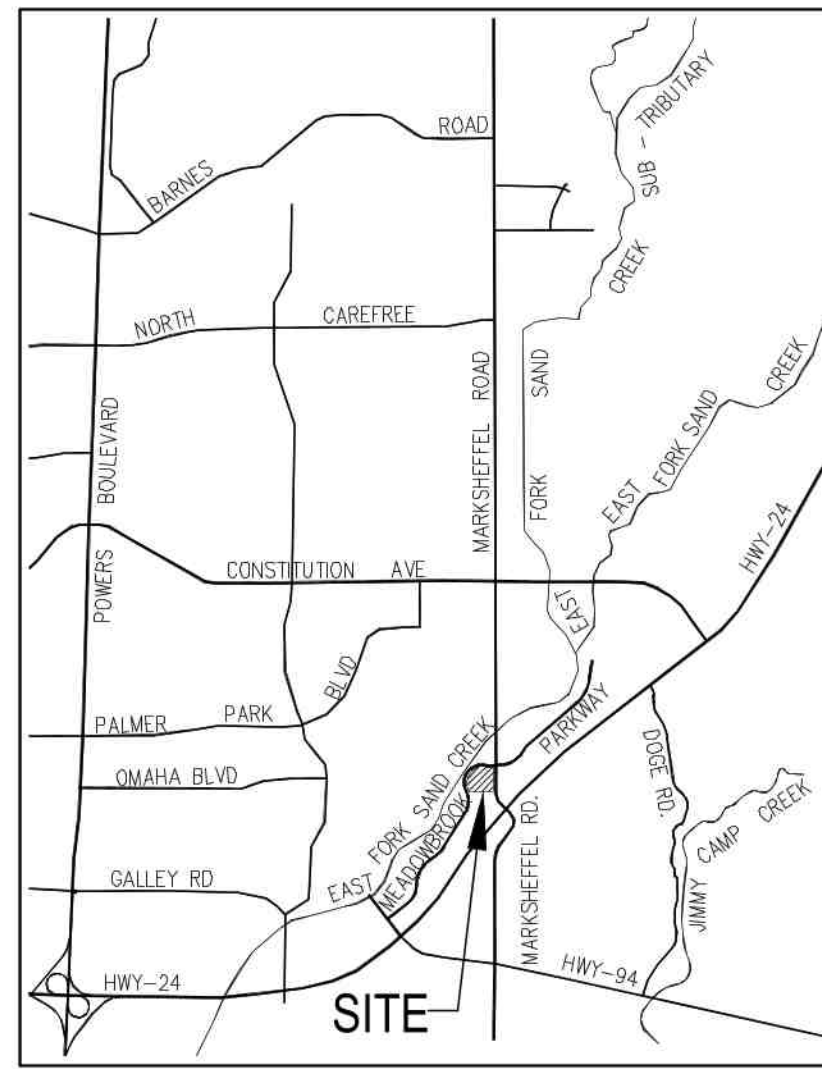
COUNTY OF EL PASO, STATE OF COLORADO

## WATER PLANS (INCLUDING UTILITY SERVICE PLAN)

JULY 2023

NOTE:

THE CONTRACTOR SHALL FIELD VERIFY THE ELEVATION OF ALL TIE-IN/CONNECTIONS TO EXISTING MANHOLES AND/OR STUBS PRIOR TO CONSTRUCTION. ANY DISCREPANCY TO THE ANTICIPATED/PREVIOUSLY MEASURED ELEVATIONS PROVIDED ON THE PLANS SHALL BE CONVEYED TO THE ENGINEER AND A RESOLVE REACHED PRIOR TO INSTALLATION.



VICINITY MAP  
N.T.S.

### SHEET INDEX

SHEET 1	TITLE SHEET
SHEET 2	WATER PLAN & PROFILE (INCLUDING WATER SRVC'S)
SHEET 3	WATER DETAILS

### WATER AND SANITARY SEWER SERVICE INSTALLATIONS GENERAL NOTES:

- 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 (CMD) STANDARDS SHALL GOVERN.
- 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 (SAND CREEK) OR MAJOR THROUGHFARES SHALL BE DUCTILE IRON PIPE.
- 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.
- ALL WATER PIPES SHALL BE INSTALLED WITH A MINIMUM COVER OF FIVE (5) FEET BELOW FINISHED GRADE.
- ALL BENDS, TEES FIRE HYDRANTS, BLOW-OFF, AND PLUGS AT DEAD END MAINS SHALL BE INSTALLED WITH CONCRETE THRUST BLOCKS.
- VALVE BOXES SHALL BE TYLER SLIP, TYPE "C" CAST IRON VALVE BOX ASSEMBLY SERIES 8860 WITH NO. 160 OVAL BASE OR APPROVED EQUAL.
- 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 TRY 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.
- 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.
- ALL VALVES SHALL CONFORM TO OPEN LEFT CONVENTION PER CHEROKEE METROPOLITAN DISTRICT STANDARDS.
- 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.
- 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.
- 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.
- 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.
- 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.
- SANITARY SEWER PIPE SHALL CONFORM TO ASTM D3034 SDR35 PVC.
- CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF EXISTING INVERTS PRIOR TO INSTALLATION OF NEW SANITARY SEWER SYSTEM.
- 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 SHALL BE COATED AND LINED PER CMD STANDARDS.
- SANITARY SEWER SERVICE LINES SHALL BE LOCATED PER THE DETAIL ON THE UTILITY SERVICE PLAN, OR AT THE DIRECTION OF THE INSPECTOR.
- OVERLOT GRADING AND STREET SUB-GRADE MUST BE WITHIN +/- ONE (1) FOOT PRIOR TO ANY UTILITY INSTALLATION.
- 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.
- MINIMUM DEPTH OF SANITARY SEWER IS 6 FEET OF COVER. IF THIS MINIMUM CANNOT BE ACHIEVED DUE TO SHALLOW SEWER TUB THEN THE FOLLOWING APPLIES: OTHERWISE THE SEWER SERVICE MUST HAVE 6 FEET OF COVER:  
DEPTH GREATER THAN 4 FEET (AND LESS THAN 20"): MATERIAL TYPE SDR 35  
DEPTH BETWEEN 4 FEET AND 6 FEET: MATERIAL TYPE SCH 40 OR CAST IRON (CIP)  
DEPTH LESS THAN 4 FEET: MATERIAL TYPE SCH 40 OR CIP WITH CONCRETE CAP.
- 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.
- ALL EXTERIOR SEWER CLEAN OUTS (CO) MUST HAVE A CAST IRON, TRAFFIC RATED COVER, OR EQUIVALENT CONCRETE COLLAR.
- 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.
  - 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.
  - THE TWO PLAN SETS SHALL BE SUBMITTED ON SHEETS THAT ARE 24" X 36" IN SIZE.
  - THE PLAN SET SHALL BE ON A DURABLE MEDIA THAT CAN BE RUN THROUGH PHOTOCOPIING EQUIPMENT.
  - 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 FOUND INTO THE DRAWING SET. THE SECOND SET OF ELECTRONIC DATA FILES SHALL BE IN ADOBE ACROBAT PDF FORMAT.
  - "AS-CONSTRUCTED" PLANS SHALL BE SUBMITTED WITHIN TWO WEEKS OF COMPLETION OF THE WATER AND/OR SANITARY SEWER UTILITIES.
  - 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.
- 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.

### WATER INSTALLATION CORROSION CONTROL REQUIREMENTS

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

### BENCHMARKS:

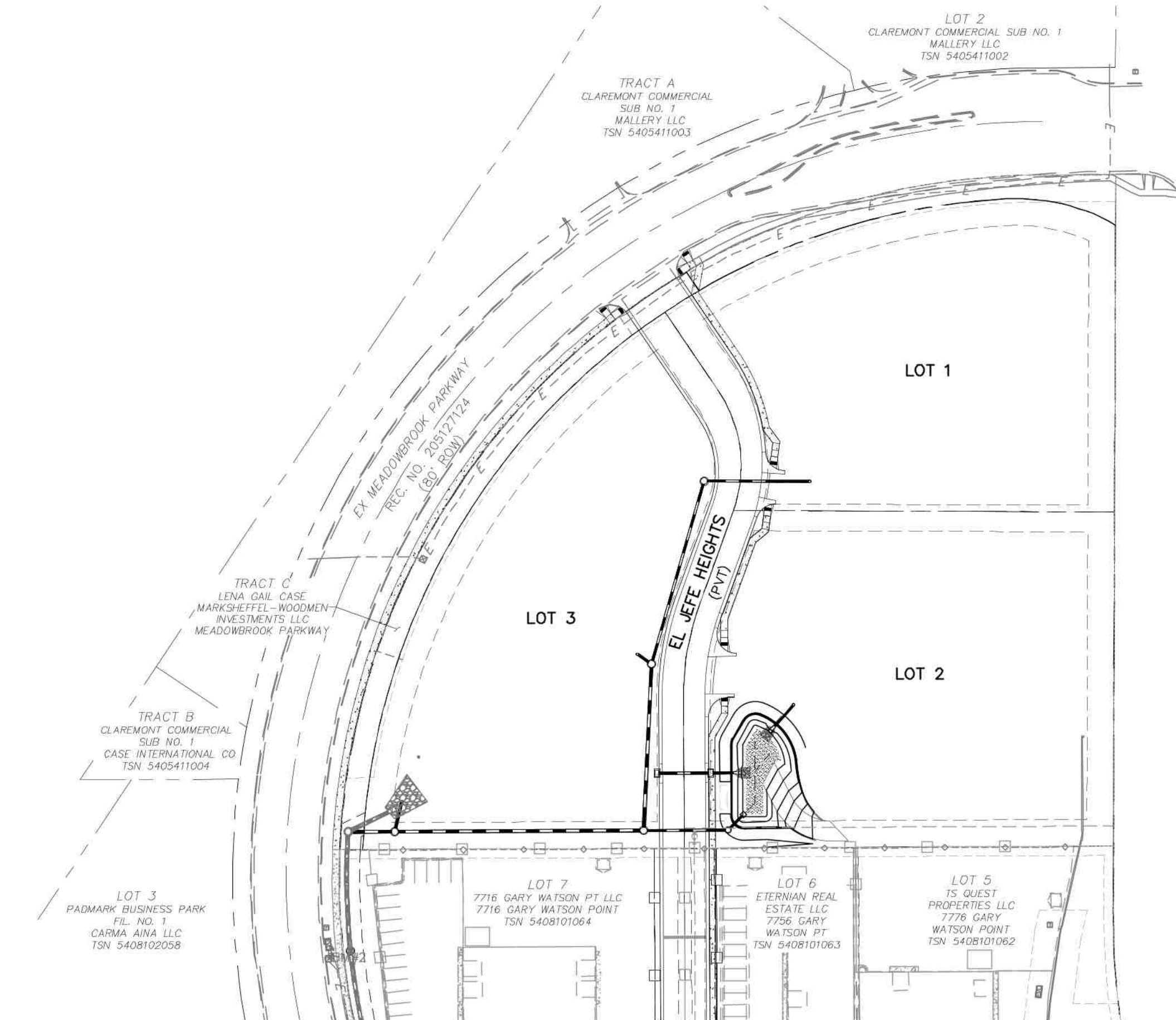
- BL33 BEING A BERTSEN TOP SECURITY MONUMENT IN RANGE BOX 5' SOUTH OF SOUTH ROW FENCE OF HWY 24 UNDER CENTERLINE OF TRANSMISSION LINE. ELEVATION = 6372.26' PLATTE AVENUE
- CONTROL POINT 1, SET PK NAIL IN NE CORNER OF ELECTRIC TRANSFORMER PAD ELEVATION = 6372.26'

### BASIS OF BEARINGS

THE NORTH LINE OF LOTS 5, 6 AND 7 "CLAREMONT BUSINESS PARK 2 FILING NO. 1" AS RECORDED UNDER RECEPTION NO. 221714714 OF THE RECORDS OF EL PASO COUNTY, COLORADO, MONUMENTED AT THE NORTHEAST CORNER OF LOT 5 WITH A NO. 5 REBAR WITH ORANGE SURVEYOR'S CAP STAMPED "M&S CIVIL PLS 25966", FROM WHICH THE NORTHWEST CORNER OF LOT 7, MONUMENTED WITH A NO. 5 REBAR WITH ORANGE SURVEYOR'S CAP STAMPED M&S CIVIL PLS 25966, BEARS S89°44'12"W, A DISTANCE OF 578.27 U.S. SURVEY FEET.

FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES

FOR BURIED UTILITY INFORMATION 48 HRS BEFORE YOU DIG CALL 1-800-922-1987



SITE MAP  
N.T.S.

### 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.

7/25/2023  
DATE

### 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 RESUBMITTAL OF THESE PLANS FOR REVIEW AND APPROVAL IS REQUIRED IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.

APPROVED BY: *Kevin Brown* DATE: 12-20-23

### 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: *Thomas P. Joyce* DATE: 12/18/2023

### OWNER/DEVELOPER'S STATEMENT:

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

*Brian Zurek* DATE: 7/25/2023  
BRIAN ZUREK (MANAGING PARTNER)  
DTV MEADOWBROOK LLC

### EL PASO COUNTY:

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.

JOSHUA PALMER, P.E.  
COUNTY ENGINEER / ECM ADMINISTRATOR

By: *Gilbert LaForce, P.E.*  
Engineering Manager  
On behalf of the  
ECM Administrator  
Date: 01/03/2024 7:09:49 AM  
El Paso County Department of Public Works

CLAREMONT BUSINESS PARK 2 FIL. NO. 2

WATER PLANS

DATE: 07/20/23

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

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

WT01

SHEET 1 OF 3

212 N. WAHSATCH AVE, STE 305  
COLORADO SPRINGS CO 80903  
PHONE: 719.555.5465



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

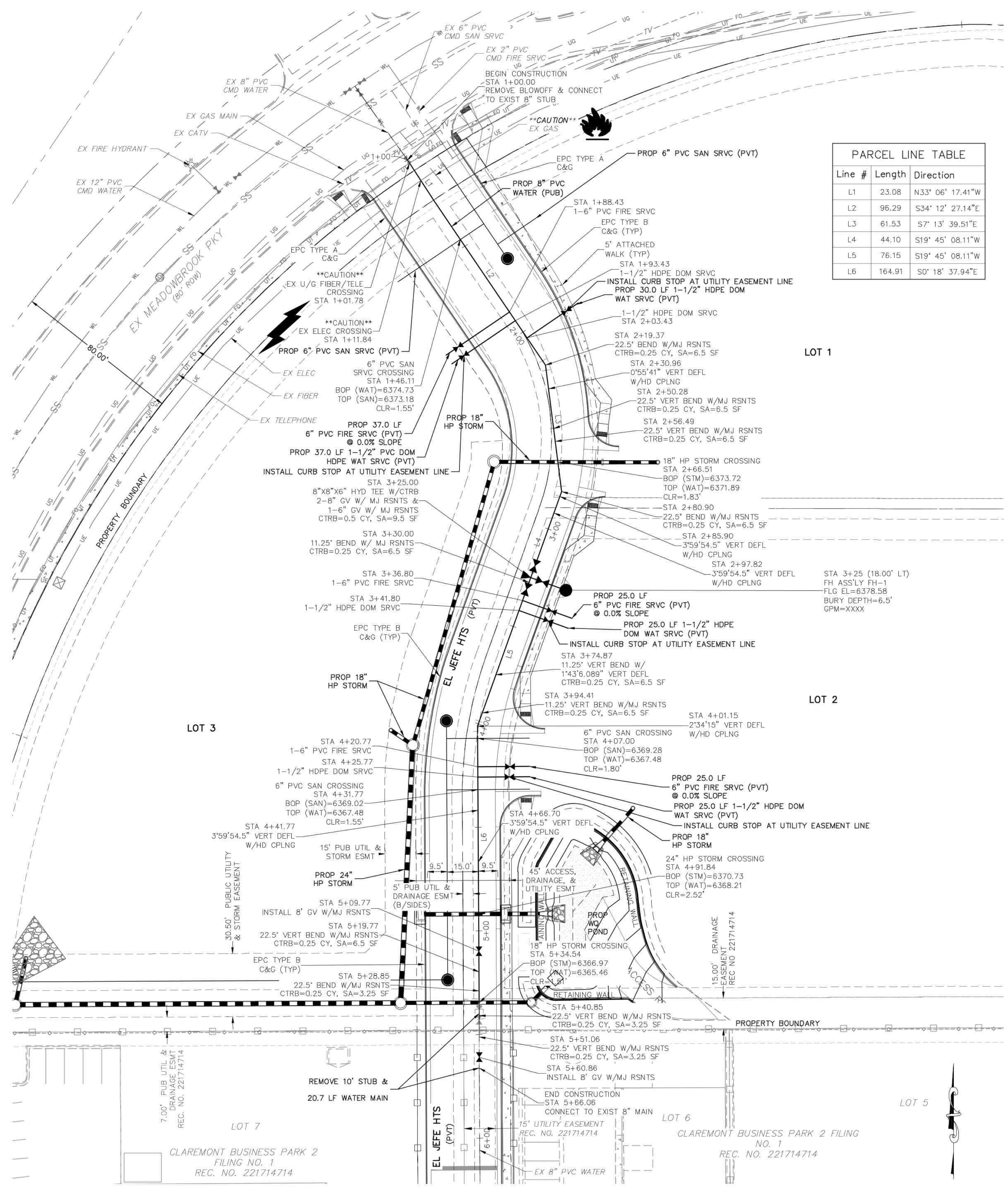


REVISIONS:	NO.	DATE:	BY:	DESCRIPTION:

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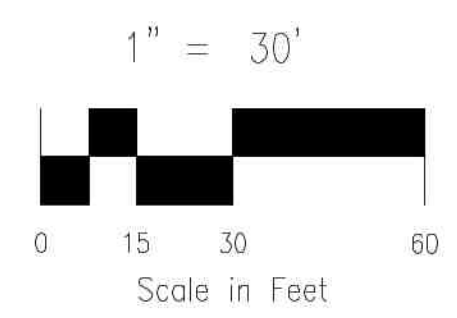
CAUTION





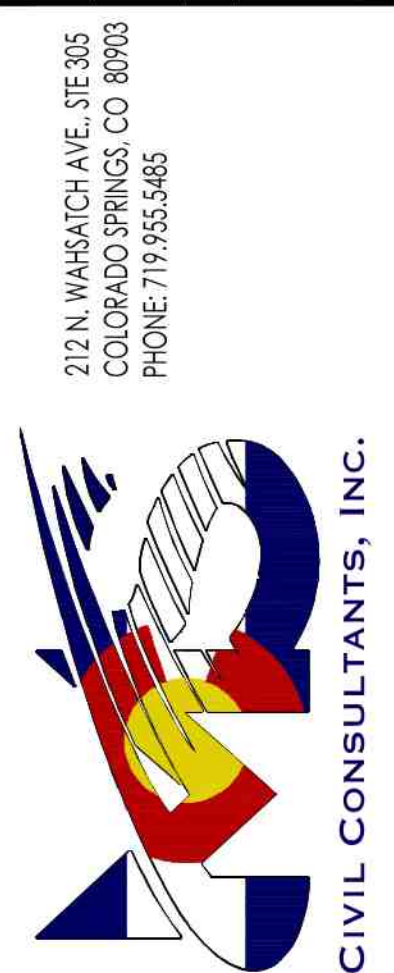
Line #	Length	Direction
L1	23.08	N33° 06' 17.41"W
L2	96.29	S34° 12' 27.14"E
L3	61.53	S7° 13' 39.51"E
L4	44.10	S19° 45' 08.11"W
L5	76.15	S19° 45' 08.11"W
L6	164.91	SD° 18' 37.94"E

**EL JEFE HTS 8" PVC WATER (PUBLIC)**



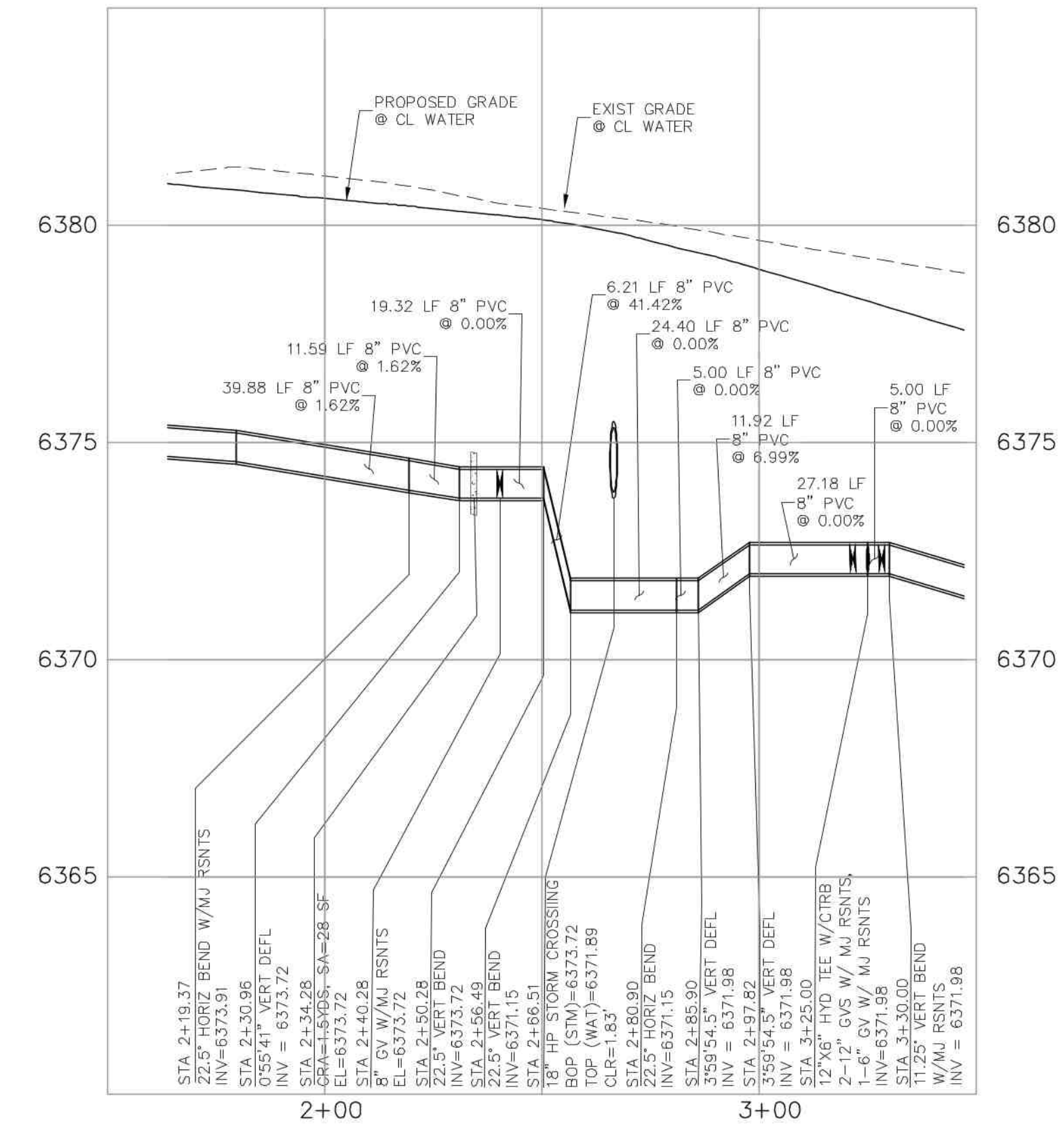
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CLAREMONT BUSINESS PARK 2 FIL. NO. 2  
 WATER PLANS  
 PROJECT NO. 10-020  
 DATE: 07/20/23  
 SCALE: HORIZONTAL: 1"=30'  
 VERTICAL: N/A  
 DESIGNED BY: GW  
 DRAWN BY: CLP  
 CHECKED BY: VAS



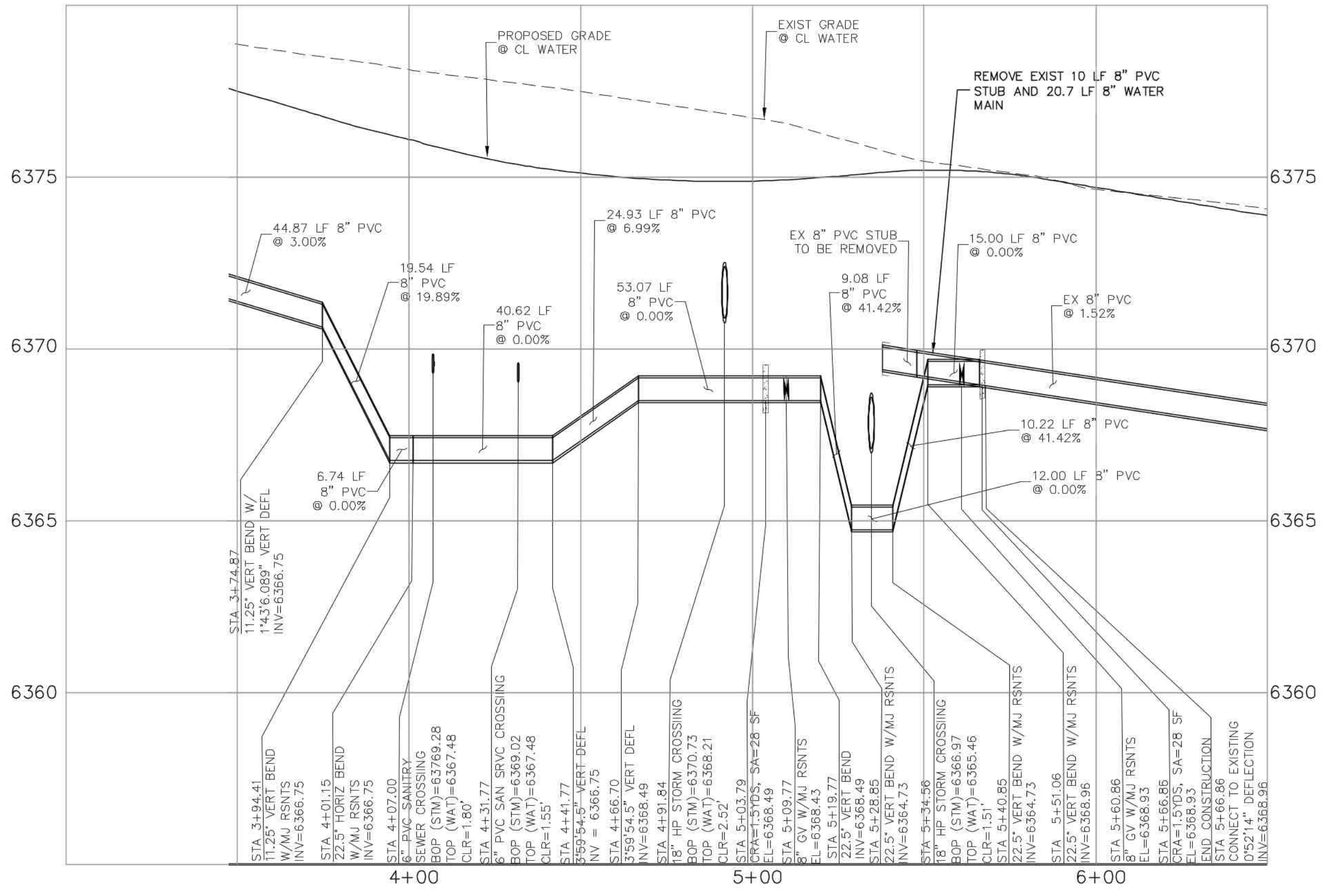
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.  
 VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160  
 REGISTERED PROFESSIONAL ENGINEER  
 31160  
 07/25/2023

REVISIONS: NO. DATE BY DESCRIPTION APPROVED BY DATE  
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 CAUTION



**EL JEFE HTS - (WAT 1) DEFLECTIONS & LOWERING**

SCALE: HORIZ: 1" = 30'  
 VERT: 1" = 3'



**EL JEFE HTS - (WAT 1) DEFLECTIONS & LOWERING**

SCALE: HORIZ: 1" = 30'  
 VERT: 1" = 3'



**PLAN**

INSTALL LINE VALVE

MJ RSNT (TYP.)

CRA WITH MJ RSNT ENCASED IN CONCRETE (TYP.)

UTILITY, STORM SEWER OR DRAINAGE STRUCTURE (30" AND SMALLER IN SIZE)

**ELEVATION**

FINAL/EXISTING GRADE

6" MIN. 18" MAX. W/ NO JOINT CONNECTION

SOIL TO BE COMPACTED AROUND PIPE (REF. CHAPTER 5)

5" MIN. 5" MIN.

18" MIN. SEPARATION

9" MIN. 9" MIN. SEE NOTE 6

45° BEND

EXISTING/PROPOSED WATER MAIN

MJ RSNT (TYP.)

CRA PER DETAIL DRAWING A4-8 (TYP.)

6" MIN. 18" MAX. W/ NO JOINT CONNECTION

**NOTES:**

- ALL DUCTILE IRON FITTINGS AND PIPE SHALL BE CATHODICALLY PROTECTED PER SECTION 2.6.H.
- ALL FITTINGS SHALL HAVE MJ RESTRAINTS IN ACCORDANCE WITH CHAPTER 5.
- EXAMPLE CAN VARY DUE TO SITE CONDITIONS AND COLORADO SPRINGS UTILITIES INSPECTOR'S DIRECTION.
- RESTRAINED JOINTS ARE REQUIRED WITHIN LOWERING.
- NO TAPS OR TEES ARE ALLOWED WITHIN LOWERING.
- WHERE WATER MAIN CROSSES UNDER STORM SEWER, WASTEWATER OR NON-POTABLE WATER INFRASTRUCTURE, A MINIMUM OF 9 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.F.2.

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**LOWERING DETAIL  
UTILITY CROSSING 30" & SMALLER**

A7-1  
DATED 06/2015

UTILITY MAIN

CONCRETE POURED TO SPRINGLINE WRAP PIPE WITH POLYETHYLENE TUBING

PROVIDE (3) #6 CONTINUOUS TOP AND BOTTOM BELOW PIPE

SELECT BEDDING

KEY 18" MIN. INTO UNDISTURBED SOIL

6" MIN. 7" MIN. 2" MIN. 2" MIN. 5" MAX. 2" MIN. 2" MIN.

SELECT BEDDING

CONCRETE W/#6 REBAR @ 12" O.C. EACH FACE

\* IF LESS THAN 18" FLOWFILL REQUIRED

**ELEVATION**

**NOTES:**

- CONCRETE SHALL BE REINFORCED WITH NO. 6 REBAR, SET ON 12" CENTERS
- NO JOINTS OF UTILITY MAIN SHALL BE ALLOWED BETWEEN CONCRETE BRIDGING BLOCKS.
- CONCRETE AND REINFORCEMENT SHALL BE IN ACCORDANCE WITH CHAPTER 4.

**FLOWFILL DETAIL**

2" MIN. 2" MIN. 2" MIN. 2" MIN.

FINAL GRADE

UPPER UTILITY WRAP WITH POLYETHYLENE TUBING

LIMITS OF FLOWFILL

IF LESS THAN 18"

FLOWFILL TO SPRINGLINE OF PIPE

LOWER UTILITY WRAP W/POLYETHYLENE TUBING

**NOTES:**

- ALL FLOWABLE-FILL SHALL BE IN CONFORMANCE WITH CHAPTER 4.
- SEE SECTION 2.6.G FOR UTILITY CROSSING STANDARDS.

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**PIPE BRIDGING DETAIL  
W/CONCRETE CRADLES**

A7-6  
DATED 03/2014

VALVE BOX TO BE LOCATED OUTSIDE CURB PAN FOR VALVE AND VALVE BOX INSTALLATION SEE DETAIL DRAWING A5-1

PAVEMENT

SIDEWALK 4" TYP.

BURY LINE

GROUND LEVEL TEST BOX

FINAL GRADE

TRACER WIRE CONNECTED TO TEST BOX

1" 2" ROCK FROM BOTTOM OF CONCRETE BLOCK TO 6" ABOVE FLANGE

DEPTH OF BURY AS REQUIRED BY MANUFACTURER

UNDISTURBED SOIL

MECHANICAL JOINT RESTRAINTS

HYDRANT LATERAL

WHEN LATERAL IS GREATER THAN ONE PIPE LENGTH, A RESTRAINING COUPLING IS REQUIRED AT EACH JOINT.

CONCRETE THRUST BLOCK (TYP.) SEE DETAIL DRAWING A4-2

17-LB ANODE

4"x18"x18" (MIN.) CONCRETE PAVER STONE

**ELEVATION**

**ELEVATION**

TYPICAL OFFSET = 6", 12", 18", 24"

VERTICAL & HORIZONTAL OFFSET BEND UPON INSPECTOR'S AND COLORADO SPRINGS UTILITIES APPROVAL

**NOTES:**

- MECHANICAL JOINT RESTRAINTS SHALL BE INSTALLED PER DETAIL DRAWINGS A4-4, A4-5, & CHAPTER 5.
- 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.
- INSTALLATION OF A PRIVATE FIRE HYDRANT WILL REQUIRE A SECONDARY VALVE INSTALLED AT THE PROPERTY LINE.
- HYDRANT BASE BLOCK SHALL BE PLACED ON UNDISTURBED EARTH.
- DO NOT BLOCK WEEP HOLE WITH POLYWRAP.
- COVER DRAIN ROCK WITH POLYWRAP PRIOR TO BACKFILL.
- FOR HDPE HYDRANT CONNECTION SEE DETAIL DRAWING A10-9.
- FOR PRIVATE FIRE HYDRANTS A SECONDARY VALVE SHALL BE INSTALLED ON THE PROPERTY LINE OR RIGHT-OF WAY LINE.

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**FIRE HYDRANT INSTALLATION**

A5-3  
DATED 03/2014

**FOR LOCATING & MARKING  
GAS,  
ELECTRIC,  
WATER &  
TELEPHONE  
LINES**

**FOR BURIED UTILITY INFORMATION  
48 HRS BEFORE YOU DIG  
CALL 1-800-922-1987**

**CLAREMONT BUSINESS PARK 2 FIL. NO. 2**

**WATER DETAILS**

PROJECT NO. 10-020

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

DATE: 07/20/23

DESIGNED BY: GW

DRAWN BY: CLP

CHECKED BY: VAS

SHEET 3 OF 3

WT03

212 N. WASHATCH AVE., STE 305  
COLORADO SPRINGS, CO 80903  
PHONE: 719.955.5465

**CIVIL CONSULTANTS, INC.**

VIRGIL A. SANCHEZ, COLORADO P.E. NO. 371160

FOR AND ON BEHALF OF VIRGIL A. SANCHEZ, CIVIL CONSULTANTS, INC.

REGISTERED PROFESSIONAL ENGINEER  
NO. 371160  
7/25/2023

REVISIONS:

NO.	DATE	BY	DESCRIPTION

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

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**CAUTION**