

STERLING RANCH - SANITARY INFRASTRUCTURE

COUNTY OF EL PASO, STATE OF COLORADO 18" PVC SANITARY SEWER

AUGUST 2019

WASTEWATER PLAN NOTES

THE CONTRACTOR SHALL NOTIFY COLORADO SPRINGS UTILITIES' INSPECTIONS OFFICE (NORTH: 668-4396 OR SOUTH: 668-4658) A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

GENERAL:

- ALL CONSTRUCTION METHODS AND MATERIALS SHALL MEET COLORADO SPRINGS UTILITIES' WASTEWATER LINE EXTENSION AND SERVICE STANDARDS (WASTEWATER STANDARDS).
- THE CONTRACTOR SHALL OBTAIN LOCATES PRIOR TO ANY EXCAVATION.
- 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.
- 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.
- THE CONTRACTOR SHALL ENSURE THAT WASTEWATER SERVICE TO ADJACENT PROPERTIES IS MAINTAINED DURING CONSTRUCTION.
- 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 COLORADO SPRINGS UTILITIES INSPECTOR.
- ALL TRENCH BACKFILL AND COMPACTION SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE CITY OF COLORADO SPRINGS STANDARD SPECIFICATIONS MANUAL.

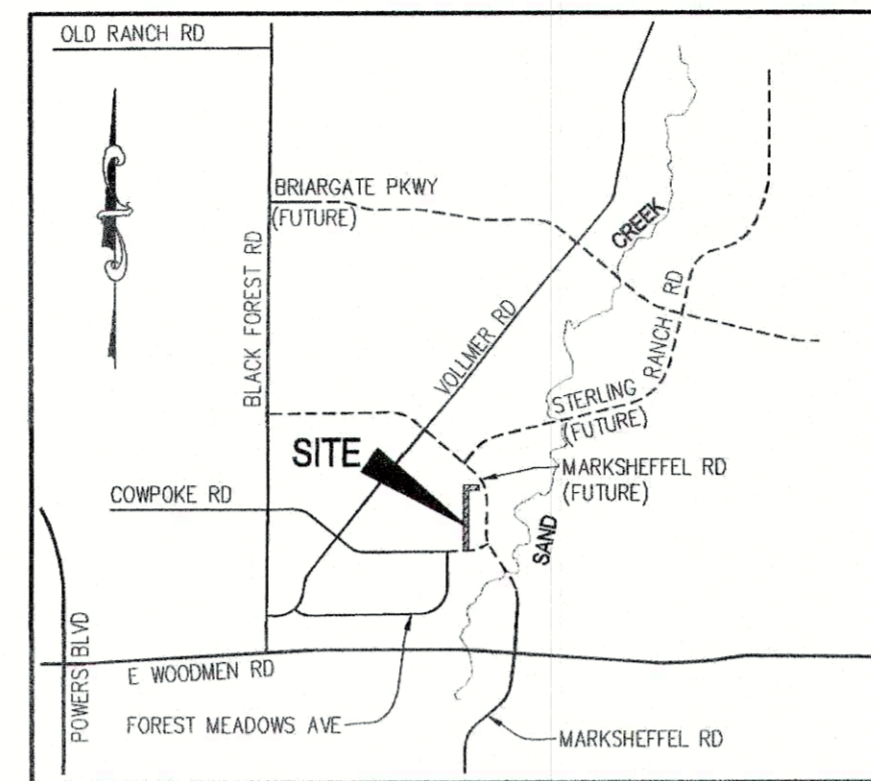
WASTEWATER PROJECT-SPECIFIC NOTES:

- | | | |
|--|-------------------------------------|---|
| APPLICABLE | NON-APPLICABLE | |
| 1. <input type="checkbox"/> | <input checked="" type="checkbox"/> | CORROSION PROTECTION IS REQUIRED FOR ALL DUCTILE IRON PIPE. ALL PROTECTION SHALL COMPLY WITH THE WASTEWATER STANDARDS. |
| 2. <input checked="" type="checkbox"/> | <input type="checkbox"/> | THIS PROJECT IS CONNECTING TO AN EXISTING MANHOLE. A MANHOLE ASSESSMENT HAS BEEN COMPLETED FOR THIS PROJECT. THE FOLLOWING CHECKED ITEMS ARE REQUIRED: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> THE CONTRACTOR SHALL PROVIDE A BYPASS PUMPING PLAN FOR APPROVAL BY COLORADO SPRINGS UTILITIES AND COMPLY WITH ALL THE REQUIREMENTS THEREIN. <input checked="" type="checkbox"/> REPAIR THE EXISTING MANHOLE (REFER TO PLAN AND PROFILE FOR REQUIREMENTS). <input checked="" type="checkbox"/> REPLACE THE EXISTING MANHOLE (REFER TO PLAN AND PROFILE FOR REQUIREMENTS). |
| 3. <input type="checkbox"/> | <input checked="" type="checkbox"/> | MANHOLES ARE BEING ABANDONED, THE CONTRACTOR SHALL: <ul style="list-style-type: none"> • PLUG THE "IN" AND "OUT" INVERTS WITH A WATERTIGHT MECHANICAL PLUG AND GROUT WITH APPROVED MATERIAL. • REMOVE AND DISPOSE OF THE CONE SECTION. • REMOVE THE RING AND COVER AND RETURN THEM TO COLORADO SPRINGS UTILITIES. • FILL THE MANHOLE WITH APPROVED MATERIAL. |
| 4. <input type="checkbox"/> | <input checked="" type="checkbox"/> | WASTEWATER MAINS EXISTS UNDERNEATH A PROPOSED STRUCTURE, CONTRACTOR SHALL: <ul style="list-style-type: none"> <input type="checkbox"/> REMOVE IT <input type="checkbox"/> GROUT IT FULL |
| 5. <input type="checkbox"/> | <input checked="" type="checkbox"/> | WASTEWATER MAIN TO BE ABANDONED EXISTS WITHIN RIGHT-OF-WAY, THE CONTRACTOR SHALL: <ul style="list-style-type: none"> <input type="checkbox"/> REMOVE IT <input type="checkbox"/> GROUT IT FULL |
| 6. <input checked="" type="checkbox"/> | <input type="checkbox"/> | PIPELINES LESS THAN 1.04% GRADE ARE PROPOSED. THE CONTRACTOR SHALL COMPLY WITH THE ADDITIONAL REQUIREMENTS AS SPECIFIED WITHIN THE WASTEWATER STANDARDS. |
| 7. <input type="checkbox"/> | <input checked="" type="checkbox"/> | THIS PROJECT IS UTILIZING EXISTING WASTEWATER STUB(S) IN AN "AS-IS" CONDITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE STUB(S), CONNECTION, AND SUBSEQUENT EXTENSION MEET ALL CURRENT WASTEWATER STANDARDS AND DO NOT HAVE ANY DEFECTS. |
| 8. <input type="checkbox"/> | <input checked="" type="checkbox"/> | COLORADO SPRINGS UTILITIES DOES NOT GUARANTEE THE ACCURACY OF THE DEPTH, LOCATION, OR CONDITION OF ANY EXISTING STUB(S) SHOWN ON ANY "AS CONSTRUCTED" DRAWINGS. FURTHER, THE EXISTING STUB SHALL BE INCLUDED IN THE TWO-YEAR WARRANTY PERIOD FOR THIS PROJECT. |
| 9. <input type="checkbox"/> | <input checked="" type="checkbox"/> | A WASTEWATER STUB OR STUBS ARE PROPOSED WITH THIS PROJECT. COLORADO SPRINGS UTILITIES WILL INSPECT THE CONSTRUCTION BUT DOES NOT GUARANTEE THAT THE DESIGN OR INSTALLATION OF THE PROPOSED STUB(S) WILL MEET FUTURE DEVELOPMENT REQUIREMENTS. FURTHER, THE PROPOSED STUB(S) WILL NOT BE INCLUDED IN THE TWO-YEAR WARRANTY PERIOD FOR THIS PROJECT AND WILL NOT BE ACCEPTED OR OWNED BY COLORADO SPRINGS UTILITIES. |

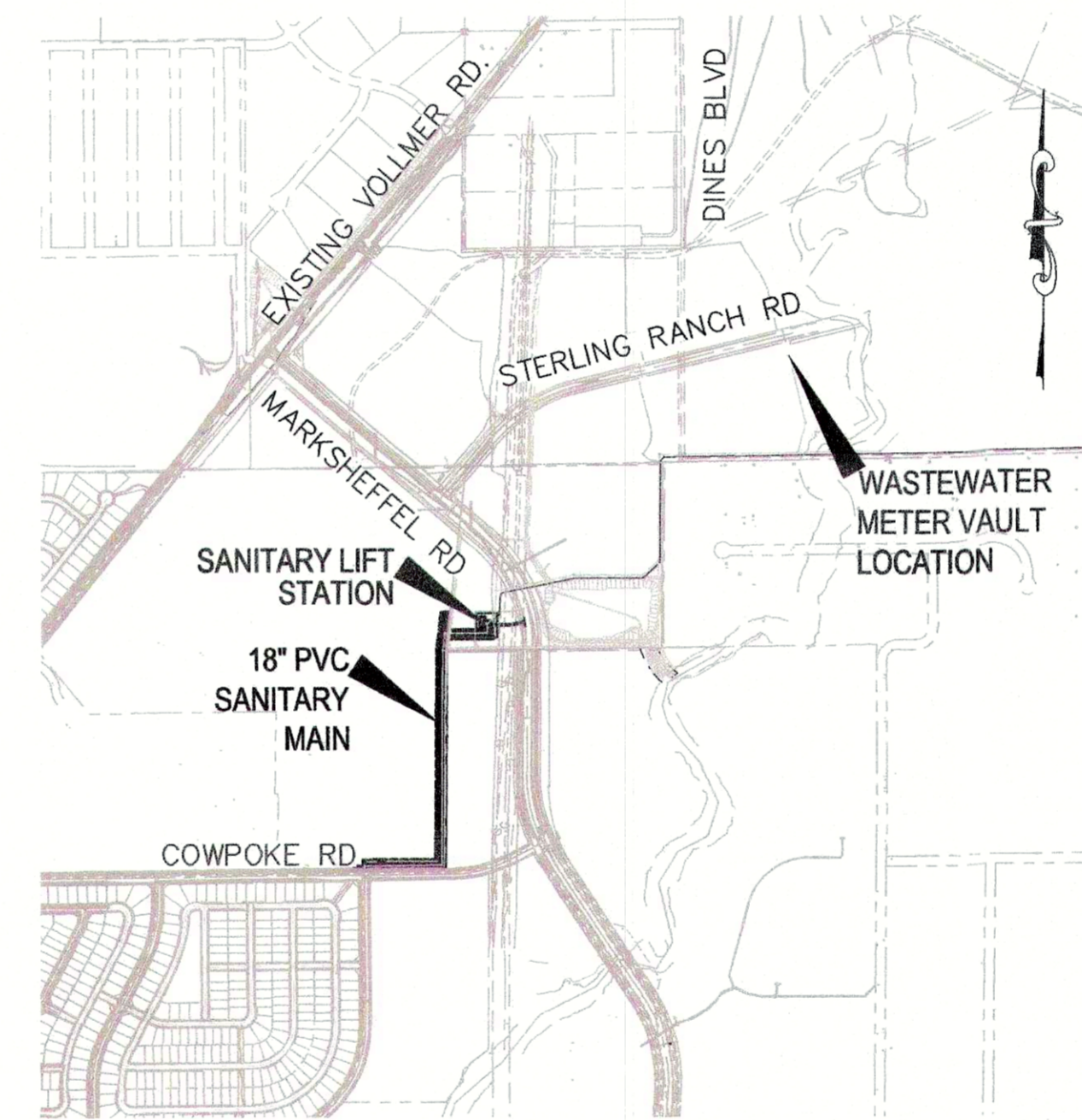
BENCHMARKS

- THE TOP OF AN ALUMINUM SURVEYORS CAP, STAMPED "9853", AT THE SOUTHEAST BOUNDARY CORNER OF BARBARICK SUBDIVISION
NORTHING = 411416.273
EASTING = 235167.071
ELEVATION = 7023.42
- THE TOP OF A RED PLASTIC SURVEYORS CAP, ILLEGIBLE, AT THE NORTHWEST BOUNDARY CORNER OF PAWNEE RANCHEROS SUBDIVISION
NORTHING = 410095.404
EASTING = 235052.131
ELEVATION = 7000.40
- THE TOP OF A RED PLASTIC SURVEYORS CAP, STAMPED "38141", AT THE SOUTHWEST BOUNDARY CORNER OF BARBARICK SUBDIVISION
NORTHING = 411399.962
EASTING = 233849.817
ELEVATION = 7030.82

FMS MAP NO. Q-19, Q-20, R-19
TAX SCHEDULE# 5300000222, 5300000173, 5233000013
PRESSURE ZONE N/A
MAX STATIC PRESSURE N/A
UDCF NO N/A
UAP FILE NO N/A
DEV. PLAN NO. N/A
APPROVAL DATE: N/A
PLAT NAME N/A
PLAT REC NO. N/A
EASMT REC. NO. 219100021
EASMT REC. NO. 219100022
EASMT REC. NO. 219100023
EASMT REC. NO. 219100024



VICINITY MAP
N.T.S.



SITE MAP
N.T.S.

SHEET INDEX

SHEET 1	TITLE SHEET
SHEET 2	SITE PLAN
SHEET 3	18" PVC SANITARY PLAN & PROFILE
SHEET 4	18" PVC SANITARY PLAN & PROFILE

CONSTRUCTION APPROVAL

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 ELEVATION WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THESE 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 MANUALS VOLUME 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

ON BEHALF OF THE COUNTY ENGINEER/ECM ADMINISTRATOR DATE
CONDITIONS:

AGENCIES

OWNER: SR SEWER, LLC
20 BOULDER CRESCENT, SUITE 201
COLORADO SPRINGS, CO 80903
JIM MORLEY (719) 471-1742

CIVIL ENGINEER: M & S CIVIL CONSULTANTS, INC.
102 E PIKES PEAK AVE, STE 500
COLORADO SPRINGS, CO 80903
VIRGIL A. SANCHEZ P.E. (719) 955-5485

ENGINEERING DIVISION: CITY OF COLORADO SPRINGS
30 S. NEVADA AVE., SUITE 401
COLORADO SPRINGS, CO 80903
PATRICK MORRIS (719) 385-5075

TRAFFIC ENGINEERING: CITY OF COLORADO SPRINGS
30 S. NEVADA AVE., SUITE 401
COLORADO SPRINGS, CO 80903
ZAKER ALAZZEH, P.E. (719) 385-5468

DEVELOPMENT SERVICES: COLORADO SPRINGS UTILITIES
1521 HANCOCK EXPRESSWAY
COLORADO SPRINGS, CO 80903
MIKE GACKLE (719) 688-8262

GAS DEPARTMENT: COLORADO SPRINGS UTILITIES
7710 DURANT DR.
COLORADO SPRINGS, CO 80947
TIM WENDT (719) 688-3556

ELECTRIC DEPARTMENT: COLORADO SPRINGS UTILITIES
7710 DURANT DR.
COLORADO SPRINGS, CO 80920
SARAH LABARRE (719) 688-4933

COMMUNICATIONS: QWEST COMMUNICATIONS
(U.N.C.C. LOCATORS) (800) 922-1987
AT&T (LOCATORS) (719) 635-3674

OWNER/DEVELOPER PLAN APPROVAL

THE UNDERSIGNED OWNER/DEVELOPER AGREES THAT THEY SHALL, AT THEIR EXPENSE, BE SOLELY RESPONSIBLE FOR 1) THE INSTALLATION OF THE PROPOSED UTILITY INFRASTRUCTURE IN ACCORDANCE WITH THESE PLANS, AND 2) ALL DAMAGES AND DEFECTS ARISING FROM, OR RELATED TO, THE INSTALLATION, MAINTENANCE OR OPERATION OF THE PUBLIC UTILITY INFRASTRUCTURE FROM THE DATE OF PRELIMINARY ACCEPTANCE FOR A PERIOD OF TWO YEARS, OR UNTIL FINAL ACCEPTANCE, WHICHEVER IS LATER.

THE UNDERSIGNED UNDERSTANDS THAT ALL PRIVATE UTILITY INFRASTRUCTURE, AS INDICATED ON THESE PLANS, SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE MAINTAINED BY THE OWNER, AS REQUIRED BY COLORADO SPRINGS UTILITIES' LINE EXTENSION AND SERVICE STANDARDS.

PUBLIC FACILITIES PROPOSED PRIVATE FACILITIES PROPOSED

SIGNED: *James Morley* DATE: Aug. 29, 2019

SIGNED: *Virgil A. Sanchez*
OWNER/DEVELOPER (PRINT NAME)

DBA: OWNER:
ADDRESS: SR SEWER, LLC
20 BOULDER CRESCENT, SUITE 201
COLORADO SPRINGS, CO 80903

PHONE: (719) 471-1742
EMAIL:

DISTRICT APPROVALS

THE STERLING RANCH METROPOLITAN DISTRICT RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN AND HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

STERLING RANCH METROPOLITAN DISTRICT WASTEWATER DESIGN APPROVAL

DATE: 08/29/19 BY: *[Signature]*
PROJECT NO. N/A

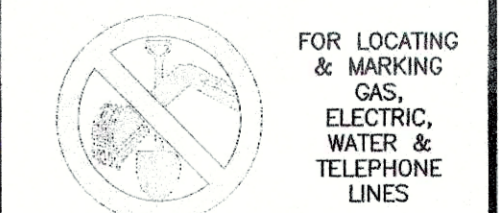
IN CASE OF ERRORS OR OMISSIONS WITH THE WATER DESIGN AS SHOWN ON THIS DOCUMENT THE STANDARDS AS DEFINED IN THE "RULES AND REGULATIONS FOR INSTALLATION OF WASTEWATER MAINS AND SERVICES" SHALL RULE.

STERLING RANCH - SANITARY INFRASTRUCTURE 18" PVC SANITARY MAIN

COLORADO SPRINGS UTILITIES WASTEWATER PLAN APPROVAL
APPROVED BY: *[Signature]* DATE: 8/29/2019

PROJECT NUMBER: 2019-5069 WORK ORDER NUMBER: 3479903
CSJ SHEET 1 OF 3

APPROVAL EXPIRES ONE (1) YEAR FROM THE DATE ABOVE. RESUBMITTAL OF THESE PLANS FOR REVIEW AND APPROVAL IS REQUIRED IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.



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

STERLING RANCH - SANITARY INFRASTRUCTURE
18" PVC SANITARY SEWER
PROJECT NO. 08-010 FILE: Vwg_Const_Dwg_Sanitary Sewer Plans(P10).dwg
DATE: 08-18-19
SCALE: VAS
HORIZ: 1"=50'
VERT: 1"=5'
DESIGNED BY: JWP
DRAWN BY: JWP
CHECKED BY: VAS
SHEET 1 OF 4
SS01

109 E PIKES PEAK AVE. 5TH FLOOR
COLORADO SPRINGS, CO 80903
PHONE: 719.955.5485

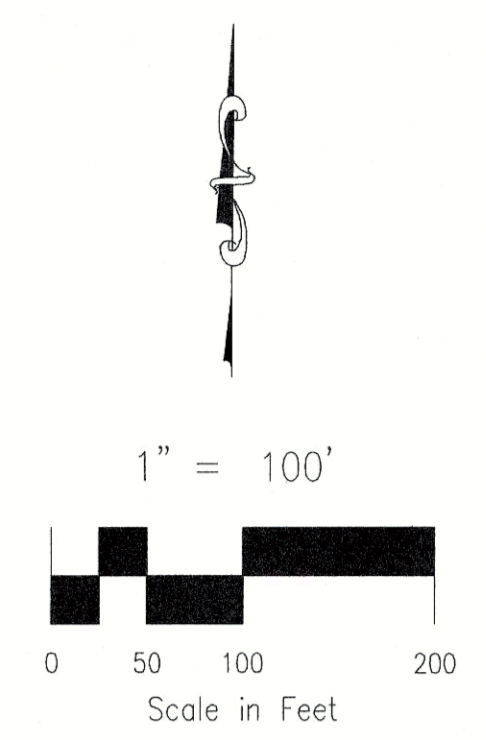
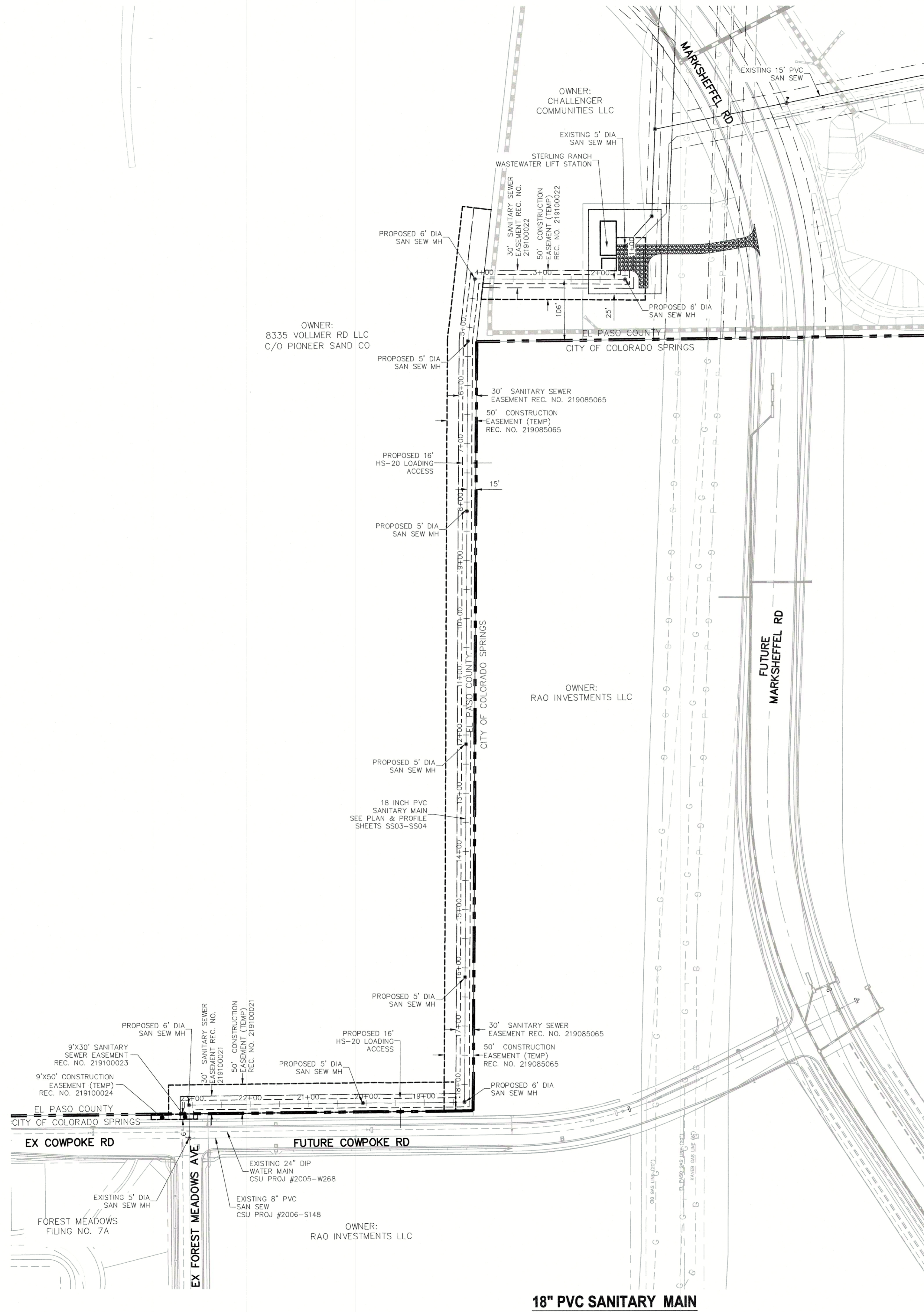



FOR AND ON
BEHALF OF
M & S CIVIL
CONSULTANTS,
INC.



NO.	DATE	BY	DESCRIPTION

CAUTION




 FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES
 FOR BURIED UTILITY INFORMATION
 48 HRS BEFORE YOU DIG
 CALL 1-800-922-1987

STERLING RANCH - SANITARY INFRASTRUCTURE
18" PVC SANITARY SEWER
 PROJECT NO. 09-010 FILE: \\my\Constr\Draw\Sanitary Sewer Plans\1802.dwg
 DESIGNED BY: VAS SCALE DATE: 08-16-19
 DRAWN BY: JWP HORIZ: 1"=50'
 CHECKED BY: VAS VERT: 1"=5'

102 E PINE PEAK AVE, 5TH FLOOR
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5485



CIVIL CONSULTANTS, INC.

FOR AND ON BEHALF OF
 MAS CIVIL CONSULTANTS, INC.



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

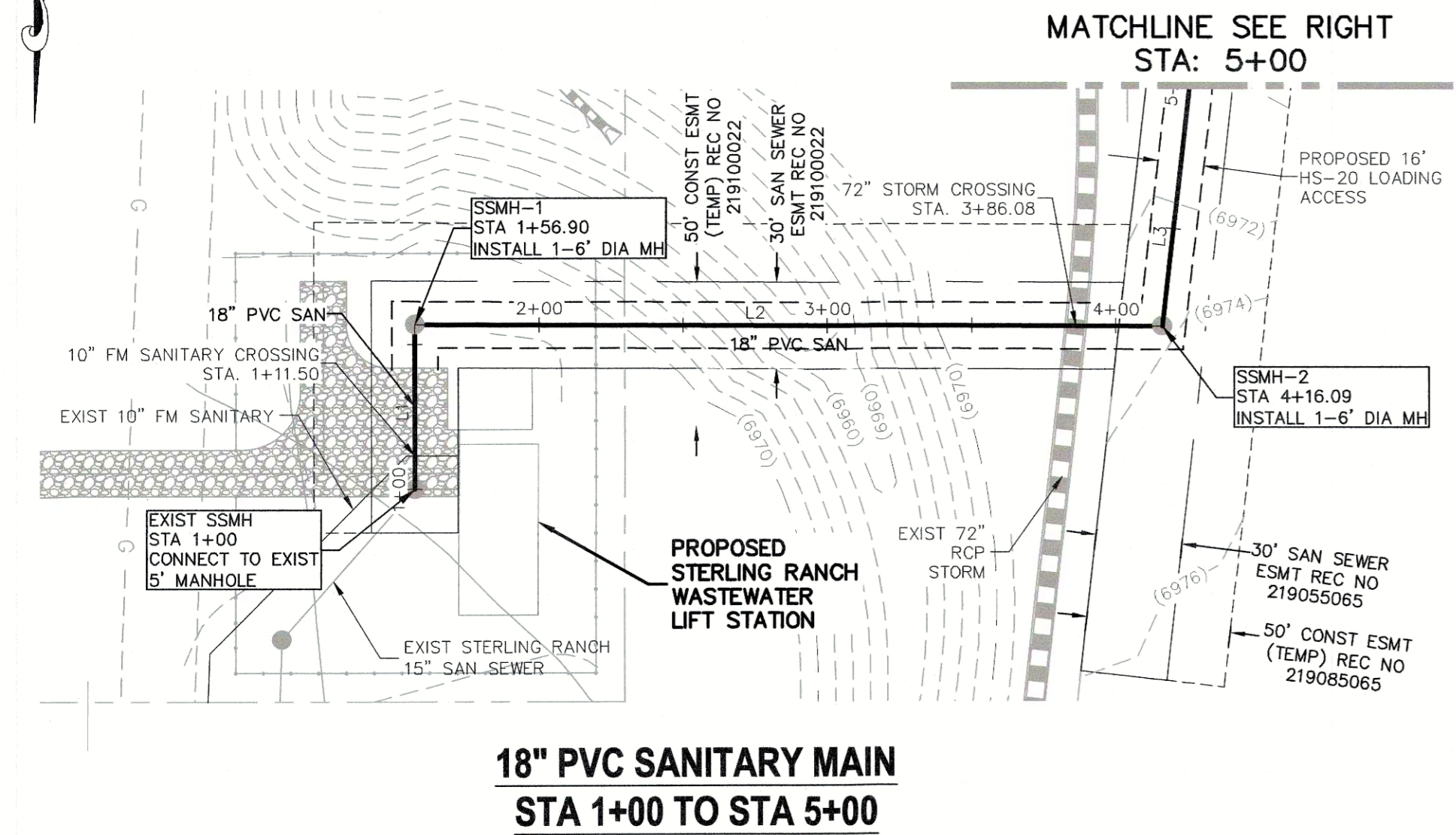
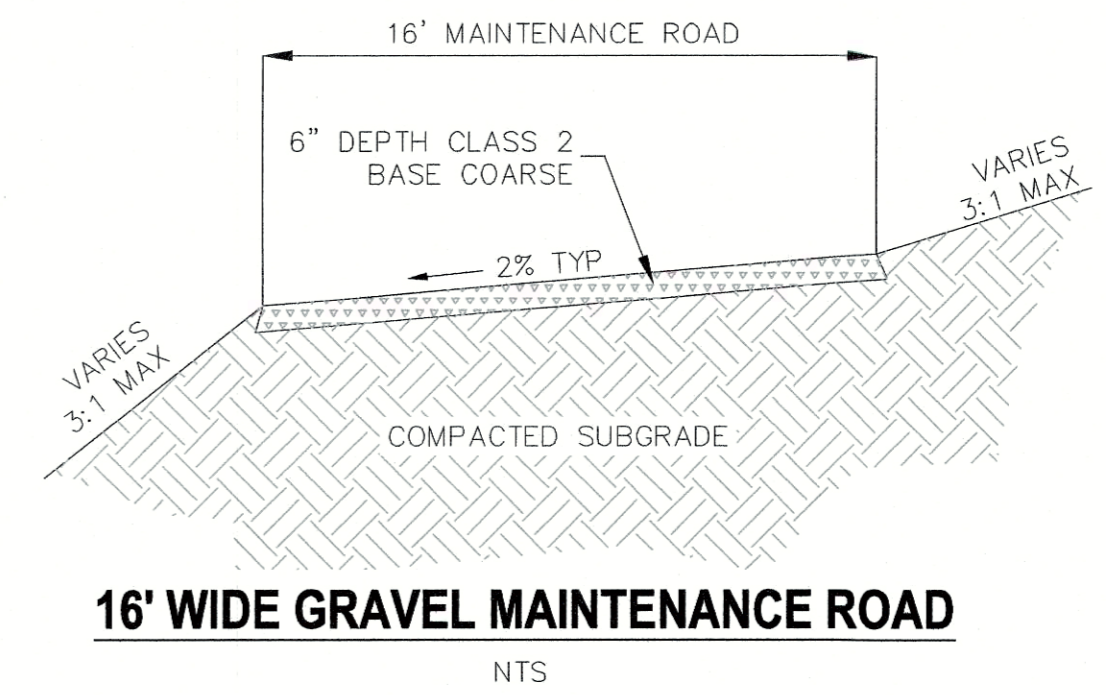
NO.	DATE	BY	DESCRIPTION

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.

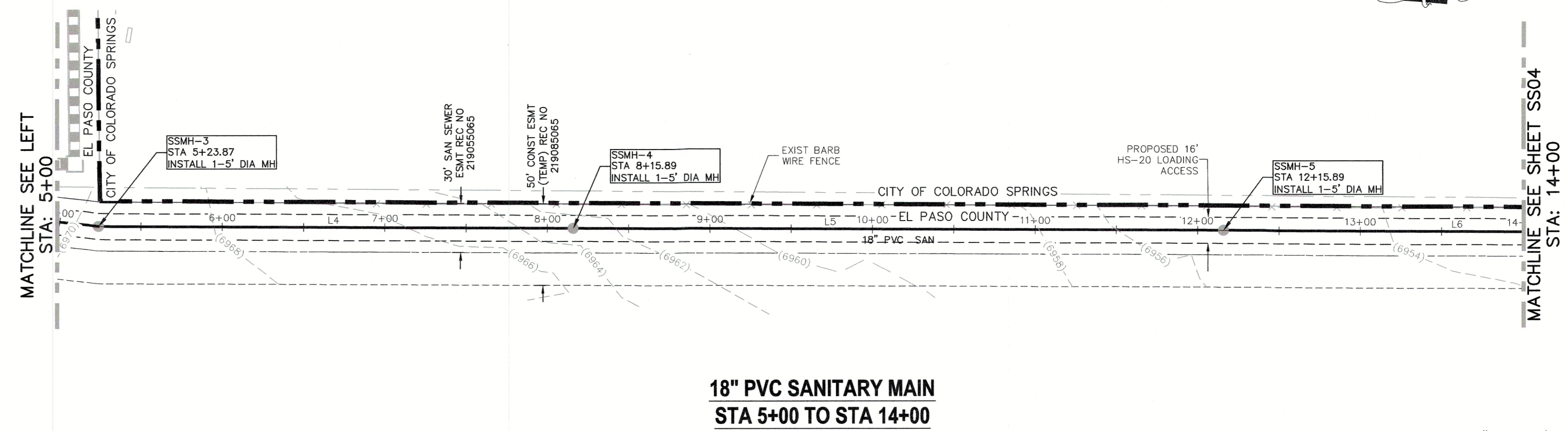
CAUTION



LINE	LENGTH	DIRECTION
L1	56.90'	S0'01'33"E
L2	259.19'	N89°44'21"W
L3	107.78'	S6°22'07"W
L4	292.02'	S0'15'39"W
L5	400.00'	S0'15'39"W
L6	400.00'	S0'15'39"W

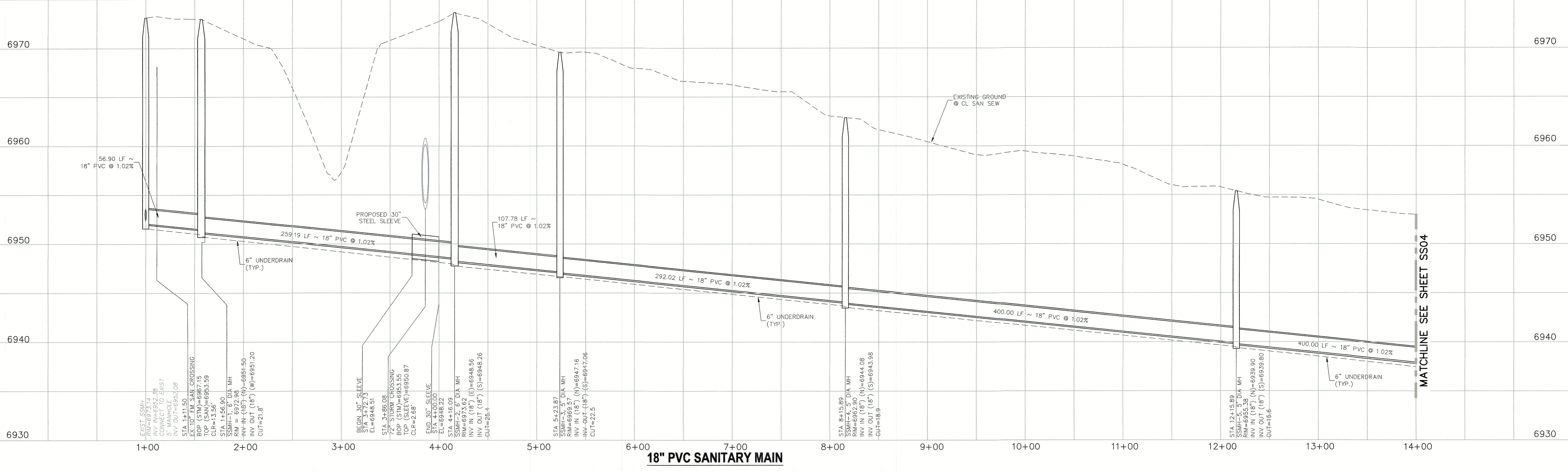
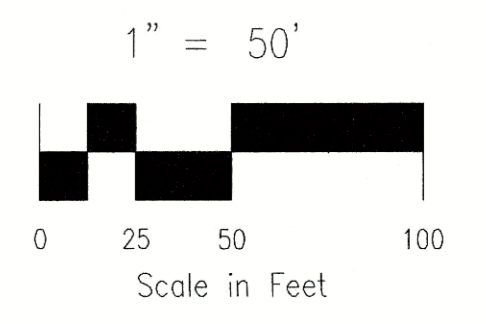


**18" PVC SANITARY MAIN
STA 1+00 TO STA 5+00**



**18" PVC SANITARY MAIN
STA 5+00 TO STA 14+00**

NOTES:
 ALL 90° MANHOLES TO BE 6' DIAMETER
 ALL MANHOLES WILL HAVE LOCKING, HINGED LIDS.
 ALL MANHOLES WILL BE ACCESSIBLE WITH A HS-20 ACCESS.
 ALL PIPE SHALL BE SDR-26 PER BURY DEPTH EXCEEDING 20 FOOT BETWEEN STATION 1+00 THROUGH 6+18.61, SLOPES LESS THAN 1.04% SHALL HAVE SELECT BEDDING PER CSU WASTEWATER L.E.S.S. 2.5.B



18" PVC SANITARY MAIN

STATEMENT:
 THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY. RESUBMITTAL REQUIRED IF CONSTRUCTION HAS NOT COMMENCED WITHIN 180 DAYS AFTER APPROVAL DATE.

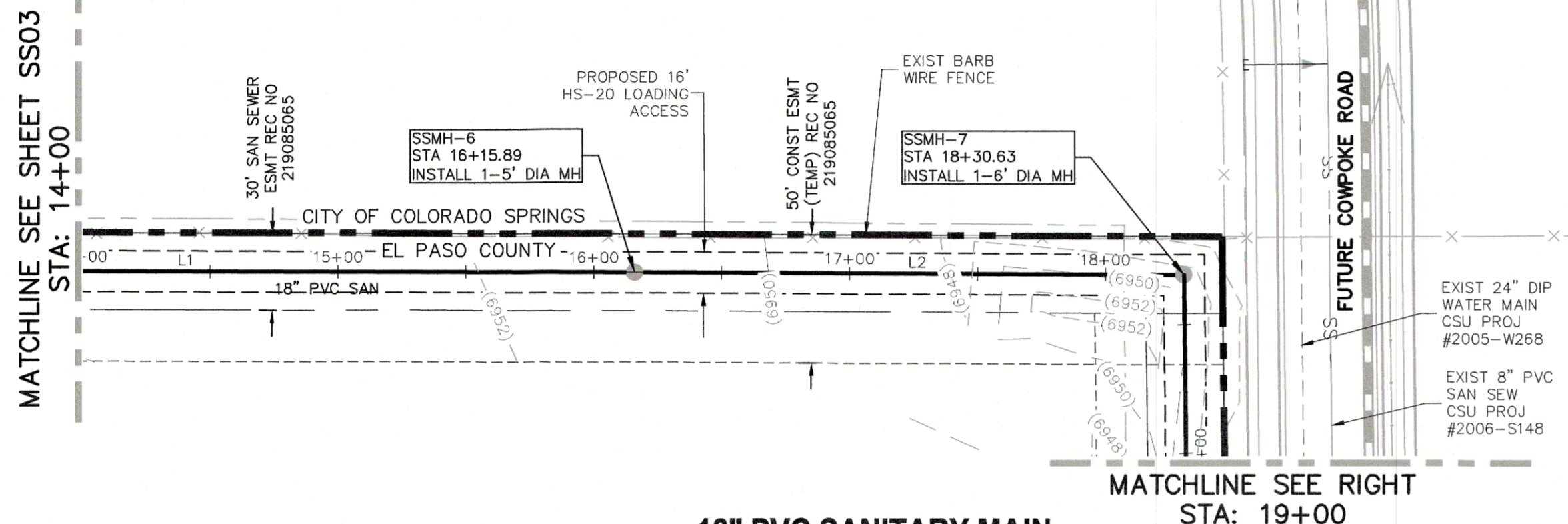
FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES
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48 HRS BEFORE YOU DIG
CALL 1-800-922-1987

COLORADO SPRINGS UTILITIES
WASTEWATER PLAN DESIGN APPROVAL
 APPROVED BY: *[Signature]*
 DATE: 8/29/2019
 PROJECT NUMBER: 2019-5069 WORK ORDER NO.: 3479903
 CSU SHEET 2 OF 3
 APPROVAL EXPIRES ONE (1) YEAR FROM THE DATE ABOVE AND RESUBMITTAL OF THESE PLANS FOR REVIEW AND APPROVAL IS REQUIRED IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.

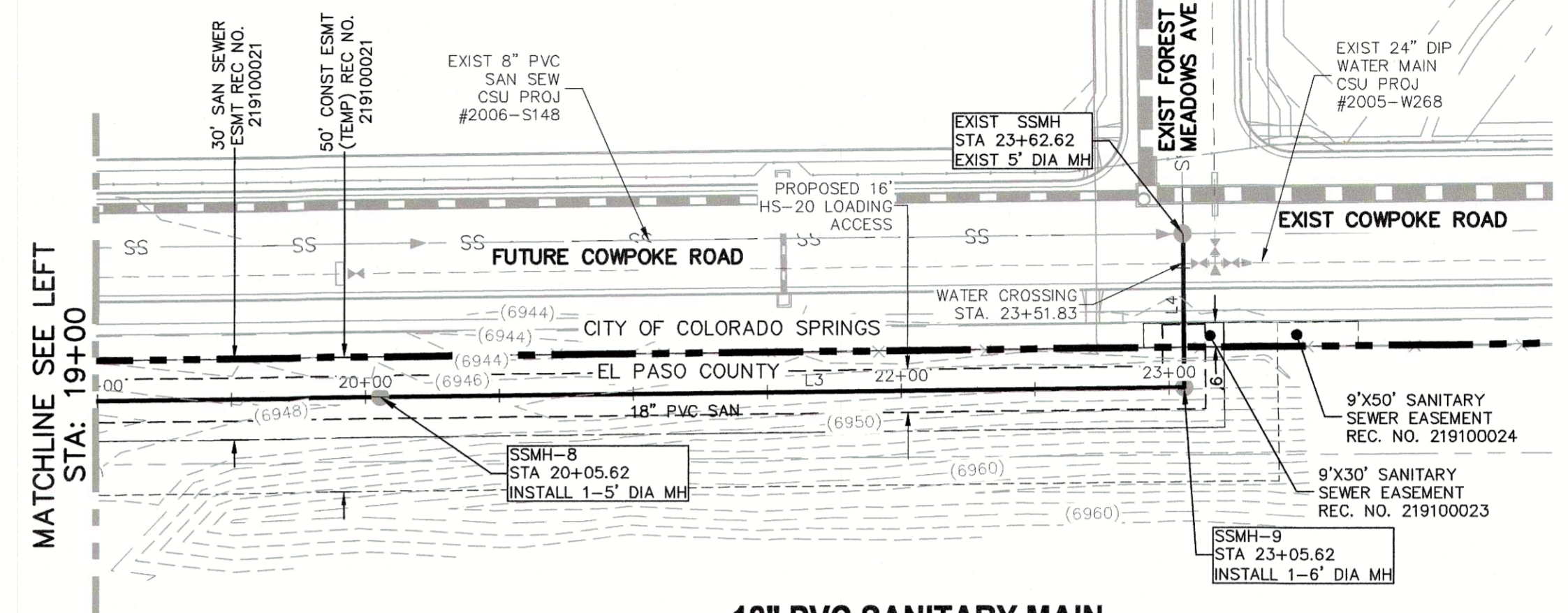
STERLING RANCH - SANITARY INFRASTRUCTURE		PROJECT NO. 09-010	SCALE: VAS	DATE: 08-16-19	SHEET 3 OF 4
18" PVC SANITARY SEWER		DESIGNED BY: VAS	HORIZONTAL: 1" = 50'	VERTICAL: 1" = 5'	
102 E Pikes Peak Ave., 5th Floor Colorado Springs, CO 80903 Phone: 719.555.5485		CHECKED BY: VAS	SS03		
CIVIL CONSULTANTS, INC.		FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.			
VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160 		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			

File: C:\09010\SP_Sewer\dwg\Const\DWG\18\"/>

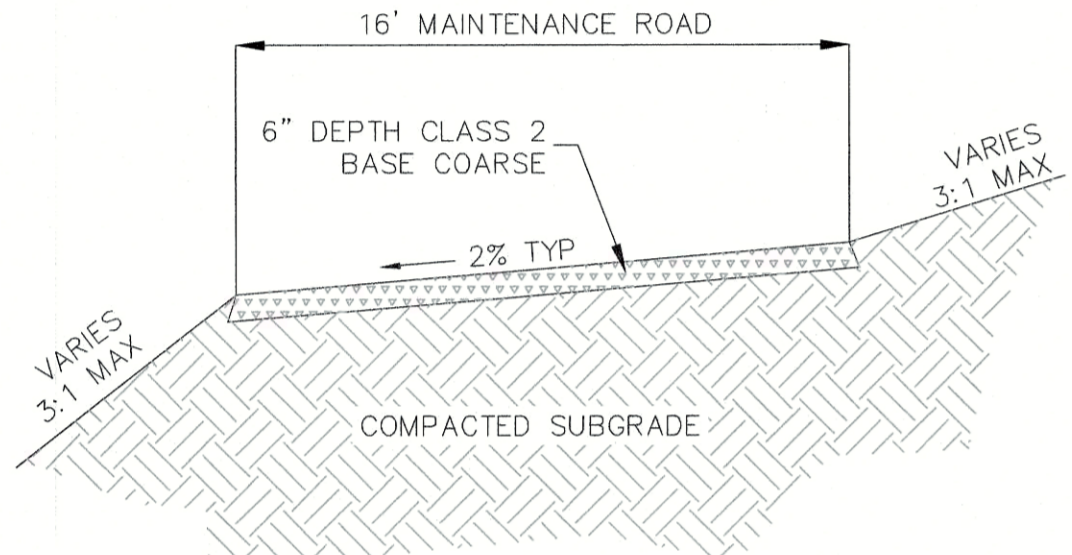
LINE	LENGTH	DIRECTION
L1	400.00'	S01°5'39"W
L2	214.74'	S01°5'39"W
L3	300.00'	S89°21'46"W
L4	57.00'	S0°38'14"E



**18" PVC SANITARY MAIN
STA 14+00 TO STA 19+00**

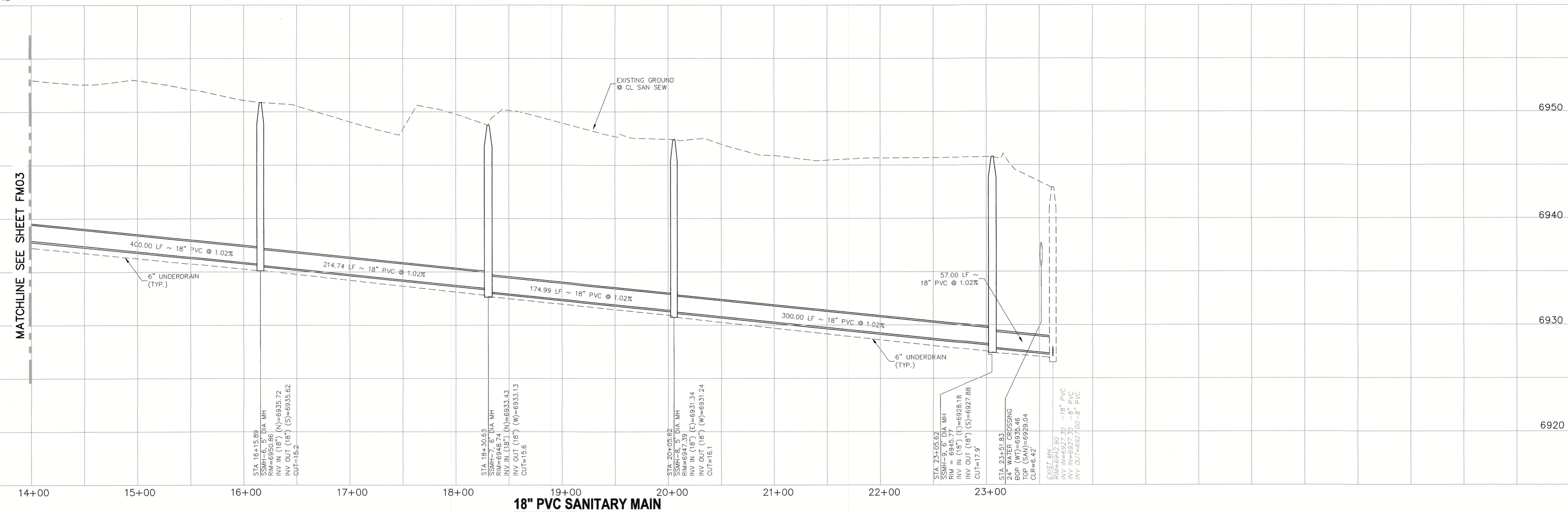
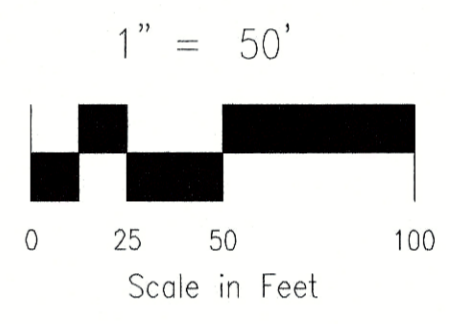


**18" PVC SANITARY MAIN
STA 19+00 TO STA 23+62.83**



16' WIDE GRAVEL MAINTENANCE ROAD

NOTES:
 ALL 90° MANHOLES TO BE 6" DIAMETER
 ALL MANHOLES WILL HAVE LOCKING, HINGED LIDS.
 ALL MANHOLES WILL BE ACCESSIBLE WITH A HS-20 ACCESS.
 ALL PIPE SHALL BE SDR-26 PER BURY DEPTH EXCEEDING 20 FOOT BETWEEN STATION 1+00 THROUGH 6+18.61. SLOPES LESS THAN 1.04% SHALL HAVE SELECT BEDDING PER CSU WASTEWATER L.E.S.S. 2.5.B



18" PVC SANITARY MAIN

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**COLORADO SPRINGS UTILITIES
 WASTEWATER PLAN DESIGN APPROVAL**
 APPROVED BY: [Signature]
 DATE: 8/29/2019
 PROJECT NUMBER: 2019-5069
 CSU SHEET 3 OF 3
 WORK ORDER NO.: 3479903
 APPROVAL EXPIRES ONE (1) YEAR FROM THE DATE ABOVE AND RESUBMITTAL OF THESE PLANS FOR REVIEW AND APPROVAL IS REQUIRED IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.

STERLING RANCH - SANITARY INFRASTRUCTURE
18" PVC SANITARY SEWER
 PROJECT NO. 09-010 DATE: 08-16-19
 SCALE: HORIZONTAL: 1" = 50' VERTICAL: 1" = 5'
 DESIGNED BY: VAS CLIP DRAWN BY: VAS CHECKED BY: VAS
 SHEET 4 OF 4
SS04

102 E. PINE PEAK AVE., 8TH FLOOR
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

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

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

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