

HOMESTEAD AT STERLING RANCH FILING NO. 2

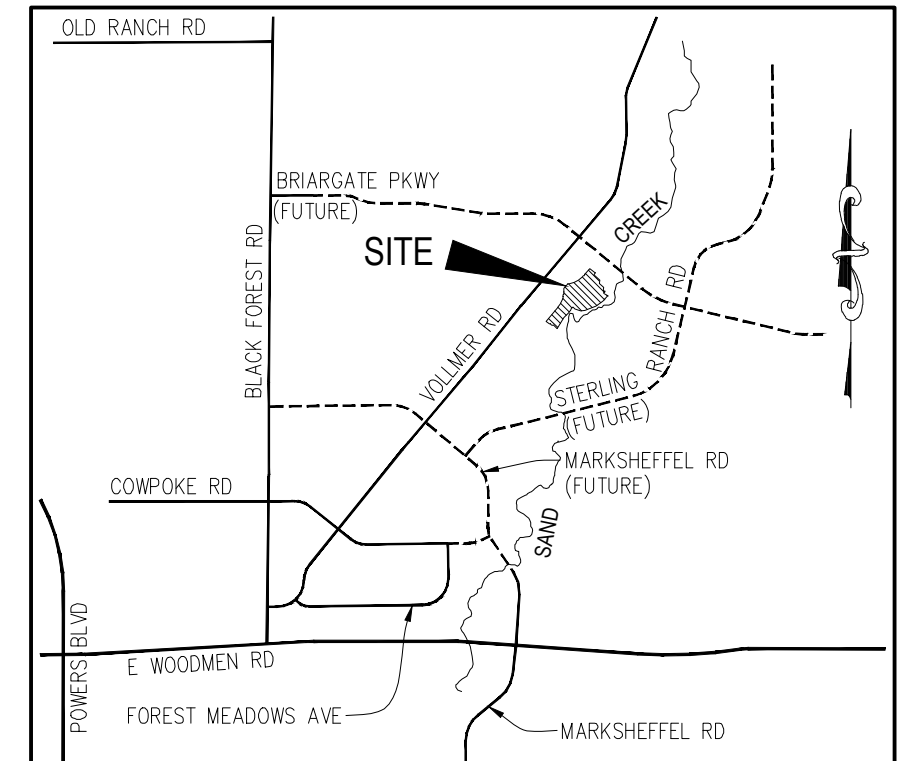
COUNTY OF EL PASO, STATE OF COLORADO SANITARY SEWER PLAN

FEBRUARY 2019

GENERAL NOTES

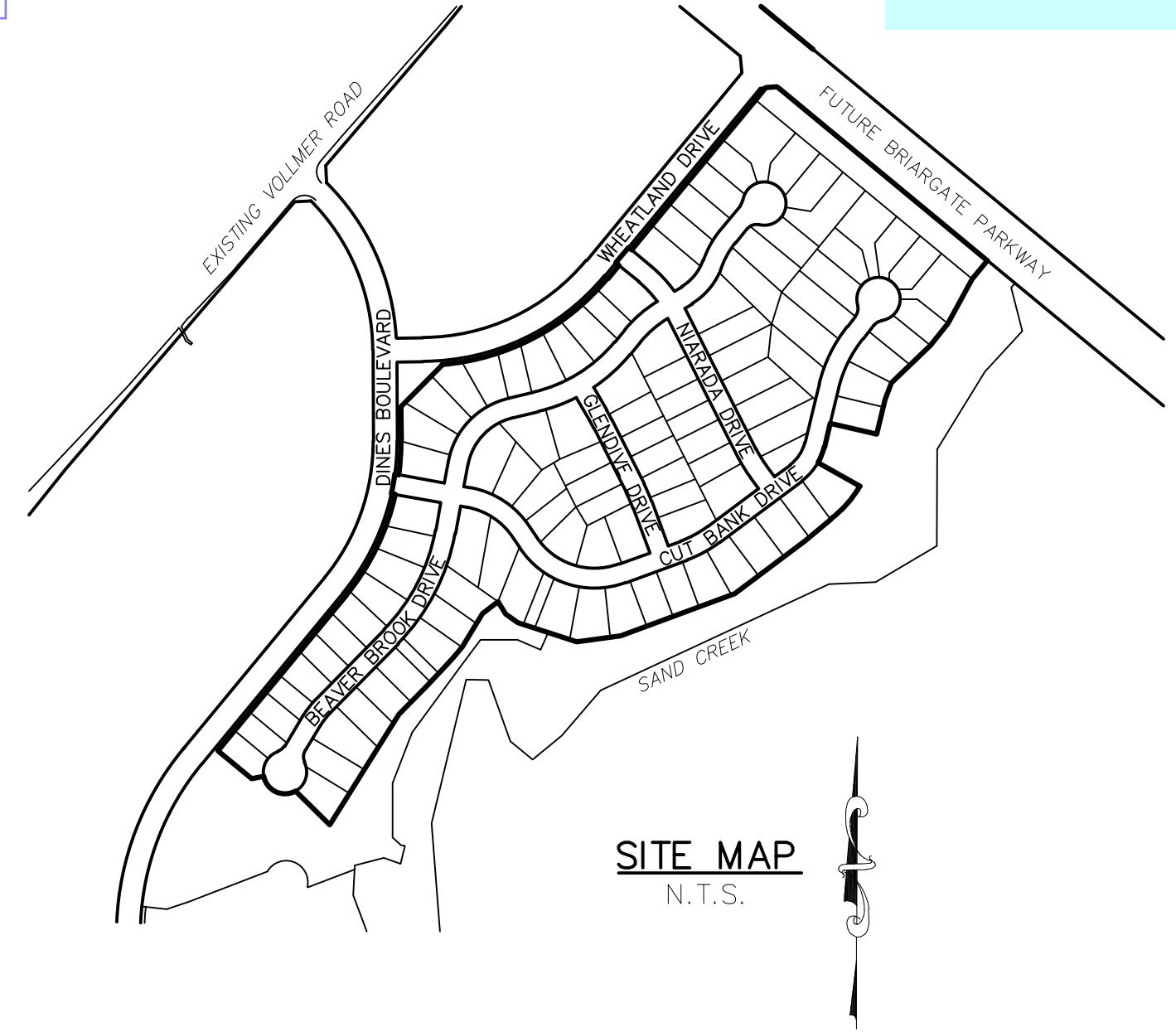
- ALL UTILITY CONSTRUCTION TO BE CONDUCTED IN CONFORMANCE WITH THE CURRENT WOODMEN HILLS METROPOLITAN DISTRICT SPECIFICATIONS.
- ALL PLANS ON THE JOB SITE SHALL BE SIGNED BY THE DISTRICT AND THE DISTRICT'S ENGINEER. ANY REVISION TO THE PLANS SHALL BE SO NOTED WITH THE OLD DRAWING MARKED NOT VALID.
- ALL STATIONING IS CENTERLINE UNLESS OTHERWISE NOTED. ALL ELEVATIONS ARE CENTERLINE UNLESS OTHERWISE NOTED.
- ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE DISTRICT. THE DISTRICT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
- ALL WATER AND SEWER SERVICE LOCATIONS SHALL BE CLEARLY MARKED ON EITHER THE CURB HEAD OR THE FACE OF THE CURB, WITH AN "S" FOR SEWER AND A "W" FOR WATER.
- DUCTILE IRON PIPES, INCLUDING FITTINGS, VALVES AND FIRE HYDRANTS, SHALL BE WRAPPED WITH POLYETHYLENE TUBING, DOUBLE BONDED AT EACH JOINT AND ELECTRICALLY ISOLATED. BONDING AND ANODE CONNECTIONS SHALL BE THOROUGHLY COATED WITH BITUMINOUS COATINGS.
- ALL DUCTILE IRON PIPE LESS THAN 12 INCHES AND FITTINGS SHALL HAVE CATHODIC PROTECTION USING TWO NO. 6 WIRES WITH 17 LB MAGNESIUM ANODES EVERY 400 FEET AND 9 LB MAGNESIUM ANODES AT EACH FITTING. ALL DUCTILE IRON PIPE 12 INCHES AND GREATER AND FITTINGS SHALL HAVE CATHODIC PROTECTION USING TWO NO. 6 WIRES WITH 17 LB MAGNESIUM ANODES EVERY 300 FEET AND 9 LB MAGNESIUM ANODES AT EACH FITTING.
- ALL PIPE MATERIAL, BACKFILL AND INSTALLATION SHALL CONFORM TO THE APPLICABLE SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS, COLORADO DEPARTMENT OF TRANSPORTATION, EL PASO COUNTY DEPARTMENT OF TRANSPORTATION, COLORADO SPRINGS UTILITIES AND THE GEOTECHNICAL ENGINEER.
- COMPACTION TESTS SHALL BE 95% STANDARD PROCTOR AS DETERMINED BY ASTM D698, UNLESS OTHERWISE APPROVED BY THE DISTRICT OR HIGHER STANDARD AS IMPOSED BY ANOTHER AGENCIES HAVING RIGHT-OF-WAY JURISDICTION. THIS SHALL INCLUDE ALL VALVES, FIRE HYDRANT RUNS, WATER & SEWER SERVICE LINES AND MANHOLES. ALL REPORTS SHALL BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL.
- THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY. THE LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. THE DISTRICT SHALL BE NOTIFIED OF ANY CHANGE TO THE LINE AND/OR GRADE AS DEPICTED ON THE PLANS. CONTRACTOR SHALL SUBMIT TO THE DISTRICT AND THE ENGINEER OF RECORD A REPORT OF THE FIELD VERIFIED INFORMATION PRIOR TO THE START OF CONSTRUCTION.
- ALL BENDS SHALL BE FIELD STAKED PRIOR TO THE START OF CONSTRUCTION.
- BENDS, DEFLECTION & CUT PIPE LENGTHS SHALL BE USED TO HOLD HORIZONTAL ALIGNMENT OF SEWER AND WATER LINES TO NO MORE THAN 0.5' FROM THE DESIGNED ALIGNMENT. CONSTRUCTION STAKES TO BE AT 25' INTERVALS ALONG CURVES TO ASSURE LOCATION OF PIPE LINE CONSTRUCTION.
- AT ALL LOCATIONS WHERE CAP AND STUB IS NOTED ON DRAWINGS, PROVIDE A PLUG AT THE END OF THE PIPE JOINT NEAREST THE SPECIFIED STATION. PROVIDE A REVERSE ANCHOR AT ALL WATER LINE PLUGS.
- ALL UNUSED SALVAGED WATER UTILITY MATERIAL SHALL BE RETURNED TO THE METROPOLITAN DISTRICT AS REQUESTED.
- AT THE CONTRACTOR'S EXPENSE, ALL UTILITY MAINS SHALL BE SUPPORTED AND PROTECTED SUCH THAT THEY SHALL FUNCTION CONTINUOUSLY DURING CONSTRUCTION OPERATIONS. SHOULD A UTILITY MAIN FAIL AS A RESULT OF THE CONTRACTOR'S OPERATION, IT SHALL BE REPLACED IMMEDIATELY BY THE CONTRACTOR OR BY THE DISTRICT AT FULL COST OF LABOR AND MATERIALS TO THE CONTRACTOR/DEVELOPER.
- PUMPING OR BYPASS OPERATIONS SHALL BE REVIEWED AND APPROVED BY BOTH THE DISTRICT AND THE DISTRICT ENGINEER PRIOR TO EXECUTION.
- THE CONTRACTOR SHALL REPLACE OR REPAIR DAMAGE TO ALL SURFACE IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO FENCES, LANDSCAPING, CURB AND GUTTER AND/OR ASPHALT THAT MAY BE CAUSED DURING CONSTRUCTION.
- ALL CONTRACTORS WORKING ON OR NEAR A WATER OR SEWER FACILITY (TO INCLUDE SERVICE LINE) SHALL HAVE LIABILITY INSURANCE NAMING THE DISTRICT AS AN ADDITIONAL INSURED AND SHALL PROVIDE A CURRENT COPY OF WORKERS COMPENSATION INSURANCE ON FILE WITH THE DISTRICT. NO WORK CAN PROCEED WITHOUT CURRENT CERTIFICATES ON FILE AT THE DISTRICTS' OFFICE.
- THE CONTRACTOR SHALL NOTIFY THE DISTRICT AND ALL AFFECTED UTILITY COMPANIES ADJACENT TO THE PROPOSED UTILITY CONSTRUCTION A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF CONSTRUCTION. A WEEKLY CONSTRUCTION MEETING SHALL BE REQUIRED WITH THE CONTRACTOR, DISTRICT ENGINEER AND ALL OTHER PARTIES AS DEEMED NECESSARY BY THE DISTRICT.
- COMMENCEMENT OF CONSTRUCTION OF WATER/SEWER SYSTEMS WITHIN THE METROPOLITAN DISTRICT:
 - PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING IS REQUIRED A MINIMUM OF 48 HOURS IN ADVANCE OF COMMENCEMENT OF WORK. A REPRESENTATIVE OF THE OWNER OR DEVELOPER, A REPRESENTATIVE OF THE CONTRACTOR AND DESIGN ENGINEER ARE REQUIRED TO ATTEND. CONTACT THE DISTRICT TO SCHEDULE THE PRE-CONSTRUCTION MEETING. NO PRE-CONSTRUCTION MEETING CAN BE SCHEDULED PRIOR TO FOUR (4) SIGNED/ APPROVED PLAN SETS ARE RECEIVED BY THE DISTRICT.
 - THE CONTRACTOR IS REQUIRED TO NOTIFY THE DISTRICT A MINIMUM OF 48 HOURS AND A MAXIMUM OF 2 WEEKS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL ALSO NOTIFY AFFECTED UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION ADJACENT TO THE KNOWN UTILITY LINES.
- TESTING OF FACILITIES:
 - THE CONTRACTOR SHALL NOTIFY THE DISTRICT A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF ANY TESTING.
 - ALL SECTIONS OF WATER LINE ARE TO MEET THE FOLLOWING PRESSURE TESTING REQUIREMENTS:
 - TEST 100% OF ALL LINES
 - MUST PASS PRESSURE TEST TO 200 PSI FOR TWO HOURS (UNLESS OTHERWISE APPROVED ON THE PLANS).
 - ALL SANITARY SEWER FACILITIES ARE TO MEET THE FOLLOWING TESTING REQUIREMENTS
 - ALL LINES SHALL BE JET CLEANED PRIOR TO VACUUM OR PRESSURE TESTING
 - ALL MANHOLES SHALL BE VACUUM TESTED WITH DISTRICT STAFF PRESENT PRIOR TO CCTV INSPECTION.
 - SEWER MAINS TO BE PRESSURE TEST PRIOR TO CCTV INSPECTION
 - ALL LINES SHALL BE CCTV INSPECTED AND VIDEO SHALL TO BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL.
- PRELIMINARY ACCEPTANCE SHALL BE DEFINED AS THE POINT IN TIME THAT THE DISTRICT ACCEPTS THE FACILITY FOR USE. ALL SURFACE IMPROVEMENTS AND RESTORATION SHALL BE COMPLETED WITHIN 30 DAYS OF COMMENCEMENT. SHOULD THE CONTRACTOR FAIL TO COMPLETE ALL SURFACE IMPROVEMENTS AND RESTORATION WITHIN 30 DAYS OF COMMENCEMENT OF SERVICE, THE DISTRICT, AT THEIR DISCRETION, MAY ELECT TO COMPLETE THE IMPROVEMENTS AT THE CONTRACTORS COST.
- FINAL ACCEPTANCE BY THE DISTRICT OF ANY LINE OR SYSTEM SHALL NOT OCCUR UNTIL COMPLETION OF FINAL ASPHALT LAYERS AND/OR FINAL COMPLETION AND/OR RESTORATION OF ALL SURFACE IMPROVEMENTS. THE WARRANTY PERIOD FOR ALL FACILITIES PRIOR TO FINAL ACCEPTANCE SHALL BE 24 MONTHS COMMENCING AFTER PRELIMINARY ACCEPTANCE.
- ACCEPTANCE:
 - THE DISTRICT MAY GIVE PRELIMINARY ACCEPTANCE ONCE ALL OF THE TESTS ON ALL THE LINES HAVE BEEN COMPLETED AND A WALK-THRU HAS OCCURRED.
 - A SECOND ACCEPTANCE MAY OCCUR ONCE FIRST LIFT OF ASPHALT GOES DOWN AND A SECOND WALK-THRU OF THE SYSTEM OCCURS. IF ALL FACILITIES ARE CLEAN AND ACCESSIBLE, A FINAL ACCEPTANCE MAY OCCUR (THE DISTRICT MAY REQUIRE CLEANING AND RE-VIDEO OF THE SYSTEM, DEPENDING ON THE SEVERITY OF THE CONTAMINATION).
- ALL WATER AND SEWER MAINS, INCLUDING SERVICE LINES, SHALL HAVE "AS-BUILT" DRAWINGS PREPARED AND APPROVED PRIOR TO PRELIMINARY ACCEPTANCE BY THE DISTRICT.
- ALL COMMERCIAL/BUSINESS DEVELOPMENTS SHALL HAVE AN EIGHT INCH (MIN.) WATER MAIN LOOPED THROUGH THE PROPOSED PROPERTY WITH GATE VALVES LOCATED WHERE THE MAIN ENTERS THE PROPERTY LINE. AN EIGHT INCH SEWER MAIN SHALL BE INSTALLED FOR SERVICE TO COMMERCIAL/BUSINESS DEVELOPMENTS, AND A MANHOLE SHALL BE LOCATED WHERE THE MAIN ENTERS THE PROPERTY. THE END OF THE MAINS SHALL BE MARKED WITH THE APPROPRIATE COLORED CARSONITE MARKER ALONG WITH TRACER WIRE.
- AFTER REVIEW AND APPROVAL OF PLANS FOR THE EXTENSION OF LINES, FACILITIES AND/OR SERVICES, CONSTRUCTION MUST BE COMMENCED WITHIN 18 MONTHS FOR RESIDENTIAL SUBDIVISIONS AND 12 MONTHS FOR ANY COMMERCIAL INSTALLATIONS.
- INSPECTION FEES: CALL THE DISTRICT (719-495-2500) FOR FEE SCHEDULE.

Engineering Review
11/05/2019 2:01:40 PM
dsdrice
Jeff.Rice@elpasoco.com
(719) 520-7877
EPC Planning & Community
Development Department



VICINITY MAP
N.T.S.

- Show and label underdrains including outfalls.
- Add statement that SRMD owns and maintains the underdrains.
- Call out that the under drain is recommended by the Geo-technical engineer and identify the applicable soils/geotech report.



SITE MAP
N.T.S.

WASTEWATER SYSTEM INSTALLATION NOTES

- SANITARY SEWER LENGTHS ARE MH CENTER-MH CENTER. ALL SANITARY SEWER PIPES SHALL BE SDR 35 PVC OR EQUAL. SEWER LINES MAY NOT EXCEED 7% GRADE FOR ANY SIZE WITHOUT PRIOR APPROVAL OF THE DISTRICT. ALL NEWLY CONSTRUCTED RESIDENTIAL SANITARY SEWER TAPS SHALL USE PRE-MANUFACTURED IN-LINE PVC PUSH-ON WYES. TAPPING SADDLES MAY ONLY BE USED FOR TAPPING PRE-EXISTING MAINS.
- ALL SANITARY SEWER MANHOLES SHALL BE WRAPPED WITH RU116 - RUBR-NEK JOINT WRAP OR EQUIVALENT AND COATED.
- COMMENCEMENT OF USE OF SEWER LINES AND/OR SYSTEMS:
 - NO SANITARY SEWER FACILITY SHALL BE PLACED IN SERVICE UNTIL AFTER THE COMPLETION OF ALL JET CLEANING, PRESSURE TESTING, CCTV INSPECTION, COMPACTION TESTING AND AS-BUILT DRAWINGS ARE SUBMITTED AND APPROVED BY THE DISTRICT.
 - NO SANITARY SEWER FACILITY SHALL BE PLACED IN SERVICE UNTIL ALL SERVICE LINES ARE COMPLETED AND THE FIRST LIFT OF ASPHALT IS COMPLETED OVER THE LINE. IN THE CASE WHERE NO ASPHALT IS TO BE PLACED OVER THE LINE, ANY REQUIRED SURFACE IMPROVEMENTS SHALL BE COMPLETED PRIOR TO USE OF THE FACILITY.
 - ALL NECESSARY EASEMENTS (PLATTED OR DEEDED) ARE DEDICATED, EXECUTED BY THE DISTRICT, AND RECORDED.
 - DOWNSTREAM PLUG CAN BE REMOVED ONCE FIRST LIFT OF ASPHALT IS DOWN AND THE ABOVE REQUIREMENTS ARE MET.

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

LEGEND

- | | |
|-------|-------------------------|
| ROW | RIGHT OF WAY |
| FL-FL | FLOWLINE TO FLOWLINE |
| BOB | BOTTOM OF PIPE |
| TOP | TOP OF PIPE |
| SS | SANITARY SEWER |
| STM | STORM SEWER |
| WL | WATER |
| STA | STATION |
| 9 | LOT NUMBER |
| BT | BEGIN TRANSITION |
| ET | END TRANSITION |
| PCR | POINT OF CURB RETURN |
| PRC | POINT OF REVERSE CURVE |
| PCC | POINT OF COMPOUND CURVE |
| PC | POINT OF CURVE |
| PT | POINT OF TANGENT |
| * | SPECIAL BEDDING NOTES |

AGENCIES

OWNER/DEVELOPER:	SR LAND, LLC 20 BOULDER CRESCENT, SUITE 201 COLORADO SPRINGS, CO 80903 JAMES F. MORLEY (719) 471-1742
CIVIL ENGINEER:	M & S CIVIL CONSULTANTS, INC. 20 BOULDER CRESCENT, SUITE 110 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 JEFF RICE, 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:	STERLING RANCH METRO DISTRICT ENGINEERS JDS-HYDRO CONSULTANTS 545 E. PIKES PEAK AVE., SUITE 300 COLORADO SPRINGS, CO 80903 JOHN MCGINN (719) 668-8769
FIRE DISTRICT:	BLACK FOREST FIRE PROTECTION DISTRICT 11445 TEACHOUT ROAD COLORADO SPRINGS, CO 80908 CHIEF BRYAN JACK (719) 495-4300
GAS DEPARTMENT:	COLORADO SPRINGS UTILITIES 7710 DURANT DR. COLORADO SPRINGS, CO 80947 TIM WENDT (719) 668-3556
ELECTRIC DEPARTMENT:	MOUNTAIN VIEW ELECTRIC 11140 E. WOODMEN ROAD FALCON, CO 80831 (719) 495-2283
COMMUNICATIONS:	QWEST COMMUNICATIONS (U.N.C.C. LOCATORS) (800) 922-1987 AT&T (LOCATORS) (719) 635-3674

DESIGN ENGINEER'S STATEMENT:

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.

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

WATER & SEWER MAIN EXTENTIONS

ANY CHANGES OR ALTERATIONS AFFECTING THE GRADE, ALIGNMENT, ELEVATION AND/OR DEPTH OF COVER OF ANY WATER OR SEWER MAINS OR OTHER APPURTENANCE SHOWN ON THIS DRAWING SHALL BE THE RESPONSIBILITY OF THE OWNER/DEVELOPER. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR ALL OPERATIONAL DAMAGES AND DEFECTS IN INSTALLATION AND MATERIAL FOR MAINS AND SERVICES FROM THE DATE OF APPROVAL UNTIL FINAL ACCEPTANCE IS ISSUED.

SIGNED: _____ DATE: _____
JAMES F. MORLEY

SR LAND, LLC
20 BOULDER CRESCENT, SUITE 201
COLORADO SPRINGS, CO 80903
(719) 471-1742

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: _____ BY: _____

PROJECT NO. _____

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.

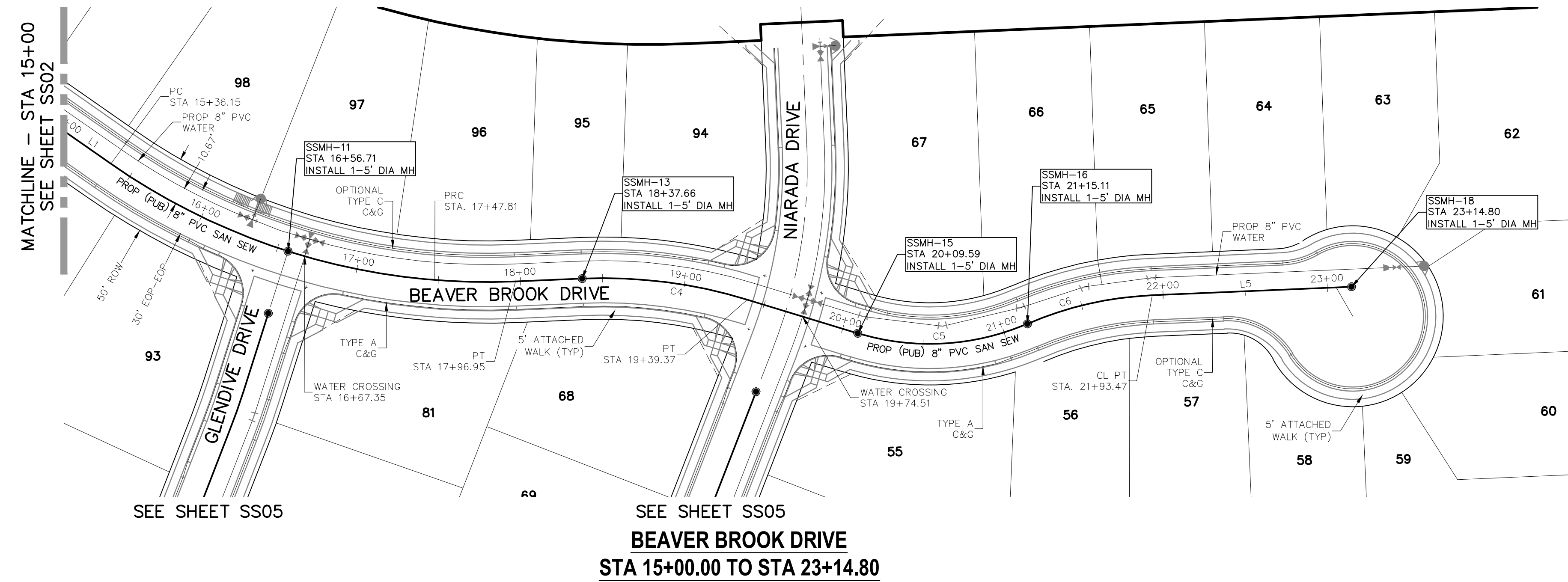
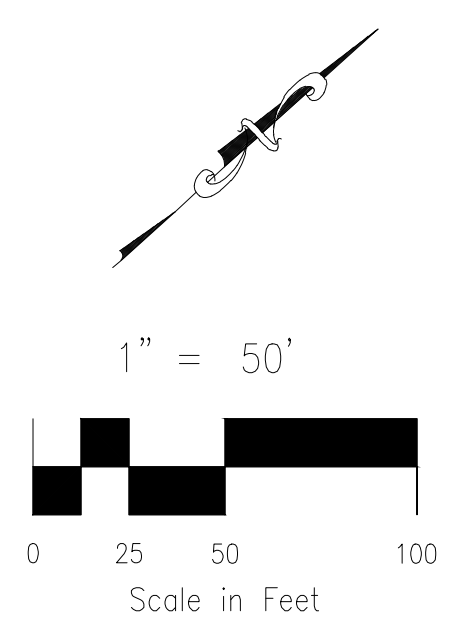
APPROVAL EXPIRES 180 DAYS FROM DESIGN APPROVAL.

SHEET INDEX

SHEET 1	TITLE SHEET	
SHEET 2	PLAN & PROFILE	BEAVER BROOK DRIVE STA 1+00.00 TO 15+00.00
SHEET 3	PLAN & PROFILE	BEAVER BROOK DRIVE STA 15+00.00 TO 23+14.80
SHEET 4	PLAN & PROFILE	CUT BANK DRIVE STA 3+13.48 TO 18+17.33
SHEET 5	PLAN & PROFILE	GLENDIVE DRIVE STA 0+00.00 TO 4+46.06 NIARADA DRIVE STA 0+00.00 TO 4+80.89

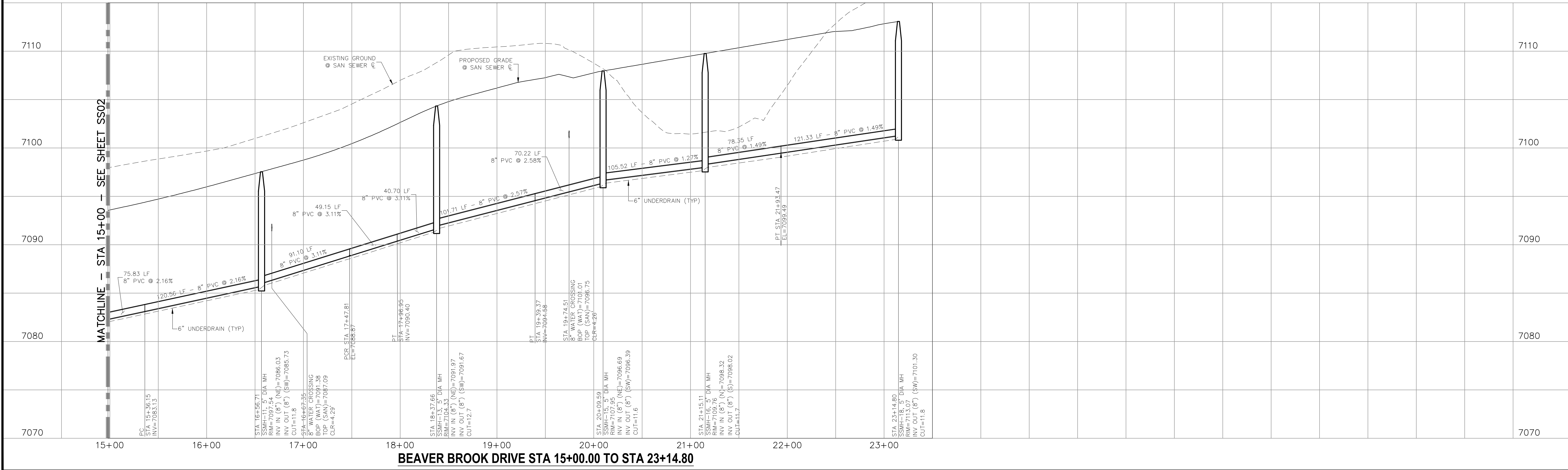


PROJECT NO. 09-007 DESIGNED BY: JWP DRAWN BY: JWP CHECKED BY: GW		SCALE: HORIZONTAL: N/A VERTICAL: N/A		DATE: 02/13/2019	SHEET 1 OF 5 \$S01
		HOMESTEAD AT STERLING RANCH FILING NO. 2 SANITARY SEWER PLANS			
20 BOULDER CRESCENT, SUITE 110 COLORADO SPRINGS, CO 80903 PHONE: 719.955.5485					
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.					
REVISIONS:					
NO.	DATE:	BY:	DESCRIPTION:	DATE:	
THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE 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	75.83'	N76°55'16"E
L5	121.33'	N39°33'48"E

CURVE	DELTA	RADIUS	LENGTH
C4	19°25'32"	300.00'	101.71'
C5	40°18'23"	150.00'	105.52'
C6	20°52'51"	215.00'	78.35'



HOMESTEAD AT STERLING RANCH FILING NO. 2

SANITARY SEWER PLANS

PROJECT NO. 09-007 DATE: 02/13/2019

DESIGNED BY: JWP DRAWN BY: JWP CHECKED BY: JWP

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

SS03 SHEET 3 OF 5

20 BOULDER CRESCENT SUITE 110
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

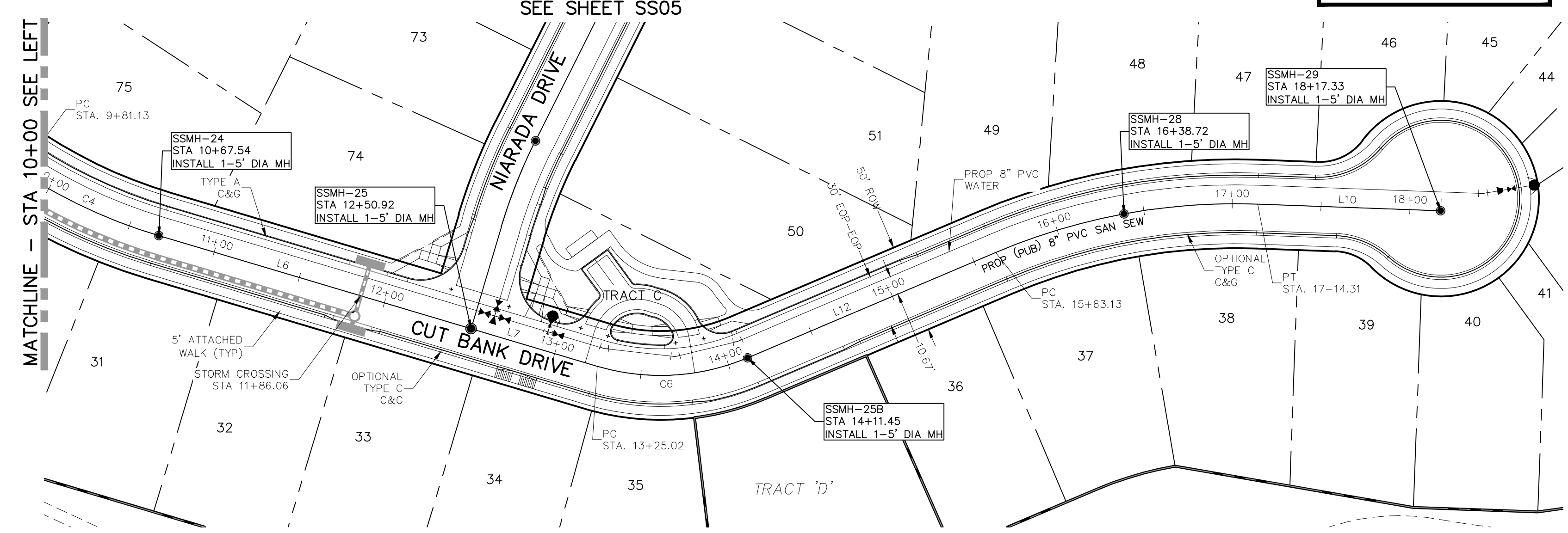
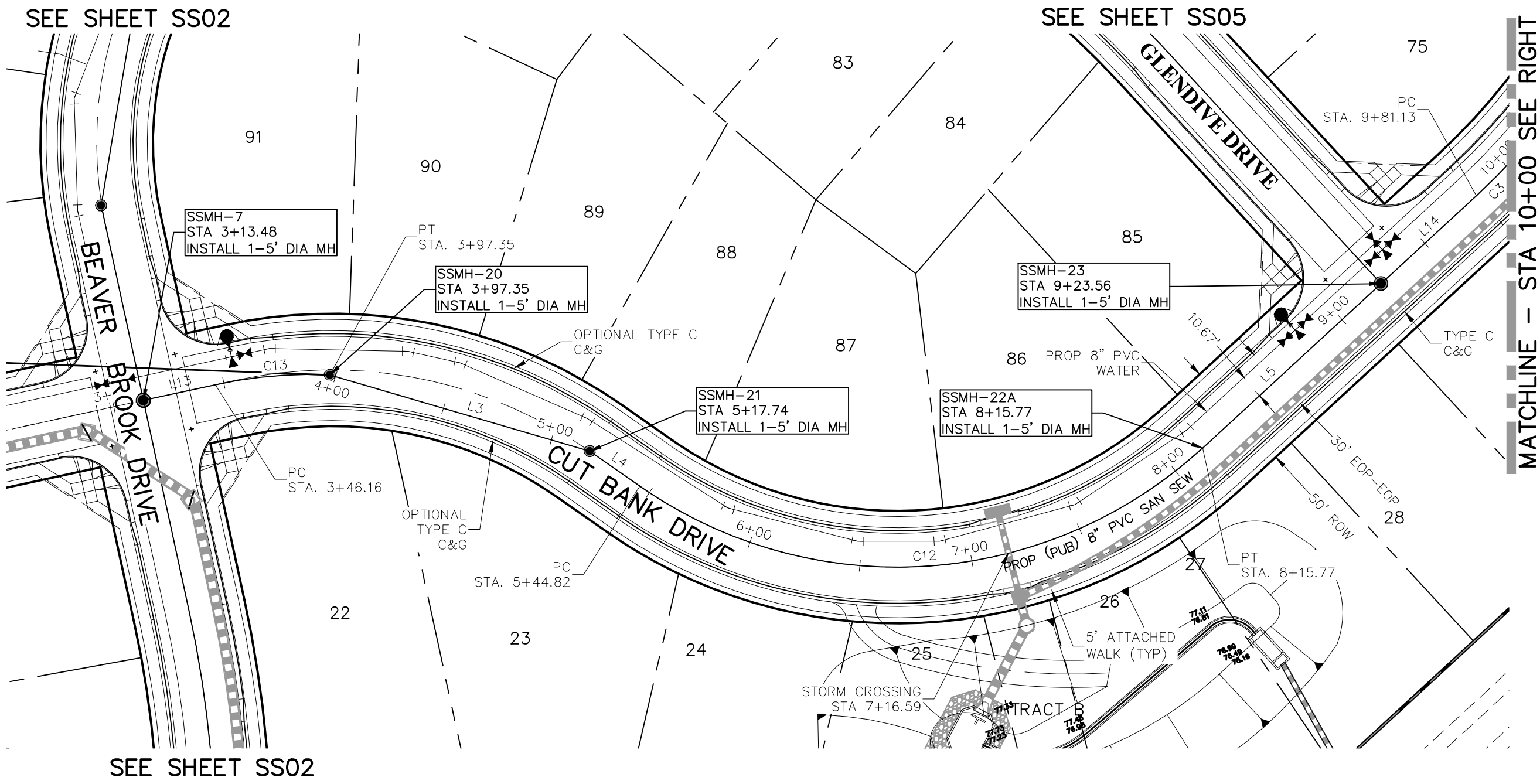
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

MARCIL A. SANCHEZ, COLORADO P.E. NO. 37760

NO.	DATE	BY	DESCRIPTION	APPROV. BY	DATE

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



**CUT BANK DRIVE
 STA 3+13.48 TO STA 18+17.33**

SANITARY SEWER LINE TABLE

LINE	LENGTH	DIRECTION
L3	120.39'	S51°16'16"E
L4	27.07'	S32°39'15"E
L5	107.80'	N69°43'31"E

SANITARY SEWER CURVE TABLE

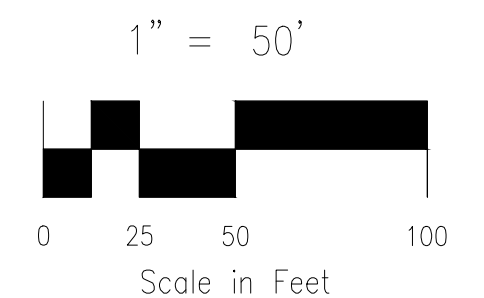
CURVE	DELTA	RADIUS	LENGTH
C3	16°30'07"	300.00'	86.40'

SANITARY SEWER LINE TABLE

LINE	LENGTH	DIRECTION
L6	183.38'	N53°13'24"E
L7	74.10'	N53°13'24"E
L10	103.02'	N38°42'46"E
L12	151.67'	N13°36'16"E
L13	32.69'	S79°51'55"E
L14	57.57'	N69°43'31"E

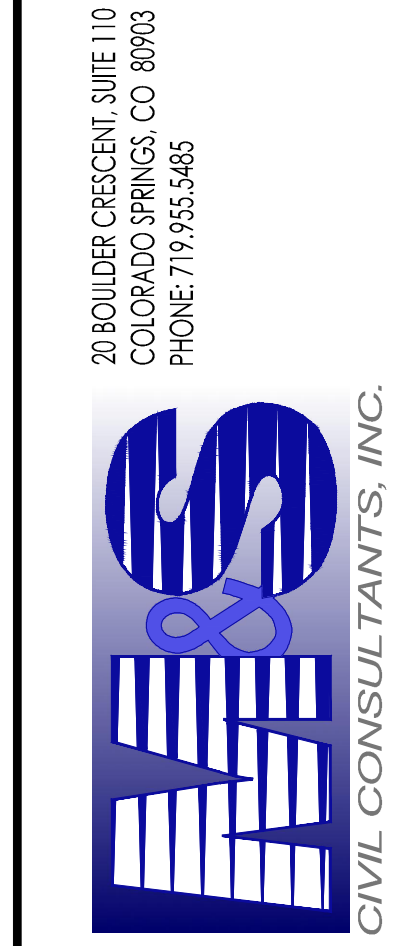
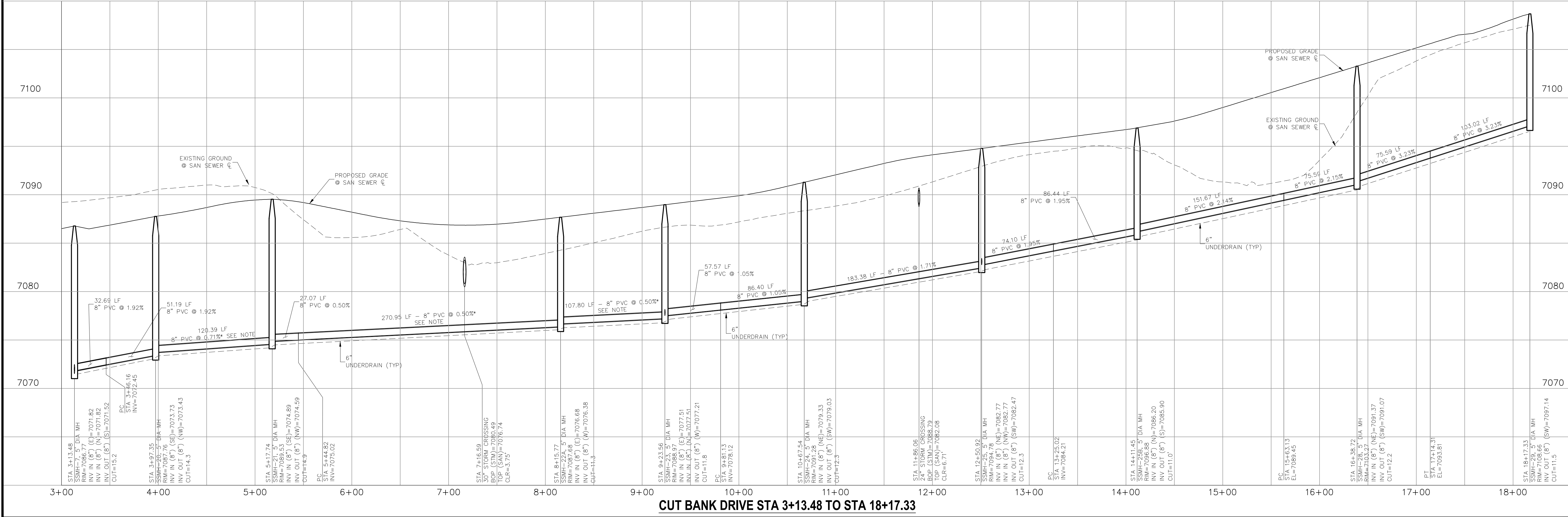
SANITARY SEWER CURVE TABLE

CURVE	DELTA	RADIUS	LENGTH
C4	16°30'07"	300.00'	86.40'
C6	39°37'09"	125.00'	86.44'
C12	77°37'14"	200.00'	270.95'
C13	14°40'43"	199.81'	51.19'



- *NOTE:**
 SLOPES LESS THAN 1.0% WILL REQUIRE SELECT BEDDING AND SPECIAL COMPACTION METHODS. THE FOLLOWING PRACTICES SHALL BE USED.
1. AFTER COMPLETION OF THE TRENCH EXCAVATION AND PROPER PREPARATION OF THE FOUNDATION, SIX INCHES (6") OF BEDDING MATERIAL SHALL BE PLACED ON THE TRENCH BOTTOM FOR SUPPORT UNDER THE PIPE AND COMPACTED.
 2. BELL HOLES SHALL BE DUG DEEP ENOUGH TO PROVIDE A MINIMUM OF TWO INCHES (2") BETWEEN THE BELL AND THE BEDDING MATERIAL.
 3. AFTER THE PIPE IS ADJUSTED FOR LINE AND GRADE, AND THE JOINT IS MADE, THE BEDDING MATERIAL SHALL BE CAREFULLY PLACED AND TAMPED UNDER THE HAUNCHES OF THE PIPE AND IN THE PREVIOUSLY DUG BELL HOLES.
 4. LIMITS OF BEDDING SHALL BE FROM SIX INCHES (6") BELOW THE BOTTOM OF PIPE TO TWELVE INCHES (12") ABOVE THE TOP OF THE PIPE.
 5. BEDDING MATERIAL SHALL BE A CLEAN SQUEEGEE SAND FREE OF CORROSIVE PROPERTIES AND SHALL CONFORM TO THE FOLLOWING GRADATION LIMITS.
 6. FOUNDATION MATERIAL SHALL BE UNIFORMLY GRADED WASHED ROCK CONFORMING TO THE FOLLOWING SIEVE ANALYSIS. A MINIMUM OF TWELVE INCHES (12") OF FOUNDATION MATERIAL SHALL BE PLACED BELOW THE PIPE TO THE TRENCH BOTTOM.

NOTE:
 NO SERVICES SHALL BE ALLOWED ON ANY DEAD END SANITARY SEWER STUBS



FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.
 VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

REVISIONS:

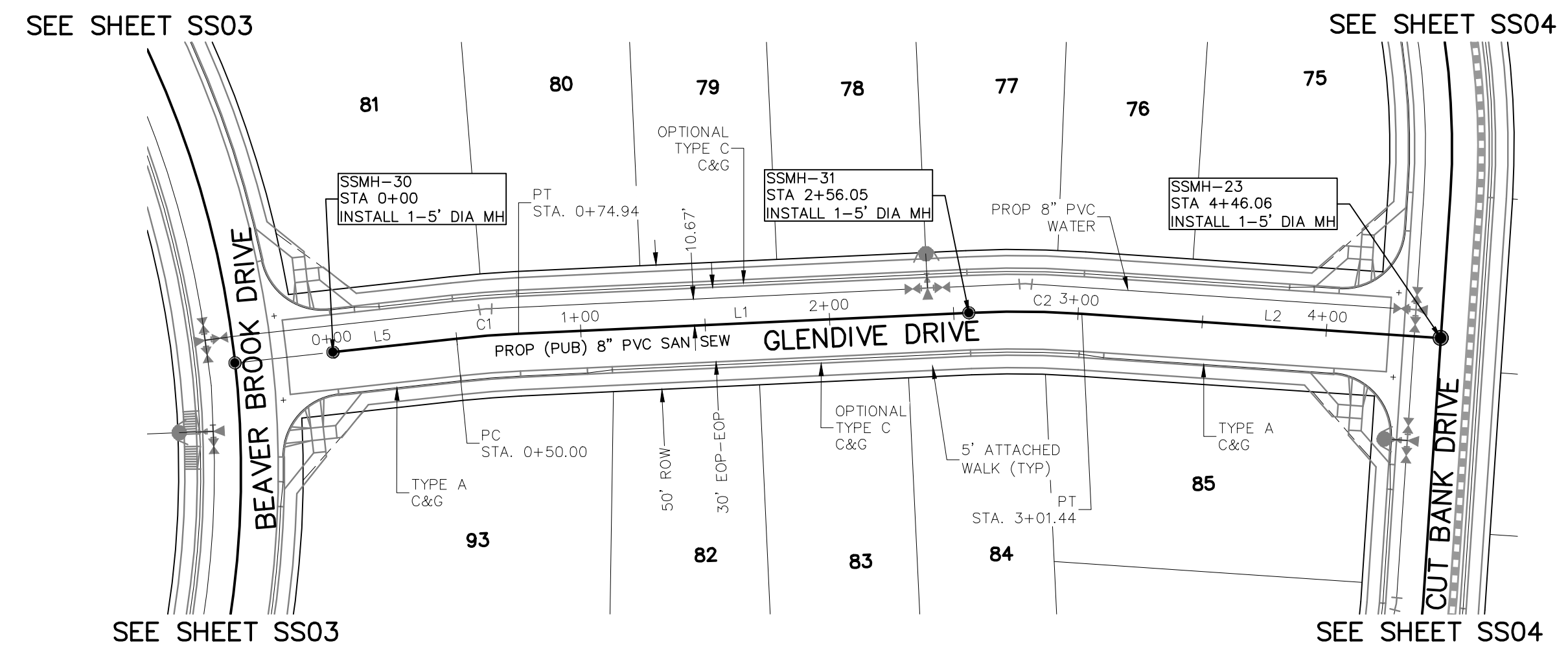
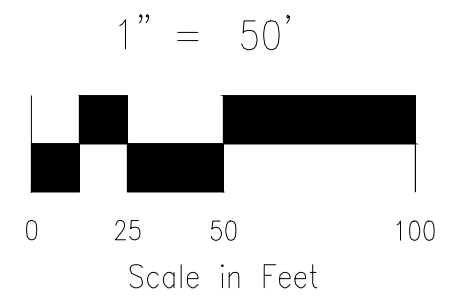
NO.	DATE	BY	DESCRIPTION

APPROVED BY: _____ DATE: _____

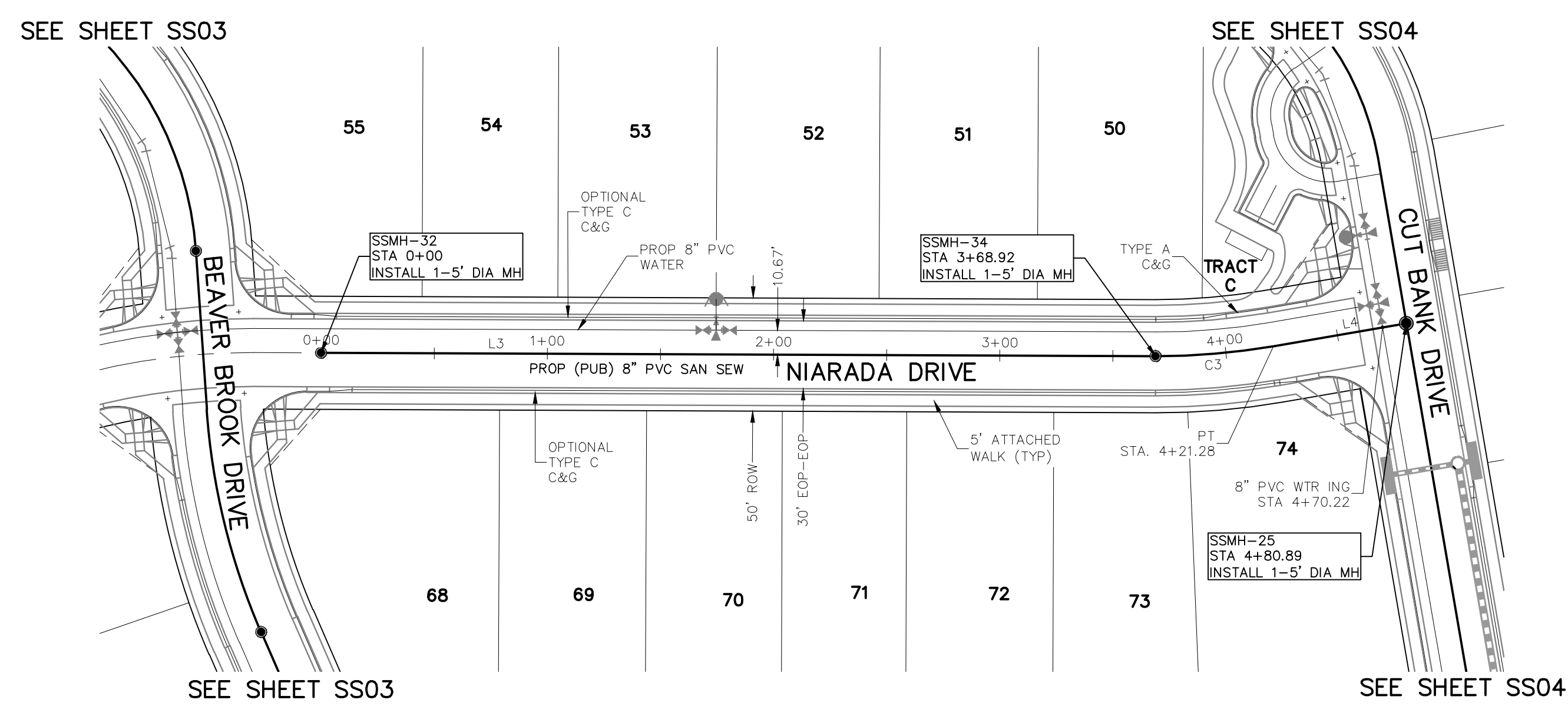
THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CAUTION

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



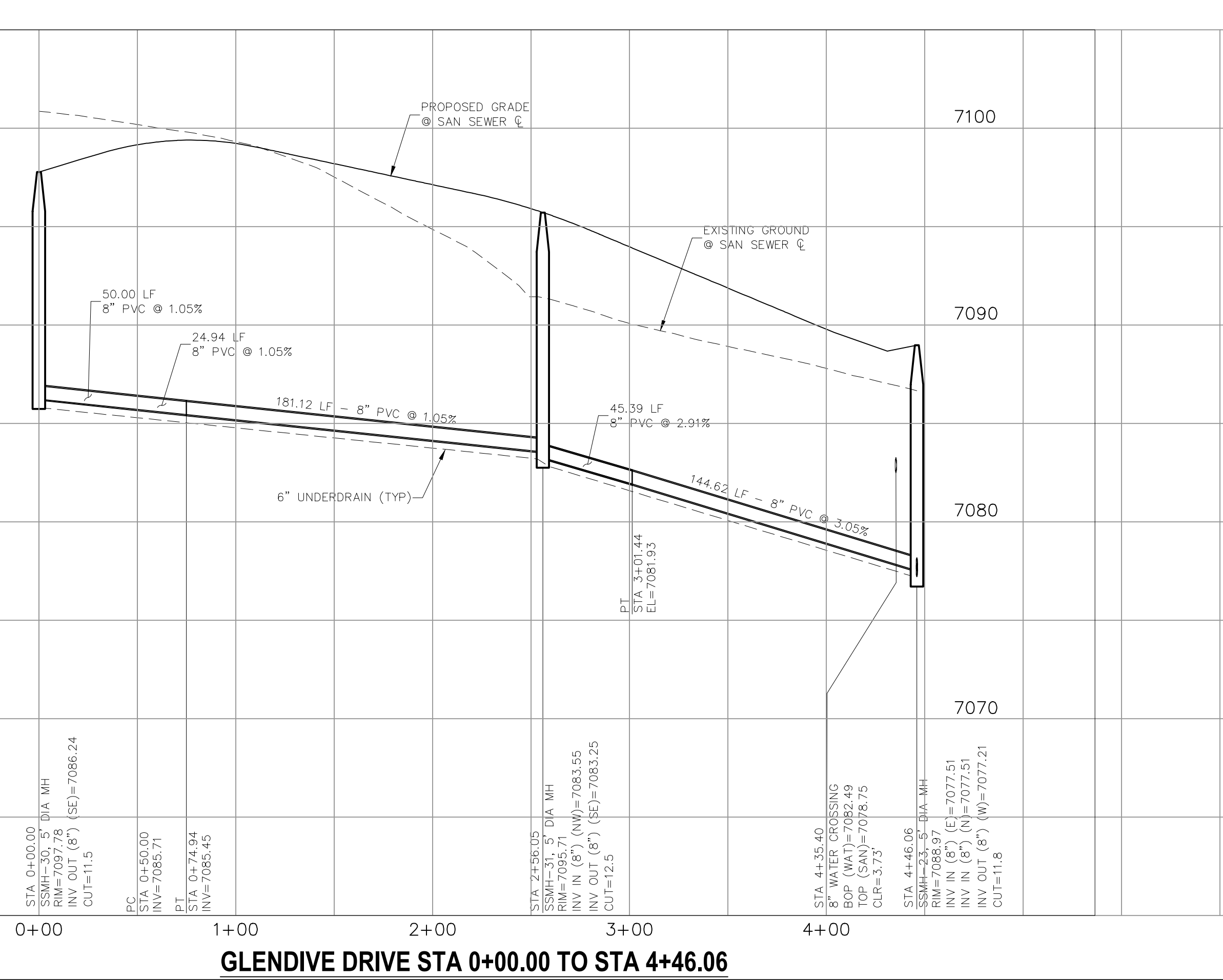
**GLENDIVE DRIVE
 STA 0+00.00 TO STA 4+46.06**



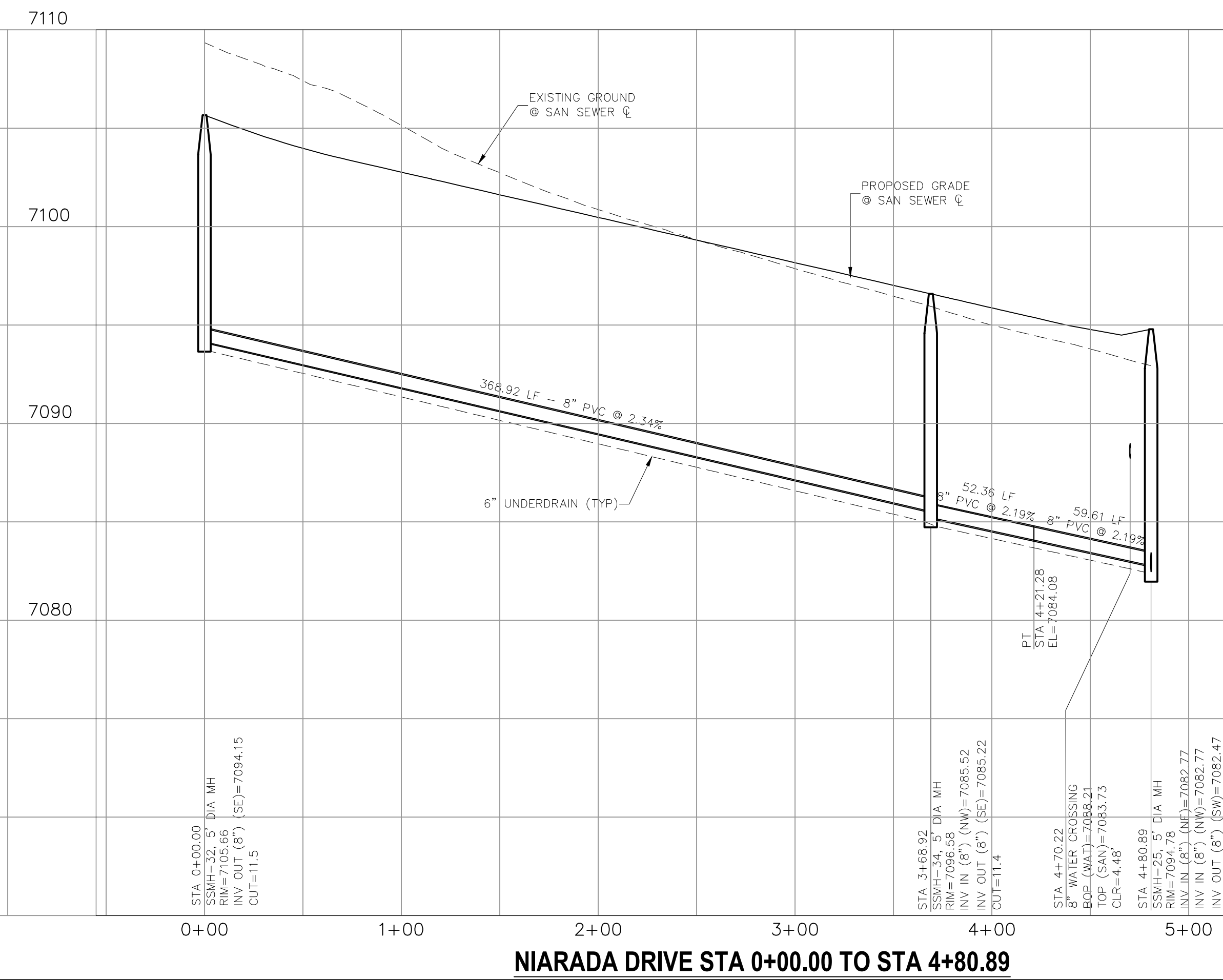
**NIARADA DRIVE
 STA 0+00.00 TO STA 4+80.89**

LINE	LENGTH	DIRECTION
L1	181.12'	S26°46'34"E
L2	144.62'	S20°16'29"E
L3	368.92'	S26°46'34"E
L4	59.61'	S36°46'36"E
L5	50.00'	S30°20'54"E

CURVE	DELTA	RADIUS	LENGTH
C1	3°34'20"	400.00'	24.94'
C2	6°30'05"	400.00'	45.39'
C3	10°00'02"	300.00'	52.36'



GLENDIVE DRIVE STA 0+00.00 TO STA 4+46.06



NIARADA DRIVE STA 0+00.00 TO STA 4+80.89

HOMESTEAD AT STERLING RANCH FILING NO. 2
SANITARY SEWER PLANS
 PROJECT NO. 09-007
 DATE: 02/13/2019
 SCALE: HORIZONTAL: 1"=50'
 VERTICAL: 1"=5'
 DESIGNED BY: JWP
 DRAWN BY: JWP
 CHECKED BY: GW
 SHEET 5 OF 5
 SS05

20 BOULDER CRESCENT, SUITE 110
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

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

REVISIONS:

NO.	DATE	BY	DESCRIPTION

APPROVED BY: _____ DATE: _____

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

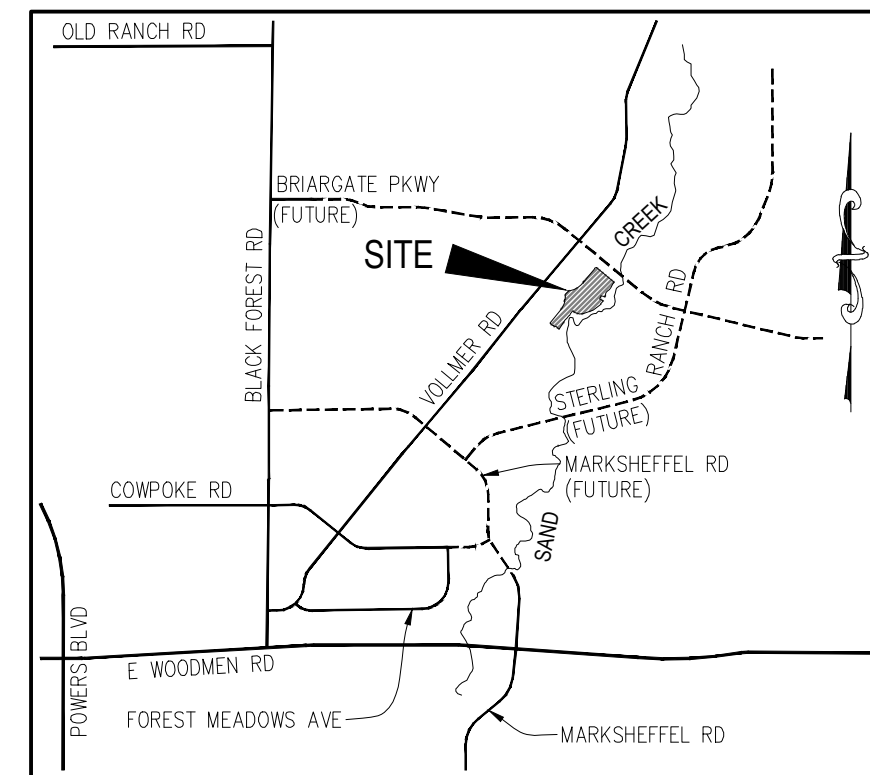
File: 0:\08007A\Sterling Ranch No 6\dwg\Const\Draw\Sewer Plans\SS05.dwg PlotStamp: 7/30/2019 5:25 PM

HOMESTEAD AT STERLING RANCH FILING NO. 2

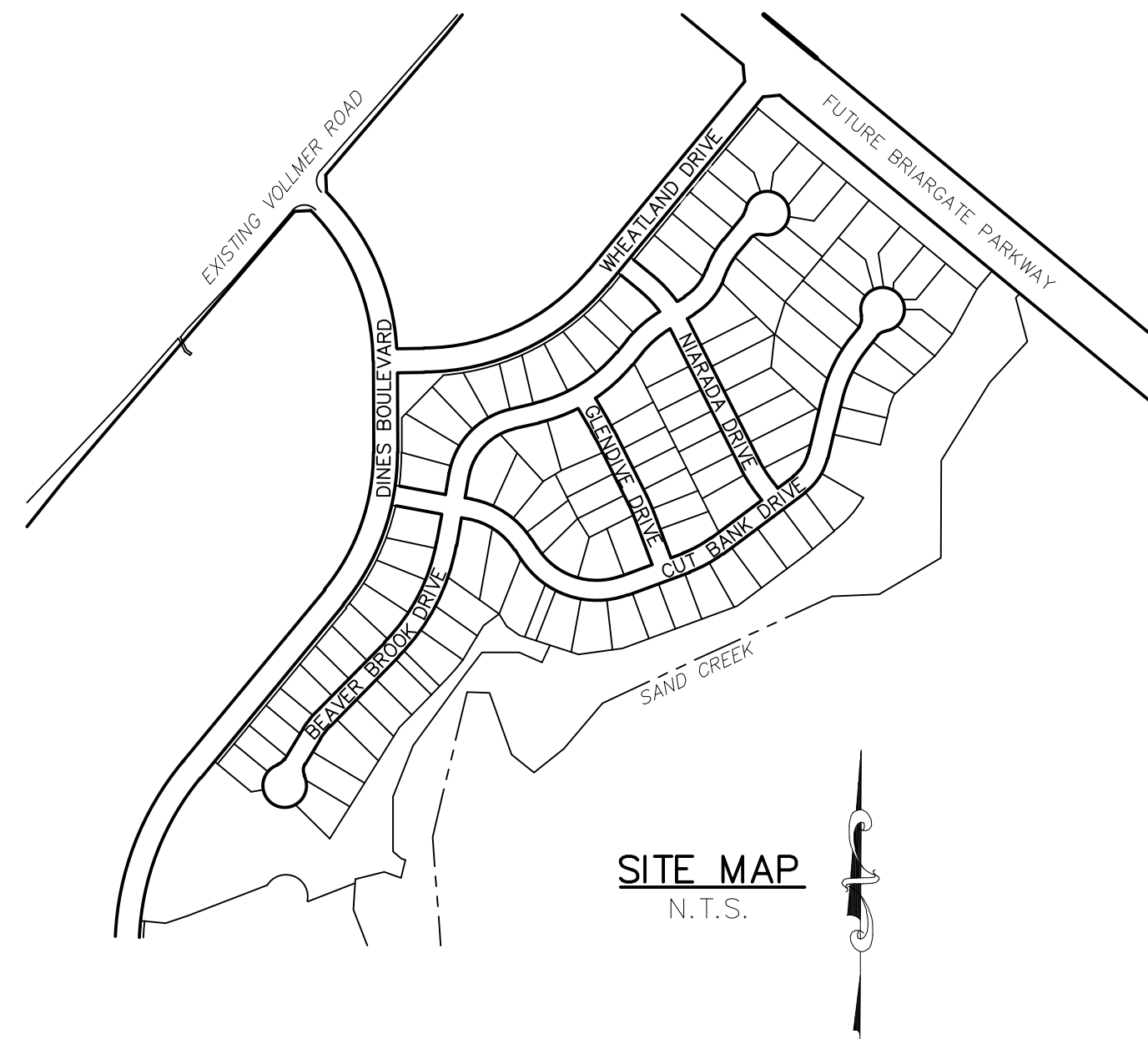
COUNTY OF EL PASO, STATE OF COLORADO WATER SYSTEM PLAN (INCLUDING UTILITY SERVICE PLAN) FEBRUARY 2019

GENERAL NOTES

- ALL UTILITY CONSTRUCTION TO BE CONDUCTED IN CONFORMANCE WITH THE CURRENT WOODMEN HILLS METROPOLITAN DISTRICT SPECIFICATIONS.
- ALL PLANS ON THE JOB SITE SHALL BE SIGNED BY THE DISTRICT AND THE DISTRICT'S ENGINEER. ANY REVISION TO THE PLANS SHALL BE SO NOTED WITH THE OLD DRAWING MARKED NOT VALID.
- ALL STATIONING IS CENTERLINE UNLESS OTHERWISE NOTED. ALL ELEVATIONS ARE CENTERLINE UNLESS OTHERWISE NOTED.
- ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE DISTRICT. THE DISTRICT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
- ALL WATER AND SEWER SERVICE LOCATIONS SHALL BE CLEARLY MARKED ON EITHER THE CURB HEAD OR THE FACE OF THE CURB, WITH AN "S" FOR SEWER AND A "W" FOR WATER.
- DUCTILE IRON PIPES, INCLUDING FITTINGS, VALVES AND FIRE HYDRANTS, SHALL BE WRAPPED WITH POLYETHYLENE TUBING, DOUBLE BONDED AT EACH JOINT AND ELECTRICALLY ISOLATED. BONDING AND ANODE CONNECTIONS SHALL BE THOROUGHLY COATED WITH BITUMINOUS COATINGS.
- ALL DUCTILE IRON PIPE LESS THAN 12 INCHES AND FITTINGS SHALL HAVE CATHODIC PROTECTION USING TWO NO. 6 WIRES WITH 17 LB MAGNESIUM ANODES EVERY 400 FEET AND 9 LB MAGNESIUM ANODES AT EACH FITTING. ALL DUCTILE IRON PIPE 12 INCHES AND GREATER AND FITTINGS SHALL HAVE CATHODIC PROTECTION USING TWO NO. 6 WIRES WITH 17 LB MAGNESIUM ANODES EVERY 300 FEET AND 9 LB MAGNESIUM ANODES AT EACH FITTING.
- ALL PIPE MATERIAL, BACKFILL AND INSTALLATION SHALL CONFORM TO THE APPLICABLE SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS, COLORADO DEPARTMENT OF TRANSPORTATION, EL PASO COUNTY DEPARTMENT OF TRANSPORTATION, COLORADO SPRINGS UTILITIES AND THE GEOTECHNICAL ENGINEER.
- COMPACTION TESTS SHALL BE 95% STANDARD PROCTOR AS DETERMINED BY ASTM D698, UNLESS OTHERWISE APPROVED BY THE DISTRICT OR HIGHER STANDARD AS IMPOSED BY ANOTHER AGENCIES HAVING RIGHT-OF-WAY JURISDICTION. THIS SHALL INCLUDE ALL VALVES, FIRE HYDRANT RUNS, WATER & SEWER SERVICE LINES AND MANHOLES. ALL REPORTS SHALL BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL.
- THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY. THE LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. THE DISTRICT SHALL BE NOTIFIED OF ANY DEVIATIONS TO THE LINE AND/OR GRADE AS DEPICTED ON THE PLANS. CONTRACTOR SHALL SUBMIT TO THE DISTRICT AND THE ENGINEER OF RECORD A REPORT OF THE FIELD VERIFIED INFORMATION PRIOR TO THE START OF CONSTRUCTION.
- ALL BENDS SHALL BE FIELD STAKED PRIOR TO THE START OF CONSTRUCTION.
- BENDS, DEFLECTION & CUT PIPE LENGTHS SHALL BE USED TO HOLD HORIZONTAL ALIGNMENT OF SEWER AND WATER LINES TO NO MORE THAN 0.5" FROM THE DESIGNED ALIGNMENT. CONSTRUCTION STAKES TO BE AT 25' INTERVALS ALONG CURVES TO ASSURE LOCATION OF PIPE LINE CONSTRUCTION.
- AT ALL LOCATIONS WHERE CAP AND STUB IS NOTED ON DRAWINGS, PROVIDE A PLUG AT THE END OF THE PIPE JOINT NEAREST THE SPECIFIED STATION. PROVIDE A REVERSE ANCHOR AT ALL WATER LINE PLUGS.
- ALL UNUSED SALVAGED WATER UTILITY MATERIAL SHALL BE RETURNED TO THE METROPOLITAN DISTRICT AS REQUESTED.
- AT THE CONTRACTOR'S EXPENSE, ALL UTILITY MAINS SHALL BE SUPPORTED AND PROTECTED SUCH THAT THEY SHALL FUNCTION CONTINUOUSLY DURING CONSTRUCTION OPERATIONS. SHOULD A UTILITY MAIN FAIL AS A RESULT OF THE CONTRACTOR'S OPERATION, IT SHALL BE REPLACED IMMEDIATELY BY THE CONTRACTOR OR BY THE DISTRICT AT FULL COST OF LABOR AND MATERIALS TO THE CONTRACTOR/DEVELOPER.
- PUMPING OR BYPASS OPERATIONS SHALL BE REVIEWED AND APPROVED BY BOTH THE DISTRICT AND THE DISTRICT ENGINEER PRIOR TO EXECUTION.
- THE CONTRACTOR SHALL REPLACE OR REPAIR DAMAGE TO ALL SURFACE IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO FENCES, LANDSCAPING, CURB AND GUTTER AND/OR ASPHALT THAT MAY BE CAUSED DURING CONSTRUCTION.
- ALL CONTRACTORS WORKING ON OR NEAR A WATER OR SEWER FACILITY (TO INCLUDE SERVICE LINE) SHALL HAVE LIABILITY INSURANCE NAMING THE DISTRICT AS AN ADDITIONAL INSURED AND SHALL PROVIDE A CURRENT COPY OF WORKERS COMPENSATION INSURANCE ON FILE WITH THE DISTRICT. NO WORK CAN PROCEED WITHOUT CURRENT CERTIFICATES ON FILE AT THE DISTRICTS' OFFICE.
- THE CONTRACTOR SHALL NOTIFY THE DISTRICT AND ALL AFFECTED UTILITY COMPANIES ADJACENT TO THE PROPOSED UTILITY CONSTRUCTION A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF CONSTRUCTION. A WEEKLY CONSTRUCTION MEETING SHALL BE REQUIRED WITH THE CONTRACTOR, DISTRICT ENGINEER AND ALL OTHER PARTIES AS DEEMED NECESSARY BY THE DISTRICT.
- COMMENCEMENT OF CONSTRUCTION OF WATER/SEWER SYSTEMS WITHIN THE METROPOLITAN DISTRICT:
 - PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING IS REQUIRED A MINIMUM OF 48 HOURS IN ADVANCE OF COMMENCEMENT OF WORK. A REPRESENTATIVE OF THE OWNER OR DEVELOPER, A REPRESENTATIVE OF THE CONTRACTOR AND DESIGN ENGINEER ARE REQUIRED TO ATTEND. CONTACT THE DISTRICT TO SCHEDULE THE PRE-CONSTRUCTION MEETING. NO PRE-CONSTRUCTION MEETING CAN BE SCHEDULED PRIOR TO FOUR (4) SIGNED/ APPROVED PLAN SETS ARE RECEIVED BY THE DISTRICT.
 - THE CONTRACTOR IS REQUIRED TO NOTIFY THE DISTRICT A MINIMUM OF 48 HOURS AND A MAXIMUM OF 2 WEEKS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL ALSO NOTIFY AFFECTED UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION ADJACENT TO THE KNOWN UTILITY LINES.
- TESTING OF FACILITIES:
 - THE CONTRACTOR SHALL NOTIFY THE DISTRICT A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF ANY TESTING.
 - ALL SECTIONS OF WATER LINE ARE TO MEET THE FOLLOWING PRESSURE TESTING REQUIREMENTS:
 - TEST 100% OF ALL LINES
 - MUST PASS PRESSURE TEST TO 200 PSI FOR TWO HOURS (UNLESS OTHERWISE APPROVED ON THE PLANS).
 - ALL SANITARY SEWER FACILITIES ARE TO MEET THE FOLLOWING TESTING REQUIREMENTS
 - ALL LINES SHALL BE JET CLEANED PRIOR TO VACUUM OR PRESSURE TESTING
 - ALL MANHOLES SHALL BE VACUUM TESTED WITH DISTRICT STAFF PRESENT PRIOR TO CCTV INSPECTION.
 - SEWER MAINS TO BE PRESSURE TEST PRIOR TO CCTV INSPECTION
 - ALL LINES SHALL BE CCTV INSPECTED AND VIDEO SHALL BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL.
- PRELIMINARY ACCEPTANCE SHALL BE DEFINED AS THE POINT IN TIME THAT THE DISTRICT ACCEPTS THE FACILITY FOR USE. ALL SURFACE IMPROVEMENTS AND RESTORATION SHALL BE COMPLETED WITHIN 30 DAYS OF COMMENCEMENT. SHOULD THE CONTRACTOR FAIL TO COMPLETE ALL SURFACE IMPROVEMENTS AND RESTORATION WITHIN 30 DAYS OF COMMENCEMENT OF SERVICE, THE DISTRICT, AT THEIR DISCRETION, MAY ELECT TO COMPLETE THE IMPROVEMENTS AT THE CONTRACTORS COST.
- FINAL ACCEPTANCE BY THE DISTRICT OF ANY LINE OR SYSTEM SHALL NOT OCCUR UNTIL COMPLETION OF FINAL ASPHALT LAYERS AND/OR FINAL COMPLETION AND/OR RESTORATION OF ALL SURFACE IMPROVEMENTS. THE WARRANTY PERIOD FOR ALL FACILITIES PRIOR TO FINAL ACCEPTANCE SHALL BE 24 MONTHS COMMENCING AFTER PRELIMINARY ACCEPTANCE.
- ACCEPTANCE:
 - THE DISTRICT MAY GIVE PRELIMINARY ACCEPTANCE ONCE ALL OF THE TESTS ON ALL THE LINES HAVE BEEN COMPLETED AND A WALK-THRU HAS OCCURRED.
 - A SECOND ACCEPTANCE MAY OCCUR ONCE FIRST LIFT OF ASPHALT GOES DOWN AND A SECOND WALK-THRU OF THE SYSTEM OCCURS. IF ALL FACILITIES ARE CLEAN AND ACCESSIBLE, A FINAL ACCEPTANCE MAY OCCUR (THE DISTRICT MAY REQUIRE CLEANING AND RE-VIDEO OF THE SYSTEM, DEPENDING ON THE SEVERITY OF THE CONTAMINATION).
- ALL WATER AND SEWER MAINS, INCLUDING SERVICE LINES, SHALL HAVE "AS-BUILT" DRAWINGS PREPARED AND APPROVED PRIOR TO PRELIMINARY ACCEPTANCE BY THE DISTRICT.
- ALL COMMERCIAL/BUSINESS DEVELOPMENTS SHALL HAVE AN EIGHT INCH (MIN.) WATER MAIN LOOPED THROUGH THE PROPOSED PROPERTY WITH GATE VALVES LOCATED WHERE THE MAIN ENTERS THE PROPERTY LINE. AN EIGHT INCH SEWER MAIN SHALL BE INSTALLED FOR SERVICE TO COMMERCIAL/BUSINESS DEVELOPMENTS, AND A MANHOLE SHALL BE LOCATED WHERE THE MAIN ENTERS THE PROPERTY. THE END OF THE MAINS SHALL BE MARKED WITH THE APPROPRIATE COLORED CARSONITE MARKER ALONG WITH TRACER WIRE.
- AFTER REVIEW AND APPROVAL OF PLANS FOR THE EXTENSION OF LINES, FACILITIES AND/OR SERVICES, CONSTRUCTION MUST BE COMMENCED WITHIN 18 MONTHS FOR RESIDENTIAL SUBDIVISIONS AND 12 MONTHS FOR ANY COMMERCIAL INSTALLATIONS.
- INSPECTION FEES: CALL THE DISTRICT (719-495-2500) FOR FEE SCHEDULE.



VICINITY MAP
N.T.S.



SITE MAP
N.T.S.

WATER SYSTEM INSTALLATION NOTES

- ALL WATER AND FORCE MAIN PIPE SHALL BE AWWA C900 PVC, OR EQUAL, PRESSURE CLASS 200. ALL WATER AND FORCE MAIN FITTINGS SHALL HAVE MECHANICAL RESTRAINTS AND THRUST BLOCKS. ALL WATER AND FORCE MAIN PIPE SHALL HAVE A MINIMUM COVER DEPT OF FIVE AND ON-HALF (5.5) FEET.
- ALL WATER VALVES ASSOCIATED WITH THE POTABLE WATER SYSTEM SHALL BE OPEN CLOCKWISE. ALL VALVES INSTALLED IN LANDSCAPED AREAS AND/OR NOT WITHIN PAVED STREETS SHALL BE MARKED WITH CARSONITE MARKERS. ALL VALVES ASSOCIATED WITH THE RAW WATER SYSTEM SHALL BE OPEN COUNTERCLOCKWISE AND MARKED WITH CARSONITE MARKERS AS APPLICABLE.
- THE DEVELOPER OR HIS ENGINEER SHALL LOCATE ALL FIRE HYDRANTS AND SERVICE STUB-OUTS FOR FUTURE DEVELOPMENT. ANY REQUIRED REALIGNMENT, (HORIZONTAL OR VERTICAL), SHALL BE AT THE EXPENSE OF THE DEVELOPER. FIRE HYDRANT LOCATION SHALL BE REVIEWED AND APPROVED BY THE APPLICABLE FIRE AUTHORITY.
- FIRE HYDRANTS SHALL BE OPEN RIGHT WITH 7/8" x 7/8" SQUARE TAPERED ALONG WITH SERVICE CAPS. LUBRICATION TYPE: (GREASE). ACCEPTABLE BRANDS ARE AMERICAN AVK SERIES 2700 (MODERN) AND MUELLER SUPER CENTURION 250.
- ALL MAIN LINES (PVC & DUCTILE IRON) SHALL BE INSTALLED WITH COATED #12 TRACER WIRE WITH TEST STATIONS AT INTERVALS NO GREATER THAN 500 FT (VALVE BOXES CAN BE USED AT INTERSECTIONS AND SERVICE STUBS).
- CONTRACTOR SHALL MAKE CONNECTIONS TO EXISTING WATER LINE WITHOUT SHUTDOWN, OR ELSE NOTIFY THE DISTRICT OF ANY SERVICE SHUTDOWNS NECESSARY TO CONNECT TO EXISTING LINES.
- IRRIGATION SERVICES SHALL HAVE A STOP AND WASTE CURB STOP VALVE INSTALLED ALONG WITH TRACER WIRE EXTENDING BACK TO THE MAIN LINE.
- COMMENCEMENT OF USE OF WATER LINES AND/OR SYSTEMS:
 - NO WATER FACILITY SHALL BE PLACED IN SERVICE UNTIL AFTER THE COMPLETION OF ALL PRESSURE TESTING, FLUSHING, BAC-T TESTING, COMPACTION TESTING, AND AS-BUILT DRAWINGS ARE SUBMITTED AND APPROVED BY THE DISTRICT.
 - NO WATER FACILITY SHALL BE PLACED IN SERVICE UNTIL ALL SERVICE LINES ARE COMPLETED AND THE FIRST LIFT OF ASPHALT IS COMPLETED OVER THE LINE. IN THE CASE WHERE NO ASPHALT IS TO BE PLACED OVER THE LINE, SURFACE IMPROVEMENTS SHALL BE COMPLETED PRIOR TO USE OF THE FACILITY.
 - ALL EASEMENTS (PLATTED OR DEEDED) ARE DEDICATED, EXECUTED BY THE DISTRICT, AND RECORDED.

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 PANWEE 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 = 235849.817
ELEVATION = 7030.82

AGENCIES

OWNER/DEVELOPER: SR LAND, LLC
20 BOULDER CRESCENT, SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY (719) 471-1742

CIVIL ENGINEER: M & S CIVIL CONSULTANTS, INC.
20 BOULDER CRESCENT, SUITE 110
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
JEFF RICE, 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: STERLING RANCH METRO DISTRICT ENGINEERS
JDS-HYDRO CONSULTANTS
545 E. PIKES PEAK AVE., SUITE 300
COLORADO SPRINGS, CO 80903
JOHN MCGINN (719) 668-8769

FIRE DISTRICT: BLACK FOREST FIRE PROTECTION DISTRICT
11445 TEACHOUT ROAD
COLORADO SPRINGS, CO 80908
CHIEF BRYAN JACK (719) 495-4300

GAS DEPARTMENT: COLORADO SPRINGS UTILITIES
7710 DURANT DR.
COLORADO SPRINGS, CO 80947
TIM WENDT (719) 668-3556

ELECTRIC DEPARTMENT: MOUNTAIN VIEW ELECTRIC
11140 E. WOODMEN ROAD
FALCON, CO 80831
(719) 495-2283

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

WATER & SEWER MAIN EXTENTIONS

ANY CHANGES OR ALTERATIONS AFFECTING THE GRADE, ALIGNMENT, ELEVATION AND/OR DEPTH OF COVER OF ANY WATER OR SEWER MAINS OR OTHER APPURTENANCE SHOWN ON THIS DRAWING SHALL BE THE RESPONSIBILITY OF THE OWNER/DEVELOPER. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR ALL OPERATIONAL DAMAGES AND DEFECTS IN INSTALLATION AND MATERIAL FOR MAINS AND SERVICES FROM THE DATE OF APPROVAL UNTIL FINAL ACCEPTANCE IS ISSUED.

SIGNED _____ DATE _____
JAMES F. MORLEY
SR LAND, LLC
20 BOULDER CRESCENT, SUITE 201
COLORADO SPRINGS, CO 80903
(719) 471-1742

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 WATER DESIGN APPROVAL

DATE: _____ BY: _____

PROJECT NO. _____

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 WATER MAINS AND SERVICES" SHALL RULE.

APPROVAL EXPIRES 180 DAYS FROM DESIGN APPROVAL.

FIRE AUTHORITY APPROVAL

THE NUMBER OF FIRE HYDRANTS AND HYDRANT LOCATIONS SHOWN ON THIS WATER INSTALLATION PLAN ARE CORRECT AND ADEQUATE TO SATISFY THE FIRE PROTECTION REQUIREMENTS AS SPECIFIED BY THE BLACK FOREST FIRE PROTECTION DISTRICT SERVING THE PROPERTY NOTED ON THE PLANS.

FIRE PROTECTION DISTRICT _____

SIGNED _____ DATE _____
FIRE PROTECTION DISTRICT

SHEET INDEX

SHEET 1 TITLE SHEET
SHEET 2 WATER MAIN PLAN
SHEET 3 WATER MAIN PLAN
SHEET 4 WATER LOWERING PROFILES
SHEET 5 UTILITY SERVICE PLAN
SHEET 6 UTILITY SERVICE PLAN

SF-19-004



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

HOMESTEAD AT STERLING RANCH FILING NO. 2

PROJECT NO. 09-007

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

DATE: 02/13/2019

DESIGNED BY: JMP
DRAWN BY: JMW
CHECKED BY: GW

SHEET 1 OF 6

WATER PLANS

WT01

CAUTION

20 BOULDER CRESCENT, SUITE 110
COLORADO SPRINGS, CO 80903
PHONE: 719.955.5485

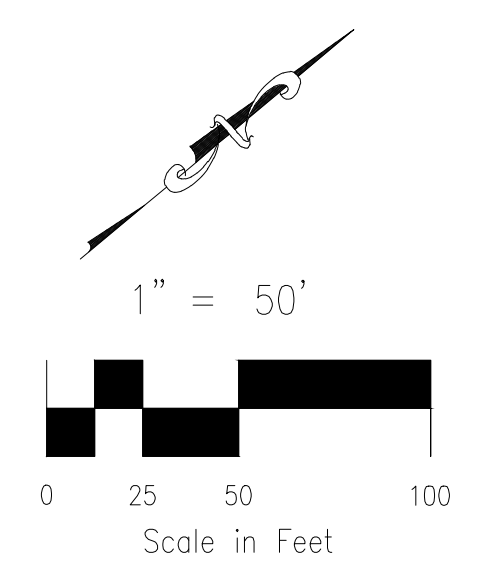
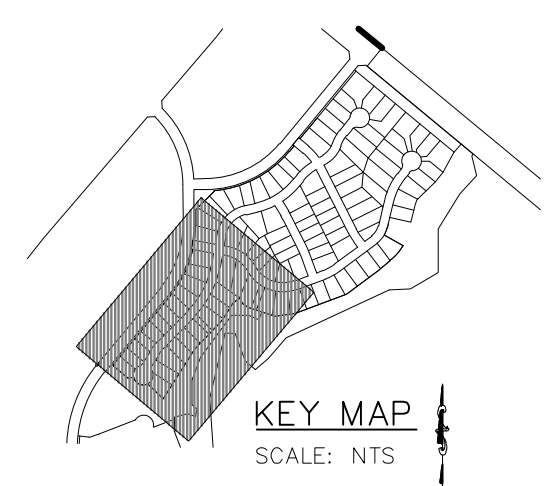
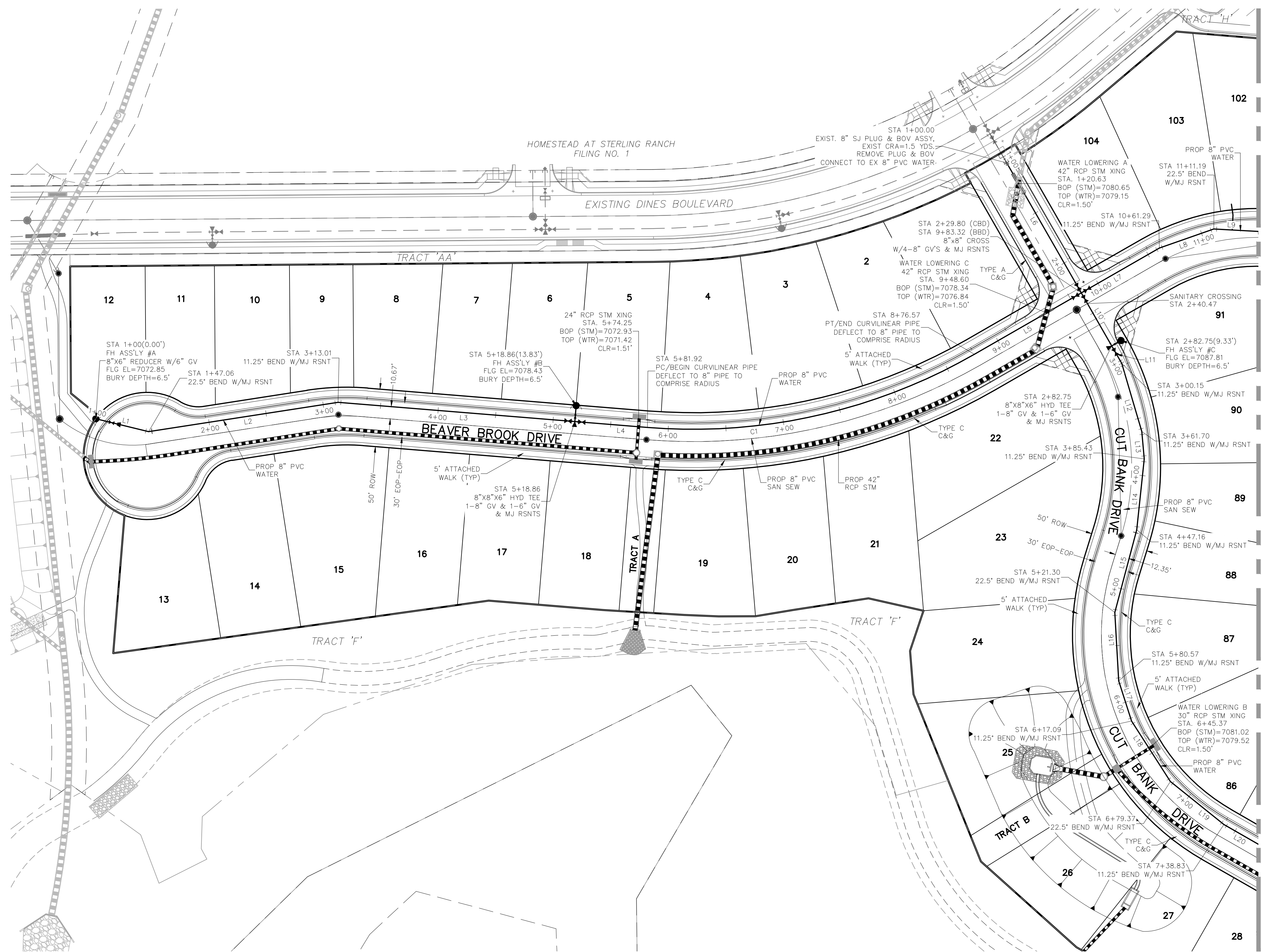


M & S CIVIL CONSULTANTS, INC.

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

REVISIONS:
NO. DATE BY: DESCRIPTION

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE 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.



LINE	LENGTH	DIRECTION
L1	47.06'	N53° 41' 28"E
L2	165.95'	N31° 11' 28"E
L3	205.85'	N44° 38' 31"E
L4	63.06'	N44° 38' 31"E
L5	106.75'	N10° 08' 30"E
L6	129.80'	S79° 51' 30"E
L7	77.96'	N10° 08' 30"E
L8	49.90'	N20° 40' 15"E
L9	94.30'	N43° 10' 15"E
L10	52.94'	S79° 51' 30"E
L11	17.40'	S79° 51' 30"E
L12	61.55'	S66° 24' 15"E
L13	23.73'	S55° 09' 15"E
L14	61.73'	S43° 54' 15"E
L15	74.13'	S35° 11' 21"E
L16	59.27'	S53° 12' 02"E
L17	36.52'	S67° 44' 26"E
L18	62.28'	S82° 44' 26"E
L19	59.46'	N78° 45' 34"E
L20	65.80'	N69° 43' 31"E

CURVE	DELTA	RADIUS	LENGTH
C1	34°30'01"	489.33'	294.65'

STREET ABBREVIATIONS
 CBD CUT BANK DRIVE
 BBD BEAVER BROOK DRIVE
 GDD GLENDDIVE DRIVE
 ND NIARADA DRIVE



HOMESTEAD AT STERLING RANCH FILING NO. 2
WATER PLANS

PROJECT NO. 09-007
DATE: 02/13/2019

DESIGNED BY: JWP
SCALE: HORIZONTAL: 1"=50'

DRAWN BY: JWP
VERTICAL: N/A

CHECKED BY:
SHEET 2 OF 6

WT02

20 BOULDER CRESCENT, SUITE 110
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.4485

M&S CIVIL CONSULTANTS, INC.

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

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

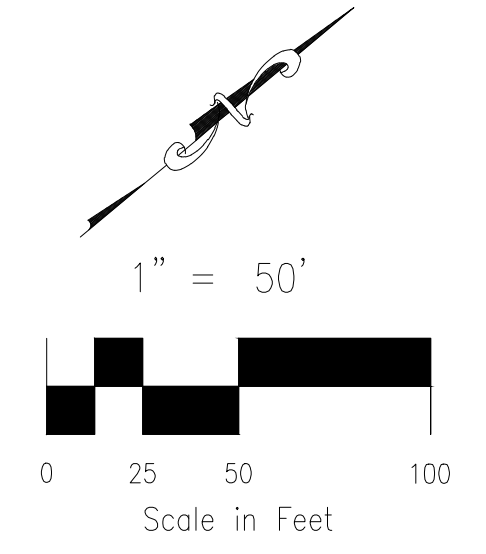
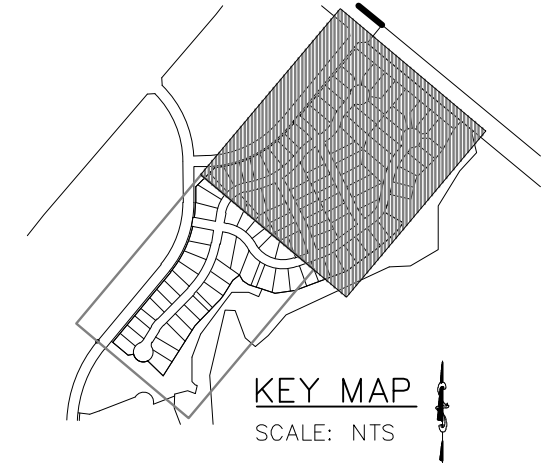
THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CAUTION

REVISIONS: NO. DATE: BY: DESCRIPTION:

File: C:\090071\Sterling Ranch No 6\Map\Const Draw\Water Plans\W02-03.dwg Plotstamp: 7/30/2019 5:04 PM

SEE SHEET W02



WATER LINE TABLE

LINE	LENGTH	DIRECTION
L21	65.80'	N69° 43' 31"E
L22	52.67'	N69° 43' 31"E
L23	46.90'	N69° 43' 31"E
L24	194.04'	N53° 13' 24"E
L25	31.33'	N53° 13' 24"E
L26	33.00'	N53° 13' 24"E
L27	40.34'	N43° 07' 02"E
L28	36.00'	N27° 54' 17"E
L29	154.08'	N13° 36' 16"E
L30	126.50'	N38° 42' 46"E
L31	21.00'	N27° 27' 46"E
L32	94.30'	N43° 10' 15"E
L33	50.59'	N65° 40' 15"E
L34	75.83'	N76° 55' 15"E
L35	12.00'	N63° 32' 18"E
L36	18.39'	N63° 32' 18"E
L37	18.39'	N58° 07' 41"E
L38	12.00'	N58° 07' 41"E
L39	40.70'	N39° 33' 48"E
L40	34.96'	N58° 58' 47"E

WATER LINE TABLE

LINE	LENGTH	DIRECTION
L41	35.26'	N58° 58' 47"E
L42	48.75'	N48° 54' 44"E
L43	48.75'	N28° 45' 33"E
L44	41.07'	N23° 54' 10"E
L45	41.06'	N34° 21' 30"E
L46	141.21'	N39° 33' 32"E
L47	157.28'	S20° 16' 29"E
L48	39.47'	S26° 46' 34"E
L49	177.78'	S26° 46' 34"E
L50	101.40'	S30° 20' 54"E
L51	12.00'	S31° 52' 19"E
L52	48.94'	S36° 46' 36"E
L53	194.37'	S26° 46' 34"E
L54	204.56'	S26° 46' 34"E
L55	60.45'	S50° 26' 12"E
L56	5.00'	S50° 26' 12"E

WATER CURVE TABLE

CURVE	DELTA	RADIUS	LENGTH
C2	16°30'07"	289.33'	83.33'
C3	25°14'29"	351.99'	155.07'
C4	11°36'59"	389.33'	78.93'
C5	16°49'59"	388.54'	114.15'
C6	19°25'32"	310.67'	105.33'
C7	10°00'02"	289.33'	50.50'
C8	6°12'13"	310.67'	33.64'
C9	6°12'13"	310.67'	33.64'
C10	17°27'25"	310.67'	94.65'

STREET ABBREVIATIONS

CBD CUT BANK DRIVE
 BBD BEAVER BROOK DRIVE
 GDD GLENDIVE DRIVE
 ND NIARADA DRIVE



HOMESTEAD AT STERLING RANCH FILING NO. 2

WATER PLANS

PROJECT NO. 09-007 DATE: 02/13/2019

DESIGNED BY: JWP SCALE: 1"=50'

DRAWN BY: JWP

CHECKED BY: GW

SHEET 3 OF 6

WT03

20 BOULDER CRESCENT, SUITE 110
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

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

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

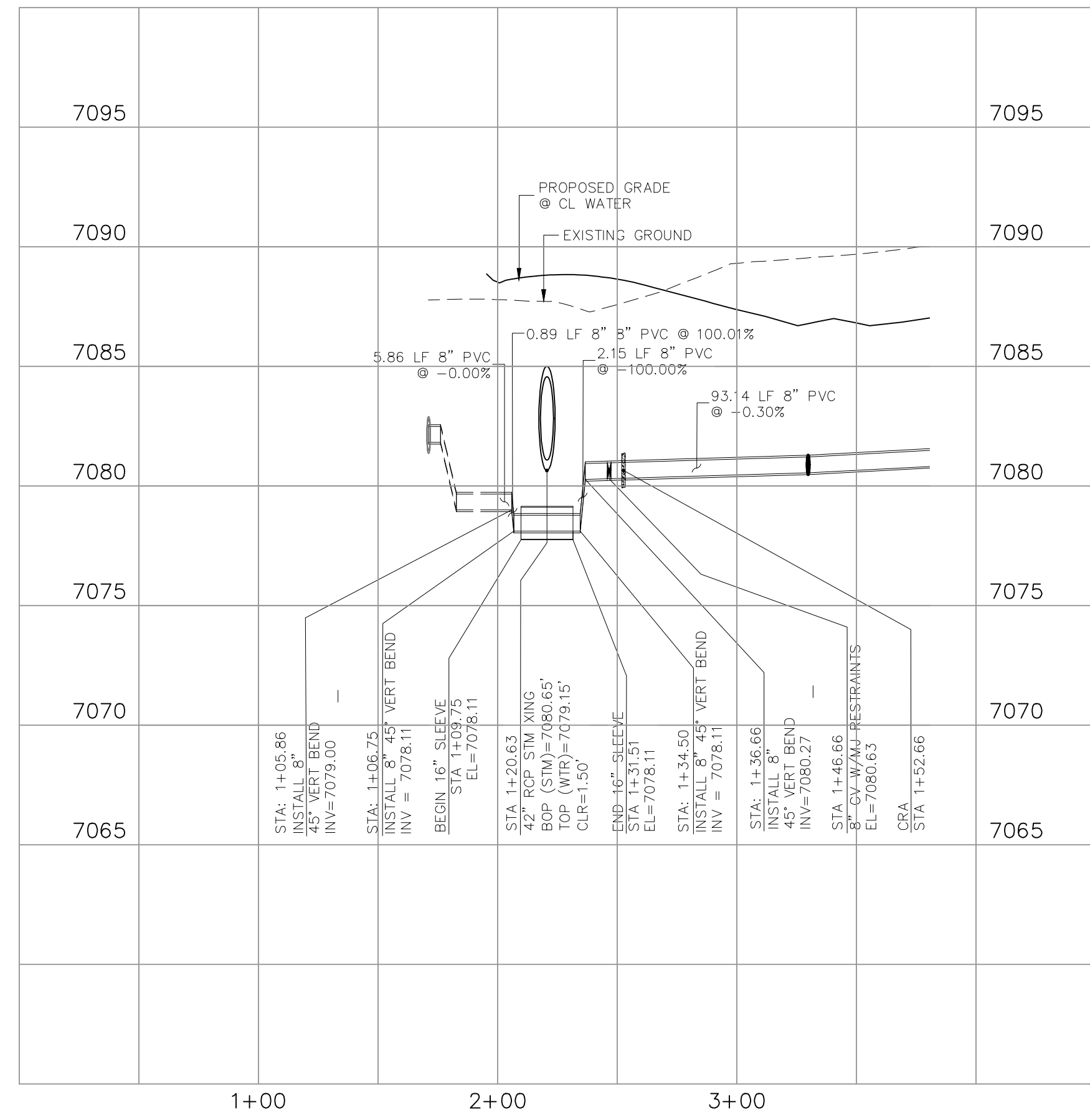
APPROVED BY: _____ DATE: _____

BY: _____ DESCRIPTION: _____

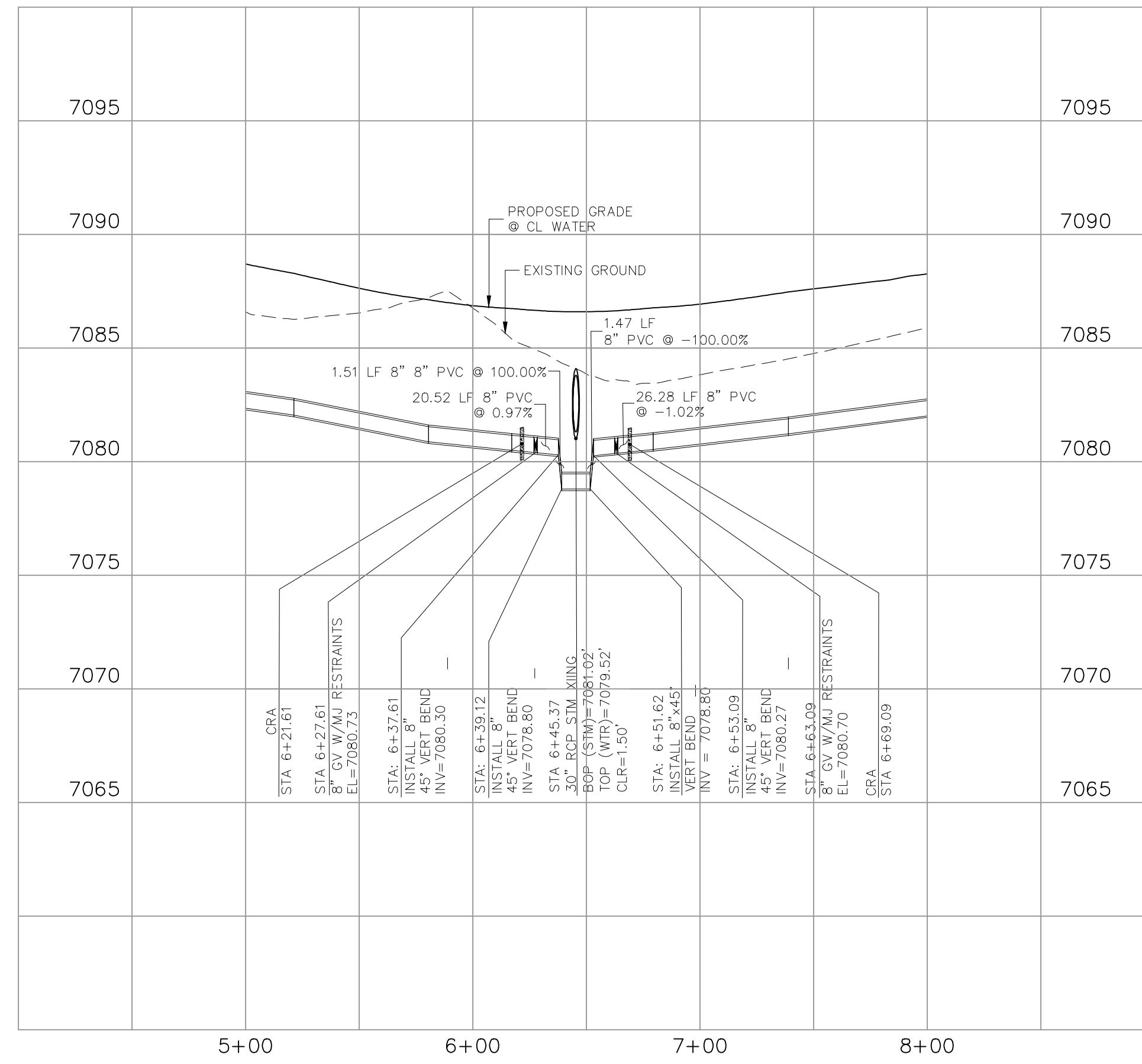
NO. _____ DATE: _____

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.

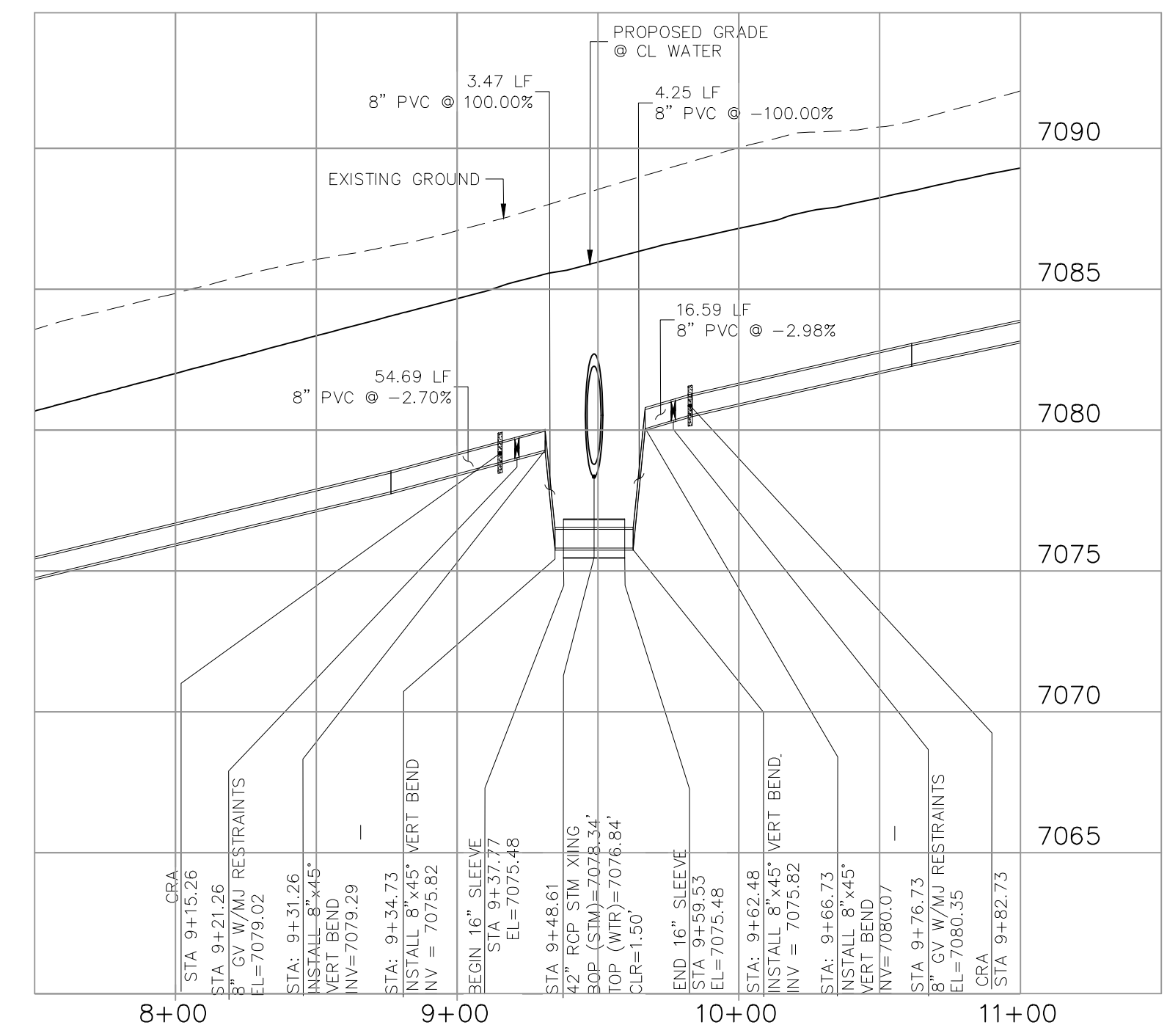
CAUTION



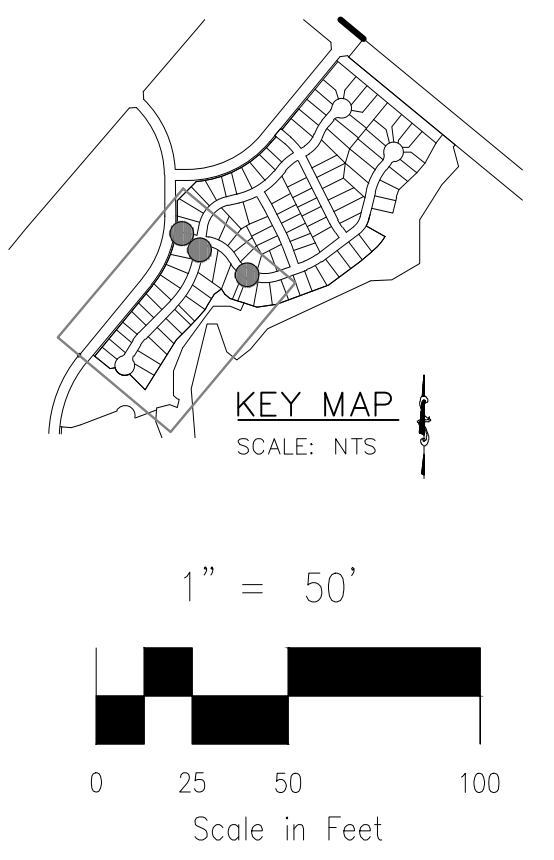
CBD WATER LOWERING "A"
STA 1+20.63



CBD WATER LOWERING "B"
STA 6+45.37



CBD WATER LOWERING "C"
STA 9+48.60



20 BOULDER CRESCENT, SUITE 110
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

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

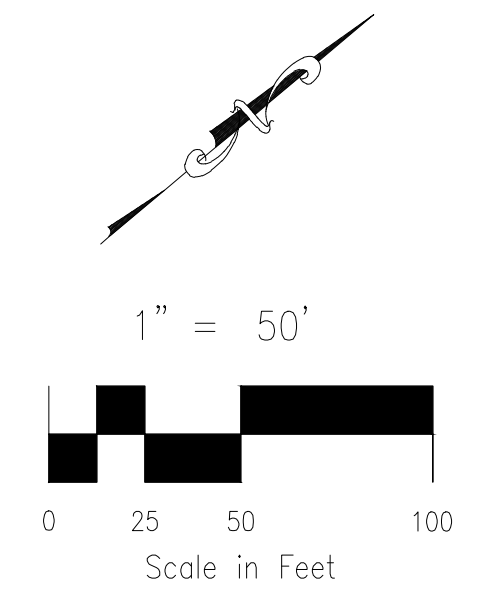
REVISIONS:

NO.	DATE	BY	DESCRIPTION	APPROV. BY	DATE

CAUTION

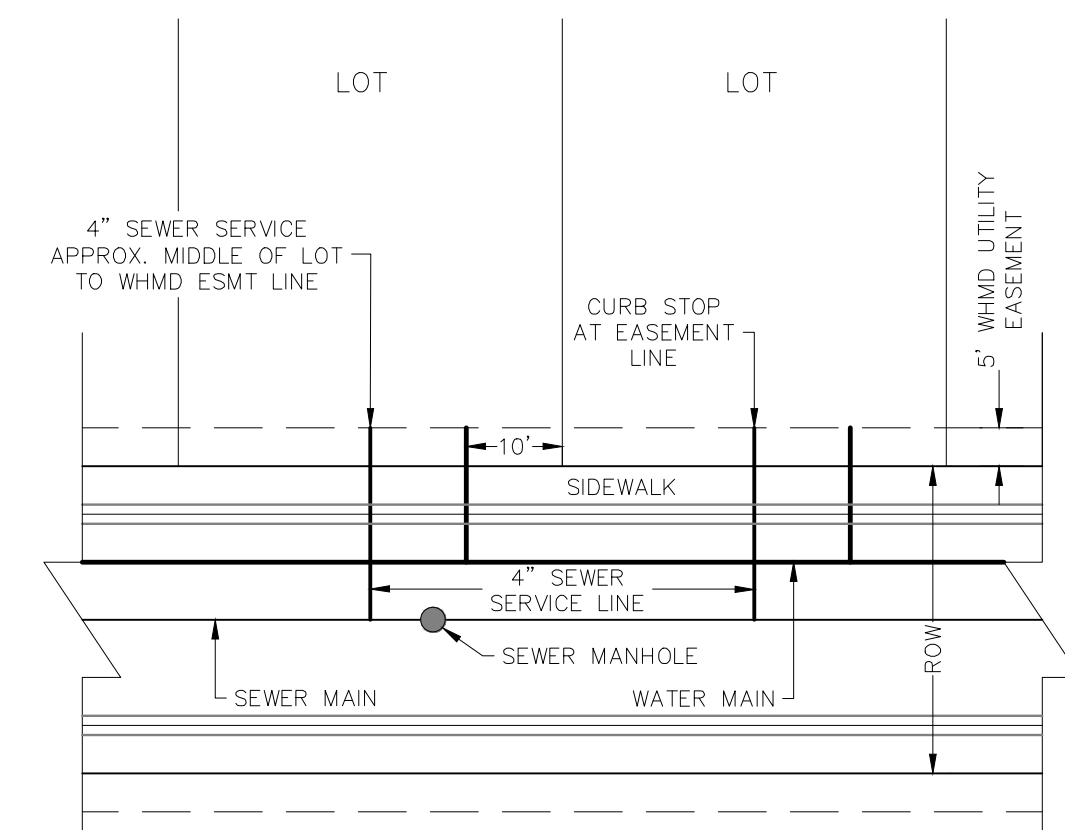
STREET ABBREVIATIONS

CBD CUT BANK DRIVE
CBB BEAVER BROOK DRIVE
CDD GLENDIVE DRIVE
ND NIARADA DRIVE



NOTES:

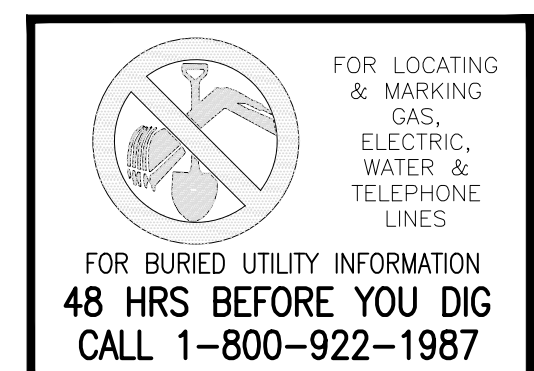
1. WATER SERVICE TO BE 10' FROM "DOWNSTREAM" PROPERTY LINE AND EXTENDED TO WHMD UTILITY EASEMENT LINE.
2. SEWER SERVICE TO BE PLACED APPROXIMATELY IN THE MIDDLE OF THE LOT AND EXTENDED TO WHMD UTILITY EASEMENT LINE.
3. SERVICE SHALL BE MARKED WITH 2"x4" POST AT TERMINATION POINT FOR LOCATION DURING CONNECTION TO RESIDENCE. POSTS SHALL BE SPRAY-PAINTED BLUE FOR WATER AND GREEN FOR SEWER.



UTILITY SERVICE LOCATIONS
NTS

STREET ABBREVIATIONS

CBD	CUT BANK DRIVE
BBD	BEAVER BROOK DRIVE
GDD	GLENDIVE DRIVE
ND	NIARADA DRIVE



HOMESTEAD AT STERLING RANCH FILING NO. 2

WATER PLANS

PROJECT NO. 09-007
SCALE: 1"=50'
DESIGNED BY: JWP
DRAWN BY: JWP
CHECKED BY: GW

DATE: 02/13/2019
SHEET 5 OF 6
UT01-W

20 BOULDER CRESCENT, SUITE 110
COLORADO SPRINGS, CO 80903
PHONE: 719.955.5485

M&S CIVIL CONSULTANTS, INC.

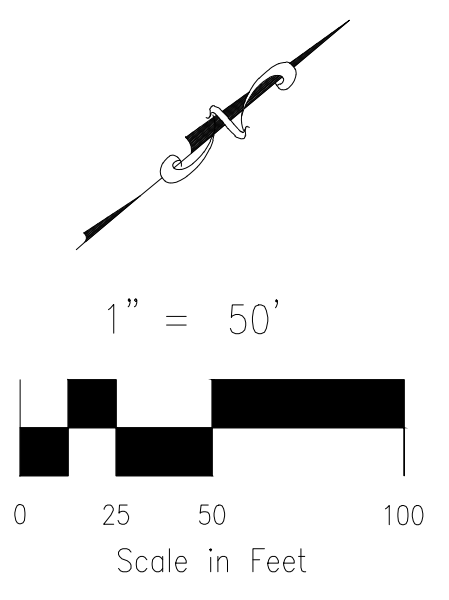
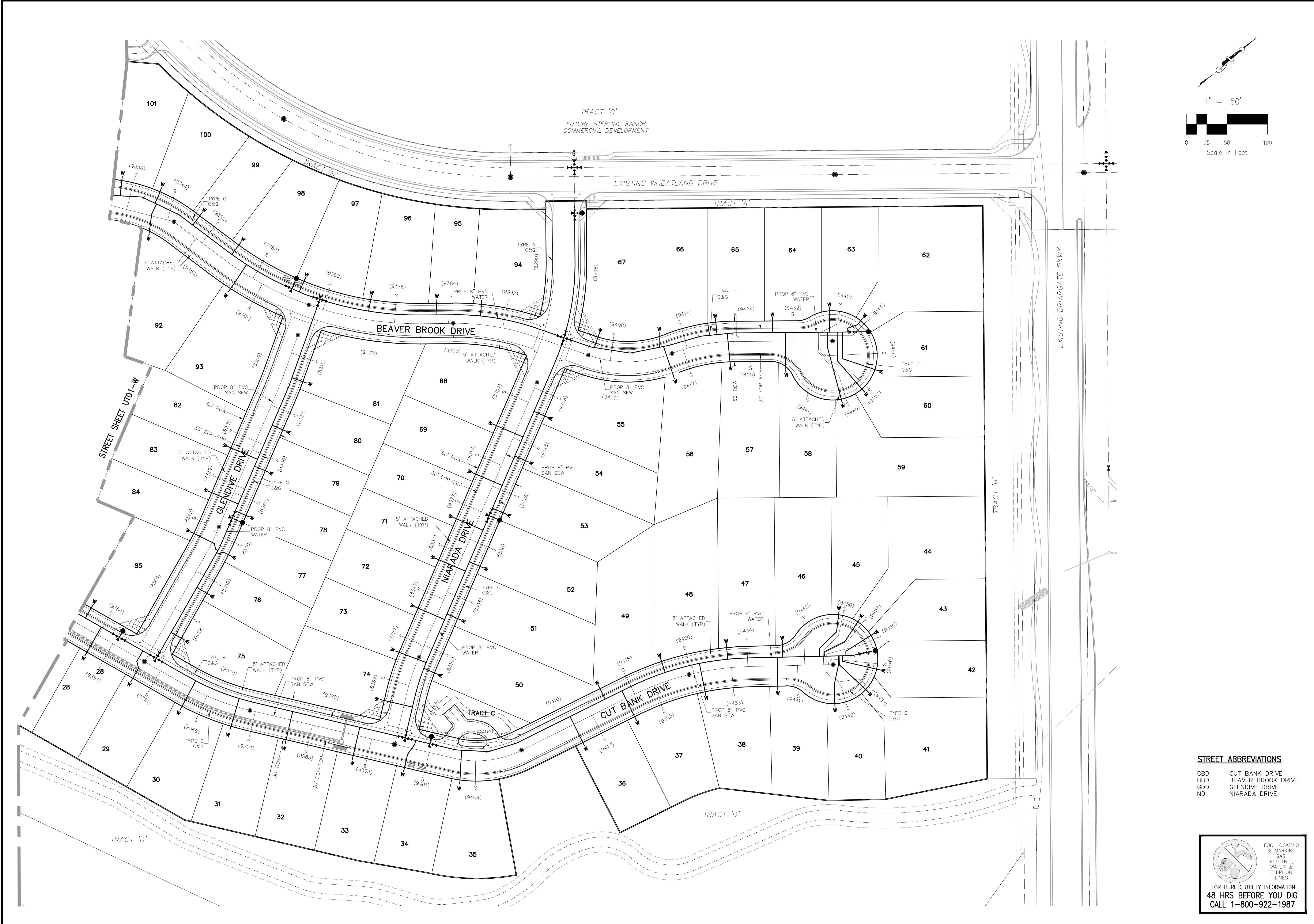
MARGIE A. SANCHEZ, COLORADO P.E. NO. 37160

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

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



STREET ABBREVIATIONS
 CBD CUT BANK DRIVE
 BBD BEAVER BROOK DRIVE
 GDD GLENDIVE DRIVE
 ND NIARADA DRIVE



HOMESTEAD AT STERLING RANCH FILING NO. 2

WATER PLANS

PROJECT NO. 09-007
 DATE: 02/13/2019
 SCALE: HORIZONTAL: 1"=50' VERTICAL: N/A
 DESIGNED BY: JWP
 DRAWN BY: JWP
 CHECKED BY: GW

20 BOULDER CRESCENT, SUITE 110
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.4485

M&S CIVIL CONSULTANTS, INC.

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

REVISIONS:

NO.	DATE:	BY:	DESCRIPTION:	APPROV. BY:	DATE:

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

HOMESTEAD AT STERLING RANCH FIL. NO. 2

COUNTY OF EL PASO, STATE OF COLORADO

STORM SEWER PLANS

JULY 2019

SF-19-004

AGENCIES

OWNER/DEVELOPER: SR LAND, 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, 5TH FLOOR
COLORADO SPRINGS, CO 80903
VIRGIL A. SANCHEZ P.E. (719) 955-5485

COUNTY ENGINEERING: EL PASO COUNTY DEVELOPMENT SERVICES
2890 INTERNATIONAL CIRCLE, SUITE 110
COLORADO SPRINGS, CO 80910
JEFF RICE, P.E. (719) 520-6300

TRAFFIC ENGINEERING: EL PASO COUNTY PUBLIC SERVICES & TRANS. DEPT.
3275 AKERS DRIVE
COLORADO SPRINGS, CO 80922
JENNIFER IRVINE P.E. (719) 520-6460

WATER RESOURCES: STERLING RANCH METRO DISTRICT ENGINEERS
JDS-HYDRO CONSULTANTS
545 E. PIKES PEAK AVE., SUITE 300
COLORADO SPRINGS, CO 80903
JOHN MCGINN (719) 668-8769

FIRE DISTRICT: BLACK FOREST FIRE PROTECTION DISTRICT
11445 TEACHOUT ROAD
COLORADO SPRINGS, CO 80908
CHIEF BRYAN JACK (719) 495-4300

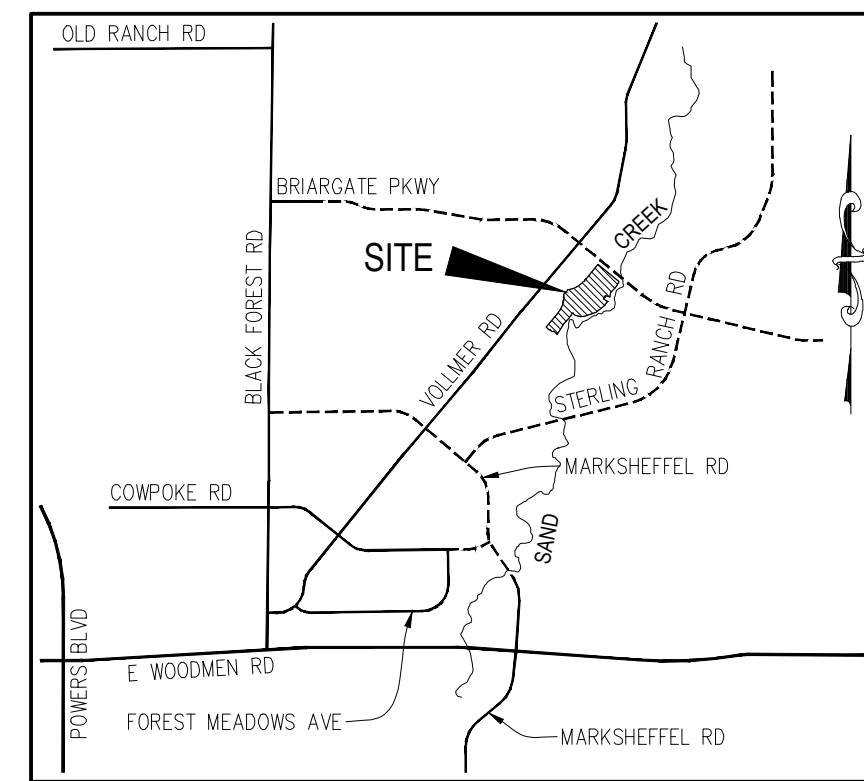
GAS DEPARTMENT: COLORADO SPRINGS UTILITIES
7710 DURANT DR.
COLORADO SPRINGS, CO 80947
TIM WENDT (719) 668-3556

ELECTRIC DEPARTMENT: MOUNTAIN VIEW ELECTRIC
11140 E. WOODMEN ROAD
FALCON, CO 80831
(719) 495-2283

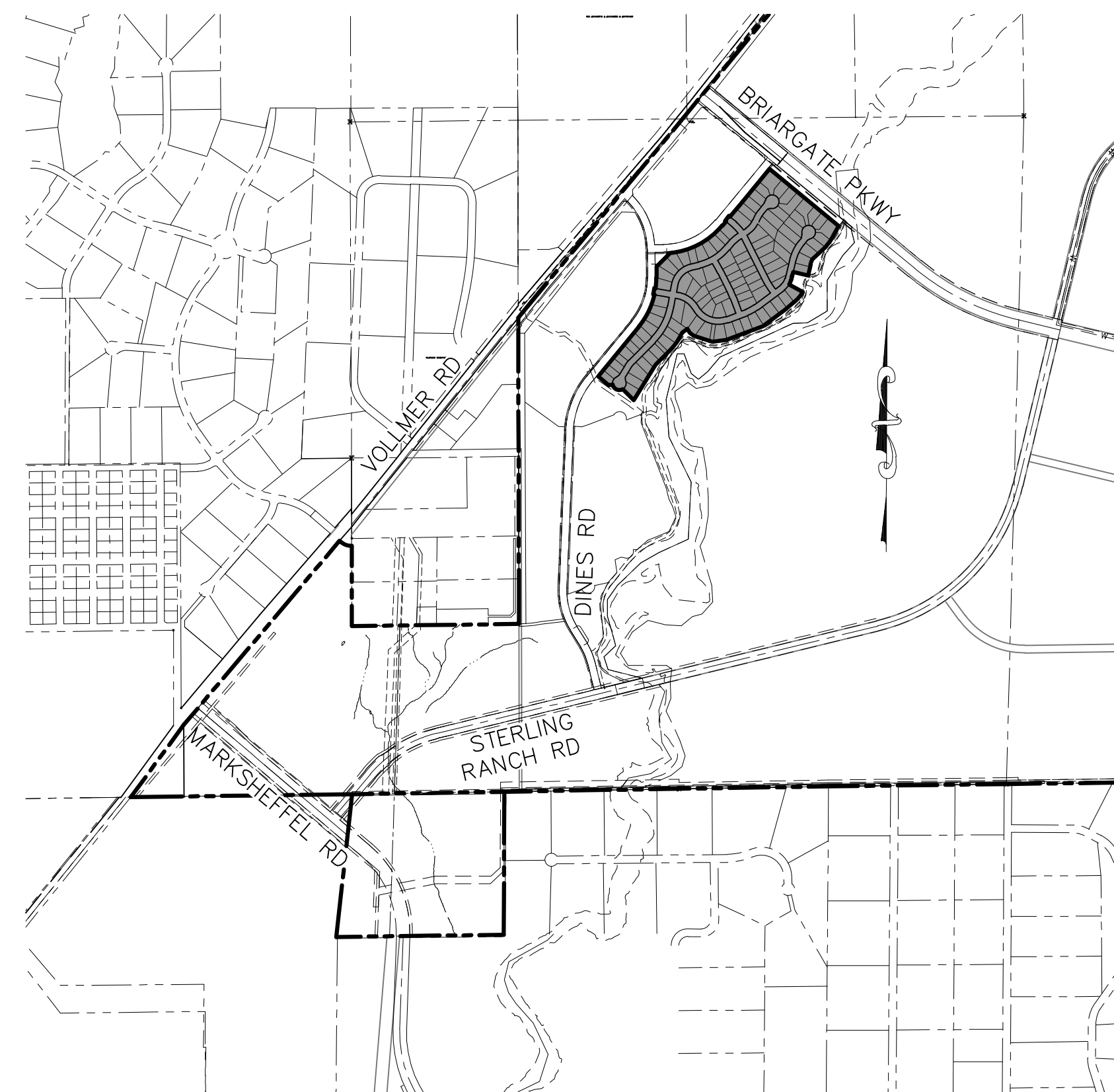
COMMUNICATIONS: QWEST COMMUNICATIONS
(U.N.C.C. LOCATORS) (800) 922-1987
AT&T (LOCATORS) (719) 635-3674

BENCHMARKS

1. 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
2. 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
3. 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



VICINITY MAP
N.T.S.



SITE MAP
N.T.S.

APPROVALS:

ENGINEER'S STATEMENT:

DETAILED DRAINAGE CONSTRUCTION PLANS AND SPECIFICATIONS ENGINEER'S STATEMENT: THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID DETAILED PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED DRAINAGE PLANS AND SPECIFICATIONS, AND SAID DETAILED PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH THE MASTER PLAN OF THE DRAINAGE BASIN. SAID DETAILED DRAINAGE PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR DRAINAGE FACILITY(S) IS DESIGNED. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS, OR OMISSIONS ON MY PART IN PREPARATION OF THE DETAILED IMPROVEMENT PLANS AND SPECIFICATIONS.

VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC. DATE _____

OWNER/DEVELOPER STATEMENT:

THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE DRAINAGE REPORT AND PLAN AND THIS SET OF CONSTRUCTION DOCUMENTS. THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

SR LAND, LLC
JAMES F. MORLEY DATE _____

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 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, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

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

STERLING RANCH METROPOLITAN DISTRICT:

THESE DOCUMENTS HAVE BEEN REVIEWED AND APPROVED FOR STORM DRAIN AND ASSOCIATED UTILITY SERVICE CONSTRUCTION.

FOR AND ON BEHALF OF THE STERLING RANCH METRO. DISTRICT DATE _____

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.

SHEET INDEX

SHEET 1	TITLE SHEET
SHEET 2	STORM SEWER NOTES & DETAILS
SHEET 3	STORM SEWER NOTES & DETAILS
SHEET 4	PLAN & PROFILE - STORM 1, STORM 2
SHEET 5	PLAN & PROFILE - STORM 3, STORM 4
SHEET 6	PLAN & PROFILE - STORM 5, STORM 6, STORM 7
SHEET 7	FULL SPECTRUM DETENTION (FSD) POND 1
SHEET 8	FULL SPECTRUM DETENTION (FSD) POND 1 - DETAILS
SHEET 9	SPILLWAY & RUNDOWN DETAILS, 42" FOREBAY DETAILS
SHEET 10	24" OUTFALL DETAILS AND BERM KEY
SHEET 11	SAND FILTER PONDS LOTS 13-24
SHEET 12	SAND FILTER PONDS LOTS 28-41
SHEET 13	OUTFALL STRUCTURE AND DETAILS
SHEET 14	SAND FILTER DETAILS



HOMESTEAD AT STERLING RANCH FIL. NO. 2	
STORM SEWER PLANS	
PROJECT NO. 09-007	FILE: \\ang\Const\Eng\Street & Storm Plans\ST01.dwg
DESIGNED BY: CMN	DATE: 7/26/2019
DRAWN BY: CMN	SCALE: N/A
CHECKED BY: VAS	VERT: N/A
SHEET 1 OF 14	
ST01	

M&S CIVIL CONSULTANTS, INC.

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

FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.
VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160
APPROVED BY: _____ DATE: _____
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

STANDARD CONSTRUCTION NOTES:

- ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD LOCATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
- CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIME INCLUDING THE FOLLOWING:
 - EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
 - CITY OF COLORADO SPRINGS/EL PASO COUNTY ENGINEERING CRITERIA MANUAL VOLUMES 1 AND 2.
 - COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARDS SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION.
 - CDOT M&S STANDARDS.
- IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ACCURACY SHOW EXISTING CONDITION BOTH ONSITE AND OFFSITE ON THE CONSTRUCTION PLANS. ANY MODIFICATION NECESSARY DUE TO CONFLICT OMISSIONS OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPERS RESPONSIBILITY TO RECTIFY.
- IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORM WATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, US ARMY CORPS OF ENGINEER ISSUED 401 AND/OR 404 PERMITS AND COUNTY AND STATE FUGITIVE DUST PERMITS.
- ANY TEMPORARY SIGNAGE AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS AND MUTCD CRITERIA.
- CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
- THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFFSITE DISTURBANCE GRADING, OR CONSTRUCTION.

STORM SEWER GENERAL NOTES:

- ALL STATIONING IS ALONG STORM SEWER CENTERLINE UNLESS OTHERWISE INDICATED. ALL ELEVATIONS ARE INVERT UNLESS OTHERWISE INDICATED.
- ALL STORM SEWER BENDS AND WYES SHOWN ON THE PLAN SHALL BE PREFABRICATED.
- HORIZONTAL AND VERTICAL BENDS ARE INDICATED ON THE PLANS.
- JOINTS SHALL BE IN ACCORDANCE WITH ASTM C443 "STANDARD SPECIFICATIONS FOR JOINTS FOR CIRCULAR CONCRETE SEWER AND CULVERT PIPE USING RUBBER GASKET." IN NO CASE SHALL THE MAXIMUM JOINT OPENING FOR STRAIGHT ALIGNMENT EXCEED 1 INCH OR ONE AND ONE-HALF INCH ON CURVED ALIGNMENT.
- INLET DIMENSIONS SHOWN ON PLANS REFER TO DISTANCES FROM INSIDE FACES OF BOX BETWEEN THE WIDTHS AND LENGTHS.
- MANHOLE WIDTHS AND LENGTHS SHOWN ON PLAN REFER TO THE EXTERIOR WALL DIMENSIONS.
- ALL STORM SEWER SHALL BE A MINIMUM OF CLASS III REINFORCED CONCRETE PIPE. SPECIFIC SEGMENTS OF STORM SEWER SHALL BE REQUIRED TO BE CONSTRUCTED OF A MINIMUM OF 5000 PSI CONCRETE DUE TO EXCESSIVE VELOCITIES. REFER TO ADDITIONAL NOTES WITHIN CONSTRUCTION PLANS.
- SINCE ALL PIPE ENTRIES INTO THE BASE ARE VARIABLE, THE DIMENSIONS SHOWN ARE TYPICAL. ACTUAL DIMENSIONS AND QUANTITIES FOR CONCRETE AND REINFORCEMENT SHALL BE AS REQUIRED IN THE WORK.
- THE MH RING (FRAME) SHALL BE SET IN A BED OF GROUT. THE FRAME SHALL BE SURROUNDED WITH A GROUT IN UNPAVED AREA, OR A CONCRETE COLLAR IN PAVED AREA.
- PRECAST MANHOLES AND REINFORCEMENT SHALL CONFORM TO ASTM C 478 (AASHTO M 199).
- CAST IN PLACE MANHOLES SHALL BE CLASS B CONCRETE.
- STEPS SHALL BE REQUIRED WHEN THE MANHOLE DEPTH EXCEEDS 3'-6" AND SHALL BE IN ACCORDANCE WITH AASHTO M 199.
- ALL REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI. VERTICAL STEEL SHALL BE PLACED AT 1/4 OF WALL. ALL BARS SHALL HAVE A 2" MINIMUM CLEARANCE.
- FLOW CHANNELS AND INVERTS SHALL BE FORMED BY SHAPING WITH CLASS B CONCRETE OR APPROVED GROUT.
- STUB-OUTS SHALL EXTEND 4 FT MINIMUM BEYOND OUTSIDE WALL SURFACE OF MANHOLE AND BE SATISFACTORILY PLUGGED.
- CHECK WITH THE LOCAL GOVERNMENT AUTHORITY FOR ANY ADDITIONAL STORM SEWER SPECIFICATIONS, DETAILS, OR REGULATIONS.
- THE SLOPE OF THE MANHOLE COVER SHALL MATCH THE ROADWAY PROFILE AND CROSS SLOPE.
- THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF ALL PREFABRICATED STRUCTURES TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION.

SOIL RIPRAP NOTES:

- THE SOIL MATERIAL SHALL BE NATIVE OR TOPSOIL AND MIXED WITH SIXTY FIVE PERCENT (65%) RIPRAP AND THIRTY FIVE PERCENT (35%) SOIL BY VOLUME.
- SOIL RIPRAP SHALL CONSIST OF A UNIFORM MIXTURE OF SOIL AND RIPRAP WITHOUT VOIDS.
- CONTRACTOR SHALL COOPERATE WITH ENGINEER IN OBTAINING AND PROVIDED SAMPLES OF ALL SPECIFIED MATERIALS.
- CONTRACTOR SHALL SUBMIT CERTIFIED LABORATORY TEST CERTIFICATES FOR ALL ITEMS REQUIRED FOR SOIL RIPRAP.
- RIPRAP USED SHALL BE THE TYPE DESIGNATED ON THE DRAWINGS AND SHALL CONFORM TO TABLE SHOWN TO THE RIGHT.
- THE RIPRAP DESIGNATION AND TOTAL THICKNESS OF RIPRAP SHALL BE AS SHOWN ON THE DRAWINGS. THE MAXIMUM STONE SIZE SHALL NOT LARGER THAN THE THICKNESS OF THE RIPRAP.
- NEITHER WIDTH NOR THICKNESS OF A SINGLE STONE OF RIPRAP SHALL BE LESS THAN ONE-THIRD (1/3) OF ITS LENGTH.
- THE SPECIFIC GRAVITY OF THE RIPRAP SHALL BE TWO AND ONE-HALF (2.5) OR GREATER.
- MINIMUM DENSITY FOR ACCEPTABLE RIPRAP SHALL BE ONE HUNDRED AND SIXTY FIVE (165) POUNDS PER CUBIC FOOT.
- RIPRAP SPECIFIC GRAVITY SHALL BE ACCORDING TO THE BULK-SATURATED, SURFACE-DRY BASIS, IN ACCORDANCE WITH AASHTO T85.
- BROKEN CONCRETE OR ASPHALT PAVEMENT SHALL NOT BE ACCEPTABLE FOR USE IN THE WORK.
- ROUNDED RIPRAP (RIVER ROCK) IS NOT ACCEPTABLE, UNLESS SPECIFICALLY DESIGNATED ON THE DRAWINGS.

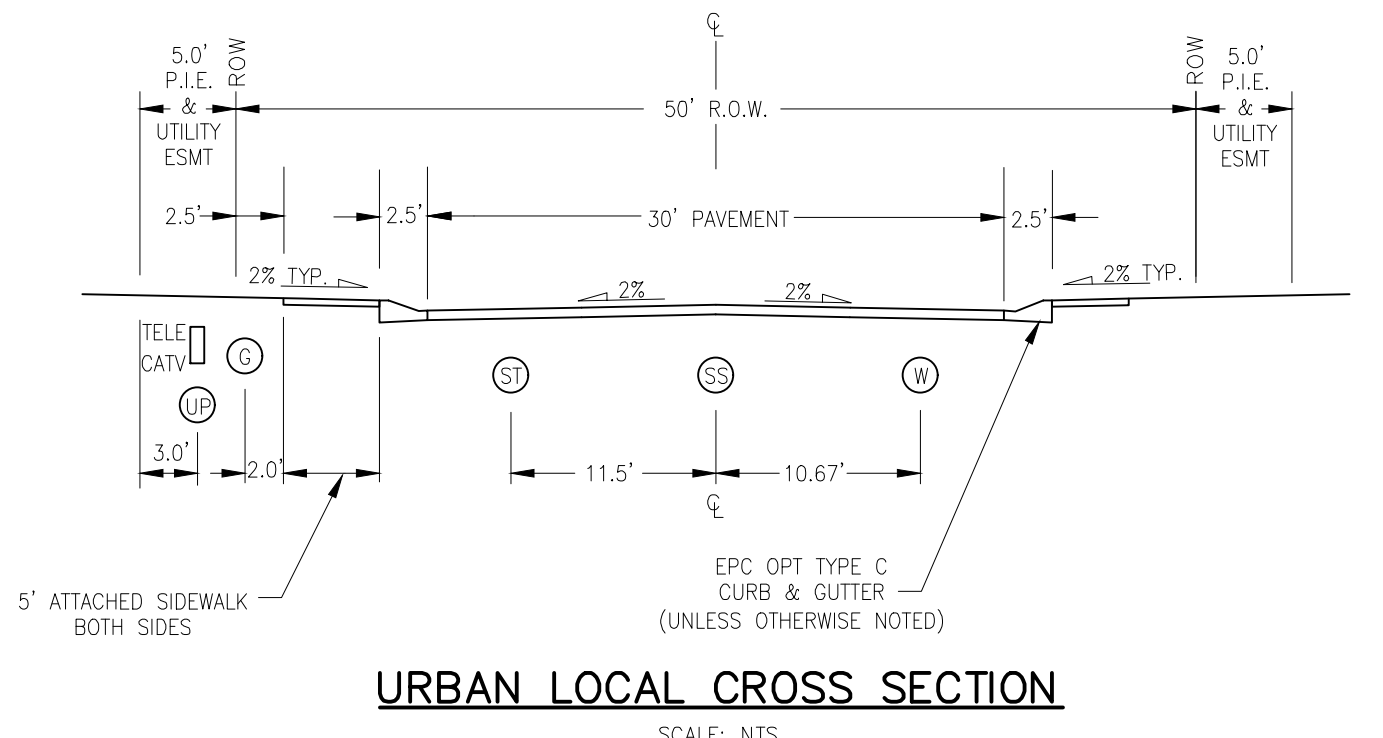
STRUCTURAL CONCRETE NOTES:

- ALL CONSTRUCTION INVOLVING THE PLACEMENT OF STRUCTURAL CONCRETE SHALL BE COMPLETED IN ACCORDANCE WITH STANDARD SPECIFICATIONS, AND AS SUPPLEMENTED BY THE COLORADO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION.
- STEEL REINFORCING SHALL BE GRADE 60 FOR ALL REINFORCING STEEL GREATER THAN #4. SPLICING, LAP SPLICING SHALL BE MINIMUM IN THE FOLLOWING TABLE UNLESS OTHERWISE SPECIFIED:

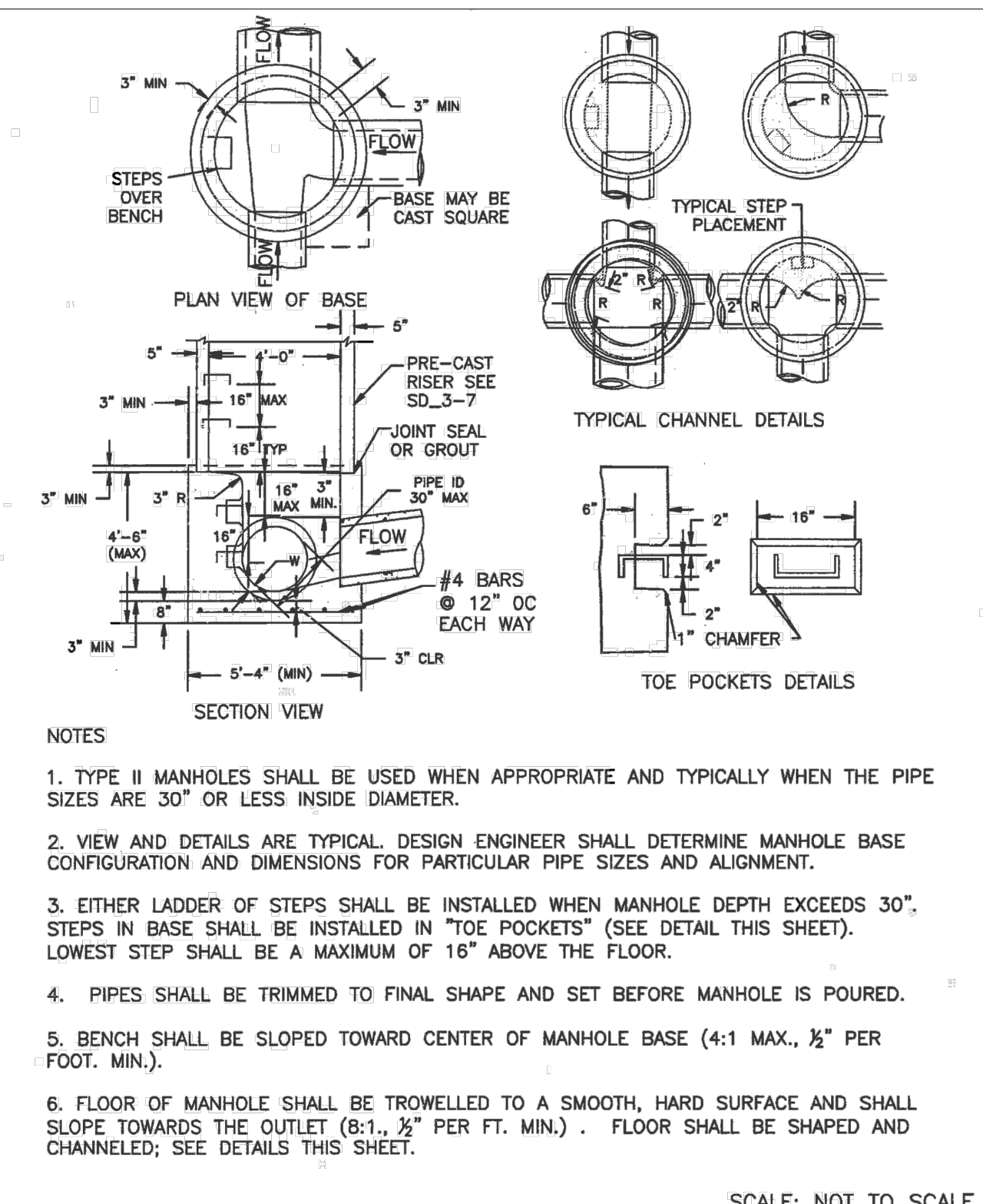
BAR SIZE	#4	#5	#6	#7	#8
SPLICE LENGTH	1'-9"	2'-2"	2'-7"	3'-4"	4'-3"

 ALL REINFORCING SHALL HAVE A 2-INCH MINIMUM COVER UNLESS OTHERWISE SPECIFIED. ALL REINFORCED STEEL TO BE EPOXY COATED.
- CAST-IN-PLACE CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f_c) OF 4,000 PSI AT 28 DAYS. ALL CONCRETE PLACED AGAINST SOIL SHALL BE TYPE II PORTLAND CEMENT. ALL EXPOSED CORNERS SHALL BE FORMED WITH A 3/4" CHAMFER UNLESS OTHERWISE SPECIFIED.
- EXPANSION JOINT MATERIAL SHALL MEET AASHTO SPECIFICATION M-213.
- BACKFILL AGAINST STRUCTURES SHALL NOT COMMENCE UNTIL ALL SUPPORTING DIAPHRAGMS ARE IN PLACE AND CONCRETE HAS OBTAINED ITS FULL SEVEN DAY STRENGTH. BACKFILL SHALL BE PLACED EQUALLY ON EACH SIDE OF RETAINING WALL STRUCTURES AND CUTOFF WALLS UNTIL THE FINAL GRADE IS REACHED.
- FOOTING EXCAVATIONS SHALL BE EXAMINED BY THE GEOTECHNICAL ENGINEER WITH A 24-HOUR MINIMUM NOTIFICATION FOR SOIL AND/OR CONCRETE TESTING. PLACEMENT OF CONCRETE IN THE ABSENCE OF TESTING SHALL BE COMPLETED AT THE SOLE RISK OF THE CONTRACTOR.
- PRIOR TO THE PLACEMENT OF CONCRETE IN AREAS WHERE SOIL IS PRESENT, THE SOIL SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 6-INCHES. THE MOISTURE CONTENT SHALL BE ADJUSTED TO WITHIN PLUS OR MINUS 2 PERCENT OF THE OPTIMUM MOISTURE CONTENT AND RECOMPACTED TO AT LEAST 95 PERCENT RELATIVE COMPACTION (AASHTO-T-180).

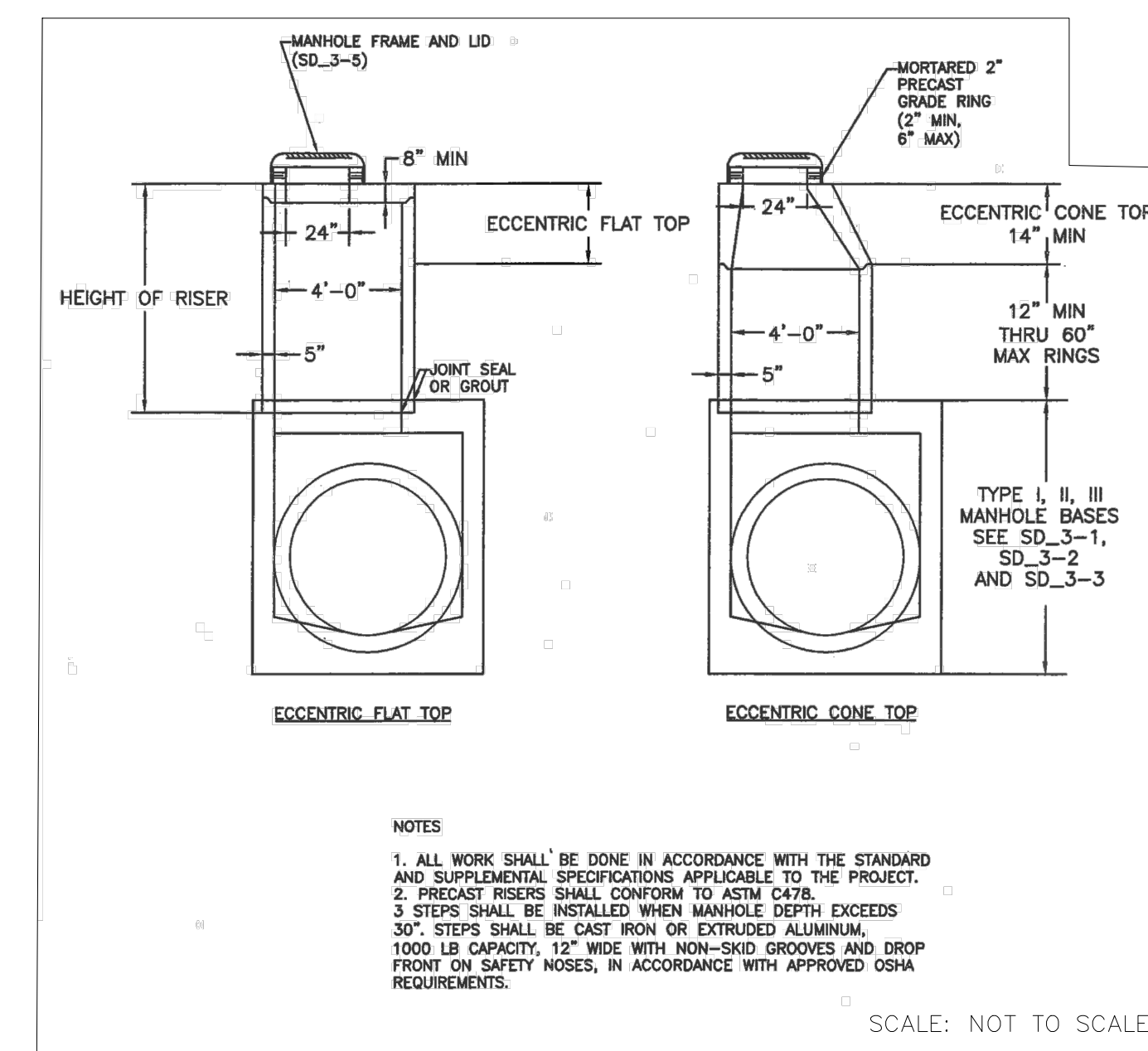
ABBREVIATIONS
 EC -- EPOXY COATED O.F. -- OUTSIDE FACE E.F. -- EACH FACE E.W. -- EACH WAY I.F. -- INSIDE FACE N.F. -- NEAR FACE
 T.O.C. -- TOP OF CONCRETE B.O.C. -- BOTTOM OF CONCRETE CONT. -- CONTINUOUS



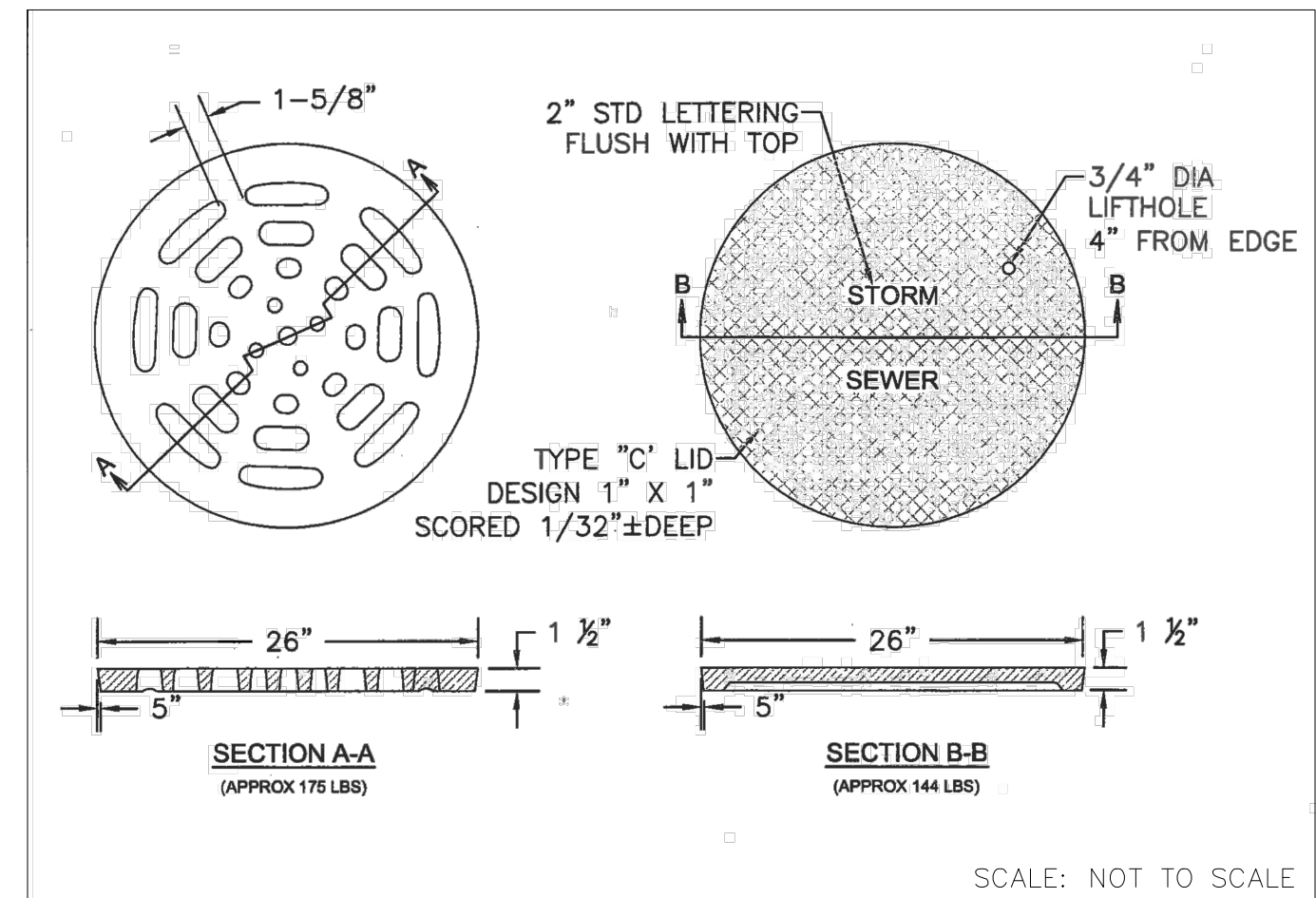
URBAN LOCAL CROSS SECTION
SCALE: NTS



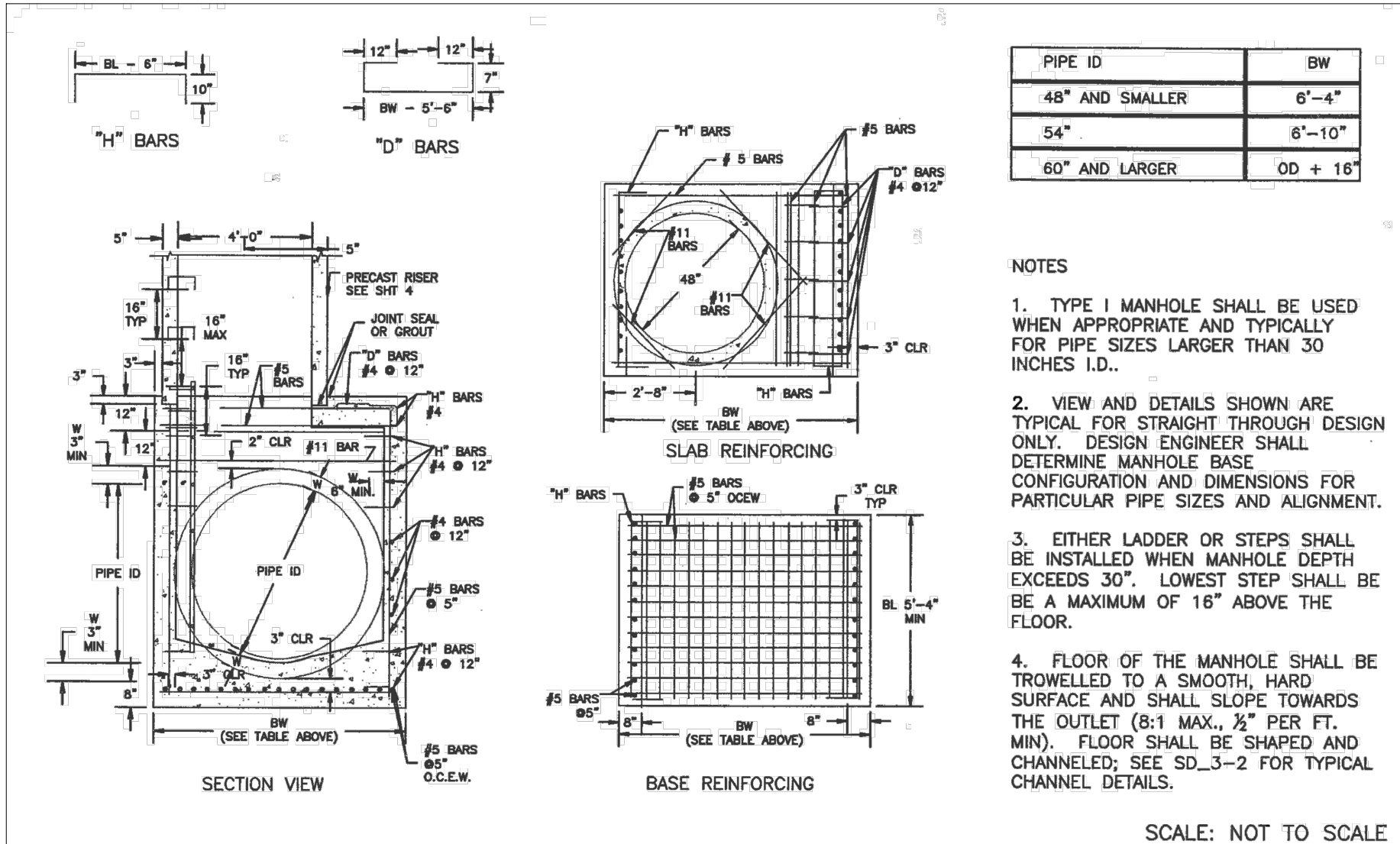
STORM SEWER MANHOLE DETAIL TYPE II SD 3-2



STORM SEWER MANHOLE RISER AND COVER DETAIL TYPE SD 3-7



STORM SEWER MANHOLE LID DETAILS SD 3-2



STORM SEWER MANHOLE DETAIL TYPE I SD 3-1



HOMESTEAD AT STERLING RANCH FIL. NO. 2

STORM SEWER NOTES & DETAILS

PROJECT NO. 09-007 DATE: 7/26/2019

DESIGNED BY: CMN SCALE: N/A

DRAWN BY: CMN HORIZONTAL: N/A

CHECKED BY: VAS VERTICAL: N/A

SHEET 2 OF 14 ST02

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

M&S CIVIL CONSULTANTS, INC.

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

MARCIL 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

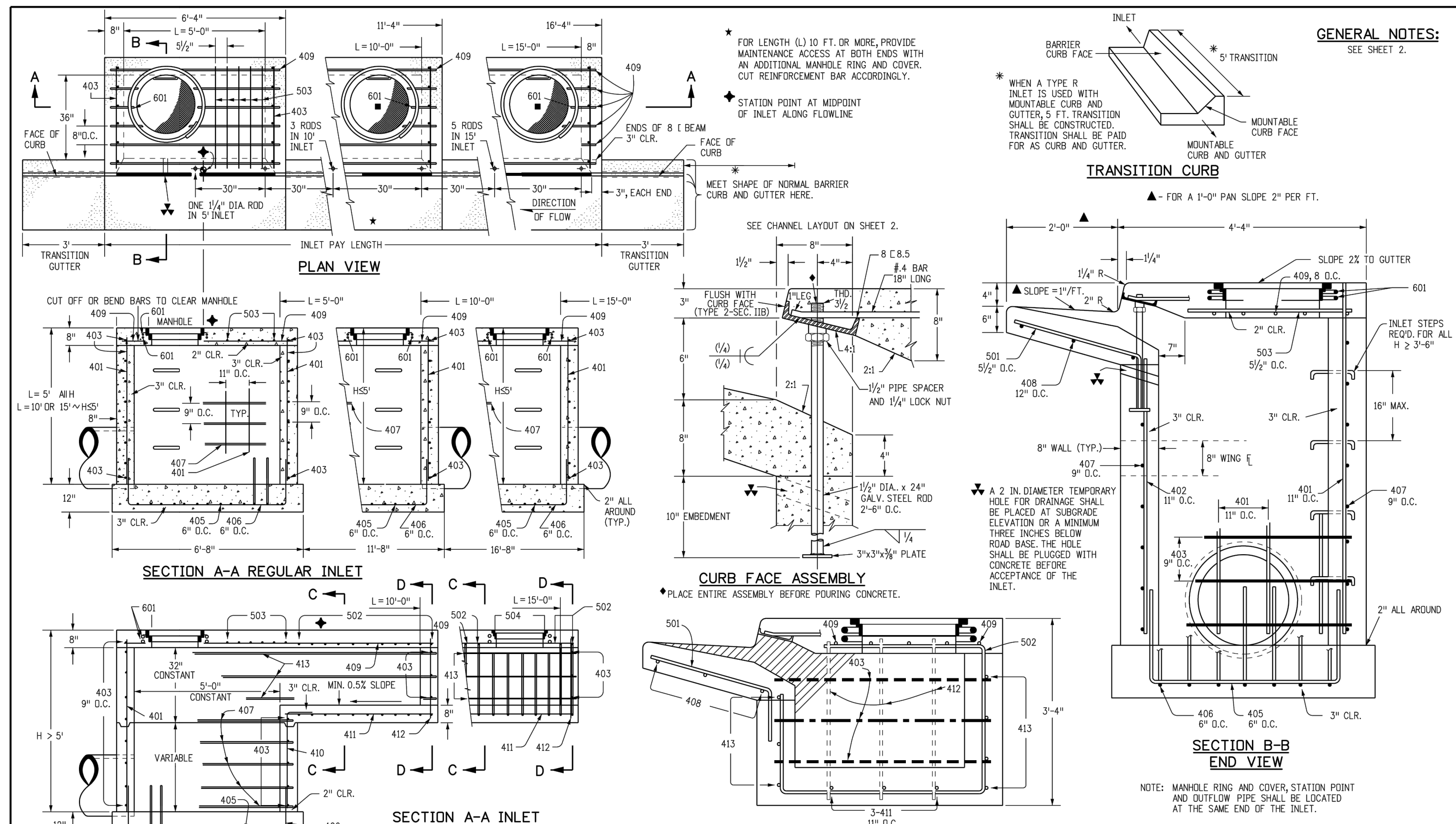


TABLE ONE ~ BAR LIST FOR CURB INLETS, TYPE "R"

MARK	BAR #	SIZE	O.C. SPACING	TYPE	ALL INLETS			INLETS: H ≤ 5 FT.			INLETS: H > 5 FT.		
					L = 5 FT.	L = 10 FT.	L = 15 FT.	L = 5 FT.	L = 10 FT.	L = 15 FT.	L = 5 FT.	L = 10 FT.	L = 15 FT.
401	4	11"	II	11	15	21	15	21	26	11	15	21	
402	4	11"	II	7	7	7	7	7	7	7	7	7	
403	4	9"	II	7	7	7	7	7	7	7	7	7	
405	4	9"	VI	11	8-10"	21	8-10"	7	8-10"	11	8-10"	11	
406	4	6"	VIII	7	8-10"	7	13-10"	7	18-10"	7	8-10"	7	
407	4	9"	II	7	8-10"	7	10-10"	7	15-10"	7	8-10"	7	
408	4	12"	II	3	8-10"	3	11-10"	3	16-10"	3	11-10"	3	
409	4	8"	II	6	5-10"	6	10-10"	6	15-10"	6	10-10"	6	
410	4	11"	VII	11	11	11	11	11	11	11	11	11	
411	4	11"	II	3	5-2"	3	5-2"	3	5-2"	3	5-2"	3	
412	4	11"	II	3	2-9"	3	2-9"	3	2-9"	3	2-9"	3	
413	4	9"	II	7	10-10"	7	10-10"	7	10-10"	7	10-10"	7	

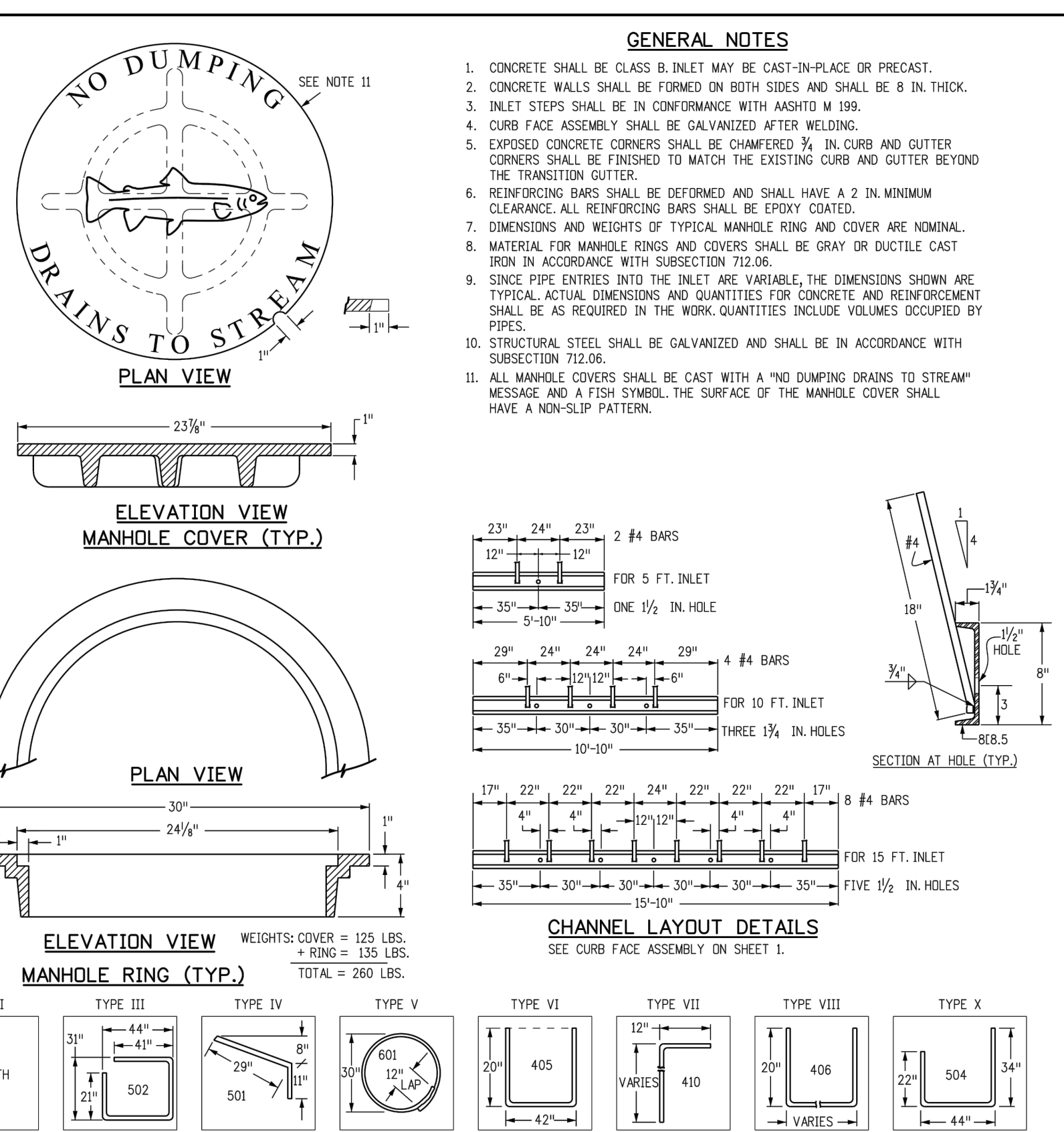


TABLE TWO ~ BARS AND QUANTITIES VARIABLE WITH "H"

"H"	LENGTH	NO. REQ'D.	REGULAR	DROP BOX	L = 5 FT.		L = 10 FT.		L = 15 FT.	
					CONC. CU. YDS.	STEEL LBS.	CONC. CU. YDS.	STEEL LBS.	CONC. CU. YDS.	STEEL LBS.
3'-0"	2'-8"	1-8"	10	7	3.2	285	5.3	497	7.4	706
3'-6"	3'-2"	2'-2"	10	7	3.4	305	5.7	528	7.9	747
4'-0"	3'-6"	2'-6"	12	9	3.7	326	6.0	559	8.4	786
4'-6"	4'-2"	3'-2"	12	9	3.9	334	6.4	571	8.8	803
5'-0"	4'-8"	3'-8"	14	11	4.1	354	6.7	602	9.3	844
5'-6"	5'-2"	4'-2"	16	13	4.4	375	6.9	607	7.4	850
6'-0"	5'-8"	3'-11"	16	13	4.6	382	6.2	616	7.6	860
6'-6"	6'-2"	4'-5"	18	15	4.8	402	6.4	637	7.8	880
7'-0"	6'-8"	5'-8"	20	17	5.0	423	6.6	654	8.0	897
7'-6"	7'-2"	6'-2"	20	17	5.3	430	6.9	664	8.3	907
8'-0"	7'-8"	6'-8"	22	19	5.5	451	7.1	684	8.5	927
8'-6"	8'-2"	7'-2"	24	21	5.7	471	7.3	702	8.7	944
9'-0"	8'-8"	7'-8"	24	21	6.0	479	7.6	711	9.0	954
9'-6"	9'-2"	8'-2"	26	23	6.2	499	7.8	732	9.2	974
10'-0"	9'-8"	8'-8"	28	25	6.4	520	8.0	749	9.4	992
10'-6"	10'-2"	9'-2"	28	25	6.7	527	8.3	759	9.7	1001
11'-0"	10'-8"	9'-8"	30	27	30	27	6.9	547	8.5	779

Computer File Information
 Creation Date: 07/04/12 Initials: DD
 Last Modification Date: 07/04/12 Initials: LTA
 Full Path: www.coloradodot.info/business/designsupport
 Drawing File Name: 6040120102.dgn
 CAD Ver: MicroStation V8 Scale: Not to Scale Units: English

Sheet Revisions
 Date: Comments

Colorado Department of Transportation
 4201 East Arkansas Avenue
 Denver, Colorado 80222
 Phone: (303) 757-9083
 Fax: (303) 757-9820

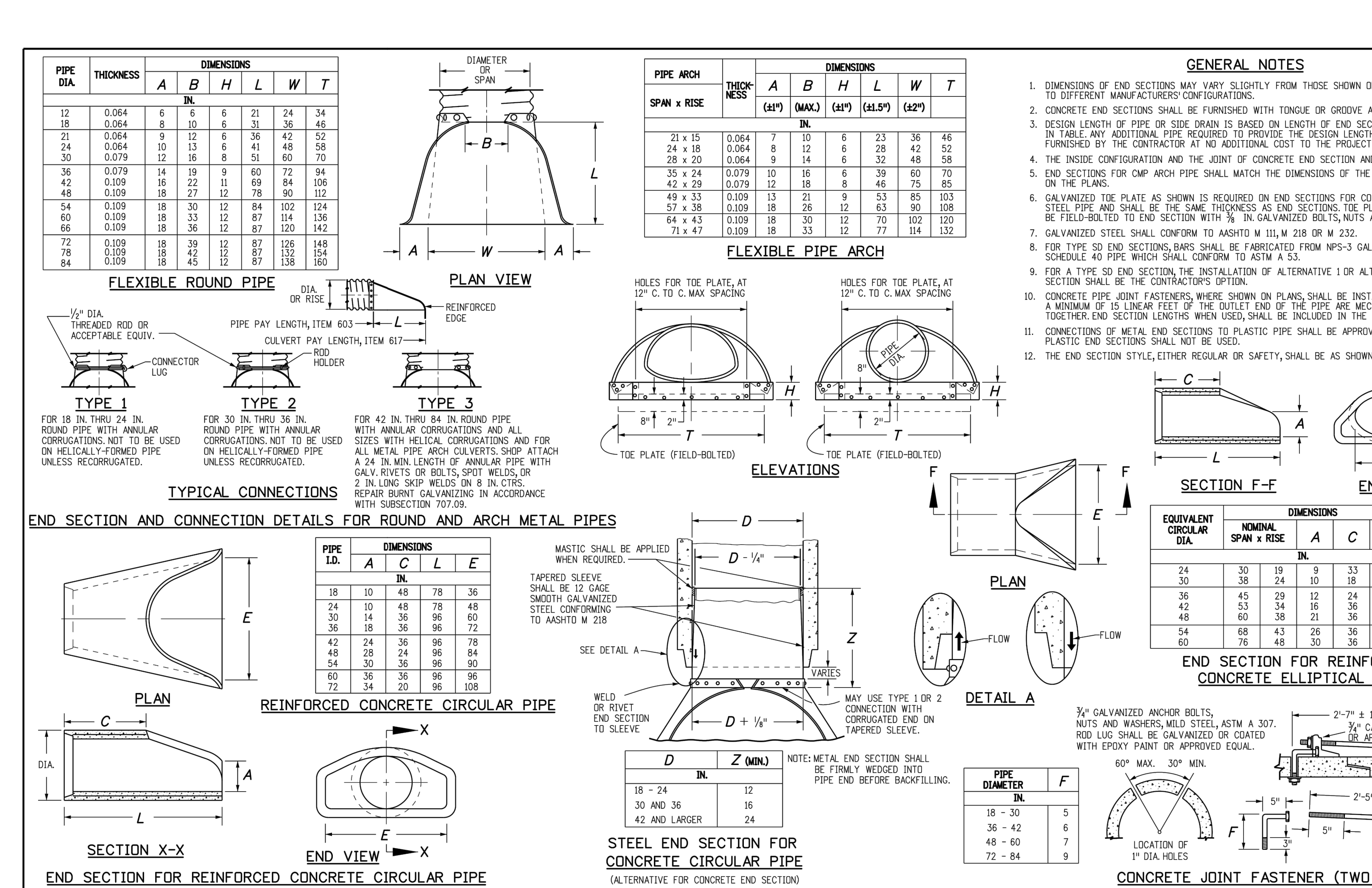
STANDARD PLAN NO. M-604-12
CURB INLET TYPE R
 Sheet No. 1 of 2

Computer File Information
 Creation Date: 07/04/12 Initials: DD
 Last Modification Date: 07/04/12 Initials: LTA
 Full Path: www.coloradodot.info/business/designsupport
 Drawing File Name: 6040120202.dgn
 CAD Ver: MicroStation V8 Scale: Not to Scale Units: English

Sheet Revisions
 Date: Comments

Colorado Department of Transportation
 4201 East Arkansas Avenue
 Denver, Colorado 80222
 Phone: (303) 757-9083
 Fax: (303) 757-9820

STANDARD PLAN NO. M-604-12
CURB INLET TYPE R
 Sheet No. 2 of 2



Computer File Information
 Creation Date: 07/04/12 Initials: DD
 Last Modification Date: 07/04/12 Initials: LTA
 Full Path: www.coloradodot.info/business/designsupport
 Drawing File Name: 6010101012.dgn
 CAD Ver: MicroStation V8 Scale: Not to Scale Units: English

Sheet Revisions
 Date: Comments

Colorado Department of Transportation
 4201 East Arkansas Avenue
 Denver, Colorado 80222
 Phone: (303) 757-9083
 Fax: (303) 757-9820

STANDARD PLAN NO. M-603-10
CONCRETE AND METAL END SECTIONS
 Sheet No. 1 of 2

Computer File Information
 Creation Date: 07/04/12 Initials: DD
 Last Modification Date: 07/04/12 Initials: LTA
 Full Path: www.coloradodot.info/business/designsupport
 Drawing File Name: 6010101012.dgn
 CAD Ver: MicroStation V8 Scale: Not to Scale Units: English

Sheet Revisions
 Date: Comments

Colorado Department of Transportation
 4201 East Arkansas Avenue
 Denver, Colorado 80222
 Phone: (303) 757-9083
 Fax: (303) 757-9820

STANDARD PLAN NO. M-603-10
CONCRETE AND METAL END SECTIONS
 Sheet No. 1 of 2

HOMESTEAD AT STERLING RANCH FIL. NO. 2
STORM SEWER NOTES & DETAILS
 PROJECT NO. 09-007 DATE: 7/26/2019
 SCALE: 1/4" = 1'-0"
 DESIGNED BY: CMN
 DRAWN BY: GAV
 CHECKED BY: N/A
 SHEET 3 OF 14
 ST03

102 E. PINE PEAK AVE., 3RD FLOOR
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

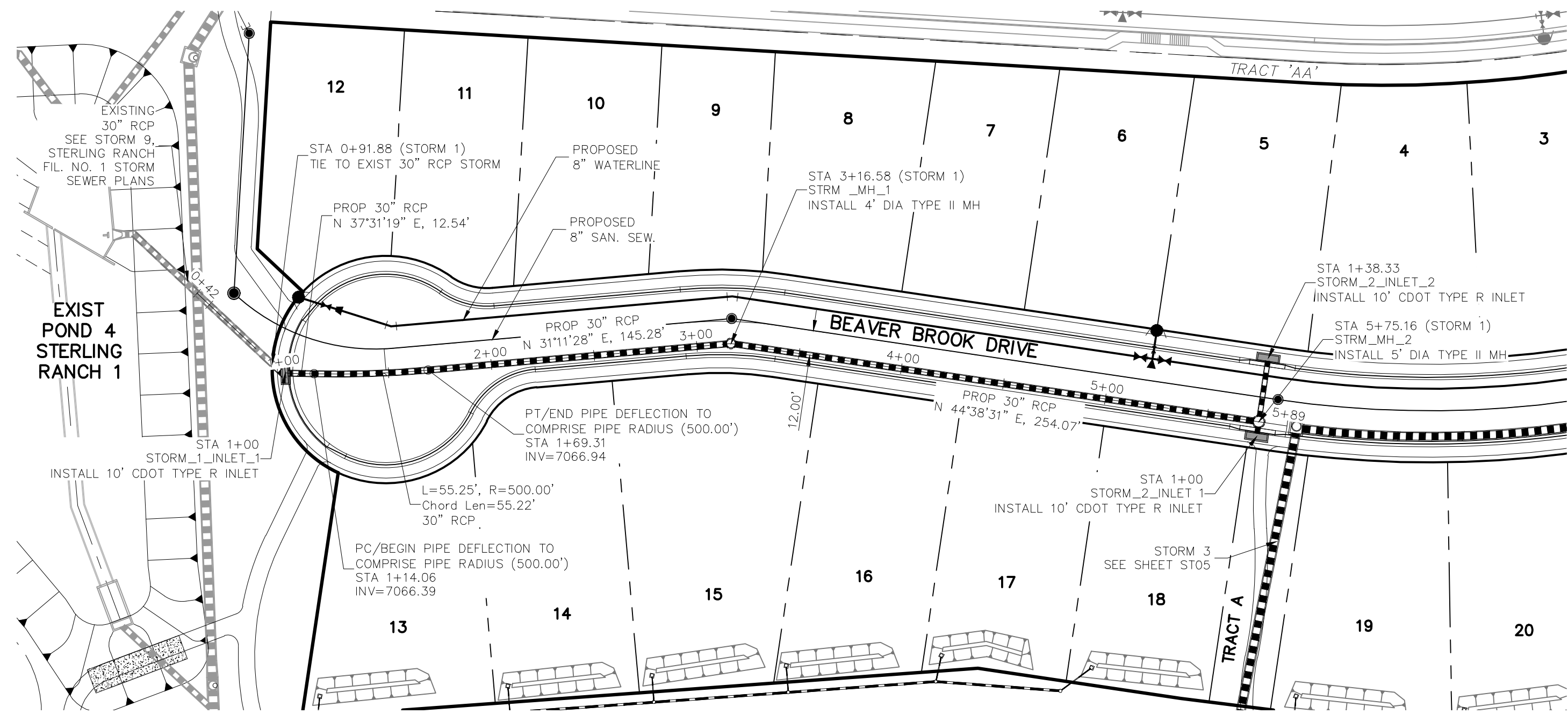
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

REVISIONS:
 NO. DATE: BY: DESCRIPTION: APPROVED BY: DATE:

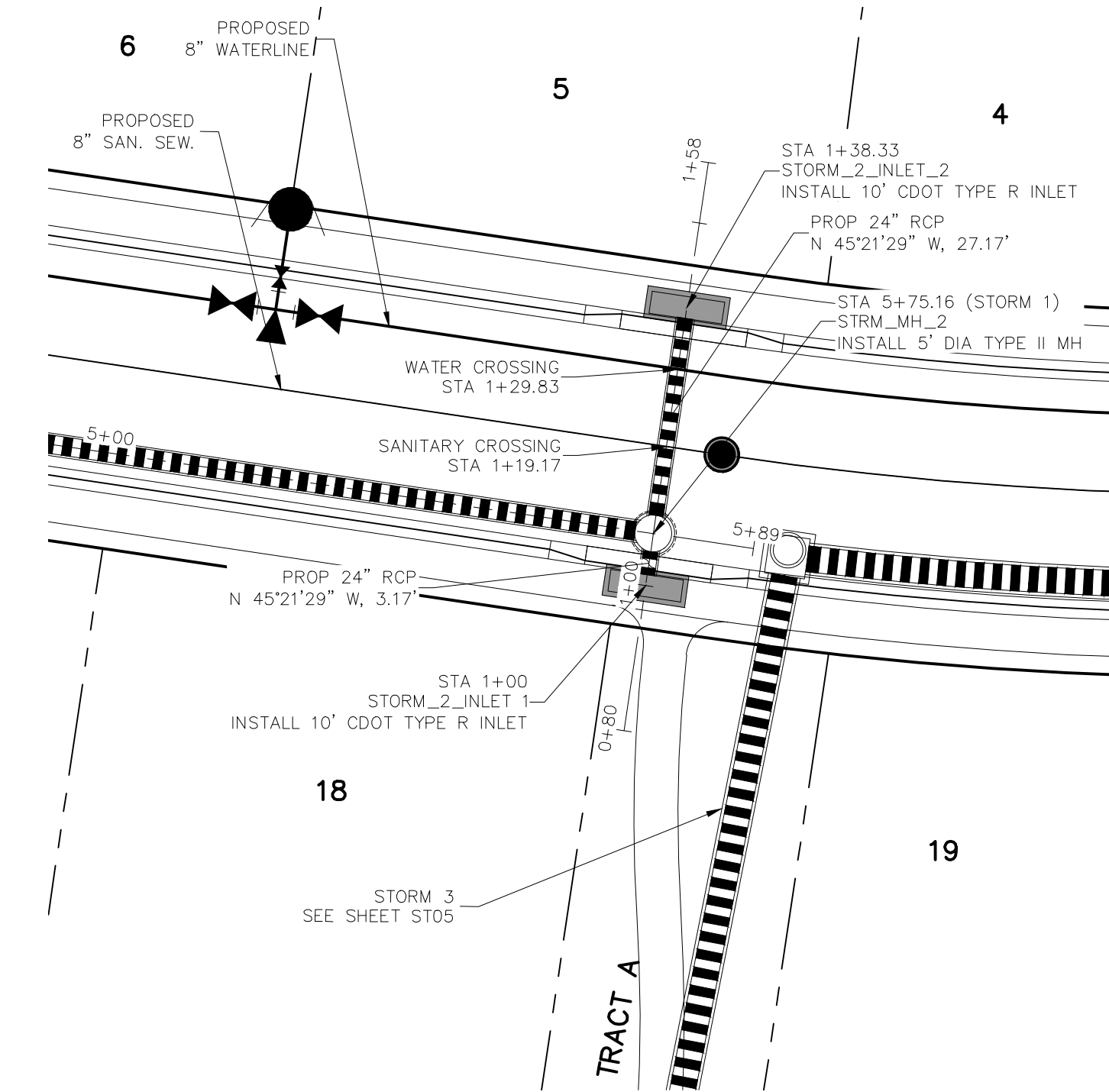
THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CAUTION

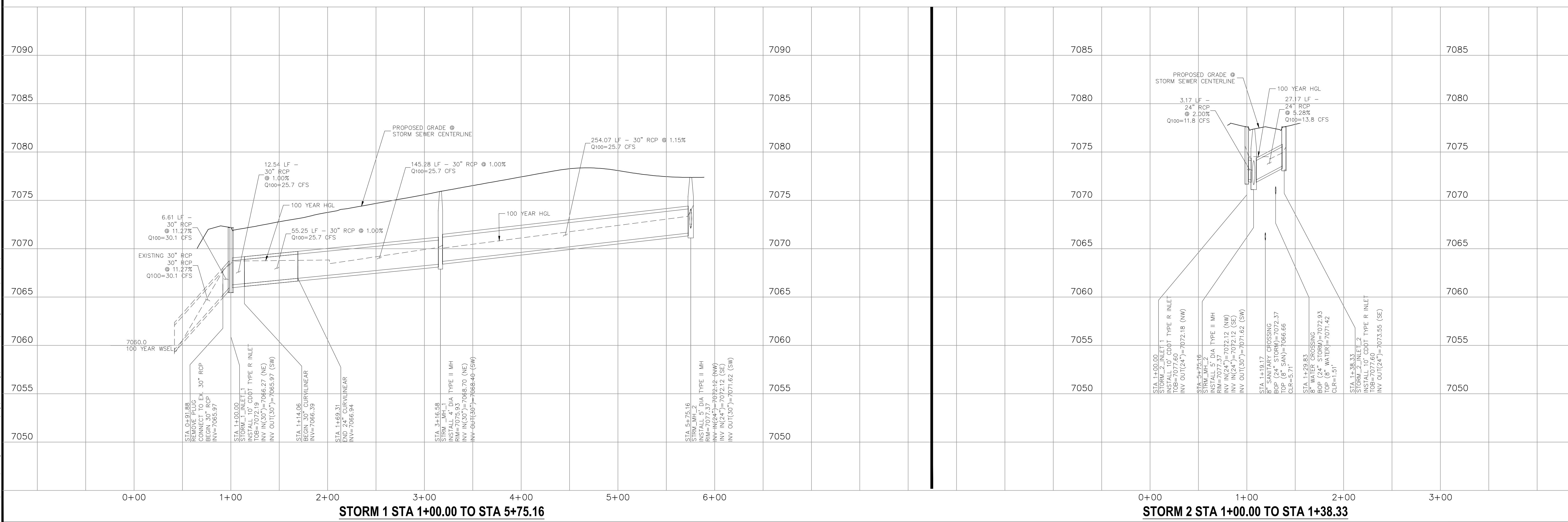
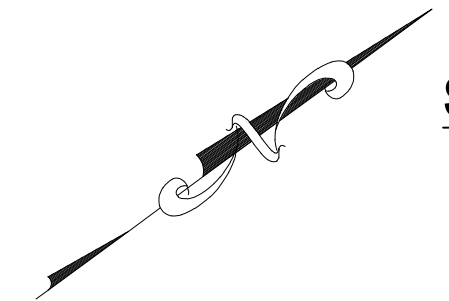
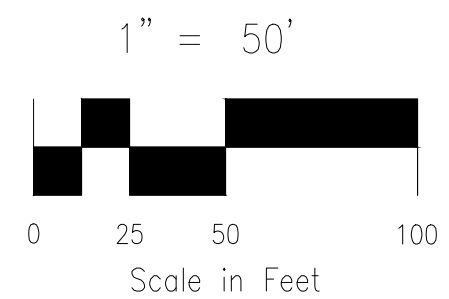
File: C:\09007A\Sterling Ranch No. 2\Arch\Const\Draw\Storm Plans\ST03.dwg Plot: 7/30/2019 3:20 PM



STORM 1
STA 1+00.00 TO STA 5+75.16



STORM 2
STA 1+00.00 TO STA 1+38.33
SCALE: 1"=20'



STORM 1 STA 1+00.00 TO STA 5+75.16

STORM 2 STA 1+00.00 TO STA 1+38.33

HOMESTEAD AT STERLING RANCH FIL. NO. 2

STORM SEWER PLANS

PROJECT NO. 09-007 FILE: \Lang\Const\Eng\Street & Storm Plans\ST04.dwg DATE: 7/26/2019

DESIGNED BY: CMN SCALE: 1"=50'

DRAWN BY: CMN HORIZ: 1"=50'

CHECKED BY: VAS VERT: 1"=5'

102 E. Pikes Peak Ave., 5th Floor
Colorado Springs, CO 80903
PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

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

REVISIONS:

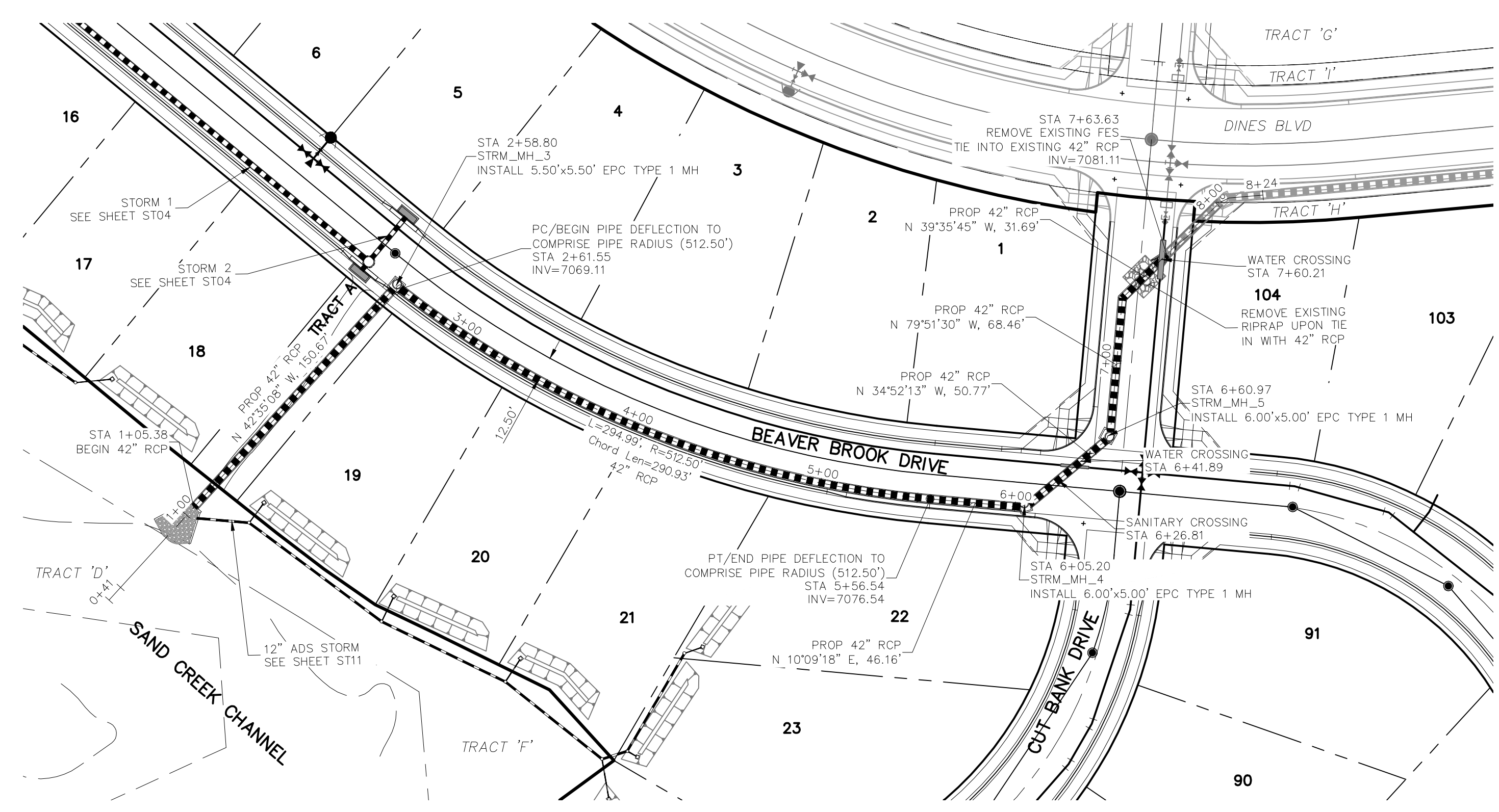
NO.	DATE	BY	DESCRIPTION	APPROV. BY	DATE

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.

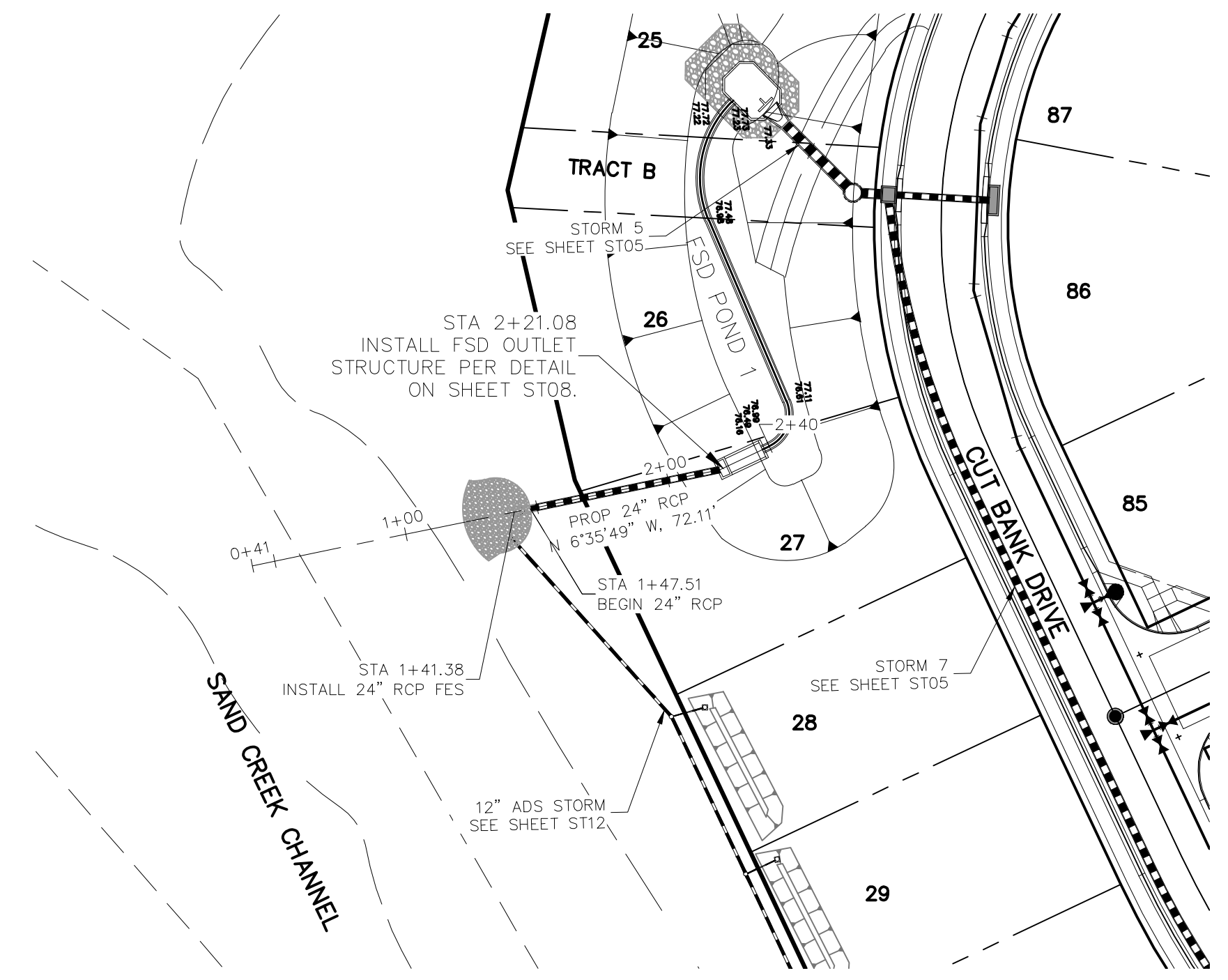
CAUTION

ST04

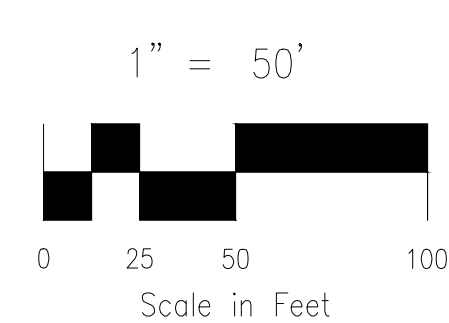
File: c:\09007A\Sterling Ranch No. 2\Lang\Const\Eng\Street & Storm Plans\ST04.dwg Plotstamp: 7/26/2019 3:25 PM



**STORM 3
STA 1+00.00 TO STA 7+63.63**



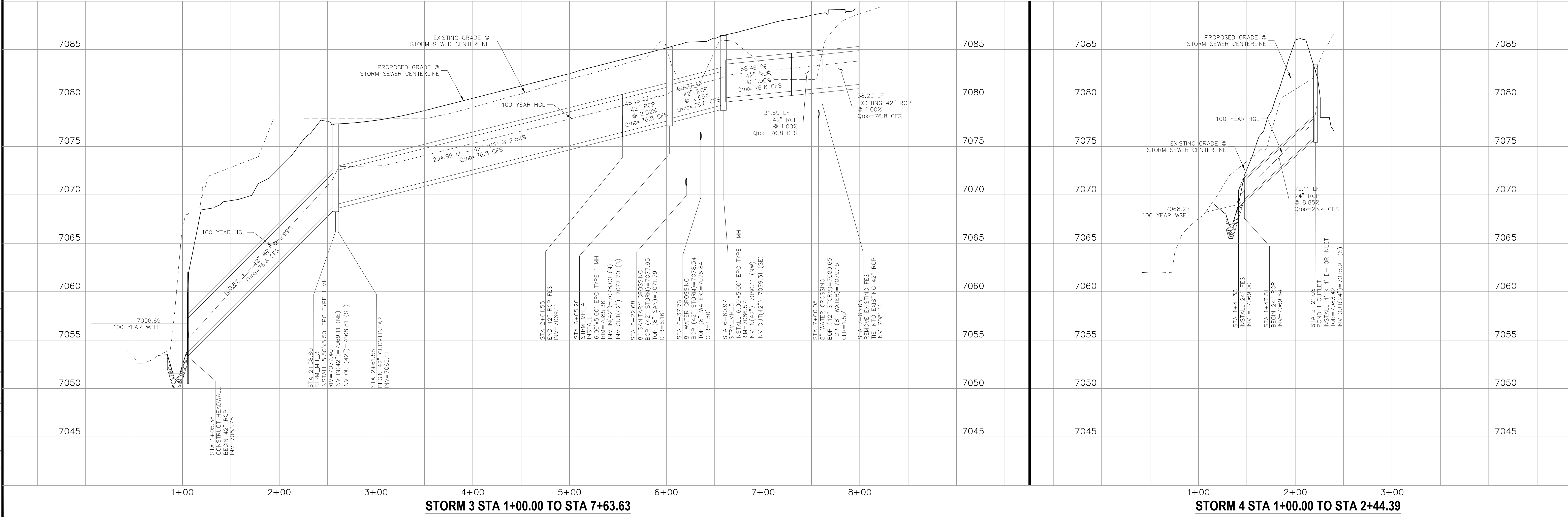
**STORM 4
STA 1+00.00 TO STA 2+44.39**



NOTES:
 STA 1+05.58 TO STA 1+29.58
 (NEXT FULL JOINT) TIE PIPE
 SEGMENTS TOGETHER W/4-1/2"
 CANOPY TYPE ROD LUG JOINT
 FASTENERS.

REINFORCED CONCRETE PIPE INSTALLED
 BETWEEN STA 1+05.58 AND STA 2+58.80
 SHALL BE FABRICATED USING A CONCRETE
 MIX DESIGN THAT RESULTS IN A MIN. 5000 PSI
 COMPRESSIVE STRENGTH.

File: c:\09007A\Sterling Ranch No. 6\Map\Const\Map\Storm Plans\ST05.dwg Plotstamp: 7/30/2019 3:39 PM



STORM 3 STA 1+00.00 TO STA 7+63.63

STORM 4 STA 1+00.00 TO STA 2+44.39

HOMESTEAD AT STERLING RANCH FIL. NO. 2

STORM SEWER PLANS & PROFILES

PROJECT NO. 09-007 FILE: \Map\Const\Map\Storm Plans\ST05.dwg DATE: 7/26/2019

DESIGNED BY: CMN SCALE: _____

DRAWN BY: CMN HORIZ: 1"=50'

CHECKED BY: VAS VERT: 1"=5'

102 E. Pikes Peak Ave., 5th Floor
 Colorado Springs, CO 80903
 PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

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

APPROVED BY: _____ DATE: _____

REVISIONS:

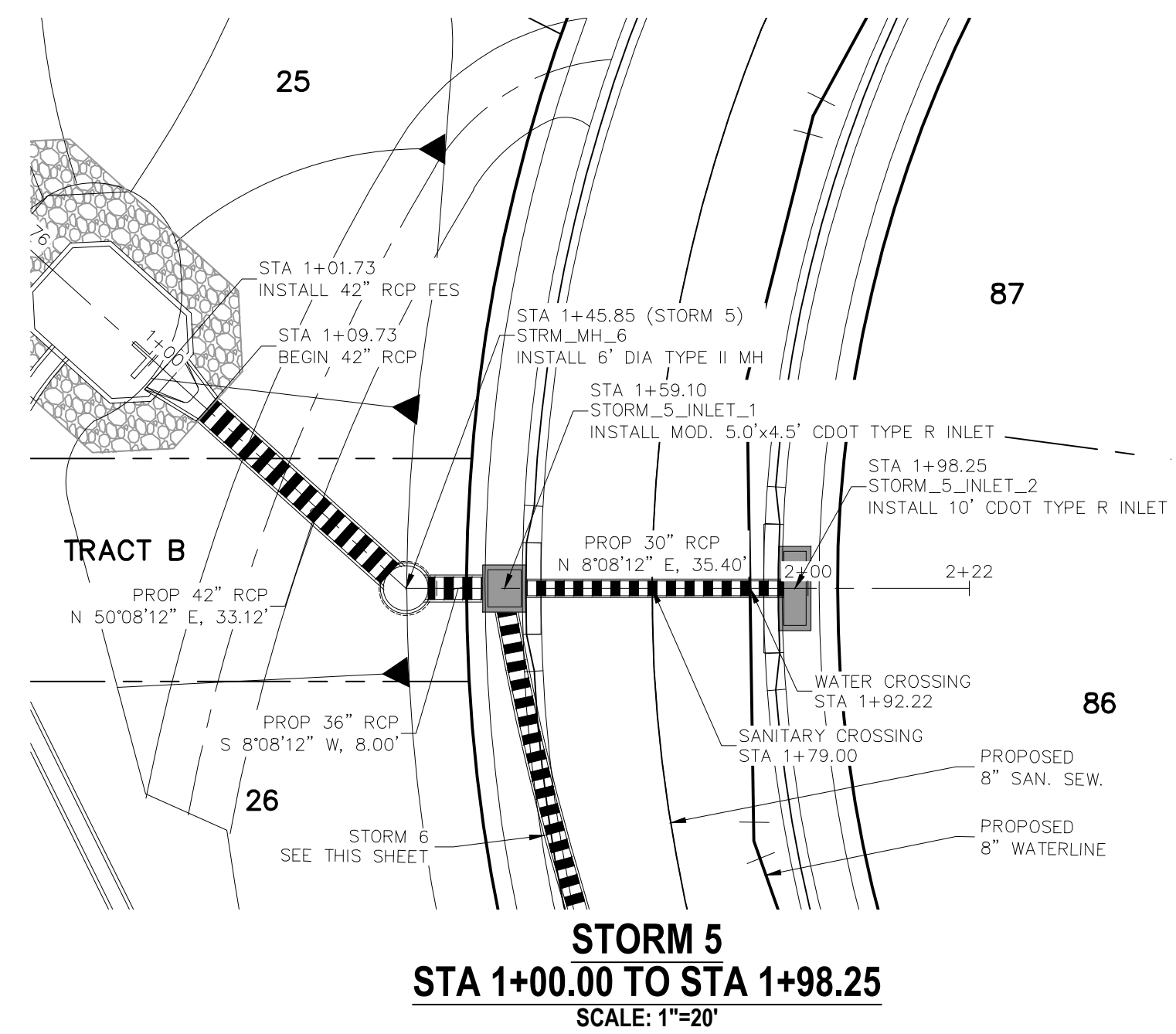
NO.	DATE	BY	DESCRIPTION

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

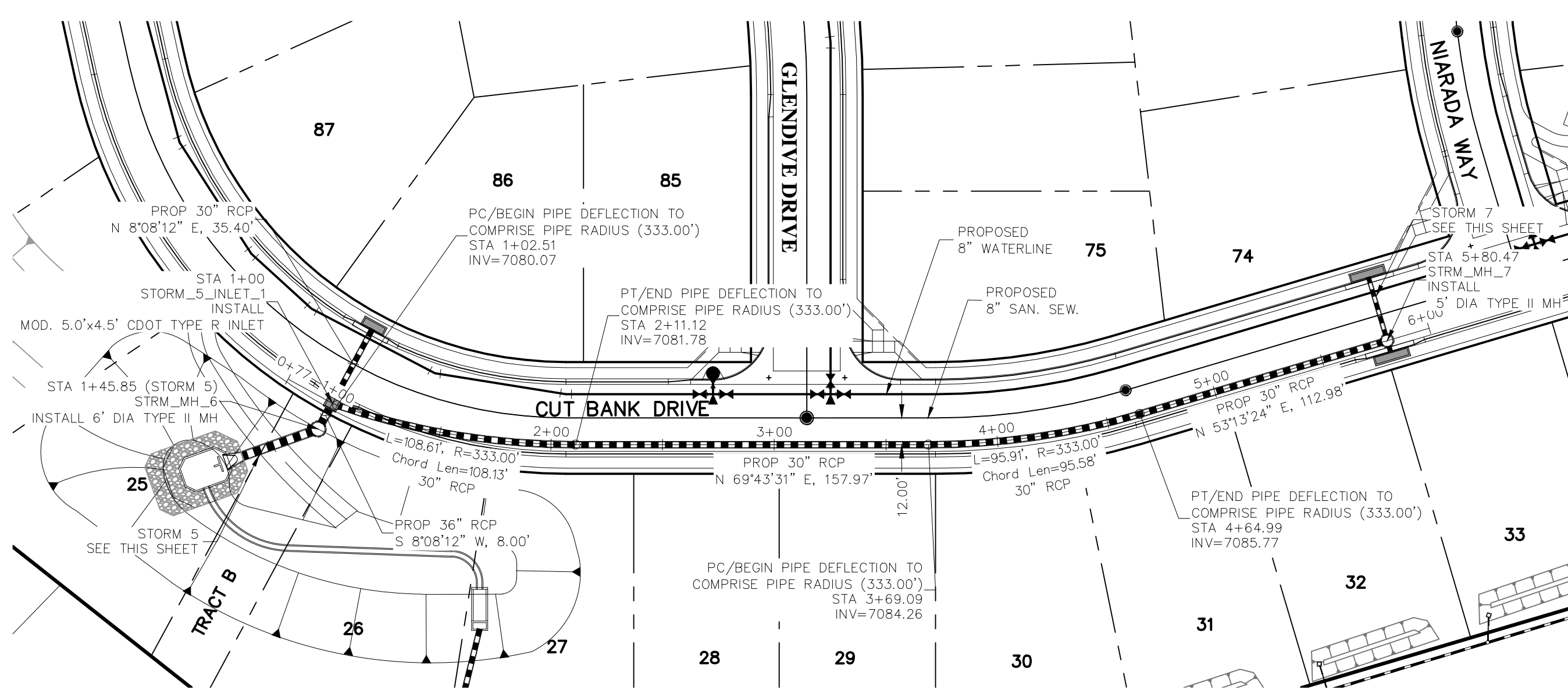
CAUTION

ST05

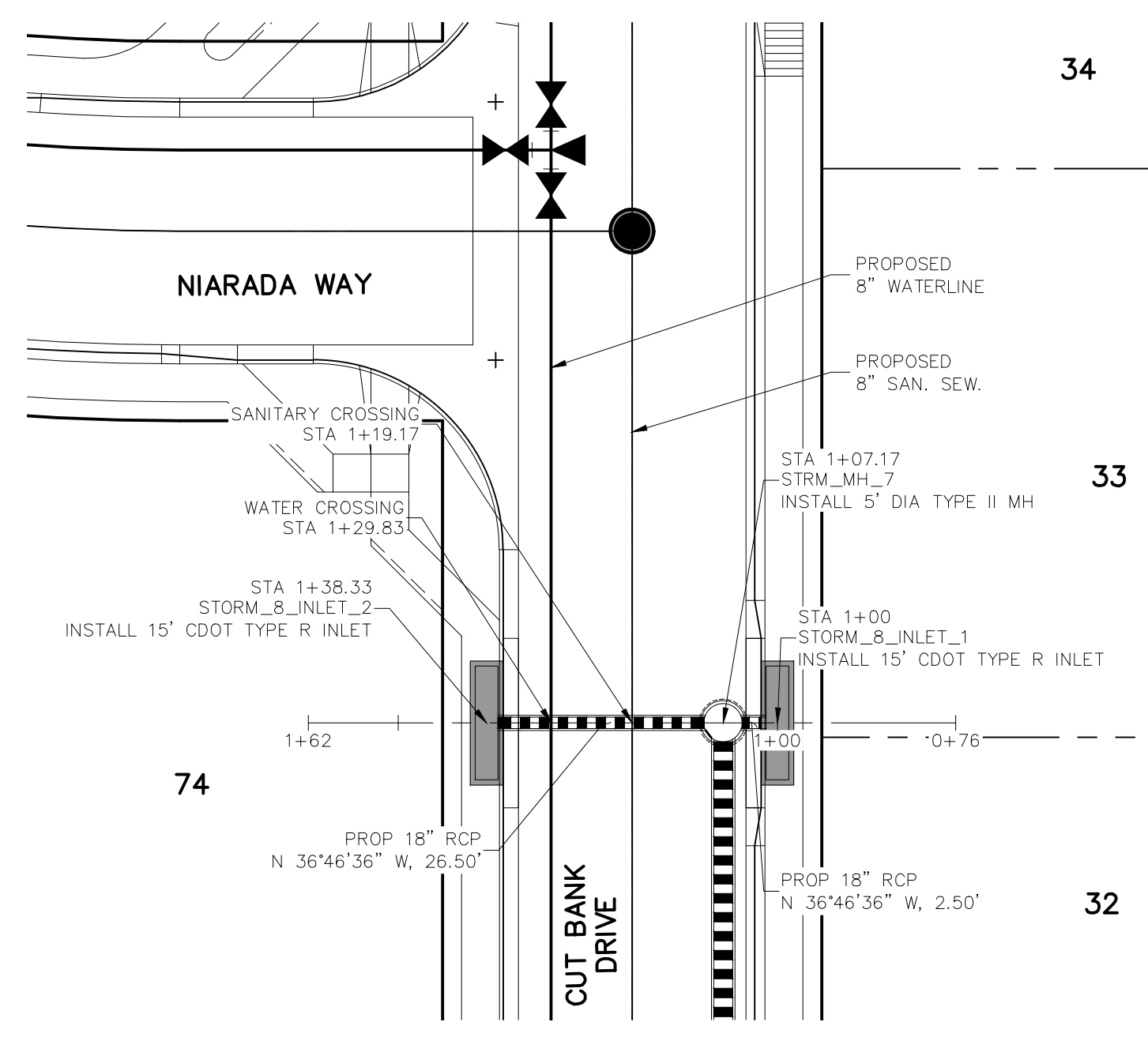
File: c:\09007A\Sterling Ranch No. 6\Map\Const\DWG\Storm Plans\ST06.dwg Plotstamp: 7/26/2019 3:49 PM



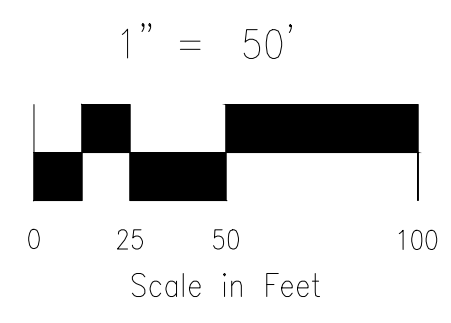
STORM 5
STA 1+00.00 TO STA 1+98.25
 SCALE: 1"=20'



STORM 6
STA 1+00.00 TO STA 5+80.47



STORM 7
STA 1+00 TO STA 1+38.33
 SCALE: 1"=20'



STATION	EXISTING GRADE @ STORM SEWER CENTERLINE	PROPOSED GRADE @ STORM SEWER CENTERLINE	100 YEAR HGL	STATION	EXISTING GRADE @ STORM SEWER CENTERLINE	PROPOSED GRADE @ STORM SEWER CENTERLINE	100 YEAR HGL	STATION	EXISTING GRADE @ STORM SEWER CENTERLINE	PROPOSED GRADE @ STORM SEWER CENTERLINE	100 YEAR HGL
0+00	7065.00	7065.00	7065.00	0+00	7095.00	7095.00	7095.00	0+00	7095.00	7095.00	7095.00
1+00	7065.00	7065.00	7065.00	1+00	7095.00	7095.00	7095.00	1+00	7095.00	7095.00	7095.00
2+00	7065.00	7065.00	7065.00	2+00	7095.00	7095.00	7095.00	2+00	7095.00	7095.00	7095.00
3+00	7065.00	7065.00	7065.00	3+00	7095.00	7095.00	7095.00	3+00	7095.00	7095.00	7095.00
4+00	7065.00	7065.00	7065.00	4+00	7095.00	7095.00	7095.00	4+00	7095.00	7095.00	7095.00
5+00	7065.00	7065.00	7065.00	5+00	7095.00	7095.00	7095.00	5+00	7095.00	7095.00	7095.00
6+00	7065.00	7065.00	7065.00	6+00	7095.00	7095.00	7095.00	6+00	7095.00	7095.00	7095.00
7+00	7065.00	7065.00	7065.00	7+00	7095.00	7095.00	7095.00	7+00	7095.00	7095.00	7095.00
8+00	7065.00	7065.00	7065.00	8+00	7095.00	7095.00	7095.00	8+00	7095.00	7095.00	7095.00
9+00	7065.00	7065.00	7065.00	9+00	7095.00	7095.00	7095.00	9+00	7095.00	7095.00	7095.00
10+00	7065.00	7065.00	7065.00	10+00	7095.00	7095.00	7095.00	10+00	7095.00	7095.00	7095.00

STORM 5 STA 1+00.00 TO STA 1+98.25

STORM 6 STA 1+00.00 TO STA 5+80.47

STORM 7 STA 1+00.00 TO STA 1+38.33

HOMESTEAD AT STERLING RANCH FIL. NO. 2

STORM SEWER PLANS & PROFILES

PROJECT NO. 09-007 FILE: \\ang\Const\DWG\Street & Storm Plans\ST06.dwg DATE: 7/26/2019

DESIGNED BY: CMN SCALE: 1"=50'

DRAWN BY: CMN HORIZ: 1"=50'

CHECKED BY: VAS VERT: 1"=5'

102 E. Pikes Peak Ave., 5th Floor
 Colorado Springs, CO 80903
 PHONE: 719.555.4485

CIVIL CONSULTANTS, INC.

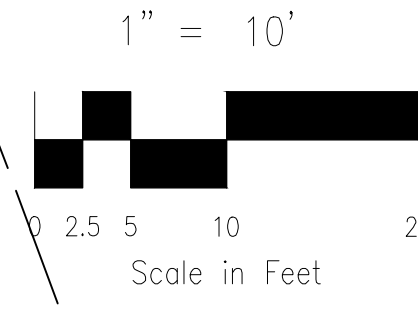
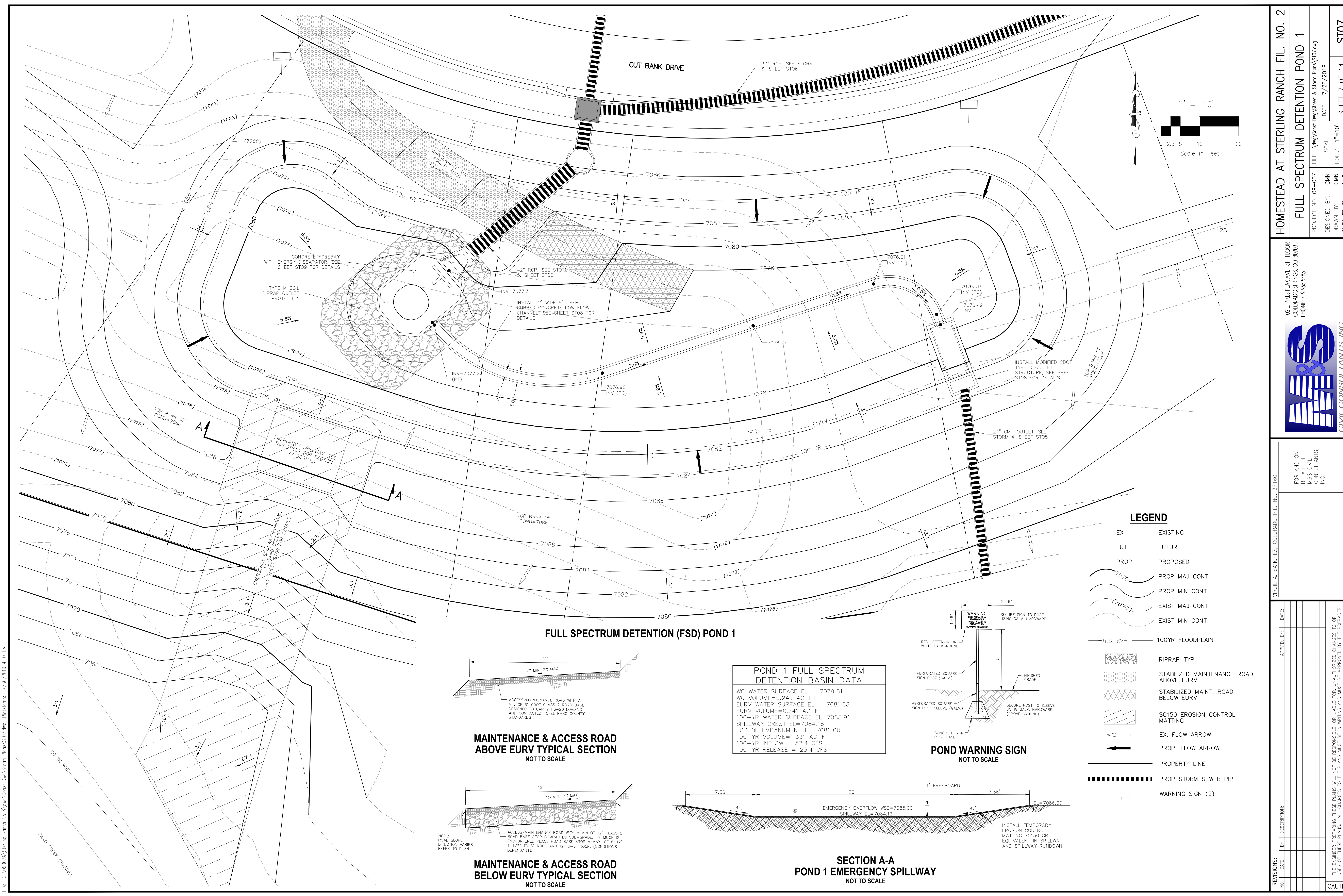
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

REVISIONS:

NO.	DATE	BY	DESCRIPTION	APPROV. BY	DATE

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

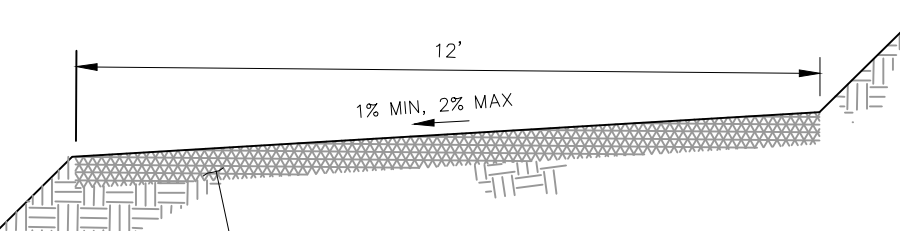


LEGEND

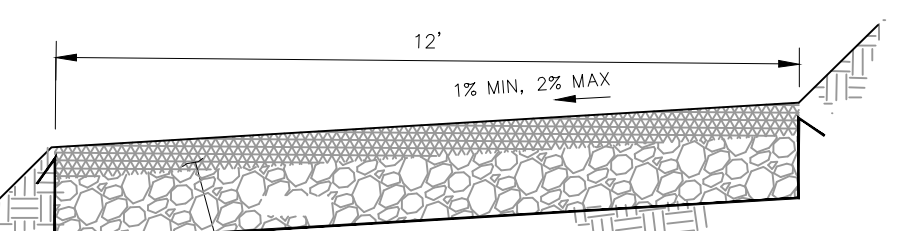
- EX EXISTING
- FUT FUTURE
- PROP PROPOSED
- 7070 PROP MAJ CONT
- 7070 PROP MIN CONT
- 7070 EXIST MAJ CONT
- 7070 EXIST MIN CONT
- 100 YR 100YR FLOODPLAIN
- RIPRAP TYP.
- STABILIZED MAINTENANCE ROAD ABOVE EURV
- STABILIZED MAINT. ROAD BELOW EURV
- SC150 EROSION CONTROL MATTING
- EX. FLOW ARROW
- PROP. FLOW ARROW
- PROPERTY LINE
- PROP STORM SEWER PIPE
- WARNING SIGN (2)

FULL SPECTRUM DETENTION (FSD) POND 1

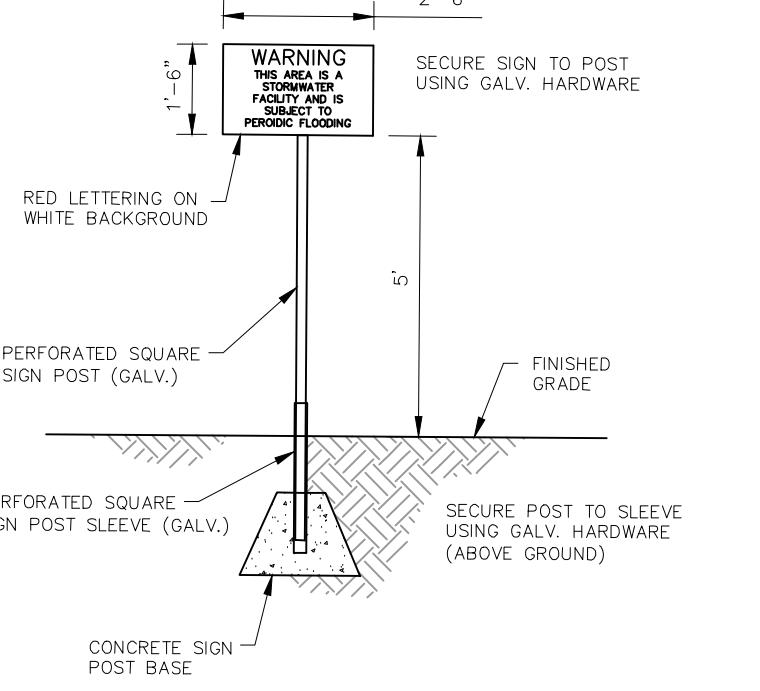
POND 1 FULL SPECTRUM DETENTION BASIN DATA	
WQ WATER SURFACE EL =	7079.51
EURV VOLUME=	0.245 AC-FT
EURV WATER SURFACE EL =	7081.88
EURV VOLUME=	0.741 AC-FT
100-YR WATER SURFACE EL=	7083.91
SPILLWAY CREST EL=	7084.16
TOP OF EMBANKMENT EL=	7086.00
100-YR VOLUME=	1.331 AC-FT
100-YR INFLOW =	52.4 CFS
100-YR RELEASE =	23.4 CFS



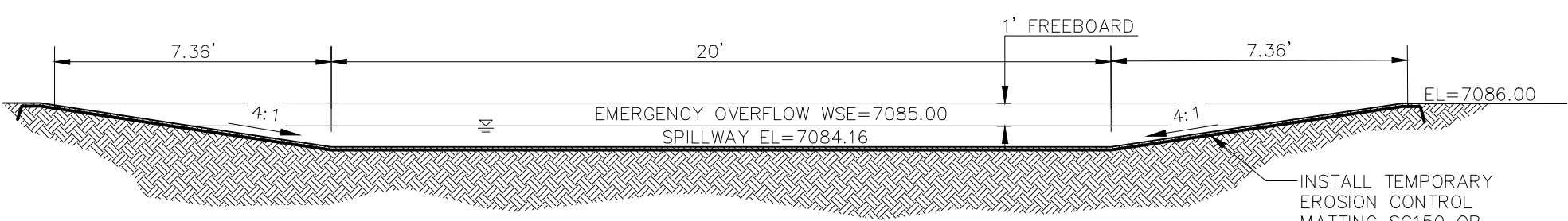
MAINTENANCE & ACCESS ROAD ABOVE EURV TYPICAL SECTION
NOT TO SCALE



MAINTENANCE & ACCESS ROAD BELOW EURV TYPICAL SECTION
NOT TO SCALE



POND WARNING SIGN
NOT TO SCALE



SECTION A-A POND 1 EMERGENCY SPILLWAY
NOT TO SCALE

HOMESTEAD AT STERLING RANCH FIL. NO. 2
FULL SPECTRUM DETENTION POND 1

PROJECT NO. 09-007 FILE: \Eng\Const\Eng\Sheet & Storm Plans\ST07.dwg
 DESIGNED BY: CMN SCALE: DATE: 7/26/2019
 DRAWN BY: CMN HORIZ: 1"=10'
 CHECKED BY: VAS VERT: N/A SHEET 7 OF 14 ST07

102 E. Pikes Peak Ave., 3rd Floor
 Colorado Springs, CO 80903
 PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

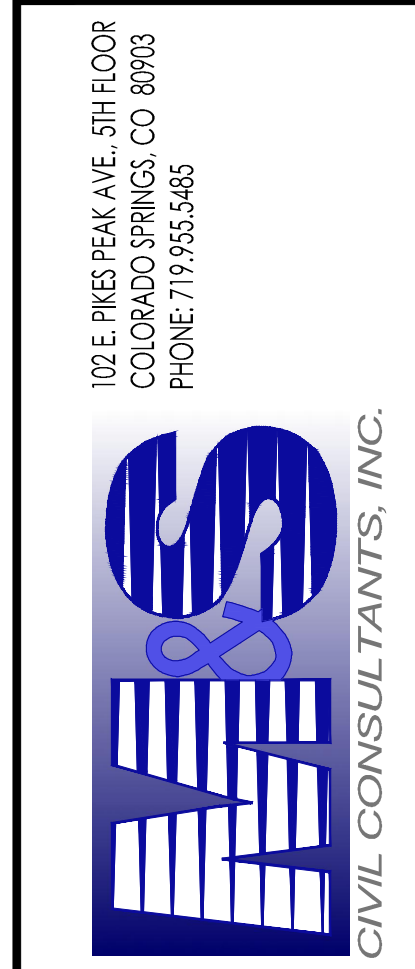
FOR AND ON BEHALF OF
 M&S CIVIL CONSULTANTS, INC.

APPROVED BY: 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:\09007A\Sterling Ranch No. 2\Eng\Const\Eng\Sheet & Storm Plans\ST07.dwg Plotstamp: 7/30/2019 4:07 PM



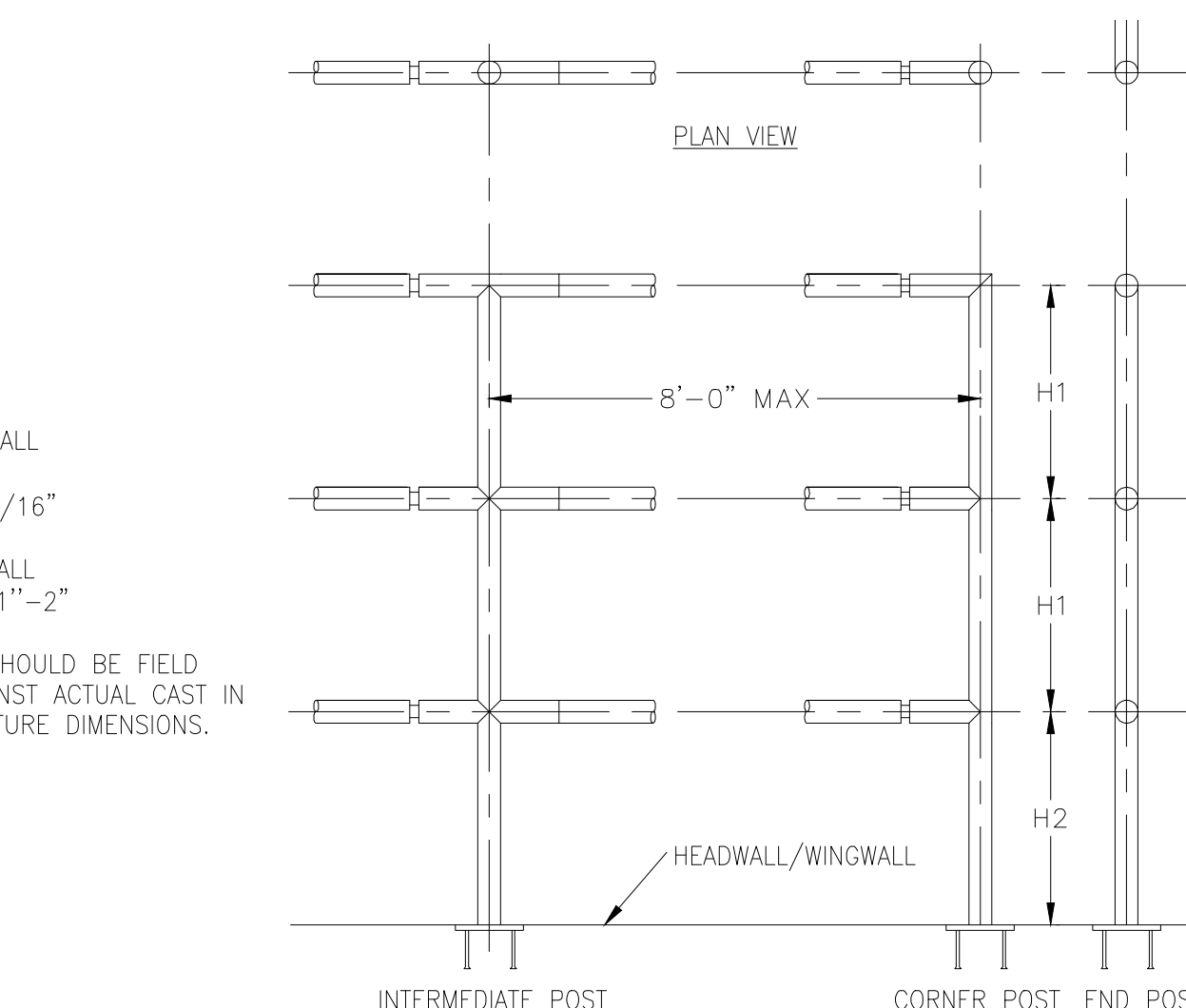
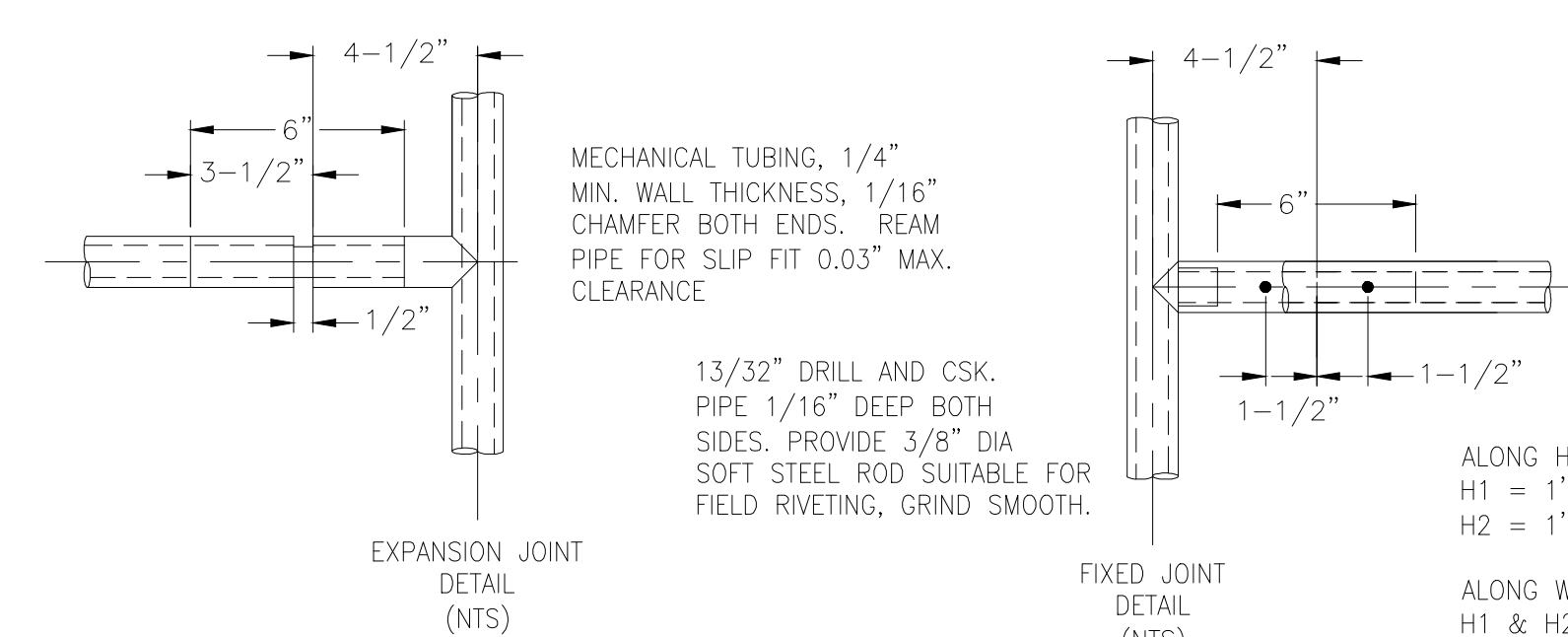
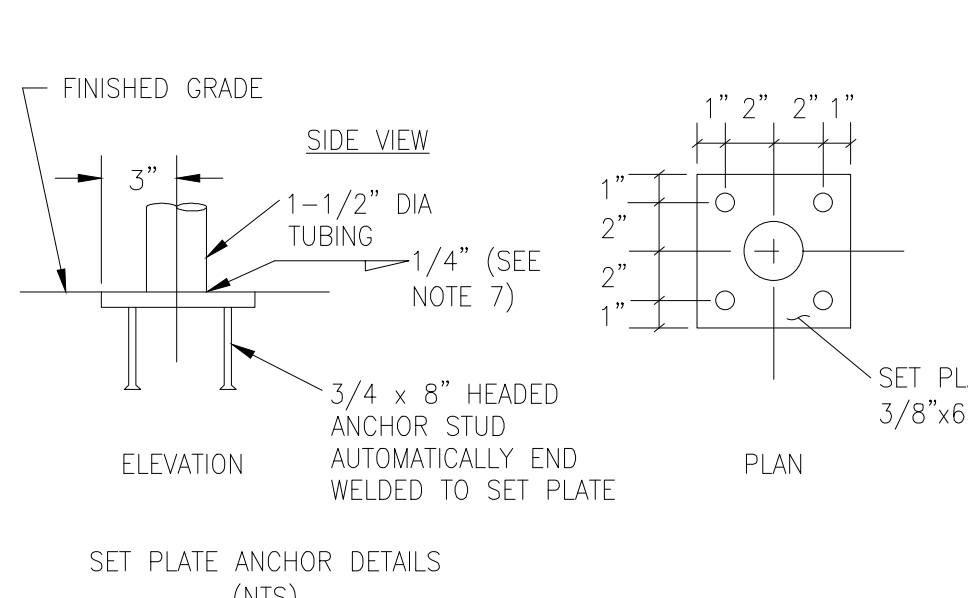
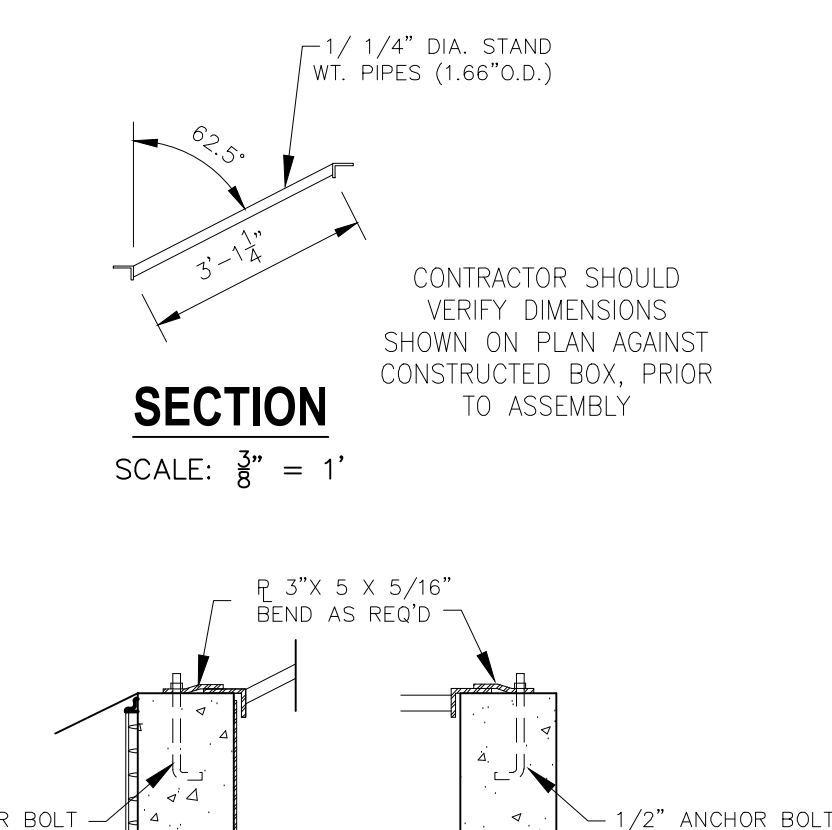
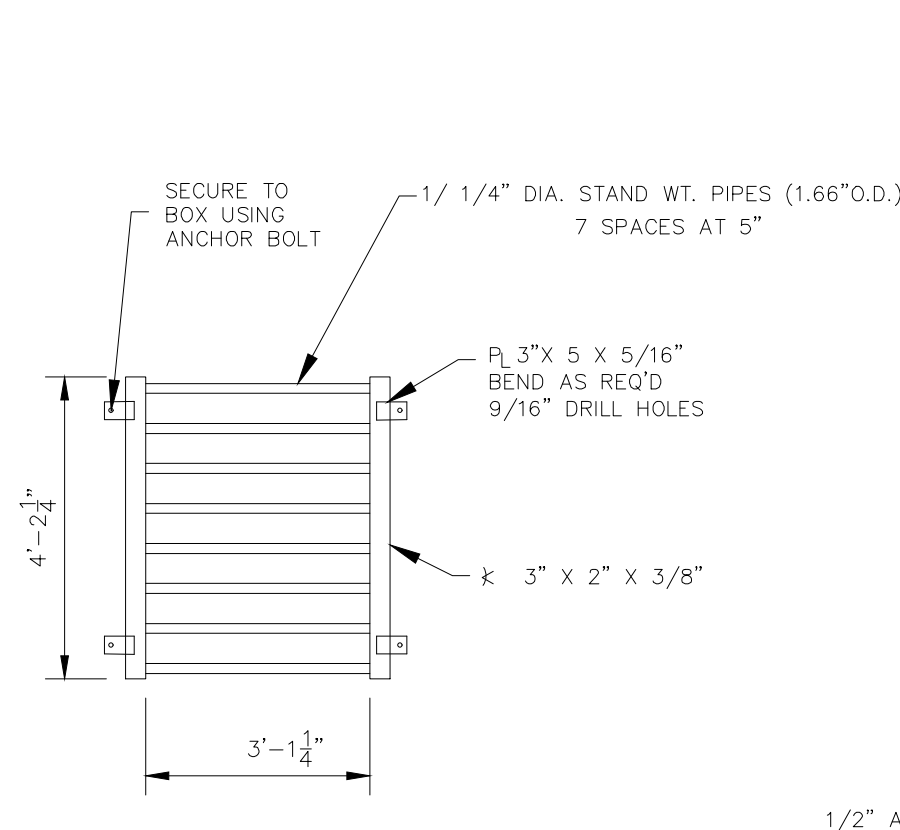
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

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

NO.	DATE	BY	DESCRIPTION	APPROV. BY	DATE

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.

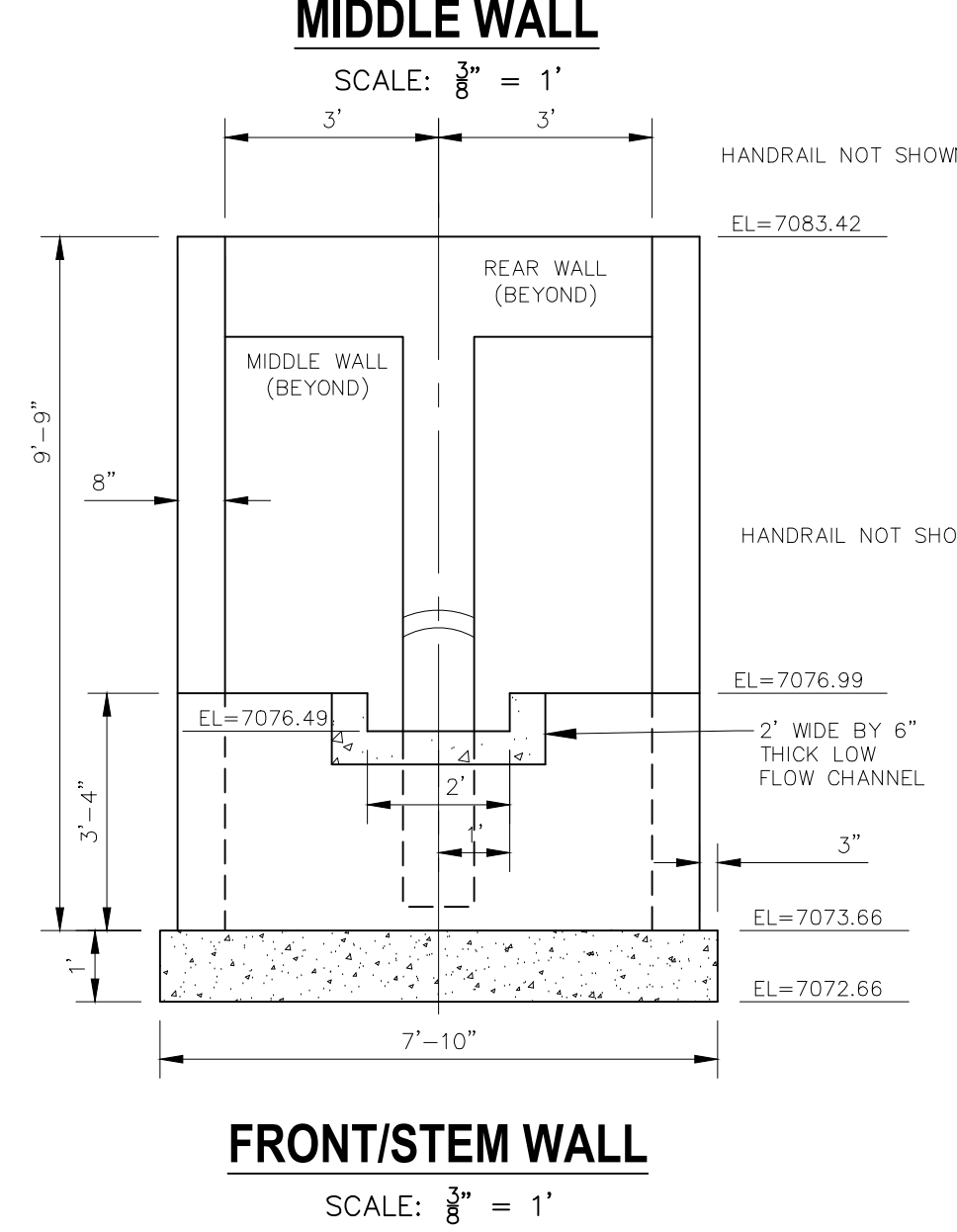
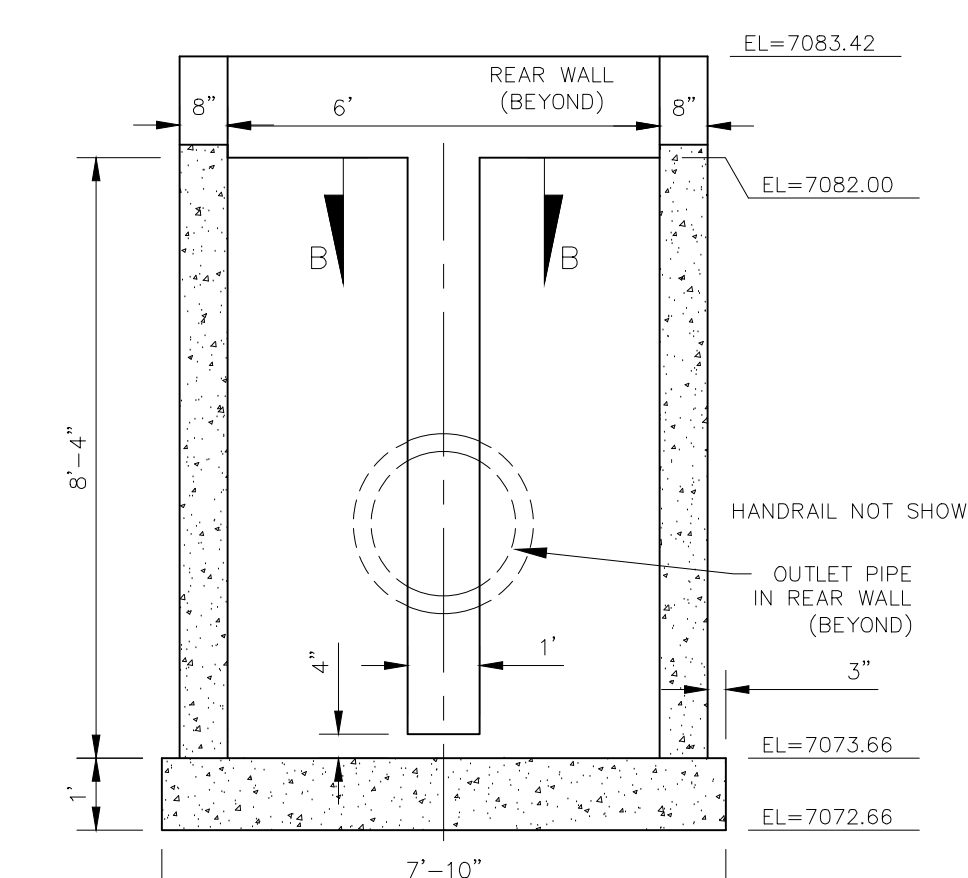
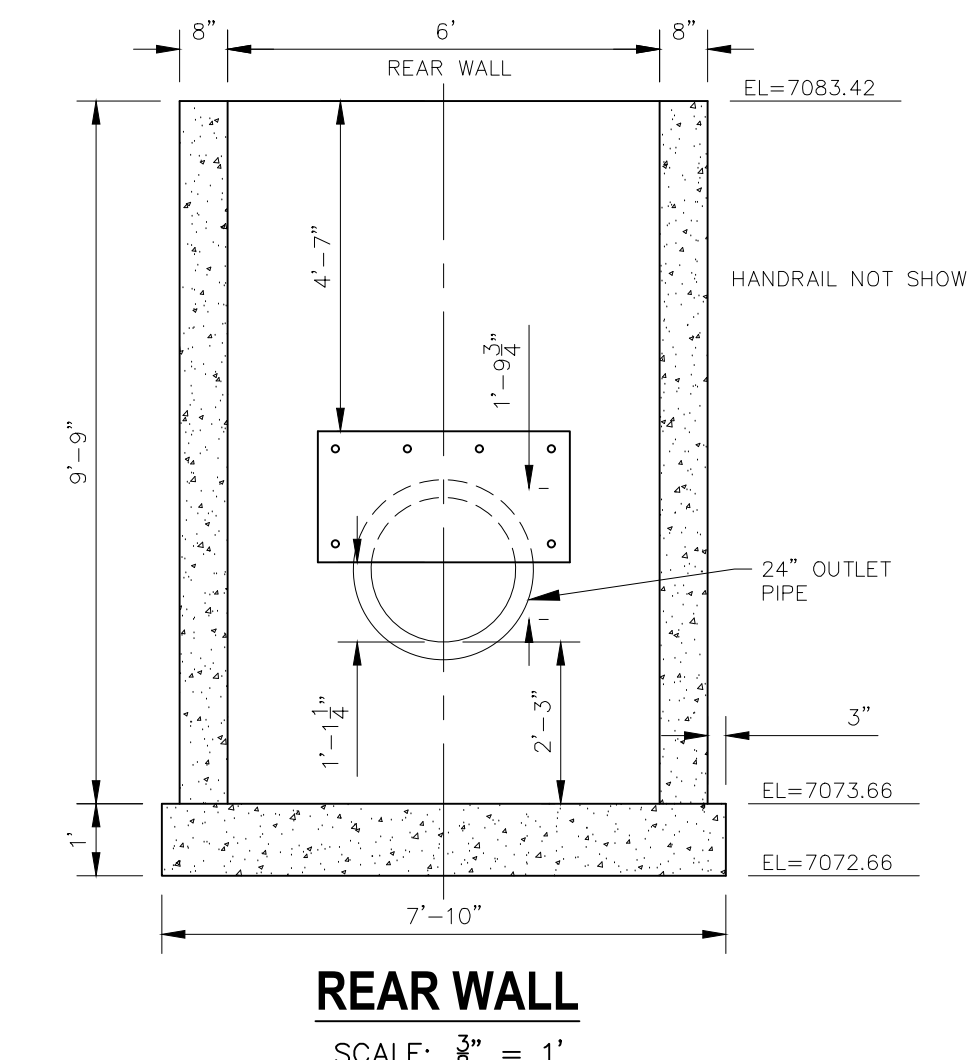
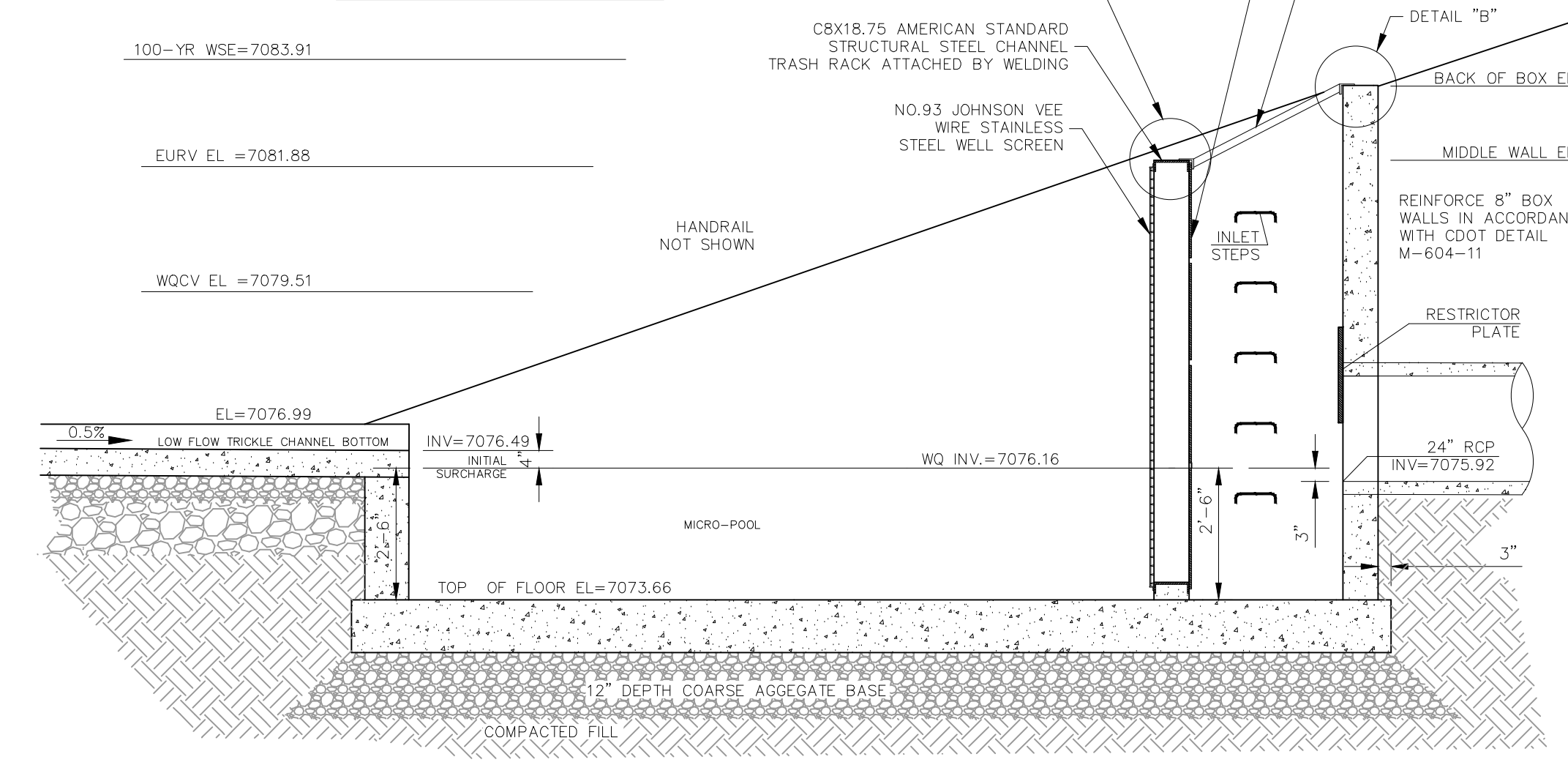
CAUTION



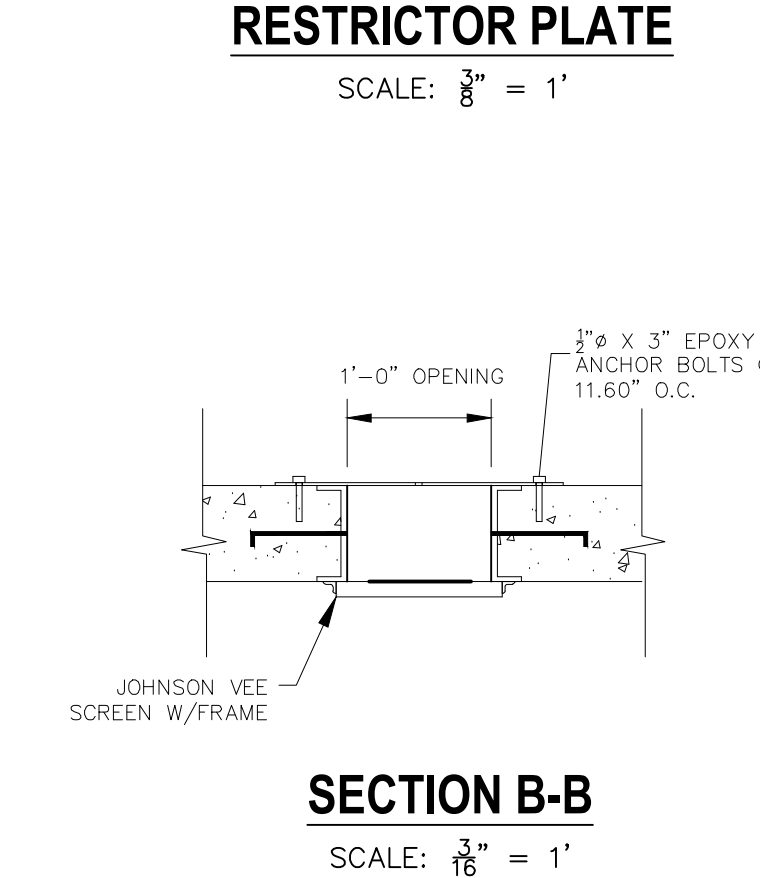
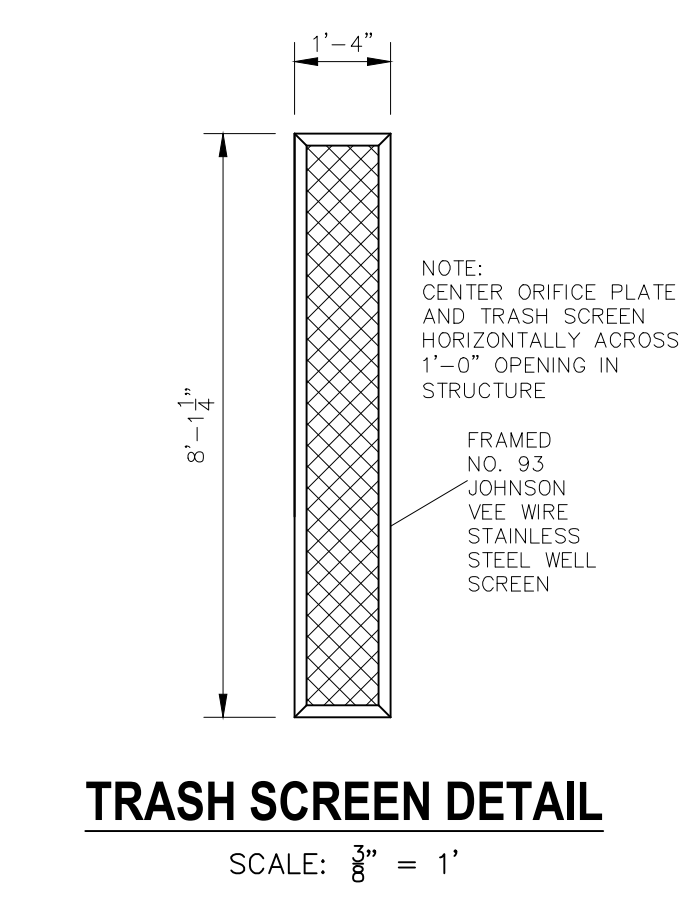
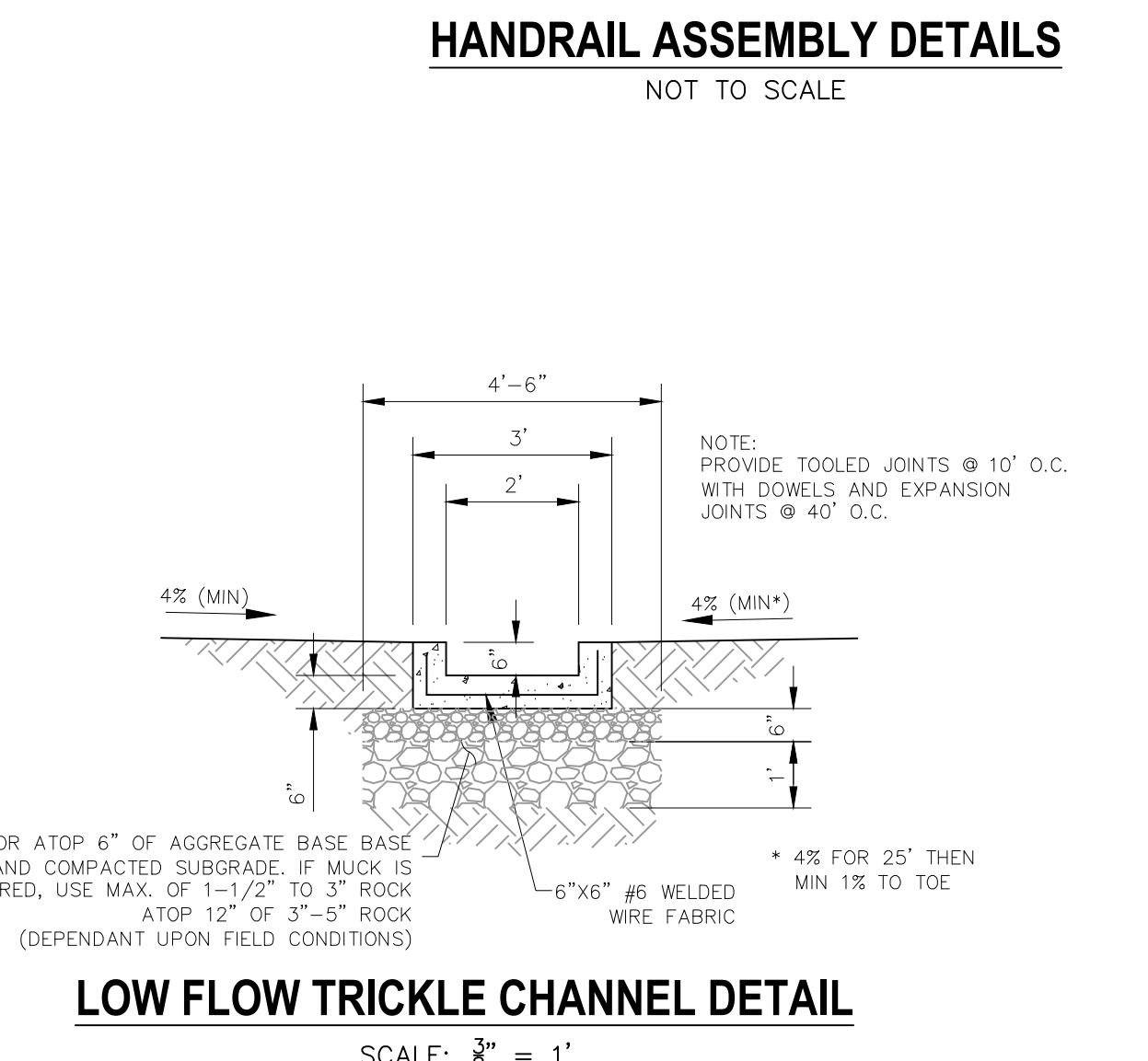
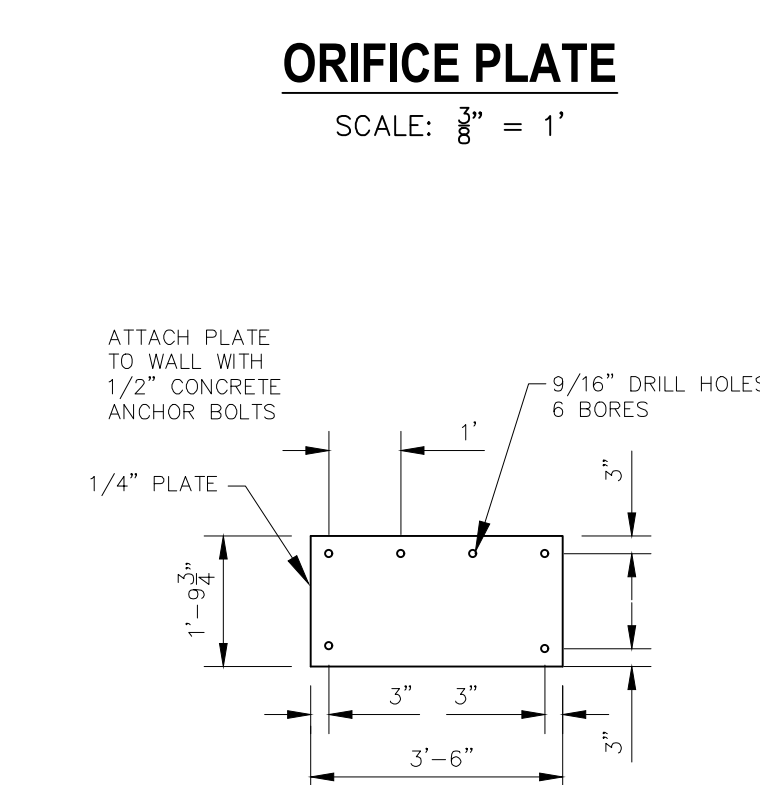
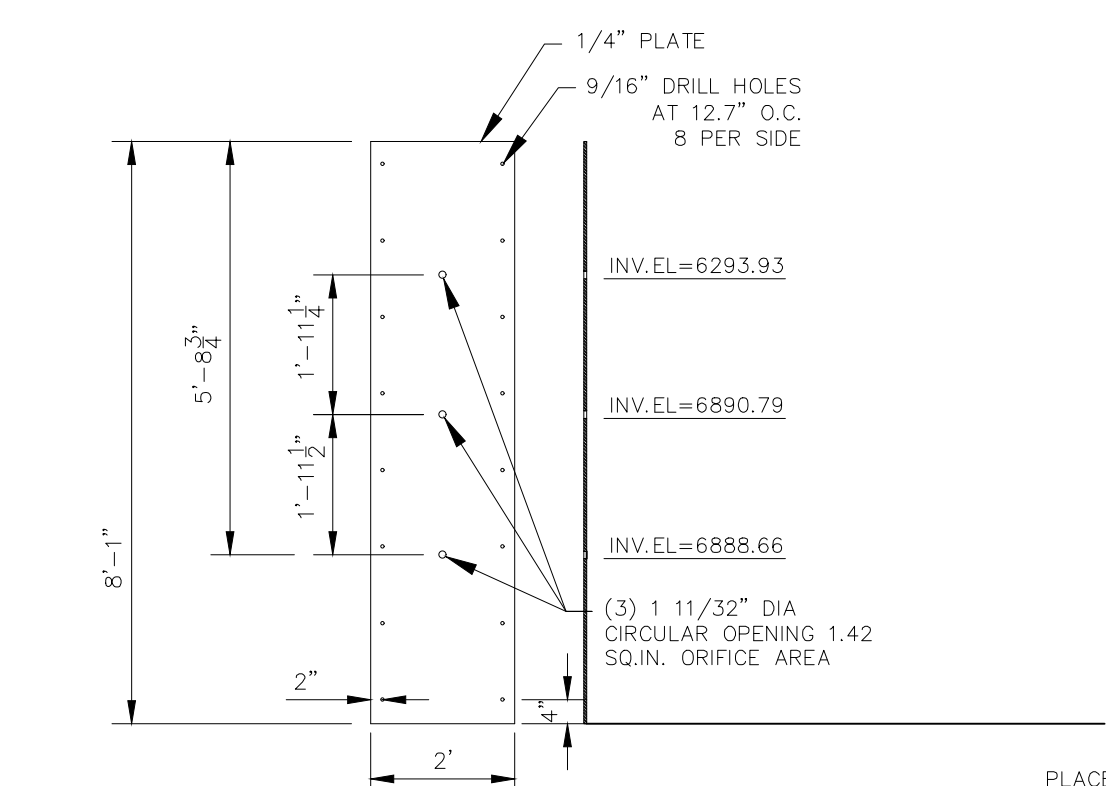
GRATE PLAN
SCALE: 3/8" = 1'

NOTE: ALL GRATES, SCREENS, IMBEDS AND FASTENERS SHALL BE FABRICATED USING GALVANIZED STEEL, UNLESS OTHERWISE NOTED.

ALL GRATE DIMENSIONS TO BE FIELD VERIFIED PRIOR TO FABRICATION. ALL GRATE MATERIAL SHALL BE GALVANIZED.

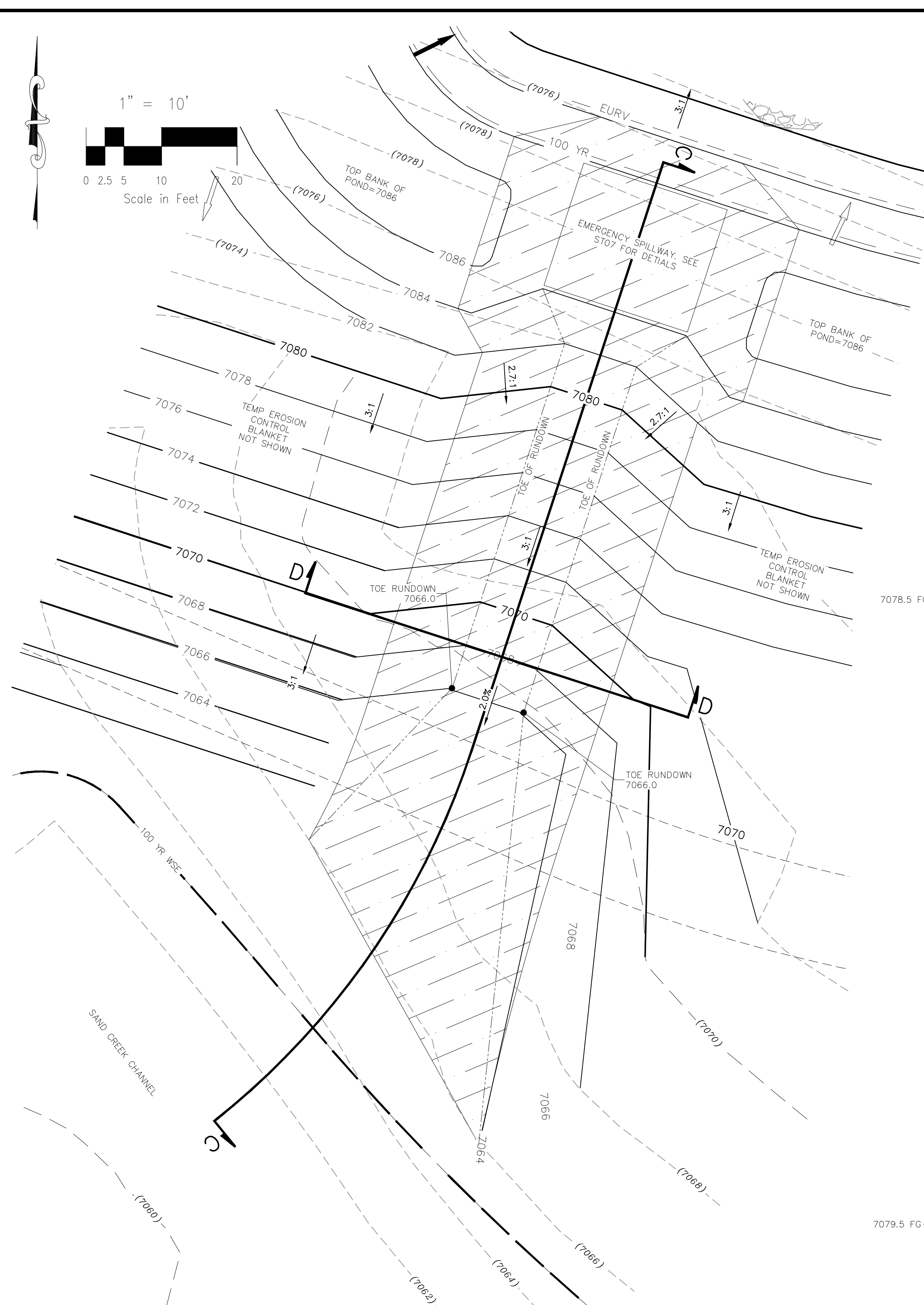


- WELD PLATES MAY BE SUBSTITUTED FOR PIPE EMBEDMENT.
- CONTRACTOR TO SUBMIT SHOP DRAWINGS TO ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION.
- DESIGN CRITERIA SHALL BE IN ACCORDANCE WITH AASHTO STANDARDS.
- HANDRAIL DESIGN SHALL BE COMPATIBLE WITH THE DESIGN OF THE WINGWALLS AND HEADWALLS.
- RAILING POSTS SHALL BE SET TO NORMAL TO GRADE. RAILS SHALL RUN PARALLEL TO THE SLOPES OF THE TOP OF WALLS.
- ALL RAILS SHALL BE FREE OF ANY SHARP EDGES OR CORNERS.

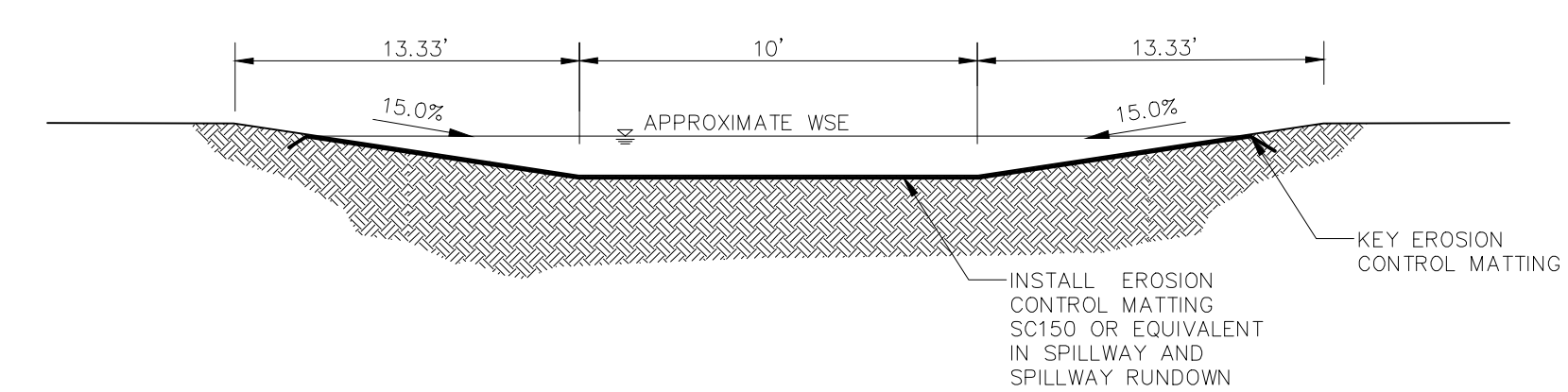


POND 1 WATER QUALITY OUTLET STRUCTURE
SCALE: 3/8" = 1'

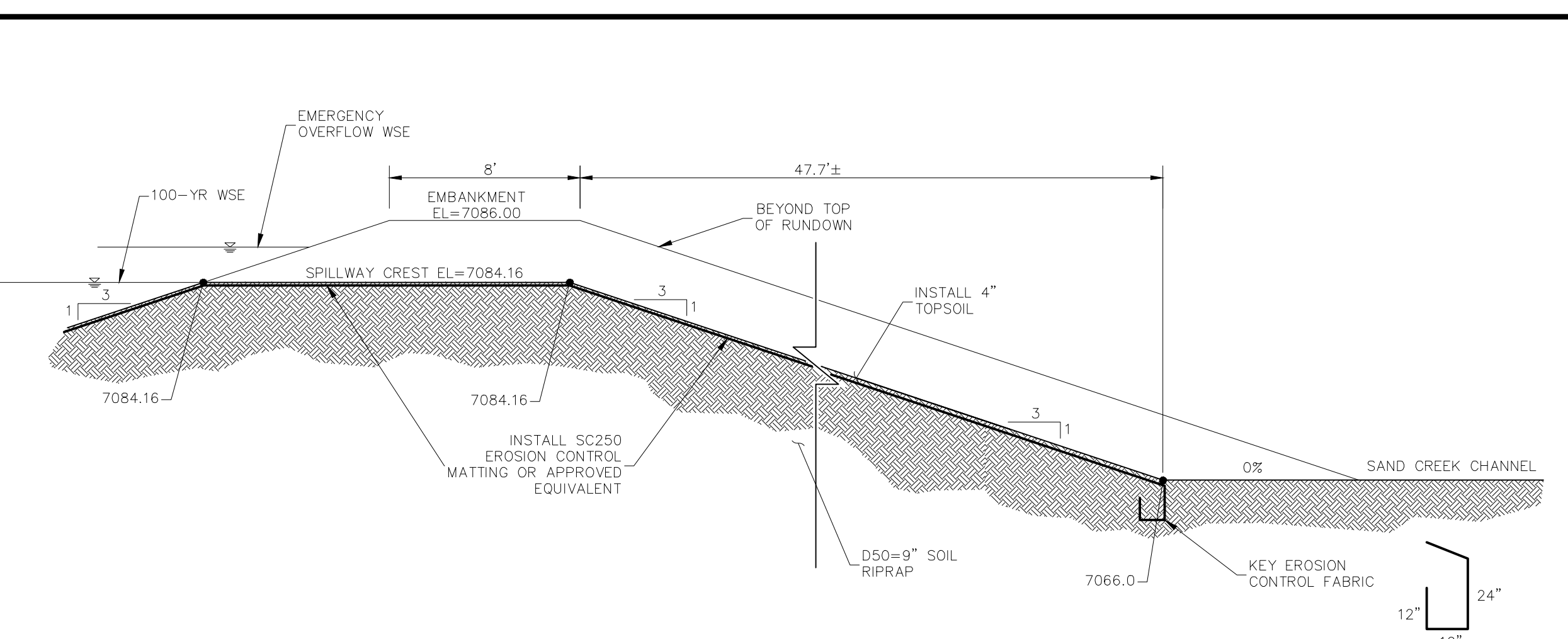
File: c:\09007A\Sterling Ranch No. 6\Map\Const\Draw\Storm Plans\ST09.dwg Plotstamp: 7/30/2019 4:39 PM



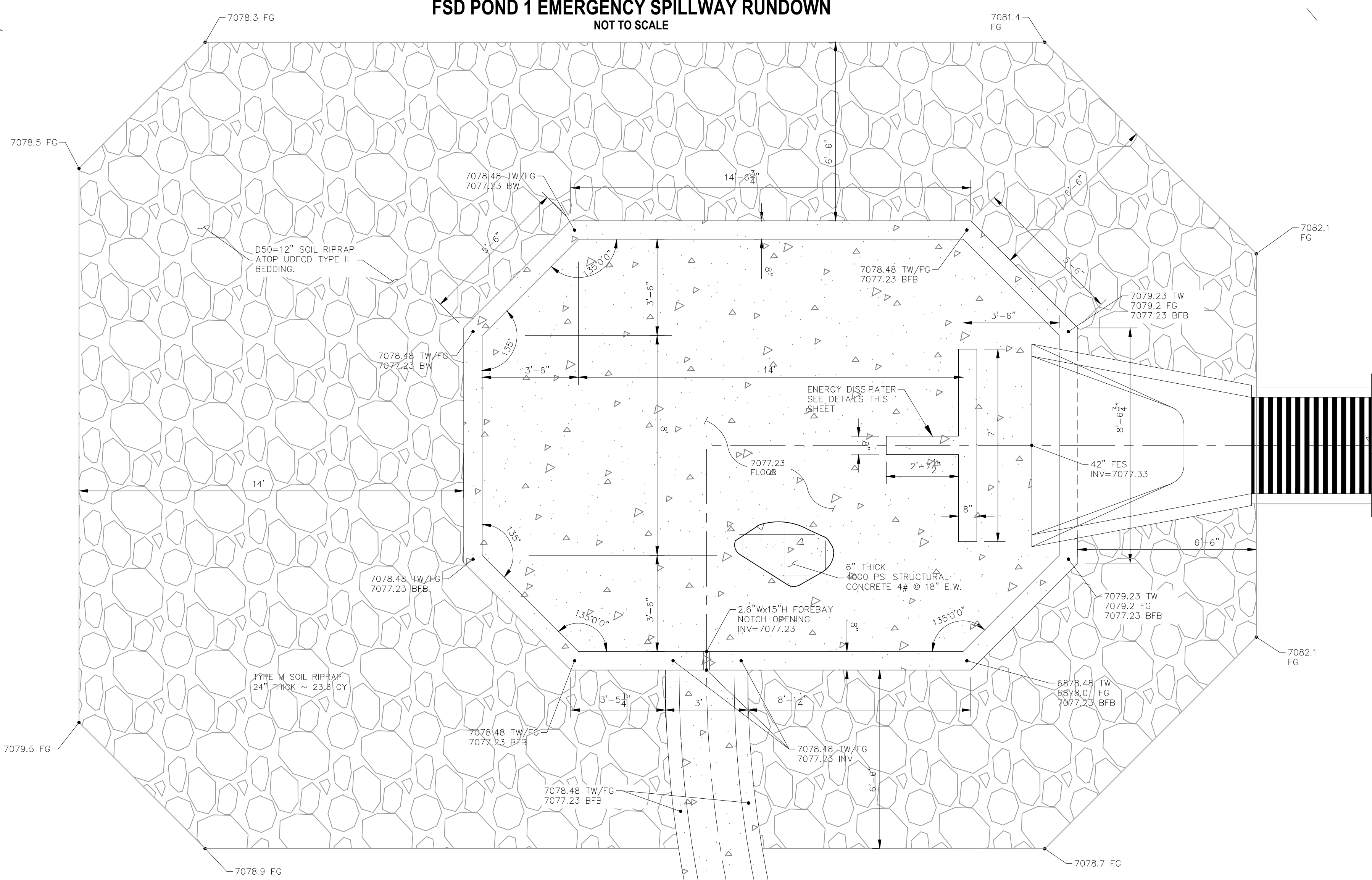
FDS POND 1 EMERGENCY SPILLWAY AND RUNDOWN TO SAND CREEK CHANNEL
1"=10'



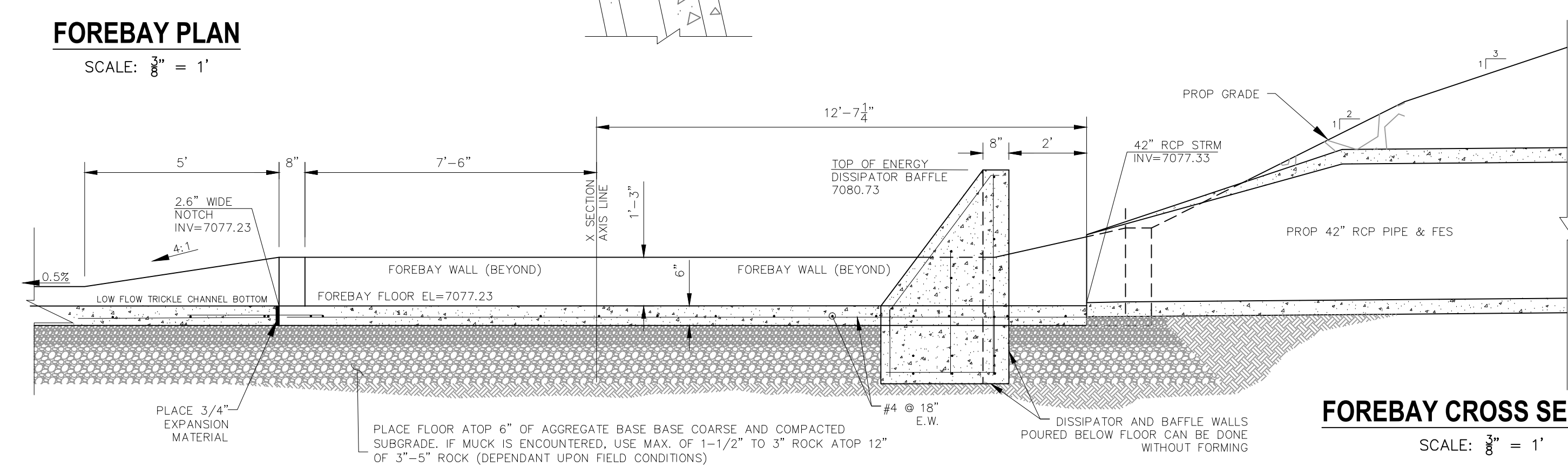
SECTION D-D
FSD POND 1 EMERGENCY SPILLWAY RUNDOWN
NOT TO SCALE



SECTION C-C
FSD POND 1 EMERGENCY SPILLWAY RUNDOWN
NOT TO SCALE



FOREBAY PLAN
SCALE: 3/8" = 1'

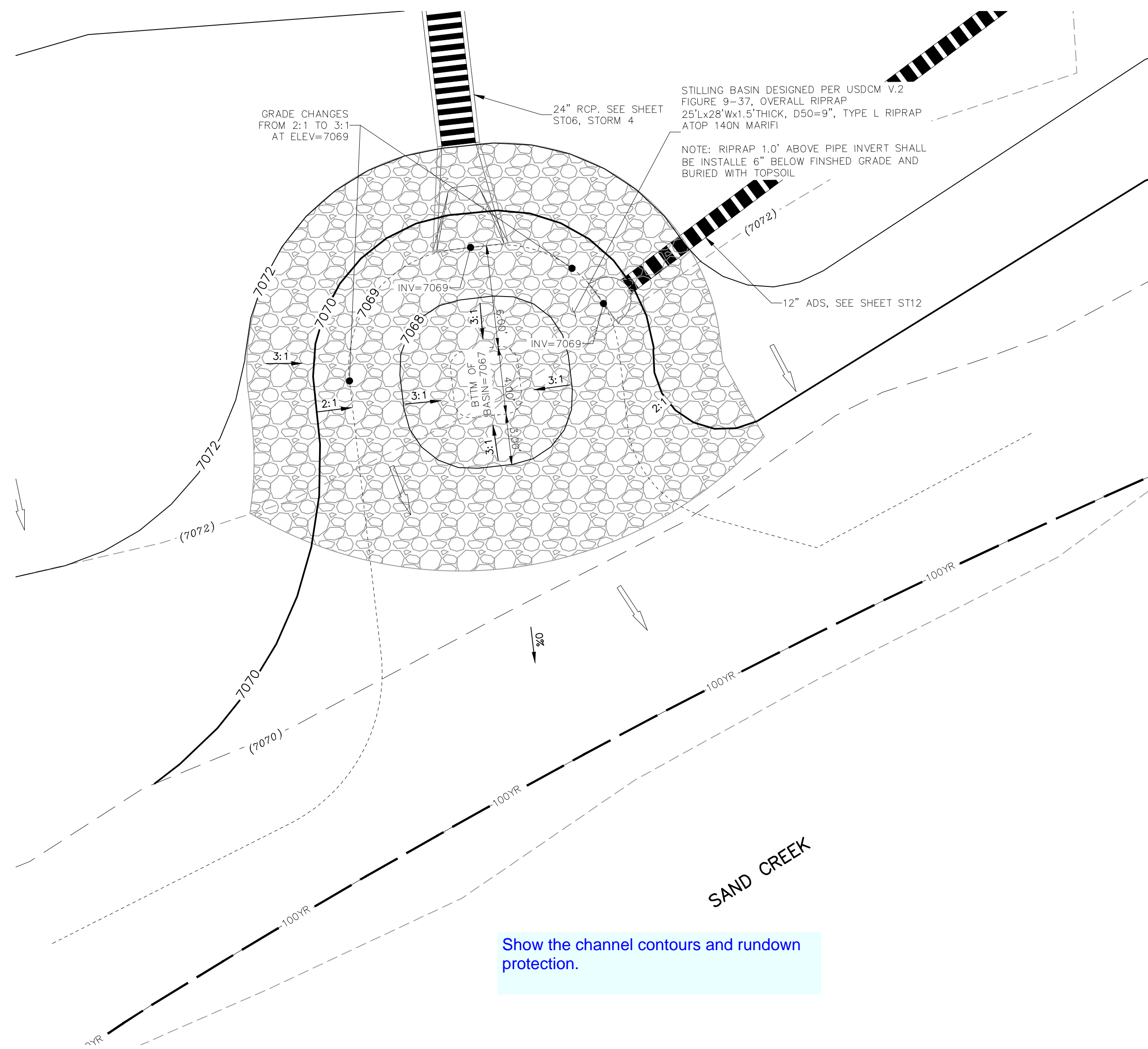
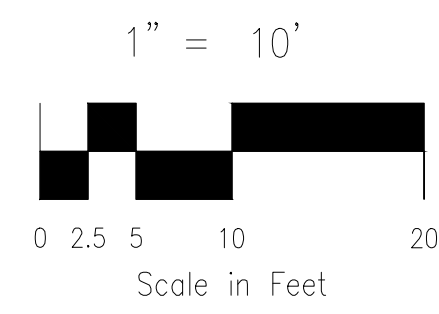


FOREBAY CROSS SECTION
SCALE: 3/8" = 1'

LEGEND

- EX EXISTING
- FUT FUTURE
- PROP PROPOSED
- 7070 PROP MAJ CONT
- 7070 PROP MIN CONT
- 7070 EXIST MAJ CONT
- 7070 EXIST MIN CONT
- 100 YR 100YR FLOODPLAIN
- RIPRAP TYP.
- STABILIZED MAINT. ROAD BELOW EURV
- SC150 EROSION CONTROL MATTING
- EX. FLOW ARROW
- PROP. FLOW ARROW

HOMESTEAD AT STERLING RANCH FIL. NO. 2	
SPILLWAY RUNDOWN & FOREBAY DETAIL	
PROJECT NO. 09-007	FILE: \Map\Const\Draw\Storm Plans\ST09.dwg
DESIGNED BY: CMN	DATE: 7/26/2019
DRAWN BY: CMN	SCALE: 1"=10'
CHECKED BY: VAS	VERT: N/A
102 E. Pikes Peak Ave., 5th Floor Colorado Springs, CO 80903 PHONE: 719.555.5485 EMERGENCY OVER THE PHONE SERVICE	
FOR AND ON BEHALF OF MAS CIVIL CONSULTANTS, INC.	
REVISIONS: NO. DATE BY: DESCRIPTION	APPROVD. BY: DATE:
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	



Show the channel contours and rundown protection.

24" OUTFALL INTO SAND CREEK
1"=5'

LEGEND

- EX EXISTING
- FUT FUTURE
- PROP PROPOSED
- 7070 PROP MAJ CONT
- 7069 PROP MIN CONT
- (7070) EXIST MAJ CONT
- (7069) EXIST MIN CONT
- 100 YR 100YR FLOODPLAIN
- RIPRAP TYP. RIPRAP
- EX. FLOW ARROW
- PROP. FLOW ARROW
- PROPERTY LINE
- PROP STORM SEWER PIPE

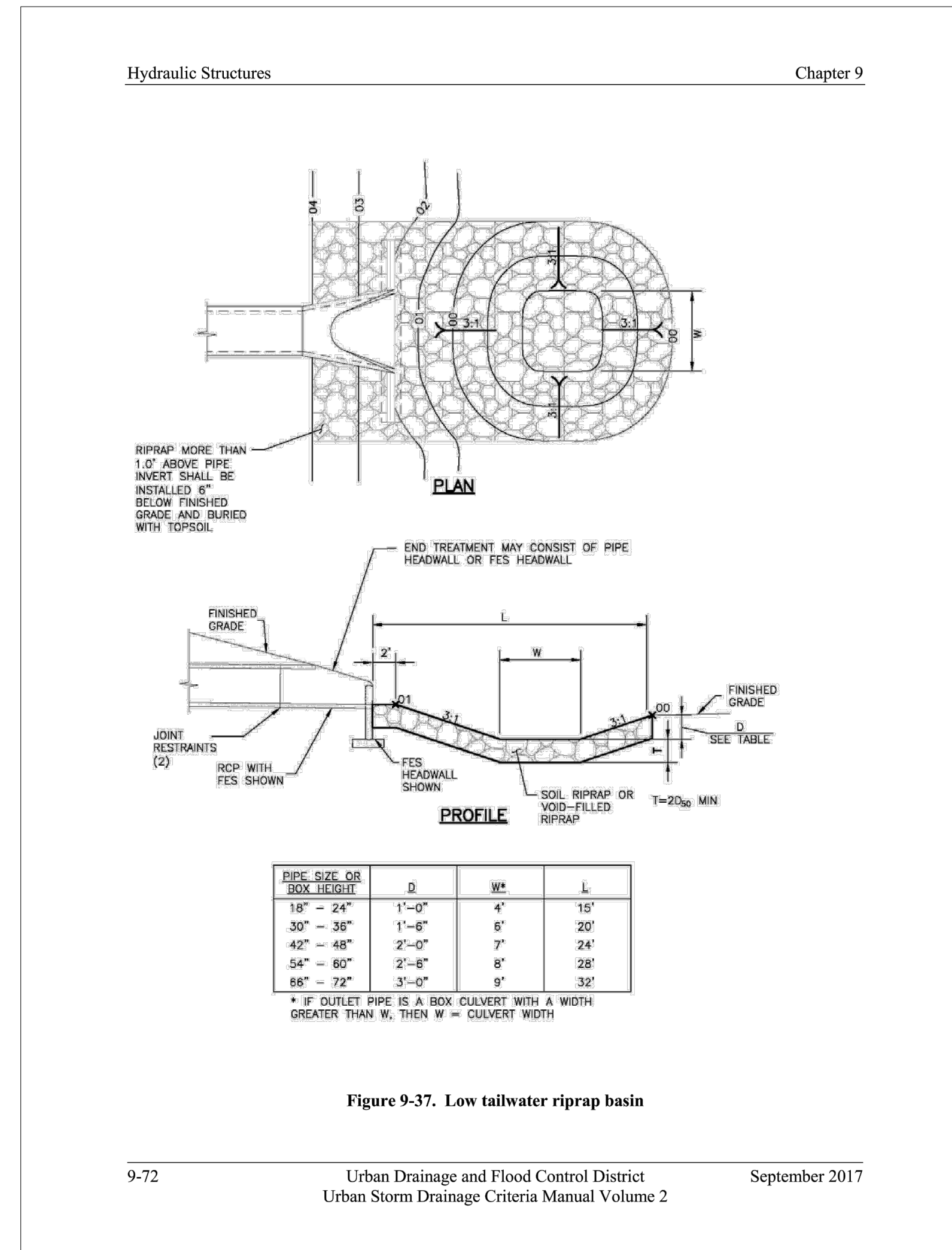
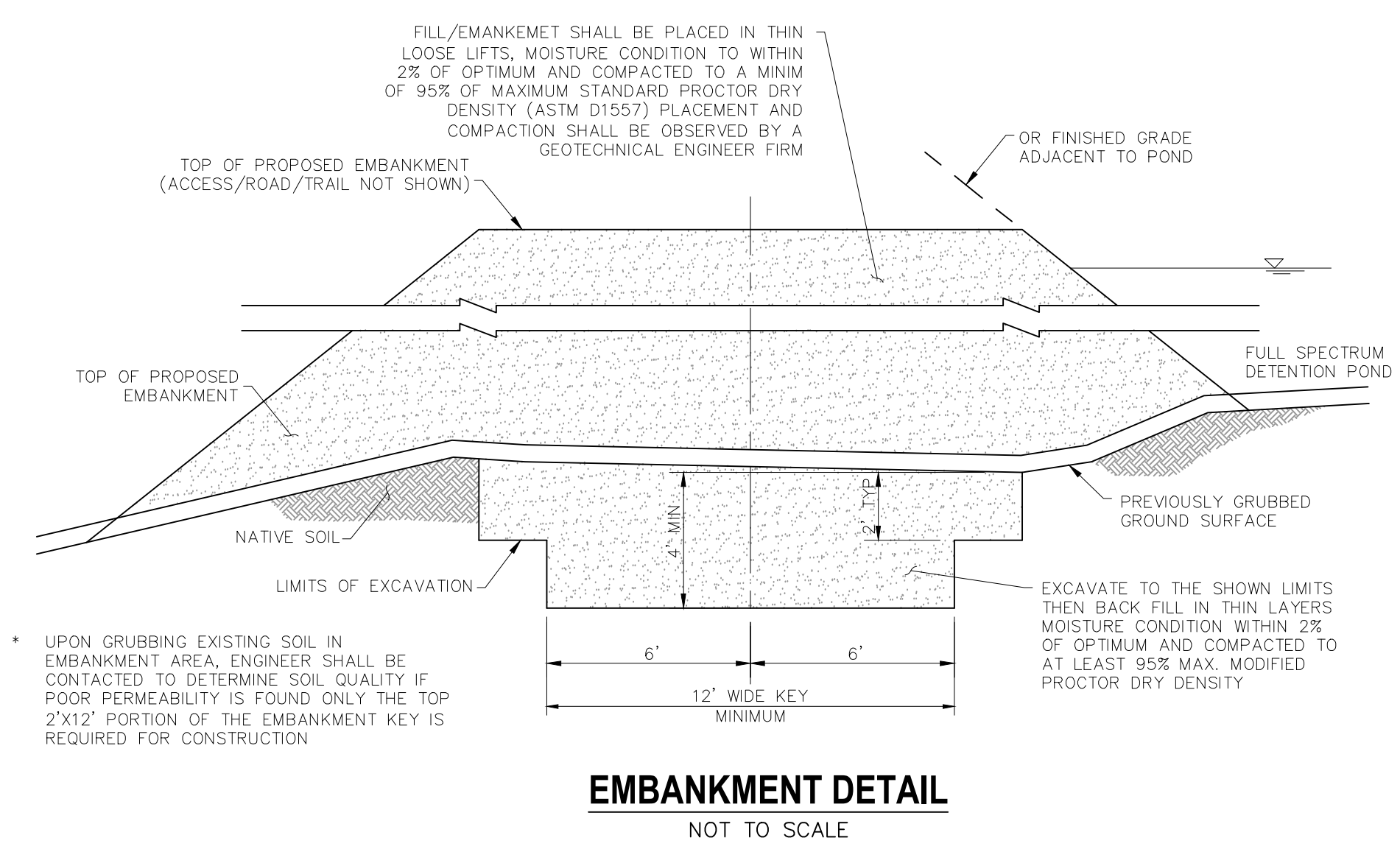


Figure 9-37. Low tailwater riprap basin

9-72 Urban Drainage and Flood Control District September 2017
Urban Storm Drainage Criteria Manual Volume 2

UDFCD V.2 FIGURE 9-37
NTS



HOMESTEAD AT STERLING RANCH FIL. NO. 2
24" OUTFALL DETAIL & BERM KEY
PROJECT NO. 09-007 FILE: \Lang\Const\Eng\Street & Storm Plans\ST10.dwg DATE: 7/26/2019
DESIGNED BY: CMM SCALE: N/A
DRAWN BY: CMM HORIZ: 1"=10'
CHECKED BY: VAS VERT: N/A

102 E. Pikes Peak Ave., 5th Floor
Colorado Springs, CO 80903
PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

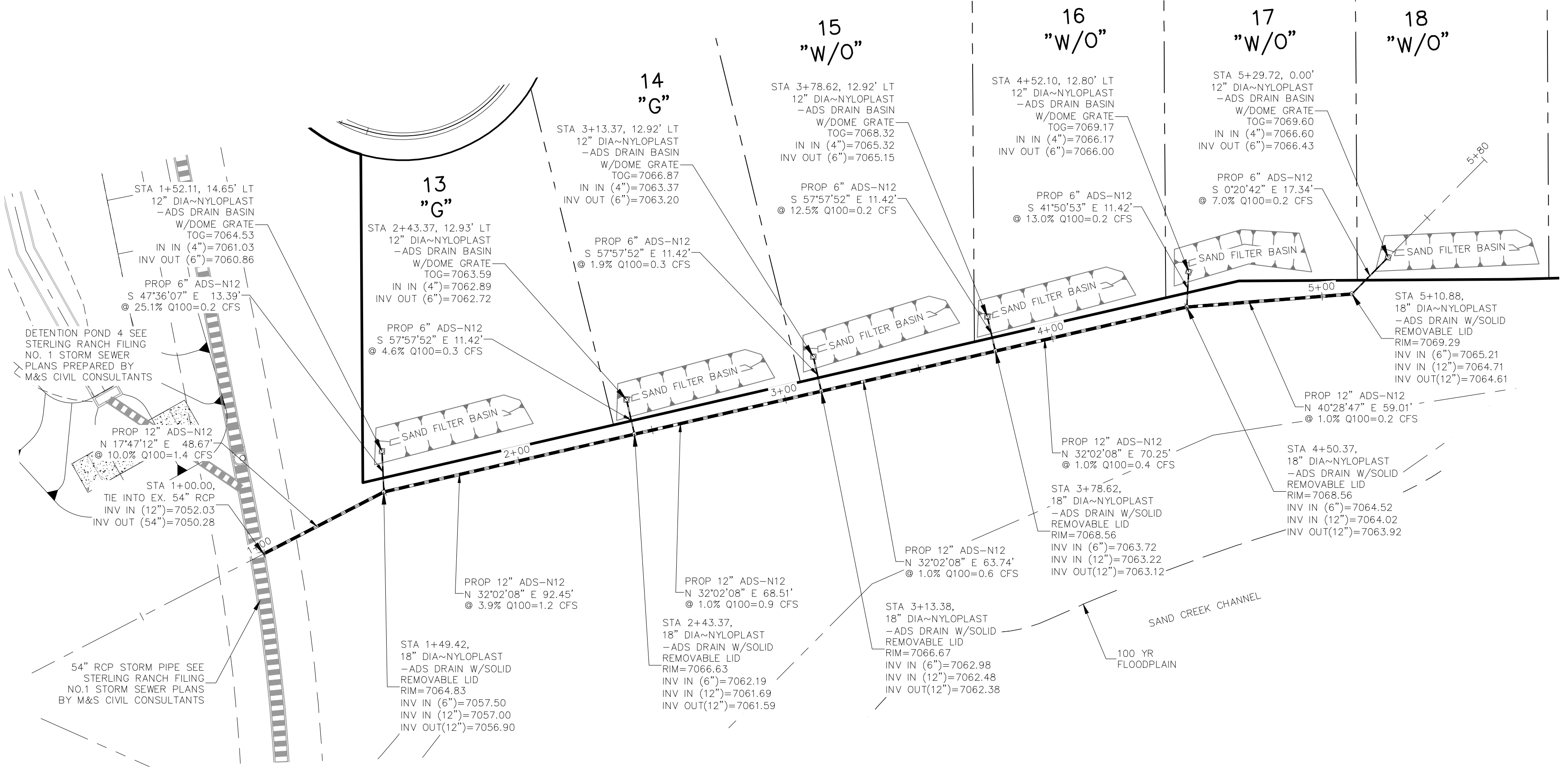
FOR AND ON BEHALF OF
M&S CIVIL CONSULTANTS, INC.

REVISIONS:

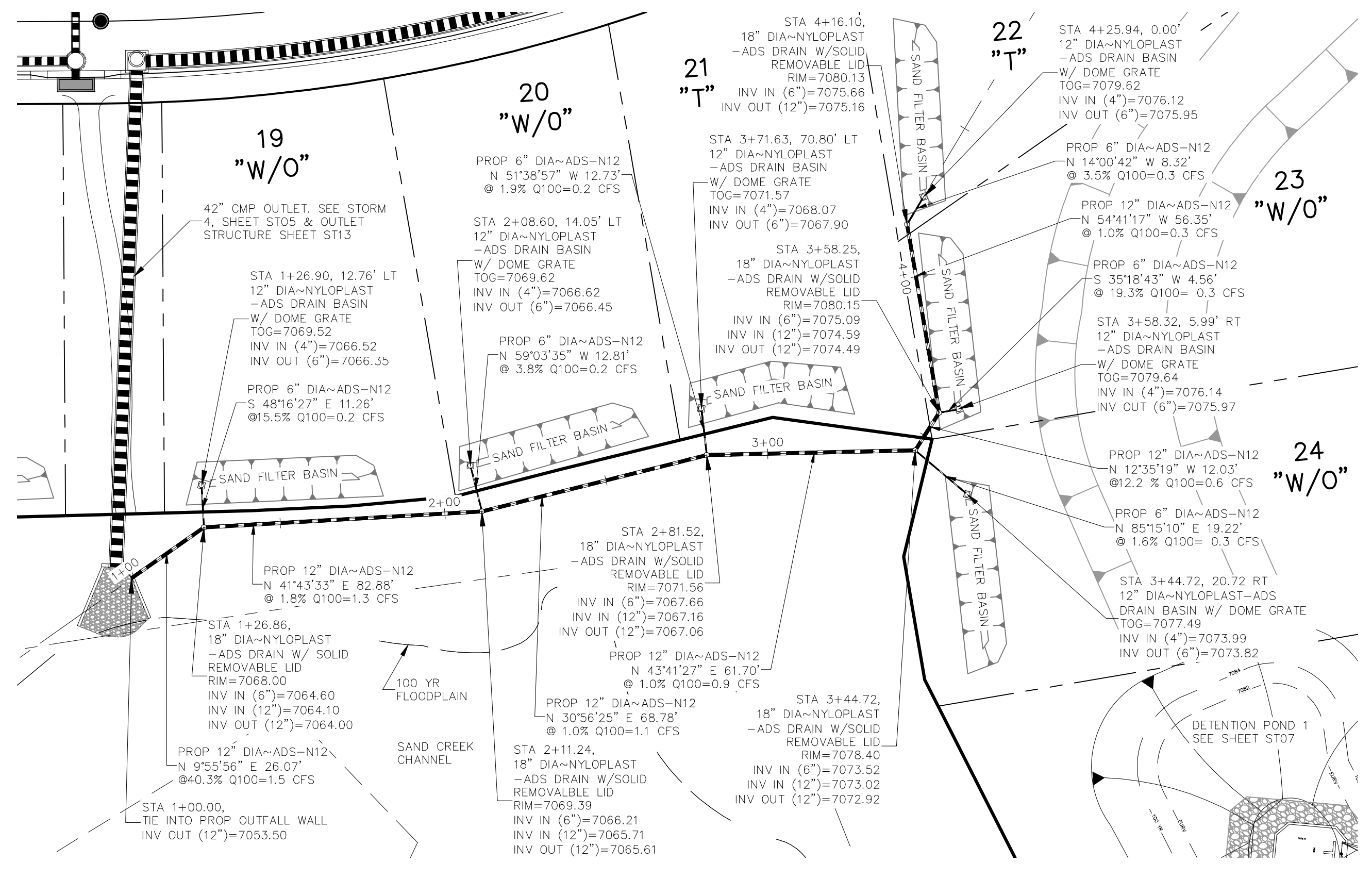
NO.	DATE	BY	DESCRIPTION	APPROVED BY	DATE

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.

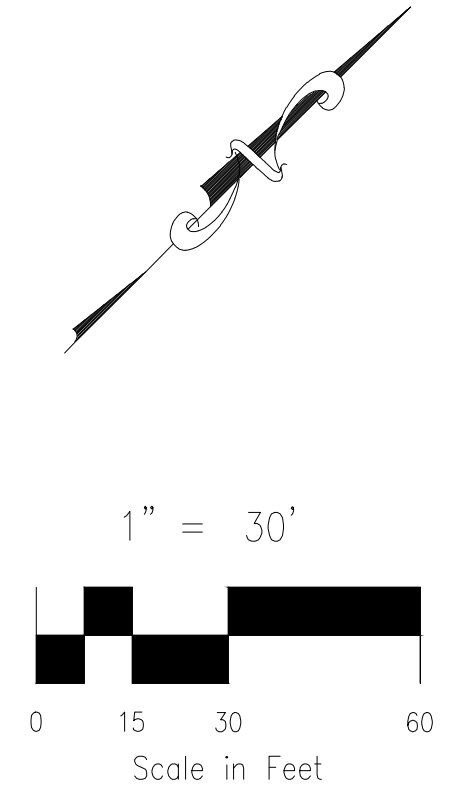
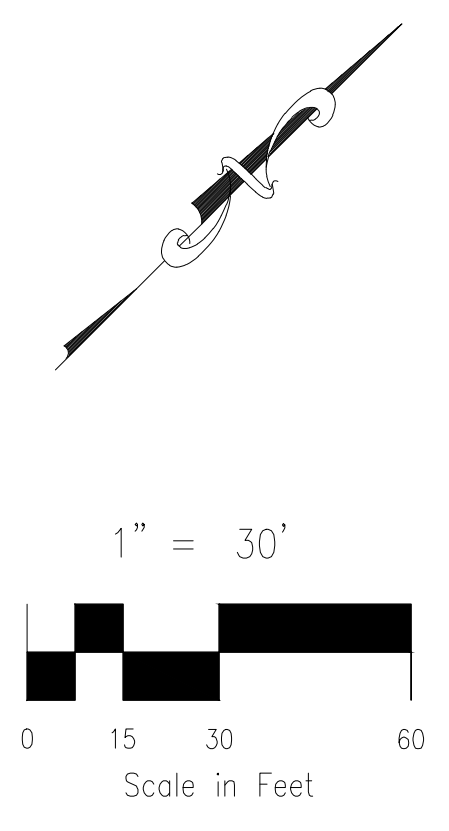
CAUTION



LOTS 13-18 STORM SEWER
SCALE 1"=30'



LOTS 19-24 STORM SEWER
SCALE 1"=30'



HOMESTEAD AT STERLING RANCH FIL. NO. 2

SAND FILTER PONDS LOTS 13-24

PROJECT NO. 09-007	FILE: \Lang\Const\Eng\Plans\ST11.dwg	DATE: 7/26/2019
DESIGNED BY: CMM	SCALE: N/A	SHEET 11 OF 14
DRAWN BY: CMM	HORIZ: 1"=10'	ST11
CHECKED BY: VAS	VERT: N/A	

102 E. Pikes Peak Ave., 3rd Floor
 Colorado Springs, CO 80903
 PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

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

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

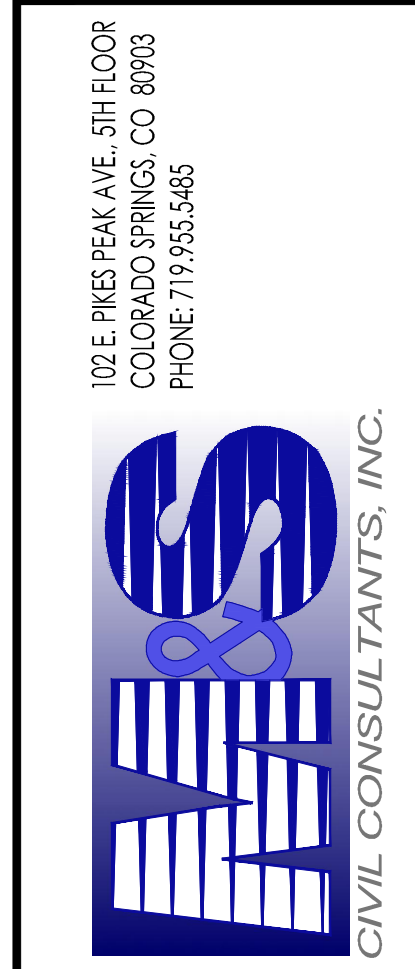
NO.	DATE	BY	DESCRIPTION	APPROVED BY	DATE

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:\09007A\Sterling Ranch No. 2\Map\Const\Eng\Plans\ST11.dwg Plotstamp: 7/30/2019 6:01 PM

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



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

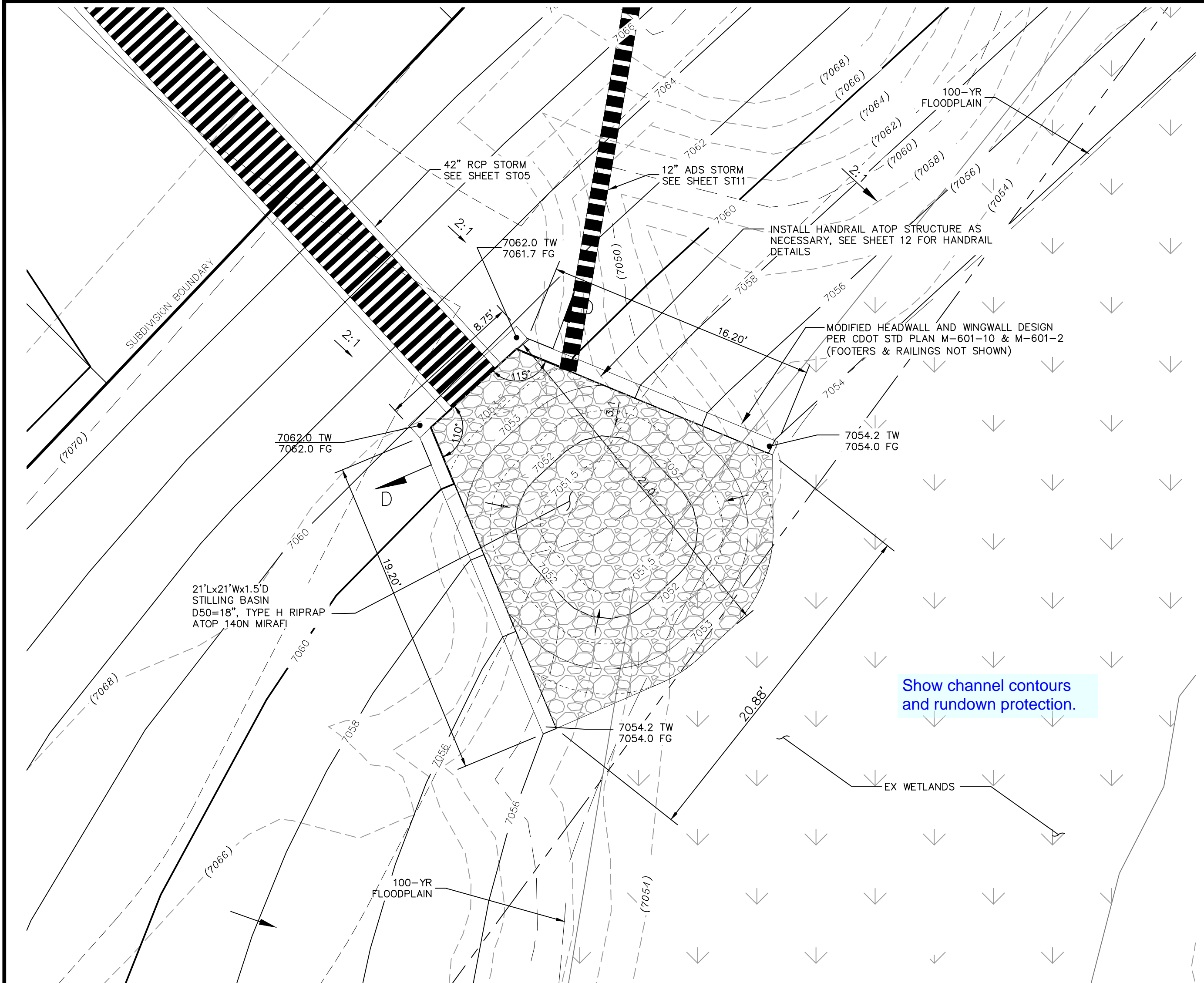
REVISIONS:

NO.	DATE	BY	DESCRIPTION

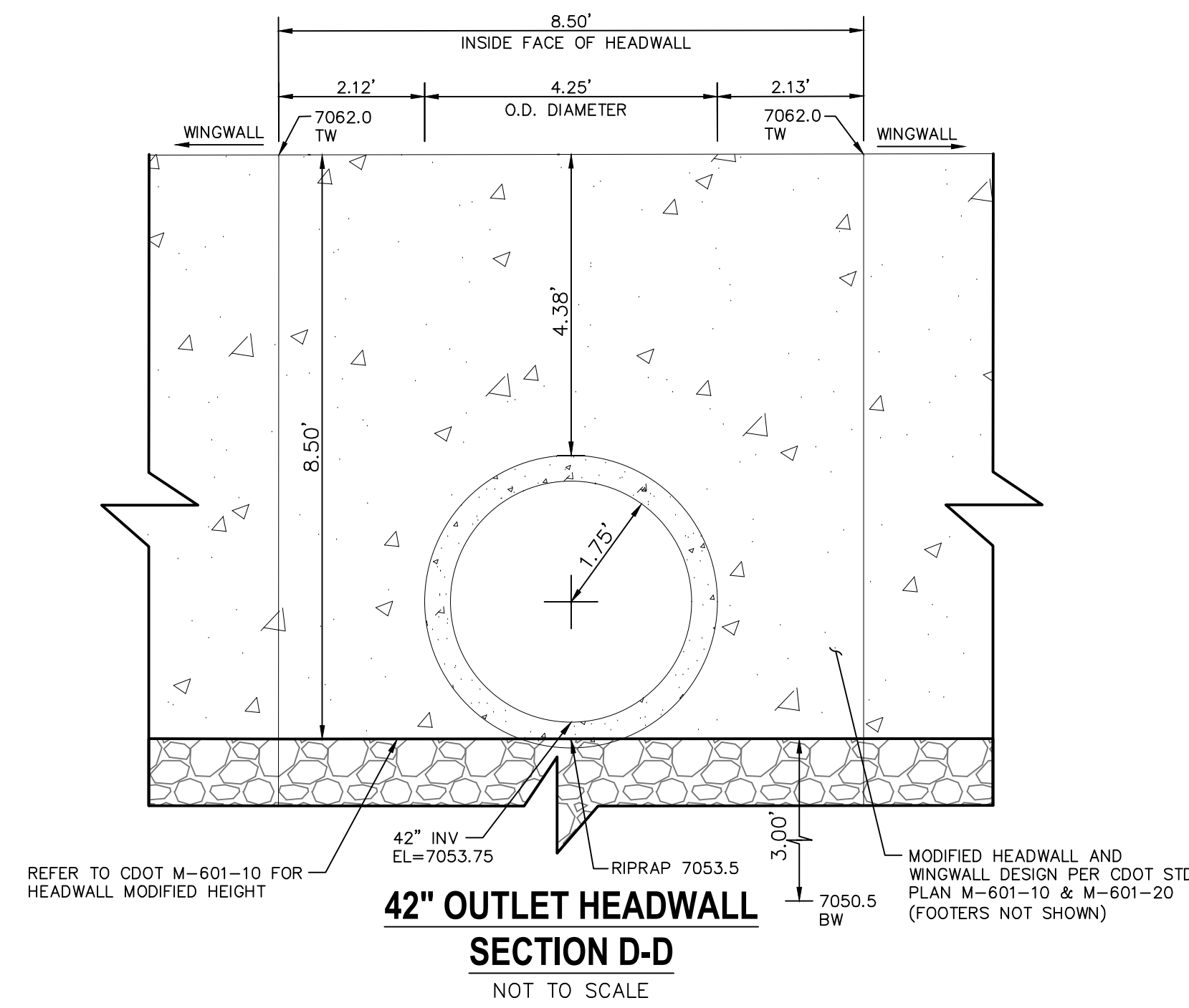
APPROVED BY: _____ DATE: _____
PROJECT NO. 09-007 FILE: \Lang\Const\Eng\Struct & Storm Plans\ST13.dwg

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



STORM 1 - 42" OUTFALL STILLING BASIN W/ HEADWALL & WINDWALLS
SCALE 1"=5'



42" OUTLET HEADWALL
SECTION D-D
NOT TO SCALE

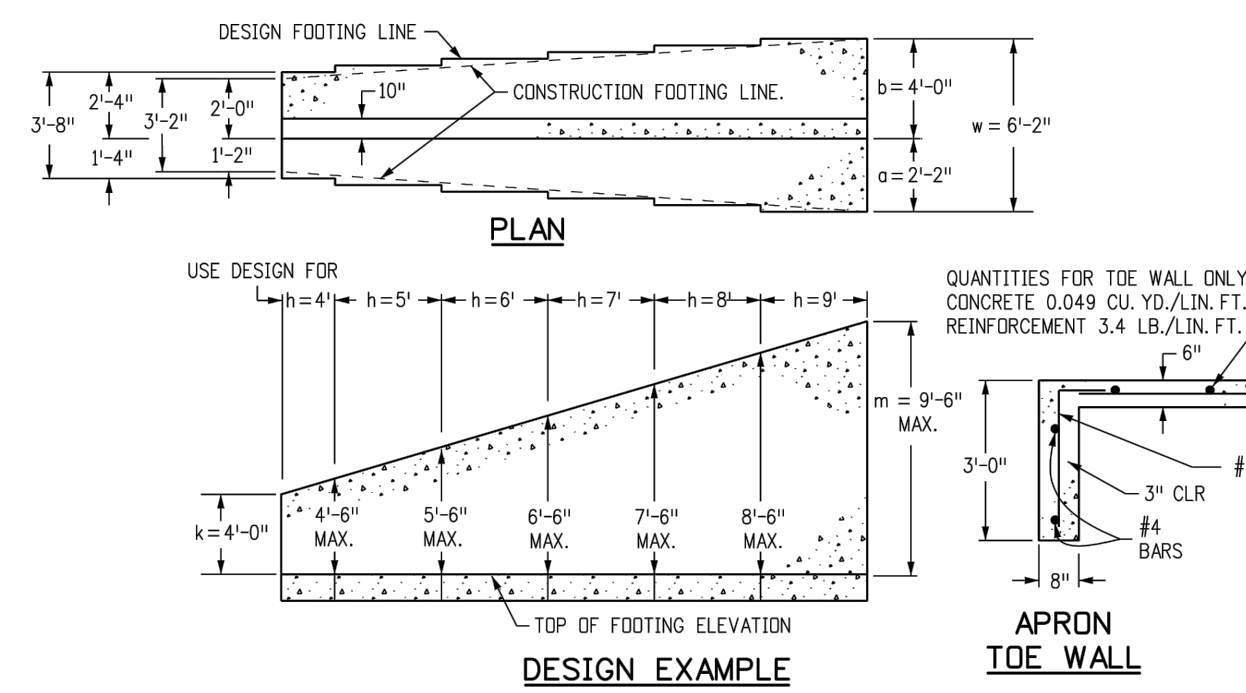
GENERAL NOTES

- ALL EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 1/4" IN.
- WINGWALL FOOTINGS AND FLOOR OF BOX CULVERT SHALL BE PLACED MONOLITHICALLY.
- DIMENSIONS "H", "B", "R", "RISE", "X", "Y", "A", "A1", "A2", "A3", "A4", "A5", "A6", "A7", "A8", "A9", "A10", "A11", "A12", "A13", "A14", "A15", "A16", "A17", "A18", "A19", "A20", "A21", "A22", "A23", "A24", "A25", "A26", "A27", "A28", "A29", "A30", "A31", "A32", "A33", "A34", "A35", "A36", "A37", "A38", "A39", "A40", "A41", "A42", "A43", "A44", "A45", "A46", "A47", "A48", "A49", "A50", "A51", "A52", "A53", "A54", "A55", "A56", "A57", "A58", "A59", "A60", "A61", "A62", "A63", "A64", "A65", "A66", "A67", "A68", "A69", "A70", "A71", "A72", "A73", "A74", "A75", "A76", "A77", "A78", "A79", "A80", "A81", "A82", "A83", "A84", "A85", "A86", "A87", "A88", "A89", "A90", "A91", "A92", "A93", "A94", "A95", "A96", "A97", "A98", "A99", "A100", "A101", "A102", "A103", "A104", "A105", "A106", "A107", "A108", "A109", "A110", "A111", "A112", "A113", "A114", "A115", "A116", "A117", "A118", "A119", "A120", "A121", "A122", "A123", "A124", "A125", "A126", "A127", "A128", "A129", "A130", "A131", "A132", "A133", "A134", "A135", "A136", "A137", "A138", "A139", "A140", "A141", "A142", "A143", "A144", "A145", "A146", "A147", "A148", "A149", "A150", "A151", "A152", "A153", "A154", "A155", "A156", "A157", "A158", "A159", "A160", "A161", "A162", "A163", "A164", "A165", "A166", "A167", "A168", "A169", "A170", "A171", "A172", "A173", "A174", "A175", "A176", "A177", "A178", "A179", "A180", "A181", "A182", "A183", "A184", "A185", "A186", "A187", "A188", "A189", "A190", "A191", "A192", "A193", "A194", "A195", "A196", "A197", "A198", "A199", "A200", "A201", "A202", "A203", "A204", "A205", "A206", "A207", "A208", "A209", "A210", "A211", "A212", "A213", "A214", "A215", "A216", "A217", "A218", "A219", "A220", "A221", "A222", "A223", "A224", "A225", "A226", "A227", "A228", "A229", "A230", "A231", "A232", "A233", "A234", "A235", "A236", "A237", "A238", "A239", "A240", "A241", "A242", "A243", "A244", "A245", "A246", "A247", "A248", "A249", "A250", "A251", "A252", "A253", "A254", "A255", "A256", "A257", "A258", "A259", "A260", "A261", "A262", "A263", "A264", "A265", "A266", "A267", "A268", "A269", "A270", "A271", "A272", "A273", "A274", "A275", "A276", "A277", "A278", "A279", "A280", "A281", "A282", "A283", "A284", "A285", "A286", "A287", "A288", "A289", "A290", "A291", "A292", "A293", "A294", "A295", "A296", "A297", "A298", "A299", "A300", "A301", "A302", "A303", "A304", "A305", "A306", "A307", "A308", "A309", "A310", "A311", "A312", "A313", "A314", "A315", "A316", "A317", "A318", "A319", "A320", "A321", "A322", "A323", "A324", "A325", "A326", "A327", "A328", "A329", "A330", "A331", "A332", "A333", "A334", "A335", "A336", "A337", "A338", "A339", "A340", "A341", "A342", "A343", "A344", "A345", "A346", "A347", "A348", "A349", "A350", "A351", "A352", "A353", "A354", "A355", "A356", "A357", "A358", "A359", "A360", "A361", "A362", "A363", "A364", "A365", "A366", "A367", "A368", "A369", "A370", "A371", "A372", "A373", "A374", "A375", "A376", "A377", "A378", "A379", "A380", "A381", "A382", "A383", "A384", "A385", "A386", "A387", "A388", "A389", "A390", "A391", "A392", "A393", "A394", "A395", "A396", "A397", "A398", "A399", "A400", "A401", "A402", "A403", "A404", "A405", "A406", "A407", "A408", "A409", "A410", "A411", "A412", "A413", "A414", "A415", "A416", "A417", "A418", "A419", "A420", "A421", "A422", "A423", "A424", "A425", "A426", "A427", "A428", "A429", "A430", "A431", "A432", "A433", "A434", "A435", "A436", "A437", "A438", "A439", "A440", "A441", "A442", "A443", "A444", "A445", "A446", "A447", "A448", "A449", "A450", "A451", "A452", "A453", "A454", "A455", "A456", "A457", "A458", "A459", "A460", "A461", "A462", "A463", "A464", "A465", "A466", "A467", "A468", "A469", "A470", "A471", "A472", "A473", "A474", "A475", "A476", "A477", "A478", "A479", "A480", "A481", "A482", "A483", "A484", "A485", "A486", "A487", "A488", "A489", "A490", "A491", "A492", "A493", "A494", "A495", "A496", "A497", "A498", "A499", "A500", "A501", "A502", "A503", "A504", "A505", "A506", "A507", "A508", "A509", "A510", "A511", "A512", "A513", "A514", "A515", "A516", "A517", "A518", "A519", "A520", "A521", "A522", "A523", "A524", "A525", "A526", "A527", "A528", "A529", "A530", "A531", "A532", "A533", "A534", "A535", "A536", "A537", "A538", "A539", "A540", "A541", "A542", "A543", "A544", "A545", "A546", "A547", "A548", "A549", "A550", "A551", "A552", "A553", "A554", "A555", "A556", "A557", "A558", "A559", "A560", "A561", "A562", "A563", "A564", "A565", "A566", "A567", "A568", "A569", "A570", "A571", "A572", "A573", "A574", "A575", "A576", "A577", "A578", "A579", "A580", "A581", "A582", "A583", "A584", "A585", "A586", "A587", "A588", "A589", "A590", "A591", "A592", "A593", "A594", "A595", "A596", "A597", "A598", "A599", "A600", "A601", "A602", "A603", "A604", "A605", "A606", "A607", "A608", "A609", "A610", "A611", "A612", "A613", "A614", "A615", "A616", "A617", "A618", "A619", "A620", "A621", "A622", "A623", "A624", "A625", "A626", "A627", "A628", "A629", "A630", "A631", "A632", "A633", "A634", "A635", "A636", "A637", "A638", "A639", "A640", "A641", "A642", "A643", "A644", "A645", "A646", "A647", "A648", "A649", "A650", "A651", "A652", "A653", "A654", "A655", "A656", "A657", "A658", "A659", "A660", "A661", "A662", "A663", "A664", "A665", "A666", "A667", "A668", "A669", "A670", "A671", "A672", "A673", "A674", "A675", "A676", "A677", "A678", "A679", "A680", "A681", "A682", "A683", "A684", "A685", "A686", "A687", "A688", "A689", "A690", "A691", "A692", "A693", "A694", "A695", "A696", "A697", "A698", "A699", "A700", "A701", "A702", "A703", "A704", "A705", "A706", "A707", "A708", "A709", "A710", "A711", "A712", "A713", "A714", "A715", "A716", "A717", "A718", "A719", "A720", "A721", "A722", "A723", "A724", "A725", "A726", "A727", "A728", "A729", "A730", "A731", "A732", "A733", "A734", "A735", "A736", "A737", "A738", "A739", "A740", "A741", "A742", "A743", "A744", "A745", "A746", "A747", "A748", "A749", "A750", "A751", "A752", "A753", "A754", "A755", "A756", "A757", "A758", "A759", "A760", "A761", "A762", "A763", "A764", "A765", "A766", "A767", "A768", "A769", "A770", "A771", "A772", "A773", "A774", "A775", "A776", "A777", "A778", "A779", "A780", "A781", "A782", "A783", "A784", "A785", "A786", "A787", "A788", "A789", "A790", "A791", "A792", "A793", "A794", "A795", "A796", "A797", "A798", "A799", "A800", "A801", "A802", "A803", "A804", "A805", "A806", "A807", "A808", "A809", "A810", "A811", "A812", "A813", "A814", "A815", "A816", "A817", "A818", "A819", "A820", "A821", "A822", "A823", "A824", "A825", "A826", "A827", "A828", "A829", "A830", "A831", "A832", "A833", "A834", "A835", "A836", "A837", "A838", "A839", "A840", "A841", "A842", "A843", "A844", "A845", "A846", "A847", "A848", "A849", "A850", "A851", "A852", "A853", "A854", "A855", "A856", "A857", "A858", "A859", "A860", "A861", "A862", "A863", "A864", "A865", "A866", "A867", "A868", "A869", "A870", "A871", "A872", "A873", "A874", "A875", "A876", "A877", "A878", "A879", "A880", "A881", "A882", "A883", "A884", "A885", "A886", "A887", "A888", "A889", "A890", "A891", "A892", "A893", "A894", "A895", "A896", "A897", "A898", "A899", "A900", "A901", "A902", "A903", "A904", "A905", "A906", "A907", "A908", "A909", "A910", "A911", "A912", "A913", "A914", "A915", "A916", "A917", "A918", "A919", "A920", "A921", "A922", "A923", "A924", "A925", "A926", "A927", "A928", "A929", "A930", "A931", "A932", "A933", "A934", "A935", "A936", "A937", "A938", "A939", "A940", "A941", "A942", "A943", "A944", "A945", "A946", "A947", "A948", "A949", "A950", "A951", "A952", "A953", "A954", "A955", "A956", "A957", "A958", "A959", "A960", "A961", "A962", "A963", "A964", "A965", "A966", "A967", "A968", "A969", "A970", "A971", "A972", "A973", "A974", "A975", "A976", "A977", "A978", "A979", "A980", "A981", "A982", "A983", "A984", "A985", "A986", "A987", "A988", "A989", "A990", "A991", "A992", "A993", "A994", "A995", "A996", "A997", "A998", "A999", "A1000".
- REINFORCING STEEL SHALL BE GRADE 60.
- THE MINIMUM SPLICE LENGTH FOR COMMON BAR SIZES SHALL BE:

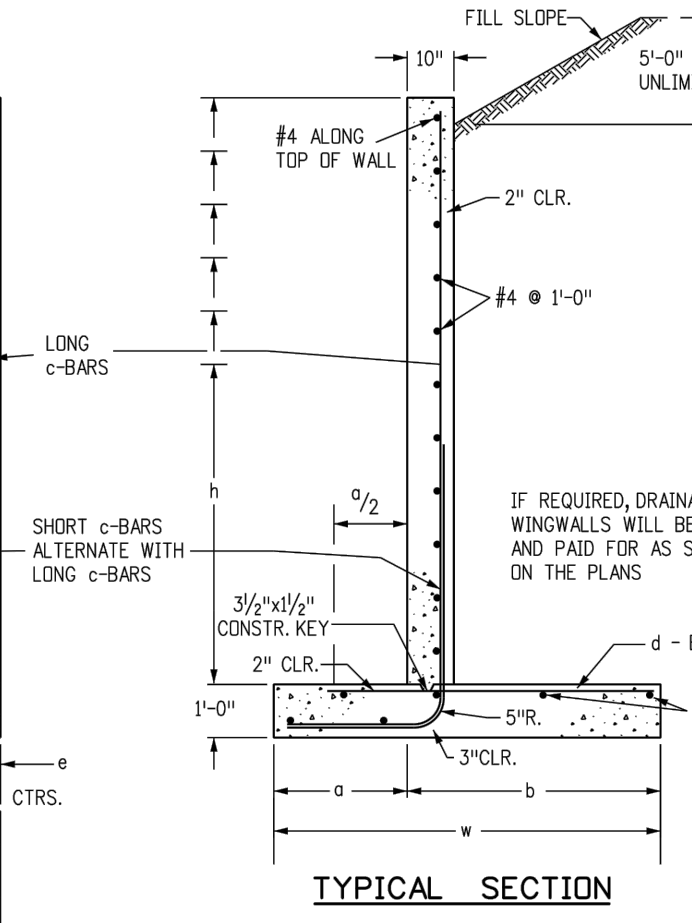
BAR	#4	#5	#6
SPLICE LENGTH	1'-3"	1'-7"	2'-0"

e	CTRS.									
	1'-6"	1'-6"	1'-6"	1'-6"	1'-4"	1'-3"	9"	10"	11"	7"
a	1'-0"	1'-2"	1'-4"	1'-6"	1'-8"	1'-10"	2'-0"	2'-2"	2'-4"	2'-6"
b	1'-8"	2'-0"	2'-4"	2'-8"	3'-0"	3'-4"	3'-8"	4'-0"	4'-4"	4'-8"
w	2'-8"	3'-2"	3'-8"	4'-2"	4'-8"	5'-2"	5'-8"	6'-2"	6'-8"	7'-2"
c & d BARS	#4@1'-6"	#4@1'-6"	#4@1'-6"	#4@1'-6"	#4@1'-4"	#5@1'-3"	#5@1'-3"	#6@9"	#6@9"	#6@7"
% CONC. CULV. L.F.	0.161	0.210	0.259	0.308	0.358	0.407	0.457	0.506	0.556	0.604
* REIN. LB./L.F.	8.0	9.3	10.7	12.1	14.3	16.4	18.6	21.0	23.6	26.4

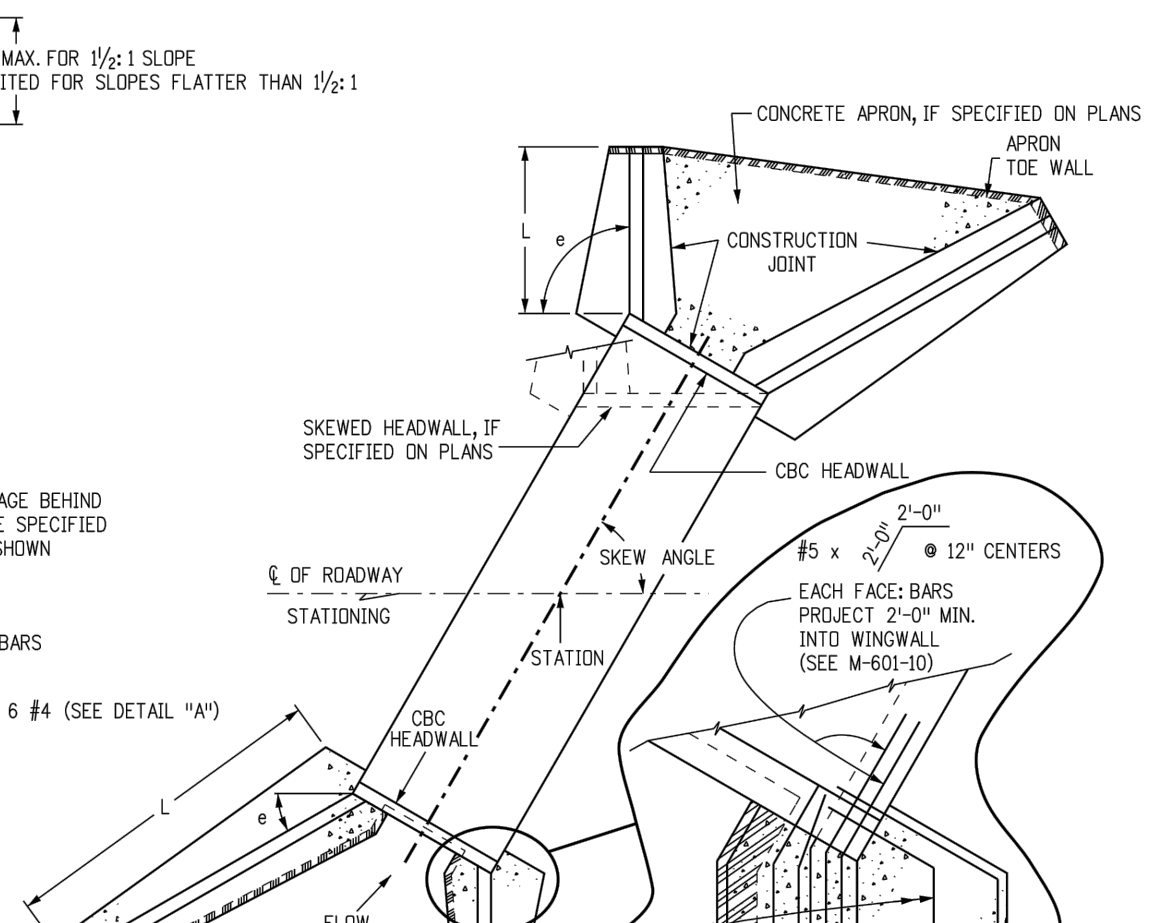
DESIGN TABLE



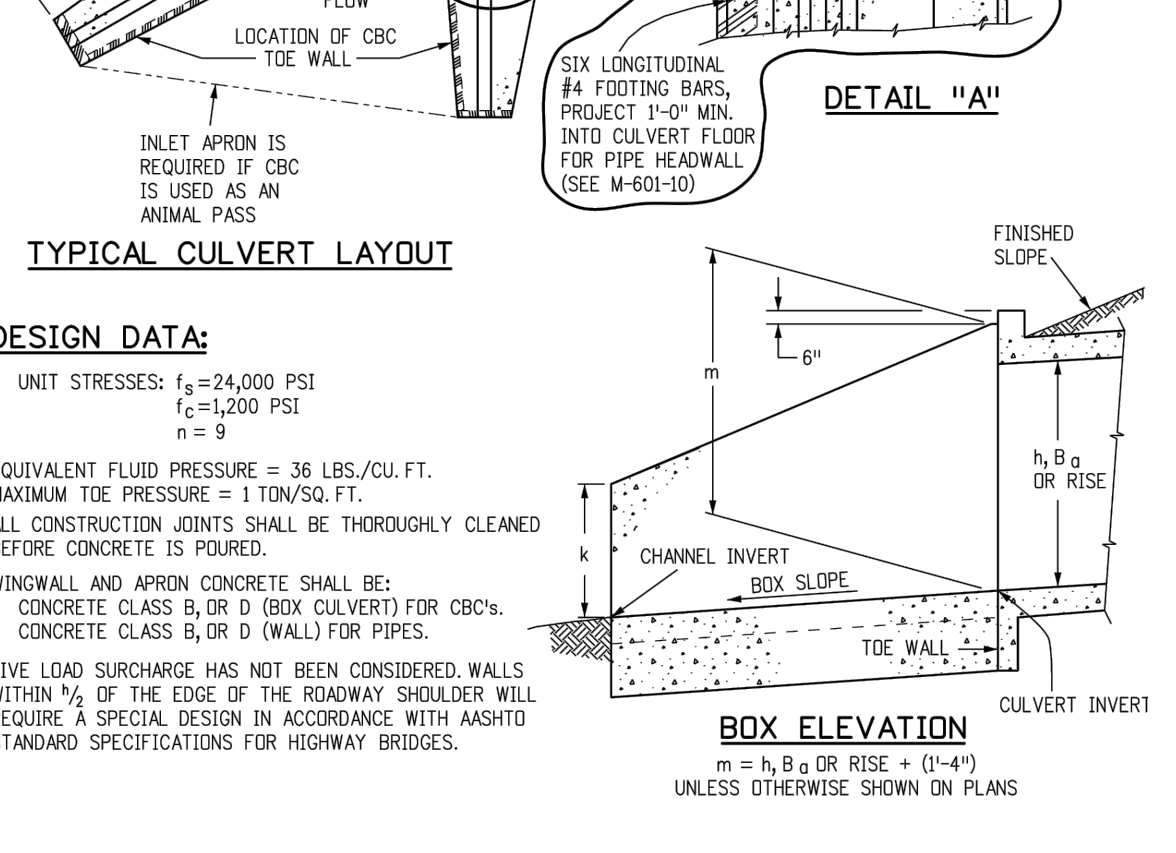
DESIGN EXAMPLE



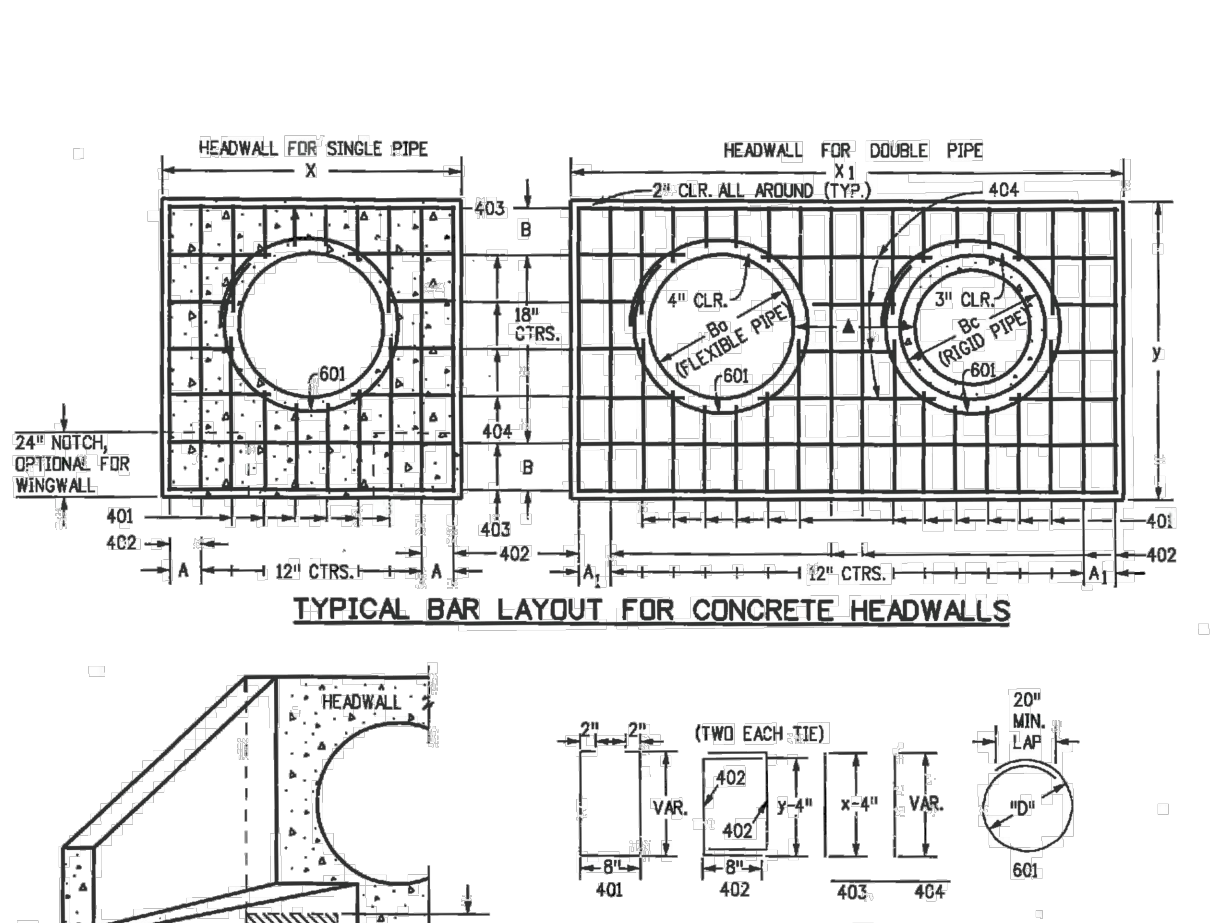
TYPICAL SECTION



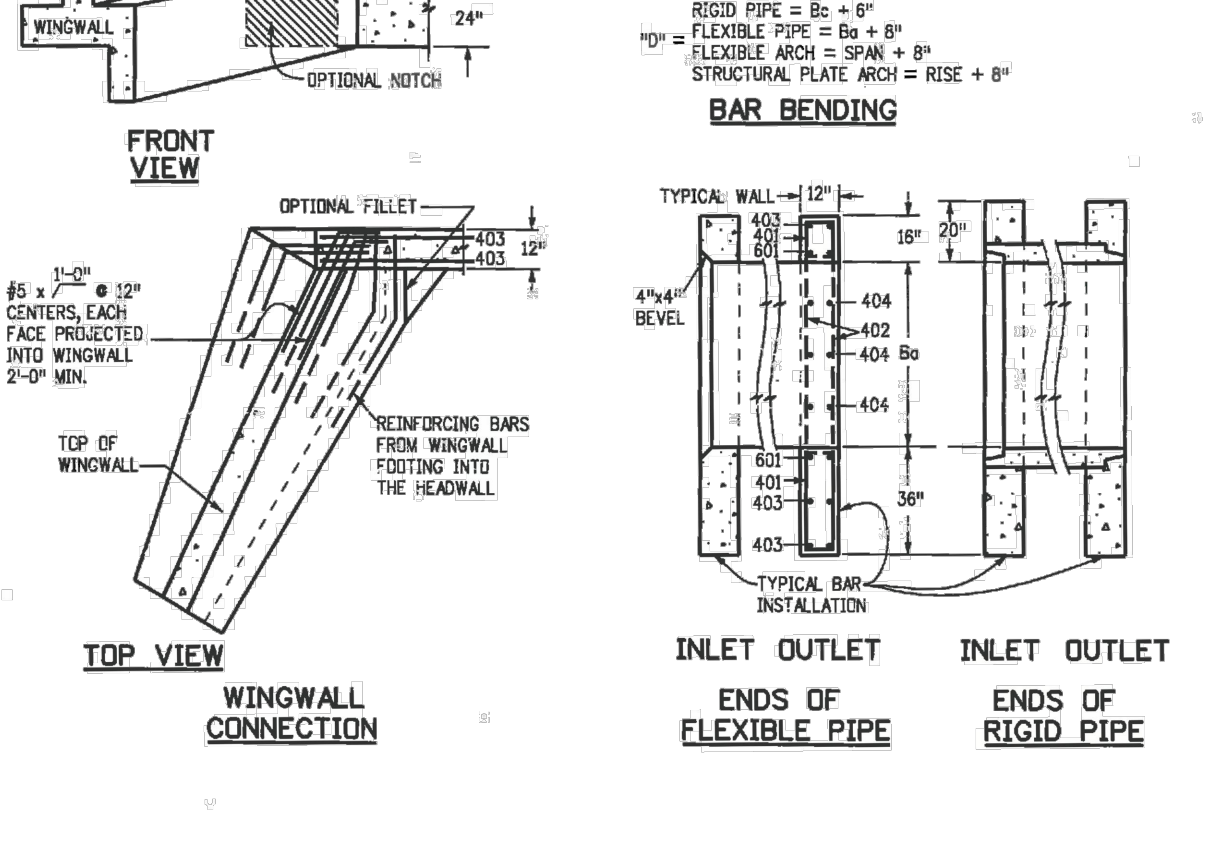
TYPICAL CULVERT LAYOUT



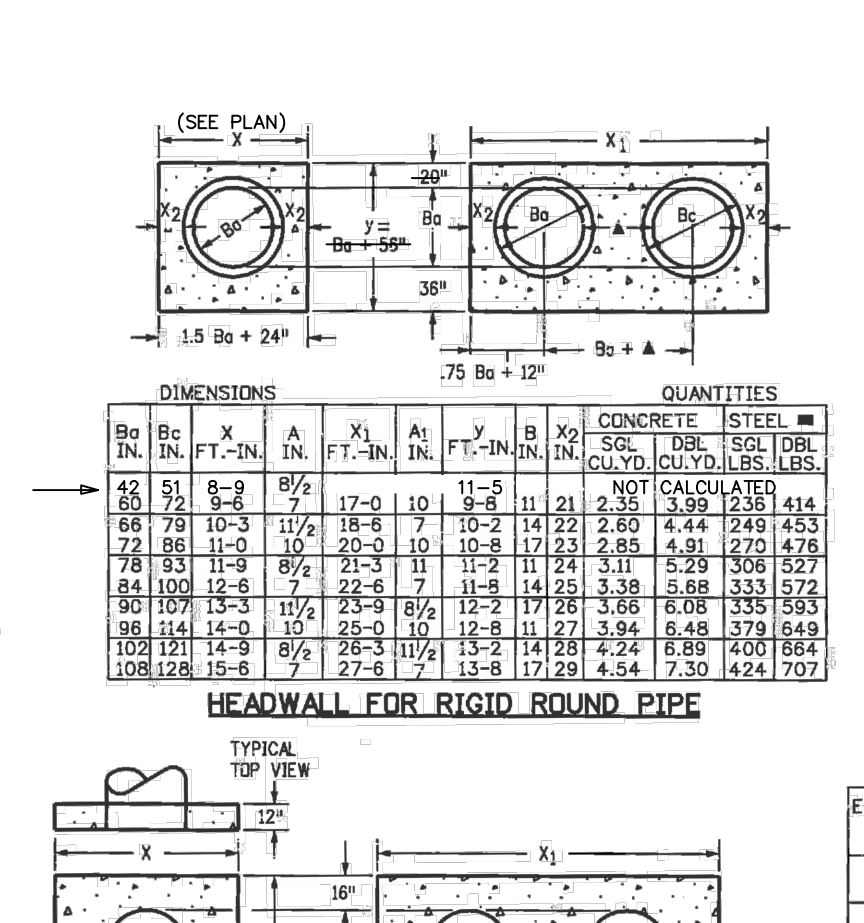
BOX ELEVATION



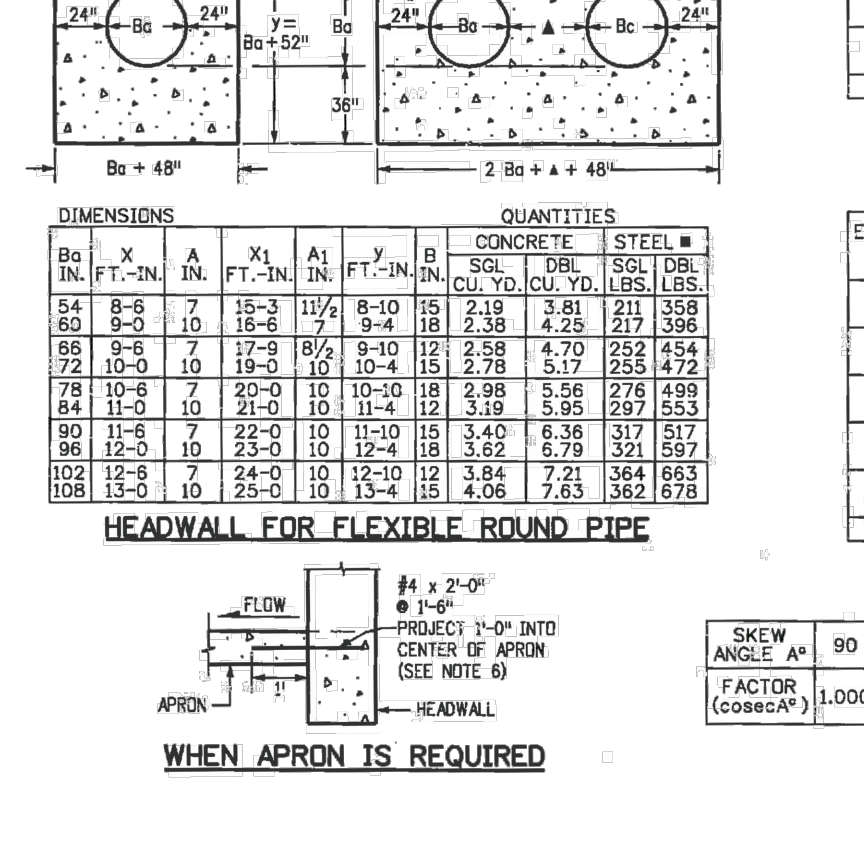
TYPICAL BAR LAYOUT FOR CONCRETE HEADWALLS



HEADWALL FOR RIGID ROUND PIPE



HEADWALL FOR FLEXIBLE PIPE ARCH



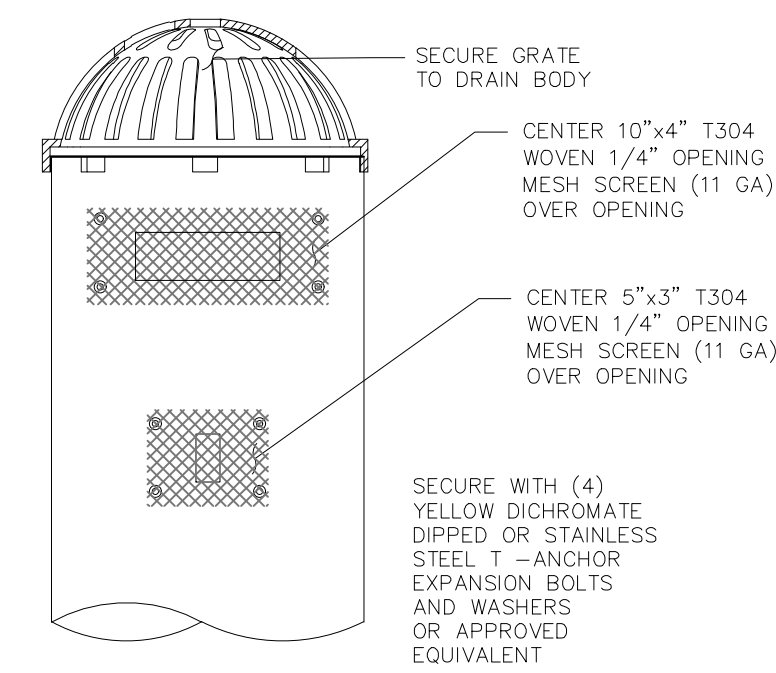
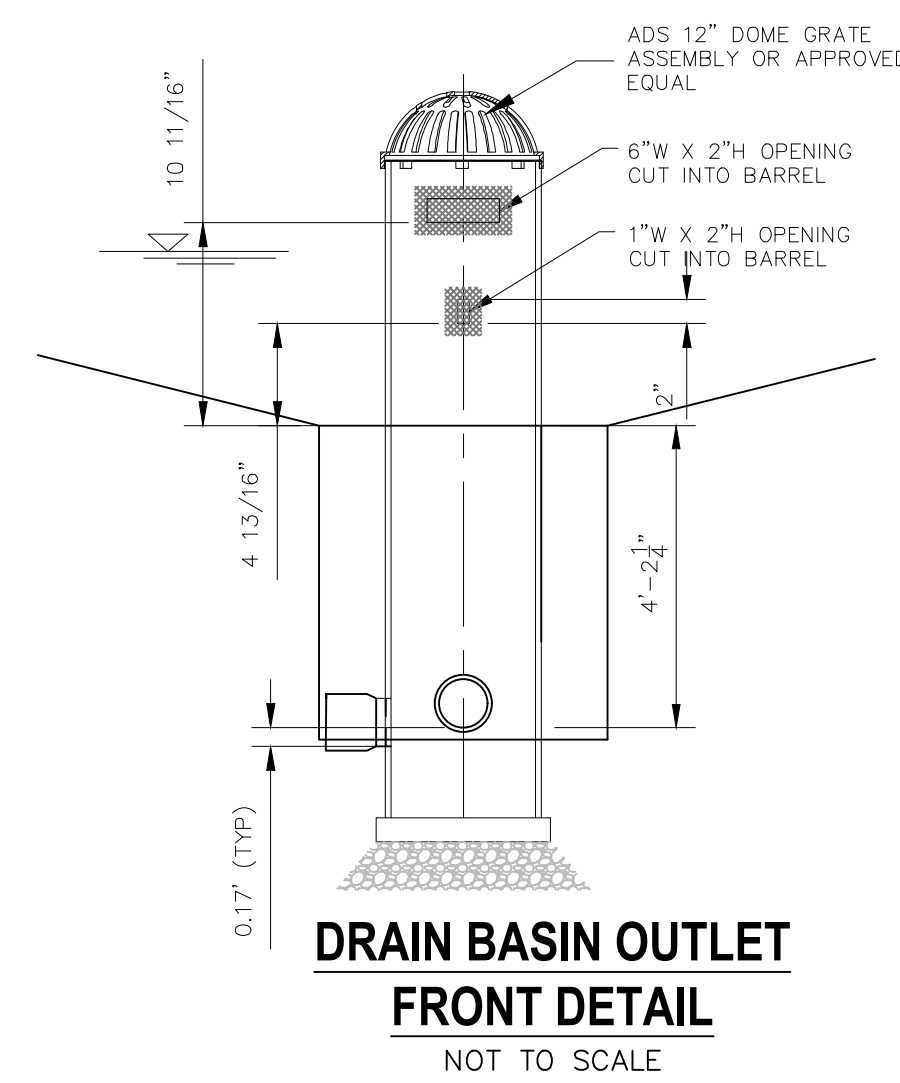
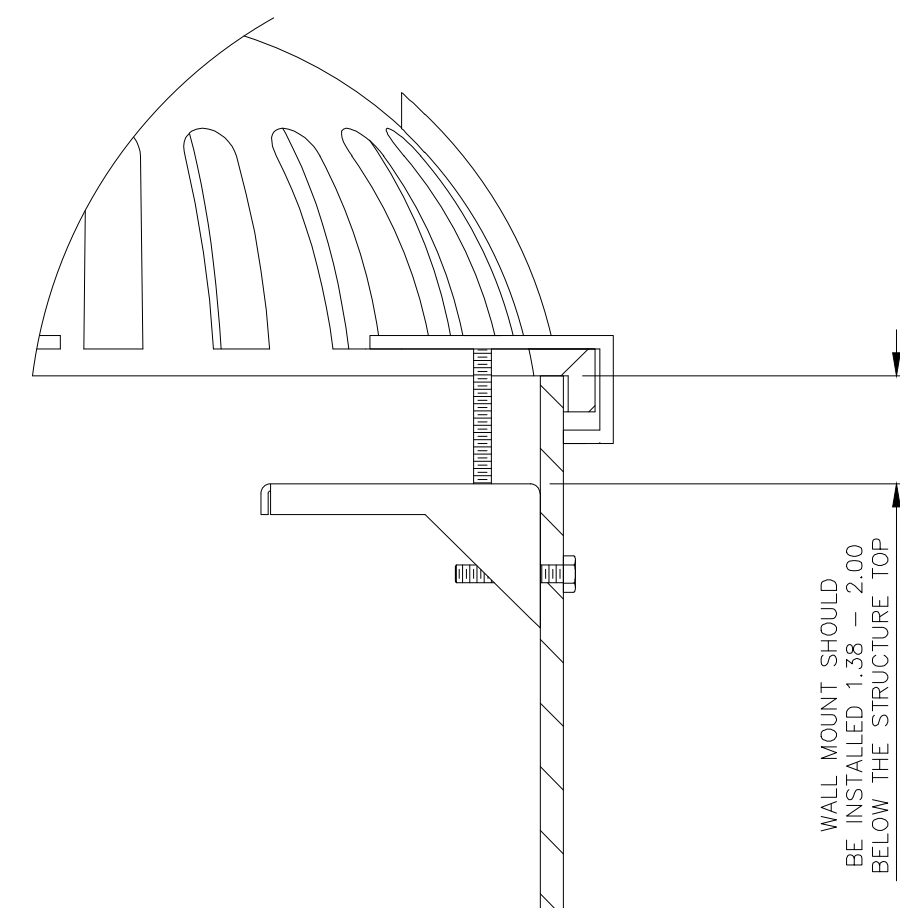
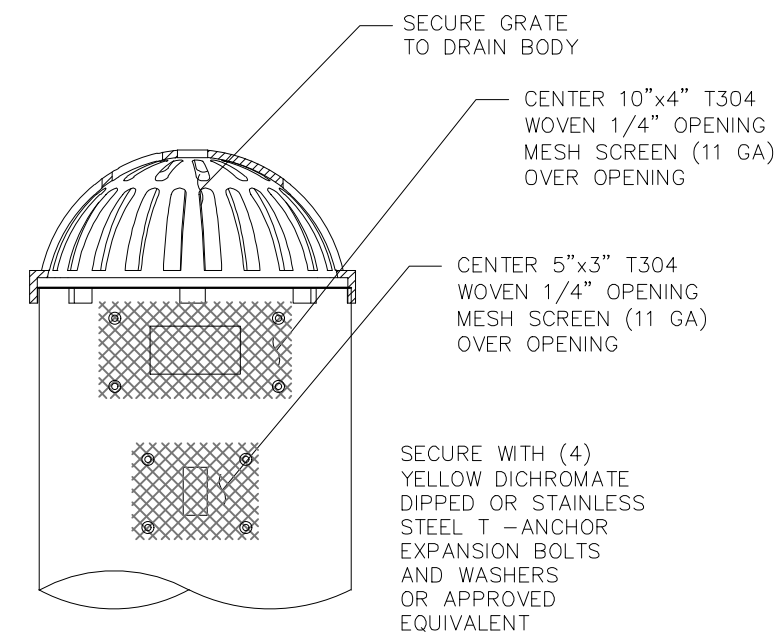
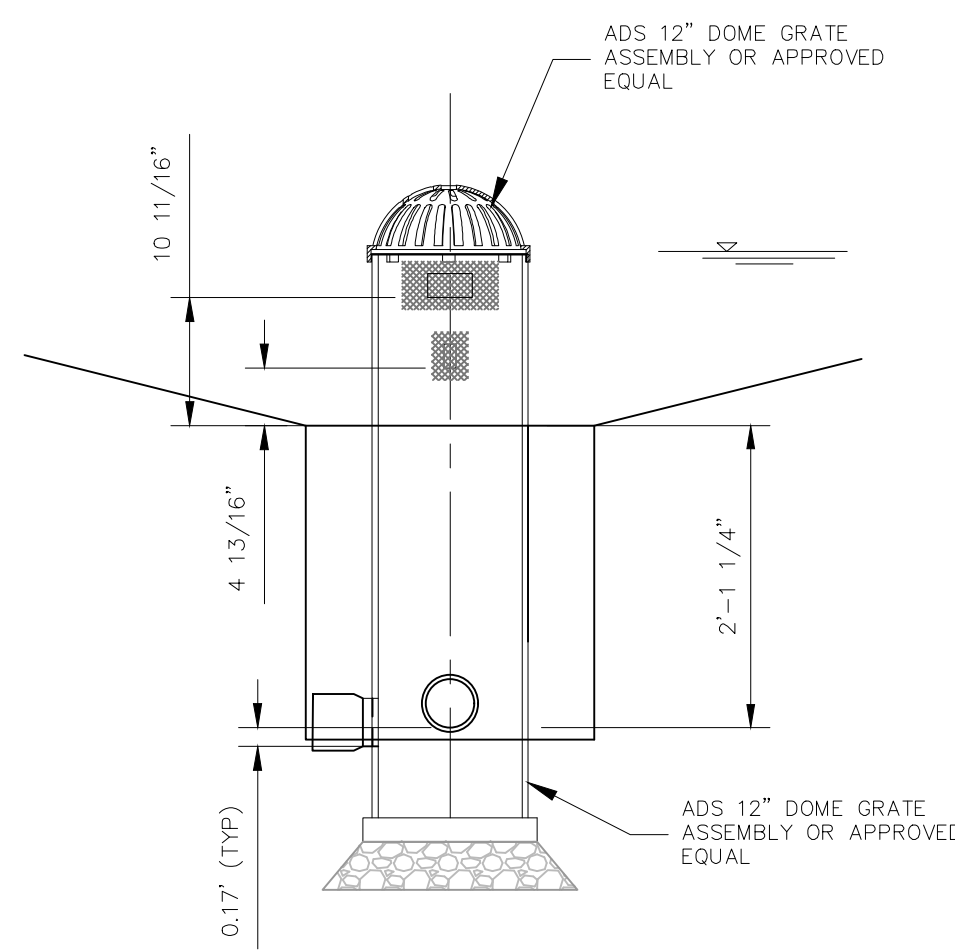
HEADWALL FOR FLEXIBLE ROUND PIPE

GENERAL NOTES

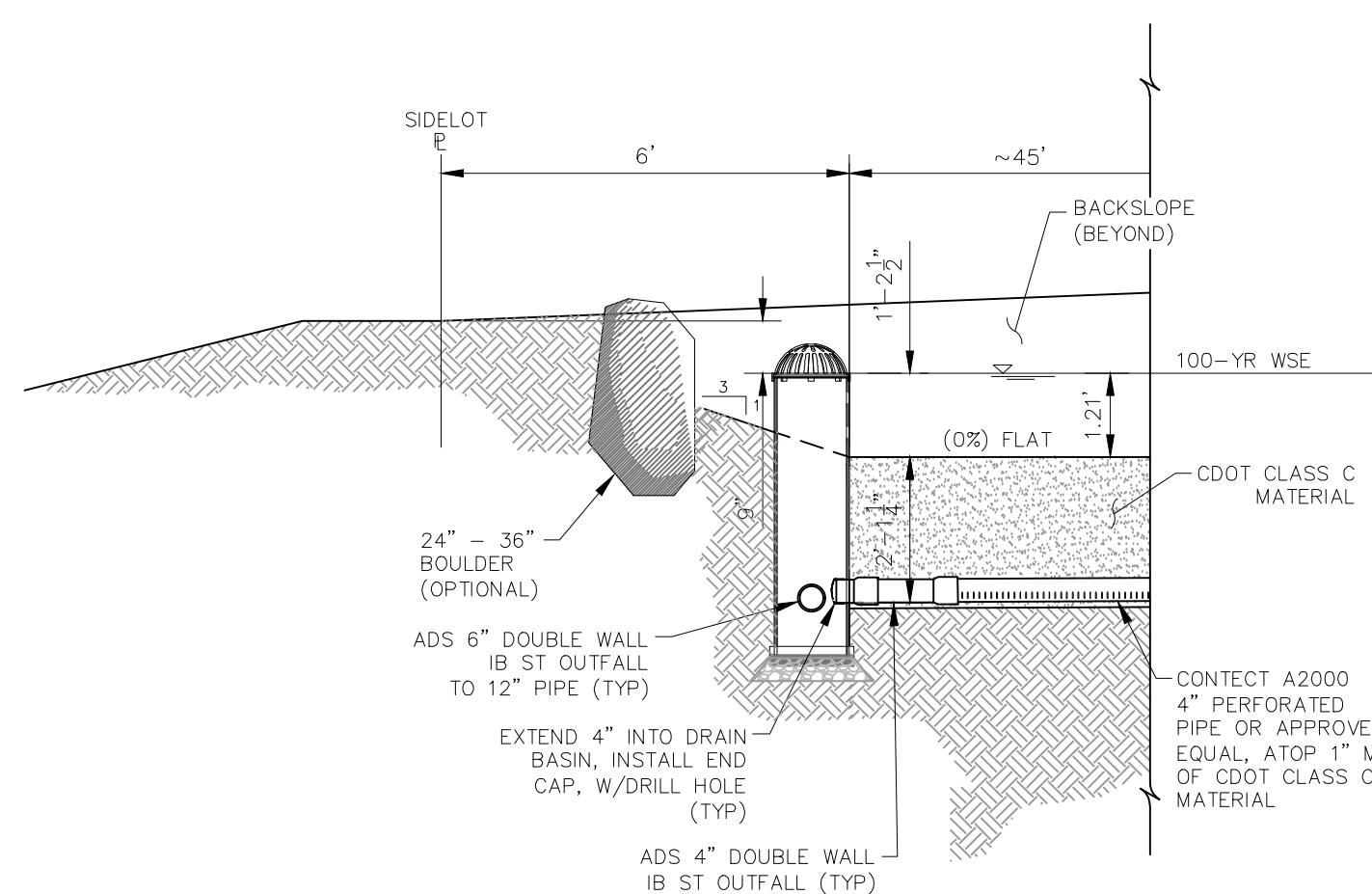
- CONCRETE SHALL BE CLASS B.
- HEADWALL SHALL BE PERPENDICULAR TO THE PIPE & UNLESS OTHERWISE SHOWN ON THE PLANS, FABRICATED DIMENSIONS AND QUANTITIES MUST BE ADJUSTED FOR SKEWED INSTALLATIONS.
- FOR WINGWALL DETAILS, SEE STANDARD PLAN M-601-20.
- VOLUME OCCUPIED BY PIPE HAS BEEN DEDUCTED FROM STEEL AND CONCRETE QUANTITIES.
- EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 1/4" IN.
- ALL REINFORCING BARS SHALL HAVE A 2 IN. MINIMUM CLEARANCE.
- WHEN TWO OR MORE PIPES ARE LAID SIDE BY SIDE, THEY SHALL BE PLACED SO THAT THE ADJACENT PIPES WILL BE 1/2" INSIDE DIAMETER APART OR 1/4" INSIDE SPAN APART, OR 3 FT. APART (INCLUDING WALL THICKNESS), WHICHEVER IS LESS.
- ADD 0.89 X (X OR Y) (LBS) WHEN APRON IS REQUIRED.

QUANTITIES

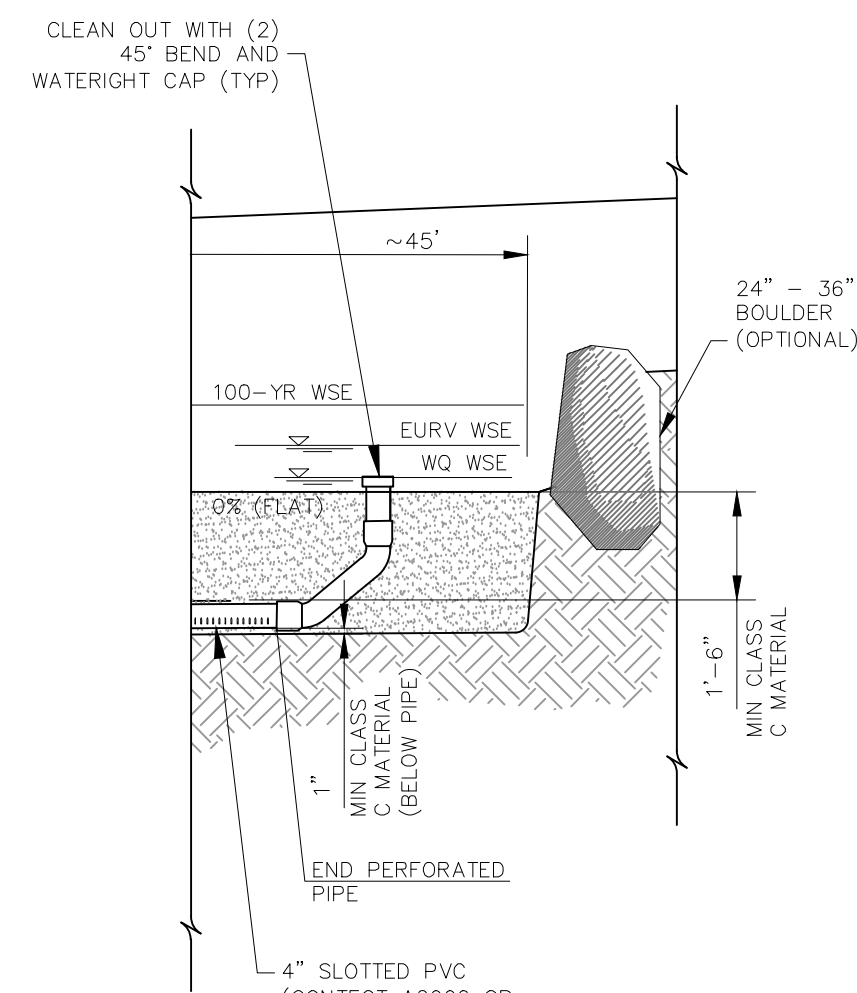
EQUIV. SPAN	SPAN	RISE	X	A	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20	A21	A22	A23	A24	A25	A26	A27	A28	A29	A30	A31	A32	A33	A34	A35	A36	A37	A38	A39	A40	A41	A42	A43	A44	A45	A46	A47	A48	A49	A50	A51	A52	A53	A54	A55	A56	A57	A58	A59	A60	A61	A62	A63	A64	A65	A66	A67	A68	A69	A70	A71	A72	A73	A74	A75	A76	A77	A78	A79	A80	A81	A82	A83	A84	A85	A86	A87	A88	A89	A90	A91	A92	A93	A94	A95	A96	A97	A98	A99	A100	A101	A102	A103	A104	A105	A106	A107	A108	A109	A110	A111	A112	A113	A114	A115	A116	A117	A118	A119	A120	A121	A122	A123	A124	A125	A126	A127	A128	A129	A130	A131	A132	A133	A134	A135	A136	A137	A138	A139	A140	A141	A142	A143	A144	A145	A146	A147	A148	A149	A150	A151	A152	A153	A154	A155	A156	A157	A158	A159	A160	A161	A162	A163	A164	A165	A166	A167	A168	A169	A170	A171	A172	A173	A174	A175	A176	A177	A178	A179	A180	A181	A182	A183	A184	A185	A186	A187	A188	A189	A190	A191	A192	A193	A194	A195	A196	A197	A198	A199	A200
72																																																																																																																																																																																																												



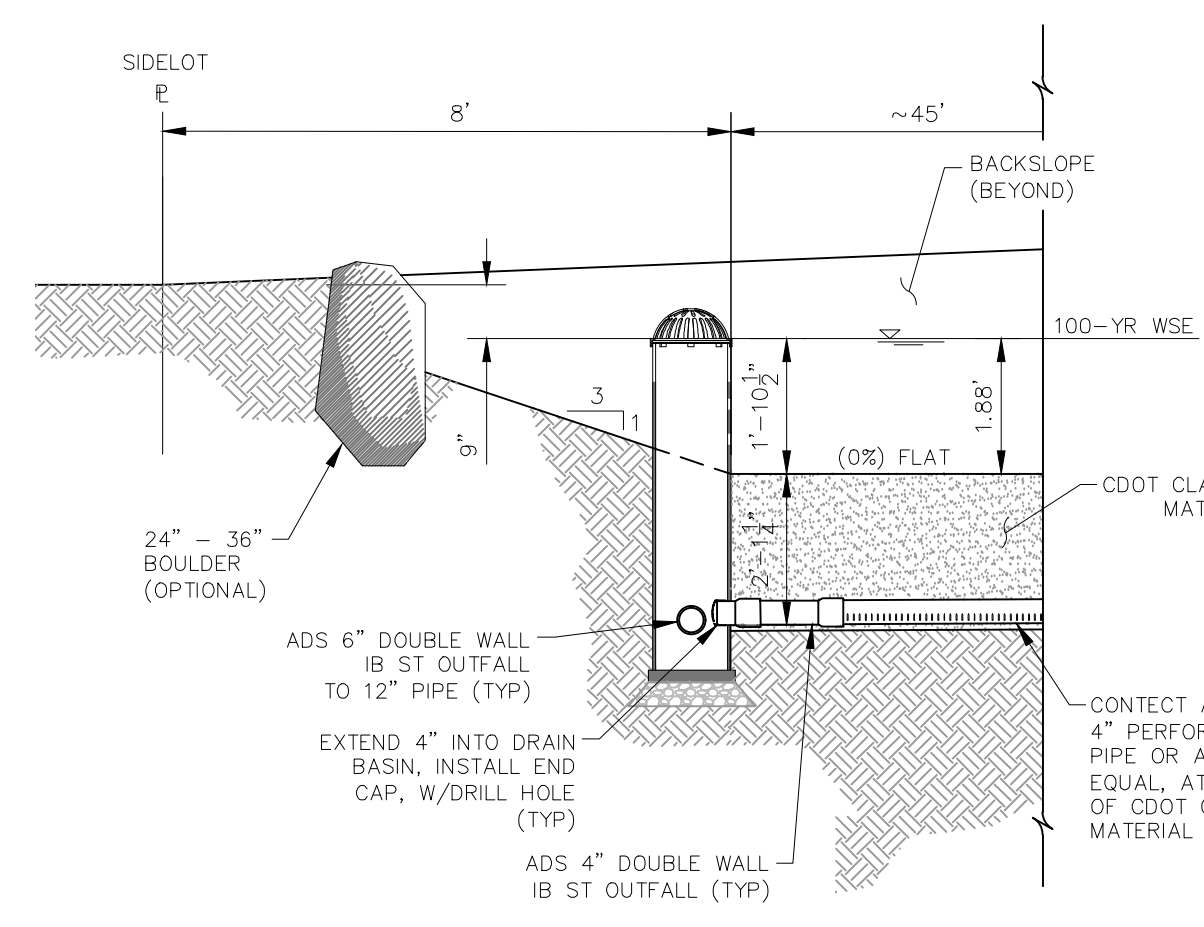
SCREEN DETAILS
NOT TO SCALE



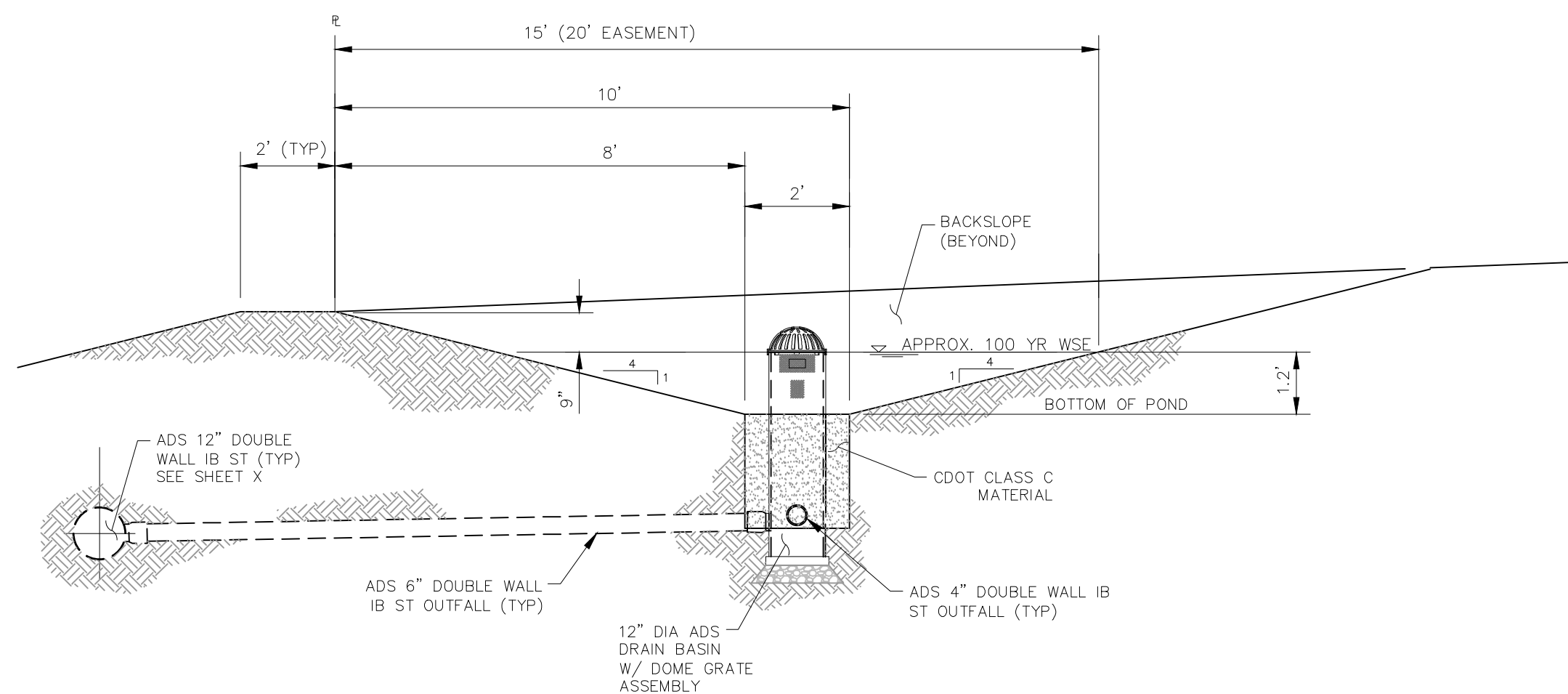
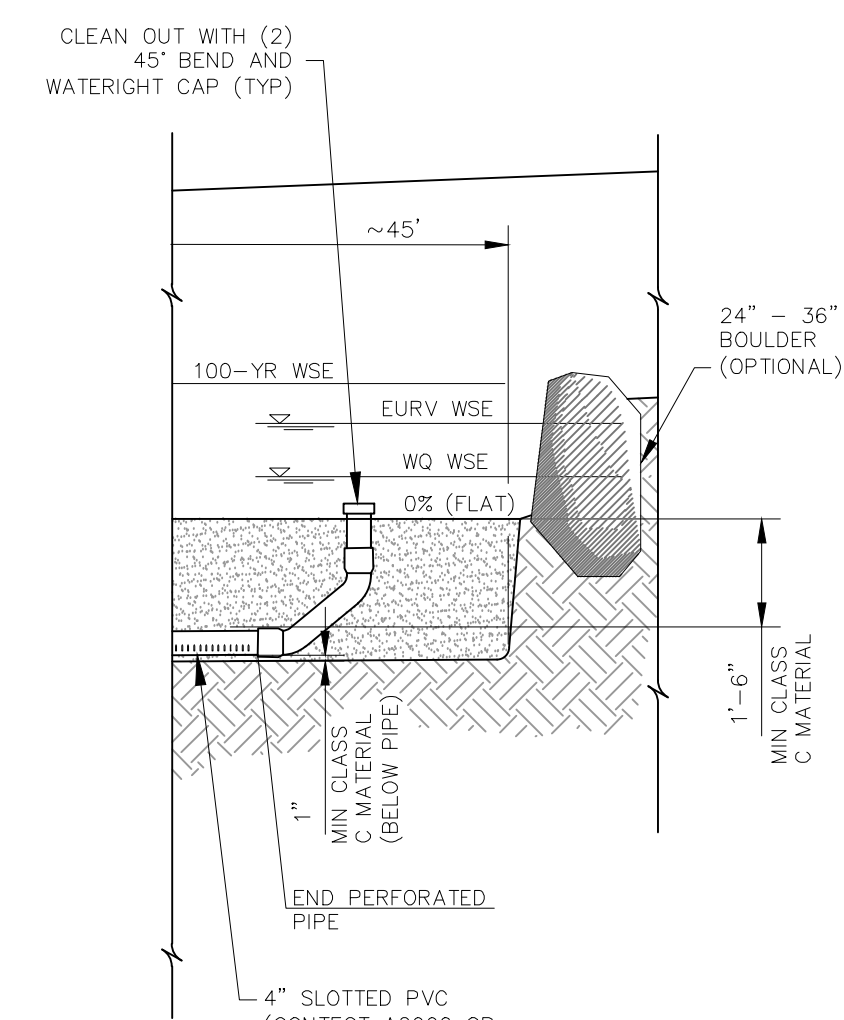
LONGITUDINAL CROSS SECTION DETAILS
NOT TO SCALE



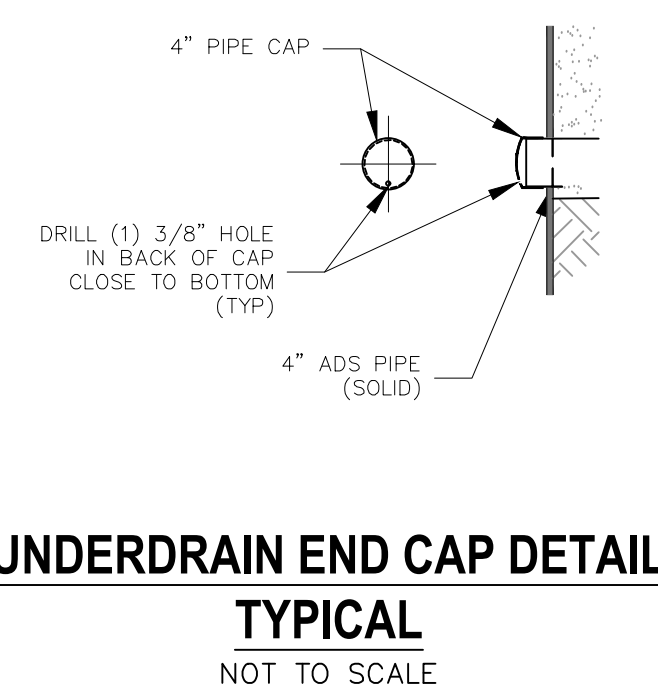
LOCKABLE DOME GRATE ASSEMBLY DETAILS
TYPICAL
NOT TO SCALE



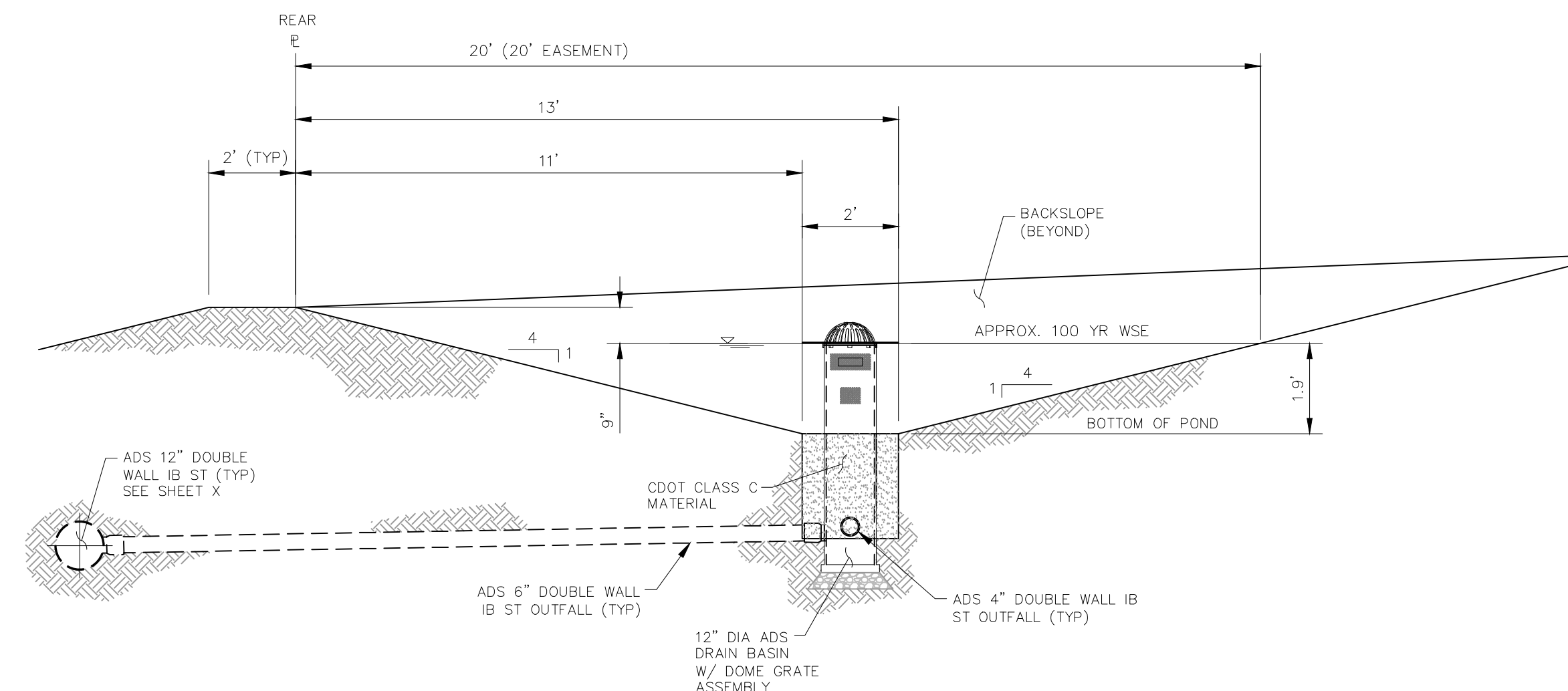
LONGITUDINAL CROSS SECTION DETAILS
NOT TO SCALE



TYPICAL SAND FILTER CROSS SECTION - LOTS 13, 16-20, & 28-40
NOT TO SCALE



UNDERDRAIN END CAP DETAIL
TYPICAL
NOT TO SCALE



TYPICAL SAND FILTER CROSS SECTION - LOTS 14, 15, 21-24 & 41
NOT TO SCALE

File: c:\09007A\Sterling Ranch No. 6\Map\Const\Draw\Storm Plans\ST14.dwg Plotstamp: 7/30/2019 6:37 PM

HOMESTEAD AT STERLING RANCH FIL. NO. 2	
SAND FILTER DETAILS	
PROJECT NO. 09-007	FILE: \Lang\Const\Draw\Storm Plans\ST14.dwg
DESIGNED BY: CMN	SCALE: N/A
DRAWN BY: CMN	HORIZ: 1"=10'
CHECKED BY: VAS	VERT: N/A
DATE: 7/26/2019	
SHEET 14 OF 14	
ST14	

CIVIL CONSULTANTS, INC.

102 E. PIKES PEAK AVE., 3RD FLOOR
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

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

MARCIL 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

HOMESTEAD AT STERLING RANCH FILING NO. 2

COUNTY OF EL PASO, STATE OF COLORADO

STREET IMPROVEMENT PLANS

JULY 2019

SF-19-004

AGENCIES

OWNER/DEVELOPER: SR LAND, LLC
20 BOULDER CRESCENT, SUITE 201
COLORADO SPRINGS, CO 80903
JAMES F. MORLEY (719) 471-1742

CIVIL ENGINEER: M & S CIVIL CONSULTANTS, INC.
102 E. PIKES PEAK, 5TH FLOOR
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
JEFF RICE, 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: STERLING RANCH METRO DISTRICT ENGINEERS
JDS-HYDRO CONSULTANTS
545 E. PIKES PEAK AVE., SUITE 300
COLORADO SPRINGS, CO 80903
JOHN MCGINN (719) 668-8769

FIRE DISTRICT: BLACK FOREST FIRE PROTECTION DISTRICT
11445 TEACHOUT ROAD
COLORADO SPRINGS, CO 80908
CHIEF BRYAN JACK (719) 495-4300

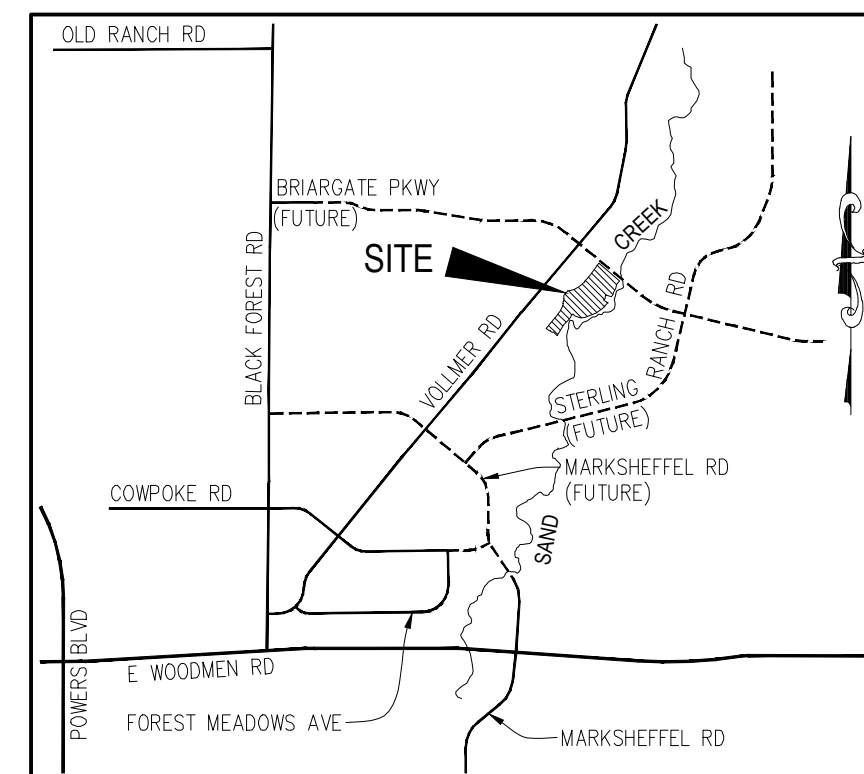
GAS DEPARTMENT: COLORADO SPRINGS UTILITIES
7710 DURANT DR.
COLORADO SPRINGS, CO 80947
TIM WENDT (719) 668-3556

ELECTRIC DEPARTMENT: MOUNTAIN VIEW ELECTRIC
11140 E. WOODMEN ROAD
FALCON, CO 80831
(719) 495-2283

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

BENCHMARKS

1. 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
2. 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
3. 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



VICINITY MAP
N.T.S.



SITE MAP
N.T.S.

Reference
A. Sterling Ranch Vollmer Rd. (North) 30 Jan 2018 construction plans.
B. Wheatland Drive construction to Briargate Parkway
C. Briargate Parkway Wheatland to Vollmer Construction
As part of the street improvements for this Filing.

APPROVALS:

ENGINEER'S STATEMENT:

DETAILED IMPROVEMENT PLANS AND SPECIFICATIONS ENGINEER'S STATEMENT: THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID DETAILED PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED DRAINAGE PLANS AND SPECIFICATIONS, AND SAID DETAILED PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH THE MASTER PLAN OF THE DRAINAGE BASIN. SAID DETAILED DRAINAGE PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR DRAINAGE FACILITY(S) IS DESIGNED. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS, OR OMISSIONS ON MY PART IN PREPARATION OF THE DETAILED IMPROVEMENT PLANS AND SPECIFICATIONS.

VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160 _____ DATE _____
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

OWNER/DEVELOPER STATEMENT:

THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE DRAINAGE REPORT AND PLAN AND THIS SET OF CONSTRUCTION DOCUMENTS. THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

JAMES F. MORLEY _____ DATE _____
SR LAND, 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 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, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

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

STERLING RANCH METROPOLITAN DISTRICT:

THESE DOCUMENTS HAVE BEEN REVIEWED AND APPROVED FOR STORM DRAIN AND ASSOCIATED UTILITY SERVICE CONSTRUCTION.

FOR AND ON BEHALF OF THE STERLING RANCH METRO. DISTRICT _____ DATE _____

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.

SHEET INDEX

SHEET 1	TITLE SHEET	
SHEET 2	NOTES & DETAILS	
SHEET 3	PLAN & PROFILE	- CUT BANK DRIVE
SHEET 4	PLAN & PROFILE	- BEAVER BROOK DRIVE
SHEET 5	PLAN & PROFILE	- MELSTONE WAY & CUT BANK DRIVE CONT.
SHEET 6	PLAN & PROFILE	- NIARADA WAY
SHEET 7	PLAN & PROFILE	- BEAVER BROOK DRIVE CONT.
SHEET 8	MAIL KIOSK ACCESS & SITE DETAIL	
SHEET 9	SIGNAGE & STRIPING	
SHEET 10	SIGNAGE & STRIPING	



HOMESTEAD AT STERLING RANCH FILING NO. 2

PROJECT NO. 09-007

DATE: 07/25/2019

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

DESIGNED BY: VAS

DRAWN BY: JWP

CHECKED BY: DLM

SHEET 1 OF 10

S101

20 BOULDER CRESCENT, SUITE 110
COLORADO SPRINGS, CO 80903
PHONE: 719.955.5485

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

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

M&S CIVIL CONSULTANTS, INC.

NO.	DATE	BY	DESCRIPTION

THE ENGINEER PREPARED 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.

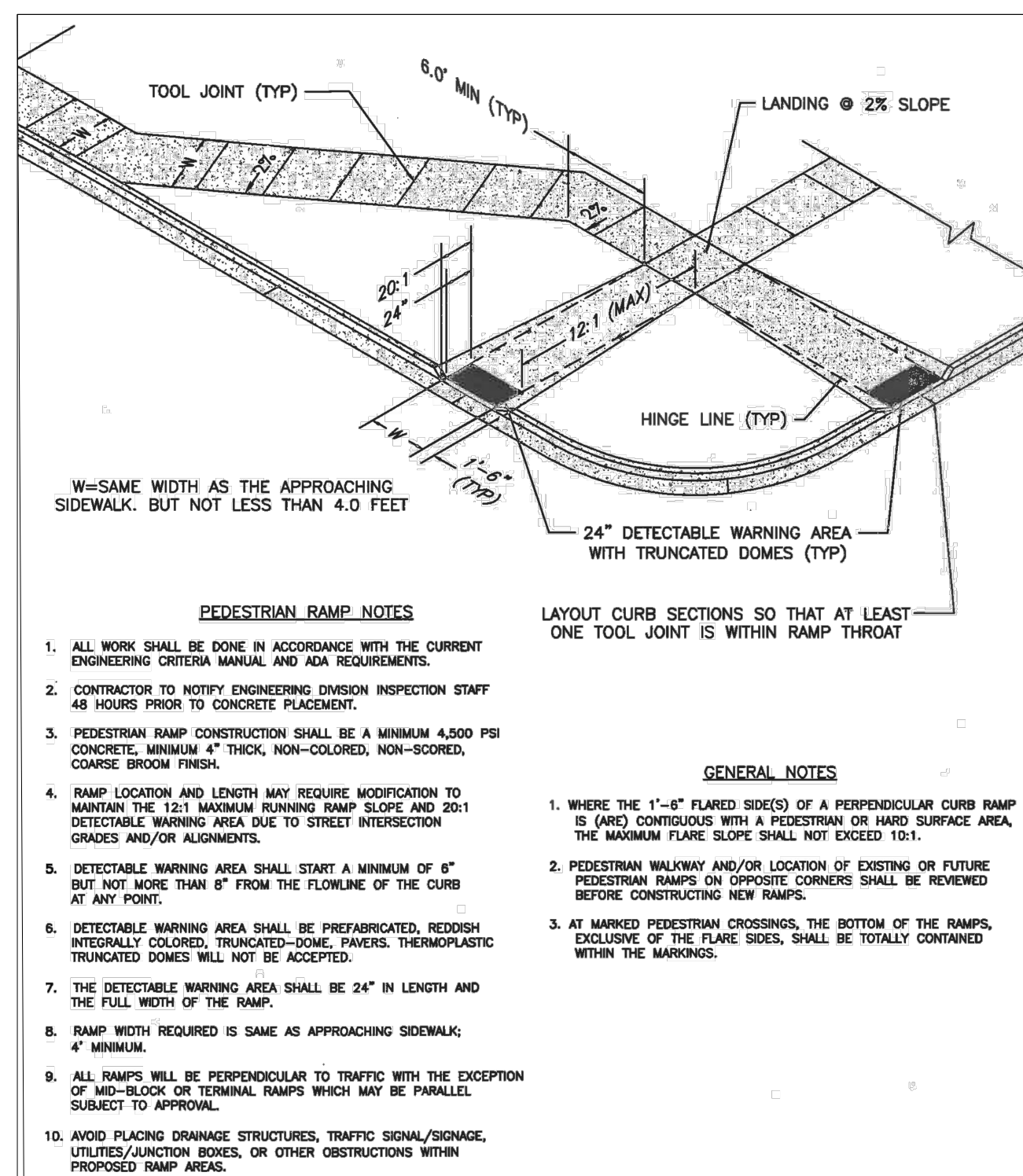
CAUTION

GENERAL CONSTRUCTION NOTES:

- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ALONG THE ROUTE OF THE WORK. THE OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NONEXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- THE CONTRACTOR WILL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE UTILITIES WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.
- ADDITIONAL EROSION CONTROL STRUCTURES MAY BE REQUIRED AT THE TIME OF CONSTRUCTION.
- ALL BACKFILL, SUB-BASE, AND/OR BASE COURSE (CLASS 6) MATERIAL SHALL BE COMPACTED PER THE SOILS ENGINEER'S RECOMMENDATIONS, AND APPROVED BY EL PASO COUNTY PCD.
- ALL STATIONING IS CENTERLINE OF IMPROVEMENTS UNLESS OTHERWISE INDICATED. ALL ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE INDICATED AS TOP BACK OF CURB (TBC), ASPHALT (ASP), OR TOP OF INLET OR BOX (TOB).
- ALL DISTURBED PAVEMENT EDGES SHALL BE CUT TO NEAT LINES. REPAIR SHALL CONFORM TO EPC ECM APPENDIX K - 1.2C.
- ALL INTERSECTION ACCESSES TO BE CONSTRUCTED WITH A 25 FOOT SIGHT VISIBILITY TRIANGLES IS REQUIRED AND THERE SHALL BE NO OBSTRUCTIONS GREATER THAN 18" VERTICAL IN THIS AREA.
- ALL CULVERTS AND STORM DRAIN PIPES SHALL BE SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE (HDPE), REINFORCED CONCRETE PIPE (RCP). ALL CULVERTS SHALL BE PLACED COMPLETE WITH FLARED END SECTIONS. ADEQUACY OF MATERIAL THICKNESS FOR ANY CSP INSTALLED SHALL BE VERIFIED BY OWNER'S GEOTECHNICAL ENGINEER TO SUPPORT MINIMUM 50 YEAR DESIGN LIFE. CULVERTS MUST CONFORM TO EPC ECM SECTION 3.32 - CULVERTS.
- ASPHALT THICKNESS AND BASE COURSE THICKNESS (COMPACTED) FOR ROADS SHALL BE PER DESIGN REPORT BY OWNER'S GEOTECHNICAL ENGINEER. OWNER'S GEOTECHNICAL ENGINEER TO BE ON SITE AT THE TIME OF ROAD CONSTRUCTION TO EVALUATE SOIL CONDITIONS AND DETERMINE IF ADDITIONAL MEASURES ARE NECESSARY TO ASSURE STABILITY OF THE NEW ROADS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO CONSTRUCTION.

SIGNING AND STRIPING NOTES:

- ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY A METHOD THAT DOES NOT MATERIALLY DAMAGE THE PAVEMENT. THE PAVEMENT MARKINGS SHALL BE REMOVED TO THE EXTENT THAT THEY WILL NOT BE VISIBLE UNDER DAY OR NIGHT CONDITIONS. AT NO TIME WILL IT BE ACCEPTABLE TO PAINT OVER EXISTING PAVEMENT MARKINGS.
- ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY EL PASO COUNTY PCD.
- ALL SIGNS SHOWN ON THE SIGNING AND STRIPING PLAN SHALL BE NEW SIGNS. EXISTING SIGNS MAY REMAIN OR BE REUSED IF THEY MEET CURRENT EL PASO COUNTY AND MUTCD STANDARDS.
- STREET NAME AND REGULATORY STOP SIGNS SHALL BE ON THE SAME POST AT INTERSECTIONS.
- ALL REMOVED SIGNS SHALL BE DISPOSED OF IN A PROPER MANNER BY THE CONTRACTOR.
- ALL STREET NAME SIGNS SHALL HAVE "D" SERIES LETTERS, WITH LOCAL ROADWAY SIGNS BEING 4" UPPER-LOWER CASE LETTERING ON 8" BLANK AND NON-LOCAL ROADWAY SIGNS BEING 6" LETTERING, UPPER-LOWER CASE ON 12" BLANK, WITH A WHITE BORDER THAT IS NOT RECESSED. MULTI-LANE ROADWAYS WITH SPEED LIMITS OF 40 MPH OR HIGHER SHALL HAVE 8" UPPER-LOWER CASE LETTERING ON 18" BLANK WITH A WHITE BORDER THAT IS NOT RECESSED. THE WIDTH OF THE NON-RECESSED WHITE BORDERS SHALL MATCH PAGE 255 OF THE 2012 MUTCD "STANDARD HIGHWAY SIGNS".
- ALL TRAFFIC SIGNS SHALL HAVE A MINIMUM HIGH INTENSITY PRISMATIC GRADE SHEETING.
- ALL LOCAL RESIDENTIAL STREET SIGNS SHALL BE MOUNTED ON A 1.75" X 1.75" SQUARE TUBE SIGN POST AND STUB POST BASE. FOR OTHER APPLICATIONS, REFER TO THE CDOT STANDARD S-614-8 REGARDING USE OF THE P2 TUBULAR STEEL POST SLIPBASE DESIGN.
- ALL SIGNS SHALL BE SINGLE SHEET ALUMINUM WITH 0.100" MINIMUM THICKNESS.
- ALL LIMIT LINES/STOP LINES, CROSSWALK LINES, PAVEMENT LEGENDS, AND ARROWS SHALL BE A MINIMUM 125 MIL THICKNESS PREFORMED THERMOPLASTIC PAVEMENT MARKINGS WITH TAPERED LEADING EDGES PER CDOT STANDARD S-627-1. WORD AND SYMBOL MARKINGS SHALL BE THE NARROW TYPE. STOP BARS SHALL BE 24" IN WIDTH. CROSSWALKS LINES SHALL BE 12" WIDE AND 8' LONG PER CDOT S-627-1.
- ALL LONGITUDINAL LINES SHALL BE A MINIMUM 15MIL THICKNESS EPOXY PAINT. ALL NON-LOCAL RESIDENTIAL ROADWAYS SHALL INCLUDE BOTH RIGHT AND LEFT EDGE LINE STRIPING AND ANY ADDITIONAL STRIPING AS REQUIRED BY CDOT S-627-1.
- THE CONTRACTOR SHALL NOTIFY EL PASO COUNTY DEVELOPMENT SERVICES (719) 520-6819 PRIOR TO AND UPON COMPLETION OF SIGNING AND STRIPING.
- THE CONTRACTOR SHALL OBTAIN A WORK IN THE RIGHT OF WAY PERMIT FROM THE EL PASO COUNTY PCD PRIOR TO ANY SIGNAGE OR STRIPING WORK WITHIN AN EXISTING EL PASO COUNTY ROADWAY.

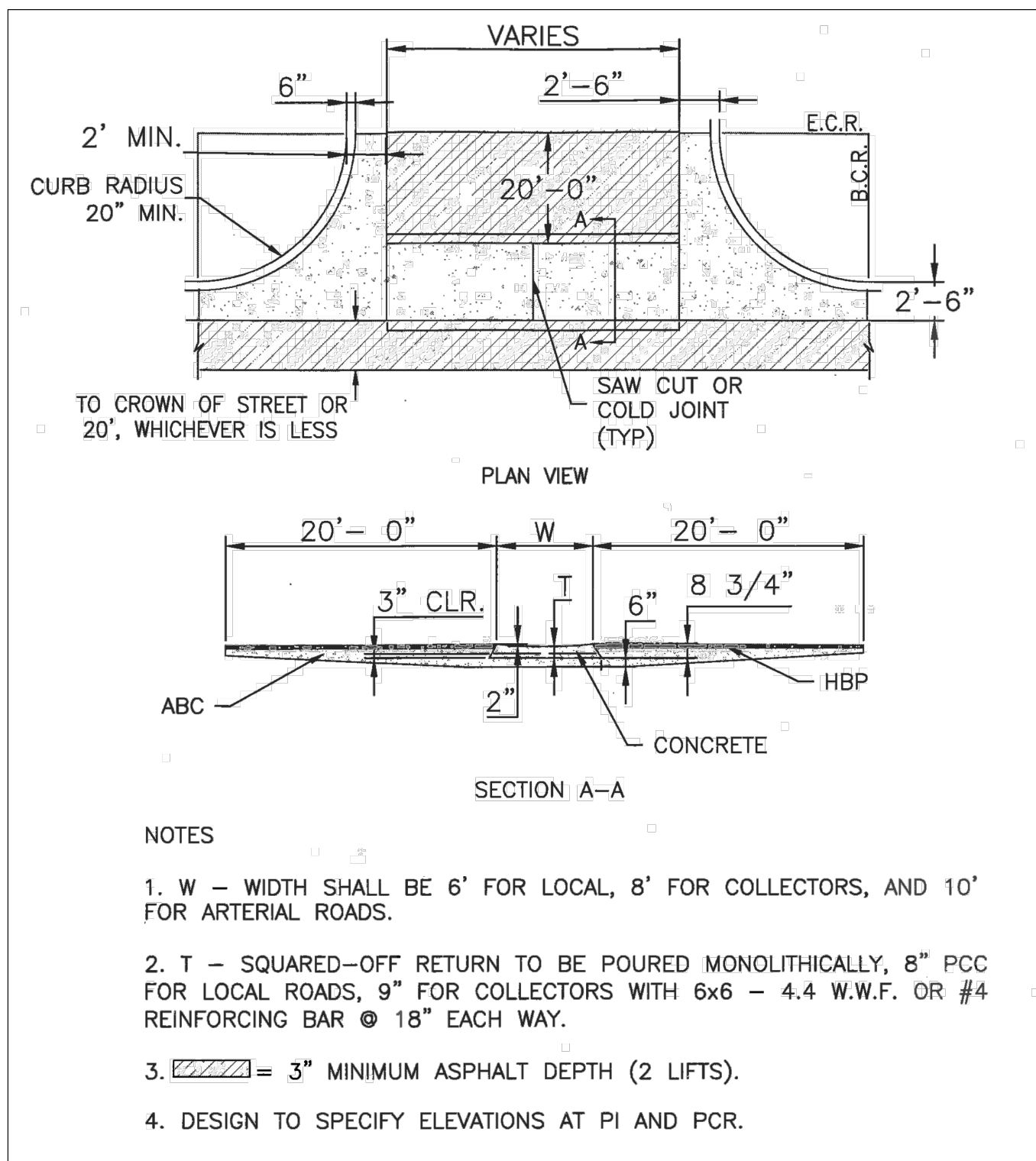


PEDESTRIAN INTERSECTION RAMP (SD 2-41)

SCALE: NTS

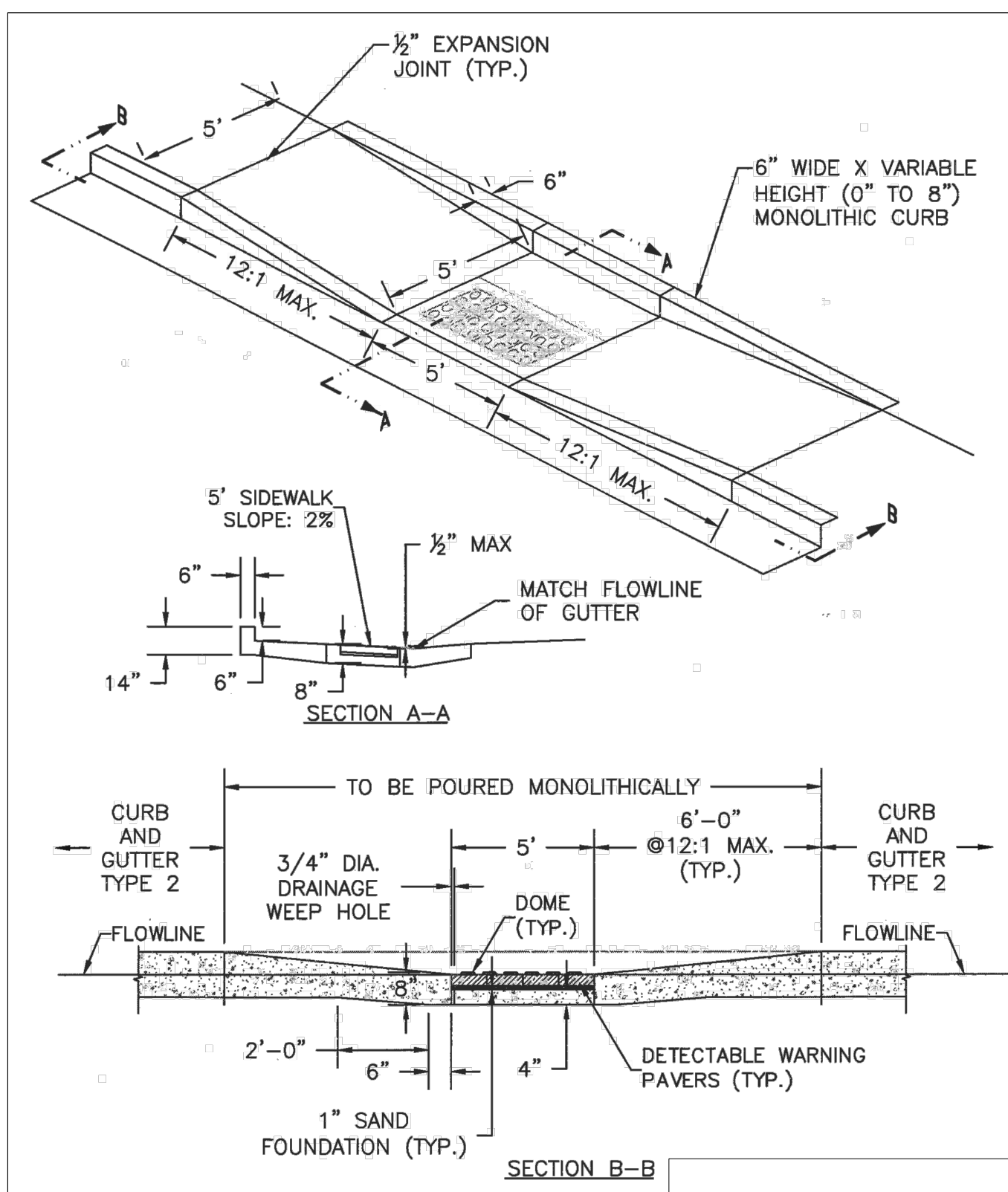
STANDARD NOTES FOR EL PASO COUNTY CONSTRUCTION PLANS

- ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
- CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
 - EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
 - CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
 - COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
 - CDOT M & S STANDARDS
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PCD - INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
- CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
- ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD.
- CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.
- SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY PCD AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]
- CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY PCD, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
- THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.



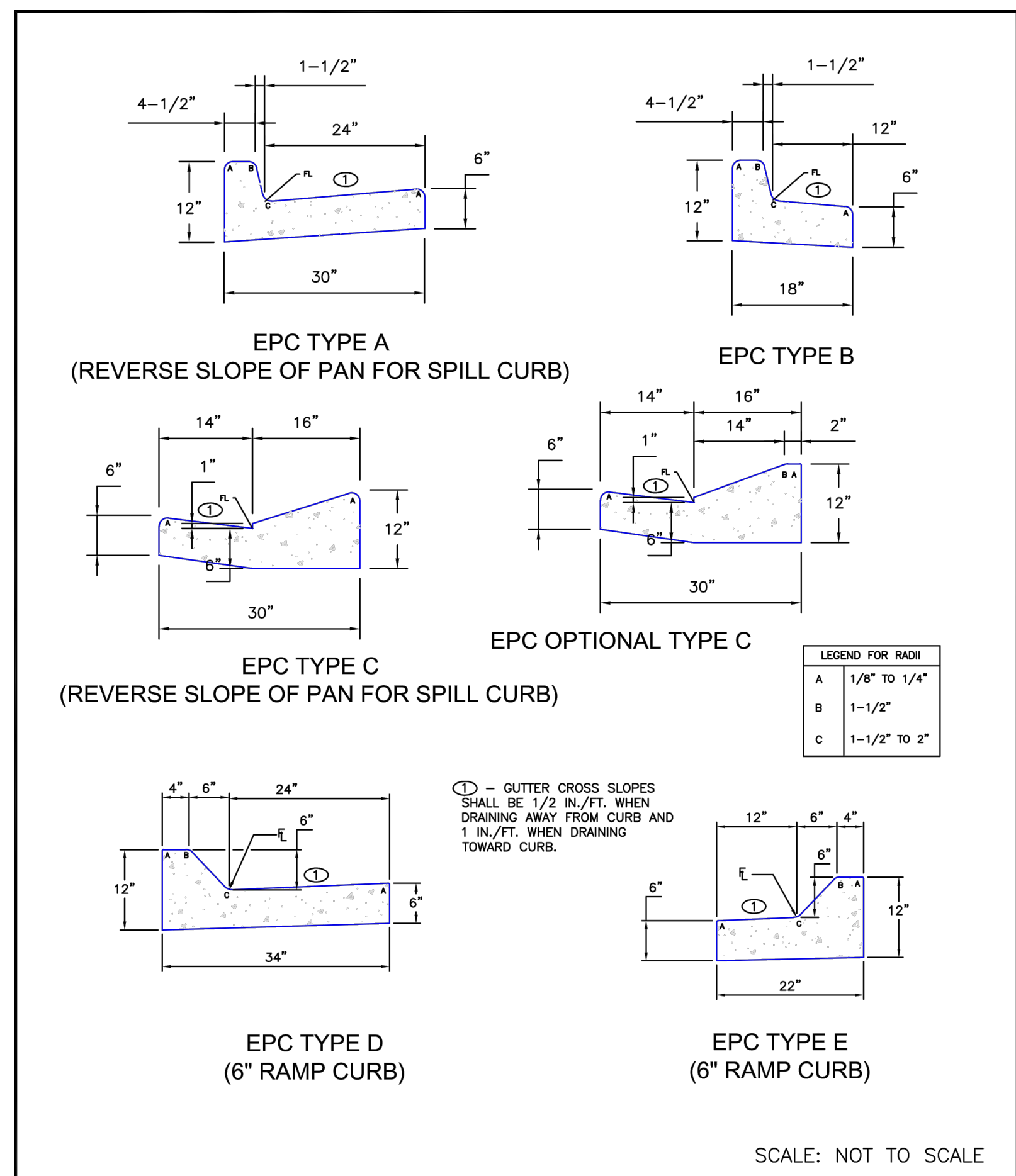
TYPICAL CROSS PAN LAYOUT DETAIL (SD 2-26)

SCALE: NTS



PARALLEL PEDESTRIAN RAMP DETAIL (SD 2-50)

SCALE: NTS



TYPICAL CURB AND GUTTER DETAIL (SD 2-20C)

SCALE: NTS

HOMESTEAD AT STERLING RANCH FILING NO. 2

NOTE & DETAIL SHEET

PROJECT NO. 09-007 FILE: \Map\Const\Draw\Street Plans\SIO2.dwg

DESIGNED BY: VAS SCALE: DATE: 07/25/2019

DRAWN BY: JWP HORIZ: N/A

CHECKED BY: N/A DLM VERT: N/A

SHEET 2 OF 10

SIO2

20 BOULDER CRESCENT, SUITE 110
 COLORADO SPRINGS, CO 80903
 PHONE: 719.955.5485

CIVIL CONSULTANTS, INC.

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

APPROVED BY: DATE:

REVISIONS:

NO.	DATE	BY: DESCRIPTION

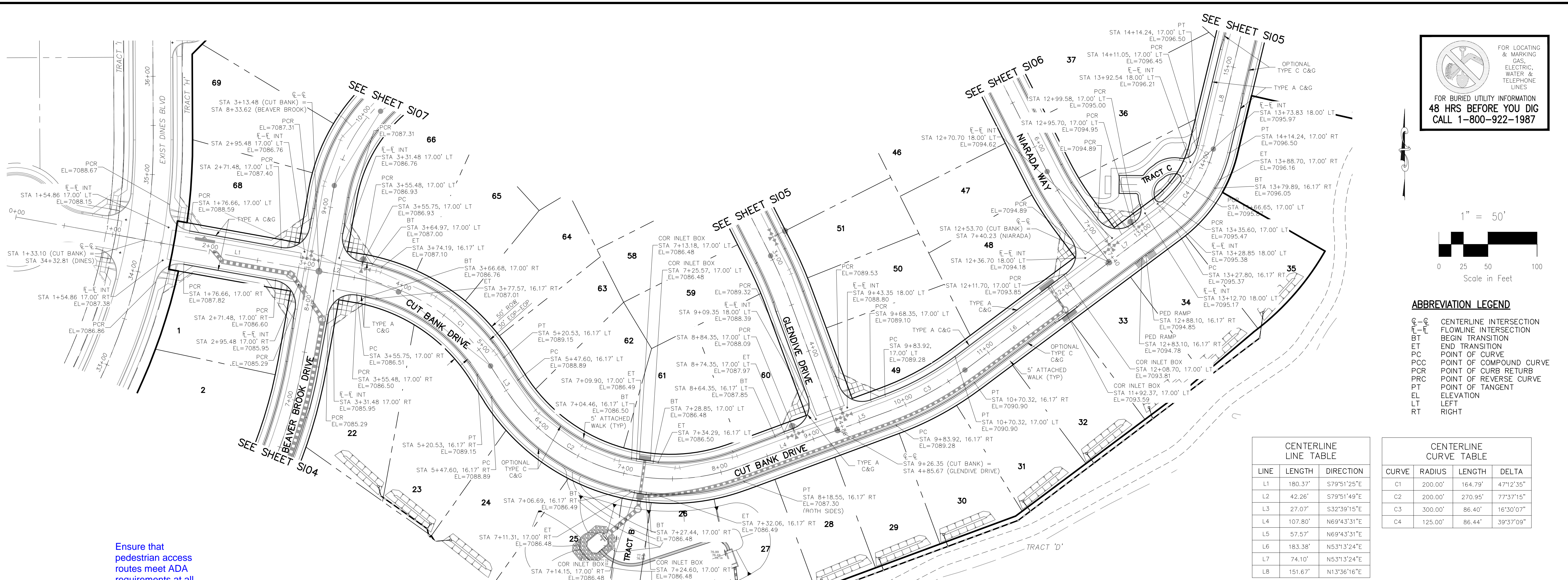
THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CAUTION

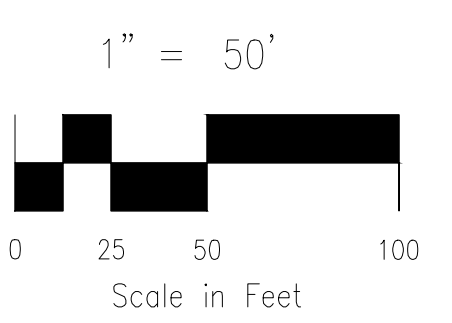
FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES

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

File: c:\09007A\Sterling Ranch No. 6\Map\Const\Draw\Street Plans\SIO2.dwg Plotstamp: 7/25/2019 12:34 PM



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



ABBREVIATION LEGEND

- C-C CENTERLINE INTERSECTION
- F-L FLOWLINE INTERSECTION
- BT BEGIN TRANSITION
- ET END TRANSITION
- PC POINT OF CURVE
- PCC POINT OF COMPOUND CURVE
- PCR POINT OF CURB RETURN
- PRC POINT OF REVERSE CURVE
- PT POINT OF TANGENT
- EL ELEVATION
- LT LEFT
- RT RIGHT

CENTERLINE LINE TABLE

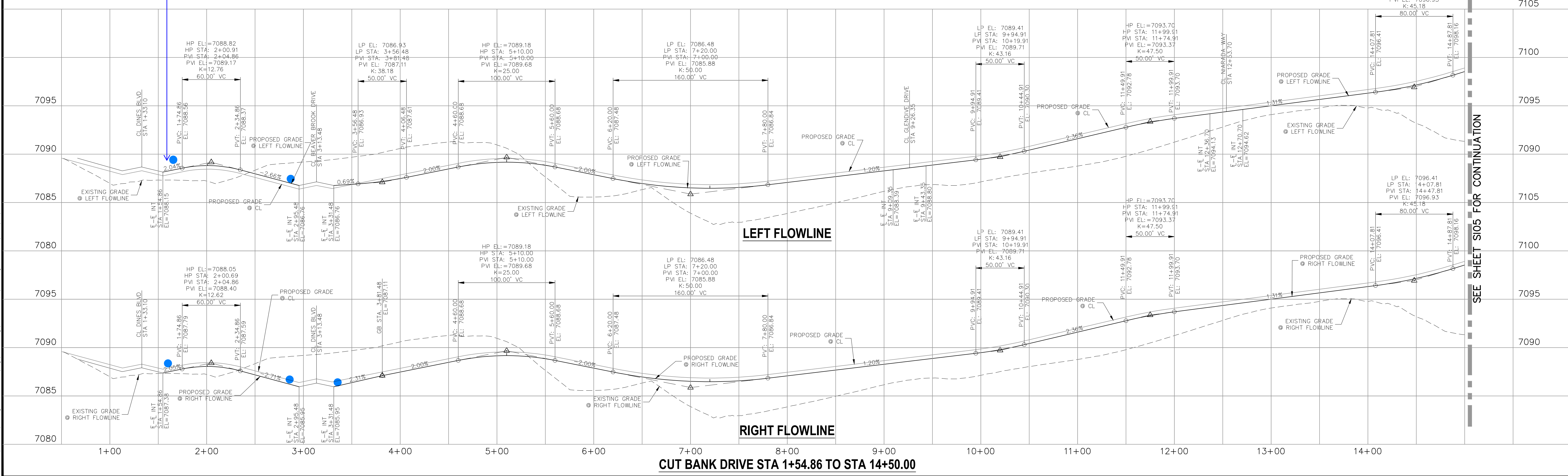
LINE	LENGTH	DIRECTION
L1	180.37'	S79°51'25"E
L2	42.26'	S79°51'49"E
L3	27.07'	S32°39'15"E
L4	107.80'	N69°43'31"E
L5	57.57'	N69°43'31"E
L6	183.36'	N53°13'24"E
L7	74.10'	N53°13'24"E
L8	151.67'	N13°36'16"E

CENTERLINE CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
C1	200.00'	164.79'	47°12'35"
C2	200.00'	270.95'	77°37'15"
C3	300.00'	86.40'	16°30'07"
C4	125.00'	86.44'	39°37'09"

Ensure that pedestrian access routes meet ADA requirements at all intersections. See comment letter.

**CUT BANK DRIVE
 STA 1+54.86 TO STA 14+50.00**



SEE SHEET S105 FOR CONTINUATION

HOMESTEAD AT STERLING RANCH FILING NO. 2
STREET IMPROVEMENT PLANS

PROJECT NO. 09-007 FILE: \Lang\Const\Draw\Street & Storm Plans\S103.dwg DATE: 07/25/2019

DESIGNED BY: VAS SCALE: SHEET 3 OF 10 S103
 DRAWN BY: JWP HORIZ.: 1"=50'
 CHECKED BY: DIM VERT.: 1"=5'

20 BOULDER CRESCENT, SUITE 110
 COLORADO SPRINGS, CO 80903
 PHONE: 719.955.5485

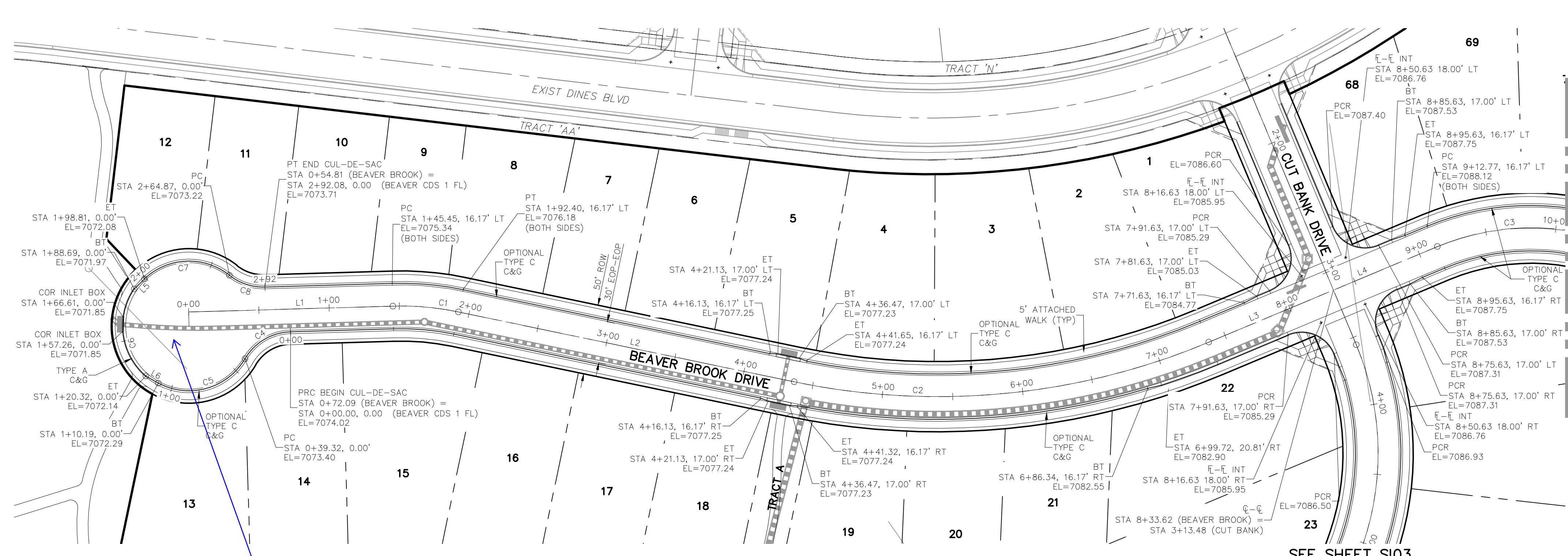
CIVIL CONSULTANTS, INC.

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

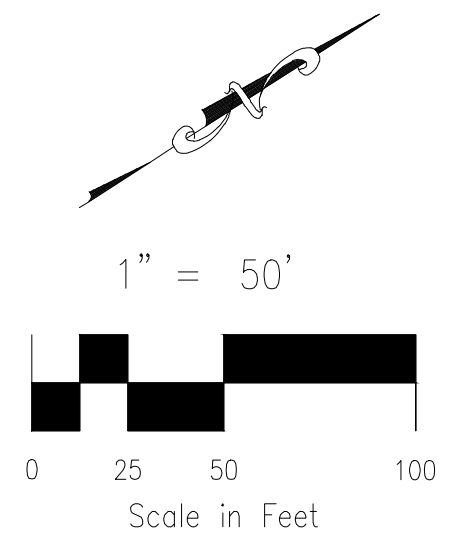
REVISIONS: NO. DATE: BY: DESCRIPTION: APPROVED BY: DATE:

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



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



**BEAVER BROOK DRIVE
 STA 0+54.81 TO STA 10+00.00**

ABBREVIATION LEGEND

- C-G CENTERLINE INTERSECTION
- F-E FLOWLINE INTERSECTION
- BT BEGIN TRANSITION
- ET END TRANSITION
- PC POINT OF CURVE
- PCC POINT OF COMPOUND CURVE
- PCR POINT OF CURB RETURN
- PRC POINT OF REVERSE CURVE
- PT POINT OF TANGENT
- EL ELEVATION
- LT LEFT
- RT RIGHT

CENTERLINE LINE TABLE

LINE	LENGTH	DIRECTION
L1	145.45'	N31°11'28"E
L2	244.07'	N44°38'31"E
L3	96.08'	N10°08'30"E
L4	80.30'	N10°08'30"E

CENTERLINE CURVE TABLE

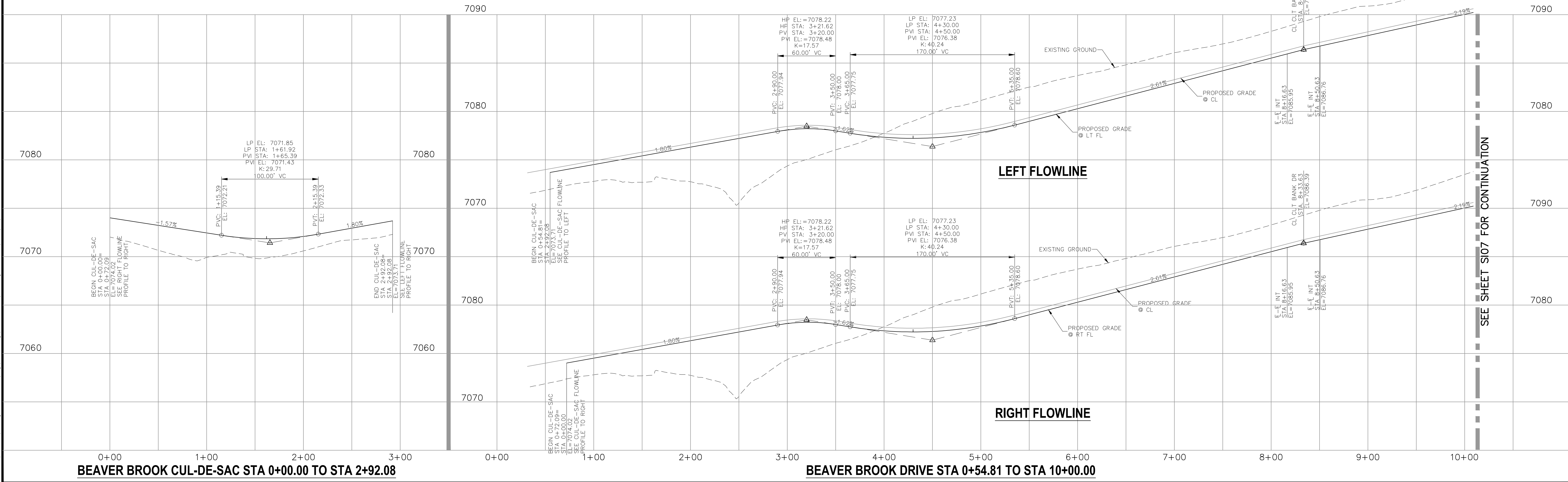
CURVE	RADIUS	LENGTH	DELTA
C1	200.00'	46.95'	13°27'03"
C2	500.00'	301.07'	34°30'01"
C3	173.25'	201.93'	66°46'45"

CURB FLOWLINE LINE TABLE

LINE	LENGTH	DIRECTION
L5	10.12'	N12°09'35"W
L6	10.12'	S62°40'13"W

CURB FLOWLINE CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
C4	38.83'	39.32'	58°00'27"
C5	46.17'	70.88'	87°57'46"
C6	47.00'	68.37'	83°20'50"
C7	46.17'	66.06'	81°58'55"
C8	38.83'	27.22'	40°09'16"



20 BOULDER CRESCENT SUITE 110
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5485

M&S CIVIL CONSULTANTS, INC.

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

REVISIONS:

NO.	DATE:	BY:	DESCRIPTION:	APPROV. BY:	DATE:

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

CAUTION

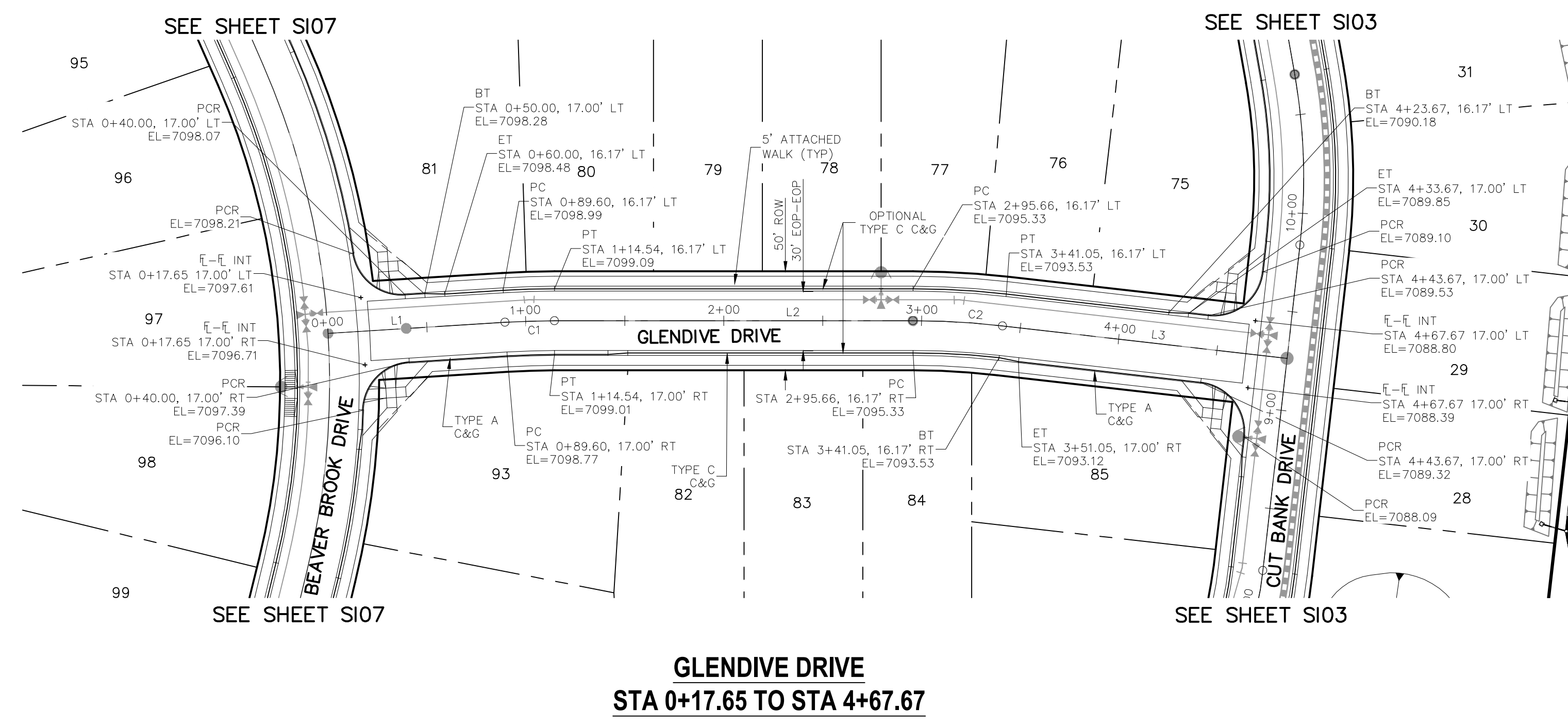
File: c:\09007A\Sterling Ranch No. 2\Map\Const\Draw\Street Plans\SIO4.dwg PlotStamp: 7/25/2019 12:37 PM



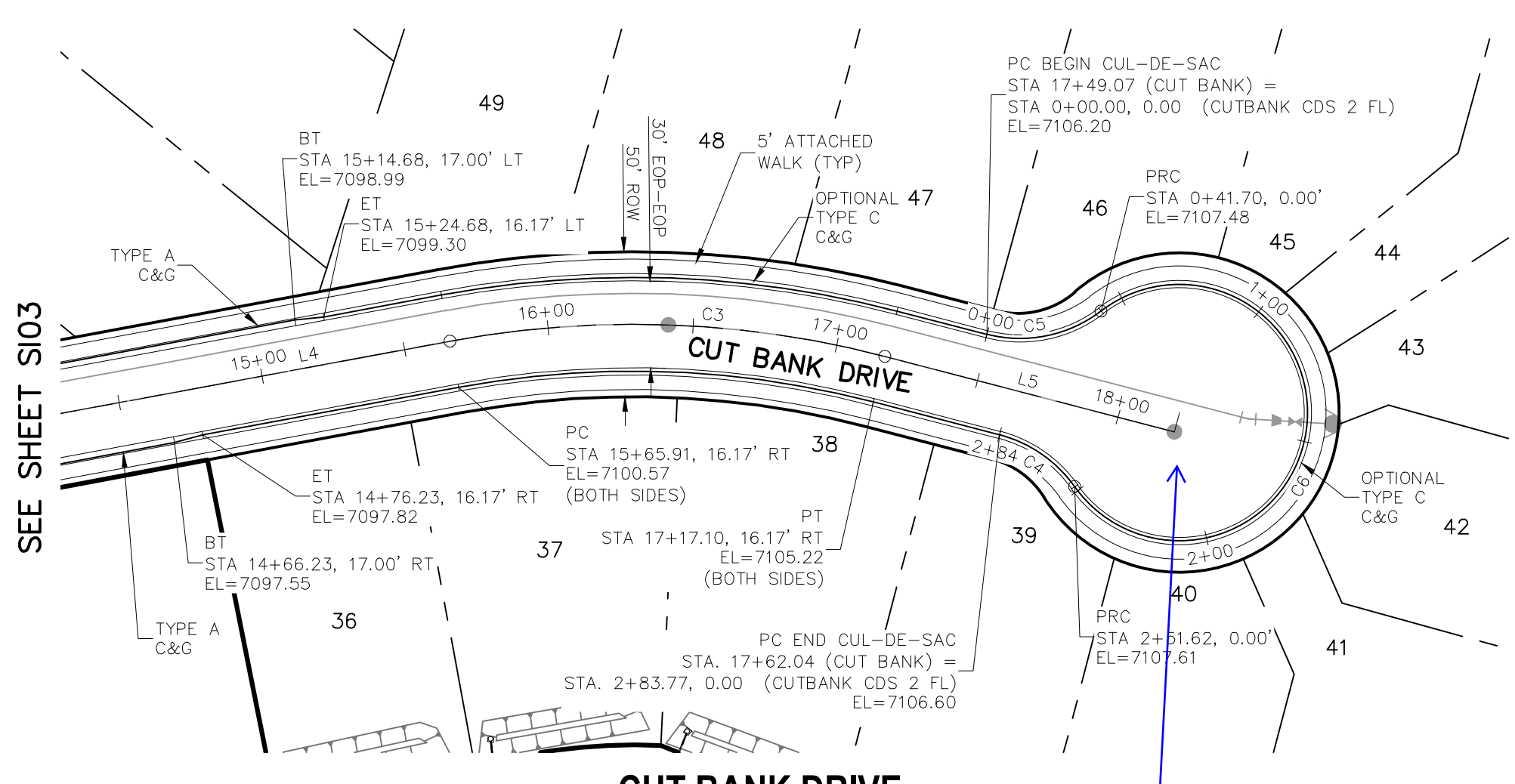
NO.	DATE	BY	DESCRIPTION	APPROV. BY	DATE

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

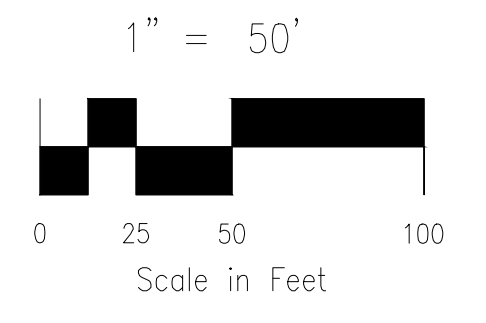


GLENDIVE DRIVE
STA 0+17.65 TO STA 4+67.67



CUT BANK DRIVE
STA 14+50.00 TO STA 17+62.04

Label cul-de-sac slope and cross-slopes.



ABBREVIATION LEGEND

- C-C CENTERLINE INTERSECTION
- F-L FLOWLINE INTERSECTION
- BT BEGIN TRANSITION
- ET END TRANSITION
- PC POINT OF CURVE
- PCC POINT OF COMPOUND CURVE
- PCR POINT OF CURB RETURN
- PRC POINT OF REVERSE CURVE
- PT POINT OF TANGENT
- EL ELEVATION
- LT LEFT
- RT RIGHT

CENTERLINE LINE TABLE

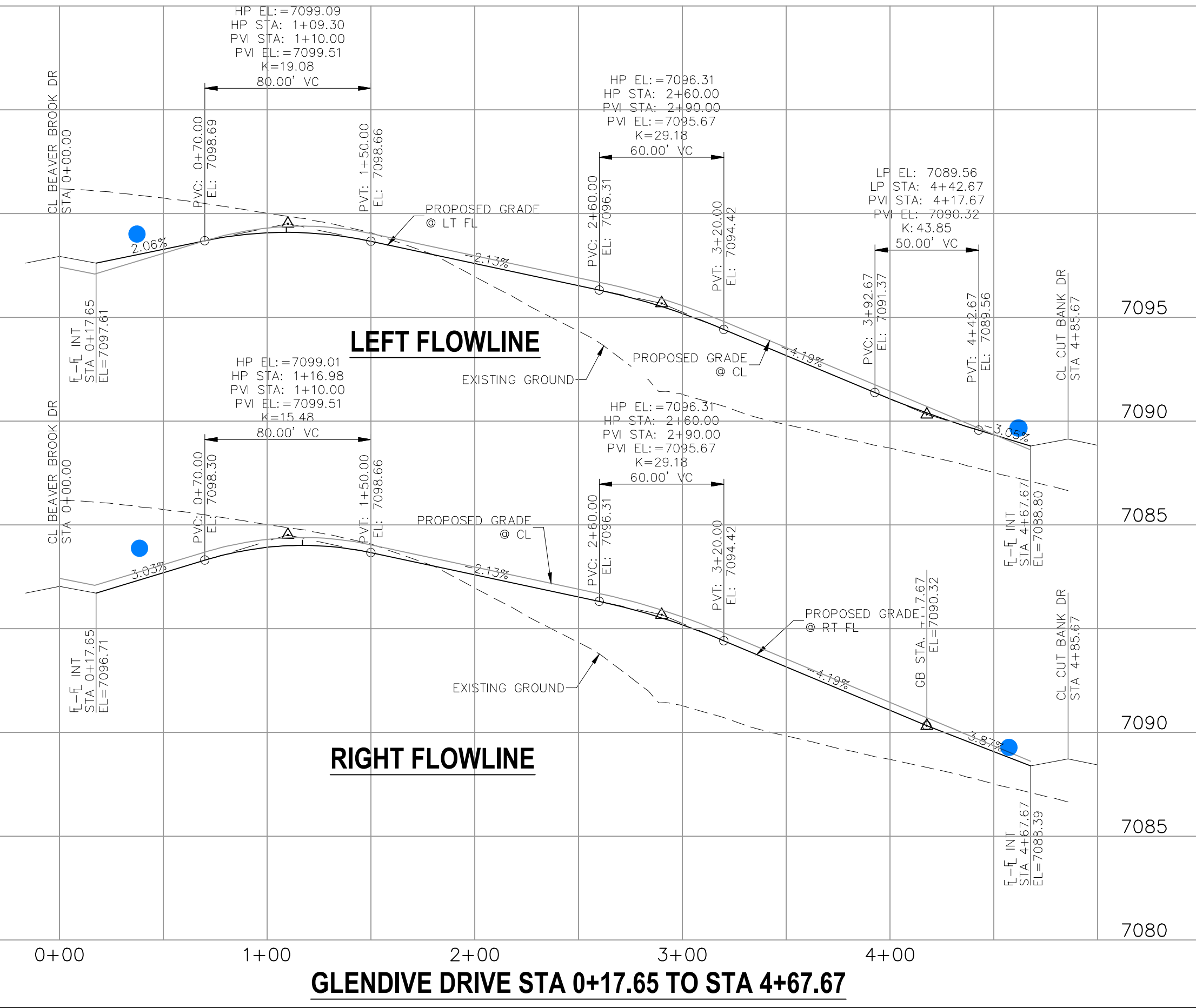
LINE	LENGTH	DIRECTION
L1	89.60'	S30°20'54"E
L2	181.12'	S26°46'34"E
L3	144.62'	S20°16'29"E
L4	151.67'	N13°36'16"E
L5	103.02'	N38°42'46"E

CENTERLINE CURVE TABLE

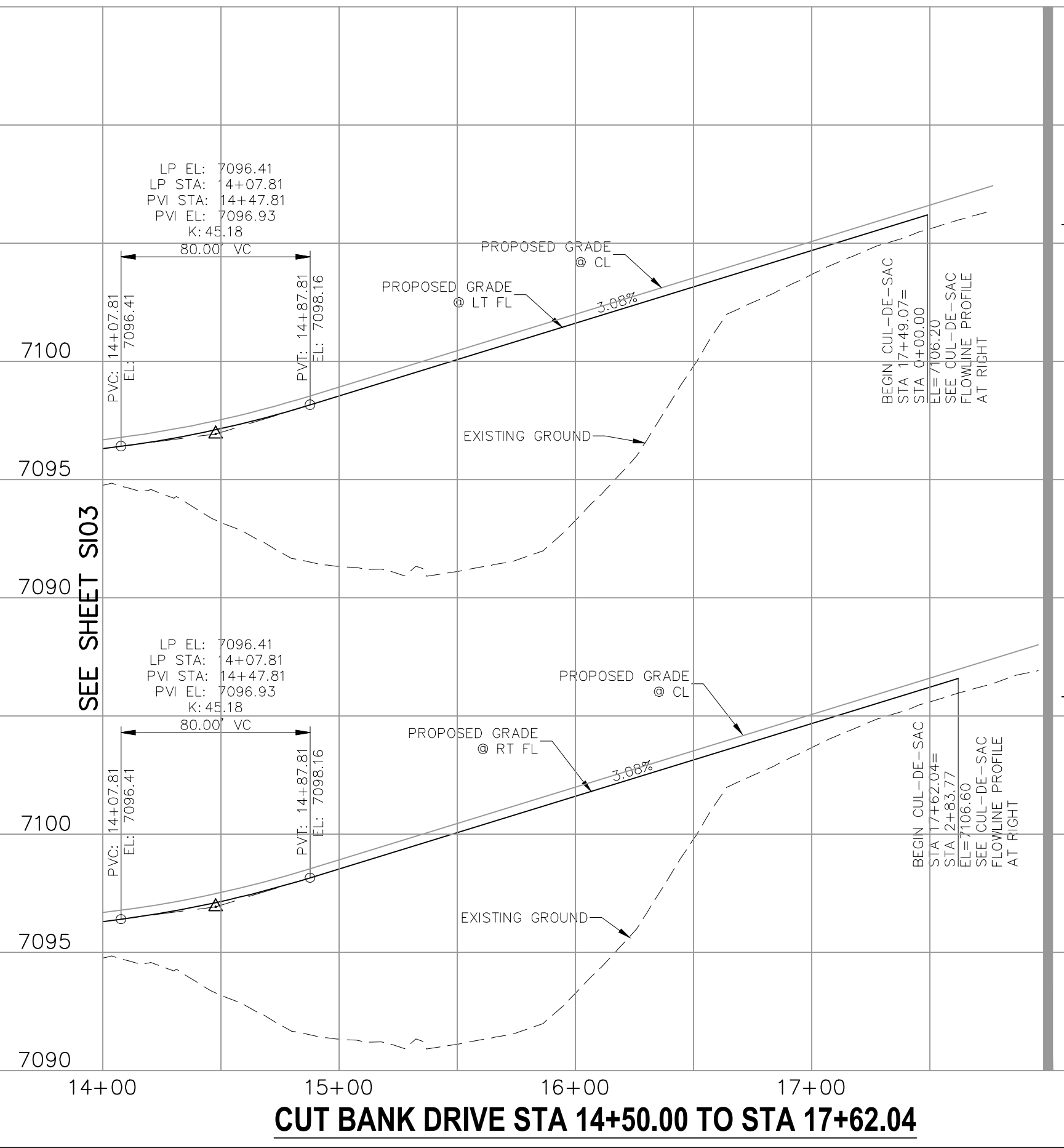
CURVE	RADIUS	LENGTH	DELTA
C3	345.00'	151.19'	25°06'31"
C1	400.00'	24.94'	3°34'20"
C2	400.00'	45.39'	6°30'05"

CURB FLOWLINE CURVE TABLE

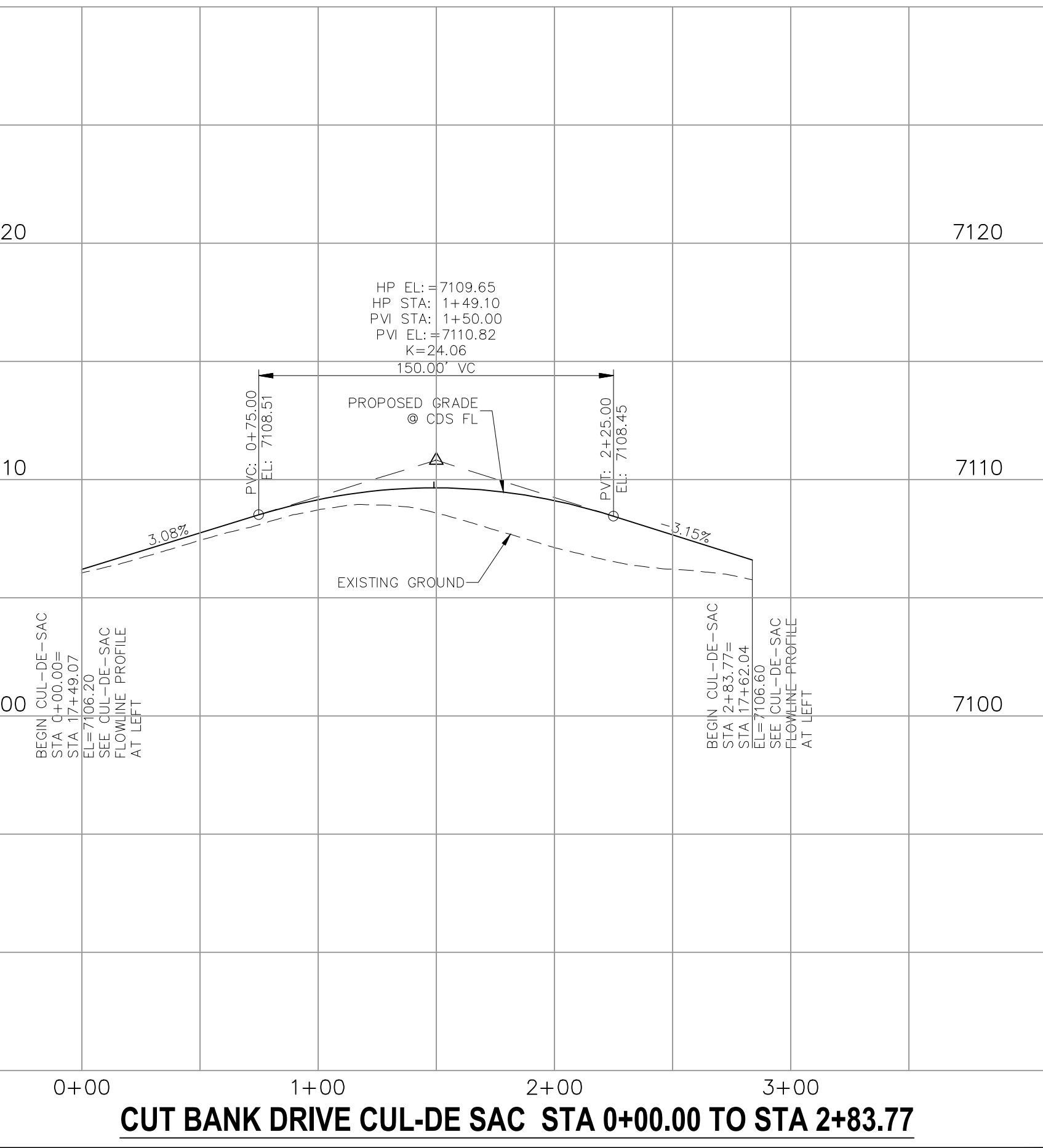
CURVE	RADIUS	LENGTH	DELTA
C5	45.83'	41.70'	52°07'58"
C4	45.83'	32.15'	40°11'12"
C6	44.17'	209.92'	272°19'11"



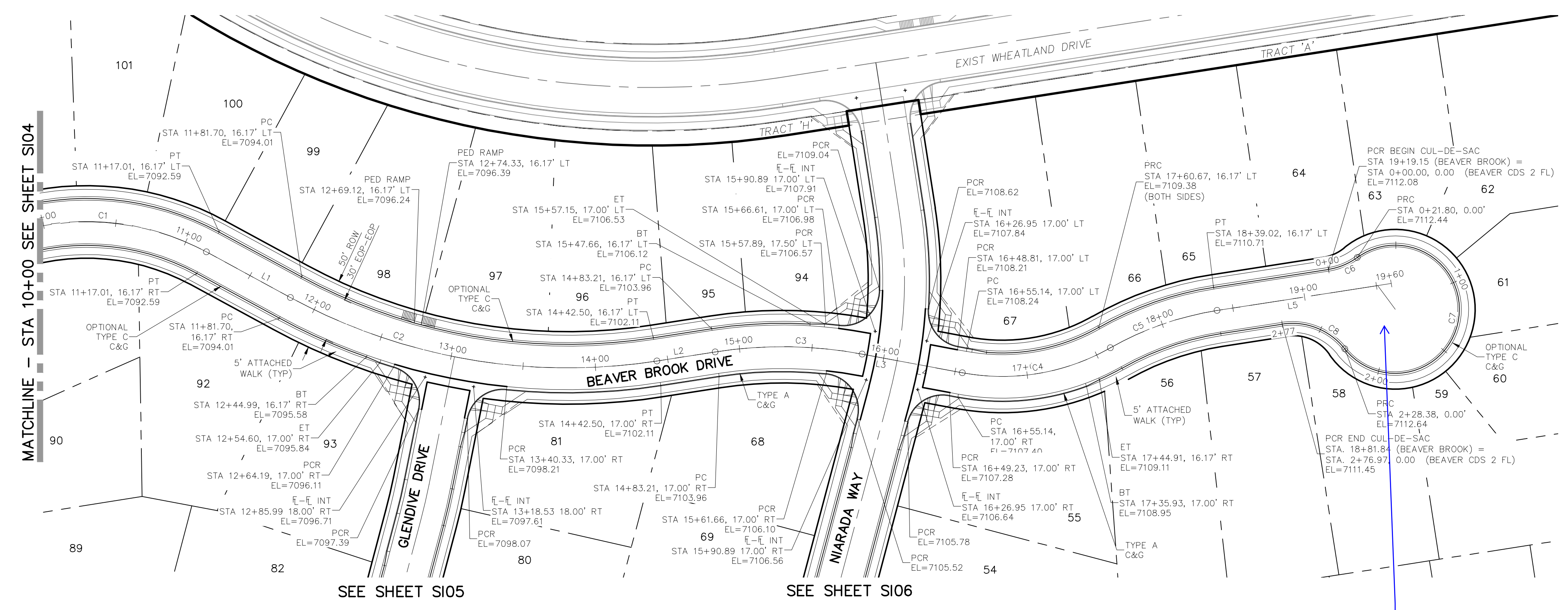
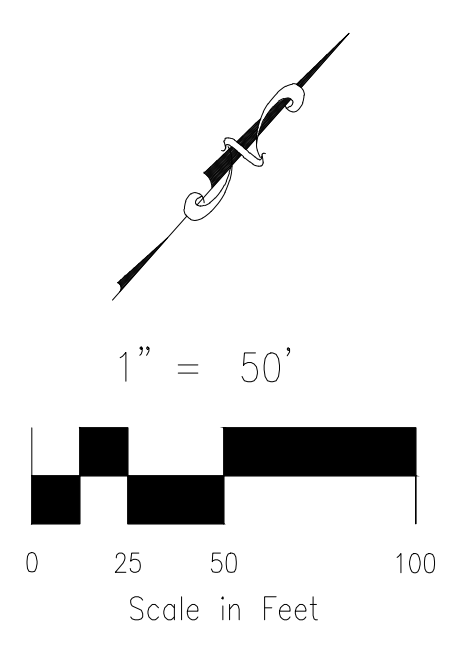
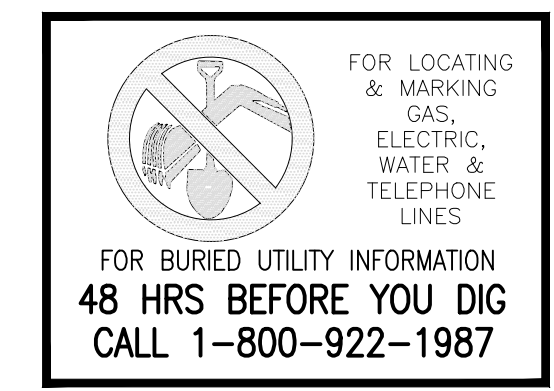
GLENDIVE DRIVE STA 0+17.65 TO STA 4+67.67



CUT BANK DRIVE STA 14+50.00 TO STA 17+62.04



CUT BANK DRIVE CUL-DE SAC STA 0+00.00 TO STA 2+83.77



ABBREVIATION LEGEND

- C-C CENTERLINE INTERSECTION
- FL-FL FLOWLINE INTERSECTION
- BT BEGIN TRANSITION
- ET END TRANSITION
- PC POINT OF CURVE
- PCC POINT OF COMPOUND CURVE
- PCR POINT OF CURB RETURN
- PRC POINT OF REVERSE CURVE
- PT POINT OF TANGENT
- EL ELEVATION
- LT LEFT
- RT RIGHT

CENTERLINE LINE TABLE

LINE	LENGTH	DIRECTION
L1	65.84'	N76°55'15"E
L2	40.70'	N39°33'48"E
L3	24.48'	N58°59'20"E
L4	45.74'	N58°59'20"E
L5	121.33'	N39°33'48"E

CENTERLINE CURVE TABLE

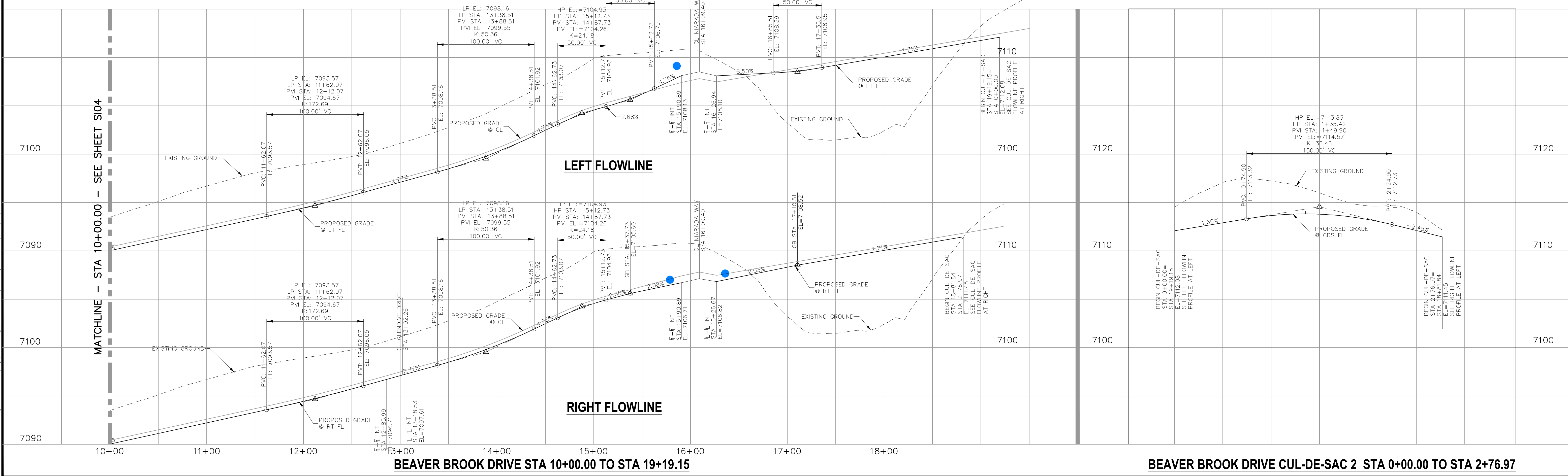
CURVE	RADIUS	LENGTH	DELTA
C1	173.25'	201.93'	66°46'45"
C2	400.00'	260.81'	37°21'28"
C3	300.00'	101.71'	19°25'32"
C4	150.00'	105.52'	40°18'23"
C5	215.00'	78.35'	20°52'51"

CURB FLOWLINE CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
C6	45.83'	21.80'	27°14'53"
C8	45.83'	48.59'	60°44'31"
C7	44.17'	206.58'	267°59'24"

Label cul-de-sac slope and cross-slopes.

File: c:\08007A\Sterling Ranch No. 6\Map\Const\Draw\Street Plans\S107.dwg Plotstamp: 7/30/2019 5:31 PM



BEAVER BROOK DRIVE CUL-DE-SAC 2 STA 0+00.00 TO STA 2+76.97

HOMESTEAD AT STERLING RANCH FILING NO. 2
STREET IMPROVEMENT PLANS

PROJECT NO. 09-007 FILE: \Map\Const\Draw\Street & Storm Plans\S107.dwg
 DESIGNED BY: VAS SCALE DATE: 07/25/2019
 DRAWN BY: JWP HORIZ: 1"=50'
 CHECKED BY: DLM VERT: 1"=5'

20 BOULDER CRESCENT, SUITE 110
 COLORADO SPRINGS, CO 80903
 PHONE: 719.955.5485

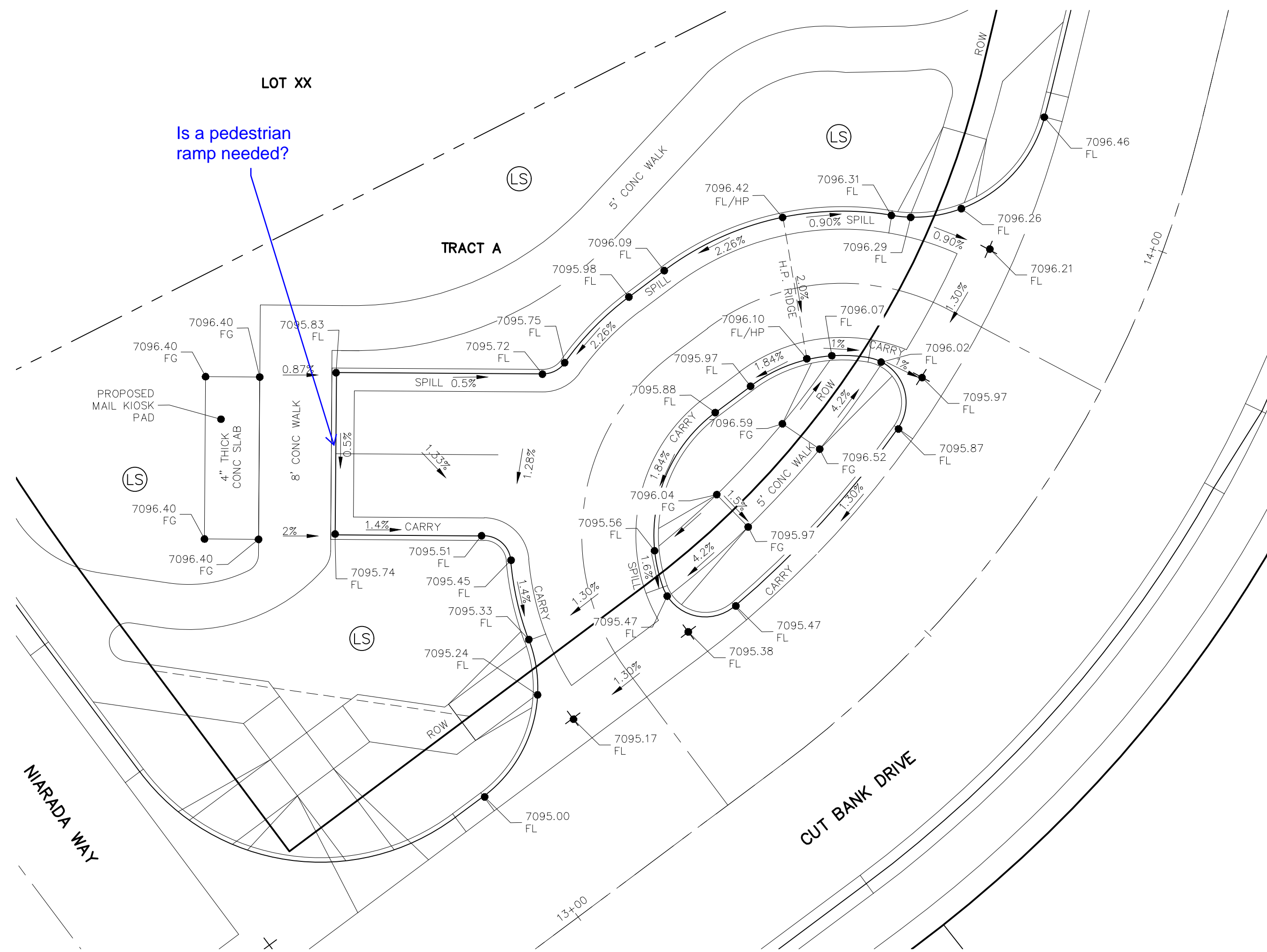
CIVIL CONSULTANTS, INC.

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

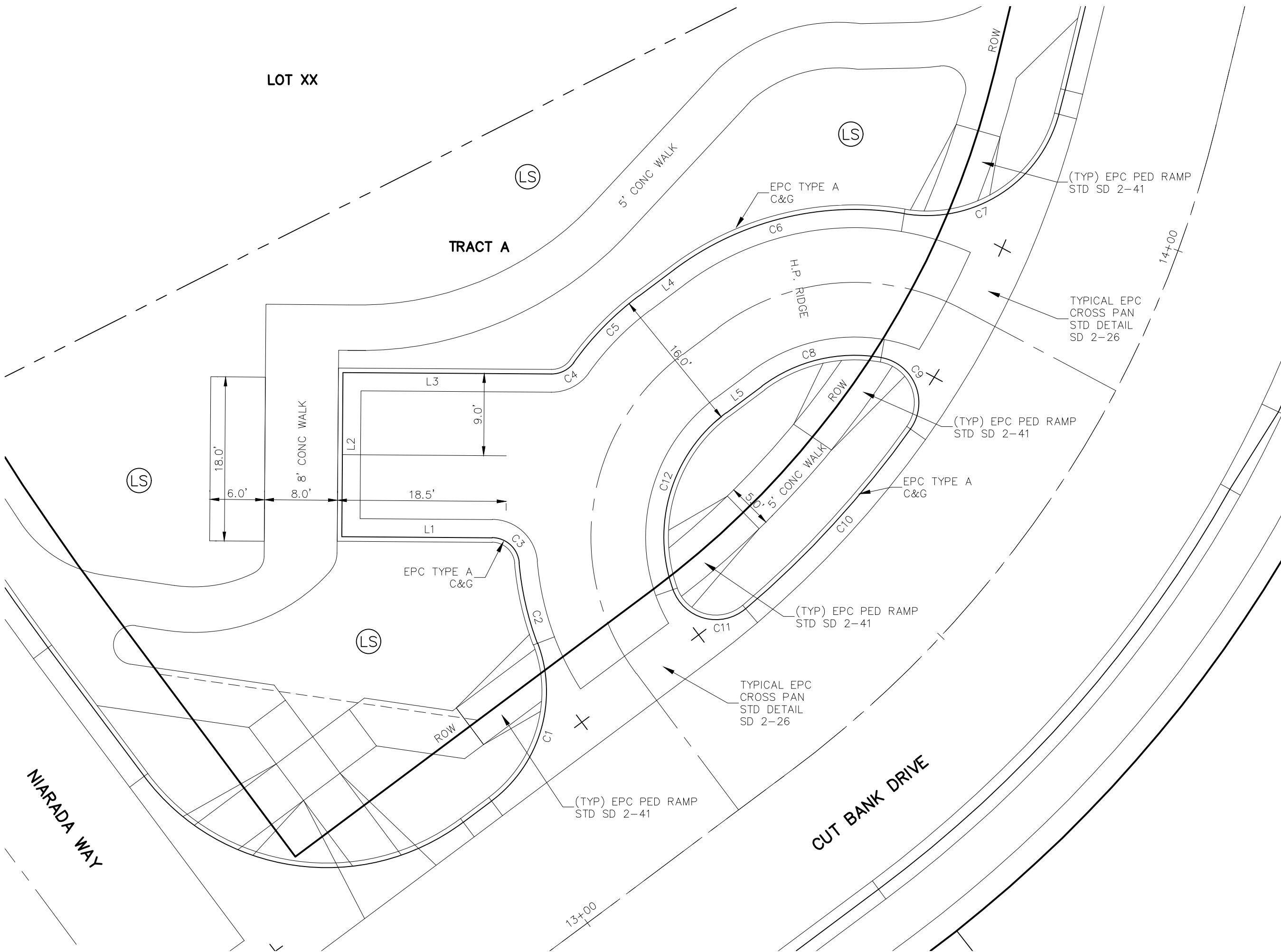
REVISIONS: NO. DATE: BY: DESCRIPTION: APPROV. BY: DATE:

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



MAIL KIOSK GRADING DETAIL



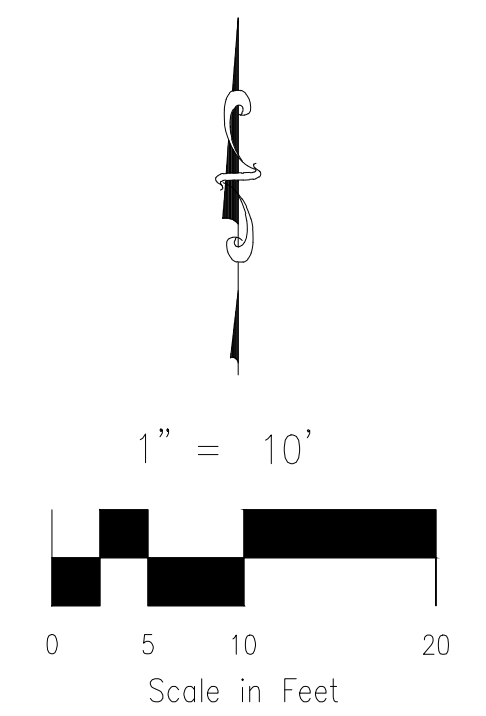
MAIL KIOSK HORIZONTAL CONTROL DETAIL

NOTE:
ALL DIMENSIONS AT FLOWLINE OF CURB AND GUTTER

Line #	Length	Direction
L1	16.51	N89° 35' 38.31"W
L2	18.00	N0° 24' 21.69"E
L3	22.88	S89° 35' 38.31"E
L4	4.88	N53° 13' 24.33"E
L5	4.88	N53° 13' 24.33"E

Curve #	Length	Radius	Delta
C1	19.35	15.00	73.90
C2	9.08	33.00	15.77
C3	4.43	3.00	84.69
C4	2.88	3.00	54.96
C5	10.24	33.00	17.78
C6	26.64	33.00	46.26
C7	22.10	15.00	84.42
C8	13.82	17.00	46.58
C9	10.09	5.00	115.62
C10	26.82	108.00	14.23
C11	9.65	5.00	110.61
C12	21.65	17.00	72.97

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



LS LANDSCAPE AREA
1.5% DRAINAGE FLOW DIRECTION

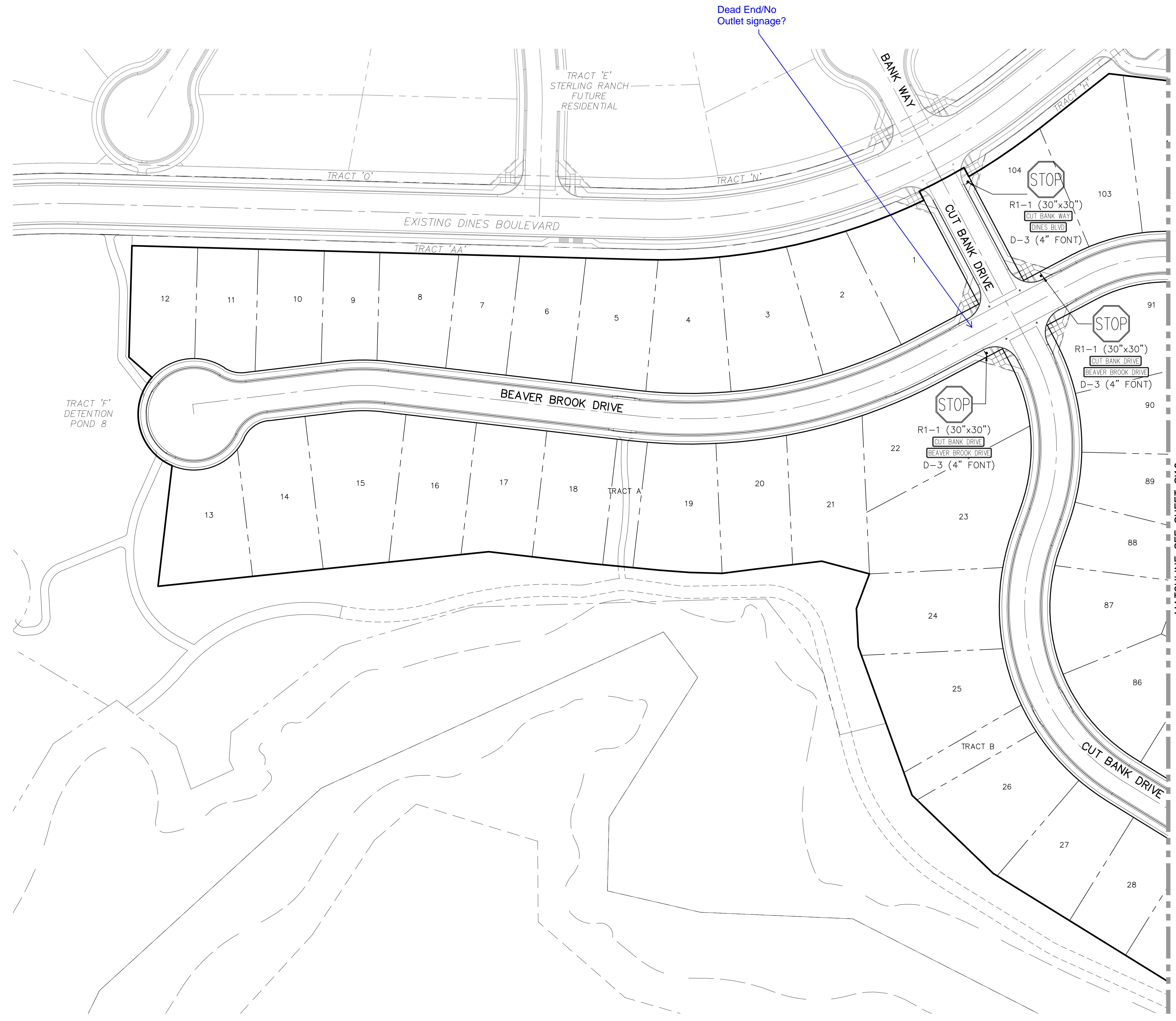
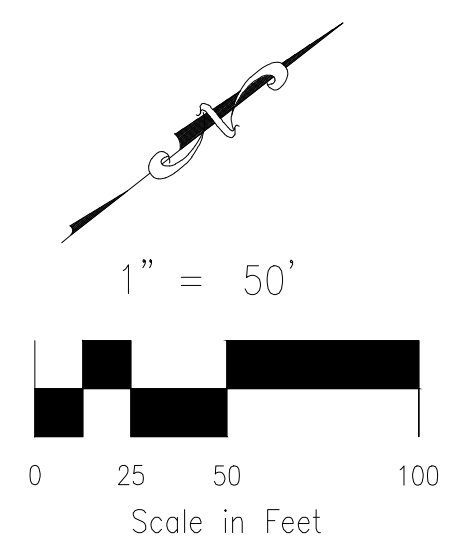
NOTE:
1. STREET SIGNS FOR (FUTURE) ROADWAYS SHALL BE INSTALLED WITH ADJACENT SUBDIVISION STREET PLANS. ALL SIGNAGE SHOWN ON THIS SET OF PLANS SHALL BE INSTALLED.
2. ALL PROPOSED SIGN LOCATIONS ARE CONCEPTUAL. APPROVAL OF THE CONSTRUCTION DRAWINGS DOES NOT INCLUDE SIGN LOCATIONS.

HOMESTEAD AT STERLING RANCH FILING NO. 2	
STREET IMPROVEMENT PLANS	
PROJECT NO. 09-007	DATE: 07/25/2019
DESIGNED BY: VAS	SCALE: HORIZONTAL: 1"=10' VERTICAL: N/A
DRAWN BY: JWP	SHEET 8 OF 10
CHECKED BY:	S108
<p>CIVIL CONSULTANTS, INC.</p>	
20 BOULDER CRESCENT, SUITE 110 COLORADO SPRINGS, CO 80903 PHONE: 719.555.5485	
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.	
REVISIONS: NO. DATE BY DESCRIPTION APPROVED BY DATE	
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: 0:\00071\Sterling Ranch No 6\Map\Const Draw\Street Plans\S009.dwg Plot Date: 7/25/2019 12:49 PM

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

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



MATCHLINE SEE SHEET S110

HOMESTEAD AT STERLING RANCH FILING NO. 2

SIGNAGE & STRIPING PLAN	
PROJECT NO. 09-007	SCALE: HORIZONTAL: 1"=50' VERTICAL: N/A
DESIGNED BY: VAS	DATE: 07/25/2019
DRAWN BY: JWP	SHEET 9 OF 10
CHECKED BY:	S109

20 BOULDER CRESCENT, SUITE 110
 COLORADO SPRINGS, CO 80903
 PHONE: 719.955.5485

CIVIL CONSULTANTS, INC.

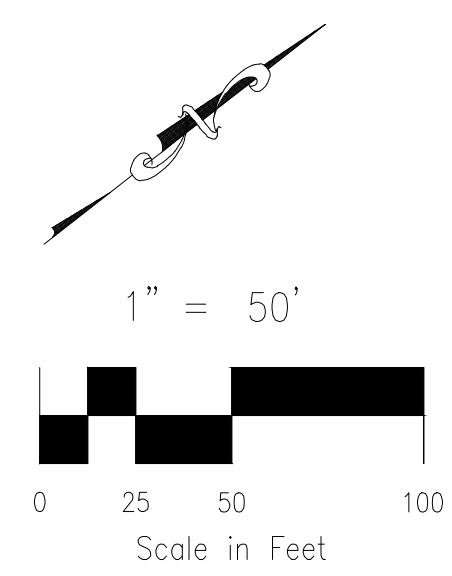
FOR AND ON BEHALF OF
 M&S CIVIL CONSULTANTS, INC.

NO.	DATE	BY	DESCRIPTION	APPROVED BY	DATE

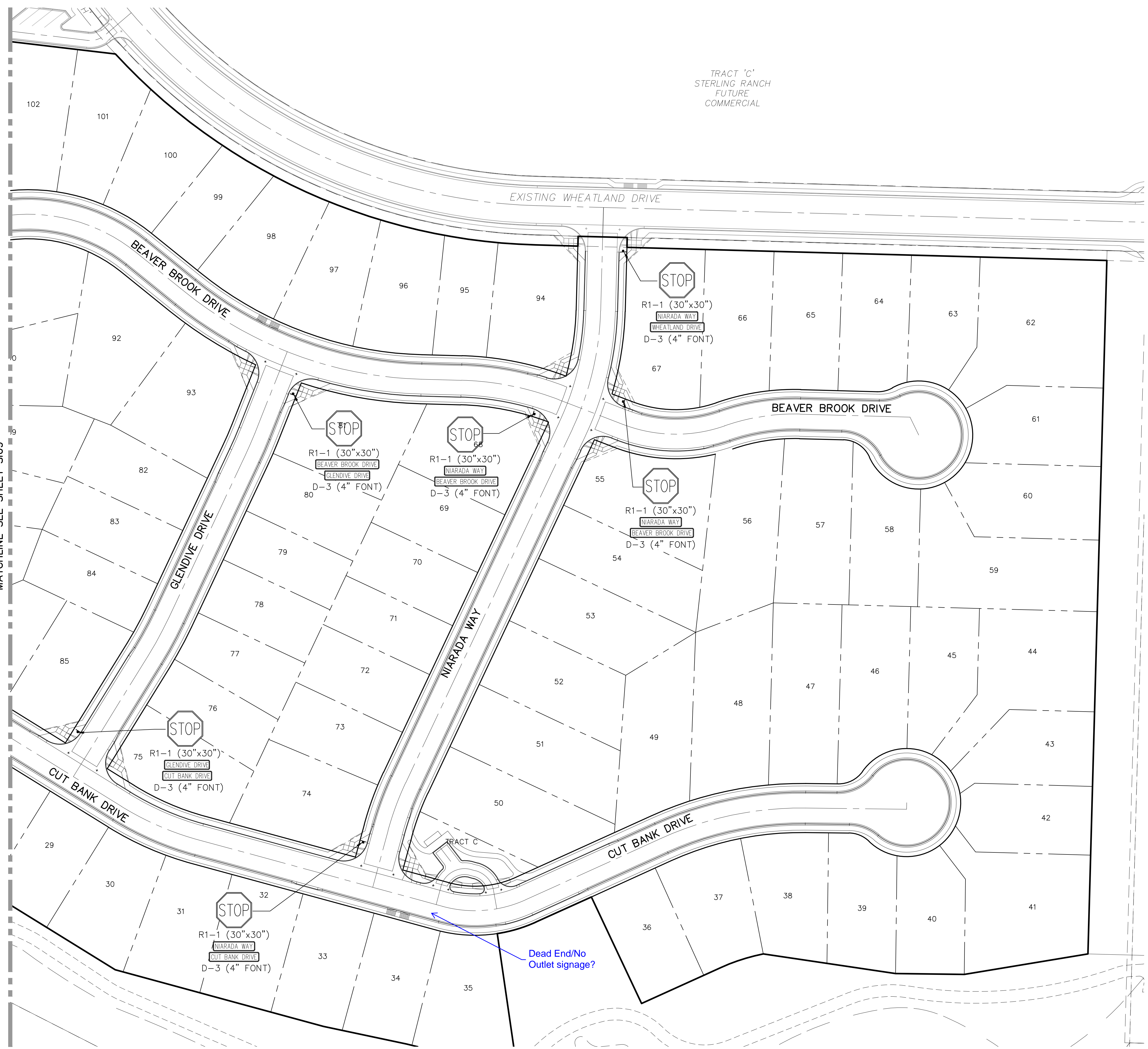
THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CAUTION

File: 0:\000071\Sterling Ranch No 6\Map\Const Draw\Street Plans\S10.dwg Plotstamp: 7/30/2019 5:32 PM



MATCHLINE SEE SHEET S109



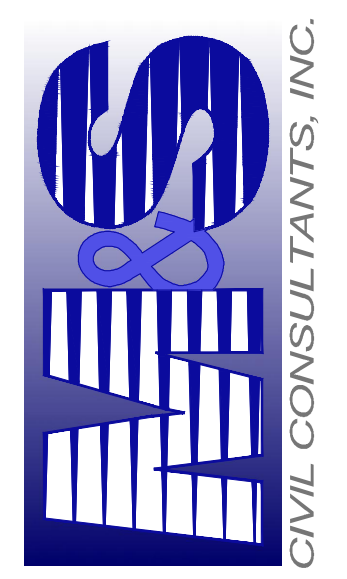
Dead End/No Outlet signage?

TRACT 'C'
STERLING RANCH
FUTURE
COMMERCIAL

HOMESTEAD AT STERLING RANCH FILING NO. 2

PROJECT NO. 09-007		SCALE:
DESIGNED BY: VAS	HORIZONTAL:	1"=50'
DRAWN BY: JWP	VERTICAL:	N/A
CHECKED BY:	DLM	
DATE: 07/25/2019		SHEET 10 OF 10
SIGNAGE & STRIPING PLAN		S110

20 BOULDER CRESCENT, SUITE 110
COLORADO SPRINGS, CO 80903
PHONE: 719.955.5485



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

NO.	DATE	BY	DESCRIPTION	APPROVED BY	DATE

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

HOMESTEAD AT STERLING RANCH FILING 2

BETWEEN PROPOSED BEAVER BROOK DRIVE - EXISTING DINES BOULEVARD

COUNTY OF EL PASO, STATE OF COLORADO

EMERGENCY ACCESS RD PLANS

INCLUDING SIGNAGE
 FEBRUARY 2019
 SF-19-004

AGENCIES

OWNER/DEVELOPER: SR LAND, LLC
 20 BOULDER CRESCENT, SUITE 201
 COLORADO SPRINGS, CO 80903
 JAMES F. MORLEY (719) 471-1742

CIVIL ENGINEER: M & S CIVIL CONSULTANTS, INC.
 20 BOULDER CRESCENT, SUITE 110
 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
 JEFF RICE, 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

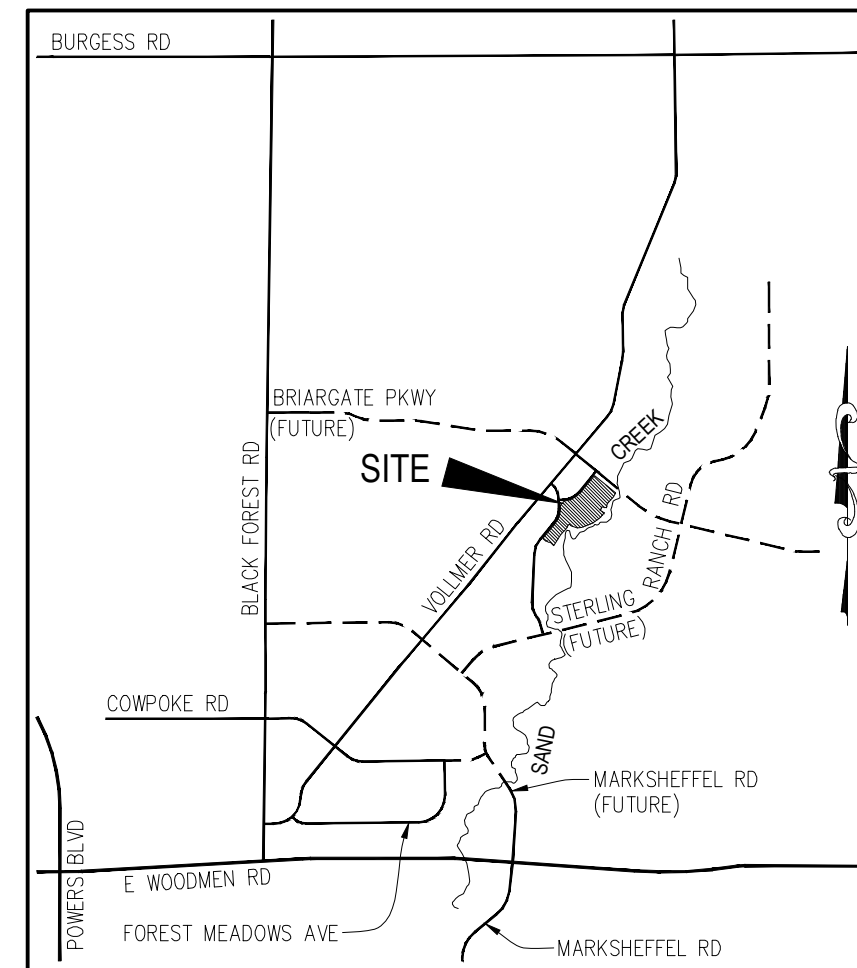
WATER RESOURCES: STERLING RANCH METRO DISTRICT ENGINEERS
 JDS-HYDRO CONSULTANTS
 545 E. PIKES PEAK AVE., SUITE 300
 COLORADO SPRINGS, CO 80903
 JOHN MCGINN (719) 668-8769

FIRE DISTRICT: BLACK FOREST FIRE PROTECTION DISTRICT
 11445 TEACHOUT ROAD
 COLORADO SPRINGS, CO 80908
 CHIEF BRYAN JACK (719) 495-4300

GAS DEPARTMENT: COLORADO SPRINGS UTILITIES
 7710 DURANT DR.
 COLORADO SPRINGS, CO 80947
 TIM WENDT (719) 668-3556

ELECTRIC DEPARTMENT: MOUNTAIN VIEW ELECTRIC
 11140 E. WOODMEN ROAD
 FALCON, CO 80831
 (719) 495-2283

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



VICINITY MAP
 N.T.S.

BENCHMARKS

1. 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
2. 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
3. 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

ABBREVIATIONS

ACT	ACTUAL	FL	FLOW LINE	PT	POINT OF TANGENCY
BCR	BACK OF CURB RETURN	FT	FEET, FOOT	PROP	PROPOSED
BOV	BLOWOFF VALVE ASSEMBLY	FUT	FUTURE	REM	REMOVE
BRK	BREAK	GRD	GRADE	ROW	RIGHT OF WAY
BT	BEGINNING OF TRANSITION	HORZ	HORIZONTAL	RSNTS	RESTRAINTS
CATV	CABLE TV	HP	HIGH POINT ELEVATION	RT	RIGHT
CL	CLASS, CENTERLINE	INT	INTERSECTION	SAN	SANITARY SEWER
CLR	CLEARANCE	LP	LOW POINT ELEVATION	SD	STANDARD DETAIL
CONSTR	CONSTRUCT	LT	LEFT	STA	STATION
CSU	COLORADO SPRINGS UTILITIES	LOC	LOCATION	STM	STORM
ECR	END CURB RETURN	MIN	MINIMUM	COB	TOP CORNER OF BOX
EL	ELEVATION	N,S,E,W	NORTH,SOUTH,EAST,WEST	TELE	TELEPHONE
EOA	EDGE OF ASPHALT	N/S	NOT TO SCALE	TYP	TYPICAL
EOP	END OF PAVEMENT	PC	POINT OF VERTICAL CURVATURE	UNK	UNKNOWN
EPC	EL PASO COUNTY	PCC	POINT OF COMPOUND CURVE	UTL	UNDERGROUND POWER
ESMT	EASMENT	PCR	POINT OF CURB RETURN	VERT	VERTICAL
ET	END TRANSITION	PL	PROPERTY LINE	WTR	WATER LINE
EX	EXISTING	PRC	POINT OF REVERSE CURVE	XING	CROSSING
GB	GAS GRADE BREAK	PUB	PUBLIC	YD	YARD (CUBIC)
		PVI	POINT OF VERTICAL INTERSECTION		
		PVT	POINT OF VERTICAL TANGENT		



SITE MAP
 N.T.S.

APPROVALS:

ENGINEER'S STATEMENT:

DETAILED IMPROVEMENT PLANS AND SPECIFICATIONS ENGINEER'S STATEMENT:

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID DETAILED PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED DRAINAGE PLANS AND SPECIFICATIONS, AND SAID DETAILED PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH THE MASTER PLAN OF THE DRAINAGE BASIN. SAID DETAILED DRAINAGE PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR DRAINAGE FACILITY(S) IS DESIGNED. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS, OR OMISSIONS ON MY PART IN PREPARATION OF THE DETAILED IMPROVEMENT PLANS AND SPECIFICATIONS.

 VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160
 FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC. DATE

OWNER/DEVELOPER STATEMENT:

THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE DRAINAGE REPORT AND PLAN AND THIS SET OF CONSTRUCTION DOCUMENTS. THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

 JAMES F. MORLEY
 SR LAND, LLC
 20 BOULDER CRESCENT, SUITE 201
 COLORADO SPRINGS, CO 80903
 (719) 471-1742 DATE

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 APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

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.

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

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

STERLING RANCH METROPOLITAN DISTRICT:

THESE DOCUMENTS HAVE BEEN REVIEWED AND APPROVED FOR STORM DRAIN AND ASSOCIATED UTILITY SERVICE CONSTRUCTION.

 FOR AND ON BEHALF OF THE STERLING RANCH METRO. DISTRICT DATE

CONDITIONS:

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.

SHEET INDEX:

- SHEET 1 TITLE SHEET
- SHEET 2 EMERGENCY ACCESS ROAD PLAN & DETAIL SHEET

HOMESTEAD AT STERLING RANCH FIL. NO. 2

EMERGENCY ACCESS PLANS

DATE: 02/18/2019

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

DESIGNED BY: DCV DRAWN BY: JWP CHECKED BY: VAS

PROJECT NO. 09-007 SHEET 1 OF 2 ER01

20 BOULDER CRESCENT, SUITE 110
 COLORADO SPRINGS, CO 80903
 PHONE: 719.955.5485

M&S CIVIL CONSULTANTS, INC.

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

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

NO.	DATE	BY	DESCRIPTION

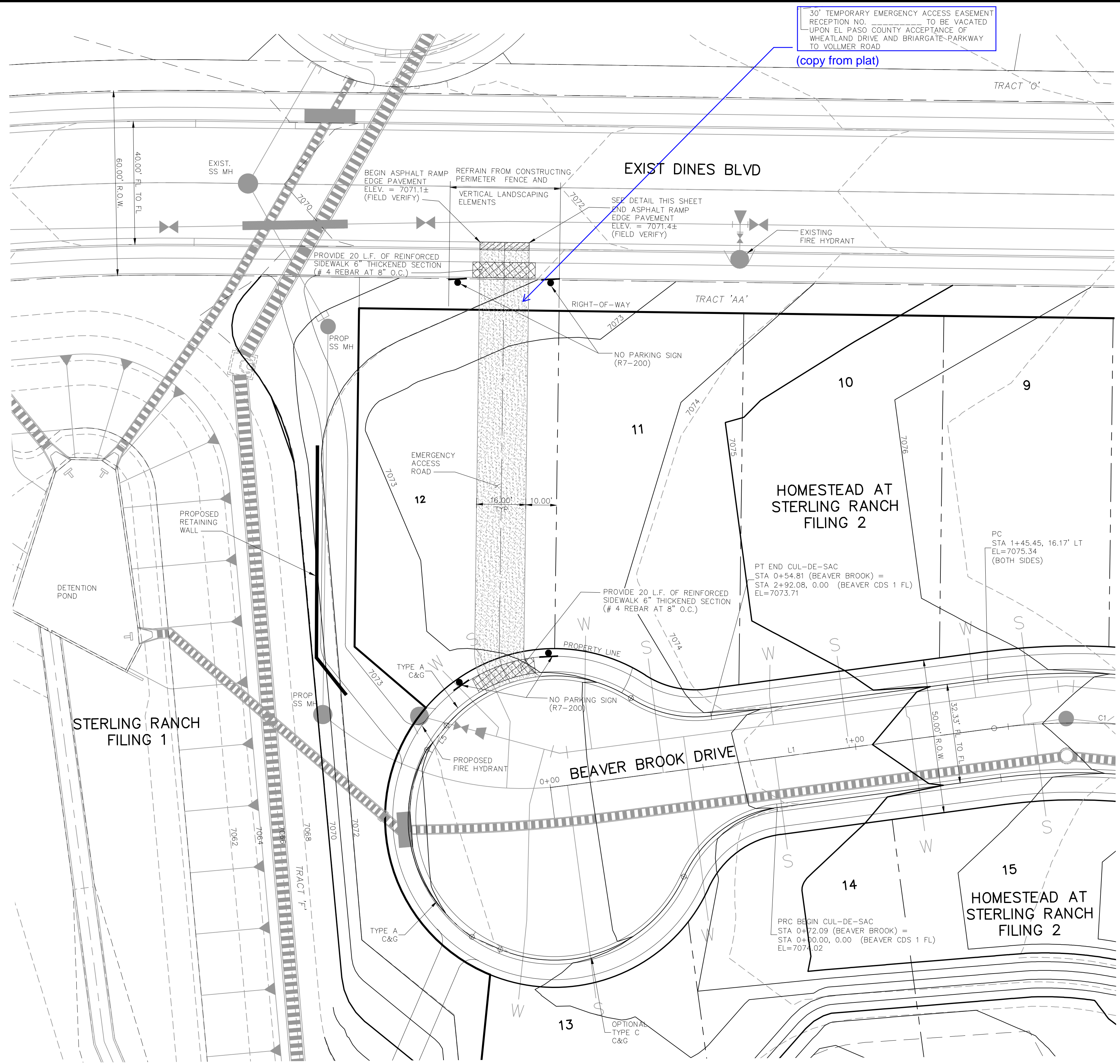
FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES

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

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE 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

30' TEMPORARY EMERGENCY ACCESS EASEMENT
 RECEPTION NO. _____ TO BE VACATED
 UPON EL PASO COUNTY ACCEPTANCE OF
 WHEATLAND DRIVE AND BRIARGATE PARKWAY
 TO VOLLMER ROAD
 (copy from plat)

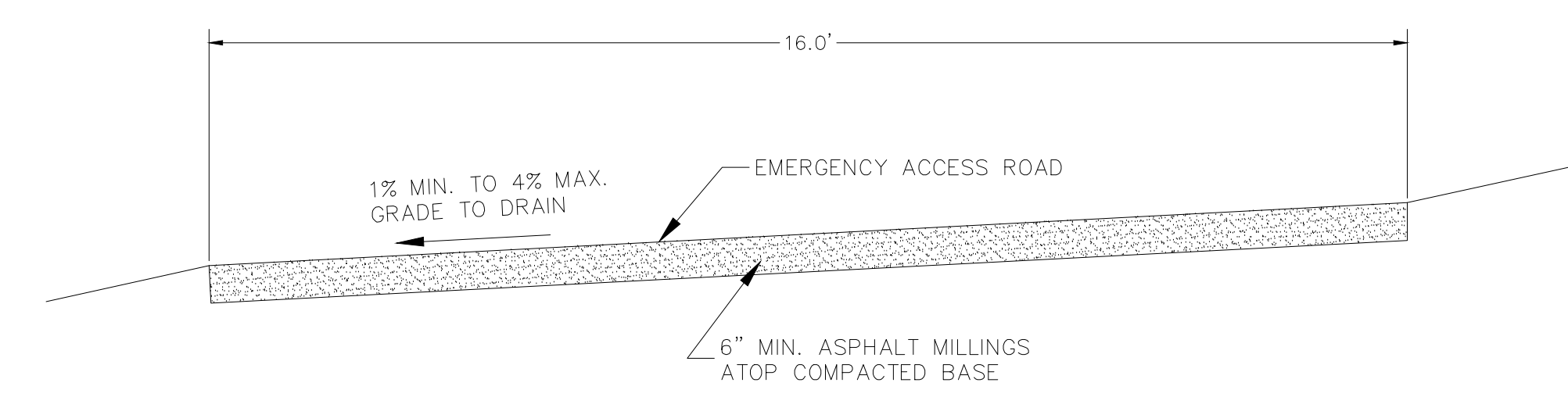


STANDARD NOTES FOR EL PASO COUNTY CONSTRUCTION PLANS

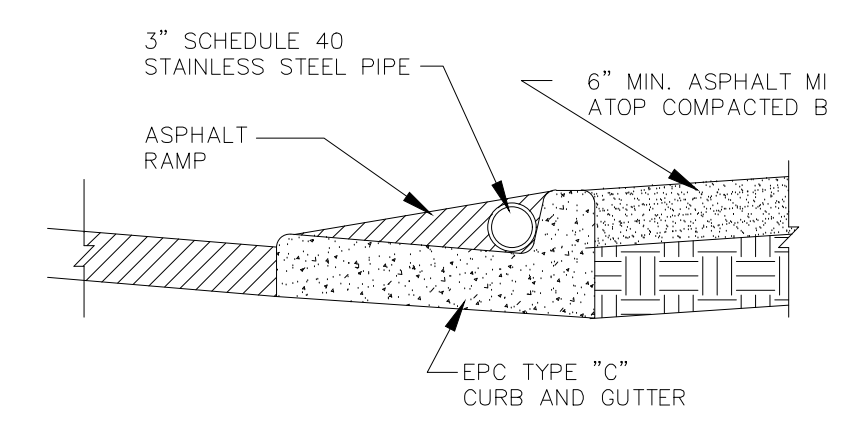
- ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
- CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
 - EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
 - CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
 - COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
 - CDOT M & S STANDARDS
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT - INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
- CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND DEPARTMENT OF PUBLIC WORKS. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
- CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS AND MUTCD CRITERIA.
- CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DEPARTMENT PUBLIC WORKS, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
- THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

GENERAL CONSTRUCTION NOTES:

- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ALONG THE ROUTE OF THE WORK. THE OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NONEXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- THE CONTRACTOR WILL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE UTILITIES WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.
- ADDITIONAL EROSION CONTROL STRUCTURES MAY BE REQUIRED AT THE TIME OF CONSTRUCTION.
- ALL BACKFILL, SUB-BASE, AND/OR BASE COURSE (CLASS 6) MATERIAL SHALL BE COMPACTED PER THE SOILS ENGINEER'S RECOMMENDATIONS, AND APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES ENGINEERING DIVISION.
- ALL STATIONING IS CENTERLINE OF IMPROVEMENTS UNLESS OTHERWISE INDICATED. ALL ELEVATIONS ARE TOP SURFACE OF EMERGENCY ACCESS ROAD UNLESS OTHERWISE INDICATED AS TOP BACK OF CURB (TBC), ASPHALT (ASP) OR FLOWLINE (FL).
- ASPHALT THICKNESS AND BASE COURSE THICKNESS (COMPACTED) FOR ROADS SHALL BE PER DESIGN REPORT BY OWNER'S GEOTECHNICAL ENGINEER. OWNER'S GEOTECHNICAL ENGINEER TO BE ON SITE AT THE TIME OF ROAD CONSTRUCTION TO EVALUATE SOIL CONDITIONS AND DETERMINE IF ADDITIONAL MEASURES ARE NECESSARY TO ASSURE STABILITY OF THE NEW ROADS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES ENGINEERING DIVISION PRIOR TO CONSTRUCTION.



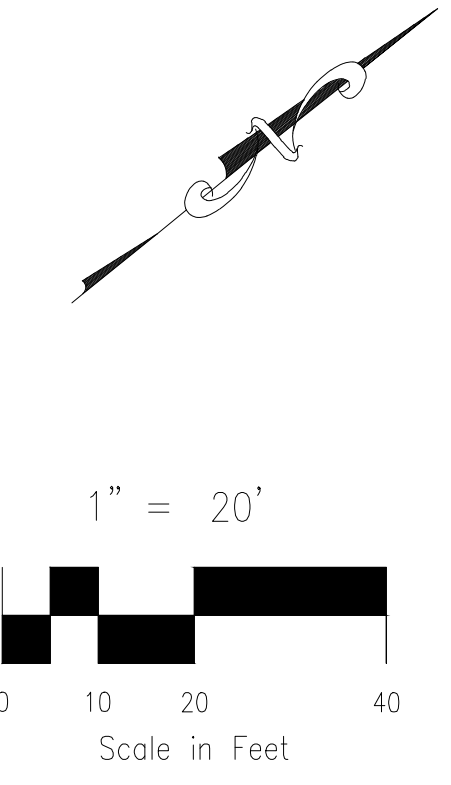
TYPICAL EMERGENCY ACCESS ROAD SECTION
 N.T.S.




TYPICAL ASPHALT RAMP SECTION
 N.T.S.



R7-200 SIGNAGE DETAIL
 N.T.S.



HOMESTEAD AT STERLING RANCH FIL. NO. 2 EMERGENCY ACCESS PLANS		PROJECT NO. 09-007 DATE: 02/18/2019 SCALE: 1" = 20' HORIZONTAL: N/A VERTICAL: N/A								
20 BOULDER CRESCENT SUITE 110 COLORADO SPRINGS, CO 80903 PHONE: 719.555.5485  CIVIL CONSULTANTS, INC.		DESIGNED BY: DLM DRAWN BY: DCV CHECKED BY: VAS ER02 SHEET 2 OF 2								
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC. REVISIONS: <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			NO.	DATE	BY	DESCRIPTION				
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										