

BRANDING IRON AT STERLING RANCH FILING NO. 2

COUNTY OF EL PASO, STATE OF COLORADO

STREET IMPROVEMENT PLANS

NOVEMBER 2019

AGENCIES

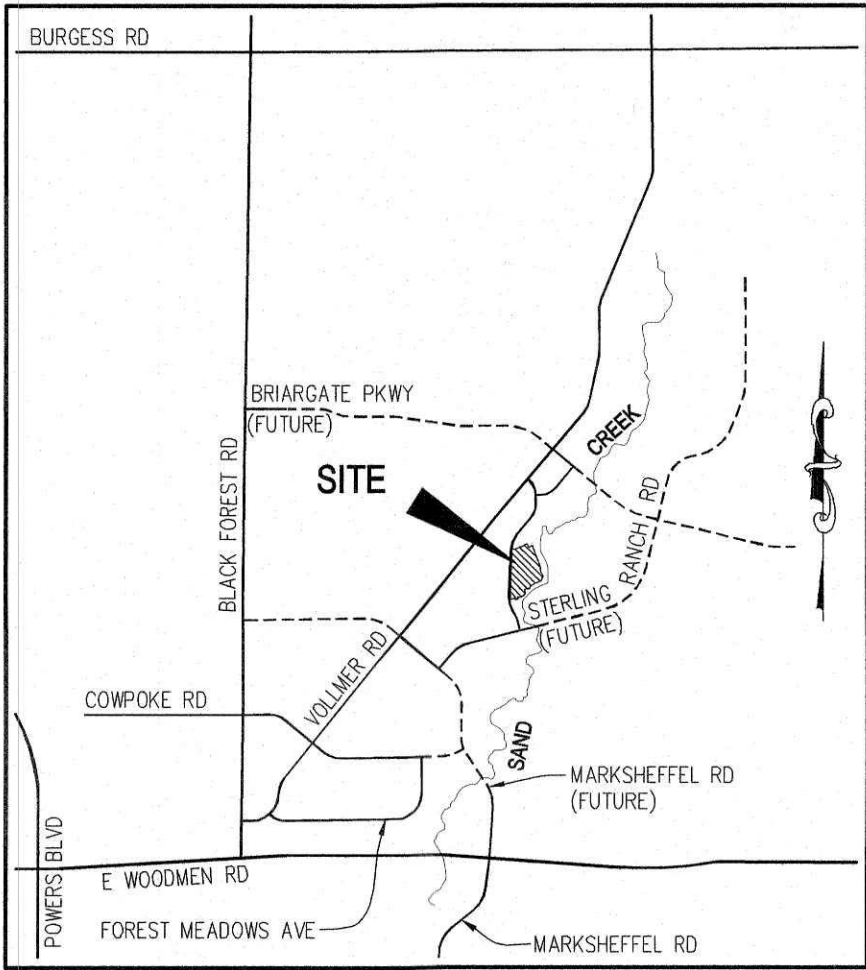
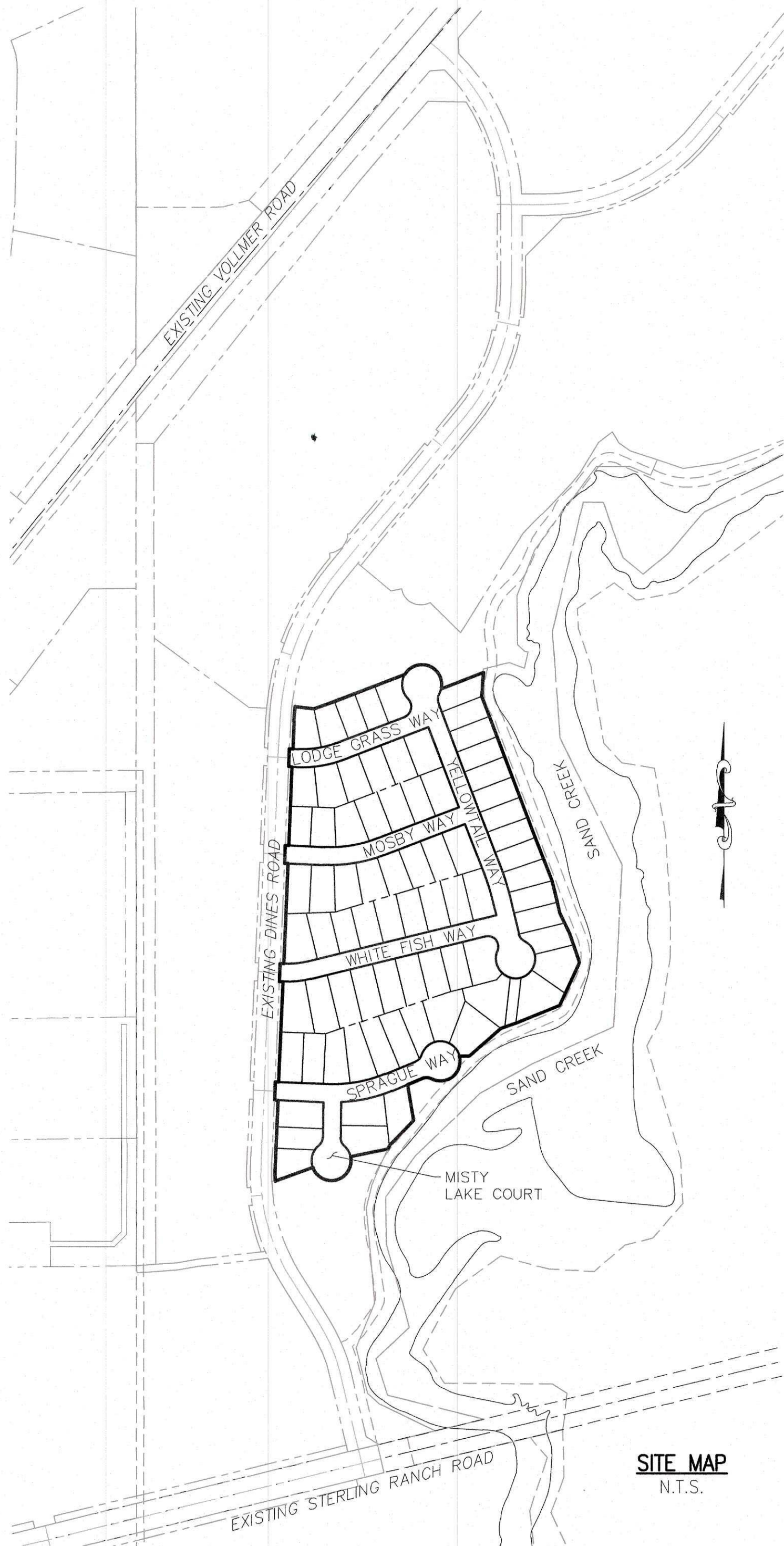
OWNER/DEVELOPER:	SR LAND, LLC 20 BOULDER CRESCENT, SUITE 201 COLORADO SPRINGS, CO 80903 JIM MORLEY (719) 471-1742
CIVIL ENGINEER:	M & S CIVIL CONSULTANTS, INC. 20 BOULDER CRESCENT, SUITE 110 COLORADO SPRINGS, CO 80903 VIRGIL A. SANCHEZ P.E. (719) 955-5485
COUNTY ENGINEERING:	EL PASO COUNTY PLANNING AND 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

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

ABBREVIATION LEGEND

C-C	CENTERLINE INTERSECTION	SS	SANITARY SEWER
F-I	FLOWLINE INTERSECTION	WT	WATER
BT	BEGIN TRANSITION	STRM	STORM SEWER
ET	END TRANSITION	SI	STREET IMPROVEMENT
PC	POINT OF CURVE	BOP	BOTTOM OF PIPE
PCC	POINT OF COMPOUND CURVE	TOP	TOP OF PIPE
PCR	POINT OF CURB RETURN	CL	CENTER LINE
PRC	POINT OF REVERSE CURVE	MH	MANHOLE
PT	POINT OF TANGENT	STA	STATION
EL	ELEVATION	PUB	PUBLIC
VERT	VERTICAL	PRI	PRIVATE
HORZ	HORIZONTAL	PVC	POLYVINYL CHLORIDE
DEFL	DEFLECTION	RCP	REINFORCED CONCRETE PIPE
LT	LEFT	DIA	DIAMETER
RT	RIGHT	EL	ELEVATION
FL	FLOWLINE	XING	CROSSING
FES	FLARE END SECTION	CLR	CLEARANCE
S	SLOPE	STA	STATION
HGL	HYDRAULIC GRADE LINE	LF	LINEAR FEET
TBC	TOP BACK OF CURB	EX	EXISTING
GRD	GROUND	PROP	PROPOSED
TOB	TOP OF BOX	YR	YEAR
		F4	FILING 4
		NTS	NOT TO SCALE
1	LOT NUMBER	SHT	SHEET
(1111)	ADDRESS	P&P	PLAN & PROFILE
		MOD.	MODIFIED
		NO.	NUMBER
		DR.	DRIVE



VICINITY MAP

N.T.S.

DESIGN ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.



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

OWNER/DEVELOPER'S STATEMENT:

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

NAME: Jim Morley DATE: 11-20-19

DBA: SR LAND, LLC

ADDRESS: 20 BOULDER CRESCENT STE 210, COLORADO SPRINGS, CO 80903

EL PASO COUNTY:

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

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

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

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



*Pedestrian ramps must meet ADA standards

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: 11/20/19

SHEET INDEX

SHEET 1	TITLE SHEET
SHEET 2	NOTES & DETAILS
SHEET 3	PLAN & PROFILE - LODGE GRASS WAY / MOSBY WAY
SHEET 4	PLAN & PROFILE - WHITEFISH WAY
SHEET 5	PLAN & PROFILE - YELLOWTAIL WAY
SHEET 6	PLAN & PROFILE - SPRAGUE WAY
SHEET 7	PLAN & PROFILE - MISTY LAKE COURT
SHEET 8	SIGNAGE & STRIPING PLAN

CONSTRUCTION PLAN REFERENCE:

SEE APPROVED PLANS 30 JAN 2018 BY M&S CIVIL CONSULTANTS, INC. FOR:
- STERLING RANCH VOLLMER RD. (NORTH)
- WHEATLAND DRIVE CONSTRUCTION TO BRIARGATE PARKWAY
- BRIARGATE PARKWAY WHEATLAND TO VOLLMER CONSTRUCTION.

EPC 6/18/20

SF-19-018



BRANDING IRON AT STERLING RANCH FILING NO. 2

STREET IMPROVEMENT PLANS

PROJECT NO. 09-012
DESIGNED BY: JWP
DRAWN BY: JWP
CHECKED BY: GW

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

DATE: 11/19/2019
SHEET 1 OF 8
S101

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.

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

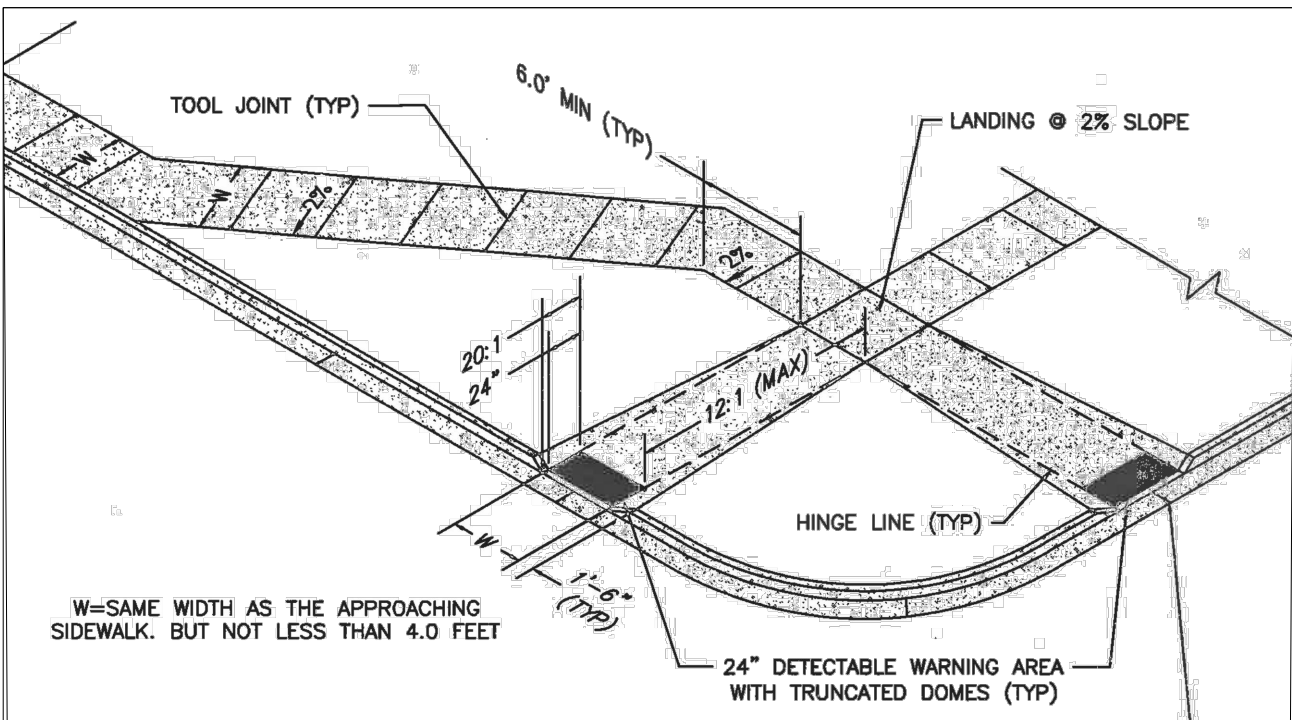
CAUTION

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 SUBBASE 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 RAMP NOTES

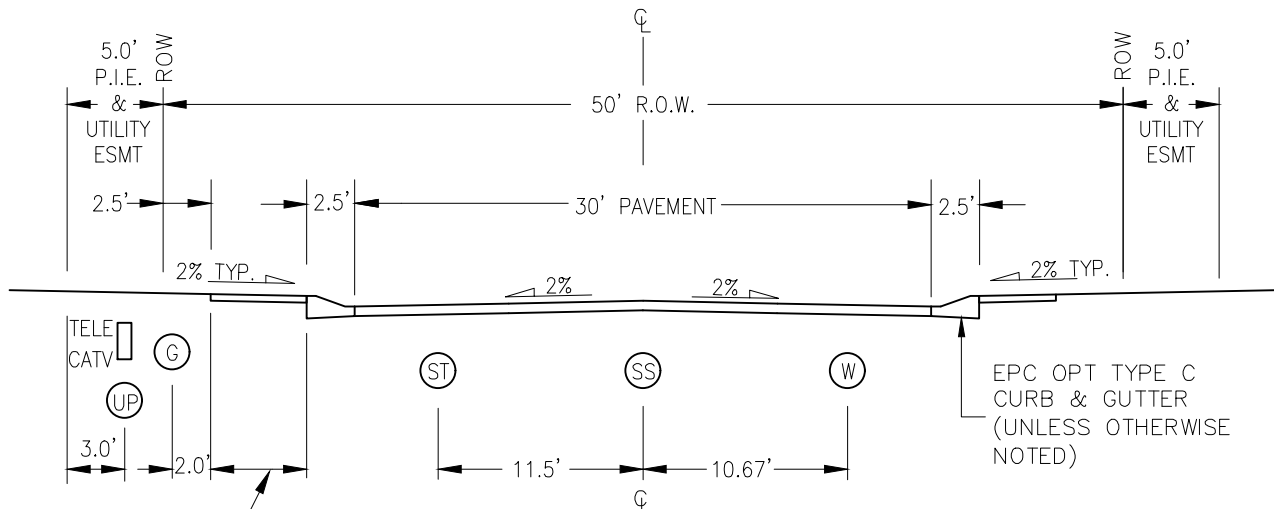
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT ENGINEERING CRITERIA MANUAL AND ADA REQUIREMENTS.
- CONTRACTOR TO NOTIFY ENGINEERING DIVISION INSPECTION STAFF 48 HOURS PRIOR TO CONCRETE PLACEMENT.
- PEDESTRIAN RAMP CONSTRUCTION SHALL BE A MINIMUM 4,500 PSI CONCRETE, MINIMUM 4" THICK, NON-COLORED, NON-SOURED, COARSE BROOM FINISH.
- RAMP LOCATION AND LENGTH MAY REQUIRE MODIFICATION TO MAINTAIN THE 12:1 MAXIMUM RUNNING RAMP SLOPE AND 20:1 DETECTABLE WARNING AREA DUE TO STREET INTERSECTION GRADINGS AND/OR ALIGNMENTS.
- DETECTABLE WARNING AREA SHALL START A MINIMUM OF 6' BUT NOT MORE THAN 8' FROM THE FLOWLINE OF THE CURB AT ANY POINT.
- DETECTABLE WARNING AREA SHALL BE PREFABRICATED, REDDISH INTERNALLY COLORED, TRUNCATED-DOME PAVERS, THERMOPLASTIC TRUNCATED DOMES WILL NOT BE ACCEPTED.
- THE DETECTABLE WARNING AREA SHALL BE 24" IN LENGTH AND THE FULL WIDTH OF THE RAMP.
- RAMP WIDTH REQUIRED IS SAME AS APPROACHING SIDEWALK, 4' MINIMUM.
- ALL RAMPS WILL BE PERPENDICULAR TO TRAFFIC WITH THE EXCEPTION OF MID-BLOCK OR TERMINAL RAMPS WHICH MAY BE PARALLEL, SUBJECT TO APPROVAL.
- AVOID PLACING DRAINAGE STRUCTURES, TRAFFIC SIGNAL/SIGNAGE, UTILITIES/JUNCTION BOXES, OR OTHER OBSTRUCTIONS WITHIN PROPOSED RAMP AREAS.

GENERAL NOTES

- WHERE THE 1'-6" FLARED SIDE(S) OF A PERPENDICULAR CURB RAMP IS (ARE) CONTIGUOUS WITH A PEDESTRIAN OR HARD SURFACE AREA, THE MAXIMUM FLARE SLOPE SHALL NOT EXCEED 10:1.
- PEDESTRIAN WALKWAY AND/OR LOCATION OF EXISTING OR FUTURE PEDESTRIAN RAMPS ON OPPOSITE CORNERS SHALL BE REVIEWED BEFORE CONSTRUCTING NEW RAMPS.
- AT MARKED PEDESTRIAN CROSSINGS, THE BOTTOM OF THE RAMPS, EXCLUSIVE OF THE FLARE SIDES, SHALL BE TOTALLY CONTAINED WITHIN THE MARKINGS.

PEDESTRIAN INTERSECTION RAMP (SD 2-41)

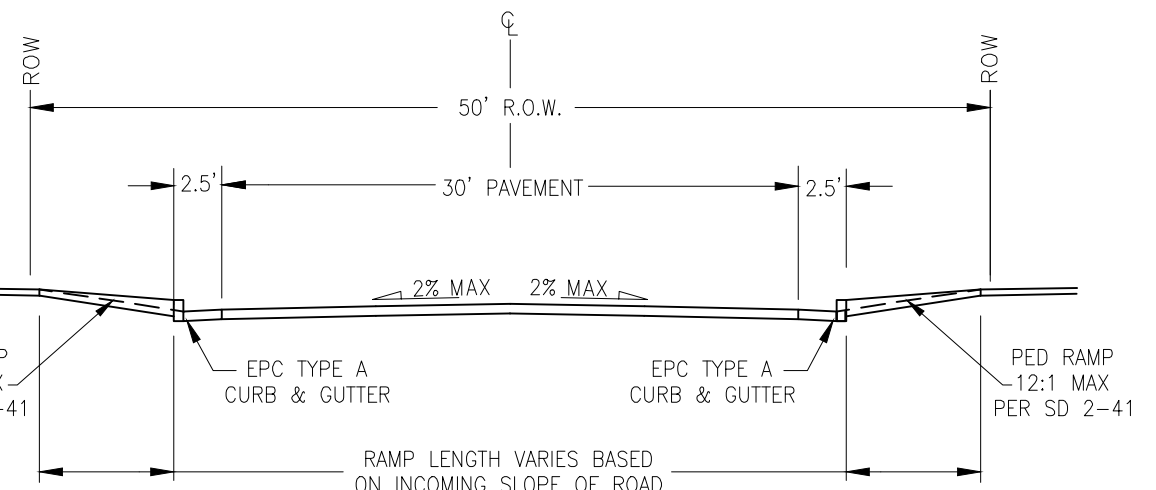
SCALE: NTS



URBAN LOCAL CROSS SECTION

SCALE: NTS

POSTED SPEED 25 MPH
DESIGN SPEED 35 MPH



PEDESTRIAN RAMP TO PEDESTRIAN RAMP
STREET SECTION

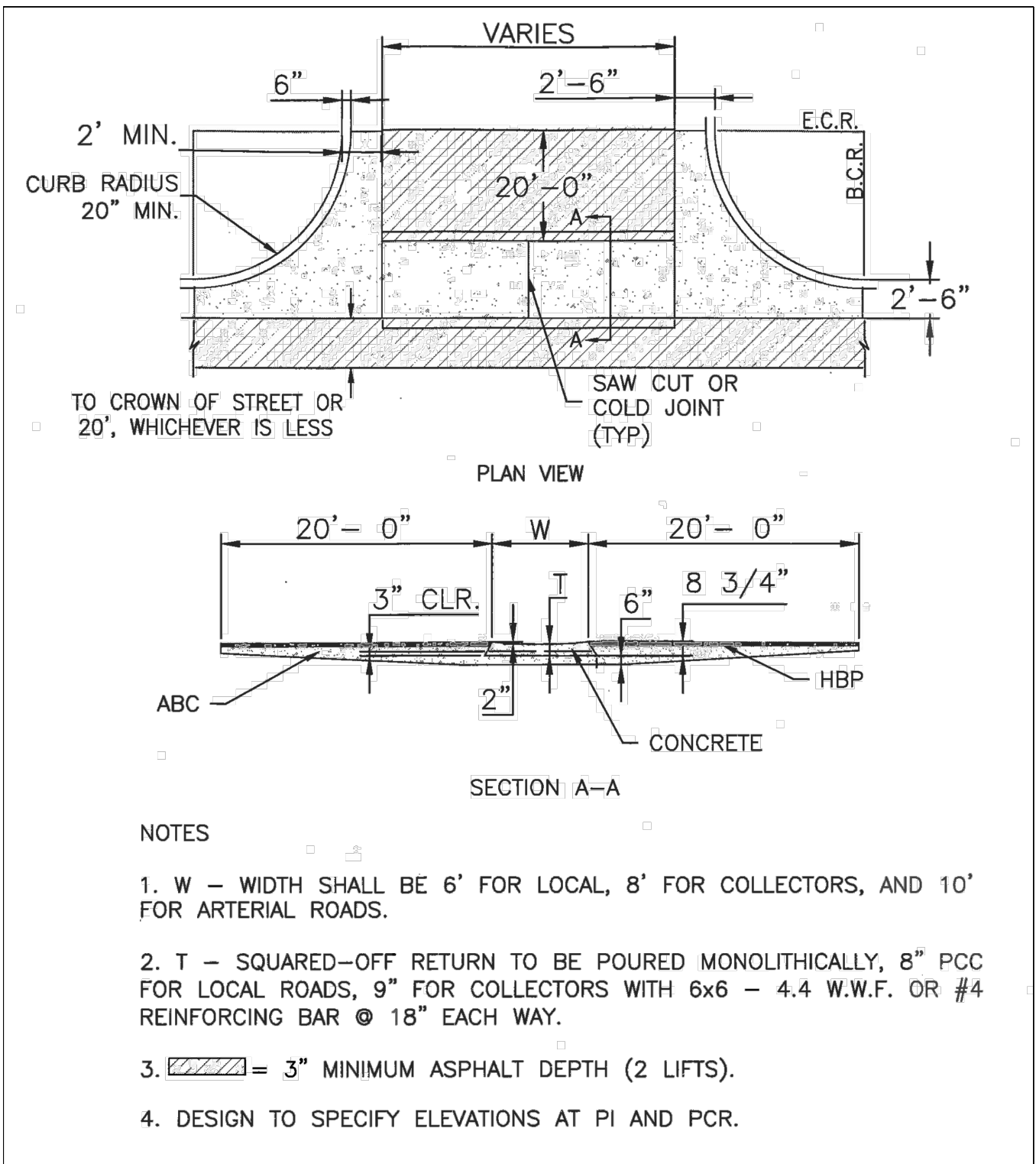
SCALE: NTS

SPECIAL CONTRACTOR'S NOTE:

CONTRACTOR SHALL CONSTRUCT ALL PEDESTRIAN RAMPS, SIDEWALKS AND RAMP TO RAMP STREET CROSSINGS PER THE PEDESTRIAN INTERSECTION RAMP SD-2-41, PARALLEL PEDESTRIAN RAMP SD-2-50, AND PER THE CDOT ACCESSIBLE PEDESTRIAN DESIGN GUIDELINE CHAPTER 12.

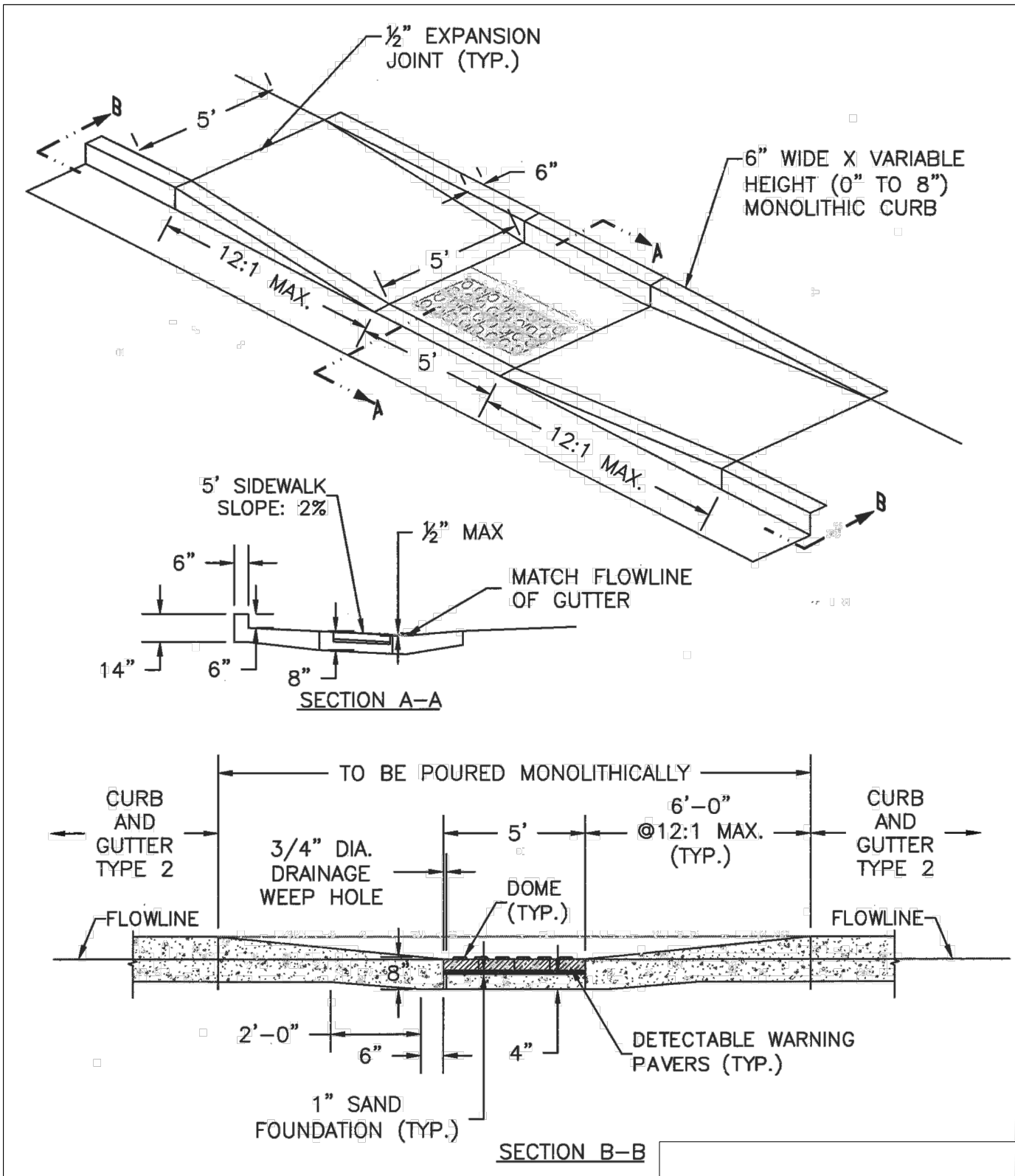
STANDARD NOTES FOR EL PASO COUNTY CONSTRUCTION PLANS

- 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

EPC 6/18/20



BRANDING IRON AT STERLING RANCH FILING NO. 2

NOTE & DETAIL SHEET

PROJECT NO. 09-012

DATE: 11/19/2019

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

DESIGNED BY: JD

DRAWN BY: VAS

CHECKED BY: N/A

SHEET 2 OF 8

SIO2

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.

REGISTERED PROFESSIONAL ENGINEER
NO. 37160
STATE OF COLORADO

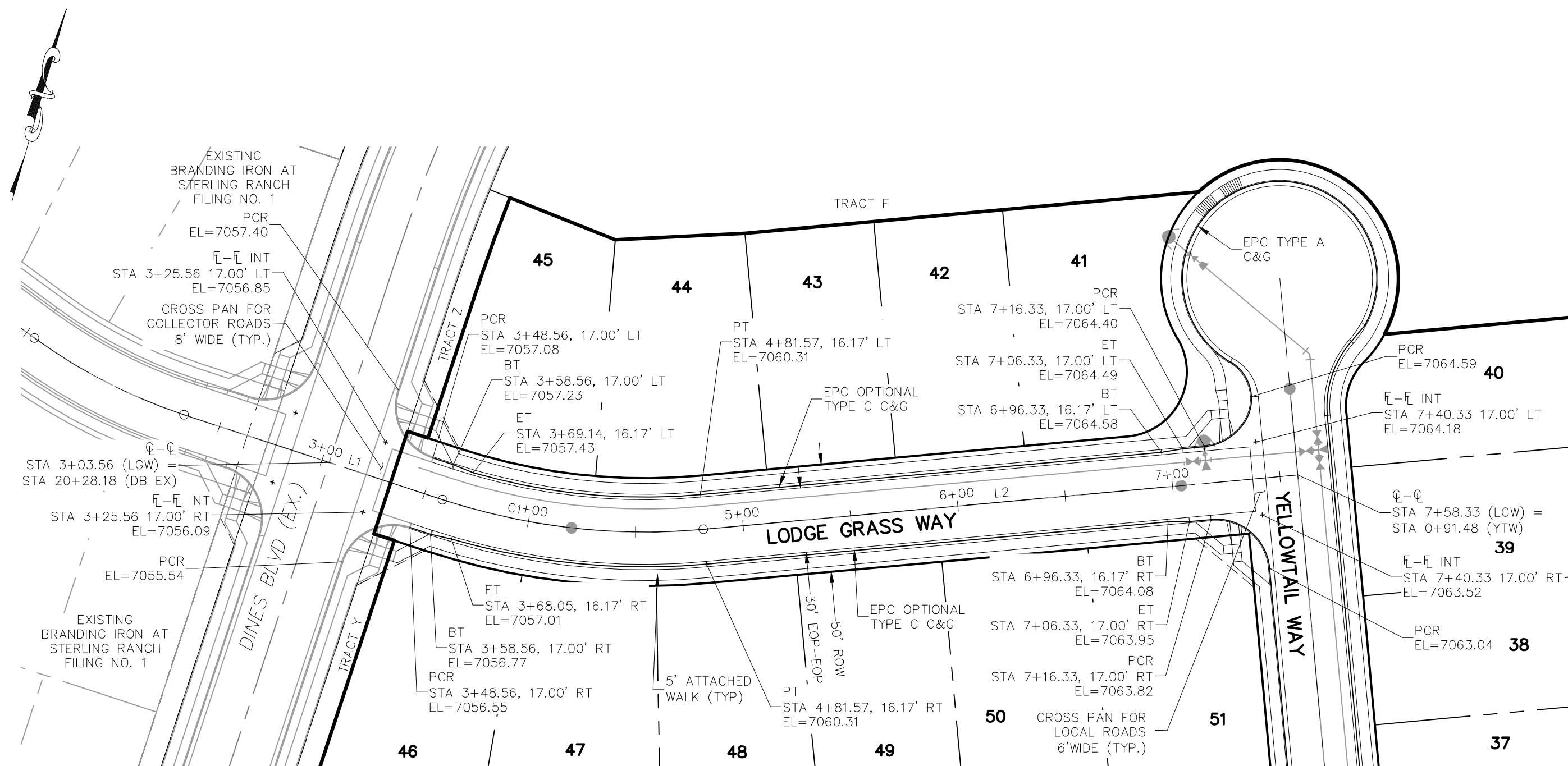
REVISIONS:

NO. DATE: BY: DESCRIPTION:

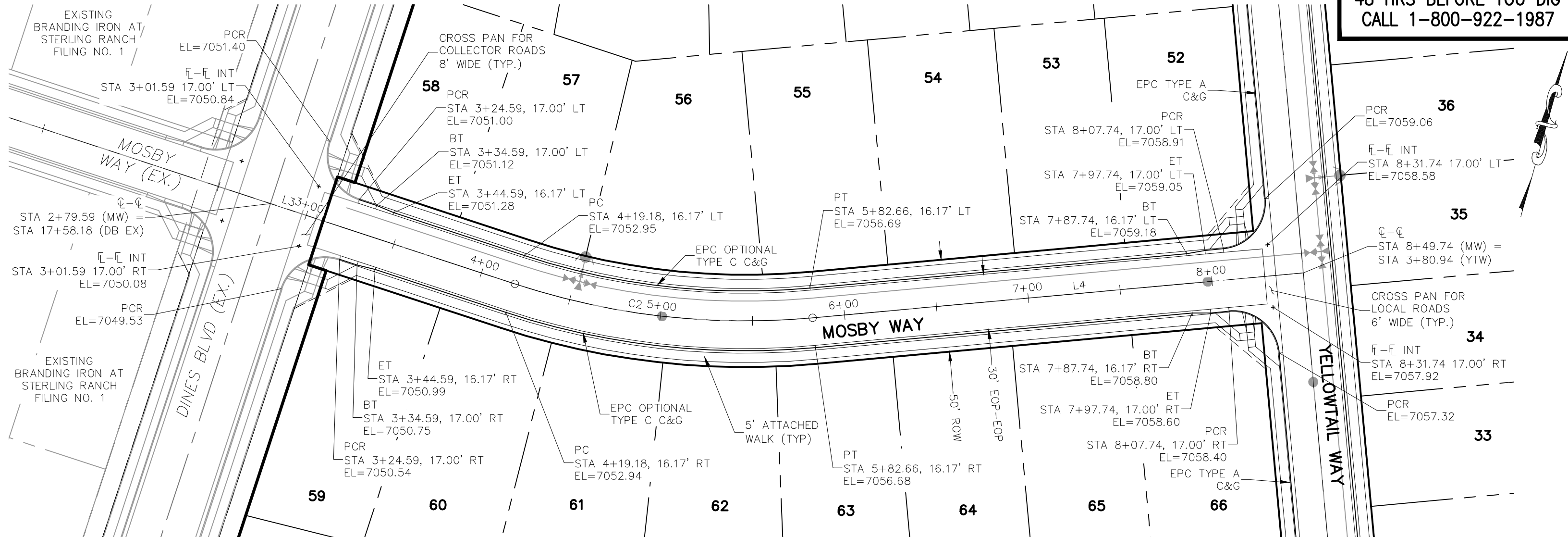
APPROVED BY: DATE:

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.

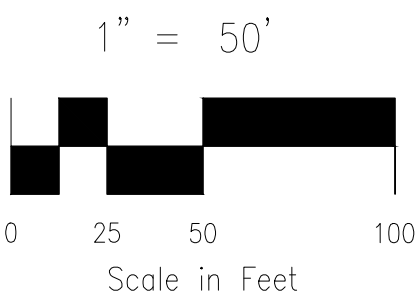
CAUTION



LODGE GRASS WAY
STA 3+25.56 TO STA 7+40.33



MOSBY WAY
STA 3+01.60 TO STA 8+31.74



CENTERLINE LINE TABLE		
LINE	LENGTH	DIRECTION
L1	55.40'	S87°35'34"E
L2	276.76'	N68°59'22"E
L3	139.58'	S87°35'34"E
L4	267.08'	N68°59'22"E

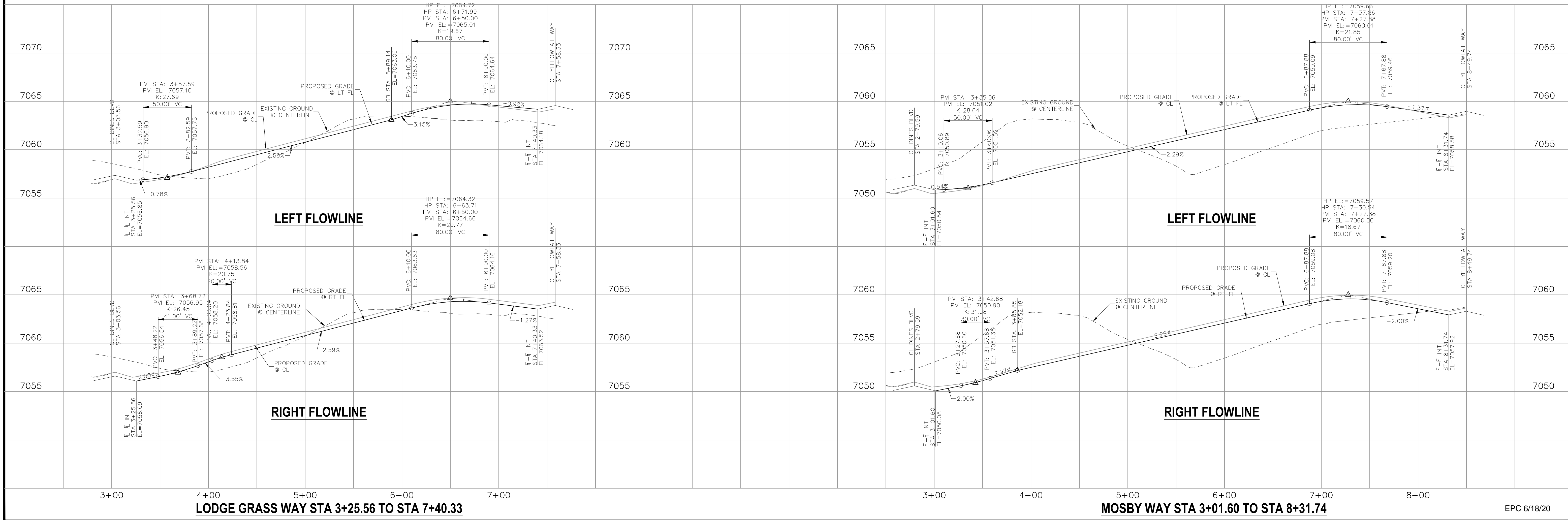
CENTERLINE CURVE TABLE			
CURVE	RADIUS	LENGTH	DELTA
C2	400.00'	163.49'	23°25'04"
C1	300.00'	122.61'	23°25'04"

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 RETURB
PRC POINT OF REVERSE CURVE
PT POINT OF TANGENT
EL ELEVATION
LT LEFT
RT RIGHT

STREET ABBREVIATIONS

LGW LODGE GRASS WAY
YTW YELLOWTAIL WAY
MW MOSBY WAY
WFW WHITEFISH WAY
SW SPRAGUE WAY
MLC MISTY LAKE COURT
DB EX EXISTING DINES BOULEVARD
CUL-DE-SAC CUL-DE-SAC
KN KNUCKLE



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

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

BRANDING IRON AT STERLING RANCH FILING NO. 2

STREET IMPROVEMENT PLANS

PROJECT NO. 09-012

DATE: 11/19/2019

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

DESIGNED BY: JWP

DRAWN BY: JWP

CHECKED BY: GW

SHEET 3 OF 8

SIO3

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.

REGISTERED PROFESSIONAL ENGINEER
NO. 37160
STATE OF COLORADO

REVISIONS:

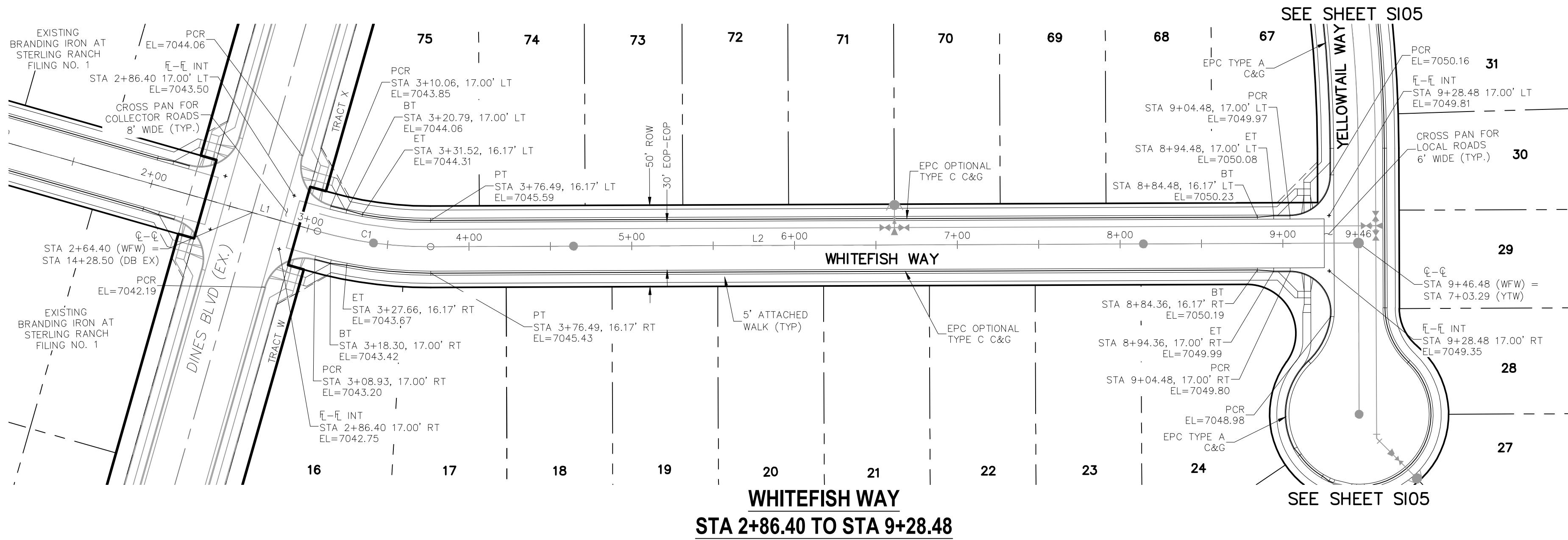
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CAUTION

CENTERLINE LINE TABLE		
LINE	LENGTH	DIRECTION
L1	41.73'	S87°35'34"E
L2	569.99'	N76°16'56"E

CENTERLINE CURVE TABLE			
CURVE	RADIUS	LENGTH	DELTA
C1	250.00'	70.36'	16°07'30"

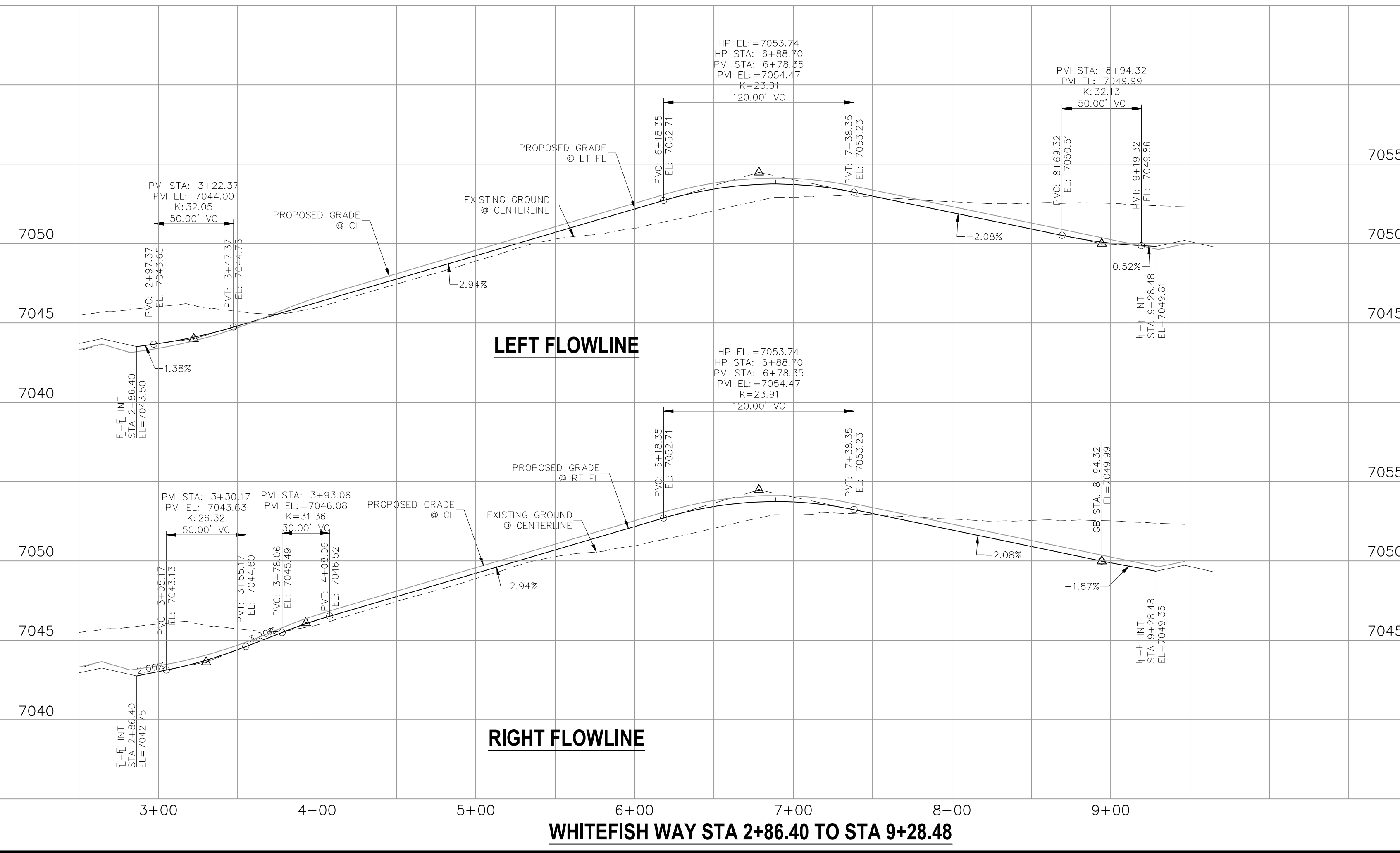


ABBREVIATION LEGEND

C-C	CENTERLINE INTERSECTION
F-L	FLOWLINE INTERSECTION
BT	BEGIN 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

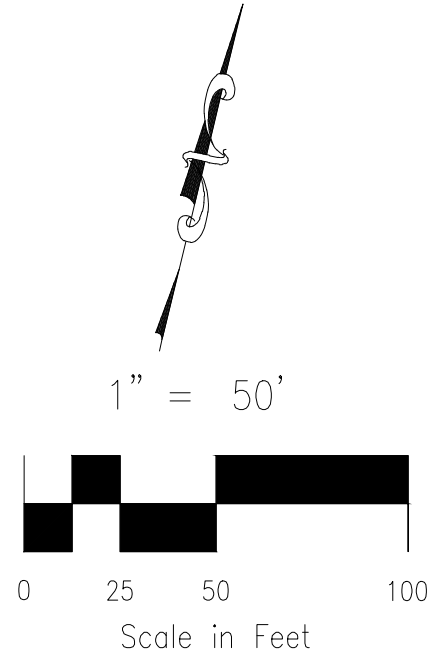
STREET ABBREVIATIONS

LGW	LODGE GRASS WAY
YTW	YELLOWTAIL WAY
MW	MOSSBY WAY
WFW	WHITEFISH WAY
SW	SPRAGUE WAY
MLC	MISTY LAKE COURT
DB EX	EXISTING DINES BOULEVARD
CDS	CUL-DE-SAC
KN	KNUCKLE



EPC 6/18/20

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BRANDING IRON AT STERLING RANCH FILING NO. 2

STREET IMPROVEMENT PLANS

PROJECT NO. 09-012

DATE: 11/19/2019

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

DESIGNED BY: JWP

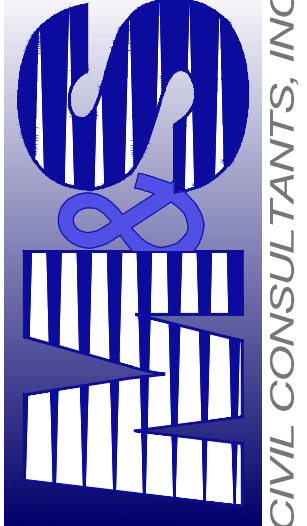
DRAWN BY: GW

CHECKED BY:


SHEET 4 OF 8

SIO4

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


CIVIL CONSULTANTS, INC.

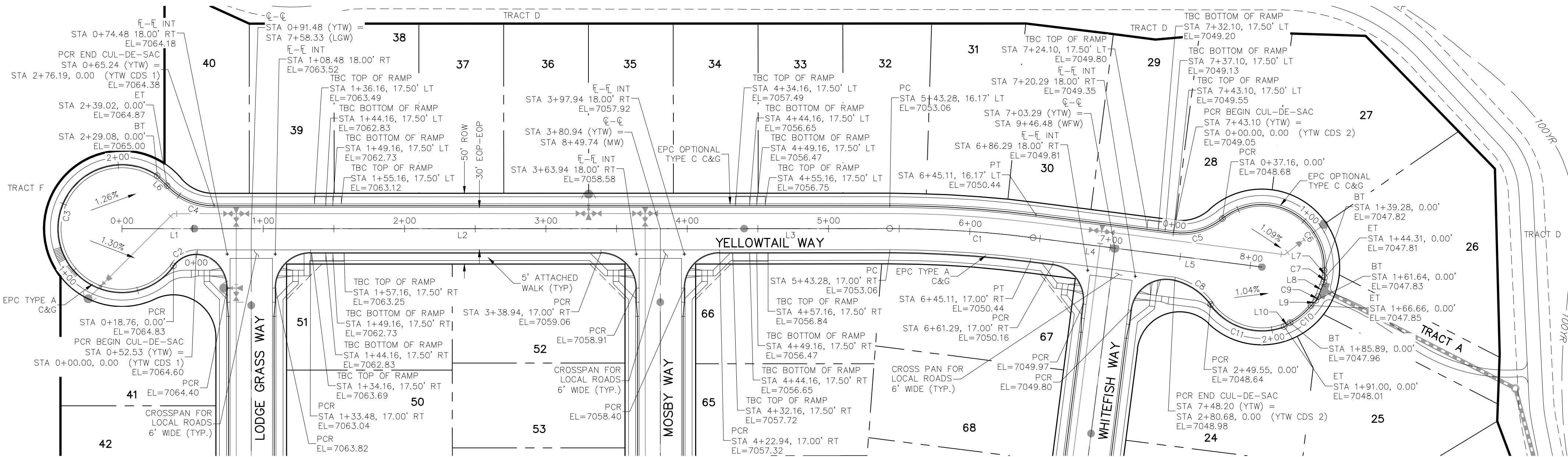
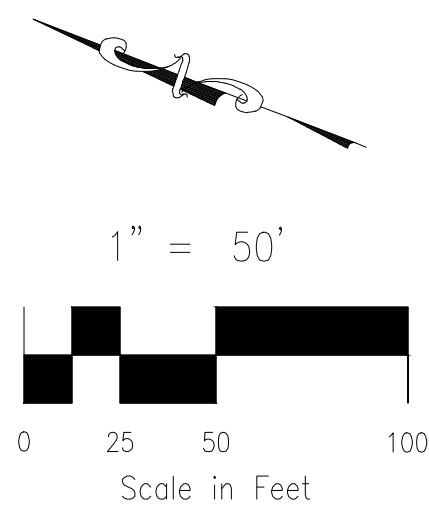
FOR AND ON
BEHALF OF
M&S CIVIL
CONSULTANTS,
INC.


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

REVISIONS:
NO. DATE: BY: DESCRIPTION:

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OF THESE PLANS.

CAUTION



SEE SHEET SIO3

SEE SHEET SIO3

SEE SHEET SIO4

YELLOWTAIL WAY
STA 0+52.53 TO STA 7+48.20

CENTERLINE LINE TABLE		
LINE	LENGTH	DIRECTION
L1	91.48'	S21°00'38"E
L2	289.46'	S21°00'38"E
L3	162.35'	S21°00'38"E
L4	58.18'	S13°43'04"E
L5	105.04'	S13°43'04"E
L6	9.94'	S23°50'48"W
L7	5.02'	S65°56'58"W
L8	11.33'	S89°43'27"W
L9	5.02'	N66°30'03"W
L10	5.12'	N54°01'38"W

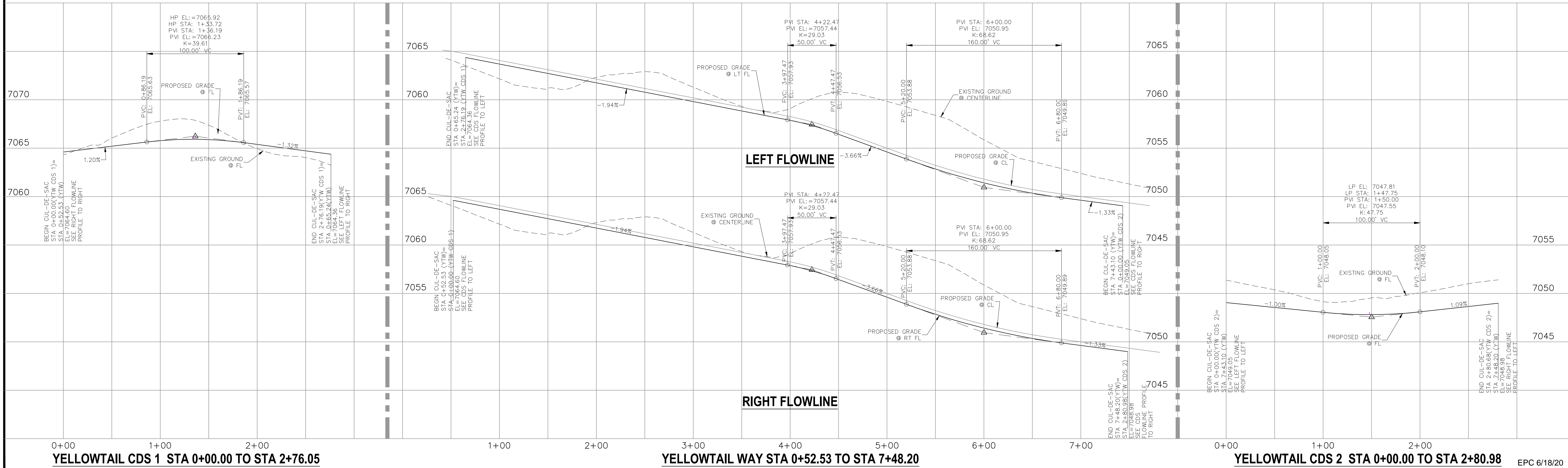
CENTERLINE CURVE TABLE			
CURVE	RADIUS	LENGTH	DELTA
C1	800.00'	101.82'	71°17'33"
C2	20.00'	18.76'	53°45'12"
C3	45.00'	210.32'	267°47'06"
C4	45.83'	37.16'	46°27'28"
C5	45.83'	37.16'	46°27'28"
C6	44.17'	102.12'	132°28'33"
C7	45.00'	3.00'	3°49'14"
C8	45.00'	31.34'	39°54'05"
C9	45.00'	3.00'	3°49'14"
C10	44.17'	19.23'	24°56'28"
C11	45.00'	58.34'	74°16'47"

ABBREVIATION LEGEND

C-I CENTERLINE INTERSECTION
F-I FLOWLINE INTERSECTION
BT BEGIN TRANSITION
ET END TRANSITION
PC POINT OF CURVE
PCC POINT OF COMPOUND CURVE
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EL ELEVATION
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RT RIGHT

STREET ABBREVIATIONS

LGW LODGE GRASS WAY
YTW YELLOWTAIL WAY
MW MOSBY WAY
WFW WHITEFISH WAY
SW SPRAGUE WAY
MLC MISTY LAKE COURT
DB EX EXISTING DINES BOULEVARD
CDS CUL-DE-SAC
KN KNUCKLE



YELLOWTAIL CDS 1 STA 0+00.00 TO STA 2+76.05

YELLOWTAIL WAY STA 0+52.53 TO STA 7+48.20

YELLOWTAIL CDS 2 STA 0+00.00 TO STA 2+80.98

EPC 6/18/20

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



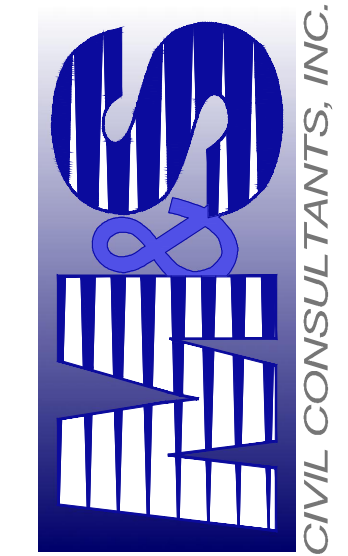
REVISIONS: NO. DATE: BY: DESCRIPTION: APPROV. BY: DATE:

NO.	DATE	BY	DESCRIPTION	APPROV. BY	DATE
1	6/5/2020	ELY	ADD INFORMATION FOR PERMITS AND CROSSWALKS ACROSS YELLOWTAIL WAY		

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CAUTION

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COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485



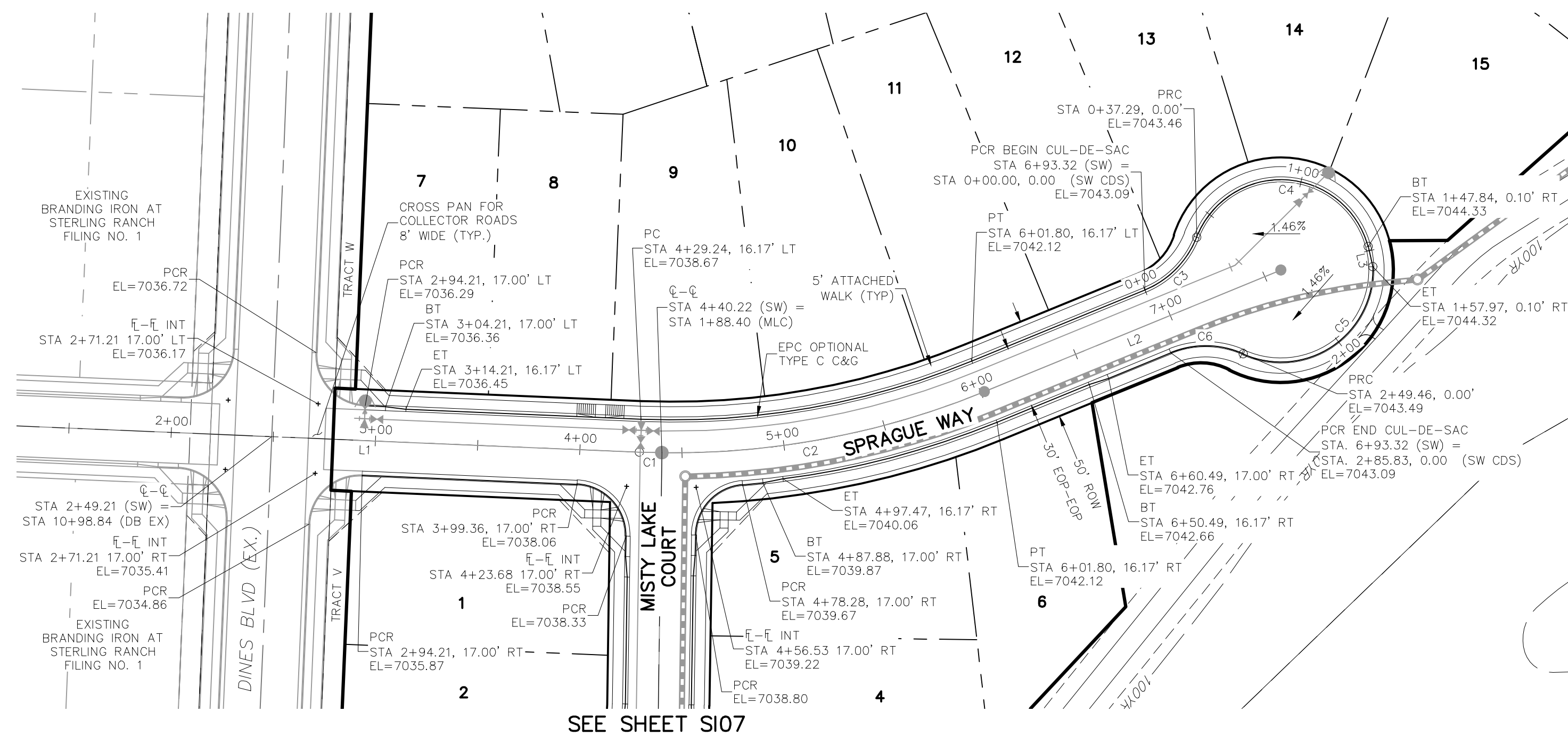
BRANDING IRON AT STERLING RANCH FILING NO. 2

STREET IMPROVEMENT PLANS

PROJECT NO. 09-012
DESIGNED BY: JWP
DRAWN BY: JWP
CHECKED BY: GW

DATE: 11/19/2019
SCALE: HORIZONTAL: 1"=50'
VERTICAL: 1"=5'

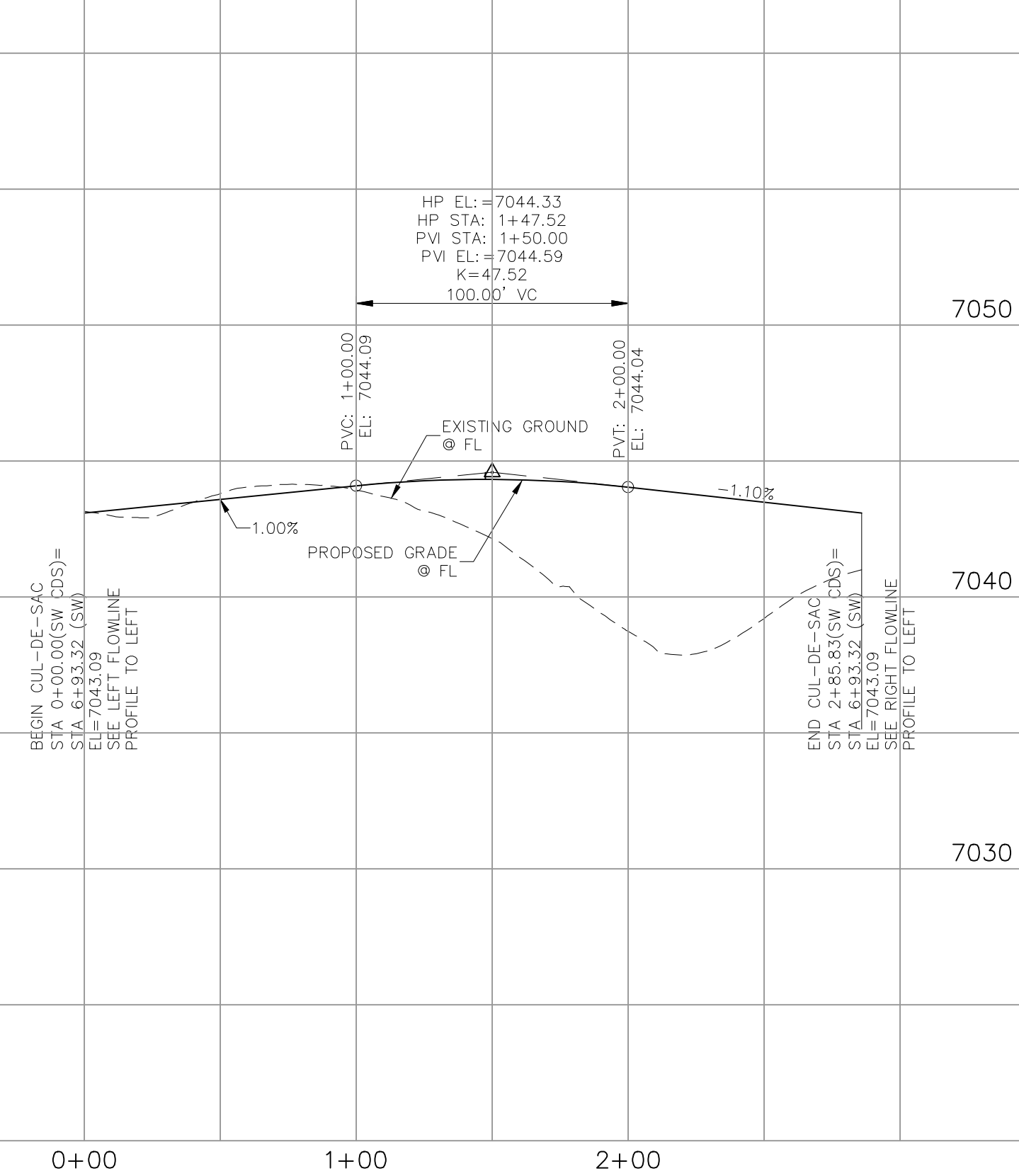
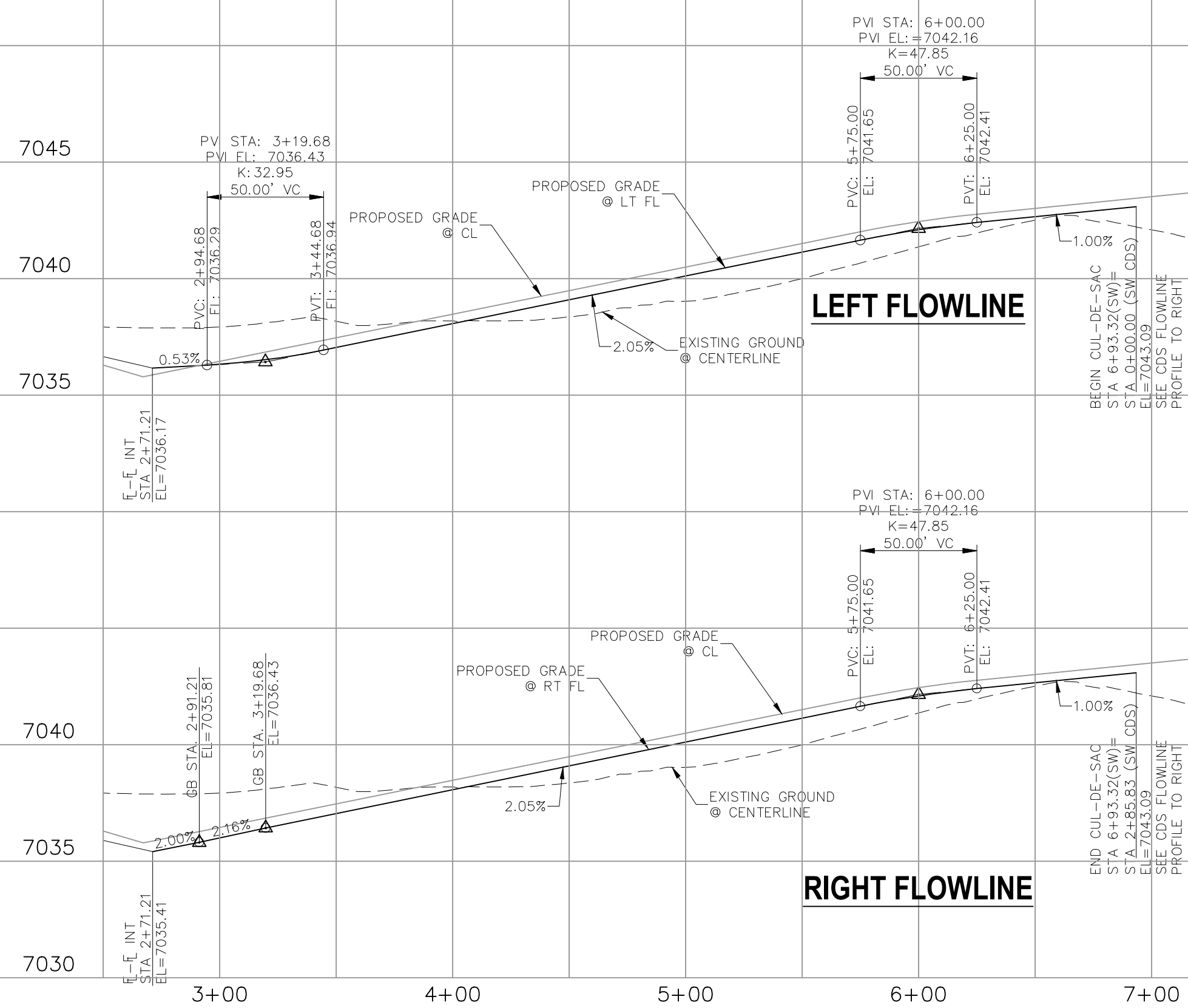
SHEET 5 OF 8
SIO5



SPRAGUE WAY
STA 2+71.21 TO STA 6+93.32

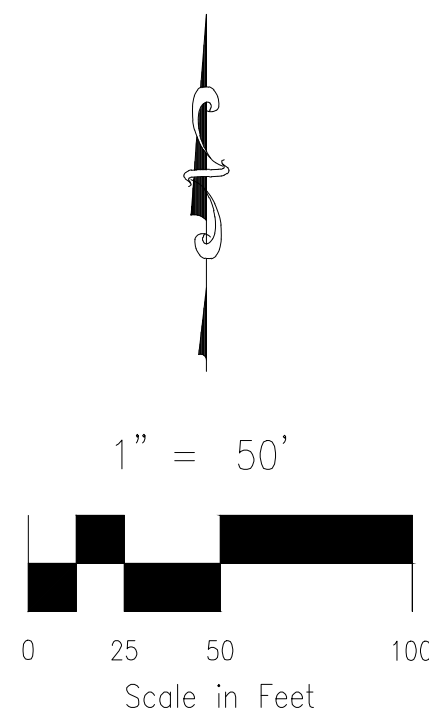
CENTERLINE LINE TABLE		
LINE	LENGTH	DIRECTION
L1	180.03'	S87°35'34"E
L2	156.76'	N67°41'20"E
L3	10.13'	S13°16'34"E

CENTERLINE CURVE TABLE			
CURVE	RADIUS	LENGTH	DELTA
C1	400.00'	10.98'	1'34"22"
C2	400.00'	161.59'	23'08"44"
C3	45.83'	37.16'	46'27"28"
C4	44.17'	110.76'	143'40"55"
C5	45.00'	91.29'	116'13"59"
C6	45.00'	36.49'	46'27"28"



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

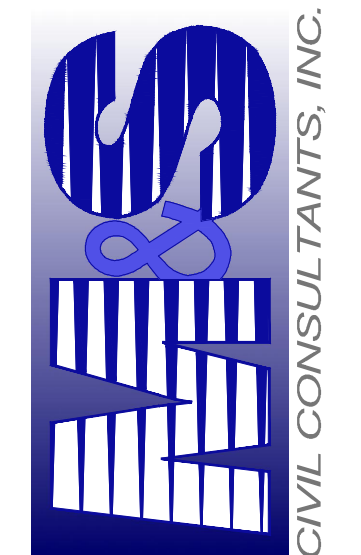
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BRANDING IRON AT STERLING RANCH FILING NO. 2

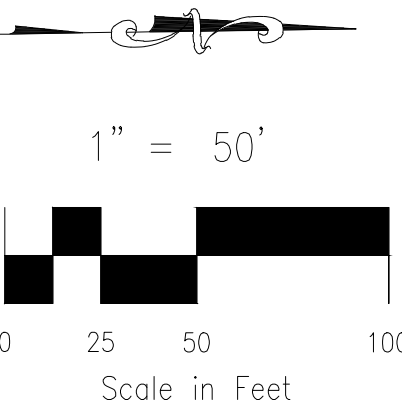
PROJECT NO. 09-012		SCALE:	
DESIGNED BY:	JMP	HORIZONTAL:	1"=50'
DRAWN BY:	JMP	VERTICAL:	1"=5'
CHECKED BY:	GW	DATE: 11/19/2019	
		SHEET 6 OF 8	S106

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



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

[illegible]



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



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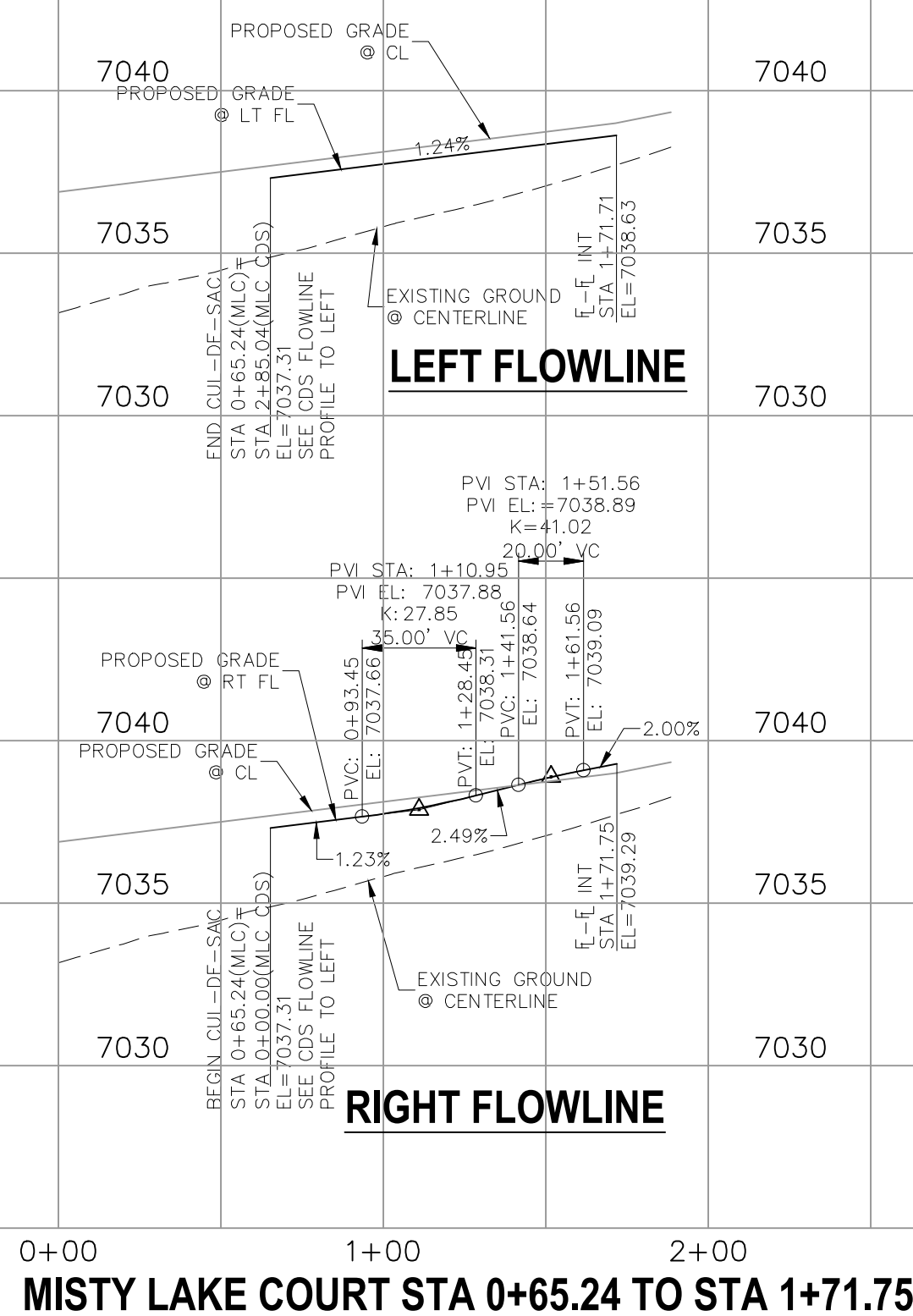
EPC 6/18/20



CENTERLINE CURVE TABLE			
CURVE	RADIUS	LENGTH	DELTA
C1	45.83'	37.16'	46°27'28"
C2	44.17'	101.81'	132°04'42"
C3	44.17'	92.34'	119°47'39"
C4	45.83'	37.16'	46°27'28"

C-C	CENTERLINE INTERSECTION
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ET	END TRANSITION
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PCR	POINT OF CURB RETURN
PRC	POINT OF REVERSE CURVE
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MLC	MISTY LAKE COURT
DB EX	EXISTING DINES BOULEVARD
CDS	CUL-DE-SAC
KN	KNUCKLE

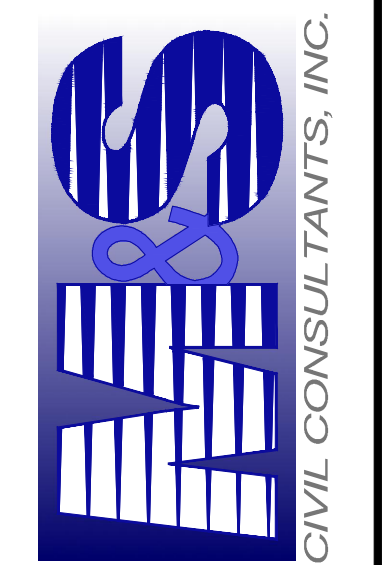




BRANDING IRON AT STERLING RANCH FILING NO. 2

PROJECT NO. 09-012		SCALE:		DATE: 11/19/2019	
DESIGNED BY: JWP		HORIZONTAL:			
DRAWN BY: JWP		1"=50'		SHEET 8 OF 8	
CHECKED BY: GW		VERTICAL:			
SIGNAGE & STRIPING PLAN					
S108					

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



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

[illegible]

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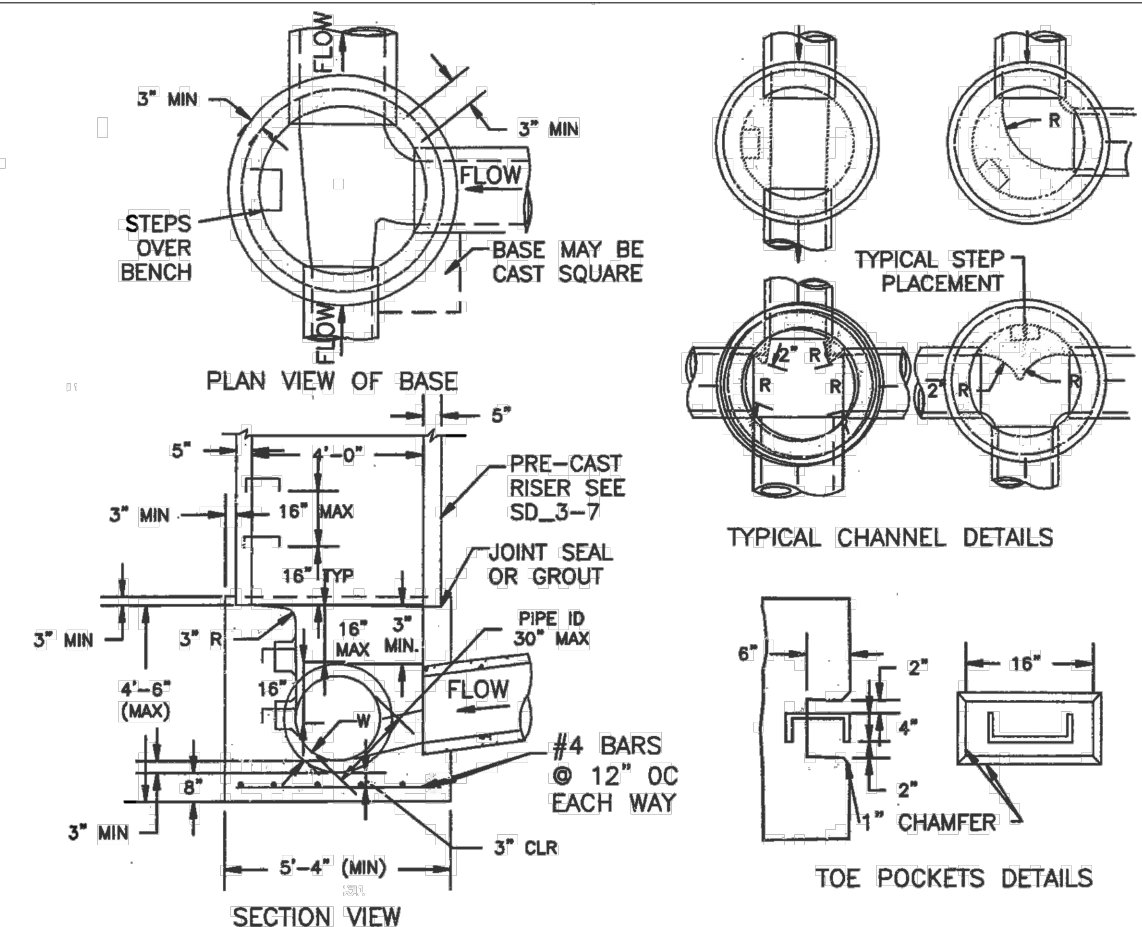
EPC 6/18/20

STANDARD CONSTRUCTION NOTES:

1. 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.
2. 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).
3. 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, CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIME INCLUDING THE FOLLOWING:
 - 3.1 EL PASO COUNTY ENGINEERING CRITERIA MANUAL (CEM)
 - 3.2 CITY OF COLORADO SPRINGS/EL PASO COUNTY ENGINEERING CRITERIA MANUAL VOLUMES 1 AND 2.
 - 3.3 COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARDS SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION.
 - 3.4 CDOT M&S STANDARDS.
4. 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.
5. 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.
6. ANY TEMPORARY SIGNAGE AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS AND MUTCD CRITERIA.
7. 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.
8. 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 $\frac{1}{4}$ 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.

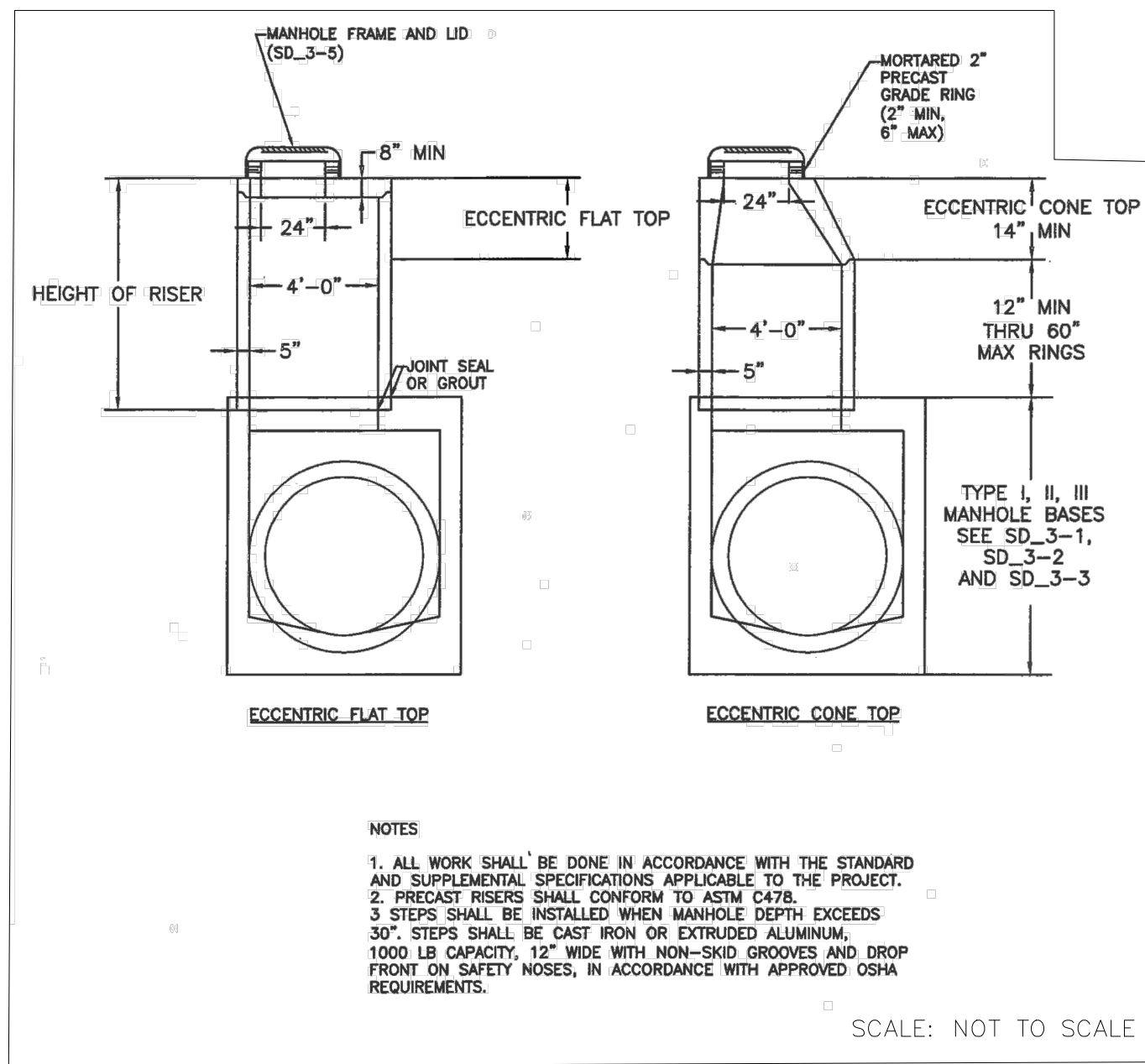


NOTES

1. TYPE II MANHOLES SHALL BE USED WHEN APPROPRIATE AND TYPICALLY WHEN THE PIPE SIZES ARE 30" OR LESS INSIDE DIAMETER.
2. VIEW AND DETAILS ARE TYPICAL. DESIGN ENGINEER SHALL DETERMINE MANHOLE BASE CONFIGURATION AND DIMENSIONS FOR PARTICULAR PIPE SIZES AND ALIGNMENT.
3. EITHER LADDER OF STEPS SHALL BE INSTALLED WHEN MANHOLE DEPTH EXCEEDS 30". STEPS IN GASOLINE SHALL BE INSTALLED "POE POCKETS" (SEE DETAIL THIS SHEET). LOWEST STEP SHALL BE A MAXIMUM OF 16" ABOVE THE FLOOR.
4. PIPES SHALL BE TROWLED TO FINAL SHAPE AND SET BEFORE MANHOLE IS POURED.
5. BENCH SHALL BE SLOPED TOWARD CENTER OF MANHOLE BASE (4:1 MAX., 1/2" PER FOOT. MIN.).
6. FLOOR OF MANHOLE SHALL BE TROWLED TO A SMOOTH, HARD SURFACE AND SHALL BE SLOPED TOWARD THE OUTSIDE (1/2" PER FT. MIN.). FLOOR SHALL BE SHAPED AND CHANNELLED, SEE DETAILS THIS SHEET.

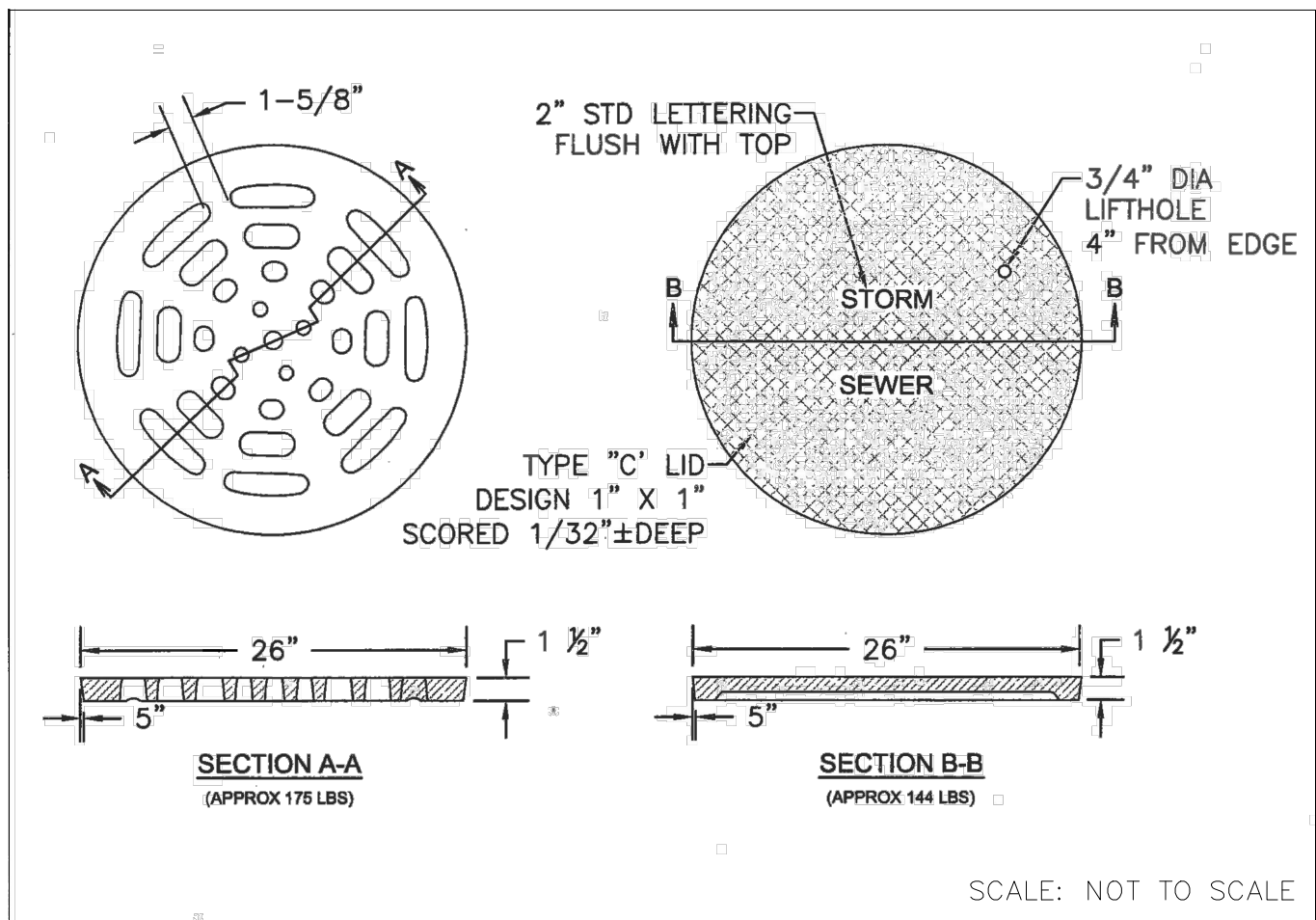
SCALE: NOT TO SCALE

STORM SEWER MANHOLE DETAIL
TYPE II SD 3-2



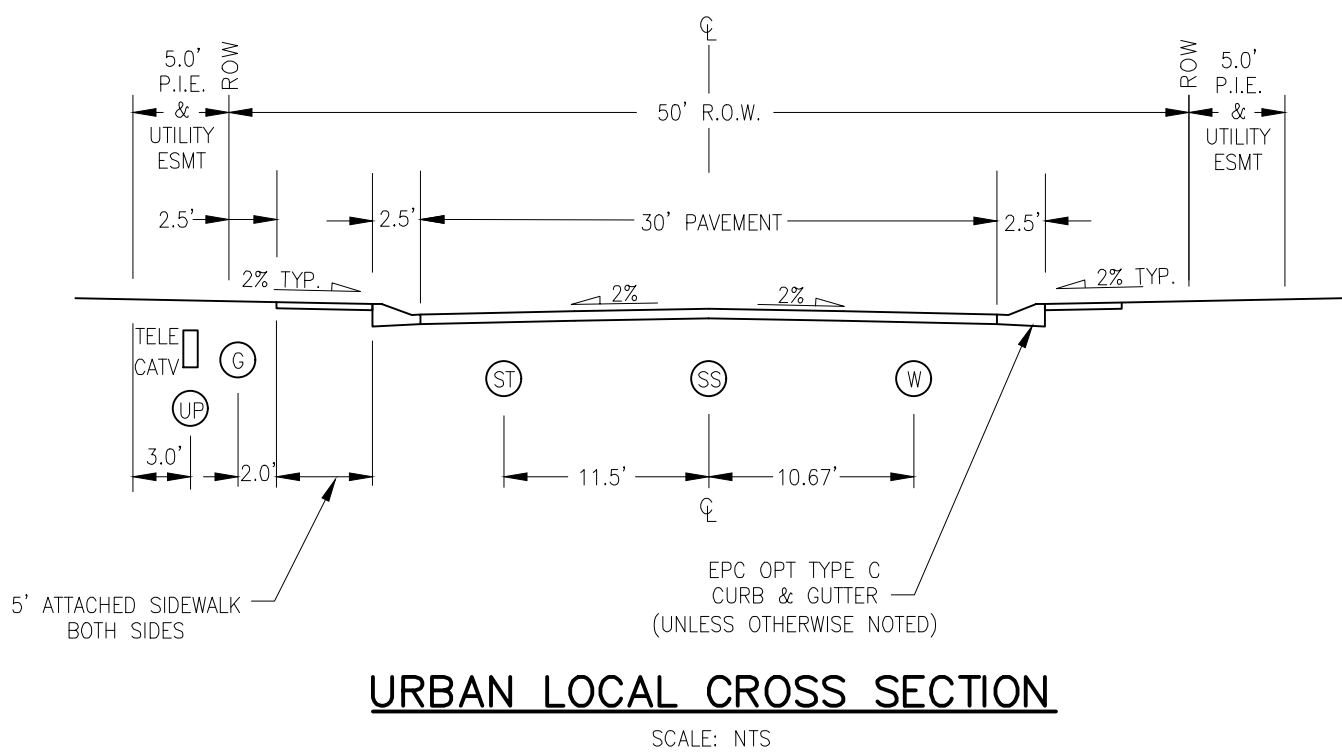
SCALE: NOT TO SCALE

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



SCALE: NOT TO SCALE

STORM SEWER MANHOLE L
LID DETAILS SD 3-2



URBAN LOCAL CROSS SECTION

SCALE: NTS

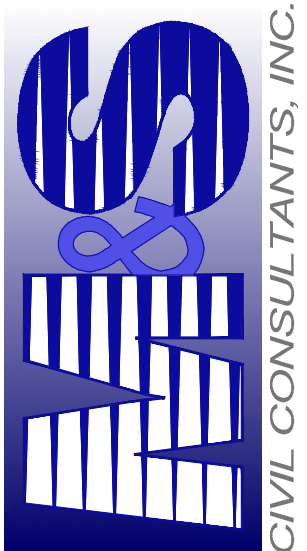


BRANDING IRON AT STERLING RANCH FILING NO. 2

STORM SEWER NOTES & DETAILS

DESIGNED BY:	JD
DRAWN BY:	JD
CHECKED BY:	VAS

PHONE: 719.955.5485



CIVIL CONSULTANTS, INC.

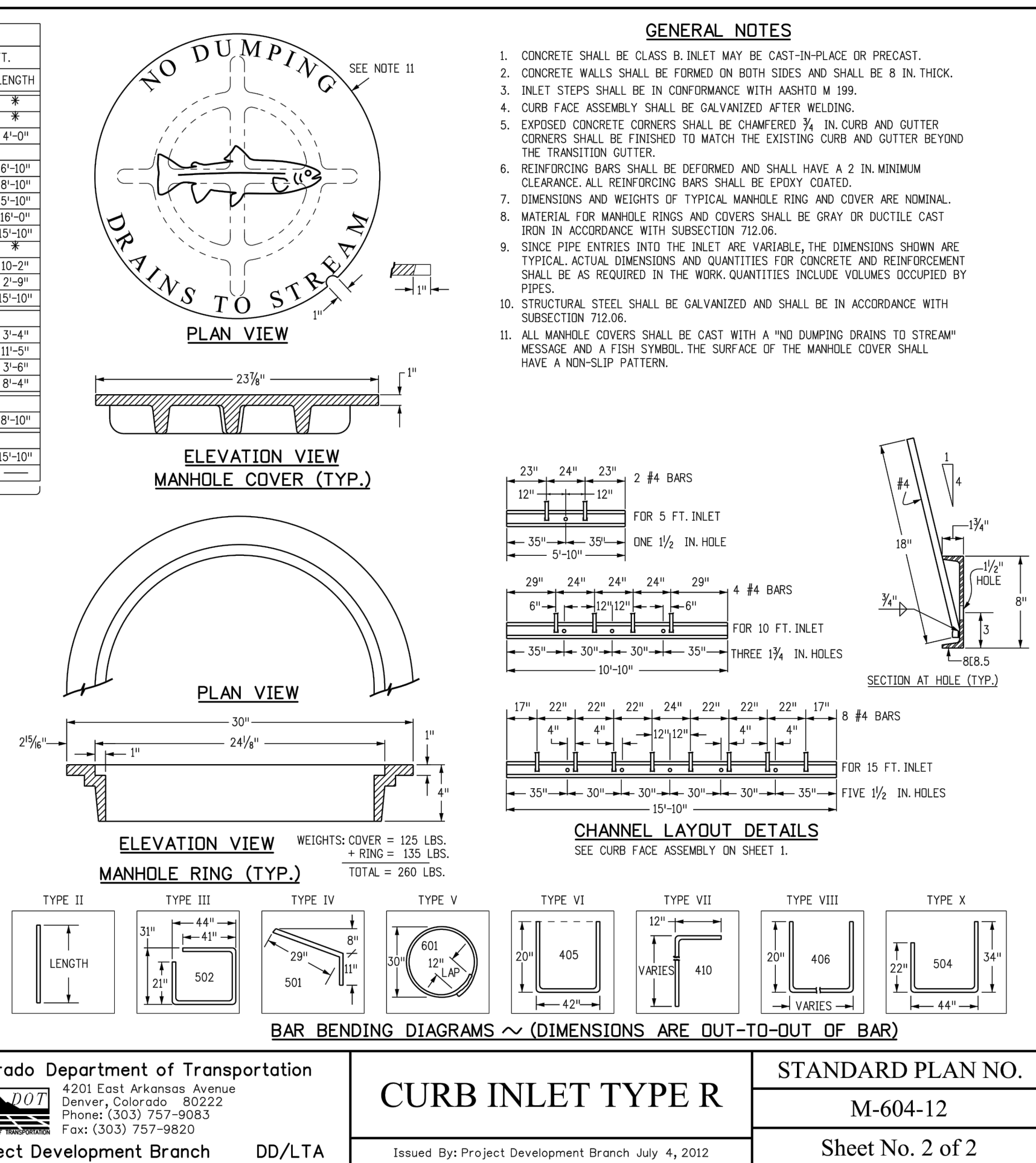
VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

FOR AND ON
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M&S CIVIL
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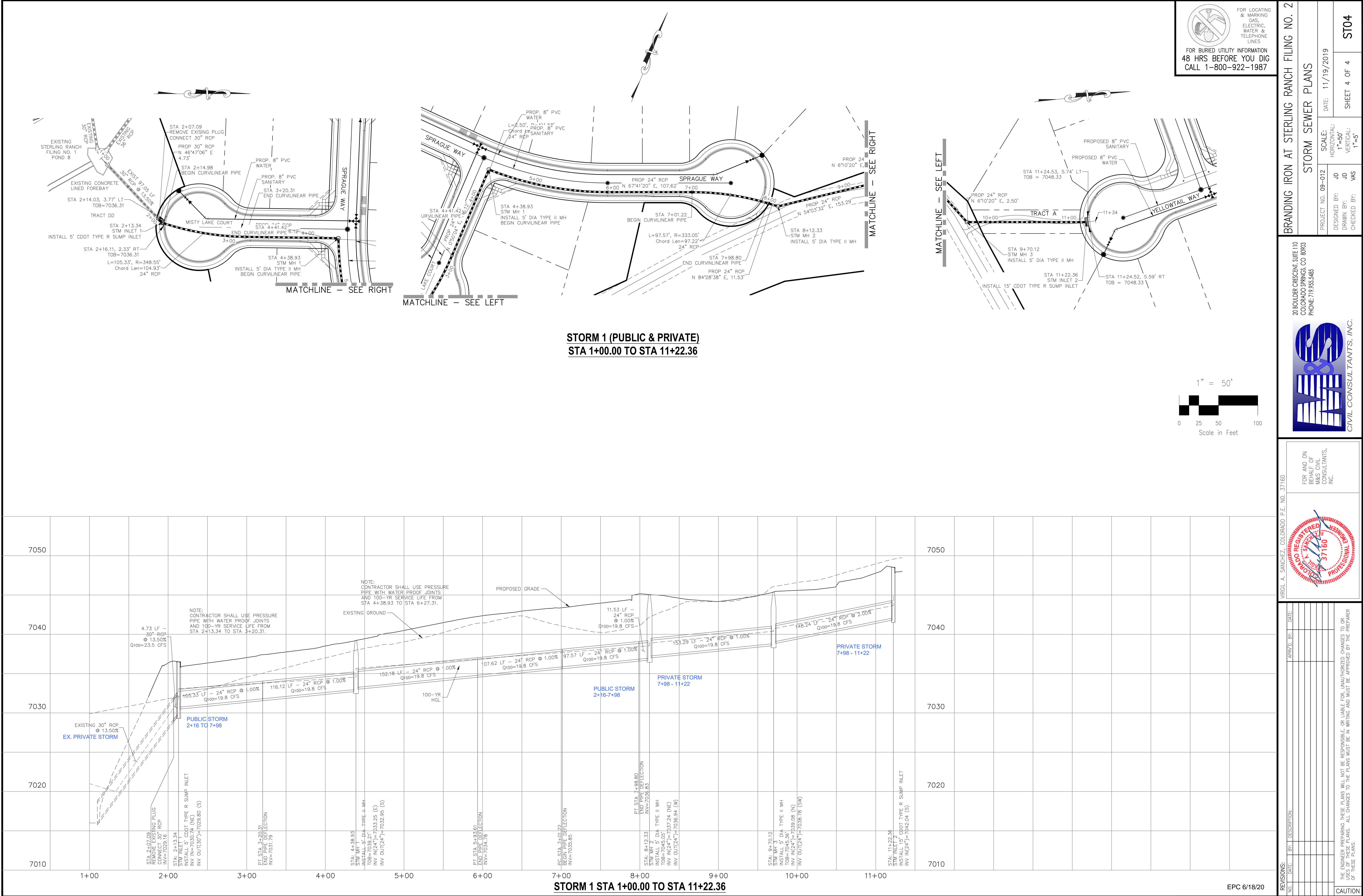
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CAUTION



File: 0:\00012A\Challenger East\dwg\Cons\DWG\Storm Plans\ST04.dwg PlotStamp: 2/5/2020 9:50 AM



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CALL 1-800-922-1987

BRANDING IRON AT STERLING RANCH FILING NO. 2

STORM SEWER PLANS

PROJECT NO. 09-012
DESIGNED BY: JD
DRAWN BY: JAS
CHECKED BY: VAS

DATE: 11/19/2019
SCALE: 1"=50'
HORIZONTAL: 1"=50'
VERTICAL: 1"=5'

SHEET 4 OF 4
ST04

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

CIVIL CONSULTANTS, INC.

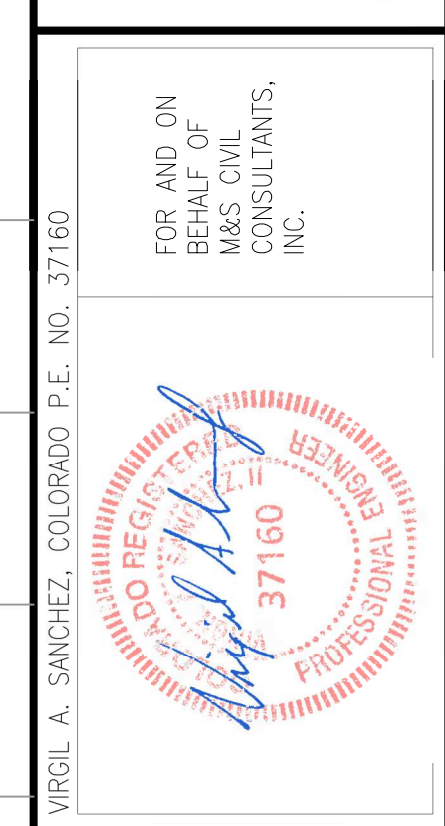
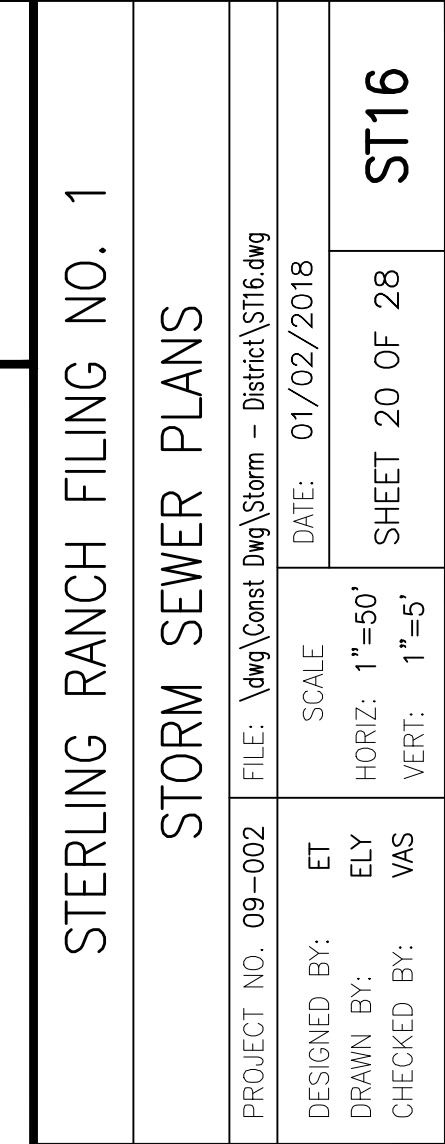
FOR AND ON BEHALF OF
M&S CIVIL CONSULTANTS, INC.

REVISIONS:

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

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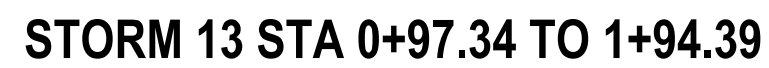
CAUTION



REINFORCED CONCRETE PIPE INSTALLED
BETWEEN STA 0+99.94 AND STA 1+66.68
SHALL BE FABRICATED USING A CONCRETE
MIX DESIGN THAT RESULTS IN A MIN. 5000 PSI
COMPRESSIVE STRENGTH.



NOTE:
STA 1+00.00 TO STA 1+24.00 (NEXT FULL
JOINT) TIE PIPE SEGMENTS TOGETHER
W/4- $\frac{3}{8}$ " CANOPY TYPE ROD LUG JOINT
FASTENERS.





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

STERLING RANCH FILING NO. 1

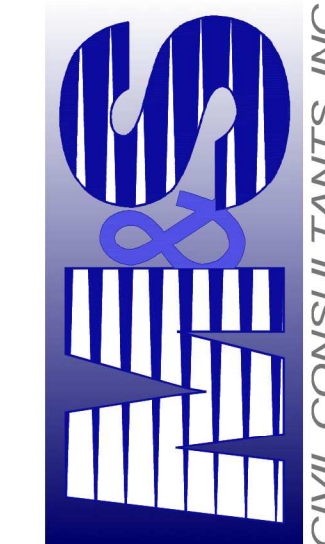
STORM SEWER PLANS

PROJECT NO. 09-002	FILE: \\dwg\Const Dwg\Storm - District\ST16.dwg
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DESIGNED BY: ET	SCALE	DATE: 01/02/2018
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15 SEPTEMBER 2006

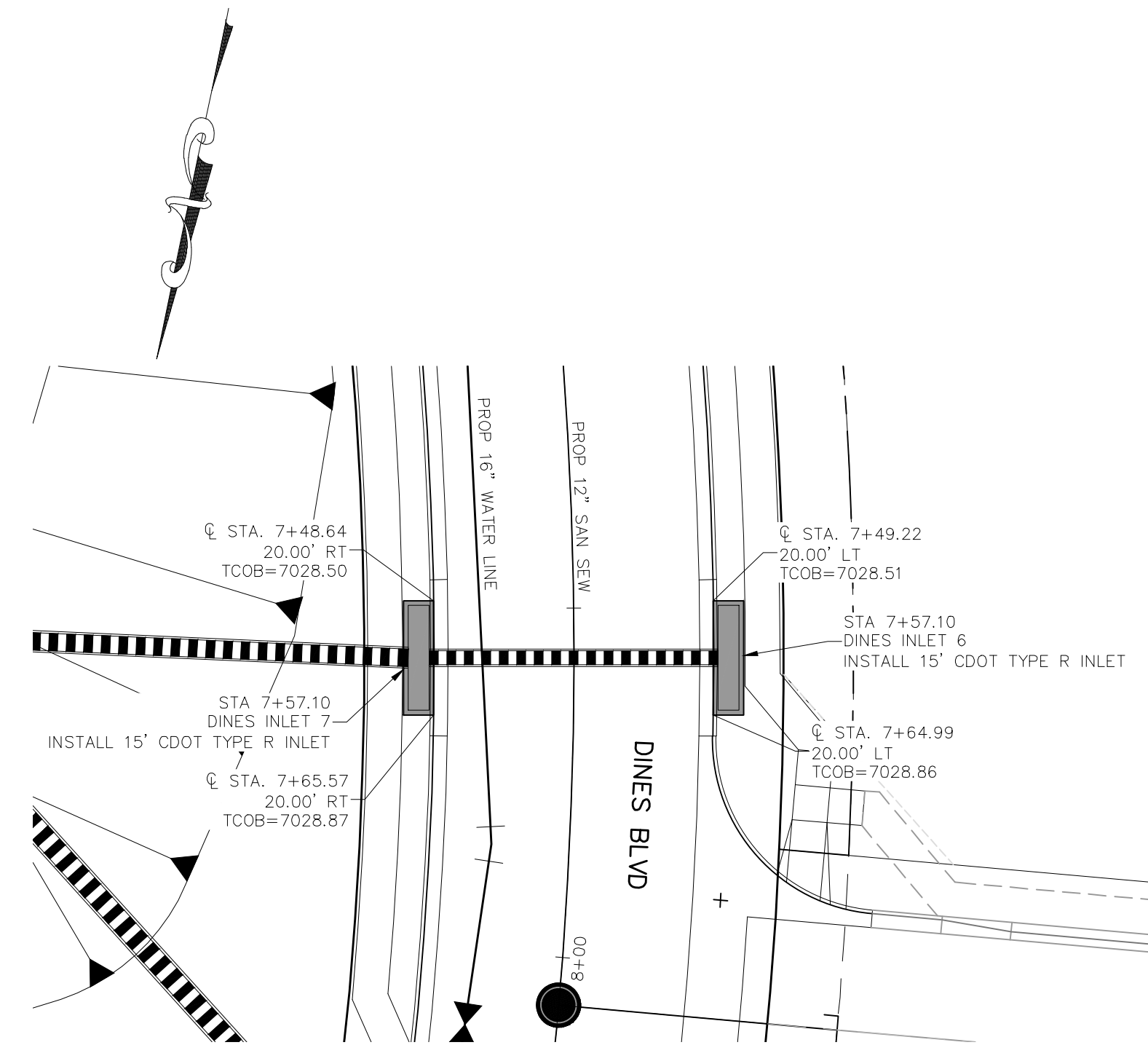
20 BOULDER CRESCENT, SUITE 110
COLORADO SPRINGS, CO 80903
PHONE: 719.955.5485

[illegible]

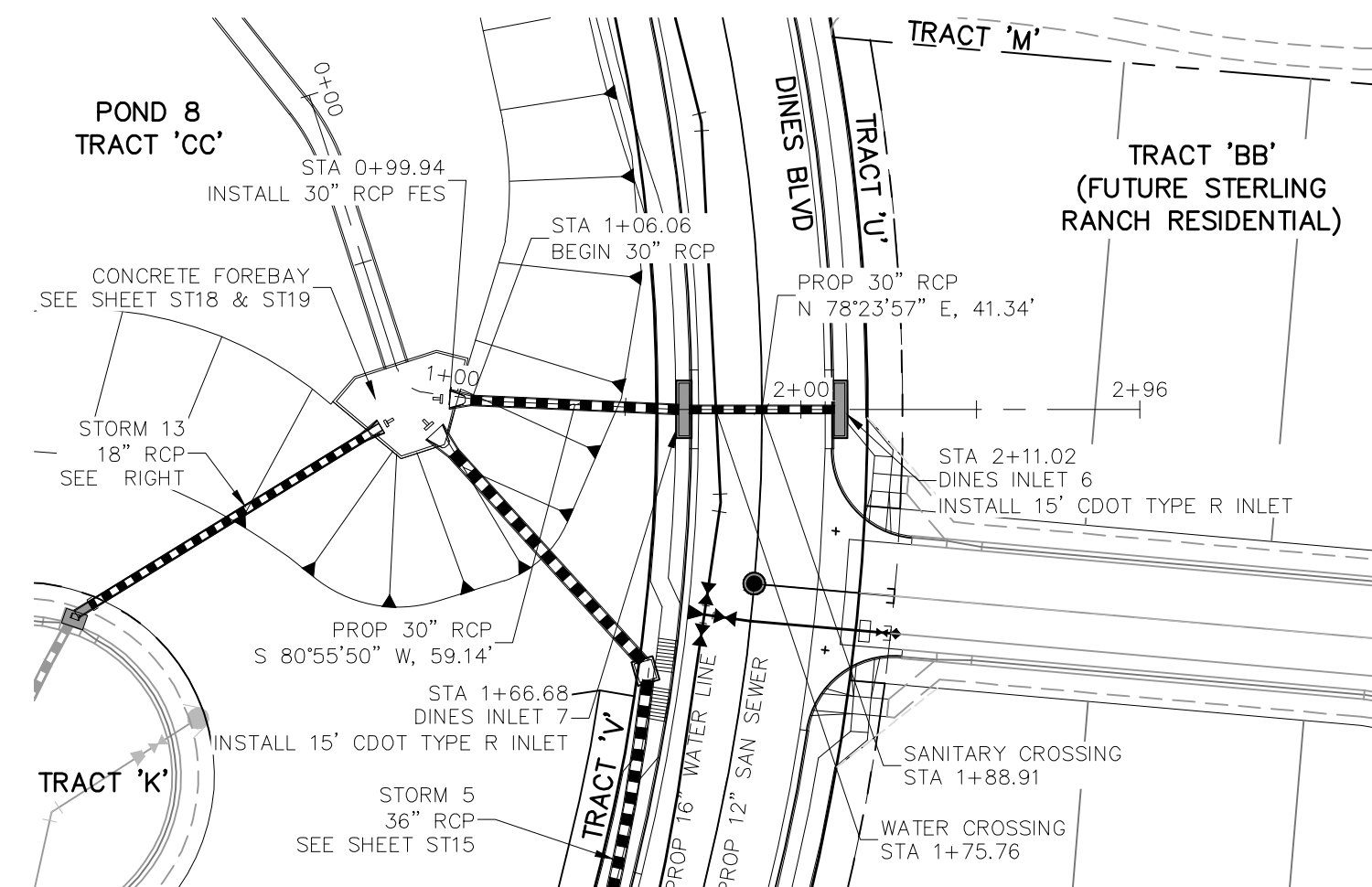
FOR AND ON
BEHALF OF
M&S CIVIL
CONSULTANTS,
INC.

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

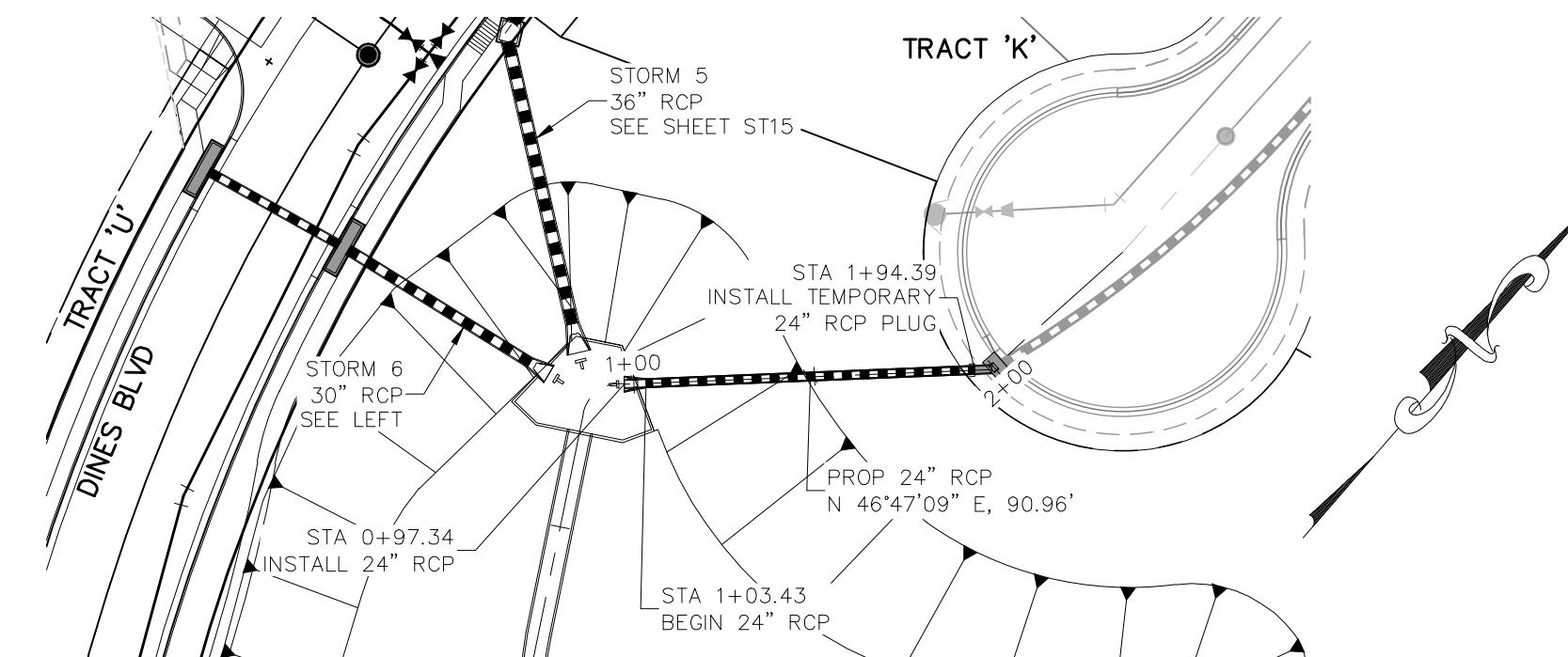
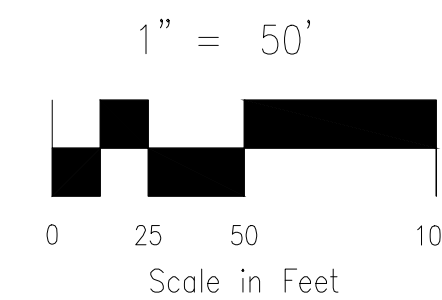
CAUTION



**STORM 6
INLET DETAILS**
SCALE: 1"=20'



STORM 6



STORM 13 STA 0+97.34 TO 1+94.39

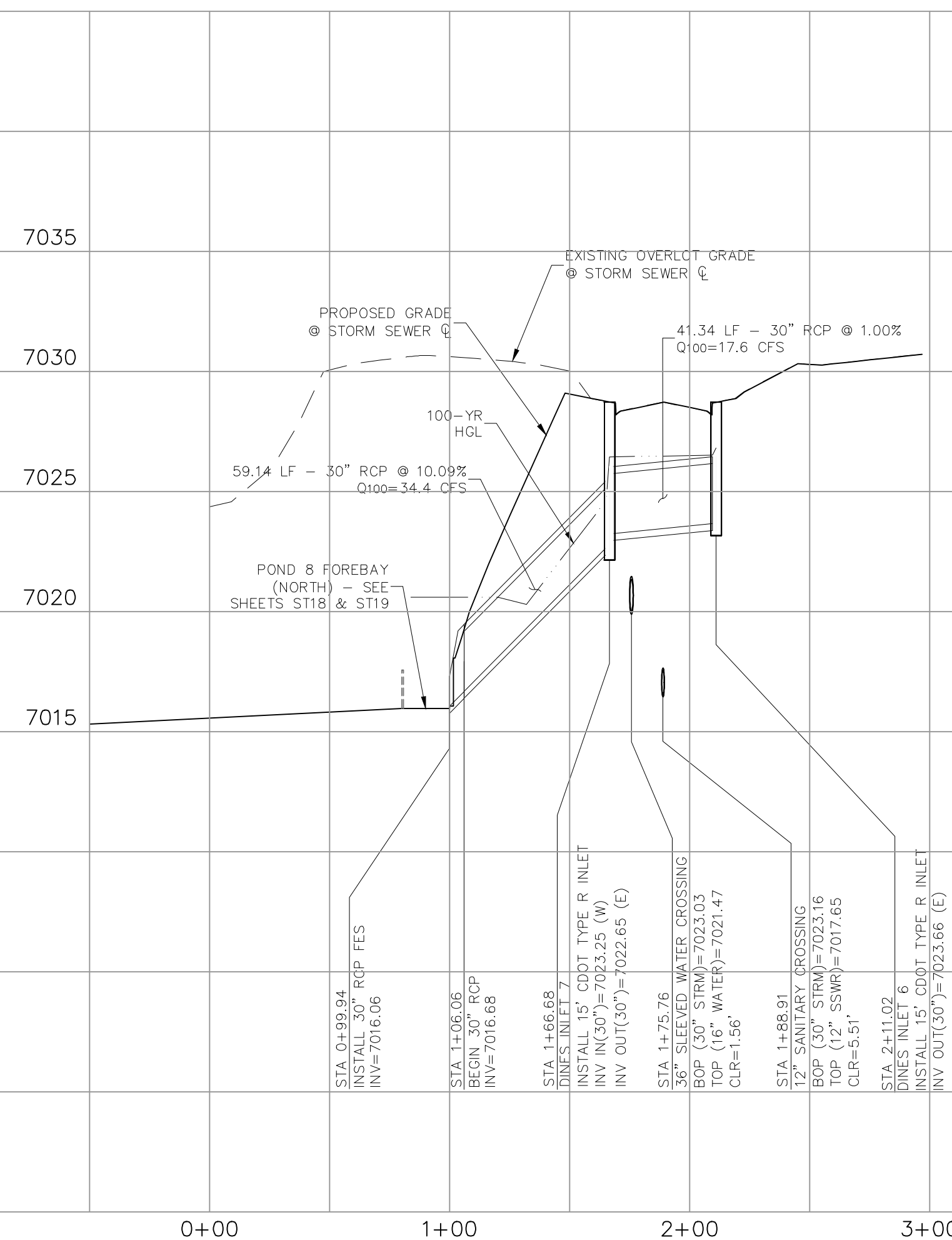
UPDATED STORM 13

UPSIZE PIPE TO
EITHER 24" OR 30"
(SHOWN AS 24")

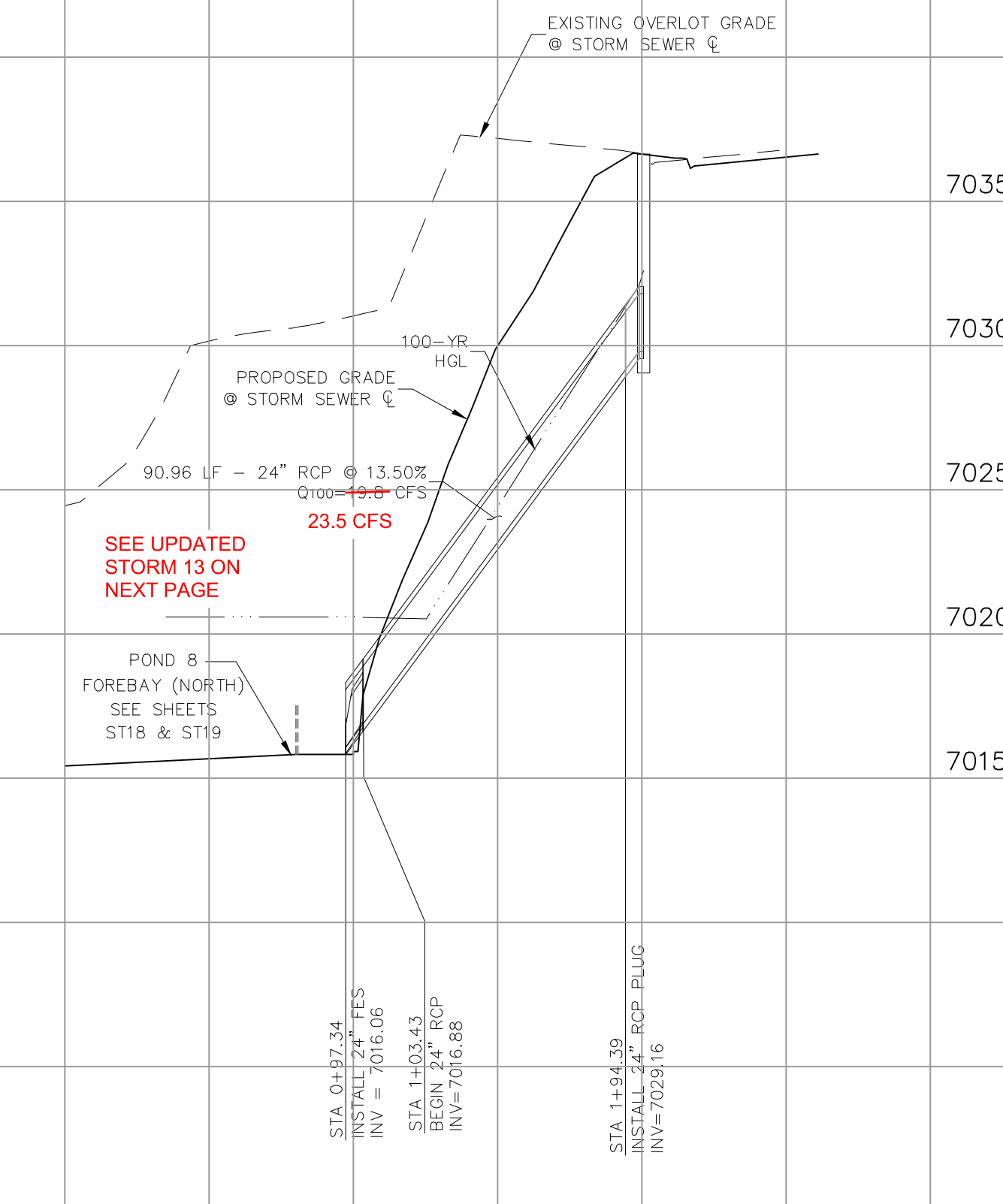
NOTE:
STA 1+00.00 TO STA 1+24.00 (NEXT FULL
JOINT) TIE PIPE SEGMENTS TOGETHER
W/4- $\frac{3}{8}$ " CANOPY TYPE ROD LUG JOINT
FASTENERS.

NOTES:
STA 0+99.94 TO STA 1+24.00
(NEXT FULL JOINT) TIE PIPE
SEGMENTS TOGETHER W/4- $\frac{3}{4}$ "
CANOPY TYPE ROD LUG JOINT
FASTENERS.

REINFORCED CONCRETE PIPE INSTALLED
BETWEEN STA 0+99.94 AND STA 1+66.68
SHALL BE FABRICATED USING A CONCRETE
MIX DESIGN THAT RESULTS IN A MIN. 5000 PSI
COMPRESSIVE STRENGTH.



STORM 6

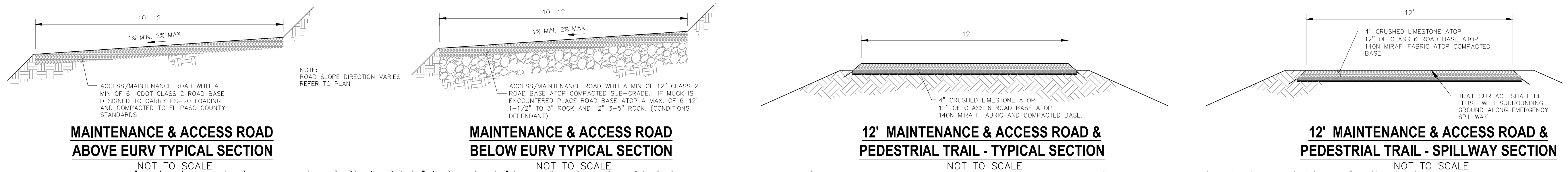
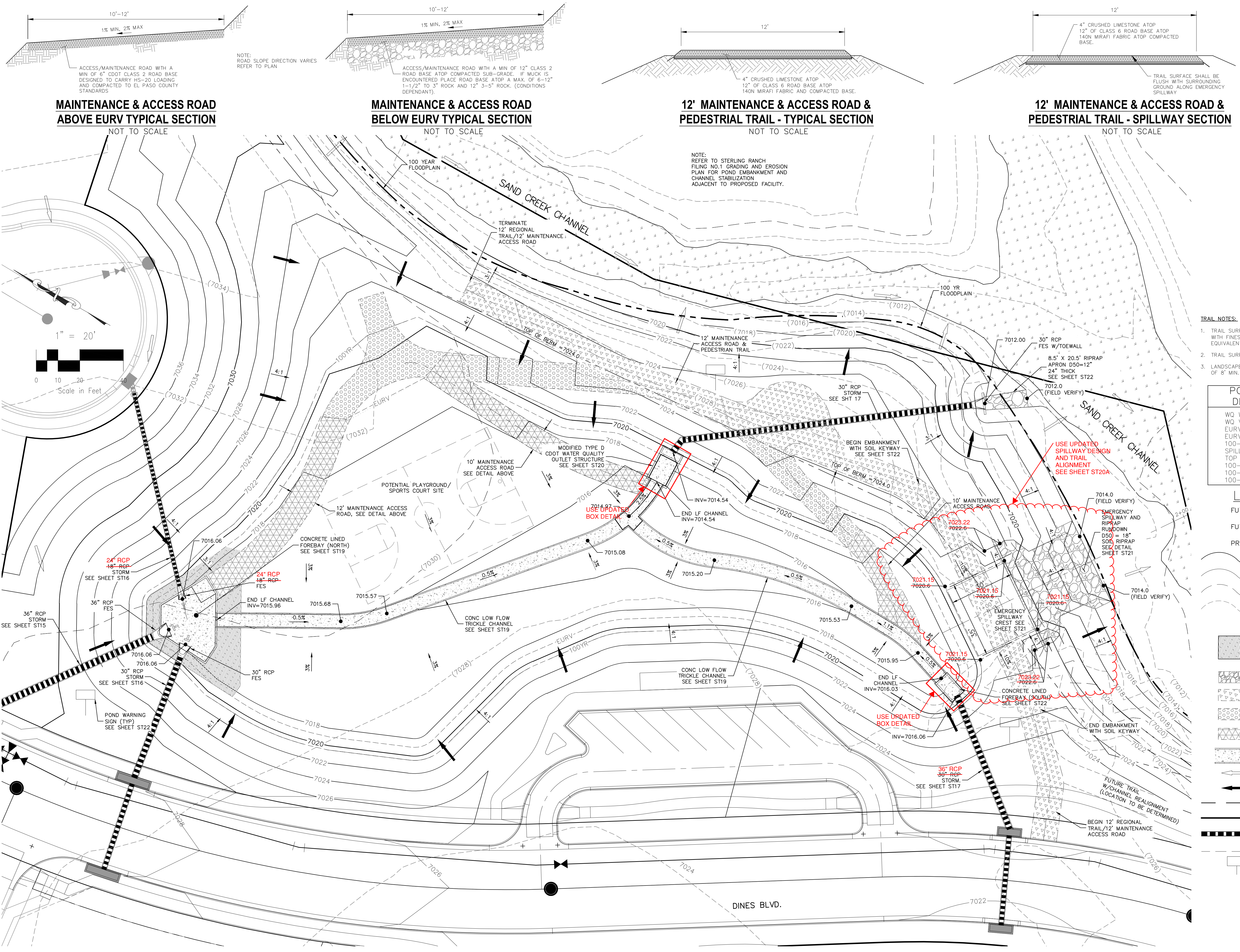


UPDATED STORM 13

STORM 13 STA 0+97.34 TO 1+94.39

EPC 6/18/20

File: O:\09002A\Sterling Ranch District\dwg\Const\DWG\Storm - District\ST16.dwg Plotstamp: 4/11/2018 11:10 AM



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

- TRAIL NOTES:**
- TRAIL SURFACING SHALL BE CURSED LESTON 3/8" MINUS WITH FINES. CASTLE CONCRETE "COLORADO WHITE FINES" OR EQUIVALENT.
 - TRAIL SURFACING SHALL BE COMPACTED WITH A ROLLER
 - LANDSCAPE FABRIC SHALL BE MIRAFI 140N WITH A RUNNING WITH OF 8' MIN.

POND 8 FULL SPECTRUM DETENTION BASIN DATA	
WQ WATER SURFACE EL=7017.20	
WQ VOLUME=0.48 AC-FT	
EURV WATER SURFACE EL=7018.91	
EURV VOLUME=1.58 AC-FT	
100-YR WATER SURFACE EL=7020.60	
SPILLWAY CREST EL=7020.6	
TOP OF EMBANKMENT EL=7024.0	
100-YR VOLUME=2.99 AC-FT	
100-YR INFLOW=112.8	
100-YR RELEASE=41.7 CFS	

- LEGEND**
- | | |
|------|----------------|
| FUT | EXISTING |
| FUT | FUTURE |
| PROP | PROPOSED |
| | PROP MAJ CONT |
| | PROP MIN CONT |
| | EXIST MAJ CONT |
| | EXIST MIN CONT |
-
- | | |
|--|--|
| | PERM. EROSION CONTROL BLANKET |
| | RIPRAP |
| | REGIONAL TRAIL/MAINT. ROAD |
| | STABILIZED MAINTENANCE ROAD ABOVE EURV |
| | STABILIZED MAINT. ROAD BELOW EURV |
| | CONC LOW FLOW CHANNEL |
| | EX. FLOW ARROW |
| | PROP. FLOW ARROW |
| | CONSTRUCTION LIMITS |
| | PROPERTY LINE |
| | PROP STORM SEWER PIPE |
| | EASEMENT LINE |
| | WARNING SIGN |

FULL SPECTRUM DETENTION POND 8 SITE PLAN
SCALE 1"=20'

EPC 6/18/20

STERLING RANCH FILING NO. 1

FULL SPECTRUM DET. POND 8 SITE PLAN

PROJECT NO. 09-002

FILE: Yang/Const Dwg/Storm - District/ST18.dwg

DATE: 01/02/2018

DESIGNED BY: ET

SCALE: 1"=20'

DRAWN BY: ELY

SHEET 22 OF 28

CHECKED BY: WAS

VERT: N/A

ST18

20 BOULDER CREEK SUITE 110

COLORADO SPRINGS, CO 80903

PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

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

Virgil A. Sanchez, Colorado, P.E. No. 37160

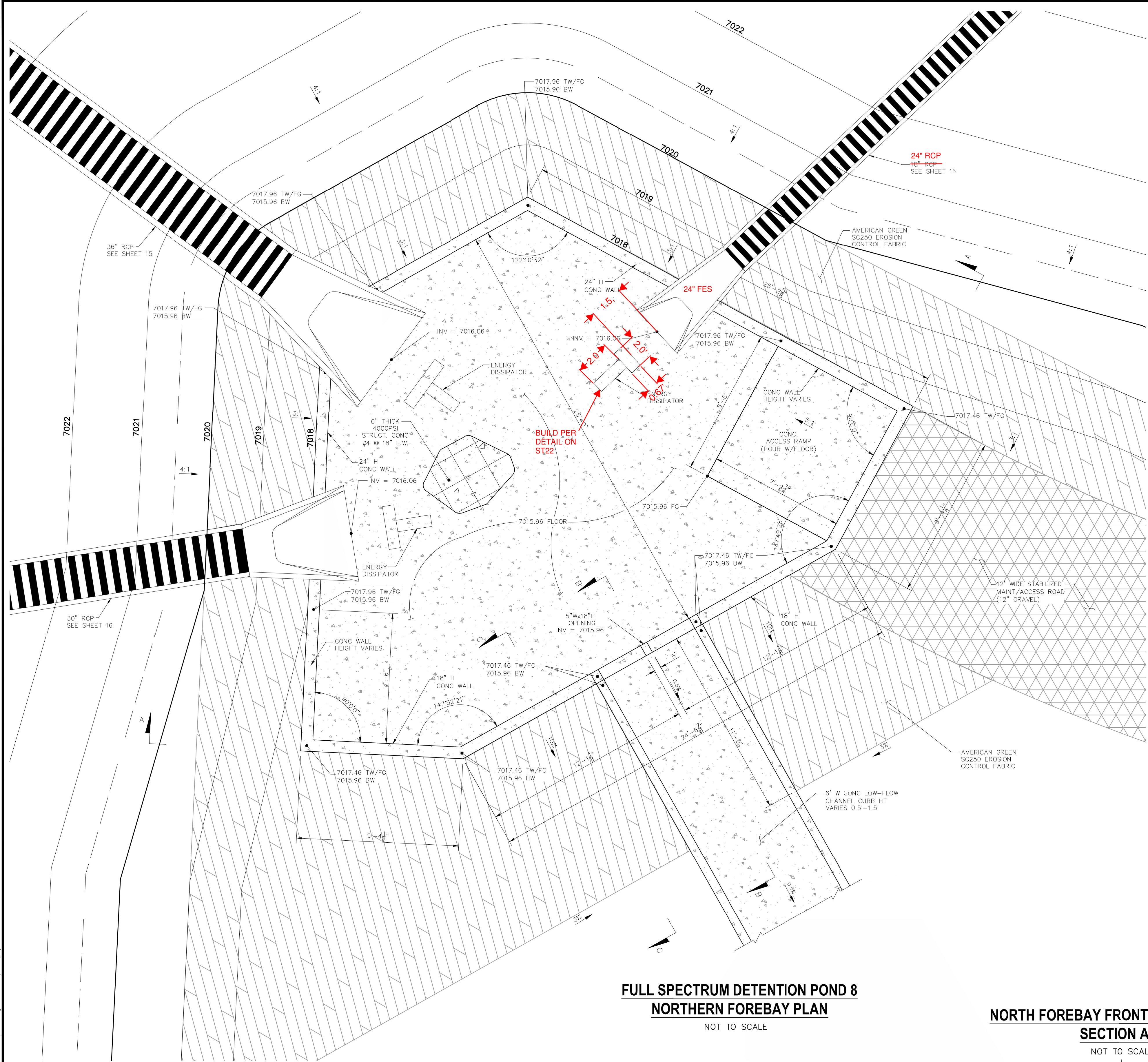
REVISIONS:

NO.	DATE:	BY:	DESCRIPTION:

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

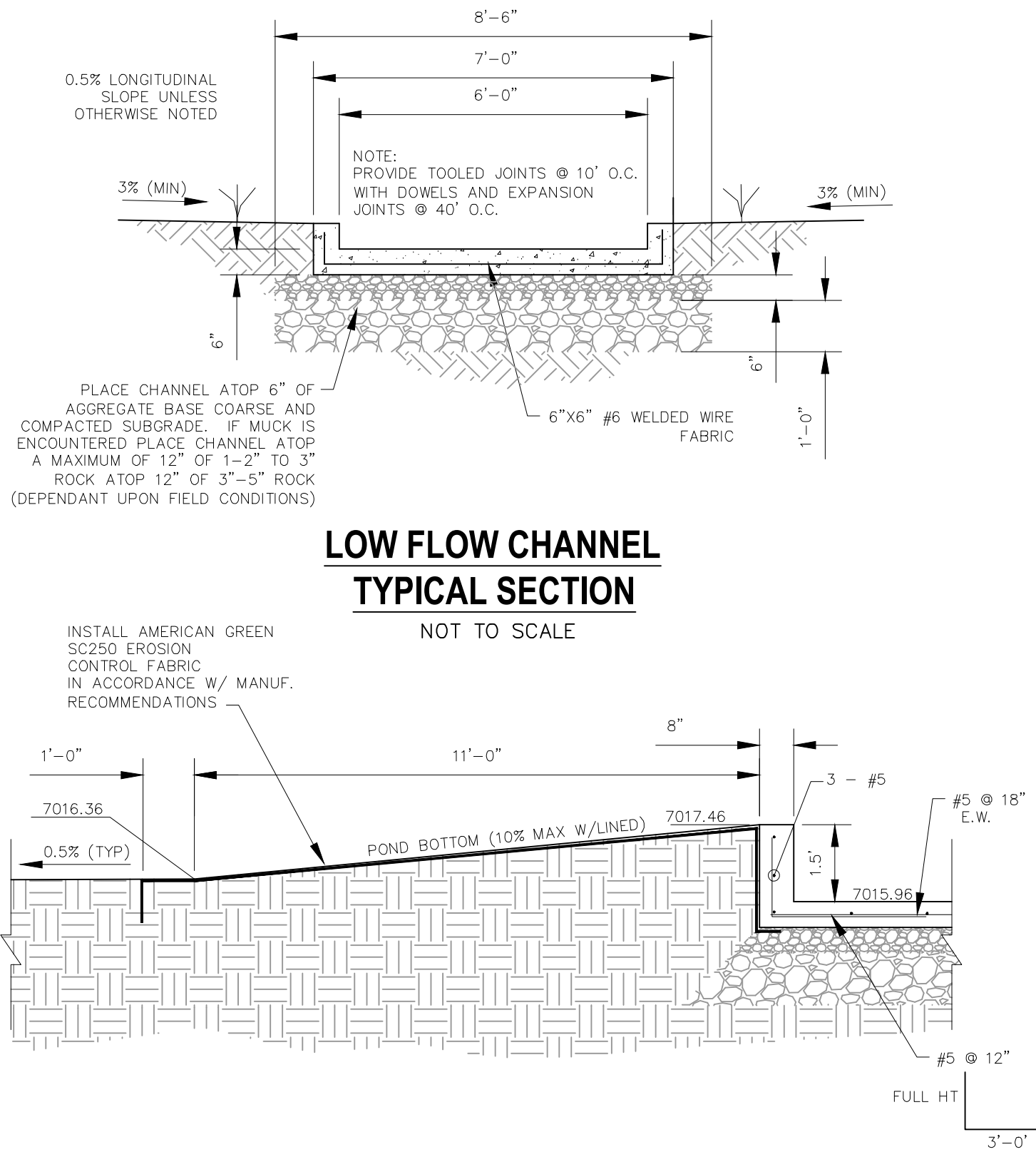
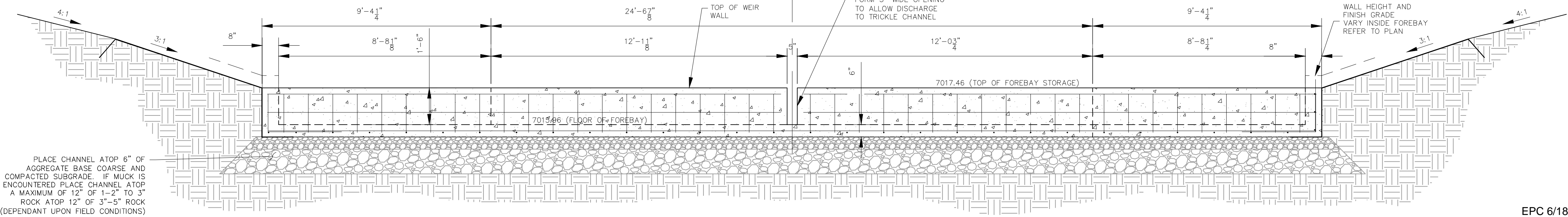
CAUTION

File: c:\09002A\Sterling Ranch District\Eng\Const Dwg\Storm - District\ST19.dwg Plotstamp: 2/7/2017 1:34 PM

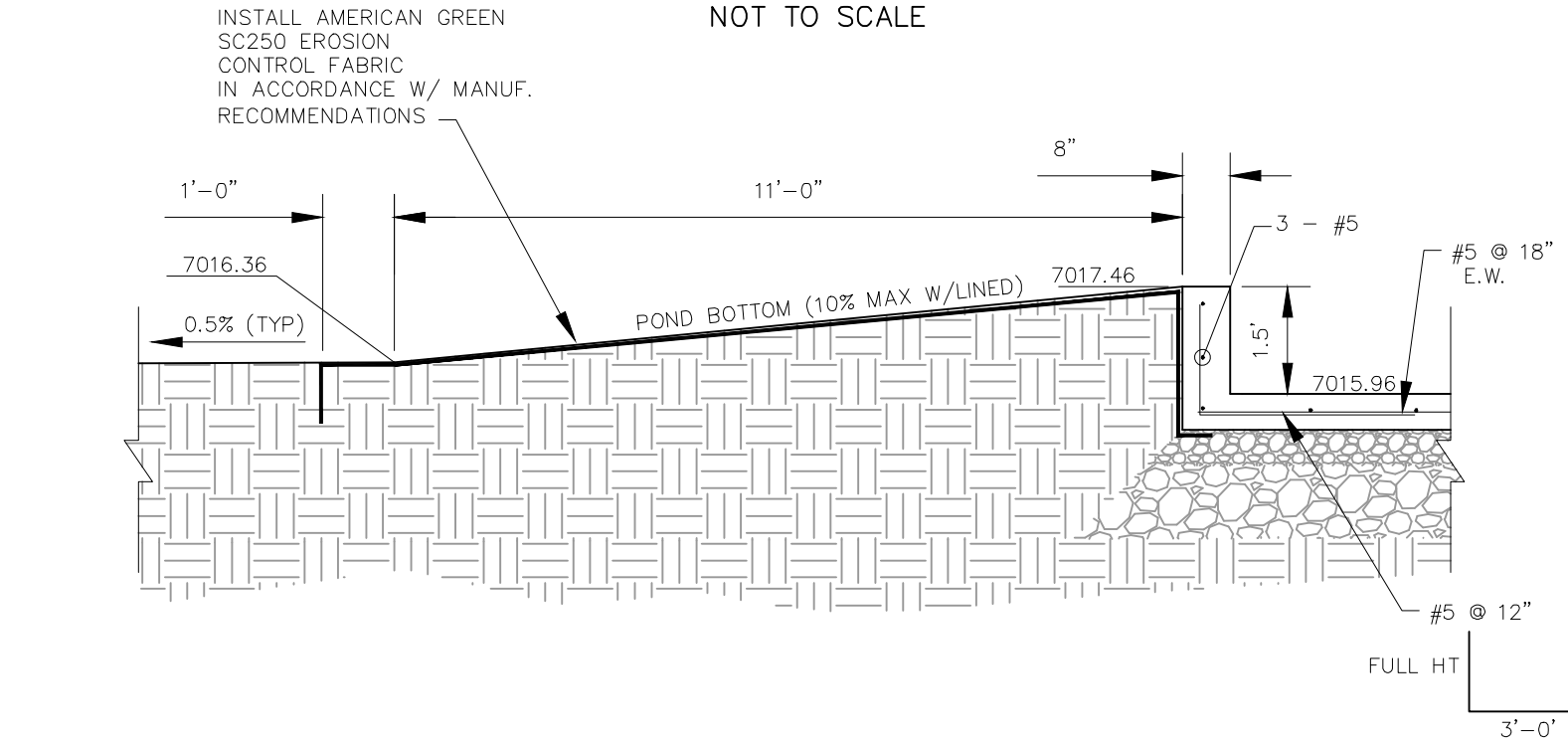


**FULL SPECTRUM DETENTION POND 8
NORTHERN FOREBAY PLAN**
NOT TO SCALE

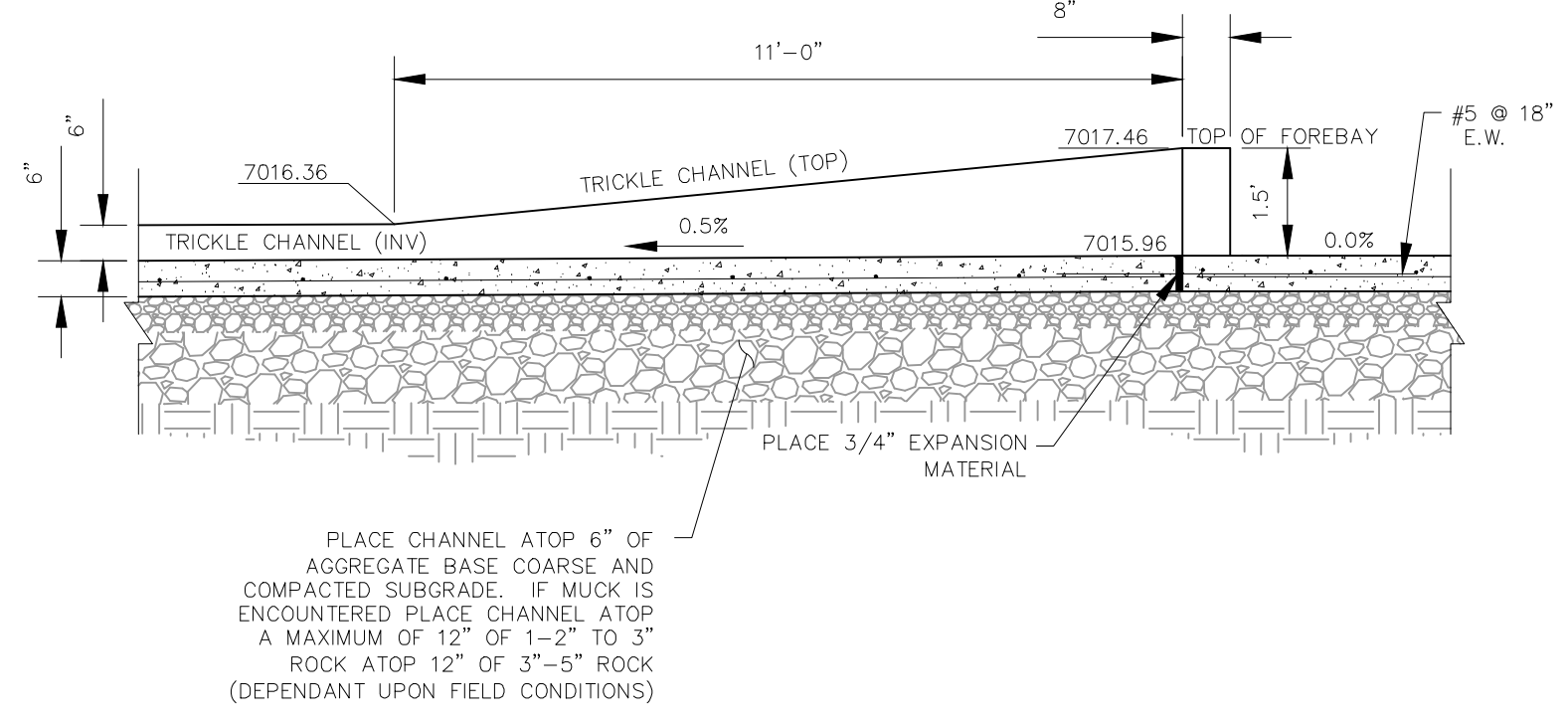
**NORTH FOREBAY FRONT WALL W/NOTCH
SECTION A-A**
NOT TO SCALE



**LOW FLOW CHANNEL
TYPICAL SECTION**
NOT TO SCALE





**SLOPE GRADING BELOW NORTHERN FOREBAY
SECTION C-C**
NOT TO SCALE



**LOW FLOW CHANNEL AT NORTH FOREBAY
SECTION B-B**
NOT TO SCALE

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

STERLING RANCH FILING NO. 1										20 BOULDER CRESCENT, SUITE 110 COLORADO SPRINGS, CO 80903 PHONE 719.555.5485										 CIVIL CONSULTANTS, INC.																																																																															
FULL SPECTRUM DET. POND 8 DETAILS										PROJECT NO. 09-002										FILE: \eng\Const Dwg\Street & Storm Plans\ST19.dwg																																																																															
DESIGNED BY: ET										SCALE										DATE: 01/02/2018																																																																															
DRAWN BY: ELY										HORIZ: 1"=50'										SHEET 23 OF 28																																																																															
CHECKED BY: WAS										VERT: 1"=5'																																																																																									
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:																																							

GRATE PLAN
NOT TO SCALE

GRATE
DETAIL "A"

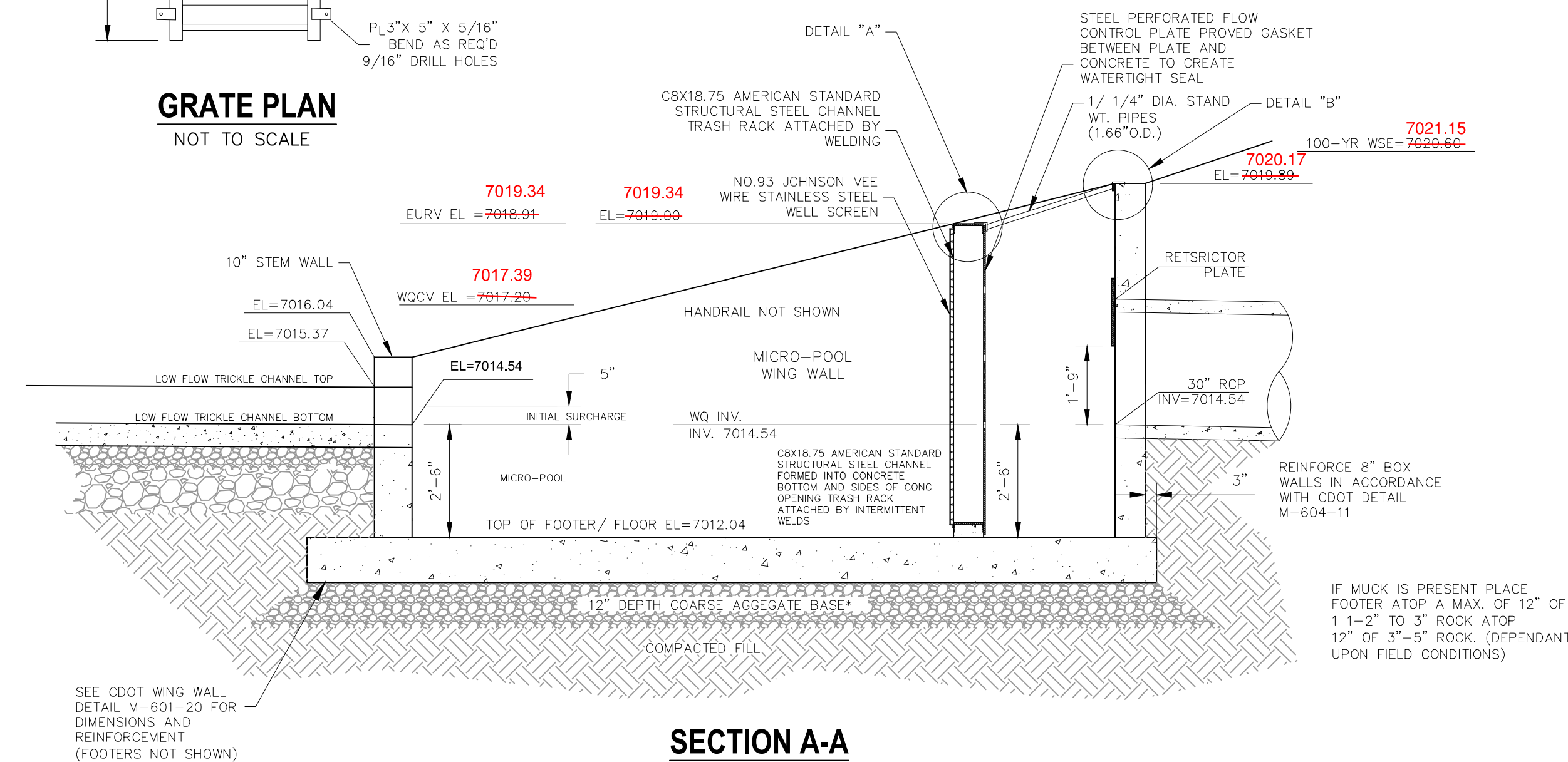
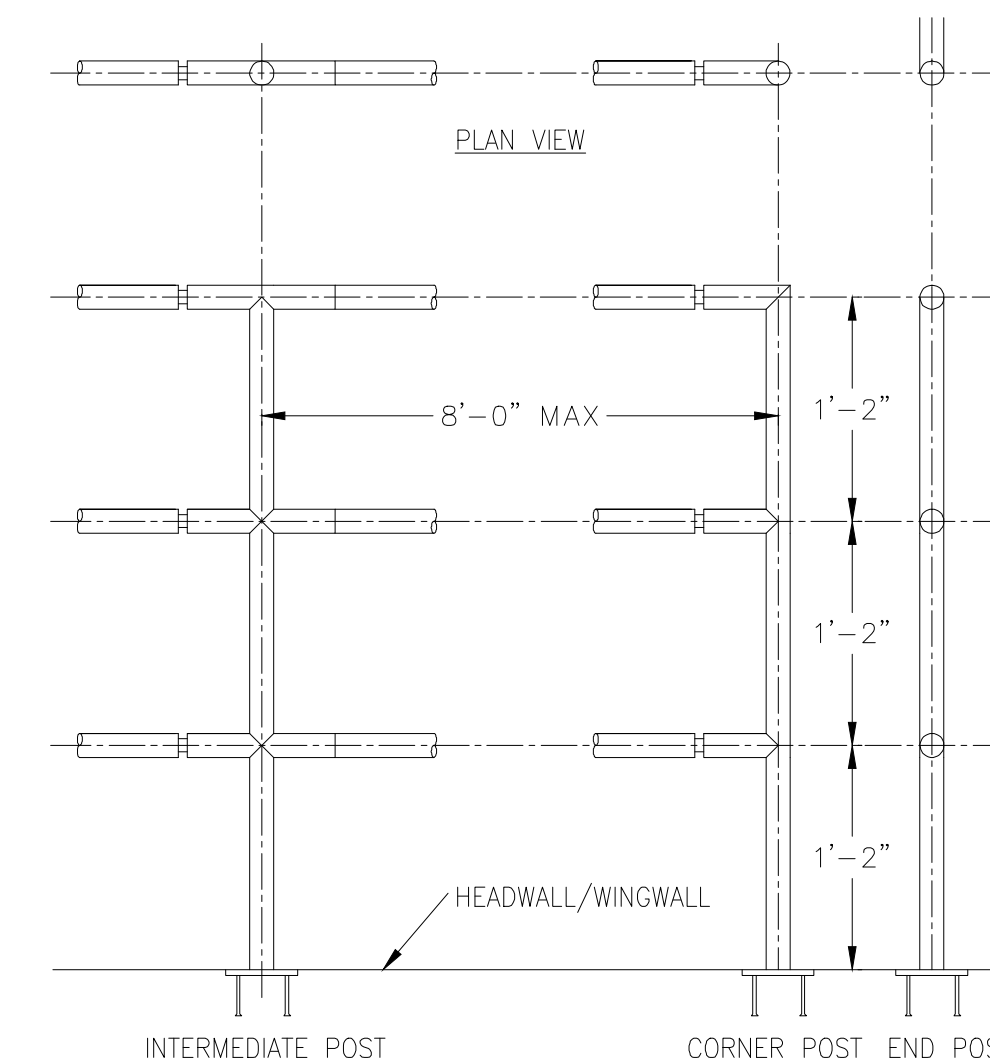
GRATE
DETAIL "B"

SET PLATE ANCHOR DETAILS
(NTS)

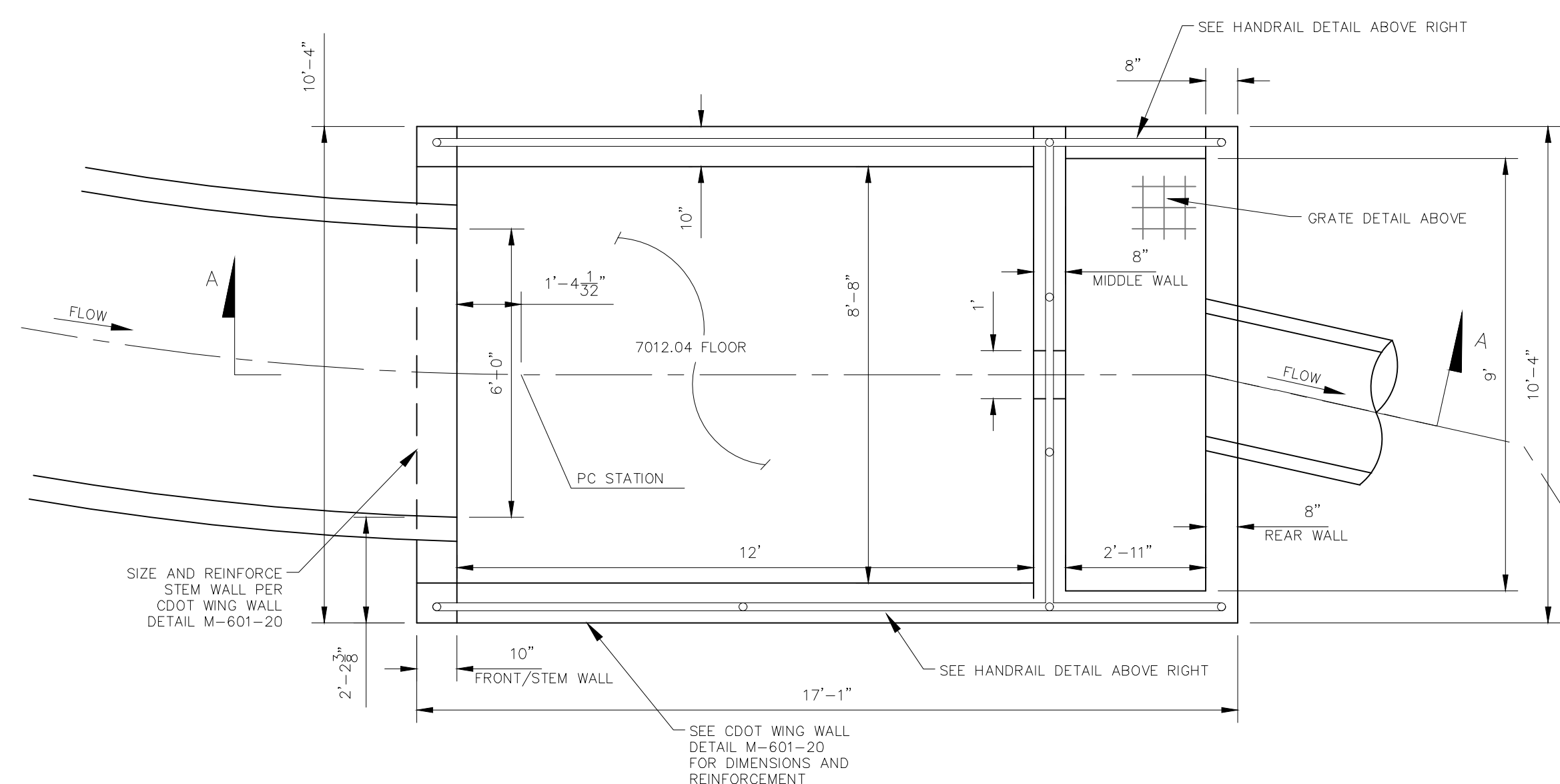
EXPANSION JOINT
DETAIL
(NTS)

MECHANICAL TUBING, 1/4"
MIN. WALL THICKNESS, 1/16"
CHAMFER BOTH ENDS. REAM
PIPE FOR SLIP FIT 0.03" MAX.
CLEARANCE

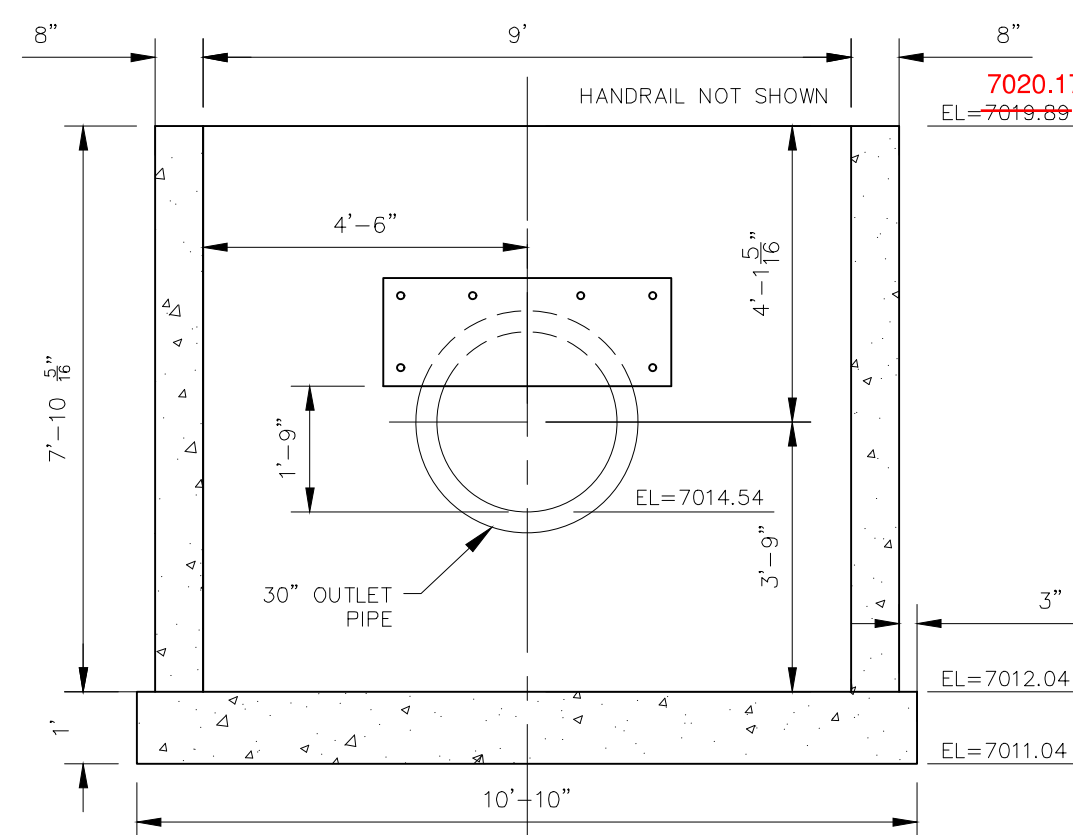
FIXED JOINT
DETAIL
(NTS)



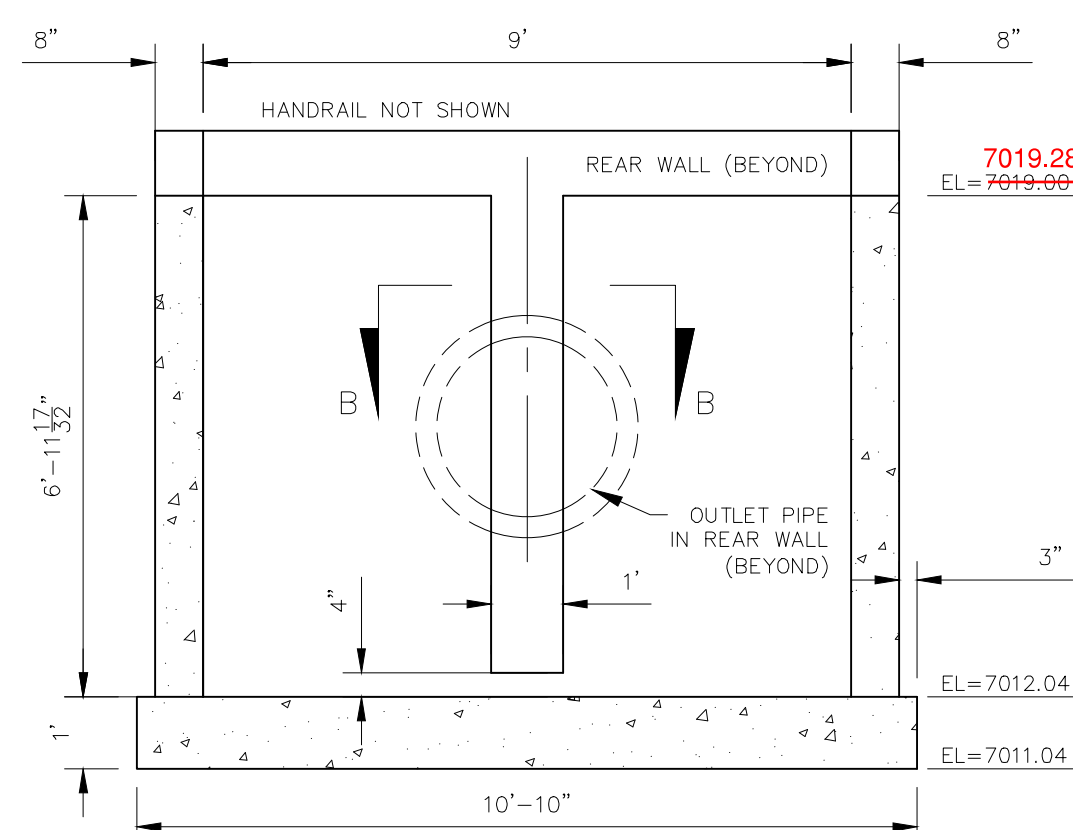
SECTION A-A
NOT TO SCALE



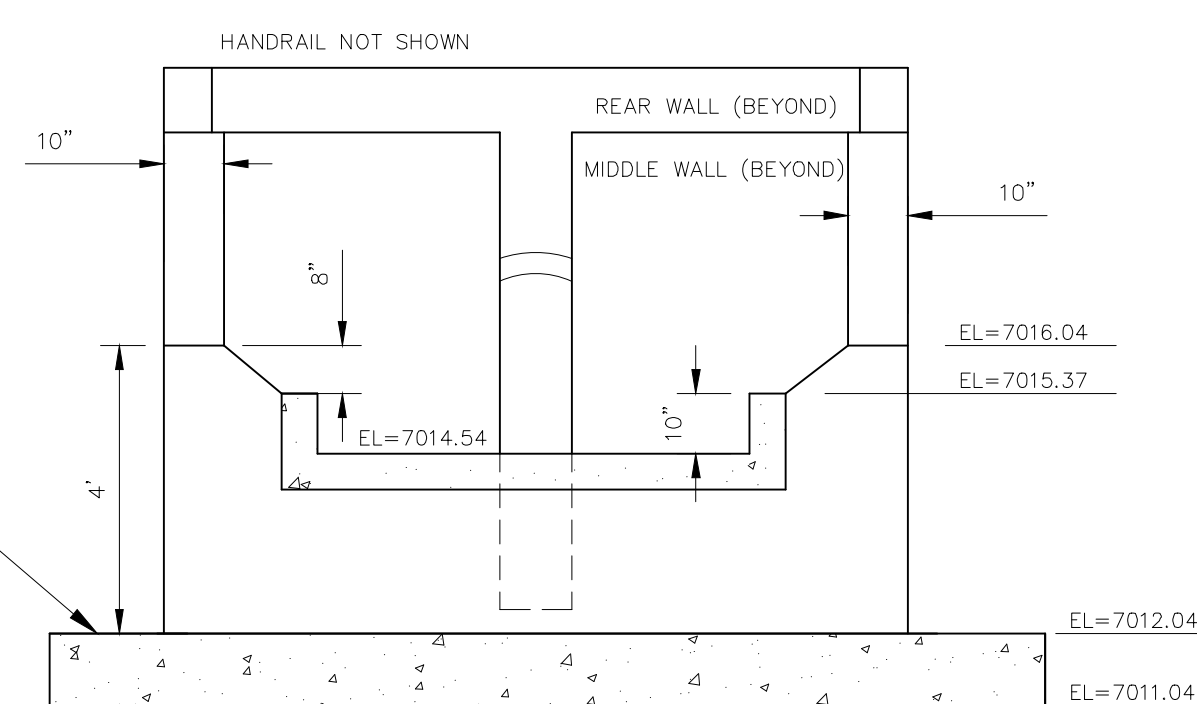
POND 8 WATER QUALITY OUTLET STRUCTURE



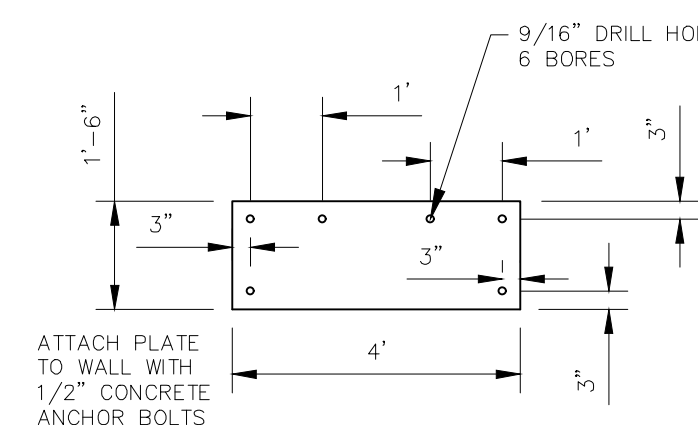
REAR WALL
NOT TO SCALE



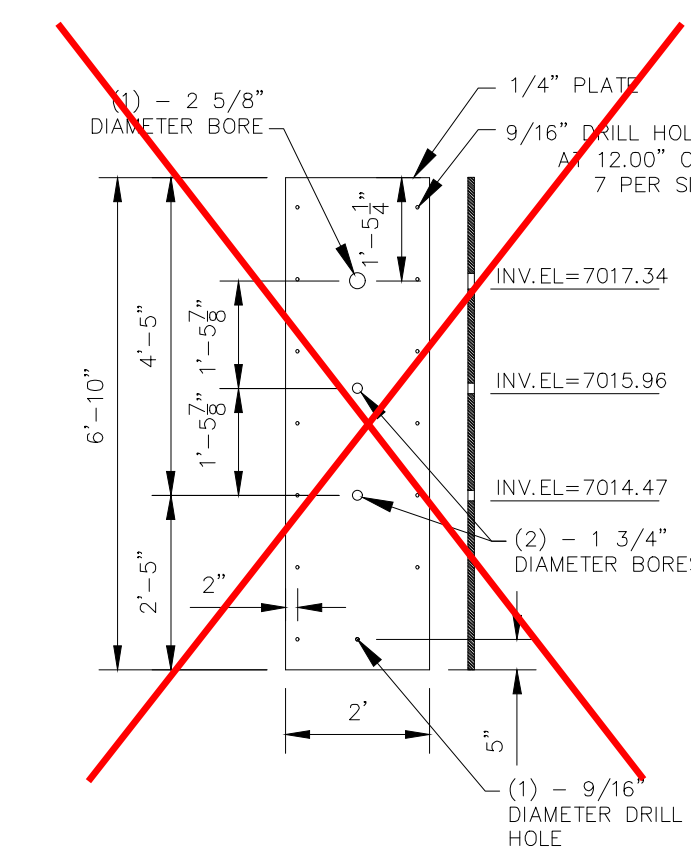
MIDDLE WALL
NOT TO SCALE



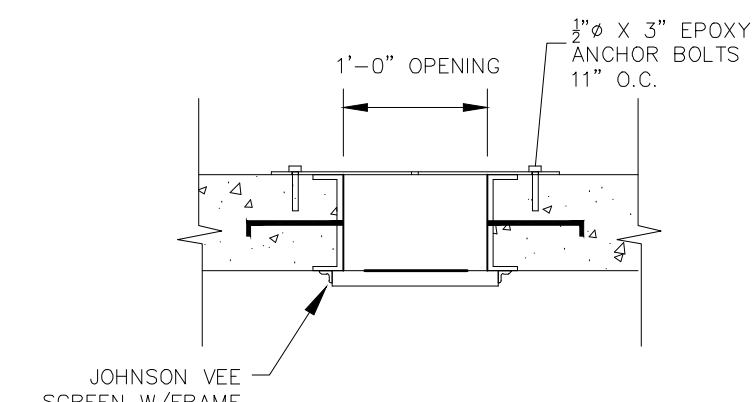
FRONT/STEM WALL
NOT TO SCALE



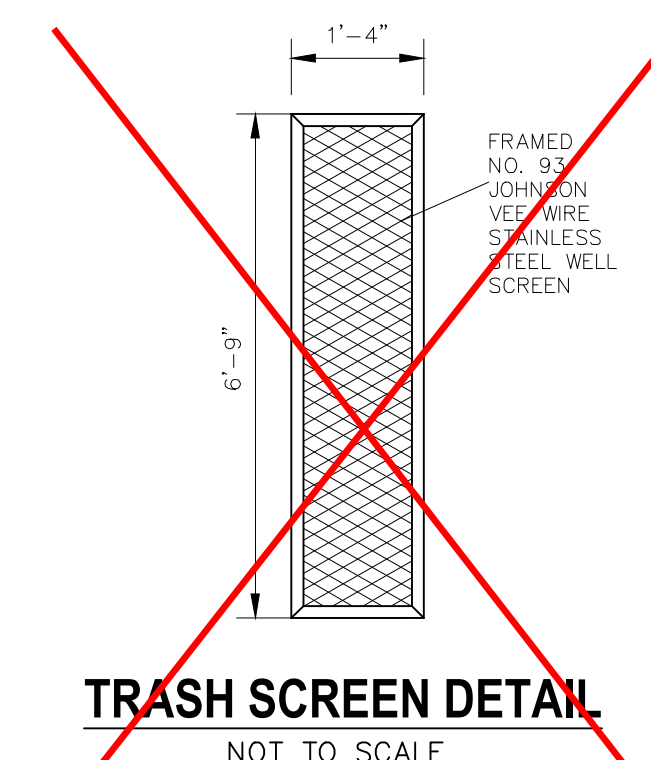
RESTRICTOR PLATE
NOT TO SCALE



ORIFICE PLATE
NOT TO SCALE



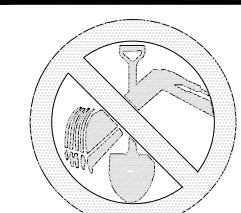
SECTION B-B
NOT TO SCALE



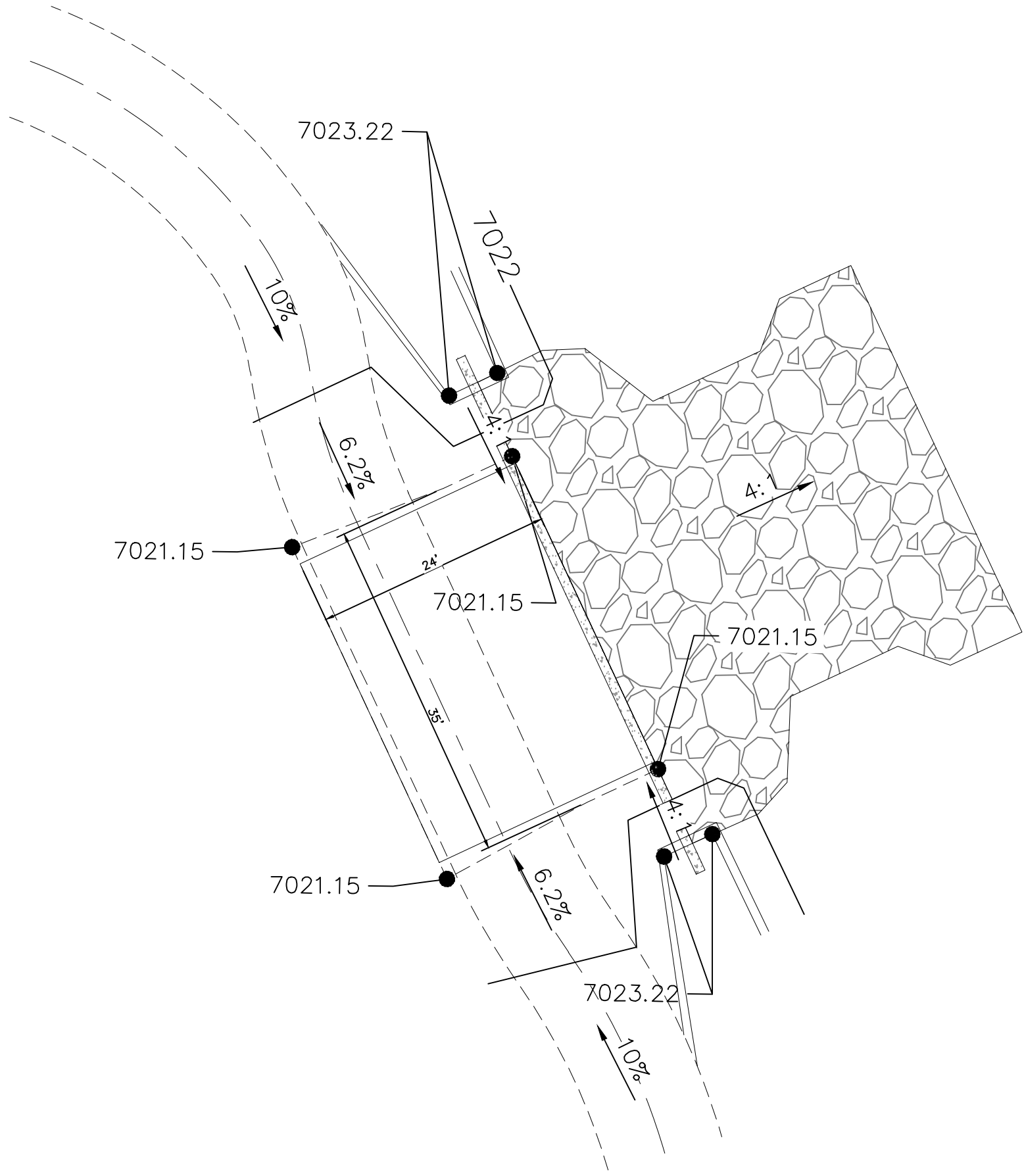
~~TRASH SCREEN DETAIL~~
NOT TO SCALE

NOTE:
CENTER ORIFICE PLATE AND TRASH SCREEN
HORIZONTALLY ACROSS 1'-0" OPENING IN STRUCTURE

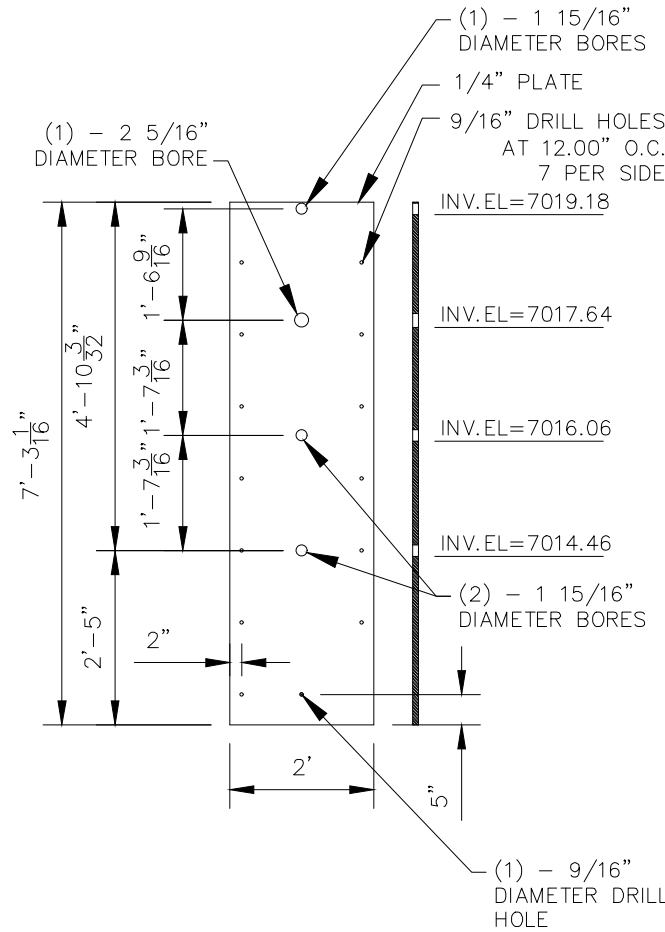
SEE UPDATED TRASH
SCREEN DETAIL ON NEXT
PAGE SHEET ST20A



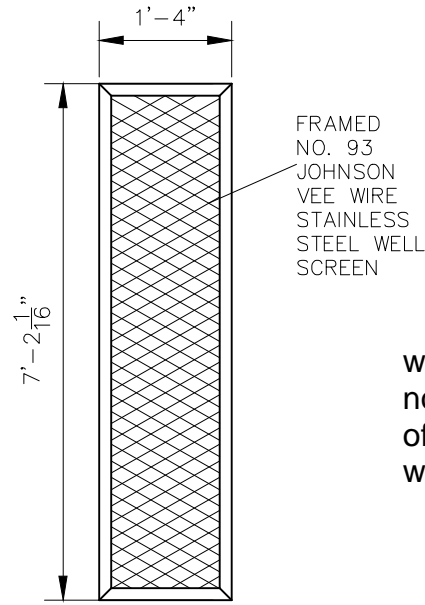
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48 HRS BEFORE YOU DIG
CALL 1-800-922-1987



UPDATED SPILLWAY DETAILS



UPDATED ORIFICE PLATE
NOT TO SCALE



UPDATED TRASH SCREEN DETAIL
NOT TO SCALE

NOTE:
CENTER ORIFICE PLATE AND TRASH SCREEN
HORIZONTALLY ACROSS 1'-0" OPENING IN STRUCTURE

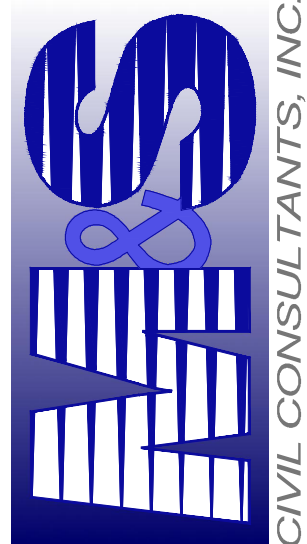
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CAUTION

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

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



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

CIVIL CONSULTANTS, INC.

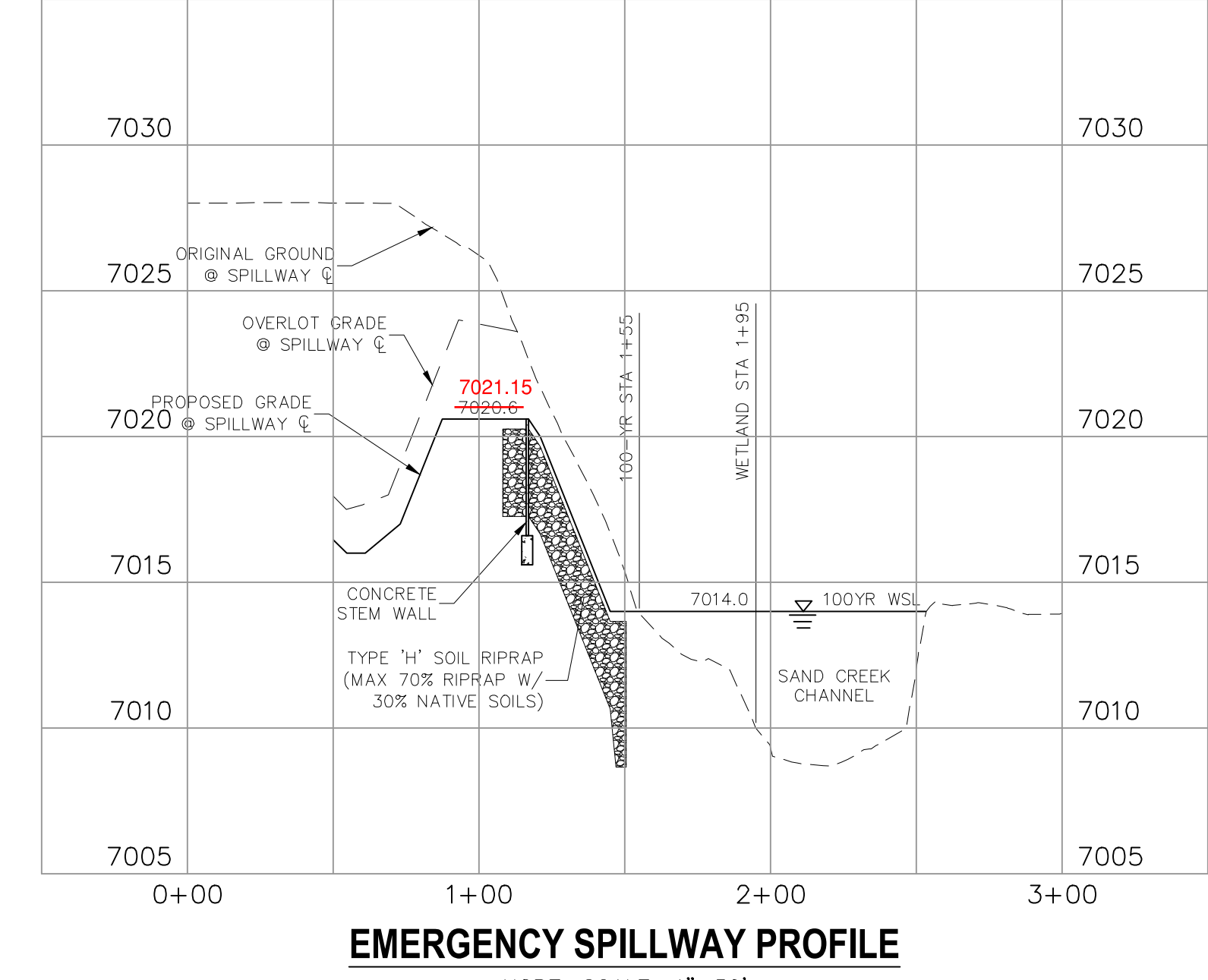
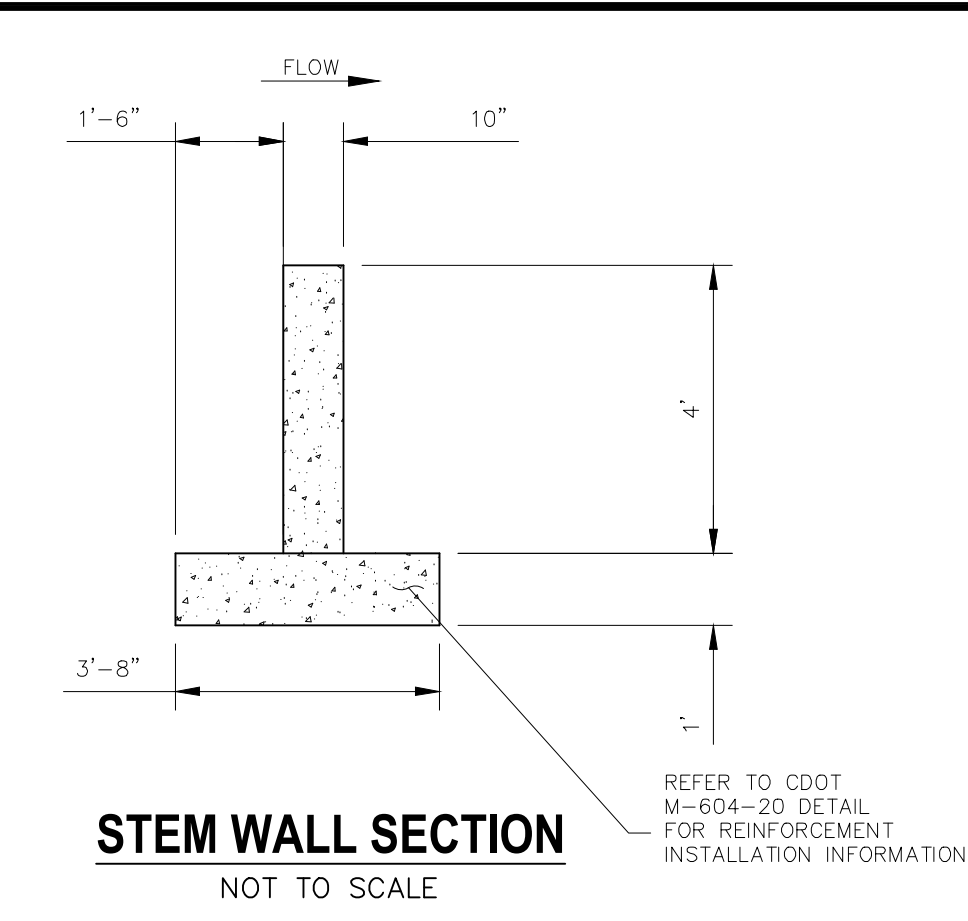
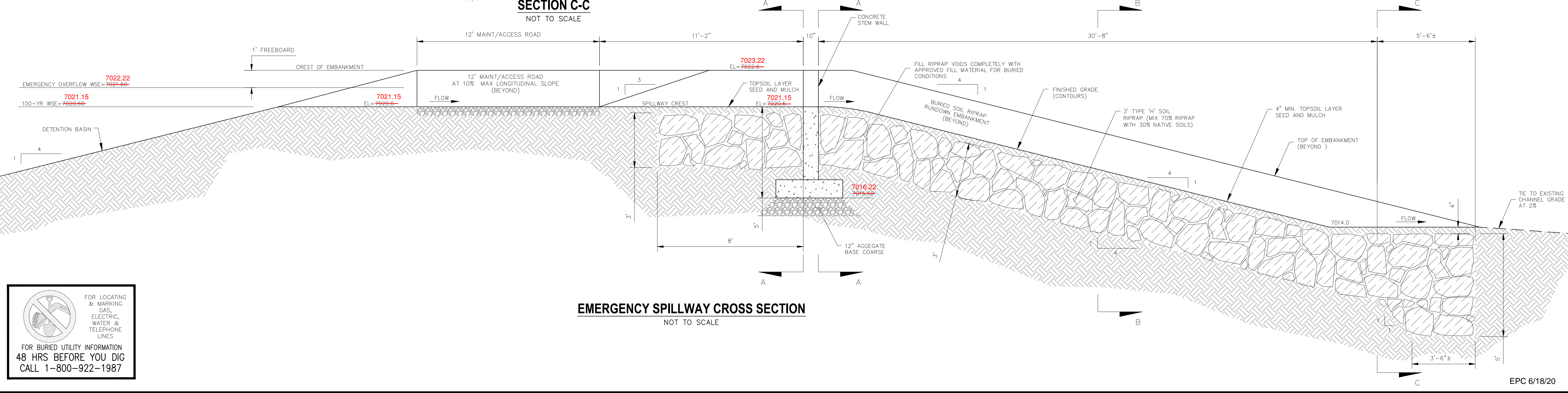
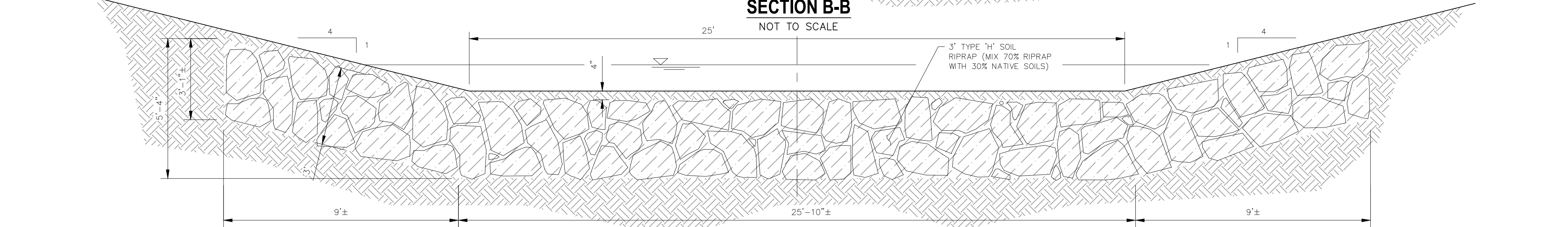
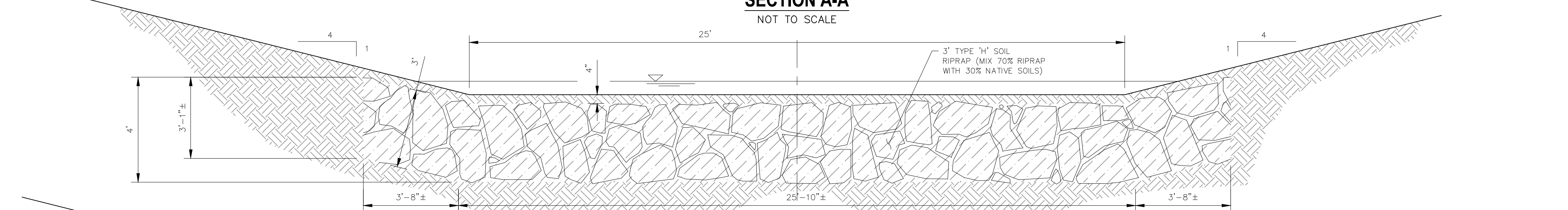
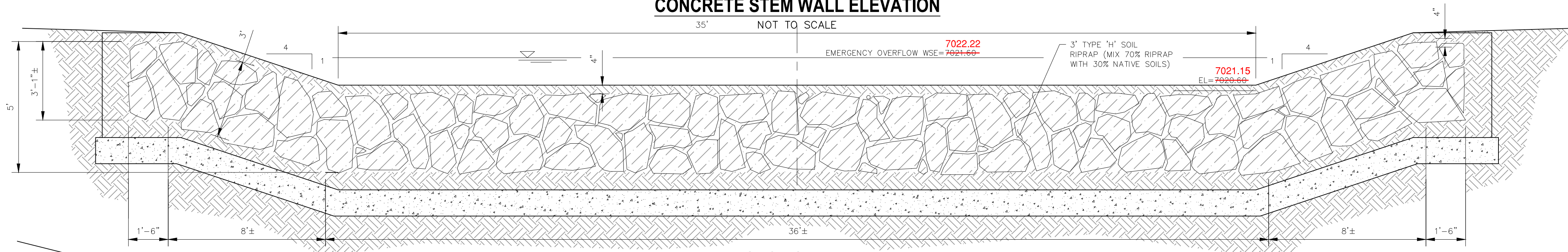
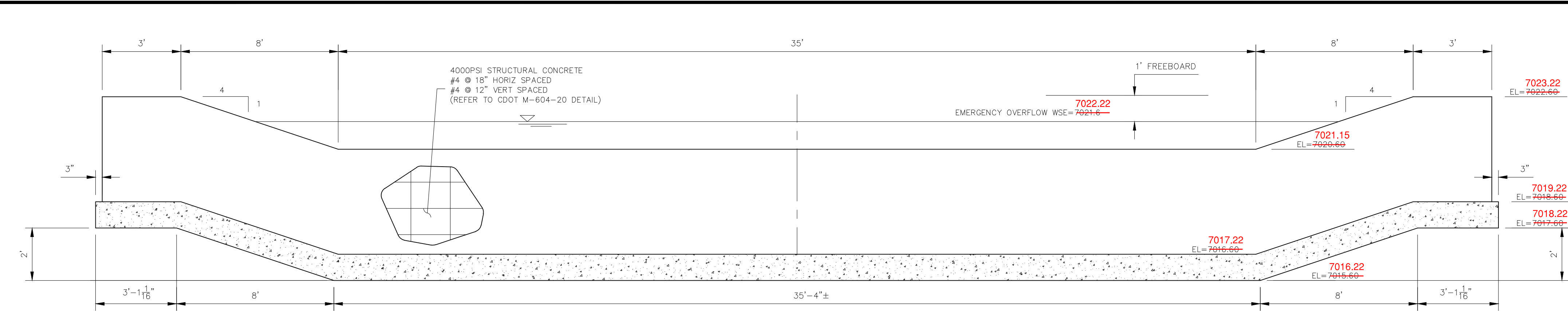
STERLING RANCH FILING NO. 1

UPDATED FULL SPEC. DET. POND 8 DETAILS

PROJECT NO. 09-002	FILE: \eng\Const Dwg\Storm - District\ST20A.dwg	DATE: 01/02/2018
DESIGNED BY: ET	SCALE: N/A	
DRAWN BY: WAS	HORIZ: N/A	
CHECKED BY:	VERT: N/A	SHEET 20 OF 28

ST20A

File: c:\09002A\Sterling Ranch District\Eng\Const\DWG\Storm - District\ST21.dwg Plotstamp: 12/5/2016 11:18 AM



STERLING RANCH FILING NO. 1	
FULL SPECTRUM DET. POND 8 DETAILS	
PROJECT NO. 09-002	FILE: Yang\Const\DWG\Storm - District\ST21.dwg
DESIGNED BY: ET	SCALE: DATE: 01/02/2018
DRAWN BY: ELY	HORIZ AS NOTED
CHECKED BY: WAS	VERT: AS NOTED
SHEET 25 OF 28	
ST21	

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

W&S
CIVIL CONSULTANTS, INC.

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

PROFESSIONAL
37160
E33-2009-01

REVISIONS:

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

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CAUTION

EPC 6/18/20

