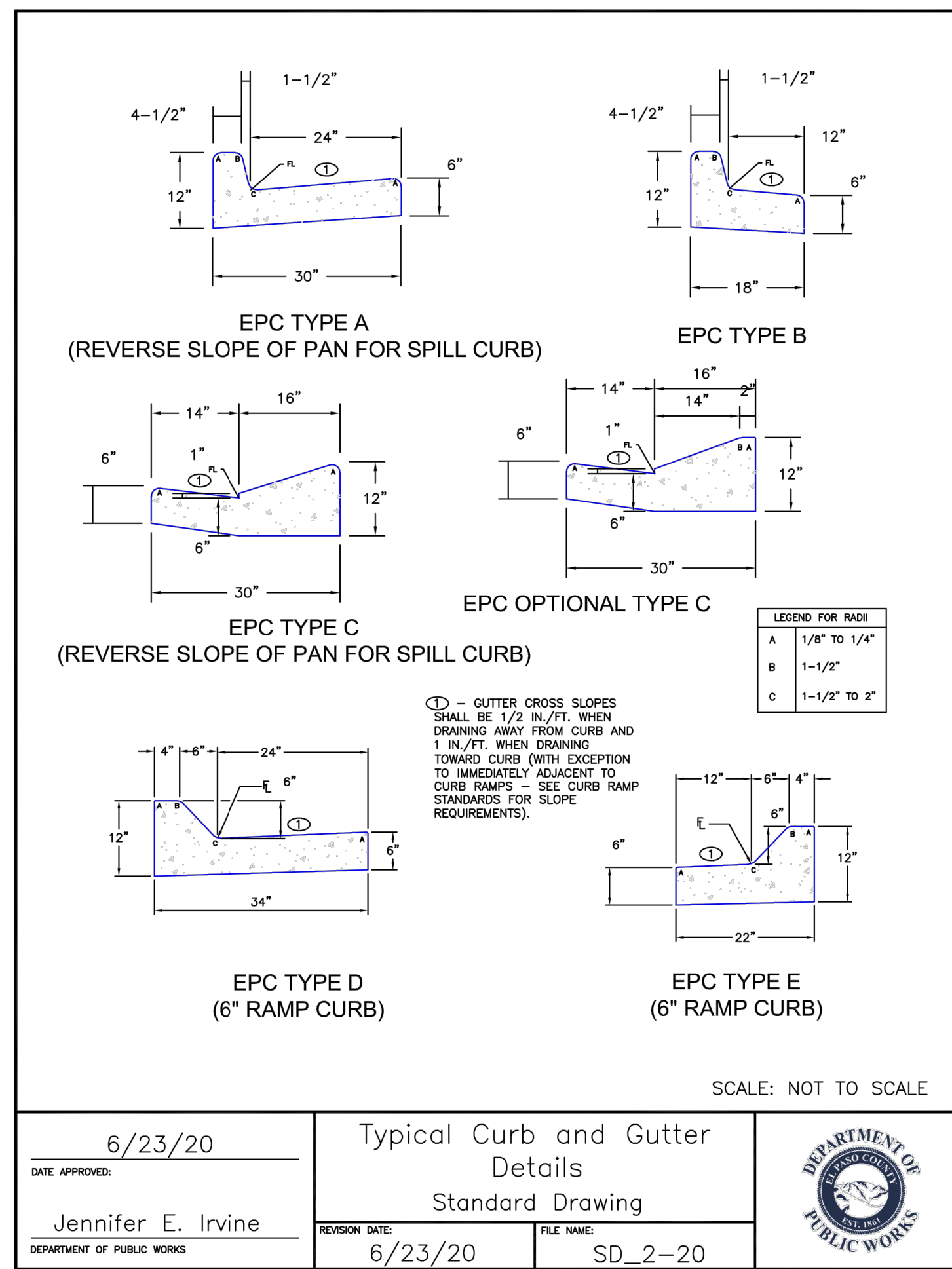
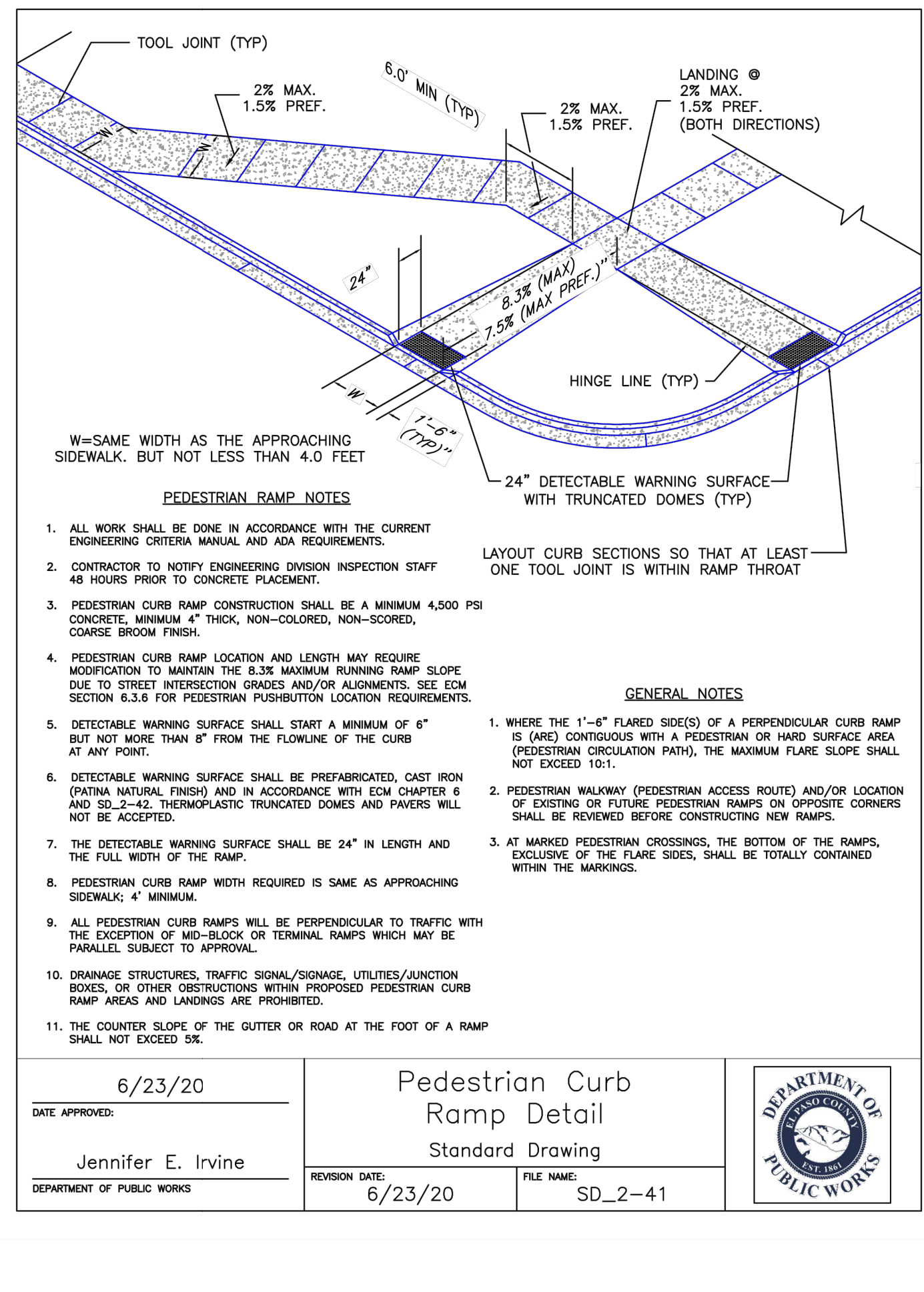


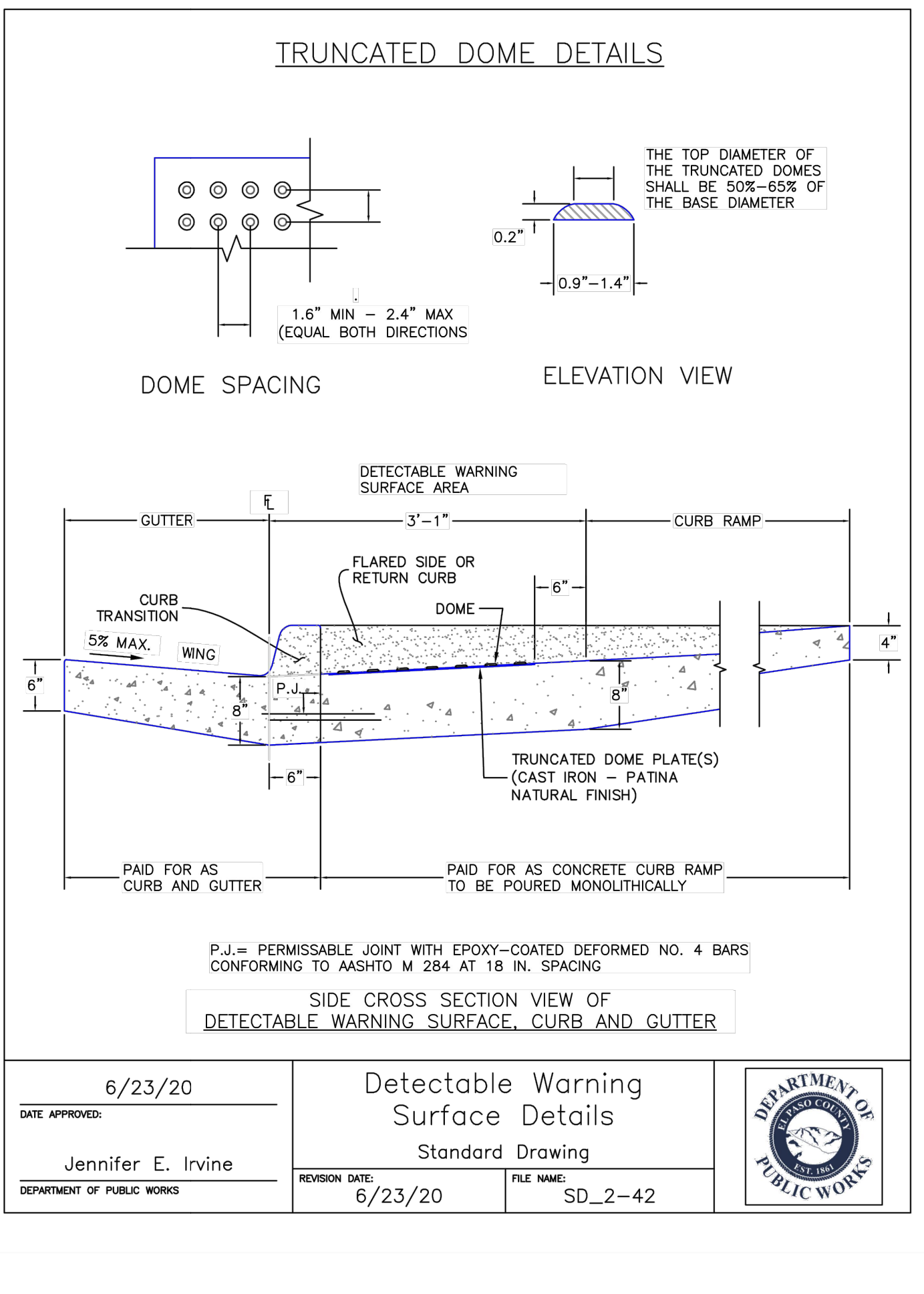
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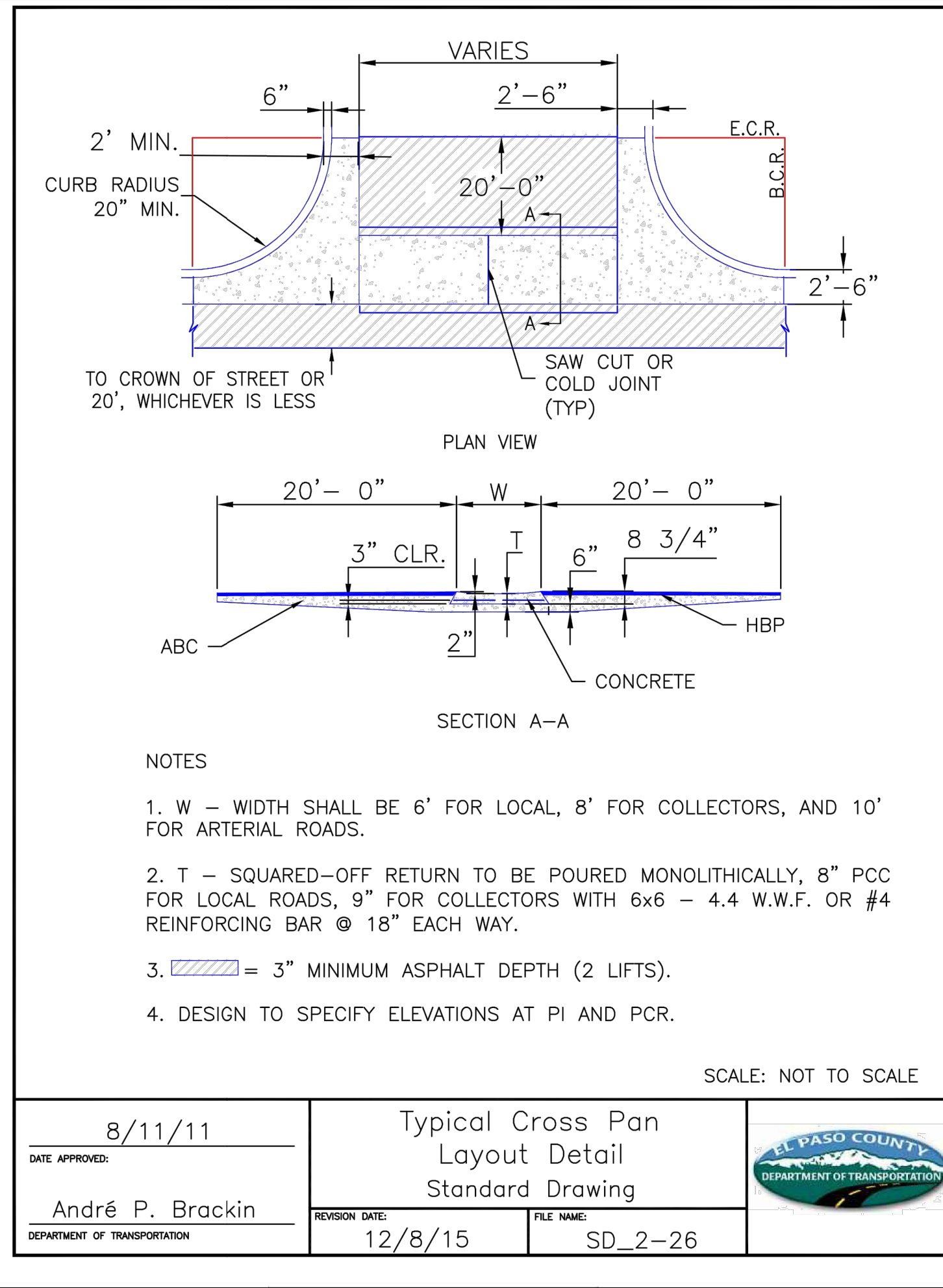
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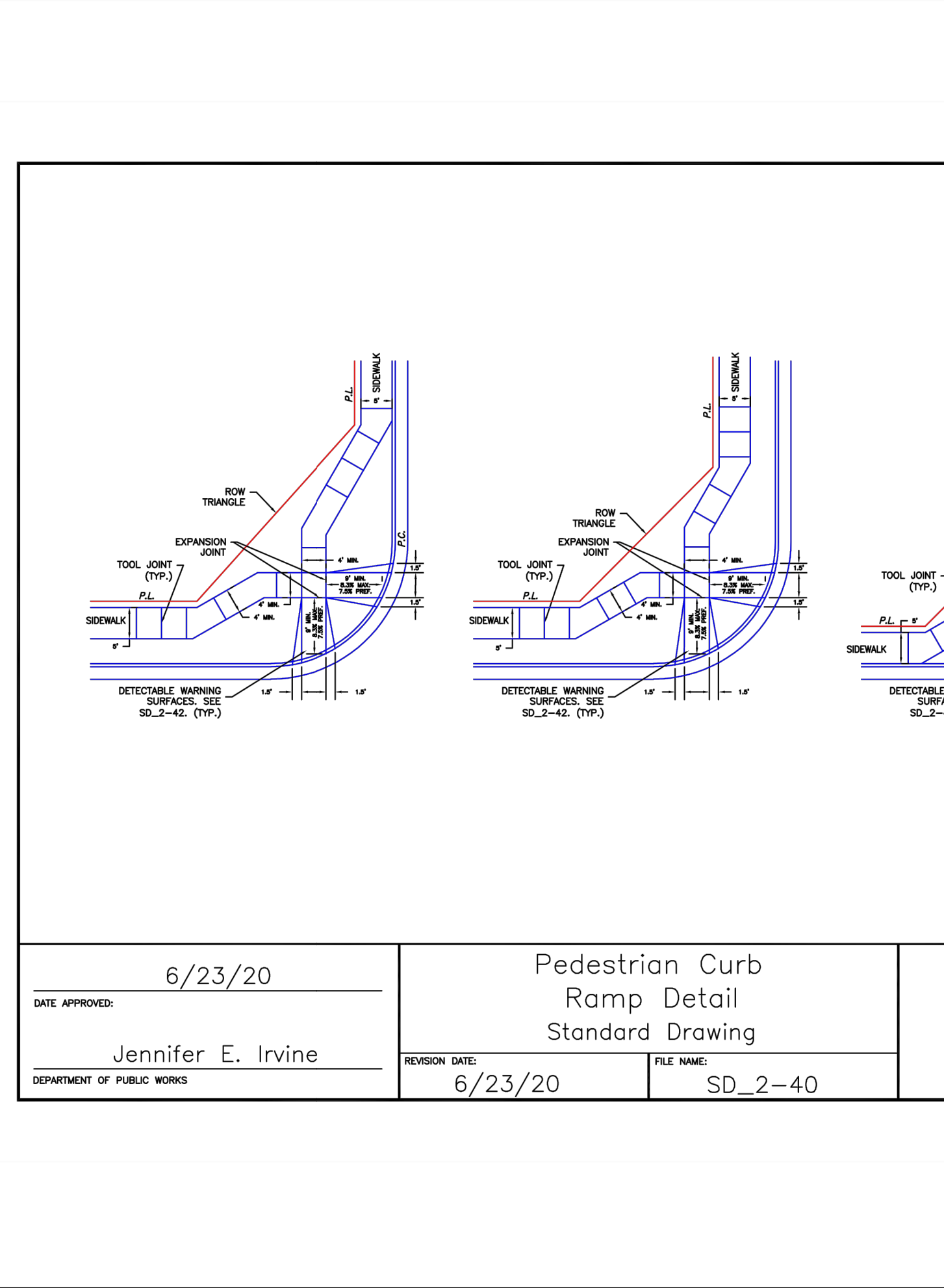
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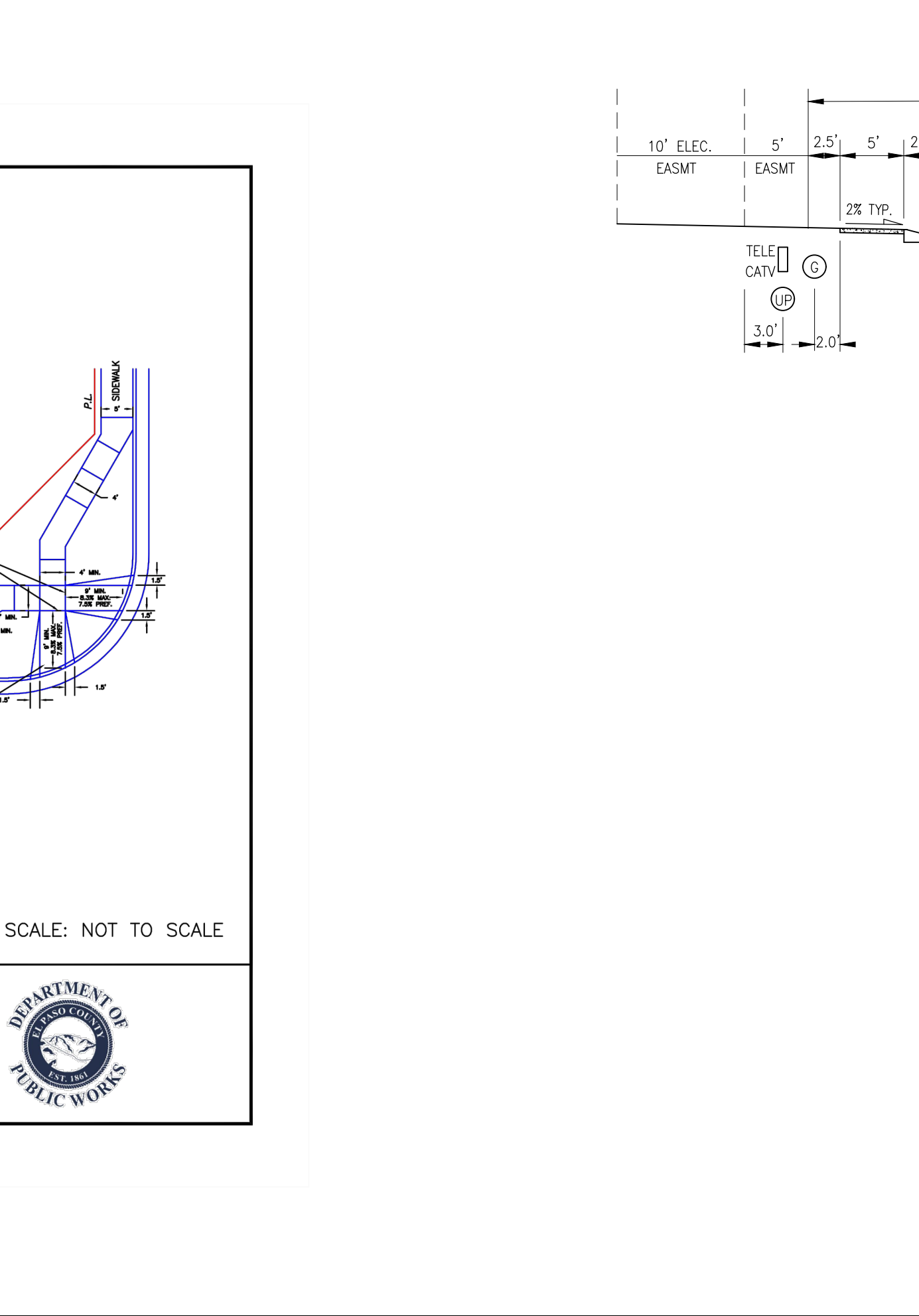
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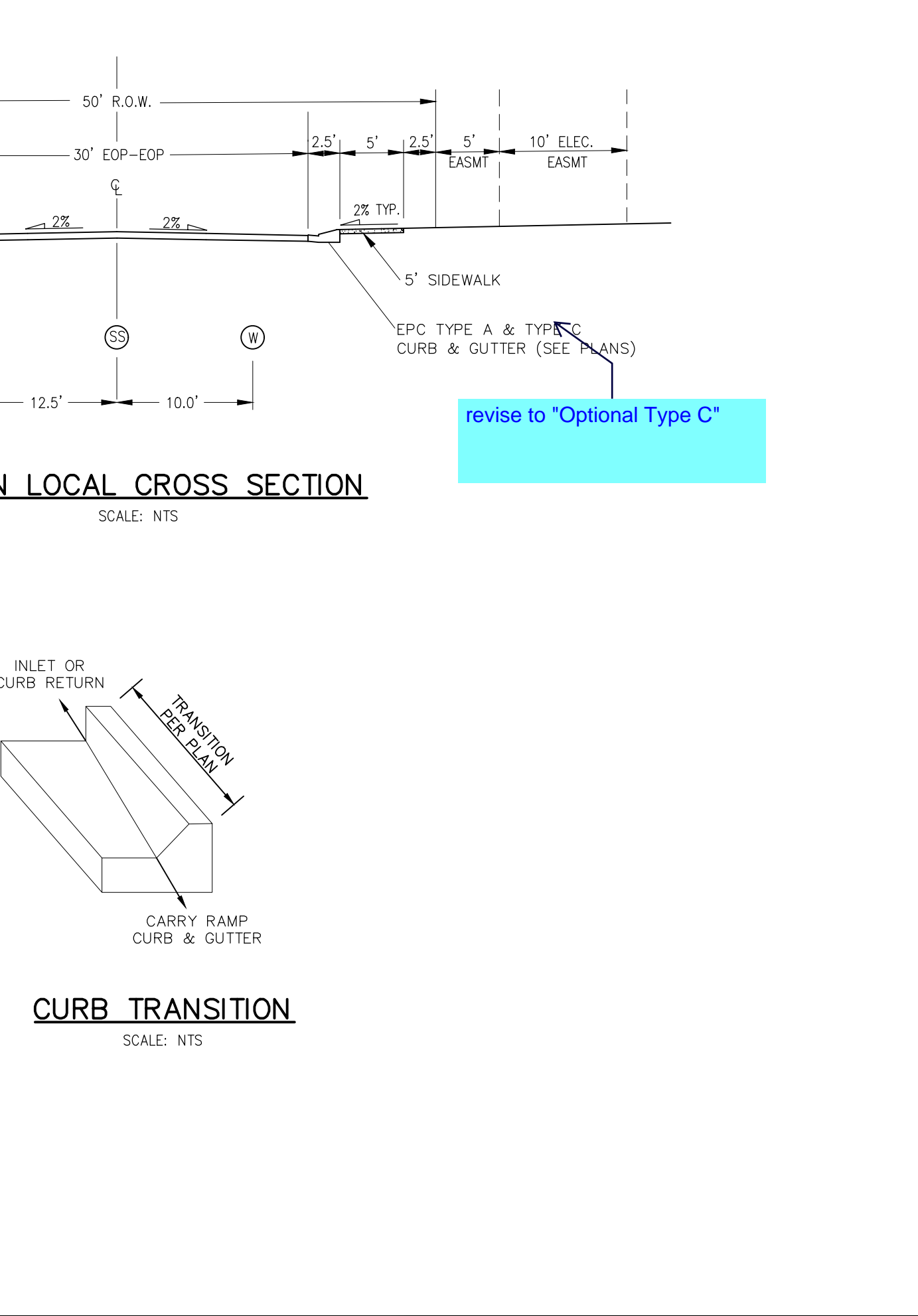
DATE APPROVED: 8/11/11	DESIGNER: André P. Brackin	REVISION DATE: 12/8/15	FILE NAME: SD_2-26
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DATE APPROVED: 6/23/20	DESIGNER: Jennifer E. Irvine	REVISION DATE: 6/23/20	FILE NAME: SD_2-40
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DATE APPROVED: 6/23/20	DESIGNER: Jennifer E. Irvine	REVISION DATE: 6/23/20	FILE NAME: SD_2-40
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DATE APPROVED: 6/23/20	DESIGNER: Jennifer E. Irvine	REVISION DATE: 6/23/20	FILE NAME: SD_2-40
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STATEMENT:
THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN; THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY. RESUBMITTAL REQUIRED IF CONSTRUCTION HAS NOT COMMENCED WITHIN 180 DAYS AFTER APPROVAL DATE.

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

STREET DESIGN REVIEW:
TRAFFIC ENGINEERING: _____ DATE: _____
CURB & GUTTER: _____ DATE: _____
FINAL REVIEW: _____ DATE: _____

DRAINAGE DESIGN:
DRAINAGE REVIEW: _____ DATE: _____
FILED IN ACCORDANCE WITH SECTION 7-7-906 OF COLORADO SPRINGS CODE 2001, AS AMENDED.

DESIGN DATA:
SIDEWALKS: WIDTH 5' ASPHALT THICKNESS: _____
LOCATION: Attached to AC Surface _____
CURB TYPE: A or B AGG. BASE THICKNESS: _____
CURB TYPE: C or B Class 6 _____
ROW WIDTH: 50' EOP-EOP 30' Class 5 _____
STREET TYPE: URBAN LOCAL HVEEM Class 2 _____
DESIGN SPEED: 25 MPH

PAINT BRUSH HILLS FILING NO. 14

STREET SECTION AND DETAILS

PROJECT NO. 10-014
SCALE: N/A
DATE: 12/29/2020
DESIGNED BY: JWP
DRAWN BY: JWP
CHECKED BY: GW
SHEET 2 OF 30
S102

212 N. WABASH AVE., STE 305
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

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

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

REVISIONS:

NO.	DATE	BY	DESCRIPTION

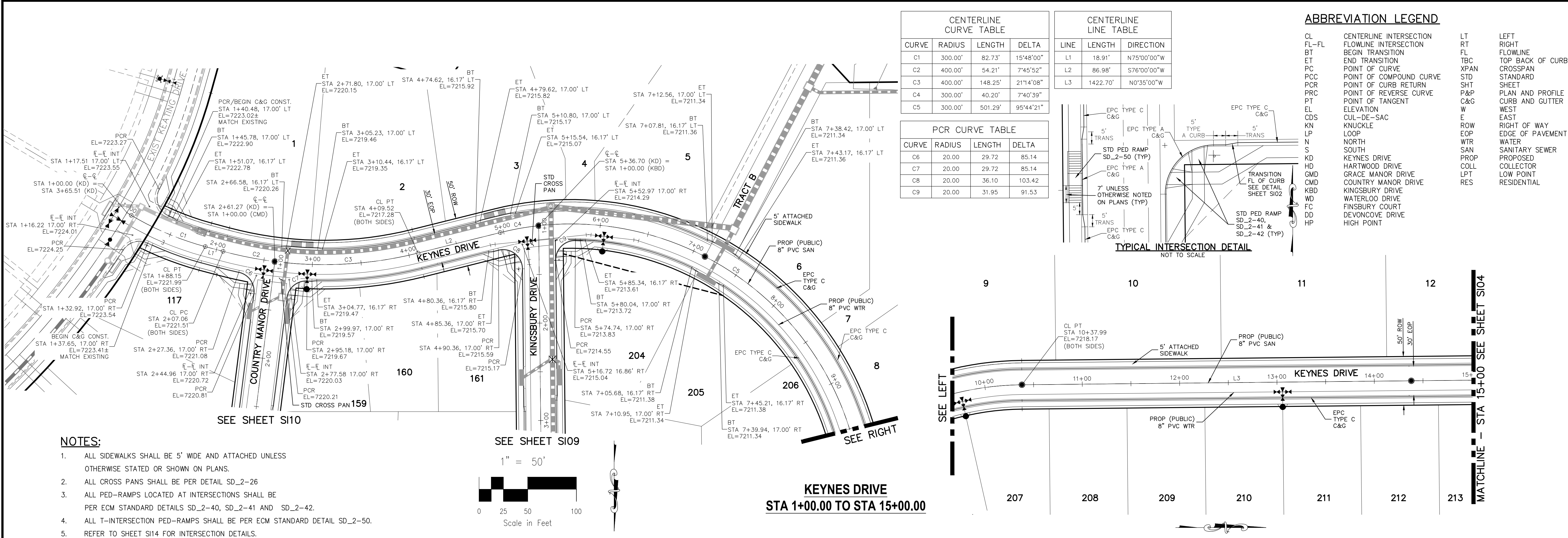
THE DESIGNER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CAUTION



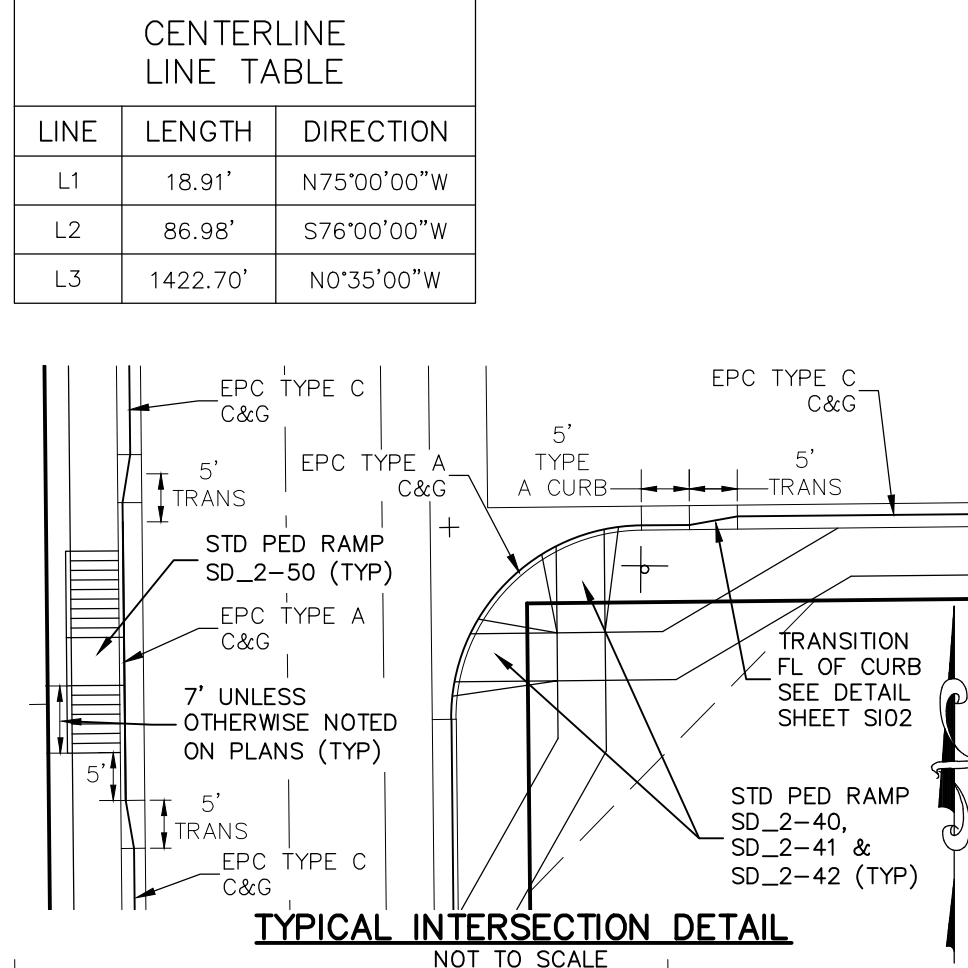
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.
 VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

NO.	DATE	BY	DESCRIPTION



CURVE	RADIUS	LENGTH	DELTA
C1	300.00'	82.73'	15°48'00"
C2	400.00'	54.21'	7°45'52"
C3	400.00'	148.25'	21°14'08"
C4	300.00'	40.20'	7°40'39"
C5	300.00'	501.29'	95°44'21"

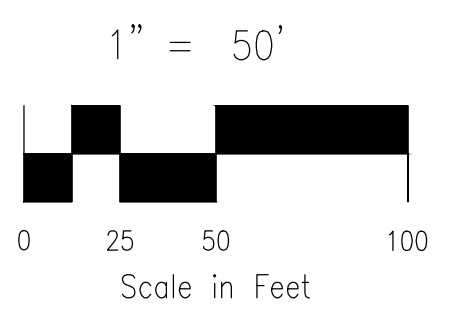
CURVE	RADIUS	LENGTH	DELTA
C6	20.00'	29.72'	85.14
C7	20.00'	29.72'	85.14
C8	20.00'	36.10'	103.42
C9	20.00'	31.95'	91.53



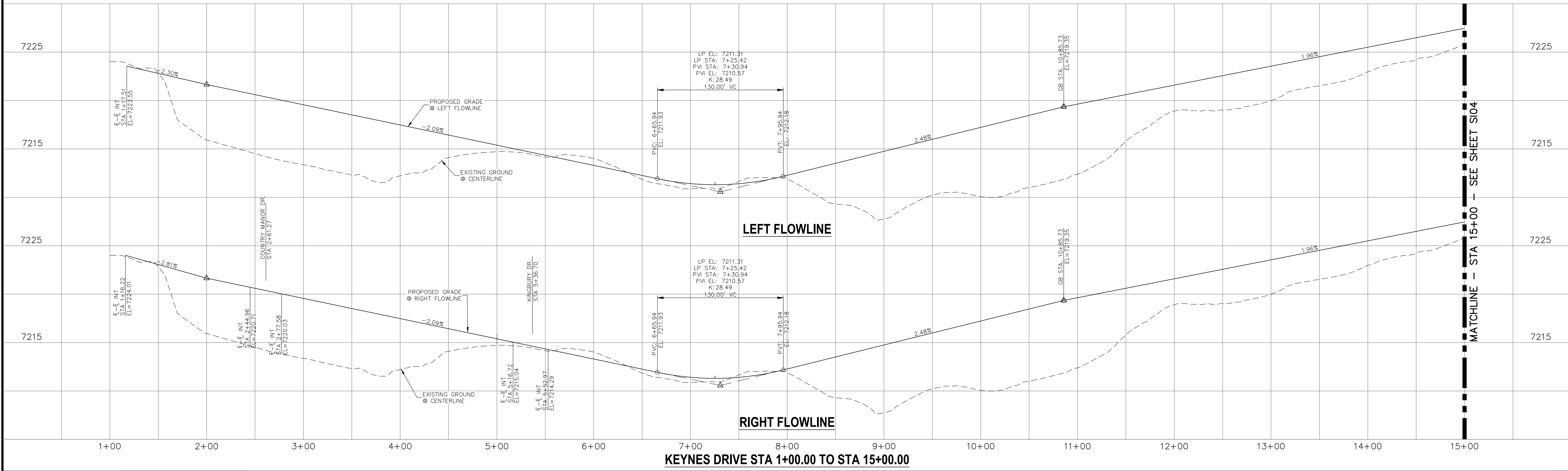
ABBREVIATION LEGEND

CL	CENTERLINE INTERSECTION	LT	LEFT
FL-FL	FLOWLINE INTERSECTION	RT	RIGHT
BT	BEGIN TRANSITION	FL	FLOWLINE
ET	END TRANSITION	TBC	TOP BACK OF CURB
PC	POINT OF CURVE	XPAN	CROSSSPAN
PCC	POINT OF COMPOUND CURVE	STD	STANDARD
PCR	POINT OF CURVE RETURN	SHT	SHEET
PRC	POINT OF REVERSE CURVE	P&P	PLAN AND PROFILE
PT	POINT OF TANGENT	C&G	CURB AND GUTTER
EL	ELEVATION	W	WEST
CD	CUL-DE-SAC	E	EAST
KN	KNUCKLE	R	RIGHT OF WAY
LP	LOOP	EOP	EDGE OF PAVEMENT
N	NORTH	WTR	WATER
S	SOUTH	SAN	SANITARY SEWER
KD	KEYNES DRIVE	PROP	PROPOSED
HD	HARTWOOD DRIVE	COLL	COLLECTOR
CMD	GRACE MANOR DRIVE	LPT	LOW POINT
KBD	COUNTRY MANOR DRIVE	RES	RESIDENTIAL
WD	KINGSBURY DRIVE		
FC	FINSBURY DRIVE		
DD	DEVONCOVE DRIVE		
HP	HIGH POINT		

- NOTES:**
- ALL SIDEWALKS SHALL BE 5' WIDE AND ATTACHED UNLESS OTHERWISE STATED OR SHOWN ON PLANS.
 - ALL CROSS PANS SHALL BE PER DETAIL SD_2-26
 - ALL PED-RAMPS LOCATED AT INTERSECTIONS SHALL BE PER ECM STANDARD DETAILS SD_2-40, SD_2-41 AND SD_2-42.
 - ALL T-INTERSECTION PED-RAMPS SHALL BE PER ECM STANDARD DETAIL SD_2-50.
 - REFER TO SHEET S114 FOR INTERSECTION DETAILS.



**KEYNES DRIVE
 STA 1+00.00 TO STA 15+00.00**



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



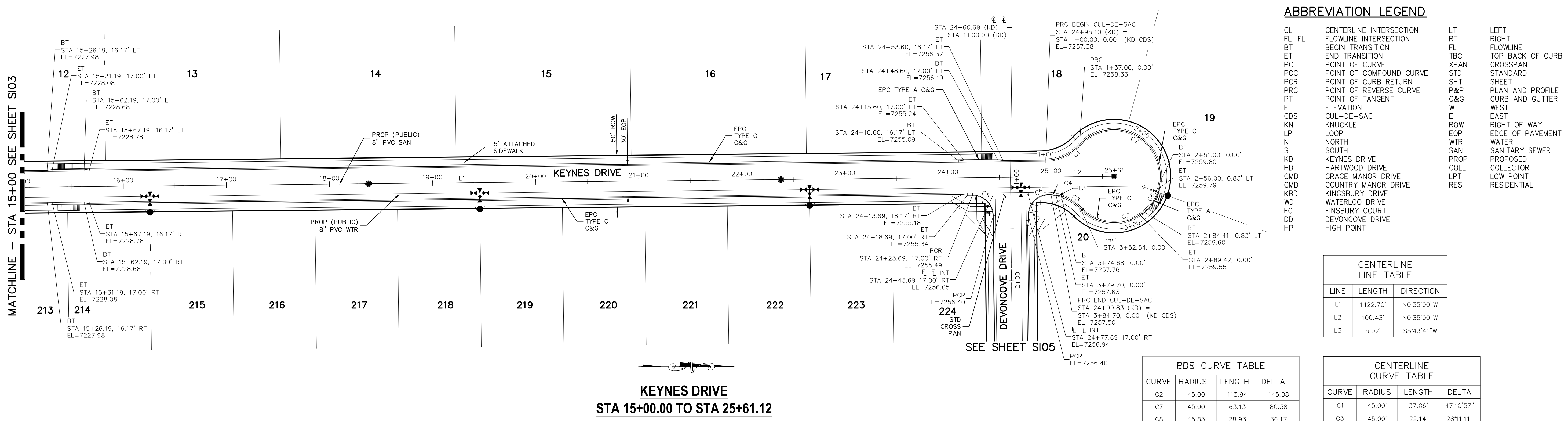
REVISIONS:	NO.	DATE	BY	DESCRIPTION

STREET DESIGN:	DESIGN DATA:
REVIEW: TRAFFIC ENGINEERING: _____ DATE: _____ CURB & GUTTER: _____ DATE: _____ FINAL REVIEW: _____ DATE: _____ DRAINAGE DESIGN: DRAINAGE REVIEW: _____ DATE: _____ FILED IN ACCORDANCE WITH SECTION 7-7-906 OF COLORADO SPRINGS CODE 2001, AS AMENDED.	SIDEWALKS: WIDTH 5' ASPHALT THICKNESS: _____ LOCATION: Attached <input checked="" type="checkbox"/> AC Surface _____ Detached <input type="checkbox"/> CENTERED-IN-5'-EASEMENT AB Base _____ CURB TYPE: A <input checked="" type="checkbox"/> AGG. BASE THICKNESS: _____ CURB TYPE: C <input type="checkbox"/> Class 6 _____ ROW WIDTH: 50' EOP-EOP 30' Class 5 _____ STREET TYPE: RESIDENTIAL HVEEM Class 2 _____ DESIGN SPEED: 25 MPH

CAUTION

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ABBREVIATION LEGEND

CL	CENTERLINE INTERSECTION	LT	LEFT FLOWLINE
FL-FL	FLOWLINE INTERSECTION	RT	RIGHT FLOWLINE
BT	BEGIN TRANSITION	TBC	TOP BACK OF CURB
ET	END TRANSITION	XPAN	CROSSSPAN
PC	POINT OF CURVE	STD	STANDARD
PCC	POINT OF COMPOUND CURVE	SHT	SHEET
PCR	POINT OF CURB RETURN	P&P	PLAN AND PROFILE
PRC	POINT OF REVERSE CURVE	C&G	CURB AND GUTTER
PT	POINT OF TANGENT	W	WEST
EL	ELEVATION	E	EAST
CDS	CUL-DE-SAC	EOP	EDGE OF PAVEMENT
KN	KNUCKLE	WTR	WATER
LP	LOOP	SAN	SANITARY SEWER
N	NORTH	PROP	PROPOSED
S	SOUTH	COLL	COLLECTOR
HD	HARTWOOD DRIVE	LPT	LOW POINT
GMD	GRACE MANOR DRIVE	RES	RESIDENTIAL
CMD	COUNTRY MANOR DRIVE		
KBD	KINGSBURY DRIVE		
WD	WATERLOO DRIVE		
FC	FINSBURY COURT		
DD	DEVONCOVE DRIVE		
HP	HIGH POINT		

CENTERLINE LINE TABLE

LINE	LENGTH	DIRECTION
L1	1422.70'	N0°35'00"W
L2	100.43'	N0°35'00"W
L3	5.02'	S5°43'41"W

ODB CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
C2	45.00	113.94	145.08
C7	45.00	63.13	80.38
C8	45.83	28.93	36.17

CENTERLINE CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
C1	45.00'	37.06'	47°10'57"
C3	45.00'	22.14'	28°11'11"
C4	44.17'	5.00'	6°29'09"

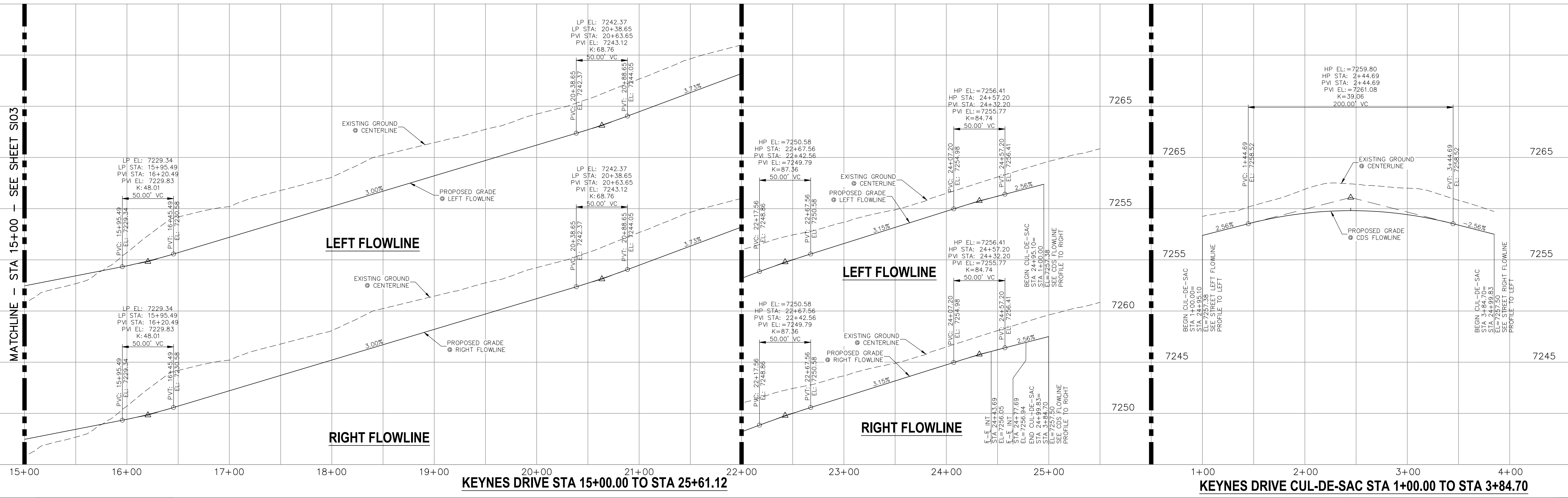
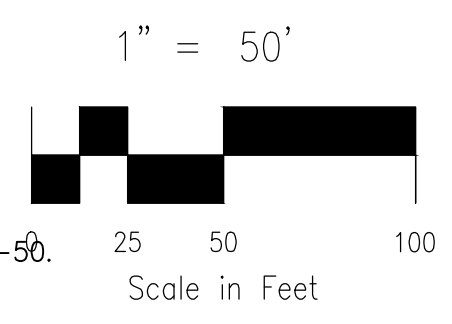
PCR CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
C5	20.00	31.42	90.00
C6	20.00	33.56	96.14

**KEYNES DRIVE
STA 15+00.00 TO STA 25+61.12**

NOTES:

- ALL SIDEWALKS SHALL BE 5' WIDE AND ATTACHED UNLESS OTHERWISE STATED OR SHOWN ON PLANS.
- ALL CROSS PANS SHALL BE PER DETAIL SD_2-26
- ALL PED-RAMPS LOCATED AT INTERSECTIONS SHALL BE PER ECM STANDARD DETAILS SD_2-40, SD_2-41 AND SD_2-42.
- ALL T-INTERSECTION PED-RAMPS SHALL BE PER ECM STANDARD DETAIL SD_2-50.
- REFER TO SHEET S114 FOR INTERSECTION DETAILS.



<p>STATEMENT:</p> <p>THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN; THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY. RESUBMITTAL REQUIRED IF CONSTRUCTION HAS NOT COMMENCED WITHIN 180 DAYS AFTER APPROVAL DATE.</p>	<p>FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES</p> <p>FOR BURIED UTILITY INFORMATION 48 HRS BEFORE YOU DIG CALL 1-800-922-1987</p>	<p>STREET DESIGN:</p> <p>TRAFFIC ENGINEERING: _____ DATE: _____</p> <p>CURB & GUTTER: _____ DATE: _____</p> <p>FINAL REVIEW: _____ DATE: _____</p>	<p>DESIGN DATA:</p> <p>SIDEWALKS: WIDTH 5' ASPHALT THICKNESS: _____</p> <p>LOCATION: Attached <input checked="" type="checkbox"/> AC Surface _____</p> <p>Detached <input type="checkbox"/> CENTERED IN 5' EASEMENT AB Base _____</p> <p>CURB TYPE: A <input checked="" type="checkbox"/> AGG. BASE THICKNESS: _____</p> <p>CURB TYPE: C <input type="checkbox"/> Class 6 _____</p> <p>ROW WIDTH: 50' EOP-EOP 30' Class 5 _____</p> <p>STREET TYPE: RESIDENTIAL HVEEM Class 2 _____</p> <p>DESIGN SPEED: 25 MPH _____</p>
		<p>DRAINAGE DESIGN:</p> <p>DRAINAGE REVIEW: _____ DATE: _____</p> <p>FILED IN ACCORDANCE WITH SECTION 7-7-906 OF COLORADO SPRINGS CODE 2001, AS AMENDED.</p>	

PAINT BRUSH HILLS FILING NO. 14

STREET IMPROVEMENT PLANS

PROJECT NO. 10-014 DATE: 12/29/2020

DESIGNED BY: JWP SCALE: HORIZONTAL: 1"=50' SHEET 4 OF 30

DRAWN BY: JWP VERTICAL: 1"=5' S104

CHECKED BY: GW

217 N. WAHATCH AVE., STE. 305
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

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

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

APPROVED BY: _____ DATE: _____

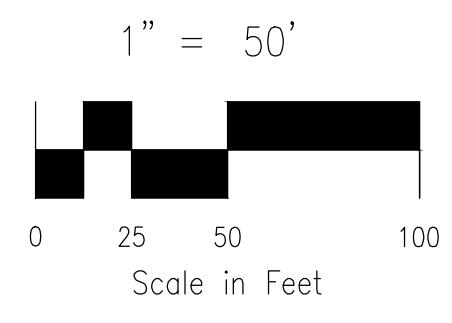
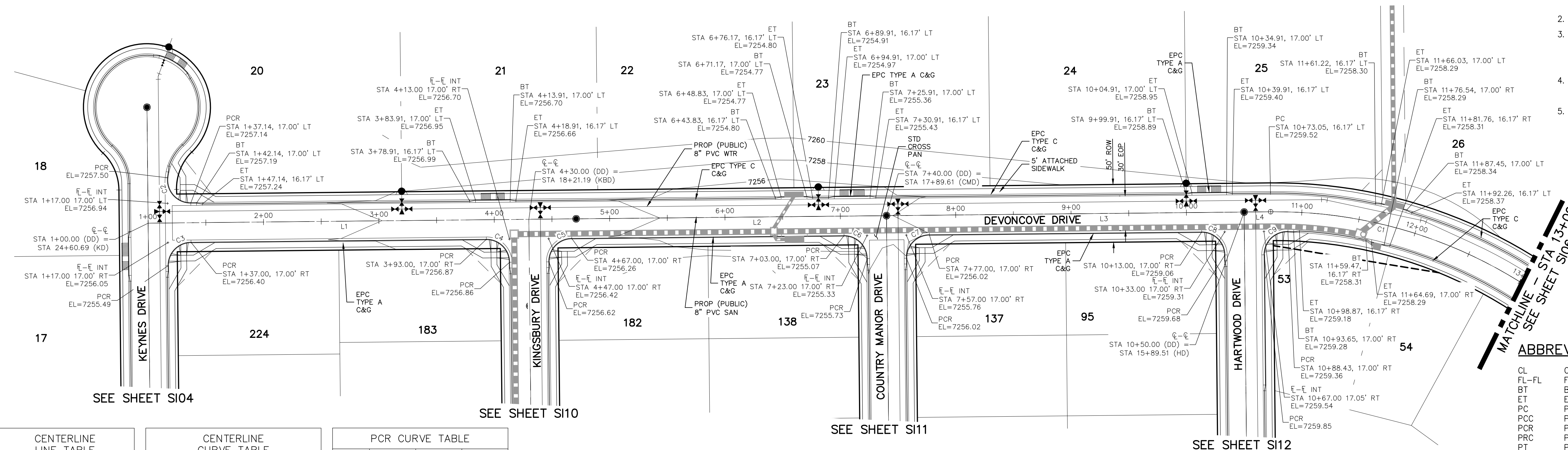
REVISIONS:

NO.	DATE:	BY:	DESCRIPTION:

THE DESIGNER 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

- NOTES:**
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 - ALL CROSS PANS SHALL BE PER DETAIL SD_2-26
 - ALL PED-RAMPS LOCATED AT INTERSECTIONS SHALL BE PER ECM STANDARD DETAILS SD_2-40, SD_2-41 AND SD_2-42.
 - ALL T-INTERSECTION PED-RAMPS SHALL BE PER ECM STANDARD DETAIL SD_2-50.
 - REFER TO SHEETS S114 & S115 FOR INTERSECTION DETAILS.

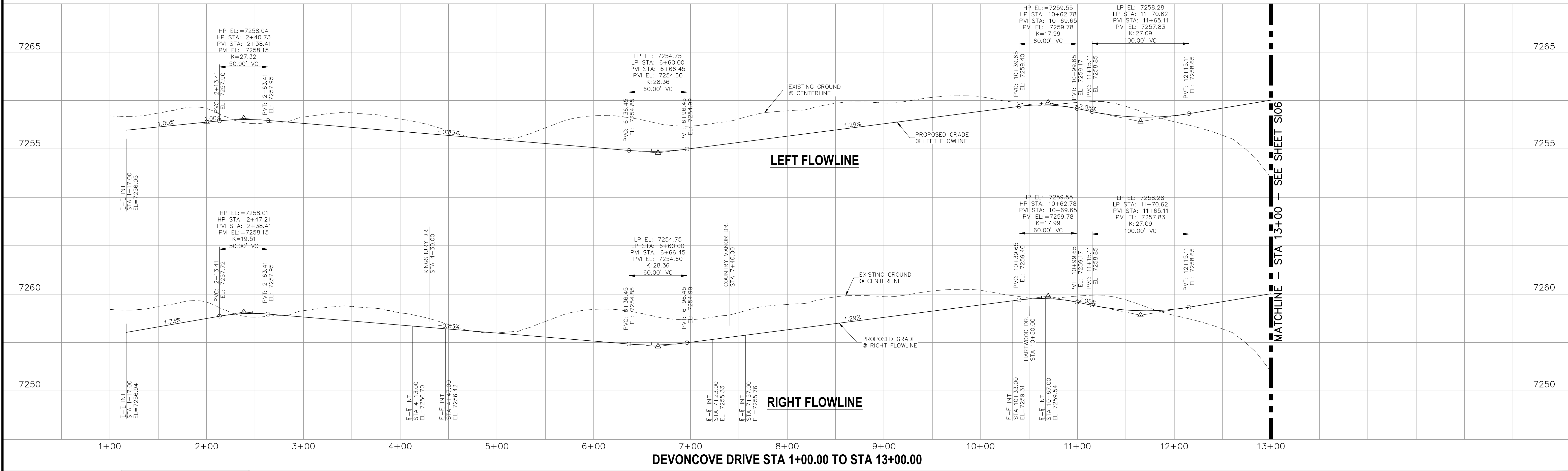


ABBREVIATION LEGEND

- | | | | |
|-------|-------------------------|------|------------------|
| CL | CENTERLINE INTERSECTION | LT | LEFT FLOWLINE |
| FL-FL | FLOWLINE INTERSECTION | RT | RIGHT FLOWLINE |
| BT | BEGIN TRANSITION | TBC | TOP BACK OF CURB |
| ET | END TRANSITION | XPAN | CROSSSPAN |
| PC | POINT OF CURVE | STD | STANDARD SHEET |
| PCC | POINT OF COMPOUND CURVE | SHT | PLAN AND PROFILE |
| PCR | POINT OF CURB RETURN | P&P | CURB AND GUTTER |
| PRC | POINT OF REVERSE CURVE | C&G | WEST |
| PT | POINT OF TANGENT | W | EAST |
| EL | ELEVATION | E | EDGE OF PAVEMENT |
| CDS | CUL-DE-SAC | ROW | RIGHT OF WAY |
| KN | KNUCKLE | EOP | EDGE OF PAVEMENT |
| LP | LOOP | WTR | WATER |
| N | NORTH | SAN | SANITARY SEWER |
| S | SOUTH | PROP | PROPOSED |
| KD | KEYNES DRIVE | COLL | COLLECTOR |
| HD | HARTWOOD DRIVE | LFT | LOW POINT |
| GMD | GRACE MANOR DRIVE | RES | RESIDENTIAL |
| CMD | COUNTRY MANOR DRIVE | | |
| KBD | KINGSBURY DRIVE | | |
| WD | WATERLOO DRIVE | | |
| FC | FINSBURY COURT | | |
| DD | DEVONCOVE DRIVE | | |
| HP | HIGH POINT | | |

CENTERLINE LINE TABLE			CENTERLINE CURVE TABLE				PCR CURVE TABLE			
LINE	LENGTH	DIRECTION	CURVE	RADIUS	LENGTH	DELTA	CURVE	RADIUS	LENGTH	DELTA
L1	330.00'	N89°25'00"E	C1	400.00'	328.70'	47°05'00"	C2	20.00'	33.56'	96.14'
L2	310.00'	N89°25'00"E					C3	20.00'	31.42'	90.00'
L3	310.00'	N89°25'00"E					C4	20.00'	31.42'	90.00'
L4	23.05'	N89°25'00"E					C5	20.00'	31.42'	90.00'
							C6	20.00'	31.42'	90.00'
							C7	20.00'	31.42'	90.00'
							C8	20.00'	31.42'	90.00'
							C9	20.00'	32.18'	92.20'

**DEVONCOVE DRIVE
 STA 1+00.00 TO STA 13+00.00**



<p>STATEMENT:</p> <p>THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN; THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY. RESUBMITTAL REQUIRED IF CONSTRUCTION HAS NOT COMMENCED WITHIN 180 DAYS AFTER APPROVAL DATE.</p>	<p>FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES</p> <p>FOR BURIED UTILITY INFORMATION 48 HRS BEFORE YOU DIG CALL 1-800-922-1987</p>	<p>STREET DESIGN:</p> <p>TRAFFIC ENGINEERING: _____ DATE: _____</p> <p>CURB & GUTTER: _____ DATE: _____</p> <p>FINAL REVIEW: _____ DATE: _____</p>	<p>DESIGN DATA:</p> <p>SIDEWALKS: WIDTH 5' ASPHALT THICKNESS: _____</p> <p>LOCATION: Attached <input checked="" type="checkbox"/> AC Surface _____</p> <p>Detached <input type="checkbox"/> CENTERED IN 5' EASEMENT AB Base _____</p> <p>CURB TYPE: A <input checked="" type="checkbox"/> Class 6 AGG. BASE THICKNESS: _____</p> <p>CURB TYPE: C <input type="checkbox"/> Class 5 _____</p> <p>ROW WIDTH: 50' EOP-EOP 30' Class 5 _____</p> <p>STREET TYPE: RESIDENTIAL HVECM Class 2 _____</p> <p>DESIGN SPEED: 25 MPH _____</p>						
		<p>DRAINAGE DESIGN:</p> <p>DRAINAGE REVIEW: _____ DATE: _____</p> <p>FILED IN ACCORDANCE WITH SECTION 7-7-906 OF COLORADO SPRINGS CODE 2001, AS AMENDED.</p>	<p>REVISIONS:</p> <table border="1"> <tr> <th>NO.</th> <th>DATE:</th> <th>BY:</th> <th>DESCRIPTION:</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	DATE:	BY:	DESCRIPTION:		
NO.	DATE:	BY:	DESCRIPTION:						

212 N. WAHATCH AVE., STE 303
 COLORADO SPRINGS, CO 80903
 PHONE: 719.955.5465

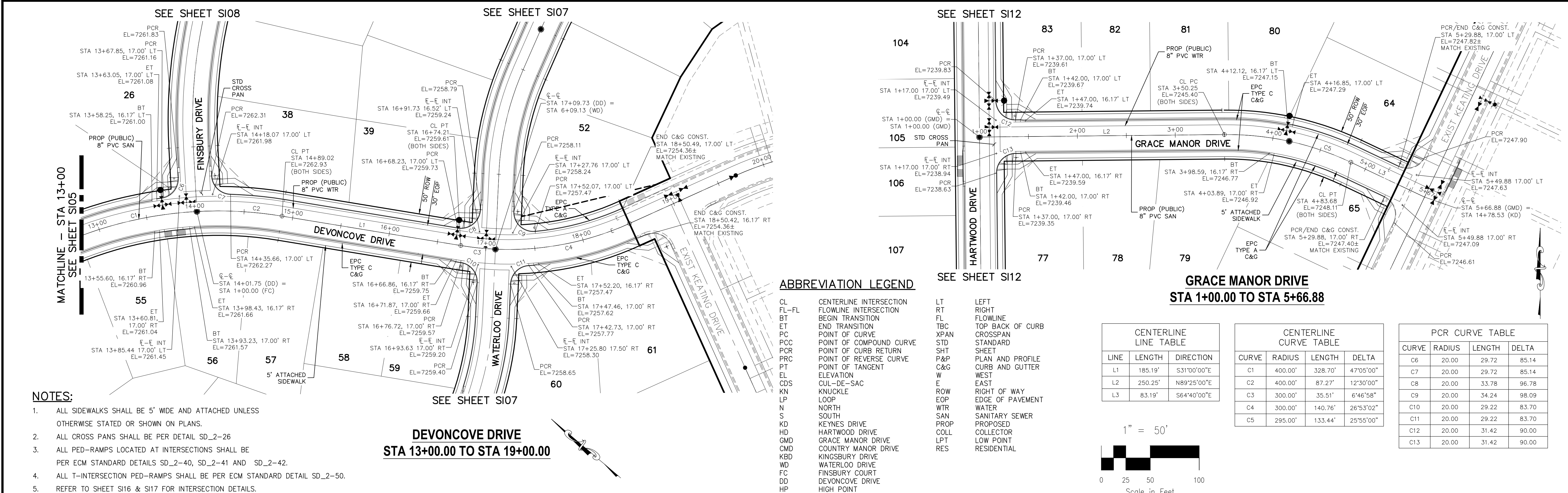
CIVIL CONSULTANTS, INC.

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

THE DESIGNER 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:\Users\joprice\Documents\100144-PBH 14\Draw\Corral Draw\STREET\S105.dwg PlotStamp: 12/31/2020 9:03 AM



ABBREVIATION LEGEND

- | | | | |
|-------|-------------------------|------|------------------|
| CL | CENTERLINE INTERSECTION | LT | LEFT FLOWLINE |
| FL-FL | FLOWLINE INTERSECTION | RT | RIGHT FLOWLINE |
| BT | BEGIN TRANSITION | FL | FLOWLINE |
| ET | END TRANSITION | TBC | TOP BACK OF CURB |
| PC | POINT OF CURVE | XPAN | CROSSSPAN |
| PCC | POINT OF COMPOUND CURVE | STD | STANDARD |
| PCR | POINT OF CURB RETURN | SHT | SHEET |
| PRC | POINT OF REVERSE CURVE | P&P | PLAN AND PROFILE |
| PT | POINT OF TANGENT | SHT | CURB AND GUTTER |
| EL | ELEVATION | W | WEST |
| CDS | CUL-DE-SAC | E | EAST |
| KN | KNUCKLE | R | RIGHT OF WAY |
| LP | LOOP | EOP | EDGE OF PAVEMENT |
| N | NORTH | WTR | WATER |
| S | SOUTH | SAN | SANITARY SEWER |
| KD | KEYNES DRIVE | PROP | PROPOSED |
| HD | HARTWOOD DRIVE | COLL | COLLECTOR |
| GMD | GRACE MANOR DRIVE | LPT | LOW POINT |
| CM | COUNTRY MANOR DRIVE | RES | RESIDENTIAL |
| KBD | KINGSBURY DRIVE | | |
| WD | WATERLOO DRIVE | | |
| FC | FINSBURY COURT | | |
| DD | DEVONCOVE DRIVE | | |
| HP | HIGH POINT | | |

CENTERLINE LINE TABLE

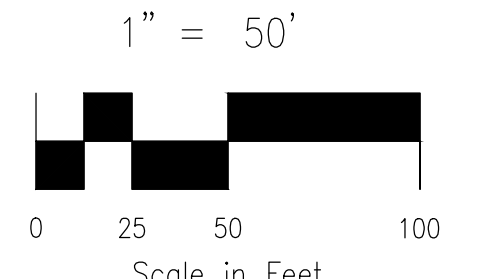
LINE	LENGTH	DIRECTION
L1	185.19'	S31°00'00"E
L2	250.25'	N89°25'00"E
L3	83.19'	S64°40'00"E

CENTERLINE CURVE TABLE

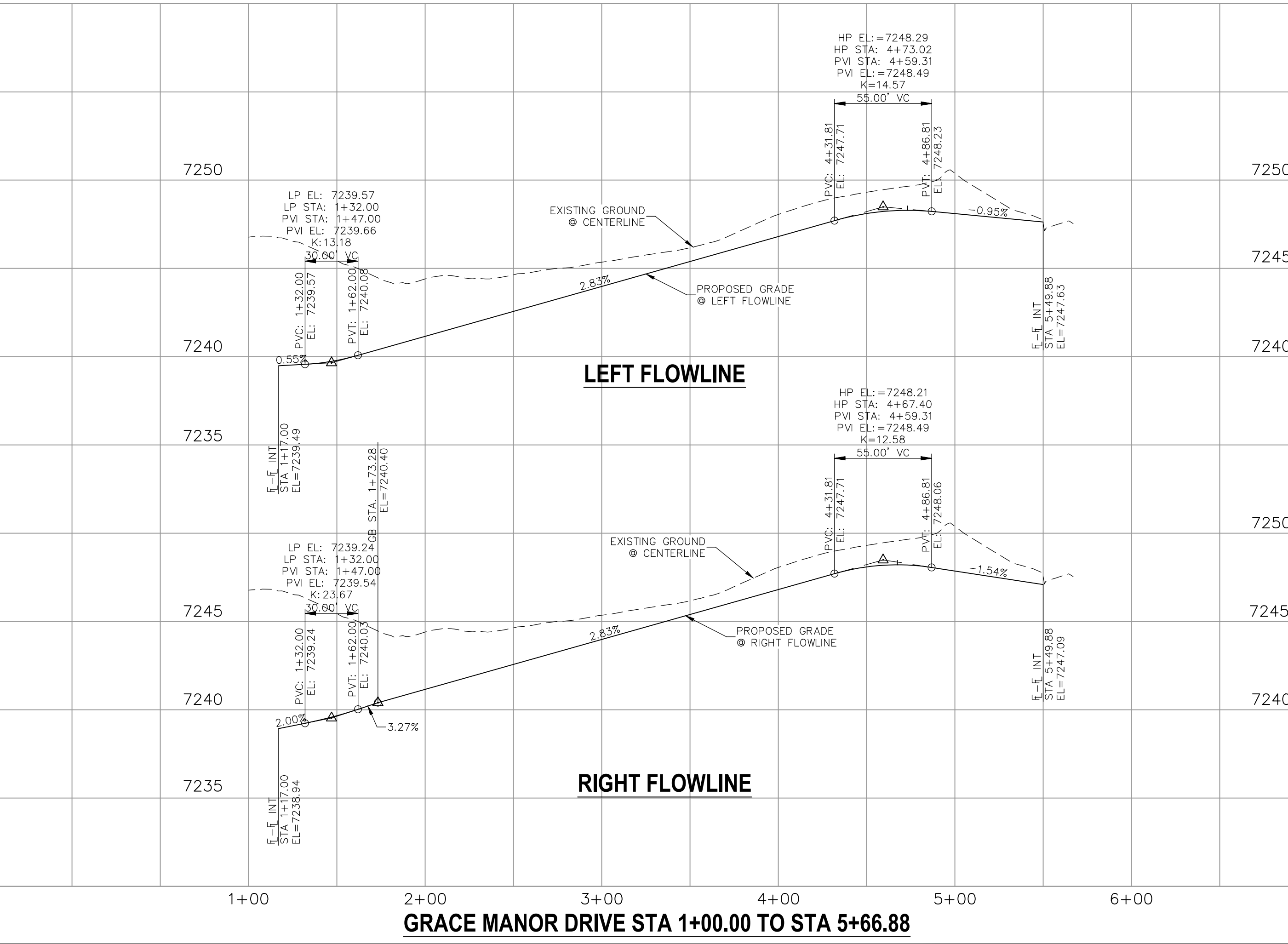
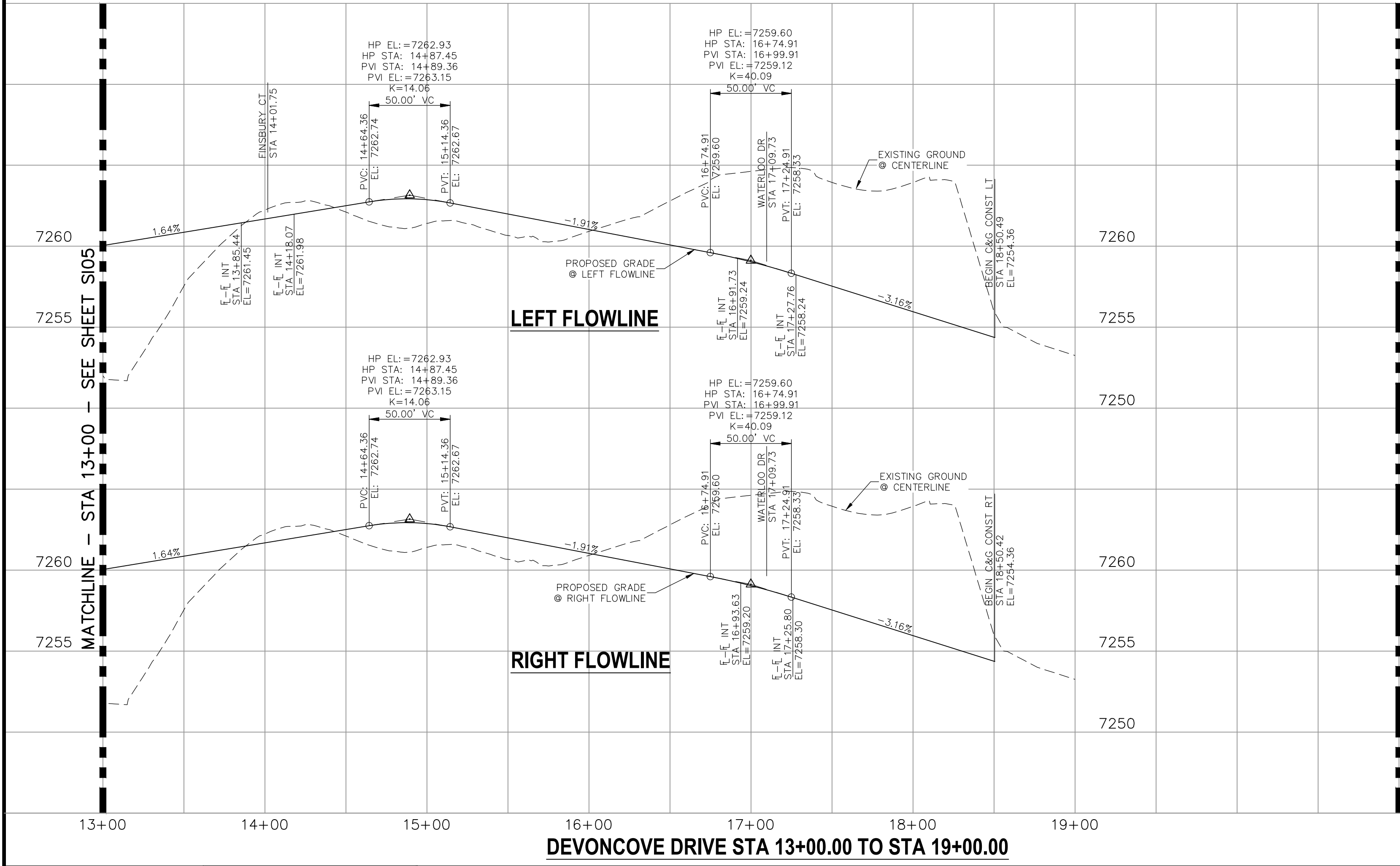
CURVE	RADIUS	LENGTH	DELTA
C1	400.00'	328.70'	47°05'00"
C2	400.00'	87.27'	12°30'00"
C3	300.00'	35.51'	6°46'58"
C4	300.00'	140.76'	26°53'02"
C5	295.00'	133.44'	25°55'00"

PCR CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
C6	20.00'	29.72'	85.14
C7	20.00'	29.72'	85.14
C8	20.00'	33.78'	96.78
C9	20.00'	34.24'	98.09
C10	20.00'	29.22'	83.70
C11	20.00'	29.22'	83.70
C12	20.00'	31.42'	90.00
C13	20.00'	31.42'	90.00



- NOTES:**
- ALL SIDEWALKS SHALL BE 5' WIDE AND ATTACHED UNLESS OTHERWISE STATED OR SHOWN ON PLANS.
 - ALL CROSS PANS SHALL BE PER DETAIL SD_2-26
 - ALL PED-RAMPS LOCATED AT INTERSECTIONS SHALL BE PER ECM STANDARD DETAILS SD_2-40, SD_2-41 AND SD_2-42.
 - ALL T-INTERSECTION PED-RAMPS SHALL BE PER ECM STANDARD DETAIL SD_2-50.
 - REFER TO SHEET SI16 & SI17 FOR INTERSECTION DETAILS.



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



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

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

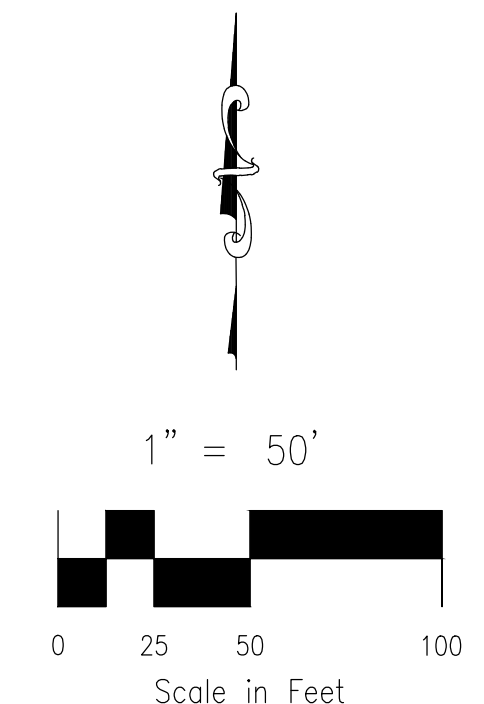
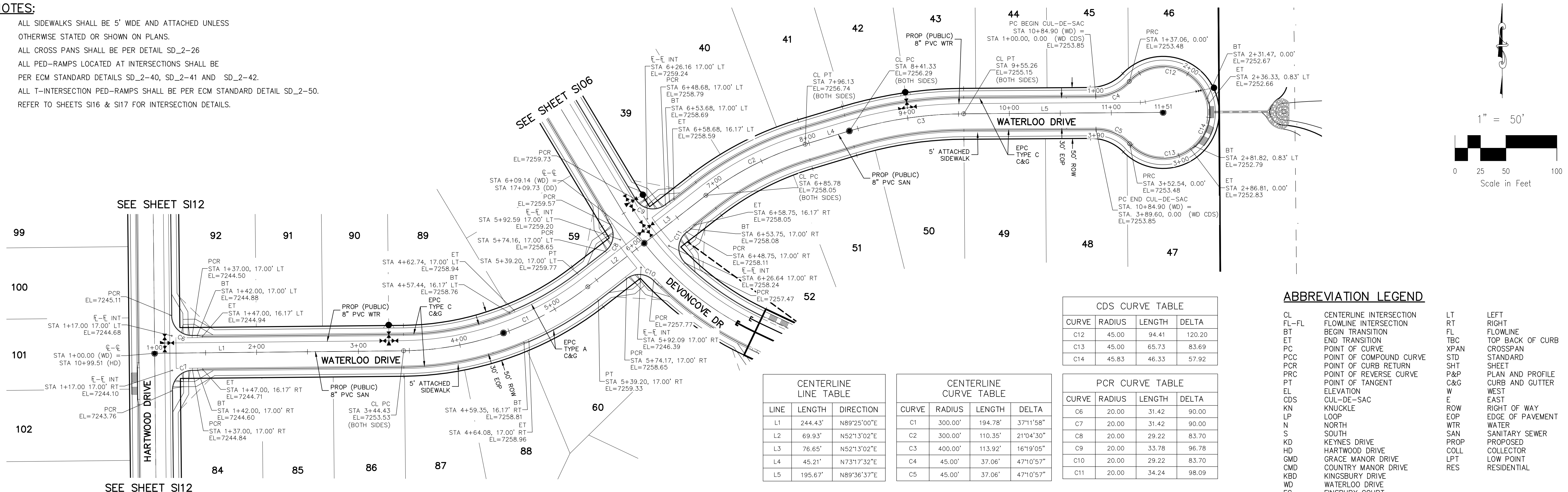
STREET DESIGN:
 REVIEW: _____ DATE: _____
 TRAFFIC ENGINEERING: _____ DATE: _____
 CURB & GUTTER: _____ DATE: _____
 FINAL REVIEW: _____ DATE: _____

DRAINAGE DESIGN:
 DRAINAGE REVIEW: _____ DATE: _____
 FILED IN ACCORDANCE WITH SECTION 7-7-906 OF COLORADO SPRINGS CODE 2001, AS AMENDED.

DESIGN DATA:
 SIDEWALKS: WIDTH 5' ASPHALT THICKNESS: _____
 LOCATION: Attached AC Surface _____
 Detached CENTERED IN 5' EASEMENT AB Base _____
 CURB TYPE: A AGG. BASE THICKNESS: _____
 CURB TYPE: C Class 6 _____
 ROW WIDTH: 50' EOP-EOP 30' Class 5 _____
 STREET TYPE: RESIDENTIAL HVEEM Class 2 _____
 DESIGN SPEED: 25 MPH _____

NOTES:

1. ALL SIDEWALKS SHALL BE 5' WIDE AND ATTACHED UNLESS OTHERWISE STATED OR SHOWN ON PLANS.
2. ALL CROSS PANS SHALL BE PER DETAIL SD_2-26
3. ALL PED-RAMPS LOCATED AT INTERSECTIONS SHALL BE PER ECM STANDARD DETAILS SD_2-40, SD_2-41 AND SD_2-42.
4. ALL T-INTERSECTION PED-RAMPS SHALL BE PER ECM STANDARD DETAIL SD_2-50.
5. REFER TO SHEETS SI16 & SI17 FOR INTERSECTION DETAILS.



CDS CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
C12	45.00	94.41	120.20
C13	45.00	65.73	83.69
C14	45.83	46.33	57.92

CENTERLINE LINE TABLE

LINE	LENGTH	DIRECTION
L1	244.43'	N89°25'00"E
L2	69.93'	N52°13'02"E
L3	76.65'	N52°13'02"E
L4	45.21'	N73°17'32"E
L5	195.67'	N89°36'37"E

CENTERLINE CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
C1	300.00'	194.78'	37°11'58"
C2	300.00'	110.35'	21°04'30"
C3	400.00'	113.92'	16°19'05"
C4	45.00'	37.06'	47°10'57"
C5	45.00'	37.06'	47°10'57"

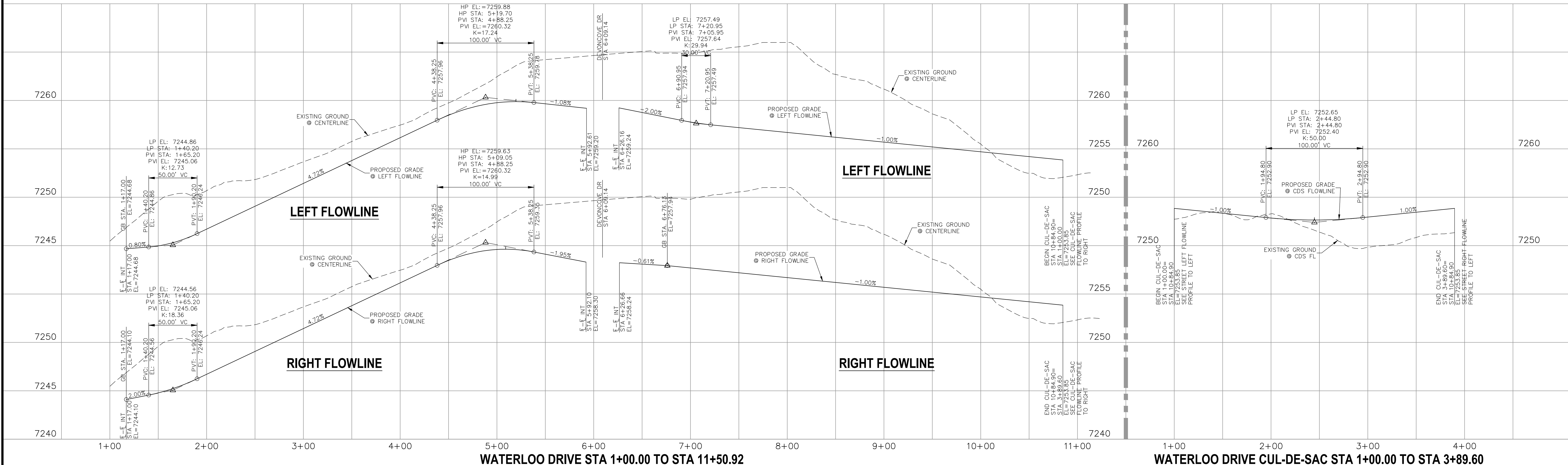
PCR CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
C6	20.00'	31.42'	90.00
C7	20.00'	31.42'	90.00
C8	20.00'	29.22'	83.70
C9	20.00'	33.78'	96.78
C10	20.00'	29.22'	83.70
C11	20.00'	34.24'	98.09

ABBREVIATION LEGEND

CL	CENTERLINE INTERSECTION	LT	LEFT
FL-FL	FLOWLINE INTERSECTION	RT	RIGHT
BT	BEGIN TRANSITION	FL	FLOWLINE
ET	END TRANSITION	TBC	TOP BACK OF CURB
PC	POINT OF CURVE	PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE	PC	POINT OF CURVE
PCR	POINT OF CURB RETURN	SHT	SHEET
PRC	POINT OF REVERSE CURVE	P&P	PLAN AND PROFILE
PT	POINT OF TANGENT	C&G	CURB AND GUTTER
EL	ELEVATION	W	WEST
CDS	CUL-DE-SAC	E	EAST
KN	KNUCKLE	ROW	RIGHT OF WAY
LP	LOOP	EOP	EDGE OF PAVEMENT
N	NORTH	WTR	WATER
S	SOUTH	SAN	SANITARY SEWER
KD	KEYNES DRIVE	PROP	PROPOSED
HD	HARTWOOD DRIVE	COLL	COLLECTOR
GMD	GRACE MANOR DRIVE	LPT	LOW POINT
CMD	COUNTRY MANOR DRIVE	RES	RESIDENTIAL
KBD	KINGSBURY DRIVE		
WD	WATERLOO DRIVE		
FC	FINSBURY COURT		
DD	DEVONCOVE DRIVE		
HP	HIGH POINT		

**WATERLOO DRIVE
STA 1+00.00 TO STA 11+50.92**



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

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

FOR BURIED UTILITY INFORMATION CALL 1-800-922-1987

STREET DESIGN:
TRAFFIC ENGINEERING: _____ DATE: _____
CURB & GUTTER: _____ DATE: _____
FINAL REVIEW: _____ DATE: _____

DRAINAGE DESIGN:
DRAINAGE REVIEW: _____ DATE: _____
FILED IN ACCORDANCE WITH SECTION 7-7-906 OF COLORADO SPRINGS CODE 2001, AS AMENDED.

DESIGN DATA:
SIDEWALKS: WIDTH 5' ASPHALT THICKNESS: _____
LOCATION: Attached AC Surface _____
Detached CENTERED IN 5' EASEMENT AB Base _____
CURB TYPE: A AGG. BASE THICKNESS: _____
CURB TYPE: C Class 6 _____
ROW WIDTH: 50' EOP-EOP 30' Class 5 _____
STREET TYPE: RESIDENTIAL HVEEM Class 2 _____
DESIGN SPEED: 25 MPH

PAINT BRUSH HILLS FILING NO. 14

STREET IMPROVEMENT PLANS

PROJECT NO. 10-014 DATE: 12/29/2020

DESIGNED BY: JWP SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'

DRAWN BY: JWP SHEET 7 OF 30

CHECKED BY: GW S107

212 N. WAHATCH AVE., STE. 803
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

MARCIL A. SANCHEZ, COLORADO P.E. NO. 371760

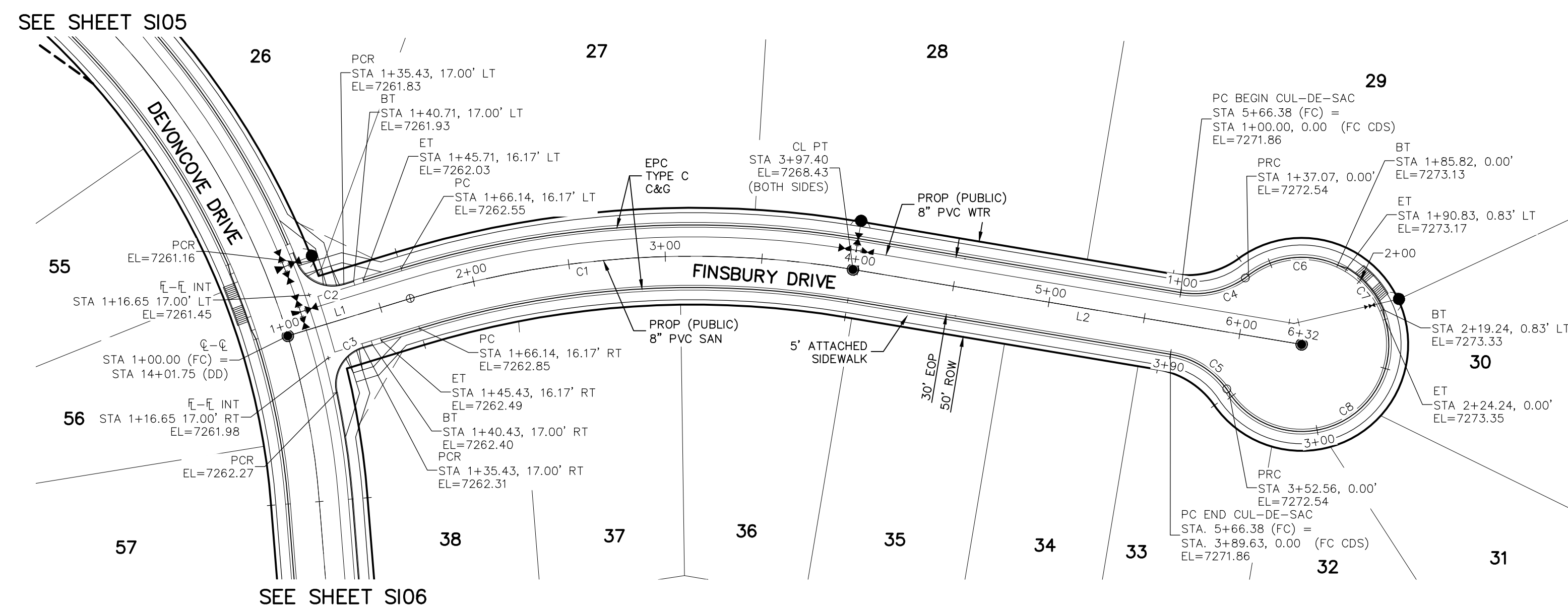
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

THE DESIGNER 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

NOTES:

- ALL SIDEWALKS SHALL BE 5' WIDE AND ATTACHED UNLESS OTHERWISE STATED OR SHOWN ON PLANS.
- ALL CROSS PANS SHALL BE PER DETAIL SD_2-26
- ALL PED-RAMPS LOCATED AT INTERSECTIONS SHALL BE PER ECM STANDARD DETAILS SD_2-40, SD_2-41 AND SD_2-42.
- ALL T-INTERSECTION PED-RAMPS SHALL BE PER ECM STANDARD DETAIL SD_2-50.
- REFER TO SHEET SI17 FOR INTERSECTION DETAILS.



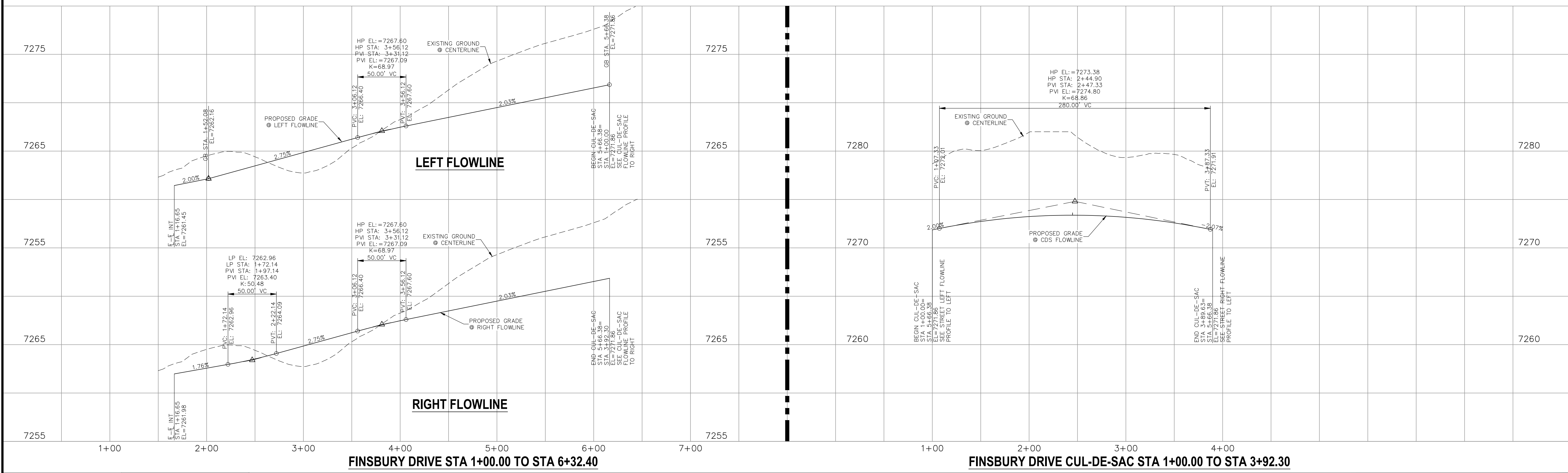
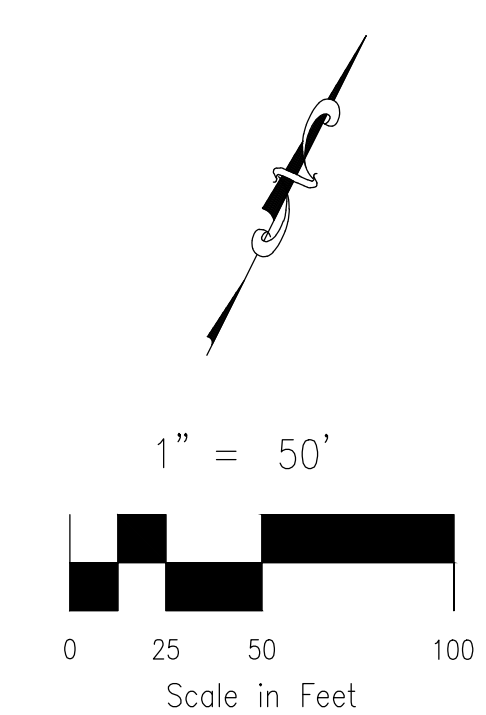
**FINSBURY DRIVE
STA 1+00.00 TO STA 6+32.40**

CENTERLINE LINE TABLE		
LINE	LENGTH	DIRECTION
L1	66.14'	N46°30'00"E
L2	235.00'	N73°00'00"E

CENTERLINE CURVE TABLE			
CURVE	RADIUS	LENGTH	DELTA
C1	500.00'	231.26'	26°30'00"

PCR CURVE TABLE			
CURVE	RADIUS	LENGTH	DELTA
C2	20.00	29.72	85.14
C3	20.00	29.72	85.14
C4	45.00	37.06	47.18
C5	45.00	37.06	47.18

CDS CURVE TABLE			
CURVE	RADIUS	LENGTH	DELTA
C6	45.00	48.75	62.07
C7	45.83	28.93	36.17
C8	45.00	128.32	163.38



<p>STATEMENT:</p> <p>THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN; THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY. RESUBMITTAL REQUIRED IF CONSTRUCTION HAS NOT COMMENCED WITHIN 180 DAYS AFTER APPROVAL DATE.</p>	<p>FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES</p> <p>FOR BURIED UTILITY INFORMATION 48 HRS BEFORE YOU DIG CALL 1-800-922-1987</p>	<p>STREET DESIGN:</p> <p>TRAFFIC ENGINEERING: _____ DATE: _____</p> <p>CURB & GUTTER: _____ DATE: _____</p> <p>FINAL REVIEW: _____ DATE: _____</p> <p>DRAINAGE DESIGN:</p> <p>DRAINAGE REVIEW: _____ DATE: _____</p> <p>FILED IN ACCORDANCE WITH SECTION 7-7-906 OF COLORADO SPRINGS CODE 2001, AS AMENDED.</p>	<p>DESIGN DATA:</p> <p>SIDEWALKS: WIDTH <u>5'</u> ASPHALT THICKNESS: _____</p> <p>LOCATION: Attached <input checked="" type="checkbox"/> Detached <input type="checkbox"/> CENTERED IN 5' EASEMENT</p> <p>CURB TYPE: A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> E</p> <p>CURB WIDTH: <u>50'</u> EOP-EOP: <u>30'</u> Class: <u>6</u></p> <p>ROW WIDTH: <u>50'</u> EOP-EOP: <u>30'</u> Class: <u>5</u></p> <p>STREET TYPE: <u>RESIDENTIAL</u> HVEEM: _____ Class: <u>2</u></p> <p>DESIGN SPEED: <u>25</u> MPH</p>						
		<p>REVISIONS:</p> <table border="1"> <tr> <th>NO.</th> <th>DATE:</th> <th>BY:</th> <th>DESCRIPTION:</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	DATE:	BY:	DESCRIPTION:			
NO.	DATE:	BY:	DESCRIPTION:						

ABBREVIATION LEGEND

CL	CENTERLINE INTERSECTION	LT	LEFT
FL-FL	FLOWLINE INTERSECTION	RT	RIGHT
BT	BEGIN TRANSITION	FL	FLOWLINE
ET	END TRANSITION	TBC	TOP BACK OF CURB
PC	POINT OF CURVE	XPAN	CROSSSPAN
PCC	POINT OF COMPOUND CURVE	STD	STANDARD
PCR	POINT OF CURB RETURN	SHT	SHEET
PT	POINT OF REVERSE CURVE	P&P	PLAN AND PROFILE
PC	POINT OF TANGENT	C&G	CURB AND GUTTER
EL	ELEVATION	W	WEST
CDS	CUL-DE-SAC	E	EAST
KN	KNUCKLE	R	RIGHT OF WAY
LP	LOOP	EOP	EDGE OF PAVEMENT
N	NORTH	WTR	WATER
S	SOUTH	SAN	SANITARY SEWER
KD	KEYNES DRIVE	PROP	PROPOSED
HD	HARTWOOD DRIVE	COLL	COLLECTOR
GMD	GRACE MANOR DRIVE	LPT	LOW POINT
CMD	COUNTRY MANOR DRIVE	RES	RESIDENTIAL
KSD	KINGSBURY DRIVE		
WD	WATERLOO DRIVE		
FC	FINSBURY COURT		
DD	DEVONCOVE DRIVE		
HP	HIGH POINT		

PAINT BRUSH HILLS FILING NO. 14

STREET IMPROVEMENT PLANS

PROJECT NO. 10-014 DATE: 12/29/2020

DESIGNED BY: JWP SCALE: 1"=50'

DRAWN BY: JWP VERTICAL: 1"=5'

CHECKED BY: GW SHEET 8 OF 30

SI08

212 N. WAHATCH AVE., STE 305
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

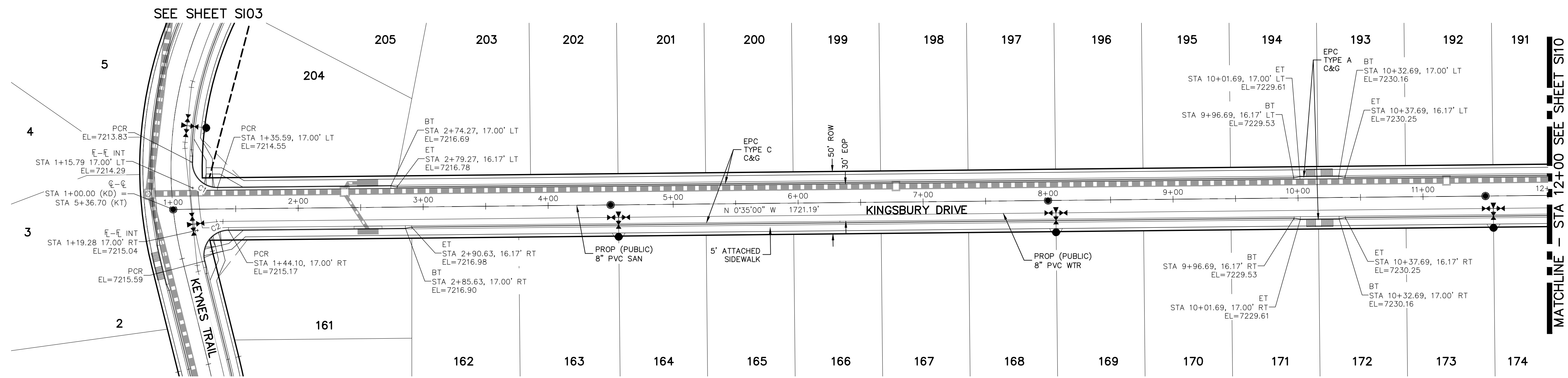
CIVIL CONSULTANTS, INC.

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

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

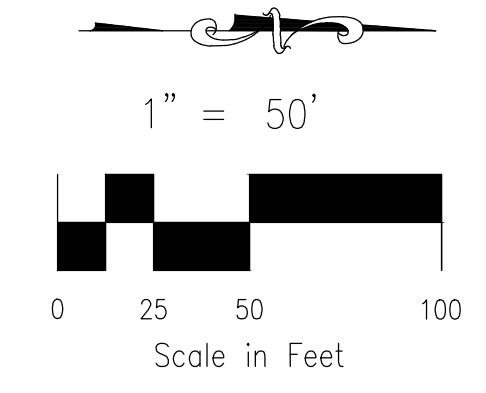
THE DESIGNER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CAUTION



PCR CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
C1	19.50	31.15	91.53
C2	20.00	36.10	103.42



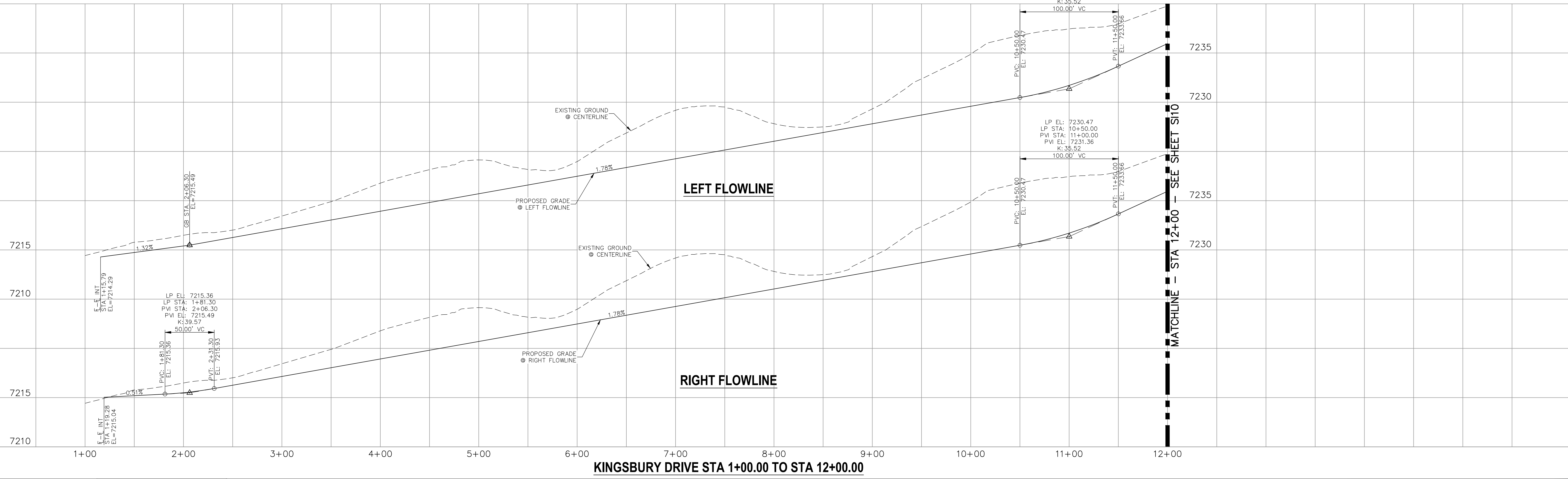
**KINGSBURY DRIVE
STA 1+00.00 TO STA 12+00.00**

NOTES:

- ALL SIDEWALKS SHALL BE 5' WIDE AND ATTACHED UNLESS OTHERWISE STATED OR SHOWN ON PLANS.
- ALL CROSS PANS SHALL BE PER DETAIL SD_2-26
- ALL PED-RAMPS LOCATED AT INTERSECTIONS SHALL BE PER ECM STANDARD DETAILS SD_2-40, SD_2-41 AND SD_2-42.
- ALL T-INTERSECTION PED-RAMPS SHALL BE PER ECM STANDARD DETAIL SD_2-50.
- REFER TO SHEET SI14 FOR INTERSECTION DETAILS.

ABBREVIATION LEGEND

CL	CENTERLINE INTERSECTION	LT	LEFT FLOWLINE
FL-FL	FLOWLINE INTERSECTION	RT	RIGHT FLOWLINE
BT	BEGIN TRANSITION	FL	FLOWLINE
ET	END TRANSITION	TBC	TOP BACK OF CURB
PC	POINT OF CURVE	XPAN	CROSSSPAN
PCC	POINT OF COMPOUND CURVE	STD	STANDARD
PCR	POINT OF CURB RETURN	SHT	SHEET
PRC	POINT OF REVERSE CURVE	P&P	PLAN AND PROFILE
PT	POINT OF TANGENT	C&G	CURB AND GUTTER
EL	ELEVATION	W	WEST
CDS	CUL-DE-SAC	E	EAST
KN	KNUCKLE	ROW	RIGHT OF WAY
LP	LOOP	EOP	EDGE OF PAVEMENT
N	NORTH	WTR	WATER
S	SOUTH	SAN	SANITARY SEWER
KD	KEYNES DRIVE	PROP	PROPOSED
HD	HARTWOOD DRIVE	COLL	COLLECTOR
GMD	GRACE MANOR DRIVE	LPT	LOW POINT
CMD	COUNTRY MANOR DRIVE	RES	RESIDENTIAL
KBD	KINGSBURY DRIVE		
WD	WATERLOO DRIVE		
FC	FINSBURY COURT		
DD	DEVONCOVE DRIVE		
HP	HIGH POINT		



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



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

STREET DESIGN:
TRAFFIC ENGINEERING: _____ DATE: _____
CURB & GUTTER: _____ DATE: _____
FINAL REVIEW: _____ DATE: _____

DRAINAGE DESIGN:
DRAINAGE REVIEW: _____ DATE: _____
FILED IN ACCORDANCE WITH SECTION 7-7-906 OF COLORADO SPRINGS CODE 2001, AS AMENDED.

DESIGN DATA:
SIDEWALKS: WIDTH 5' ASPHALT THICKNESS: _____
LOCATION: Attached AC Surface _____
Detached CENTERED IN 5' EASEMENT AB Base _____
CURB TYPE A AGG. BASE THICKNESS: _____
CURB TYPE C Class 6 _____
ROW WIDTH 50' EOP-EOP 30' Class 5 _____
STREET TYPE RESIDENTIAL HVEEM Class 2 _____
DESIGN SPEED 25 MPH

PAINT BRUSH HILLS FILING NO. 14
STREET IMPROVEMENT PLANS
PROJECT NO. 10-014 DATE: 12/29/2020
SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'
DESIGNED BY: JWP DRAWN BY: JWP CHECKED BY: JWP SHEET 9 OF 30 S109

212 N. WAHSATCH AVE., STE 305
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

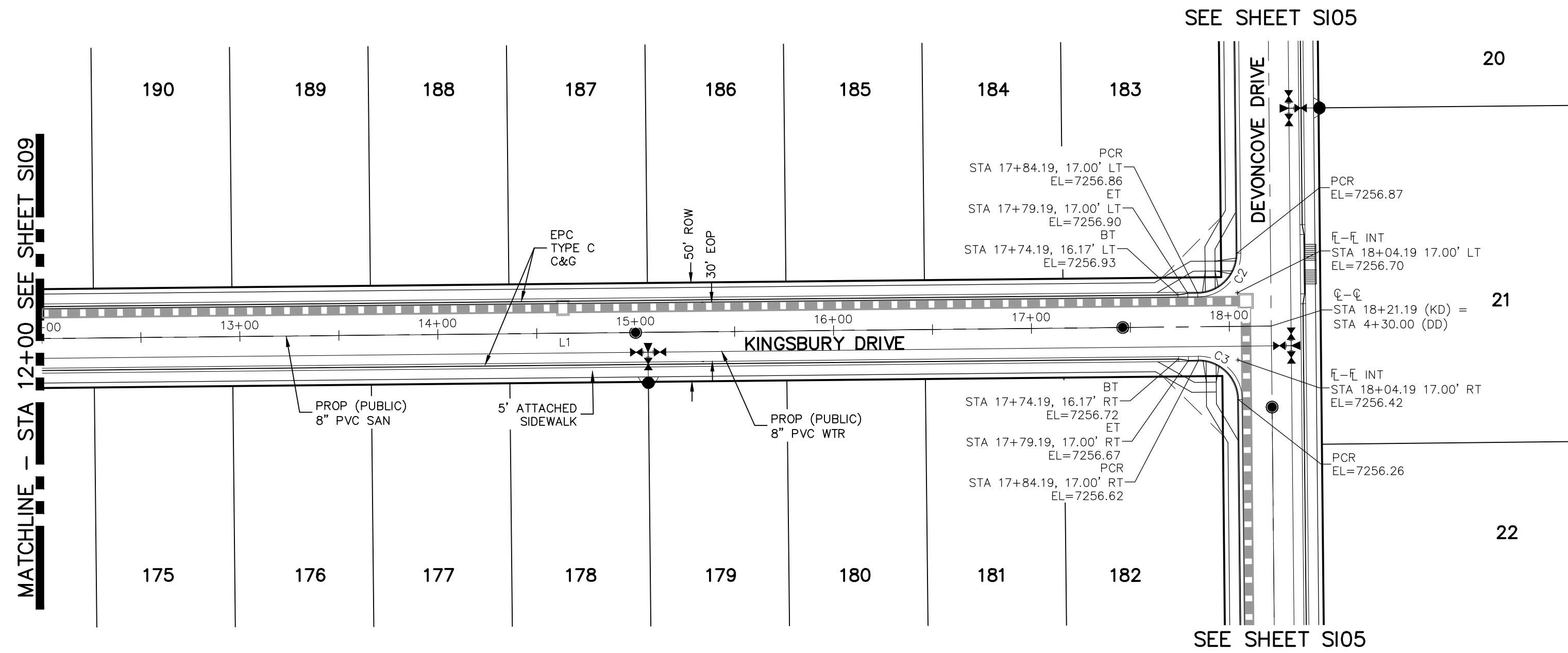
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

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

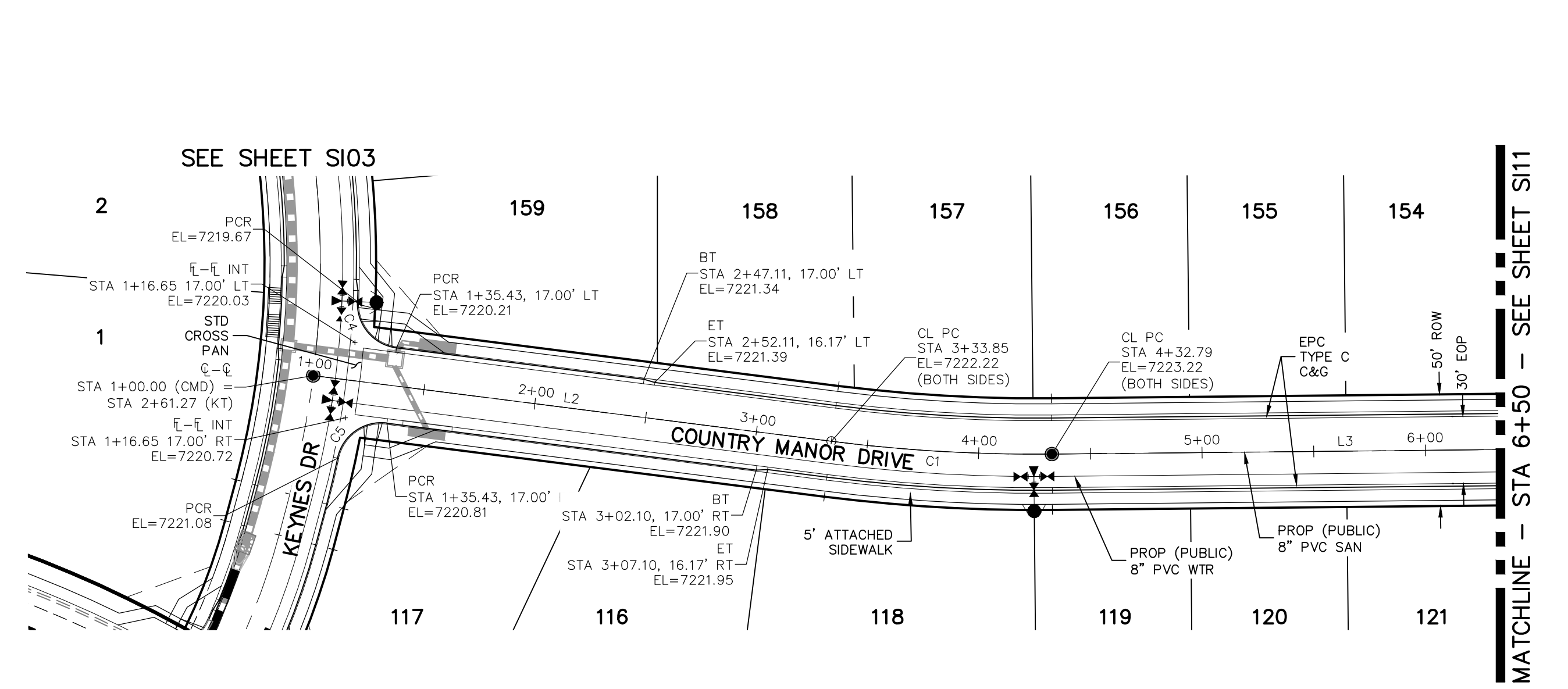
APPROVED BY: _____ DATE: _____
BY: _____ DESCRIPTION: _____

THE DESIGNER 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



**KINGSBURY DRIVE
STA 12+00.00 TO STA 18+21.19**



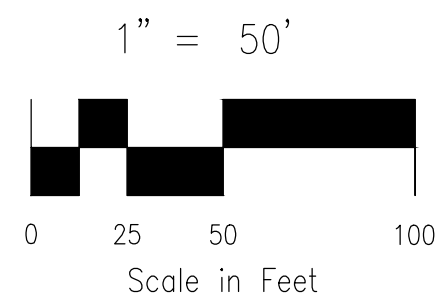
**COUNTRY MANOR DRIVE
STA 1+00.00 TO STA 6+50.00**

ABBREVIATION LEGEND

CL	CENTERLINE INTERSECTION	LT	LEFT
FL-FL	FLOWLINE INTERSECTION	RT	RIGHT
BT	BEGIN TRANSITION	FL	FLOWLINE
ET	END TRANSITION	TBC	TOP BACK OF CURB
PC	POINT OF CURVE	XPAN	CROSSSPAN
PCC	POINT OF COMPOUND CURVE	STD	STANDARD
PCR	POINT OF CURB RETURN	SHT	SHEET
PRC	POINT OF REVERSE CURVE	P&P	PLAN AND PROFILE
PT	POINT OF TANGENT	C&G	CURB AND GUTTER
ELEVATION	ELEVATION	W	WEST
CUL-DE-SAC	CUL-DE-SAC	E	EAST
KN	KNUCKLE	ROW	RIGHT OF WAY
LP	LOOP	EOP	EDGE OF PAVEMENT
N	NORTH	WTR	WATER
S	SOUTH	SAN	SANITARY SEWER
KD	KEYNES DRIVE	PROP	PROPOSED
HD	HARTWOOD DRIVE	COLL	COLLECTOR
GMD	GRACE MANOR DRIVE	LPT	LOW POINT
CMD	COUNTRY MANOR DRIVE	RES	RESIDENTIAL
KBD	KINGSBURY DRIVE		
WD	WATERLOO DRIVE		
FC	FINSBURY COURT		
DD	DEVONCOVE DRIVE		
HP	HIGH POINT		

NOTES:

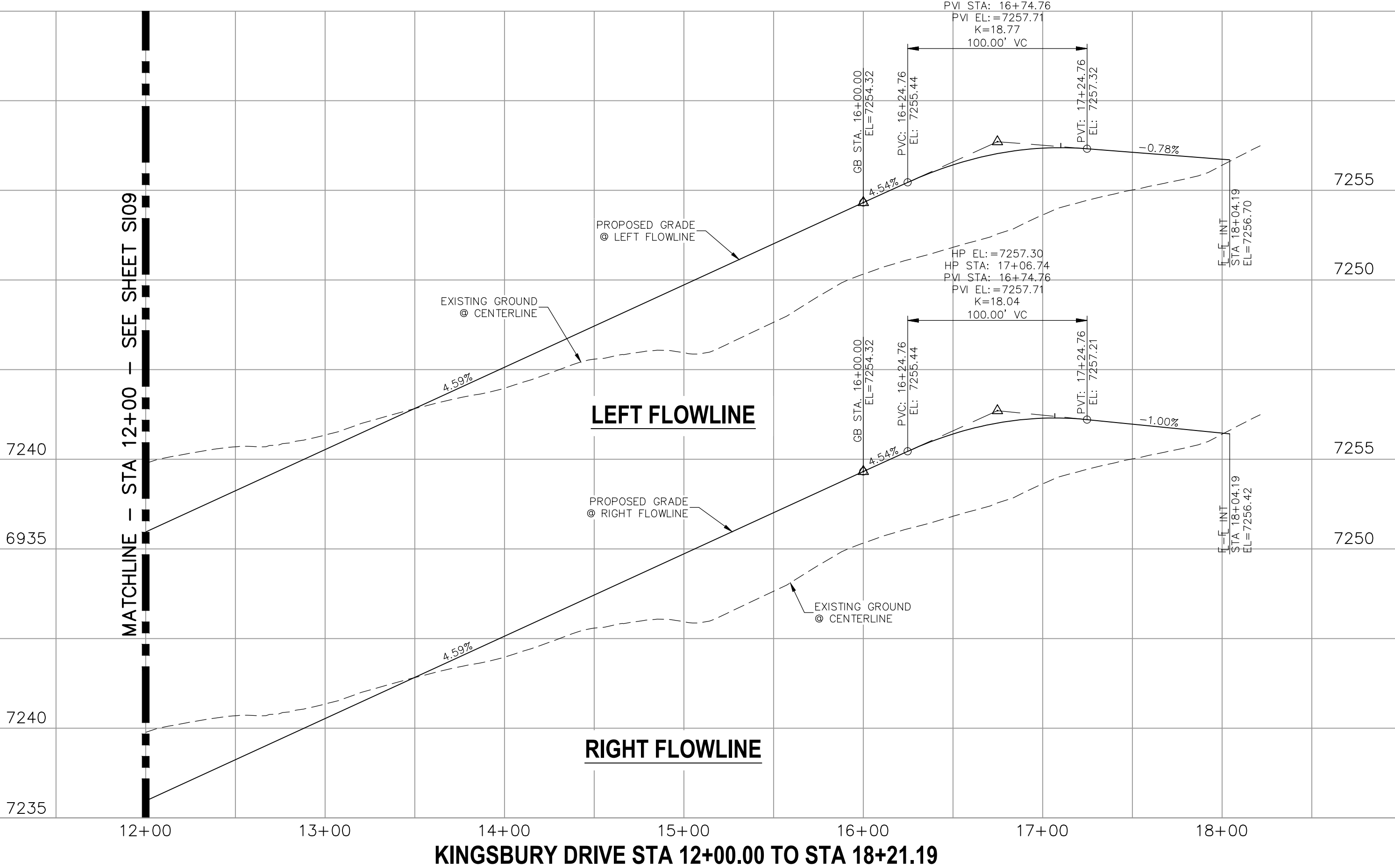
- ALL SIDEWALKS SHALL BE 5' WIDE AND ATTACHED UNLESS OTHERWISE STATED OR SHOWN ON PLANS.
- ALL CROSS PANS SHALL BE PER DETAIL SD_2-26
- ALL PED-RAMPS LOCATED AT INTERSECTIONS SHALL BE PER ECM STANDARD DETAILS SD_2-40, SD_2-41 AND SD_2-42.
- ALL T-INTERSECTION PED-RAMPS SHALL BE PER ECM STANDARD DETAIL SD_2-50.
- REFER TO SHEETS S114-S115 FOR INTERSECTION DETAILS.



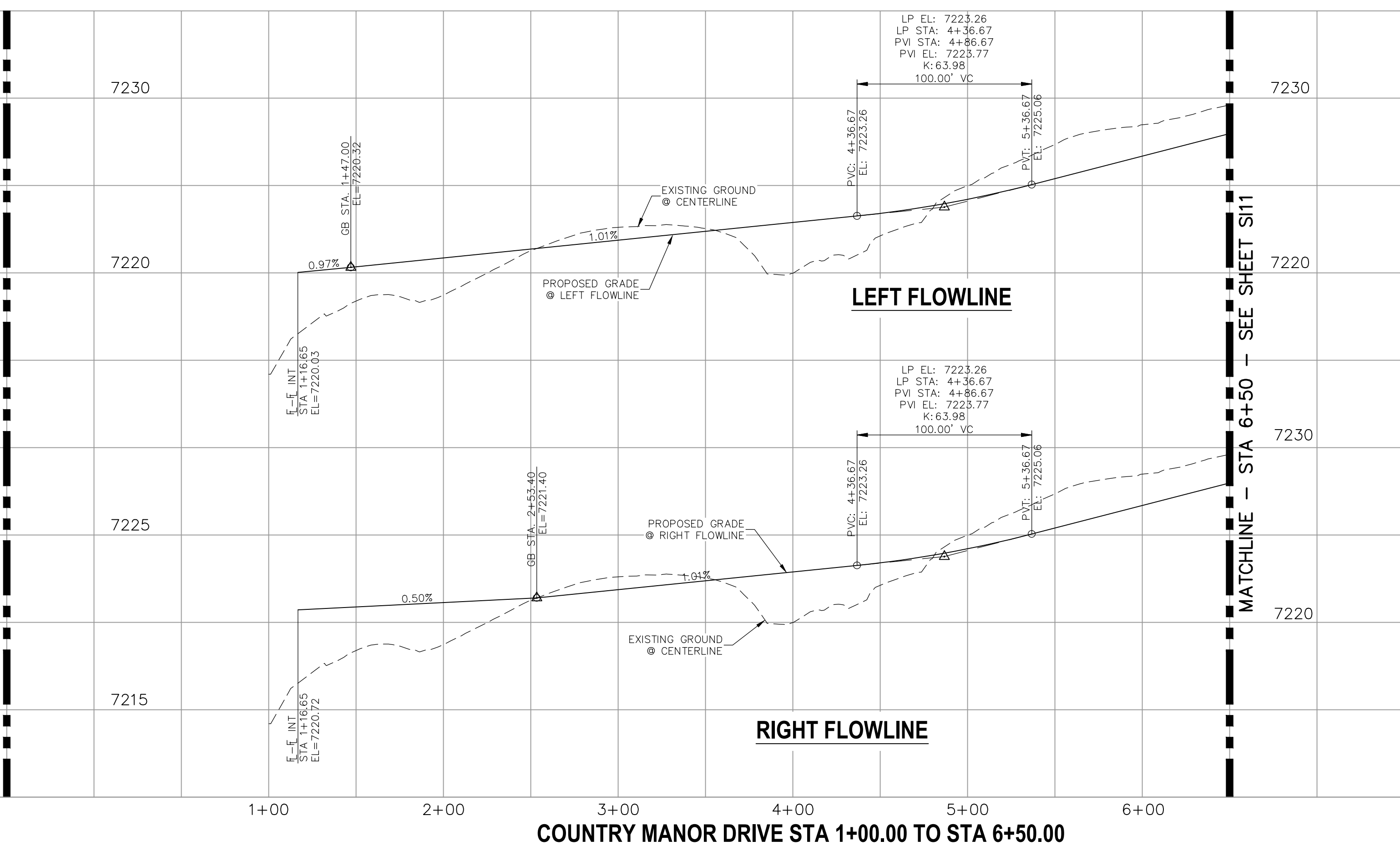
LINE	LENGTH	DIRECTION
L1	1721.19'	N0°35'00"W
L2	233.85'	N71°4'09"E
L3	1356.82'	N0°35'00"W

CURVE	RADIUS	LENGTH	DELTA
C1	725.00'	98.94'	7°49'08"

CURVE	RADIUS	LENGTH	DELTA
C2	20.00'	31.42'	90.00°
C3	20.00'	31.42'	90.00°
C4	20.00'	29.72'	85.14°
C5	20.00'	29.72'	85.14°



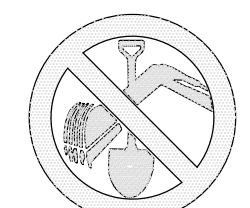
KINGSBURY DRIVE STA 12+00.00 TO STA 18+21.19



COUNTRY MANOR DRIVE STA 1+00.00 TO STA 6+50.00

STATEMENT:

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



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

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

STREET DESIGN:

REVIEW: _____ DATE: _____
TRAFFIC ENGINEERING: _____ DATE: _____
CURB & GUTTER: _____ DATE: _____
FINAL REVIEW: _____ DATE: _____

DRAINAGE DESIGN:
DRAINAGE REVIEW: _____ DATE: _____
FILED IN ACCORDANCE WITH SECTION 7-7-906 OF COLORADO SPRINGS CODE 2001, AS AMENDED.

DESIGN DATA:

SIDEWALKS: WIDTH 5' ASPHALT THICKNESS: _____
LOCATION: Attached AC Surface _____
Detached CENTERED IN 5' EASEMENT AB Base _____
CURB TYPE: A AGG. BASE THICKNESS: _____
CURB TYPE: C Class 6 _____
ROW WIDTH: 50' EOP-EOP 30' Class 5 _____
STREET TYPE: RESIDENTIAL HVEEM Class 2 _____
DESIGN SPEED: 25 MPH

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

APPROVED BY: _____ DATE: _____

NO.	DATE	BY	DESCRIPTION

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

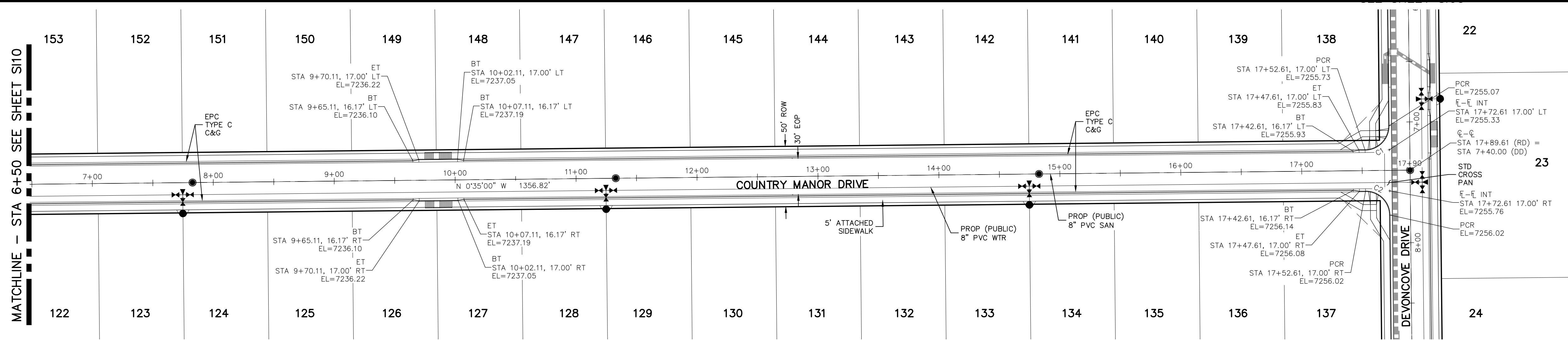


217 N. WAHATCH AVE., STE 305
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

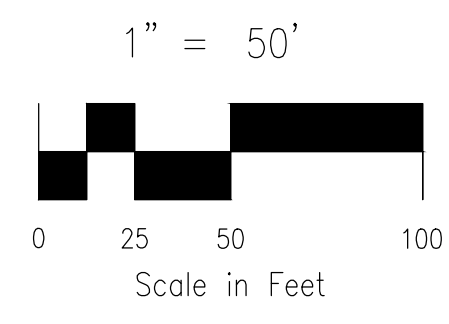
PAINT BRUSH HILLS FILING NO. 14
STREET IMPROVEMENT PLANS
PROJECT NO. 10-014
SCALE: _____
DESIGNED BY: JWP
DRAWN BY: JWP
CHECKED BY: GW
DATE: 12/29/2020
HORIZONTAL: 1"=50'
VERTICAL: 1"=5'
SHEET 10 OF 30
S110

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



PCR CURVE TABLE			
CURVE	RADIUS	LENGTH	DELTA
C1	20.00	31.42	90.00
C2	20.00	31.42	90.00



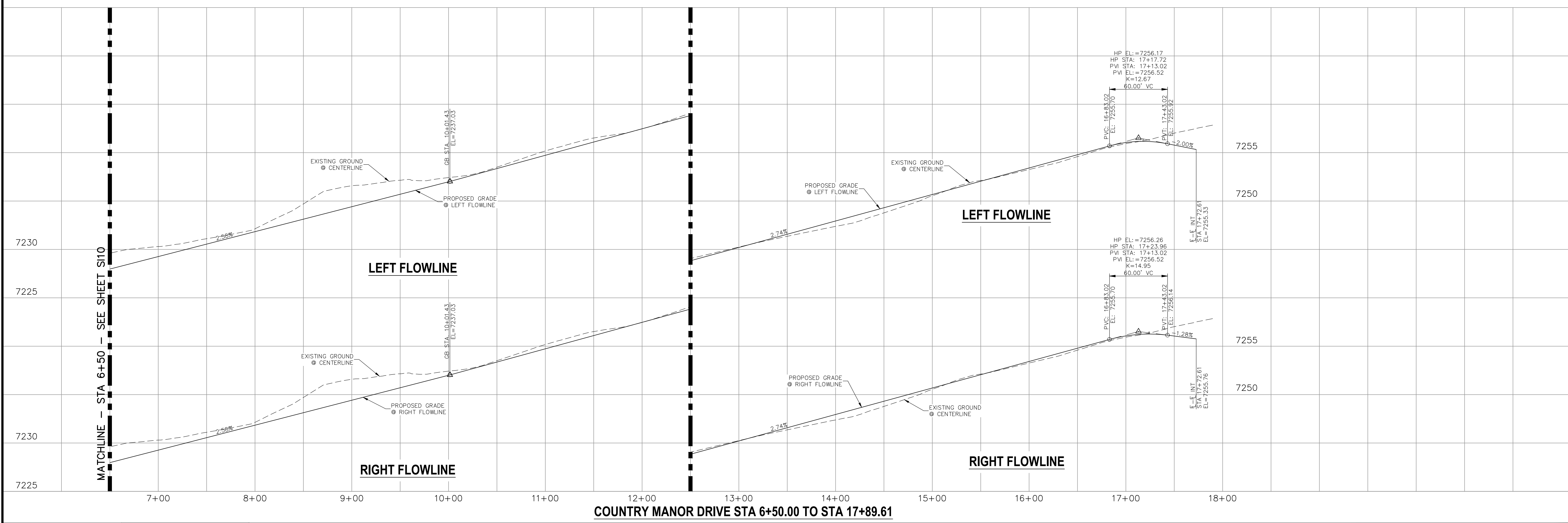
ABBREVIATION LEGEND

CL	CENTERLINE INTERSECTION	LT	LEFT
FL-FL	FLOWLINE INTERSECTION	RT	RIGHT
BT	BEGIN TRANSITION	FL	FLOWLINE
ET	END TRANSITION	TBC	TOP BACK OF CURB
PC	POINT OF CURVE	XPAN	CROSSSPAN
PCC	POINT OF COMPOUND CURVE	STD	STANDARD
PCR	POINT OF CURB RETURN	SHT	SHEET
PRC	POINT OF REVERSE CURVE	P&P	PLAN AND PROFILE
PT	POINT OF TANGENT	C&G	CURB AND GUTTER
EL	ELEVATION	W	WEST
CDS	CUL-DE-SAC	E	EAST
KN	KNUCKLE	ROW	RIGHT OF WAY
LP	LOOP	EOP	EDGE OF PAVEMENT
N	NORTH	WTR	WATER
S	SOUTH	SAN	SANITARY SEWER
KD	KEYNES DRIVE	PROP	PROPOSED
HD	HARTWOOD DRIVE	COLL	COLLECTOR
GMD	GRACE MANOR DRIVE	LPT	LOW POINT
CMD	COUNTRY MANOR DRIVE	RES	RESIDENTIAL
KBD	KINGSBURY DRIVE		
WD	WATERLOO DRIVE		
FC	FINSBURY COURT		
DD	DEVONCOVE DRIVE		
HP	HIGH POINT		

NOTES:

- ALL SIDEWALKS SHALL BE 5' WIDE AND ATTACHED UNLESS OTHERWISE STATED OR SHOWN ON PLANS.
- ALL CROSS PANS SHALL BE PER DETAIL SD_2-26
- ALL PED-RAMPS LOCATED AT INTERSECTIONS SHALL BE PER ECM STANDARD DETAILS SD_2-40, SD_2-41 AND SD_2-42.
- ALL T-INTERSECTION PED-RAMPS SHALL BE PER ECM STANDARD DETAIL SD_2-50.
- REFER TO SHEET SI15 FOR INTERSECTION DETAILS.

**COUNTRY MANOR DRIVE
STA 6+50.00 TO STA 17+89.61**



COUNTRY MANOR DRIVE STA 6+50.00 TO STA 17+89.61

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



STREET DESIGN:	DESIGN DATA:
TRAFFIC ENGINEERING: _____ DATE: _____	SIDEWALKS: WIDTH 5' ASPHALT THICKNESS: _____
CURB & GUTTER: _____ DATE: _____	LOCATION: Attached <input checked="" type="checkbox"/> AC Surface _____
FINAL REVIEW: _____ DATE: _____	Detached <input type="checkbox"/> CENTERED IN 5' EASEMENT AB Base _____
DRAINAGE DESIGN:	CURB TYPE: A <input checked="" type="checkbox"/> AGG. BASE THICKNESS: _____
DRAINAGE REVIEW: _____ DATE: _____	CURB TYPE: C <input type="checkbox"/> Class 6 _____
FILED IN ACCORDANCE WITH SECTION 7-7-906 OF COLORADO SPRINGS CODE	ROW WIDTH: 50' EOP-EOP 30' Class 5 _____
2001, AS AMENDED.	STREET TYPE: RESIDENTIAL HVEEM Class 2 _____
	DESIGN SPEED: 25 MPH _____

PAINT BRUSH HILLS FILING NO. 14
STREET IMPROVEMENT PLANS
PROJECT NO. 10-014 DATE: 12/29/2020
SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'
DESIGNED BY: JWP DRAWN BY: JWP CHECKED BY: S11

212 N. WAHATCH AVE., STE 305
COLORADO SPRINGS, CO 80903
PHONE: 719.935.4485

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

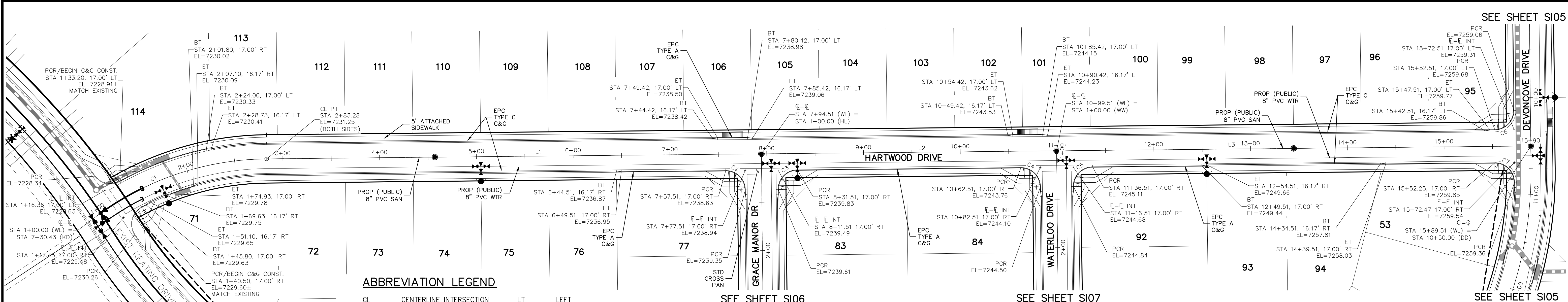
REVISIONS:

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 MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CAUTION



- NOTES:**
- ALL SIDEWALKS SHALL BE 5' WIDE AND ATTACHED UNLESS OTHERWISE STATED OR SHOWN ON PLANS.
 - ALL CROSS PANS SHALL BE PER DETAIL SD_2-26
 - ALL PED-RAMPS LOCATED AT INTERSECTIONS SHALL BE PER ECM STANDARD DETAILS SD_2-40, SD_2-41 AND SD_2-42.
 - ALL T-INTERSECTION PED-RAMPS SHALL BE PER ECM STANDARD DETAIL SD_2-50.
 - REFER TO SHEET S115 & S116 FOR INTERSECTION DETAILS.

ABBREVIATION LEGEND

CL	CENTERLINE INTERSECTION	LT	LEFT
FL-FL	FLOWLINE INTERSECTION	RT	RIGHT
BT	BEGIN TRANSITION	FL	FLOWLINE
ET	END TRANSITION	TBC	TOP BACK OF CURB
PC	POINT OF CURVE	XPCAN	CROSSSPAN
PCC	POINT OF COMPOUND CURVE	STD	STANDARD
PCR	POINT OF CURB RETURN	SHT	SHEET
PRC	POINT OF REVERSE CURVE	P&P	PLAN AND PROFILE
PT	POINT OF TANGENT	C&G	CURB AND GUTTER
E	ELEVATION	W	WEST
CDS	CUL-DE-SAC	E	EAST
KN	KNICKLE	ROW	RIGHT OF WAY
LP	LOOP	EOP	EDGE OF PAVEMENT
N	NORTH	WTR	WATER
S	SOUTH	SAN	SANITARY SEWER
KD	KEYNES DRIVE	PROP	PROPOSED
HD	HARTWOOD DRIVE	COLL	COLLECTOR
GMD	GRACE MANOR DRIVE	LPT	LOW POINT
CMD	COUNTRY MANOR DRIVE	RES	RESIDENTIAL
KBD	KINGSBURY DRIVE		
WD	WATERLOO DRIVE		
FC	FINSBURY COURT		
DD	DEVONCOVE DRIVE		
HP	HIGH POINT		

**HARTWOOD DRIVE
STA 1+00.00 TO STA 15+89.51**

CENTERLINE LINE TABLE

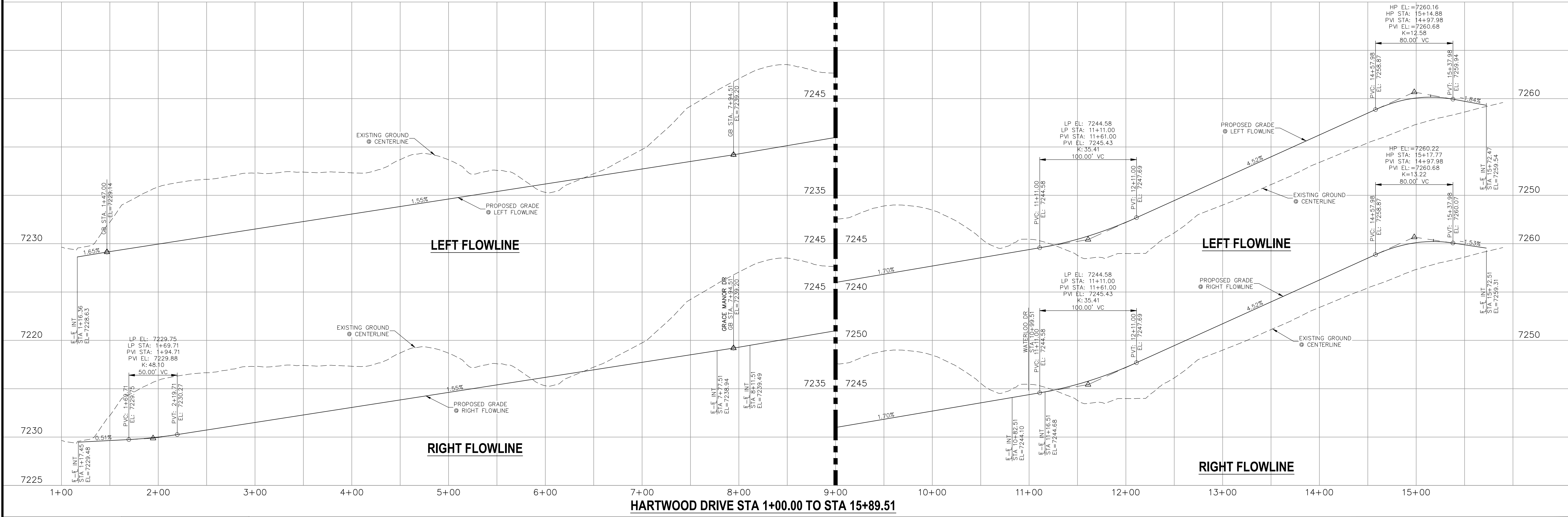
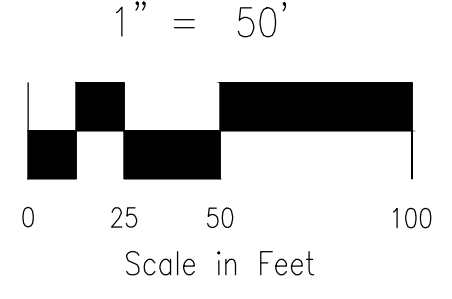
LINE	LENGTH	DIRECTION
L1	511.23'	N0°35'00"W
L2	305.00'	N0°35'00"W
L3	490.00'	N0°35'00"W

CENTERLINE CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
C1	300.00'	183.28'	35°00'16"

PCR CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
C2	20.00'	31.42'	90.00'
C3	20.00'	31.42'	90.00'
C4	20.00'	31.42'	90.00'
C5	20.00'	31.42'	90.00'
C6	20.00'	31.42'	90.00'
C7	20.00'	32.18'	92.20'



HARTWOOD DRIVE STA 1+00.00 TO STA 15+89.51

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

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

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

STREET DESIGN:
TRAFFIC ENGINEERING: _____ DATE: _____
CURB & GUTTER: _____ DATE: _____
FINAL REVIEW: _____ DATE: _____

DRAINAGE DESIGN:
DRAINAGE REVIEW: _____ DATE: _____
FILED IN ACCORDANCE WITH SECTION 7-7-906 OF COLORADO SPRINGS CODE 2001, AS AMENDED.

DESIGN DATA:
SIDEWALKS: WIDTH 5' ASPHALT THICKNESS: _____
LOCATION: Attached AC Surface _____
CURB TYPE A Detached CENTERED IN 5' EASEMENT AB Base _____
CURB TYPE C AGG. BASE THICKNESS: _____
ROW WIDTH 50' EOP-EOP 30' Class 6 _____
STREET TYPE RESIDENTIAL HVEEM Class 5 _____
DESIGN SPEED 25 MPH Class 2 _____

PAINT BRUSH HILLS FILING NO. 14

STREET IMPROVEMENT PLANS

PROJECT NO. 10-014 DATE: 12/29/2020
DESIGNED BY: JWP SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'
DRAWN BY: JWP SHEET 12 OF 30
CHECKED BY: GW S112

212 N. WABACH AVE., STE 303
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

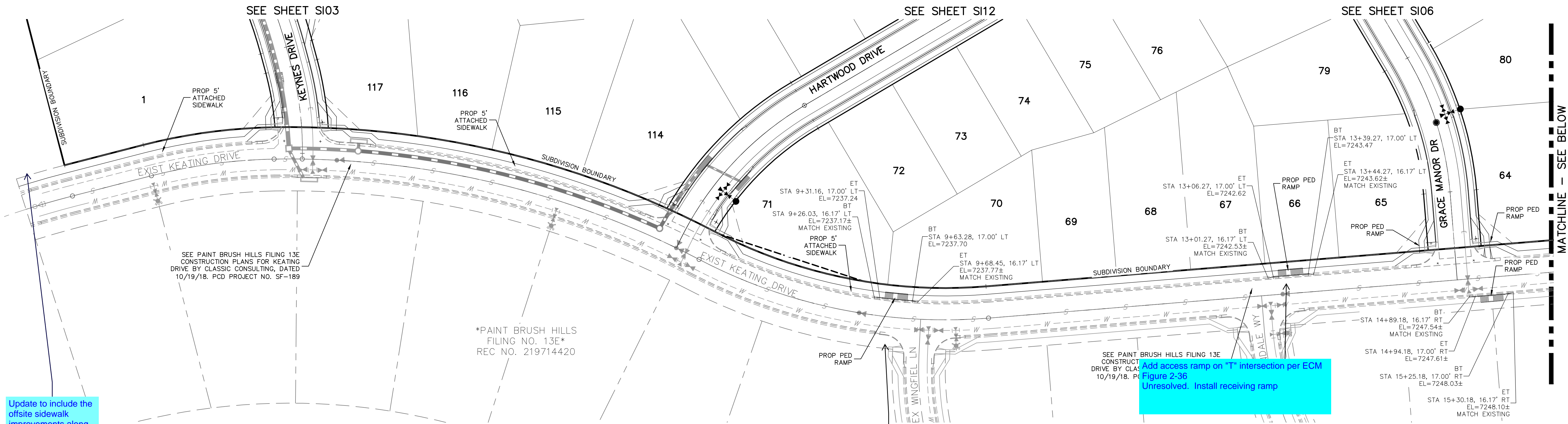
NO.	DATE	DESCRIPTION

THE DESIGNER 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

NOTES:

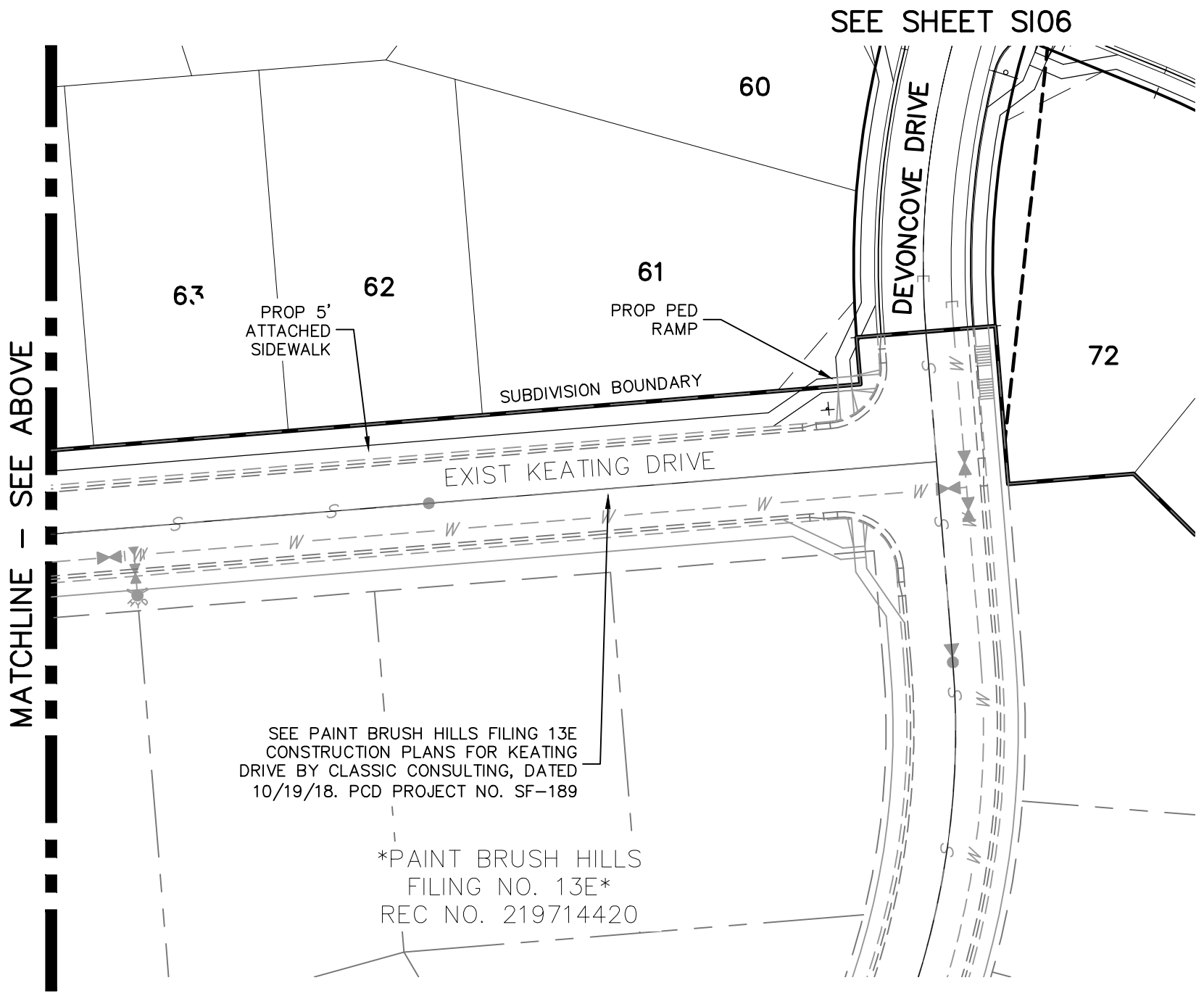
1. INSTALL 5' WIDE ATTACHED SIDEWALK AND PEDESTRIAN RAMPS ALONG EXISTING KEATING DRIVE ONLY WHERE SHOWN ON THESE PLANS.
2. ALL PED-RAMPS LOCATED AT INTERSECTIONS SHALL BE PER ECM STANDARD DETAILS SD_2-40, SD_2-41 AND SD_2-42.
3. ALL T-INTERSECTION PED-RAMPS SHALL BE PER ECM STANDARD DETAIL SD_2-50.
4. REFER TO SHEETS S14, S16 & S17 FOR INTERSECTION DETAILS.



Update to include the offsite sidewalk improvements along Keating Dr and Rockingham

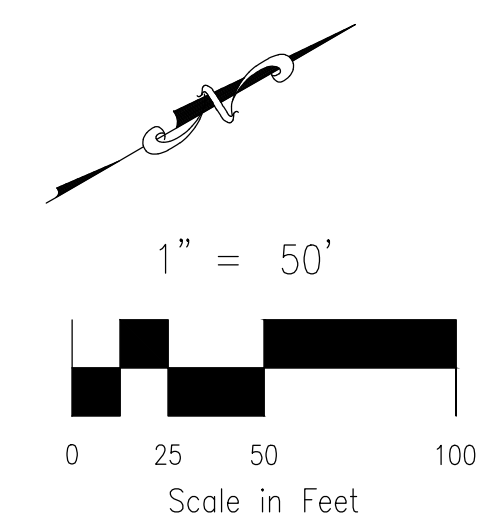
Add access ramp on "T" intersection per ECM Figure 2-36 Unresolved. Install receiving ramp

Add access ramp on "T" intersection per ECM Figure 2-36 Unresolved. Install receiving ramp



ABBREVIATION LEGEND

CL	CENTERLINE INTERSECTION	LT	LEFT FLOWLINE
FL-FL	FLOWLINE INTERSECTION	RT	RIGHT FLOWLINE
BT	BEGIN TRANSITION	FL	FLOWLINE
ET	END TRANSITION	TBC	TOP BACK OF CURB
PC	POINT OF CURVE	XSPAN	CROSSSPAN
PCC	POINT OF COMPOUND CURVE	STD	STANDARD SHEET
PCR	POINT OF CURB RETURN	SHT	SHEET
PRC	POINT OF REVERSE CURVE	P&P	PLAN AND PROFILE
PT	POINT OF TANGENT	C&G	CURB AND GUTTER
EL	ELEVATION	W	WEST
CDS	CUL-DE-SAC	E	EAST
KN	KNUCKLE	ROW	RIGHT OF WAY
LP	LOOP	EOP	EDGE OF PAVEMENT
N	NORTH	WTR	WATER
S	SOUTH	SAN	SANITARY SEWER
KD	KEYNES DRIVE	PROP	PROPOSED
HD	HARTWOOD DRIVE	COLL	COLLECTOR
GMD	GRACE MANOR DRIVE	LPT	LOW POINT
CMD	COUNTRY MANOR DRIVE	RES	RESIDENTIAL
KBD	KINGSBURY DRIVE		
WD	WATERLOO DRIVE		
FC	FINSBURY COURT		
DD	DEVONCOVE DRIVE		
HP	HIGH POINT		



212 N. WAHATCH AVE., STE 305
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5485

M&S CIVIL CONSULTANTS, INC.

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

MIRCIU A. SANCHEZ, COLORADO P.E. NO. 377160

STATEMENT:

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

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

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

STREET DESIGN:

TRAFFIC ENGINEERING: _____ DATE: _____

CURB & GUTTER: _____ DATE: _____

FINAL REVIEW: _____ DATE: _____

DRAINAGE DESIGN:

DRAINAGE REVIEW: _____ DATE: _____

FILED IN ACCORDANCE WITH SECTION 7-7-906 OF COLORADO SPRINGS CODE 2001, AS AMENDED.

DESIGN DATA:

SIDEWALKS: WIDTH 5' ASPHALT THICKNESS: _____

LOCATION: Attached AC Surface _____
 Detached CENTERED IN 5' EASEMENT AB Base _____

CURB TYPE: A AGG. BASE THICKNESS: _____
 C Class 6 _____

ROW WIDTH: 50' EOP-EOP 30' Class 5 _____

STREET TYPE: RESIDENTIAL HVEM Class 2 _____

DESIGN SPEED: 25 MPH

REVISIONS:

NO.	DATE	BY	DESCRIPTION

THE DESIGNER 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

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provide slope. Typical comment for all intersection details.

Be advise the pedestrian access route (PAR) shall not exceed 5% (ECM 6.3.2).

If the PAR exceeds 5% then these are considered ramp run and landings are required on both ends with edge protection. See ECM 6.3.1.G.5, ECM 6.3.1.G.6, and Figure 6-8 for criteria.

Comment applies to all intersection details and will be reviewed on the resubmittal once the request information is shown.

label the slope along the PAR. The cross slope shall not exceed 2% at yield or stop controlled crossing and 5% max for intersections without yield or stop control.

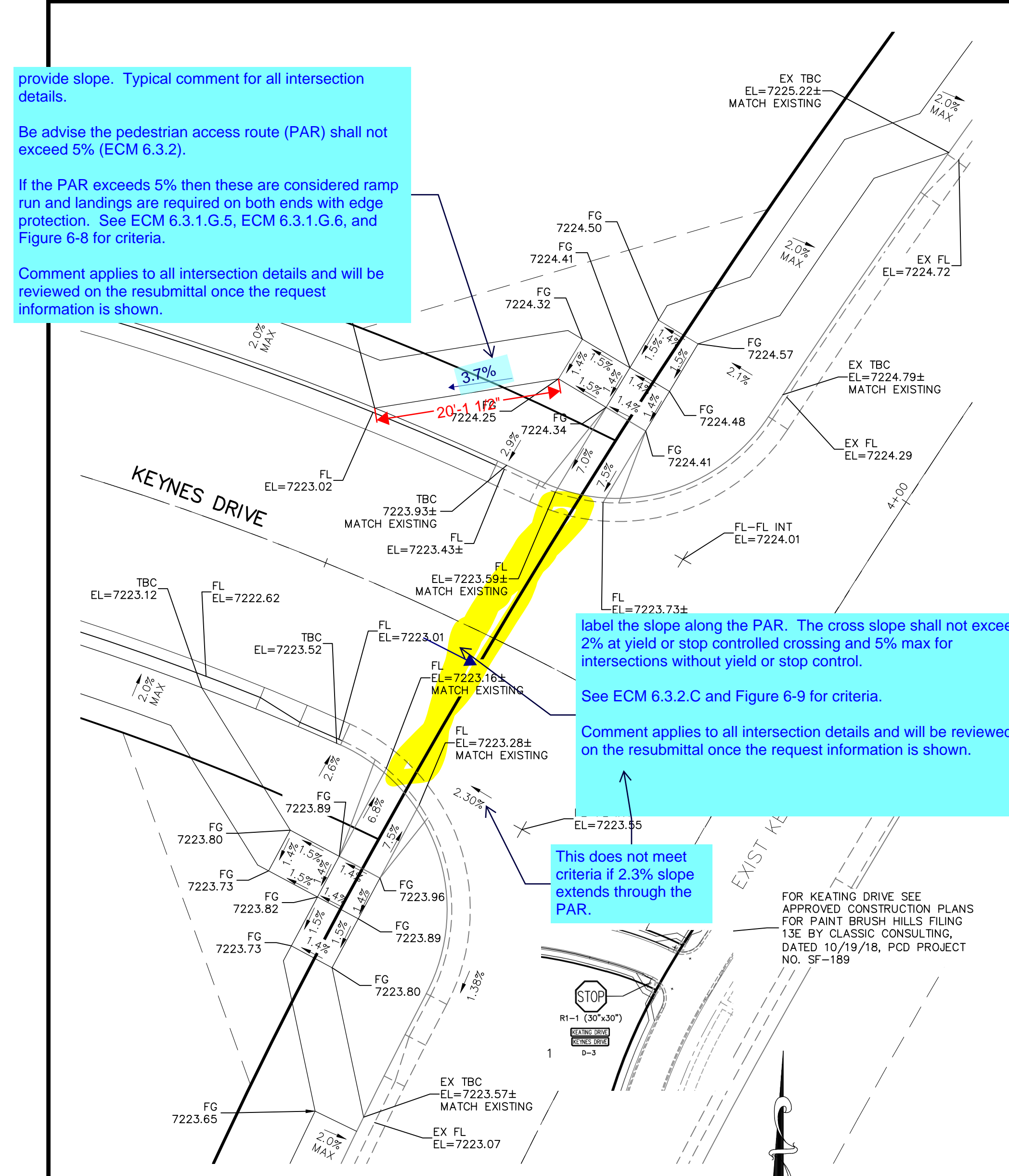
See ECM 6.3.2.C and Figure 6-9 for criteria.

Comment applies to all intersection details and will be reviewed on the resubmittal once the request information is shown.

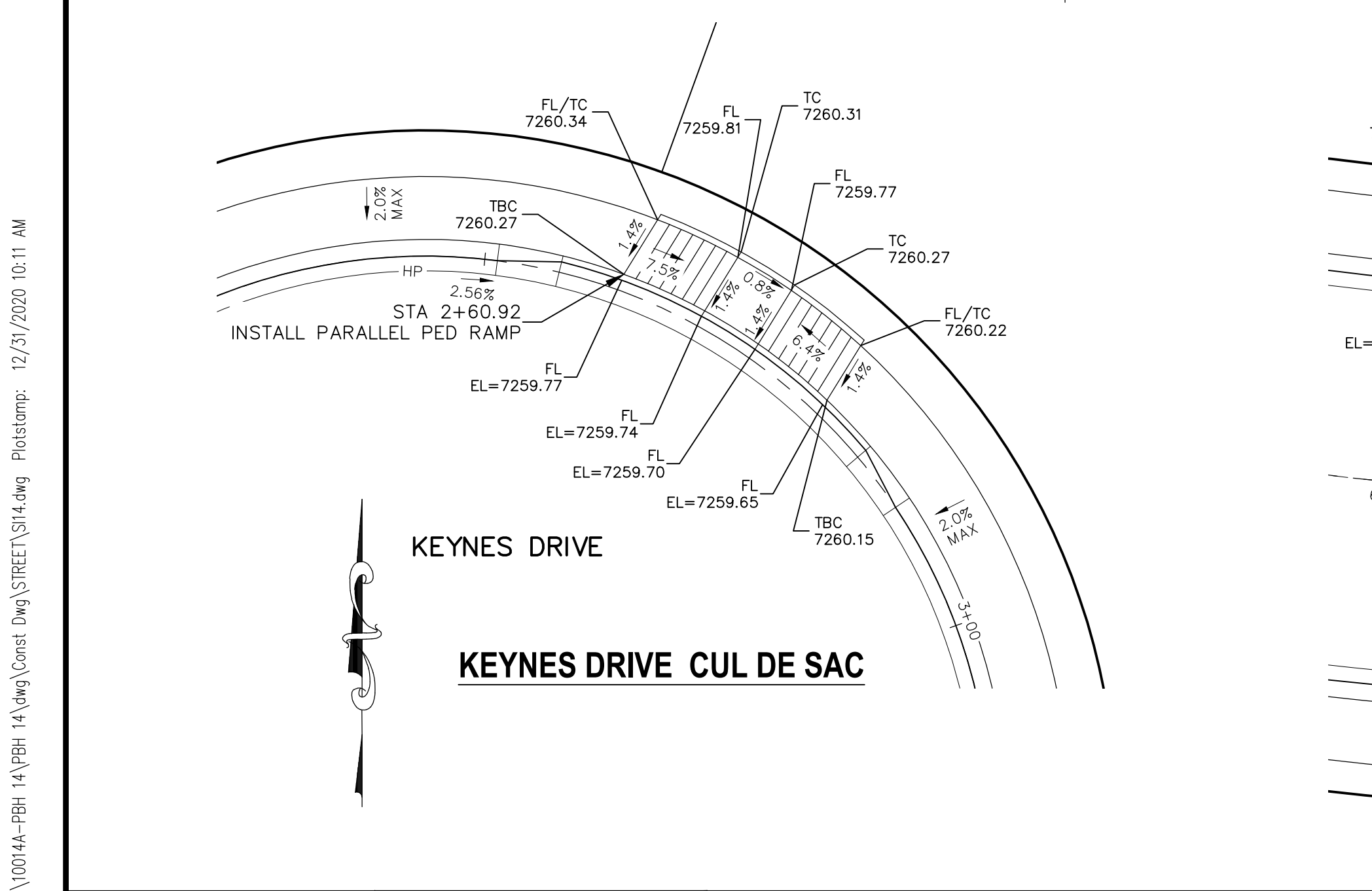
This does not meet criteria if 2.3% slope extends through the PAR.

FOR KEATING DRIVE SEE APPROVED CONSTRUCTION PLANS FOR PAINT BRUSH HILLS FILING 13E BY CLASSIC CONSULTING, DATED 10/19/18, PCD PROJECT NO. SF-189

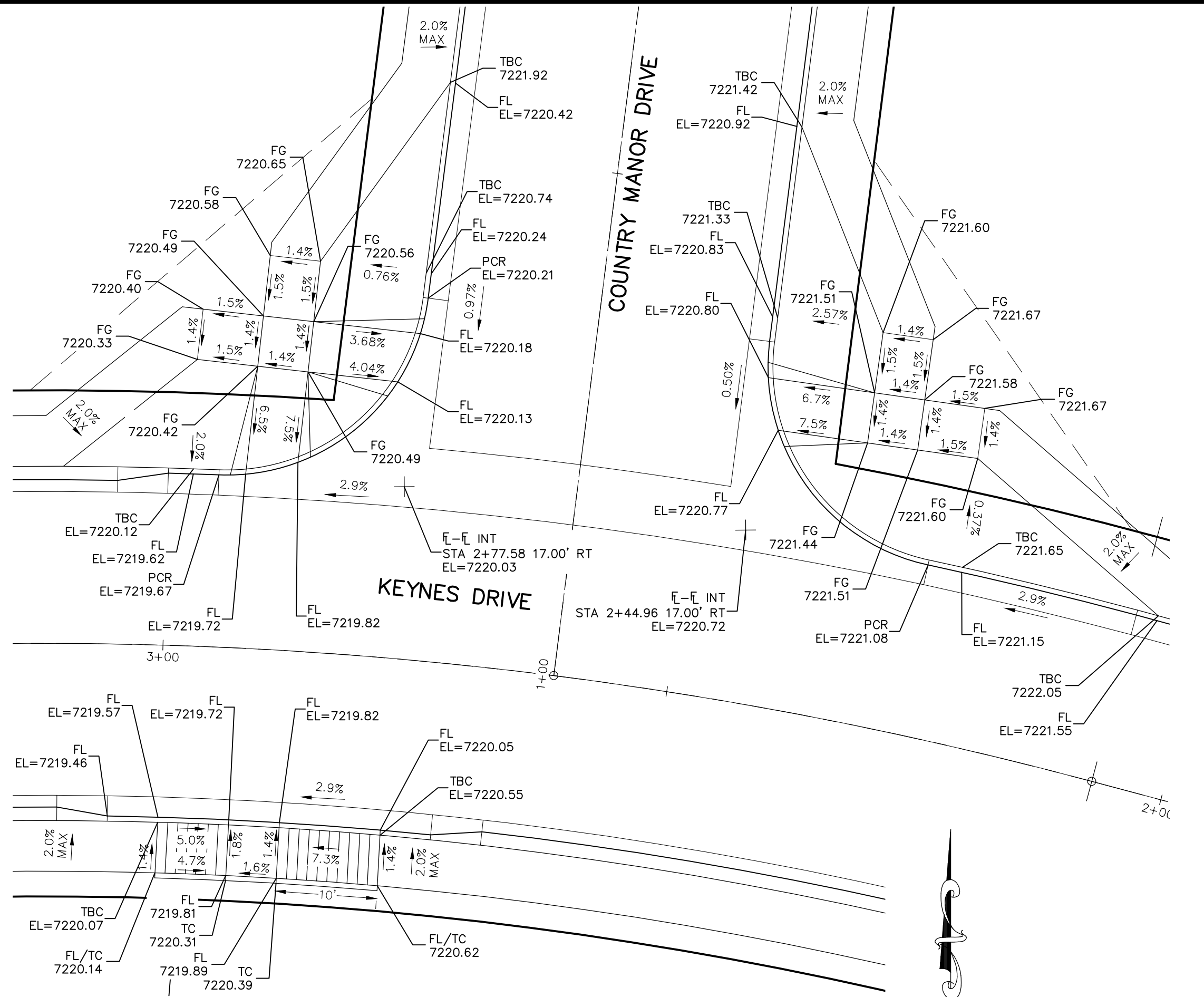
- NOTES:**
- ALL PARALLEL RAMPS ARE 7' IN LENGTH UNLESS OTHERWISE SHOWN/NOTED ON PLANS



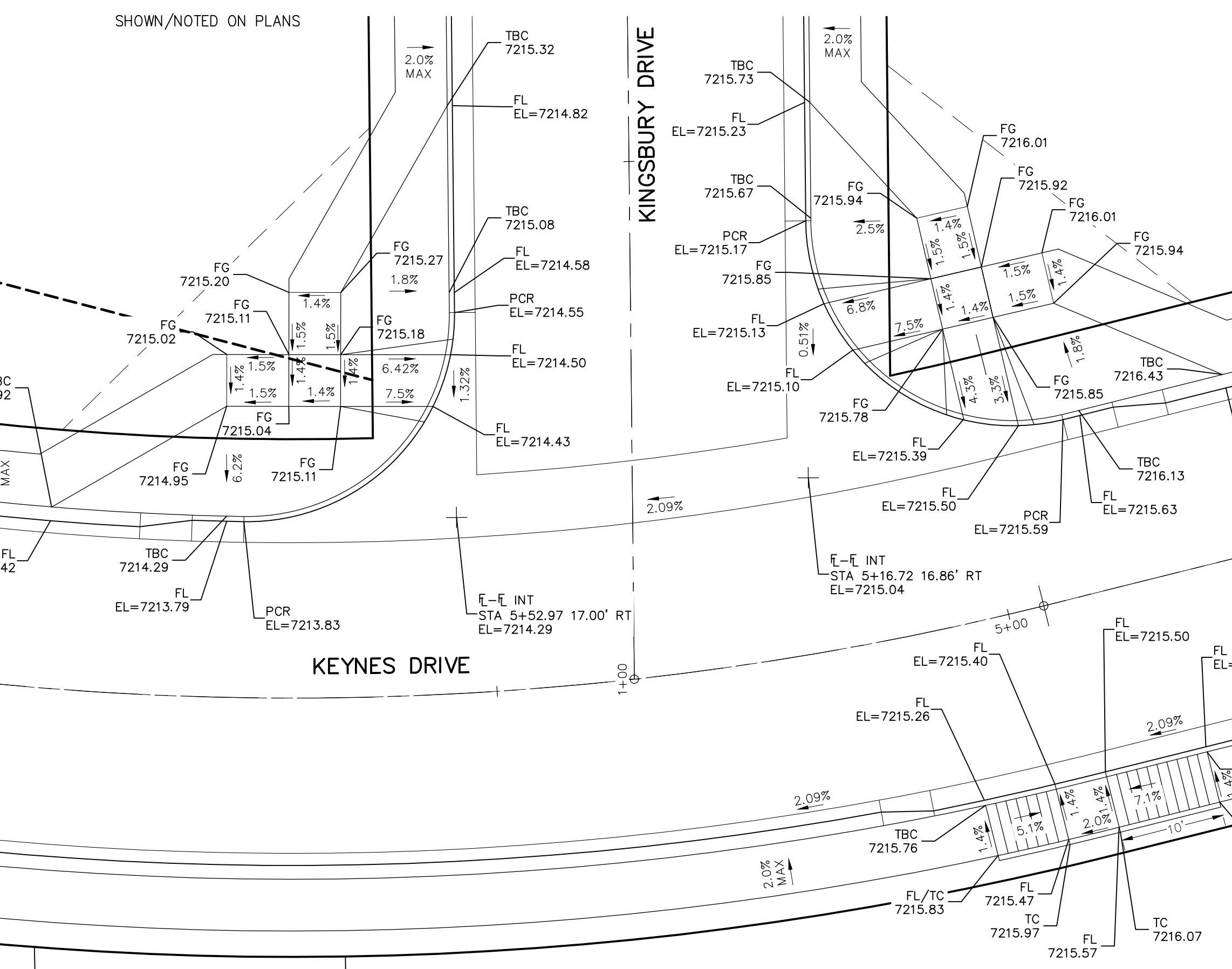
KEYNES DRIVE & EX. KEATING DRIVE



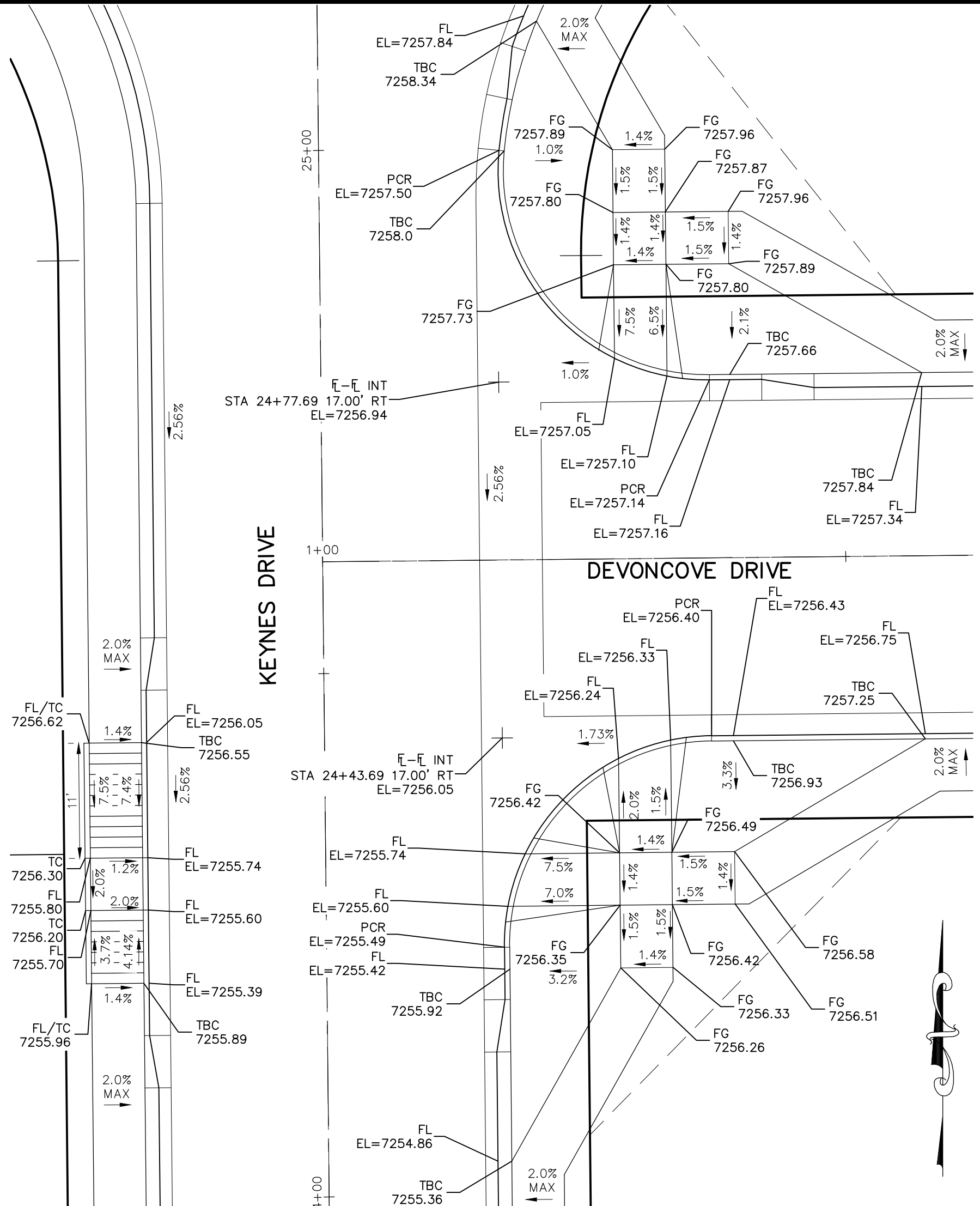
KEYNES DRIVE CUL DE SAC



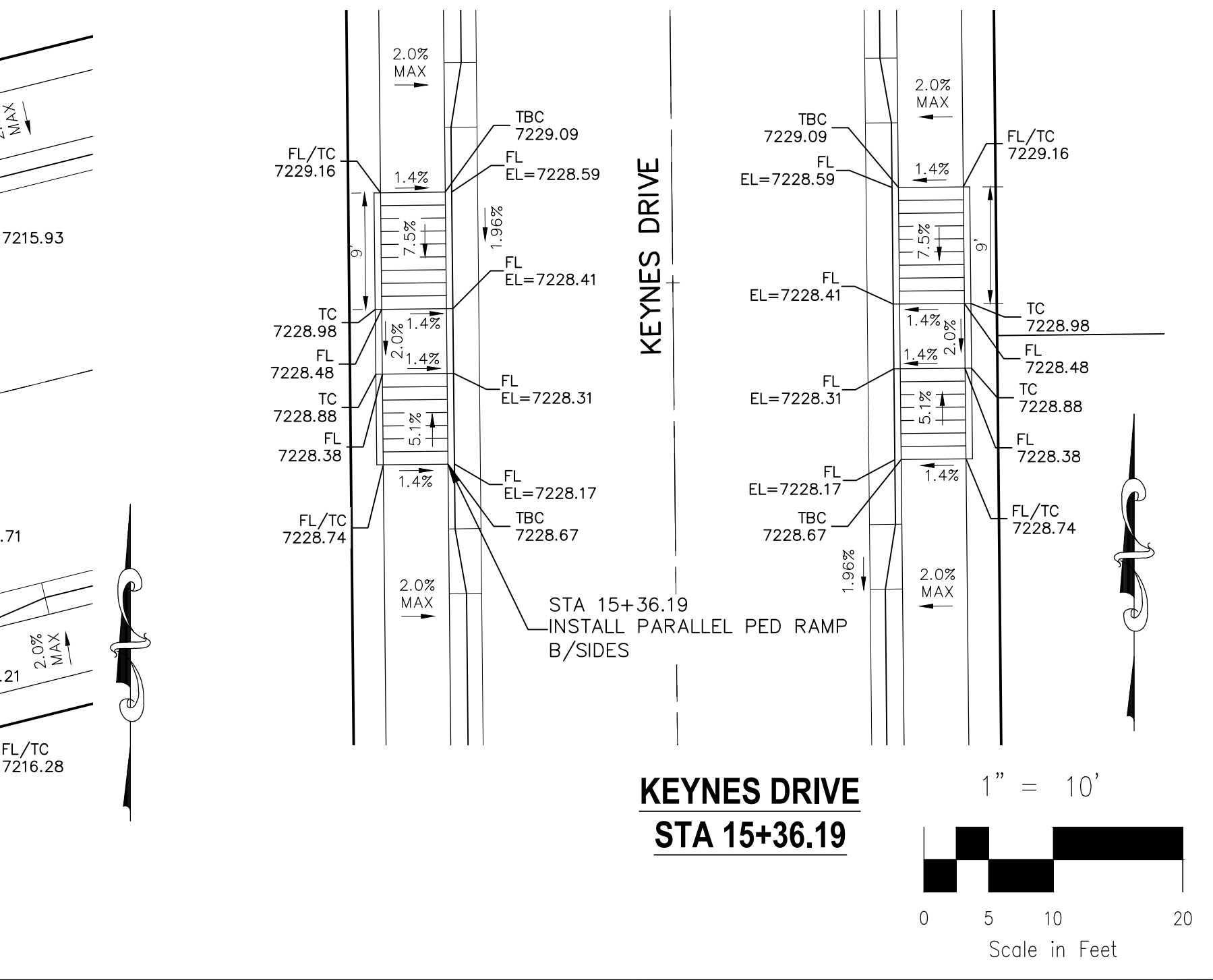
KEYNES DRIVE & COUNTRY MANOR DRIVE



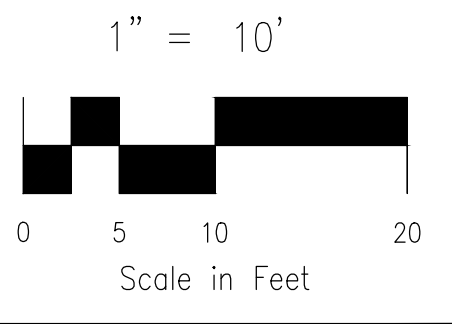
KEYNES DRIVE & KINGSBURY DRIVE



KEYNES DRIVE & DEVONCOVE DRIVE



KEYNES DRIVE STA 15+36.19



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



STREET DESIGN:
TRAFFIC ENGINEERING: _____ DATE: _____
CURB & GUTTER: _____ DATE: _____
FINAL REVIEW: _____ DATE: _____

DRAINAGE DESIGN:
DRAINAGE REVIEW: _____ DATE: _____
FILED IN ACCORDANCE WITH SECTION 7-7-906 OF COLORADO SPRINGS CODE 2001, AS AMENDED.

DESIGN DATA:
SIDEWALKS: WIDTH 5' ASPHALT THICKNESS: _____
LOCATION: Attached AC Surface _____
CURB TYPE 1 AB Base _____
CURB TYPE 5 Class 6 _____
ROW WIDTH 50' EOP-EOP 30' Class 5 _____
STREET TYPE RESIDENTIAL HVEEM Class 2 _____
DESIGN SPEED 25 MPH

REVISIONS:

NO.	DATE	DESCRIPTION

PAINT BRUSH HILLS FILING NO. 14

INTERSECTION DETAILS

PROJECT NO. 10-014 DATE: 12/29/2020

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

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

SHEET 14 OF 30 S114



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

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

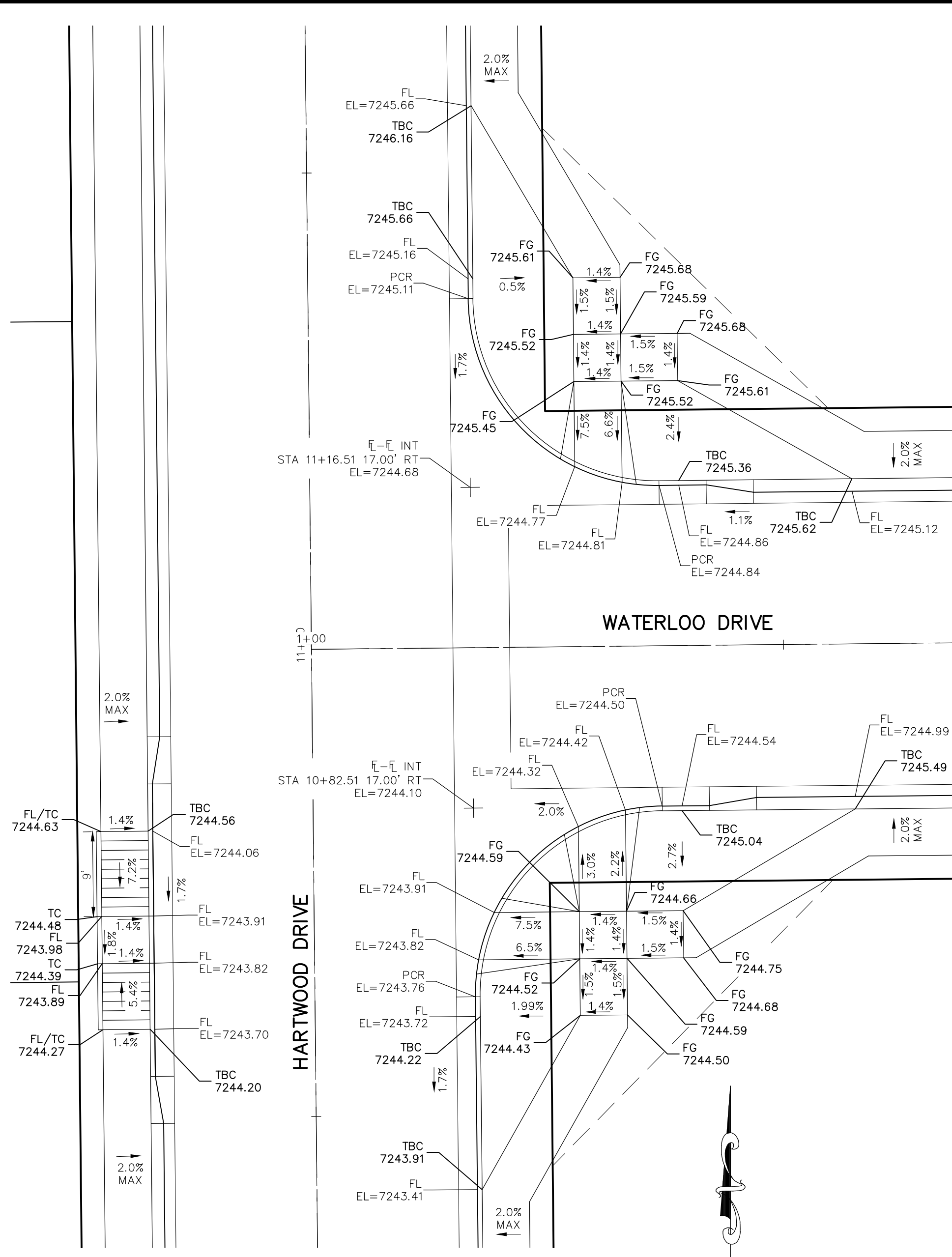
THE DESIGNER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CAUTION

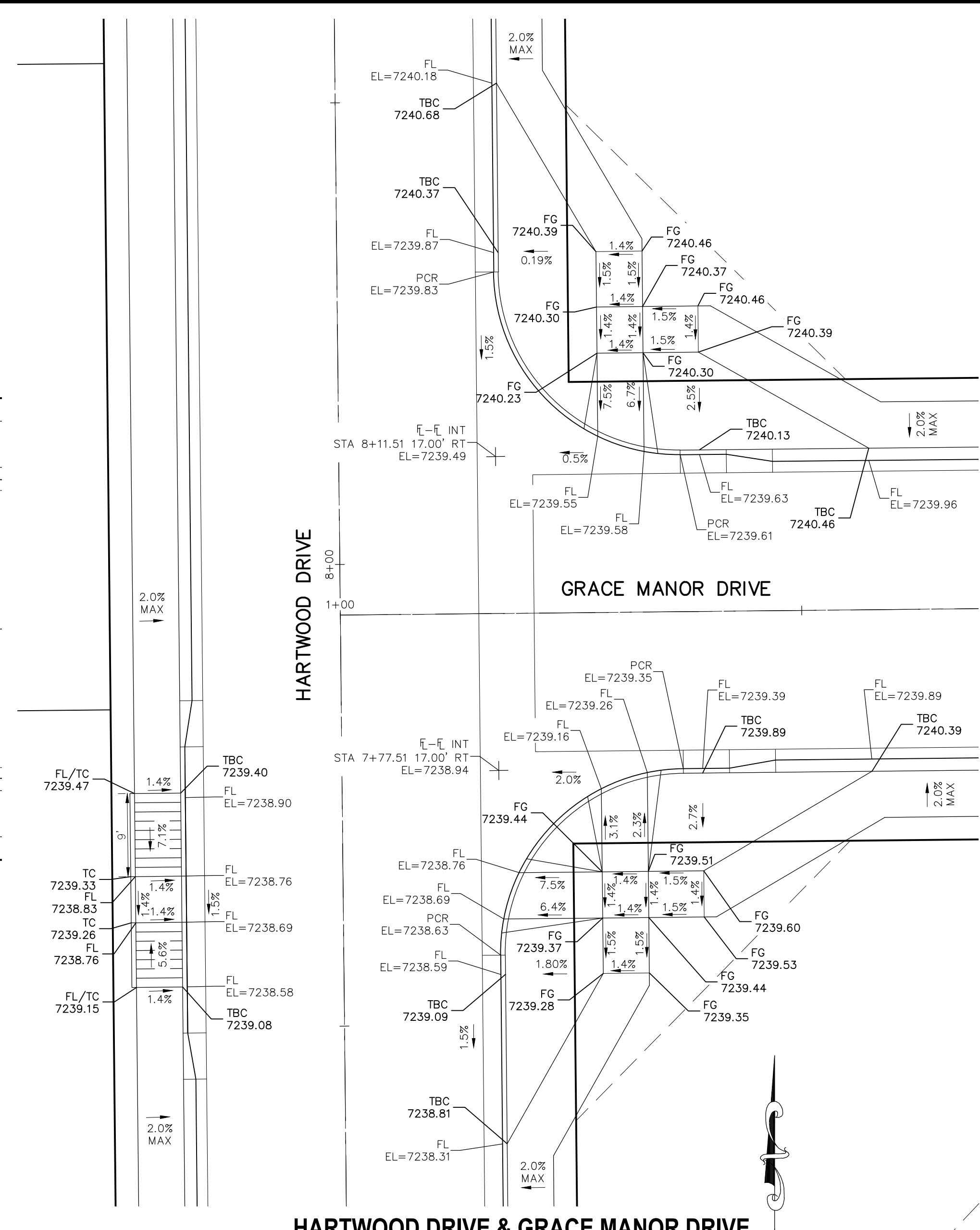


FOR AND ON BEHALF OF
 M&S CIVIL CONSULTANTS,
 INC.
 VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

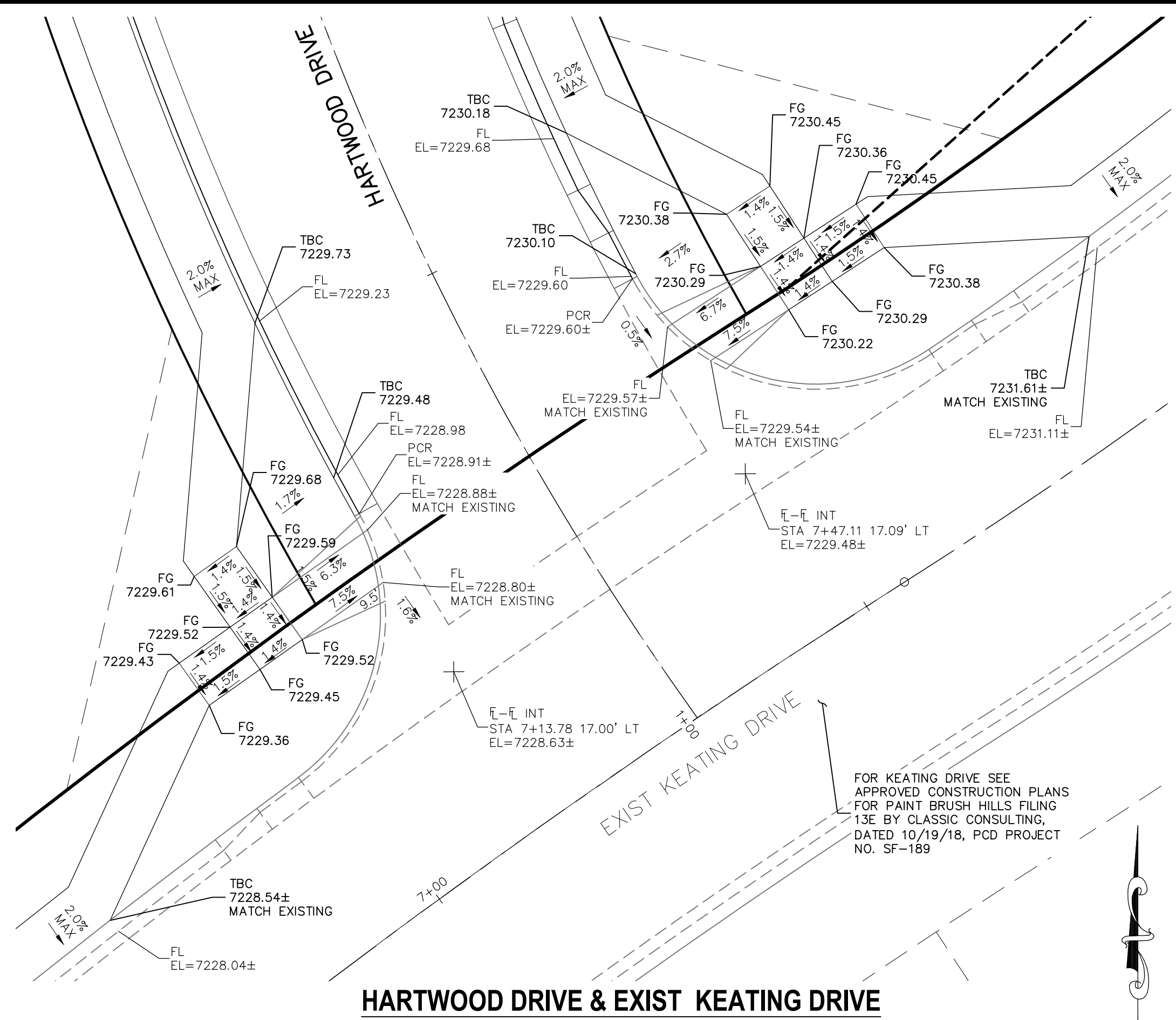
NO.	DATE	DESCRIPTION



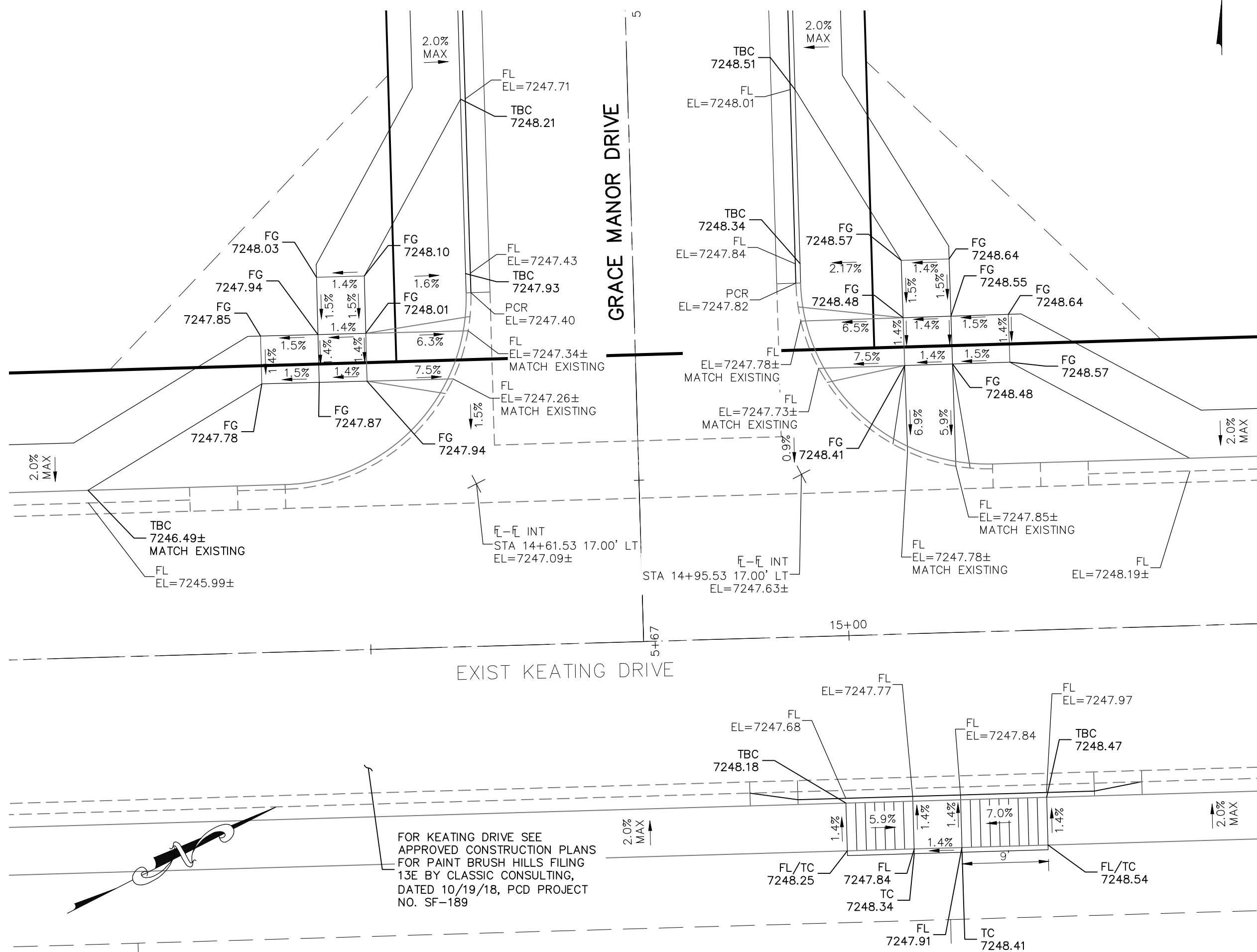
HARTWOOD DRIVE & WATERLOO DRIVE



HARTWOOD DRIVE & GRACE MANOR DRIVE



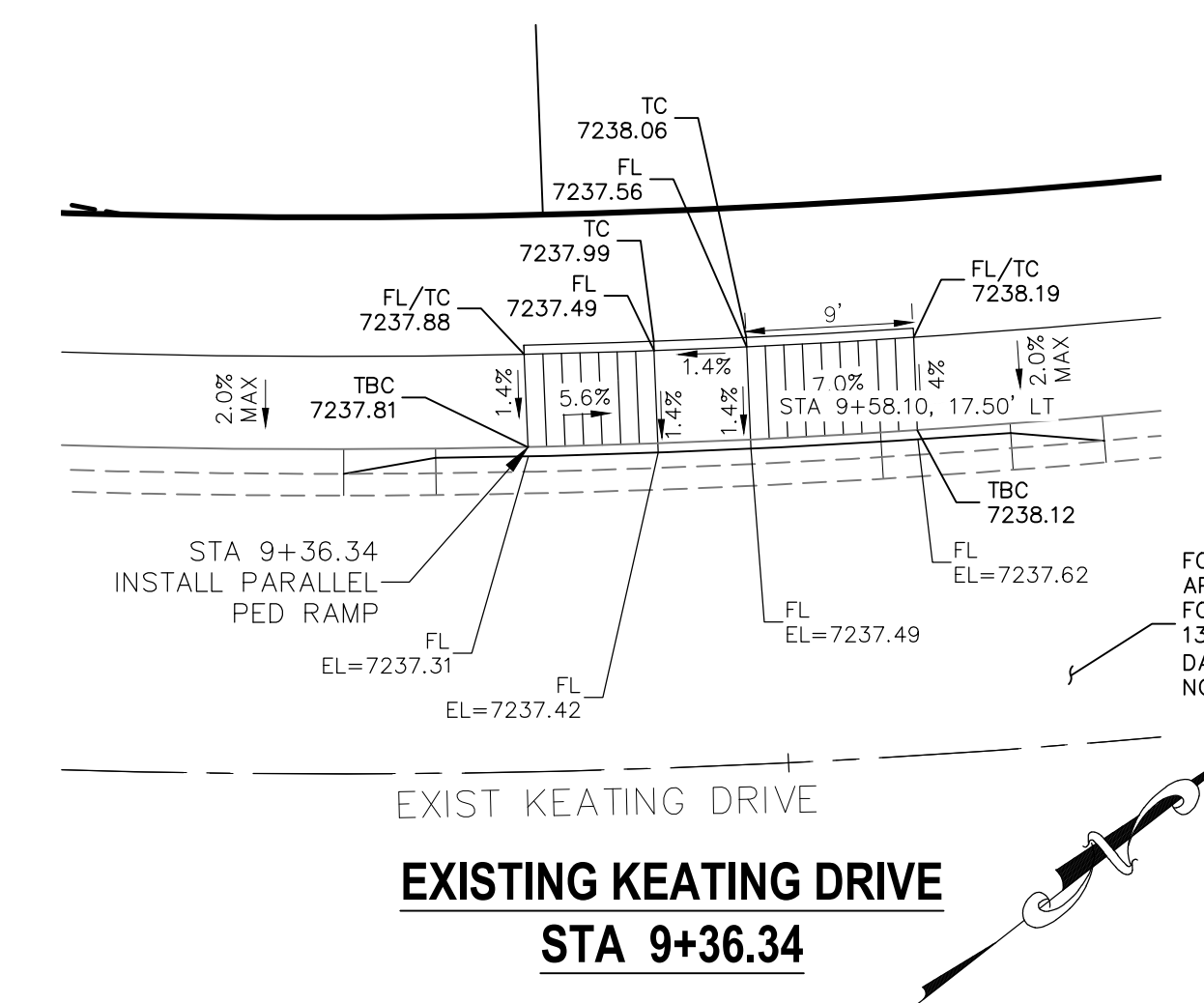
HARTWOOD DRIVE & EXIST KEATING DRIVE



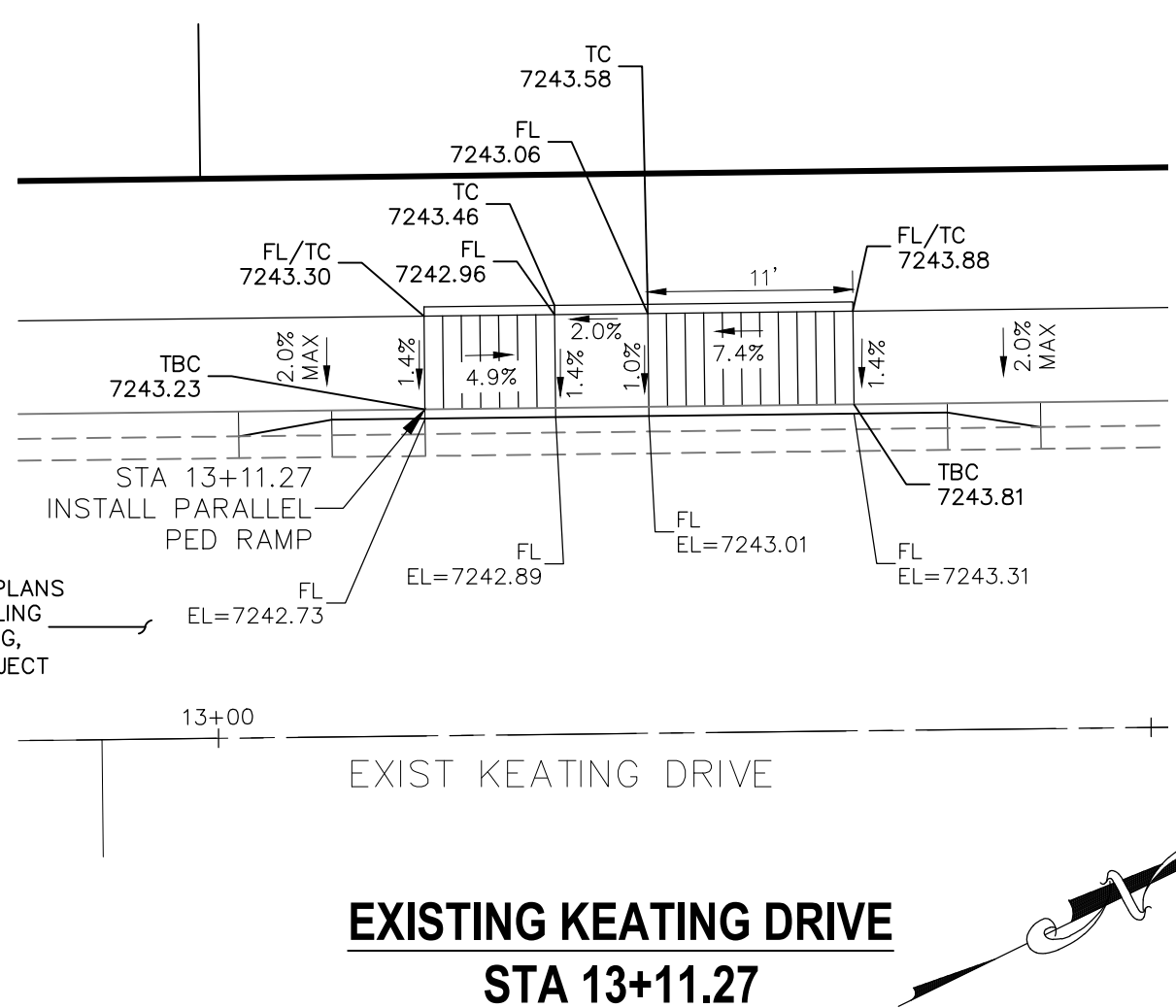
GRACE MANOR DRIVE & EXIST KEATING DRIVE

NOTES:

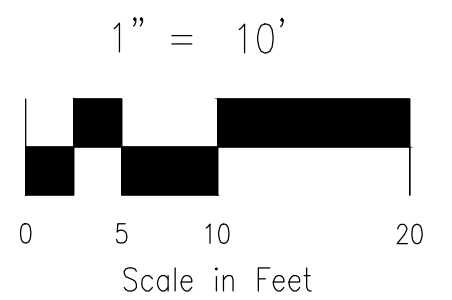
- ALL PARALLEL RAMPS ARE 7' IN LENGTH UNLESS OTHERWISE SHOWN/NOTED ON PLANS



**EXISTING KEATING DRIVE
 STA 9+36.34**



**EXISTING KEATING DRIVE
 STA 13+11.27**



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

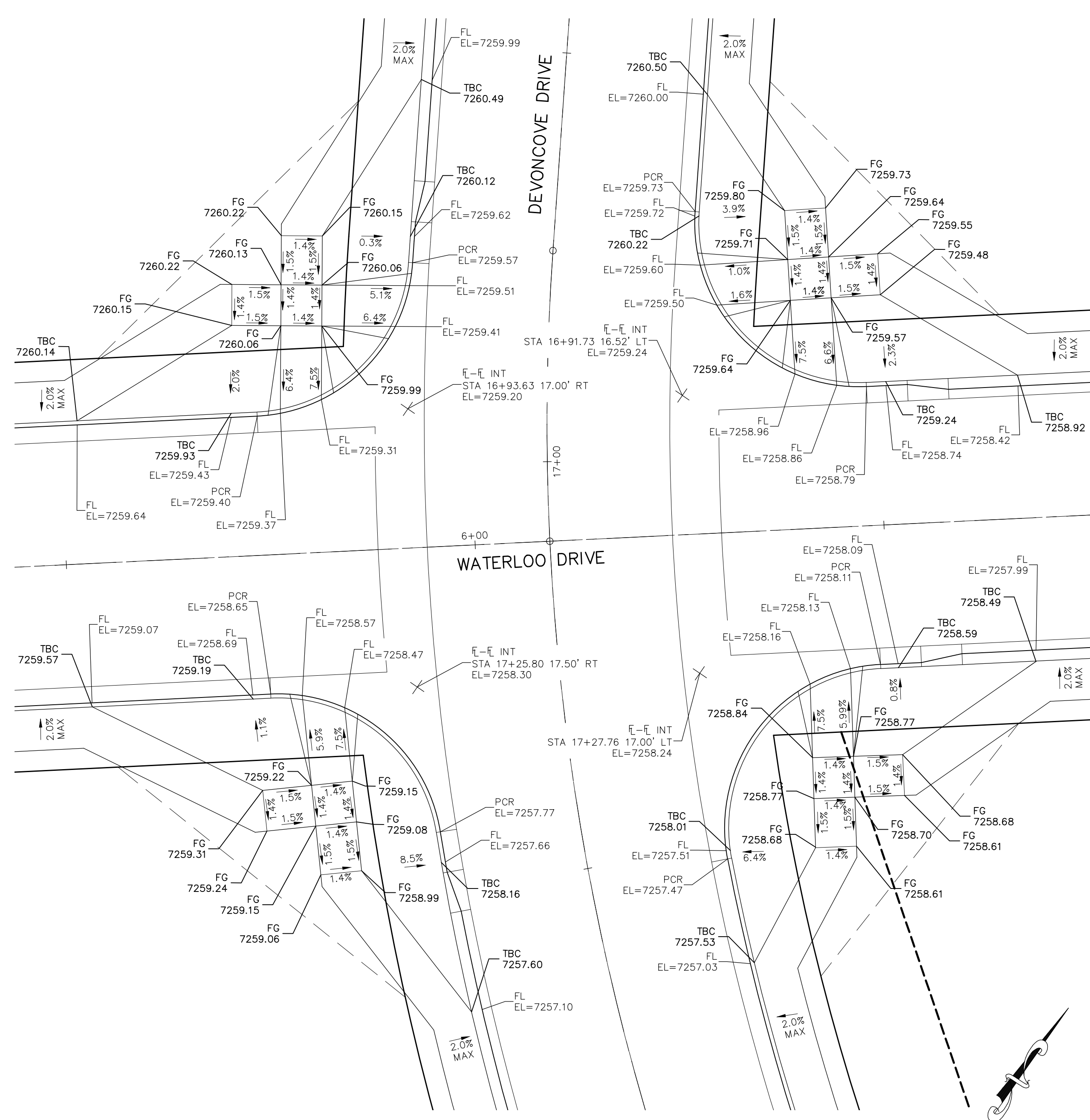
FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES
FOR BURIED UTILITY INFORMATION 48 HRS BEFORE YOU DIG CALL 1-800-922-1987

STREET DESIGN:
 REVIEW: _____ DATE: _____
 TRAFFIC ENGINEERING: _____ DATE: _____
 CURB & GUTTER: _____ DATE: _____
 FINAL REVIEW: _____ DATE: _____
DRAINAGE DESIGN:
 DRAINAGE REVIEW: _____ DATE: _____
 FILED IN ACCORDANCE WITH SECTION 7-7-906 OF COLORADO SPRINGS CODE 2001, AS AMENDED.

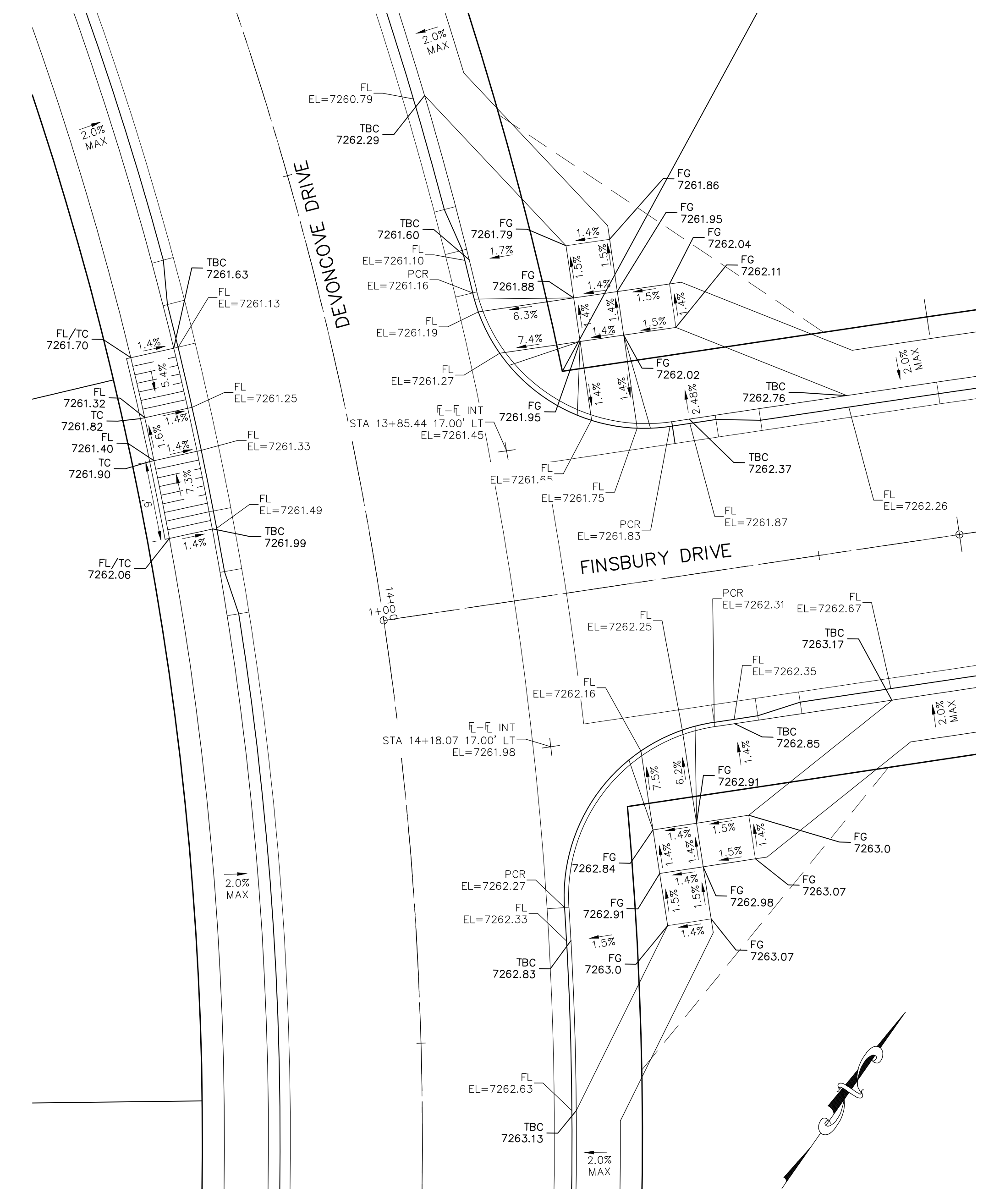
DESIGN DATA:
 SIDEWALKS: WIDTH 5' ASPHALT THICKNESS: _____
 LOCATION: Attached AC Surface _____
 Detached CENTERED IN 5' EASEMENT AB Base _____
 CURB TYPE 1 AGG. BASE THICKNESS: _____
 CURB TYPE 5 Class 6 _____
 ROW WIDTH 50' EOP-EOP 30' Class 5 _____
 STREET TYPE RESIDENTIAL HVEEM Class 2 _____
 DESIGN SPEED 25 MPH

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 MADE AND APPROVED BY THE PREPARER OF THESE PLANS.
CAUTION

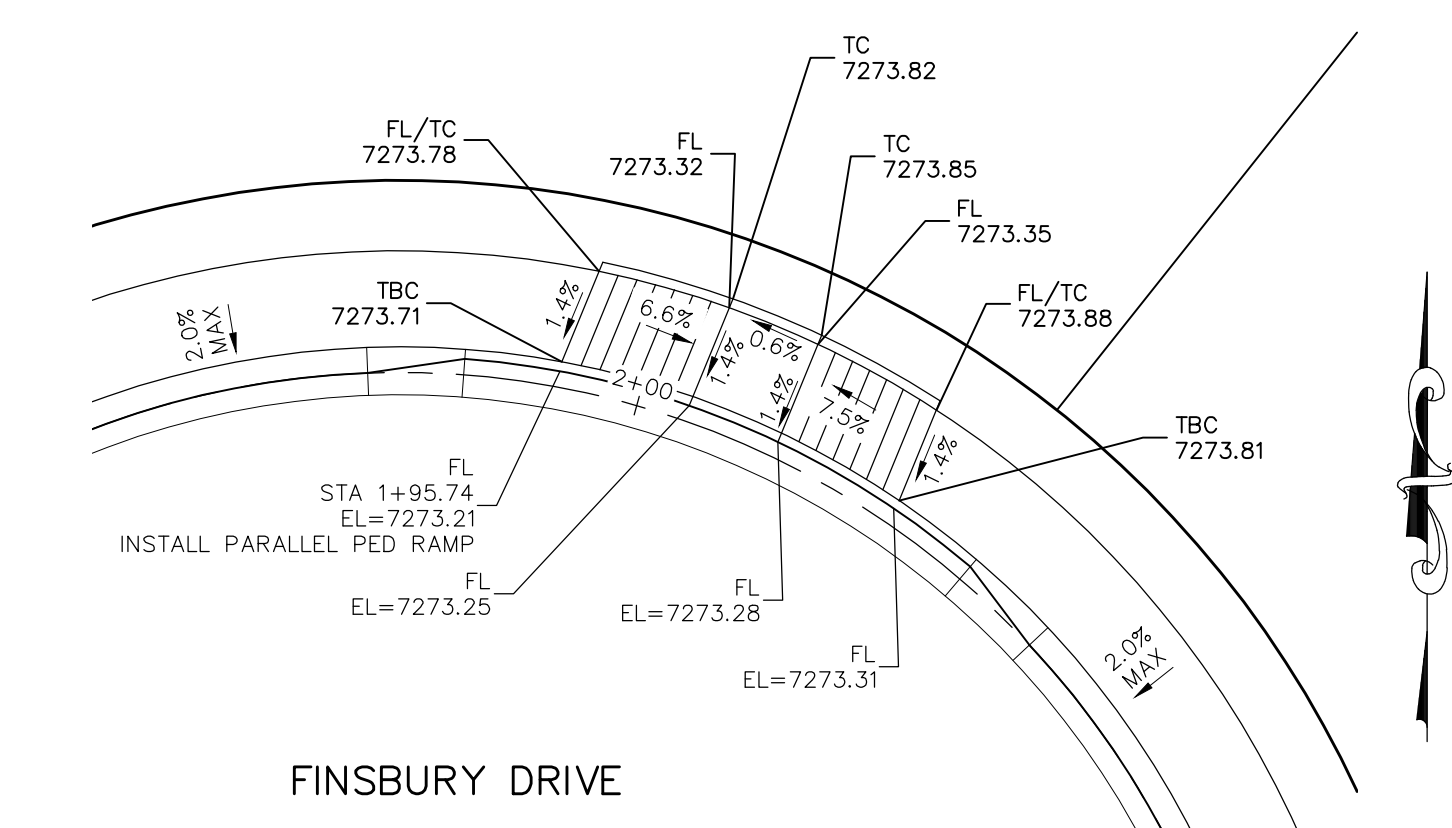
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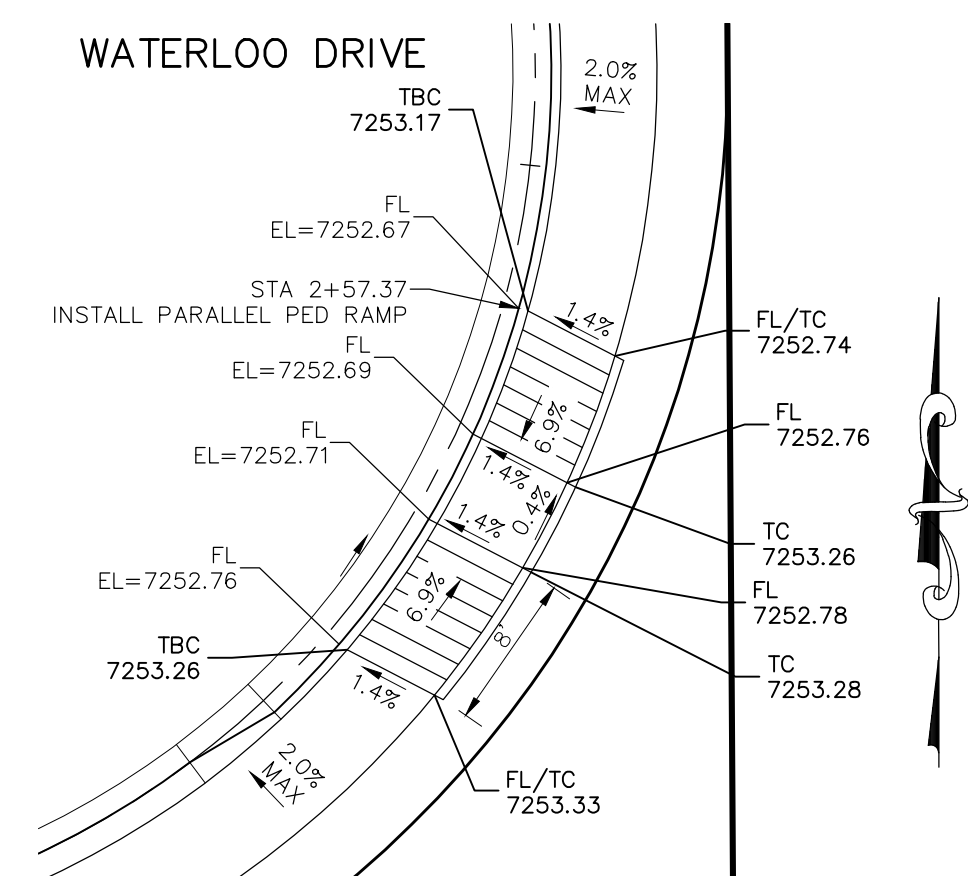
DEVONCOVE DRIVE & WATERLOO DRIVE



DEVONCOVE DRIVE & FINSBURY DRIVE

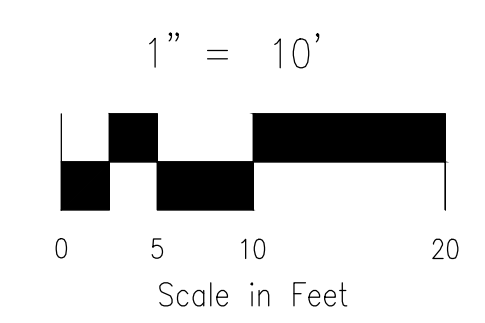


**FINSBURY DRIVE CDS
STA 1+95.74**



**WATERLOO DRIVE CDS
STA 2+57.37**

NOTES:
1. ALL PARALLEL RAMPS ARE 7' IN LENGTH UNLESS OTHERWISE SHOWN/NOTED ON PLANS



FOR KEATING DRIVE SEE APPROVED CONSTRUCTION PLANS FOR PAINT BRUSH HILLS FILING 13E BY CLASSIC CONSULTING, DATED 10/19/18, PCD PROJECT NO. SF-189

PROJECT NO. 10-014		SCALE:	DATE: 12/29/2020
DESIGNED BY: JWP		HORIZONTAL:	1"=50'
DRAWN BY: JWP		VERTICAL:	1"=5'
CHECKED BY: GW		SHEET 17 OF 30	
		S117	

212 N. WAHATCH AVE., STE 303
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5465

CIVIL CONSULTANTS, INC.

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

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

NO.	DATE	DESCRIPTION	APPROVED BY

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

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

STREET DESIGN:
TRAFFIC ENGINEERING: _____ DATE: _____
CURB & GUTTER: _____ DATE: _____
FINAL REVIEW: _____ DATE: _____

DRAINAGE DESIGN:
DRAINAGE REVIEW: _____ DATE: _____
FILED IN ACCORDANCE WITH SECTION 7-7-906 OF COLORADO SPRINGS CODE 2001, AS AMENDED.

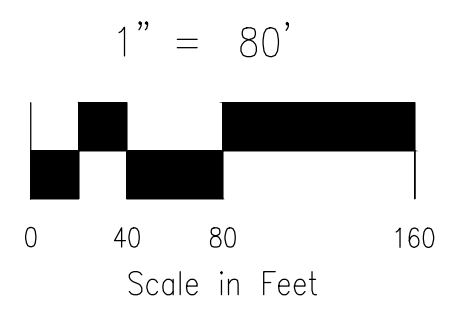
DESIGN DATA:
SIDEWALKS: WIDTH 5' ASPHALT THICKNESS: _____
LOCATION: Attached AC Surface _____
 Detached CENTERED IN 5' EASEMENT AB Base _____
CURB TYPE 1 AGG. BASE THICKNESS: _____
CURB TYPE 5 Class 6 _____
ROW WIDTH 50' EOP-EOP 30' Class 5 _____
STREET TYPE RESIDENTIAL HVEEM Class 2 _____
DESIGN SPEED 25 MPH

CAUTION

FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES
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 CALL 1-800-922-1987



SEE SHEET S114



PAINT BRUSH HILLS FILING NO. 14
SIGNAGE AND STRIPING PLAN
 PROJECT NO. 10-014 FILE: \eng\Const\Draw\Street & Storm Plans\S18-19.dwg DATE: 12/29/2020
 DESIGNED BY: JWP SCALE: N/A
 DRAWN BY: JWP HORIZ: 1"=50'
 CHECKED BY: GW VERT: N/A

212 N. WANSACH AVE, STE 305
 COLORADO SPRINGS, CO 80903
 PHONE: 719.955.5485

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

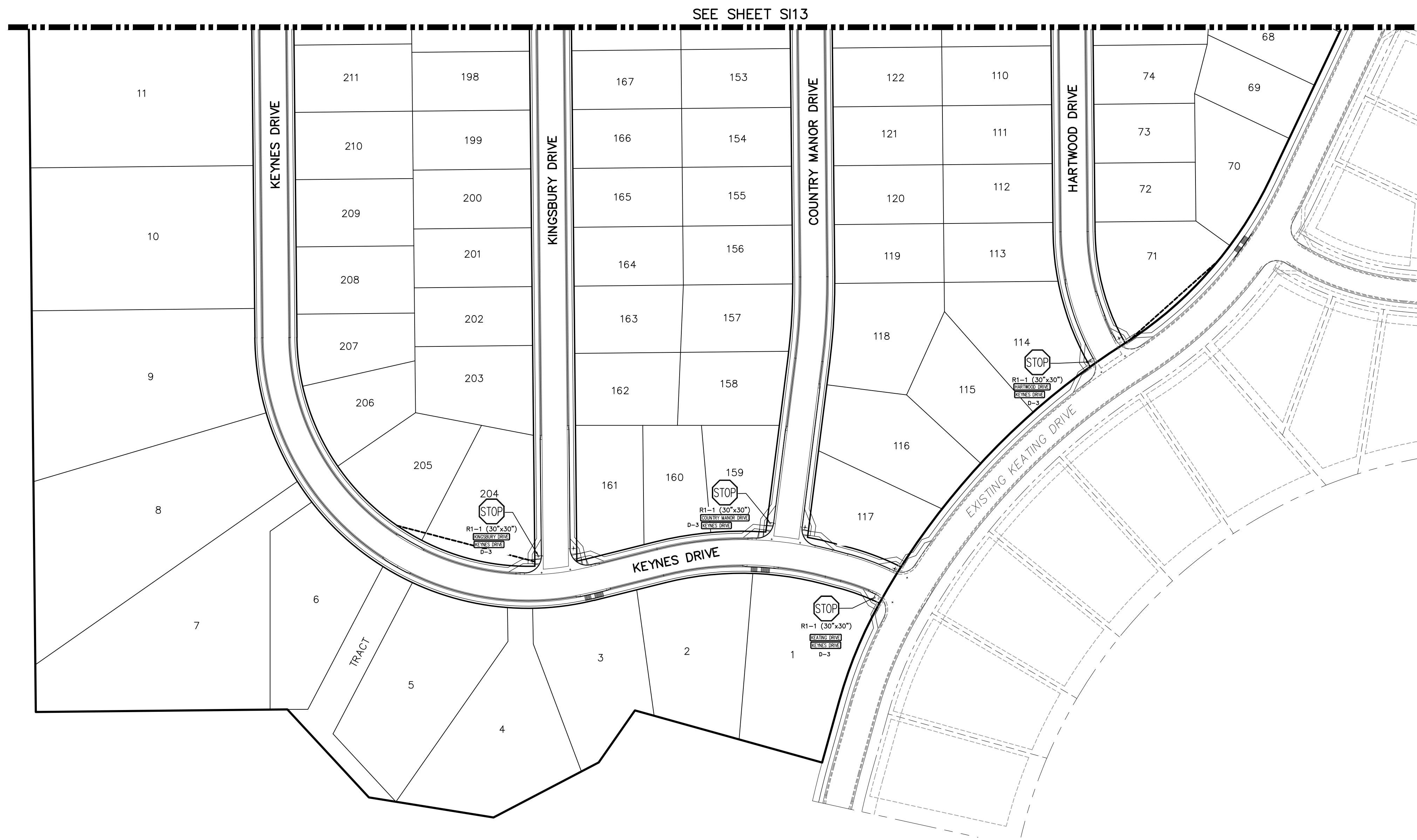
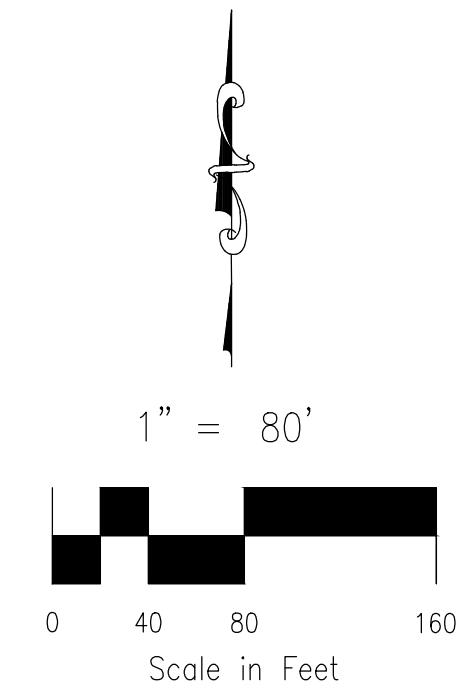
REVISIONS:

NO.	DATE	BY	DESCRIPTION	APP'D. BY	DATE

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CAUTION

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Provide offsite improvements per the TIS recommendation.
 Unresolved. Update signage & striping plans to show the restriping on Londonderry per the approved deviation request.
 The deviation request has been upload to eDARP under the preliminary plan application (SP206)

Additional Documents (3)

Link	Document	Comment	Date
View	Water History Filings 13B-D recorded		1/4/2018 11:12:35 AM
View	Deviation Intersection Spacing	Approved	2/26/2021 10:43:17 AM
View	Deviation Aux Lane	Approved with Conditions	2/26/2021 10:43:18 AM

PAINT BRUSH HILLS FILING NO. 14
 SIGNAGE AND STRIPING PLAN
 PROJECT NO. 10-014 FILE: \dwg\Const Dwg\Street & Storm Plans\S118--19.dwg
 DESIGNED BY: JWP SCALE DATE: 12/29/2020
 DRAWN BY: JWP HORIZ: 1"=50'
 CHECKED BY: GW VERT: N/A SHEET 19 OF 30 S119

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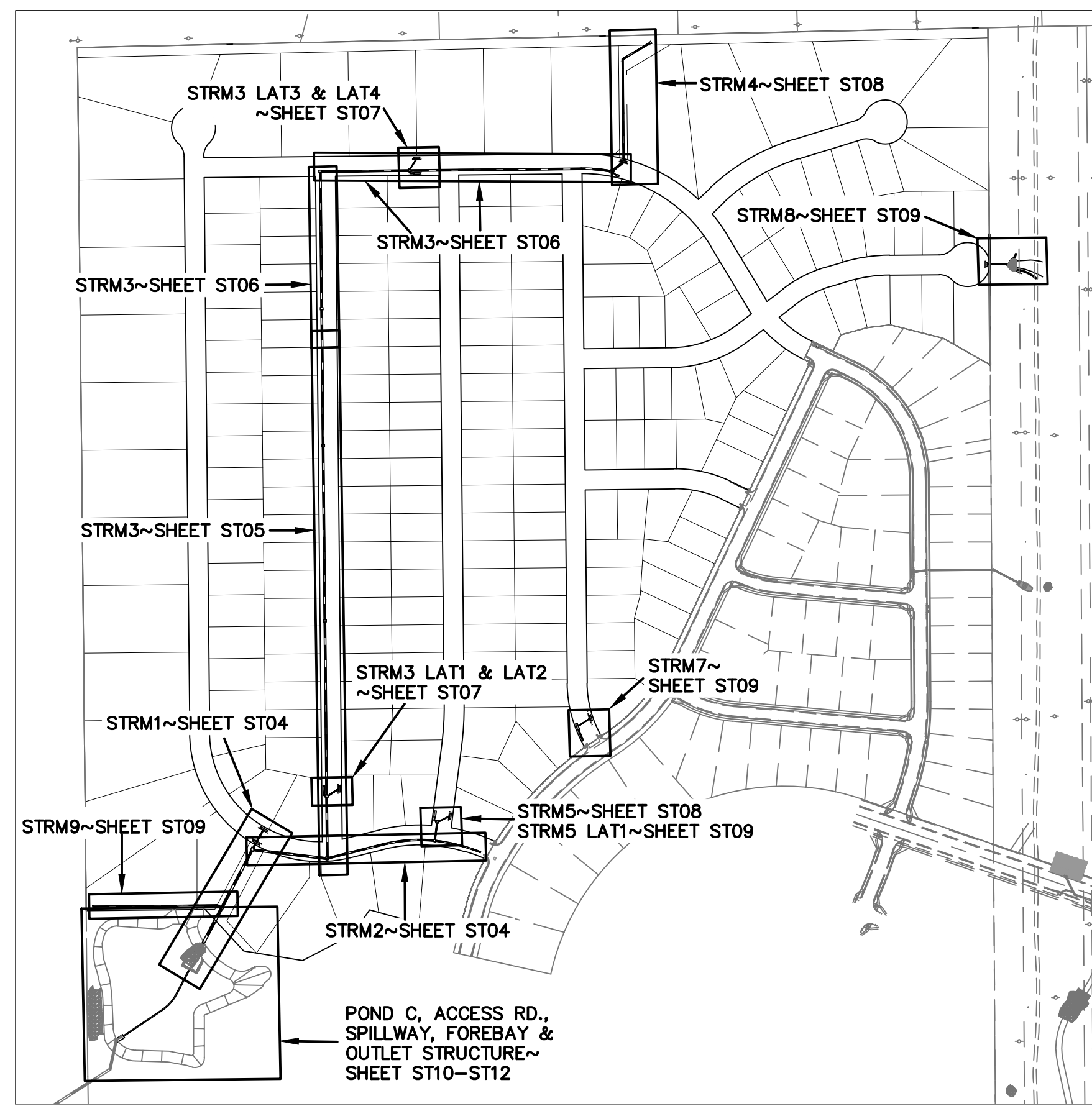
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REVISIONS:

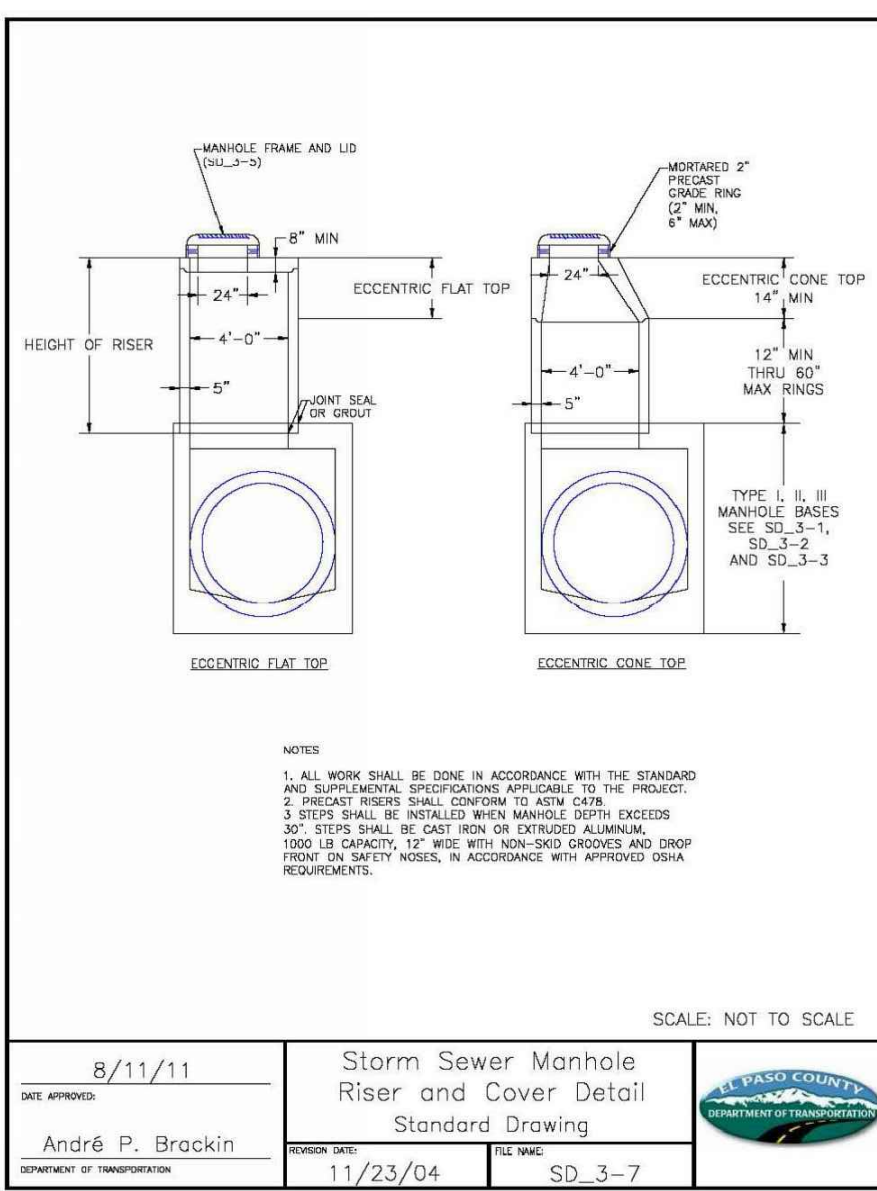
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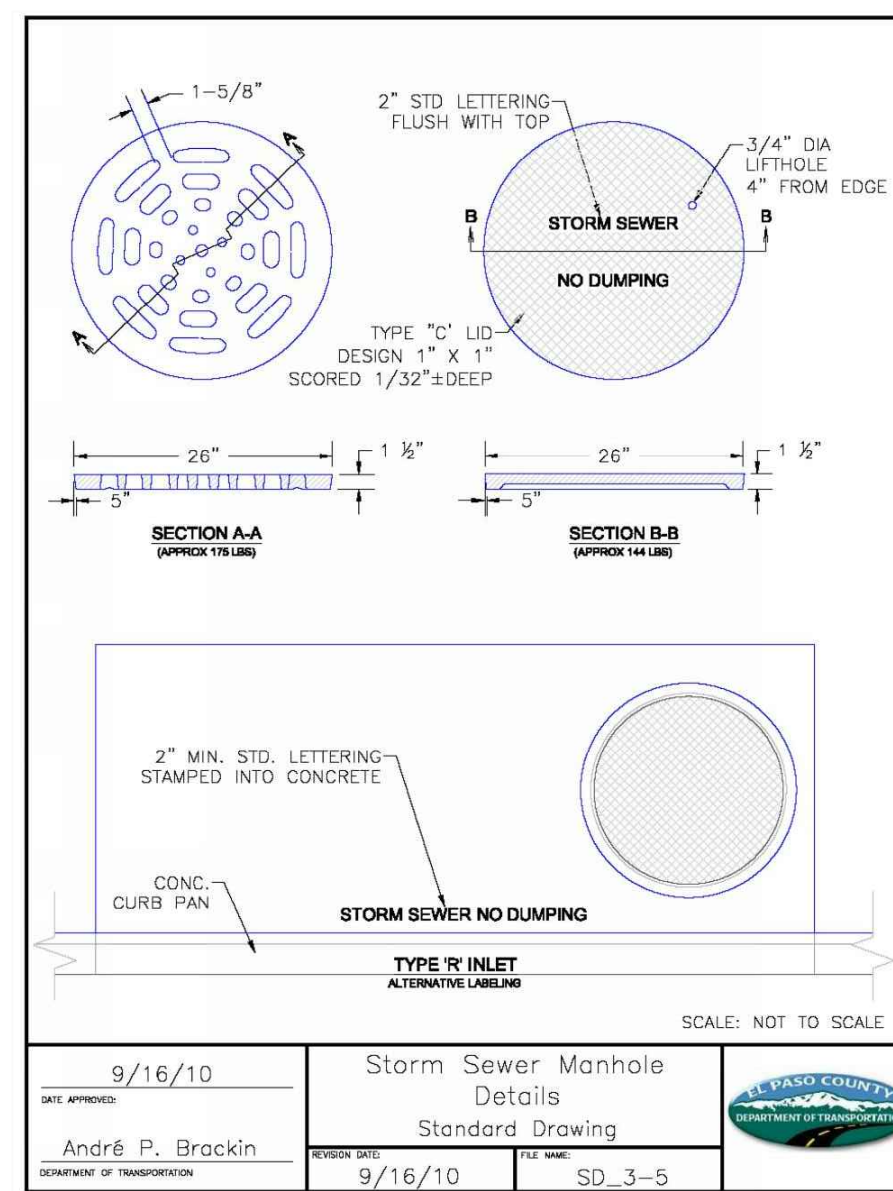
CAUTION



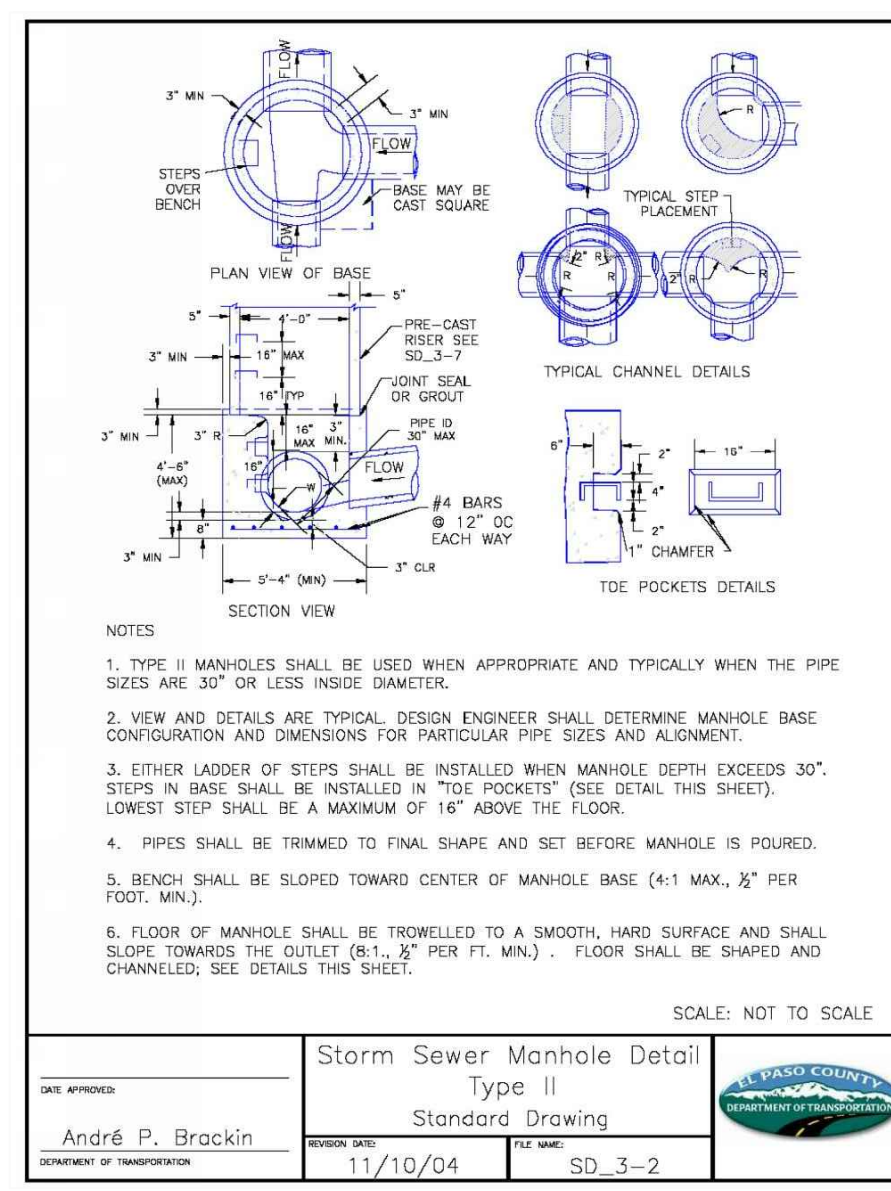
SHEET KEY MAP
N.T.S.



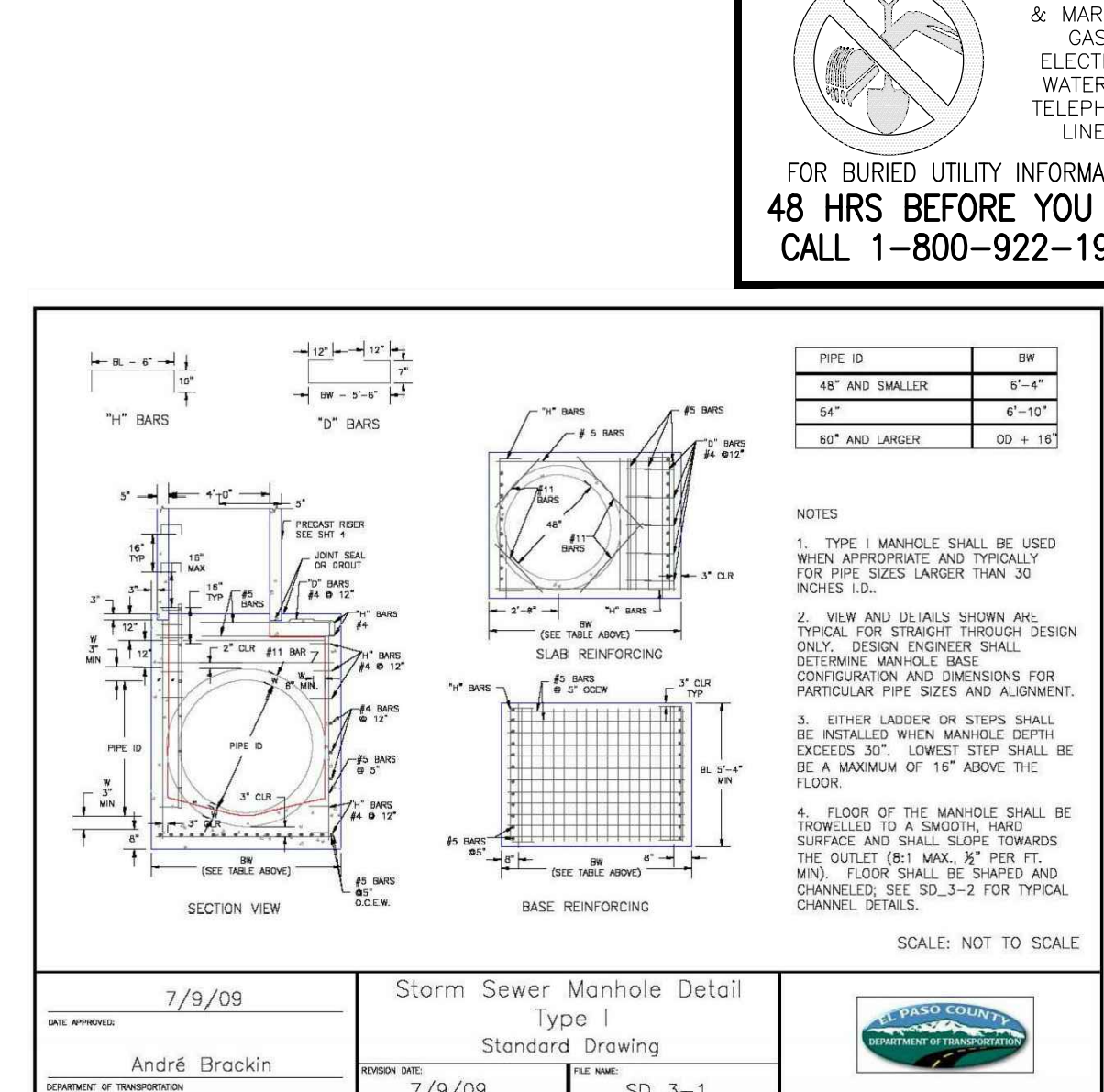
STORM SEWER MANHOLE
RISER AND COVER DETAIL
TYPE SD 3-7



STORM SEWER MANHOLE
LID DETAILS SD 3-5



STORM SEWER MANHOLE DETAIL
TYPE II SD 3-2



STORM SEWER MANHOLE DETAIL
TYPE I SD 3-1

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GENERAL NOTES AND DETAILS
PROJECT NO. 10-014 FILE: Yang\Const Dwg\Storm - District\ST02.dwg
DESIGNED BY: SCALE: DATE: 12/29/20
DRAWN BY: CT: N/A
CHECKED BY: VAS: N/A

212 N. WAHATCH AVE., STE. 305
COLORADO SPRINGS, CO 80903
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CIVIL CONSULTANTS, INC.

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

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

REVISIONS:	NO.	DATE:	BY:	DESCRIPTION:

STEEL GRATE QUANTITIES

NO.	DESCRIPTION	LENGTH PER FT. (LBS.)	WEIGHT (LBS.)
1	54 x 7.7 BEAM	40"	7.70
2	3/4" x 1/4" FLAT	26 2/3"	2.98
3	3" x 1/2" FLAT	26 2/3"	7.55

TOTAL LBS. = 128

QUANTITIES FOR ONE INLET

H	CONCRETE (CU. YDS.)	STEEL (LBS.)	NO. REINFC.
2'-0"	0.9	75	0
3'-0"	1.0	86	0
3'-6"	1.2	96	0
4'-0"	1.3	101	1
4'-6"	1.4	106	2
5'-0"	1.5	112	3
5'-6"	1.7	117	2
6'-0"	1.8	142	3
6'-6"	1.9	158	3
7'-0"	2.0	163	3
7'-6"	2.2	179	4
8'-0"	2.3	184	4
8'-6"	2.4	199	4
9'-0"	2.5	205	5
9'-6"	2.7	220	5
10'-0"	3.0	235	6
10'-6"	3.4	251	6

GENERAL NOTES

- INLET TYPE C IS NOT HO-20 RATED AND SHALL NOT BE PLACED IN PAVED ROADWAYS. THIS INLET SHALL BE USED ONLY OUTSIDE PAVED ROADWAYS.
- CONCRETE SHALL BE CLASS B. INLET MAY BE CAST-IN-PLACE OR PRECAST.
- REINFORCING BARS SHALL BE EPOXY COATED AND DEFORMED #4, AND SHALL HAVE A MINIMUM 2" IN CLEARANCE OUT OR BEND AROUND PIPES AS REQUIRED.
- CONCRETE SLOPE AND DITCH PAVING SHALL BE IN ACCORDANCE WITH SECTION 507. REINFORCEMENT FOR CONCRETE SLOPE PAVING SHALL BE 6" x 6" - W4.4 x W4.4 OR 8" x 8" - W2.1 WEL.
- STRUCTURAL STEEL FOR GRATES AND GRATE INSTALLATION HARDWARE SHALL BE GALVANIZED, AND SHALL BE IN ACCORDANCE WITH SUBSECTION 712.06.
- THE STANDARD INLET GRATES SHALL BE USED ON ALL TYPE C INLETS UNLESS CLOSE MESH GRATES ARE SPECIFIED ON THE PLANS.
- CLOSE MESH GRATES ARE RECOMMENDED WHERE FOOT TRAFFIC OR BICYCLE ROUTES ARE IN CLOSE PROXIMITY TO GRATE. THIS GRATE IS NOT ADA COMPLIANT OR BICYCLE FRIENDLY AND SHALL NOT BE PLACED DIRECTLY IN SIDEWALKS, CROSSWALKS OR BIKE PATHS.
- STEPS SHALL BE PROVIDED WHEN INLET DIMENSION "H" IS EQUAL TO OR GREATER THAN 3 FT. - 6 IN., AND SHALL CONFORM TO ASHOTO M 199.
- SEE STANDARD PLAN M-604-11 FOR REINFORCEMENT AROUND THE PIPE OPENING.
- ALL INLETS SHALL HAVE A 4 IN. DIA. METAL MEDALLION WITH A "NO DUMPING DRUGS TO STREAM" MESSAGE ON IT. THE MEDALLION SHALL HAVE A FISH SYMBOL WITH A BLUE BACKGROUND. IT SHALL BE FIRMLY ATTACHED TO THE TOP OF THE INLET WITH A PERMANENT FASTENER.

BAR LIST FOR H=2 FT.-6 IN. AND BENDING DIAGRAM

MARK	NO.	NO. REINFC.	HEIGHT	LENGTH
401	2	2	2'-0"	7'-0"
401	6	2	2'-0"	8'-0"
402	3	4	3'-0"	15'-0"

GENERAL NOTES

- ALL EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 3/4" IN.
- WINDOW FOOTINGS AND FLOOR OF BOX CULVERT SHALL BE PLACED MULTIMULTIPLY.
- DIMENSIONS "H", "R", "RISE", "H", "H" AND ANGLES FOR WINDOW WALLS SHALL BE AS SHOWN ON THE PLANS.
- 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"

DESIGN TABLE

DESIGN FOOTING LINE	CONSTRUCTION FOOTING LINE	b	h	h	h	h	h	h	h	h	h	h
1'-0"	1'-0"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"
1'-6"	1'-6"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"
2'-0"	2'-0"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"
2'-6"	2'-6"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"
3'-0"	3'-0"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"
3'-6"	3'-6"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"
4'-0"	4'-0"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"
4'-6"	4'-6"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"
5'-0"	5'-0"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"
5'-6"	5'-6"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"
6'-0"	6'-0"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"
6'-6"	6'-6"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"
7'-0"	7'-0"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"
7'-6"	7'-6"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"
8'-0"	8'-0"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"
8'-6"	8'-6"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"
9'-0"	9'-0"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"
9'-6"	9'-6"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"
10'-0"	10'-0"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"
10'-6"	10'-6"	4"	5"	6"	7"	8"	9"	10"	11"	12"	13"	14"

DESIGN EXAMPLE

Computer File Information: Creation Date: 07/04/12, Inits: DD, Last Modification Date: 07/04/12, Inits: LTA, Full Path: www.coloradodot.info/business/designsupport, Drawing File Name: 60410101.dgn, CAD Ver.: MicroStation V8, Scale: Not to Scale, Units: English

Sheet Revisions: (Table with columns for Date, Comments)

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STANDARD PLAN NO. M-604-10, Sheet No. 1 of 1

CDOT TYPE C INLET DETAIL STD. NO. M-604-10

Computer File Information: Creation Date: 07/04/12, Inits: DD, Last Modification Date: 07/04/12, Inits: LTA, Full Path: www.coloradodot.info/business/designsupport, Drawing File Name: 601020101.dgn, CAD Ver.: MicroStation V8, Scale: Not to Scale, Units: English

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STANDARD PLAN NO. M-601-20, Sheet No. 1 of 1

CDOT WINGWALL DETAIL STD. NO. M-601-20

WINGWALLS FOR PIPE OR BOX CULVERTS
STANDARD PLAN NO. M-601-20
Sheet No. 1 of 1

DESIGN DATA:
UNIT STRESSES: f_c = 3,000 PSI, f_s = 100,000 PSI, n = 9
EQUIVALENT FLUID PRESSURE = 30 LBS./CU. FT.
MAXIMUM FLOOR PRESSURE = 1 TON/SQ. FT.
ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED BEFORE CONCRETE IS POURED.
WINDOW WALLS SHALL BE CONCRETE CLASS B, OR D (BOX CULVERT) FOR CONCRETE CLASS B, OR D (WALL) FOR PIPES.
LIVE LOAD SURCHARGE HAS NOT BEEN CONSIDERED. WALLS WITHIN 1/2" OF THE EDGE OF THE ROADWAY SHOULD REQUIRE A SPECIAL DESIGN IN ACCORDANCE WITH ASHOTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

GENERAL NOTES:

- FOR LENGTH (L) 10 FT. OR MORE, PROVIDE MAINTENANCE ACCESS AT BOTH ENDS WITH AN ADDITIONAL MANHOLE RING AND COVER. CUT REINFORCEMENT BARS ACCORDINGLY.
- STATION POINT AT MIDPOINT OF INLET ALONG FLOWLINE.
- MEET SHAPE OF NORMAL BARRIER CURB AND GUTTER HERE.
- SEE CHANNEL LAYOUT ON SHEET 2.
- WHEN A TYPE R INLET IS USED WITH MOUNTABLE CURB AND GUTTER, 2 FT. TRANSITION SHALL BE CONSTRUCTED. TRANSITION SHALL BE PAID FOR AS CURB AND GUTTER.
- A 2 IN. DIAMETER TEMPORARY HOLE FOR DRAINAGE SHALL BE PLACED AT SUBGRADE ELEVATION OR A MINIMUM THREE INCHES BELOW ROAD BASE. THE HOLE SHALL BE PLUGGED WITH CONCRETE BEFORE ACCEPTANCE OF THE INLET.

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 Full Path: www.colorado.gov/info/business/designsupport
 Drawing File Name: 60401202.dgn
 CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English

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Date:	Comments:

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 Fax: (303) 757-9820
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CURB INLET TYPE R
 STANDARD PLAN NO. M-604-12
 Sheet No. 1 of 2

GENERAL NOTES:

- INLET TYPE D IS NOT HS-20 RATED AND SHALL NOT BE PLACED IN PAVED ROADWAYS. THIS INLET SHALL BE USED ONLY OUTSIDE PAVED ROADWAYS.
- CONCRETE SHALL BE CLASS B INLET MAY BE CAST-IN-PLACE OR PRECAST.
- SEE PLANS FOR SIZE AND LOCATION OF PIPE.
- STRUCTURAL STEEL FOR GRATES AND GRATE INSTALLATION HARDWARE SHALL BE GALVANIZED AND SHALL BE IN ACCORDANCE WITH SUBSECTION 712.06.
- STANDARD INLET GRATES SHALL BE USED ON ALL TYPE D INLETS UNLESS CLOSE MESH GRATES ARE SPECIFIED ON THE PLANS.
- CLOSE MESH GRATES ARE RECOMMENDED WHERE FOOT TRAFFIC OR BICYCLE ROUTES ARE IN CLOSE PROXIMITY TO GRATE. THIS GRATE IS NOT A COMPLIANT OR BICYCLE FRIENDLY AND SHALL NOT BE PLACED DIRECTLY IN SIDEWALKS, CROSSWALKS OR BIKE PATHS.
- STEPS SHALL BE PROVIDED WHEN INLET DIMENSION "H" IS EQUAL TO OR GREATER THAN 3 FT.-6 IN. AND SHALL CONFORM WITH AASHTO M 199.
- REINFORCING BARS SHALL BE EPOXY COATED AND DEFORMED #4, AND SHALL HAVE A 2 IN. MINIMUM CLEARANCE OUT OR END BARS AROUND PIPE AS REQUIRED.
- ALL INLETS SHALL HAVE A 4 IN. DIA. METAL MEDALLION WITH A "NO DUMPING DRAINS TO STREAM" MESSAGE ON IT. THE MEDALLION SHALL HAVE A FISH SYMBOL WITH A BLUE BACKGROUND. IT SHALL BE FIRMLY ATTACHED TO THE INLET'S SURFACE WITH A PERMANENT FASTENER.

Computer File Information
 Creation Date: 07/04/12 Initials: DD
 Last Modification Date: 07/04/12 Initials: LTA
 Full Path: www.colorado.gov/info/business/designsupport
 Drawing File Name: 60401202.dgn
 CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English

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Date:	Comments:

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 Phone: (303) 757-9083
 Fax: (303) 757-9820
 Project Development Branch DD/LTA

INLET, TYPE D
 STANDARD PLAN NO. M-604-11
 Sheet No. 1 of 1

GENERAL NOTES:

- CONCRETE SHALL BE CLASS B INLET MAY BE CAST-IN-PLACE OR PRECAST.
- CONCRETE WALLS SHALL BE FORMED ON BOTH SIDES AND SHALL BE 8 IN. THICK.
- INLET STEPS SHALL BE IN CONFORMANCE WITH AASHTO M 199.
- CURB FACE ASSEMBLY SHALL BE GALVANIZED AFTER WELDING.
- EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 3/4 IN. CURB AND GUTTER CORNERS SHALL BE FINISHED TO MATCH THE EXISTING CURB AND GUTTER BEYOND THE TRANSITION GUTTER.
- REINFORCING BARS SHALL BE DEFORMED AND SHALL HAVE A 2 IN. MINIMUM CLEARANCE. ALL REINFORCING BARS SHALL BE EPOXY COATED.
- DIMENSIONS AND WEIGHTS OF TYPICAL MANHOLE RING AND COVER ARE NOMINAL.
- MATERIAL FOR MANHOLE RINGS AND COVERS SHALL BE GRAY DUCTILE CAST IRON IN ACCORDANCE WITH SUBSECTION 712.06.
- SINCE PIPE ENTRIES INTO THE INLET ARE VARIABLE, THE DIMENSIONS SHOWN ARE TYPICAL. ACTUAL DIMENSIONS AND QUANTITIES FOR CONCRETE AND REINFORCEMENT SHALL BE AS REQUIRED IN THE WORK. QUANTITIES INCLUDE VOLUMES OCCUPIED BY PIPES.
- STRUCTURAL STEEL SHALL BE GALVANIZED AND SHALL BE IN ACCORDANCE WITH SUBSECTION 712.06.
- ALL MANHOLE COVERS SHALL BE CAST WITH A "NO DUMPING DRAINS TO STREAM" MESSAGE AND A FISH SYMBOL. THE SURFACE OF THE MANHOLE COVER SHALL HAVE A NON-SLIP PATTERN.

Computer File Information
 Creation Date: 07/04/12 Initials: DD
 Last Modification Date: 07/04/12 Initials: LTA
 Full Path: www.colorado.gov/info/business/designsupport
 Drawing File Name: 60401202.dgn
 CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English

Sheet Revisions

Date:	Comments:

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 Denver, Colorado 80222
 Phone: (303) 757-9083
 Fax: (303) 757-9820
 Project Development Branch DD/LTA

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

Hydraulic Structures Chapter 9

Rinker Materials-Denver Pipe Plant Curved Alignment Guide - Gasketed RCP

Diameter (in)	Joint Gap (in)	Wall Thickness (in)	O.D. (in)	Angle (degree)	Allowable Pull (in)	Min. Radius (feet)
12	0.5	2	16	1.8	3.0	128
15	0.5	2.25	19.5	1.5	2.5	156
18	0.5	2.5	23	1.2	2.1	184
24	0.5	2.75	29.5	1.0	1.6	236
30	0.563	3.5	37	0.9	1.5	283
36	0.625	4	44	0.8	1.4	282
42	0.688	4.5	51	0.8	1.3	297
48	0.75	5	58	0.7	1.2	309
54	0.75	6.25	66.5	0.6	1.1	355
60	0.75	6.75	73.5	0.6	1.0	392
66	0.75	7.25	80.5	0.5	0.9	429
72	0.75	7.75	87.5	0.5	0.8	467
84	0.75	8.75	101.5	0.4	0.7	541
90	0.75	9.25	108.5	0.4	0.7	579
96	0.75	9.75	115.5	0.4	0.6	616

Figure 9-37. Low tailwater riprap basin

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

PAINT BRUSH HILLS FILING NO. 14

GENERAL NOTES AND DETAILS

PROJECT NO. 10-014 FILE: Yang/Const/Eng/Storm - District/ST03.dwg
 DESIGNED BY: CT SCALE: DATE: 12/29/20
 DRAWN BY: CWN HORIZ: N/A SHEET 21 OF 30
 CHECKED BY: VAS VERT: N/A

212 N. WAHATCHAVE, STE 303
 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:

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CAUTION

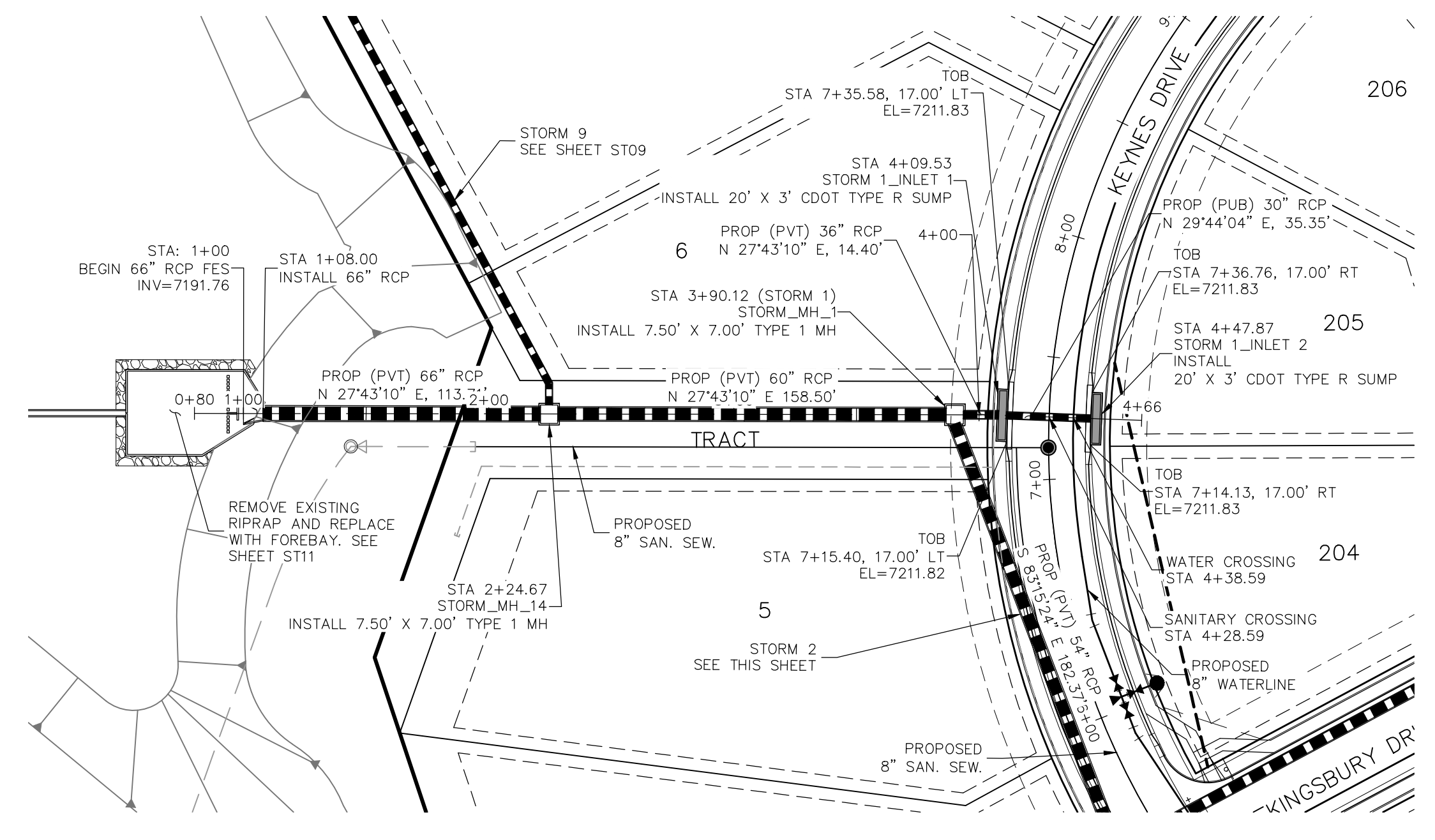


FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.
 VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

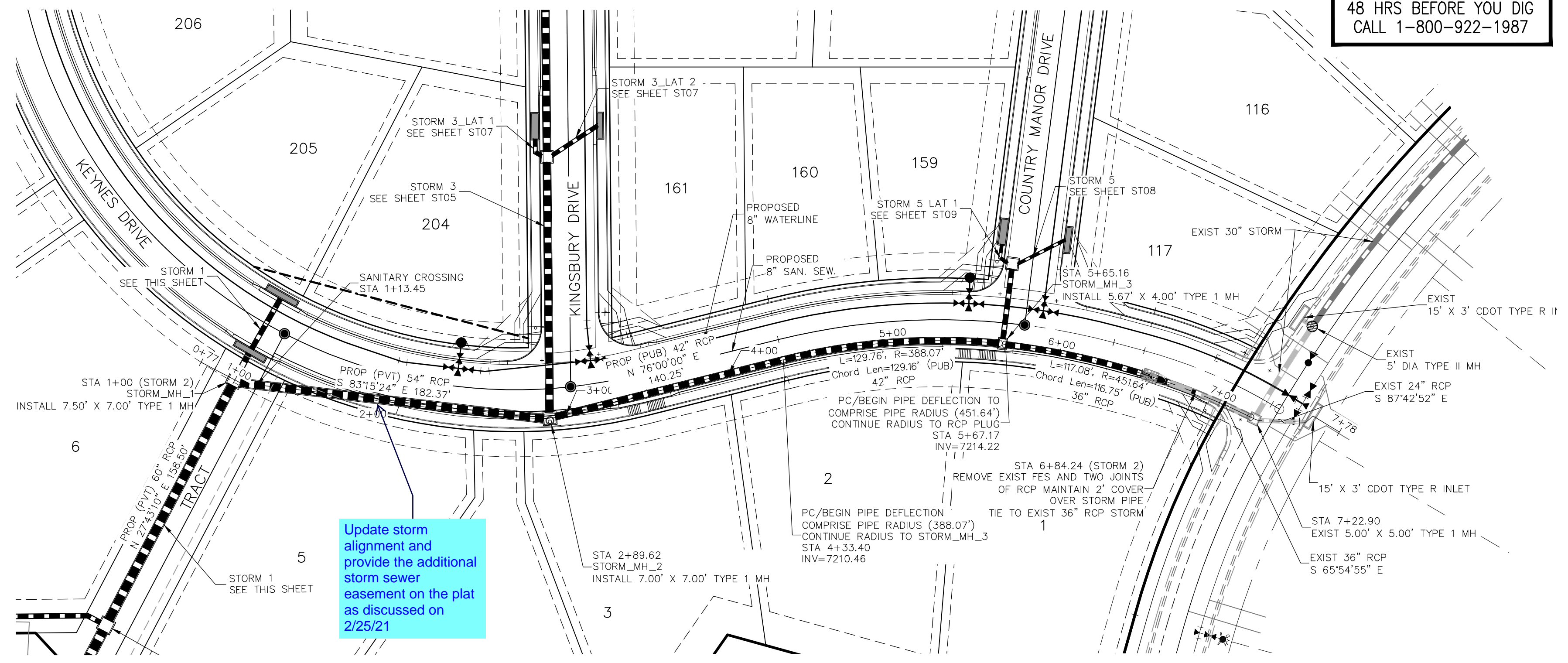
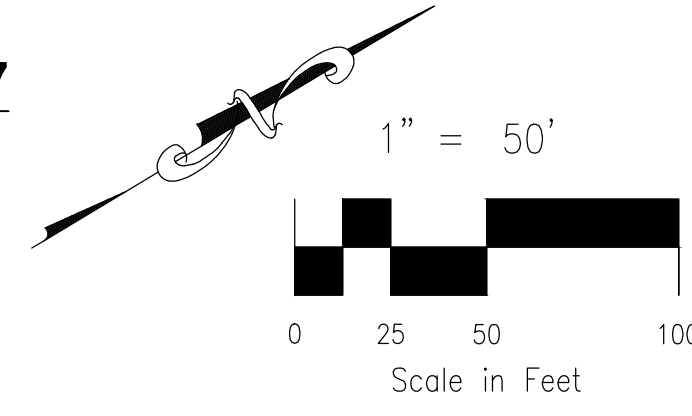
NO.	DATE	BY	DESCRIPTION

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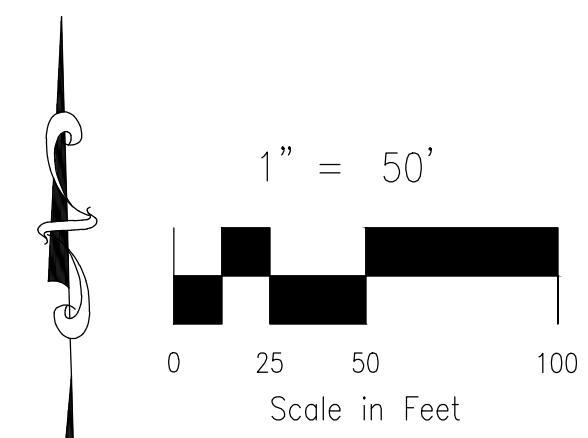
CAUTION



STORM 1
STA 1+00.00 TO STA 4+47.87

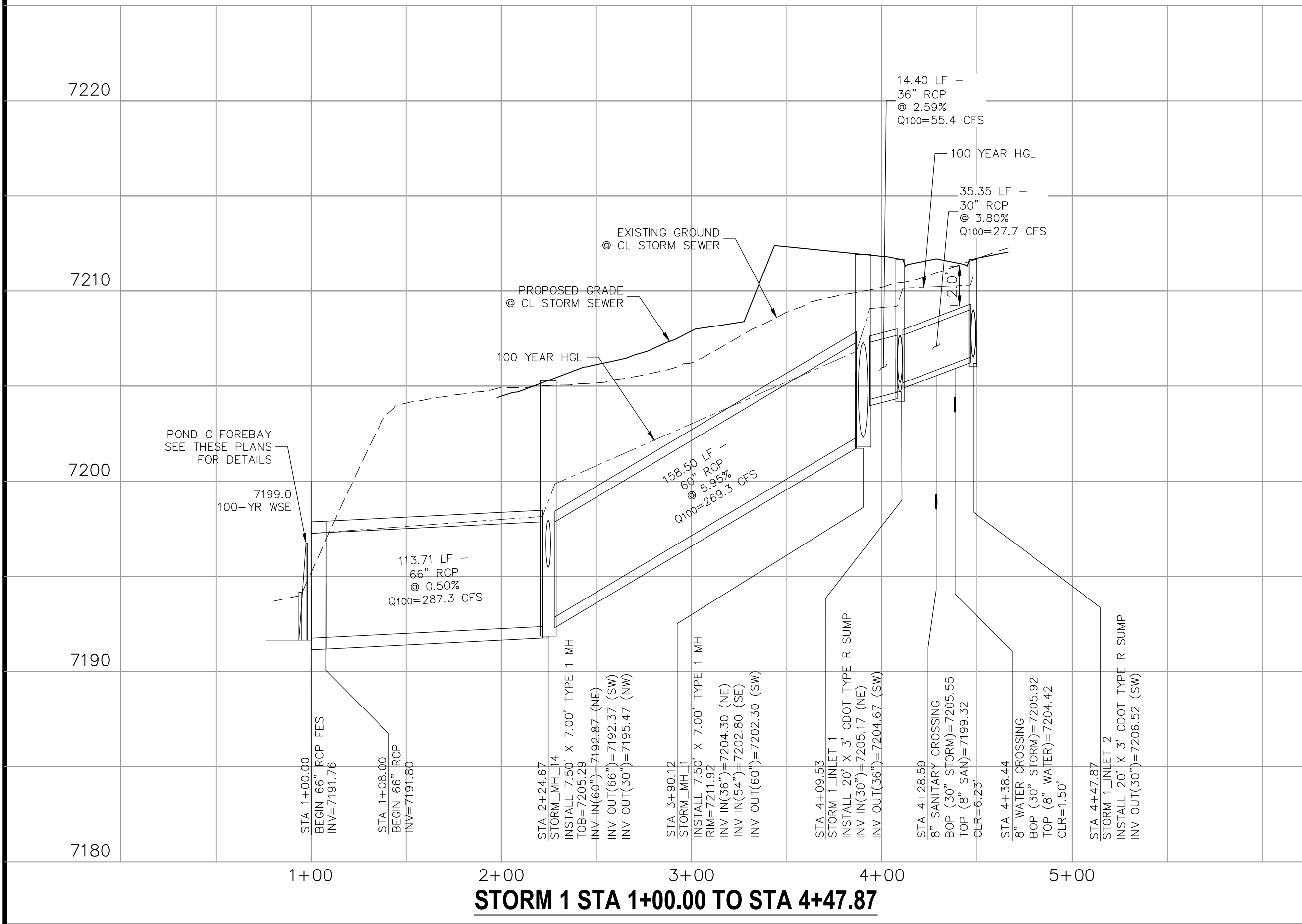


STORM 2
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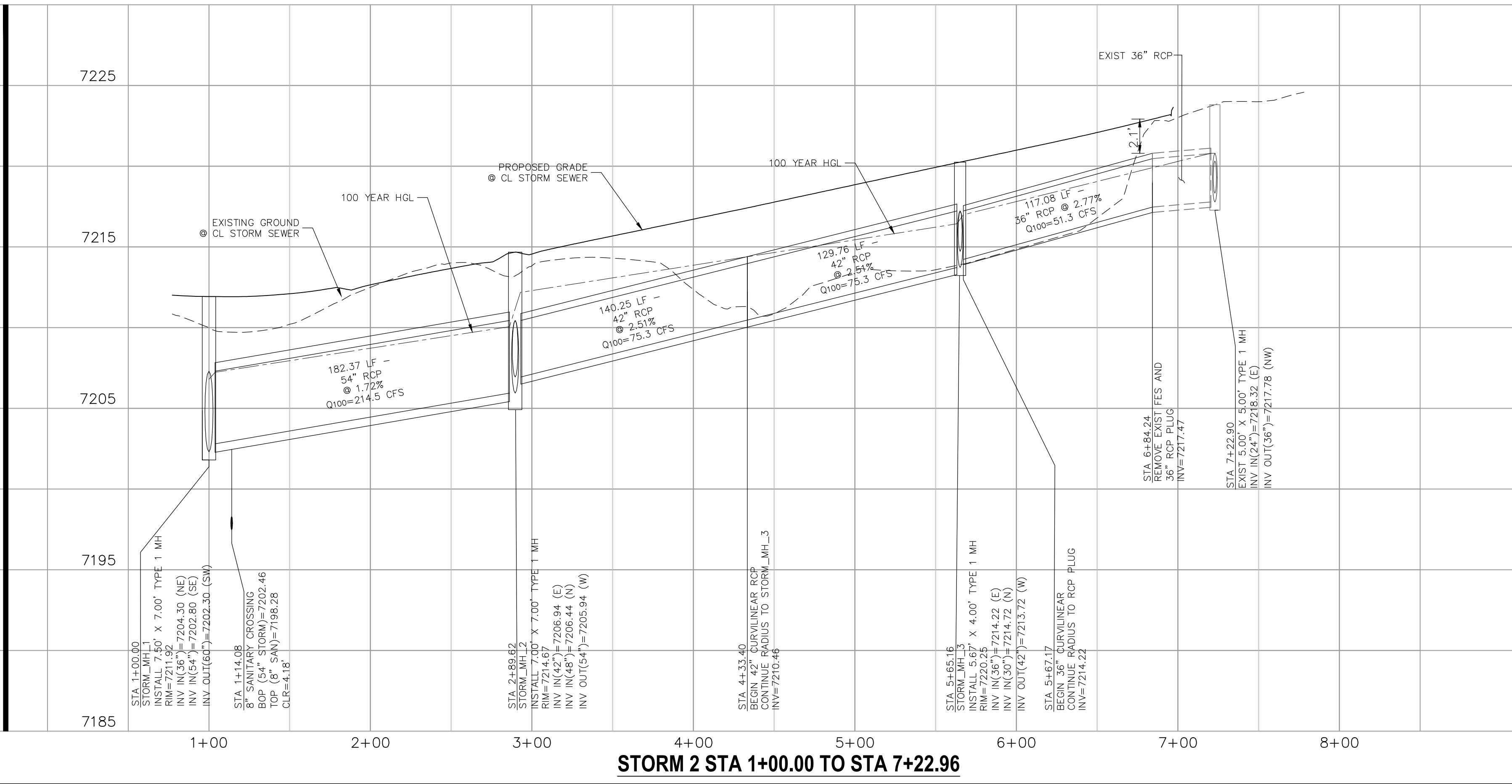


Update storm alignment and provide the additional storm sewer easement on the plat as discussed on 2/25/21

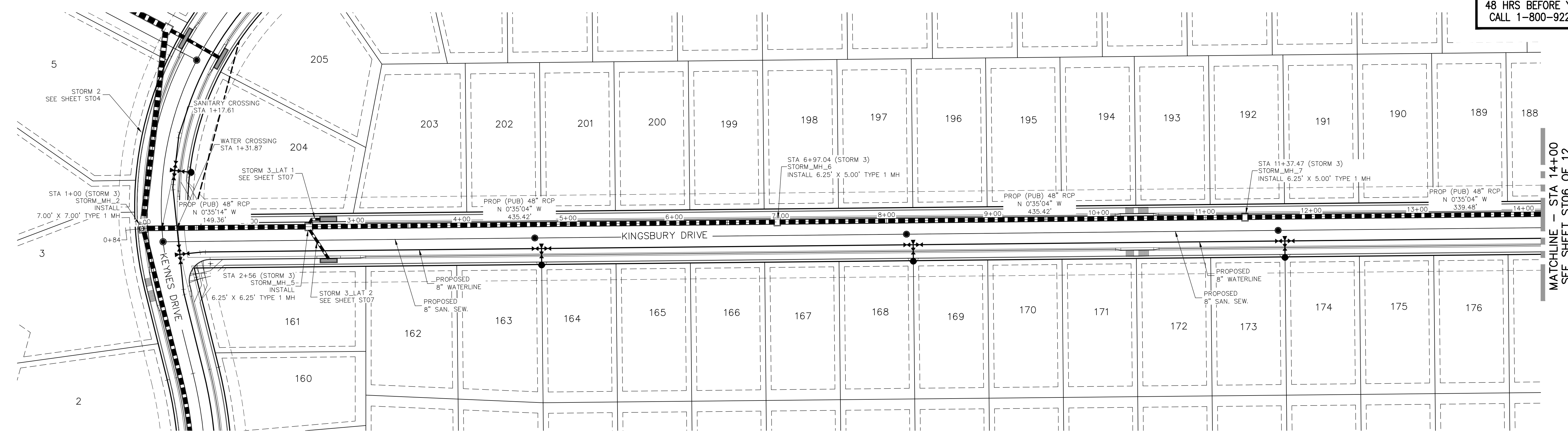
- NOTE:
- SEE SHEET ST03 FOR MANUFACTURERS MINIMUM PIPE RADII. PRIOR TO INSTALLATION, CONTRACTOR MUST CONTACT DESIGN ENGINEER IF PIPE MANUFACTURERS MINIMUM RADII IS NOT MET.
 - WHEN STORM SEWERS ARE DESIGNED TO OPERATE UNDER PRESSURIZED CONDITIONS, THEY SHALL HAVE GASKETED, WATERTIGHT JOINTS, PER ASTM STANDARD C 443. ADHERE TO MANUFACTURER'S SPECIFICATIONS FOR MAXIMUM ALLOWABLE JOINT GAPS TO FORM A WATERTIGHT SEAL.
 - MAINTAIN MANHOLE RING AND COVER OUT OF CURB AND GUTTER AREA.



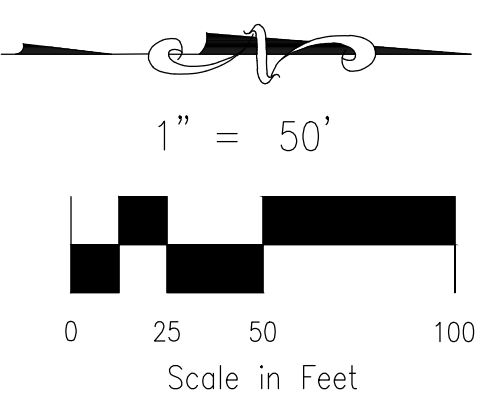
STORM 1 STA 1+00.00 TO STA 4+47.87



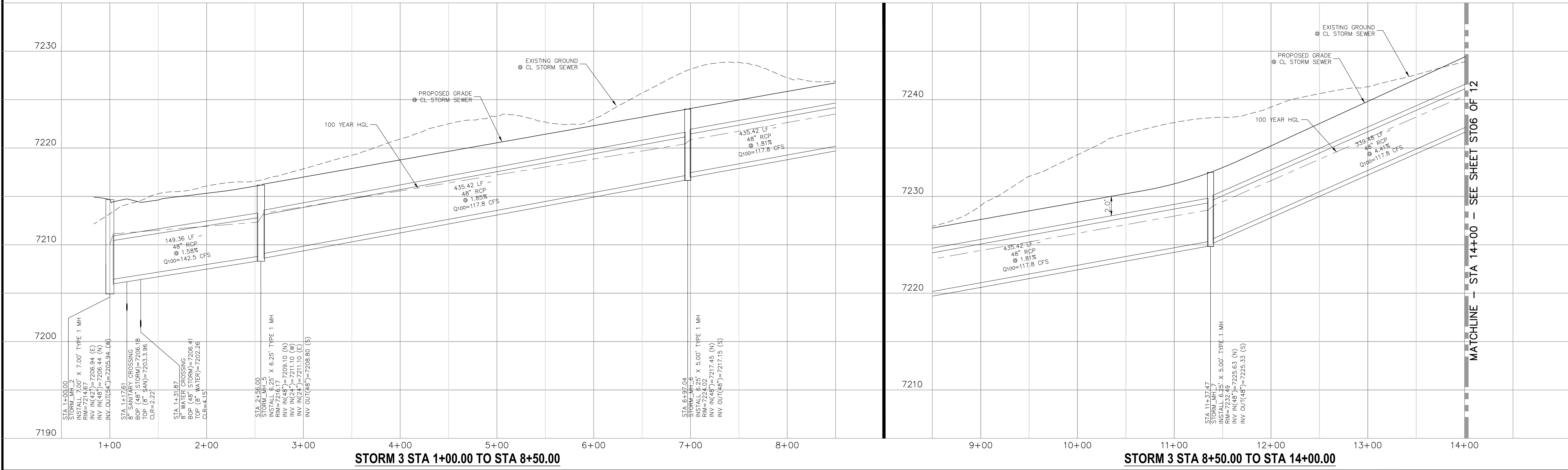
STORM 2 STA 1+00.00 TO STA 7+22.96



**STORM 3
STA 1+00.00 TO STA 14+00.00**



- NOTE:**
1. WHEN STORM SEWERS ARE DESIGNED TO OPERATE UNDER PRESSURIZED CONDITIONS, THEY SHALL HAVE GASKETED, WATERTIGHT JOINTS, PER ASTM STANDARD C 443. ADHERE TO MANUFACTURER'S SPECIFICATIONS FOR MAXIMUM ALLOWABLE JOINT GAPS TO FORM A WATERTIGHT SEAL.
 2. MAINTAIN MANHOLE RING AND COVER OUT OF CURB AND GUTTER AREA.



STORM 3 STA 1+00.00 TO STA 8+50.00

STORM 3 STA 8+50.00 TO STA 14+00.00

PAINT BRUSH HILLS FILING NO. 14

STORM PLAN & PROFILE

PROJECT NO. 10-014 DATE: 12/29/20

DESIGNED BY: GT SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'

DRAWN BY: CMN SHEET 23 OF 30

CHECKED BY: VAS **ST05**

212 N. WAHATCH AVE. STE 305
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. 37160

NO.	DATE	BY	DESCRIPTION	APPROVED BY	DATE

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CAUTION



PAINT BRUSH HILLS FILING NO. 14
STORM PLAN & PROFILE
 PROJECT NO. 10-014 DATE: 12/29/20
 SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'
 DESIGNED BY: GT DRAWN BY: CMN CHECKED BY: VAS
 SHEET 25 OF 30
ST07

212 N. WASHINGTON AVE., STE 303
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

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

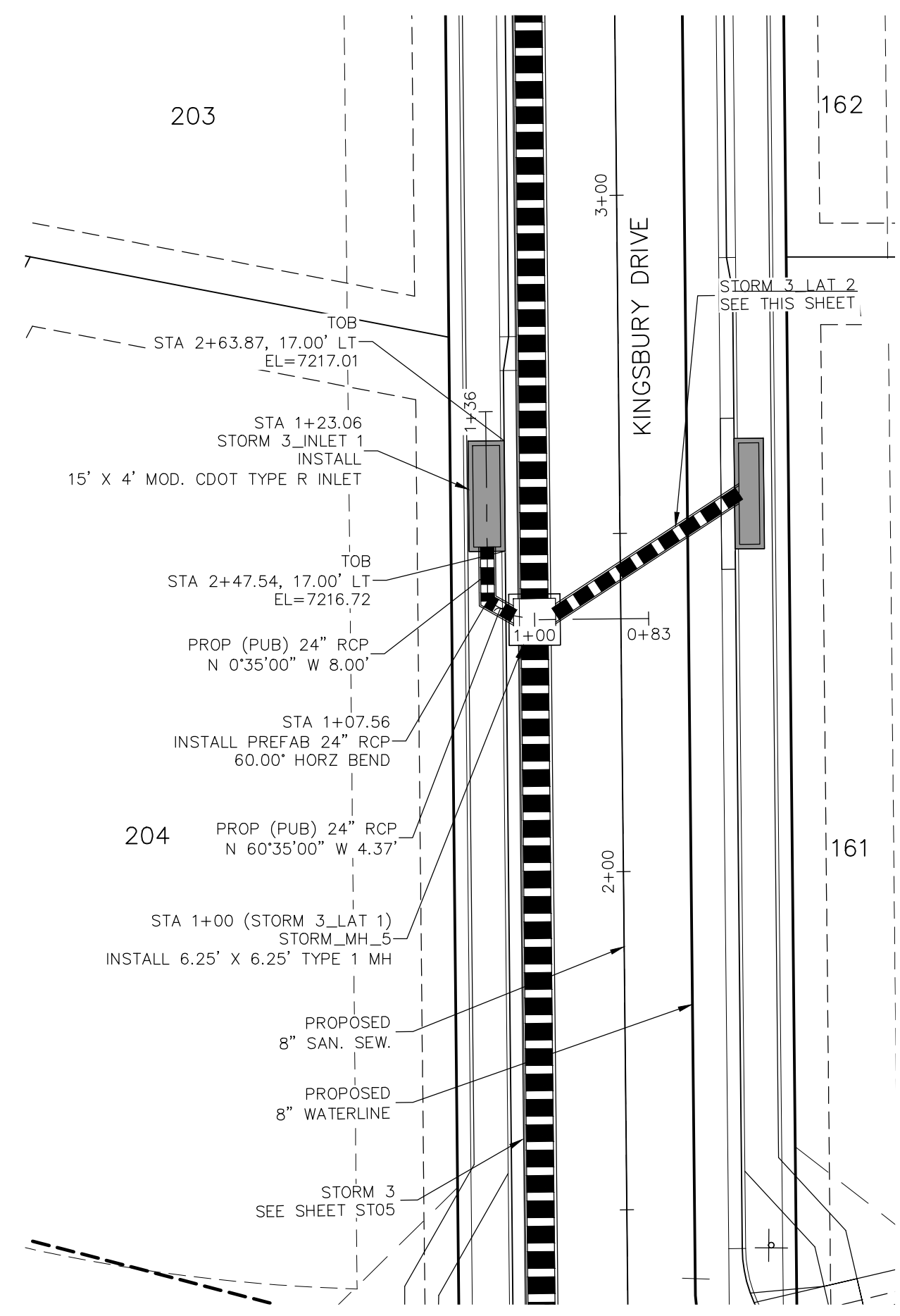
REVISIONS:

NO.	DATE:	BY:	DESCRIPTION:

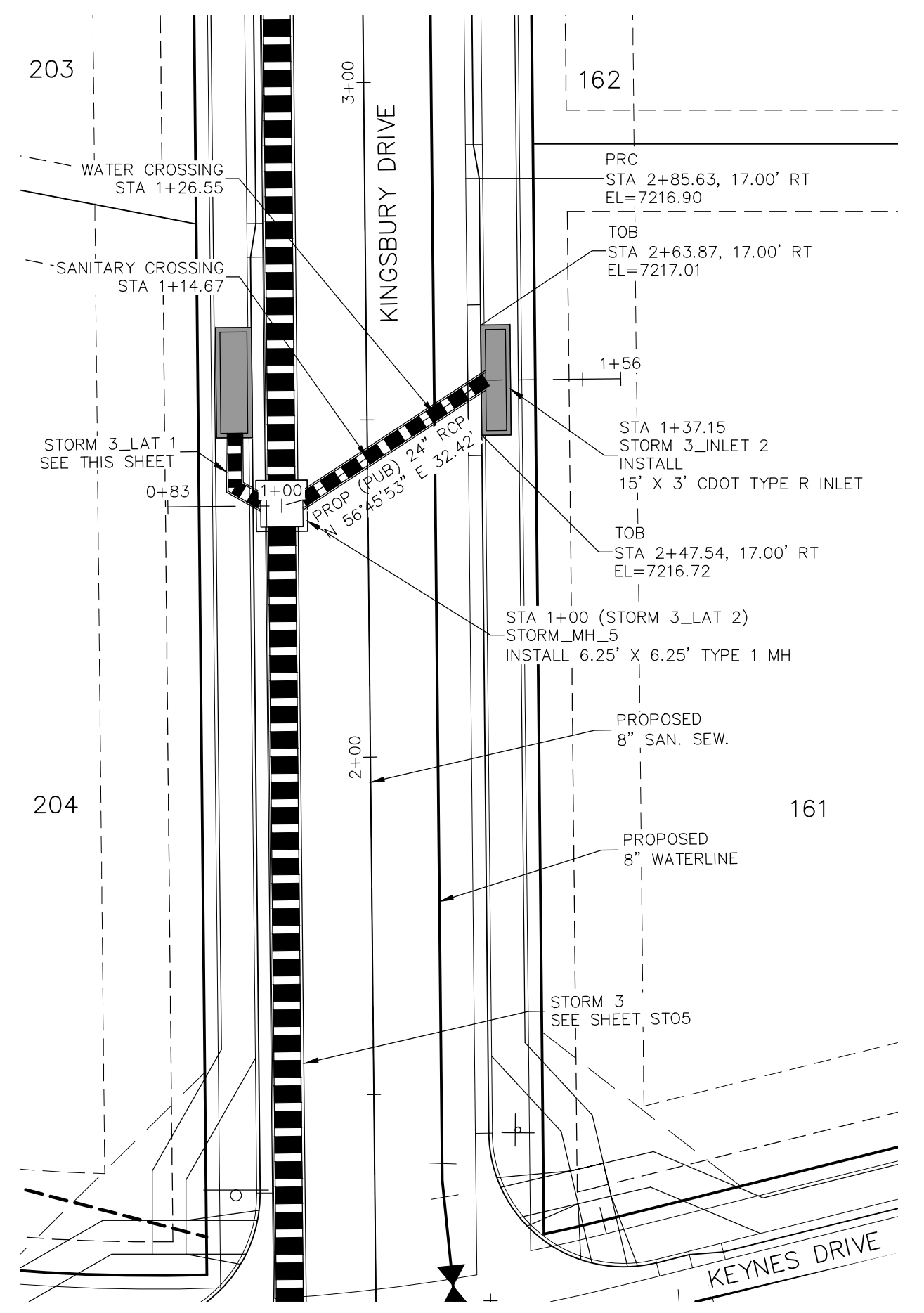
APPROVED BY: DATE: _____

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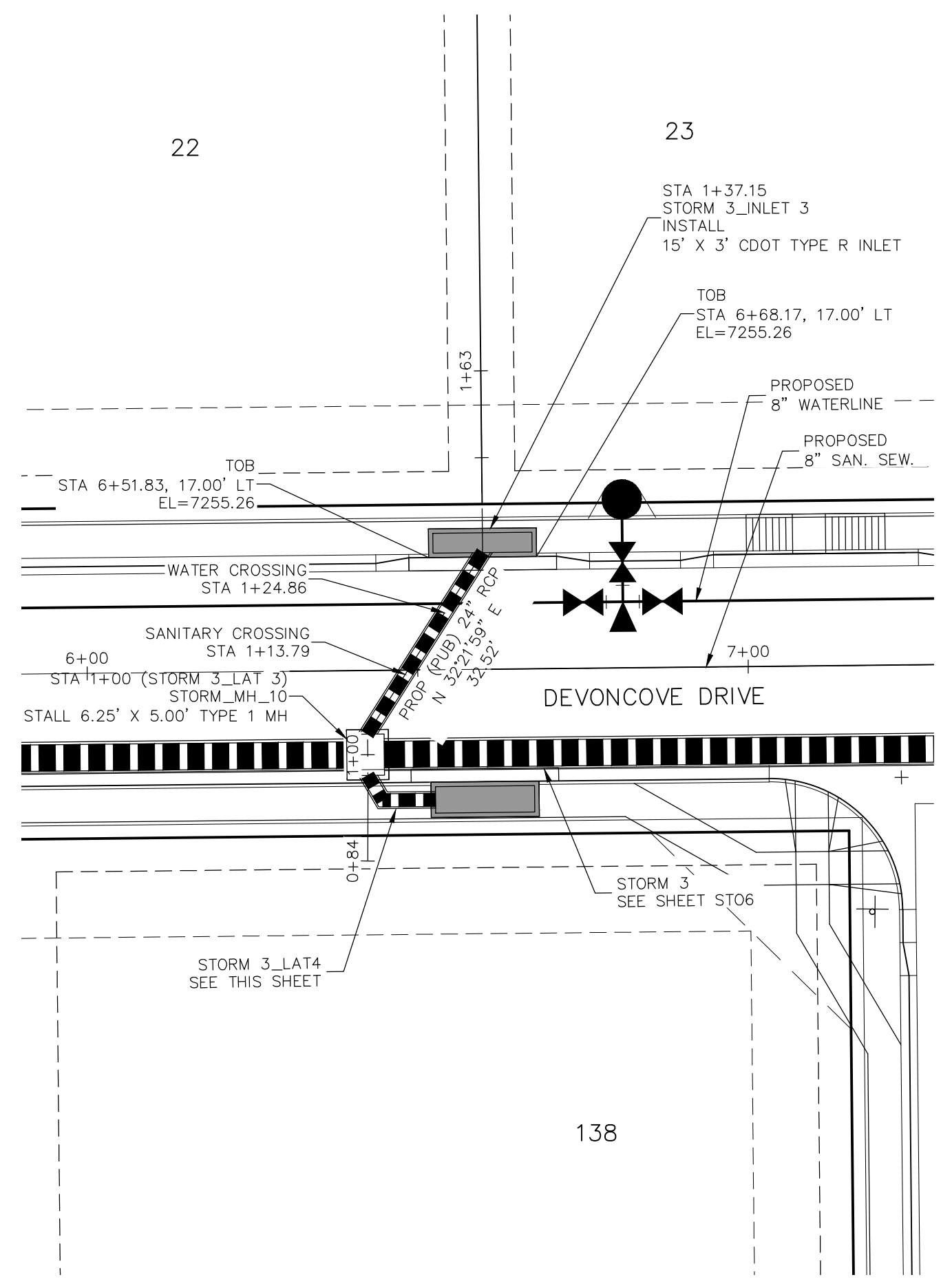
CAUTION



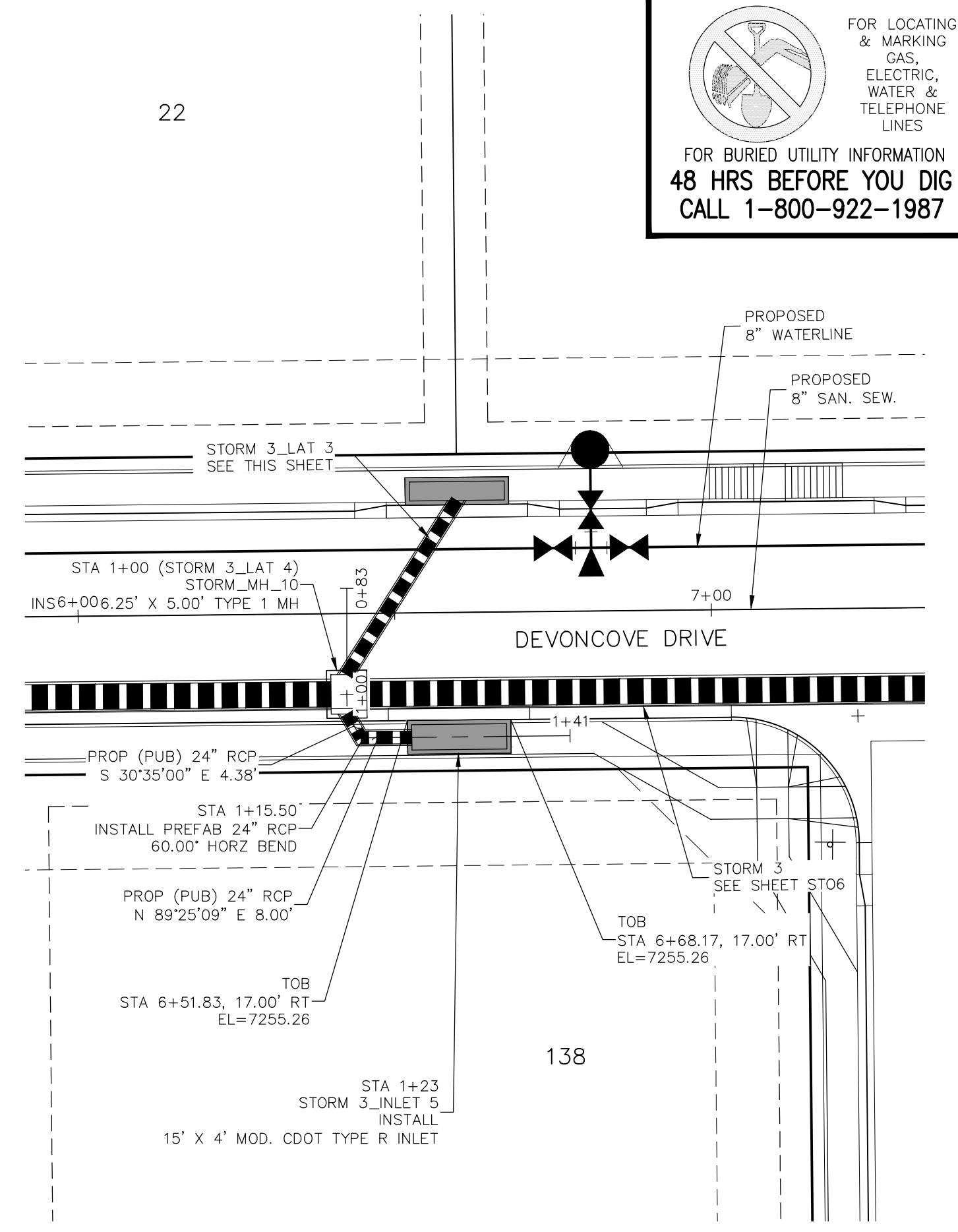
STORM 3 LAT 1
STA 1+00.00 TO STA 1+23.06



STORM 3 LAT 2
STA 1+00.00 TO STA 1+37.15

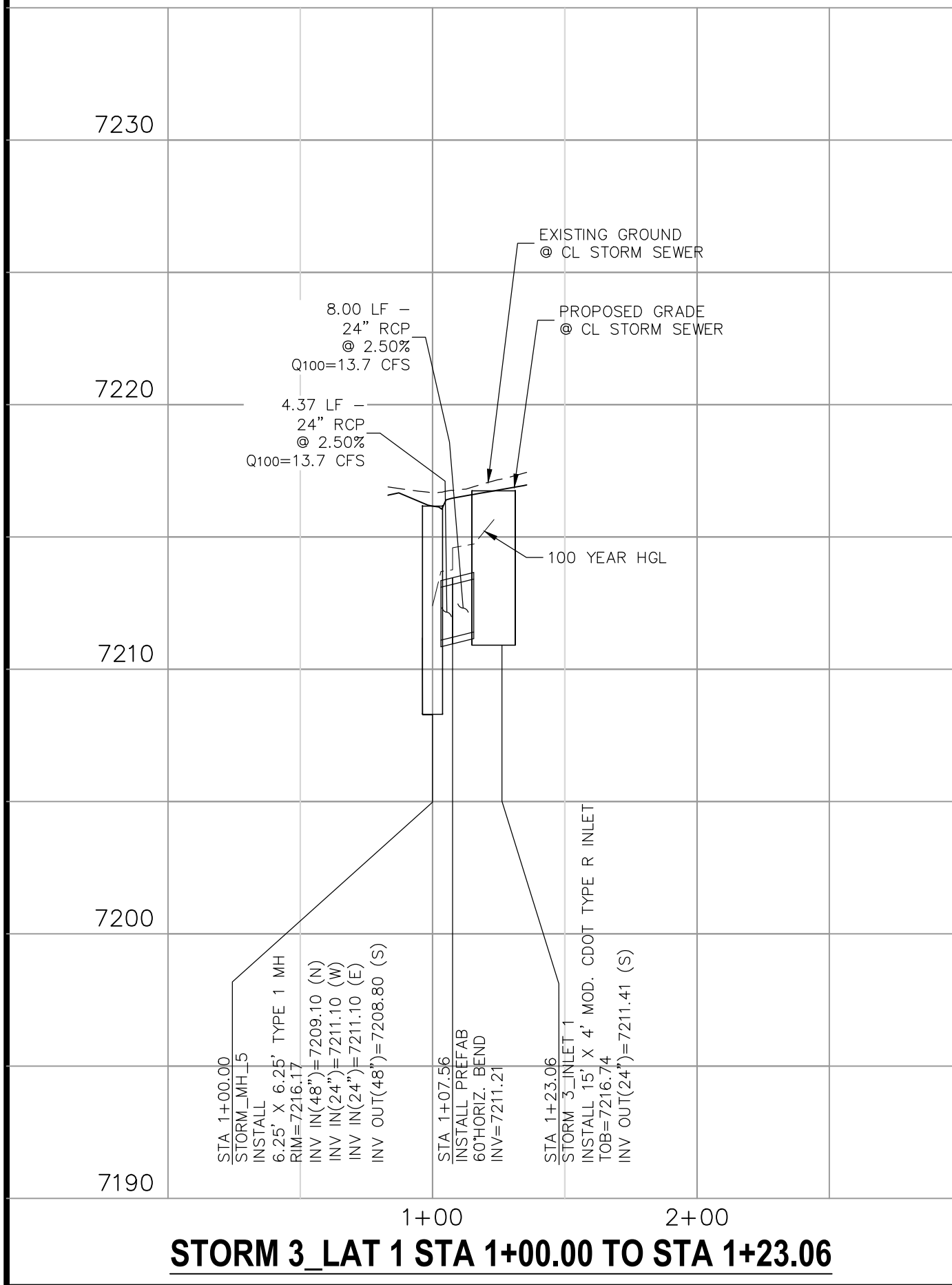
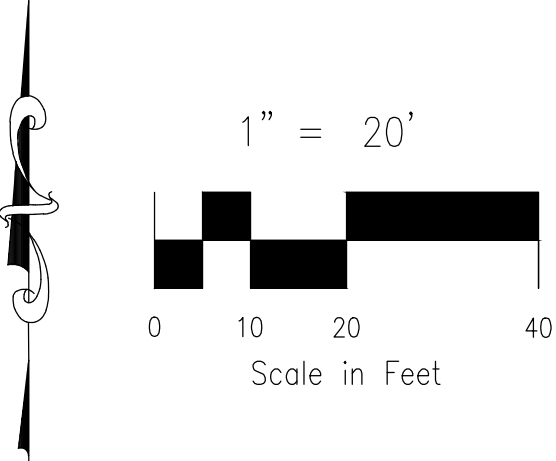


STORM 3 LAT 3
STA 1+00.00 TO STA 1+42.31

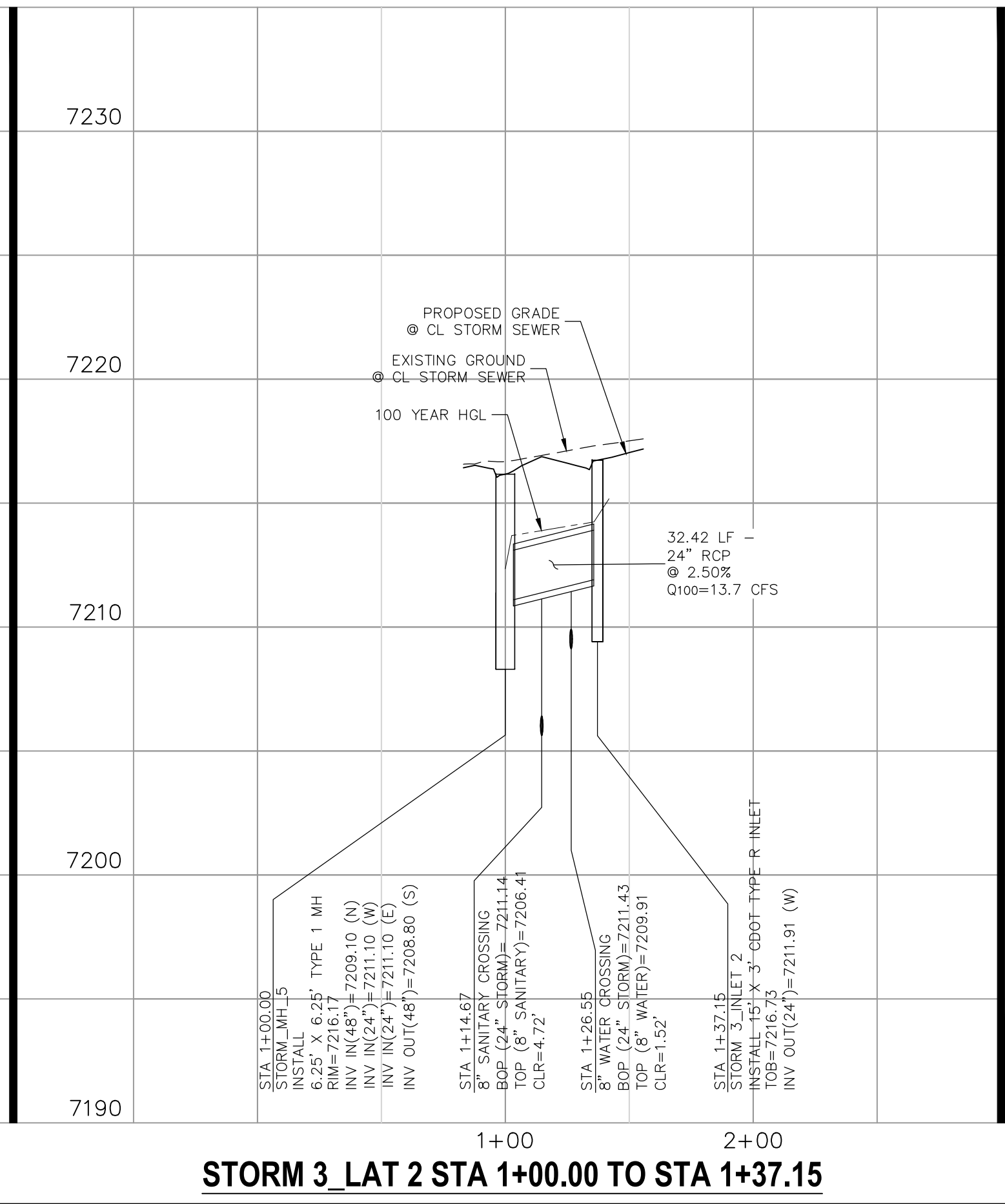


STORM 3 LAT 4
STA 1+00.00 TO STA 1+18.02

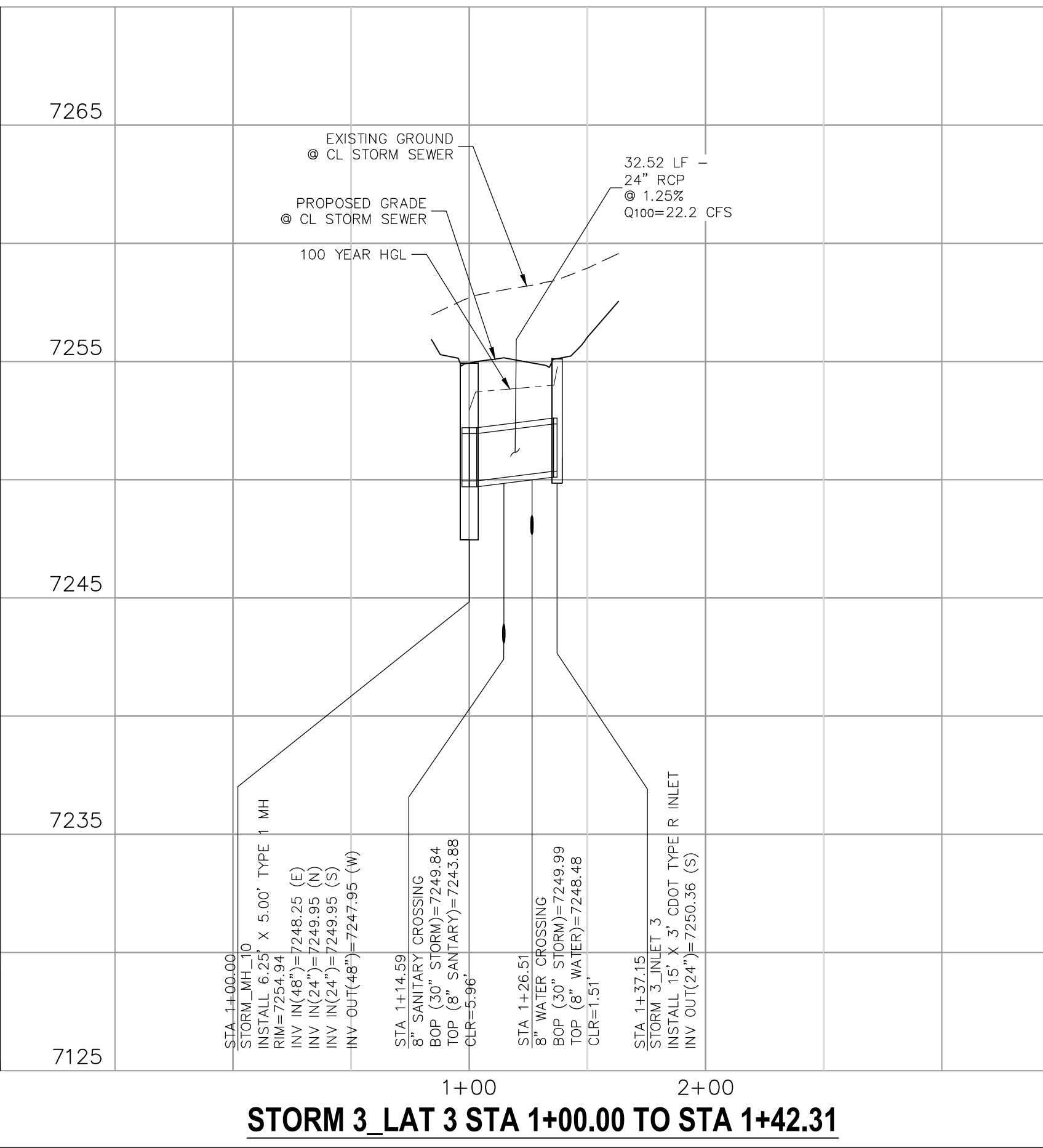
NOTE:
 1. WHEN STORM SEWERS ARE DESIGNED TO OPERATE UNDER PRESSURIZED CONDITIONS, THEY SHALL HAVE GASKETED, WATER-TIGHT JOINTS, PER ASTM STANDARD C 443. ADHERE TO MANUFACTURER'S SPECIFICATIONS FOR MAXIMUM ALLOWABLE JOINT GAPS TO FORM A WATER-TIGHT SEAL.
 2. MAINTAIN MANHOLE RING AND COVER OUT OF CURB AND GUTTER AREA.



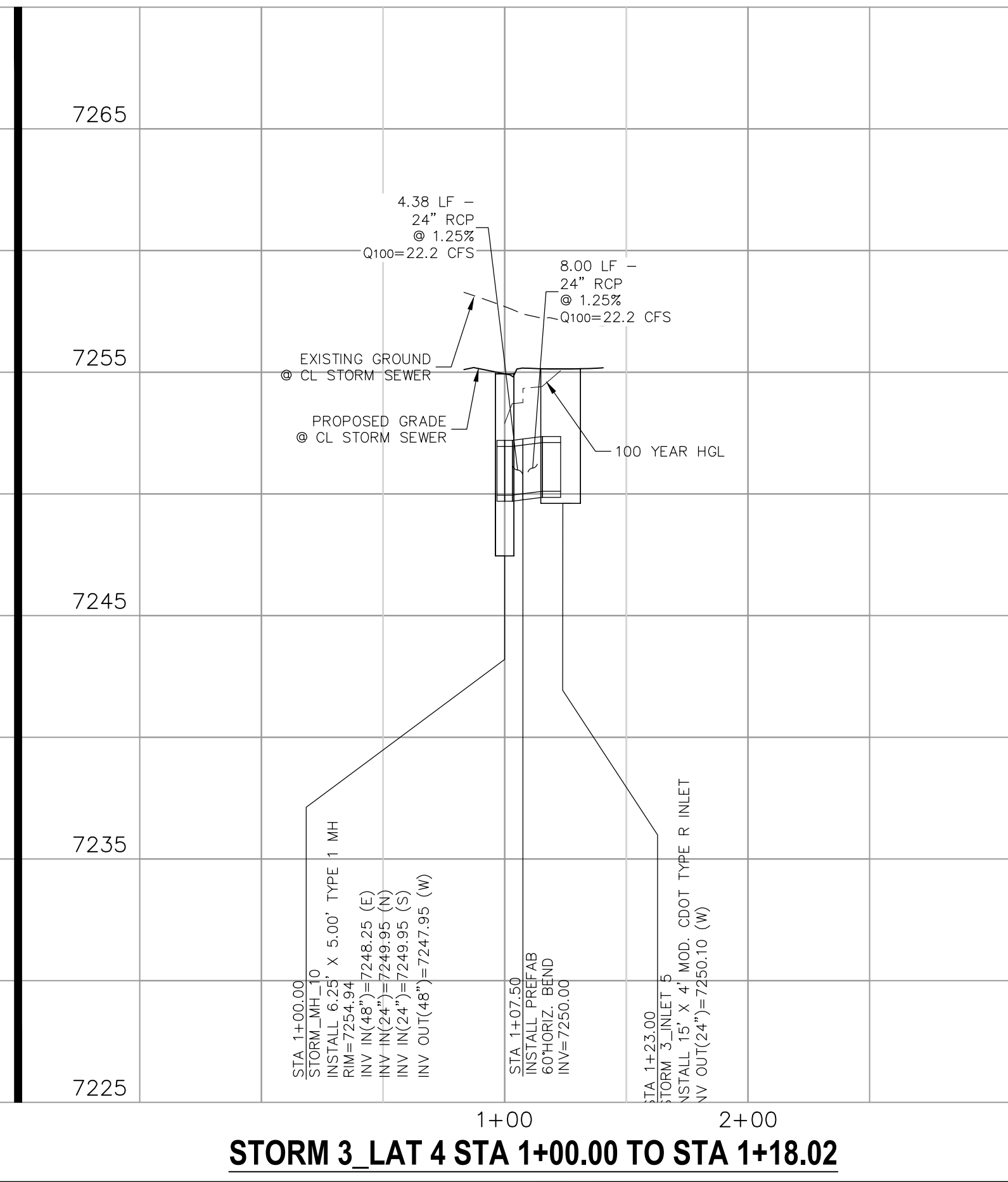
STORM 3 LAT 1 STA 1+00.00 TO STA 1+23.06



STORM 3 LAT 2 STA 1+00.00 TO STA 1+37.15

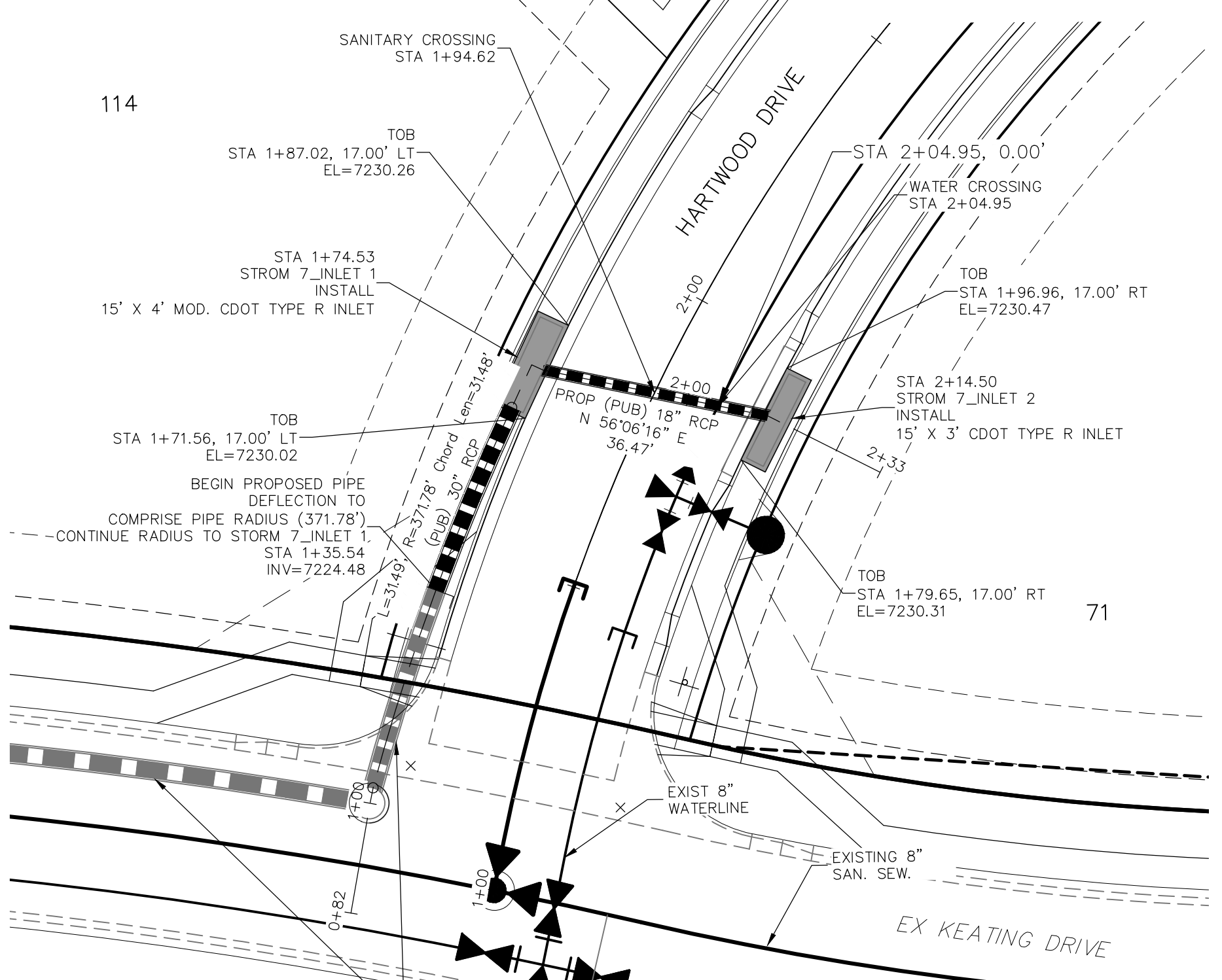
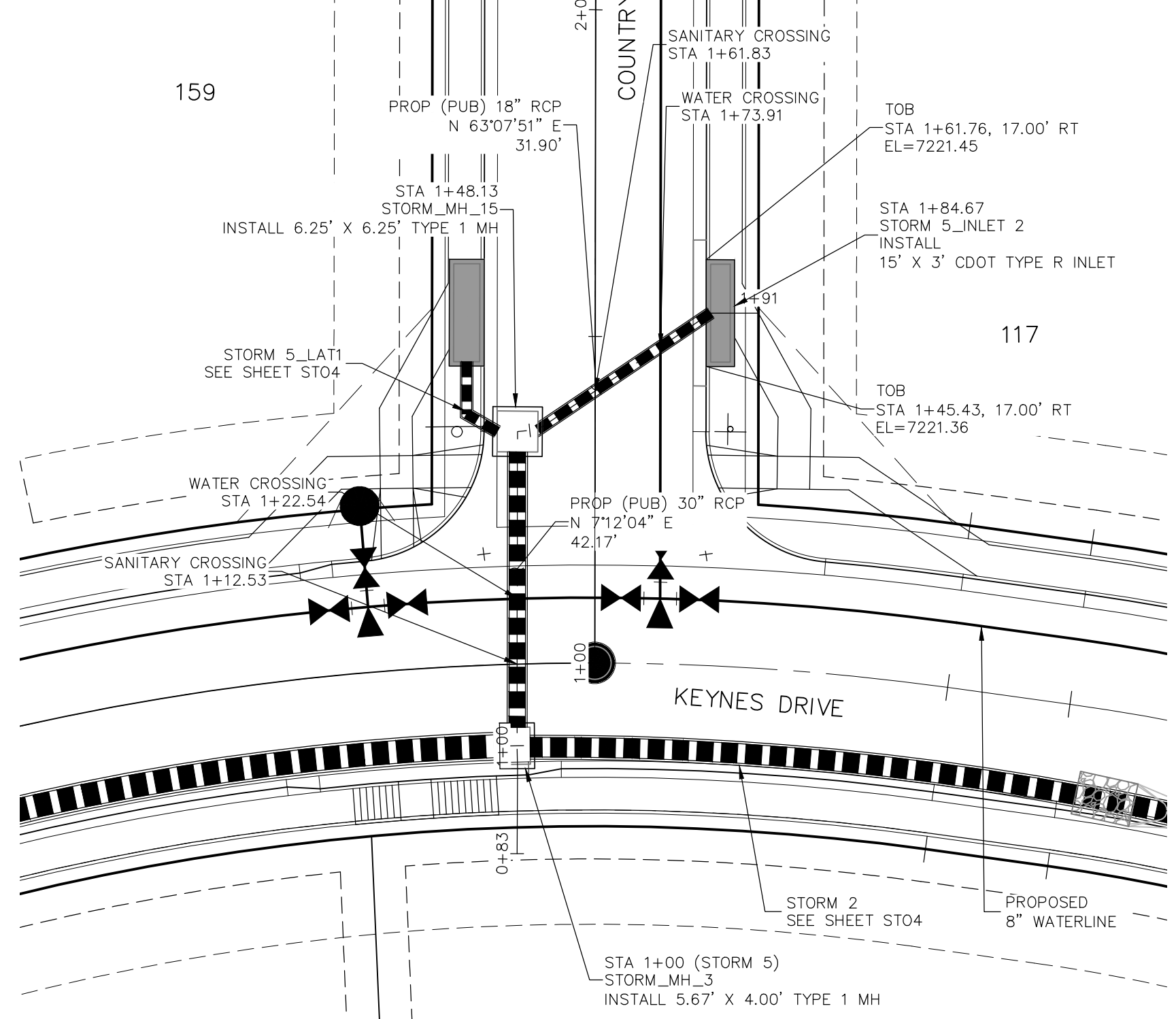
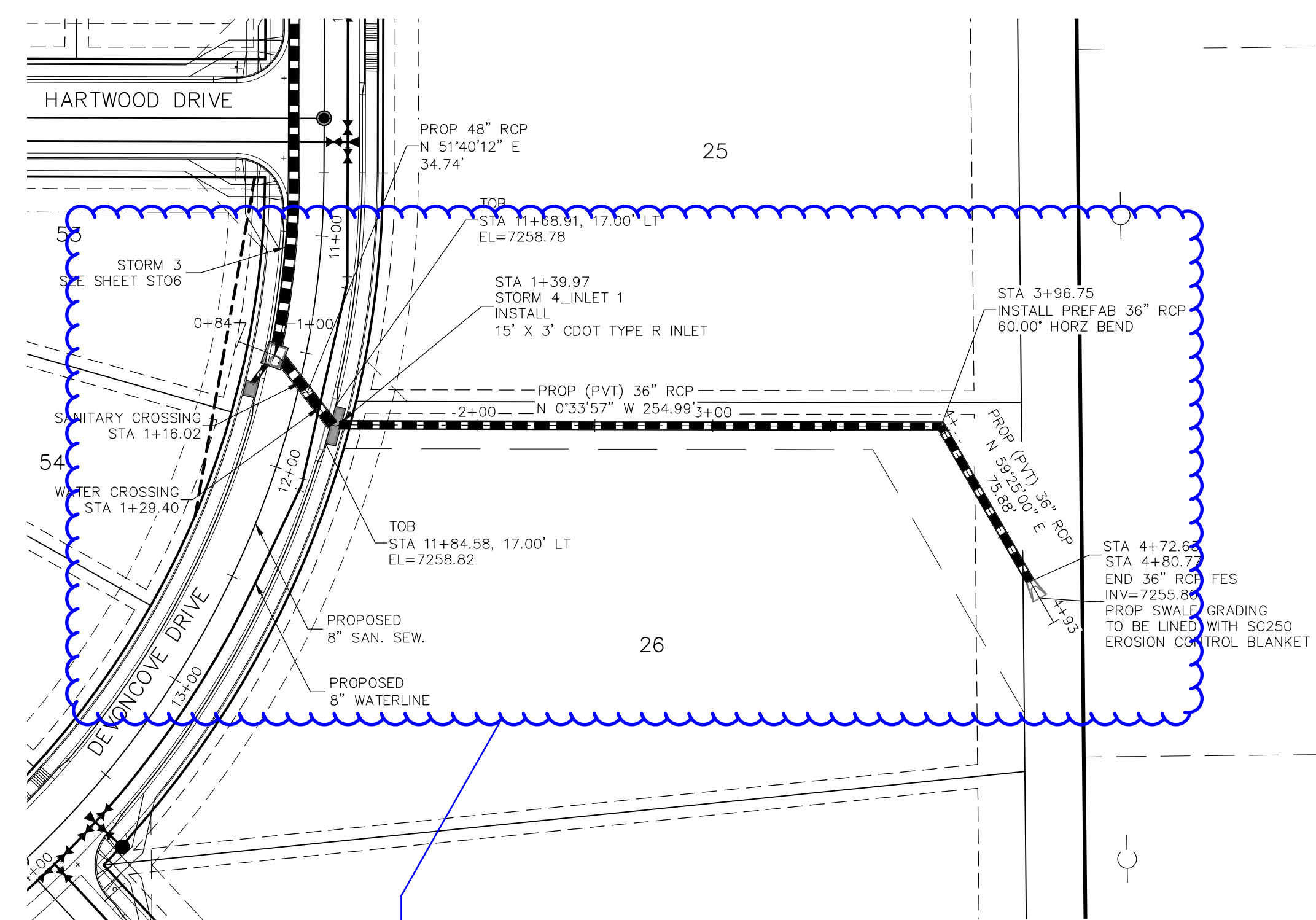


STORM 3 LAT 3 STA 1+00.00 TO STA 1+42.31



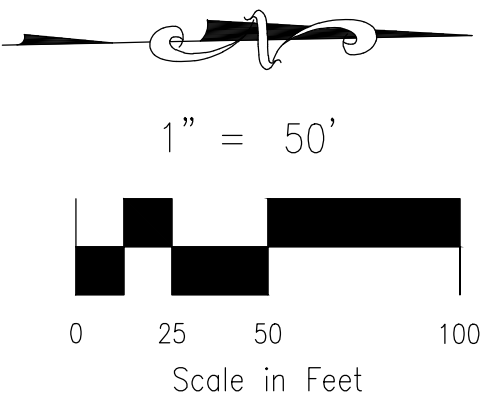
STORM 3 LAT 4 STA 1+00.00 TO STA 1+18.02

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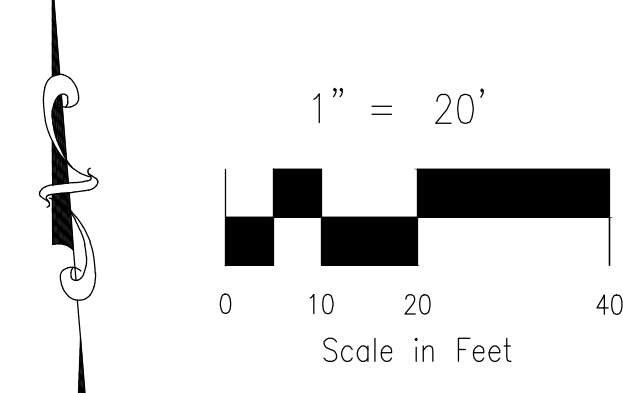


Reminder: Per design engineer, the storm system will be modified to address park comments. Review on resubmittal. Make sure the associated drainage report is updated.

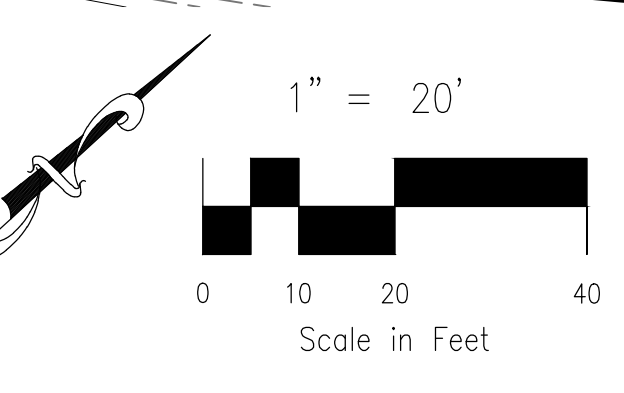
4
STA 1+00.00 TO STA 4+80.77



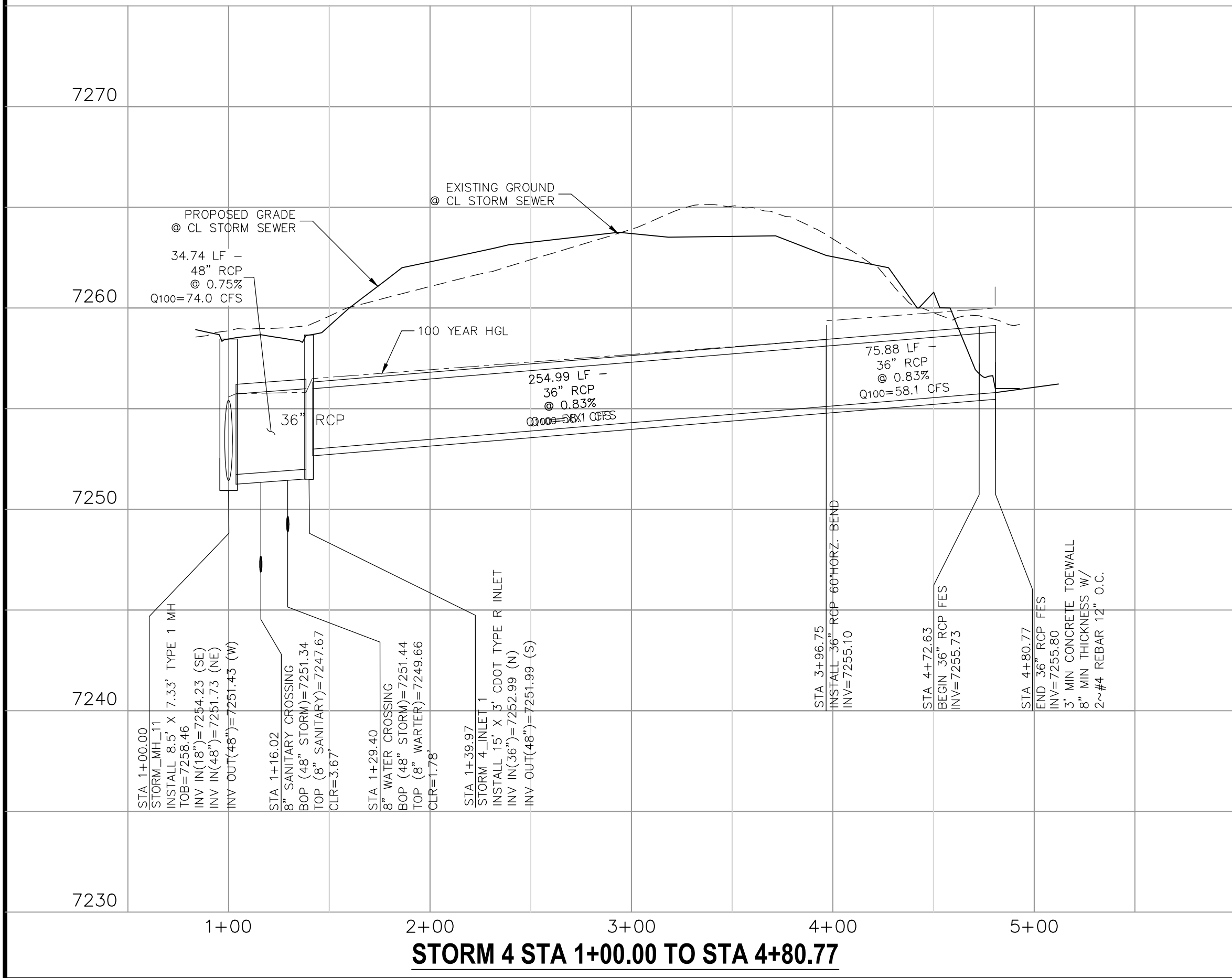
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STA 1+00.00 TO STA 2+05.44



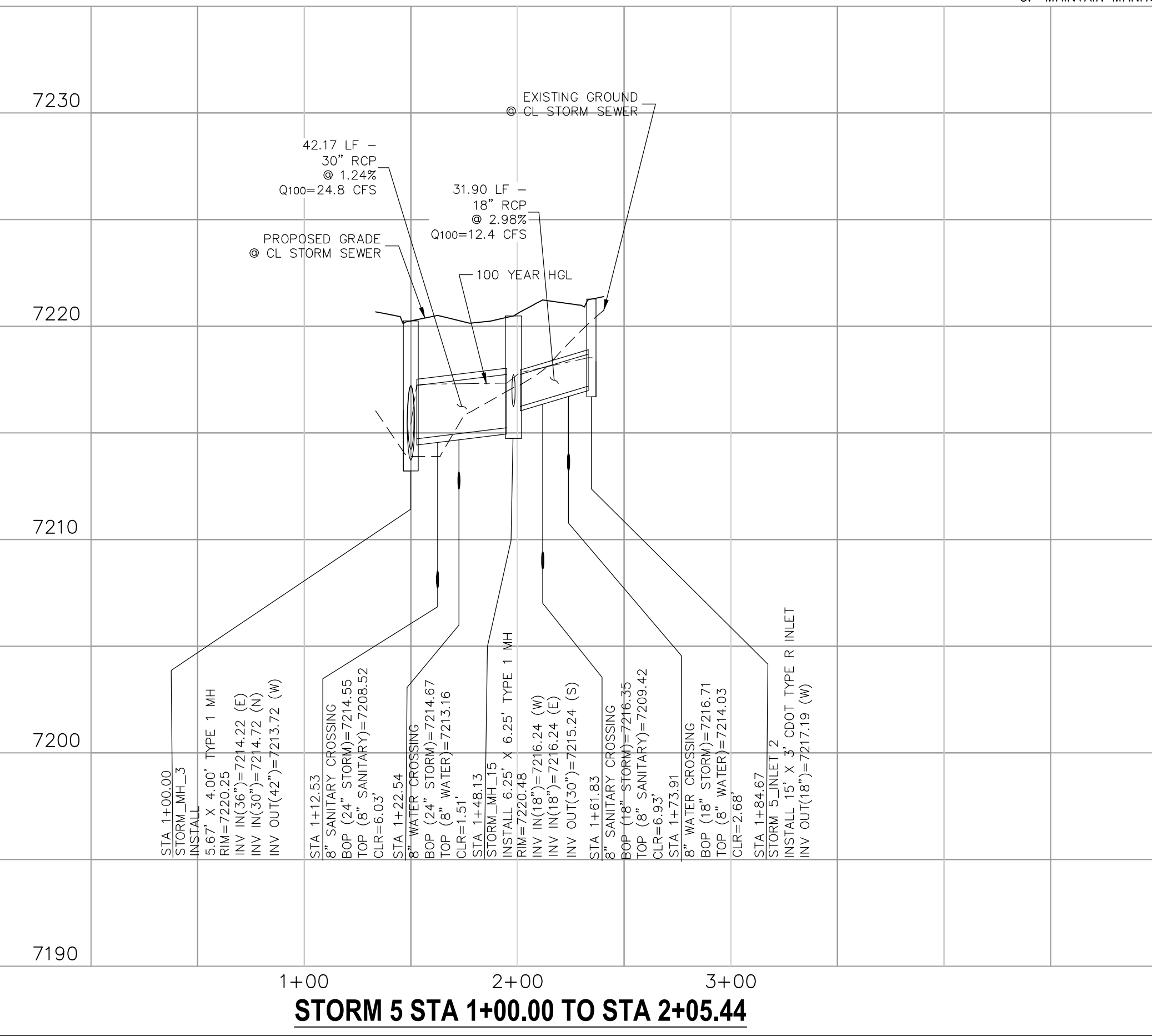
7
STA 1+00.00 TO STA 2+14.50



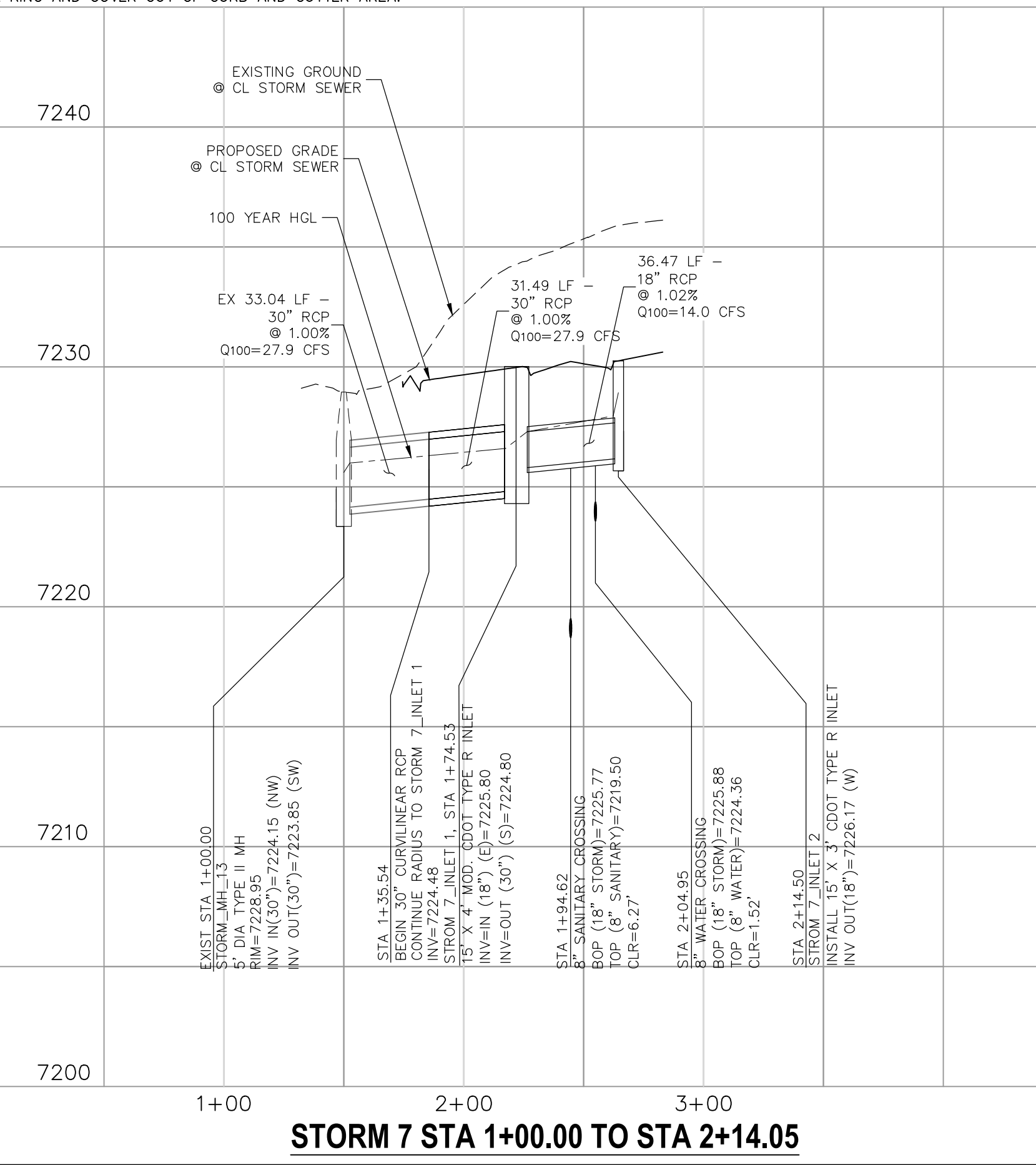
- NOTE:
- SEE SHEET ST03 FOR MANUFACTURERS MINIMUM PIPE RADII. PRIOR TO INSTALLATION, CONTRACTOR MUST CONTACT DESIGN ENGINEER IF PIPE MANUFACTURERS MINIMUM RADIUS IS NOT MET.
 - WHEN STORM SEWERS ARE DESIGNED TO OPERATE UNDER PRESSURIZED CONDITIONS, THEY SHALL HAVE GASKETED, WATERTIGHT JOINTS, PER ASTM STANDARD C 443. ADHERE TO MANUFACTURER'S SPECIFICATIONS FOR MAXIMUM ALLOWABLE JOINT GAPS TO FORM A WATERTIGHT SEAL.
 - MAINTAIN MANHOLE RING AND COVER OUT OF CURB AND GUTTER AREA.



STORM 4 STA 1+00.00 TO STA 4+80.77



STORM 5 STA 1+00.00 TO STA 2+05.44



STORM 7 STA 1+00.00 TO STA 2+14.50



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

NO.	DATE	BY	DESCRIPTION	APPROVED BY	DATE

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CAUTION

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

PAINT BRUSH HILLS FILING NO. 14
STORM PLAN & PROFILE
 PROJECT NO. 10-014
 DATE: 12/29/20
 SCALE: HORIZONTAL: 1"=20' VERTICAL: 1"=5'
 DESIGNED BY: GT
 DRAWN BY: CMN
 CHECKED BY: VAS
ST09
 SHEET 27 OF 30

212 N. WASHCATCH AVE., STE 305
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

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

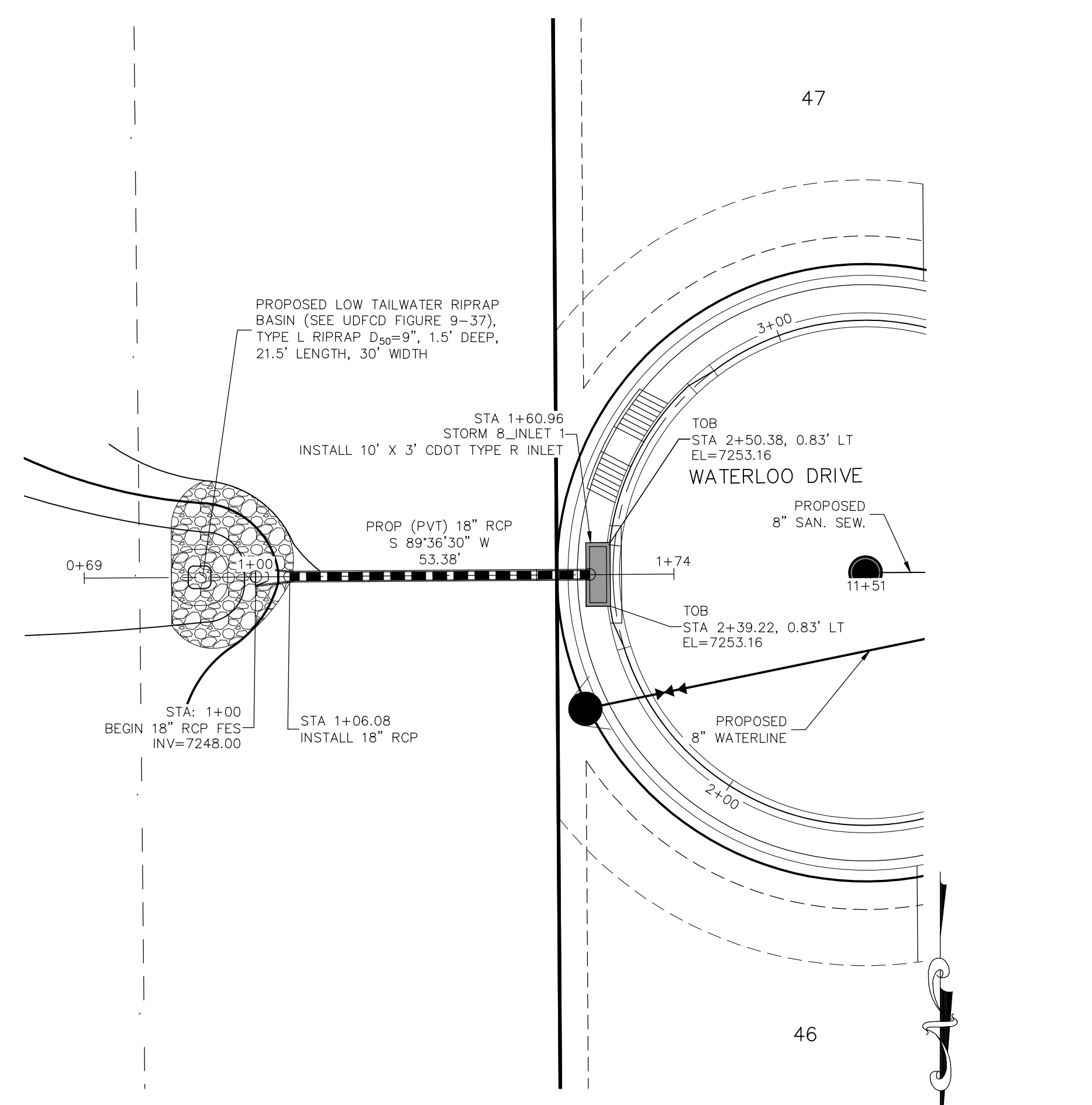
REVISIONS:

NO.	DATE	BY	DESCRIPTION

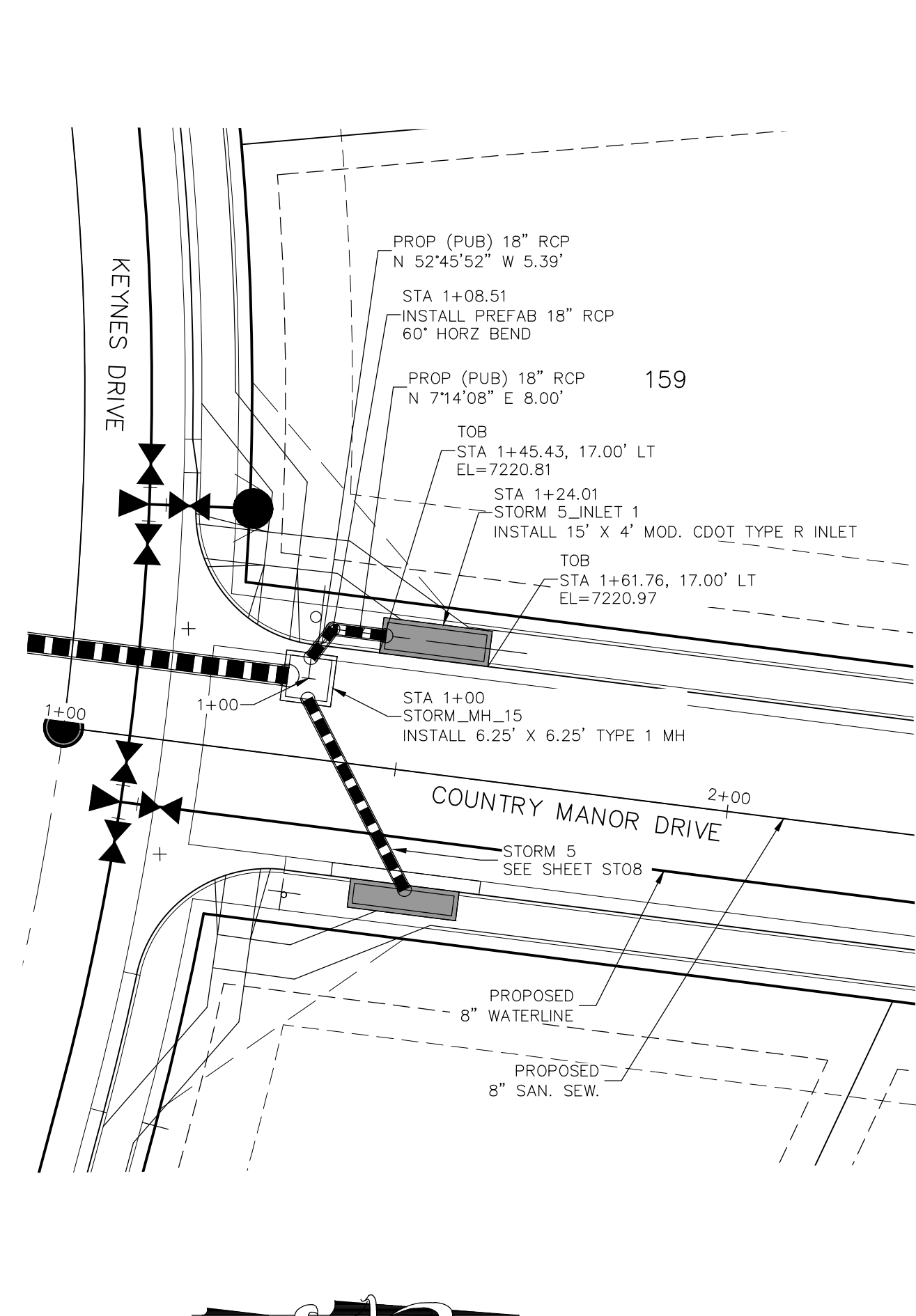
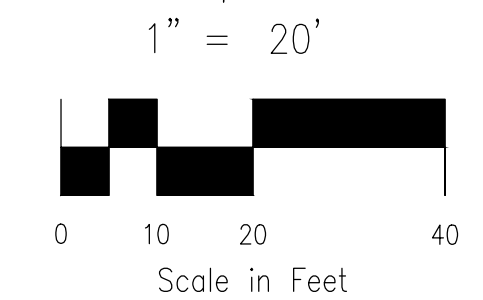
APPROVED BY: _____ DATE: _____

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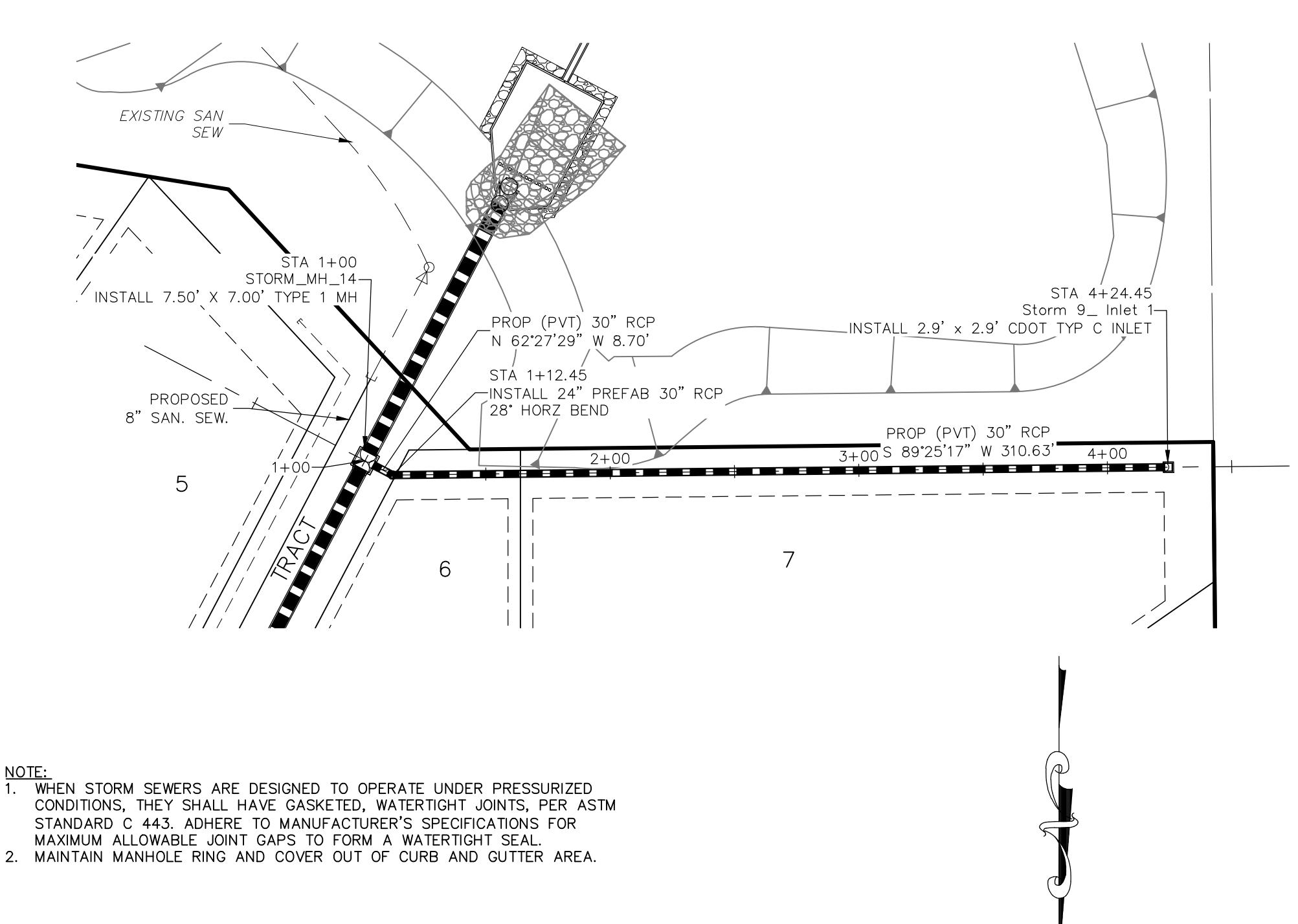
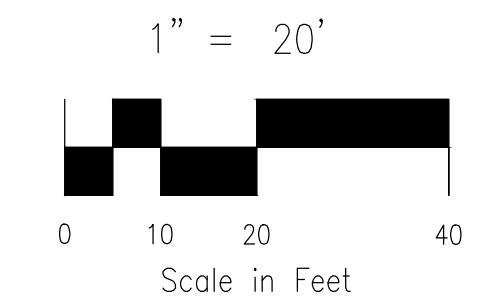
CAUTION



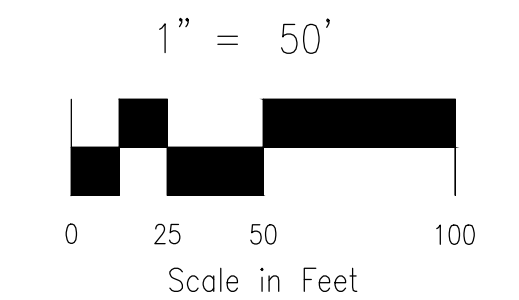
STORM 8
STA 1+00.00 TO STA 1+60.96



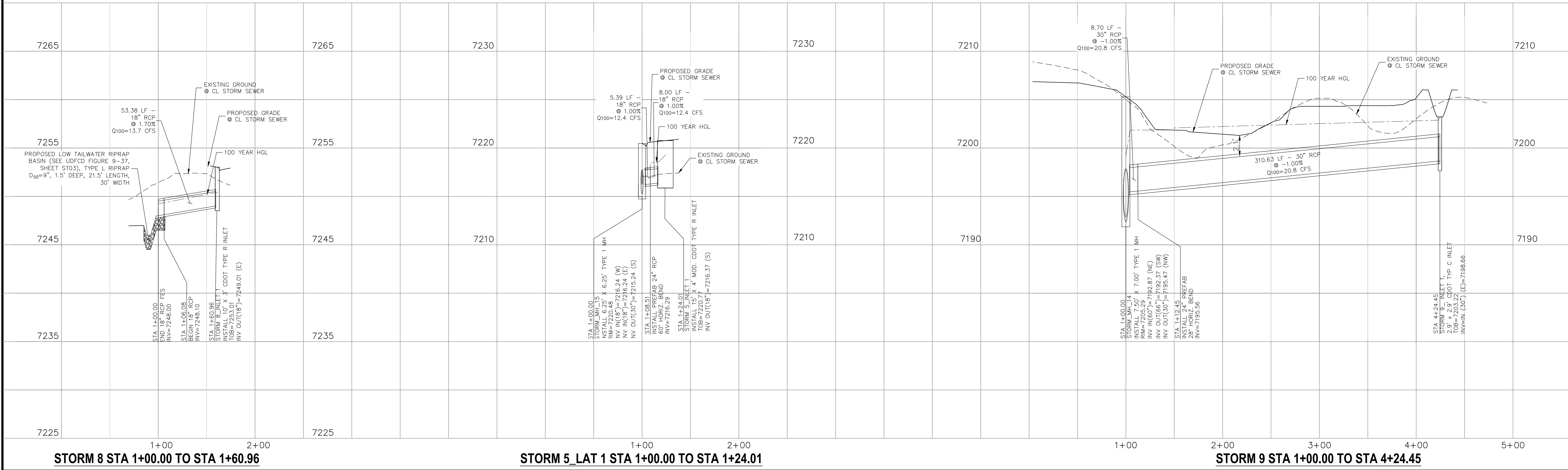
STORM 5 LAT 1
STA 1+00.00 TO STA 1+24.01



STORM 9
STA 1+00.00 TO STA 4+24.45



NOTE:
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 2. MAINTAIN MANHOLE RING AND COVER OUT OF CURB AND GUTTER AREA.



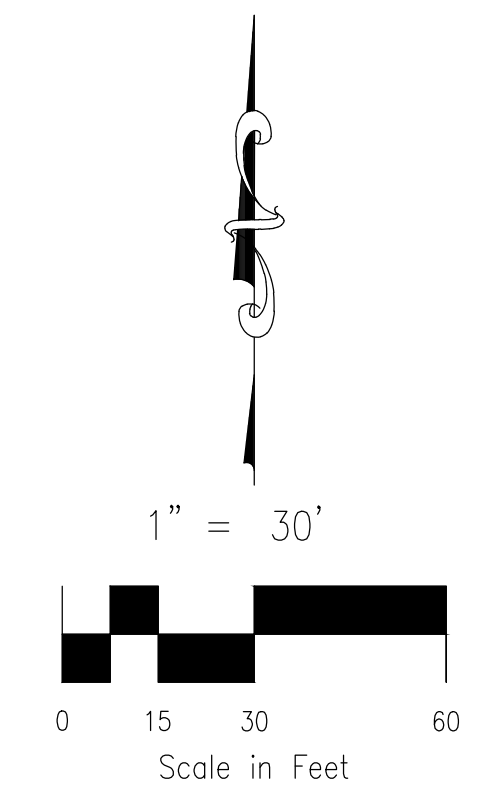
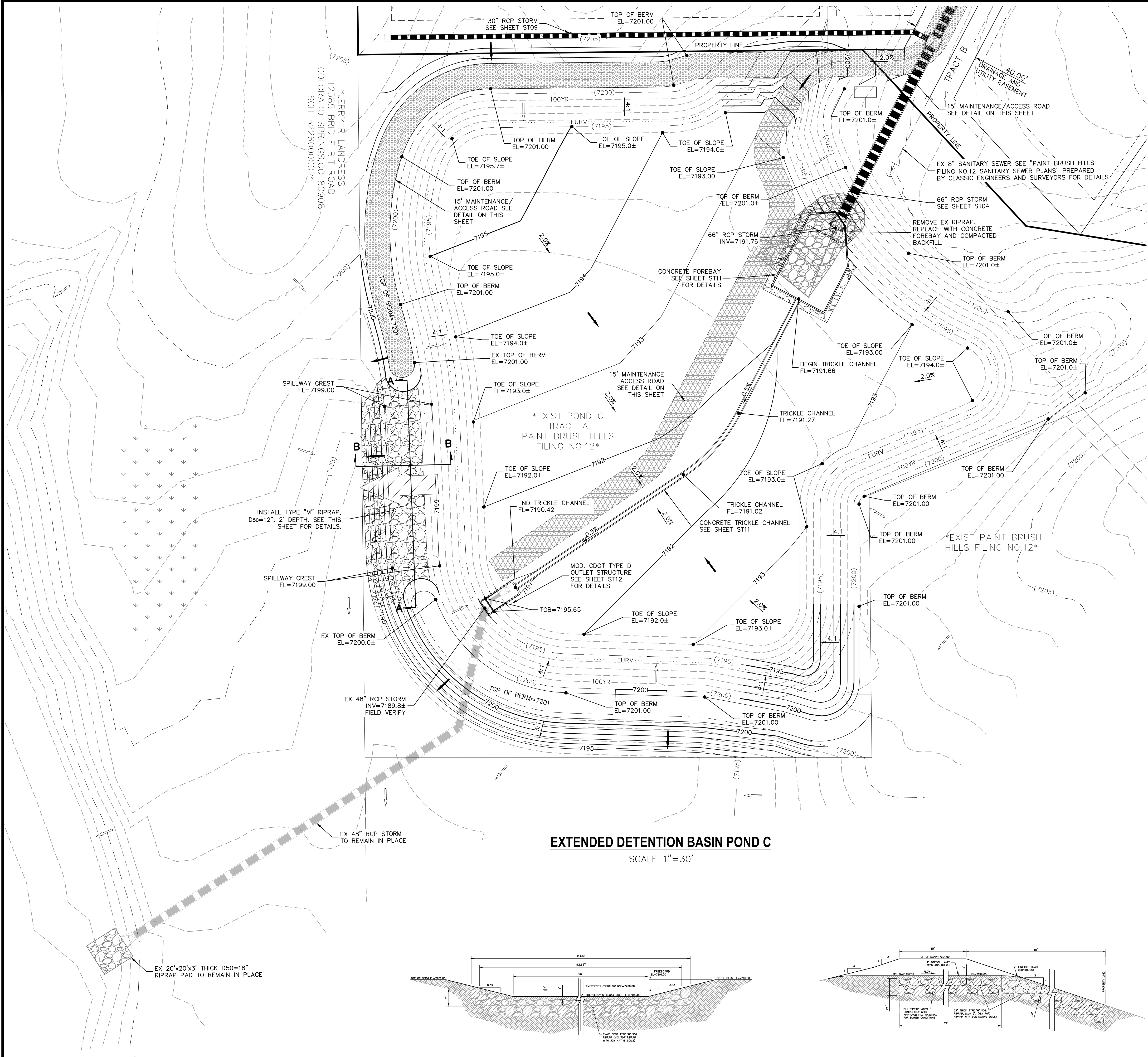
STORM 8 STA 1+00.00 TO STA 1+60.96

STORM 5 LAT 1 STA 1+00.00 TO STA 1+24.01

STORM 9 STA 1+00.00 TO STA 4+24.45

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File: C:\Users\oprice\Documents\100144-PBH 14\Drawings\Drawings\ST10.dwg Plotstamp: 1/4/2021 11:36 AM



LEGEND

EXT	EXISTING
FUT	FUTURE
PROP	PROPOSED
	PROP MAJ CONT
	PROP MIN CONT
	EXIST MAJ CONT
	EXIST MIN CONT
	EX RIPRAP
	PROP RIPRAP
	STABILIZED MAINTENANCE ROAD ABOVE EURV
	STABILIZED MAINT. ROAD BELOW EURV
	CONC LOW FLOW CHANNEL
	EX. FLOW ARROW
	PROP. FLOW ARROW
	EMERGENCY OVERFLOW
	PROPERTY LINE
	PROP STORM SEWER PIPE
	EASEMENT LINE
	WARNING SIGN

PAINT BRUSH HILLS FILING NO. 14
EXTENDED DETENTION POND C
 PROJECT NO. 10-014
 SCALE: 1"=30'
 DATE: 12/29/20
 DESIGNED BY: GT
 DRAWN BY: CMM
 CHECKED BY: VAS
 SHEET 28 OF 30
ST10

212 N. WAHSAATCH AVE. STE 305
 COLORADO SPRINGS, CO 80903
 PHONE: 719.955.5485

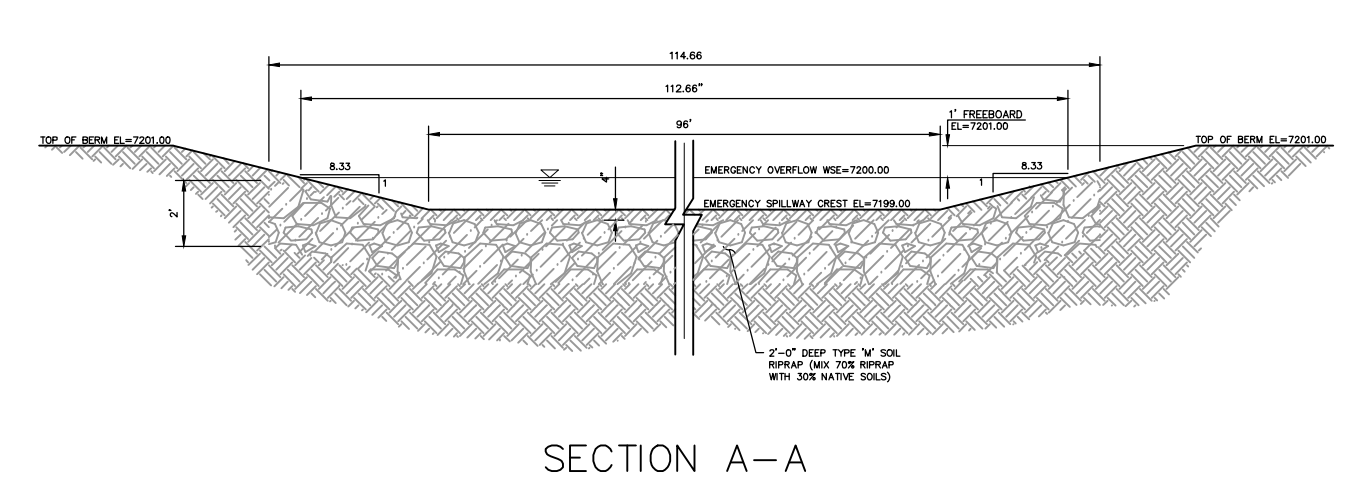
CIVIL CONSULTANTS, INC.

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

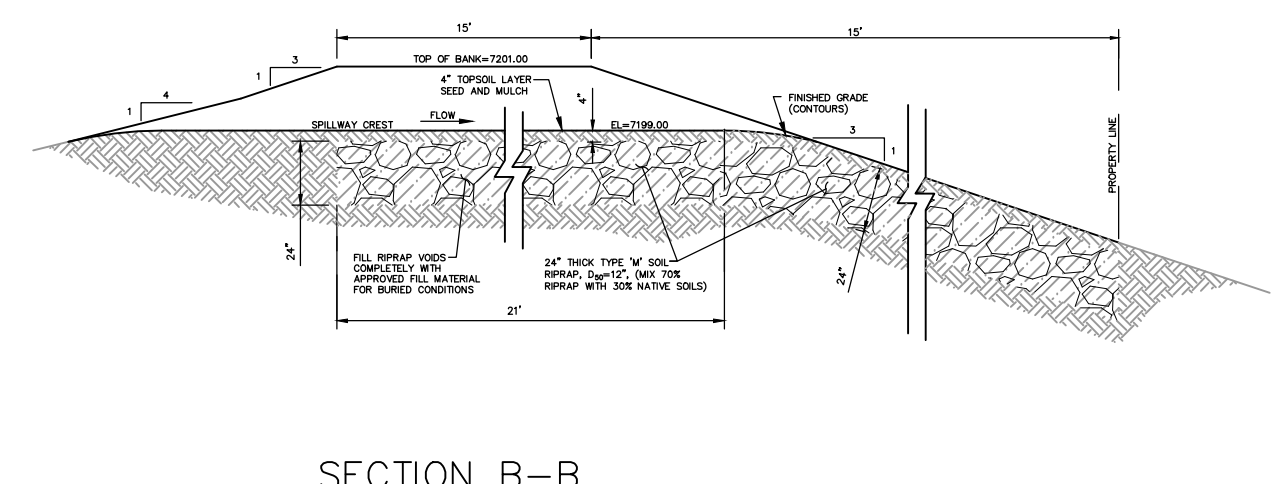
VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES
 FOR BURIED UTILITY INFORMATION
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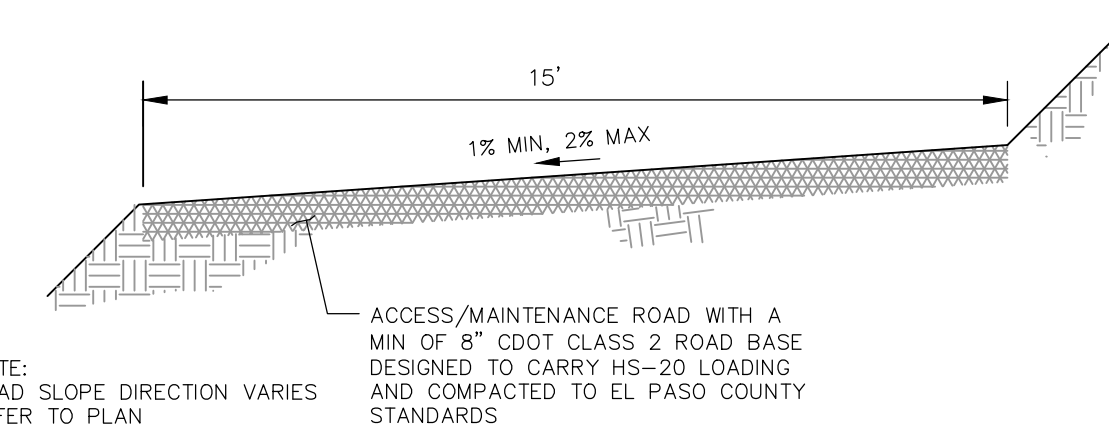
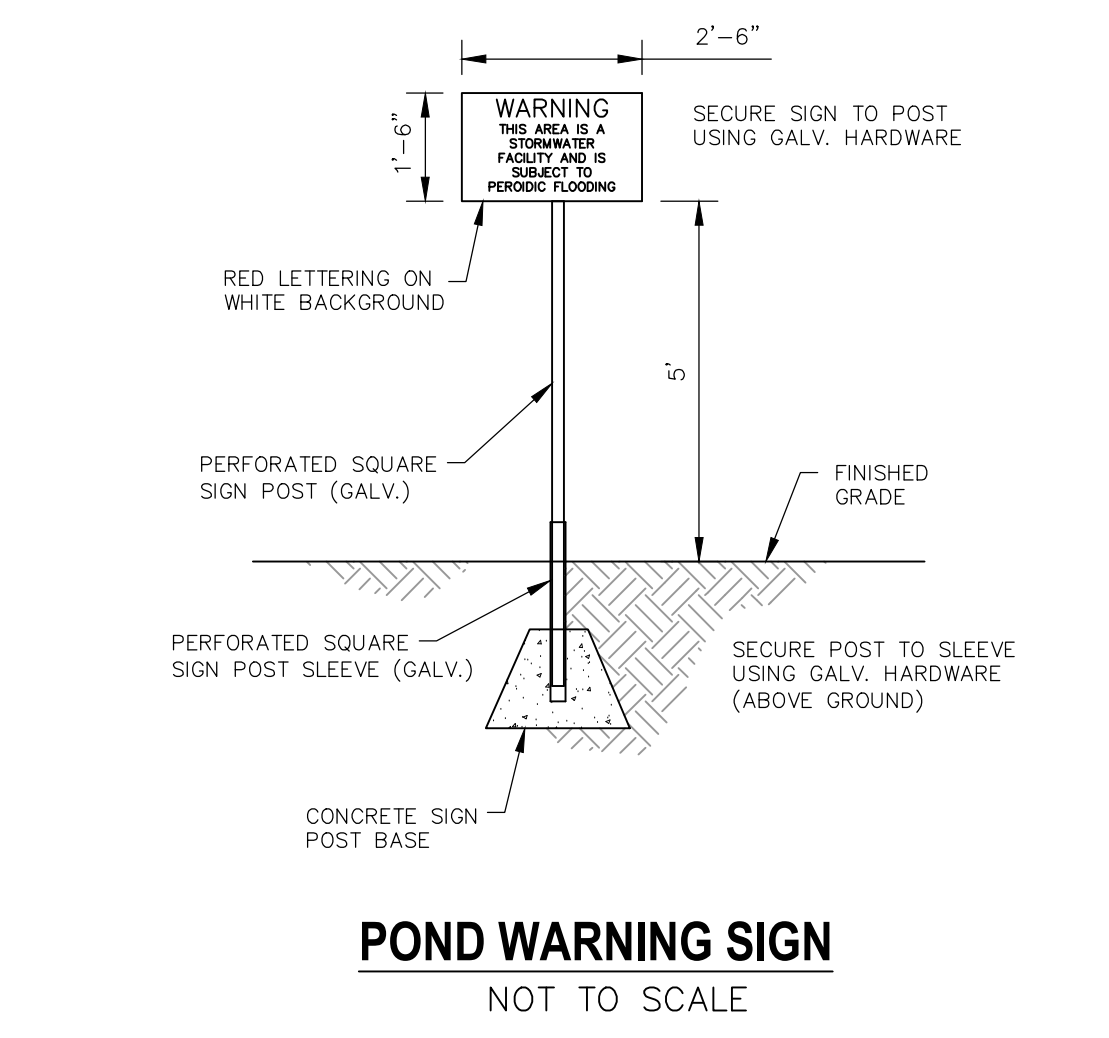
EXTENDED DETENTION BASIN POND C
SCALE 1"=30'



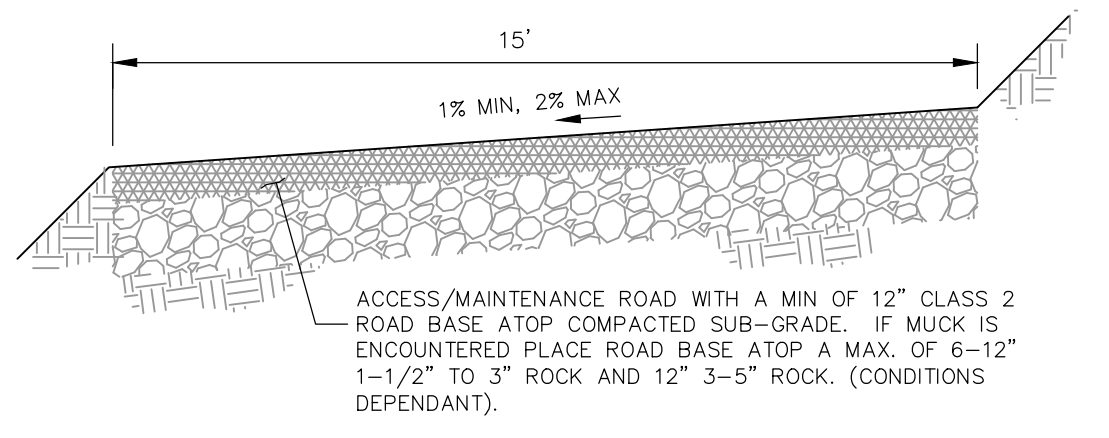
POND C EMERGENCY SPILLWAY
NOT TO SCALE



SECTION B-B



MAINTENANCE & ACCESS ROAD ABOVE EURV TYPICAL SECTION
NOT TO SCALE



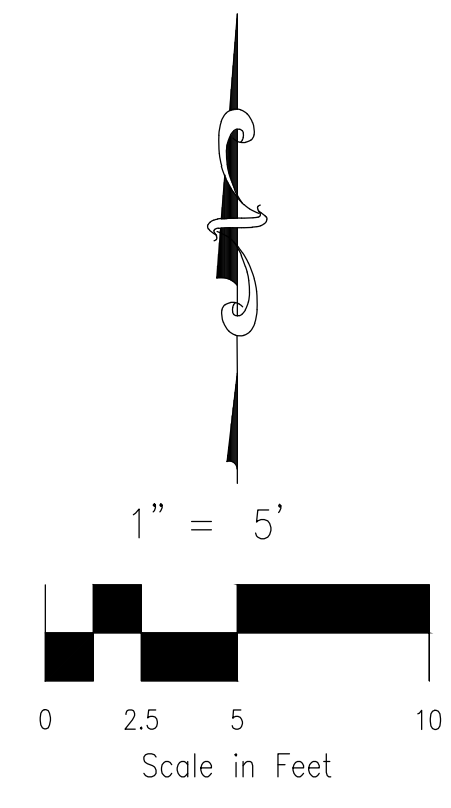
MAINTENANCE & ACCESS ROAD BELOW EURV TYPICAL SECTION
NOT TO SCALE

NO.	DATE	BY	DESCRIPTION

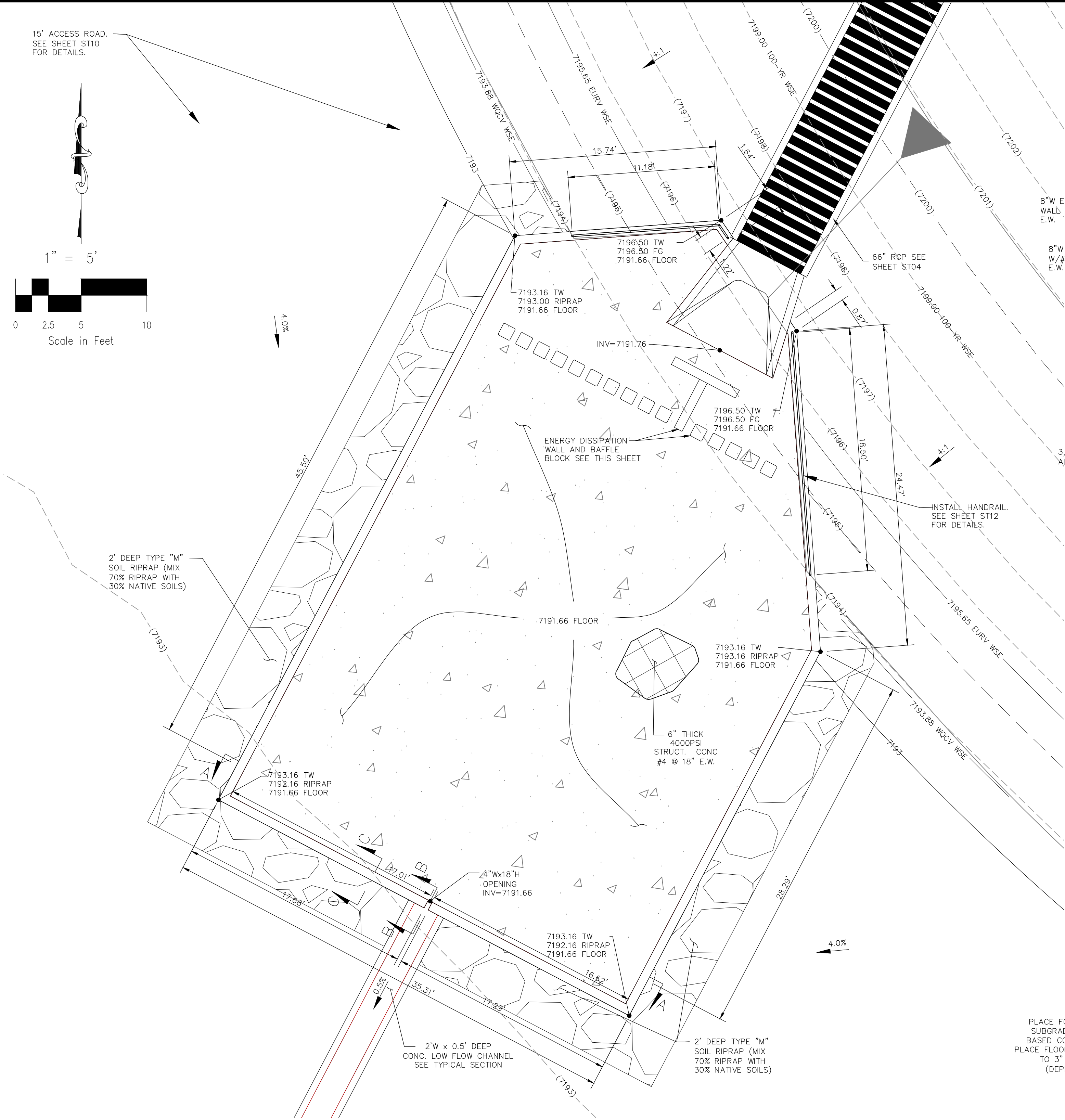
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CAUTION

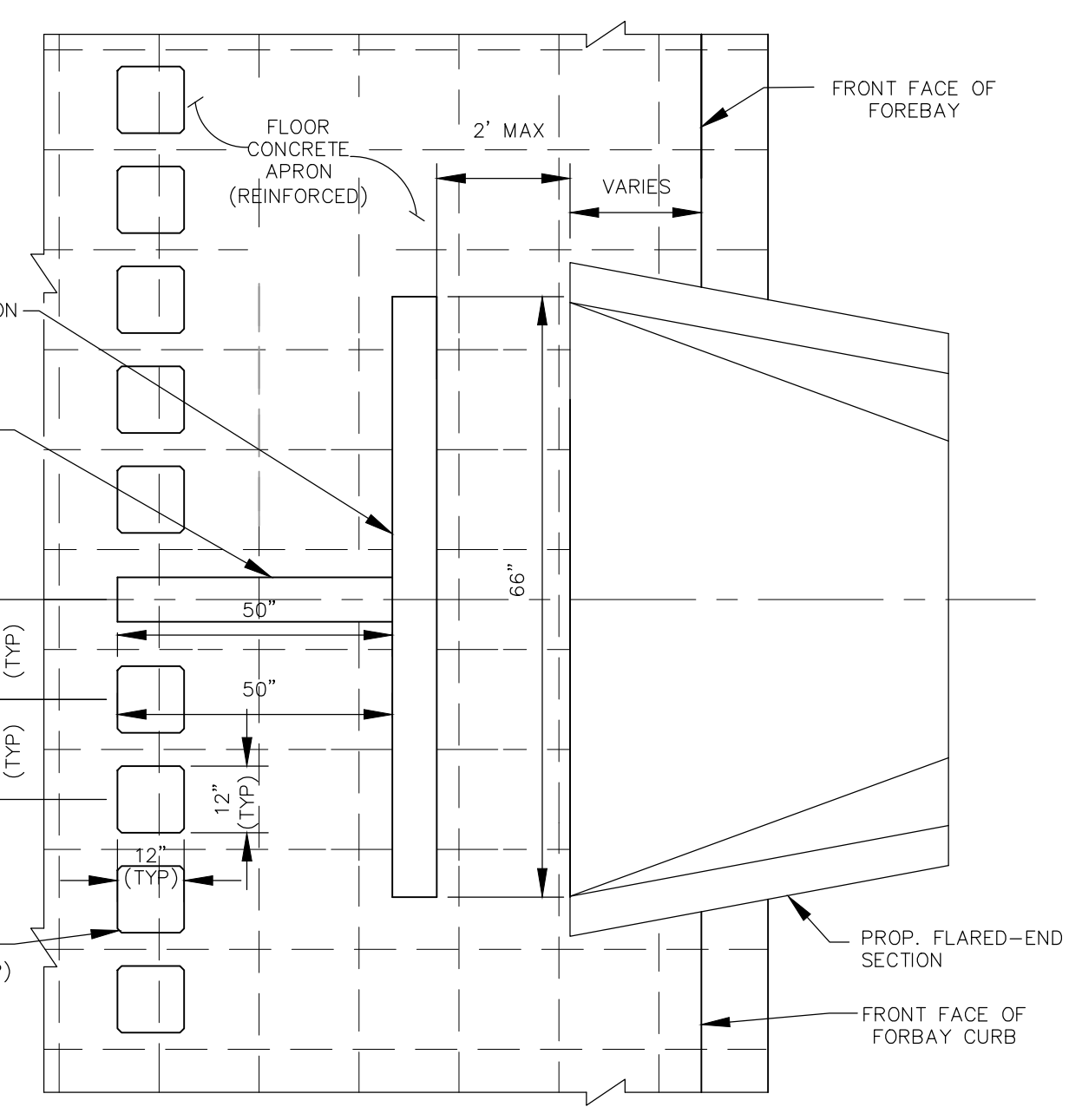
15' ACCESS ROAD. SEE SHEET ST10 FOR DETAILS.



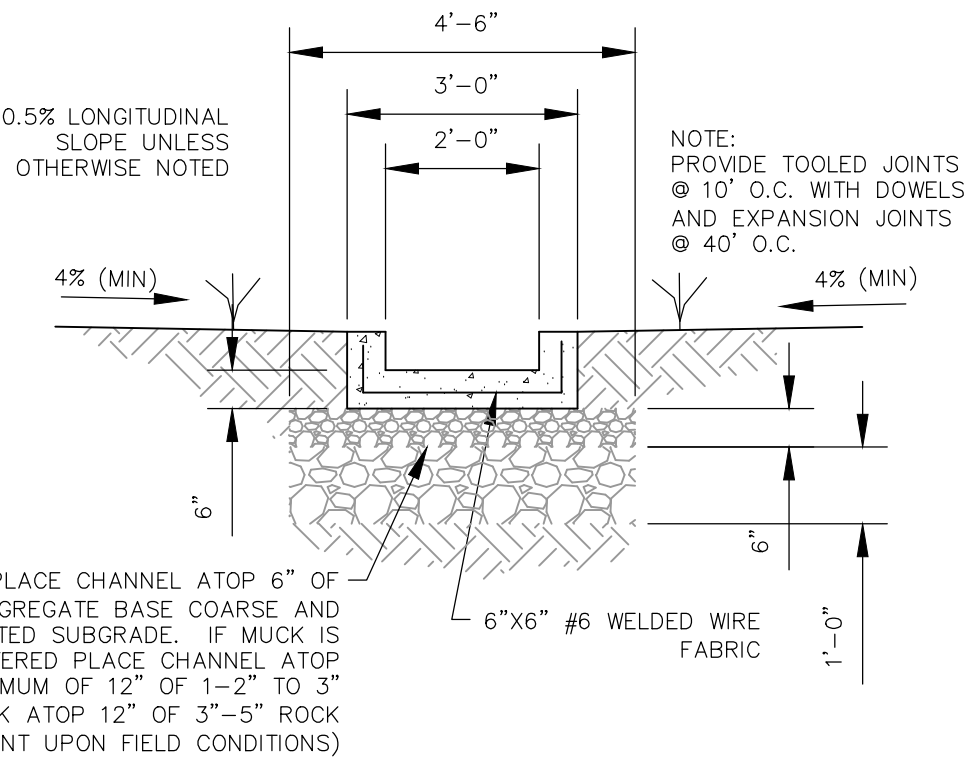
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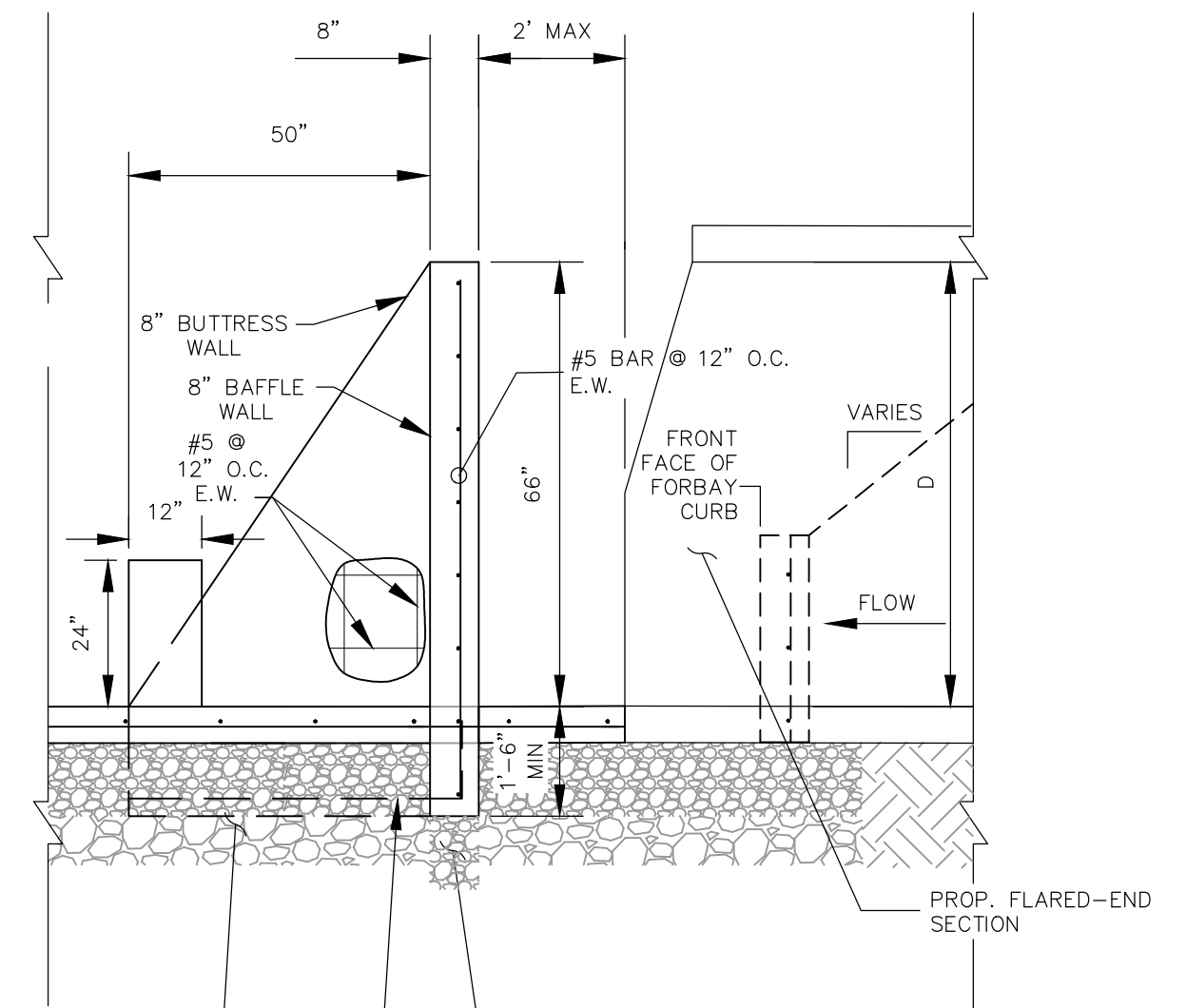
EXTENDED DETENTION BASIN POND C FOREBAY
 NOT TO SCALE



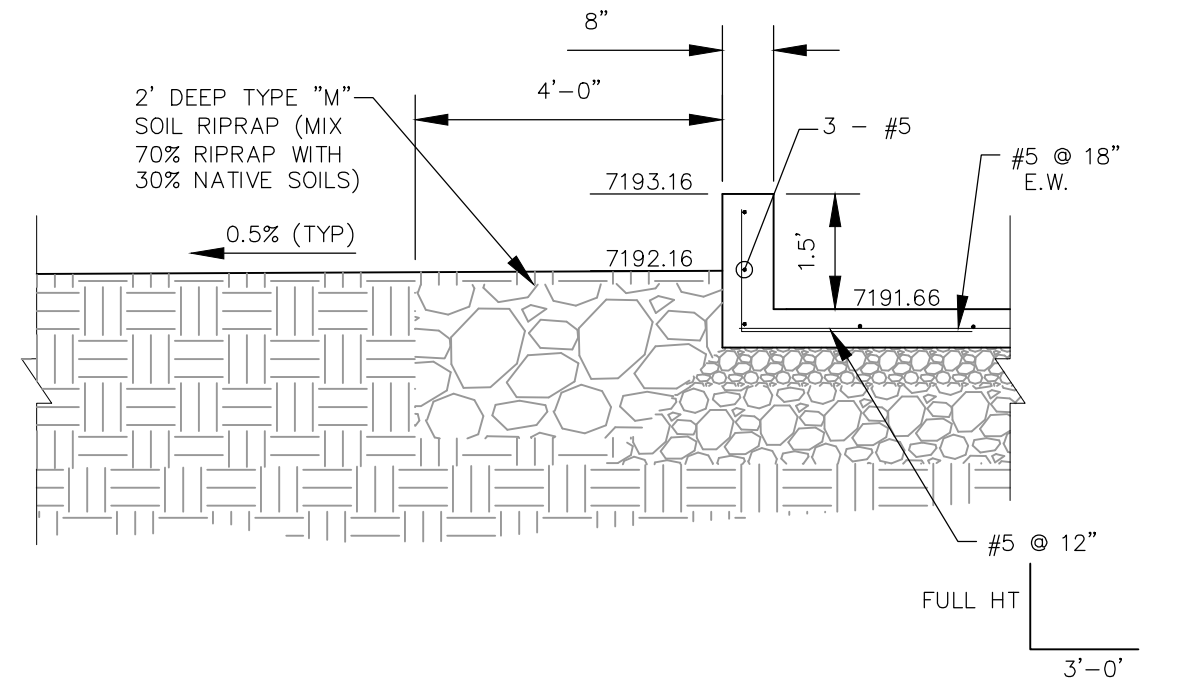
ENERGY DISSIPATION DETAILS
 NOT TO SCALE



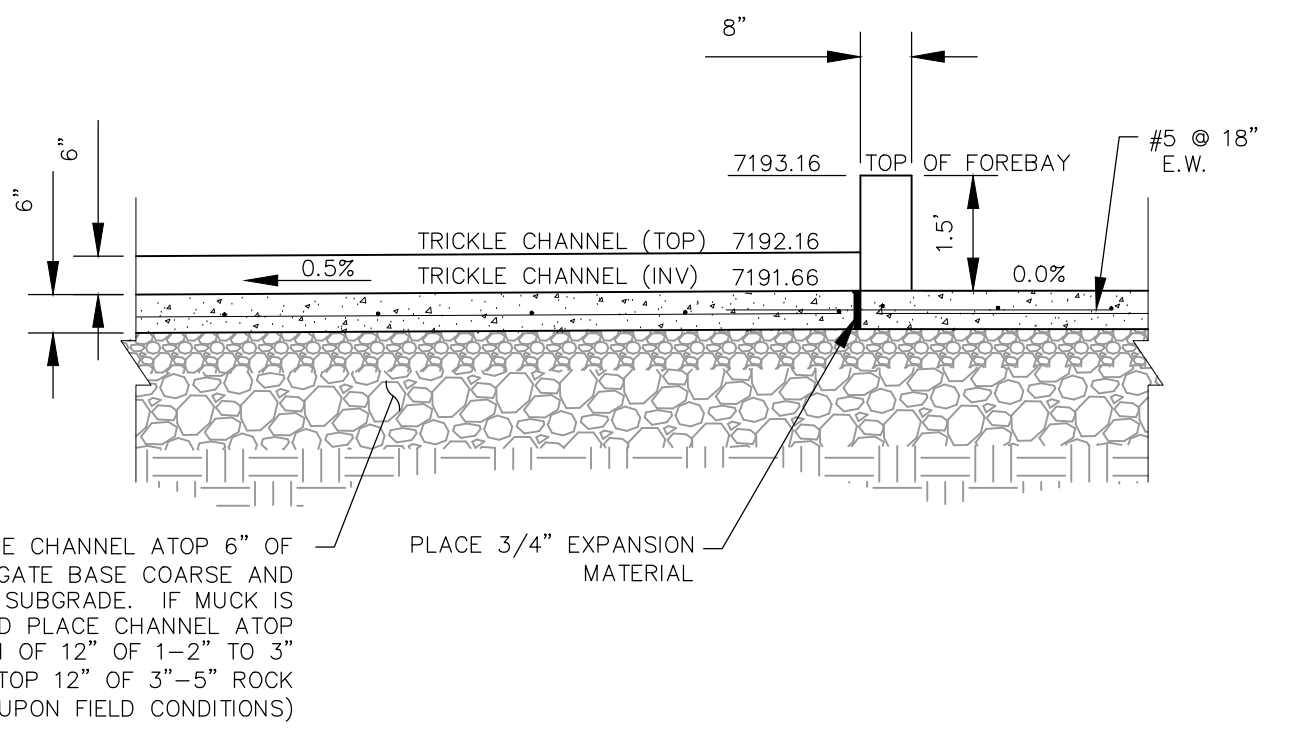
LOW FLOW CHANNEL TYPICAL SECTION
 NOT TO SCALE



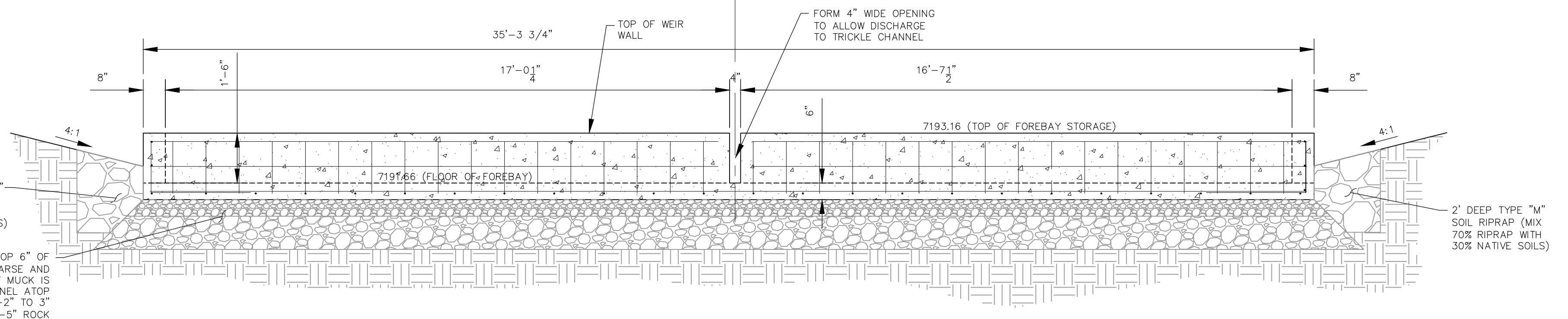
ENERGY DISSIPATION DETAILS
 NOT TO SCALE



RIPRAP GRADING BELOW POND C FOREBAY SECTION C-C
 NOT TO SCALE



LOW FLOW CHANNEL POND C SECTION B-B
 NOT TO SCALE



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

PAIN BRUSH HILLS FILING NO. 14

EXTENDED DET. POND C FOREBAY DETAILS

PROJECT NO. 10-014 SCALE: 12/29/20
 DESIGNED BY: GT HORIZONTAL: NA
 DRAWN BY: CMN VERTICAL: NA
 CHECKED BY: VAS

212 N. WAHATCH AVE. STE 303
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

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

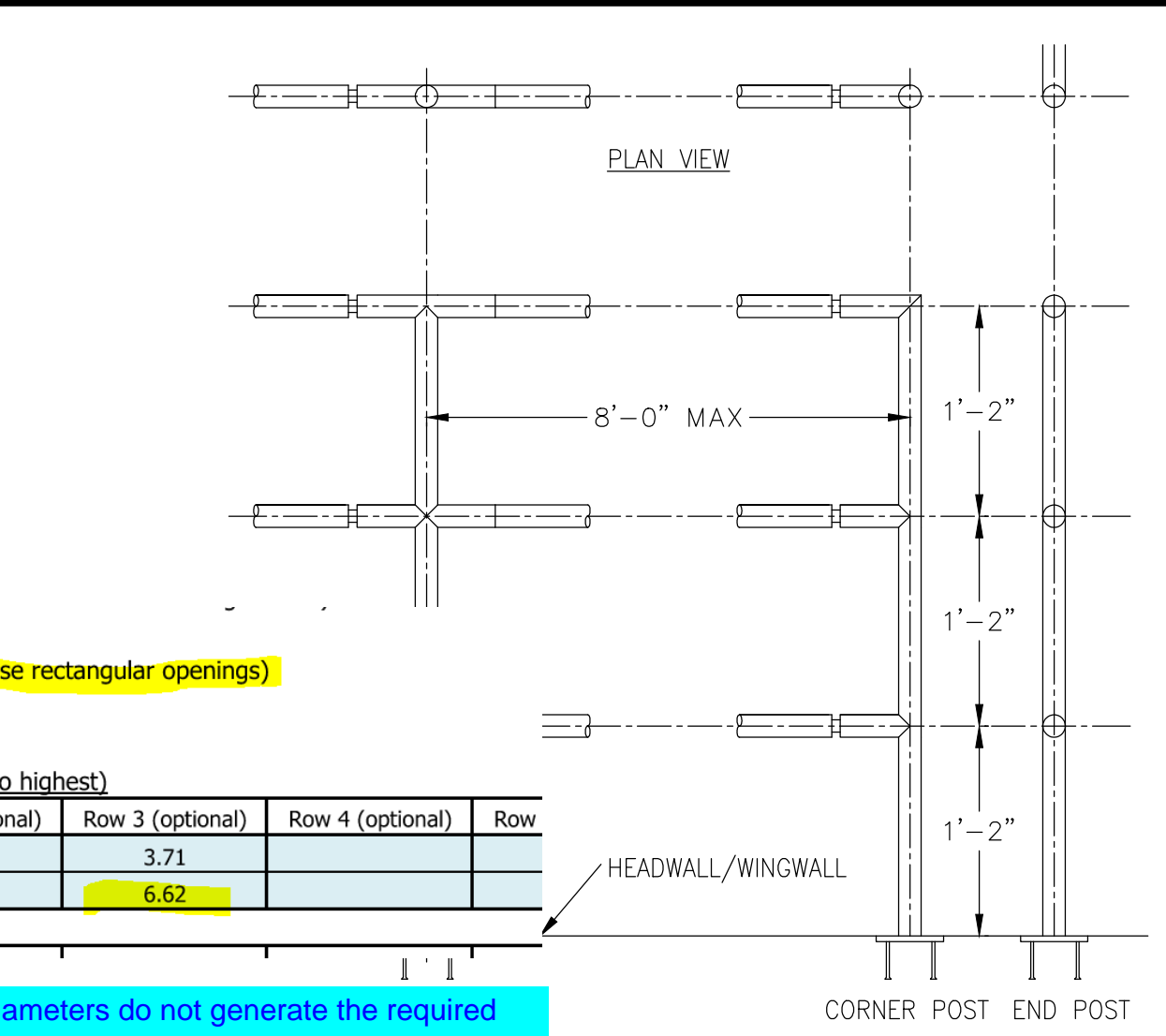
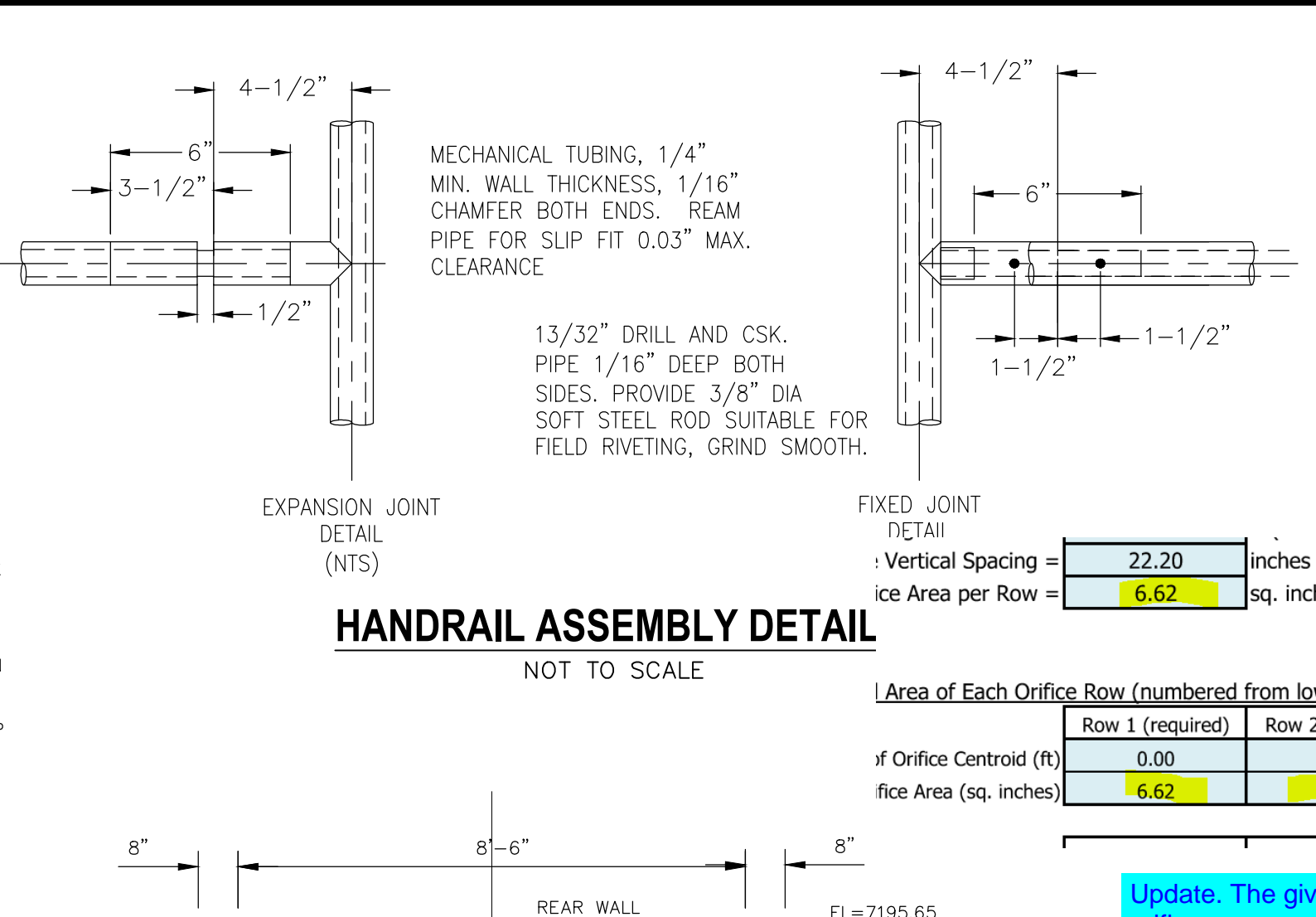
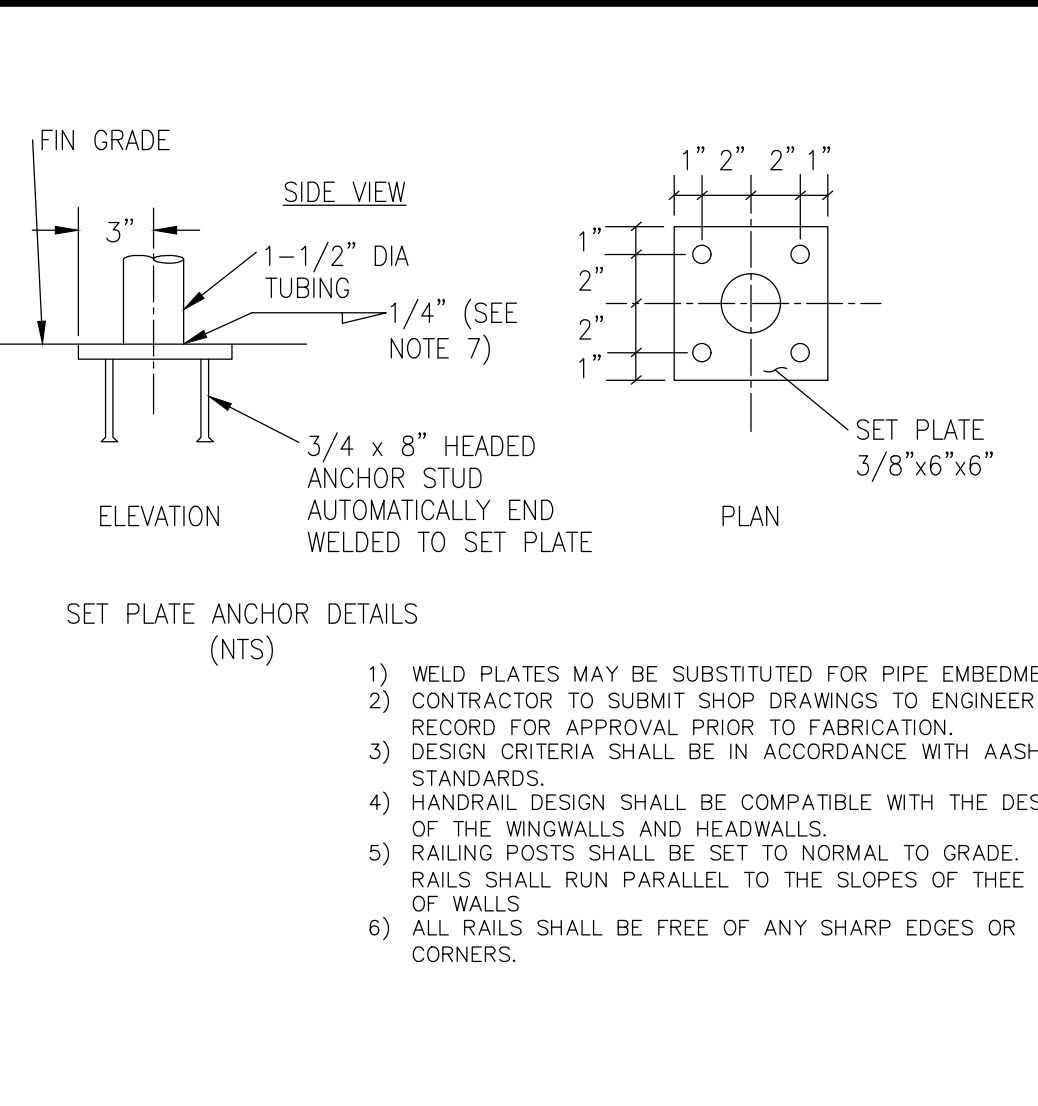
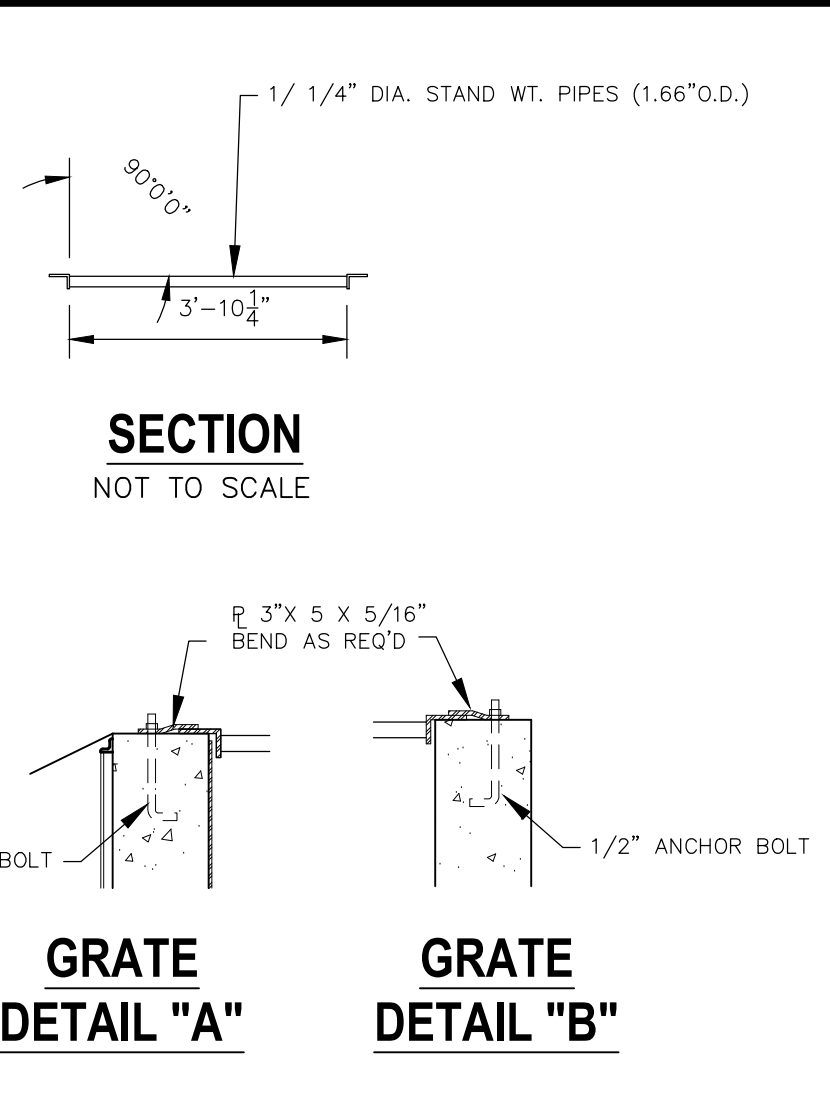
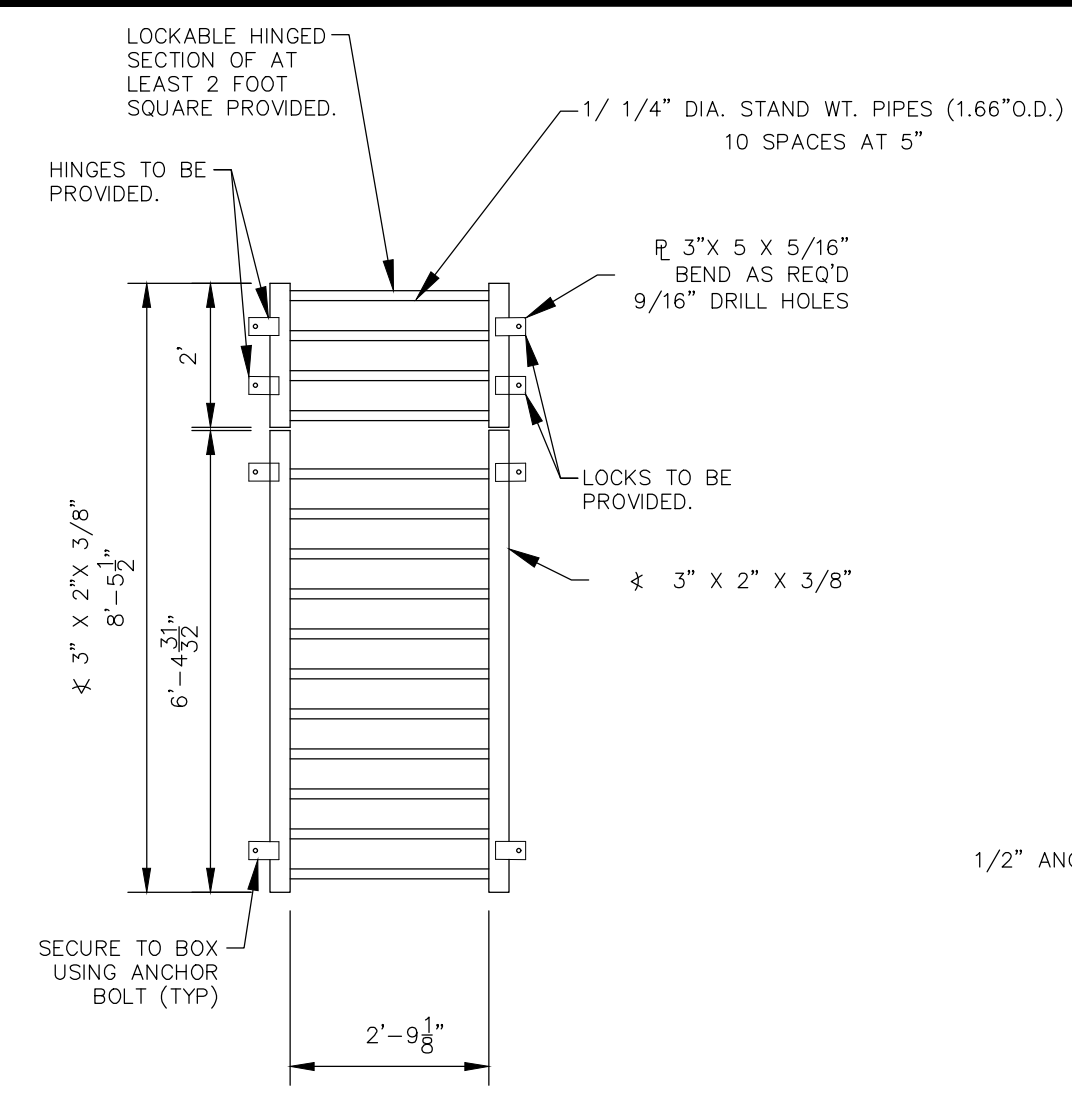
MARCIL A. SANCHEZ, COLORADO P.E. NO. 37160

NO.	DATE	BY	DESCRIPTION

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CAUTION

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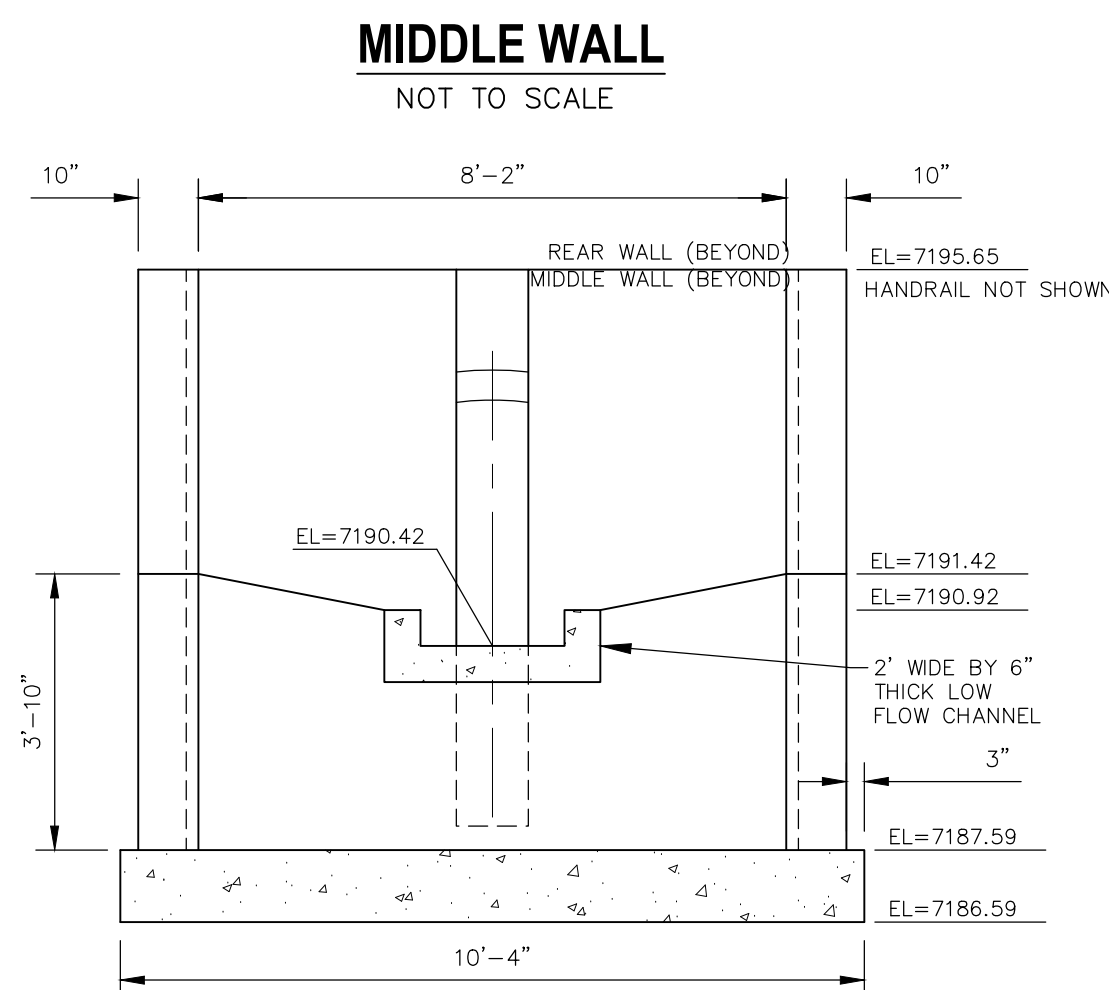
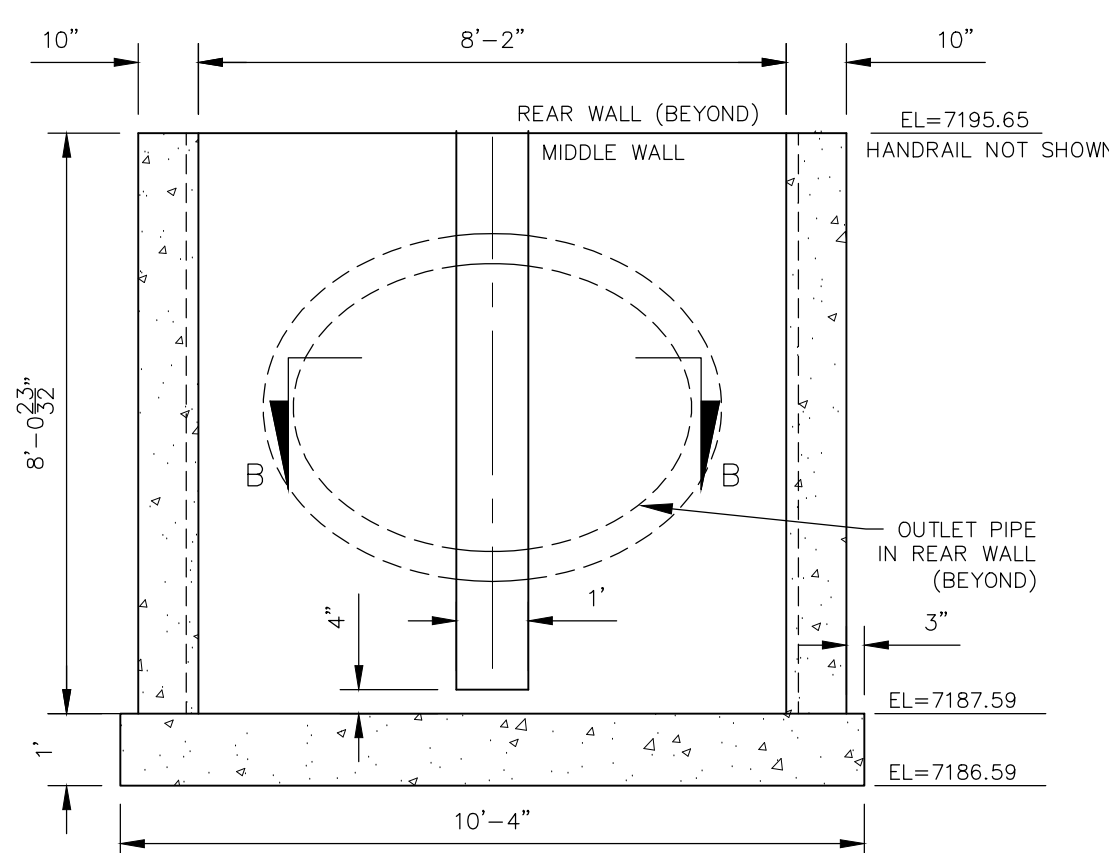
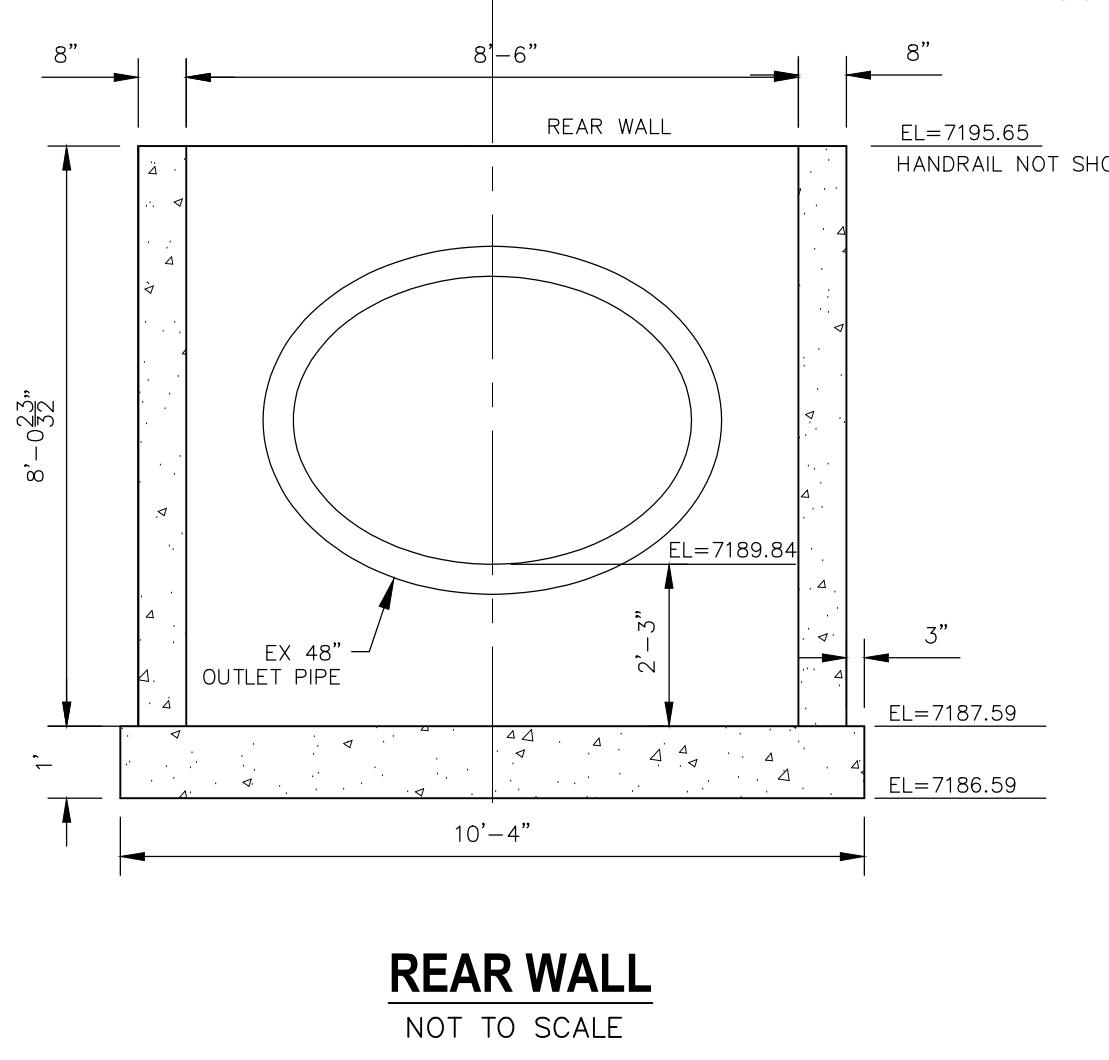


- SET PLATE ANCHOR DETAILS (NTS)
- 1) WELD PLATES MAY BE SUBSTITUTED FOR PIPE EMBEDMENT. CONTRACTOR TO SUBMIT SHOP DRAWINGS TO ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION.
 - 2) DESIGN CRITERIA SHALL BE IN ACCORDANCE WITH AASHTO STANDARDS.
 - 3) HANDRAIL DESIGN SHALL BE COMPATIBLE WITH THE DESIGN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

Area of Each Orifice Row (numbered from lowest to highest)

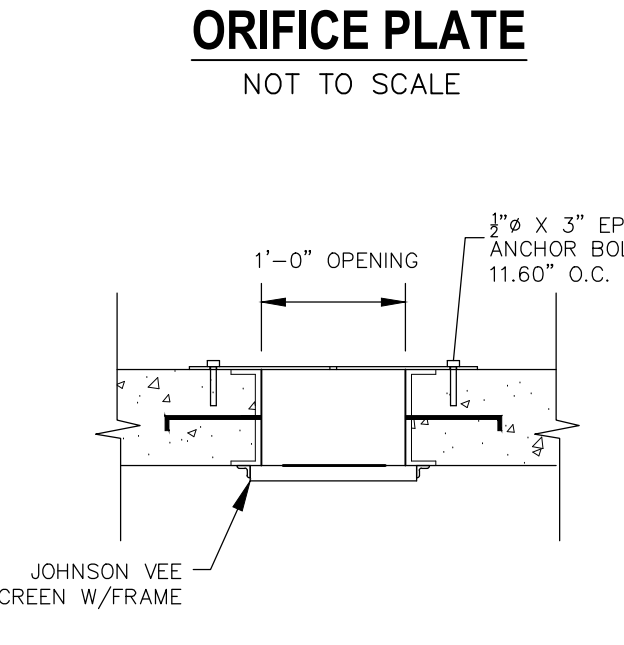
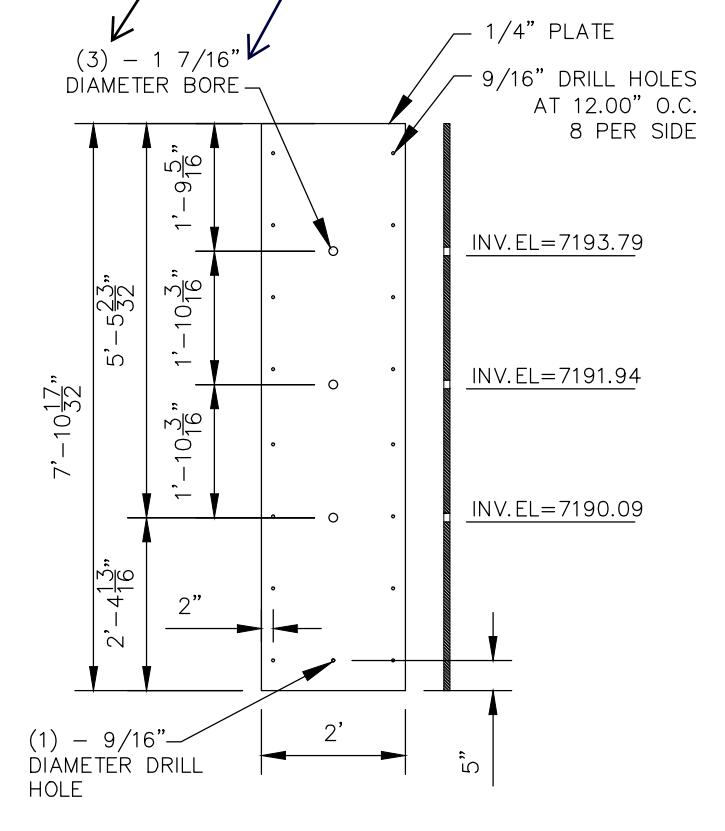
Row 1 (required)	Row 2 (optional)	Row 3 (optional)	Row 4 (optional)	Row
0.00	1.85	3.71		
6.62	6.62	6.62		

Vertical Spacing = 22.20 inches
Ice Area per Row = 6.62 sq. inches (use rectangular openings)

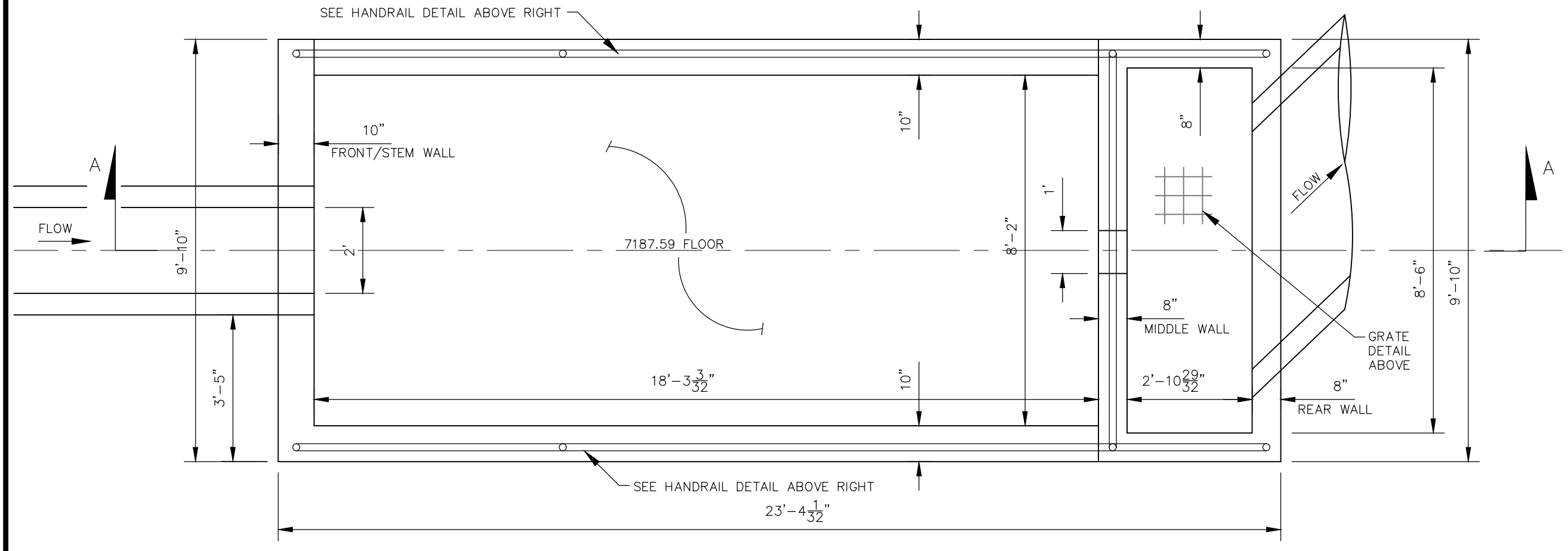
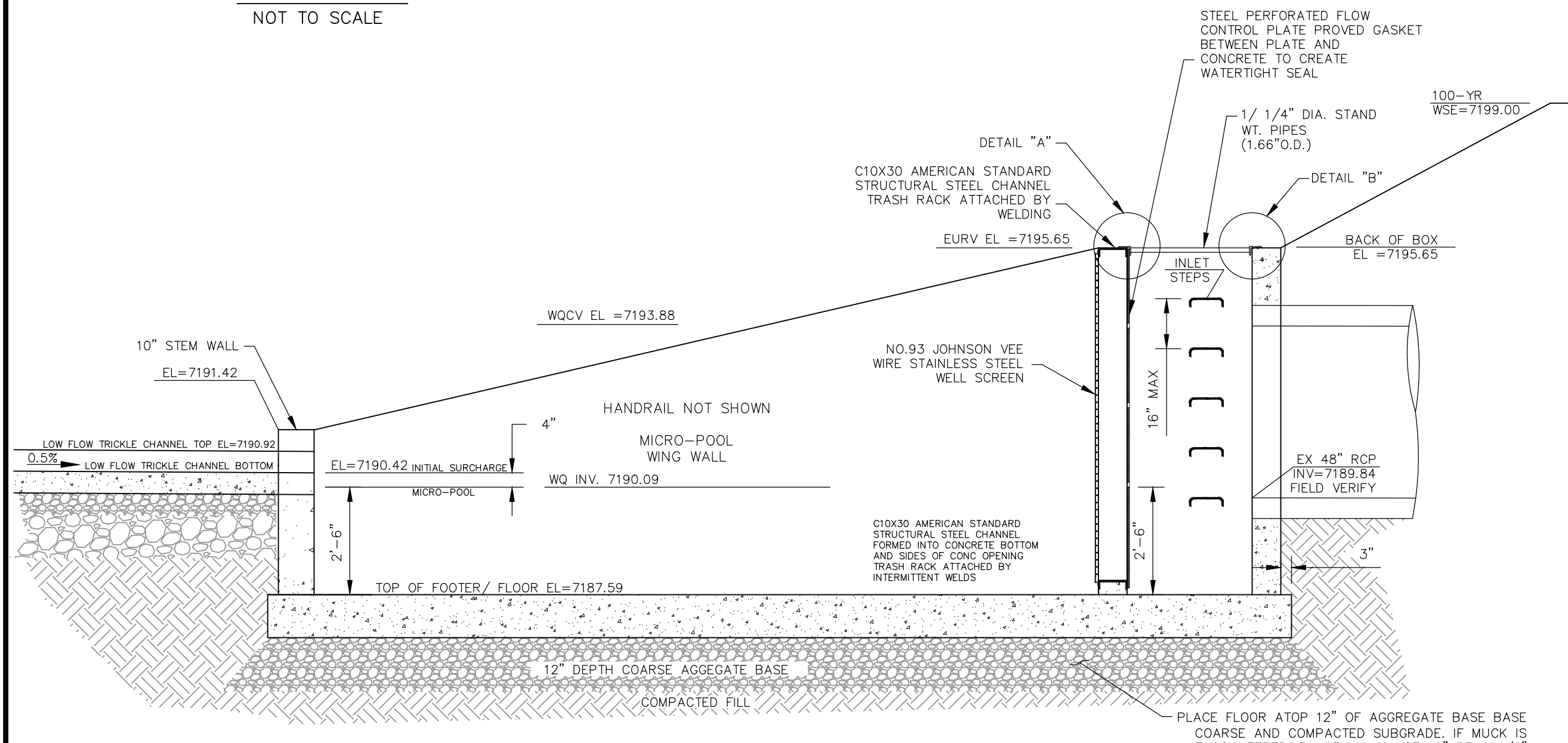
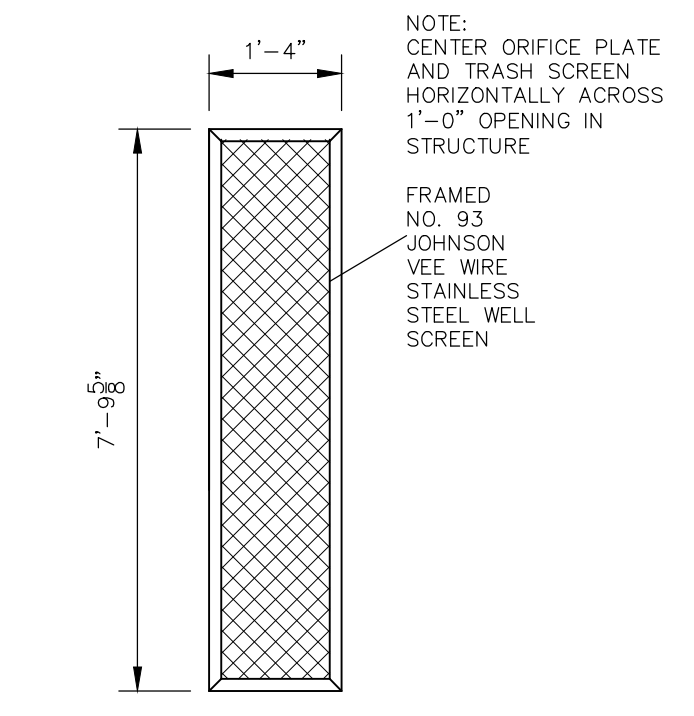


Update. The given diameters do not generate the required orifice area. Unresolved. Per the drainage report area per row is 6.62 sq inches (use rectangular openings)

this is only equal to 1.62 sq inch



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.



POND 1 WATER QUALITY OUTLET STRUCTURE NOT TO SCALE

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

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.

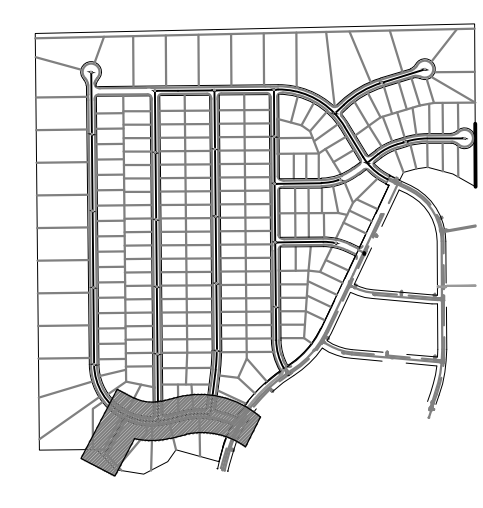
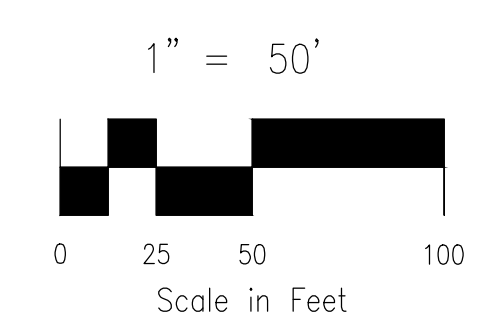
CAUTION

File: C:\Users\luprince\Documents\100144-PBH 14\Drawings\Sanitary\SS02.dwg Plotstamp: 12/30/2020 9:26 AM

Line #	Length	Direction
L1	233.81	N27°43'10"E
L2	86.98	S76°00'00"W

Curve #	Length	Radius	Delta
C1	148.25	400.00	21.24
C2	40.20	300.00	7.68
C3	176.24	300.00	33.66
C4	325.05	300.00	62.08

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PAINT BRUSH HILLS FILING NO. 14
SANITARY SEWER PLANS
 PROJECT NO. 10-014
 DATE: 12/29/2020
 SCALE: 1" = 50'
 HORIZONTAL: 1" = 50'
 VERTICAL: 1" = 5'
 DESIGNED BY: SM
 DRAWN BY: SM
 CHECKED BY: GW

217 N. WAHATCH AVE., STE 305
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5485

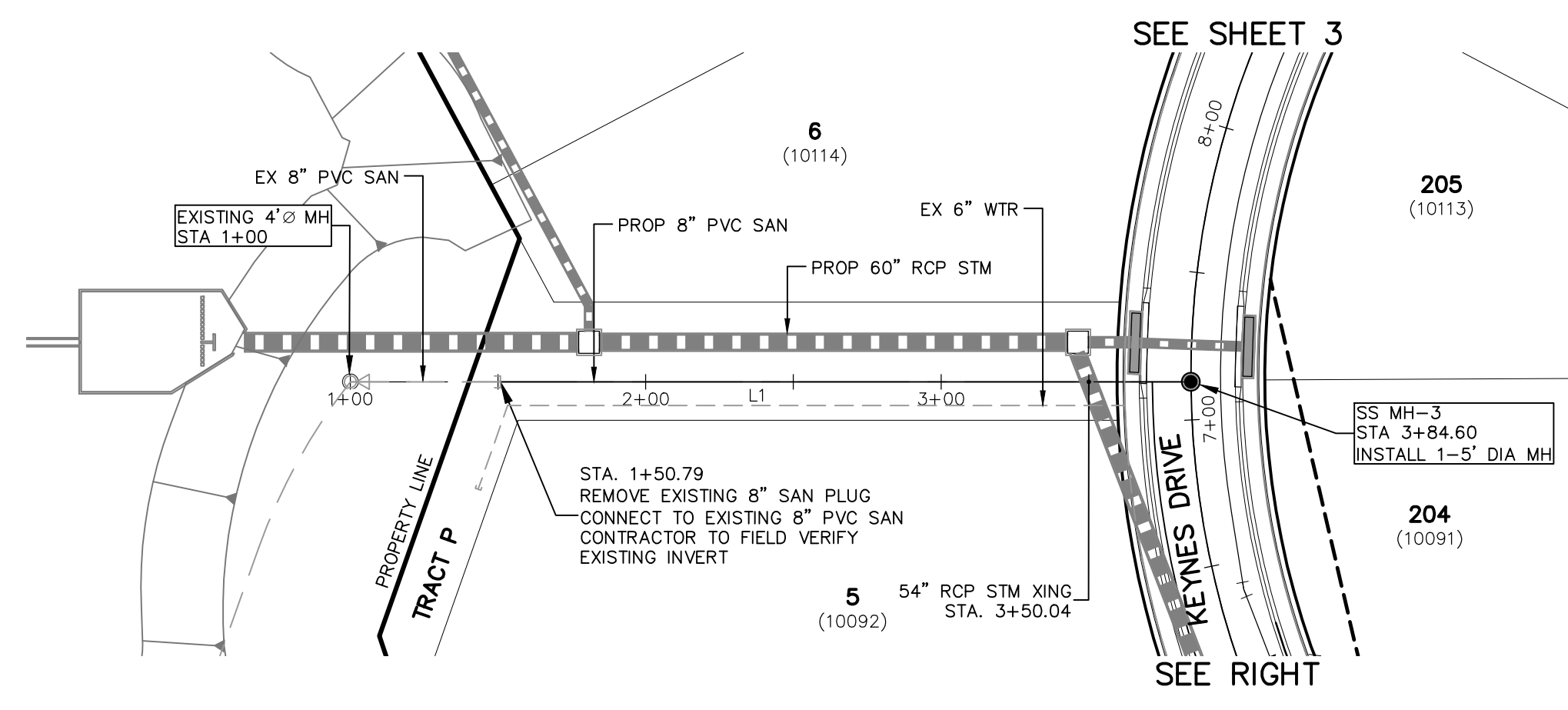
CIVIL CONSULTANTS, INC.

FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.
 VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37760

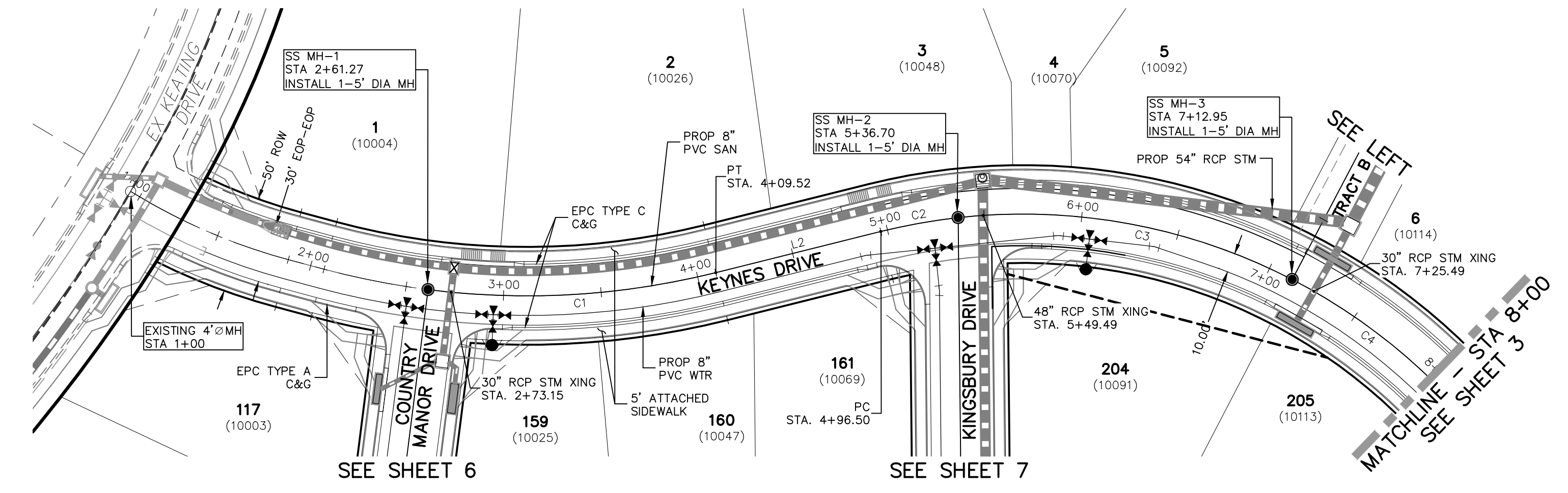
NO.	DATE	BY	DESCRIPTION

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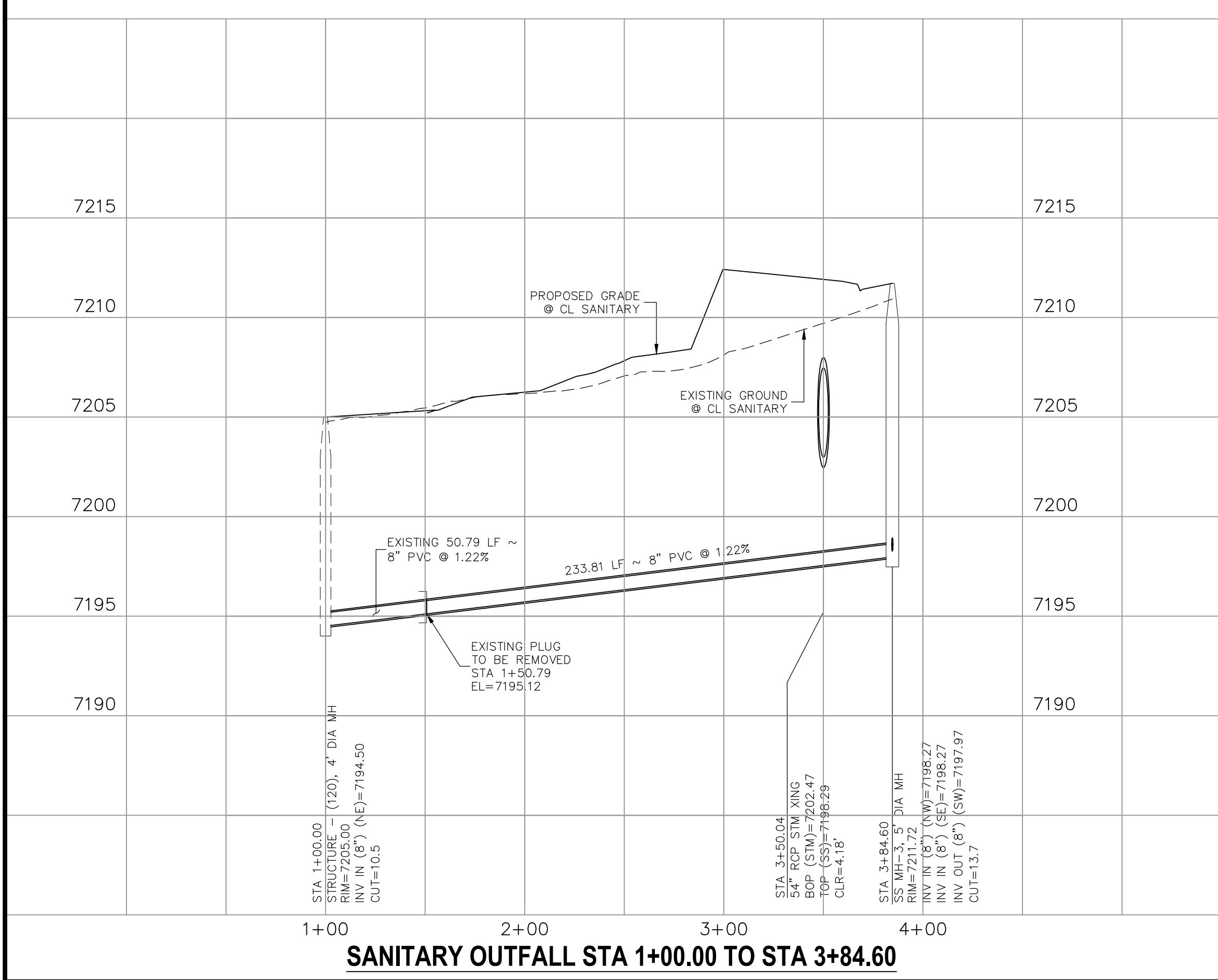
CAUTION



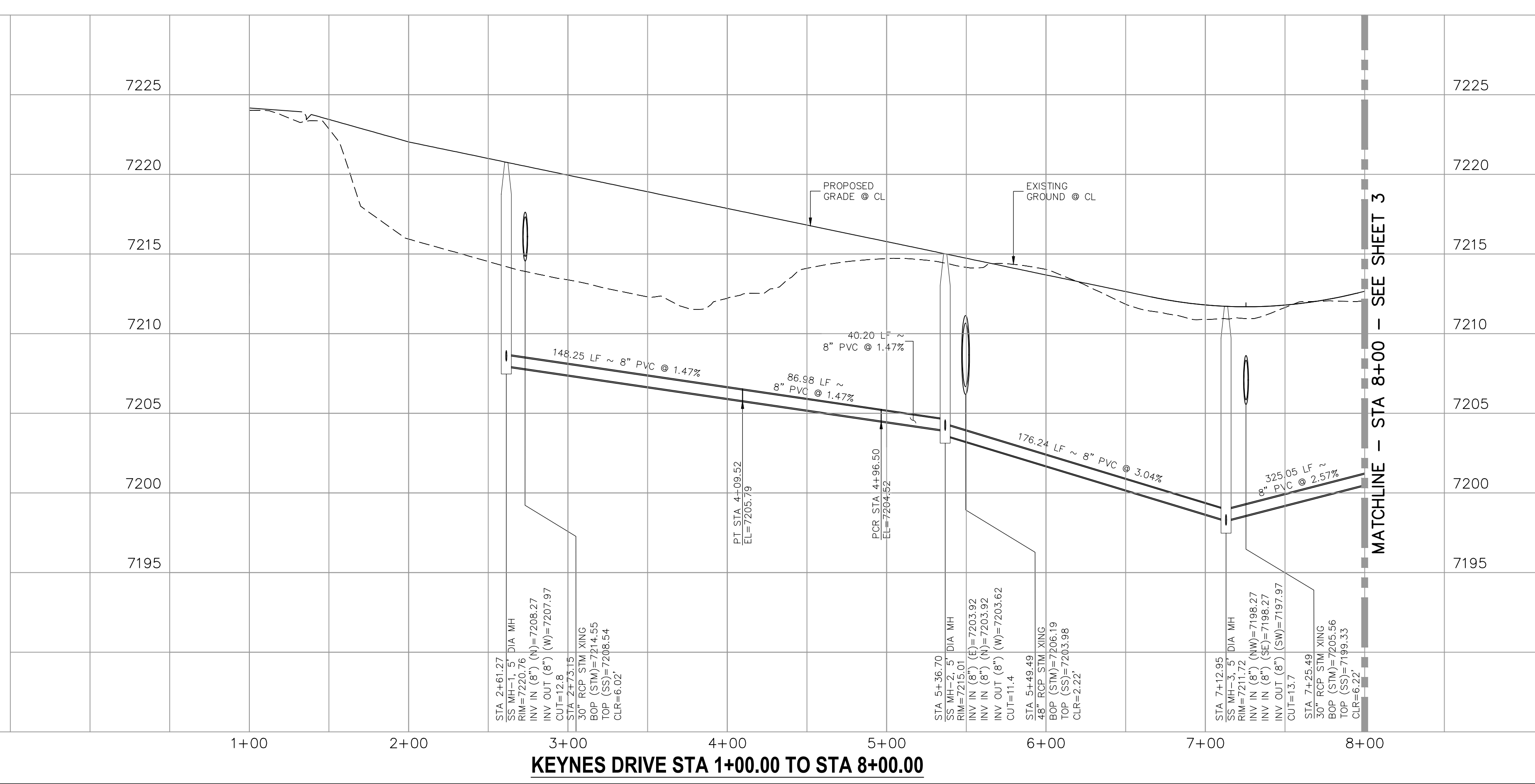
SANITARY OUTFALL
STA 1+00.00 TO STA 3+84.60



KEYNES DRIVE
STA 1+00.00 TO STA 8+00.00



SANITARY OUTFALL STA 1+00.00 TO STA 3+84.60



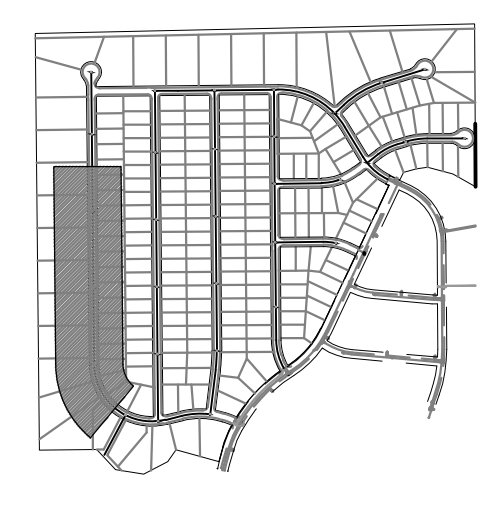
KEYNES DRIVE STA 1+00.00 TO STA 8+00.00

MATCHLINE - STA 8+00 - SEE SHEET 3

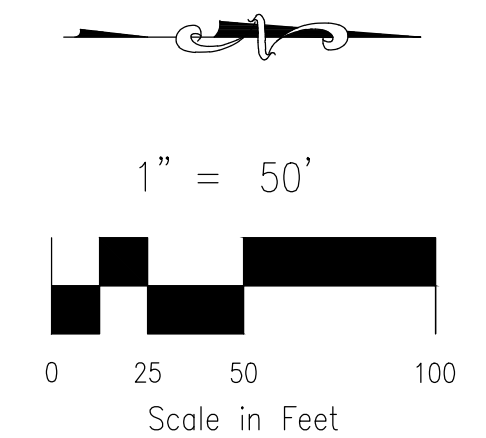
File: C:\Users\lupriace\Documents\100144-PBH 14\Drawings\Sanitary\SS03.dwg Plotstamp: 12/30/2020 9:28 AM

SANITARY SEWER LINE TABLE		
Line #	Length	Direction
L1	400.00	N0°35'00"W
L2	400.00	N0°35'00"W
L3	400.00	N0°35'00"W

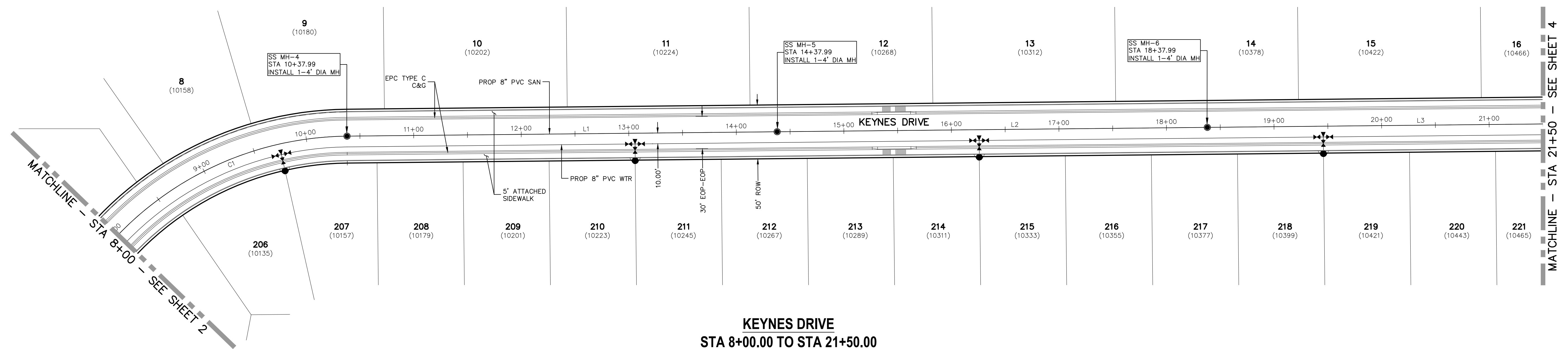
SANITARY SEWER CURVE TABLE			
Curve #	Length	Radius	Delta
C1	325.05	300.00	62.08



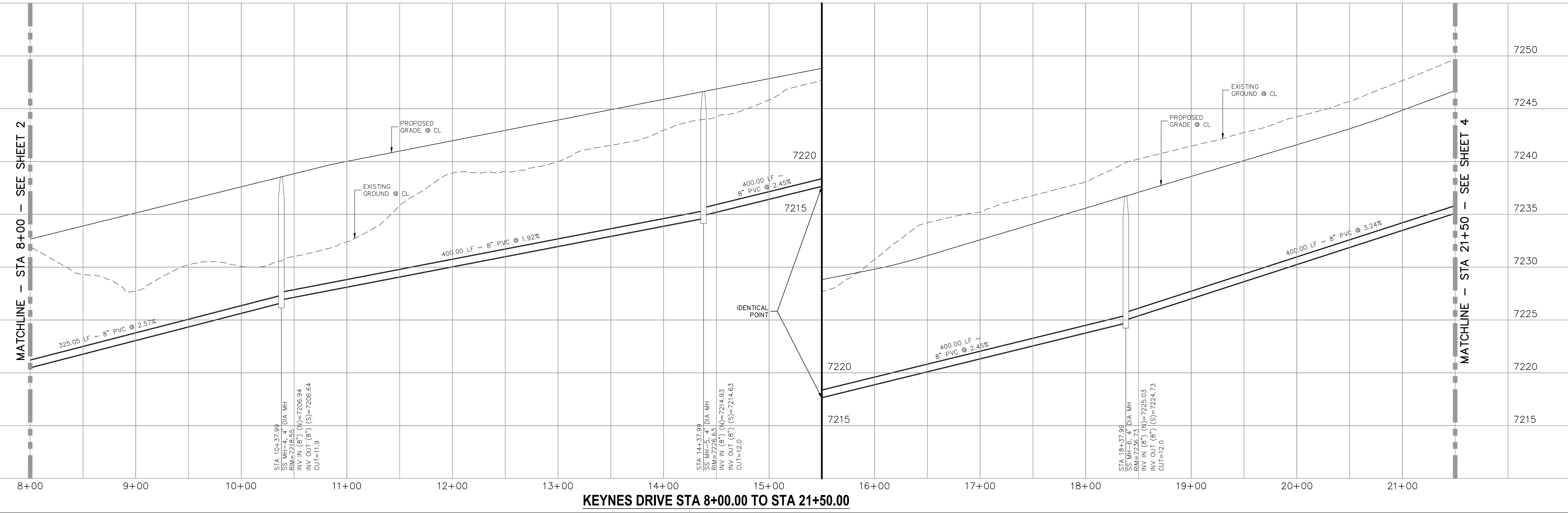
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PAINT BRUSH HILLS FILING NO. 14
SANITARY SEWER PLANS
 PROJECT NO. 10-014 DATE: 12/29/2020
 SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'
 DESIGNED BY: SM DRAWN BY: SM CHECKED BY: GW
 SHEET 3 OF 26 **SS03**



**KEYNES DRIVE
 STA 8+00.00 TO STA 21+50.00**



KEYNES DRIVE STA 8+00.00 TO STA 21+50.00



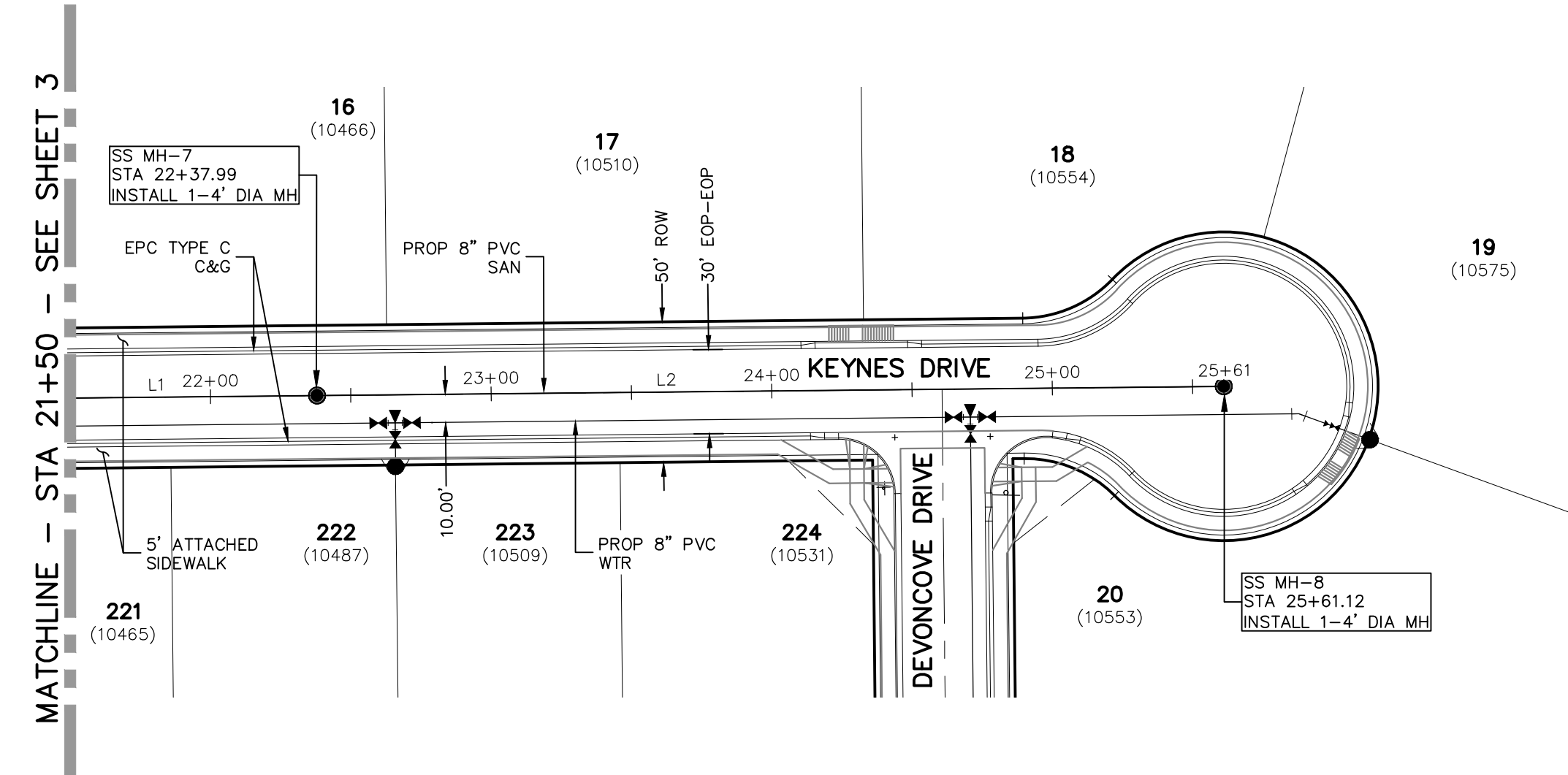
212 N. WAHSAUCH AVE., STE 305
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5485

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

NO.	DATE	BY	DESCRIPTION	APPROVED BY	DATE

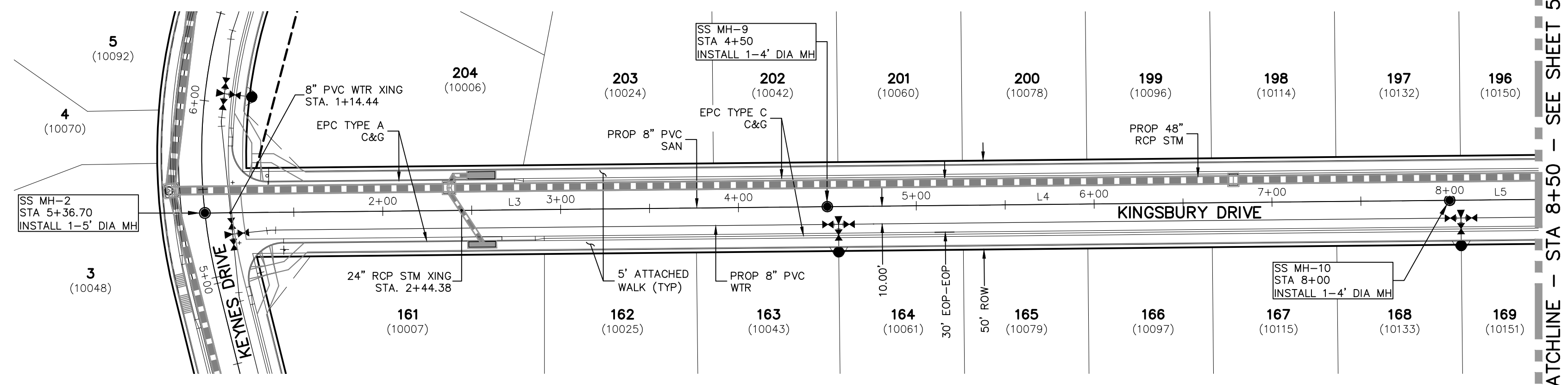
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CAUTION

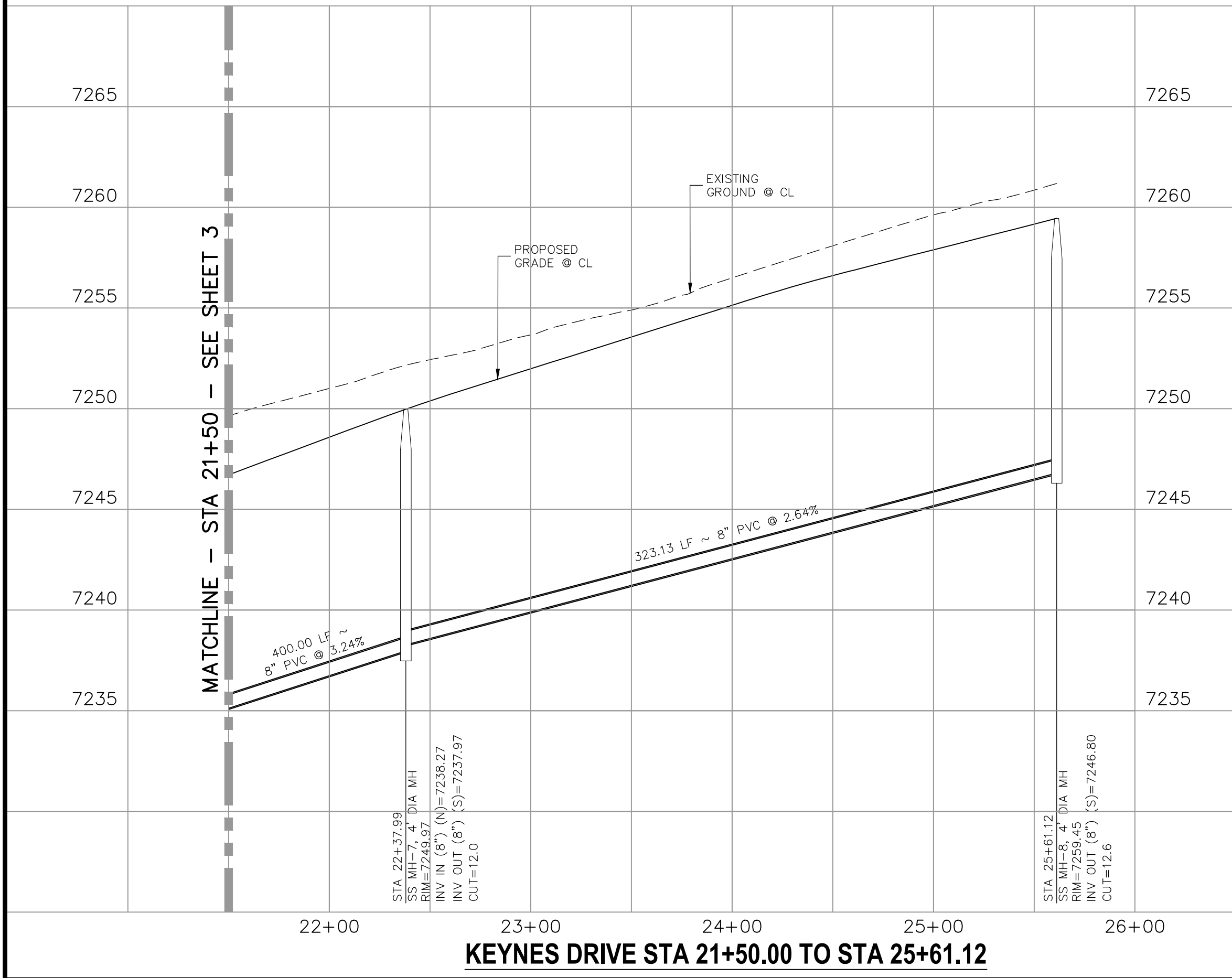


**KEYNES DRIVE
STA 21+50.00 TO STA 25+61.12**

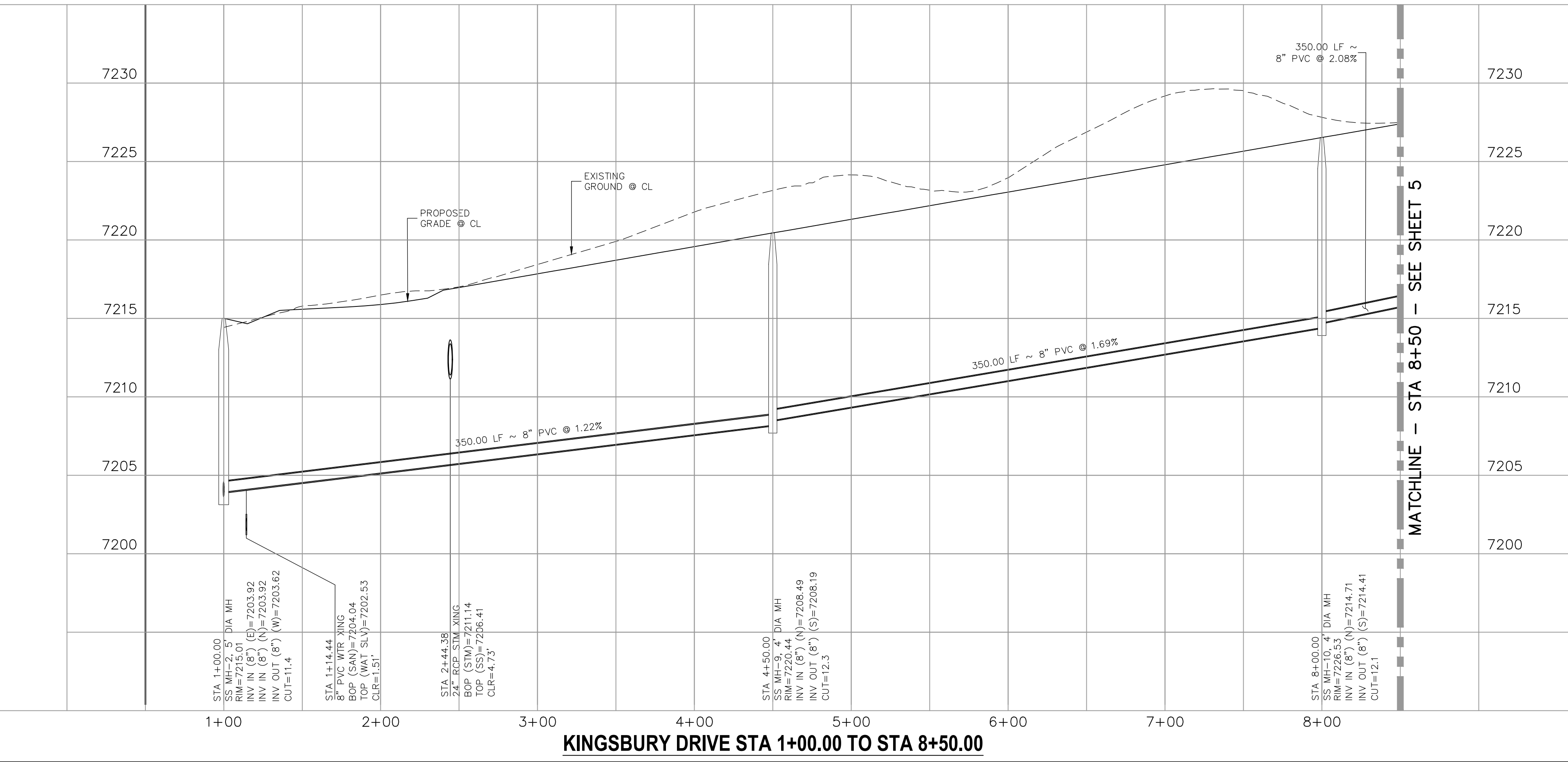
Line #	Length	Direction
L1	400.00	N0°35'00.00"W
L2	323.13	N0°35'00.00"W
L3	350.00	N0°35'00.00"W
L4	350.00	N0°35'00.00"W
L5	350.00	N0°35'00.00"W



**KINGSBURY DRIVE
STA 1+00.00 TO STA 8+50.00**

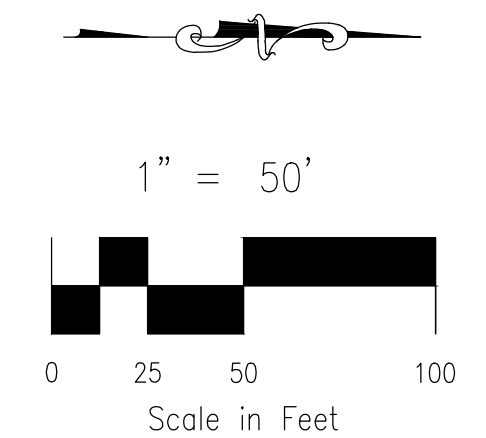
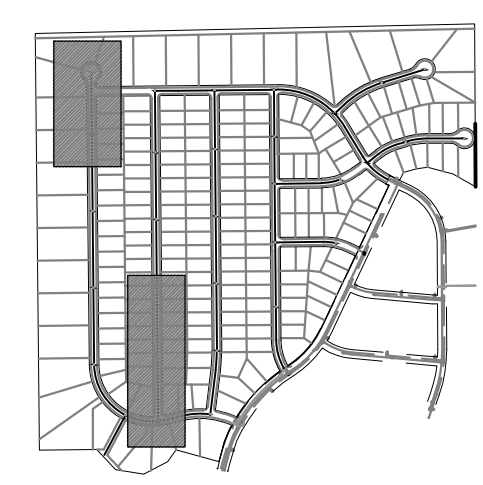


KEYNES DRIVE STA 21+50.00 TO STA 25+61.12



KINGSBURY DRIVE STA 1+00.00 TO STA 8+50.00

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PAINT BRUSH HILLS FILING NO. 14

SANITARY SEWER PLANS

PROJECT NO. 10-014 DATE: 12/29/2020

DESIGNED BY: SM SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'

DRAWN BY: SM SHEET 4 OF 26

CHECKED BY: GW SS04

212 N. WAHSATCH AVE., STE 305
COLORADO SPRINGS, CO 80903
PHONE: 719.955.5485

CIVIL CONSULTANTS, INC.

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

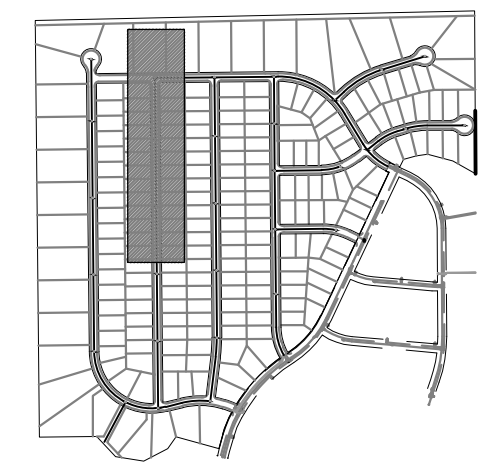
MARCIL A. SANCHEZ, COLORADO P.E. NO. 37760

NO.	DATE	BY	DESCRIPTION	APPROV. BY	DATE

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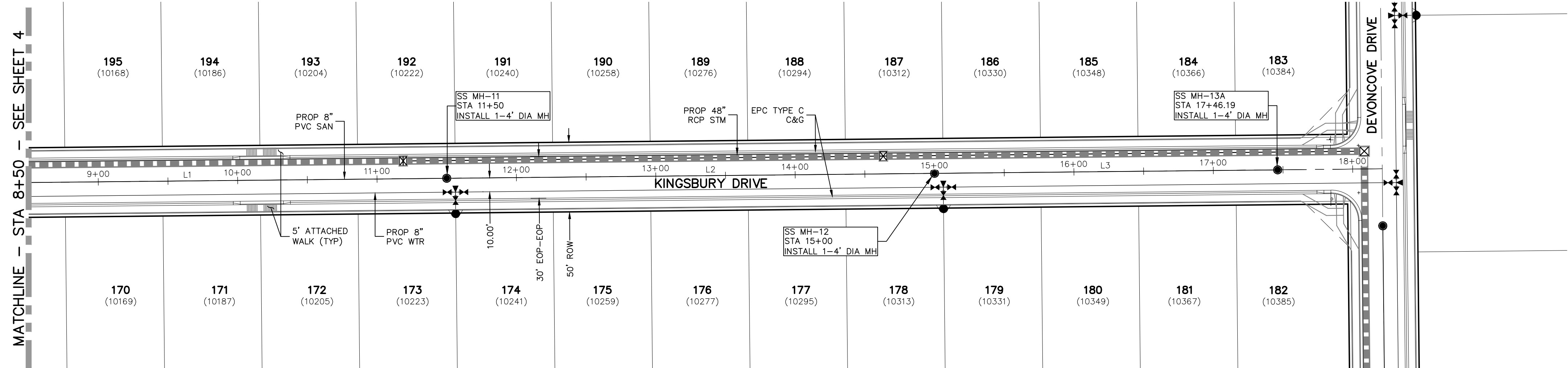
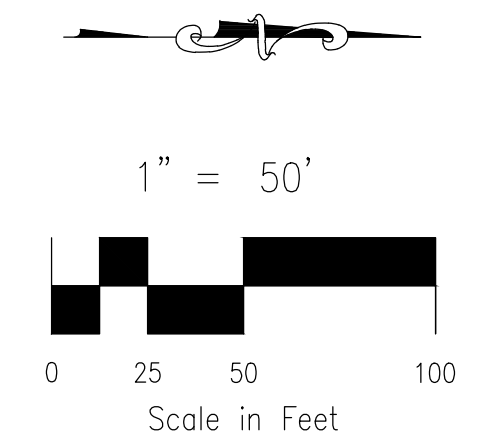
CAUTION

SANITARY SEWER LINE TABLE		
Line #	Length	Direction
L2	350.00	N0°35'00"W
L3	246.19	N0°35'00"W
L1	350.00	N0°35'00"W

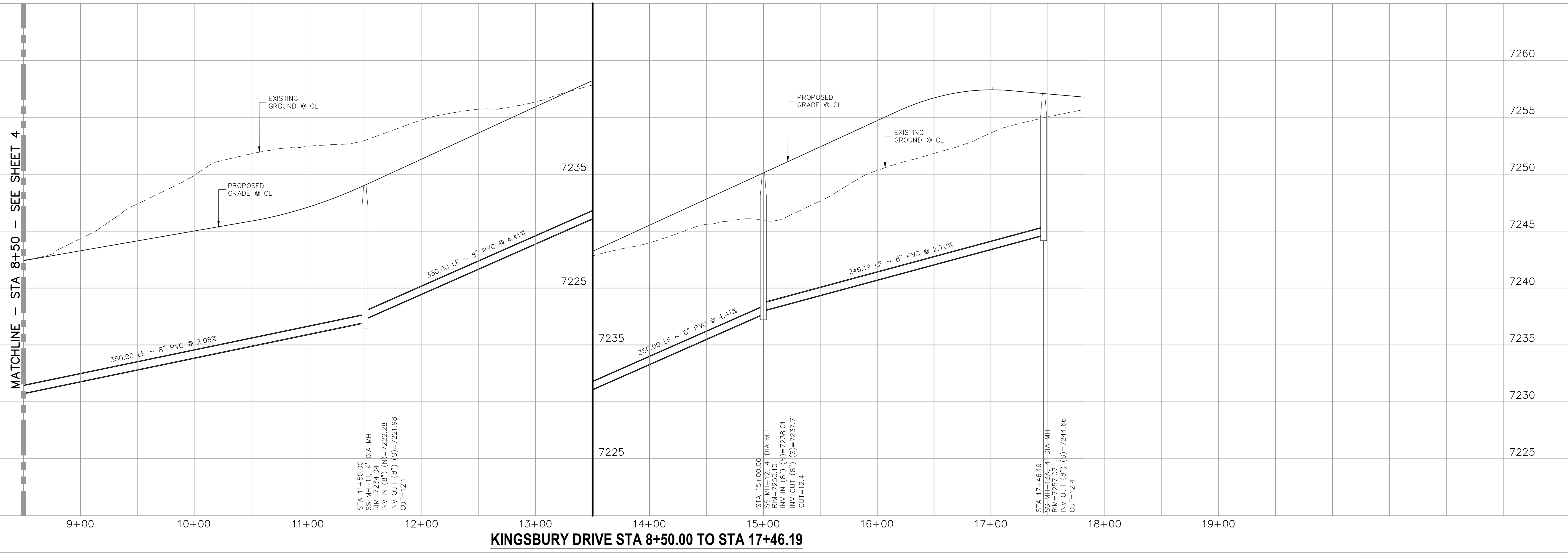


KEY MAP
SCALE: NTS

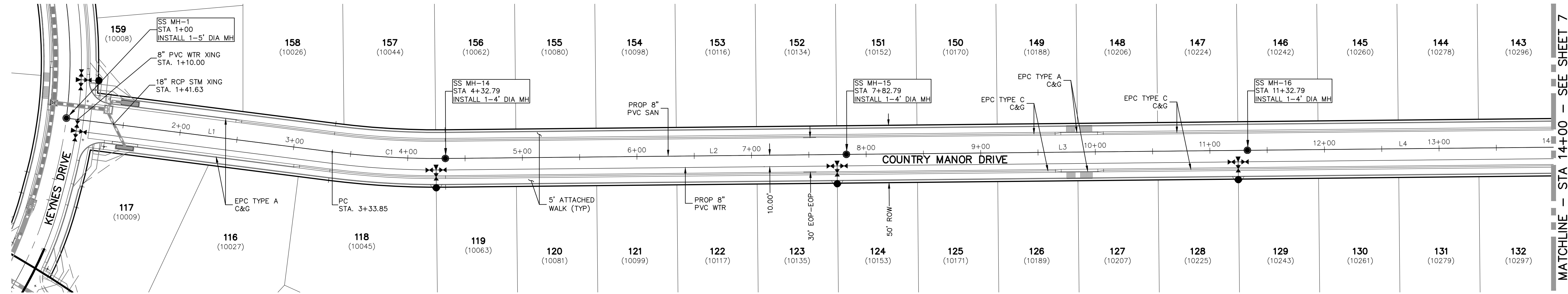
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**KINGSBURY DRIVE
STA 8+50.00 TO STA 17+46.19**

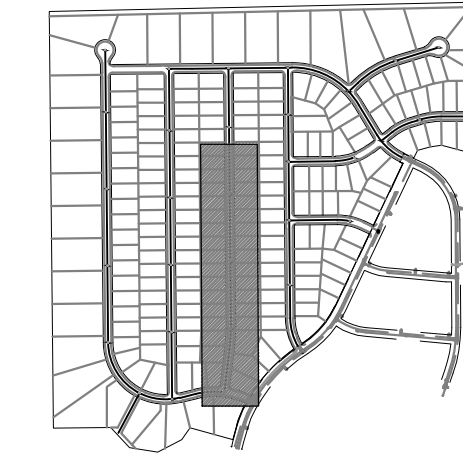


PAINT BRUSH HILLS FILING NO. 14	
SANITARY SEWER PLANS	
PROJECT NO. 10-014	DATE: 12/29/2020
DESIGNED BY: SM	CHECKED BY: SM
DRAWN BY: SM	SCALE: HORIZONTAL: 1"=50'
CHECKED BY: GW	SCALE: VERTICAL: 1"=5'
SHEET 5 OF 26 SS05	
212 N. WAHATCH AVE., STE 305 COLORADO SPRINGS, CO 80903 PHONE: 719.555.5485	
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.	
VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37760	
REVISIONS: NO. DATE BY: DESCRIPTION:	DATE:
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CAUTION	

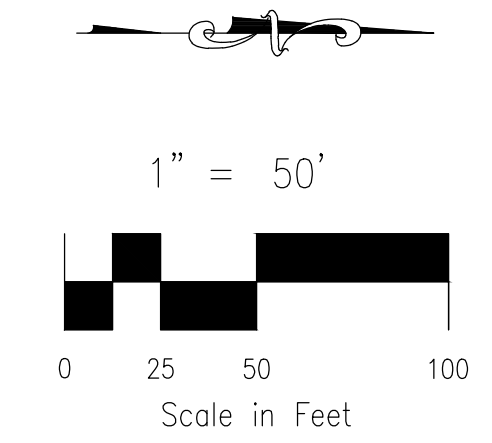


Line #	Length	Direction
L1	233.85	N71°4'08"E
L2	350.00	N0°35'00"W
L3	350.00	N0°35'00"W
L4	350.00	N0°35'00"W

Curve #	Length	Radius	Delta
C1	98.94	725.00	7.82

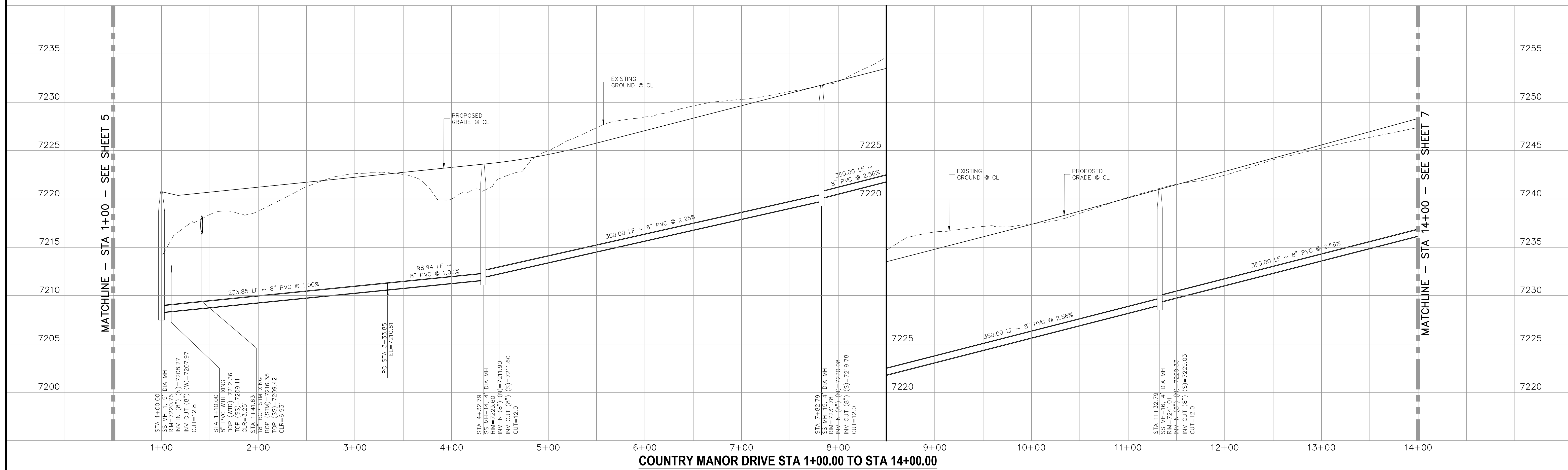


KEY MAP
SCALE: NTS



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**COUNTRY MANOR DRIVE
STA 1+00.00 TO STA 14+00.00**



PAIN'T BRUSH HILLS FILING NO. 14
SANITARY SEWER PLANS
PROJECT NO. 10-014 DATE: 12/29/2020
SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'
DESIGNED BY: SM DRAWN BY: SM CHECKED BY: GW

217 N. WAHATCH AVE. STE. 305
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

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

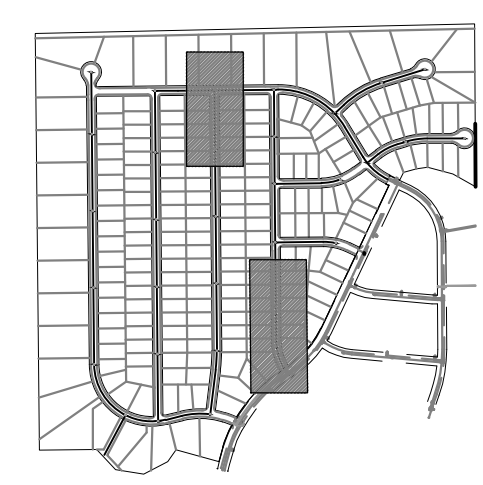
NO.	DATE	BY	DESCRIPTION	APPROVED BY	DATE

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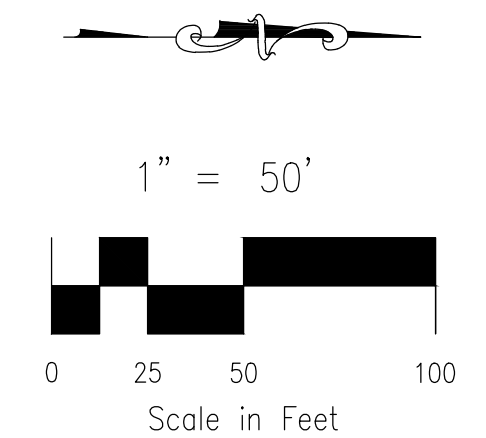
CAUTION

Line #	Length	Direction
L1	350.00	N0°35'00"W
L2	306.82	N0°35'00"W
L3	173.68	N0°35'00"W
L4	337.56	N0°35'00"W

Curve #	Length	Radius	Delta
C1	132.55	300.00	25.32



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PAINT BRUSH HILLS FILING NO. 14
SANITARY SEWER PLANS
 PROJECT NO. 10-014 DATE: 12/29/2020
 DESIGNED BY: SM SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'
 DRAWN BY: SM SHEET 7 OF 26
 CHECKED BY: GW SS07

212 N. WAHSAKACH AVE. STE 305
 COLORADO SPRINGS, CO 80903
 PHONE: 719.955.5485

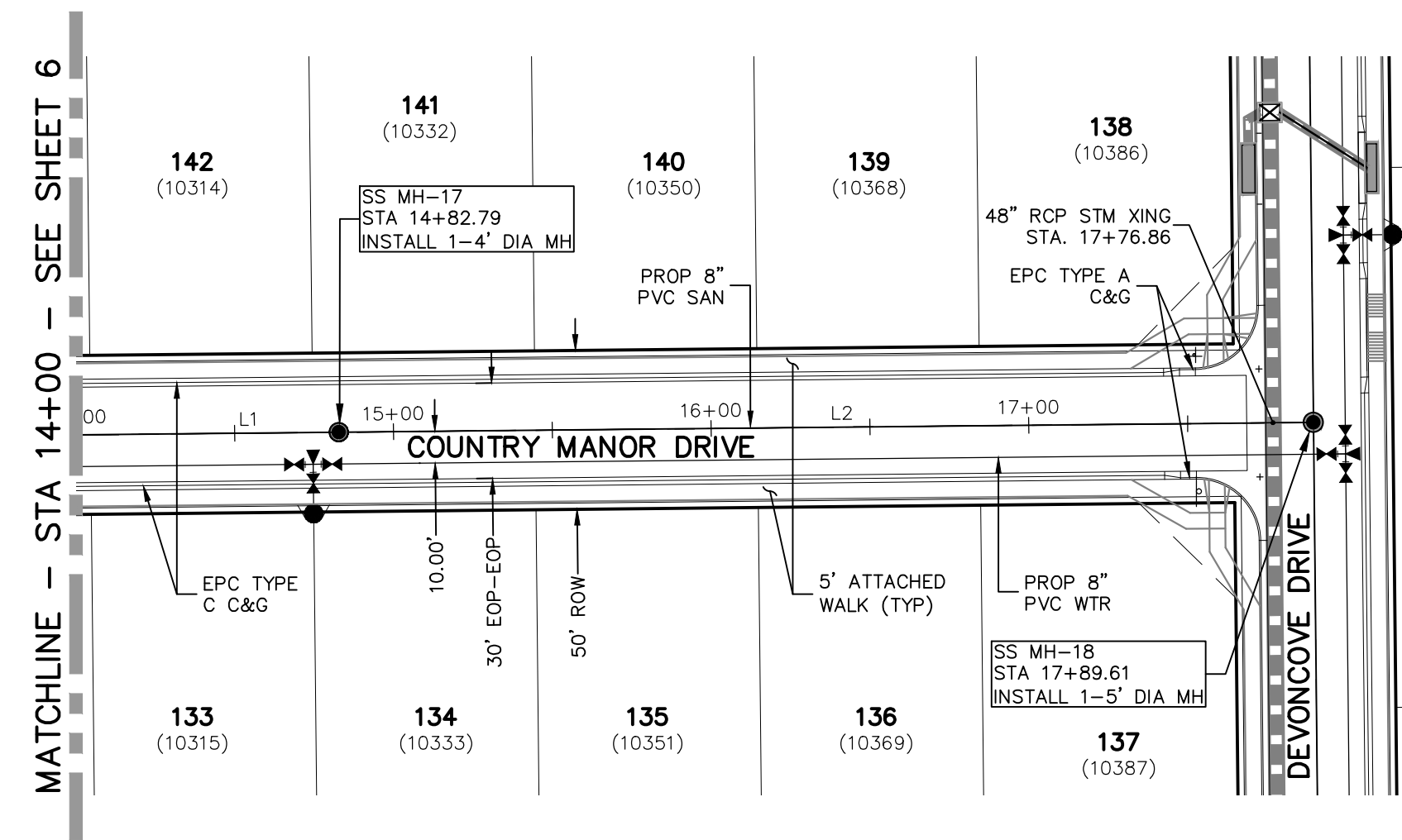
CIVIL CONSULTANTS, INC.

FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.
 VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37760

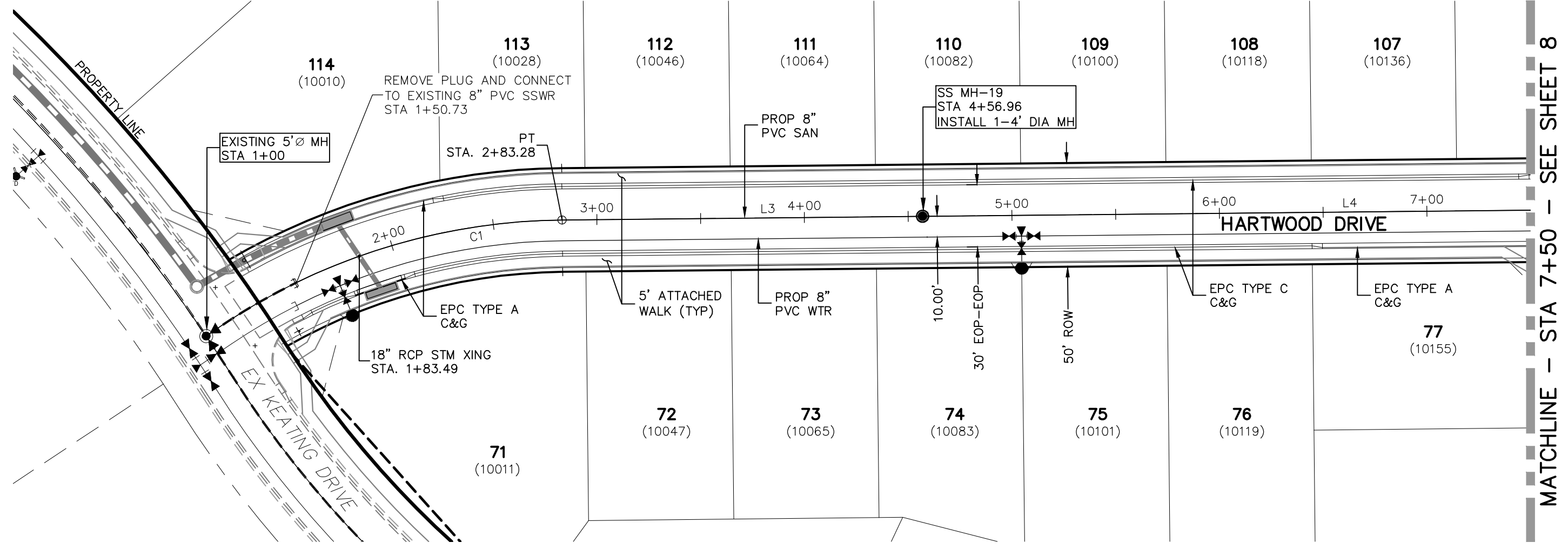
NO.	DATE	BY	DESCRIPTION	APPROVED BY	DATE

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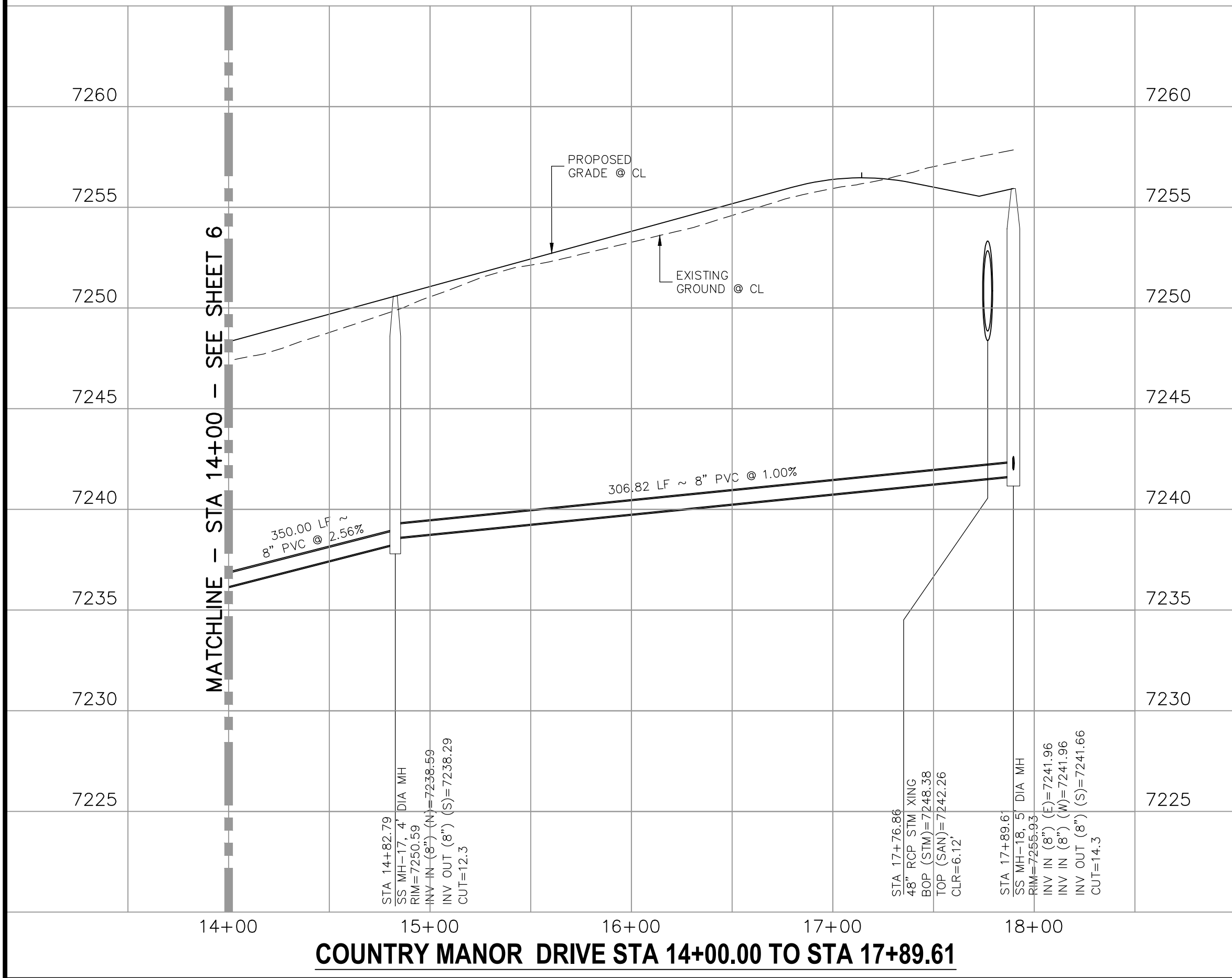
CAUTION



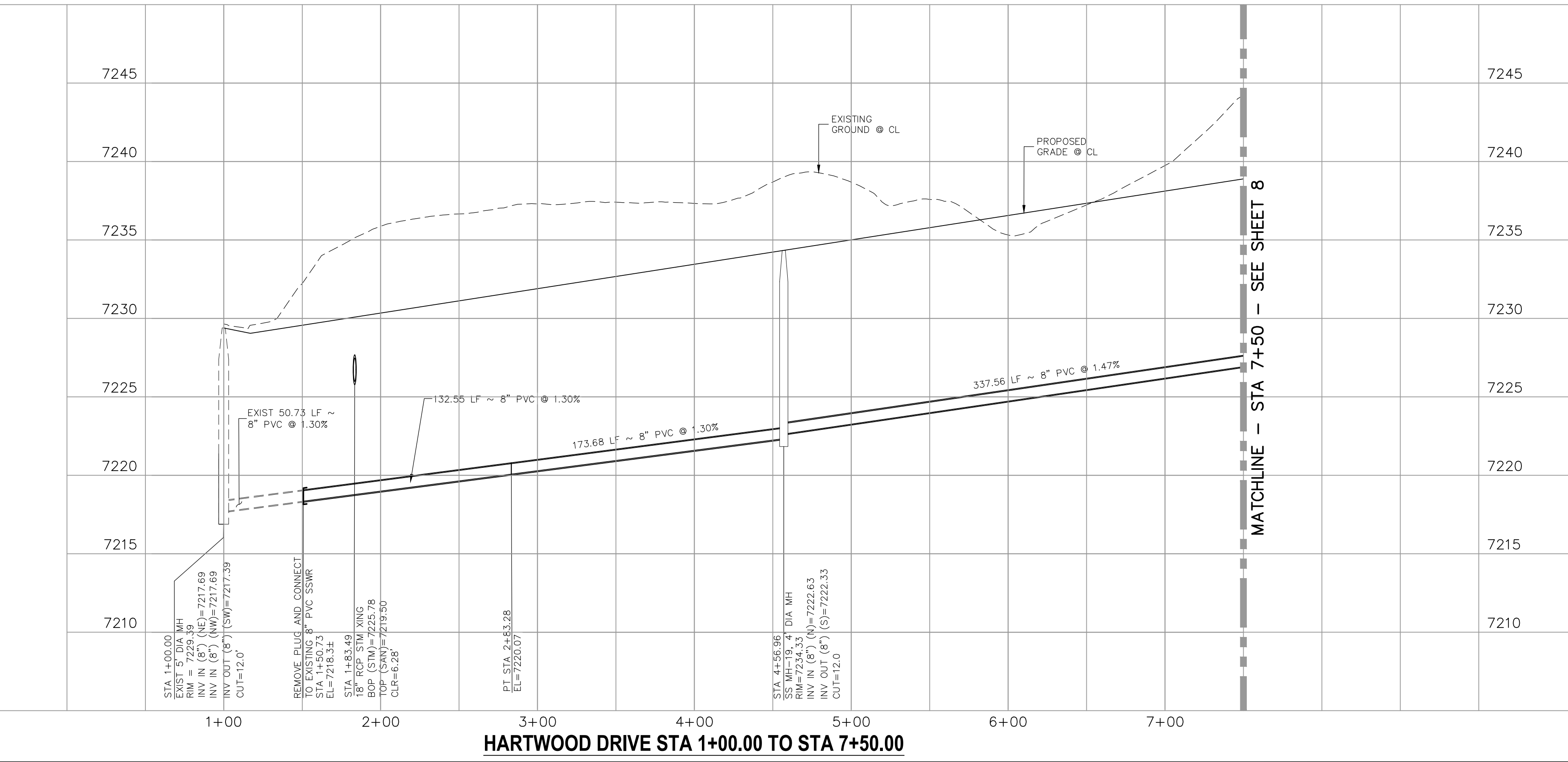
COUNTRY MANOR DRIVE
 STA 14+00.00 TO STA 17+89.61



HARTWOOD DRIVE
 STA 1+00.00 TO STA 7+50.00

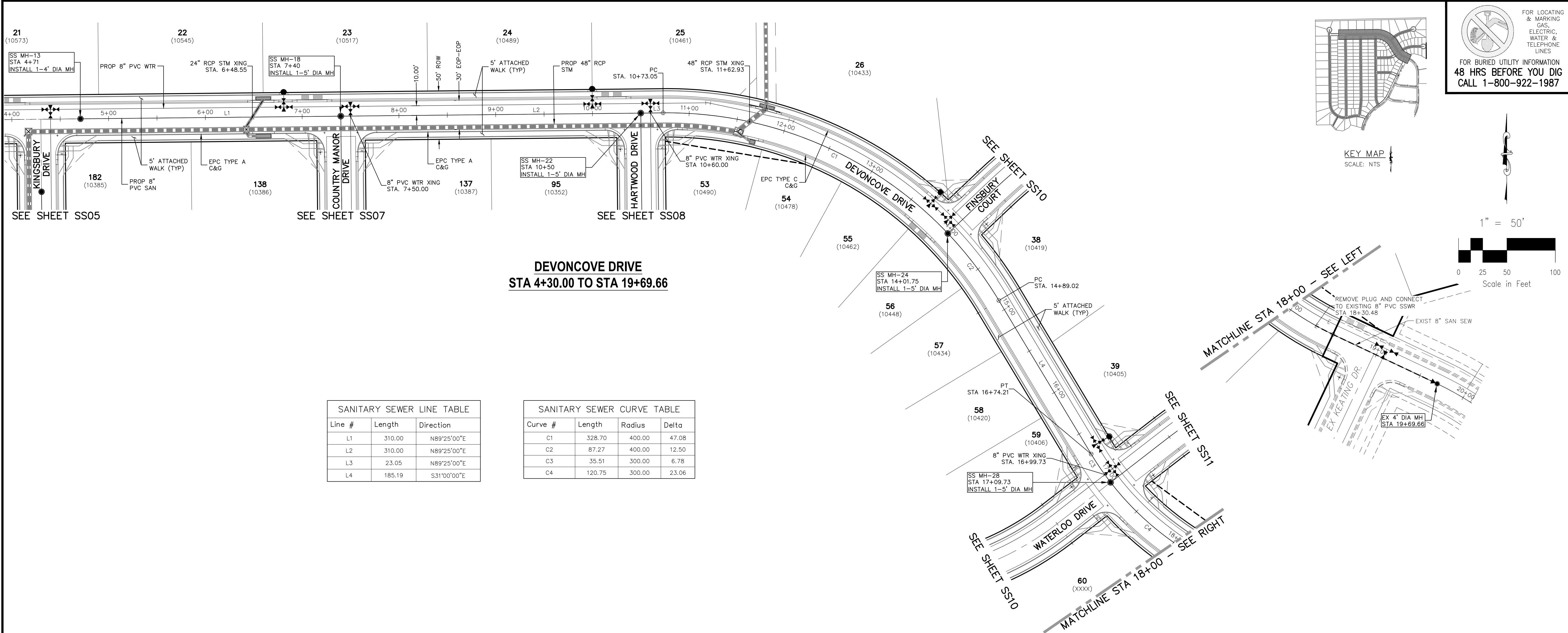


COUNTRY MANOR DRIVE STA 14+00.00 TO STA 17+89.61



HARTWOOD DRIVE STA 1+00.00 TO STA 7+50.00

File: C:\Users\jlopez\Documents\100144-PBH 14\Draw\Corral Draw\Sanitary\SS09.dwg Plotstamp: 12/30/2020 10:30 AM



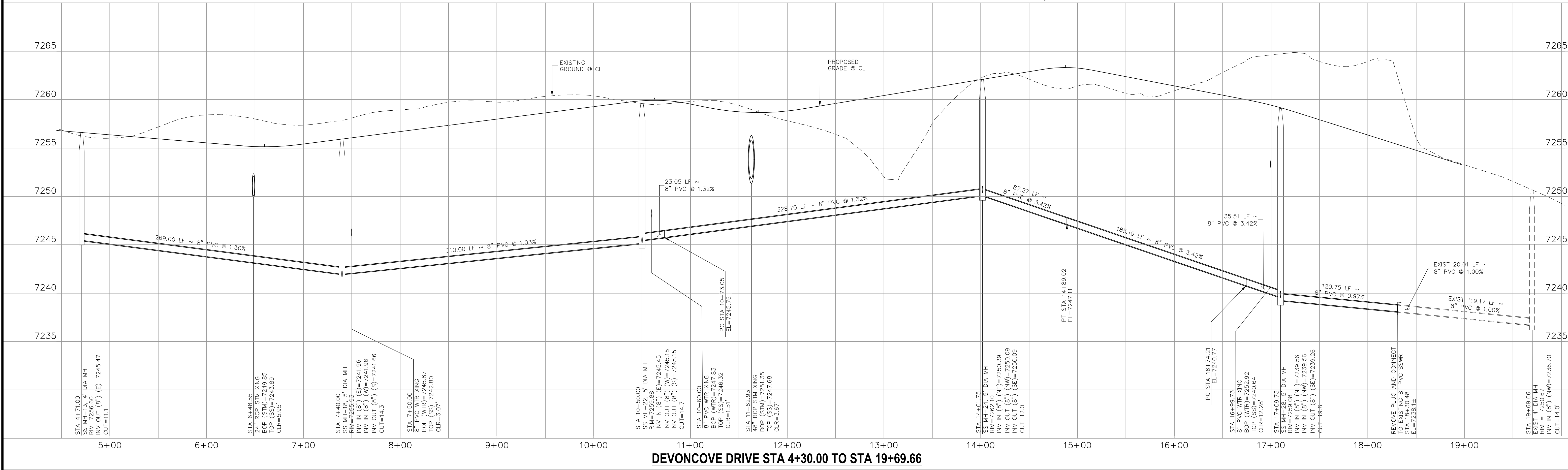
**DEVONCOVE DRIVE
STA 4+30.00 TO STA 19+69.66**

SANITARY SEWER LINE TABLE

Line #	Length	Direction
L1	310.00	N89°25'00"E
L2	310.00	N89°25'00"E
L3	23.05	N89°25'00"E
L4	185.19	S31°00'00"E

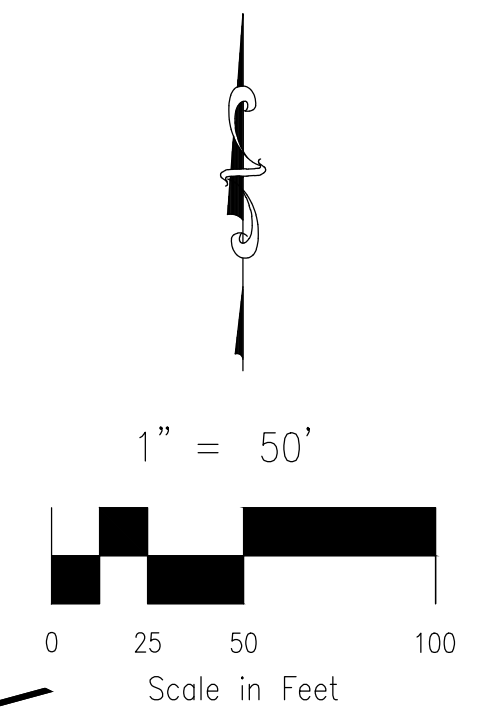
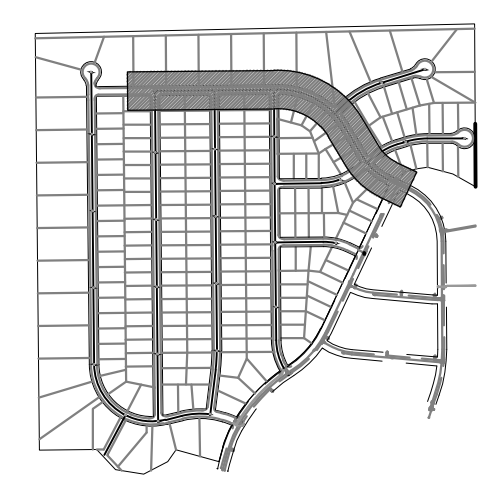
SANITARY SEWER CURVE TABLE

Curve #	Length	Radius	Delta
C1	328.70	400.00	47.08
C2	87.27	400.00	12.50
C3	35.51	300.00	6.78
C4	120.75	300.00	23.06



DEVONCOVE DRIVE STA 4+30.00 TO STA 19+69.66

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PAINT BRUSH HILLS FILING NO. 14

SANITARY SEWER PLANS

PROJECT NO. 10-014 DATE: 12/29/2020

DESIGNED BY: SM SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'

DRAWN BY: GW

CHECKED BY: SS09 SHEET 9 OF 26

212 N. WAHATCH AVE. STE 305
COLORADO SPRINGS, CO 80903
PHONE: 719.955.5485

CIVIL CONSULTANTS, INC.

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

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

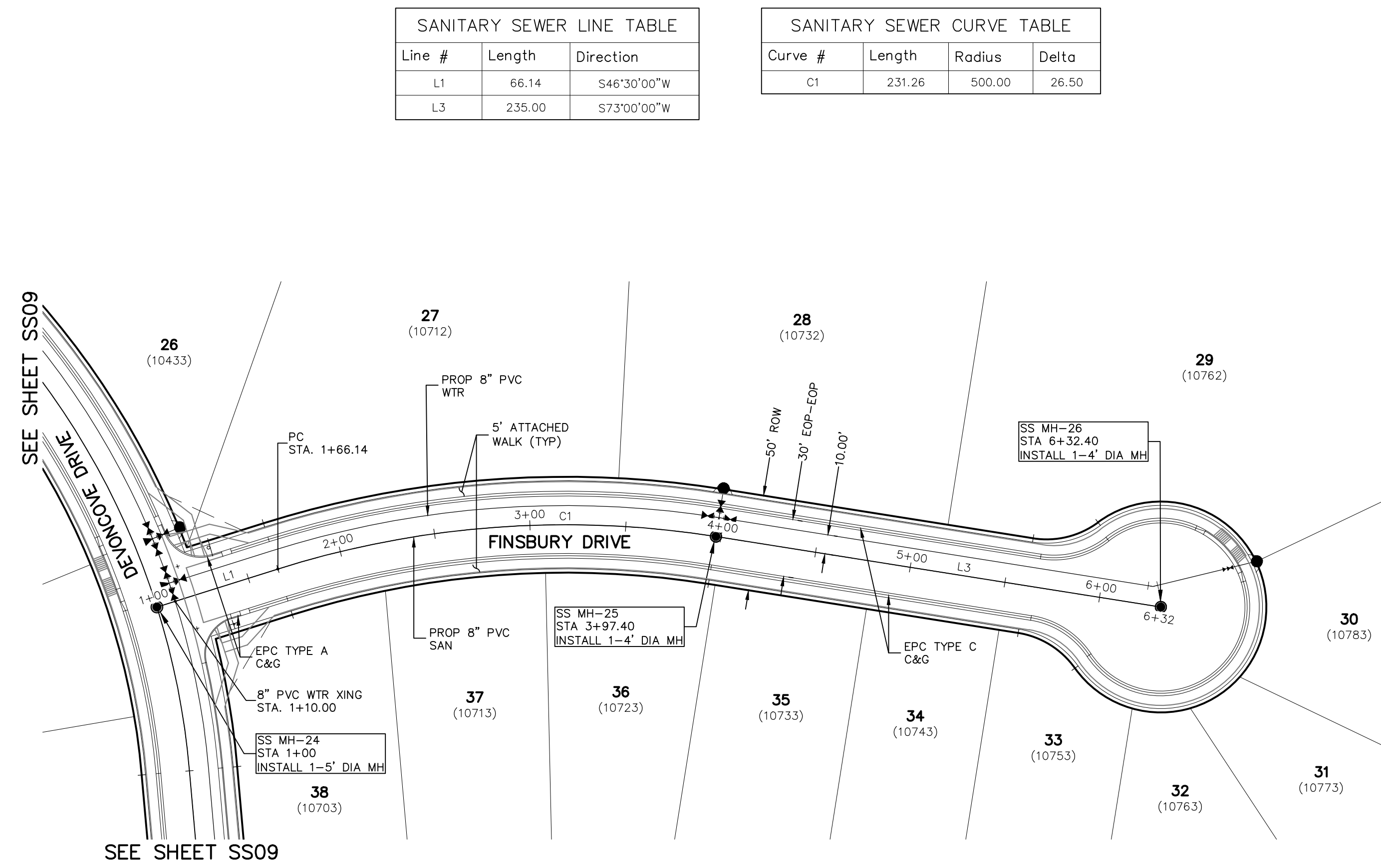
REVISIONS:

NO.	DATE:	BY:	DESCRIPTION:

APPROVED BY: DATE:

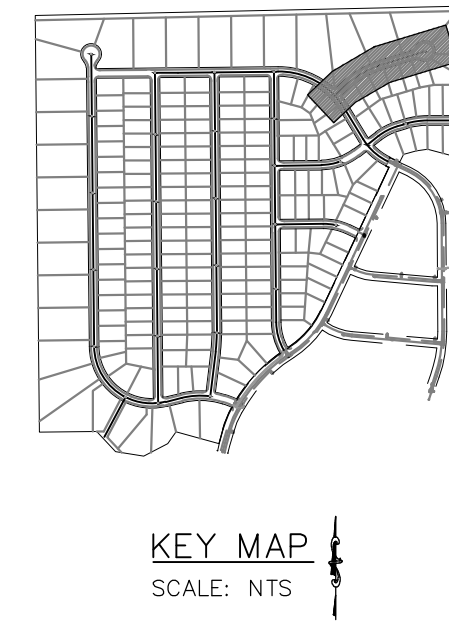
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CAUTION

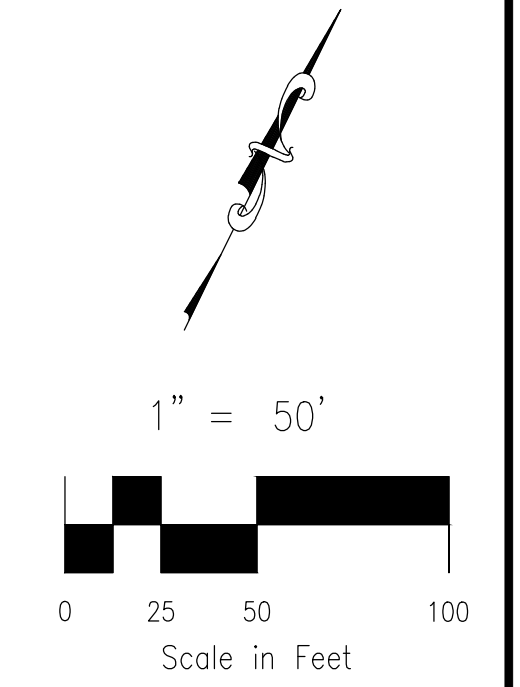


SANITARY SEWER LINE TABLE		
Line #	Length	Direction
L1	66.14	S46°30'00"W
L3	235.00	S73°00'00"W

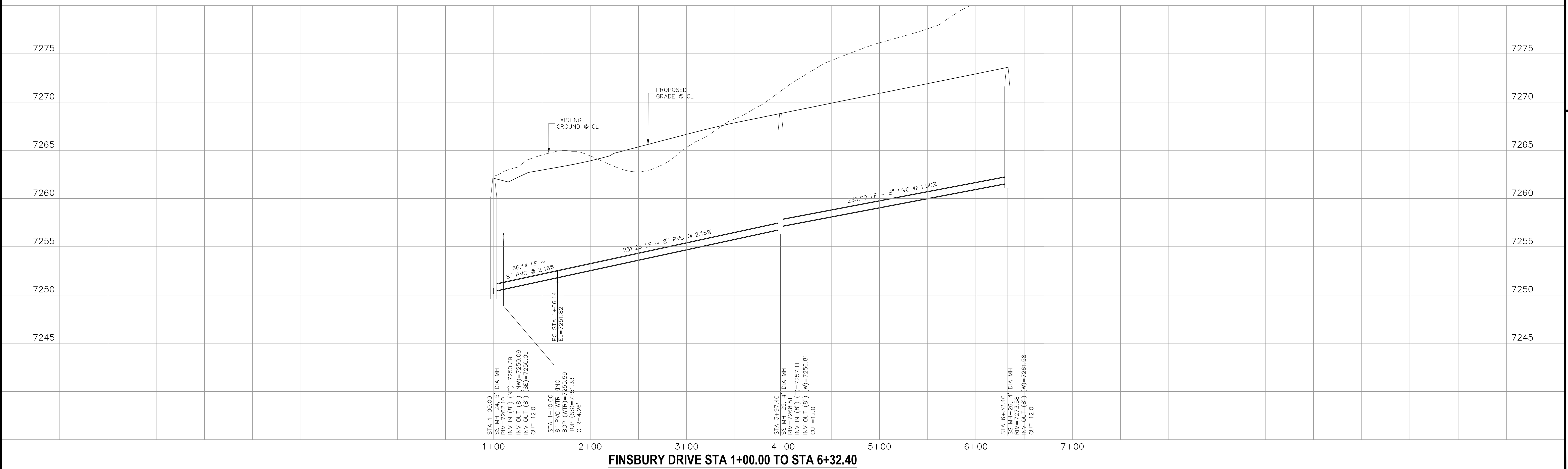
SANITARY SEWER CURVE TABLE			
Curve #	Length	Radius	Delta
C1	231.26	500.00	26.50



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**FINSBURY DRIVE
 STA 1+00.00 TO STA 6+32.40**



PAINT BRUSH HILLS FILING NO. 14
SANITARY SEWER PLANS
 PROJECT NO. 10-014 DATE: 12/29/2020
 SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'
 DESIGNED BY: SM DRAWN BY: SM CHECKED BY: GW
 SHEET 10 OF 26 **SS10**

212 N. WAHSAKACH AVE, STE 305
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

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

REVISIONS:

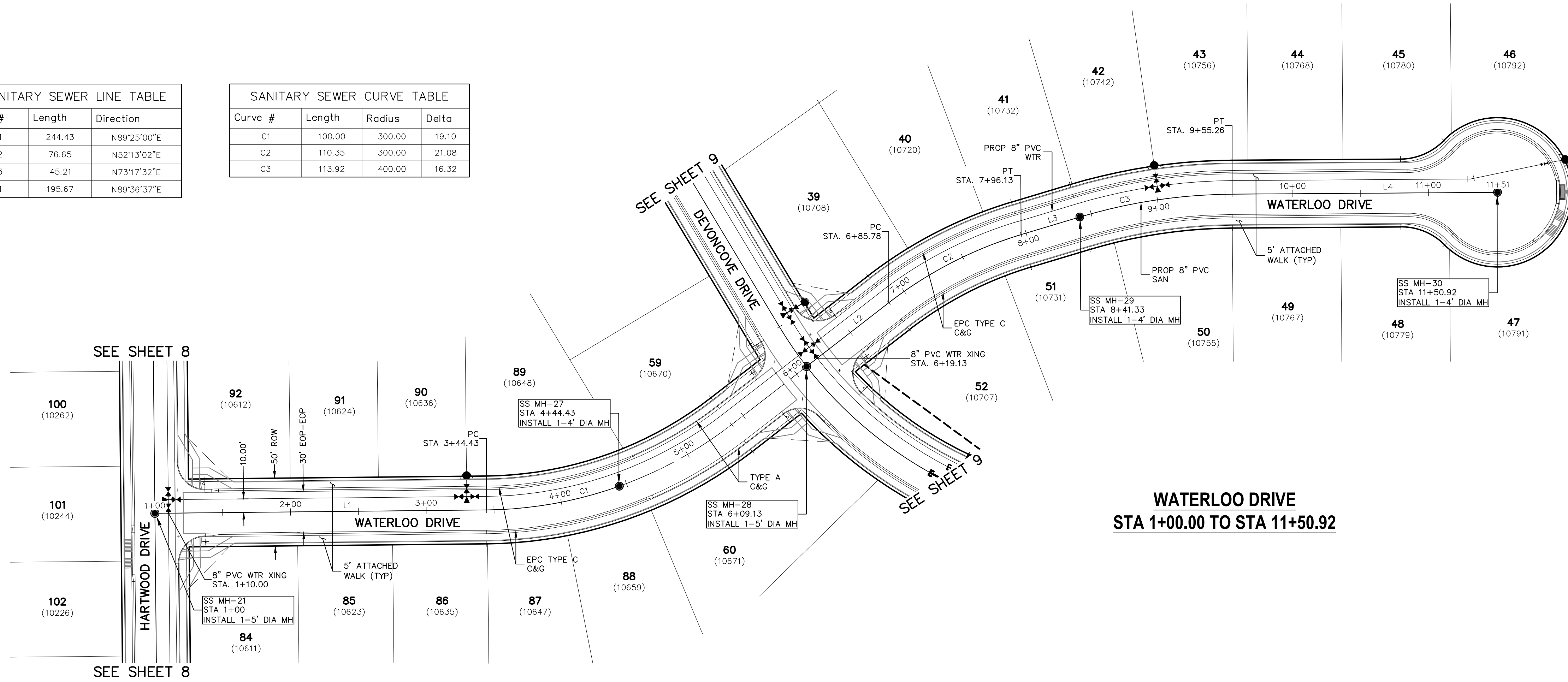
NO.	DATE	BY	DESCRIPTION	APPROVED BY	DATE

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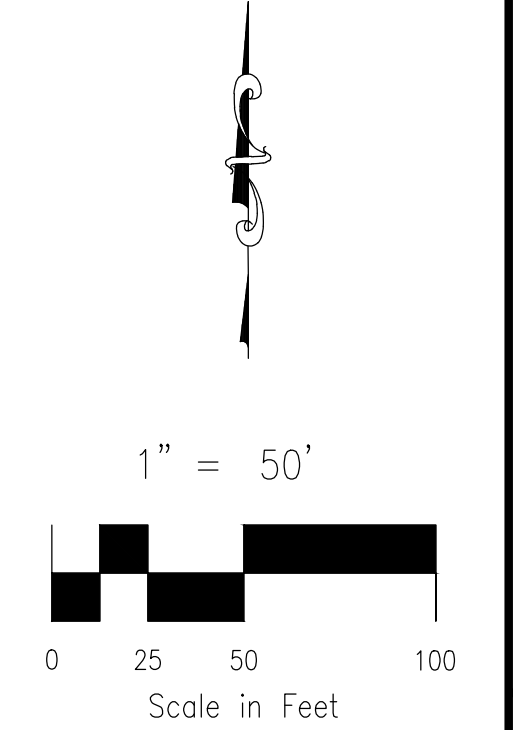
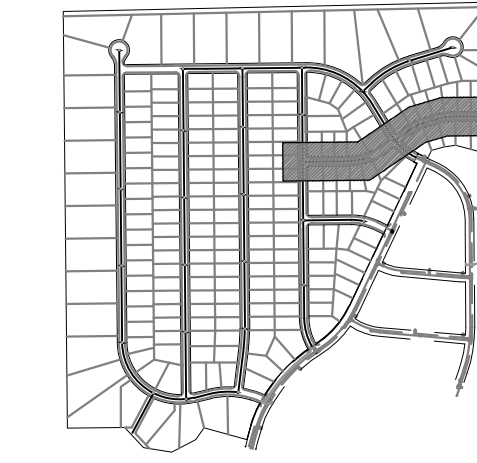
CAUTION

Line #	Length	Direction
L1	244.43	N89°25'00"E
L2	76.65	N52°13'02"E
L3	45.21	N73°17'32"E
L4	195.67	N89°36'37"E

Curve #	Length	Radius	Delta
C1	100.00	300.00	19.10
C2	110.35	300.00	21.08
C3	113.92	400.00	16.32



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PAINT BRUSH HILLS FILING NO. 14
SANITARY SEWER PLANS
PROJECT NO. 10-014
DATE: 12/29/2020
SCALE: HORIZONTAL: 1"=50' VERTICAL: 1"=5'
DESIGNED BY: SM
DRAWN BY: SM
CHECKED BY: GW

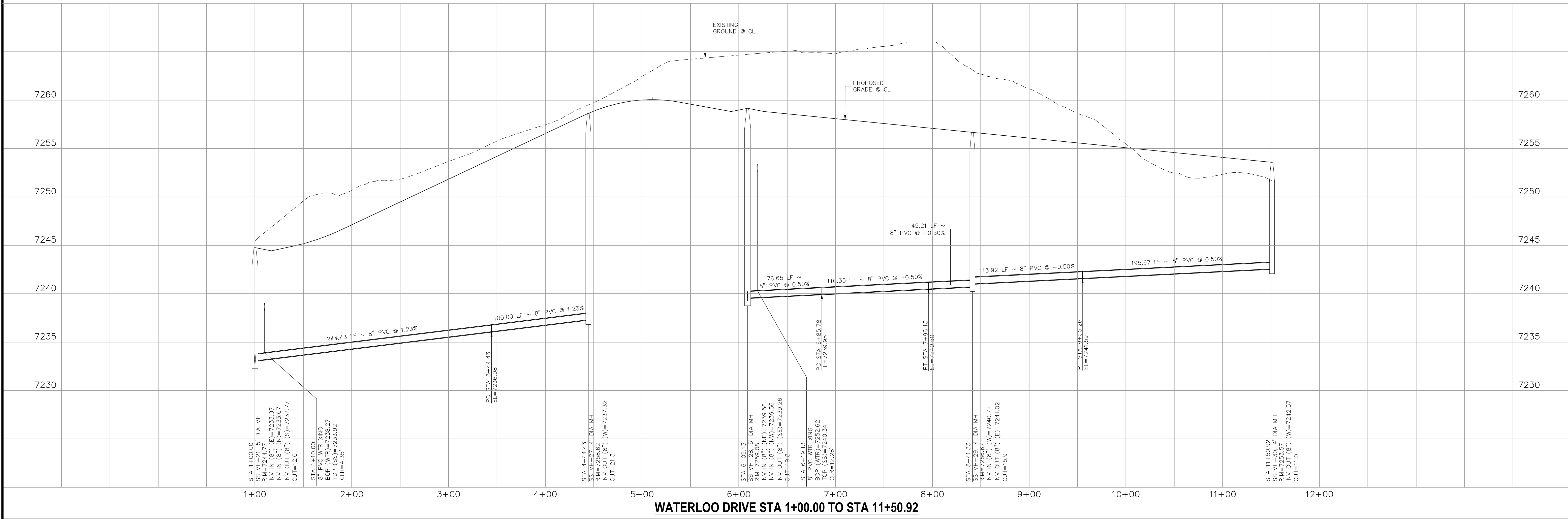
212 N. WAHATCH AVE., STE 305
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485
CIVIL CONSULTANTS, INC.

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

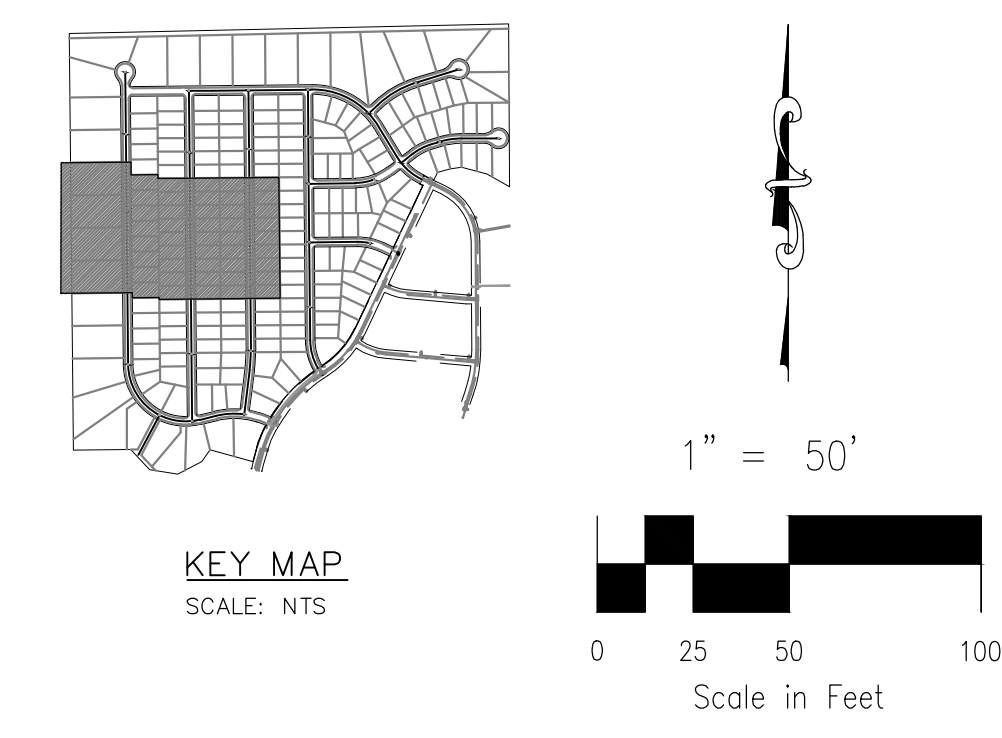
NO.	DATE	BY	DESCRIPTION	APPROVED BY	DATE

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



WATERLOO DRIVE STA 1+00.00 TO STA 11+50.92



PAIN BRUSH HILLS FILING NO. 14
WATER PLANS
 DATE: 12/29/2020
 SCALE: HORIZONTAL: 1"=50' VERTICAL: N/A
 PROJECT NO. 10-014
 DESIGNED BY: JWP
 DRAWN BY: SM
 CHECKED BY: GW
 SHEET 13 OF 26
WT03

217 N WAHATCH AVE, STE 305
 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

NOTE:
 1. CURVILINEAR PIPE MUST UTILIZE HD COUPLERS.

ABBREVIATIONS

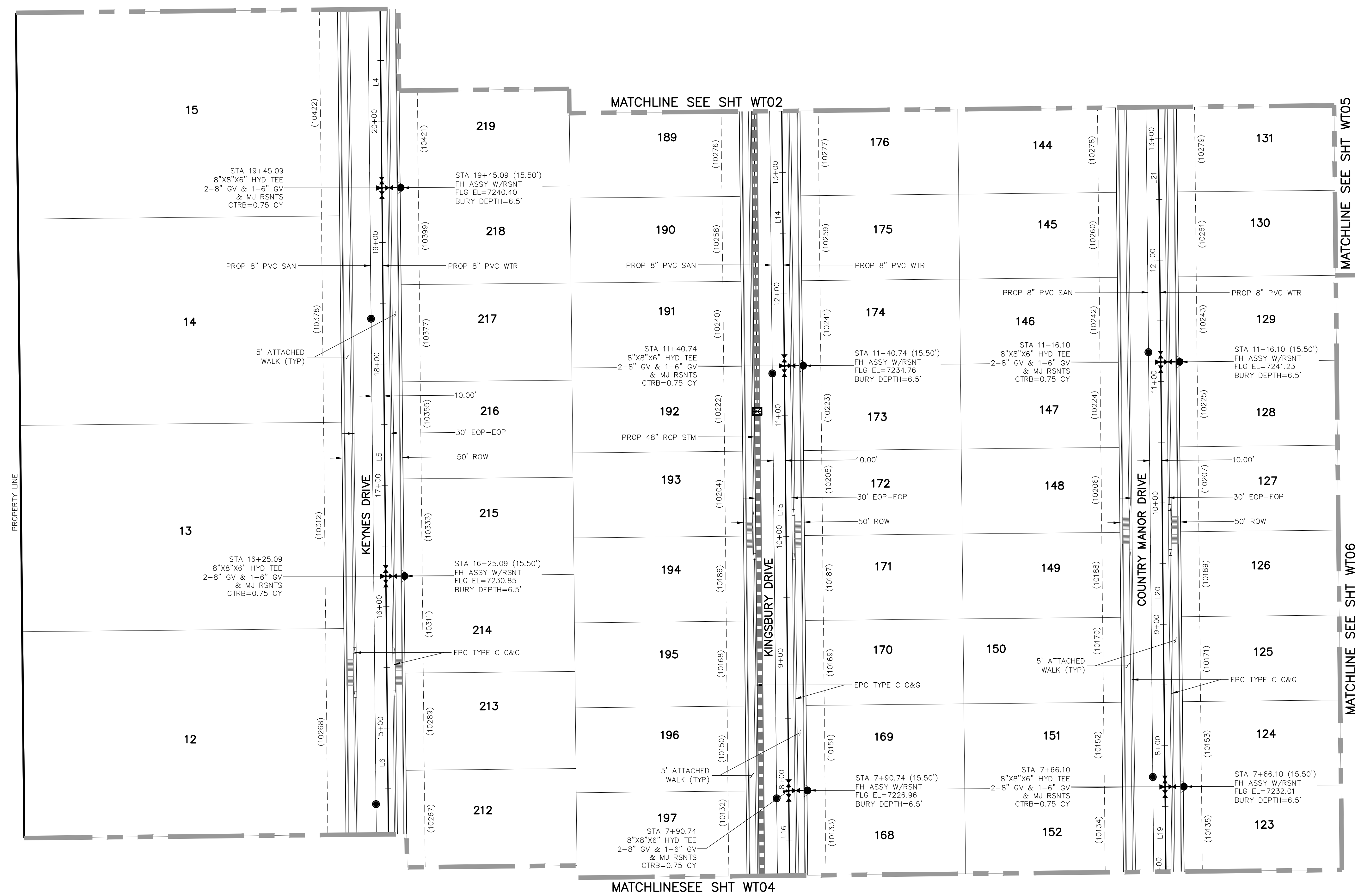
- FBC FINSBURY COURT
- KND KEYNES DRIVE
- DCD DEVONCOVE DRIVE
- KBD KINGSBURY DRIVE
- CMD COUNTRY MANOR DRIVE
- WLD WATERLOO DRIVE
- HWD HARTWOOD DRIVE
- GMD GRACE MANOR DRIVE
- EXIST'G EXISTING
- SAN SANITARY SEWER
- PROP PROPOSED
- SHT SHEET
- WTR WATER
- EPC EL PASO COUNTY CURB AND GUTTER
- ROW RIGHT OF WAY
- EOP EDGE OF PAVEMENT
- HYD HYDRANT
- TYP TYPICAL
- XING CROSSING
- STM STORM SEWER
- CLR CLEARANCE
- BOP BOTTOM OF PIPE
- TOP TOP OF PIPE
- CTRB CONCRETE TRUST BLOCK
- CY CUBIC YARD

LEGEND

- FUTURE WATER
- PROPOSED SANITARY SEWER
- PROPOSED WATER
- FIRE HYDRANT (PROPOSED)
- VALVE (PROPOSED)
- BLOWOFF ASSY. (PROPOSED)
- PLUG (PROPOSED)
- PROPOSED STORM DRAIN
- RIGHT-OF-WAY
- PROPERTY LINE
- CENTERLINE
- LOT ADDRESS (10333)
- LOT NUMBER **134**
- MATCHLINE

WATER LINE TABLE

Line #	Length	Direction
L4	320.00	S0°35'00"E
L5	320.00	S0°35'00"E
L6	320.00	S0°35'00"E
L14	350.00	S0°35'00"E
L15	350.00	S0°35'00"E
L16	350.00	S0°35'00"E
L19	350.00	S0°34'30"E
L20	350.00	S0°35'00"E
L21	350.00	S0°35'00"E



MATCHLINE SEE SH T WT02

MATCHLINE SEE SH T WT05

MATCHLINE SEE SH T WT06

MATCHLINE SEE SH T WT04

UNPLATTED

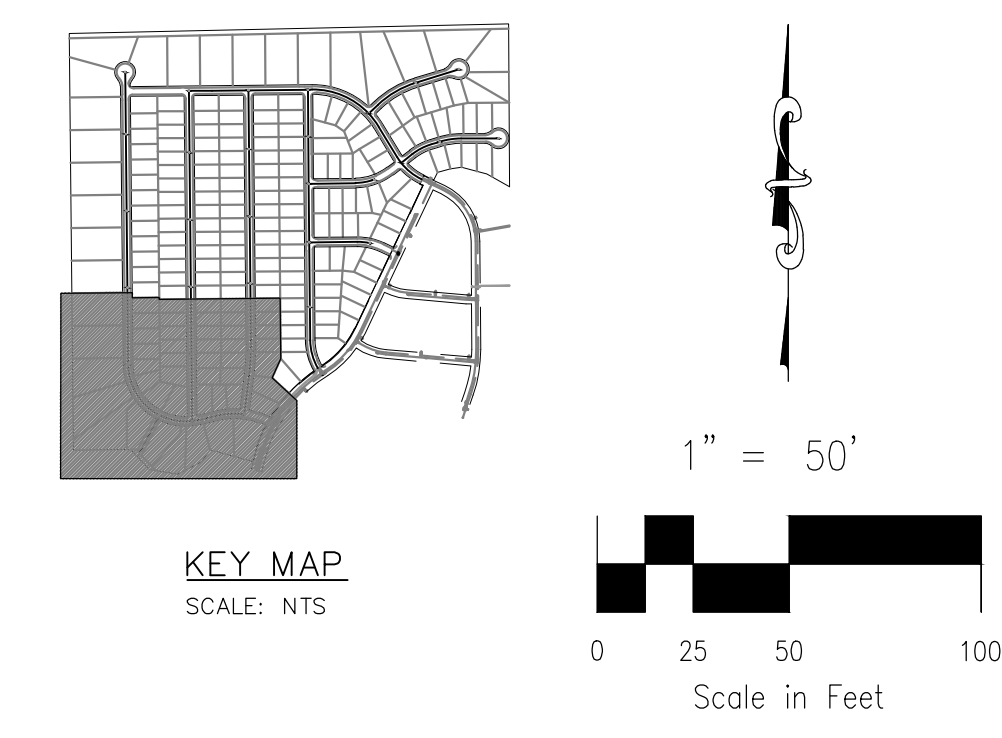
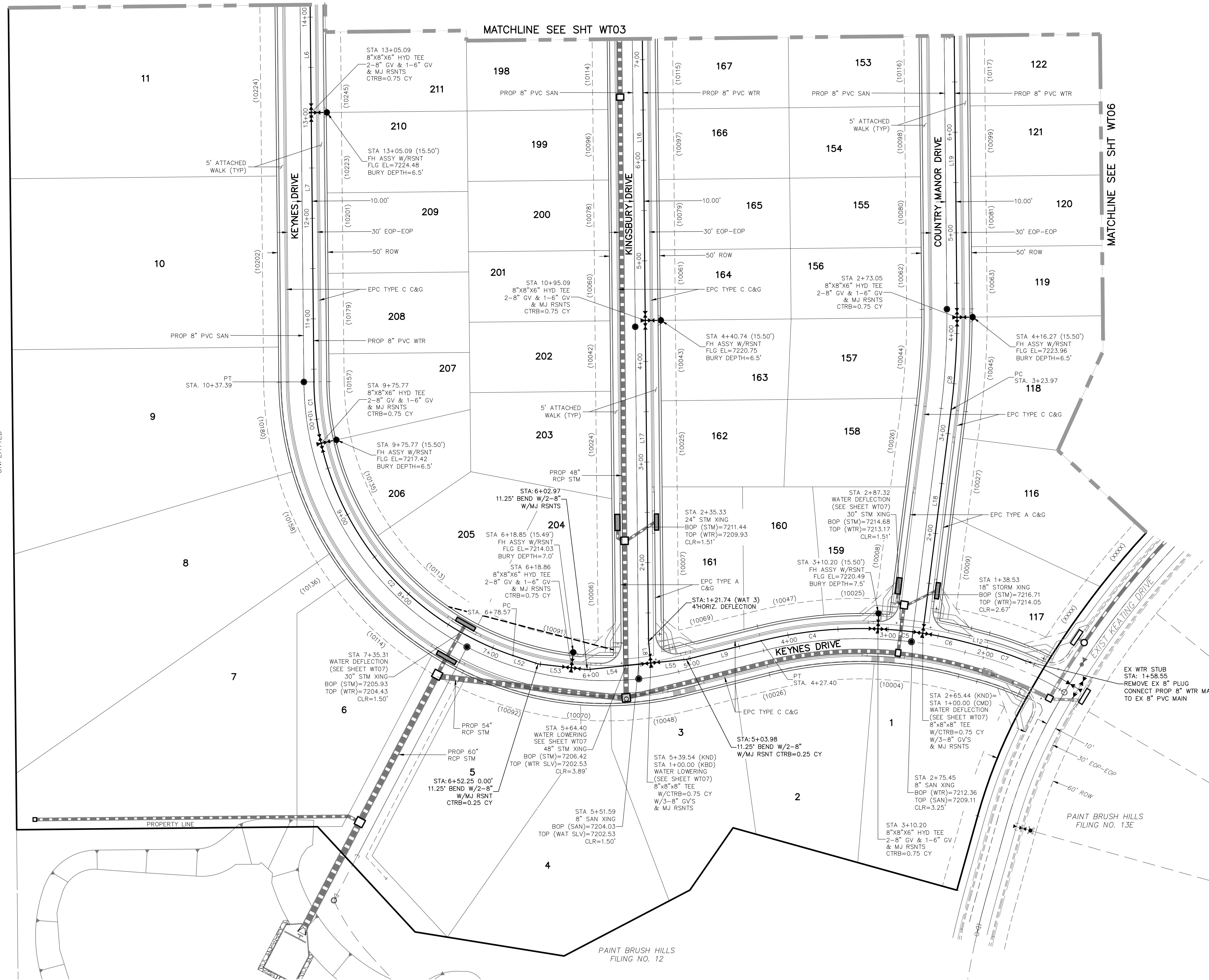
PROPERTY LINE

KEYNES DRIVE

KINGSBURY DRIVE

COUNTRY MANOR DRIVE

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NOTE:
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ABBREVIATIONS

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- KND KEYNES DRIVE
- DCD DEVONCOVE DRIVE
- KBD KINGSBURY DRIVE
- CMD COUNTRY MANOR DRIVE
- WLD WATERLOO DRIVE
- HWD HARTWOOD DRIVE
- GMD GRACE MANOR DRIVE
- EXIST EXISTING
- SAN SANITARY SEWER
- PROP PROPOSED
- SHT SHEET
- WTR WATER
- EPC EL PASO COUNTY CURB AND GUTTER
- C&G CURB AND GUTTER
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- TOP TOP OF PIPE
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LEGEND

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- PROPOSED SANITARY SEWER
- PROPOSED WATER
- FIRE HYDRANT (PROPOSED)
- VALVE (PROPOSED)
- BLOWOFF ASSY. (PROPOSED)
- PLUG (PROPOSED)
- PROPOSED STORM DRAIN
- RIGHT-OF-WAY
- PROPERTY LINE
- CENTERLINE
- LOT ADDRESS (10333)
- LOT NUMBER **134**
- MATCHLINE

WATER LINE TABLE

Line #	Length	Direction
L6	320.00	S0°35'00"E
L7	267.70	S0°35'00"E
L8	21.74	S5°52'10"E
L9	76.57	N76°00'00"E
L12	18.91	S75°00'00"E
L16	350.00	S0°35'00"E
L17	314.27	S0°35'00"E
L18	223.97	S71°4'10"W
L19	350.00	S0°34'30"E
L52	26.33	S71°28'40"E
L53	33.39	S83°24'10"E
L54	63.43	N84°07'50"E
L55	35.56	N84°07'50"E

WATER CURVE TABLE

Curve #	Length	Radius	Delta
C1	61.62	290.00	12.17
C2	297.20	290.00	58.72
C4	117.20	410.00	16.38
C5	44.76	410.00	6.25
C6	45.56	410.00	6.37
C7	42.42	310.00	7.84
C8	92.13	734.84	7.18

PAINT BRUSH HILLS FILING NO. 14

WATER PLANS

PROJECT NO. 10-014
 DATE: 12/29/2020
 SCALE: NTS
 HORIZONTAL: 1"=50'
 VERTICAL: N/A

DESIGNED BY: JWP
 DRAWN BY: SM
 CHECKED BY: GW

SHEET 14 OF 26
WT04

272 N. WAHSATCH AVE., STE 305
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

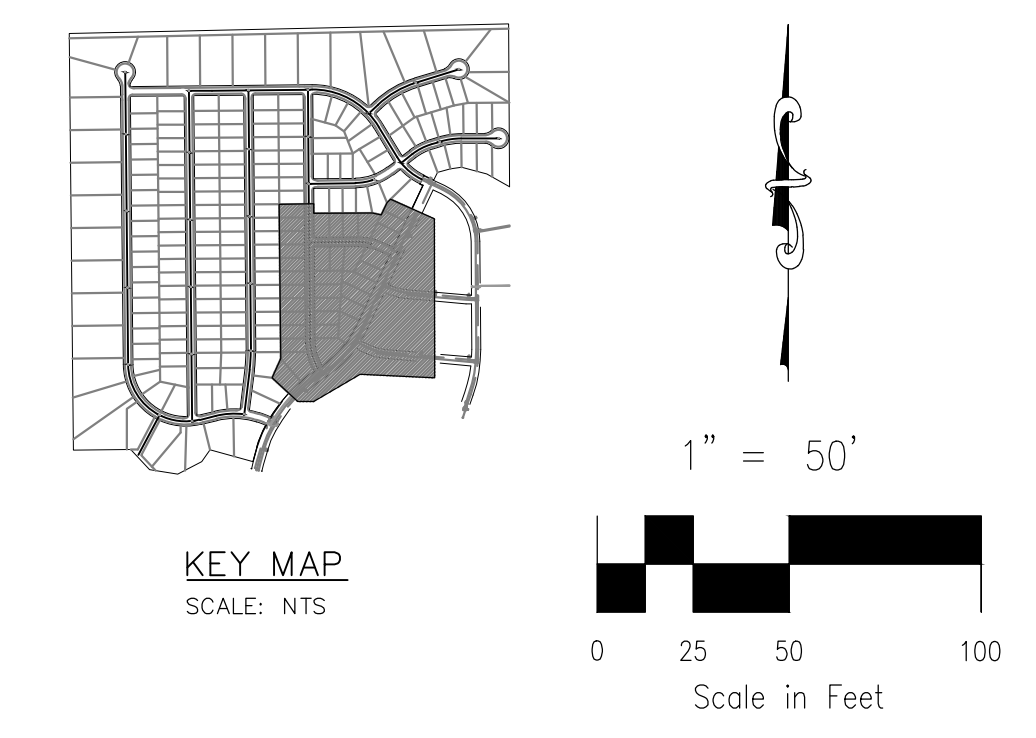
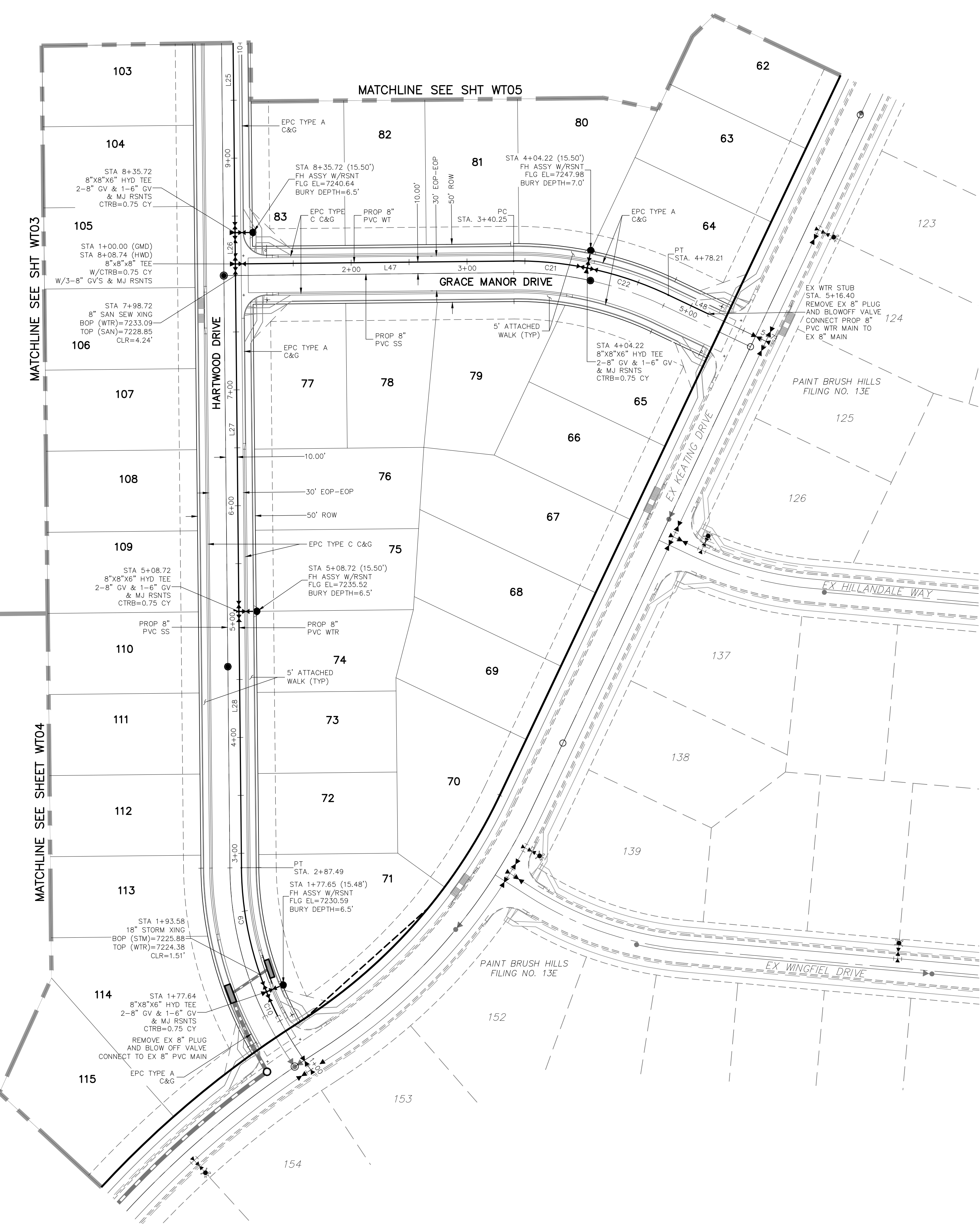
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

APPROVED BY: _____ DATE: _____

REVISIONS: NO. DATE: BY: DESCRIPTION:

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CAUTION



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- XING CROSSING
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- CLR CLEARANCE

LEGEND

- FUTURE WATER
- PROPOSED SANITARY SEWER
- PROPOSED WATER
- FIRE HYDRANT (PROPOSED)
- VALVE (PROPOSED)
- BLOWOFF ASSY. (PROPOSED)
- PLUG (PROPOSED)
- PROPOSED STORM DRAIN
- RIGHT-OF-WAY
- PROPERTY LINE
- CENTERLINE
- LOT ADDRESS (XXXX)
- LOT ADDRESS 136
- MATCHLINE

Line #	Length	Direction
L25	278.00	S0°35'00"E
L26	27.00	S0°35'00"E
L27	300.00	S0°35'00"E
L28	221.23	S0°35'00"E
L47	240.25	N89°25'00"E
L48	38.19	S64°40'00"E

Curve #	Length	Radius	Delta
C9	109.86	290.00	21.71
C10	23.04	290.00	4.55
C21	63.97	305.00	12.02
C22	73.99	305.00	13.90

PAINT BRUSH HILLS FILING NO. 14

WATER PLANS

PROJECT NO. 10-014
DATE: 12/29/2020
SCALE: N/A
DESIGNED BY: JWP
DRAWN BY: SM
CHECKED BY: GW
SHEET 16 OF 26
WT06

217 N. WASHCATCH AVE. STE 303
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. 377160

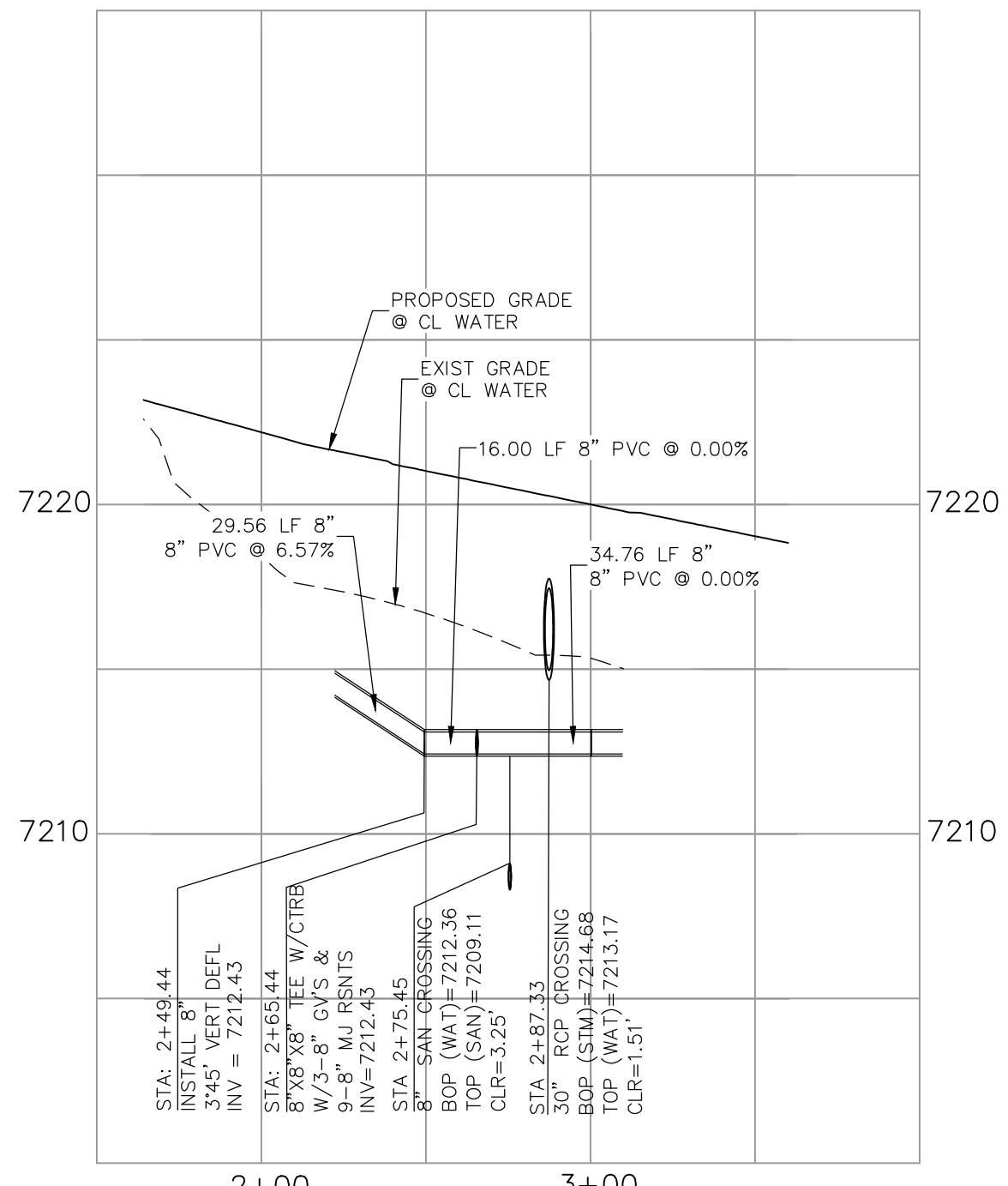
NO.	DATE	BY	DESCRIPTION

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

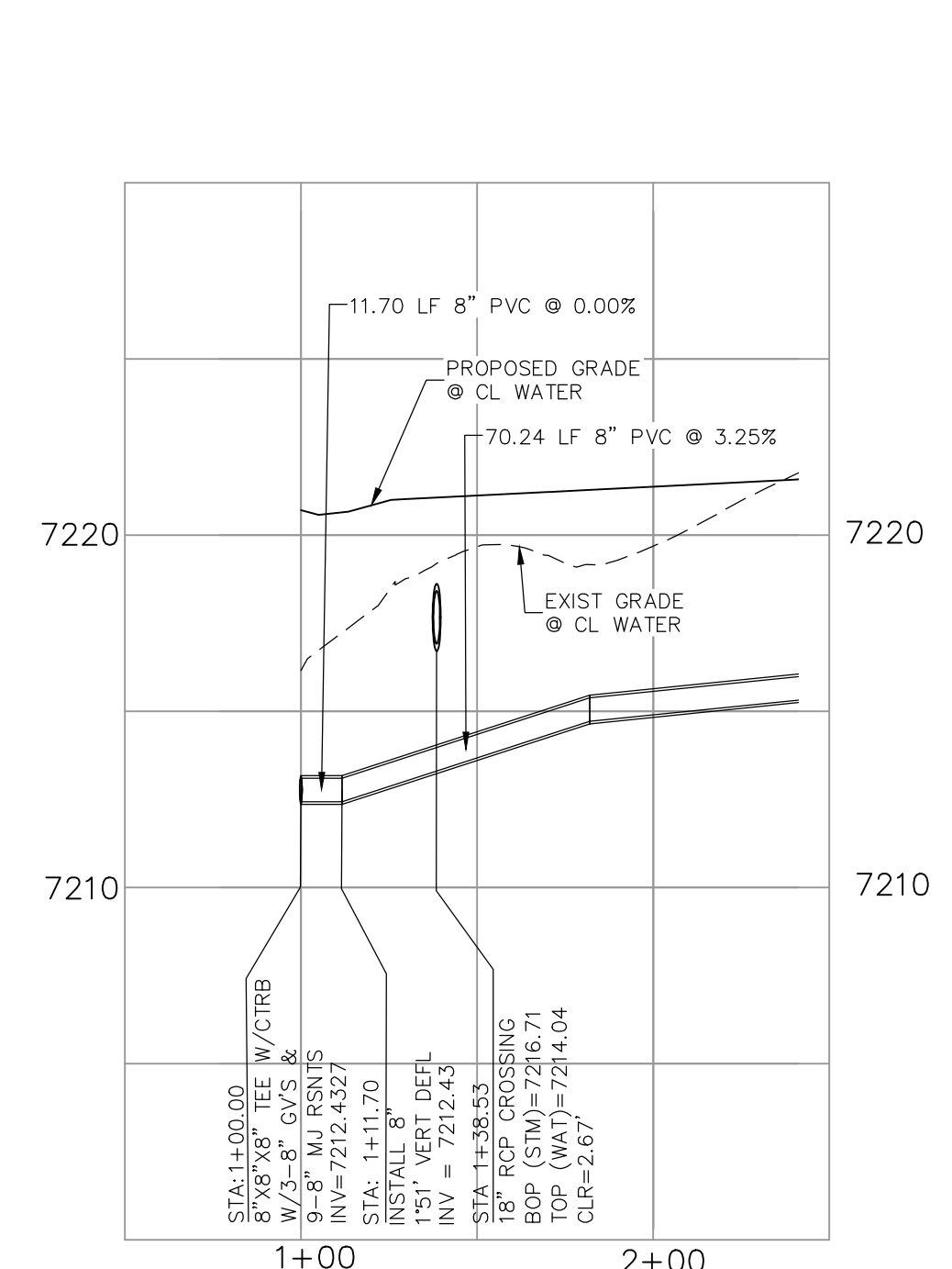
FOR BURIED UTILITY INFORMATION
48 HRS BEFORE YOU DIG
CALL 1-800-922-1987

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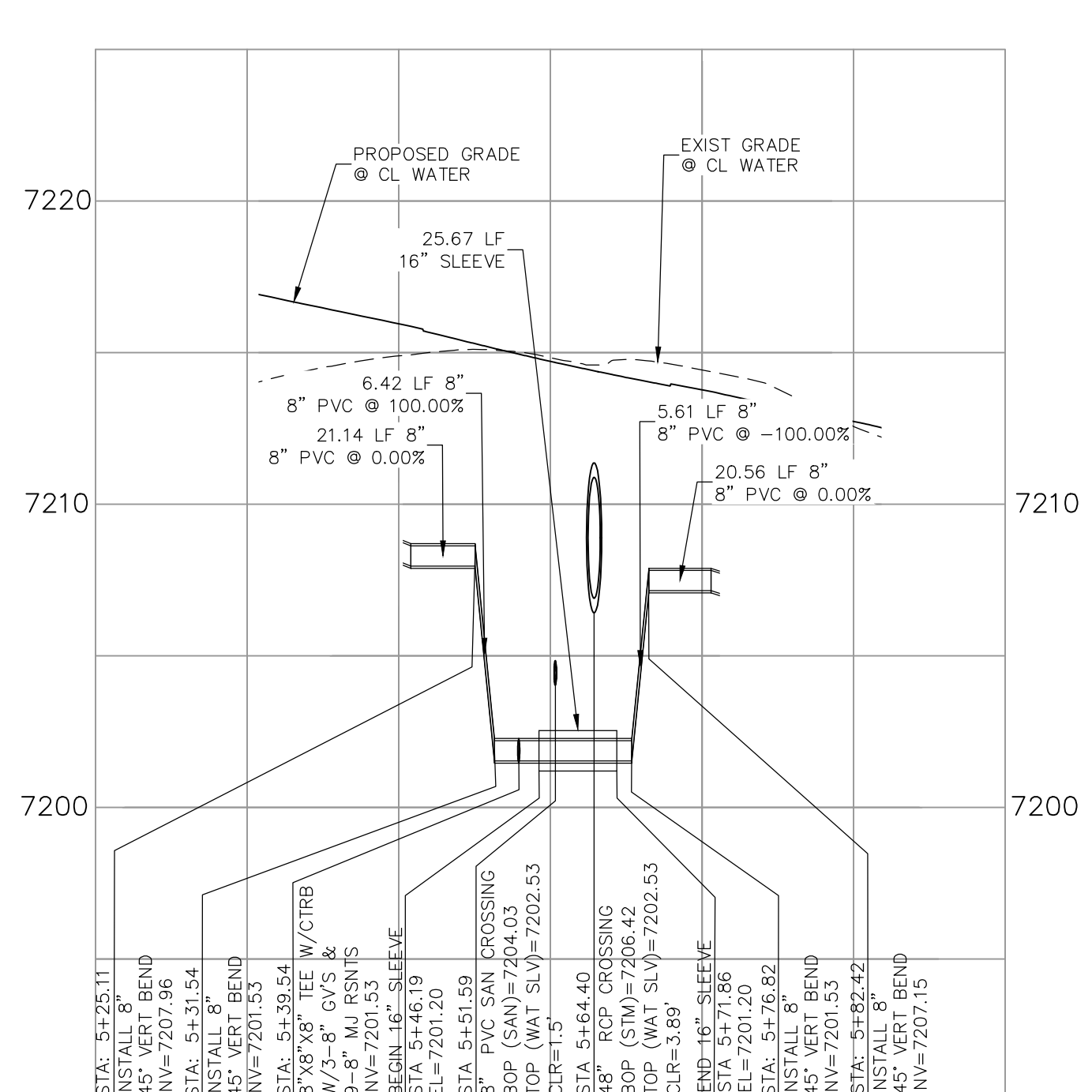
CAUTION



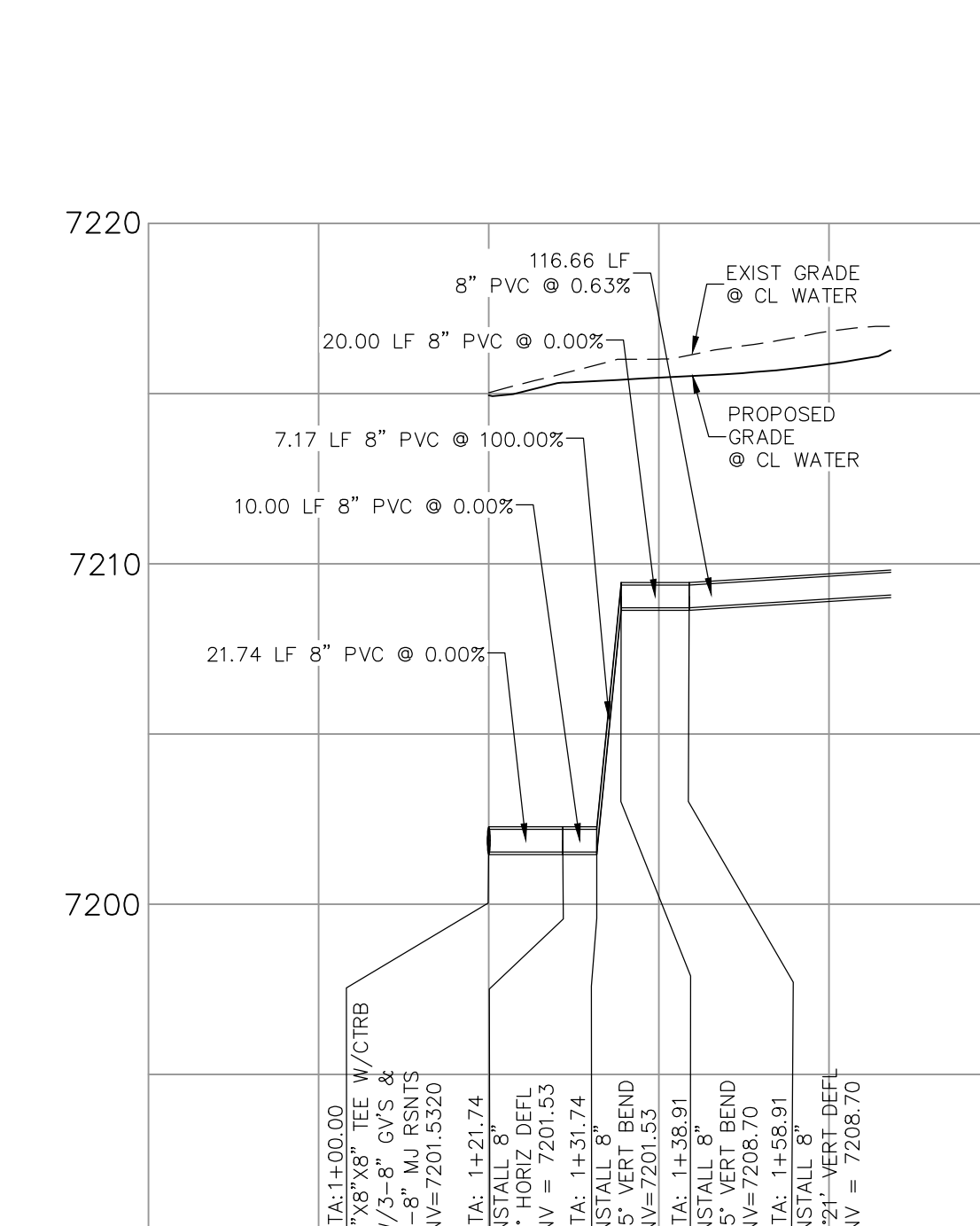
**KEYNES DRIVE
WATER HALF DEFLECTION
STA 2+87.33**



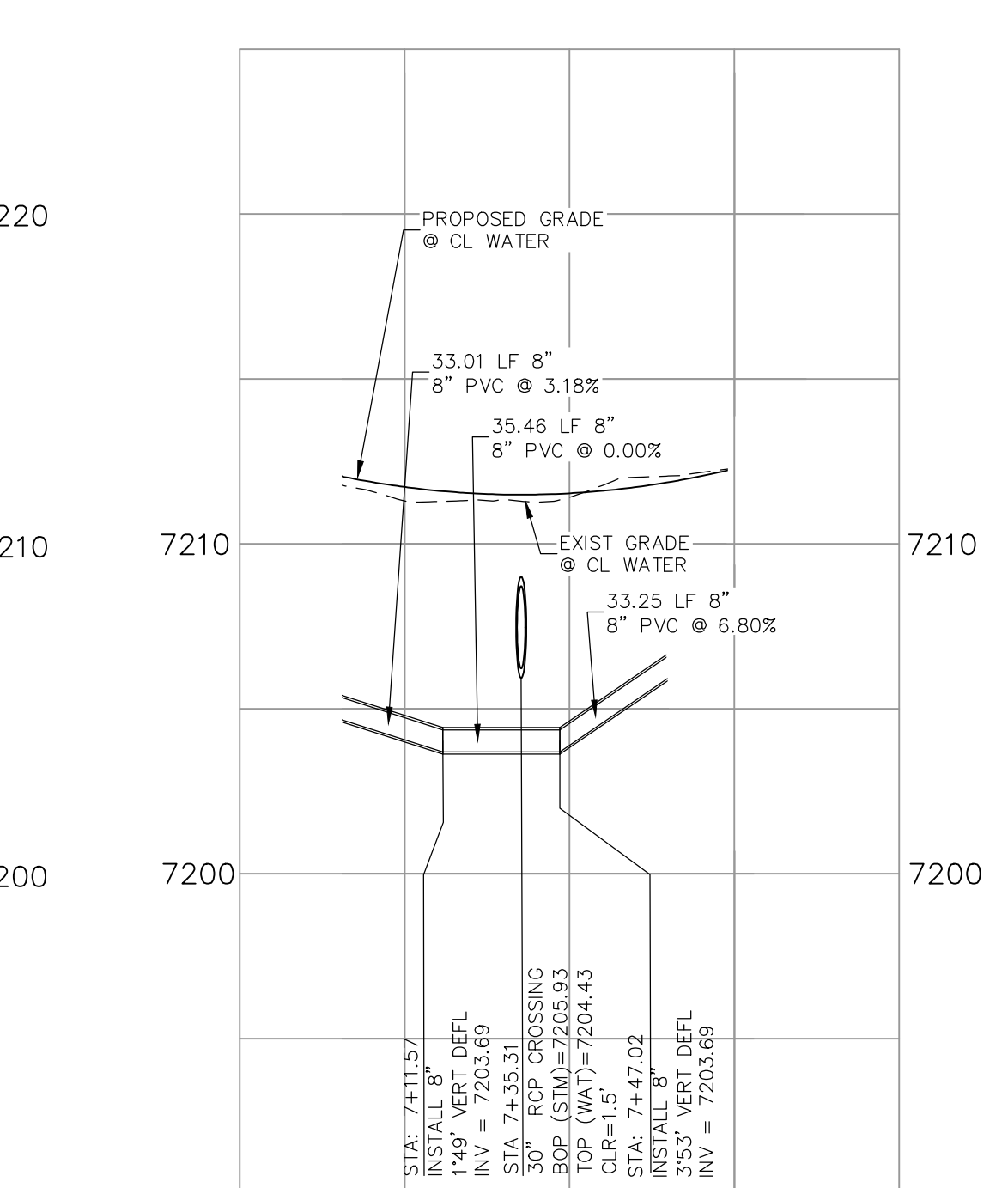
**COUNTRY MANOR DRIVE
WATER HALF DEFLECTION
STA 1+00.00**



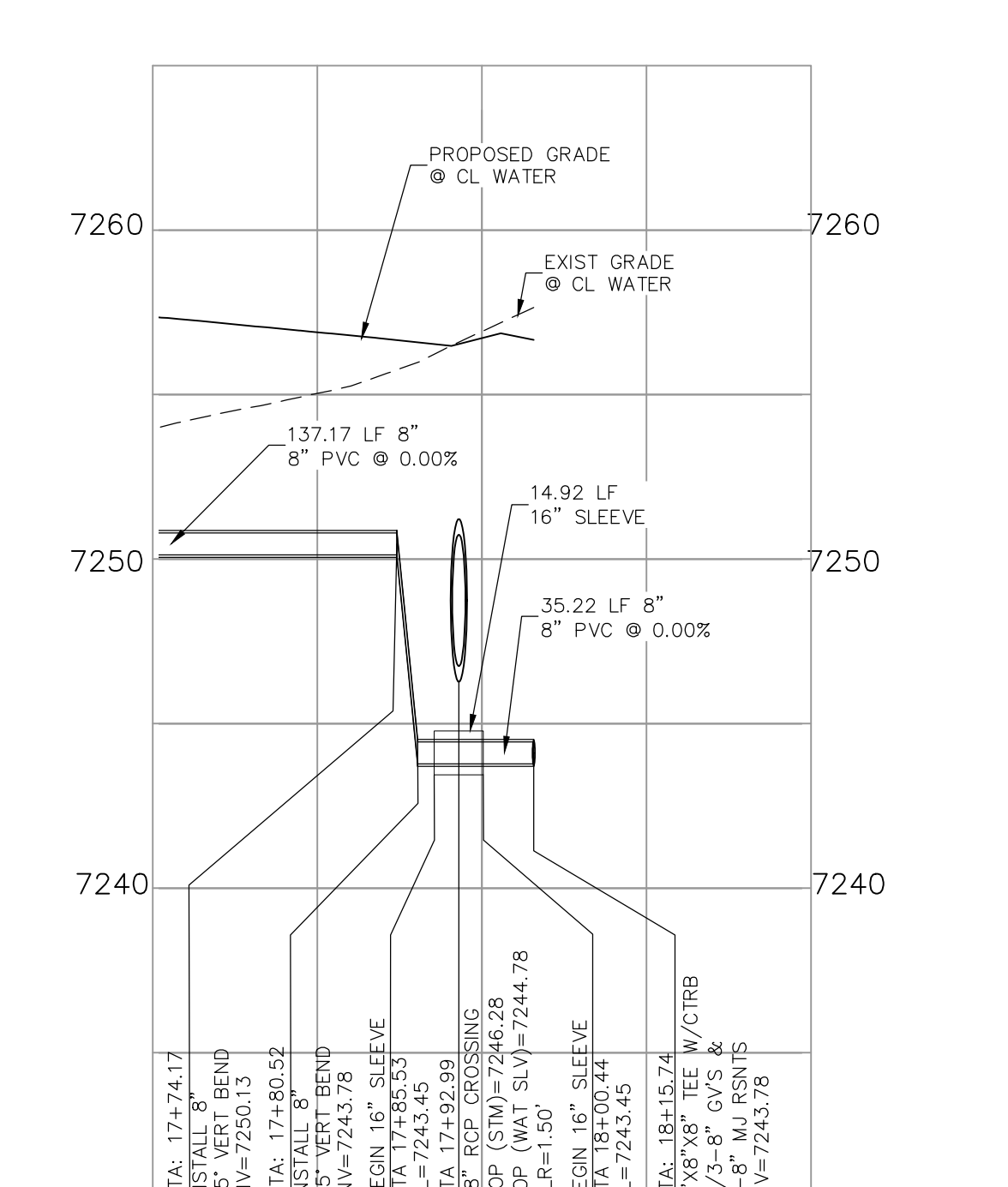
**KEYNES DRIVE
WATER LOWERING
STA 5+64.40**



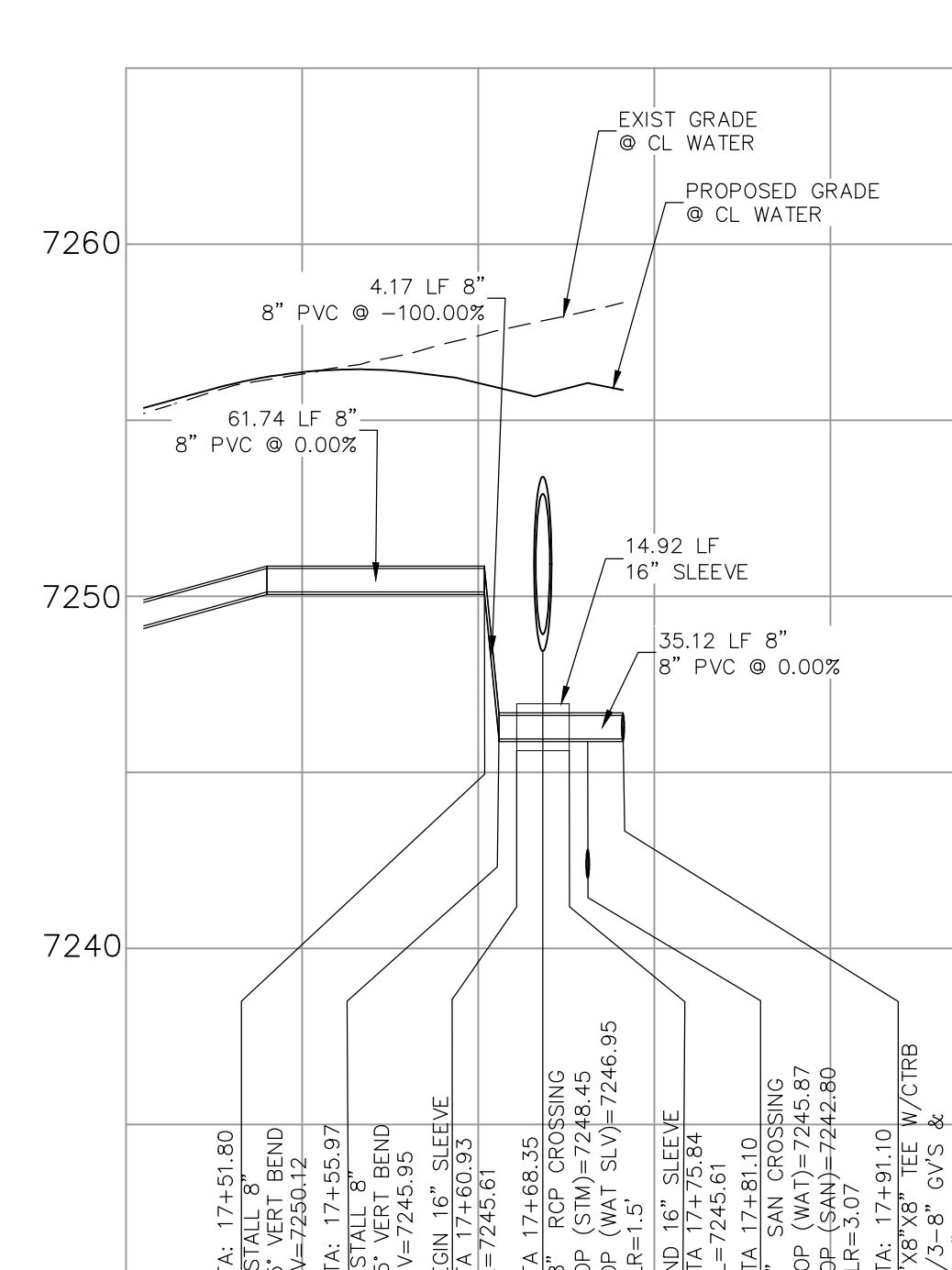
**KINGSBURY DRIVE
WATER HALF LOWERING
STA 1+00.00**



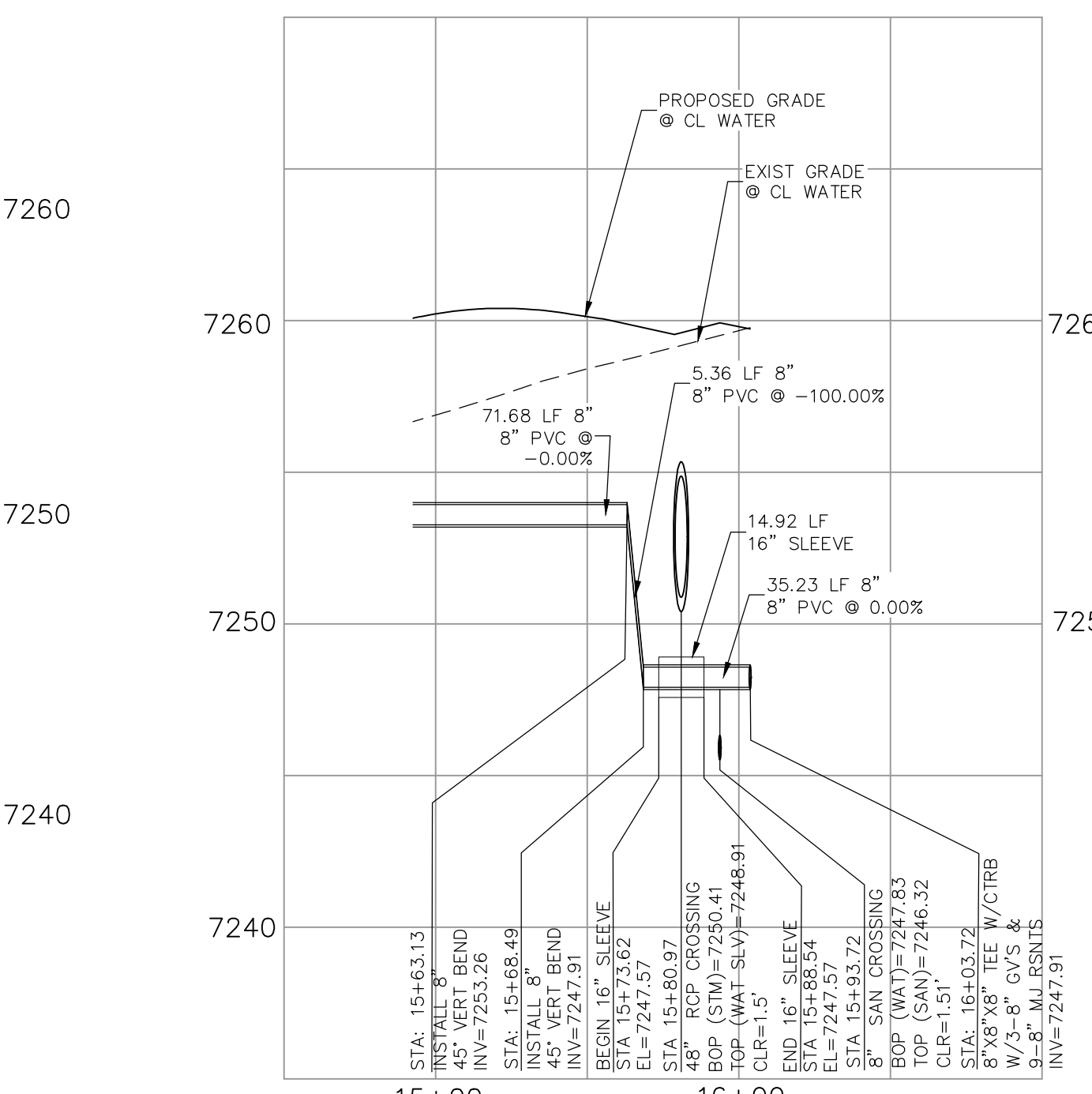
**KEYNES DRIVE
WATER DEFLECTION
STA 7+35.31**



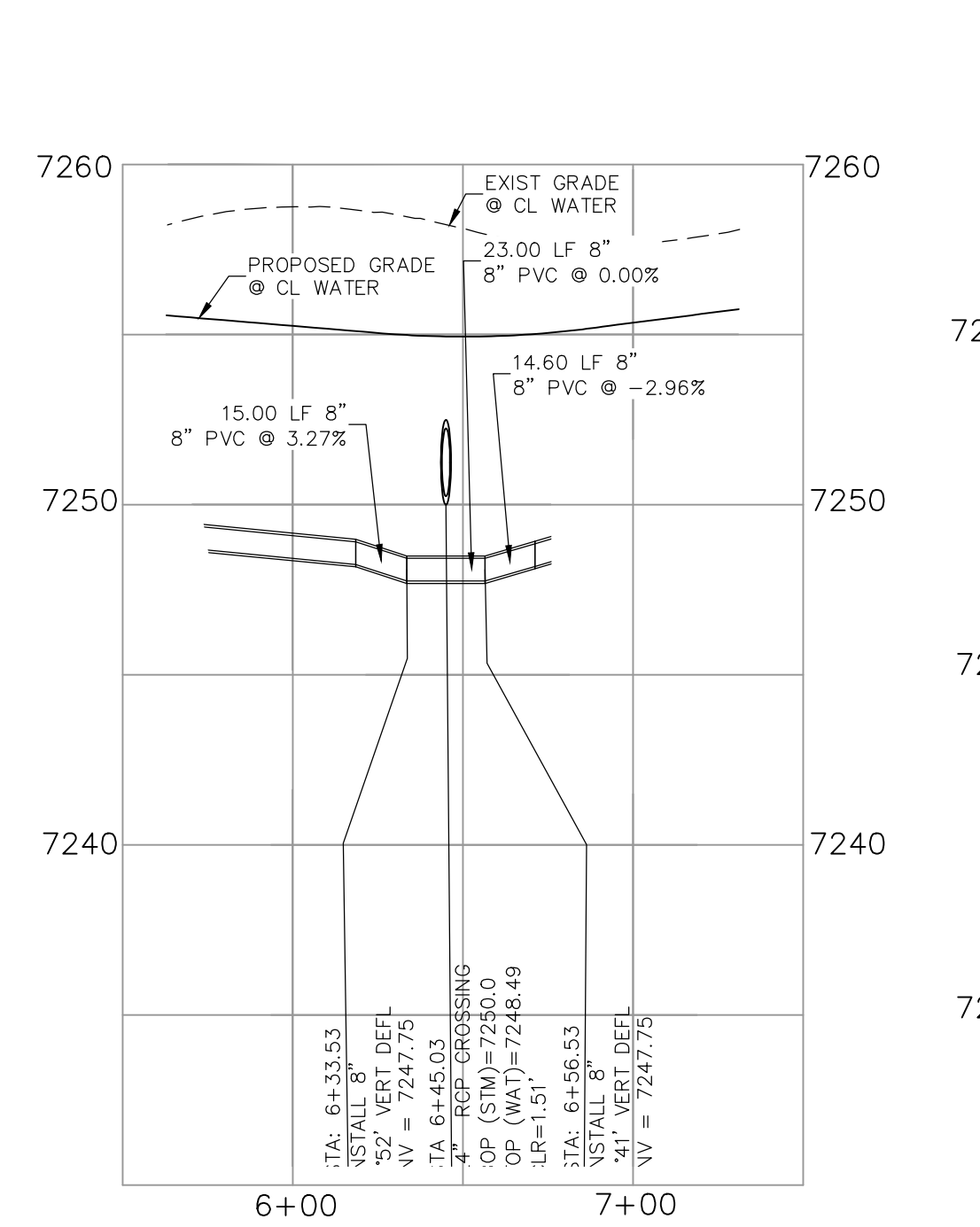
**KINGSBURY DRIVE
WATER HALF LOWERING
STA 17+92.99**



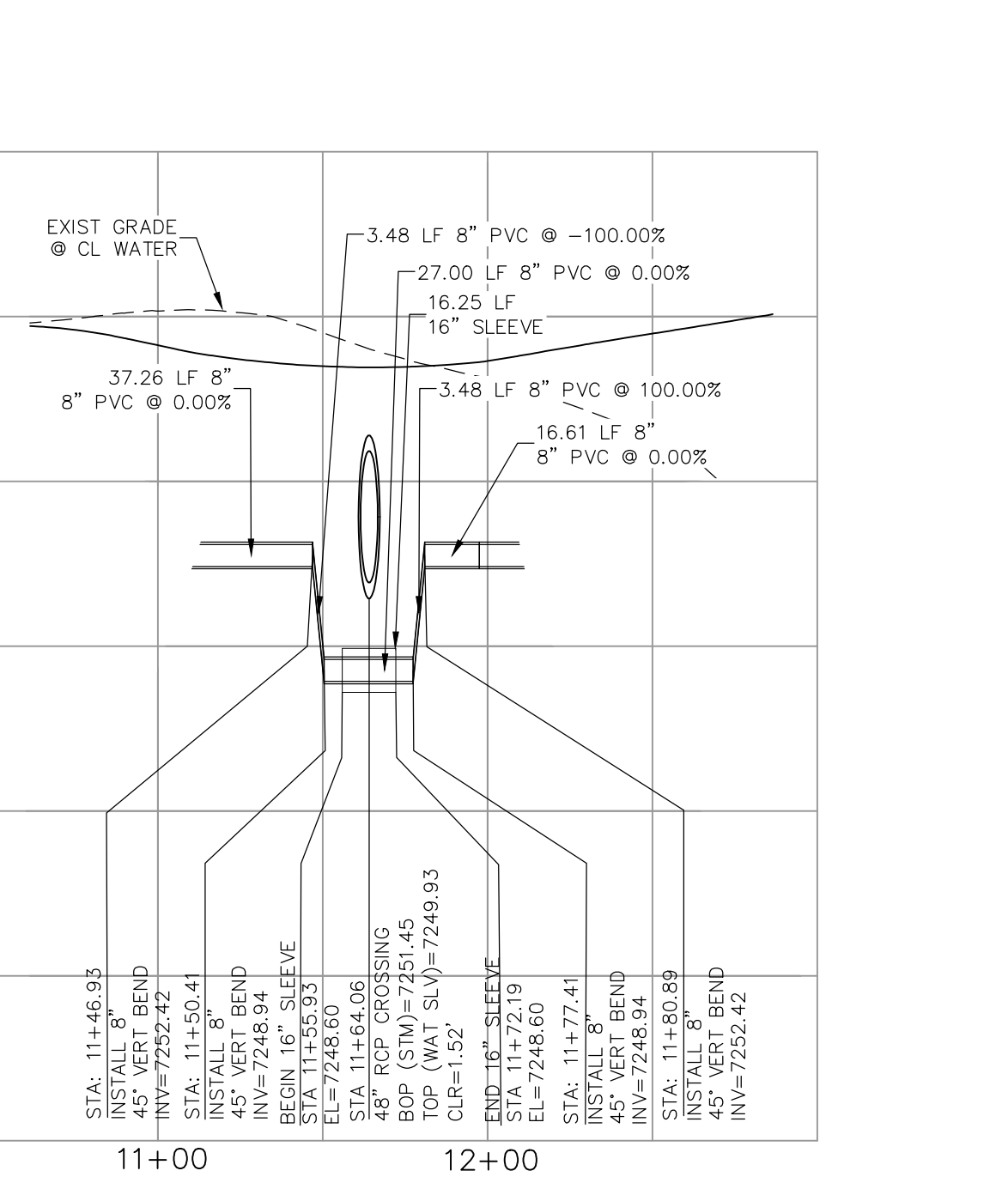
**COUNTRY MANOR DRIVE
WATER HALF LOWERING
STA 17+68.35**



**HARTWOOD DRIVE
WATER HALF LOWERING
STA 15+80.97**



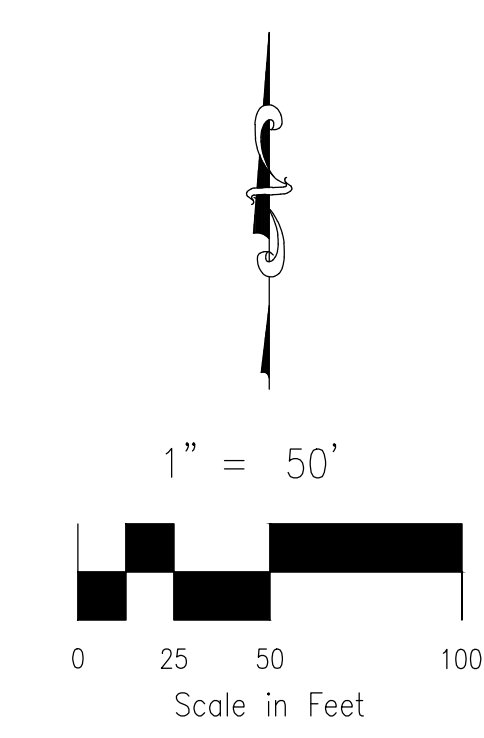
**DEVONCOVE DRIVE
WATER DEFLECTION
STA 6+45.03**



**DEVONCOVE DRIVE
WATER LOWERING
STA 11+64.06**

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PAINT BRUSH HILLS FILING NO. 14

WATER LOWERING & DEFLECTION DETAILS

PROJECT NO. 10-014 DATE: 12/29/2020

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

DRAWN BY: SM VERTICAL: 1"=5'

CHECKED BY: GW SHEET 17 OF 26 **WT07**

212 N. WAHSAUCH AVE., STE 303
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

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

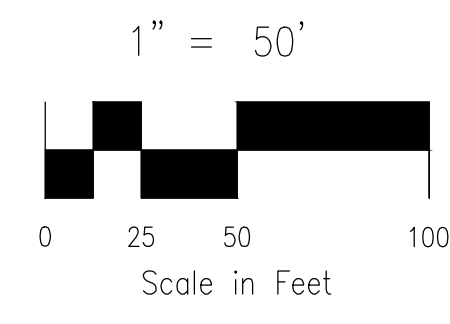
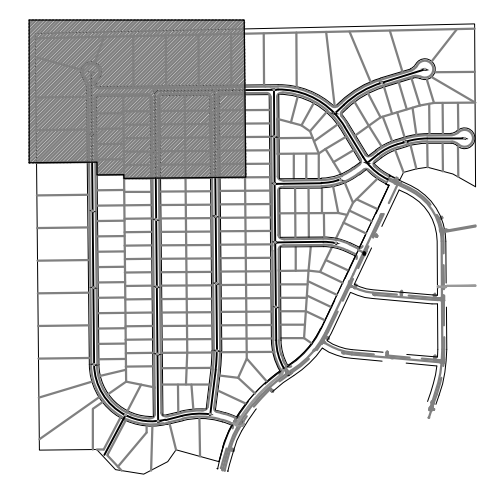
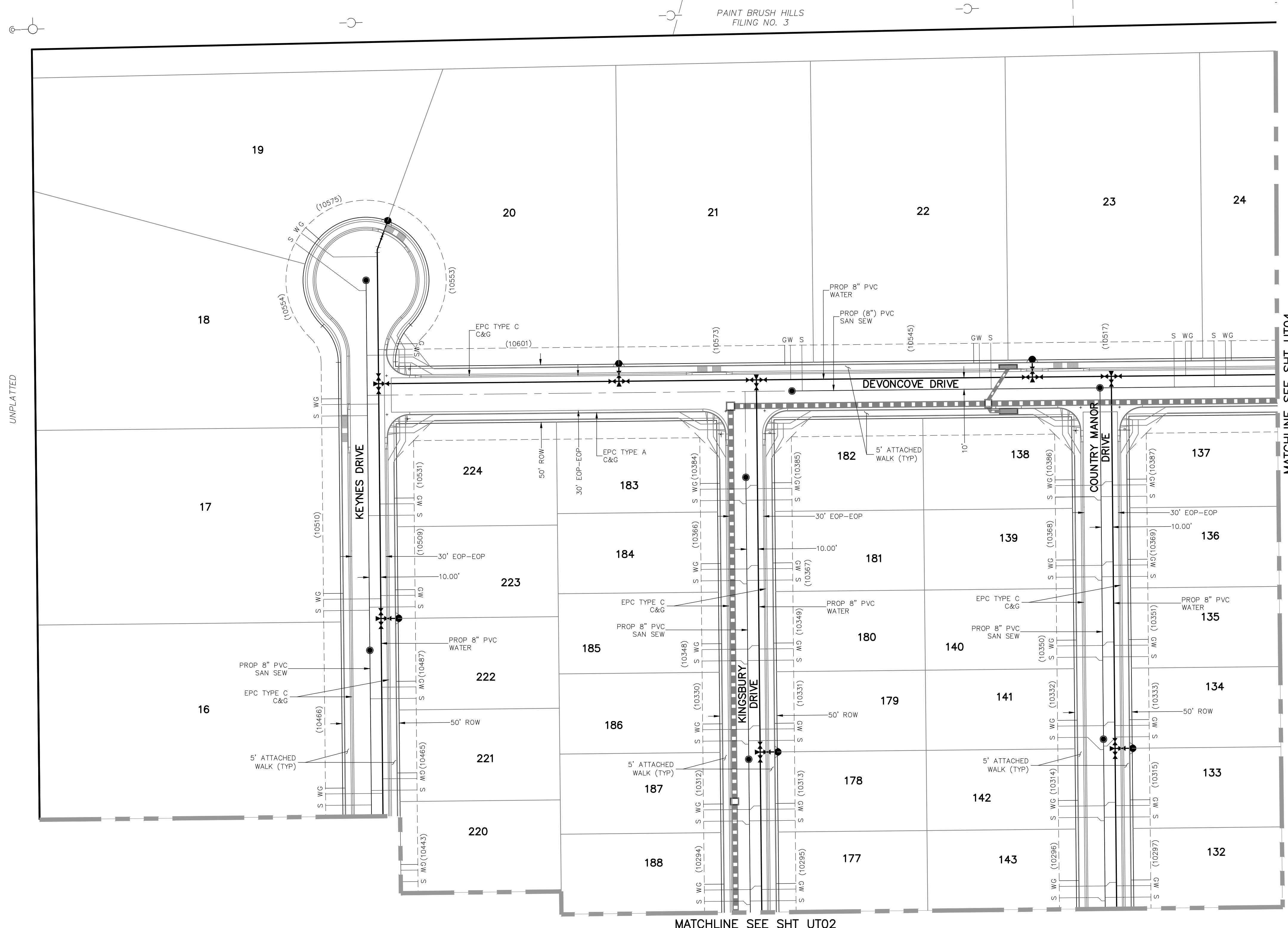
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

NO.	DATE	BY	DESCRIPTION

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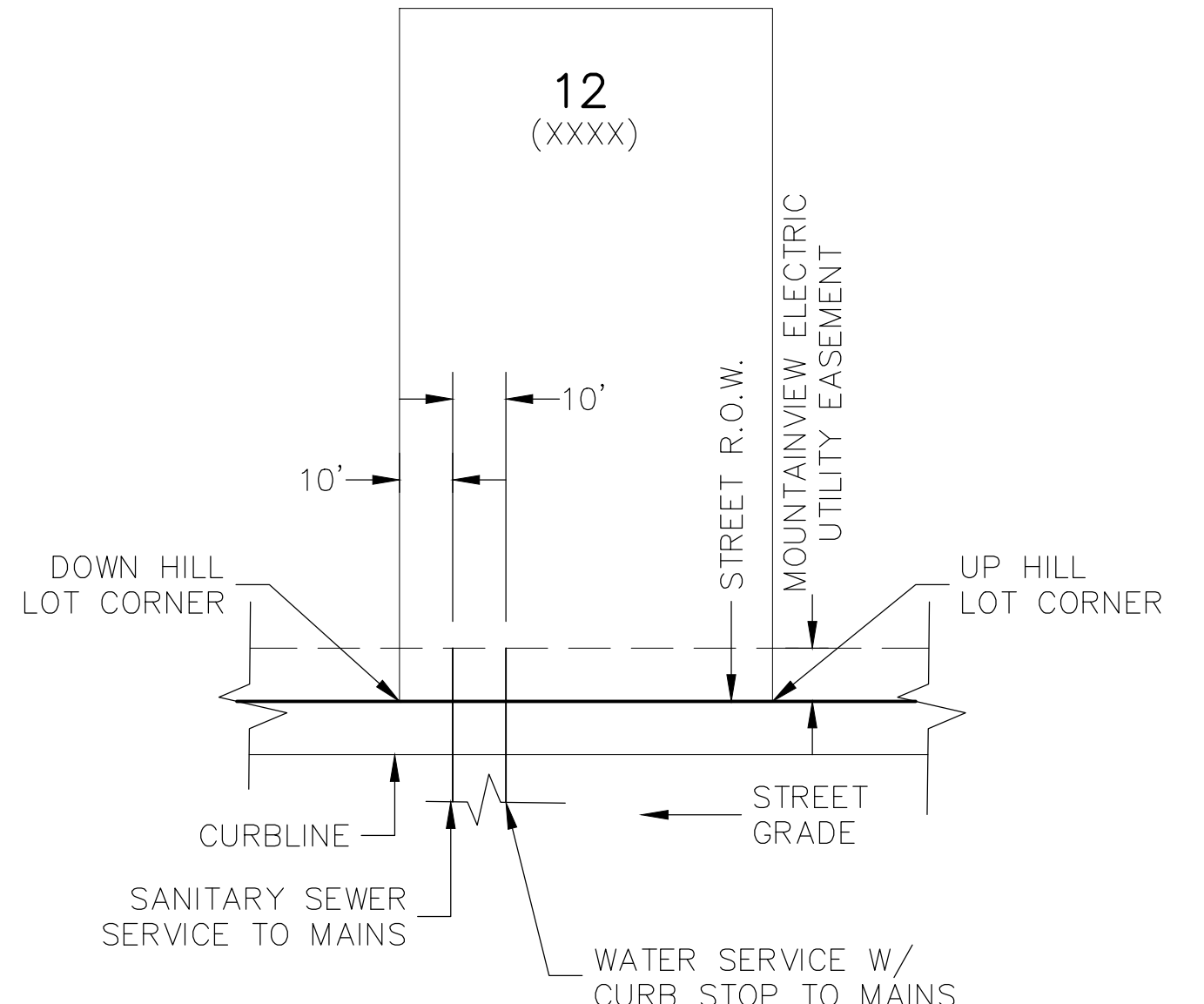
CAUTION

File: C:\Users\opriace\Documents\100144-PBH 14\dwg\Contd. Dwg\UTILITY SERVICE\US01-UT01.dwg PlotStamp: 12/30/2020 11:16 AM



GENERAL NOTES:

1. ALL VALVES SHOWN FOR SCHEMATIC PURPOSES ONLY. NO VALVES SHALL BE INSTALLED IN CURB AND GUTTER OR CROSSPANS.



TYPICAL UTILITY SERVICE LOCATIONS DETAIL

N.T.S.
*SEE PLANS FOR NON-TYPICAL DIMENSIONS

NOTES:

1. DIMENSIONS SHOWN ARE TYPICAL UNLESS OTHERWISE NOTED ON PLANS.
2. SEE PAINT BRUSH HILLS METRO DISTRICT SPECS. FOR TAPPING SADDLE DETAIL.
3. FINAL LOCATION OF ALL SEWER, WATER AND GAS SERVICES TO BE APPROVED IN THE FIELD BY THE CONSTRUCTION MANAGER PRIOR TO INSTALLATION.
4. PROPERTY END OF ALL SEWER SERVICES TO BE MARKED WITH A 12"x2"x4" POST EXTENDING VERTICALLY OUT OF THE GROUND 36" FROM FLOWLINE.
5. WATER SERVICES NOT INSTALLED IN THE SAME TRENCH WITH SEWER SERVICE TO BE MARKED WITH A 6"x2"x4" POST EXTENDING 4" BELOW FINISH GRADE.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE DISTRICT AND COORDINATE ANY INTERRUPTION TO EXISTING WATER SERVICE.
7. RE-USE OF ANY MATERIAL IS LEFT TO THE DISCRETION OF THE DISTRICT.
8. ALL WATER MAIN FITTINGS SHALL BE STAKED PRIOR TO CONSTRUCTION.
9. ALL FIRE HYDRANTS TO BE 6.5' BURY DEPTH UNLESS OTHERWISE NOTED.
10. ALL SEWER SERVICES TO BE INSTALLED AT MINIMUM PERMISSIBLE GRADE UNLESS OTHERWISE APPROVED BY THE CONSTRUCTION MANAGER.
11. HOMEBUILDER'S SHALL DETERMINE THE SEWER SERVICE ELEVATION PRIOR TO BASEMENT EXCAVATION AND SETTING OF FINISHED FLOOR FOR HOUSE.
12. MODIFY WATER AND SEWER SERVICE TAP LOCATIONS TO AVOID DRIVEWAYS.

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

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PAINT BRUSH HILLS FILING NO. 14

UTILITY SERVICE PLANS

PROJECT NO. 10-014 DATE: 12/29/2020

DESIGNED BY: GW SCALE: HORIZONTAL: 1"=50' VERTICAL: N/A

DRAWN BY: SM SHEET 19 OF 26

CHECKED BY: GW UT01

212 N. WAHATCH AVE., STE 305
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

CIVIL CONSULTANTS, INC.

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

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

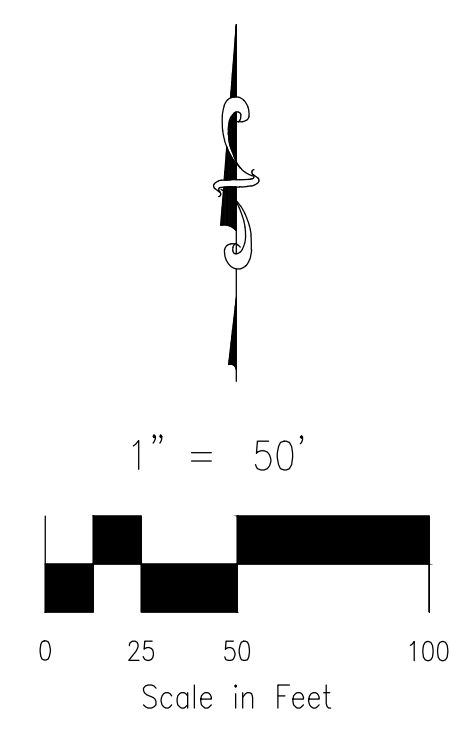
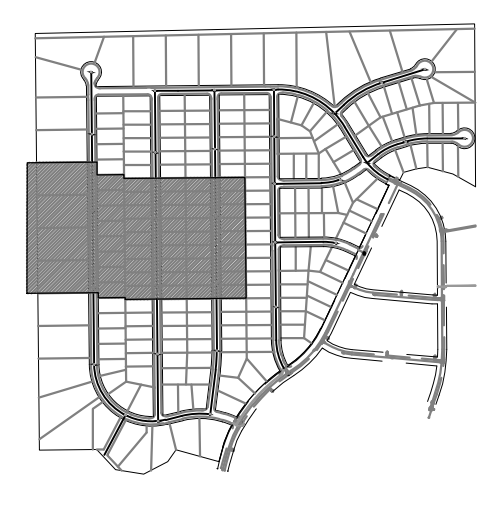
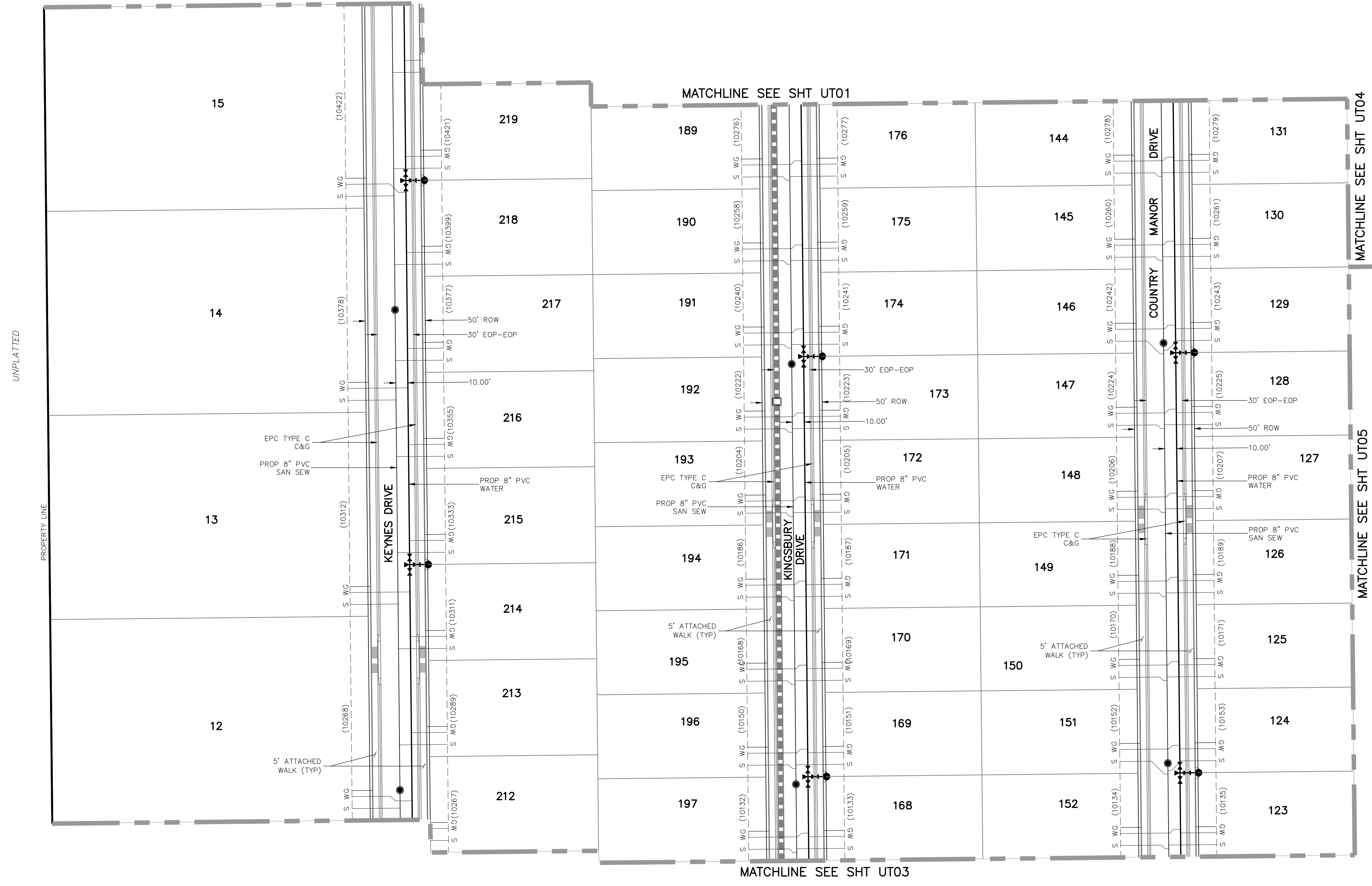
NO.	DATE	BY	DESCRIPTION

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CAUTION

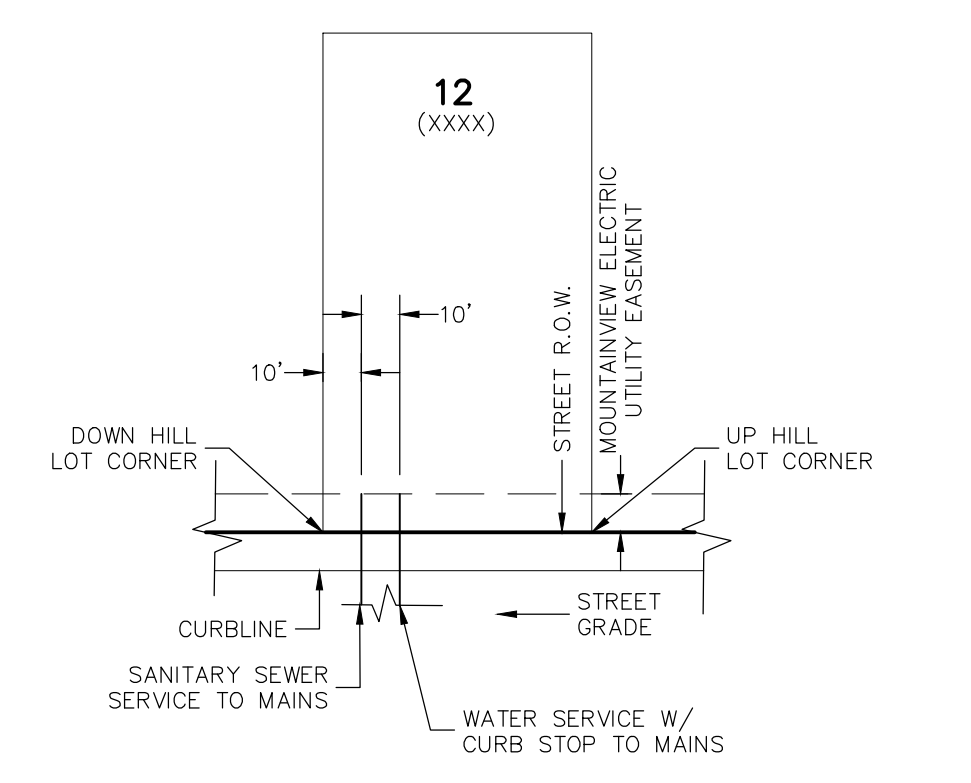
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FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES
 FOR BURIED UTILITY INFORMATION
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TYPICAL UTILITY SERVICE LOCATIONS DETAIL
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PAINT BRUSH HILLS FILING NO. 14	
UTILITY SERVICE PLANS	
PROJECT NO. 10-014	DATE: 12/29/2020
DESIGNED BY: GW	SCALE: HORIZONTAL: 1"=50' VERTICAL: N/A
DRAWN BY: SM	SHEET 20 OF 26
CHECKED BY: GW	UT02

212 N. WAHSATCH AVE., STE 303
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5465

CIVIL CONSULTANTS, INC.

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

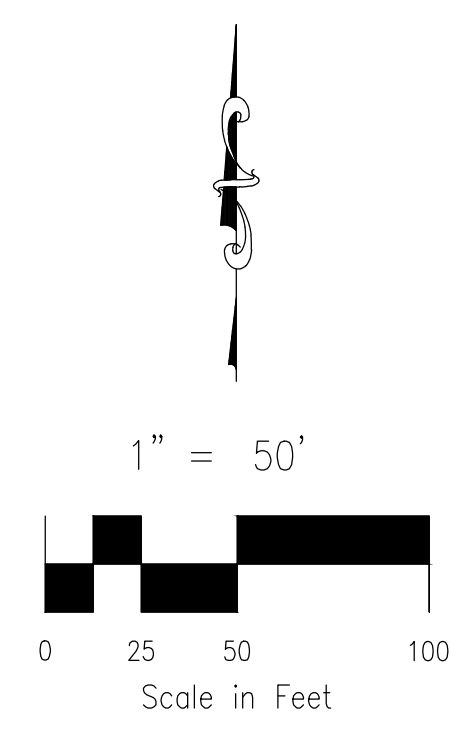
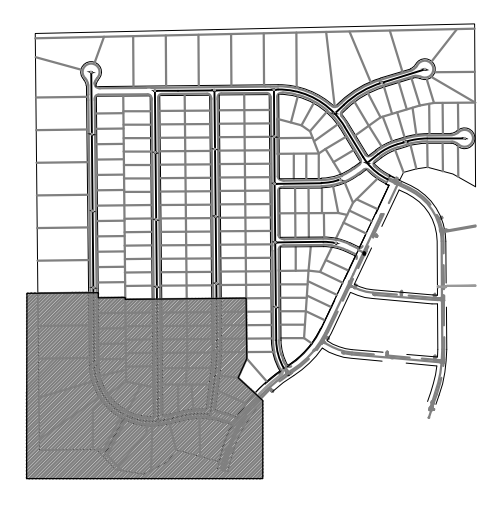
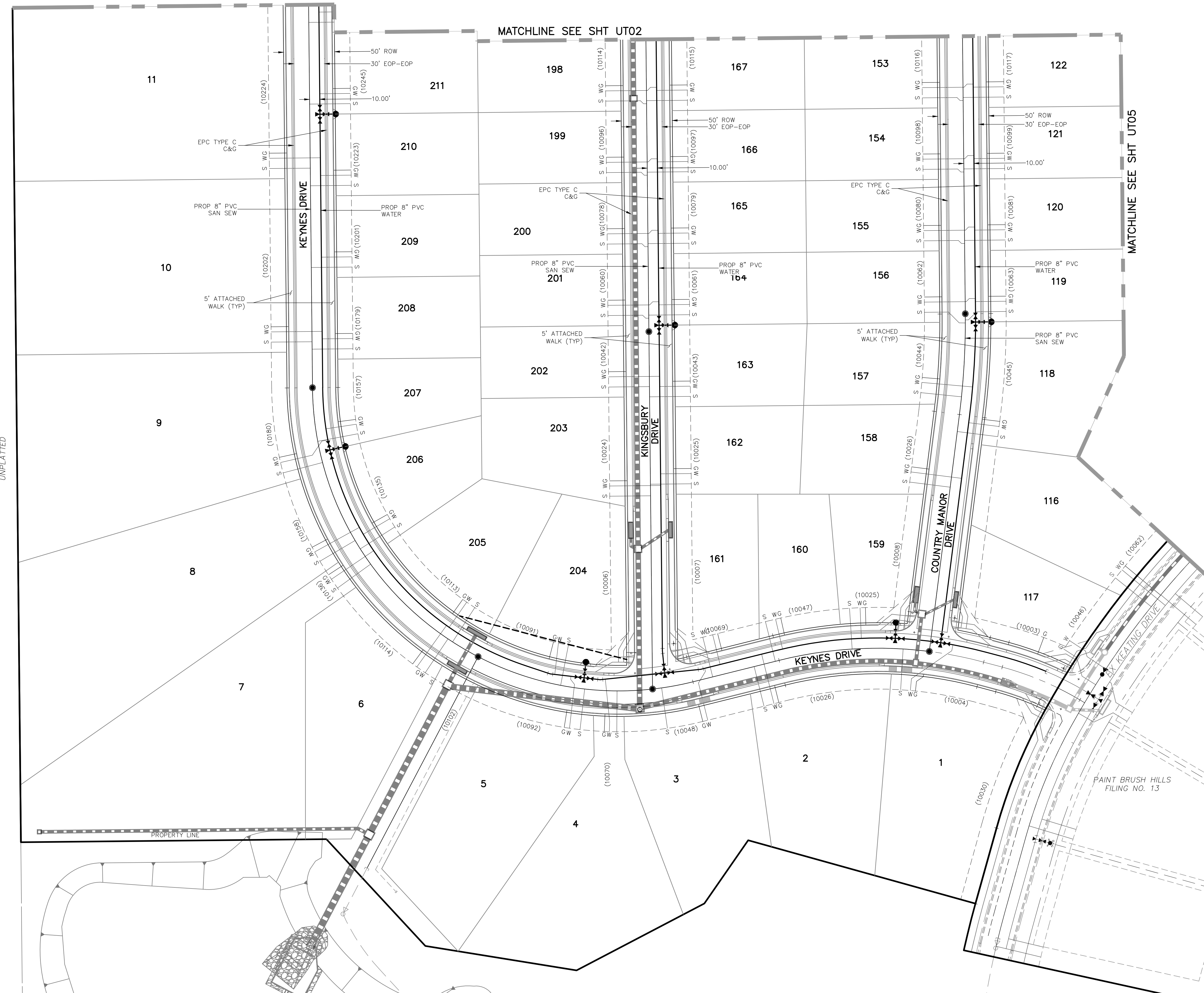
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

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.

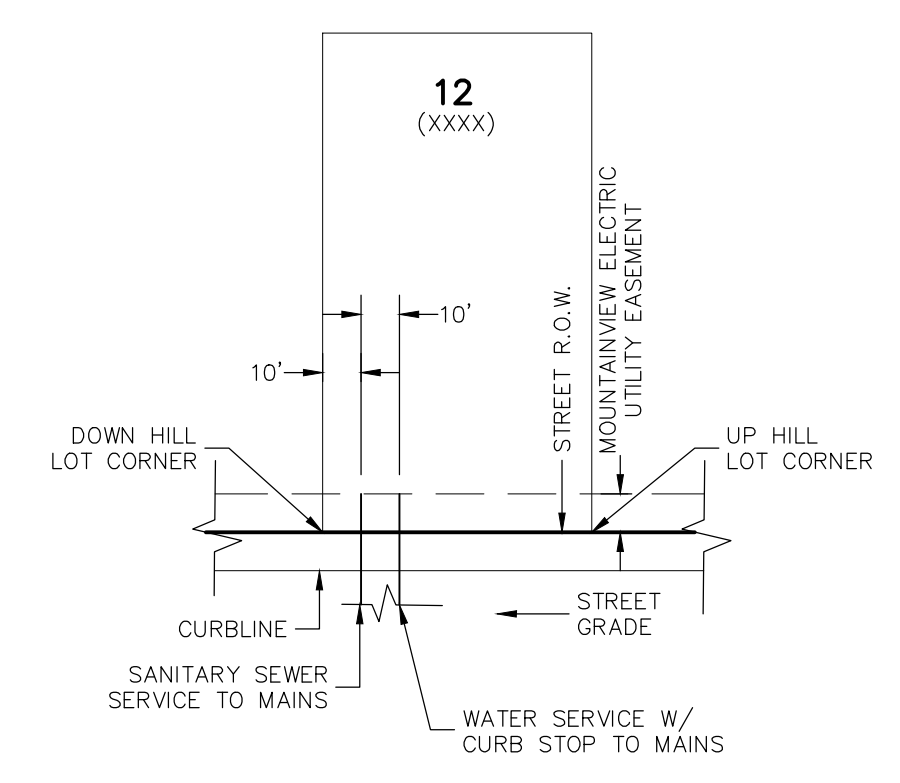
CAUTION

File: C:\Users\opirece\Documents\100144-PBH 14\Map\Cont\Map\UTILITY SERVICE\US01-US05.dwg Plotstamp: 12/29/2020 11:46 AM



GENERAL NOTES:

1. ALL VALVES SHOWN FOR SCHEMATIC PURPOSES ONLY. NO VALVES SHALL BE INSTALLED IN CURB AND GUTTER OR CROSSPANS.



TYPICAL UTILITY SERVICE LOCATIONS DETAIL

N.T.S.
*SEE PLANS FOR NON-TYPICAL DIMENSIONS

NOTES:

1. DIMENSIONS SHOWN ARE TYPICAL UNLESS OTHERWISE NOTED ON PLANS.
2. SEE PAINT BRUSH HILLS METRO DISTRICT SPECS. FOR TAPPING SADDLE DETAIL.
3. FINAL LOCATION OF ALL SEWER, WATER AND GAS SERVICES TO BE APPROVED IN THE FIELD BY THE CONSTRUCTION MANAGER PRIOR TO INSTALLATION.
4. PROPERTY END OF ALL SEWER SERVICES TO BE MARKED WITH A 12"x2"x4" POST EXTENDING VERTICALLY OUT OF THE GROUND 36" FROM FLOWLINE.
5. WATER SERVICES NOT INSTALLED IN THE SAME TRENCH WITH SEWER SERVICE TO BE MARKED WITH A 6"x2"x4" POST EXTENDING 4' BELOW FINISH GRADE.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE DISTRICT AND COORDINATE ANY INTERRUPTION TO EXISTING WATER SERVICE.
7. RE-USE OF ANY MATERIAL IS LEFT TO THE DISCRETION OF THE DISTRICT.
8. ALL WATER MAIN FITTINGS SHALL BE STAKED PRIOR TO CONSTRUCTION.
9. ALL FIRE HYDRANTS TO BE 6.5' BURY DEPTH UNLESS OTHERWISE NOTED.
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11. HOMEBUILDER'S SHALL DETERMINE THE SEWER SERVICE ELEVATION PRIOR TO BASEMENT EXCAVATION AND SETTING OF FINISHED FLOOR FOR HOUSE.
12. MODIFY WATER AND SEWER SERVICE TAP LOCATIONS TO AVOID DRIVEWAYS.

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

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

PAINT BRUSH HILLS FILING NO. 14

UTILITY SERVICE PLANS

PROJECT NO. 10-014 DATE: 12/29/2020

SCALE: HORIZONTAL: 1"=50' VERTICAL: N/A

DESIGNED BY: GW DRAWN BY: SM CHECKED BY: GW

272 N. WAHATCH AVE. STE 305
COLORADO SPRINGS, CO 80903
PHONE: 719.955.5485

CIVIL CONSULTANTS, INC.

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

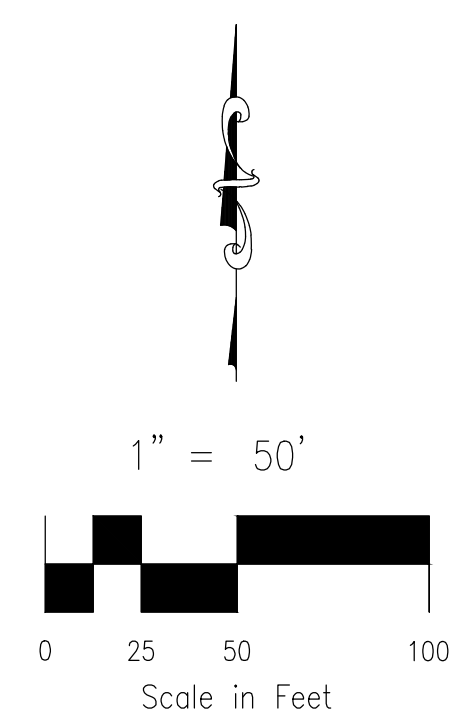
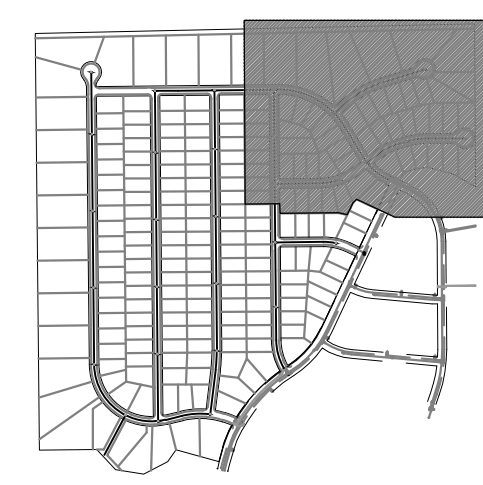
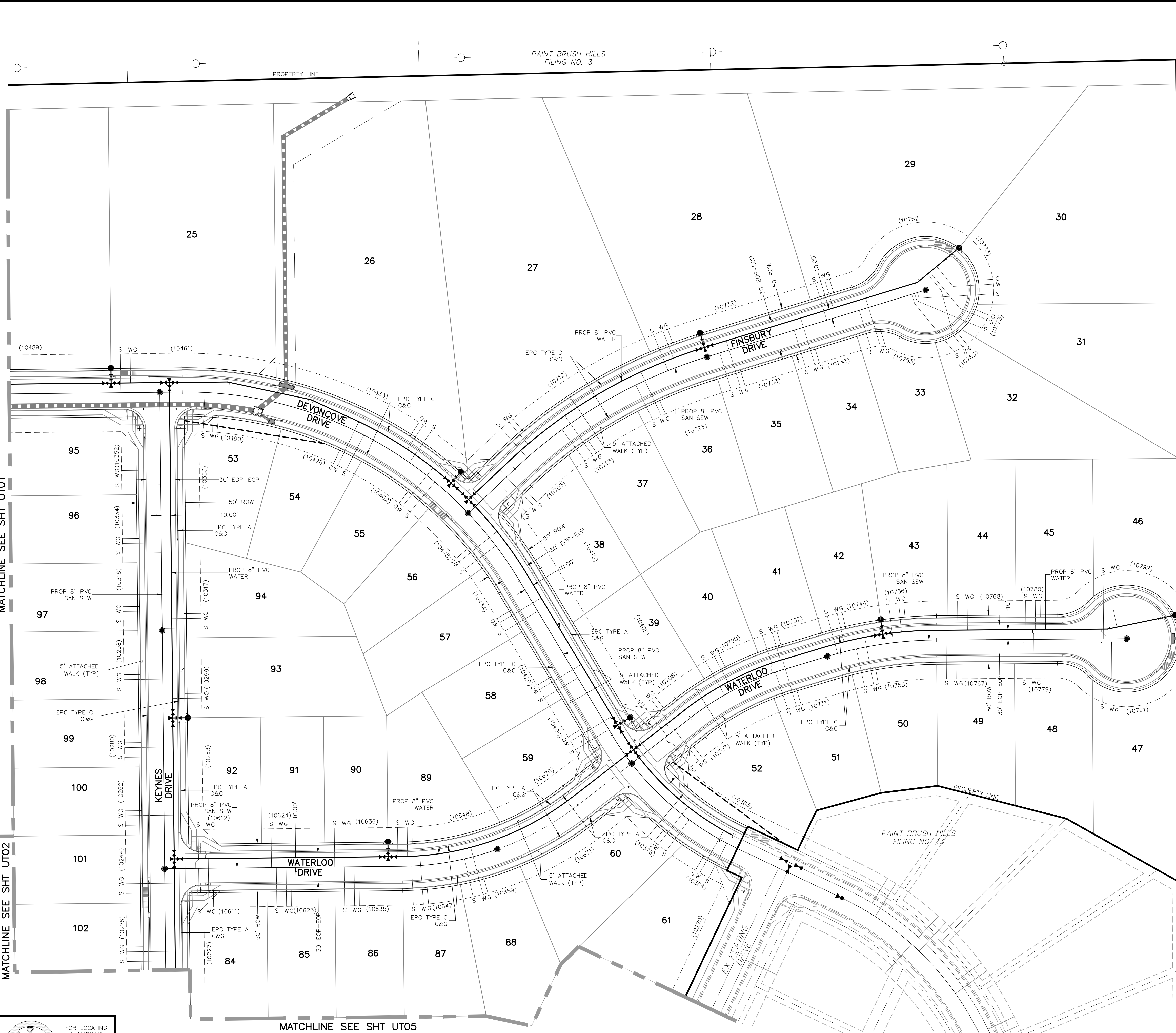
MIRCIU A. SANCHEZ, COLORADO P.E. NO. 37760

NO.	DATE	BY	DESCRIPTION

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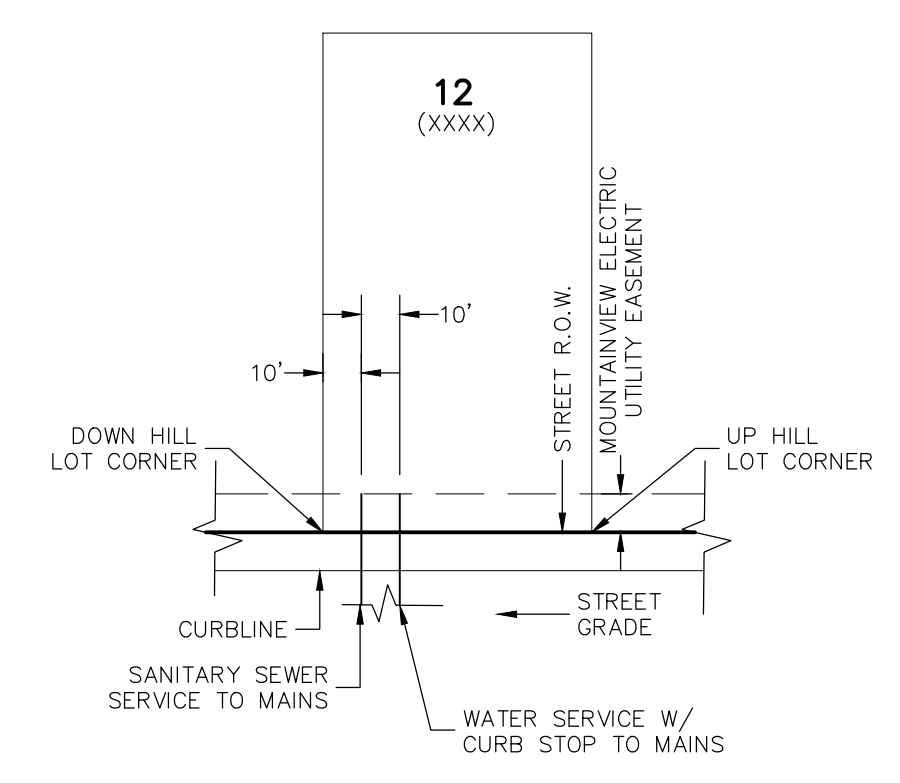
CAUTION

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GENERAL NOTES:

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TYPICAL UTILITY SERVICE LOCATIONS DETAIL

N.T.S.
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NOTES:

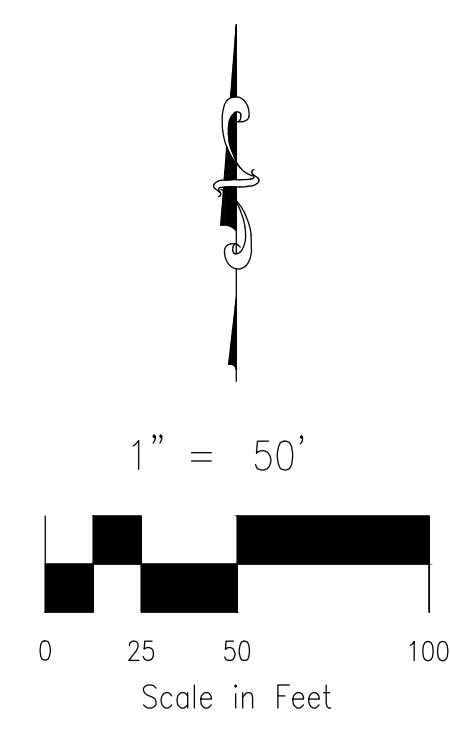
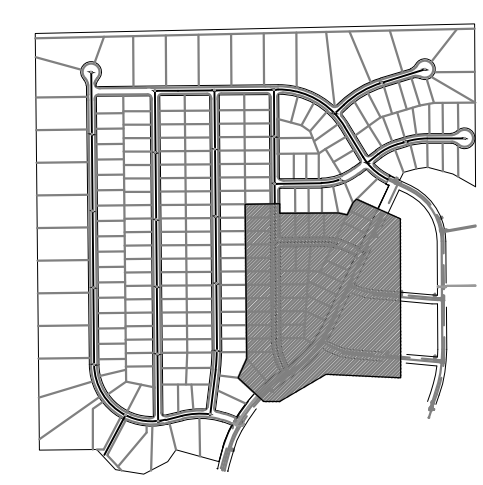
1. DIMENSIONS SHOWN ARE TYPICAL UNLESS OTHERWISE NOTED ON PLANS.
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FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES
FOR BURIED UTILITY INFORMATION
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CALL 1-800-922-1987

PAINT BRUSH HILLS FILING NO. 14 UTILITY SERVICE PLANS		PROJECT NO. 10-014 DATE: 12/29/2020	SCALE: HORIZONTAL: 1"=50' VERTICAL: N/A	SHEET 22 OF 26 UT04
212 N. WAHSAUCH AVE. STE 305 COLORADO SPRINGS, CO 80903 PHONE: 719.955.5485				
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.				
REVISIONS: NO. DATE: BY: DESCRIPTION:	APRVD. 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				

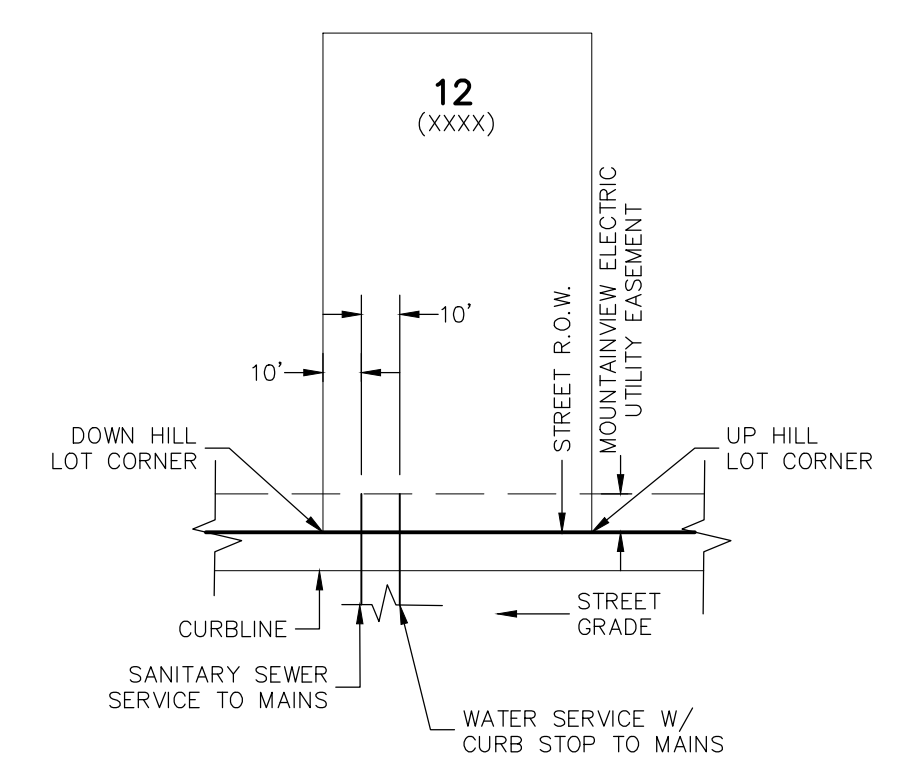
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FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES
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TYPICAL UTILITY SERVICE LOCATIONS DETAIL

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PAINT BRUSH HILLS FILING NO. 14	
UTILITY SERVICE PLANS	
PROJECT NO. 10-014	DATE: 12/29/2020
DESIGNED BY: GW	SCALE: HORIZONTAL: 1"=50'
DRAWN BY: SM	VERTICAL: N/A
CHECKED BY: GW	SHEET 23 OF 26
UT05	

CIVIL CONSULTANTS, INC.

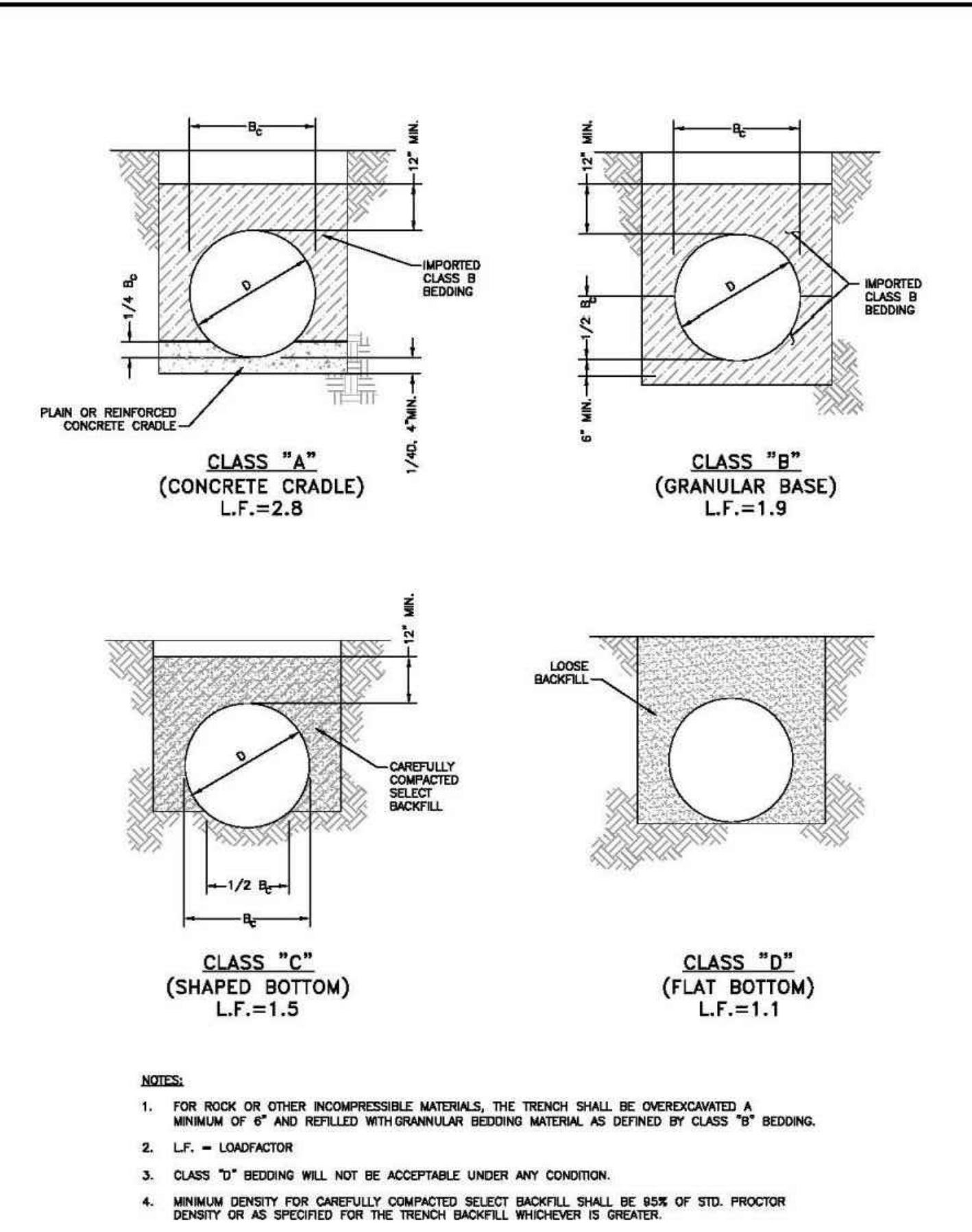
217 N. WAHATCH AVE., STE 303
COLORADO SPRINGS, CO 80903
PHONE: 719.555.5485

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

NO.	DATE	BY	DESCRIPTION	APPROV. BY	DATE

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CAUTION



CLASS "A" (CONCRETE CRADLE)
L.F.=2.8

CLASS "B" (GRANULAR BASE)
L.F.=1.9

CLASS "C" (SHAPED BOTTOM)
L.F.=1.5

CLASS "D" (FLAT BOTTOM)
L.F.=1.1

NOTES:

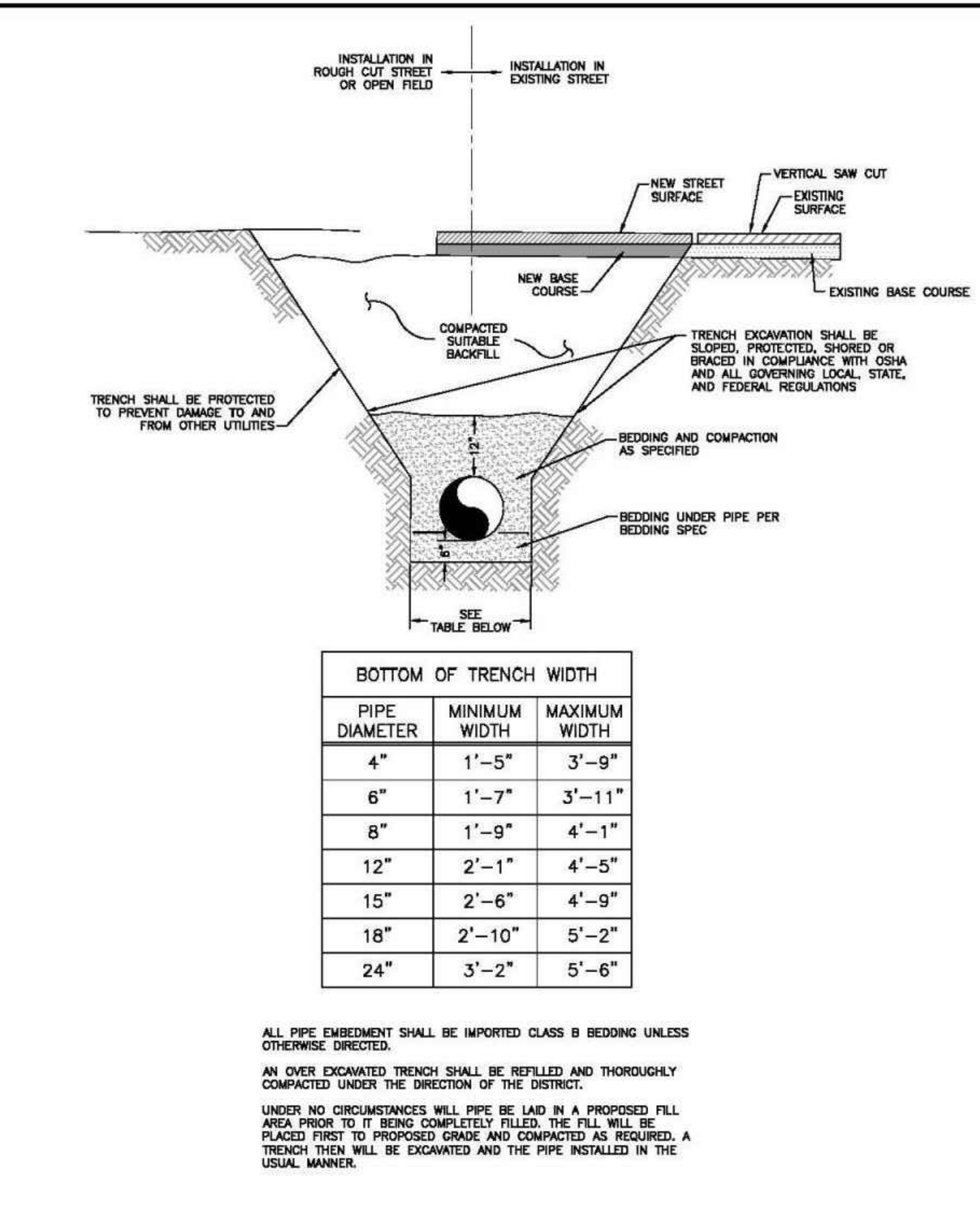
- FOR ROCK OR OTHER INCOMPRESSIBLE MATERIALS, THE TRENCH SHALL BE OVERDUGGED A MINIMUM OF 6" AND FILLED WITH GRANULAR BEDDING MATERIAL AS DEFINED BY CLASS "B" BEDDING.
- L.F. = LOAD FACTOR
- CLASS "D" BEDDING WILL NOT BE ACCEPTABLE UNDER ANY CONDITION.
- MINIMUM DENSITY FOR CAREFULLY COMPACTED SELECT BACKFILL SHALL BE 85% OF STD. PROCTOR DENSITY OR AS SPECIFIED FOR THE TRENCH BACKFILL WHICHEVER IS GREATER.

PIPE BEDDING

Drawn: GDM
 Date: JAN 2011
 Scale: N.T.S.

Reviewed: [Signature]
 Date: [Blank]
 Scale: [Blank]

WATER & WASTEWATER SYSTEM
 STANDARD SPECIFICATIONS
 paint brush hills
 metropolitan district
WW-1



TYPICAL TRENCH CROSS SECTION

INSTALLATION IN ROUGH CUT STREET OR OPEN FIELD
 INSTALLATION IN EXISTING STREET

NEW STREET SURFACE
 VERTICAL SAW CUT
 EXISTING SURFACE
 NEW BASE COURSE
 EXISTING BASE COURSE
 COMPACTED SUITABLE BACKFILL
 TRENCH EXCAVATION SHALL BE SLOPED, PROTECTED, SHORED OR BRACED IN COMPLIANCE WITH OSHA AND ALL GOVERNING LOCAL, STATE, AND FEDERAL REGULATIONS
 BEDDING AND COMPACTION AS SPECIFIED
 BEDDING UNDER PIPE PER BEDDING SPEC
 SEE TABLE BELOW

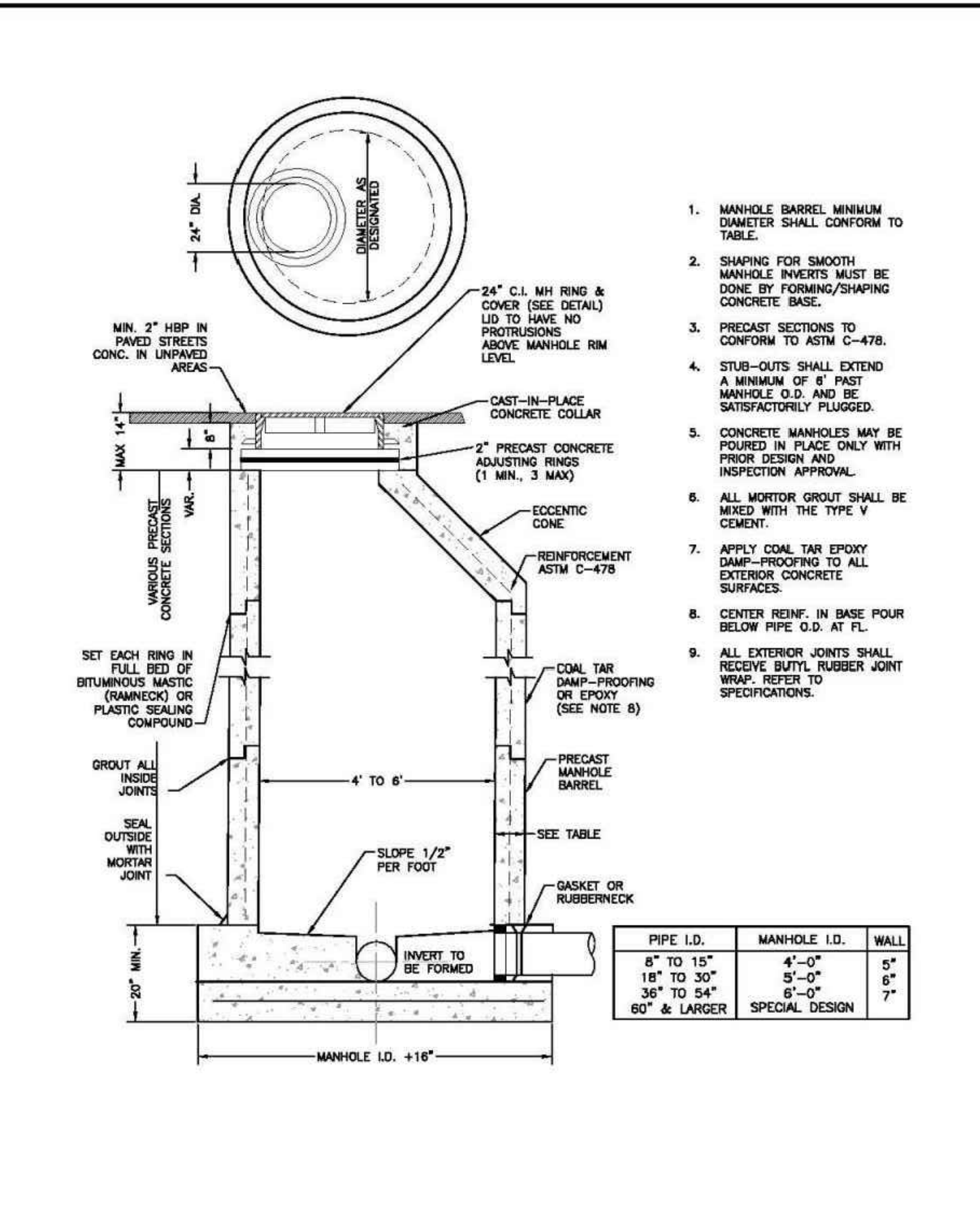
BOTTOM OF TRENCH WIDTH		
PIPE DIAMETER	MINIMUM WIDTH	MAXIMUM WIDTH
4"	1'-5"	3'-9"
6"	1'-7"	3'-11"
8"	1'-9"	4'-1"
12"	2'-1"	4'-5"
15"	2'-6"	4'-9"
18"	2'-10"	5'-2"
24"	3'-2"	5'-6"

ALL PIPE EMBEDMENT SHALL BE IMPORTED CLASS B BEDDING UNLESS OTHERWISE DIRECTED.
 AN OVER EXCAVATED TRENCH SHALL BE REFILLED AND THOROUGHLY COMPACTED UNDER THE DIRECTION OF THE DISTRICT.
 UNDER NO CIRCUMSTANCES WILL PIPE BE LAD IN A PROPOSED FILL AREA PRIOR TO IT BEING COMPLETELY FILLED. THE FILL WILL BE PLACED FIRST TO PROPOSED GRADE AND COMPACTED AS REQUIRED. A TRENCH THEN WILL BE EXCAVATED AND THE PIPE INSTALLED IN THE USUAL MANNER.

Drawn: GDM
 Date: JAN 2011
 Scale: N.T.S.

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WATER & WASTEWATER SYSTEM
 STANDARD SPECIFICATIONS
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 metropolitan district
WW-2



PRECAST MANHOLE

MIN. 2" HSB IN PAVED STREETS CONC. IN UNPAVED AREAS
 24" C.I. MH RING & COVER (SEE DETAIL) LID TO HAVE NO PROTRUSIONS ABOVE MANHOLE RIM LEVEL
 CAST-IN-PLACE CONCRETE COLLAR
 2" PRECAST CONCRETE ADJUSTING RINGS (1 MIN., 3 MAX)
 ECCENTRIC CONE
 REINFORCEMENT ASTM C-478
 COAL TAR DAMP-PROOFING OR EPOXY (SEE NOTE 6)
 PRECAST MANHOLE BARREL
 SEE TABLE
 GASKET OR RUBBERNECK
 SLOPE 1/2" PER FOOT
 INVERT TO BE FORMED
 MANHOLE I.D. +18"

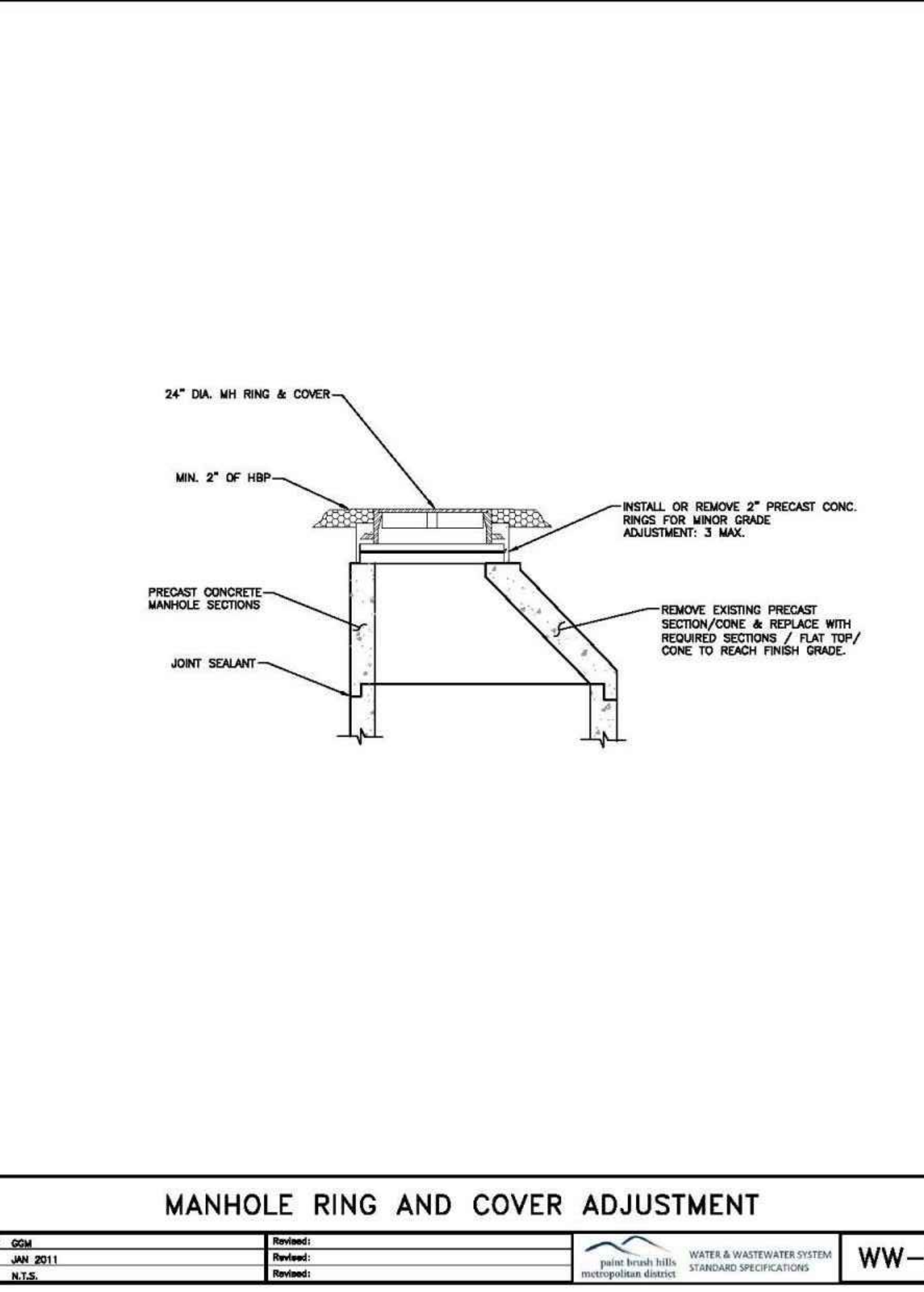
PIPE I.D.	MANHOLE I.D.	WALL
8" TO 15"	4'-0"	6"
18" TO 30"	5'-0"	6"
36" TO 54"	6'-0"	7"
60" & LARGER	SPECIAL DESIGN	

- MANHOLE BARREL MINIMUM DIAMETER SHALL CONFORM TO TABLE.
- SHARPING FOR SMOOTH MANHOLE INVERTS MUST BE DONE BY FORMING/SHAPING CONCRETE BASE.
- PRECAST SECTIONS TO CONFORM TO ASTM C-478.
- STUB-OUTS SHALL EXTEND A MINIMUM OF 8" PAST MANHOLE O.D. AND BE SATISFACTORILY PLUGGED.
- CONCRETE MANHOLES MAY BE POURED IN PLACE ONLY WITH PRIOR DESIGN AND INSPECTION APPROVAL.
- ALL MORTAR GROUT SHALL BE MIXED WITH THE TYPE V CEMENT.
- APPLY COAL TAR EPOXY DAMP-PROOFING TO ALL EXTERIOR CONCRETE SURFACES.
- CENTER REINF. IN BASE POUR BELOW PIPE O.D. AT FL.
- ALL EXTERIOR JOINTS SHALL RECEIVE BUTYL RUBBER JOINT WRAP. REFER TO SPECIFICATIONS.

Drawn: GDM
 Date: JAN 2011
 Scale: N.T.S.

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 Date: [Blank]
 Scale: [Blank]

WATER & WASTEWATER SYSTEM
 STANDARD SPECIFICATIONS
 paint brush hills
 metropolitan district
WW-3



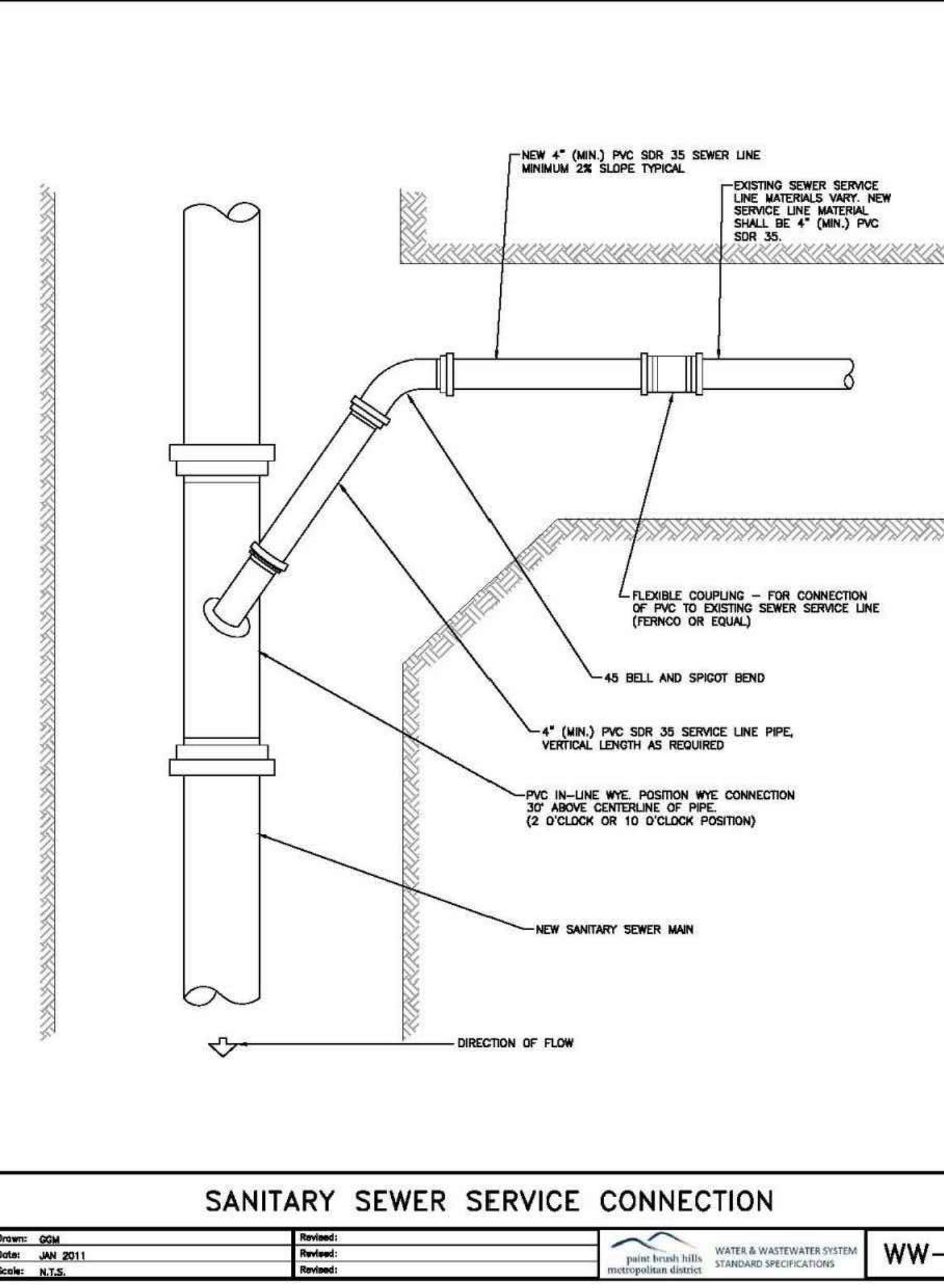
MANHOLE RING AND COVER ADJUSTMENT

24" DIA. MH RING & COVER
 MIN. 2" OF HSB
 PRECAST CONCRETE MANHOLE SECTIONS
 JOINT SEALANT
 INSTALL OR REMOVE 2" PRECAST CONC. RINGS FOR MINOR GRADE ADJUSTMENT, 3 MAX.
 REMOVE EXISTING PRECAST SECTION/ZONE & REPLACE WITH REQUIRED SECTIONS / FLAT TOP / CONE TO REACH FINISH GRADE.

Drawn: GDM
 Date: JAN 2011
 Scale: N.T.S.

Reviewed: [Signature]
 Date: [Blank]
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WATER & WASTEWATER SYSTEM
 STANDARD SPECIFICATIONS
 paint brush hills
 metropolitan district
WW-5



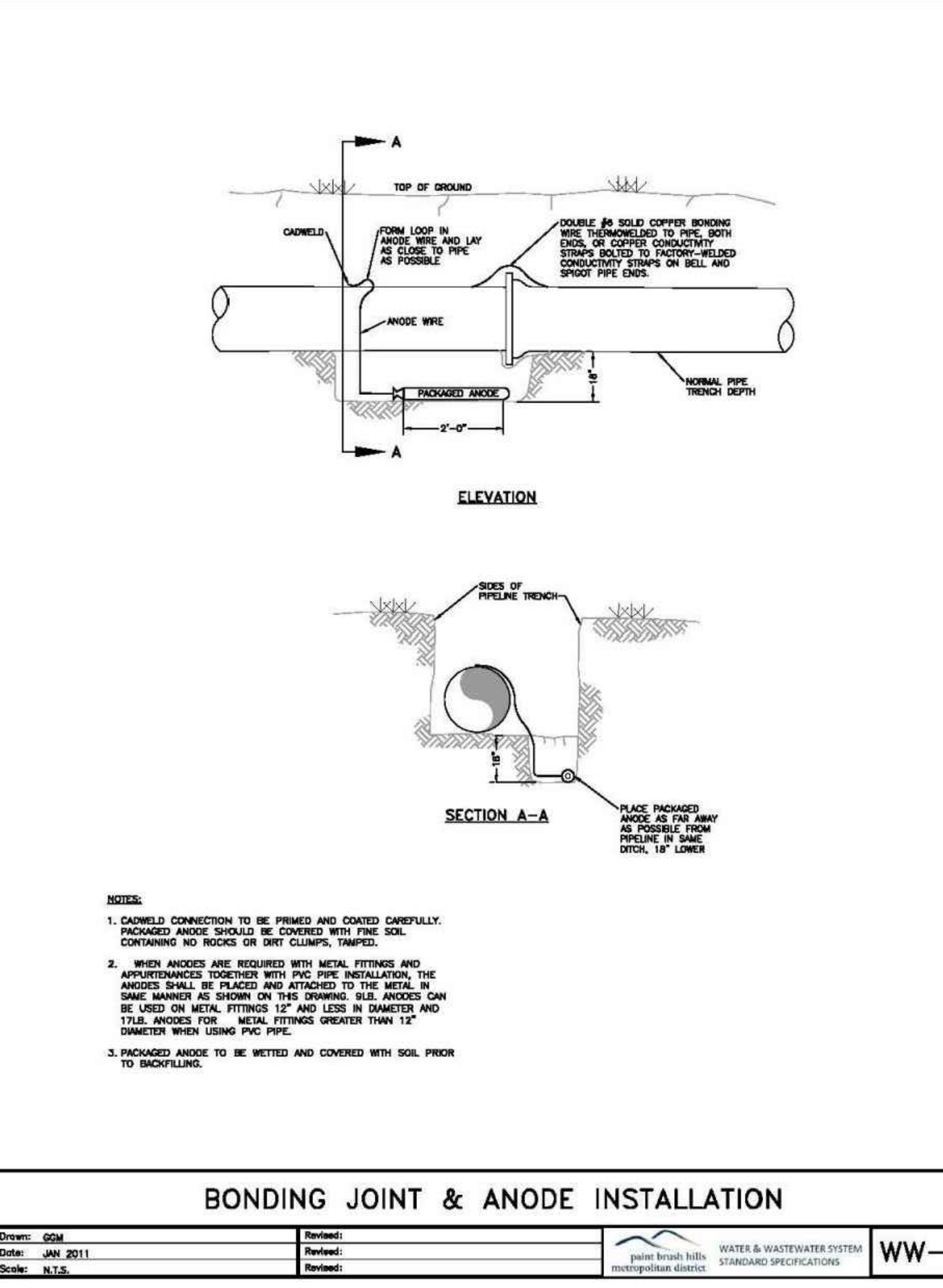
SANITARY SEWER SERVICE CONNECTION

NEW 4" (MIN.) PVC SDR 35 SEWER LINE MINIMUM 2% SLOPE TYPICAL
 EXISTING SEWER SERVICE LINE MATERIALS VARY. NEW SERVICE LINE MATERIAL SHALL BE 4" (MIN.) PVC SDR 35
 FLEXIBLE COUPLING - FOR CONNECTION OF PVC TO EXISTING SEWER SERVICE LINE (FERROUS OR EQUAL)
 45 BELL AND SPIGOT BEND
 4" (MIN.) PVC SDR 35 SERVICE LINE PIPE, VERTICAL LENGTH AS REQUIRED
 PVC IN-LINE WYE POSITION WYE CONNECTION 30" ABOVE CENTERLINE OF PIPE (2 O'CLOCK OR 10 O'CLOCK POSITION)
 NEW SANITARY SEWER MAIN
 DIRECTION OF FLOW

Drawn: GDM
 Date: JAN 2011
 Scale: N.T.S.

Reviewed: [Signature]
 Date: [Blank]
 Scale: [Blank]

WATER & WASTEWATER SYSTEM
 STANDARD SPECIFICATIONS
 paint brush hills
 metropolitan district
WW-7



BONDING JOINT & ANODE INSTALLATION

TOP OF GROUND
 GAWNELD
 ANODE WIRE
 DOUBLE #6 SOLID COPPER BONDING WIRE TIGHTENED TO THE BOTH ENDS OR CENTER TO CONDUCTIVITY COMPATIBILITY STRIPS ON BELL AND SPIGOT PIPE ENDS
 PACKAGED ANODE
 NORMAL PIPE TRENCH DEPTH
 ELEVATION
 SECTION A-A
 PLACE PACKAGED ANODE AS FAR AWAY AS POSSIBLE FROM PIPELINE IN SAME DITCH, 18" LOWER

NOTES:

- GAWNELD CONNECTION TO BE PRIMED AND COATED CAREFULLY. PACKAGED ANODE SHOULD BE COVERED WITH FINE SOIL CONTAINING NO ROCKS OR DIRT CLUMPS, TAMPED.
- WHICH ANODES ARE REQUIRED WITH METAL FITTINGS AND APPROPRIANCES TOGETHER WITH PVC PIPE INSTALLATION, THE ANODES SHALL BE PLACED AND ATTACHED TO THE METAL IN SAME MANNER AS SHOWN ON THIS DRAWING. BULB ANODES CAN BE USED ON METAL FITTINGS 12" AND LESS IN DIAMETER AND TUB ANODES FOR METAL FITTINGS GREATER THAN 12" DIAMETER WHEN USING PVC PIPE.
- PACKAGED ANODE TO BE WETTED AND COVERED WITH SOIL PRIOR TO BACKFILLING.

Drawn: GDM
 Date: JAN 2011
 Scale: N.T.S.

Reviewed: [Signature]
 Date: [Blank]
 Scale: [Blank]

WATER & WASTEWATER SYSTEM
 STANDARD SPECIFICATIONS
 paint brush hills
 metropolitan district
WW-13

MAXIMUM DEFLECTION PER SLIP JOINT OF D.I.P.

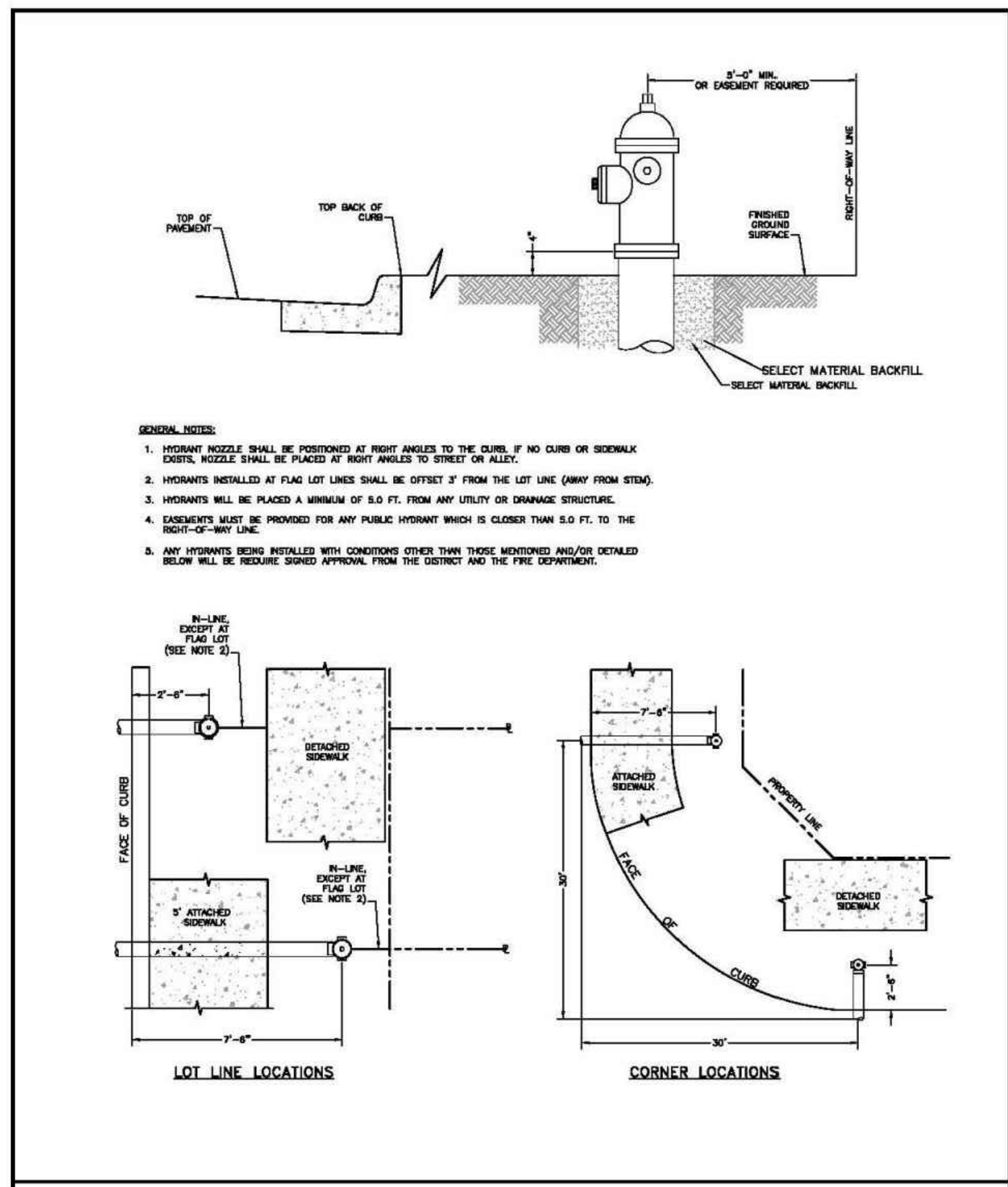
PIPE DIAMETER I.D. (IN)	O.D. (IN)	O.D. (FT)	MFRS. DEF.	DESIGN DEFLECTION (80% MAX)		APPROX. RADIUS FOR DEFLECTING CURVES WITHOUT BENDS	
				MAX. DEF.	DIST.	(FT)	(FT)
4"	4.80"	.400'	3/1000"	4/1000"	10'	201'	191'
6"	6.80"	.575'	3/1000"	4/1000"	16"	286'	258'
8"	8.80"	.754'	3/1000"	4/1000"	18"	286'	258'
10"	11.10"	.925'	3/1000"	4/1000"	18"	286'	258'
12"	13.20"	1.100'	3/1000"	4/1000"	18"	286'	258'
14"	15.30"	1.275'	3/1000"	2/2400"	10"	477'	430'
18"	17.40"	1.450'	3/1000"	2/2400"	10"	477'	430'
18"	19.50"	1.625'	3/1000"	2/2400"	10"	477'	430'
20"	21.60"	1.800'	3/1000"	2/2400"	10"	477'	430'
24"	25.80"	2.150'	3/1000"	2/2400"	10"	477'	430'
30"	32.00"	2.666'	2/3000"	2/1000"	8"	573'	518'
36"	38.30"	3.192'	2/1000"	1/3800"	6"	716'	645'
42"	44.50"	3.708'	2/1000"	1/3800"	6"	716'	645'

MAXIMUM PIPELINE DEFLECTION DATA

Drawn: GDM
 Date: [Blank]
 Scale: [Blank]

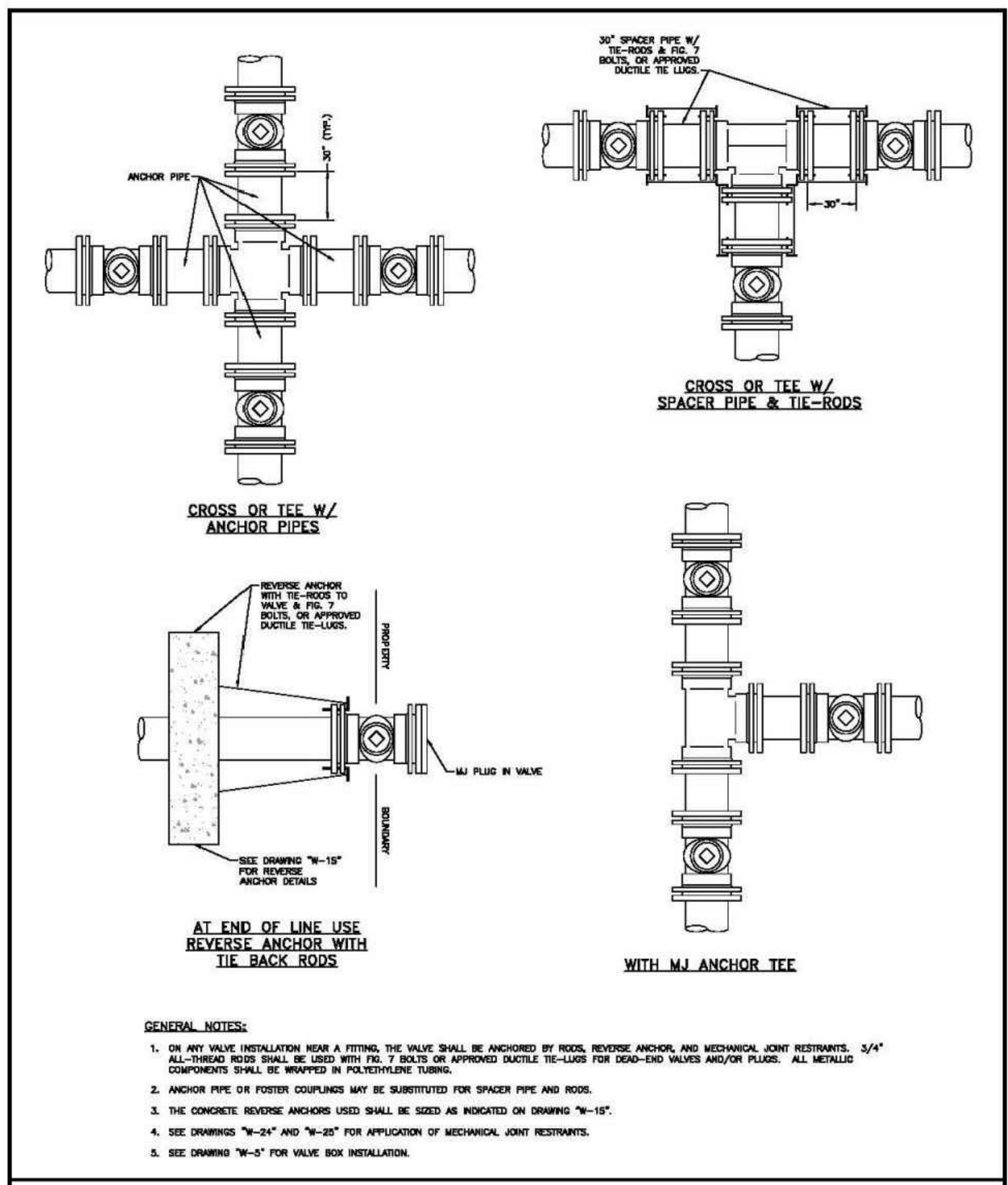
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 Date: [Blank]
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WATER & WASTEWATER SYSTEM
 STANDARD SPECIFICATIONS
 paint brush hills
 metropolitan district
WW-14



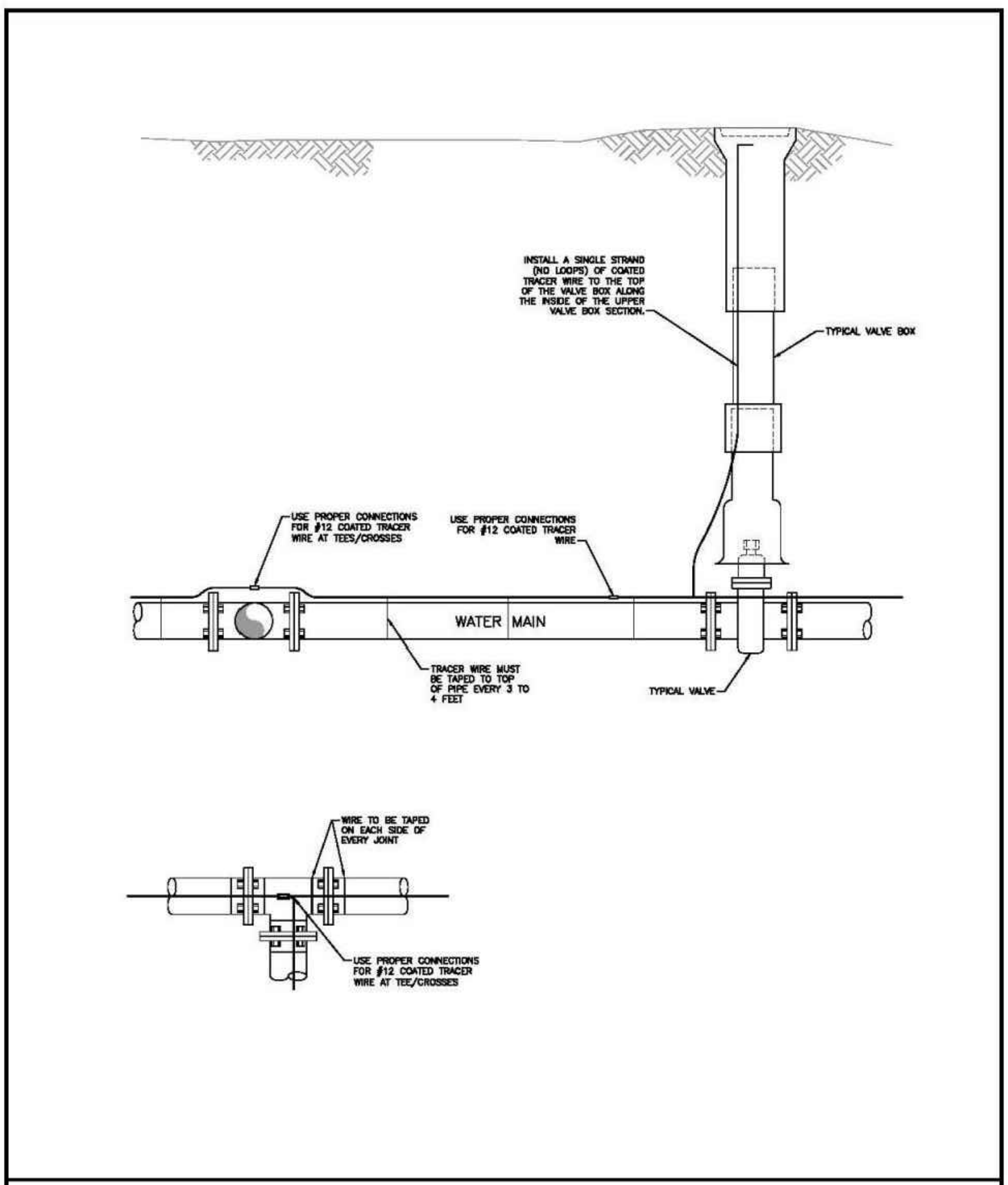
FIRE HYDRANT LOCATIONS

Drawn: GDM	Reviewed:	Water & Wastewater System Standard Specifications	W-1
Date: JAN 2011	Reviewed:	Paint Brush Hills Metropolitan District	
Scale: N.T.S.	Reviewed:		



VALVE INSTALLATION & LOCATION

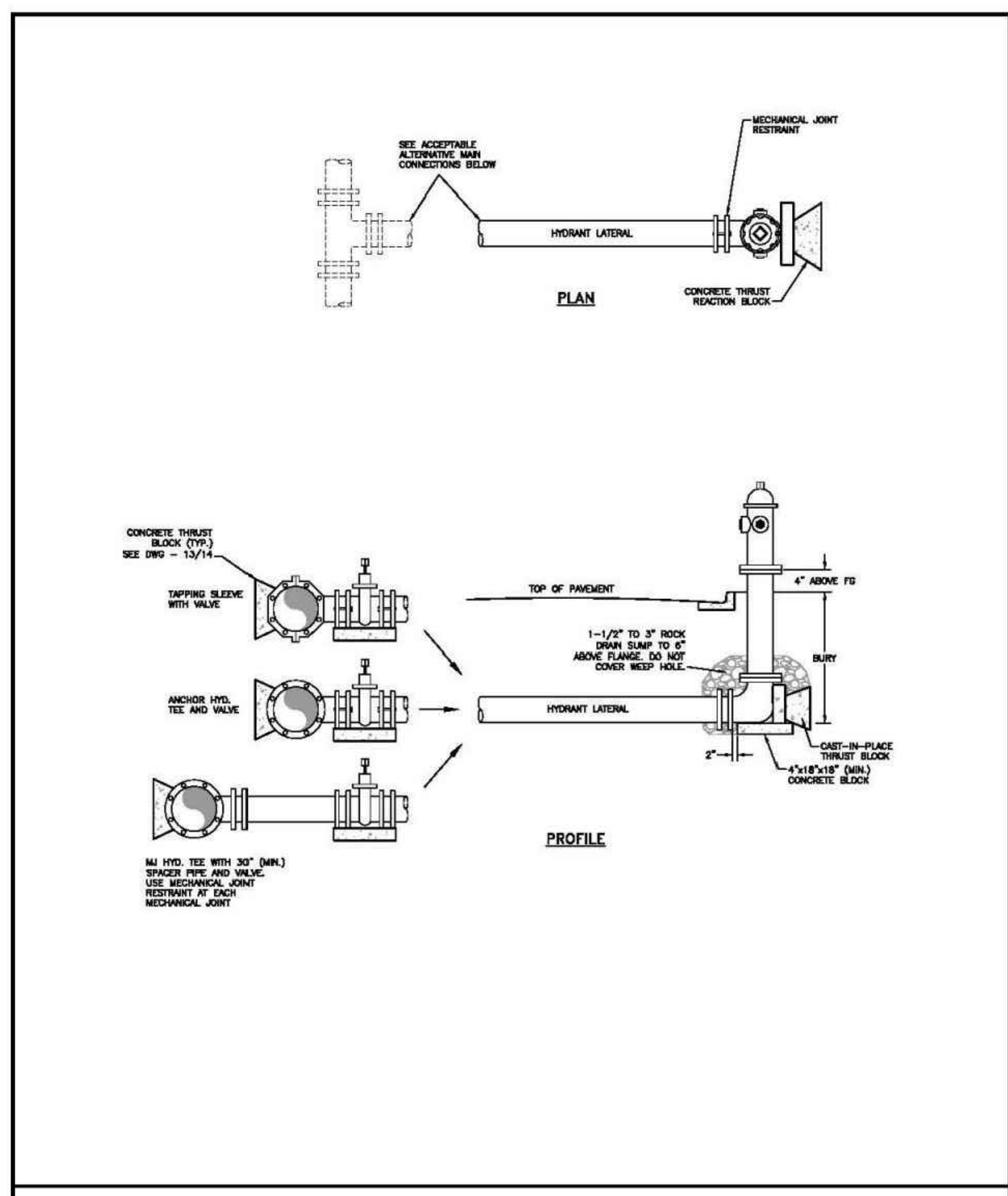
Drawn: GDM	Reviewed:	Water & Wastewater System Standard Specifications	W-4
Date: JAN 2011	Reviewed:	Paint Brush Hills Metropolitan District	
Scale: N.T.S.	Reviewed:		



TRACER WIRE INSTALLATION DETAILS

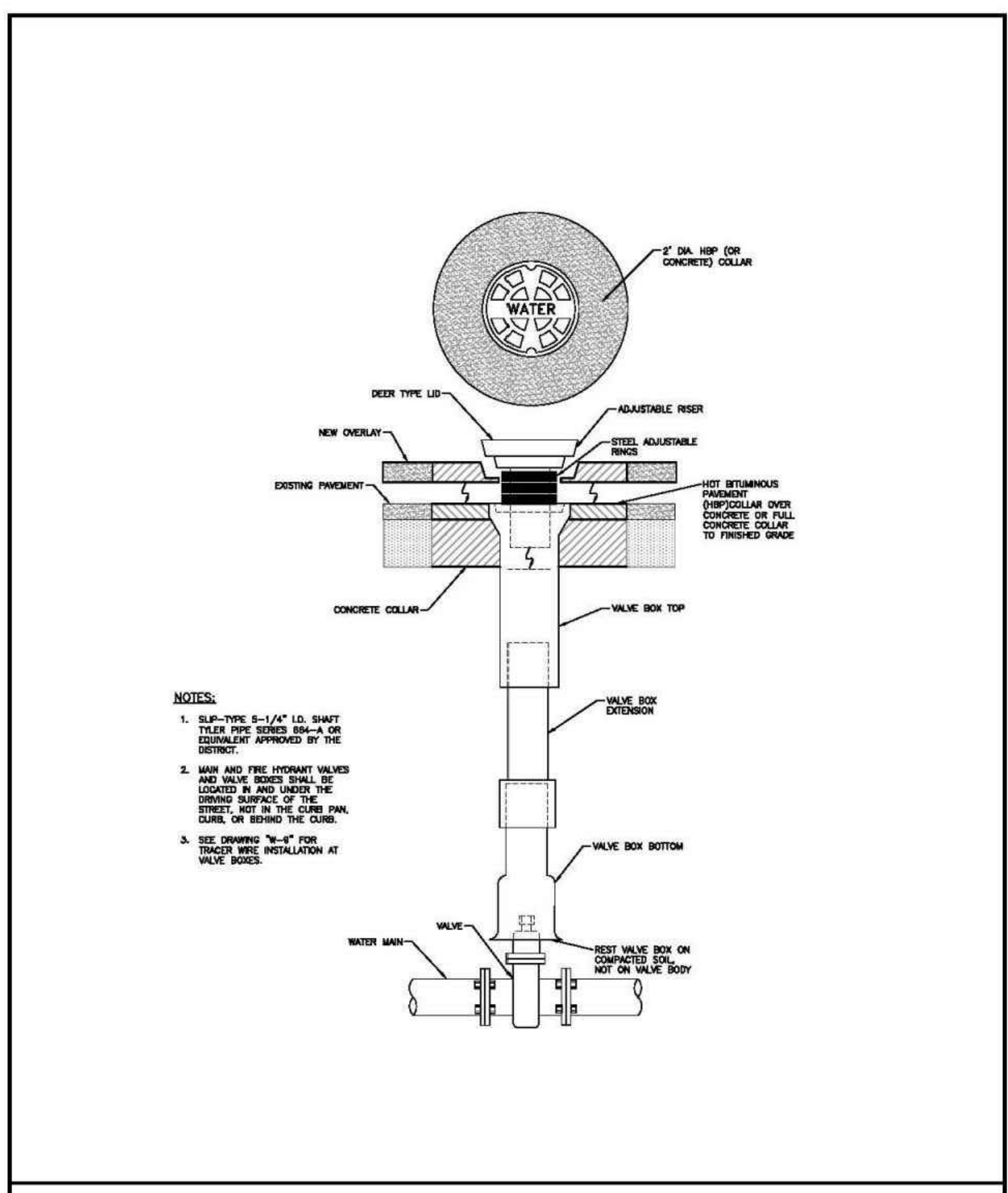
Drawn: GDM	Reviewed:	Water & Wastewater System Standard Specifications	W-9
Date: JAN 2011	Reviewed:	Paint Brush Hills Metropolitan District	
Scale: N.T.S.	Reviewed:		

provide underdrain details



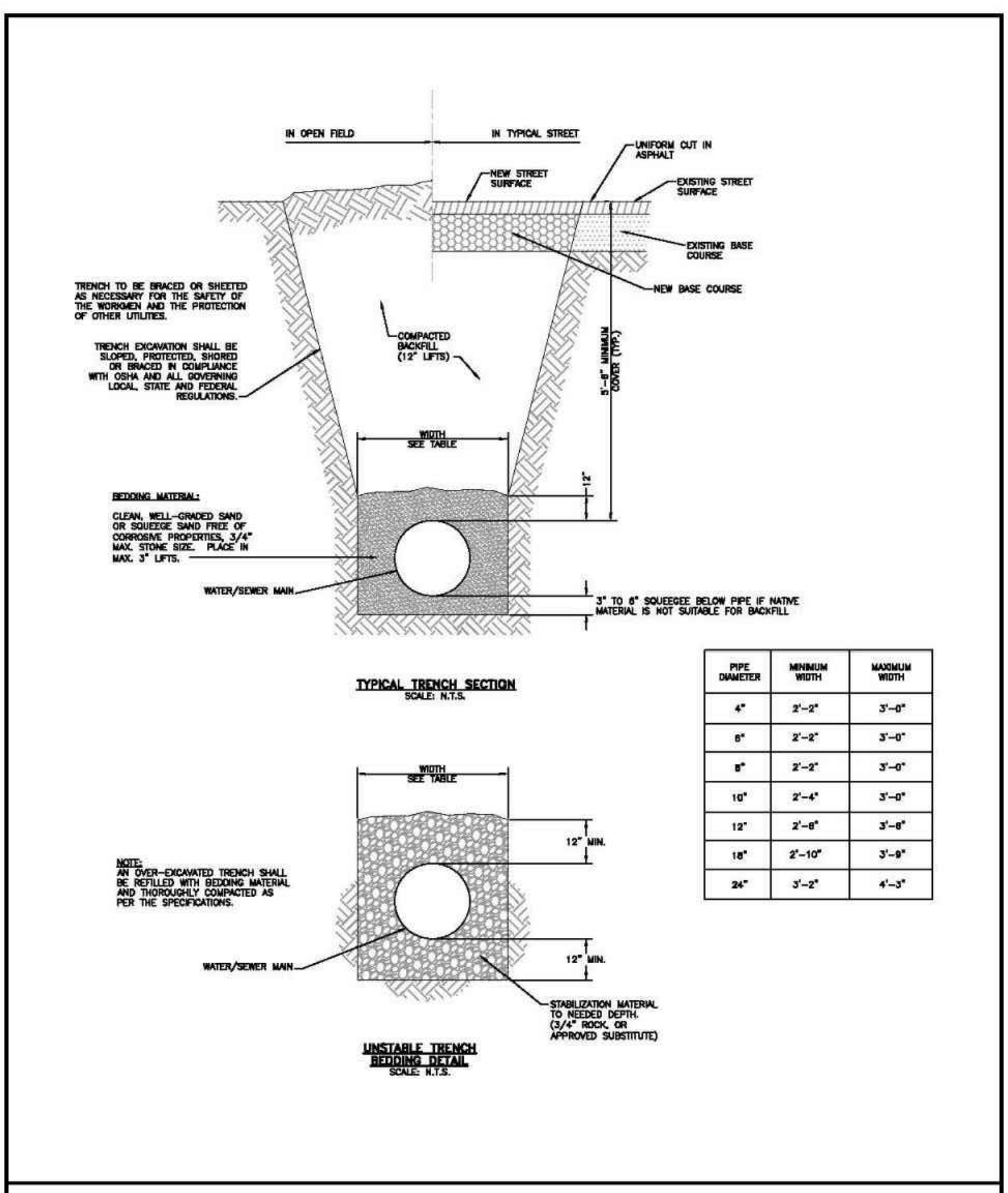
FIRE HYDRANT INSTALLATION

Drawn: GDM	Reviewed:	Water & Wastewater System Standard Specifications	W-2
Date: JAN 2011	Reviewed:	Paint Brush Hills Metropolitan District	
Scale: N.T.S.	Reviewed:		



VALVE BOX INSTALLATION

Drawn: GDM	Reviewed:	Water & Wastewater System Standard Specifications	W-5
Date: JAN 2011	Reviewed:	Paint Brush Hills Metropolitan District	
Scale: N.T.S.	Reviewed:		



TYPICAL TRENCH CROSS-SECTION

Drawn: GDM	Reviewed:	Water & Wastewater System Standard Specifications	W-12
Date: JAN 2011	Reviewed:	Paint Brush Hills Metropolitan District	
Scale: N.T.S.	Reviewed:		



PAINT BRUSH HILLS FILING NO. 14

DETAIL SHEET

PROJECT NO. 10-014 DATE: 12/29/2020
 DESIGNED BY: JWP HORIZONTAL: N/A
 DRAWN BY: SM VERTICAL: N/A
 CHECKED BY: GW

SHEET 26 OF 26
 UT08

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

CIVIL CONSULTANTS, INC.

MARCIL A. SANCHEZ, COLORADO P.E. NO. 377160

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

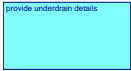
NO.	DATE	BY	DESCRIPTION

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

Construction Drawings_V2.pdf Markup Summary

dsdlaforce (27)



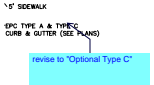
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Page Label: [1] UT08
Lock: Unlocked
Author: dsdlaforce
Date: 2/26/2021 1:00:45 PM
Status:
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provide underdrain details



Subject: Callout
Page Label: [1] WT01
Lock: Unlocked
Author: dsdlaforce
Date: 2/26/2021 1:03:05 PM
Status:
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Modify note. Underdrain system shall be installed. The soils/geotech report recommends subsurface foundation drainage system, therefore the underdrain system is required. Show the underdrain system layout and provide construction details. See the latest soils/geotech report.



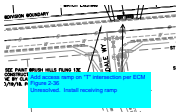
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Date: 2/26/2021 10:32:29 AM
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revise to "Optional Type C"



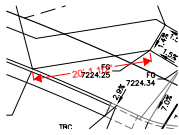
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Add access ramp on "T" intersection per ECM Figure 2-36
Unresolved. Install receiving ramp



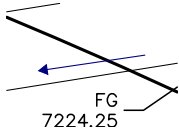
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Add access ramp on "T" intersection per ECM Figure 2-36
Unresolved. Install receiving ramp

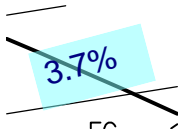


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Space:

20'-1 1/2"



Subject: Arrow
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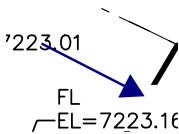


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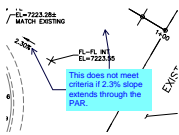
3.7%



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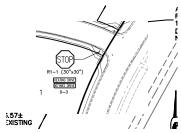


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Date: 2/26/2021 11:21:36 AM
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Subject: Callout
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Lock: Unlocked
Author: dsdlaforce
Date: 2/26/2021 11:22:45 AM
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This does not meet criteria if 2.3% slope extends through the PAR.



Subject: Image
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Date: 2/26/2021 11:23:53 AM
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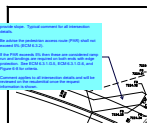


Subject: Callout
Page Label: [1] SI14
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Author: dsdlaforce
Date: 2/26/2021 11:25:46 AM
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label the slope along the PAR. The cross slope shall not exceed 2% at yield or stop controlled crossing and 5% max for intersections without yield or stop control.

See ECM 6.3.2.C and Figure 6-9 for criteria.

Comment applies to all intersection details and will be reviewed on the resubmittal once the request information is shown.



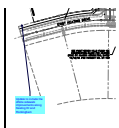
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Date: 2/26/2021 11:25:59 AM
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provide slope. Typical comment for all intersection details.

Be advise the pedestrian access route (PAR) shall not exceed 5% (ECM 6.3.2).

If the PAR exceeds 5% then these are considered ramp run and landings are required on both ends with edge protection. See ECM 6.3.1.G.5, ECM 6.3.1.G.6, and Figure 6-8 for criteria.

Comment applies to all intersection details and will be reviewed on the resubmittal once the request information is shown.




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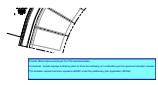
Update to include the offsite sidewalk improvements along Keating Dr and Rockingham




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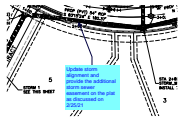



Subject: Text Box
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Date: 2/26/2021 11:42:05 AM
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Provide offsite improvements per the TIS recommendation.

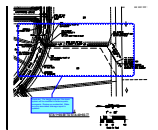
Unresolved. Update signage & striping plans to show the restriping on Londonderry per the approved deviation request.


The deviation request has been upload to eDARP under the preliminary plan application (SP206)



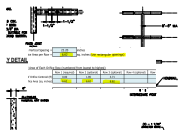
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Update storm alignment and provide the additional storm sewer easement on the plat as discussed on 2/25/21

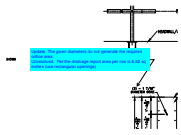


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Page Label: [1] ST08
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Date: 2/26/2021 11:54:02 AM
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Reminder: Per design engineer, the storm system will be modified to address parks comments. Review on resubmittal. Make sure the associated drainage report is updated.

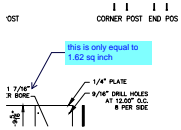


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Subject: Callout
Page Label: [1] ST12
Lock: Unlocked
Author: dsdlaforce
Date: 2/26/2021 12:03:48 PM
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Update. The given diameters do not generate the required orifice area.
 Unresolved. Per the drainage report area per row is 6.62 sq inches (use rectangular openings)

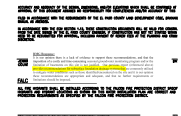


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this is only equal to 1.62 sq inch



Subject: Image
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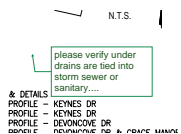


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Subject: Image
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dsdparsons (4)



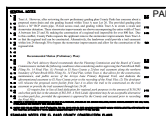
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Page Label: [1] SI01
Lock: Unlocked
Author: dsdparsons
Date: 2/25/2021 8:44:48 AM
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please verify under drains are tied into storm sewer or sanitary....



Subject: Callout
Page Label: [1] SI01
Lock: Unlocked
Author: dsdparsons
Date: 2/25/2021 8:45:28 AM
Status:
Color: ■
Layer:
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it is recommended CGS please add...



Subject: Image
Page Label: [1] SI01
Lock: Unlocked
Author: dsdparsons
Date: 2/25/2021 9:40:56 AM
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Color: ■
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Please address Parks coments in both prelim and plat docs.



Subject: Callout
Page Label: [1] SI01
Lock: Unlocked
Author: dsdparsons
Date: 2/25/2021 9:41:13 AM
Status:
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