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TABULATION OF LENGTH & DESIGN DATA

STATION	FEET		MAJOR STRUCTURE
	ROADWAY		
BEGIN CONSTRUCTION STA. 10+70 STA. 12+92	460		36
END CONSTRUCTION STA. 15+30			
TOTAL	460		
SUMMARY OF PROJECT LENGTH	FEET	MILES	
ROADWAY (NET LENGTH)	460	X	
STRUCTURE (NET LENGTH)	36	N/A	
PROJECT GROSS LENGTH	460	X	

DESIGN DATA

MAXIMUM RADIUS OF CURVE	MATCH EXISTING
MAXIMUM GRADE	MATCH EXISTING
MINIMUM S.S.D. HORIZONTAL	MATCH EXISTING
MINIMUM S.S.D. VERTICAL	>305'
MAXIMUM DESIGN SPEED	40 MPH
2015 DESIGN TRAFFIC	AADT = N/A
2035 DESIGN TRAFFIC	AADT = N/A
DHV TRUCKS	N/A
CLEAR ZONE DISTANCE (TANGENT)	12'
CONSTRUCTION CLEAR ZONE	2'

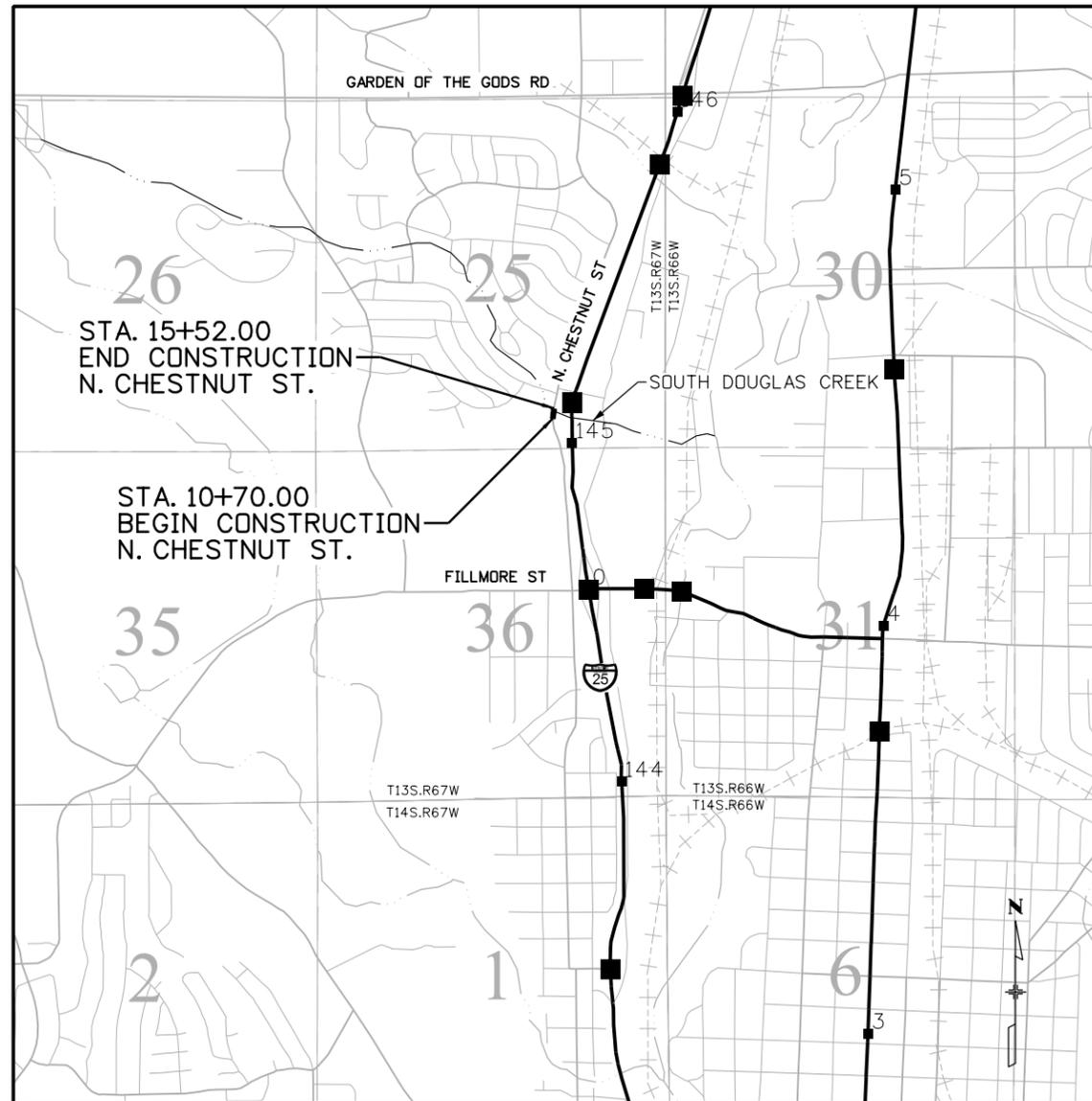
PROJECT DESCRIPTION:

THIS PROJECT CONSISTS OF THE REPLACEMENT OF THE EXISTING 96" CORRUGATED METAL PIPE (CMP) CARRYING SOUTH DOUGLAS CREEK UNDER NORTH CHESTNUT STREET. IMPROVEMENTS INCLUDE 36' WIDE x 11' HIGH CONCRETE 3-SIDED CULVERT, HEADWALLS, WINGWALLS, GRADING, RIP RAP, ROAD AND TRAIL PAVING, CURB, SIDEWALK, GUARDRAIL, SIGNING, STRIPING AND UTILITIES.

CITY OF COLORADO SPRINGS

NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK CULVERT REPLACEMENT

COLORADO SPRINGS, CO



VICINITY MAP



REVIEWED BY

CITY ENGINEERING DIVISION	
BY: _____	DATE _____
CITY STREETS DIVISION	
BY: _____	DATE _____
PARKS AND RECREATION DIVISION	
BY: _____	DATE _____
SPRINGS UTILITIES WASTEWATER	
BY: _____	DATE _____
SPRINGS UTILITIES WATER	
BY: _____	DATE _____
SPRINGS UTILITIES GAS	
BY: _____	DATE _____
SPRINGS UTILITIES ELECTRIC	
BY: _____	DATE _____
TRANSMISSION	
BY: _____	DATE _____
DISTRIBUTION	
BY: _____	DATE _____
SPRINGS UTILITIES TELECOMMUNICATIONS	
BY: _____	DATE _____
CENTURY LINK	
BY: _____	DATE _____
COMCAST	
BY: _____	DATE _____



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THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGNER ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

SCALE: HORIZ. N/A VERT. N/A
BENCHMARK: _____

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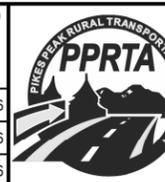
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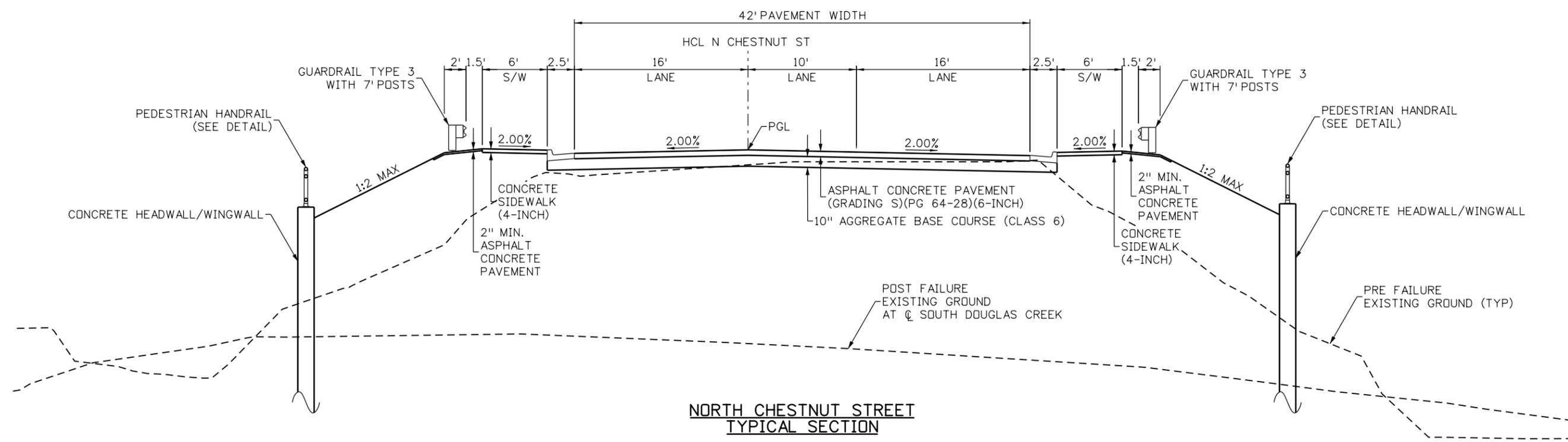
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Cadd: RD Date: 1/20/16
Checker: TCH Date: 1/29/16



PROJECT: CHESTNUT CULVERT REPLACEMENT
STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
COVER SHEET
DRAINAGE BASIN: SOUTH DOUGLAS CREEK
JOB NO. _____ SHEET 1 OF 63

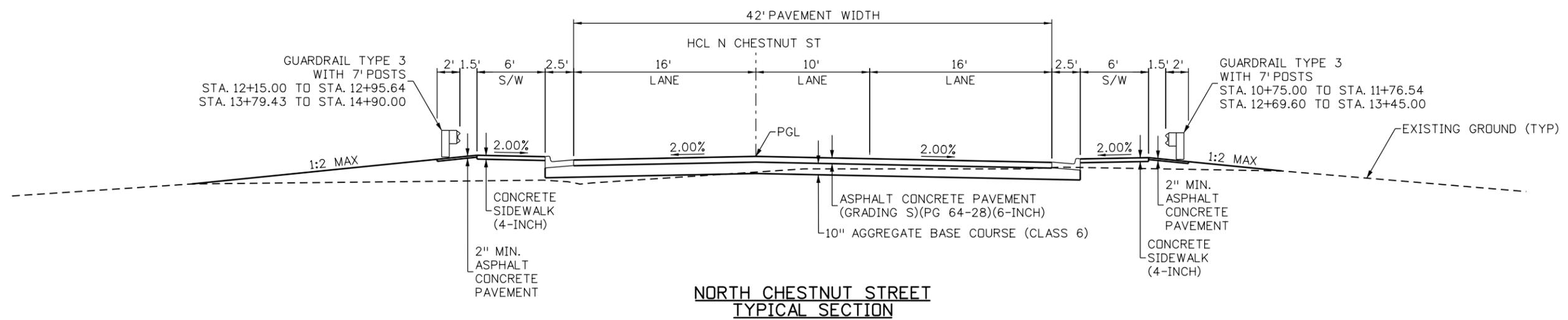
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**NORTH CHESTNUT STREET
TYPICAL SECTION**

STA 12+95.64 TO 13+79.43 LT STA 11+76.54 TO 12+69.60 RT



**NORTH CHESTNUT STREET
TYPICAL SECTION**

STA 11+70.00 TO 12+95.64 LT STA 11+70.00 TO 11+76.54 RT
 STA 13+79.43 TO 15+30.00 LT STA 12+69.60 TO 15+32.00 RT

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 Colorado Springs, CO 80903
 Phone: 719-385-5918

CITY OF COLORADO SPRINGS

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 Subset Sheets: 1 OF 5

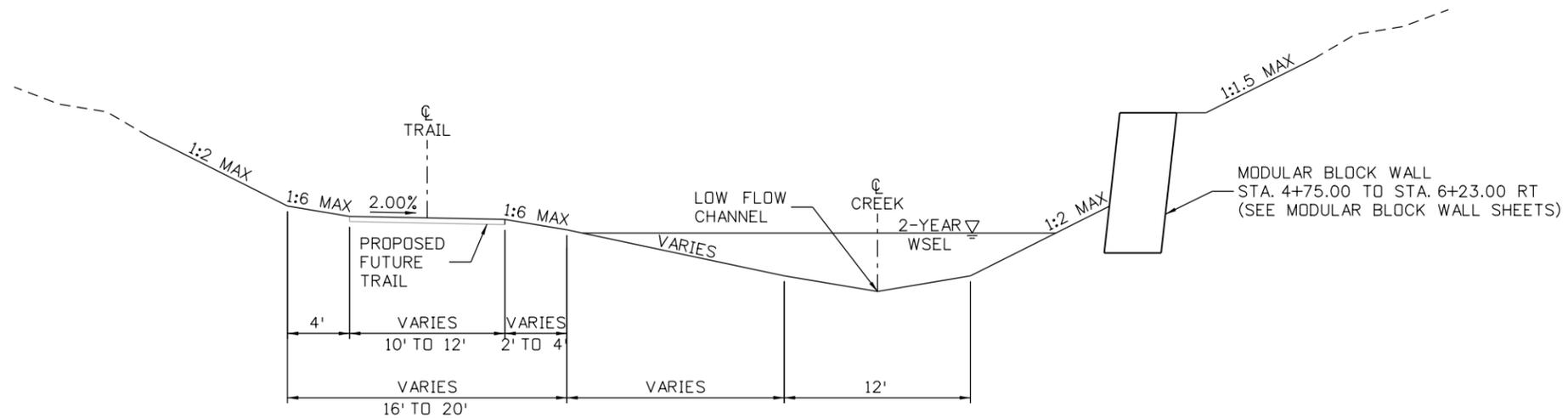
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 Colorado Springs, CO 80920
 Phone: 719-272-8800

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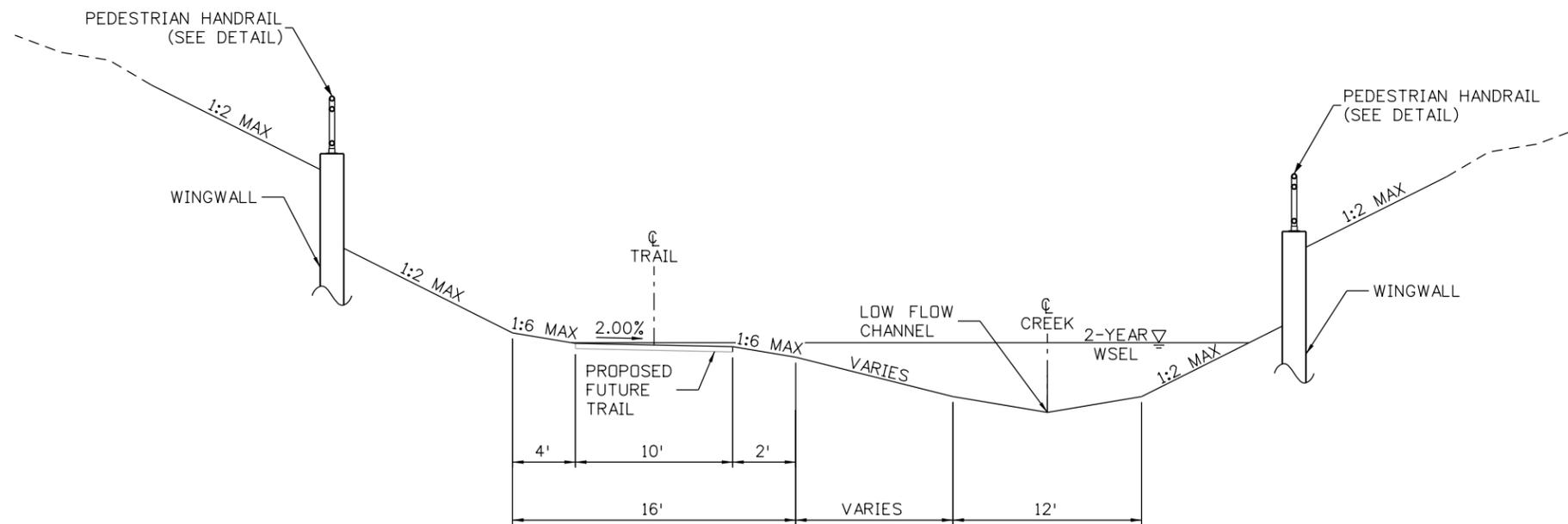


PROJECT: CHESTNUT CULVERT REPLACEMENT
 STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
 ROADWAY TYPICAL SECTIONS
 DRAINAGE BASIN: SOUTH DOUGLAS CREEK
 JOB NO. _____ SHEET 3 OF 63

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CREEK TYPICAL SECTION
 LOOKING DOWNSTREAM
 STA. 4+40.00 TO STA. 6+17.00



CREEK TYPICAL SECTION
 LOOKING DOWNSTREAM
 STA 6+17 TO 6+32.30

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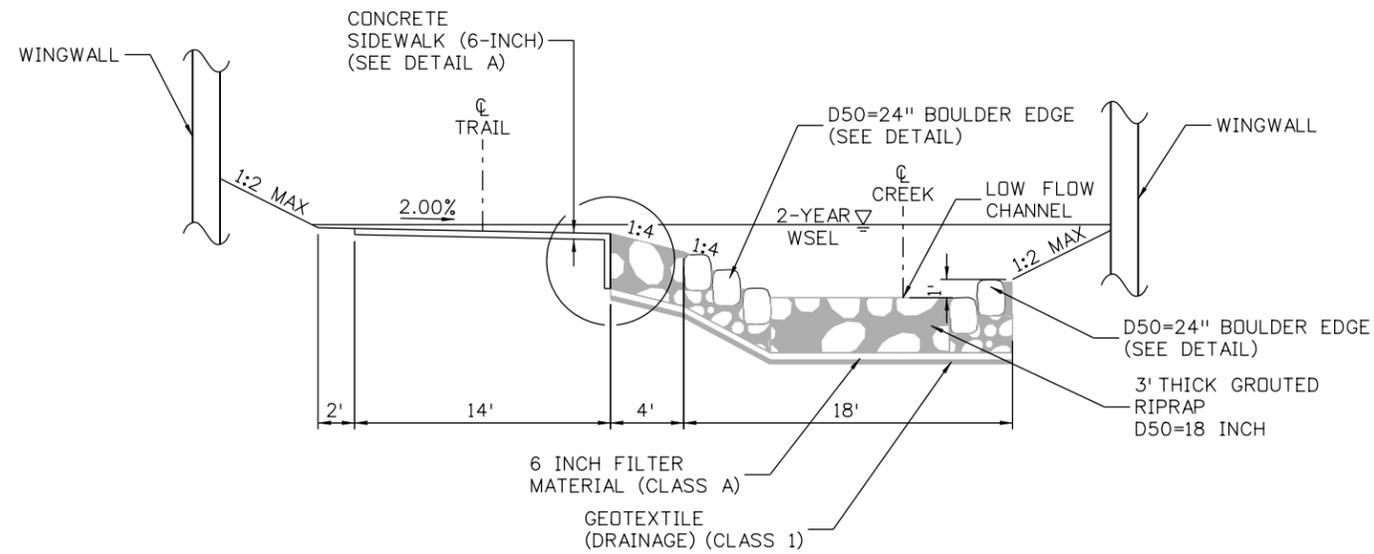

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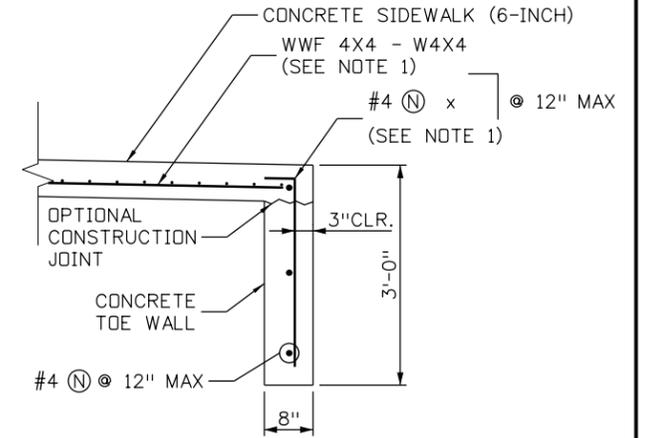


PROJECT: CHESTNUT CULVERT REPLACEMENT
 STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
 CREEK TYPICAL SECTIONS
 DRAINAGE BASIN: SOUTH DOUGLAS CREEK
 JOB NO. _____ SHEET 4 OF 63

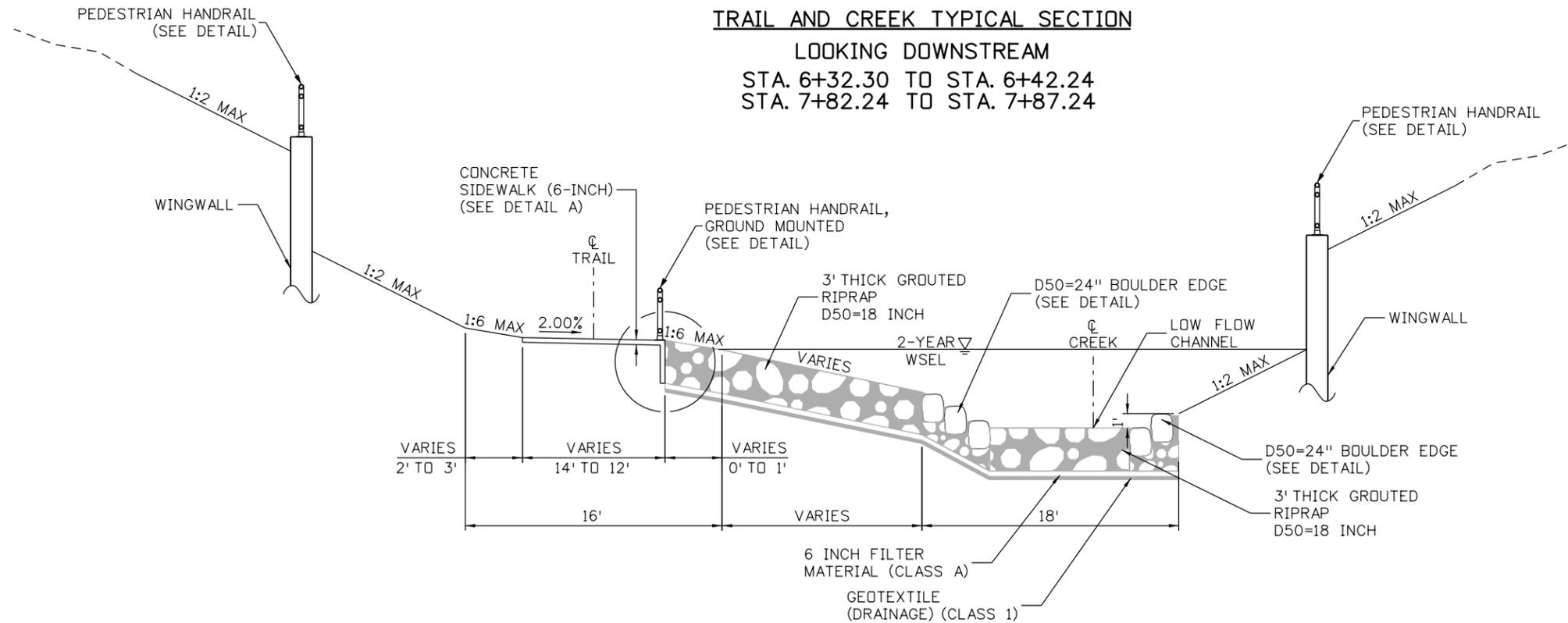
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TRAIL AND CREEK TYPICAL SECTION
LOOKING DOWNSTREAM
STA. 6+32.30 TO STA. 6+42.24
STA. 7+82.24 TO STA. 7+87.24



DETAIL A
CONCRETE SIDEWALK TOE WALL



TRAIL AND CREEK TYPICAL SECTION
LOOKING DOWNSTREAM
STA 7+87.24 TO 8+18.00

NOTES

1. WELDED WIRE FABRIC (WWF) AND #4 REINFORCING SHALL BE INCLUDED IN THE COST OF CONCRETE SIDEWALK (6 INCH).

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 Phone: 719-272-8800

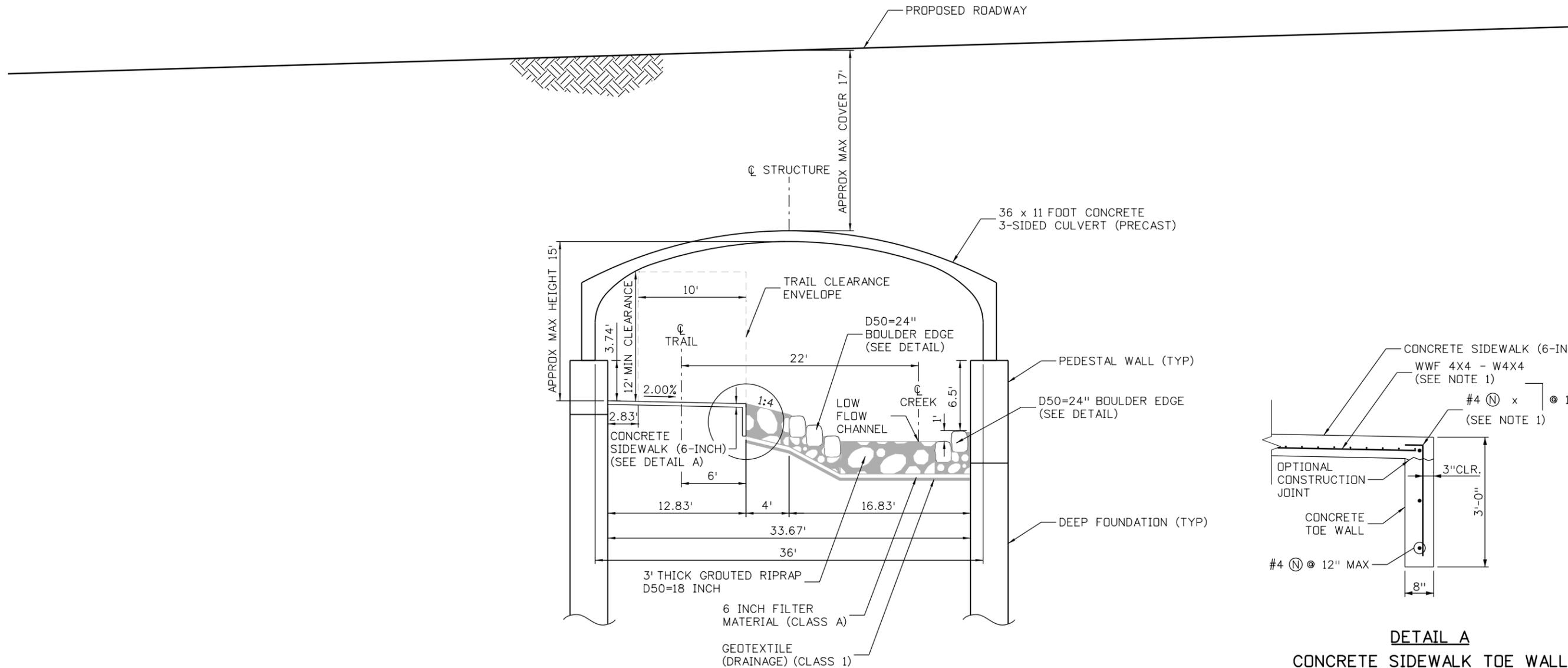
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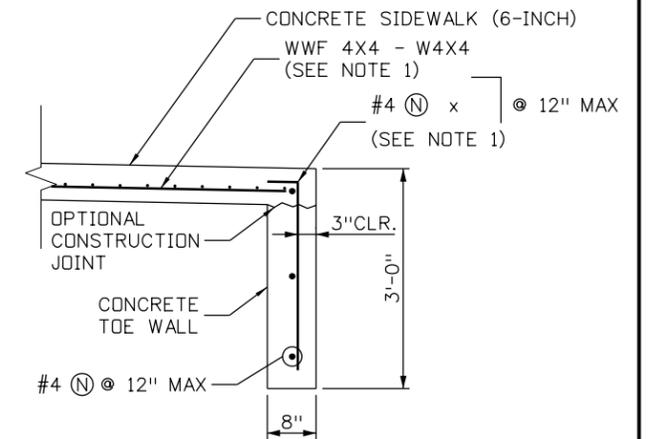


PROJECT:	CHESTNUT CULVERT REPLACEMENT
STREET:	NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
	CREEK TYPICAL SECTIONS
DRAINAGE BASIN:	SOUTH DOUGLAS CREEK
JOB NO. _____	SHEET 5 OF 63

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UNDERPASS TYPICAL SECTION
 LOOKING DOWNSTREAM
 STA. 6+42.24 TO STA. 7+82.24



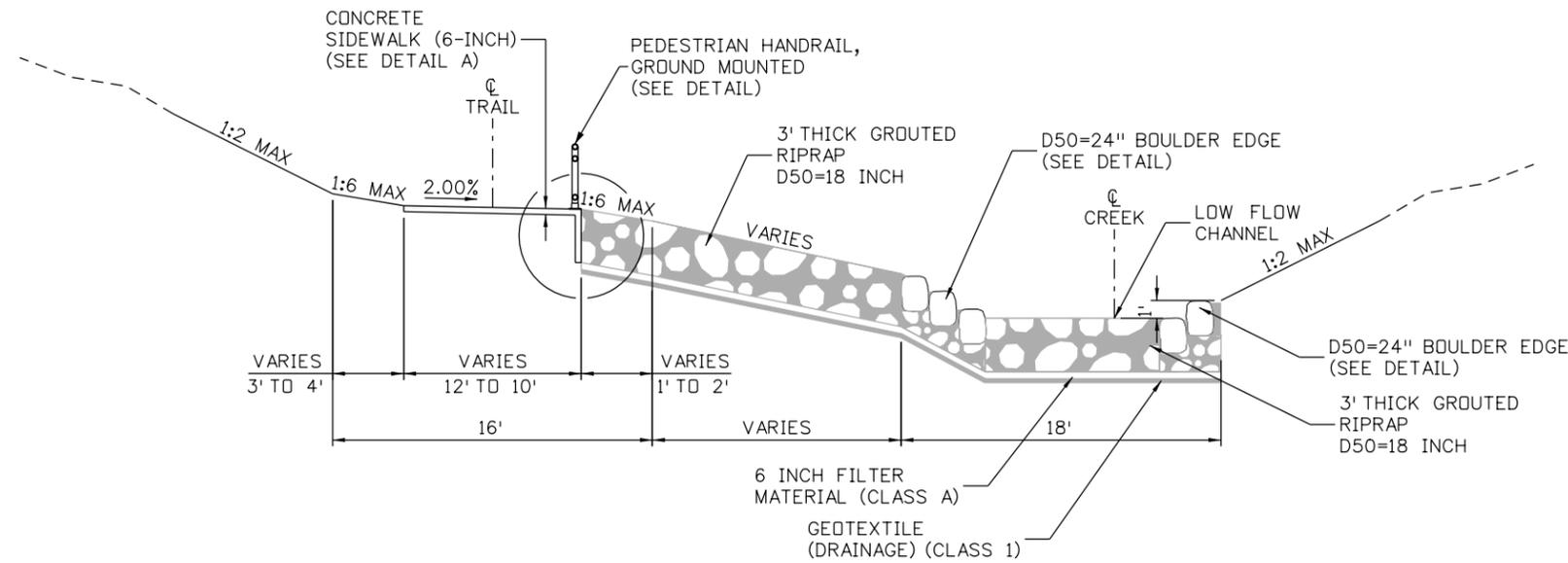
DETAIL A
 CONCRETE SIDEWALK TOE WALL

NOTES

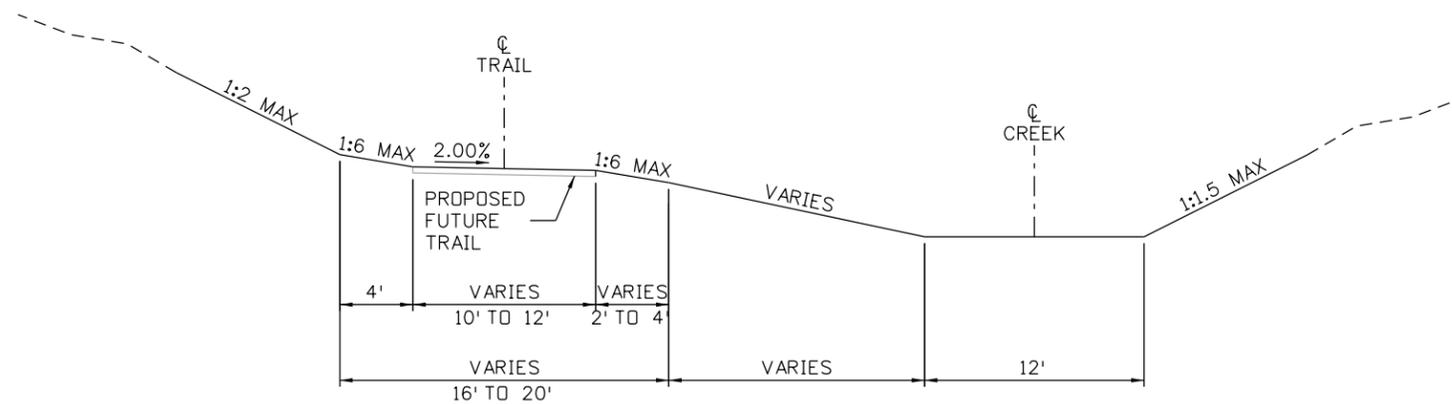
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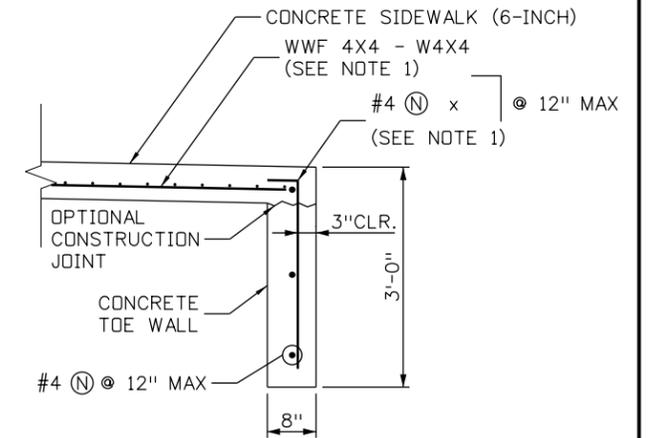
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**TRAIL AND CREEK TYPICAL SECTION
LOOKING DOWNSTREAM
STA 8+18.00 TO 8+55.60**



**CREEK TYPICAL SECTION
LOOKING DOWNSTREAM
STA. 8+55.60 TO STA. 9+45.00**



**DETAIL A
CONCRETE SIDEWALK TOE WALL**

NOTES

1. WELDED WIRE FABRIC (WWF) AND #4 REINFORCING SHALL BE INCLUDED IN THE COST OF CONCRETE SIDEWALK (6 INCH).

Computer File Information Creation Date: 01/15/2016 Last Modification Date: 2/1/2016 File Name: Chestnut_DES_TypSect05.dgn Sheet Model Name: Microstation Ver:	STATEMENT: THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGNER ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.	SCALE: HORIZ. N/A VERT. N/A BENCHMARK:	Index of Revisions <table border="1"> <thead> <tr> <th>No.</th> <th>Description</th> <th>Date</th> </tr> </thead> <tbody> <tr><td>1</td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td></tr> </tbody> </table>	No.	Description	Date	1			2			3			4			 30 S Nevada Colorado Springs, CO 80903 Phone: 719-385-5918	 2060 Briargate Parkway, Suite 120 Colorado Springs, CO 80920 Phone: 719-272-8800		PROJECT: CHESTNUT CULVERT REPLACEMENT STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK CREEK TYPICAL SECTIONS DRAINAGE BASIN: SOUTH DOUGLAS CREEK JOB NO. _____ SHEET <u>7</u> OF <u>63</u>
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SUMMARY OF APPROXIMATE QUANTITIES			
ITEM NO.	DESCRIPTION	QTY	UNIT
1	CLEARING	1	LS
2	UNCLASSIFIED EXCAVATION	11160	CY
3	STRUCTURE EXCAVATION	5282	CY
4	STRUCTURE BACKFILL (CLASS 1)	4089	CY
5	STRUCTURE BACKFILL (CLASS 2)	1796	CY
6	REMOVAL OF ASPHALT MAT	1082	SY
7	REMOVAL OF TREE	1	EA
8	REMOVAL OF GUARDRAIL TYPE 3	220	LF
9	REMOVAL OF CURB & GUTTER	295	LF
10	REMOVAL OF FENCE (CHAIN LINK)	80	LF
11	REMOVAL OF FENCE (WOOD)	68	LF
12	REMOVE & RESET FENCE (CHAIN LINK)	209	LF
13	REMOVE & RESET SIGN	2	EA
14	REMOVAL OF SIDEWALK	174	SY
15	REMOVAL OF PIPE (96-INCH CORRUGATED METAL PIPE)	25	LF
16	REMOVAL OF PIPE (48-INCH CORRUGATED PLASTIC PIPE)	146	LF
17	REMOVAL OF PIPE (36-INCH CORRUGATED PLASTIC PIPE)	66	LF
18	REMOVAL OF MISCELLANEOUS UTILITIES	1	LS
19	REMOVAL OF WATERLINE (12-INCH)	21	LF
20	REMOVAL OF WATERLINE (24-INCH)	50	LF
21	REMOVAL OF 8-INCH SANITARY LINE	213	LF
22	REMOVAL OF DRIVEWAY	555	SF
23	AGGREGATE BASE COURSE (CLASS 6)	534	CY
24	ASPHALT CONCRETE PAVEMENT (GRADING S) (PG 64-28)(6-INCH)	1711	SY
25	CONCRETE SIDEWALK (4-INCH)	437	SY
26	CONCRETE SIDEWALK (8-INCH)	56	CY
27	CONCRETE PEDESTRIAN RAMP	580	SF
28	CONCRETE DRIVEWAY	69	SY
29	CURB AND GUTTER TYPE 2	757	LF
30	ENVIRONMENTAL HEALTH AND SAFETY MANAGEMENT	1	FA

SUMMARY OF APPROXIMATE QUANTITIES			
ITEM NO.	DESCRIPTION	QTY	UNIT
31	RIPRAP (12-INCH)	35	CY
32	RIPRAP (24-INCH)	65	CY
33	GROUTED RIPRAP (18-INCH)	385	CY
34	GROUTED BOULDER (24-INCH)	95	SY
35	24-INCH GROUTED BOULDER EDGING	935	LF
36	STORM WATER TREATMENT DEVICE	1	EA
37	REINFORCED CONCRETE PIPE (12-INCH)	8	LF
38	PEDESTRIAN HANDRAIL	306	LF
39	MODULAR BLOCK WALL	1434	SF
40	CONCRETE CLASS D (BRIDGE)	959	CY
41	STRUCTURAL CONCRETE COATING	1830	SY
42	REINFORCING STEEL (EPOXY COATED)	37617	LB
43	REINFORCING STEEL	77837	LB
44	36X11 FOOT CONCRETE 3-SIDED CULVERT (PRECAST)	1	LS
45	DRILLED CAISSON (42-INCH)	598	LF
46	1 1/2-INCH PLASTIC ELECTRICAL CONDUIT	160	LF
47	GUARDRAIL TYPE 3	385	LF
48	END ANCHORAGE TYPE 3D	4	EA
49	72-INCH CHAIN-LINK FENCE (COMPLETE IN PLACE)	210	LF
50	SIGN PANEL (CLASS 2)	21	SF
51	STEEL TUBING SIGN POST (2-INCH X 2-INCH)	44	LF
52	FIELD OFFICE	1	LS
53	CONSTRUCTION SURVEYING	1	LS
54	RIGHT-OF-WAY SURVEY MONUMENT	1	LS
55	MOBILIZATION	1	LS
56	PROPERTY RESTORATION	1	FA
57	EPOXY PAVEMENT MARKING	4	GAL
58	WORK ZONE TRAFFIC CONTROL	1	LS
59	PREFORMED THERMOPLASTIC PAVEMENT MARKING	140	SF
60	VEHICLE TRACKING CONTROL	1	EA

SUMMARY OF APPROXIMATE QUANTITIES			
ITEM NO.	DESCRIPTION	QTY	UNIT
61	CONSTRUCTION FENCE	680	LF
62	TEMPORARY SLOPE DRAIN	100	LF
63	EROSION CONTROL BLANKET	3300	SY
64	INLET PROTECTION (CURB SOCK)	10	LF
65	ROCK SOCK/WATTLE	65	LF
66	SEDIMENT CONTROL LOG	1420	LF
67	STOCKPILE MANAGEMENT WITH PROTECTION	1	EA
68	CONCRETE WASHOUT AREA	1	EA
69	PERMANENT SEEDING	1	AC
70	EROSION CONTROL SUPERVISOR	25	DAYS
71	SANITARY SEWER PVC PIPE (8-INCH)	318	LF
72	CONNECT TO EXISTING SANITARY MANHOLE	2	EA
73	4-FOOT DIAMETER SANITARY MANHOLE	1	EA
74	INSTALL CONTROLLED LOW-STRENGTH MATERIAL ENCASUREMENT	6	CY
75	12-INCH PVC WATERLINE (W/ RESTRAINED JOINTS)	142	LF
76	12-INCH MJ SOLID SLEEVE	5	EA
77	DISINFECTION SUPPORT	1	LS
78	24-INCH STEEL WATERLINE (W/ WELDED JOINTS)	187	LF
79	BUTT STRAP CONNECTION TO EXISTING 24-INCH STEEL WATERLINE	4	EA
80	24-INCH DISHED BULKHEADS (TEMPORARY)	2	EA
81	HYDROSTATIC TESTING	1	LS

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30 S Nevada
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2060 Briargate Parkway, Suite 120
Colorado Springs, CO 80920
Phone: 719-272-8800

Designer: RD Date: 1/13/16
Cadd: JM Date: 1/13/16
Checker: TCH Date: 1/29/16



PROJECT: CHESTNUT CULVERT REPLACEMENT
STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
SUMMARY OF APPROXIMATE QUANTITIES
DRAINAGE BASIN: SOUTH DOUGLAS CREEK
JOB NO. _____ SHEET 8 OF 63

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TABULATION OF EARTHWORK	
UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE)(NET)	CUBIC YARDS
ROADWAY	1,560
ARCHWAY	3,200
TRAILS, WINGWALLS & EXCAVATION SLOPES	6,400
TOTAL	11,160
FOR INFORMATION ONLY	
EMBANKMENT MATERIAL (COMPLETE IN PLACE)	CUBIC YARDS
ROADWAY	6,027
TRAILS, WINGWALLS & EXCAVATION SLOPES	830
TOTAL	6,857
COMPACTION (AASHTO T 180)	CUBIC YARDS
TOTAL EMBANKMENT (NET)	6,857
TOTAL	6,857
EARTHWORK QUANTITIES BALANCE	
UNCLASSIFIED EXCAVATION	CUBIC YARDS
TOTAL UNCLASSIFIED EXCAVATION	11,160
EXCESS FROM 3-SIDED CULVERT	5,282
TOTAL	16,442
EMBANKMENT (NET)	
TOTAL	6,857
EMBANKMENT (NET) TIMES COMPACTION FACTOR (1.10)	
TOTAL	7,543
EXCESS EXCAVATION	
EXCESS EXCAVATION TO BECOME PROPERTY OF CONTRACTOR	8,899
TOTAL	8,899
EMBANKMENT FACTORED PLUS EXCESS EXCAVATION	
TOTAL	16,442

Computer File Information Creation Date: 01/15/2016 Last Modification Date: 2/1/2016 File Name: Chestnut_DES_Tabs02.dgn Sheet Model Name: Microstation Ver:	STATEMENT: THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGNER ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.	SCALE: HORIZ. N/A VERT. N/A BENCHMARK: _____ _____ _____ _____	Index of Revisions <table border="1"> <thead> <tr> <th>No.</th> <th>Description</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> </tr> <tr> <td>4</td> <td></td> <td></td> </tr> </tbody> </table>	No.	Description	Date	1			2			3			4			 30 S Nevada Colorado Springs, CO 80903 Phone: 719-385-5918	 2060 Briargate Parkway, Suite 120 Colorado Springs, CO 80920 Phone: 719-272-8800		PROJECT: CHESTNUT CULVERT REPLACEMENT STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK TAB SHEET 2 DRAINAGE BASIN: SOUTH DOUGLAS CREEK JOB NO. _____ SHEET 10 OF 63
	No.	Description	Date																			
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	2																					
	3																					
4																						
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Sheet Subset: TABULATIONS	Cadd: RD Date: 1/28/16																					
Subset Sheets: 2 OF 3	Checker: TCH Date: 1/29/16																					

TABULATION OF UTILITY ITEMS

UTILITY STATION	TO	UTILITY STATION	Side	SANITARY SEWER PVC PIPE (8-INCH)	CONNECT TO EXISTING SANITARY MANHOLE	4-FOOT DIAMETER SANITARY MANHOLE	INSTALL CONTROLLED LOW-STRENGTH MATERIAL ENCASEMENT	12-INCH PVC WATERLINE (W/ RESTRAINED JOINTS)	12-INCH MJ SOLID SLEEVE	DISINFECTION SUPPORT	24-INCH STEEL WATERLINE (W/ WELDED JOINTS)	BUTT STRAP CONNECTION TO EXISTING 24-INCH STEEL WATERLINE	24-INCH DISHED BULKHEADS (TEMPORARY)	HYDROSTATIC TESTING	REMARKS
N CHESTNUT				LF	EA	EA	CY	LF	EA	LS	LF	EA	EA	LS	
21+00		23+00		200	1										
23+00						1									
23+00		24+17		118	1										
21+53		21+73					6								
31+03		31+08						5							
31+32		32+65						132							
33+69		33+74						5							
									5						
										1					
40+95		42+60									175				
43+57		43+69									12				
												4			
													2	1	
TOTAL				318	2	1	6	142	5	1	187	4	2	1	

TABULATION OF REMOVAL ITEMS

STATION	TO	STATION	SIDE	REMOVAL OF ASPHALT MAT	REMOVAL OF GUARDRAIL TYPE 3	REMOVAL OF CURB & GUTTER	REMOVAL OF FENCE (CHAIN LINK)	REMOVAL OF FENCE (WOOD)	REMOVE & RESET FENCE (CHAIN LINK)	REMOVAL OF SIDEWALK	REMOVAL OF PIPE (96-INCH CMP)	REMOVAL OF PIPE (48-INCH CPP)	REMOVAL OF PIPE (36-INCH CPP)	REMOVAL OF MISCELLANEOUS UTILITIES	REMOVAL OF WATERLINE (12-INCH)	REMOVAL OF WATERLINE (24-INCH)	REMOVAL OF 8-INCH SANITARY LINE	REMOVAL OF DRIVEWAY	REMARKS	
N CHESTNUT				SY	LF	LF	LF	LF	LF	SY	LF	LF	LF	LS	LF	LF	LF	LF	SF	
10+73		11+93	RT		120															
11+70		12+18	LT							27										
11+70		12+18	LT			48														
11+70		12+03	RT							11										
11+70		12+03	RT			33														
11+70		12+13	LT & RT	181																
11+95		12+15	LT				20													
13+50		13+90	RT																266	
13+08		15+07	RT						209											
13+32		13+50	RT							15										
13+60		15+32	LT & RT	901																
13+80		14+40	LT				60													
13+82		15+10	LT							60										
13+87		14+87	LT		100															
13+90		14+50	RT							28										
14+26		15+36	RT			110														
14+40		15+08	LT					68												
14+48		15+52	LT			104														
14+50		14+92	RT																	289
14+92		15+36	RT							33										
UTILITIES														1						
SANITARY WATERLINE																		213		
STORMWATER										25	146	66			21	50				
Totals				1,082	220	295	80	68	209	174	25	146	66	1	21	50	213	555		

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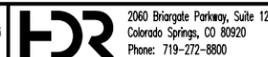
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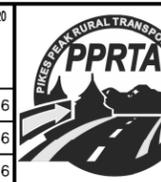


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 Colorado Springs, CO 80903
 Phone: 719-385-5918



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PROJECT: CHESTNUT CULVERT REPLACEMENT
 STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
 TAB SHEET 3
 DRAINAGE BASIN: SOUTH DOUGLAS CREEK
 JOB NO. _____ SHEET 11 OF 63

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General Notes

1. The Coordinates of the GPS points were adjusted from NAD 83 (1992) Colorado Central Zone State Plane Coordinate System to the Modified Grid System using the following parameters:

Elevation Scale Factor: 0.999707075
 Grid Scale Factor: 0.999943305
 Truncation: North: 1,300,000 East: 3,100,000

Combined Scale factor: 0.999650397

2. Project Elevations are GNSS derived and based on CDDT Control Point 4520, I-25 M.P. 155.0, Orthometric Elevation = 6205.80'

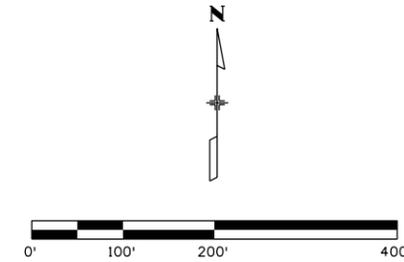
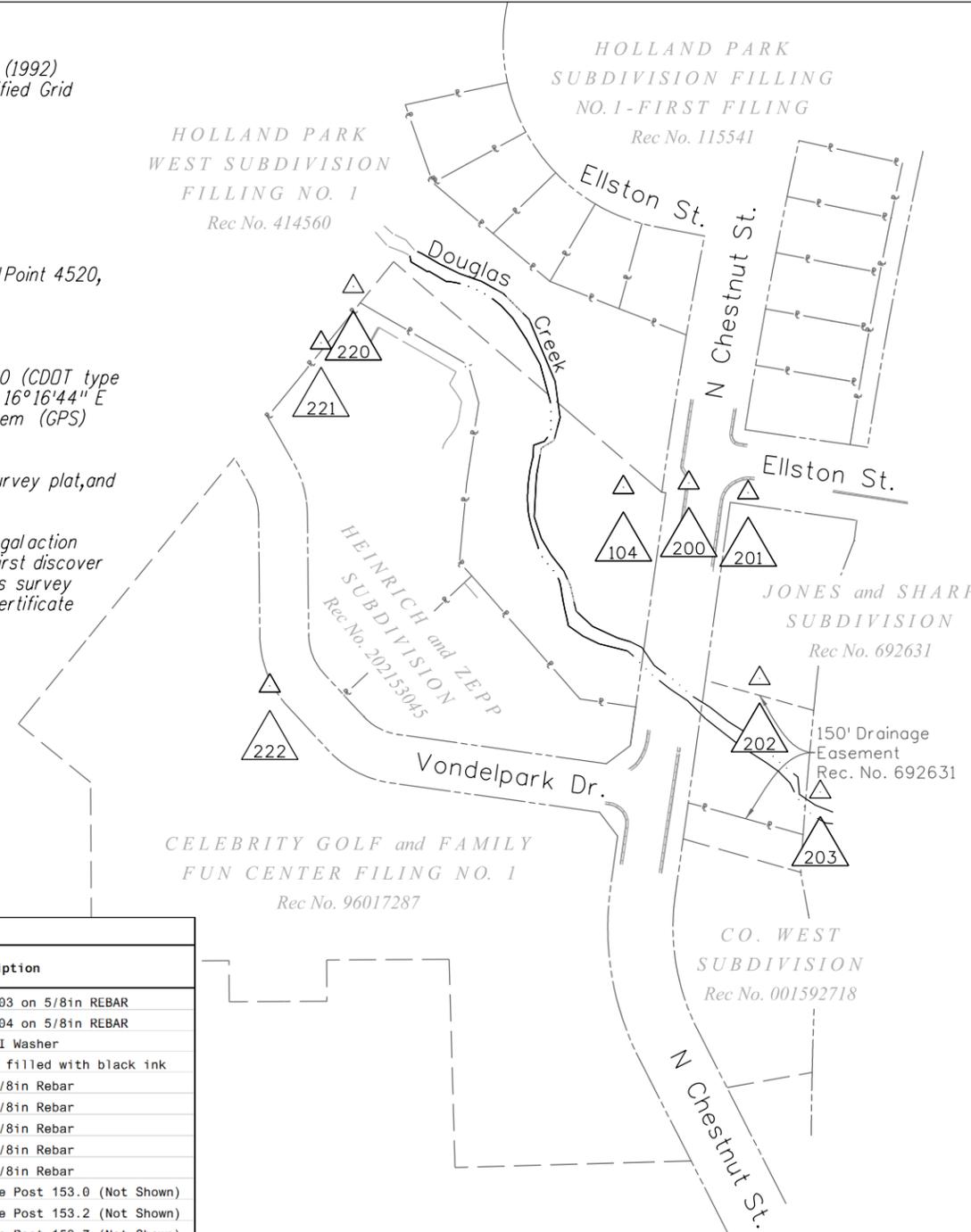
3. Project coordinates shown in U.S. Survey Feet.

4. Basis of Bearings: The line between Control Points 4000 and 4520 (CDDT type II monuments with 3 1/4" aluminum caps) was determined to be N 16°16'44" E grid bearing by calculated coordinates from Global Positioning System (GPS) survey performed September 2015.

5. This Project Control Diagram is not a boundary survey, or land survey plat, and is prepared for the City of Colorado Springs.

6. NOTICE: According to Colorado Law, you must commence any legal action based upon any defect in this survey with three years after you first discover such defect. In no event may action based upon any defect in this survey may be commenced more than ten years from the date of the certificate shown hereon.

Douglas Creek at Chestnut Street Project Control Diagram



Graphic Scale: 1" = 200' U.S. Survey Feet

Legend	
	CDOT M.P. Monument
	Project Control Point
	Right of Way Line
	Property Line
	Lot Line
	Easement Line
	Edge of Water

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PROJECT COORDINATE TABLE

Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
103	83932.71	90597.26	6173.36	CH2M 2.5in Alum Cap CP 103 on 5/8in REBAR
104	83974.18	89760.00	6197.37	CH2M 2.5in Alum Cap CP 104 on 5/8in REBAR
200	83979.60	89840.14	6197.44	1in Mag-Nail w/ 1.5in FGI Washer
201	83967.67	89913.00	6196.84	Chiseled 'X' in concrete filled with black ink
202	83740.28	89926.95	6193.38	FGI Red Control Cap on 5/8in Rebar
203	83601.25	90001.45	6163.92	FGI Red Control Cap on 5/8in Rebar
220	84219.97	89428.72	6201.81	FGI Red Control Cap on 5/8in Rebar
221	84151.02	89389.06	6203.00	FGI Red Control Cap on 5/8in Rebar
222	83731.13	89326.24	6225.57	FGI Red Control Cap on 5/8in Rebar
4000	80991.02	89027.33	6257.53	CDOT 3.25in Alum Cap Mile Post 153.0 (Not Shown)
4001	80986.85	89469.60	6217.19	CDOT 3.25in Alum Cap Mile Post 153.2 (Not Shown)
4042	80575.33	92530.85	6121.53	CDOT 3.25in Alum Cap Mile Post 153.7 (Not Shown)
4480	81991.49	90388.92	6169.77	CDOT 3.25in Alum Cap Mile Post 154.4 (Not Shown)
4520	84031.11	90280.09	6205.80	CDOT 3.25in Alum Cap Mile Post 155.0

GEODETIC COORDINATE TABLE

Point No.	Geodetic Coordinates NAD-83 (XX)		Elev Height (NAVD88) (m)	Ortho Height (m)	Mapping Angle	Grid Scale Factor	NAD 83 (XX) Zone XXXX		Description
	Latitude(N)	Longitude(W)					SP Northing(m)	SP Easting(m)	
	4000	N 38°52'34.50237"					W 104°50'23.72110"	1890.639	
4001	N 38°52'34.42952"	W 104°50'18.13103"	1878.332	1895.004	1.002585159	-6°06'59"	420778.477	971812.411	CDOT 3.25in Alum Cap Mile Post 153.2 (Not Shown)
4042	N 38°52'30.14212"	W 104°49'39.47394"	1849.080	1865.847	1.002585444	-6°06'35"	420653.089	972745.156	CDOT 3.25in Alum Cap Mile Post 153.7 (Not Shown)
4480	N 38°52'44.29011"	W 104°50'06.41784"	1863.852	1880.549	1.002581410	-6°06'53"	421084.586	972092.523	CDOT 3.25in Alum Cap Mile Post 154.4 (Not Shown)
4520	N 38°53'04.45098"	W 104°50'07.60570"	1874.847	1891.533	1.002574525	-6°06'55"	421706.045	972059.362	CDOT 3.25in Alum Cap Mile Post 155.0

SURVEYOR STATEMENT (SURVEY CONTROL DIAGRAM)

I, Steven D. Parker, a professional land surveyor licensed in the State of Colorado, do hereby state to the City of Colorado Springs that based upon my knowledge, information and belief, research, calculations and evaluation of the survey evidence were performed and this Right-of-Way Plan was prepared under my responsible charge in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.

PLS No. 38053



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Unit Information	

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 BENCHMARK: _____

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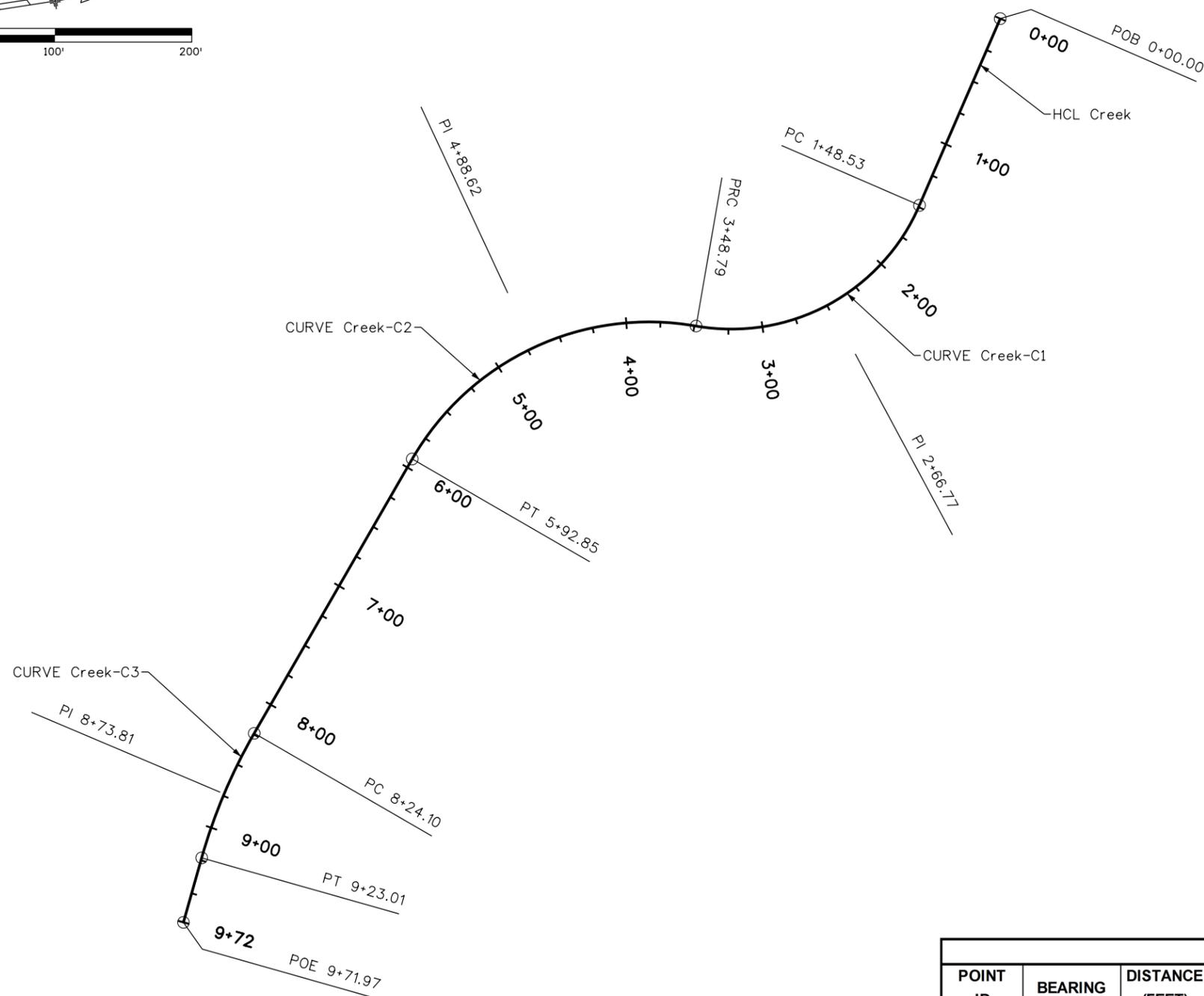
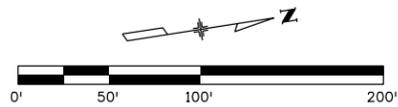
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PROJECT:	CHESTNUT CULVERT REPLACEMENT
STREET:	NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
SURVEY CONTROL	
DRAINAGE BASIN:	DOUGLAS CREEK
JOB NO. XXXXXXXX	SHEET 12 OF 63



CREEK GEOMETRIC LAYOUT - PLAN

CONTROL LINE DATA - Creek											
POINT ID	BEARING	DISTANCE (FEET)	NORTHING (Y)	EASTING (X)							
					PC	PI	PT	DELTA	R	L	T
POB	S 57°45'17" E	148.53'	84282.50	89473.06		0+00.00					
Creek-C1	S 18°44'11" W		84140.17	89698.68	1+48.53	2+66.77	3+48.79	76°29'28" RT	150.00'	200.25'	118.23'
Creek-C2	S 51°10'59" E	231.25'	83895.78	89615.79	3+48.79	4+88.62	5+92.85	28°38'52" LT	200.00'	244.06'	139.83'
Creek-C3	S 65°21'02" E	48.96'	83632.01	89943.65	8+24.10	8+73.81	9+23.01	14°10'04" LT	400.00'	98.91'	49.71'
POE			83590.86	90033.33		9+71.97					

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 Phone: 719-272-8800

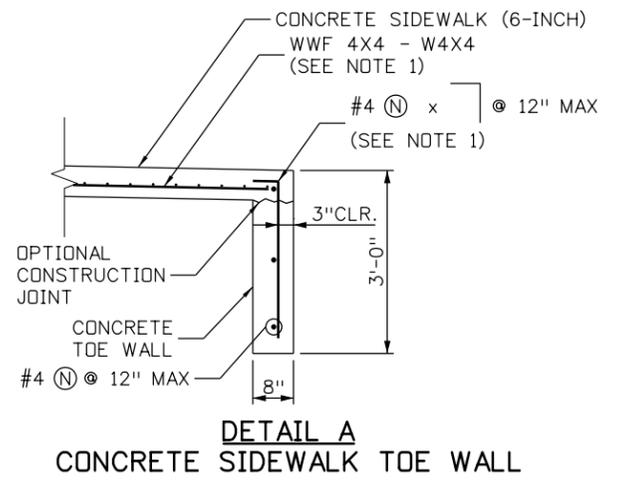
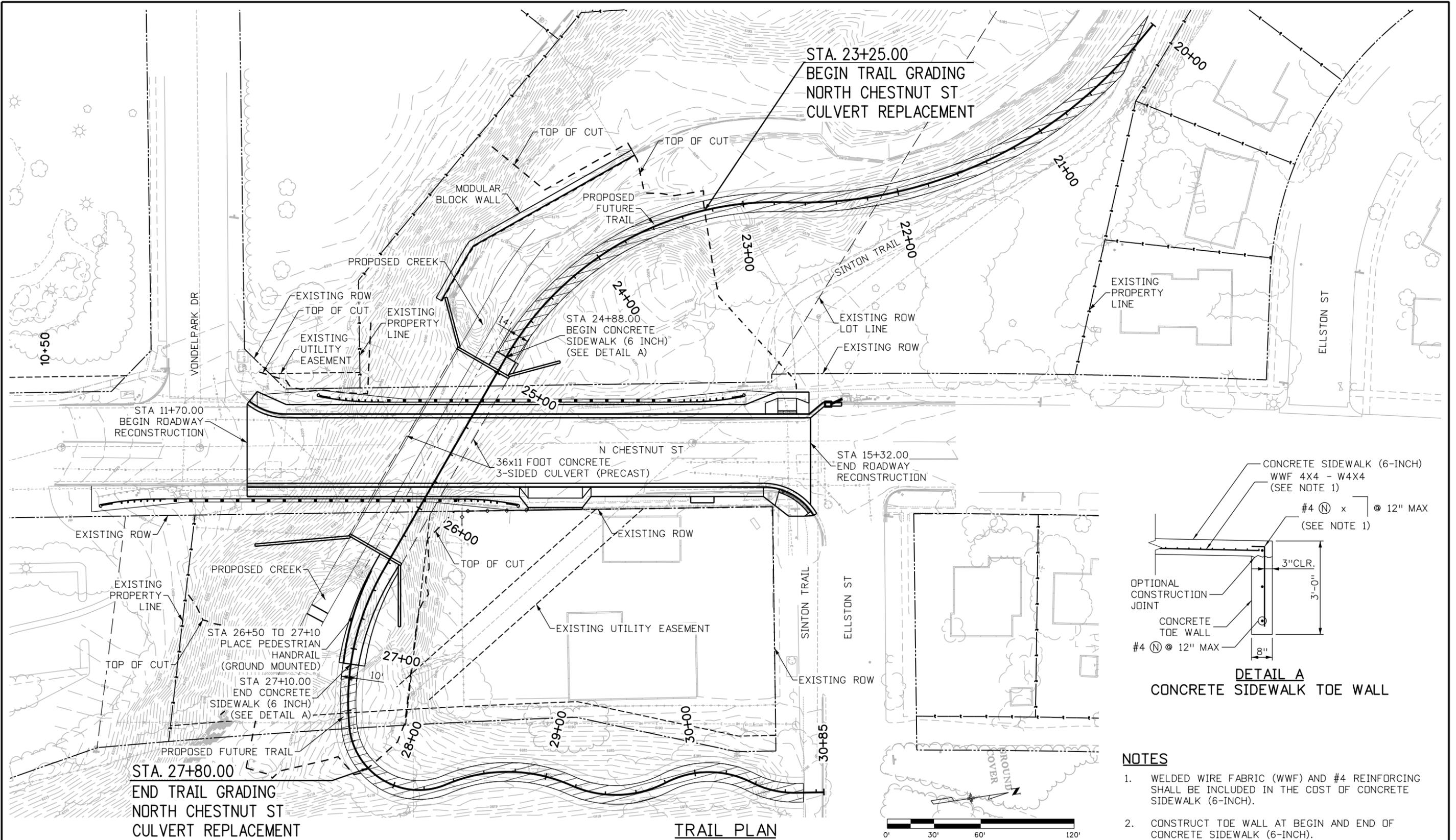
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 Checker: TCH Date: 1/29/16



PROJECT: CHESTNUT CULVERT REPLACEMENT
 STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
 CREEK GEOMETRIC LAYOUT
 DRAINAGE BASIN: SOUTH DOUGLAS CREEK
 JOB NO. _____ SHEET 13 OF 63

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- NOTES**
1. WELDED WIRE FABRIC (WWF) AND #4 REINFORCING SHALL BE INCLUDED IN THE COST OF CONCRETE SIDEWALK (6-INCH).
 2. CONSTRUCT TOE WALL AT BEGIN AND END OF CONCRETE SIDEWALK (6-INCH).



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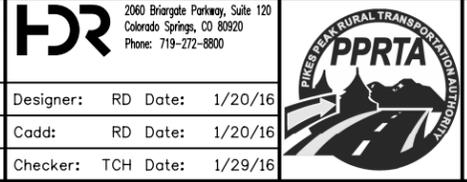
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Phone: 719-385-5918

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Colorado Springs, CO 80920
Phone: 719-272-8800

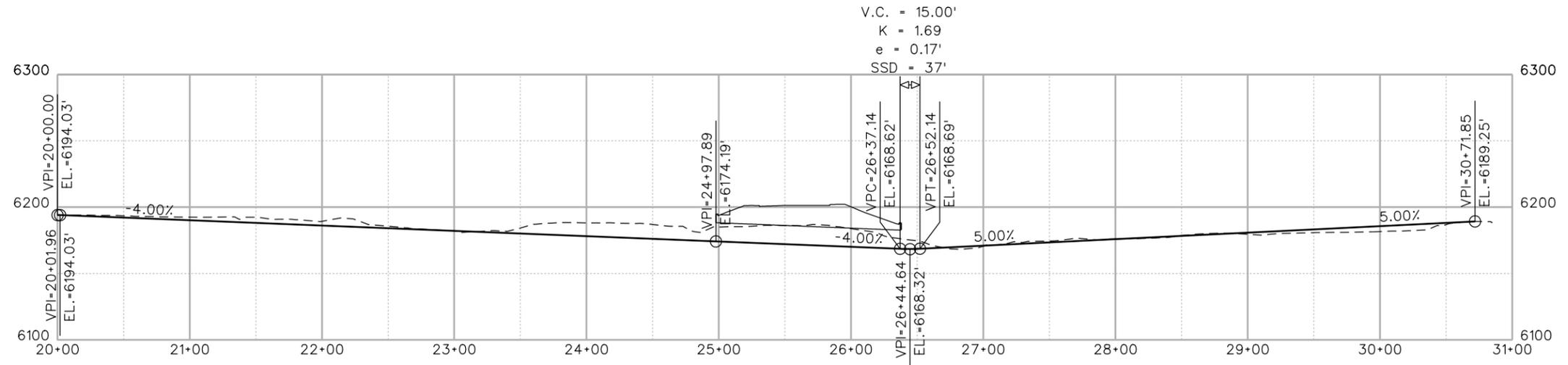
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PROJECT: CHESTNUT CULVERT REPLACEMENT
STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
TRAIL PLAN
DRAINAGE BASIN: SOUTH DOUGLAS CREEK
JOB NO. _____ SHEET 16 OF 63

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TRAIL PROFILE

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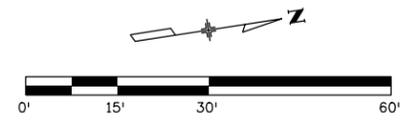
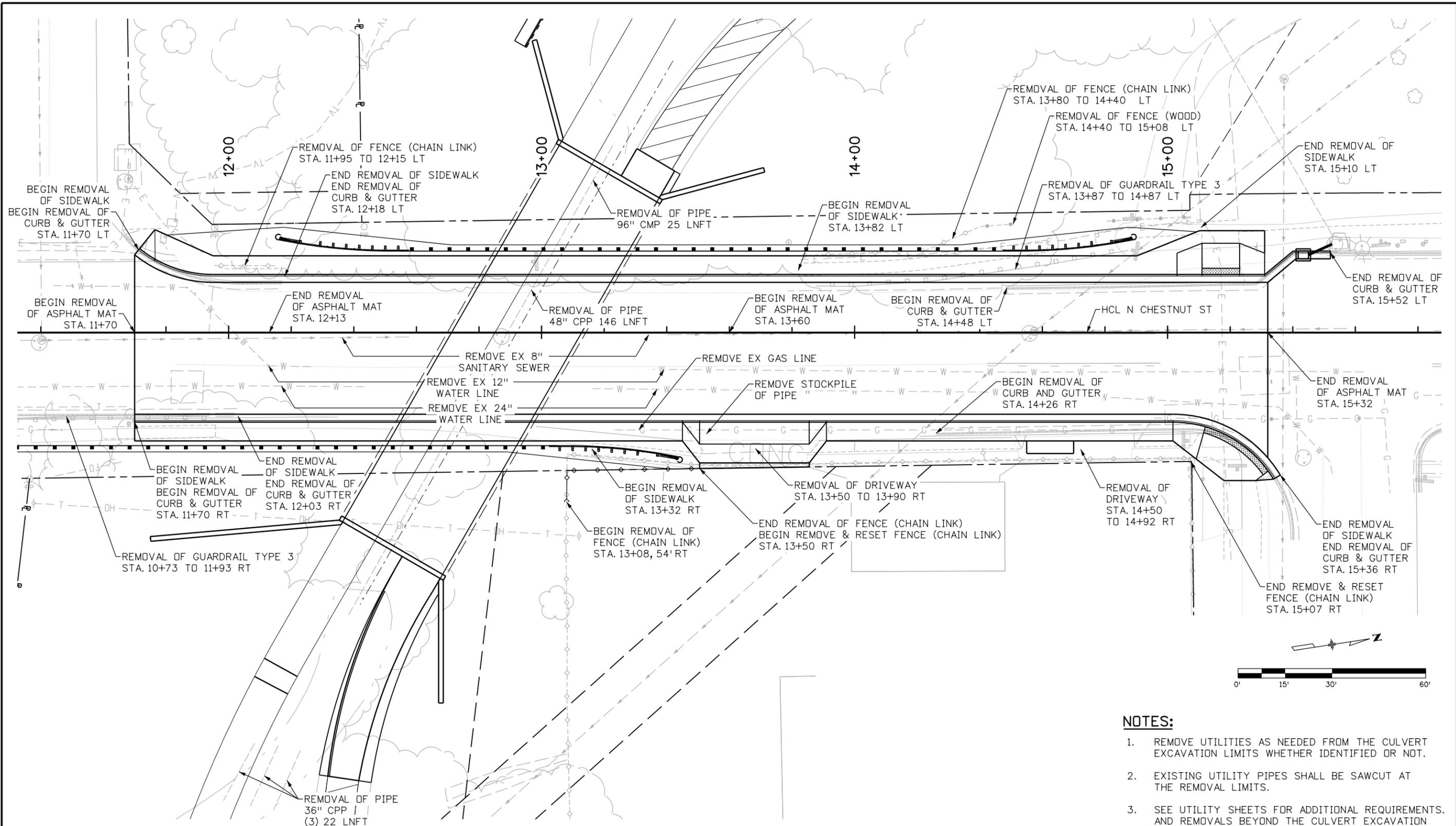
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PROJECT: CHESTNUT CULVERT REPLACEMENT
 STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
 DRAINAGE BASIN: SOUTH DOUGLAS CREEK
 JOB NO. _____ SHEET 17 OF 63

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NOTES:

1. REMOVE UTILITIES AS NEEDED FROM THE CULVERT EXCAVATION LIMITS WHETHER IDENTIFIED OR NOT.
2. EXISTING UTILITY PIPES SHALL BE SAWCUT AT THE REMOVAL LIMITS.
3. SEE UTILITY SHEETS FOR ADDITIONAL REQUIREMENTS. AND REMOVALS BEYOND THE CULVERT EXCAVATION LIMITS.

REMOVAL PLAN

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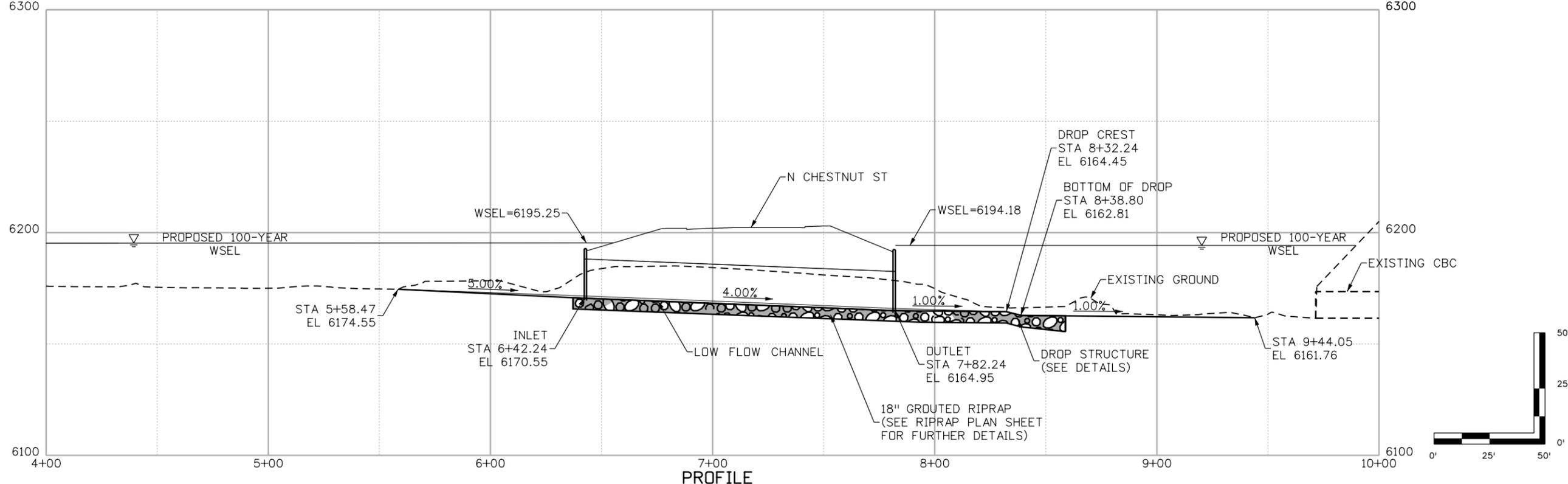
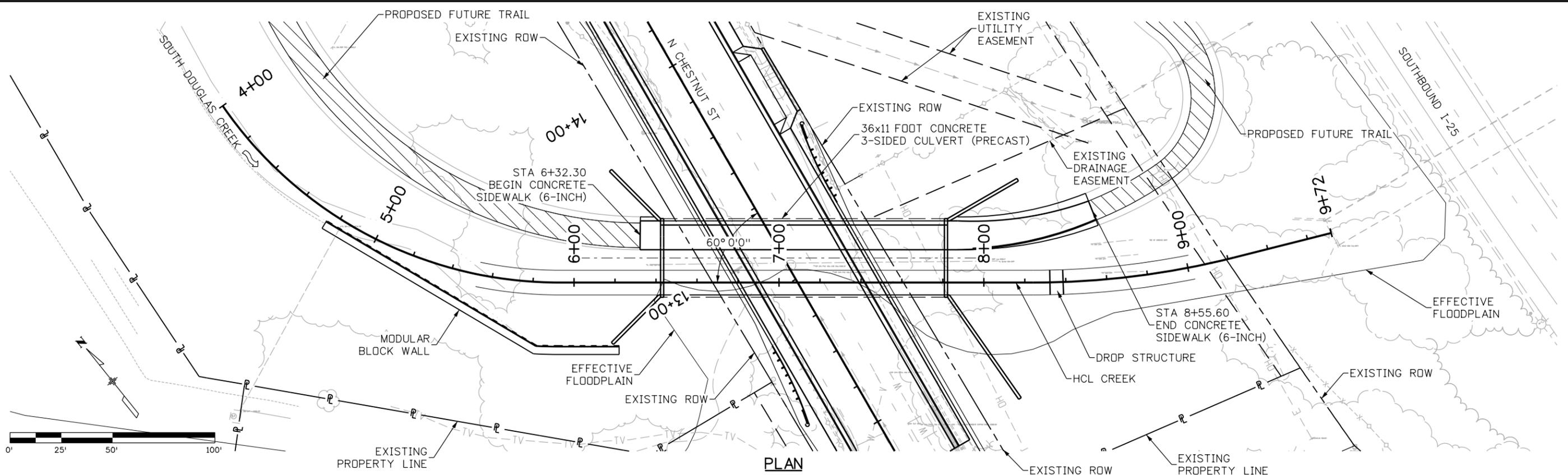
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PROJECT: CHESTNUT CULVERT REPLACEMENT
 STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
 REMOVAL PLAN
 DRAINAGE BASIN: SOUTH DOUGLAS CREEK
 JOB NO. _____ SHEET 20 OF 63

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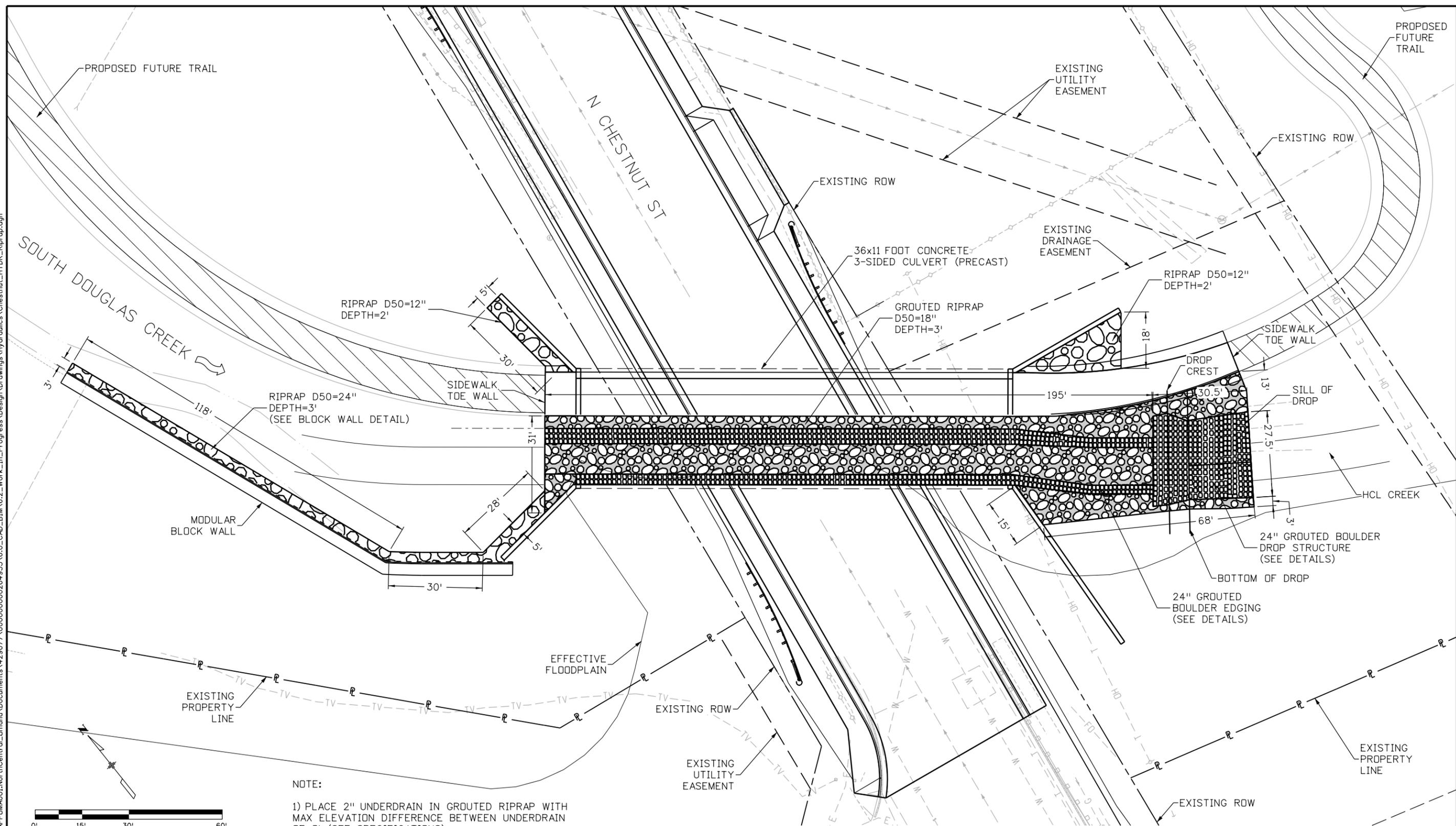
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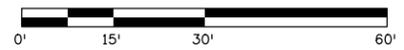


PROJECT: CHESTNUT CULVERT REPLACEMENT
 STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
 CULVERT PLAN AND PROFILE
 DRAINAGE BASIN: SOUTH DOUGLAS CREEK
 JOB NO. _____ SHEET 22 OF 63

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NOTE:
 1) PLACE 2" UNDERDRAIN IN GROUTED RIPRAP WITH MAX ELEVATION DIFFERENCE BETWEEN UNDERDRAIN OF 3'. (SEE SPECIFICATIONS)



RIP RAP PLAN

Computer File Information	
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File Name:	Chestnut_HYDR_Riprap.dgn
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STATEMENT:
 THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGNER ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

SCALE: HORIZ. 1"=30' VERT. N/A
BENCHMARK:

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CITY OF COLORADO SPRINGS
 30 S Nevada
 Colorado Springs, CO 80903
 Phone: 719-385-5918

HR
 2060 Briargate Parkway, Suite 120
 Colorado Springs, CO 80920
 Phone: 719-272-8800

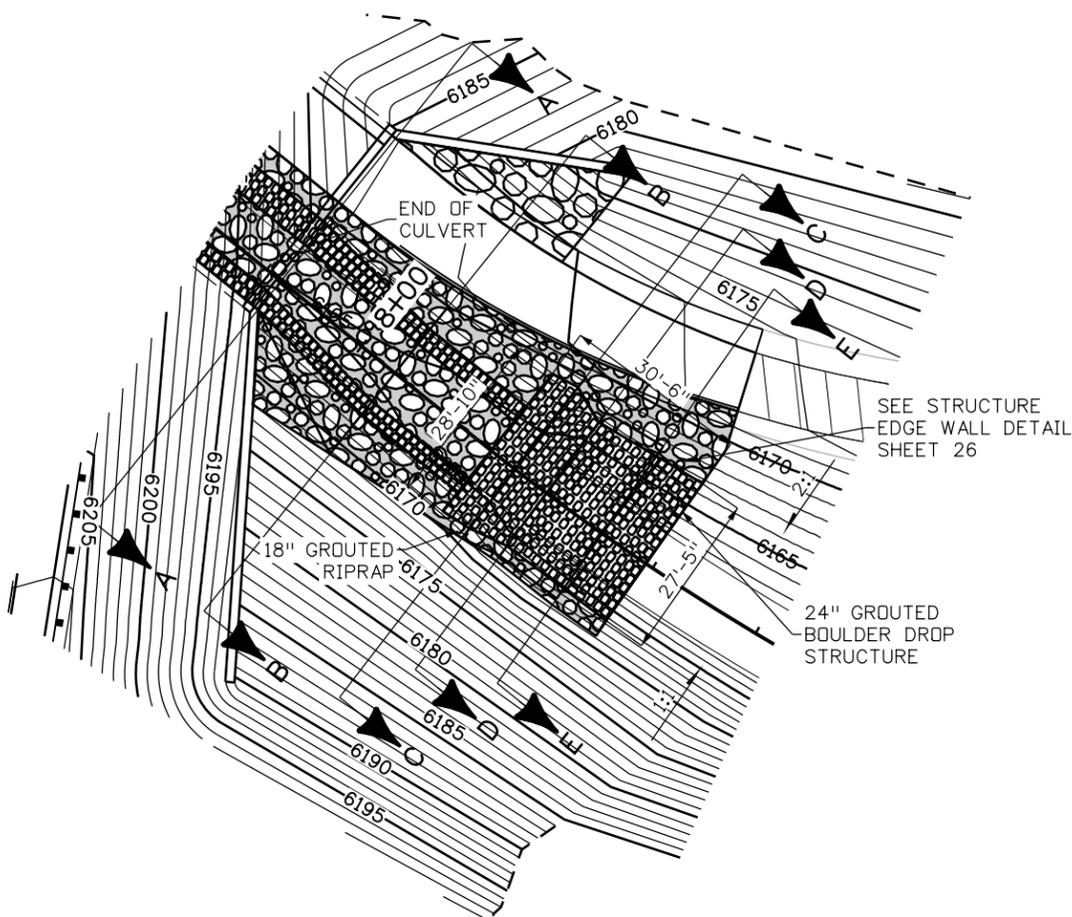
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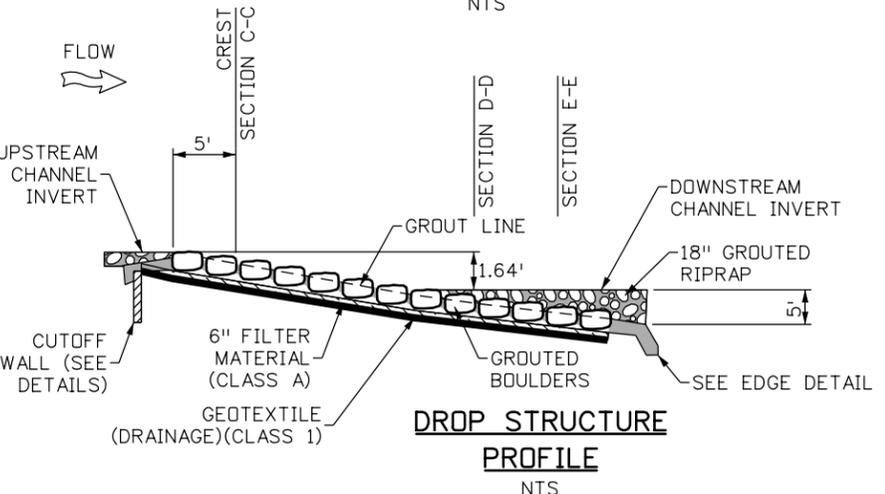


PROJECT: CHESTNUT CULVERT REPLACEMENT
STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
RIPRAP PLAN
DRAINAGE BASIN: SOUTH DOUGLAS CREEK
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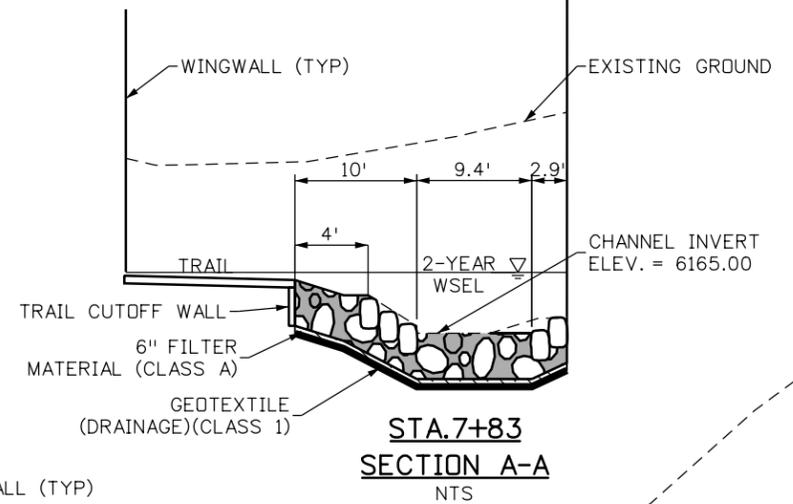
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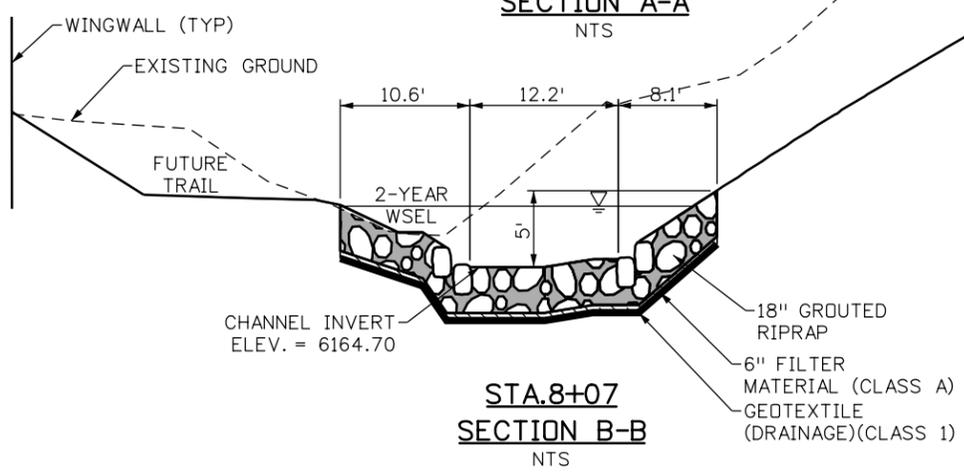
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PLAN VIEW
STA 7+82 TO 8+59
NTS**



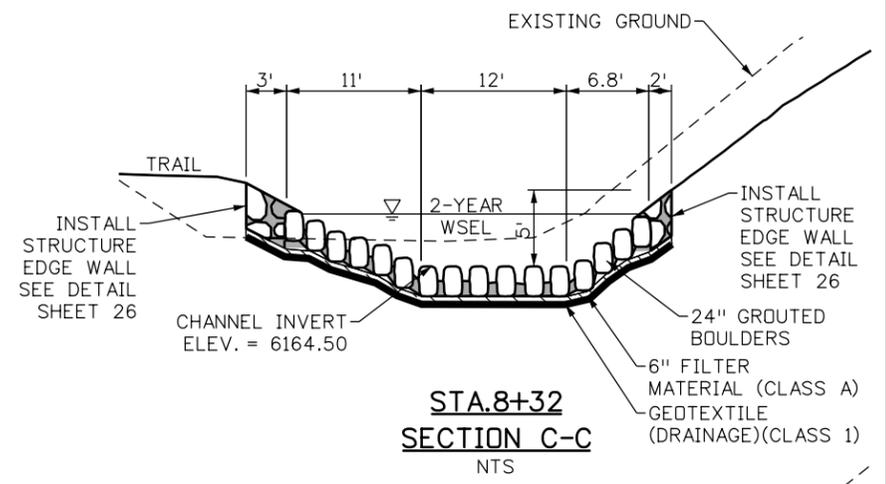
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PROFILE
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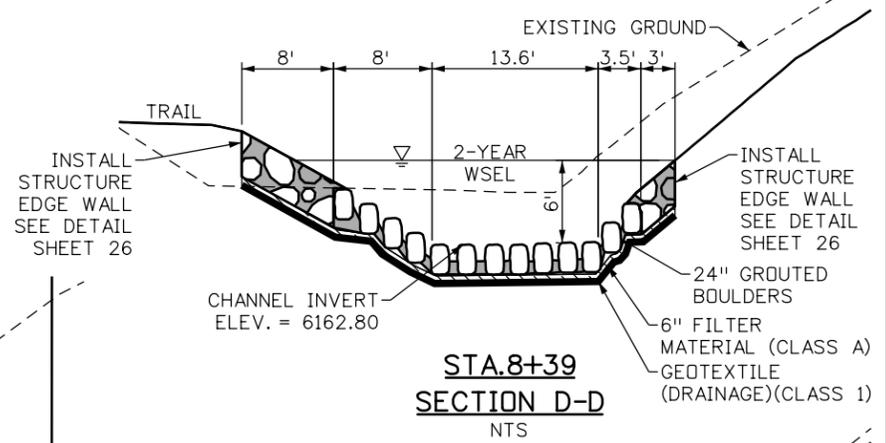
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SECTION A-A
NTS**



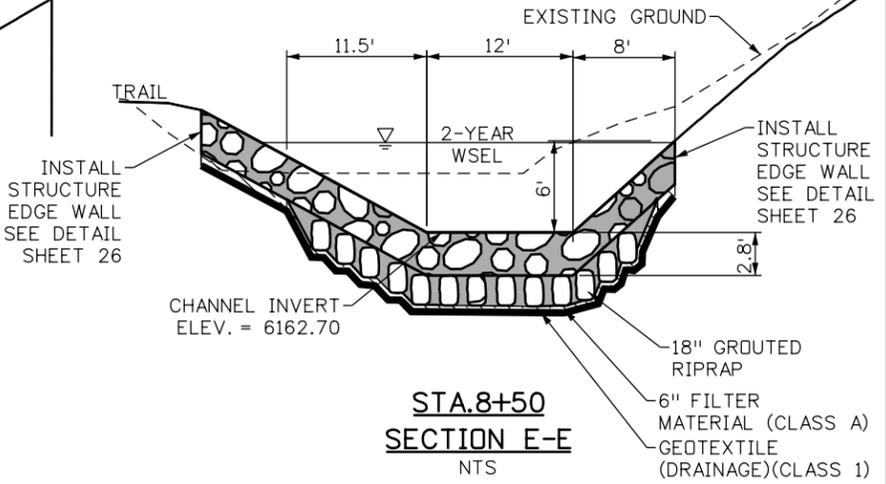
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**STA.8+32
SECTION C-C
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**STA.8+39
SECTION D-D
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**STA.8+50
SECTION E-E
NTS**

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SCALE: HORIZ. VERT.
BENCHMARK: _____

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CITY OF COLORADO SPRINGS

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Colorado Springs, CO 80903
Phone: 719-385-5918

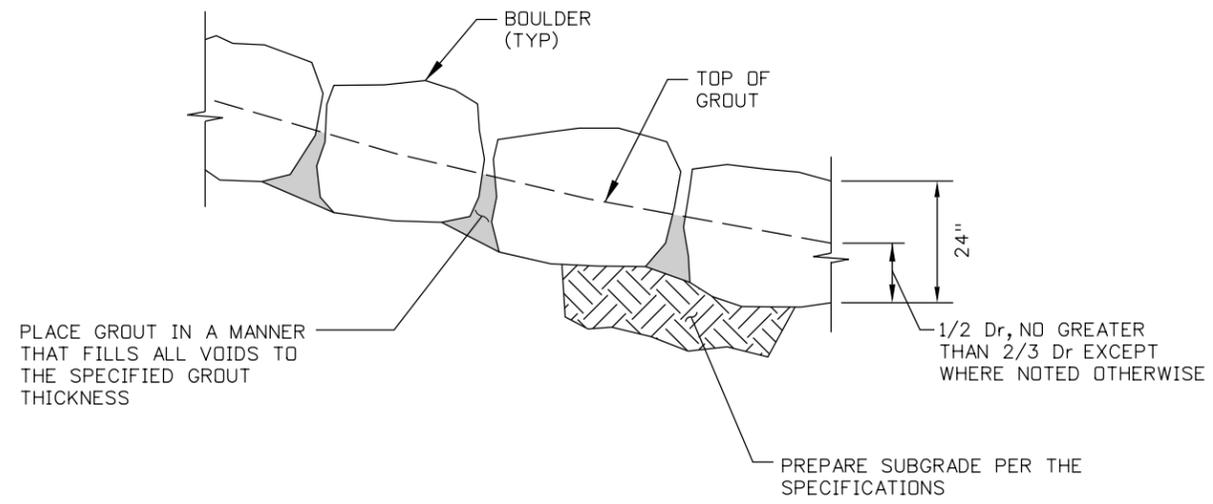
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Colorado Springs, CO 80920
Phone: 719-272-8800

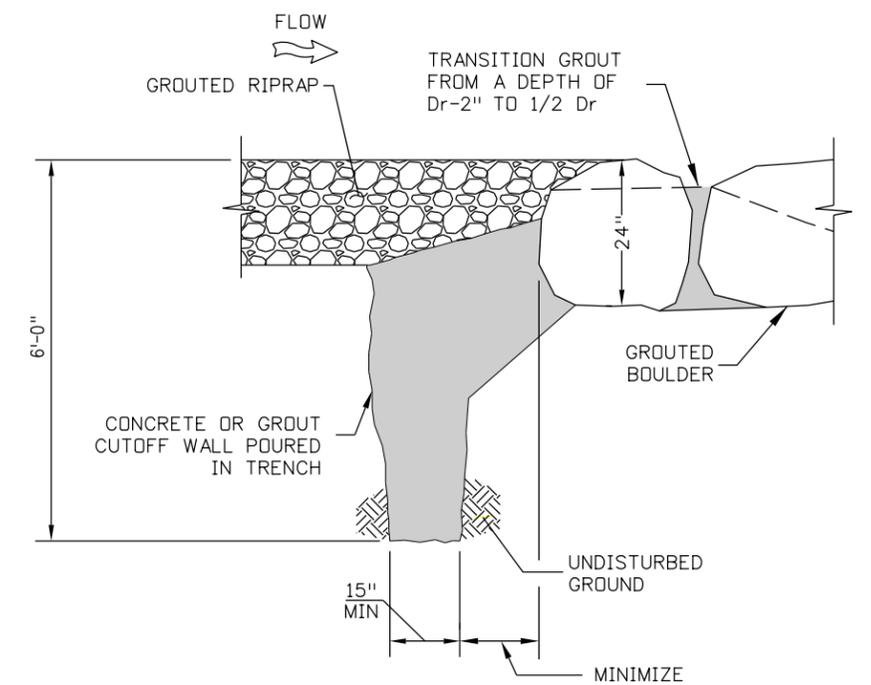
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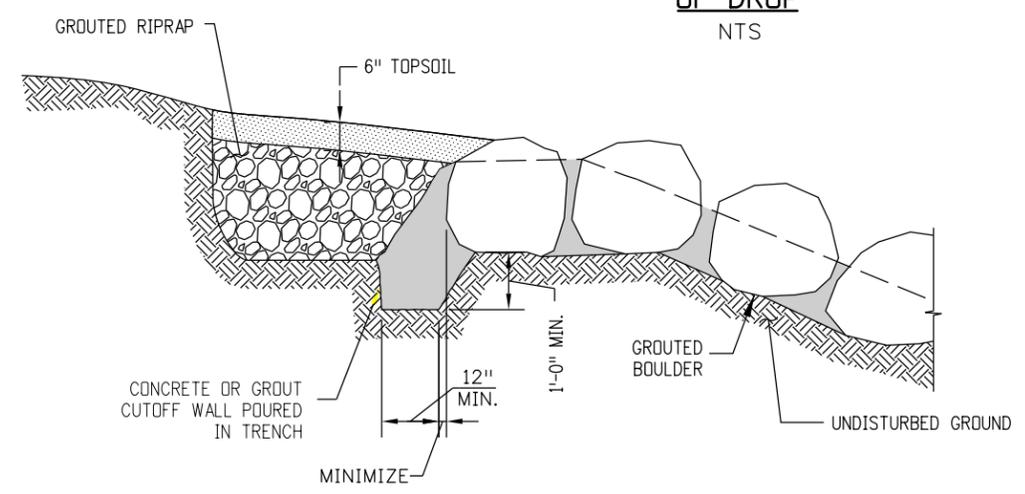
PROJECT: CHESTNUT CULVERT REPLACEMENT
STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
HYDRAULIC DETAILS
DRAINAGE BASIN: SOUTH DOUGLAS CREEK
JOB NO. _____ SHEET 25 OF 63



GRouted BOULDER PLACEMENT DETAIL
NTS



**GRout WALL CONNECTION
TRENCHED VERTICAL WALL UPSTREAM
OF DROP**
NTS



STRUCTURE EDGE WALL DETAIL
STA 8+27 TO 8+59
NTS

NOTES:

BOULDER PLACEMENT NOTES:

1. PLACE BOULDERS WITH THE REQUIRED BOULDER HEIGHT VERTICAL. PLACE BOULDERS AS TIGHTLY TOGETHER AS POSSIBLE (WITHOUT TOUCHING) WHILE PROVIDING ENOUGH ROOM BETWEEN THEM TO THOROUGHLY VIBRATE THE GROUT AND TO ENSURE NO GAPS IN THE GROUT. THE SMALL DIMENSION OF A 2X4 CAN BE USED AS A GUIDE TO CHECK MINIMUM SPACING.
2. BEFORE GROUTING, CLEAN ALL DIRT AND MATERIAL FROM ROCK THAT COULD PREVENT THE GROUT FROM BINDING TO THE ROCK. KEEP BOULDERS FROM TOUCHING. AVOID SLIDING BOULDERS AGAINST SUBGRADE TO PROPERLY POSITION.

MATERIAL SPECIFICATIONS:

1. ALL GROUT SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH EQUAL TO 3200 PSI.
2. ONE CUBIC YARD OF GROUT SHALL HAVE A MINIMUM OF SIX (6) SACKS OF TYPE II PORTLAND CEMENT.
3. A MAXIMUM OF 20% TYPE F FLY ASH MAY BE SUBSTITUTED FOR THE PORTLAND CEMENT.
4. THE AGGREGATE SHALL BE COMPRISED OF 70% NATURAL SAND (FINES) AND 30% 3/8-INCH ROCK (COARSE).
5. THE GROUT SLUMP SHALL BE BETWEEN 4-INCHES TO 6-INCHES.
6. AIR ENTRAINMENT SHALL BE BETWEEN 5.5% AND 7.5%.
7. TO CONTROL SHRINKAGE AND CRACKING, 1.5 POUNDS OF FIBERMESH, OR EQUIVALENT, SHALL BE USED PER CUBIC YARD OF GROUT.
8. COLOR ADDITIVE IN REQUIRED AMOUNTS SHALL BE USED WHEN SO SPECIFIED BY CONTRACT.

GRout PLACEMENT SPECIFICATIONS:

1. SPECIAL PROCEDURES SHALL BE REQUIRED FOR GROUT PLACEMENT WHEN THE AIR TEMPERATURES ARE LESS THAN 40°F OR GREATER THAN 90°F. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM THE DESIGN ENGINEER OF THE PROCEDURES TO BE USED FOR PROTECTING THE GROUT.
2. GROUT SHALL BE DELIVERED BY MEANS OF A LOW PRESSURE (LESS THAN 10 PSI) GROUT PUMP USING A 2-INCH DIAMETER (MAXIMUM) NOZZLE.
3. FULL DEPTH PENETRATION OF THE GROUT INTO THE BOULDER VOIDS SHALL BE ACHIEVED BY INJECTING GROUT STARTING WITH THE NOZZLE NEAR THE BOTTOM AND RAISING IT AS THE GROUT FILLS, WHILE VIBRATING GROUT INTO PLACE USING A PENCIL VIBRATOR.
4. ALL GROUT BETWEEN BOULDERS SHALL BE TREATED WITH A BROOM FINISH.
5. AFTER GROUT PLACEMENT, EXPOSED BOULDER FACES SHALL BE CLEANED AND FREE OF GROUT.
6. ALL FINISHED GROUT SURFACES SHALL BE SPRAYED WITH A CLEAR LIQUID MEMBRANE CURING COMPOUND AS SPECIFIED IN ASTM C309.

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BENCHMARK: _____

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CITY OF COLORADO SPRINGS
30 S Nevada
Colorado Springs, CO 80903
Phone: 719-385-5918

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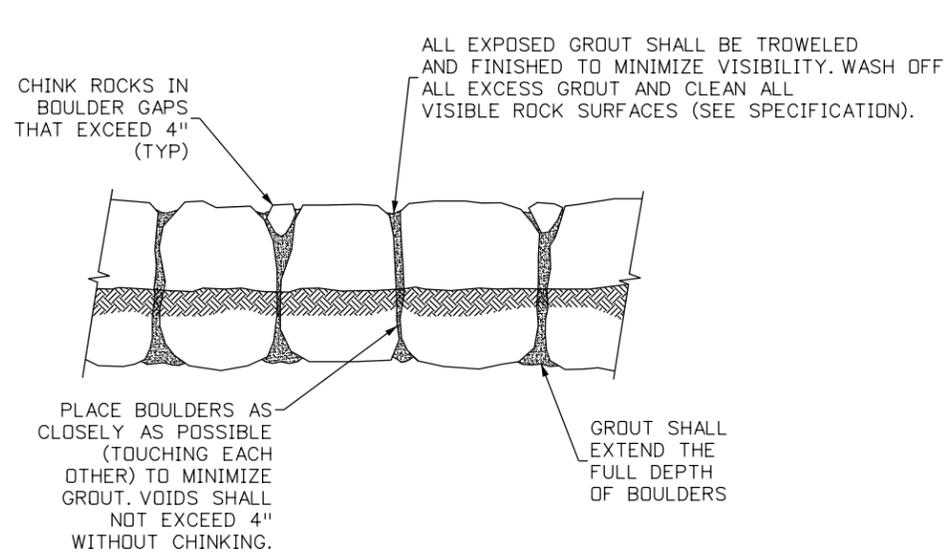
HDR 2060 BriarGate Parkway, Suite 120
Colorado Springs, CO 80920
Phone: 719-272-8800

Designer: MAJ Date: 12/30/15
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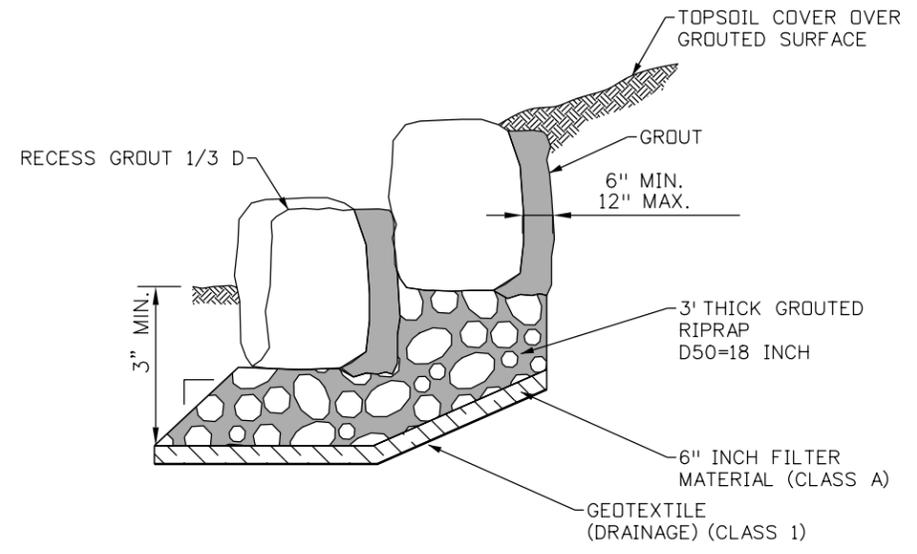


PROJECT: CHESTNUT CULVERT REPLACEMENT
STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
HYDRAULIC DETAILS
DRAINAGE BASIN: SOUTH DOUGLAS CREEK
JOB NO. _____ SHEET 26 OF 63

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ELEVATION



SECTION

GRouted BOULDER EDGE DETAIL
NTS

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 30 S Nevada
 Colorado Springs, CO 80903
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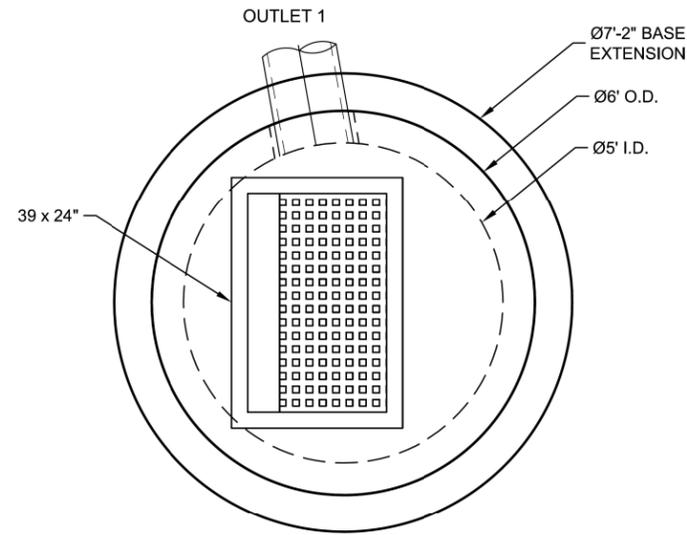
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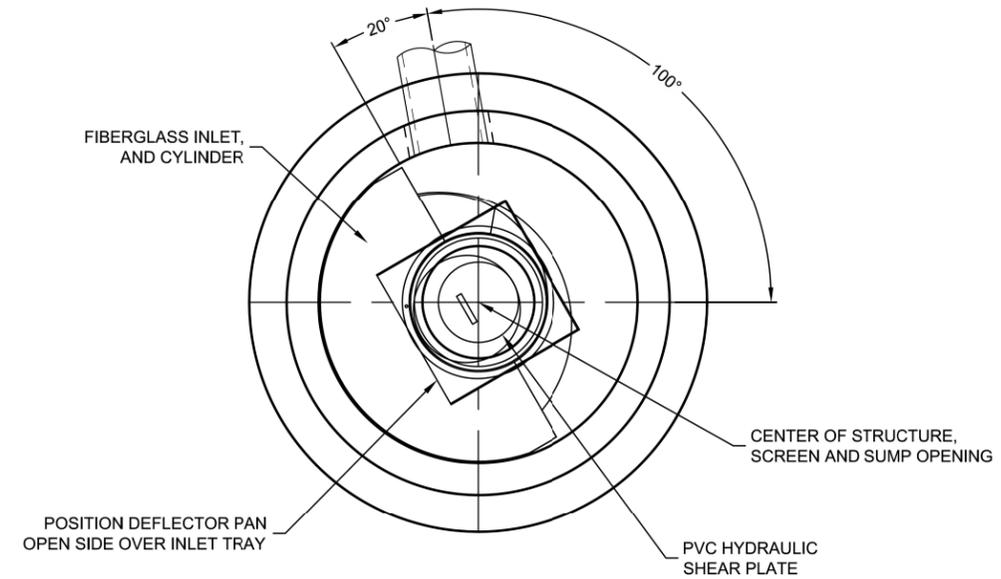
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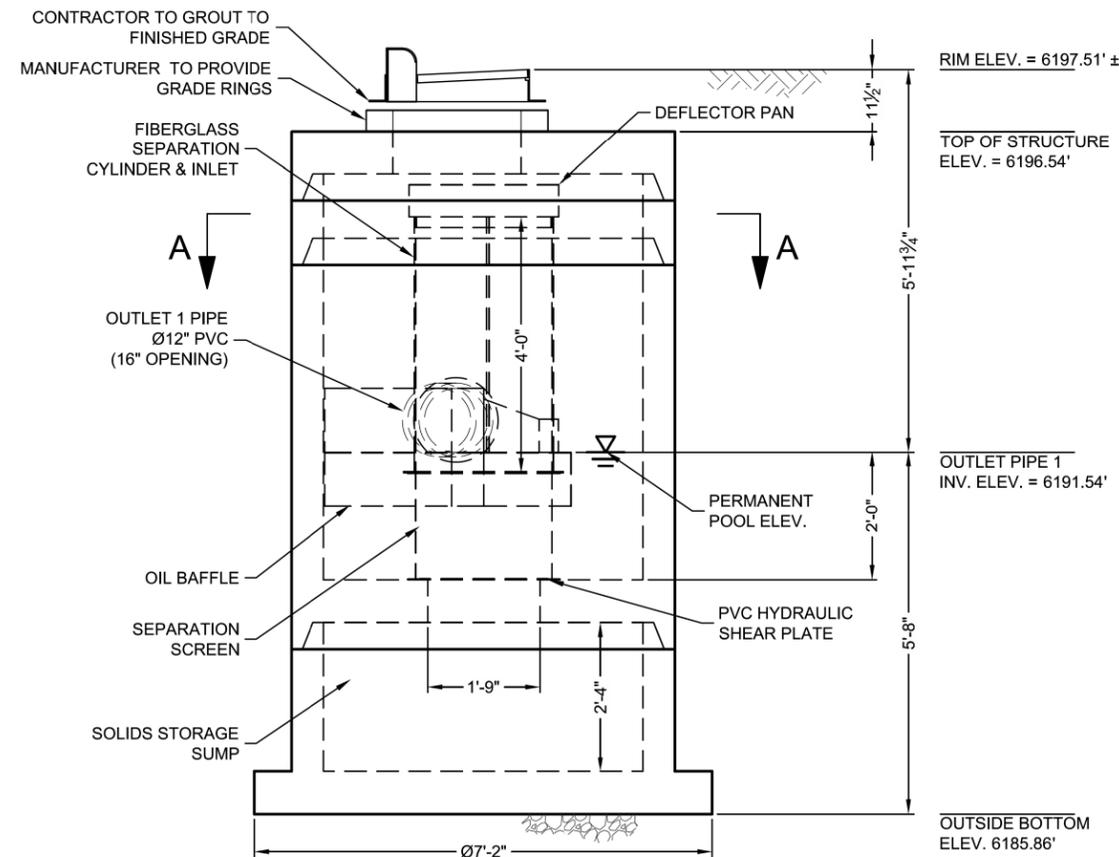
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PLAN VIEW



SECTION A-A



ELEVATION VIEW

MATERIAL LIST (PROVIDED BY MANUFACTURER)

COUNT	DESCRIPTION	INSTALLED BY
1	FIBERGLASS INLET AND CYLINDER	MANUFACTURER
1	2400 micron, 2' O.D. x 1.67' SEP. SCREEN	MANUFACTURER
1	DEFLECTOR PAN	CONTRACTOR
1	3/16 INCH PVC HYDRAULIC SHEAR PLATE	CONTRACTOR
1	SEALANT FOR JOINTS (BY PRECASTER)	CONTRACTOR
1 PLC	GRADE RINGS/RISERS	CONTRACTOR
1	39" x 24" CURB INLET, D&L#1-3386, OR EQUIV.	CONTRACTOR

SITE DESIGN DATA

WATER QUALITY FLOW RATE	0.7 CFS
PEAK FLOW RATE	6.9 CFS
RETURN PERIOD OF PEAK FLOW	2 YRS

GENERAL NOTES

- MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- STORM WATER TREATMENT DEVICE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306.
- IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
- STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE MANHOLE STRUCTURE.
- CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

STRUCTURE WEIGHT

APPROXIMATE HEAVIEST PICK = 10000 LBS.
STRUCTURE IS DELIVERED IN 4 PIECES

MAX FOOTPRINT = Ø7'-2"

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SCALE: HORIZ. VERT.
BENCHMARK:

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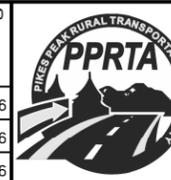
30 S Nevada
Colorado Springs, CO 80903
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2060 Briargate Parkway, Suite 120
Colorado Springs, CO 80920
Phone: 719-272-8800

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PROJECT: CHESTNUT CULVERT REPLACEMENT
STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
DRAINAGE BASIN: SOUTH DOUGLAS CREEK
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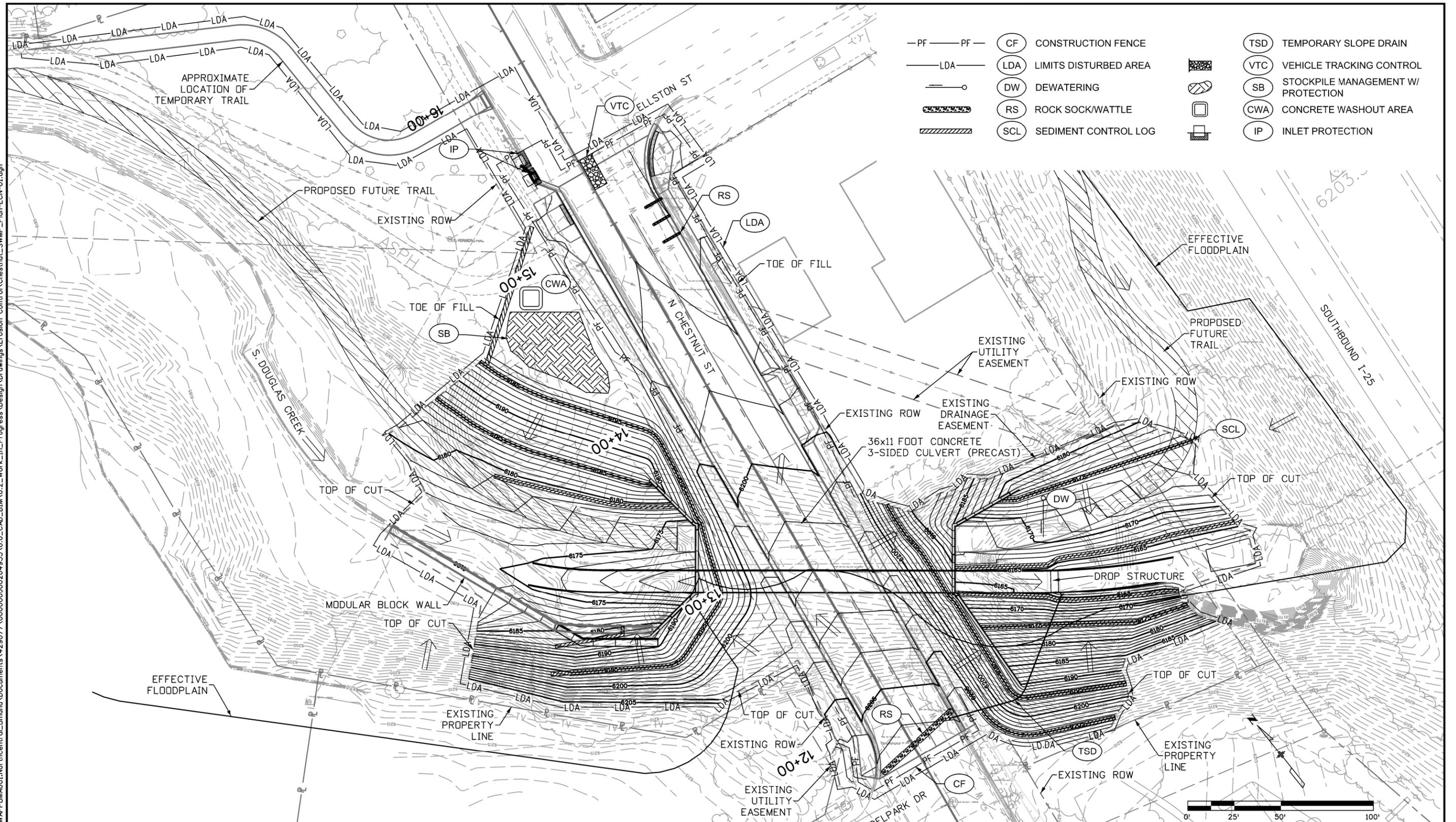
NOTES

1. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS.
2. CONCRETE WASH WATER SHALL NOT BE DISCHARGED TO OR ALLOWED TO RUNOFF TO THE MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4).
3. BUILDING, CONSTRUCTION, EXCAVATION, OR OTHER WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. BMPS MAY BE REQUIRED BY THE MS4 PERMITTEE IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES (E.G., ESTIMATED TIME OF EXPOSURE, SEASON OF THE YEAR, ETC.).
4. VEHICLE TRACKING OF SOILS OFF-SITE SHALL BE MINIMIZED.
5. ALL WASTES COMPOSED OF BUILDING MATERIALS MUST BE REMOVED FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
6. NO CHEMICALS ARE TO BE ADDED TO THE DISCHARGE UNLESS PERMISSION FOR THE USE OF A SPECIFIC CHEMICAL IS GRANTED BY THE STATE. IN GRANTING THE USE OF SUCH CHEMICALS, SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
7. BULK STORAGE STRUCTURES FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS SHALL HAVE SECONDARY CONTAINMENT OR EQUIVALENT ADEQUATE PROTECTION SO AS TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIAL FROM ENTERING THE MS4, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
8. ALL PERSONS ENGAGED IN EARTH DISTURBANCE SHALL IMPLEMENT AND MAINTAIN ACCEPTABLE SOIL EROSION AND SEDIMENT CONTROL MEASURES INCLUDING BMPS IN CONFORMANCE WITH THE EROSION CONTROL TECHNICAL STANDARDS OF THE DRAINAGE CRITERIA MANUAL, VOLUME 2 AND IN ACCORDANCE WITH THE APPROVED EROSION AND STORMWATER QUALITY CONTROL PLAN APPROVED BY THE MS4 PERMITTEE, IF REQUIRED.
9. ALL TEMPORARY EROSION CONTROL FACILITIES INCLUDING BMPS AND ALL PERMANENT FACILITIES INTENDED TO CONTROL EROSION OF ANY EARTH DISTURBANCE OPERATIONS, SHALL BE INSTALLED AS DEFINED IN THE APPROVED EROSION AND STORMWATER QUALITY CONTROL PLAN AND THE DRAINAGE CRITERIA MANUAL, VOLUME 2 AND MAINTAINED THROUGHOUT THE DURATION OF THE EARTH DISTURBANCE OPERATION. THE INSTALLATION OF THE FIRST LEVEL OF TEMPORARY EROSION CONTROL FACILITIES AND BMPS SHALL BE INSTALLED AND INSPECTED PRIOR TO ANY EARTH DISTURBANCE OPERATIONS TAKING PLACE.
10. ANY EARTH DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY REDUCE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION.
11. ALL EARTH DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED IN SUCH A MANNER SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME.
12. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON- SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
13. SUSPENDED SEDIMENT CAUSED BY ACCELERATED SOIL EROSION SHALL BE MINIMIZED IN RUNOFF WATER BEFORE IT LEAVES THE SITE OF THE EARTH DISTURBANCE.
14. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE DESIGNED TO LIMIT THE DISCHARGE TO A NON-EROSIVE VELOCITY.
15. TEMPORARY SOIL EROSION CONTROL FACILITIES SHALL BE REMOVED AND EARTH DISTURBANCE AREAS GRADED AND STABILIZED WITH PERMANENT SOIL EROSION CONTROL MEASURES PURSUANT TO THE STANDARDS AND SPECIFICATIONS PRESCRIBED IN THE DRAINAGE CRITERIA MANUAL, VOLUME 2, AND IN ACCORDANCE WITH THE PERMANENT EROSION CONTROL FEATURES SHOWN ON THE APPROVED EROSION AND STORMWATER QUALITY CONTROL PLANS, IF REQUIRED.
16. SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN TWENTY-ONE (21) CALENDAR DAYS AFTER FINAL GRADING, OR FINAL EARTH DISTURBANCE, HAS BEEN COMPLETED. DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS SHALL ALSO BE MULCHED WITHIN 21 DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE SEEDED. ON A CASE-BY-CASE BASIS, THE MS4 PERMITTEE MAY ALLOW ANOTHER APPROPRIATE BMP TO BE IN PLACE THAT PREVENTS SEDIMENT FROM LEAVING THE SITE. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMPS SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED.
17. NO PERSON SHALL CAUSE, PERMIT, OR CONTRIBUTE TO THE DISCHARGE INTO THE MUNICIPAL SEPARATE STORM SEWER POLLUTANTS THAT COULD CAUSE THE MS4 PERMITTEE TO BE IN VIOLATION OF ITS COLORADO DISCHARGE PERMIT SYSTEM MS4 PERMIT.
18. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN THE STORM SEWER OR OTHER DRAINAGE CONVEYANCE SYSTEM AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
19. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE FLOW LINE OF THE CURB AND GUTTER, INCLUDING THE TEMPORARY OR PERMANENT RAMPING WITH MATERIALS FOR VEHICLE ACCESS.
20. INDIVIDUALS SHALL COMPLY WITH THE COLORADO WATER QUALITY CONTROL ACT (TITLE 25, ARTICLE 8, CRS), AND THE CLEAN WATER ACT (33 USC 1344), REGULATIONS PROMULGATED, CERTIFICATIONS OR PERMITS ISSUED, IN ADDITION TO THE REQUIREMENTS INCLUDED IN THE DRAINAGE CRITERIA MANUAL, VOLUME 2. IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND WATER QUALITY CONTROL LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL OR STATE AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
21. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON- SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS. MATERIALS SHALL NOT BE STORED IN A LOCATION WHERE THEY MAY BE CARRIED BY STORMWATER RUNOFF INTO THE MS4 AT ANY TIME.
22. SPILL PREVENTION AND CONTAINMENT MEASURES SHALL BE USED AT STORAGE, AND EQUIPMENT FUELING AND SERVICING AREAS TO PREVENT POLLUTION FROM DISCHARGING TO THE MS4. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY, OR CONTAINED UNTIL APPROPRIATE CLEANUP METHODS CAN BE EMPLOYED. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE FOLLOWED, ALONG WITH PROPER DISPOSAL METHODS.
23. FOR EROSION CONTROL BLANKET USE PRODUCT WITH LONGEVITY OF 36 MONTHS AND 1:1 SLOPES.

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Computer File Information	STATEMENT:	SCALE: HORIZ. N/A VERT. N/A	Index of Revisions		30 S Nevada Colorado Springs, CO 80903 Phone: 719-385-5918		2060 Briargate Parkway, Suite 120 Colorado Springs, CO 80920 Phone: 719-272-8800		PROJECT: CHESTNUT CULVERT REPLACEMENT
Creation Date: 01/15/2016	THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGNER ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.	BENCHMARK: _____	No. Description Date	Structure: _____	Designer: MAJ Date: 12/30/15				STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
Last Modification Date: 2/1/2016		_____	1 _____	Sheet Subset: SWMP	Cadd: TAH Date: 12/30/15				EROSION CONTROL PLAN NOTES
File Name: Chestnut_SWMP_Notes_GN-01.dgn		_____	2 _____	Subset Sheets: 1 OF 3	Checker: EVS Date: 1/29/16				DRAINAGE BASIN: SOUTH DOUGLAS CREEK
Sheet Model Name:		_____	3 _____						JOB NO. _____ SHEET 29 OF 63
Microstation Ver:		_____	4 _____						

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- PF — PF — (CF) CONSTRUCTION FENCE
- LDA — (LDA) LIMITS DISTURBED AREA
- o — (DW) DEWATERING
- ▨ (RS) ROCK SOCK/WATTLE
- ▨ (SCL) SEDIMENT CONTROL LOG
- (TSD) TEMPORARY SLOPE DRAIN
- (VTC) VEHICLE TRACKING CONTROL
- (SB) STOCKPILE MANAGEMENT W/ PROTECTION
- (CWA) CONCRETE WASHOUT AREA
- (IP) INLET PROTECTION

EROSION CONTROL PLAN - INITIAL

Computer File Information

Creation Date: 01/15/2016
Last Modification Date: 2/1/2016
File Name: Chestnut_SWMP_Plan-ECN-01.dgn
Sheet Model Name:
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STATEMENT:
 THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGNER ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

SCALE: HORIZ. 1"=50' VERT. N/A
BENCHMARK:

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CITY OF COLORADO SPRINGS

30 S Nevada
 Colorado Springs, CO 80903
 Phone: 719-385-5918

Structure:
 Sheet Subset: SWMP
 Subset Sheets: 2 OF 3

HDR

2060 Briargate Parkway, Suite 120
 Colorado Springs, CO 80920
 Phone: 719-272-8800

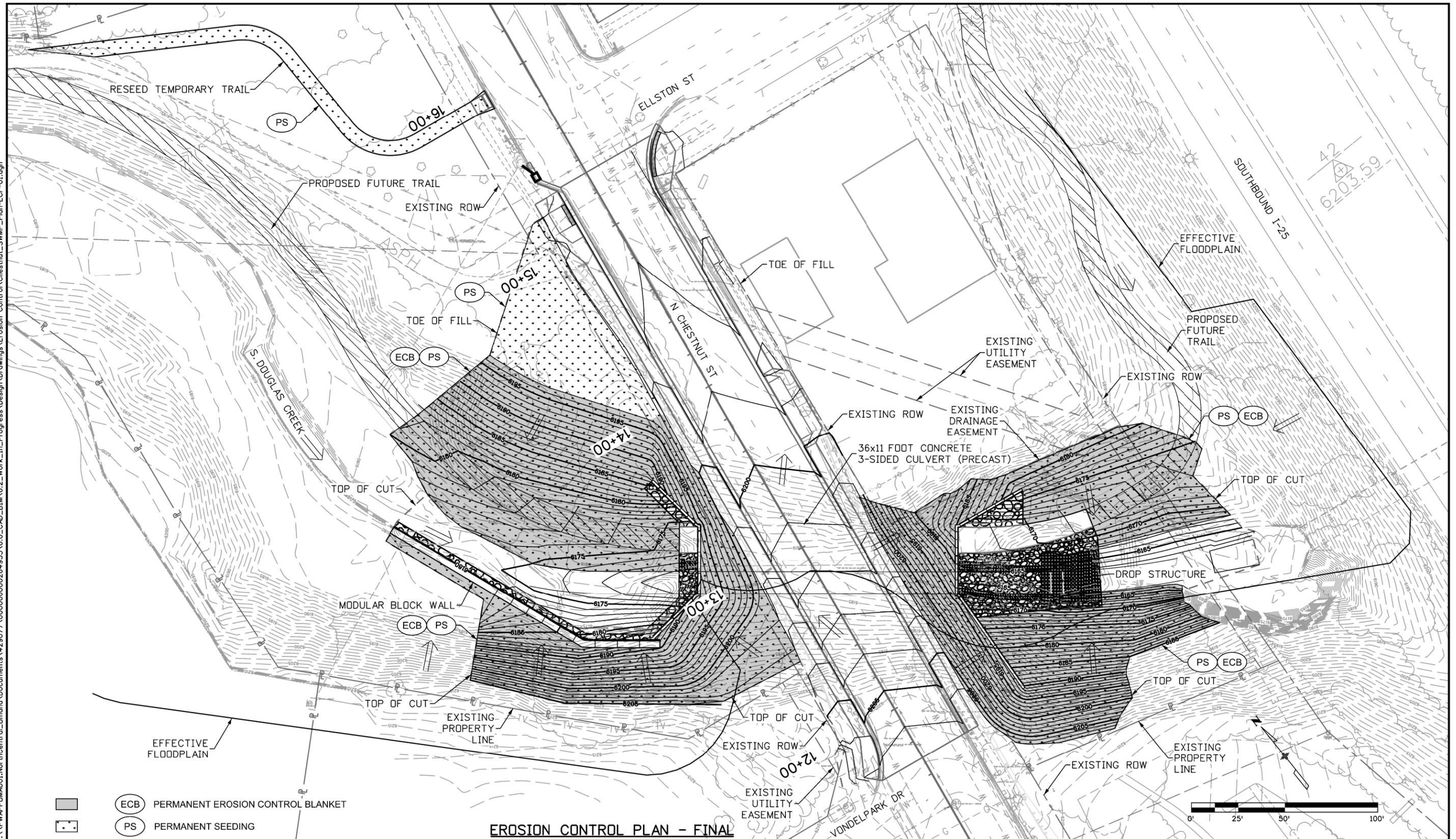
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Cadd: TAH Date: 12/30/15
Checker: EVS Date: 1/29/16



PROJECT: CHESTNUT CULVERT REPLACEMENT
STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
EROSION CONTROL PLAN INITIAL
DRAINAGE BASIN: SOUTH DOUGLAS CREEK
JOB NO. _____ **SHEET** 30 **OF** 63



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EROSION CONTROL PLAN - FINAL



- ECB PERMANENT EROSION CONTROL BLANKET
- PS PERMANENT SEEDING

Computer File Information	
Creation Date:	01/15/2016
Last Modification Date:	2/1/2016
File Name:	Chestnut_SWMP_Plan-ECF-01.dgn
Sheet Model Name:	
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STATEMENT:
 THE CITY OF COLORADO SPRINGS
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 AS HAVING RESPONSIBILITY FOR THE
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 SCOPE OF REVIEW ACCORDINGLY.

SCALE: HORIZ. 1"=50' VERT. N/A
 BENCHMARK: _____

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CITY OF COLORADO SPRINGS

30 S Nevada
 Colorado Springs, CO 80903
 Phone: 719-385-5918

Structure:
 Sheet Subset: SWMP
 Subset Sheets: 3 OF 3

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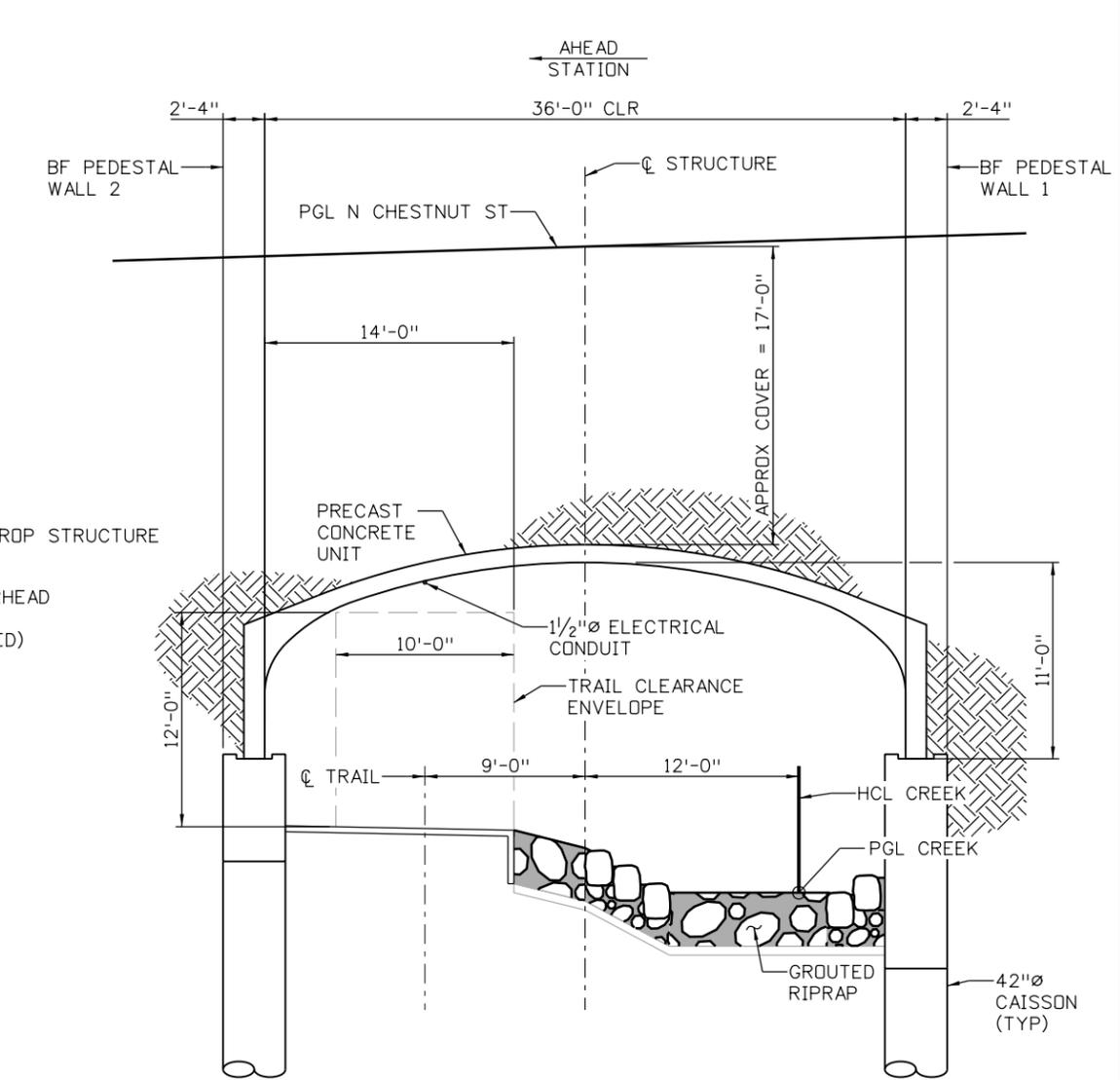
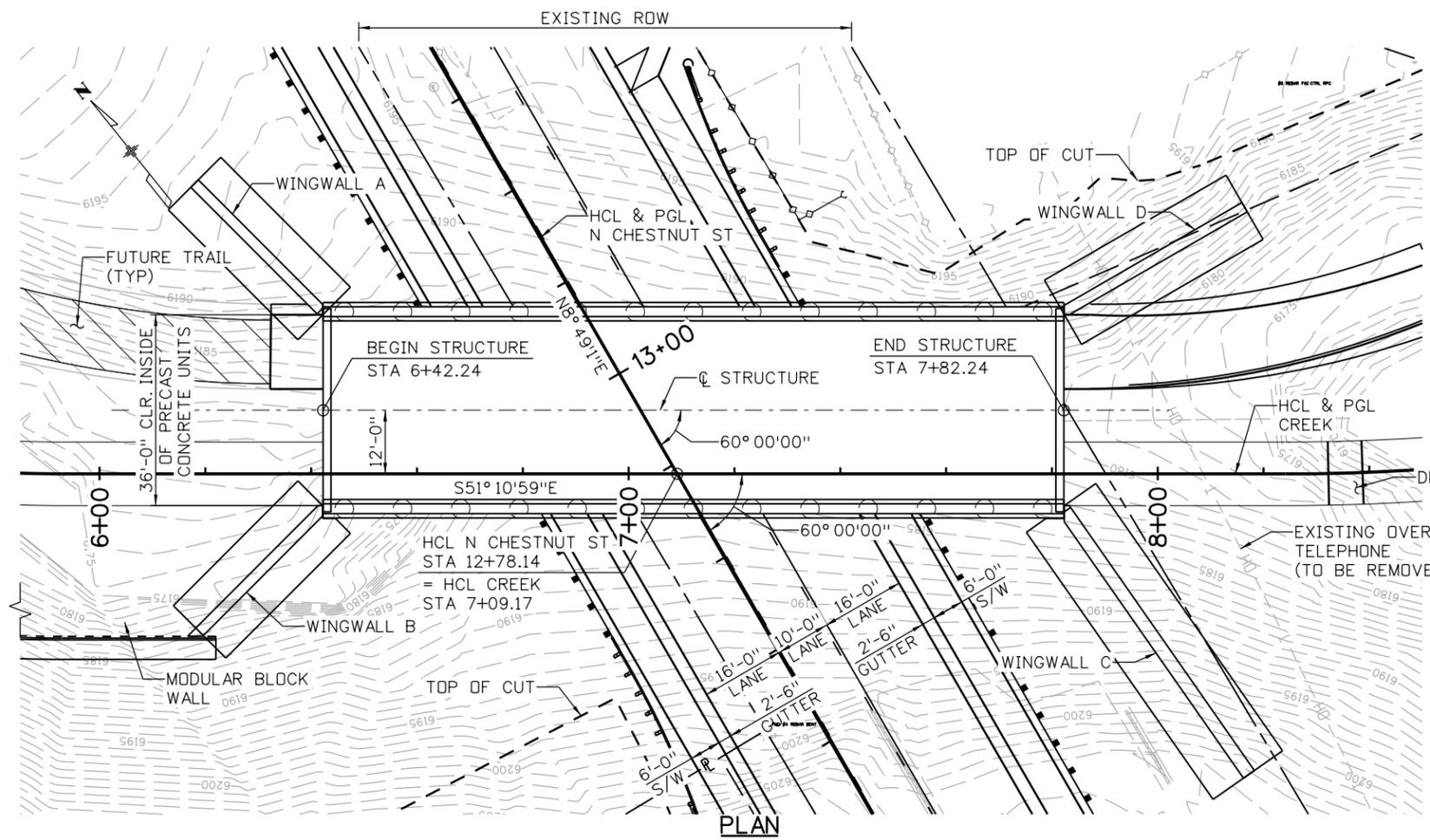
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 Colorado Springs, CO 80920
 Phone: 719-272-8800

Designer: MAJ Date: 12/30/15
 Cadd: TAH Date: 12/30/15
 Checker: EVS Date: 1/29/16



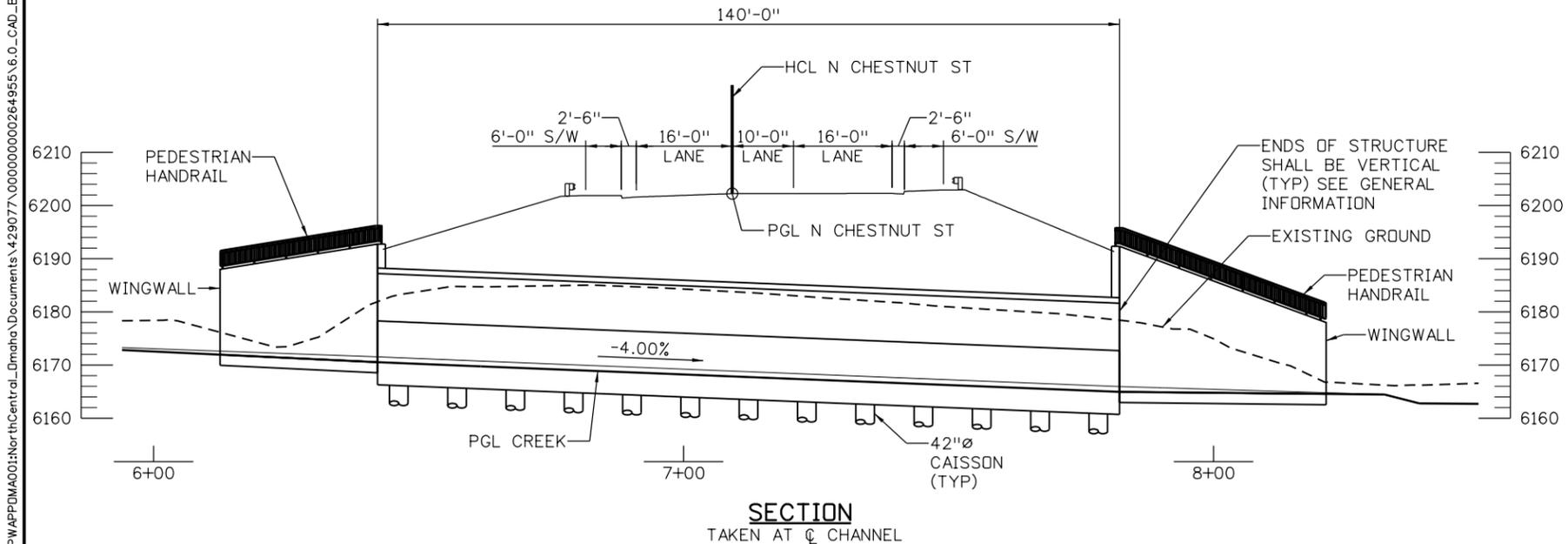
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STREET:	NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
EROSION CONTROL PLAN FINAL	
DRAINAGE BASIN:	SOUTH DOUGLAS CREEK
JOB NO. _____ SHEET	31 OF 63

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TYPICAL SECTION
PERPENDICULAR TO CREEK

- NOTES:**
1. SEE UTILITY SHEETS FOR UTILITIES.
 2. FOR GRouted RIPRAP AND BOULDERS, SEE DRAINAGE DETAILS.



SECTION
TAKEN AT Q CHANNEL

Computer File Information

Creation Date: 01/15/2016
Last Modification Date: 2/1/2016
File Name: BRDG_General-Layout.dgn
Sheet Model Name:
Microstation Ver:

STATEMENT:
THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGNER ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

SCALE: HORIZ. VERT.
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CITY OF COLORADO SPRINGS

30 S Nevada
Colorado Springs, CO 80903
Phone: 719-385-5918

HR 2060 BriarGate Parkway, Suite 120
Colorado Springs, CO 80920
Phone: 719-272-8800

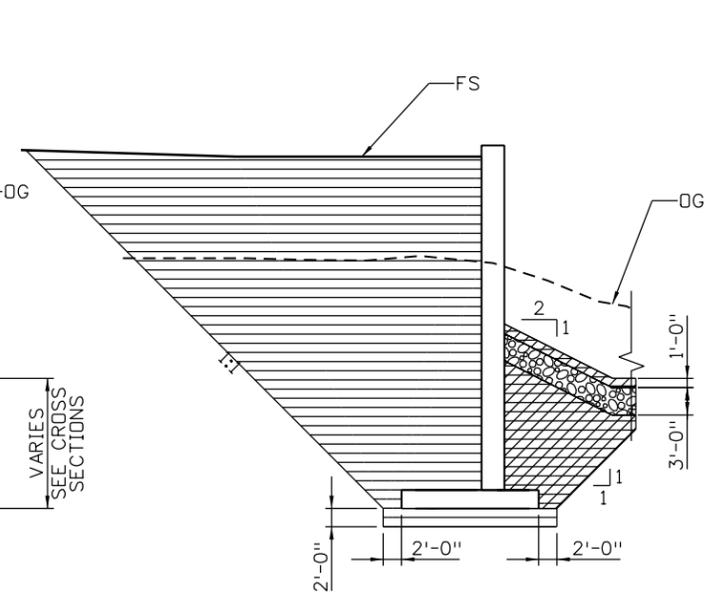
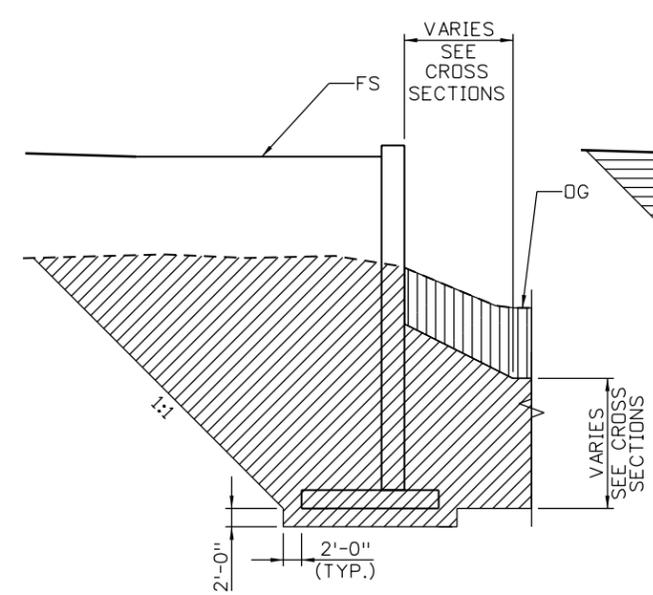
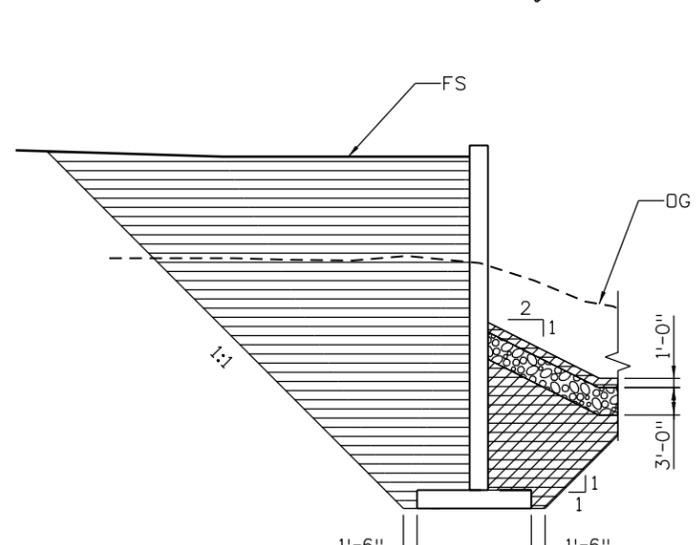
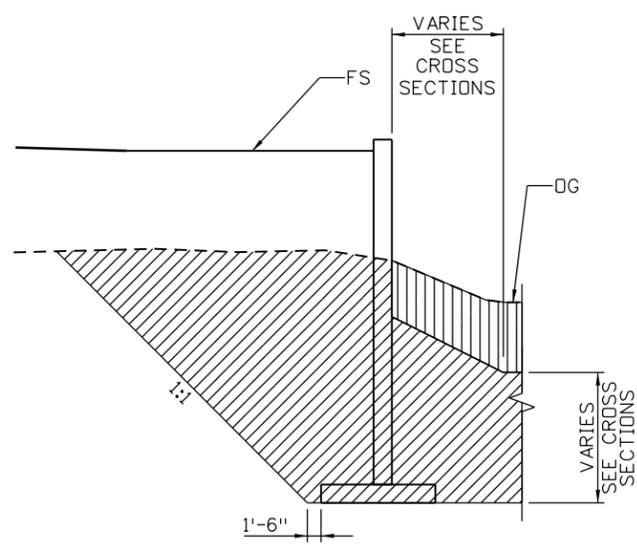
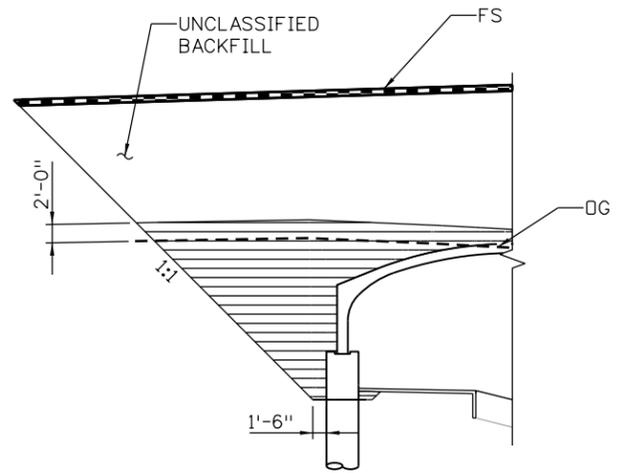
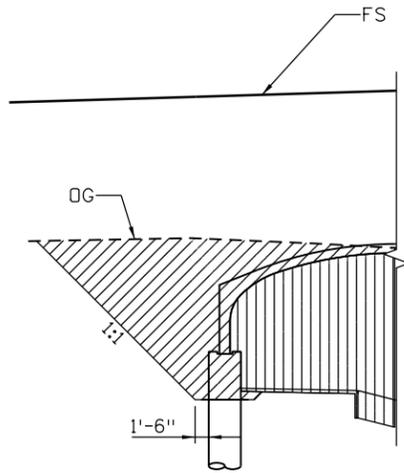
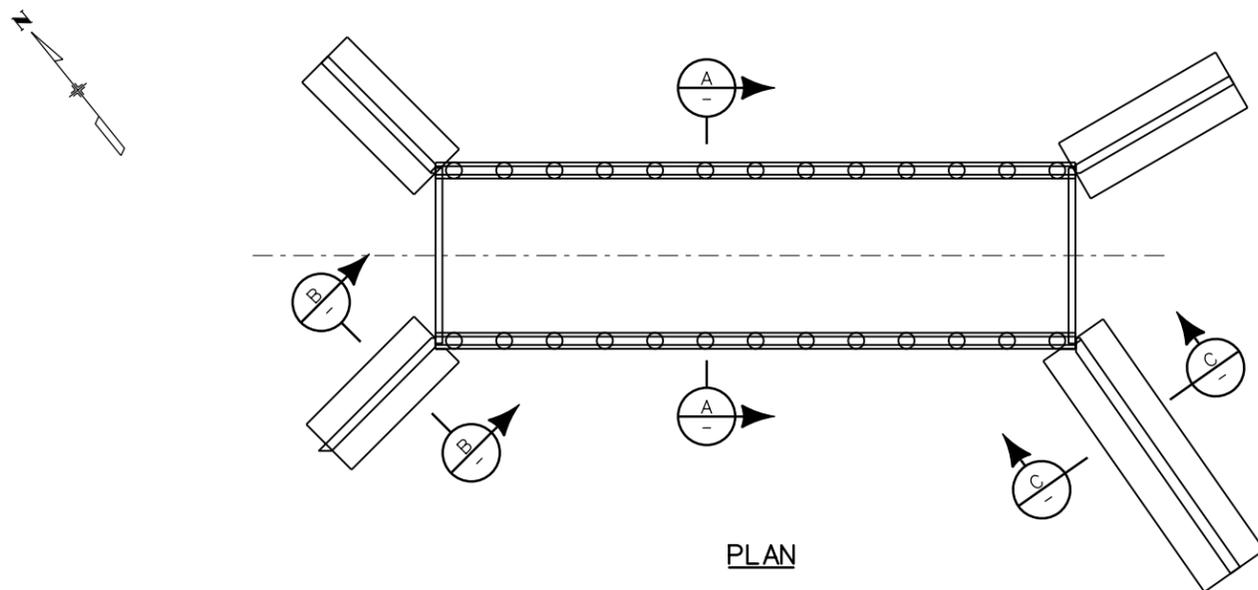
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Sheet Subset: STRUCTURES
Subset Sheets: 2 OF 15

Designer: LAS Date: 1-14-16
Cadd: JBS Date: 1-14-16
Checker: RST Date: 1-14-16



PROJECT: CHESTNUT CULVERT REPLACEMENT
STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
GENERAL LAYOUT
DRAINAGE BASIN: SOUTH DOUGLAS CREEK
JOB NO. _____ SHEET 33 OF 63

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LEGEND

- UNCLASSIFIED EXCAVATION
- STRUCTURE EXCAVATION
- STRUCTURE BACKFILL (CLASS 1)
- STRUCTURE BACKFILL (CLASS 2)

ABBREVIATIONS

- OG ORIGINAL GROUND
- PS PLAN SUBGRADE
- FS PLAN FINISHED SURFACE

GENERAL NOTES

UNLESS SHOWN OTHERWISE IN THE PLANS, THIS DRAWING GIVES THE MINIMUM EXTENT OF STRUCTURE EXCAVATION AND STRUCTURE BACKFILL. THE CONTRACTOR MAY ELECT TO EXTEND THE STRUCTURE EXCAVATION AND STRUCTURE BACKFILL BEYOND THE LIMITS SHOWN HERE. ANY ADDITIONAL EXCAVATION OR BACKFILL BEYOND THESE LIMITS WILL NOT BE MEASURED NOR PAID FOR.

Computer File Information

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 Last Modification Date: 2/1/2016
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STATEMENT:

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CITY OF COLORADO SPRINGS

30 S Nevada
 Colorado Springs, CO 80903
 Phone: 719-385-5918

HR 2060 Briargate Parkway, Suite 120
 Colorado Springs, CO 80920
 Phone: 719-272-8800

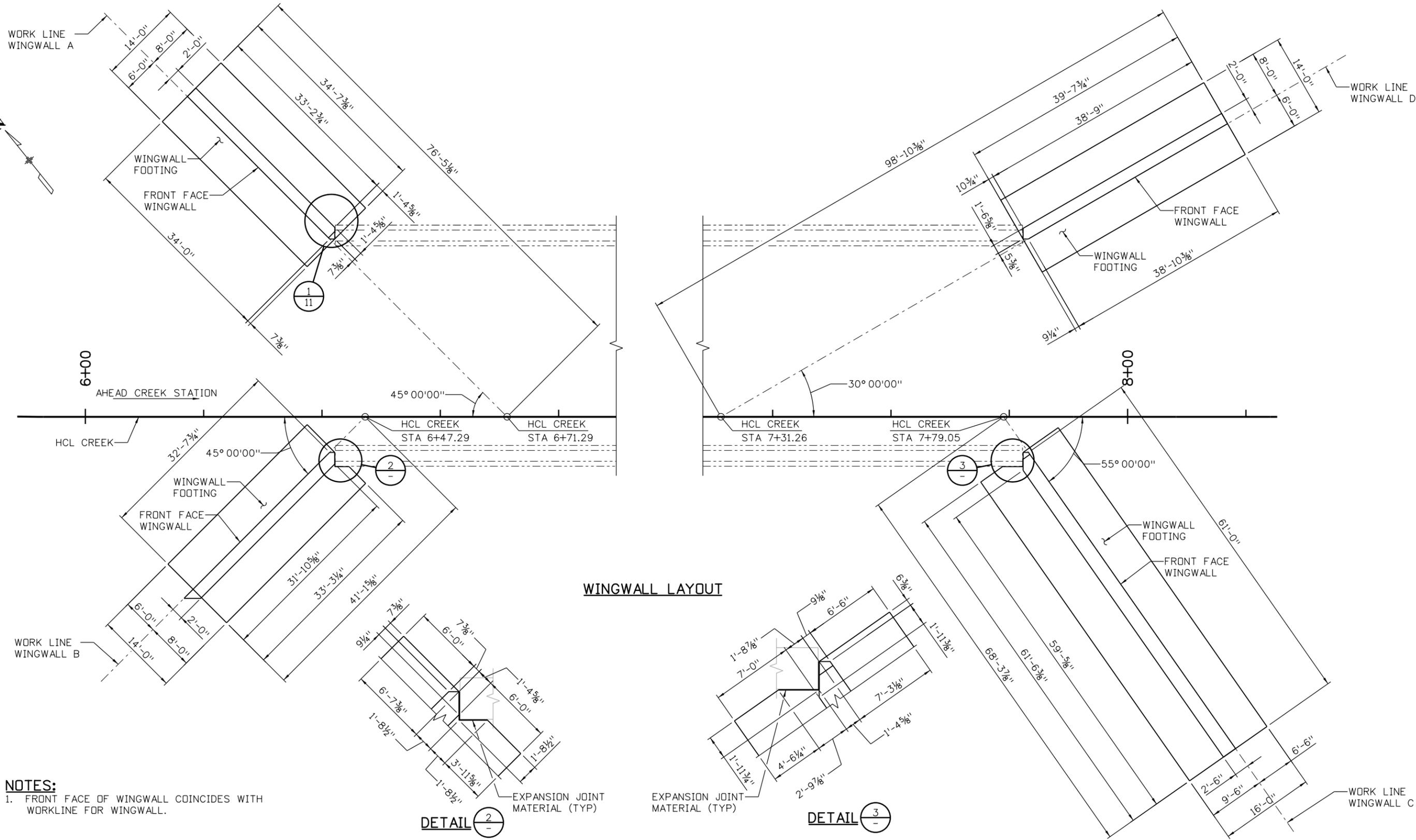
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Designer: LAS Date: 1-14-16
 Cadd: VSL Date: 1-14-16
 Checker: RST Date: 1-14-16



PROJECT: CHESTNUT CULVERT REPLACEMENT
 STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
 EXCAVATION & BACKFILL FOR STRUCTURES
 DRAINAGE BASIN: SOUTH DOUGLAS CREEK
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NOTES:
 1. FRONT FACE OF WINGWALL COINCIDES WITH WORKLINE FOR WINGWALL.

Computer File Information

Creation Date: 01/15/2016
Last Modification Date: 2/1/2016
File Name: BRDG_Wingwall Layout.dgn
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STATEMENT:
 THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGNER ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

SCALE: HORIZ. VERT.
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CITY OF COLORADO SPRINGS

30 S Nevada
 Colorado Springs, CO 80903
 Phone: 719-385-5918

Structure:
 Sheet Subset: STRUCTURES
 Subset Sheets: 9 OF 15

HDR

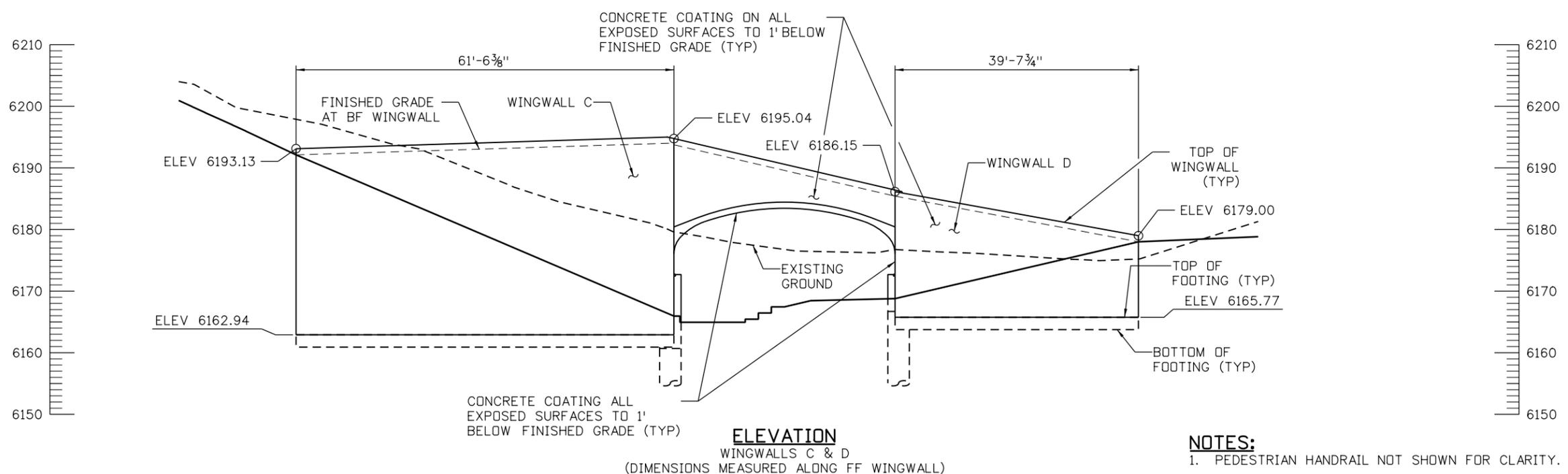
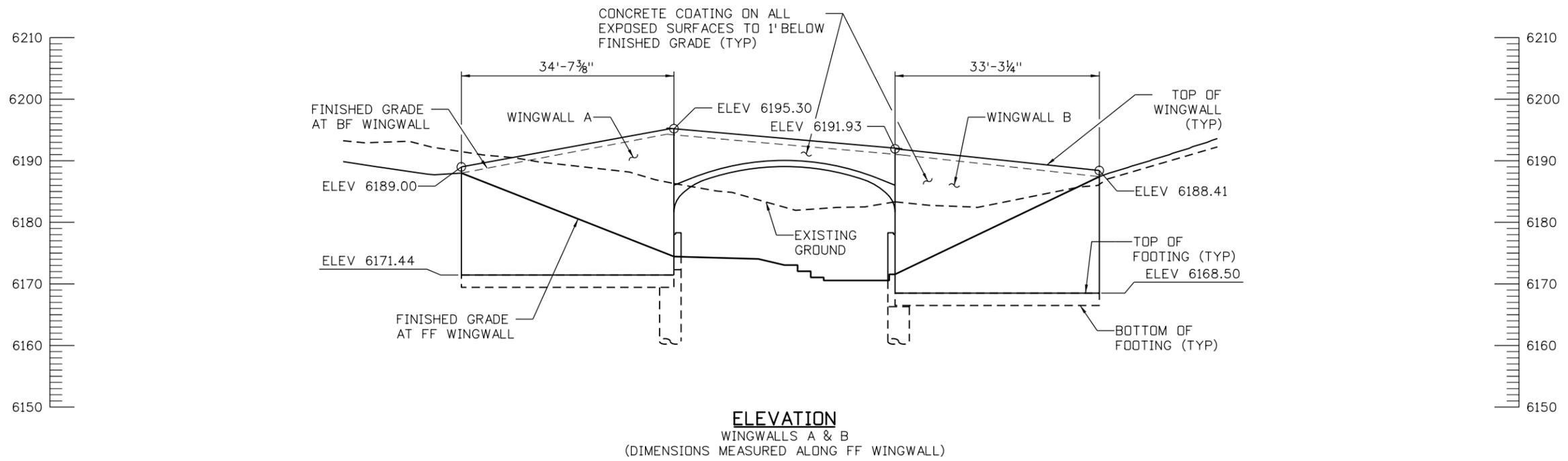
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 Colorado Springs, CO 80920
 Phone: 719-272-8800

Designer: LAS Date: 1-14-16
 Cadd: JBS Date: 1-14-16
 Checker: RST Date: 1-14-16



PROJECT: CHESTNUT CULVERT REPLACEMENT
 STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
 WINGWALL LAYOUT
 DRAINAGE BASIN: SOUTH DOUGLAS CREEK
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NOTES:
1. PEDESTRIAN HANDRAIL NOT SHOWN FOR CLARITY.

Computer File Information	
Creation Date:	01/15/2016
Last Modification Date:	2/1/2016
File Name:	BRDG_Wingwall Elevations.dgn
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Microstation Ver:	

STATEMENT:
THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGNER ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

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30 S Nevada
Colorado Springs, CO 80903
Phone: 719-385-5918

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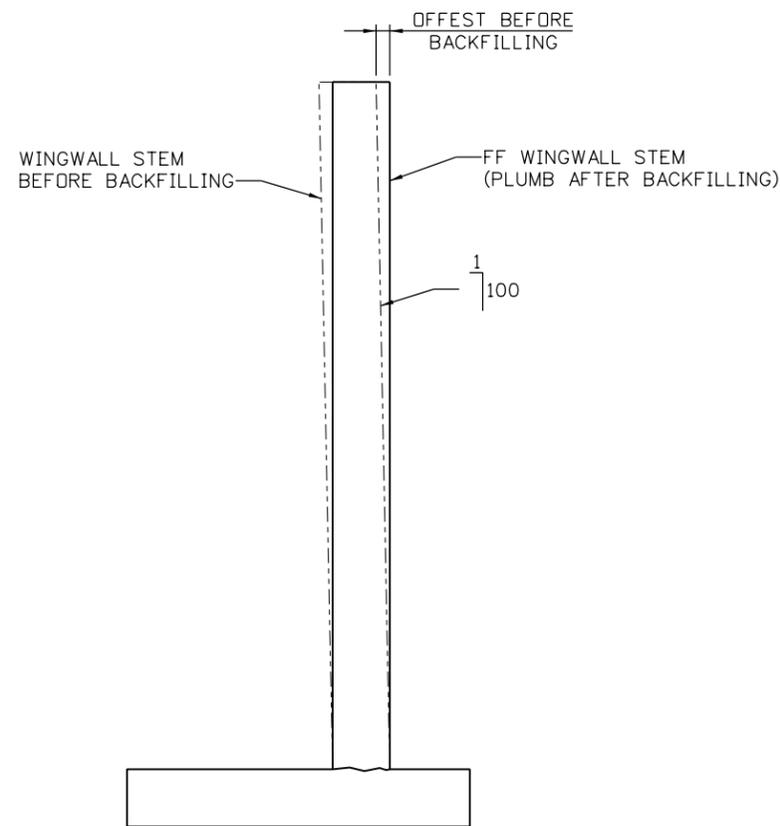
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Colorado Springs, CO 80920
Phone: 719-272-8800

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Checker: RST Date: 1-14-16

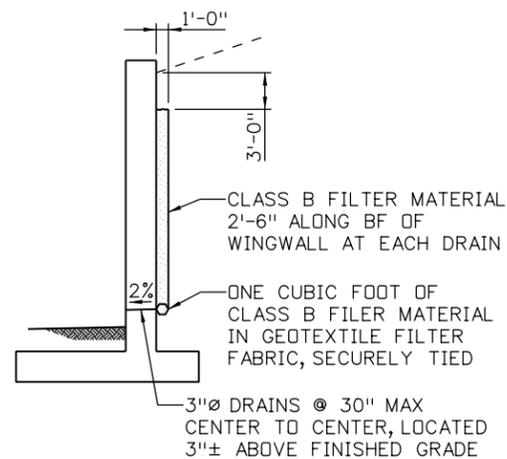


PROJECT: CHESTNUT CULVERT REPLACEMENT
STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
WINGWALL ELEVATIONS
DRAINAGE BASIN: SOUTH DOUGLAS CREEK
JOB NO. _____ SHEET 41 OF 63

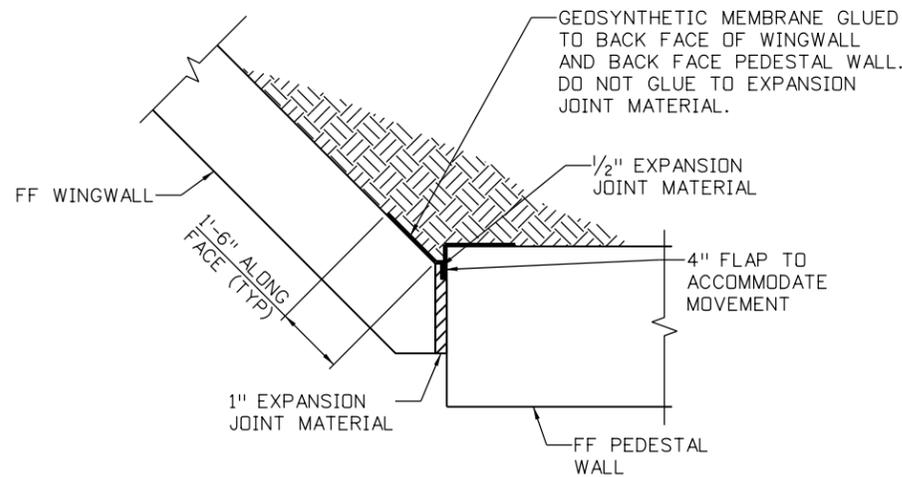
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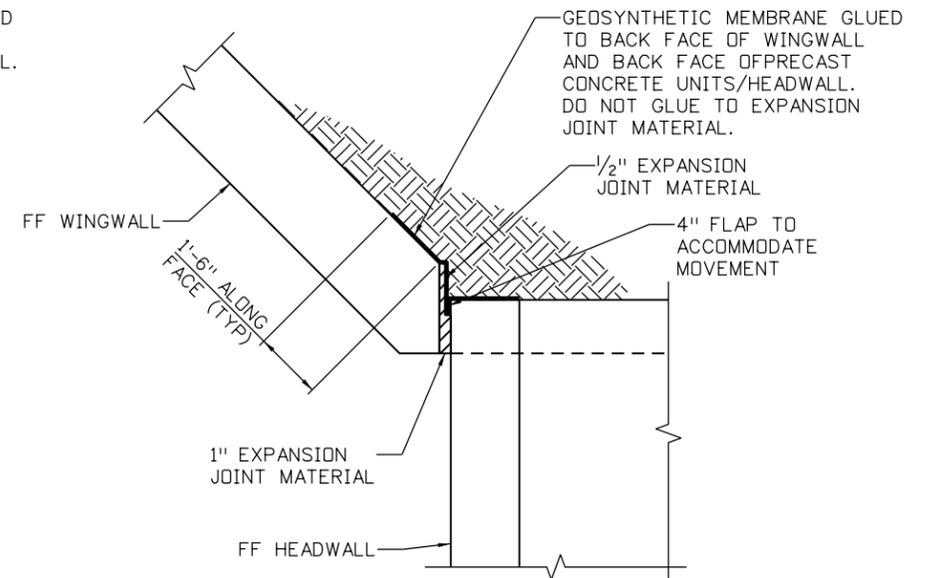
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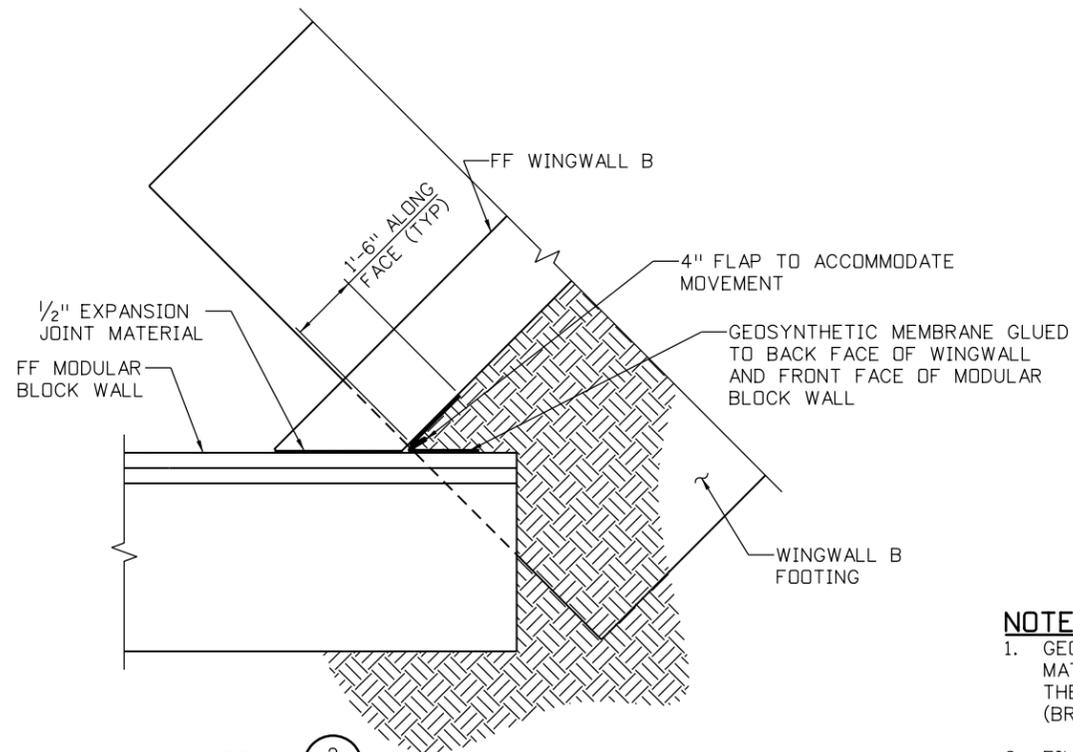
DRAINAGE
SEE NOTE 2
(TYPICAL ALL WINGWALLS)



DETAIL 1/8
AT
PEDESTAL WALL ELEVATION
WINGWALL A SHOWN
(OTHERS SIMILAR)
(SCALE EXAGGERATED)



DETAIL 1/8
AT
PRECAST CONCRETE
UNITS/HEADWALL ELEVATION
WINGWALL A SHOWN
(OTHERS SIMILAR)
(SCALE EXAGGERATED)



DETAIL 2/5
(CAST
STEM OF WINGWALL
AGAINST FRONT FACE
OF MODULAR BLOCK WALL)

NOTES:

1. GEOSYNTHETIC MEMBRANE AND EXPANSION JOINT MATERIAL SHALL BE INCLUDED IN THE COST OF THE CAST IN PLACE CONCRETE CLASS D (BRIDGE).
2. FILTER MATERIAL AND DRAINS TO BE INCLUDED IN THE COST OF CONCRETE CLASS D.

Computer File Information

Creation Date: 01/15/2016
Last Modification Date: 2/1/2016
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Sheet Model Name:
Microstation Ver:

STATEMENT:

THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGNER ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

SCALE: HORIZ. VERT.

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CITY OF COLORADO SPRINGS

30 S Nevada
Colorado Springs, CO 80903
Phone: 719-385-5918

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Sheet Subset: STRUCTURES
Subset Sheets: 12 OF 15

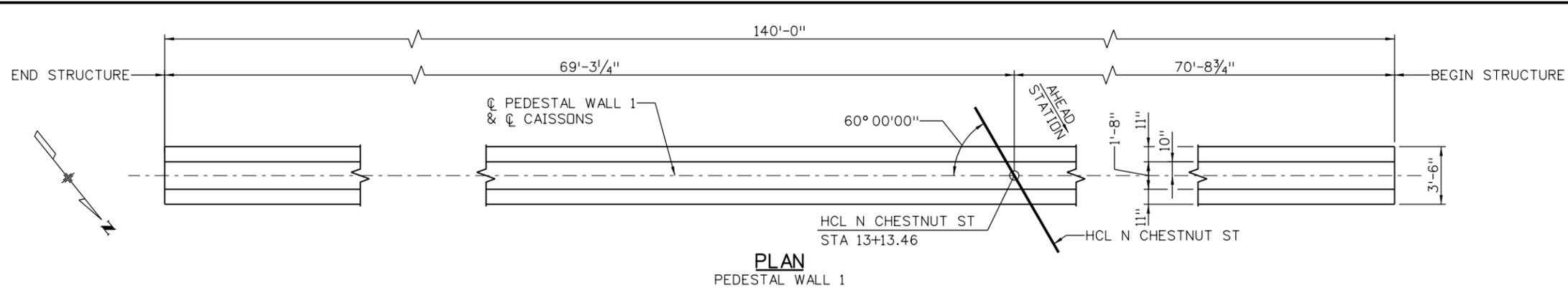
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Colorado Springs, CO 80920
Phone: 719-272-8800

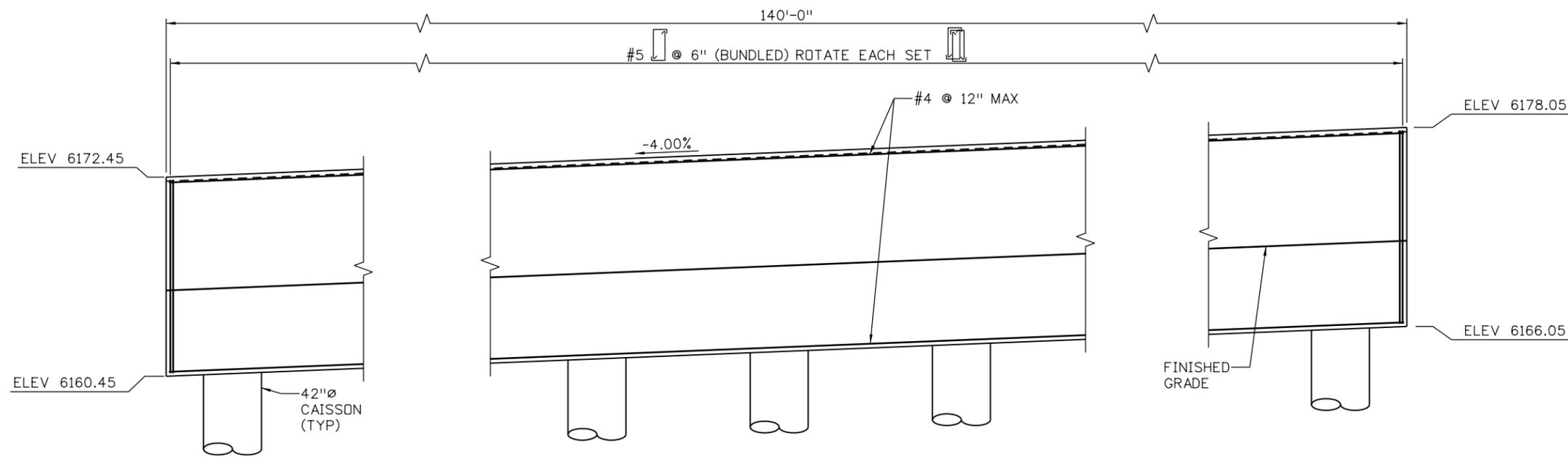
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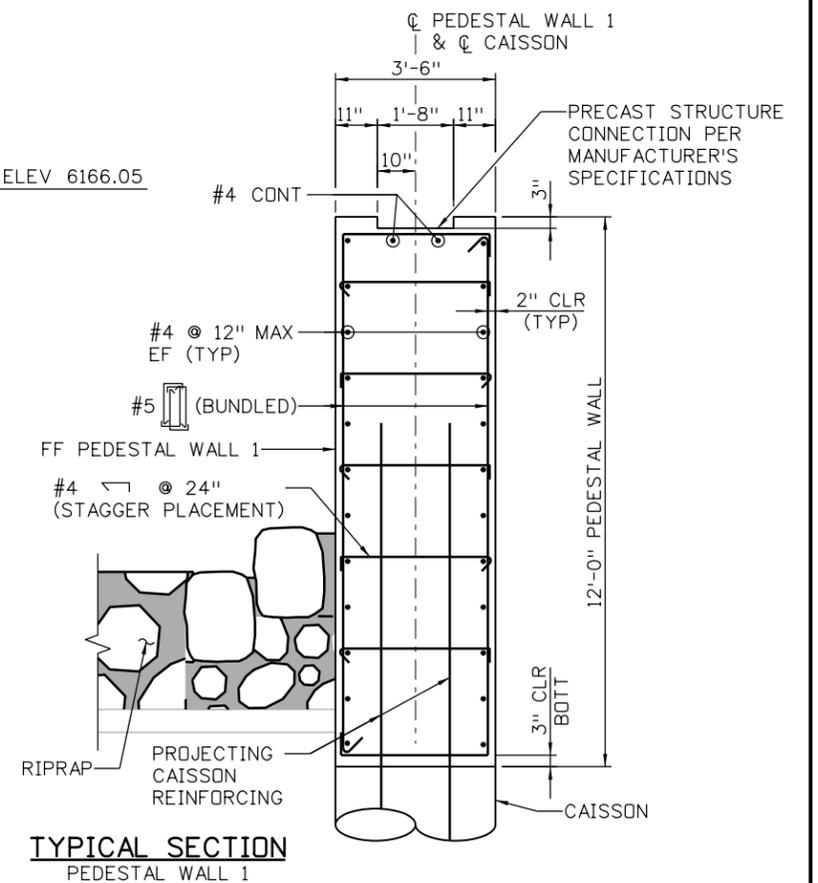
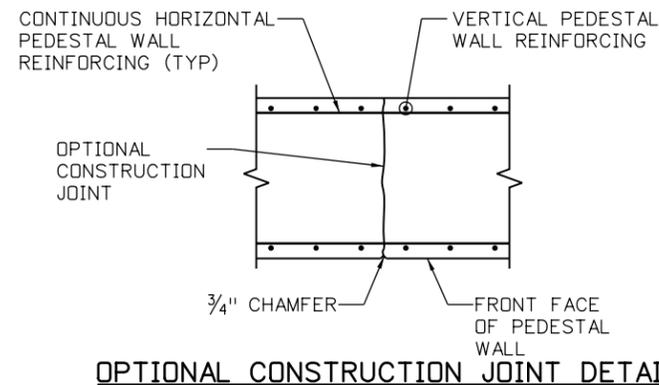
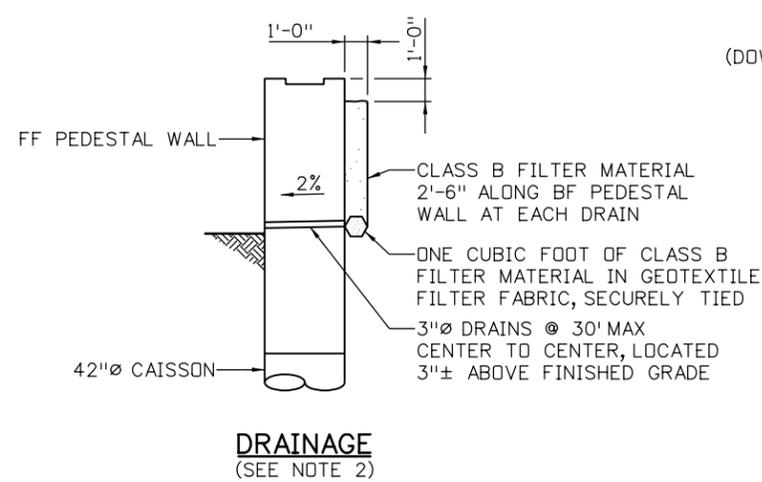
PROJECT: CHESTNUT CULVERT REPLACEMENT
STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
WINGWALL DETAILS 2 OF 2
DRAINAGE BASIN: SOUTH DOUGLAS CREEK
JOB NO. _____ SHEET 43 OF 63



CAISSON	TOP OF CAISSON ELEVATION	ESTIMATED TIP ELEVATION
1	6160.61	6137.61
2	6161.05	6138.05
3	6161.49	6138.49
4	6161.93	6138.93
5	6162.37	6139.37
6	6162.81	6139.81
7	6163.25	6140.25
8	6163.69	6140.69
9	6164.13	6141.13
10	6164.57	6141.57
11	6165.01	6142.01
12	6165.45	6142.45
13	6165.89	6142.89



- NOTES:**
- VERTICAL JOINTS BETWEEN PRECAST CONCRETE UNITS SHALL BE A MINIMUM OF 6" FROM ANY CONSTRUCTION JOINT.
 - FILTER MATERIAL AND DRAINS TO BE INCLUDED IN THE COST OF CONCRETE CLASS D.



Computer File Information

Creation Date: 01/15/2016
Last Modification Date: 2/1/2016
File Name: BRDG_Pedestal wall 1
Sheet Model Name:
Microstation Ver:

STATEMENT:
 THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGNER ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

SCALE: HORIZ. VERT.
 BENCHMARK:

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CITY OF COLORADO SPRINGS

30 S Nevada
 Colorado Springs, CO 80903
 Phone: 719-385-5918

Structure:
 Sheet Subset: STRUCTURES
 Subset Sheets: 13 OF 15

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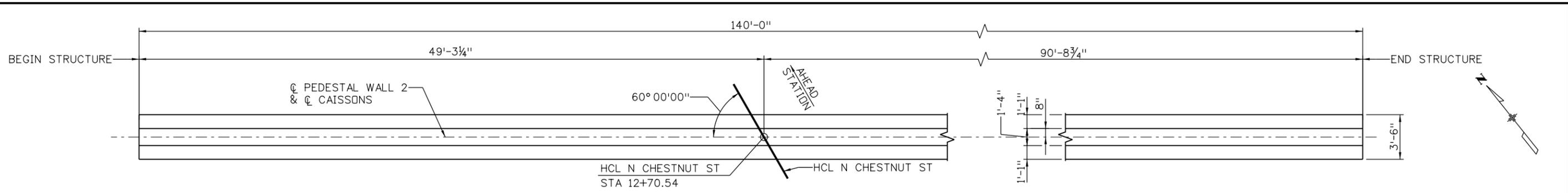
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 Colorado Springs, CO 80920
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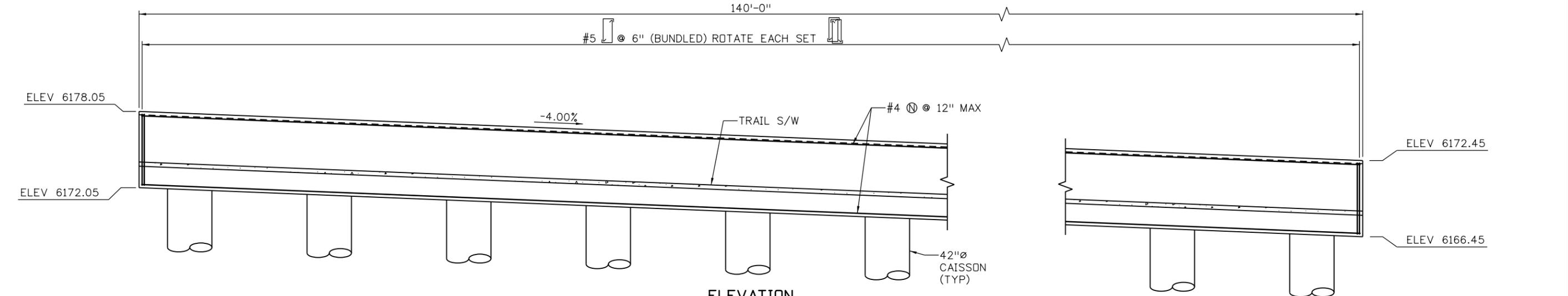


PROJECT: CHESTNUT CULVERT REPLACEMENT
 STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
 PEDESTAL WALL DETAILS 1 OF 2
 DRAINAGE BASIN: SOUTH DOUGLAS CREEK
 JOB NO. _____ SHEET 44 OF 63

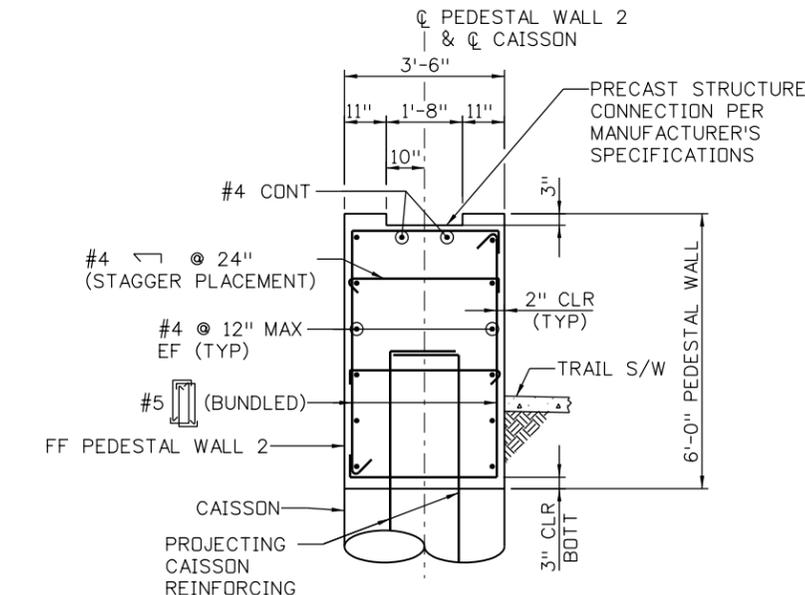
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PLAN
PEDESTAL WALL 2



ELEVATION
PEDESTAL WALL 2
(DOWELS NOT SHOWN FOR CLARITY)



TYPICAL SECTION
PEDESTAL WALL 2 LOOKING SOUTH

CAISSON	TOP OF CAISSON ELEVATION	ESTIMATED TIP ELEVATION
14	6171.89	6148.89
15	6171.45	6148.45
16	6171.01	6148.01
17	6170.57	6147.57
18	6170.13	6147.13
19	6169.69	6146.69
20	6169.25	6146.25
21	6168.81	6145.81
22	6168.37	6145.37
23	6167.93	6144.93
24	6167.49	6144.49
25	6167.05	6144.05
26	6166.61	6143.61

- NOTES:**
- FOR OPTIONAL CONSTRUCTION JOINT DETAIL, SEE PEDESTAL WALL 1 SHEET.
 - FOR DRAINAGE DETAIL, SEE PEDESTAL WALL 1 SHEET.

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Computer File Information

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Last Modification Date: 2/1/2016
File Name: BRDG_Pedestal wall 2
Sheet Model Name:
Microstation Ver:

STATEMENT:
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CITY OF COLORADO SPRINGS

30 S Nevada
Colorado Springs, CO 80903
Phone: 719-385-5918

Structure:
Sheet Subset: STRUCTURES
Subset Sheets: 14 OF 15

HDR

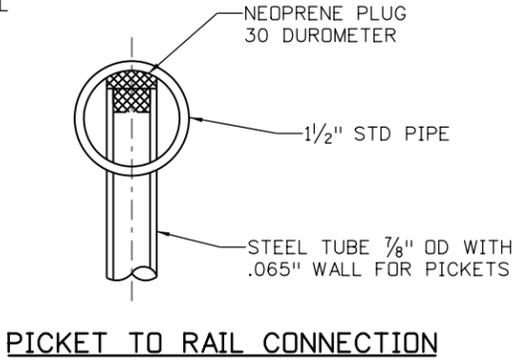
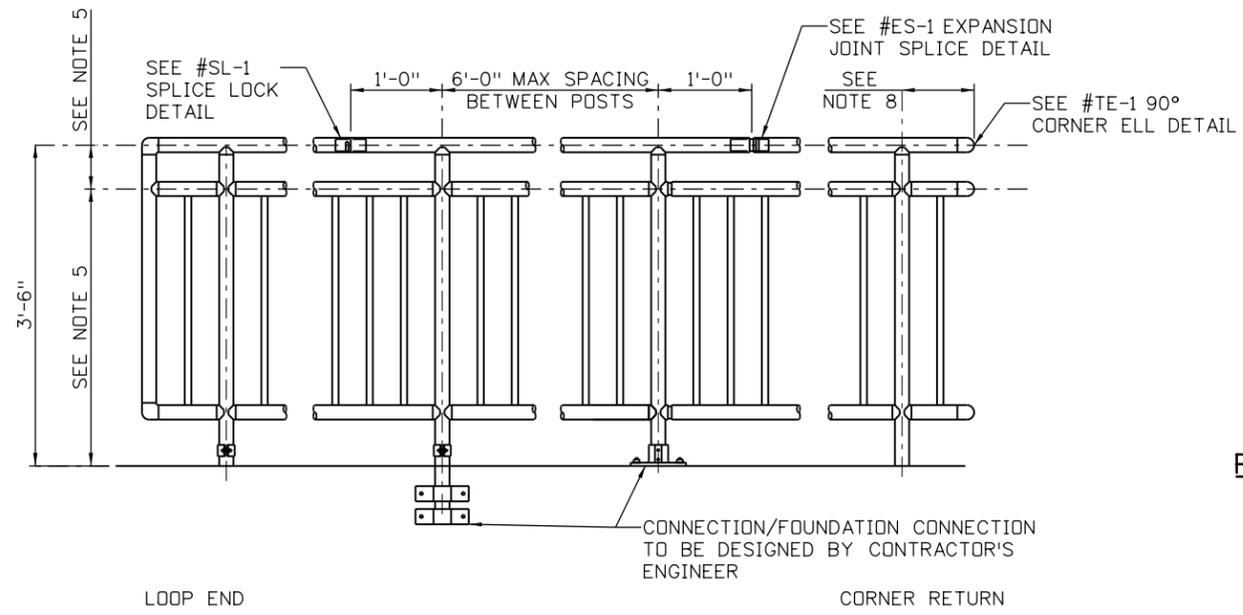
2060 Briargate Parkway, Suite 120
Colorado Springs, CO 80920
Phone: 719-272-8800

Designer: LAS Date: 1-14-16
Cadd: JBS Date: 1-14-16
Checker: RST Date: 1-14-16

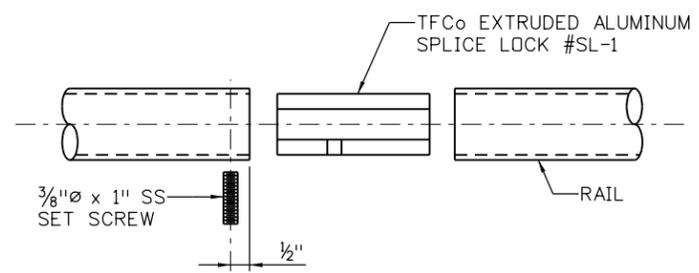


PROJECT: CHESTNUT CULVERT REPLACEMENT
STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
PEDESTAL WALL DETAILS 2 OF 2
DRAINAGE BASIN: SOUTH DOUGLAS CREEK
JOB NO. _____ SHEET 45 OF 63

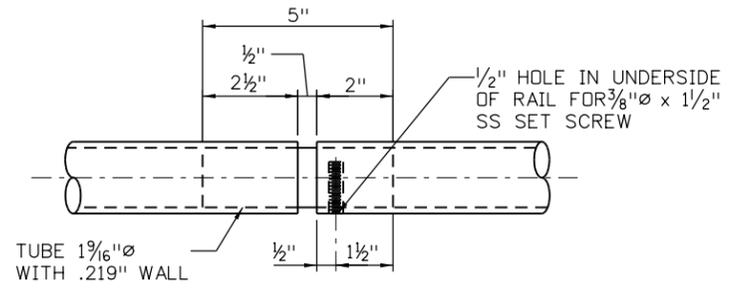
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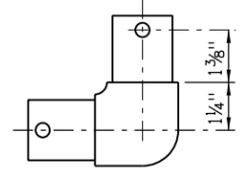
TYPE 1 PEDESTRIAN HANDRAIL
(HANDRAILS SHALL BE TOP MOUNTED OR GROUND MOUNTED AS SHOWN ON PLANS)



#SL-1 SPLICE LOCK



#ES-1 EXPANSION SPLICE



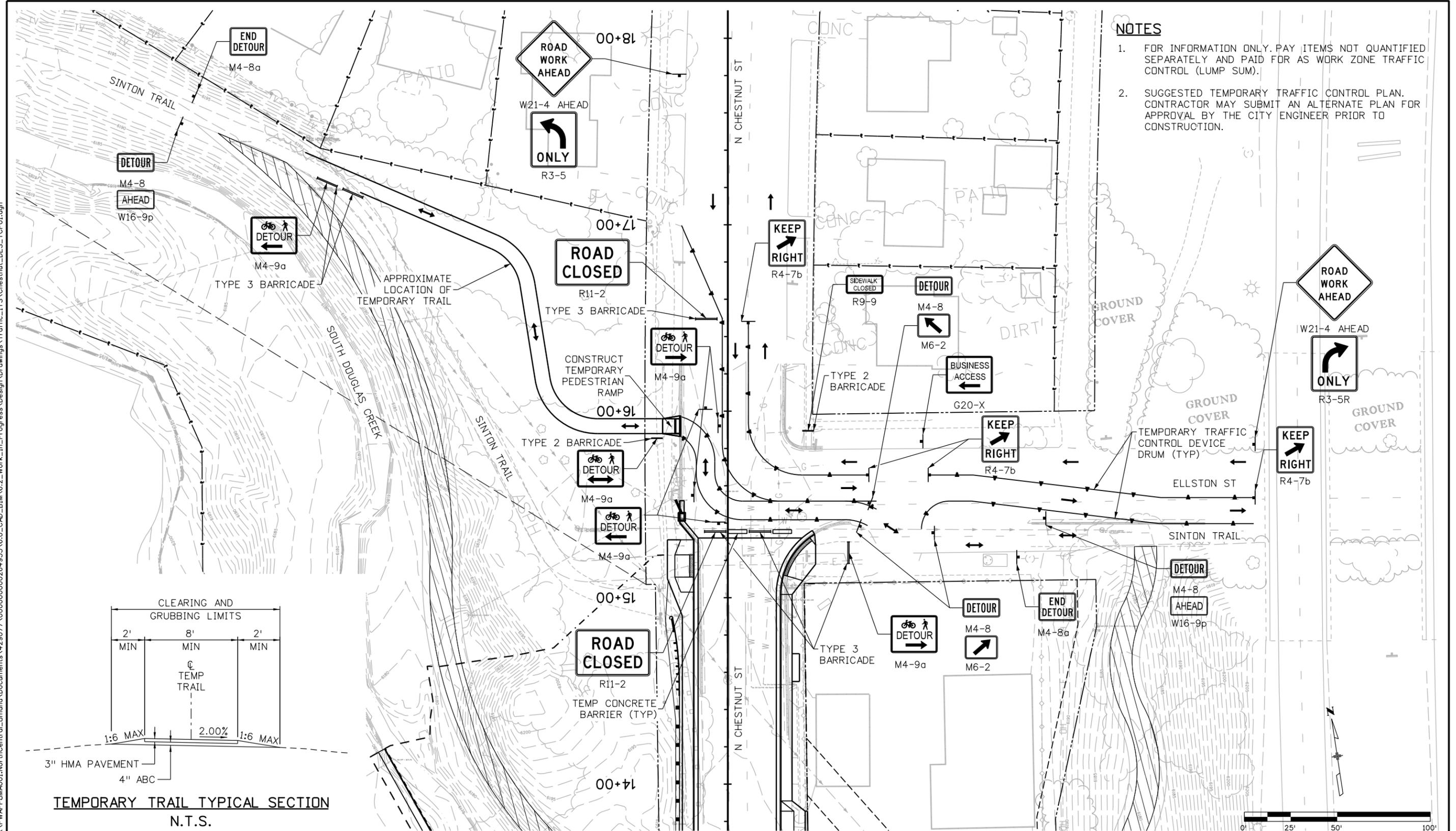
#TE-1 90° CORNER ELL

NOTES:

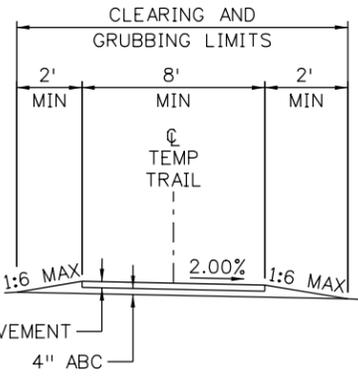
- HANDRAILS SHALL BE THE PRODUCT OF A COMPANY NORMALLY ENGAGED IN THE MANUFACTURE OF PIPE RAILING. RAILING SHALL BE SHOP ASSEMBLED IN LENGTHS NOT TO EXCEED 24 FEET FOR FIELD ERECTION.
- THE HANDRAIL SHALL BE MADE OF PIPES JOINED TOGETHER WITH COMPONENT FITTINGS. SAMPLES OF ALL COMPONENTS, BASES, TOE PLATE AND PIPE SHALL BE SUBMITTED FOR APPROVAL AT THE REQUEST OF THE ENGINEER. COMPONENTS THAT ARE POP-RIVETED OR GLUED AT THE JOINTS WILL NOT BE ACCEPTABLE. ALL COMPONENTS MUST BE MECHANICALLY FASTENED WITH STAINLESS STEEL HARDWARE. HANDRAIL AND COMPONENTS SHALL BE TUFRAIL, AS MANUFACTURED BY THOMPSON FABRICATING, LLC (BIRMINGHAM, ALABAMA) OR AN APPROVED EQUAL.
- PIPE RAILS AND POSTS SHALL BE IN ACCORDANCE WITH ASTM A53 GRADE B FOR STANDARD WEIGHT PIPE. POSTS AND END RAILS SHALL BE FABRICATED AND INSTALLED PLUMB ± 1" TOLERANCE WHEN MEASURED AT 3'-6" ABOVE THE FOUNDATION. CORNERS AND CHANGES IN TANGENTIAL LONGITUDINAL ALIGNMENT, MAY BE MADE CONTINUOUS WITH A 9" BEND RADIUS OR TERMINATED AT ADJOINING SECTIONS WITH A STANDARD END HOOP WHEN HANDRAILS ARE NOT REQUIRED. FOR CHANGES IN TANGENTIAL LONGITUDINAL ALIGNMENT GREATER THAN 45°, POSTS SHALL BE POSITIONED AT A MAXIMUM DISTANCE OF 2'-0" EACH SIDE OF THE CORNER AND SHALL NOT BE LOCATED AT THE CORNER APEX. FOR CURVED LONGITUDINAL ALIGNMENTS THE TOP AND BOTTOM RAILS AND HANDRAILS SHALL BE SHOP BENT TO MATCH THE ALIGNMENT RADIUS.
- HANDRAILS SHALL BE DESIGNED TO WITHSTAND A 200 LB. CONCENTRATED LOAD APPLIED IN ANY DIRECTION AND AT ANY POINT ON THE TOP RAIL. HAND RAILS SHALL ALSO BE DESIGNED TO WITHSTAND A UNIFORM LOAD OF 50 LB/FT APPLIED HORIZONTALLY TO THE TOP RAIL. UNIFORM LOADS ARE NOT TO BE APPLIED SIMULTANEOUSLY WITH THE CONCENTRATED LOADS.
- PICKETS AND INTERMEDIATE RAILINGS SHALL BE PROVIDED SUCH THAT A 4-INCH DIAMETER SPHERE CANNOT PASS THROUGH ANY OPENING UP TO A HEIGHT OF 34 INCHES. FROM A HEIGHT OF 34 INCHES TO 42 INCHES ABOVE THE ADJACENT WALKING SURFACE, A SPHERE 8 INCHES IN DIAMETER SHALL NOT PASS. THE TRIANGULAR OPENINGS FORMED BY THE RISER, TREAD AND BOTTOM RAIL AT THE OPEN SIDE OF A STAIRWAY SHALL BE OF A SIZE SUCH THAT A SPHERE OF 6 INCHES IN DIAMETER CANNOT PASS THROUGH THE OPENING.
- PICKETS AND INTERMEDIATE RAILINGS SHALL BE DESIGNED TO WITHSTAND A HORIZONTALLY APPLIED NORMAL LOAD OF 50 LB ON AN AREA NOT TO EXCEED ONE SQUARE FOOT INCLUDING OPENINGS AND SPACE BETWEEN RAILS.
- POSTS SHALL NOT INTERRUPT THE CONTINUATION OF THE TOP RAIL AT ANY POINT ALONG THE RAILING, INCLUDING CORNERS AND END TERMINATION (OSHA 19 1 0.23). THE TOP SURFACE OF THE TOP RAILING SHALL BE SMOOTH AND SHALL NOT BE INTERRUPTED BY PROJECTED FITTINGS.
- THE MID-RAIL AT A CORNER RETURN SHALL BE ABLE TO WITHSTAND A 200 LB LOAD WITHOUT LOOSENING. THE MANUFACTURER IS TO DETERMINE THIS DIMENSION FOR THEIR SYSTEM AND PROVIDE PHYSICAL LABORATORY TESTS TO CONFIRM COMPLIANCE.
- CONCRETE ANCHORS SHALL BE STAINLESS STEEL TYPE 303 OR 304 WEDGE ANCHORS AND SHALL BE FURNISHED BY THE HANDRAIL MANUFACTURER. THE ANCHOR DESIGN SHALL INCLUDE THE APPROPRIATE REDUCTION FACTORS FOR SPACING AND EDGE DISTANCES IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED DATA.
- OPENINGS IN THE RAILING SHALL BE GUARDED BY A SELF-CLOSING GATE (OSHA 19 1 0.23). SAFETY CHAINS SHALL NOT BE USED UNLESS SPECIFICALLY SHOWN ON THE DRAWINGS.
- FOR ADDITIONAL HANDRAIL INFORMATION, SEE SECTION 514 OF THE CDOT STANDARD SPECIFICATIONS AND REVISIONS.
- ALL HANDRAIL SHALL BE PAINTED BRIDGE GREEN IN ACCORDANCE WITH SECTIONS 509 AND 708 OF THE CDOT STANDARD SPECIFICATIONS AND REVISIONS.

Computer File Information Creation Date: 01/15/2016 Last Modification Date: 2/1/2016 File Name: BRDG_GuardrailDetails.dgn Sheet Model Name: Microstation Ver:		STATEMENT: THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGNER ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.	SCALE: HORIZ. VERT. BENCHMARK:	Index of Revisions <table border="1"> <thead> <tr> <th>No.</th> <th>Description</th> <th>Date</th> </tr> </thead> <tbody> <tr><td>1</td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td></tr> </tbody> </table>	No.	Description	Date	1			2			3			4			 30 S Nevada Colorado Springs, CO 80903 Phone: 719-385-5918	 2060 Briargate Parkway, Suite 120 Colorado Springs, CO 80920 Phone: 719-272-8800	 PROJECT: CHESTNUT CULVERT REPLACEMENT STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK PEDESTRIAN HANDRAIL DETAILS DRAINAGE BASIN: SOUTH DOUGLAS CREEK JOB NO. _____ SHEET 46 OF 63
No.	Description	Date																				
1																						
2																						
3																						
4																						
Structure: _____ Sheet Subset: STRUCTURES Subset Sheets: 15 OF 15		Designer: LAS Date: 1-14-16 Cadd: JBS Date: 1-14-16 Checker: RST Date: 1-14-16																				

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- NOTES**
- FOR INFORMATION ONLY. PAY ITEMS NOT QUANTIFIED SEPARATELY AND PAID FOR AS WORK ZONE TRAFFIC CONTROL (LUMP SUM).
 - SUGGESTED TEMPORARY TRAFFIC CONTROL PLAN. CONTRACTOR MAY SUBMIT AN ALTERNATE PLAN FOR APPROVAL BY THE CITY ENGINEER PRIOR TO CONSTRUCTION.



TEMPORARY TRAIL TYPICAL SECTION
N.T.S.

Computer File Information

Creation Date: 01/15/2016
Last Modification Date: 2/1/2016
File Name: Chestnut_DES_TCP01.dgn
Sheet Model Name:
Microstation Ver:

STATEMENT:

THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGNER ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

SCALE: HORIZ. 1"=50' VERT. N/A

BENCHMARK:

Index of Revisions

No.	Description	Date
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2		
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CITY OF COLORADO SPRINGS

30 S Nevada
Colorado Springs, CO 80903
Phone: 719-385-5918

Structure:

Sheet Subset: TCP

Subset Sheets: 1 OF 1

DR

2060 Briargate Parkway, Suite 120
Colorado Springs, CO 80920
Phone: 719-272-8800

Designer: RD Date: 1/20/16

Cadd: RD Date: 1/20/16

Checker: TCH Date: 1/29/16



PROJECT: CHESTNUT CULVERT REPLACEMENT

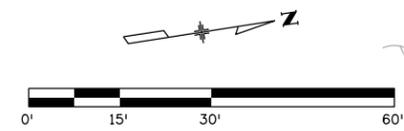
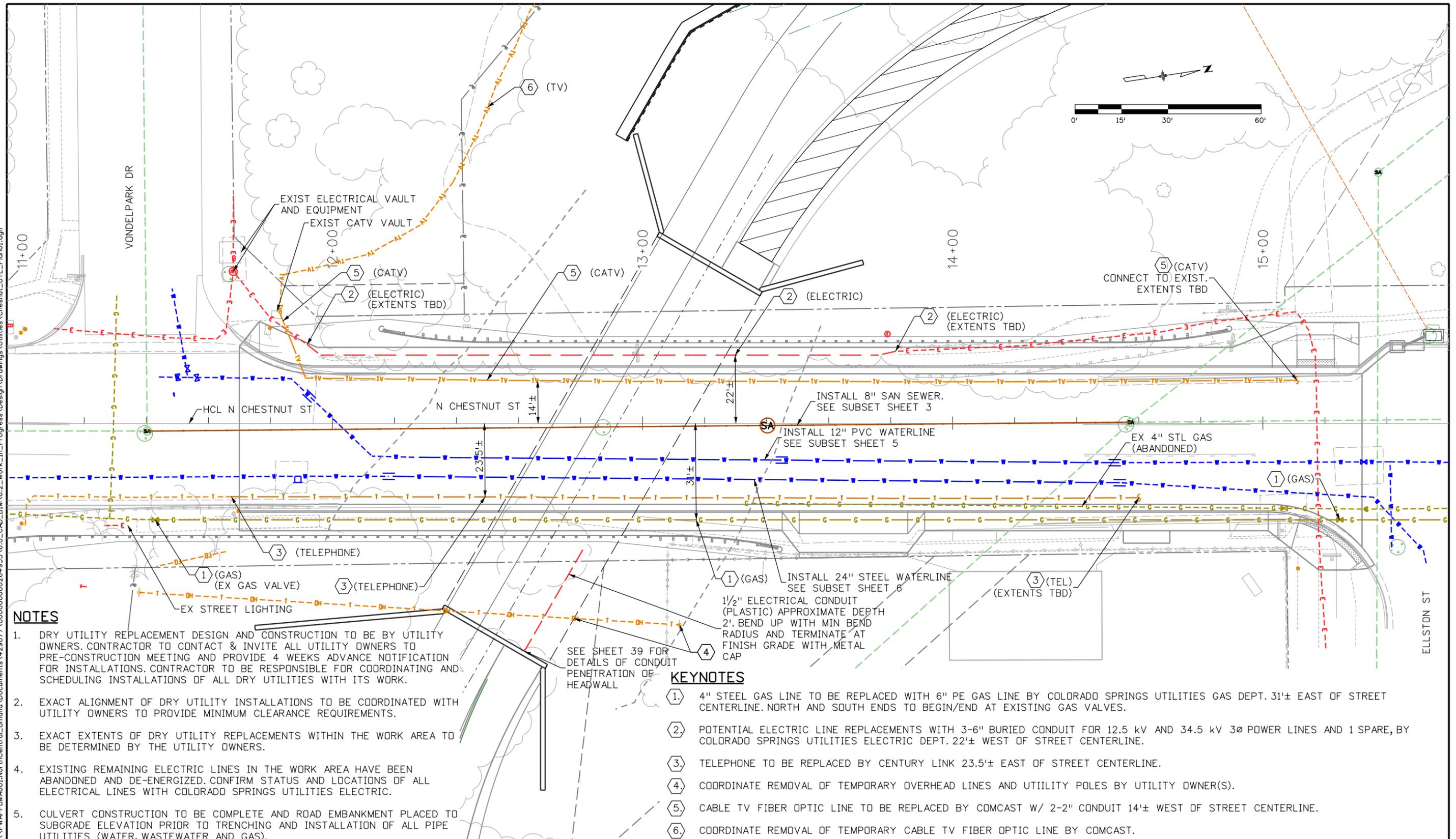
STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK

TEMPORARY TRAFFIC CONTROL PLAN

DRAINAGE BASIN: SOUTH DOUGLAS CREEK

JOB NO. _____ SHEET 48 OF 63

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NOTES

1. DRY UTILITY REPLACEMENT DESIGN AND CONSTRUCTION TO BE BY UTILITY OWNERS. CONTRACTOR TO CONTACT & INVITE ALL UTILITY OWNERS TO PRE-CONSTRUCTION MEETING AND PROVIDE 4 WEEKS ADVANCE NOTIFICATION FOR INSTALLATIONS. CONTRACTOR TO BE RESPONSIBLE FOR COORDINATING AND SCHEDULING INSTALLATIONS OF ALL DRY UTILITIES WITH ITS WORK.
2. EXACT ALIGNMENT OF DRY UTILITY INSTALLATIONS TO BE COORDINATED WITH UTILITY OWNERS TO PROVIDE MINIMUM CLEARANCE REQUIREMENTS.
3. EXACT EXTENTS OF DRY UTILITY REPLACEMENTS WITHIN THE WORK AREA TO BE DETERMINED BY THE UTILITY OWNERS.
4. EXISTING REMAINING ELECTRIC LINES IN THE WORK AREA HAVE BEEN ABANDONED AND DE-ENERGIZED. CONFIRM STATUS AND LOCATIONS OF ALL ELECTRICAL LINES WITH COLORADO SPRINGS UTILITIES ELECTRIC.
5. CULVERT CONSTRUCTION TO BE COMPLETE AND ROAD EMBANKMENT PLACED TO SUBGRADE ELEVATION PRIOR TO TRENCHING AND INSTALLATION OF ALL PIPE UTILITIES (WATER, WASTEWATER AND GAS).

KEYNOTES

1. 4" STEEL GAS LINE TO BE REPLACED WITH 6" PE GAS LINE BY COLORADO SPRINGS UTILITIES GAS DEPT. 31'± EAST OF STREET CENTERLINE. NORTH AND SOUTH ENDS TO BEGIN/END AT EXISTING GAS VALVES.
2. POTENTIAL ELECTRIC LINE REPLACEMENTS WITH 3-6" BURIED CONDUIT FOR 12.5 kV AND 34.5 kV 3Ø POWER LINES AND 1 SPARE, BY COLORADO SPRINGS UTILITIES ELECTRIC DEPT. 22'± WEST OF STREET CENTERLINE.
3. TELEPHONE TO BE REPLACED BY CENTURY LINK 23.5'± EAST OF STREET CENTERLINE.
4. COORDINATE REMOVAL OF TEMPORARY OVERHEAD LINES AND UTILITY POLES BY UTILITY OWNER(S).
5. CABLE TV FIBER OPTIC LINE TO BE REPLACED BY COMCAST W/ 2-2" CONDUIT 14'± WEST OF STREET CENTERLINE.
6. COORDINATE REMOVAL OF TEMPORARY CABLE TV FIBER OPTIC LINE BY COMCAST.

Computer File Information	
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Last Modification Date:	2/1/2016
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STATEMENT:
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SCALE: HORIZ. VERT.
 BENCHMARK: _____

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No.	Description	Date
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2		
3		
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CITY OF COLORADO SPRINGS
 30 S Nevada
 Colorado Springs, CO 80903
 Phone: 719-385-5918

DR
 2060 Briargate Parkway, Suite 120
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 Phone: 719-272-8800

Structure:
 Sheet Subset: UTILITY
 Subset Sheets: 1 OF 7

Designer: KB Date: 1/04/16
 Cadd: JM Date: 1/04/16
 Checker: MG Date: 1/26/16



PROJECT: CHESTNUT CULVERT REPLACEMENT
 STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
 OVERALL UTILITY PLAN
 DRAINAGE BASIN: SOUTH DOUGLAS CREEK
 JOB NO. _____ SHEET 49 OF 63

WASTEWATER PLAN NOTES

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

GENERAL:

- ALL CONSTRUCTION METHODS AND MATERIALS SHALL MEET COLORADO SPRINGS UTILITIES' WASTEWATER LINE EXTENSION AND SERVICE STANDARDS (WASTEWATER STANDARDS).
- THE CONTRACTOR SHALL OBTAIN LOCATES PRIOR TO ANY EXCAVATION.
- COLORADO SPRINGS UTILITIES DOES NOT GUARANTEE THE ACCURACY OF LOCATIONS OF EXISTING PIPELINES, MANHOLES AND SERVICE LINES. IF FIELD CONDITIONS ARE FOUND TO BE DIFFERENT THAN SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE INSPECTOR AND THE ENGINEER OF RECORD IMMEDIATELY.
- NO TREES OR STRUCTURES ARE PERMITTED WITHIN FIFTEEN FEET (15') OF A WASTEWATER MAIN.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITY FACILITIES AS A RESULT OF HIS ACTIONS. THE CONTRACTOR SHALL MAKE ALL THE REQUIRED REPAIRS IMMEDIATELY TO THE SATISFACTION OF COLORADO SPRINGS UTILITIES.
- ALL FIELD STAKING SHALL COMPLY WITH THE WASTEWATER STANDARDS.
- THE CONTRACTOR SHALL ENSURE THAT WASTEWATER SERVICE TO ADJACENT PROPERTIES IS MAINTAINED DURING CONSTRUCTION.
- ALL MANHOLES LOCATED WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO FINISH GRADE. IF MANHOLES ARE IN POOR CONDITION OR IF THE DISTANCE BETWEEN THE RING/COVER AND CONE OF THE MANHOLE EXCEEDS THE WASTEWATER STANDARDS, THE CONTRACTOR MAY BE REQUIRED TO REPLACE PART OR ALL OF THE EXISTING MANHOLES.
- REUSE OR SALVAGE OF ANY MATERIAL IS LEFT TO THE DISCRETION OF THE COLORADO SPRINGS UTILITIES INSPECTOR.
- ALL TRENCH BACKFILL AND COMPACTION SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE CITY OF COLORADO SPRINGS STANDARD SPECIFICATIONS MANUAL.

WASTEWATER PROJECT - SPECIFIC NOTES (CONT'D)

- | | | |
|---|--|--|
| <p>APPLICABLE</p> <p>NON-APPLICABLE</p> | <p>4. <input type="checkbox"/></p> <p>5. <input checked="" type="checkbox"/></p> <p>6. <input type="checkbox"/></p> <p>7. <input type="checkbox"/></p> <p>8. <input type="checkbox"/></p> <p>9. <input type="checkbox"/></p> | <p><input checked="" type="checkbox"/> WASTEWATER MAINS EXISTS UNDERNEATH A PROPOSED STRUCTURE, CONTRACTOR SHALL:</p> <p style="margin-left: 20px;"><input type="checkbox"/> REMOVE IT
<input type="checkbox"/> GROUT IT FULL</p> <p><input type="checkbox"/> WASTEWATER MAIN TO BE ABANDONED EXISTS WITHIN RIGHT-OF-WAY, THE CONTRACTOR SHALL:</p> <p style="margin-left: 20px;"><input checked="" type="checkbox"/> REMOVE IT
<input type="checkbox"/> GROUT IT FULL</p> <p><input checked="" type="checkbox"/> PIPELINES LESS THAN 1.04% GRADE ARE PROPOSED. THE CONTRACTOR SHALL COMPLY WITH THE ADDITIONAL REQUIREMENTS AS SPECIFIED WITHIN THE WASTEWATER STANDARDS.</p> <p><input checked="" type="checkbox"/> THIS PROJECT IS UTILIZING EXISTING WASTEWATER STUB(S) IN AN "AS-IS" CONDITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE STUB(S), CONNECTION, AND SUBSEQUENT EXTENSION MEET ALL CURRENT WASTEWATER STANDARDS AND DO NOT HAVE ANY DEFECTS.</p> <p><input checked="" type="checkbox"/> COLORADO SPRINGS UTILITIES DOES NOT GUARANTEE THE ACCURACY OF THE DEPTH, LOCATION, OR CONDITION OF ANY EXISTING STUB (S) SHOWN ON ANY AS CONSTRUCTED DRAWINGS. FURTHER, THE EXISTING STUB SHALL BE INCLUDED IN THE TWO-YEAR WARRANTY PERIOD FOR THIS PROJECT.</p> <p><input checked="" type="checkbox"/> A WASTEWATER STUB OR STUBS ARE PROPOSED WITH THIS PROJECT. COLORADO SPRINGS UTILITIES WILL INSPECT THE CONSTRUCTION BUT DOES NOT GUARANTEE THAT THE DESIGN OR INSTALLATION OF THE PROPOSED STUB(S) WILL MEET FUTURE DEVELOPMENT REQUIREMENTS. FURTHER, THE PROPOSED STUB(S) WILL NOT BE INCLUDED IN THE TWO-YEAR WARRANTY PERIOD FOR THIS PROJECT AND WILL NOT BE ACCEPTED OR OWNED BY COLORADO SPRINGS UTILITIES.</p> |
|---|--|--|

GENERAL NOTES:

- CONTRACTOR TO VERIFY EXISTING MANHOLE INVERT ELEVATIONS PRIOR TO CONSTRUCTION.
- CONTRACTOR TO NOTIFY ENGINEER OF ANY CHANGES IN MANHOLE INVERT ELEVATIONS. SUBMIT RFI FOR PIPE ELEVATION AND SLOPE CHANGES.
- CULVERT CONSTRUCTION TO BE COMPLETE AND ROAD EMBANKMENT PLACED TO SUBGRADE ELEVATION PRIOR TO SANITARY SEWER TRENCHING AND INSTALLATION.

WASTEWATER PROJECT - SPECIFIC NOTES

- | | | |
|---|---|---|
| <p>APPLICABLE</p> <p>NON-APPLICABLE</p> | <p>1. <input type="checkbox"/></p> <p>2. <input checked="" type="checkbox"/></p> <p>3. <input type="checkbox"/></p> | <p><input checked="" type="checkbox"/> CORROSION PROTECTION IS REQUIRED FOR ALL DUCTILE IRON PIPE. ALL PROTECTION SHALL COMPLY WITH THE WASTEWATER STANDARDS.</p> <p><input type="checkbox"/> THIS PROJECT IS CONNECTING TO AN EXISTING MANHOLE. A MANHOLE ASSESSMENT HAS BEEN COMPLETED FOR THIS PROJECT. THE FOLLOWING CHECKED ITEMS ARE REQUIRED:</p> <p style="margin-left: 20px;"><input type="checkbox"/> THE CONTRACTOR SHALL PROVIDE A BYPASS PUMPING PLAN FOR APPROVAL BY COLORADO SPRINGS UTILITIES AND COMPLY WITH ALL THE REQUIREMENTS THEREIN. REPAIR THE EXISTING MANHOLE (REFER TO PLAN AND PROFILE FOR REQUIREMENTS).</p> <p style="margin-left: 20px;"><input type="checkbox"/> REPLACE THE EXISTING MANHOLE (REFER TO PLAN AND PROFILE FOR REQUIREMENTS).</p> <p><input checked="" type="checkbox"/> MANHOLES ARE BEING ABANDONED, THE CONTRACTOR SHALL:</p> <ul style="list-style-type: none"> • PLUG THE "IN" AND "OUT" INVERTS WITH A WATERTIGHT MECHANICAL PLUG AND GROUT WITH APPROVED MATERIAL. • REMOVE AND DISPOSE OF THE CONE SECTION. • REMOVE THE RING AND COVER AND RETURN THEM TO COLORADO SPRINGS UTILITIES. • FILL THE MANHOLE WITH APPROVED MATERIAL. |
|---|---|---|

FIMS MAP NUMBER: G-28
UTILITY DESIGN CAD FILE NO.: _____

**COLORADO SPRINGS UTILITIES
WASTEWATER PLAN DESIGN APPROVAL**

APPROVED BY: _____ DATE: _____

PROJECT NUMBER: 2016-S007 WORK ORDER NUMBER: 2957219

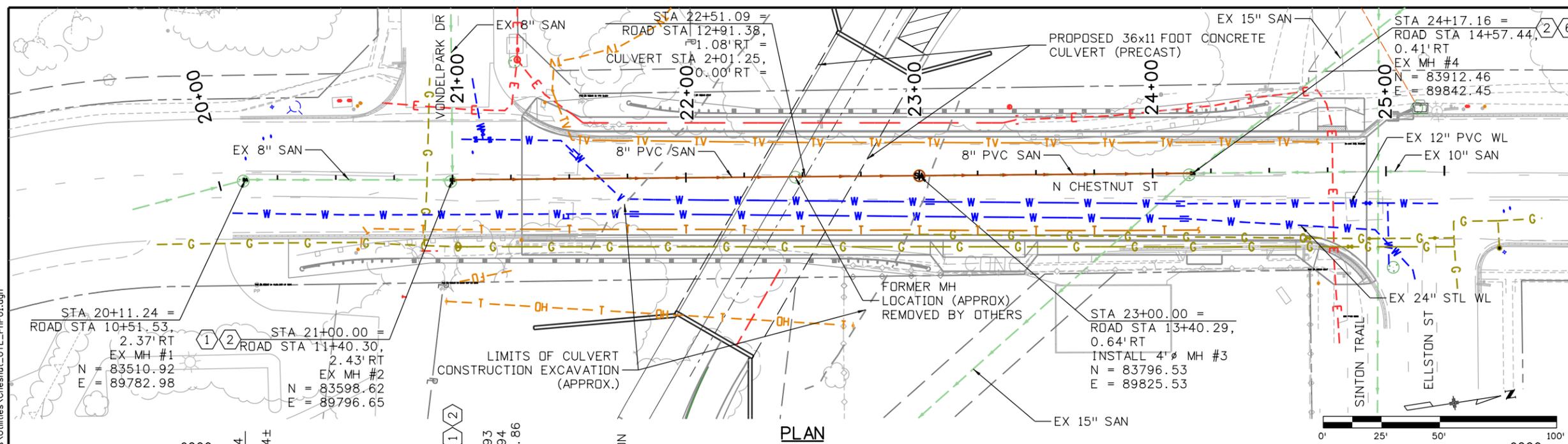
CSU SHEET 1 OF 2

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

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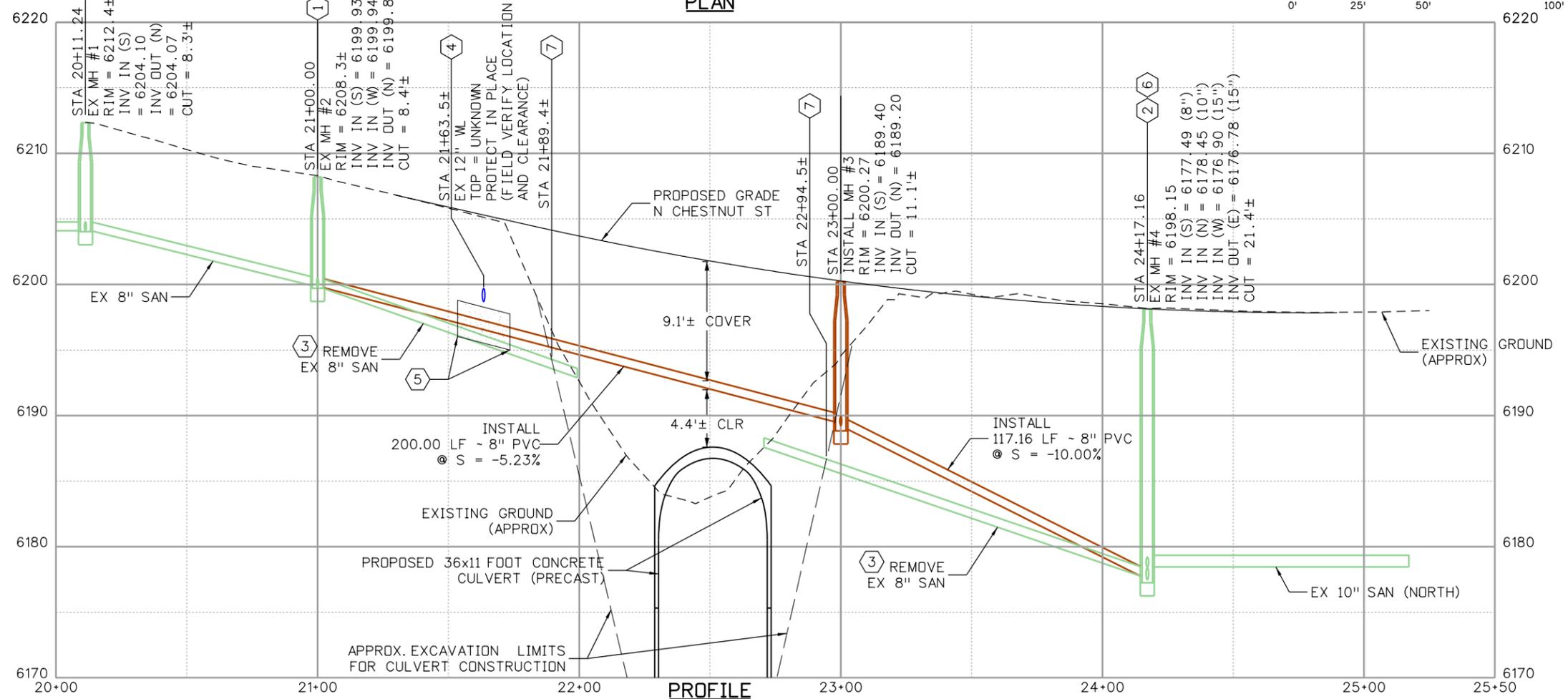
Computer File Information	STATEMENT:	SCALE: HORIZ. VERT.	BENCHMARK: _____	Index of Revisions	 <p>30 S Nevada Colorado Springs, CO 80903 Phone: 719-385-5918</p>	 <p>2060 Briargate Parkway, Suite 120 Colorado Springs, CO 80920 Phone: 719-272-8800</p>		PROJECT: CHESTNUT CULVERT REPLACEMENT
Creation Date: 01/15/2016	THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGNER ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.			No. Description Date	Structure: _____	Designer: KB Date: 1/04/16		STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
Last Modification Date: 2/1/2016				1	Sheet Subset: UTILITY	Cadd: JM Date: 1/04/16		WASTEWATER NOTES
File Name: Chestnut_UTL_GeneralNotes02.dgn				2	Subset Sheets: 2 OF 7	Checker: MG Date: 1/26/16		DRAINAGE BASIN: SOUTH DOUGLAS CREEK
Sheet Model Name:				3				JOB NO. _____ SHEET <u>50</u> OF <u>63</u>
Microstation Ver:			4					

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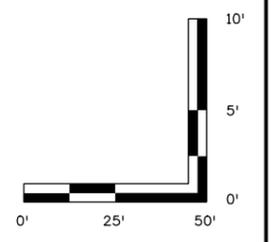


PLAN

- KEYNOTES**
- 1 CONTRACTOR TO MAINTAIN CONTINUOUS ACCESS TO EX MH #2 FOR PUMPING BY CSU
 - 2 REMOVE EX 8" LINED VCP SAN PIPE FROM EX MH. CONNECT NEW 8" PVC SAN PIPE TO EX MH W/ FLEXIBLE MANHOLE PIPE SEAL. FIELD VERIFY INVERT ELEVATIONS PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY CHANGES.
 - 3 REMOVE EX 8" SAN IF W/IN 2' OF PROPOSED SAN. REMOVE OR FILL W/ CLSM IF >2' FROM PROPOSED SAN. (ELEV AND EXTENTS OF EX SAN SHOWN IS APPROXIMATE)
 - 4 EX SAN IS ENCASED IN CLSM 10' ± EACH SIDE OF EX WL CROSSING. REMOVE EX CLSM & SAN TO CONSTRUCT NEW SAN.
 - 5 INSTALL 20 LF OF CLSM, 10' EACH SIDE OF WL CROSSING IF CLEARANCE IS < 18".
 - 6 ADJUST EX MH RIM TO GRADE AS NEEDED.
 - 7 CUT EX SAN TO CULVERT EXCAVATION SLOPE (BY EXCAVATION CONTRACTOR)



PROFILE



Computer File Information

Creation Date: 01/15/2016
Last Modification Date: 2/1/2016
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Microstation Ver:

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SCALE: HORIZ. VERT.
BENCHMARK:

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CITY OF COLORADO SPRINGS

30 S Nevada
 Colorado Springs, CO 80903
 Phone: 719-385-5918

Structure:
 Sheet Subset: UTILITY
 Subset Sheets: 3 OF 7

HDR

2060 Briargate Parkway, Suite 120
 Colorado Springs, CO 80920
 Phone: 719-272-8800

Designer: KB Date: 1/04/16
 Cadd: JM Date: 1/04/16
 Checker: MG Date: 1/26/16



PROJECT: CHESTNUT CULVERT REPLACEMENT
STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
8" SANITARY SEWER REPLACEMENT PLAN & PROFILE
DRAINAGE BASIN: SOUTH DOUGLAS CREEK
JOB NO. _____ SHEET 51 OF 63

WATER PLAN NOTES

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

GENERAL:

- ALL CONSTRUCTION METHODS AND MATERIALS SHALL MEET *COLORADO SPRINGS UTILITIES' WATER LINE EXTENSION AND SERVICE STANDARDS (WATER LESS)*.
- THE CONTRACTOR SHALL OBTAIN LOCATES PRIOR TO ANY EXCAVATION.
- COLORADO SPRINGS UTILITIES DOES NOT GUARANTEE THE ACCURACY OF LOCATIONS OF EXISTING PIPELINES, HYDRANTS, VALVES AND SERVICE LINES. IF FIELD CONDITIONS ARE FOUND TO BE DIFFERENT THAN SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE INSPECTOR AND THE ENGINEER OF RECORD IMMEDIATELY.
- NO TREES OR STRUCTURES ARE PERMITTED WITHIN FIFTEEN FEET (15') OF A WATER MAIN.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITY FACILITIES AS A RESULT OF HIS ACTIONS. THE CONTRACTOR SHALL MAKE ALL THE REQUIRED REPAIRS IMMEDIATELY TO THE SATISFACTION OF COLORADO SPRINGS UTILITIES.
- ALL FIELD STAKING SHALL COMPLY WITH THE *WATER LESS*.
- THE CONTRACTOR SHALL MAKE THEIR BEST EFFORT TO ENSURE THAT WATER SERVICE TO ADJACENT PROPERTIES IS MAINTAINED DURING CONSTRUCTION.
- CORROSION PROTECTION MEASURES SHALL COMPLY WITH THE *WATER LESS*.
- NO SERVICE TAPS WILL BE ALLOWED UNTIL THE MAIN IS EXTENDED TO THE NEXT MAIN-LINE VALVE.
- NO SERVICE TAPS SHALL BE MADE UNTIL AUTHORIZATION HAS BEEN GRANTED BY THE COLORADO SPRINGS UTILITIES' INSPECTOR.
- ALL BENDS SHALL BE FIELD STAKED PRIOR TO CONSTRUCTION AND THE STATIONING ON THE FIELD STAKES SHALL MATCH THE STATIONING ON THE PLANS.
- FIELD MODIFICATIONS TO A FIRE SERVICE LINE OR FIRE HYDRANT DESIGN OR LOCATION MAY NEED TO BE APPROVED BY THE DESIGN ENGINEER, COLORADO SPRINGS FIRE DEPARTMENT AND COLORADO SPRINGS UTILITIES, AS REQUIRED BY THE INSPECTOR.
- REUSE OR SALVAGE OF ANY MATERIAL IS LEFT TO THE DISCRETION OF THE COLORADO SPRINGS UTILITIES INSPECTOR.
- ALL TRENCH BACKFILL AND COMPACTION SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE *CITY OF COLORADO SPRINGS STANDARD SPECIFICATIONS MANUAL*.

GENERAL NOTES:

- CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF ALL EXISTING PIPE ENDS TO BE CONNECTED PRIOR TO ORDERING AND FABRICATING PIPE MATERIALS.
- CONTRACTOR TO NOTIFY ENGINEER OF ANY CHANGES IN LOCATION AND ELEVATION, AND ADJUST PIPE LENGTHS AS NEEDED, TO COMPLETE THE REPLACEMENT. FIELD ADJUST TO MATCH LOCATION AND ELEVATION, AND TO MATCH EXISTING PIPE SLOPE AS NEEDED.
- THE EXISTING UTILITIES IN THE CULVERT EXCAVATION AREA ARE CURRENTLY OUT OF SERVICE. CONFIRM STATUS WITH EACH UTILITY OWNER.
- THE FOLLOWING CONTRACTORS HAVE BEEN PREQUALIFIED BY CSU TO PERFORM THE WORK TO FURNISH AND INSTALL THE 24" STEEL RAW WATER LINE.

GARNEY CONSTRUCTION BILL WILLIAMS (719) 423-0200 - CELL	WESTERN SUMMIT CONSTRUCTORS, INC. CHRISTIAN BAUMGART (303) 298-9500 - OFFICE (303) 378-7030 - CELL
LAYNE CONSTRUCTION KEVIN STROTT (303) 287-7700 - OFFICE	BT CONSTRUCTION, INC. CATHY CHANDLER (303) 469-0199 - OFFICE (303) 210-2920 - CELL
- CULVERT CONSTRUCTION SHALL BE COMPLETE, ROAD EMBANKMENT PLACED TO SUBGRADE ELEVATION AND SANITARY SEWER INSTALLATION COMPLETE PRIOR TO WATERLINE TRENCHING AND INSTALLATION.
- THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS FOR CATHODIC PROTECTION ASSOCIATED WITH THE 12" POTABLE WATER LINE AS DESCRIBED IN THE *WATER LESS*. CSU WILL DESIGN, FURNISH AND INSTALL ALL ANODES AND TEST STATION, INCLUDING WIRING AND EXOTHERMIC WELDS, REQUIRED FOR THE 24" STEEL RAW WATER LINE. CONTRACTOR SHALL PROVIDE ACCESS, INCLUDING EXCAVATION AND TRENCH SHORING, AS REQUIRED, TO COMPLETE THE INSTALLATION. CONTRACTOR SHALL PROVIDE MATERIALS AND COMPLETE FIELD REPAIRS OF COATING SYSTEMS.
- CONTRACTOR SHALL DELIVER ALL SALVAGED WATER PIPELINE MATERIALS AND FITTINGS TO EVRAZ RECYCLING, 2690 E. LAS VEGAS ST., COLORADO SPRINGS.

12" POTABLE WATER LINE

**COLORADO SPRINGS UTILITIES
WATER PLAN DESIGN APPROVAL**

APPROVED BY: _____ DATE: _____
 PROJECT NUMBER: 2016-W033 WORK ORDER NUMBER: 2957210
 CSU SHEET 1 OF 4

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

24" RAW WATER LINE

**COLORADO SPRINGS UTILITIES
WATER PLAN DESIGN APPROVAL**

APPROVED BY: _____ DATE: _____
 PROJECT NUMBER: 2016-N001 WORK ORDER NUMBER: 2957208
 CSU SHEET 1 OF 4

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

WATER PROJECT - SPECIFIC NOTES

APPLICABLE	NON-APPLICABLE	
1	<input type="checkbox"/>	<input checked="" type="checkbox"/> ANY EXISTING STUBS AND APPURTENANCES THAT WILL NOT BE USED SHALL BE REMOVED AND REPLACED WITH AN ACCEPTABLE SECTION OF MAIN AT THE EXPENSE OF THE CONTRACTOR.
2	<input checked="" type="checkbox"/>	<input type="checkbox"/> A CONNECTION TO AN EXISTING STUB IS PROPOSED. COLORADO SPRINGS UTILITIES DOES NOT GUARANTEE THE ACCURACY OF THE DEPTHS OR LOCATIONS OF EXISTING STUBS SHOWN ON ANY "AS-BUILT" DRAWINGS.
3	<input type="checkbox"/>	<input checked="" type="checkbox"/> A WATER STUB-OUT(S) IS/ARE PROPOSED. COLORADO SPRINGS UTILITIES DOES NOT GUARANTEE THAT THE DESIGN OR INSTALLATION OF THE PROPOSED WATER STUB-OUT WILL MEET FUTURE DEVELOPMENT NEEDS.
4	<input checked="" type="checkbox"/>	<input type="checkbox"/> A WATER QUALITY PLAN HAS BEEN APPROVED FOR THIS PROJECT

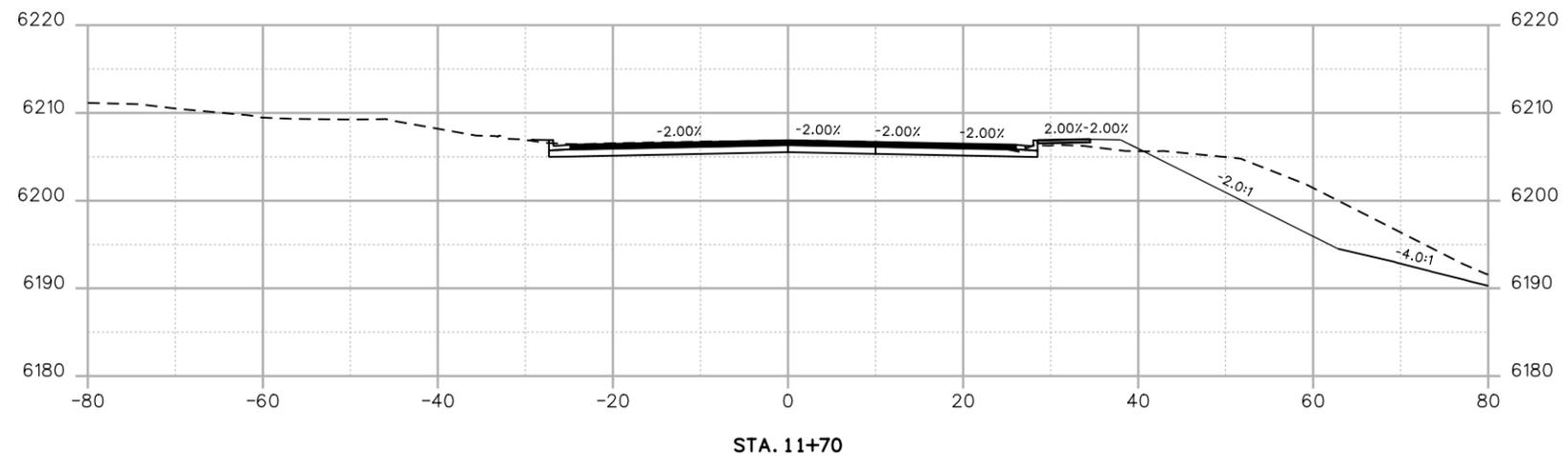
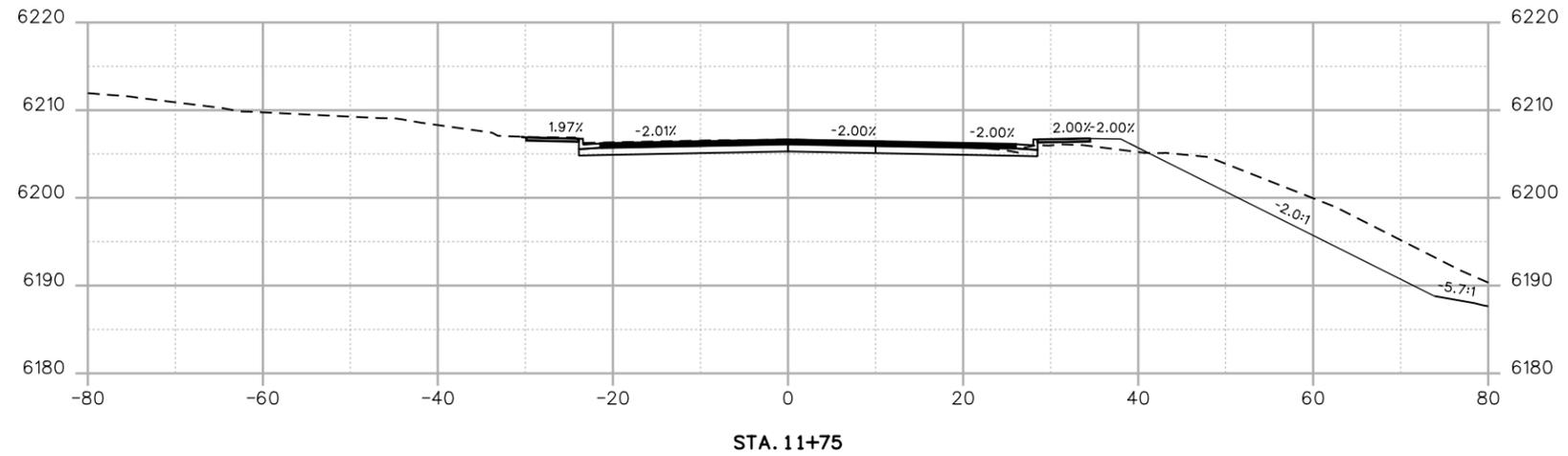
FIMS MAP NUMBER: G-28
 PRESSURE ZONE (12" WL): HIGHLINE
 WORKING PRESSURE (12" WL): 143 PSI
 TEST PRESSURE (12" WL): 215 PSI
 UTILITY DESIGN CAD FILE: _____

FIMS MAP NUMBER: G-28
 WORKING PRESSURE (24" WL): 300 PSI
 TEST PRESSURE (24" WL): 450 PSI
 UTILITY DESIGN CAD FILE: _____

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Creation Date: 01/15/2016	THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGNER ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.			No. Description Date	Structure: _____		Designer: KB Date: 1/04/16			STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
Last Modification Date: 2/1/2016				1	Sheet Subset: UTILITY		Cadd: JM Date: 1/04/16			WATER NOTES
File Name: Chestnut_UTL_GeneralNotes03.dgn				2	Subset Sheets: 4 OF 7		Checker: MG Date: 1/26/16			DRAINAGE BASIN: SOUTH DOUGLAS CREEK
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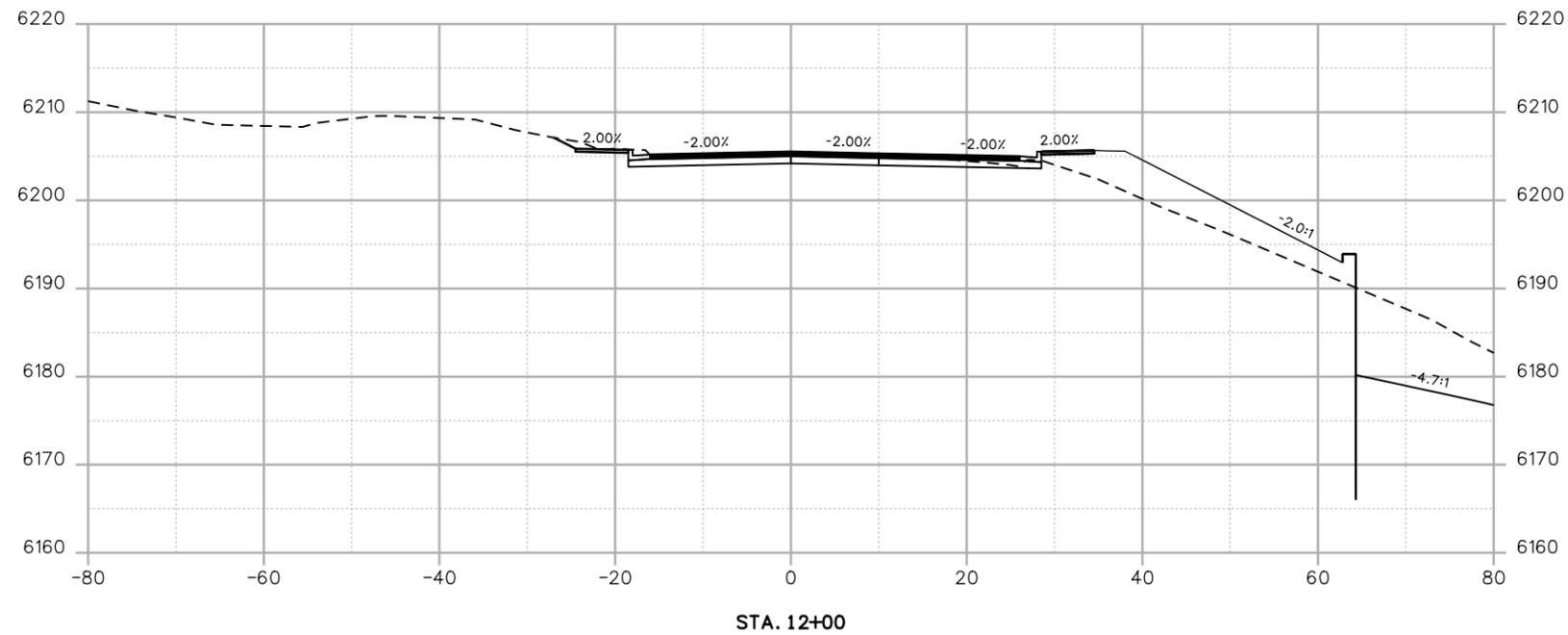


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Computer File Information	STATEMENT:	SCALE: HORIZ. 1"=20' VERT. 1"=20'	Index of Revisions	 30 S Nevada Colorado Springs, CO 80903 Phone: 719-385-5918	 2060 Briargate Parkway, Suite 120 Colorado Springs, CO 80920 Phone: 719-272-8800		PROJECT: CHESTNUT CULVERT REPLACEMENT
Creation Date: 01/15/2016	THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGNER ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.	BENCHMARK: _____	No. Description Date	Structure: _____	Designer: RD Date: 1/15/16		STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK
Last Modification Date: 2/1/2016		_____	1 _____	Sheet Subset: ROADWAY CROSS SECTIONS	Cadd: RD Date: 1/15/16		ROADWAY CROSS SECTIONS
File Name: Chestnut_DES_XSEC.dgn		_____	2 _____	Subset Sheets: 1 OF 8	Checker: TCH Date: 1/29/16		DRAINAGE BASIN: SOUTH DOUGLAS CREEK
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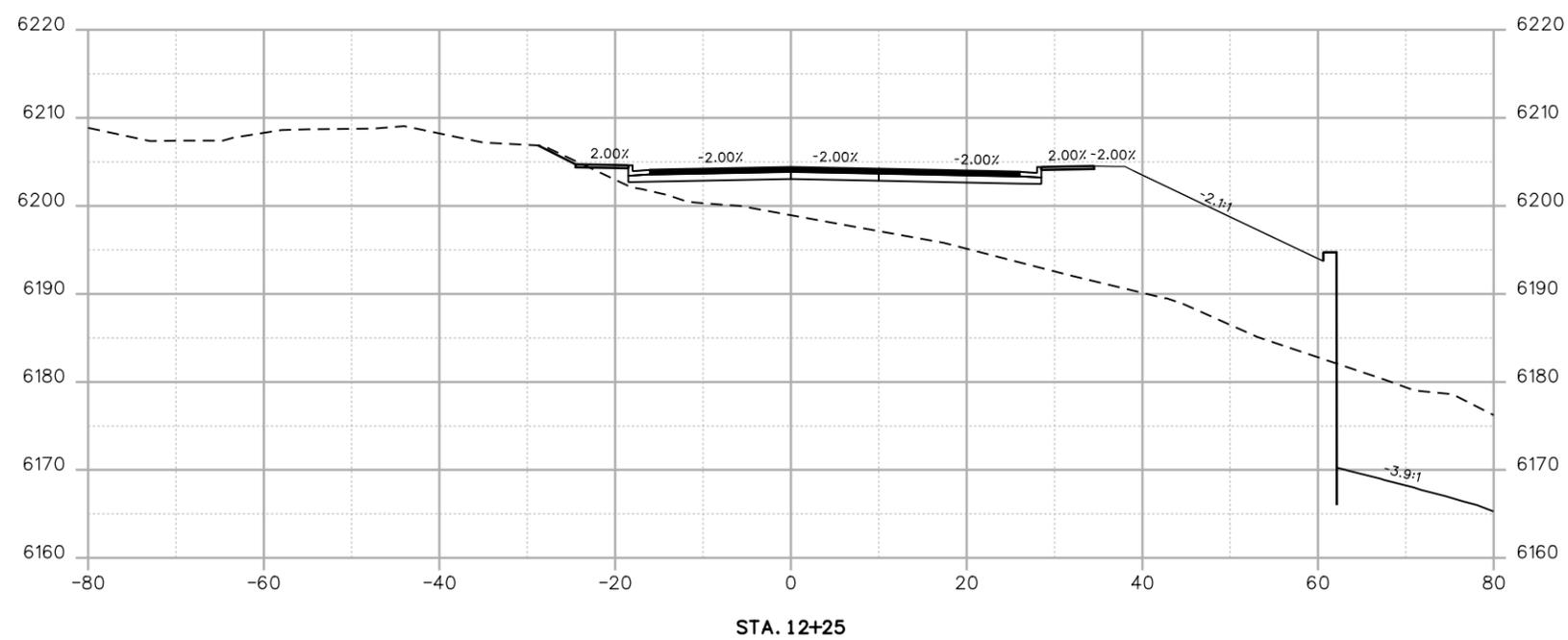
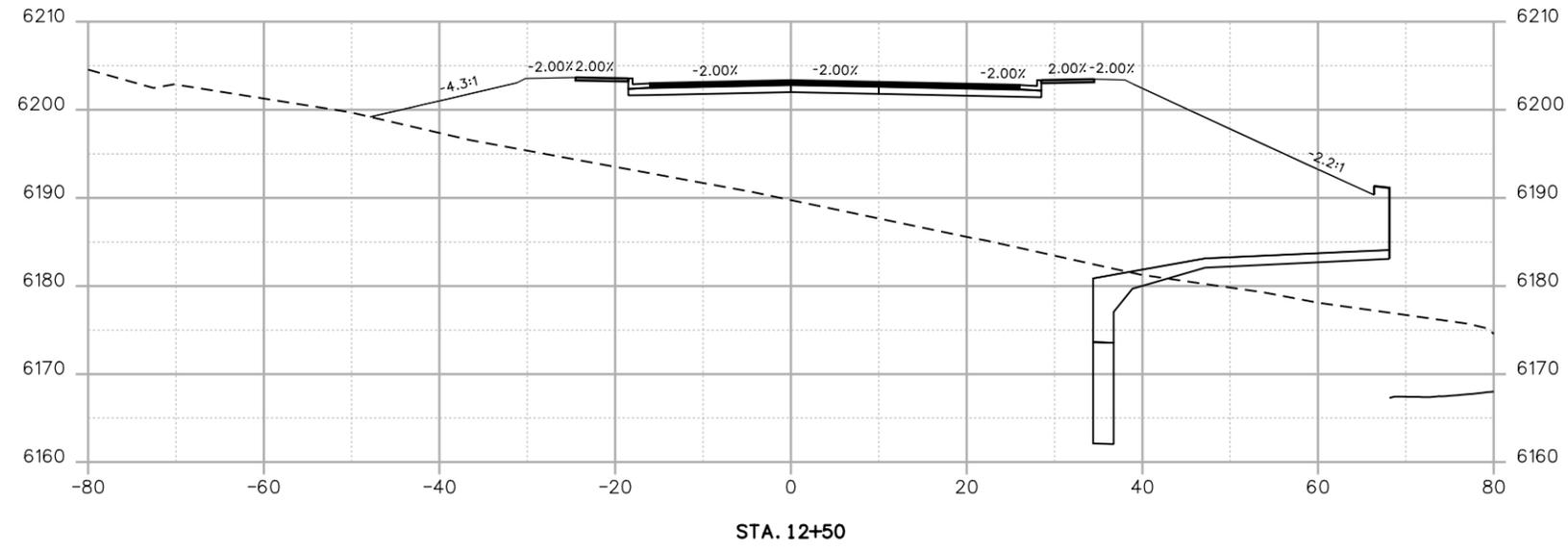


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<p>Computer File Information</p> <p>Creation Date: 01/15/2016</p> <p>Last Modification Date: 2/1/2016</p> <p>File Name: Chestnut_DES_XSEC.dgn</p> <p>Sheet Model Name:</p> <p>Microstation Ver:</p>	<p>STATEMENT:</p> <p>THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGNER ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.</p>	<p>SCALE: HORIZ. 1"=20' VERT. 1"=20'</p> <p>BENCHMARK: _____</p>	<p>Index of Revisions</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>No.</th> <th>Description</th> <th>Date</th> </tr> </thead> <tbody> <tr><td>1</td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td></tr> </tbody> </table>	No.	Description	Date	1			2			3			4			<p> 30 S Nevada Colorado Springs, CO 80903 Phone: 719-385-5918</p> <p> 2060 Briargate Parkway, Suite 120 Colorado Springs, CO 80920 Phone: 719-272-8800</p> <p>Structure: _____</p> <p>Sheet Subset: ROADWAY CROSS SECTIONS</p> <p>Subset Sheets: 2 OF 8</p>	<p>PROJECT: CHESTNUT CULVERT REPLACEMENT</p> <p>STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK</p> <p>ROADWAY CROSS SECTIONS</p> <p>DRAINAGE BASIN: SOUTH DOUGLAS CREEK</p> <p>JOB NO. _____ SHEET <u>57</u> OF <u>63</u></p>
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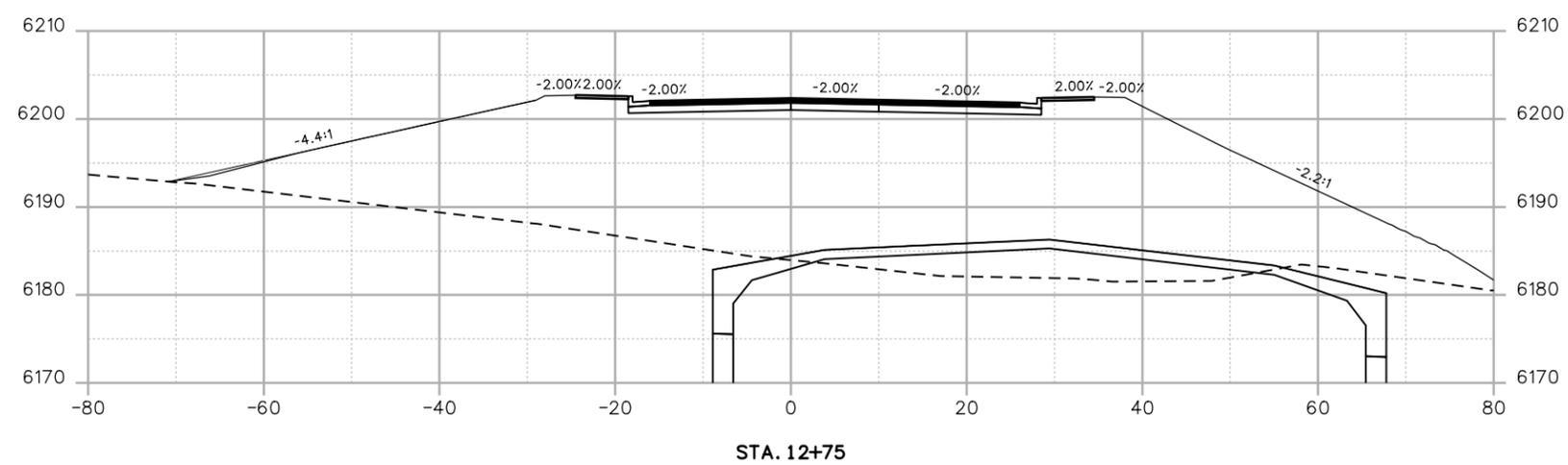
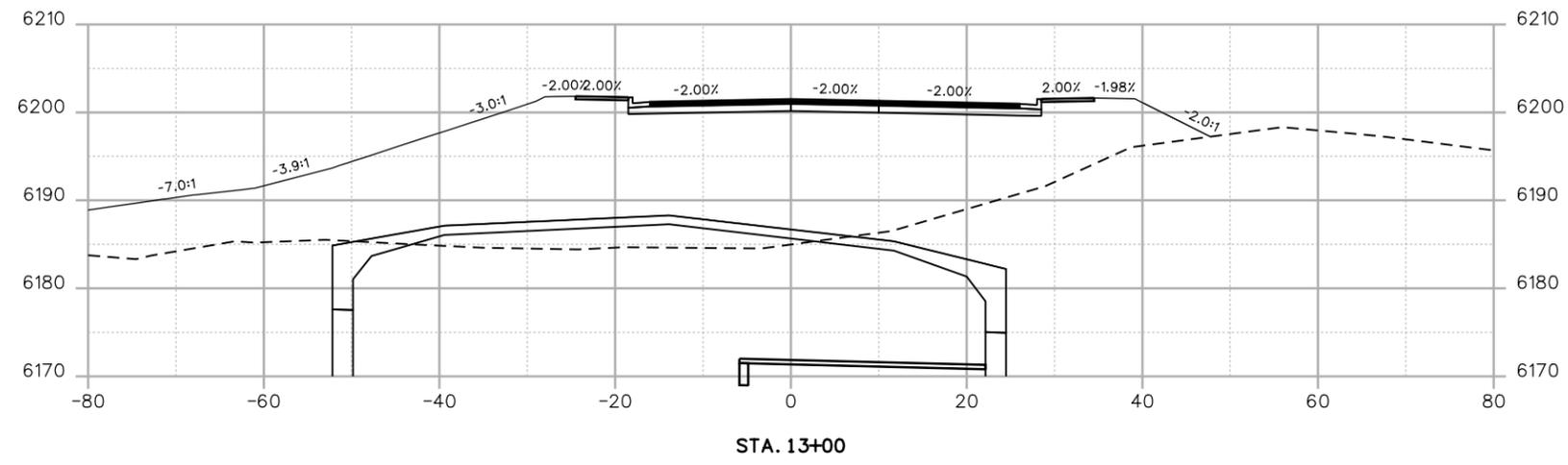


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<p>Computer File Information</p> <p>Creation Date: 01/15/2016</p> <p>Last Modification Date: 2/1/2016</p> <p>File Name: Chestnut_DES_XSEC.dgn</p> <p>Sheet Model Name:</p> <p>Microstation Ver:</p>	<p>STATEMENT:</p> <p>THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGNER ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.</p>	<p>SCALE: HORIZ. 1"=20' VERT. 1"=20'</p> <p>BENCHMARK: _____</p>	<p>Index of Revisions</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>No.</th> <th>Description</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> </tr> <tr> <td>4</td> <td></td> <td></td> </tr> </tbody> </table>	No.	Description	Date	1			2			3			4			<p>CITY OF COLORADO SPRINGS</p> <p>30 S Nevada Colorado Springs, CO 80903 Phone: 719-385-5918</p>	<p>HR</p> <p>2060 Briargate Parkway, Suite 120 Colorado Springs, CO 80920 Phone: 719-272-8800</p>	<p>PPRTA</p> <p>Pikes Peak Rural Transportation Authority</p>	<p>PROJECT: CHESTNUT CULVERT REPLACEMENT</p> <p>STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK</p> <p>ROADWAY CROSS SECTIONS</p> <p>DRAINAGE BASIN: SOUTH DOUGLAS CREEK</p> <p>JOB NO. _____ SHEET <u>58</u> OF <u>63</u></p>
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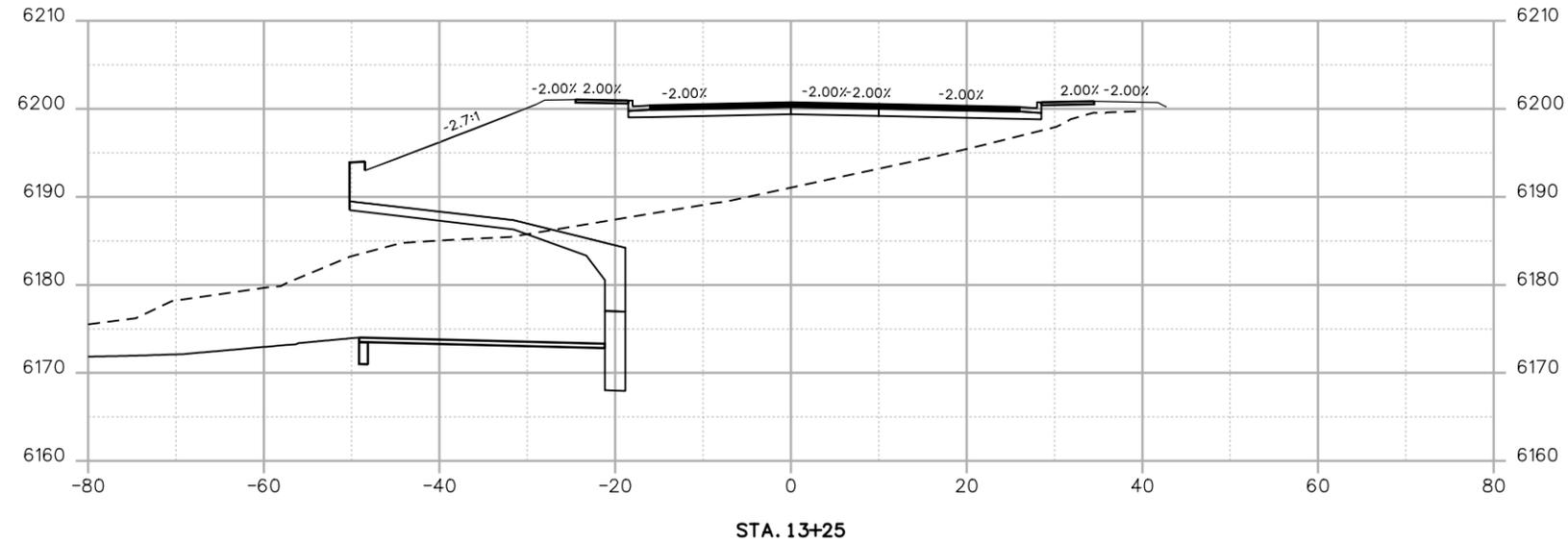
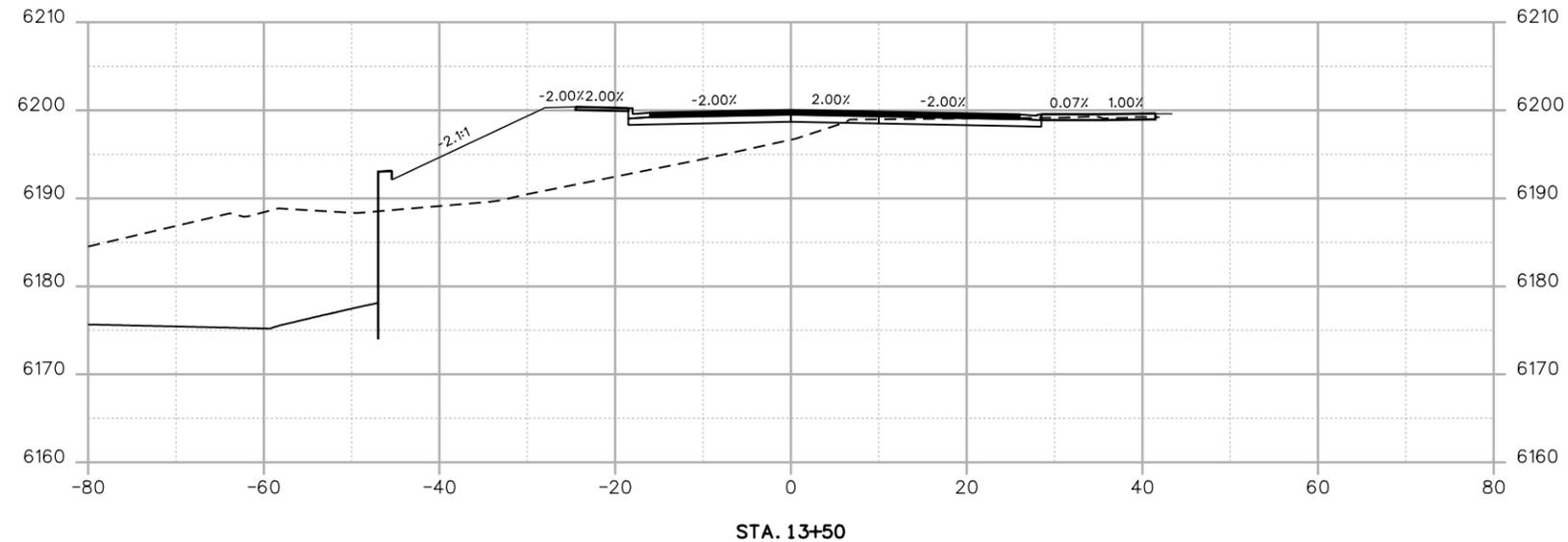


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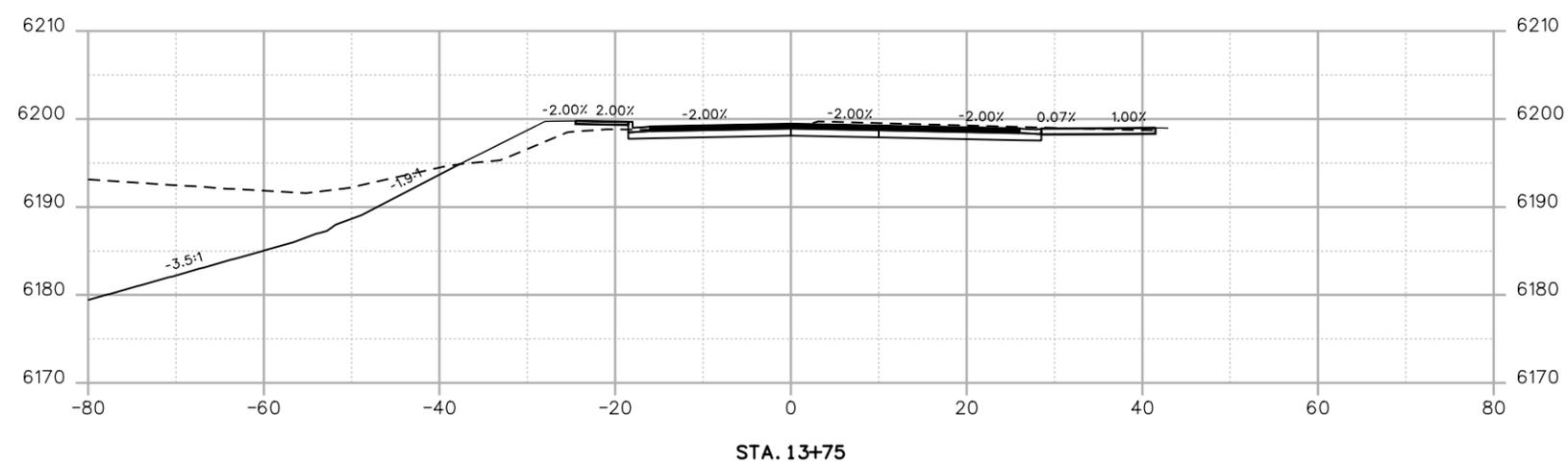
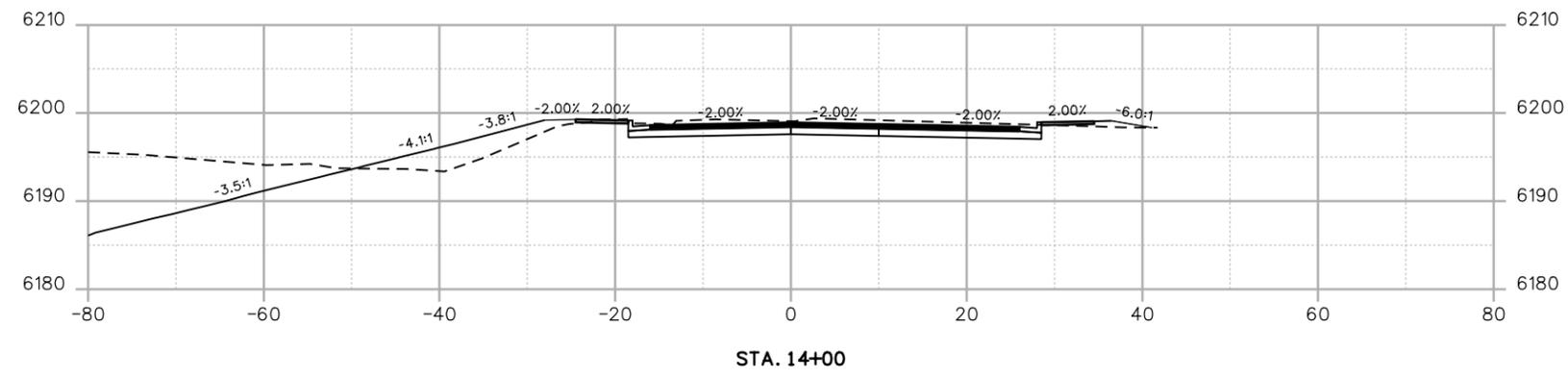


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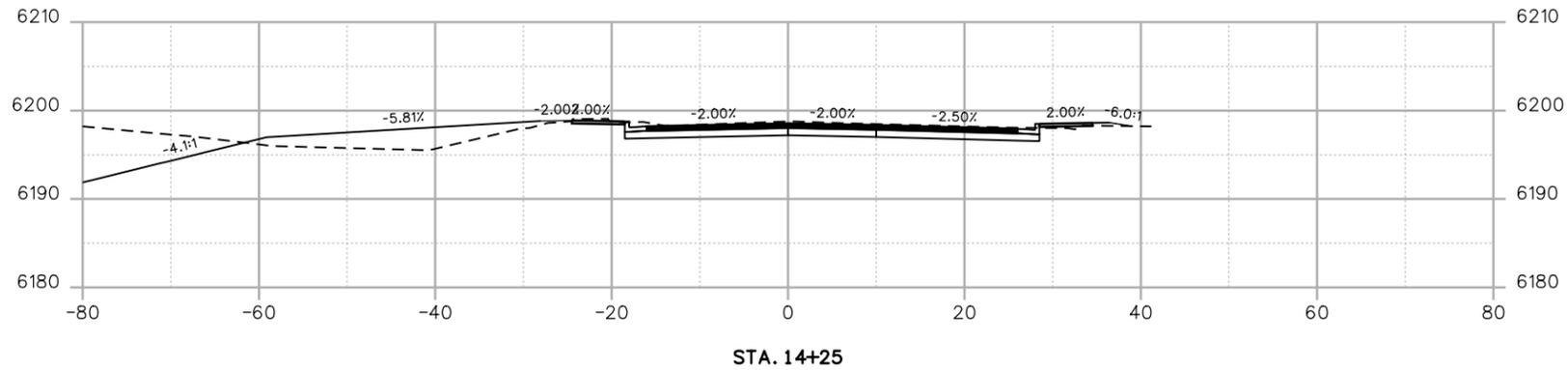
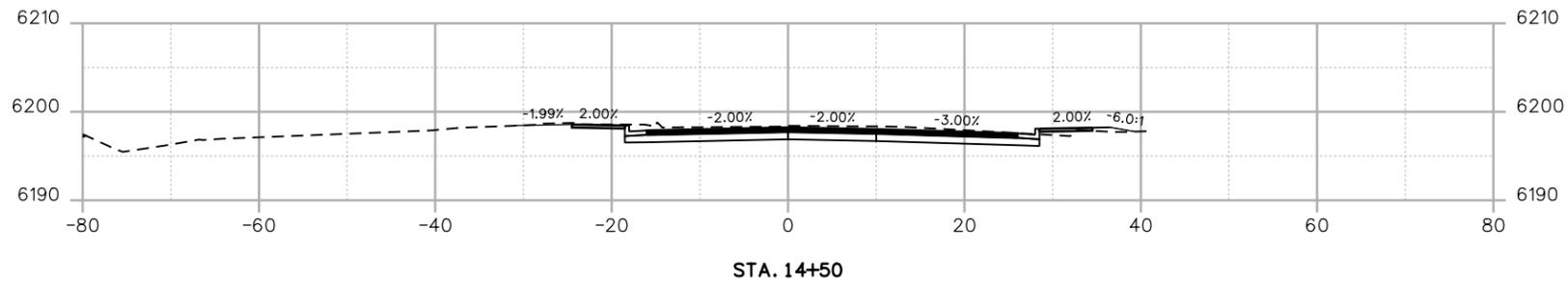
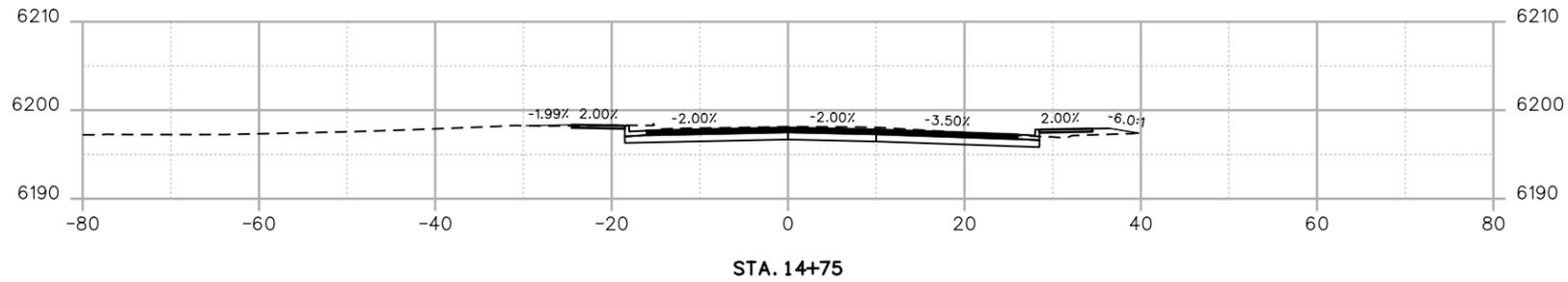


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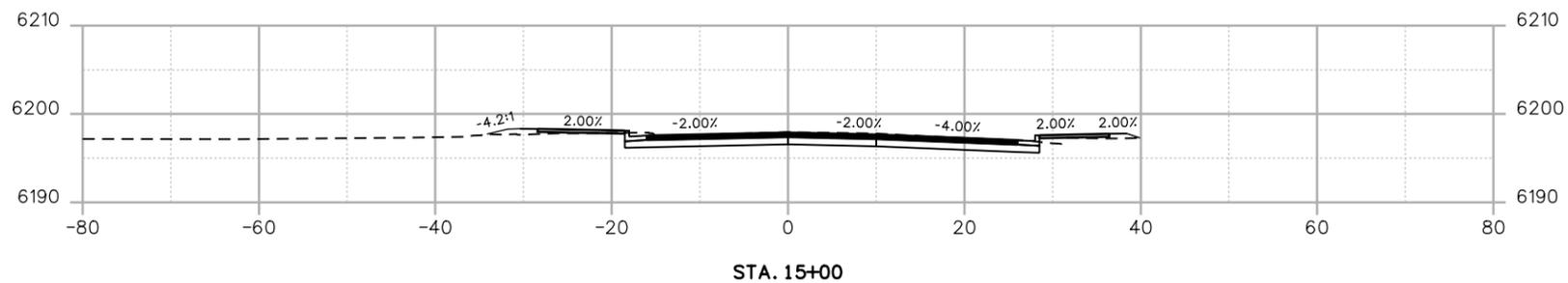
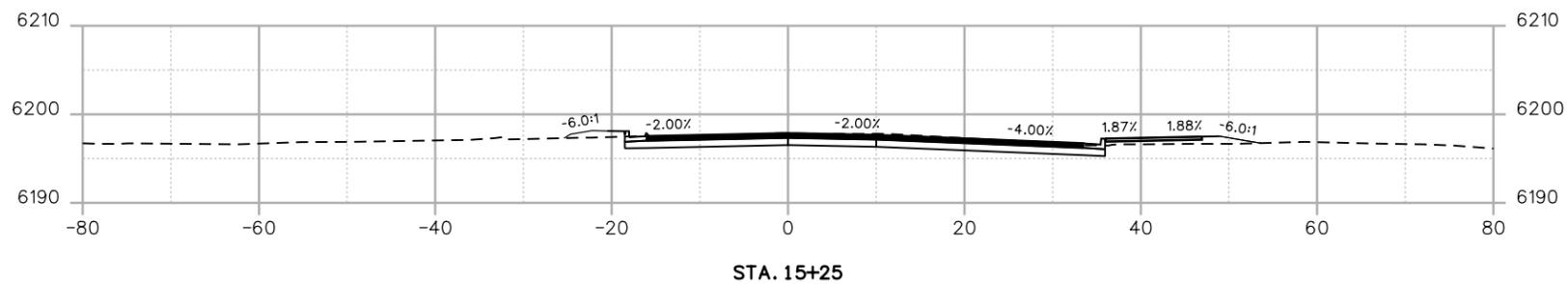
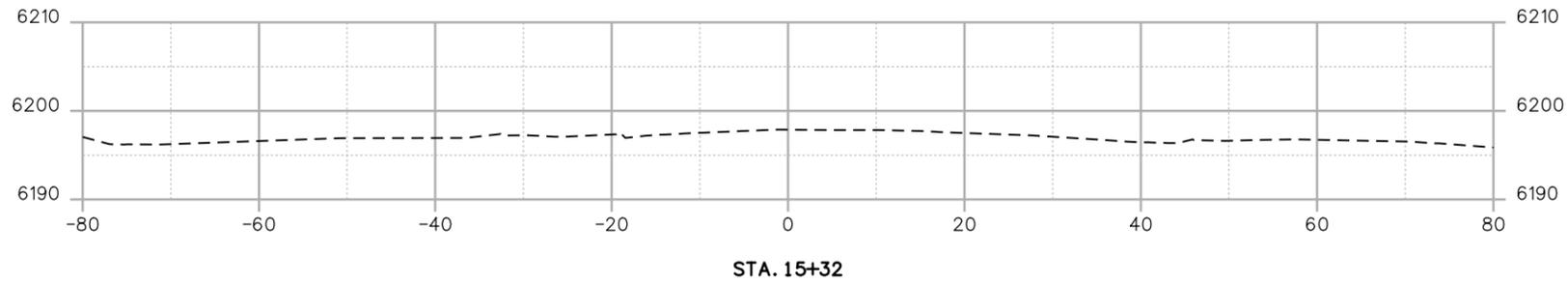


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Last Modification Date: 2/1/2016		_____	1 _____	Sheet Subset: ROADWAY CROSS SECTIONS	Cadd: RD Date: 1/15/16		ROADWAY CROSS SECTIONS
File Name: Chestnut_DES_XSEC.dgn		_____	2 _____	Subset Sheets: 7 OF 8	Checker: TCH Date: 1/29/16		DRAINAGE BASIN: SOUTH DOUGLAS CREEK
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NOTES

1. SLOPES ARE LABELED HORIZONTAL:VERTICAL.

Computer File Information Creation Date: 01/15/2016 Last Modification Date: 2/1/2016 File Name: Chestnut_DES_XSEC.dgn Sheet Model Name: Microstation Ver:		STATEMENT: THE CITY OF COLORADO SPRINGS RECOGNIZES THE DESIGNER ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE CITY HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.	SCALE: HORIZ. 1"=20' VERT. 1"=20' BENCHMARK: _____	Index of Revisions <table border="1"> <thead> <tr> <th>No.</th> <th>Description</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> </tr> <tr> <td>4</td> <td></td> <td></td> </tr> </tbody> </table>	No.	Description	Date	1			2			3			4			 30 S Nevada Colorado Springs, CO 80903 Phone: 719-385-5918	 2060 Briargate Parkway, Suite 120 Colorado Springs, CO 80920 Phone: 719-272-8800		PROJECT: CHESTNUT CULVERT REPLACEMENT STREET: NORTH CHESTNUT STREET OVER SOUTH DOUGLAS CREEK ROADWAY CROSS SECTIONS DRAINAGE BASIN: SOUTH DOUGLAS CREEK JOB NO. _____ SHEET <u>63</u> OF <u>63</u>
No.	Description	Date																					
1																							
2																							
3																							
4																							
Structure: Sheet Subset: ROADWAY CROSS SECTIONS Subset Sheets: 8 OF 8		Designer: RD Date: 1/15/16 Cadd: RD Date: 1/15/16 Checker: TCH Date: 1/29/16																					