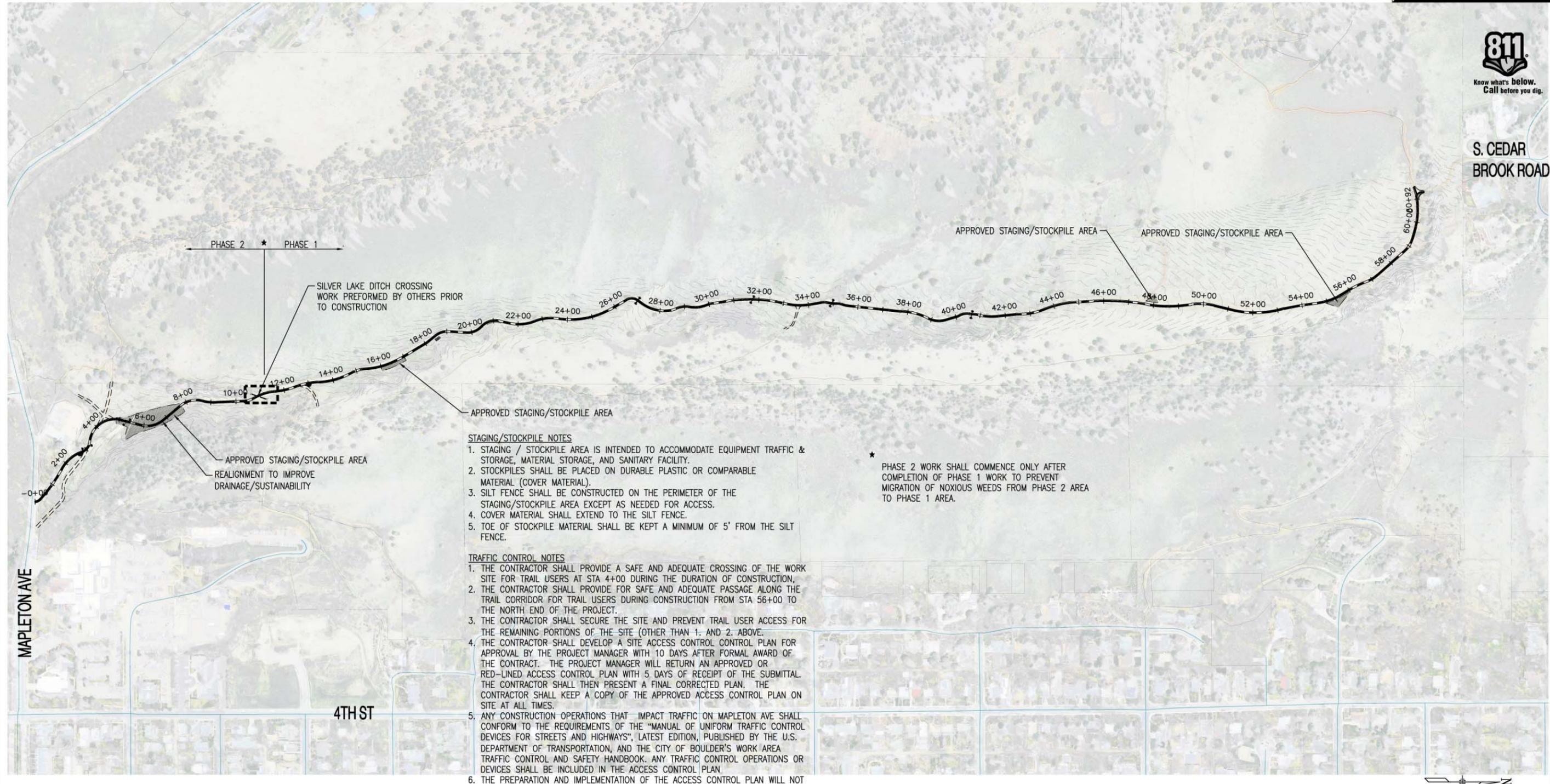




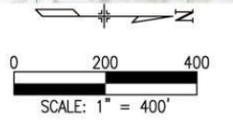
S. CEDAR BROOK ROAD



- STAGING/STOCKPILE NOTES**
1. STAGING / STOCKPILE AREA IS INTENDED TO ACCOMMODATE EQUIPMENT TRAFFIC & STORAGE, MATERIAL STORAGE, AND SANITARY FACILITY.
 2. STOCKPILES SHALL BE PLACED ON DURABLE PLASTIC OR COMPARABLE MATERIAL (COVER MATERIAL).
 3. SILT FENCE SHALL BE CONSTRUCTED ON THE PERIMETER OF THE STAGING/STOCKPILE AREA EXCEPT AS NEEDED FOR ACCESS.
 4. COVER MATERIAL SHALL EXTEND TO THE SILT FENCE.
 5. TOE OF STOCKPILE MATERIAL SHALL BE KEPT A MINIMUM OF 5' FROM THE SILT FENCE.

* PHASE 2 WORK SHALL COMMENCE ONLY AFTER COMPLETION OF PHASE 1 WORK TO PREVENT MIGRATION OF NOXIOUS WEEDS FROM PHASE 2 AREA TO PHASE 1 AREA.

- TRAFFIC CONTROL NOTES**
1. THE CONTRACTOR SHALL PROVIDE A SAFE AND ADEQUATE CROSSING OF THE WORK SITE FOR TRAIL USERS AT STA 4+00 DURING THE DURATION OF CONSTRUCTION.
 2. THE CONTRACTOR SHALL PROVIDE FOR SAFE AND ADEQUATE PASSAGE ALONG THE TRAIL CORRIDOR FOR TRAIL USERS DURING CONSTRUCTION FROM STA 56+00 TO THE NORTH END OF THE PROJECT.
 3. THE CONTRACTOR SHALL SECURE THE SITE AND PREVENT TRAIL USER ACCESS FOR THE REMAINING PORTIONS OF THE SITE (OTHER THAN 1. AND 2. ABOVE).
 4. THE CONTRACTOR SHALL DEVELOP A SITE ACCESS CONTROL PLAN FOR APPROVAL BY THE PROJECT MANAGER WITH 10 DAYS AFTER FORMAL AWARD OF THE CONTRACT. THE PROJECT MANAGER WILL RETURN AN APPROVED OR RED-LINED ACCESS CONTROL PLAN WITH 5 DAYS OF RECEIPT OF THE SUBMITTAL. THE CONTRACTOR SHALL THEN PRESENT A FINAL CORRECTED PLAN. THE CONTRACTOR SHALL KEEP A COPY OF THE APPROVED ACCESS CONTROL PLAN ON SITE AT ALL TIMES.
 5. ANY CONSTRUCTION OPERATIONS THAT IMPACT TRAFFIC ON MAPLETON AVE SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", LATEST EDITION, PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, AND THE CITY OF BOULDER'S WORK AREA TRAFFIC CONTROL AND SAFETY HANDBOOK. ANY TRAFFIC CONTROL OPERATIONS OR DEVICES SHALL BE INCLUDED IN THE ACCESS CONTROL PLAN.
 6. THE PREPARATION AND IMPLEMENTATION OF THE ACCESS CONTROL PLAN WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK.

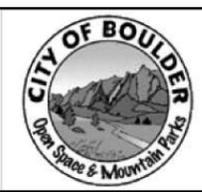


C:\Users\kash\AutoCAD\backup\Mapleton\13134 (2) Overall Site Plan (San).dwg Oct 20, 2014 - 2:29pm

Print Date:	
File Name:	
Horiz. Scale:	Vert. Scale: As Noted
Unit Information	Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

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As Constructed
No Revisions:
Revised:
Void:

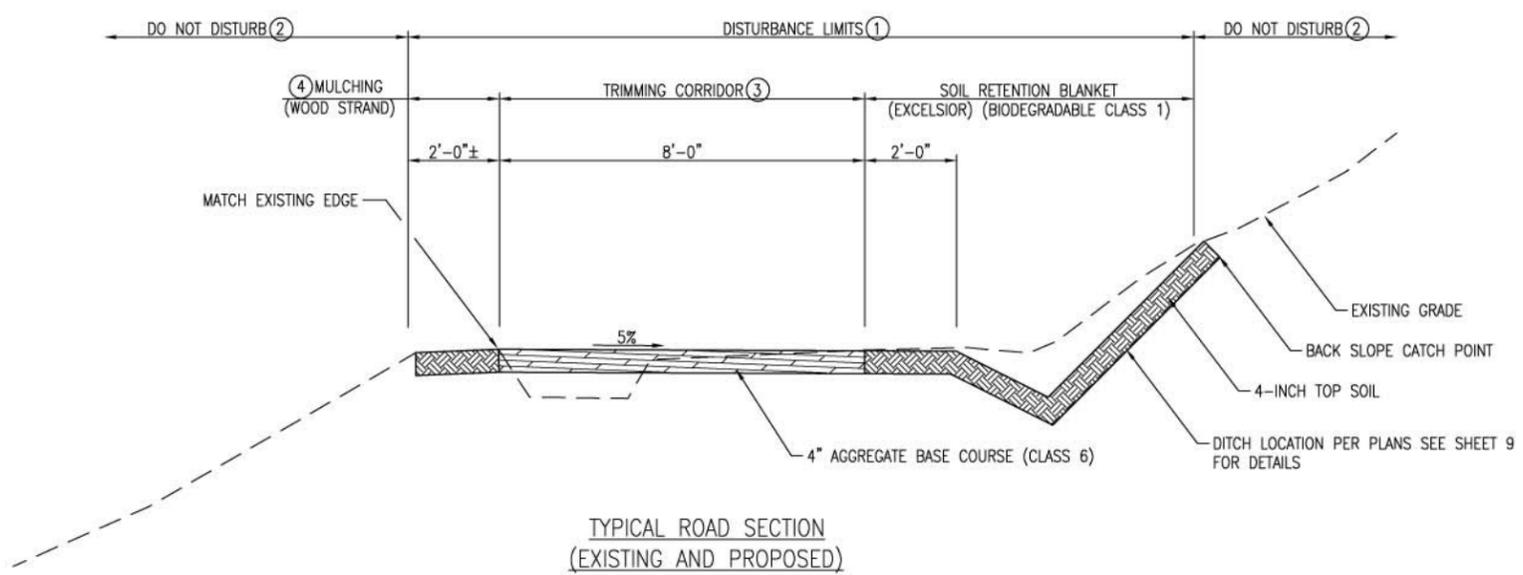
SANITAS VALLEY ROAD - FLOOD DAMAGE REPAIR AND MITIGATION OVERALL SITE PLAN			
Designer:	SJB	Structure	
Detailer:	LX	Numbers	
Sheet Subset:		Subset Sheets:	

Project No./Code	
SANITAS VALLEY ROAD	
279-13134	
Sheet Number	2

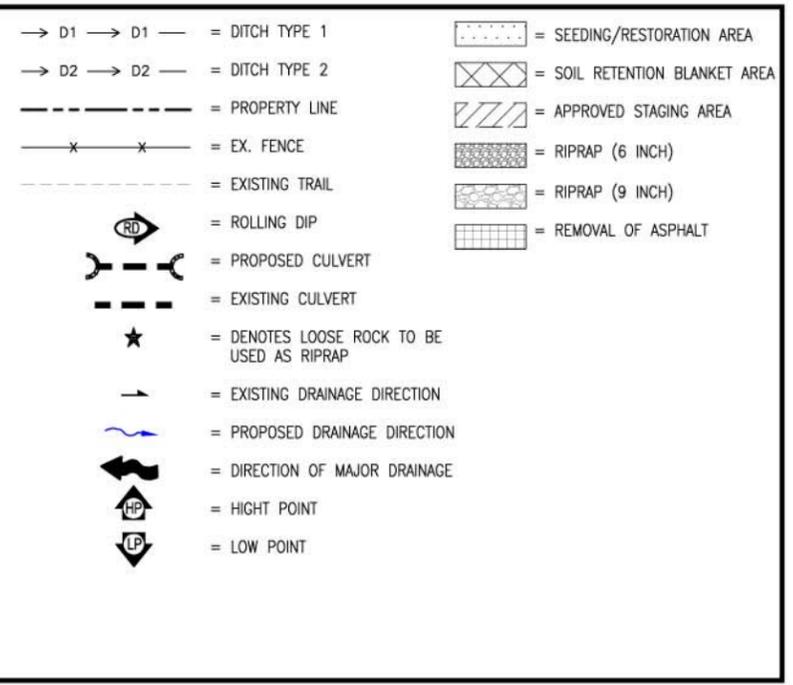


CONSTRUCTION NOTES:

1. CONSTRUCTION STAKING: THE CONTRACTOR SHALL STAKE THE ALIGNMENT AT NO GREATER THAN 20' INCREMENTS PRIOR TO CONSTRUCTION. CONSTRUCTION STAKING SHALL BE BASED UPON THE HORIZONTAL CONTROL AND ALIGNMENT INFORMATION INCLUDED IN THE PLANS. AUTOCAD FILES AND ADDITIONAL ALIGNMENT DATA FOR THE TRAIL DESIGN AND ASSOCIATED FEATURES WILL BE PROVIDED TO THE CONTRACTOR UPON REQUEST. ALL STAKING MATERIALS SHALL BE REMOVED FROM THE SITE UPON COMPLETION OF THE PROJECT.
2. ALIGNMENT: IT IS EXPECTED THAT THE CONTRACTOR MAKE MINOR ADJUSTMENTS TO THE ALIGNMENT DURING CONSTRUCTION TO IMPROVE DRAINAGE, AVOID IMPACTS TO VEGETATION THAT ARE NOT SPECIFICALLY IDENTIFIED FOR REMOVAL, MINIMIZE SITE IMPACTS, AND BALANCE EARTHWORK. ALIGNMENT SHIFTS OF GREATER THAN 2' SHALL BE APPROVED BY THE OWNER PRIOR TO COMPLETING CONSTRUCTION. MINOR MODIFICATIONS TO THE DESIGN DURING CONSTRUCTION ARE AN EXPECTED PART OF THE WORK AND NOT JUSTIFICATION FOR CHANGES TO THE CONTRACT.
3. GRADING: THE CONTRACTOR SHALL FOLLOW THE PLANS WHEN SPECIFIC GRADING AND/OR ROAD PROFILE INFORMATION IS PROVIDED. IN AREAS WHERE GRADING AND/OR PROFILE INFORMATION IS NOT PROVIDED, THE CONTRACTOR SHALL CONSTRUCT THE TRAIL TO APPROXIMATELY THE EXISTING GRADES OF THE SITE. MINOR DEVIATIONS FROM EXISTING GRADES SHOULD BE MADE TO ASSURE POSITIVE DRAINAGE FROM THE TRAIL TREAD, TO CONSTRUCT DRAINAGE FEATURES IDENTIFIED IN THE PLANS OR OTHERWISE DETERMINED TO BE NEEDED AND TO BALANCE EARTHWORK. MINOR MODIFICATIONS TO THE DESIGN DURING CONSTRUCTION ARE AN EXPECTED PART OF THE WORK AND NOT JUSTIFICATION FOR CHANGES TO THE CONTRACT.
4. CROSS SLOPE: THE TREAD CROSS SLOPE BE GREATER THAN 2% AND LESS THAN 5% UNLESS OTHERWISE SHOWN IN THE PLANS. A CROSS SLOPE OF UP TO 10% SHALL BE PROVIDED AT THE BOTTOM OF DRAINAGE CROSSINGS. THE CONTRACTOR SHALL VERIFY CROSS SLOPE WITH A DIGITAL SMART LEVEL OR OTHER APPROPRIATE MEASURING TOOLS DURING CONSTRUCTION TO PROPERLY CONSTRUCT TREAD CROSS SLOPE.
5. VEGETATION: THE CONTRACTOR SHALL PROTECT EXISTING VEGETATION NOT SPECIFICALLY IDENTIFIED FOR REMOVAL TO THE GREATEST EXTENT POSSIBLE. REMOVAL OF TREES, UNLESS SPECIFICALLY IDENTIFIED IN THE PLANS SHALL BE APPROVED BY THE OWNER PRIOR TO REMOVAL. CLEARING SHALL BE LIMITED TO THE ALL REMOVED VEGETATION, LIVE OR DEAD, SHALL REMAIN ON THE SITE AND BE PLACED IN RESTORATION AREAS, AS SHOWN IN THE PLANS OR OTHERWISE DIRECTED BY THE OWNER.
6. USE AND DISPOSAL OF EXCAVATED MATERIAL: EXCESS SITE MATERIALS (SOILS AND ORGANIC MATERIALS) SHALL BE CONSERVED AND USED ON THE SITE. EXCESS SOILS SHALL BE DEPOSITED IN RESTORATION AREAS. ROCKS UNEARTHED IN EXCAVATIONS SHALL BE USED TO STABILIZE DRAINAGE AREAS.
7. SITE ACCESS: THE CONTRACTOR SHALL USE THE EXISTING ROAD, OR THE PROPOSED TRAIL ALIGNMENT FOR THE TRANSPORT OF MATERIALS AND EQUIPMENT DURING CONSTRUCTION. THE CREATION OF ADDITIONAL PARALLEL ACCESS ROUTES WILL NOT BE ALLOWED. DISTURBANCE OF CURRENTLY UNDISTURBED AREAS, UNLESS PART OF THE NEW TRAIL ALIGNMENT, MUST BE AVOIDED. ANY AREA DISTURBED OUTSIDE OF THE FINISHED TRAIL TREAD MUST BE RESTORED TO PRECONSTRUCTION CONDITIONS AT NO ADDITIONAL COST TO THE PROJECT.



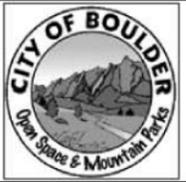
- 1 DISTURBANCE/REMOVAL OF EXISTING VEGETATION ALLOWED WITHIN THE LIMITS OF GRADING REQUIRED TO RECONSTRUCT THE TRAIL AND DITCHES AS SHOWN IN THE PLANS UNLESS SPECIFICALLY NOTED OTHERWISE IN THE PLANS.
- 2 NO DISTURBANCE, REMOVAL OF TREES OR VEGETATION OR ANY CONSTRUCTION ACTIVITY ALLOWED UNLESS SPECIFICALLY SHOWN IN THE PLANS OR APPROVED BY THE OWNERS REPRESENTATIVE.
- 3 TRIM LIMBS/VEGETATION, COST INCLUDED IN CLEARING AND GRUBBING.
- 4 MAINTAIN EXISTING VEGETATION. TOPSOIL, MULCH AND SEED ONLY AS DIRECTED



ABBREVIATIONS TABLE											
AASHTO	ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	CL / &	CENTER LINE CLEAR	FES	FLARED END SECTION	LP	LIGHT POLE CLEAR	PROP	PROPOSED	T	TELEPHONE
ABAN	ABANDON	CLR	CLEAR	FF	FINISH FLOOR / FRONT FACE	LT	LEFT / LIGHT	PRV	PRESSURE REDUCING VALVE / PRESSURE RELIEF VALVE	TAN	TANGENT
ABC	AGGREGATE BASE COURSE	CO	CLEAN OUT	FG	FINISH GRADE	MAINT	MAINTENANCE	PSF	POUNDS PER SQUARE FOOT	TBC	TOP BACK OF CURB
ABUT	ABUTMENT	COM	COMMUNICATION	FH	FIRE HYDRANT	MAS	MASONRY	PSI	POUNDS PER SQUARE INCH	TEMP	TEMPORARY
ALT	ALTERNATE	CONC	CONCRETE	FL	FLOW LINE	MATL	MATERIAL	PT	POINT OF TANGENCY	TOC	TOP OF CONCRETE / TOP OF CURB
AMT	AMOUNT	CONST	CONSTRUCTION	FN	FENCE	MAX	MAXIMUM	PVC	POINT OF VERTICAL CURVE / POLYVINYL CHLORIDE	TOW	TOP OF WALL
APPROX	APPROXIMATE	CONT	CONTINUOUS(ATION)	FPS	FEET PER SECOND	MB	MAIL BOX	MECH	MECHANICAL	TYP	TYPICAL
ASPH	ASPHALT	COR	CORNER	FT	FEET	MFR	MANUFACTURER	MH	MANHOLE	UBC	UNIFORM BUILDING CODE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	CP	CONTROL POINT	FTG	FOOTING / FITTING	MJ	MECHANICAL JOINT	PMT	PAVEMENT	UE	UNDERGROUND ELECTRICAL
AVG	AVERAGE	CY	CUBIC YARDS	G	GAS	MN	MINIMUM	QTY	QUANTITY	UNO	UNLESS NOTED OTHERWISE
AWWA	AMERICAN WATER WORKS ASSOCIATION	DEMO	DEMOLITION	GA	GALLON	MISC	MISCELLANEOUS	R/RAD	RADIUS	VERT	VERTICAL
BF	BACK FACE	DET	DETAIL	GAU	GALVANIZED	RE/REF	REFERENCE	RCP	REINFORCED CONCRETE PIPE	W	WIDTH / WIDTH / WATER
BFV	BUTTERFLY VALVE	DIA	DIAMETER	GND	GROUND	NA	NOT APPLICABLE	REINF	REINFORCED (D) (ING) (MENT)	W/O	WITH OUT
BLDG	BUILDING	DNG	DRAWING	GPD	GALLONS PER DAY	NPT	NATIONAL PIPE THREAD	REQD	REQUIRED	WNF	WELDED WIRE FABRIC
BM	BENCH MARK	EA	EACH	GPM	GALLONS PER MINUTE	NTS	NOT TO SCALE	ROW	RIGHT OF WAY	X	SECTION
BMP	BEST MANAGEMENT PRACTICE	EF	EACH FACE	GRTG	GRATING	NWL	NORMAL WATER LINE	RT	RIGHT		
BOC	BACK OF CURB	EXPJ	EXPANSION JOINT	GV	GATE VALVE	OC	ON CENTER	SAN	SANITARY		
BOF	BOTTOM OF FOOTING	EL/ELEV	ELEVATION	HCL	HORIZONTAL CONTROL LINE	DD	OUTSIDE DIAMETER	SD	STORM DRAIN	@	AT
BOW	BACK OF WALK / BOTTOM OF WALL	ELEC	ELECTRICAL	HMA	HOT MIX ASPHALT	DH	OVERHEAD	SF	SQUARE FOOT	(CIP)	COMPLETE (CAST) IN PLACE
BRG	BEARING	ENGR	ENGINEER	HORIZ	HORIZONTAL	OHE	OVERHEAD ELECTRIC	SHT	SHEET		
BS	BACKSIGHT	EQ	EQUAL	HP	HIGH POINT	PC	POINT OF CURVATURE	SPA	SPACING/SPACES		
C&G	CURB AND GUTTER	EOTW	EDGE OF TRAVELED WAY	HVAC	HEATING, VENTILATION, AIR CONDITIONING	PEJF	PREFORMED EXPANSION JOINT FILLER	SPEC	SPECIFICATION		
C/C	CENTER TO CENTER	EQ	EQUAL	HWL	HIGH WATER LINE	PGL	PROFILE GRADE LINE	STA	STATION		
CB	CATCH BASIN	EQUIP	EQUIPMENT	HWY	HIGHWAY	PI	POINT OF INTERSECTION	STD	STANDARD		
CDOT	COLORADO DEPARTMENT OF TRANSPORTATION	EQUIV	EQUIVALENT	ID	INSIDE DIAMETER	PL	PROPERTY LINE	STL	STEEL		
CFS	CUBIT FEET PER SECOND	ESMT	EASEMENT	INV	INVERT	PP	POWER POLE	STM	STEAM	N	NORTH
CJ	CONSTRUCTION JOINT / CONTROL JOINT	EST	ESTIMATE	INV EL	INVERT ELEVATION	PREFAB	PREFABRICATED	SWMP	STORM WATER MANAGEMENT PLAN	S	SOUTH
		EX	EXISTING	IRR	IRRIGATION	PRELIM	PRELIMINARY	SY	SQUARE YARD	E	EAST
		FD	FOUNDATION DRAIN	LF	LINEAR FOOT	PREP	PREPARATION	SYM	SYMMETRICAL	W	WEST

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Print Date:	Sheet Revisions	As Constructed	SANITAS VALLEY ROAD - FLOOD DAMAGE REPAIR AND MITIGATION CONSTRUCTION NOTES	Project No./Code
File Name:	Date: Comments Init.	No Revisions:		SANITAS VALLEY ROAD
Horiz. Scale: Vert. Scale: As Noted		Revised:		279-13134
Unit Information Unit Leader Initials		Void:		Sheet Number 4
				Designer: SJB Structure Numbers
			Detailer: CWM Subst Sheets:	



SUMMARY OF APPROXIMATE QUANTITIES

ITEM NO.	CONTRACT ITEM	UNIT	QUANTITY								
			0		1500		3000		4500		TOTAL
			PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	
201	CLEARING AND GRUBBING	LS									1
203	DITCH EXCAVATION (TYPE 1)	LF	470		275		905		2265		3915
203	DITCH EXCAVATION (TYPE 2)	LF	430		1015		405		0		1850
203	ROADWAY EXCAVATION (NEW ALIGNMENT)	LF	540		0		0		0		540
203	BORROW	CY	50		50		50		50		200
204	ROLLING DIP	EA	4		8		8		6		26
204	LEADOFF DITCH	LF	0		0		40		0		40
207	TOPSOIL (COMPLETE IN PLACE)	CY	325		126		122		264		837
208	EROSION CONTROL	LS									1
212	SEEDING	AC	0.604		0.234		0.228		0.492		1.56
213	MULCHING (WOOD STRAND)	AC	0.259		0.039		0.039		0.067		0.40
216	SOIL RETENTION BLANKET (EXCELSIOR) (BIODEGRADABLE CLASS 1)	SY	1549		921		1101		2013		5584
304	AGGREGATE BASE COURSE (CLASS 6)	TON	179		175		173		121		649
306	RECONDITIONING (CASE 1)	LF	0		95		275		0		370
306	RECONDITIONING (CASE 2)	LF	400		740		200		390		1730
306	RECONDITIONING (CASE 3)	LF	100		650		1025		50		1825
504	ROCK RETAINING WALL	SF	380		80		310		0		770
504	STACKED ROCK SLOPE STABILIZATION	SF	0		250		0		0		250
506	RIPRAP (6 INCH)	CY	8		0		0		0		8
506	RIPRAP (9 INCH)	CY	4		2		6		0		12
506	RIPRAP (12 INCH)	CY	0		8		0		0		8
603	18 INCH CORRUGATED STEEL PIPE	LF	66		24		0		0		90
603	24 INCH CORRUGATED STEEL PIPE	LF	0		0		72		0		72
607	FENCE (PLASTIC)	LF	200		200		200		200		800
625	CONSTRUCTION SURVEYING	LS									1
626	MOBILIZATION	LS									1

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**BID SET
OCTOBER 16, 2014**

Print Date:		Sheet Revisions			 818 W. South Boulder Road, Suite 200 Louisville, Colorado 80027 303.444.2073 www.LorisandAssociates.com	 Open Space & Mountain Parks	As Constructed	SANITAS VALLEY ROAD - FLOOD DAMAGE REPAIR AND MITIGATION SUMMARY OF APPROXIMATE QUANTITIES			Project No./Code
File Name:		Date:	Comments	Init.			No Revisions:				SANITAS VALLEY ROAD
Horiz. Scale:	Vert. Scale: As Noted						Revised:	Designer: SJB	Structure Numbers		279-13134
Unit Information	Unit Leader Initials						Void:	Detailer: CWM	Subset Sheets:		Sheet Number 5

PROJECT: City of Boulder OSMP Flood Damage Mitigation

SEGMENT: Sanitas Valley

BEGIN STA. 0 SURFACE WIDTH: 8 ft ASSUMED DISTURBED W: 17 ft
 END STA. 1500 SURFACING THICKNESS: 4 in TOPSOIL THICKNESS 4 in
 LENGTH 1500 SURFACING TYPE: ABC (CLASS 6)

PROJECT: City of Boulder OSMP Flood Damage Mitigation

SEGMENT: Sanitas Valley

BEGIN STA. 1500 SURFACE WIDTH: 8 ft ASSUMED DISTURBED W: 17 ft
 END STA. 3000 SURFACING THICKNESS: 4 in TOPSOIL THICKNESS 4 in
 LENGTH 1500 SURFACING TYPE: ABC (CLASS 6)

DAMAGE TYPES		STATION	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	TOTAL LENGTH	PAY ITEM		
DAMAGE TYPES	GULLY EROSION	G6																		0	LF	
		G12																		0	LF	
		G18																		0	LF	
		G24																		0	LF	
		G36																		0	LF	
DAMAGE TYPES	SHEET EROSION	S6 (1/2)																		0	LF	
		S6									100	100	40	40			100	100		480	LF	
		S12																		0	LF	
		S18																		0	LF	
		S24																		0	LF	
NO DAMAGE			100	100	100	100	100	100	100	100	0	0	60	60	100	0	0				LF	
TOTAL																						
203	MUCK EXCAVATION																			0	CY	
	DITCH EX.	(TYPE 1)			30		60		50		90		40	80	100	20				470	LF X	
		(TYPE 2)	80	100	40						90		40				80			430	LF X	
	BERM EXCAVATION																			0	LF X	
	ROADWAY EX (NEW AL)				40	100	100	100	100											540	LF X	
	UNCLASSIFIED EX		4	6	7	0	0	9	4	7	5	17	2	6	16	15	11	0		109	CY	
	EMBANKMENT		0	0	0	20	20	120	10	20	0	0	0	0	0	0	0	0	0	190	CY	
	NET		4	6	7	-20	-20	-111	-6	-13	5	17	2	6	16	15	11	0		-81	CY	
BORROW																			50	CY X		
204	ROLLING DIP								1			1				1			4	EA X		
	LEADOFF DITCH																		0	LF X		
DAMAGE TYPES	DIST. - DITCHES		480	600	480	0	0	480	0	400	540	720	240	320	640	800	640	0	6340	SF		
	DIST. SHOULDER WORK		0	0	0	0	0	400	400	0	100	100	40	40					1080	LF		
	DIST. - OTHER (MLCH)						300	3500	4000	2400											SF	
	DIST. - OTHERS (SRB)						1800	1800	1100	1800										7600	SF	
	TOTAL DISTURBED AREA		480	600	480	1800	2100	5880	6600	3900	740	920	320	400	640	800	640	0	26300	SF		
207	RESTO	TOP SOIL	6	7	6	22	26	73	81	48	9	11	4	5	8	10	8	0	325	CY X		
212		SEEDING	480	600	480	1800	2100	5880	6600	3900	740	920	320	400	640	800	640	0	26300	0.60 AC X		
213		MULCH	0	0	0	0	300	3900	4400	2400	100	100	40	40	0	0	0	0	11280	0.26 AC X		
216		SR BLANK	53	67	53	200	200	176	200	167	60	80	27	36	71	89	71	0	1549	SY X		
304	ABC CLASS 6	W<2'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	179.5	TON X	
		2'<W<5'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		W = FULL	0.0	0.0	7.1	17.7	17.7	17.7	15.6	17.7	17.7	15.6	7.1	7.1	5.0	17.7	15.6	0.0	0.0	179.5		
		+R DIPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0			
VT MAT	R DIPS	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0	0.0	3.2	0.0	3.2	0.0	12.8	TON			
306	RECOND. (CASE 1)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	LF X	
	RECOND. (CASE 2)		0	0	0	0	0	0	0	0	20	100	40	40	0	100	100	0	400	LF X		
	RECOND. (CASE 3)		0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	100	LF		
504	ROCK WALL		0	0	0	150	0	230	0	0	0	0	0	0	0	0	0	0	380	SF X		
	ROCK BNK STAB.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SF X	
506	RIPRAP	6 INCH			4										4				8	CY X		
		9 INCH				2		2											4	CY X		
		12 INCH																		0	CY X	
		18 INCH																		0	CY X	
603	COR. STEEL PIPE	18-IN				36		30											66	LF X		
		24-IN																	0	LF X		
607	FENCE (PLASTIC)																		200	LF X		

DAMAGE TYPES		STATION	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	TOTAL LENGTH	PAY ITEM		
DAMAGE TYPES	GULLY EROSION	G6						40											40	LF	
		G12		100			40				20					100	100		360	LF	
		G18																5		5	LF
		G24																95		95	LF
		G36																		0	LF
DAMAGE TYPES	SHEET EROSION	S6 (1/2)																	0	LF	
		S6	100	100	100	100	100	100			100				20	20			740	LF	
		S12																		0	LF
		S18																		0	LF
		S24																		0	LF
NO DAMAGE			0	0	0	0	0	0	100	100	0	100	100	80	0	0	0			LF	
TOTAL																					
203	MUCK EXCAVATION																		0	CY	
	DITCH EX.	(TYPE 1)							50	25					100	100			275	LF X	
		(TYPE 2)	70	90	90	80	100	80	30	55	100	80	100	60				80	1015	LF X	
	BERM EXCAVATION																		0	LF X	
	ROADWAY EX (NEW AL)																		0	LF X	
	UNCLASSIFIED EX		4	5	9	8	6	8	11	10	6	8	6	7	11	11	8	0	119	CY	
	EMBANKMENT		0	6	0	0	2	0	0	0	1	0	0	0	6	6	27	0	47	CY	
	NET		4	-1	9	8	3	8	11	10	4	8	6	7	6	6	-19	0	71	CY	
BORROW																		50	CY X		
204	ROLLING DIP					1			1								1		8	EA X	
	LEADOFF DITCH																		0	LF X	
DAMAGE TYPES	DIST. - DITCHES		420	540	540	480	600	480	580	530	600	480	600	360	800	800	480	0	8290	SF	
	DIST. SHOULDER WORK		100	100															200	LF	
	DIST. - OTHER (MLCH)			1500																	SF
	DIST. - OTHERS (SRB)																			0	SF
	TOTAL DISTURBED AREA		620	2240	540	480	600	480	580	530	600	480	600	360	800	800	480	0	10190	SF	
207	RESTO	TOP SOIL	8	28	7	6	7	6	7	7	7	6	7	4	10	10	6	0	126	CY X	
212		SEEDING	620	2240	540	480	600	480	580	530	600	480	600	360	800	800	480	0	10190	0.23 AC X	
213		MULCH	100	1600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1700	0.04 AC X	
216		SR BLANK	47	60	60	53	67	53	64	59	67	53	67	40	89	89	53	0	921	SY X	
304	ABC CLASS 6	W<2'	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3		
		2'<W<5'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	TON X
		W = FULL	17.7	17.7	15.6	15.6	17.7	15.6	5.0	5.0	17.7	5.0	0.0	8.5	3.5	0.0	5.0	0.0	149.7		
		+R DIPS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0	0.0		
VT MAT	R DIPS	0.0	0.0	3.2	3.2	0.0	3.2	3.2	3.2	0.0	3.2	0.0	3.2	0.0	3.2	0.0	3.2	0.0	25.5	TON	
306	RECOND. (CASE 1)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	95	0	95	LF X	
	RECOND. (CASE 2)		100	100	100	100	100	100	0	0	100	0	0	20	20	0	0	0	740	LF X	
	RECOND. (CASE 3)										100			50	100	100	100	100	650	LF	
504	ROCK WALL		0	0	0	0	0	0	0	0	0	0	0	0	80		0	0	80	SF X	
	ROCK BNK STAB.		0	0	0																

PROJECT: City of Boulder OSMP Flood Damage Mitigation

SEGMENT: Sanitas Valley

BEGIN STA. 3000 SURFACE WIDTH: 8 ft ASSUMED DISTURBED W: 17 ft
 END STA. 4500 SURFACING THICKNESS: 4 in TOPSOIL THICKNESS 4 in
 LENGTH 1500 SURFACING TYPE: ABC (CLASS 6)

PROJECT: City of Boulder OSMP Flood Damage Mitigation

SEGMENT: Sanitas Valley

BEGIN STA. 4500 SURFACE WIDTH: 8 ft ASSUMED DISTURBED W: 17 ft
 END STA. 6000 SURFACING THICKNESS: 4 in TOPSOIL THICKNESS 4 in
 LENGTH 1500 SURFACING TYPE: ABC (CLASS 6)

DAMAGE TYPES		STATION	3000	3100	3200	3300	3400	3500	3600	3700	3800	3900	4000	4100	4200	4300	4400	TOTAL LENGTH	PAY ITEM			
GULLY EROSION	G6																	0	LF			
	G12					35	100	100	100	95						100		530	LF			
	G18	85	20													90		195	LF			
	G24																	0	LF			
	G36		10	100	100	65												275	LF			
SHEET EROSION	S6 (1/2)									40	100							140	LF			
	S6	50	100							10								160	LF			
	S12				20	20												40	LF			
	S18																	0	LF			
	S24																	0	LF			
NO DAMAGE			0	0	0	0	0	0	0	0	0	0	100	100	100	10	0		LF			
203	MUCK EXCAVATION																	0	CY			
	DITCH EX.	(TYPE 1)	70		100	90	100	100	100	80	80	30	100	45		10		905	LF	X		
		(TYPE 2)	30	40			50						20	40		55	100	70	405	LF	X	
	BERM EXCAVATION																	0	LF	X		
	UNCLASSIFIED EX	13	6	11	14	11	11	11	11	13	14	6	11	8	10	9	0	159	CY			
	EMBANKMENT	13	9	65	65	49	10	6	6	5	0	0	0	0	13	6	0	245	CY			
	NET	1	-3	-54	-51	-37	1	6	6	8	14	6	11	8	-4	3	0	-86	CY			
BORROW																	50	CY	X			
204	ROLLING DIP	1	1		1	1				1	1					1	1	8	EA	X		
	LEADOFF DITCH					40												40	LF	X		
DIST. - DITCHES	DIST. - DITCHES	740	240	800	720	540	800	800	800	640	760	480	800	690	600	500		9910	SF			
	DIST. SHOULDER WORK																	0	LF			
	DIST. - OTHER (MLCH)																	0	SF			
	DIST. - OTHERS (SRB)																	0	SF			
	TOTAL DISTURBED AREA	740	240	800	720	540	800	800	800	640	760	480	800	690	600	500	0	9910	SF			
207	RESTO	TOP SOIL	9	3	10	9	7	10	10	10	8	9	6	10	9	7	6	0	122	CY	X	
		SEEDING	740	240	800	720	540	800	800	800	640	760	480	800	690	600	500	0	9910	0.23	AC	X
		MULCH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	AC	X
		SR BLANK	82	27	89	80	60	89	89	89	71	84	53	89	77	67	56	0	1101	SY	X	
304	ABC CLASS 6	W < 2'	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
		2' < W < 5'	7.5	0.0	0.0	0.0	2.3	6.7	6.7	6.7	9.9	8.9	0.0	0.0	0.0	8.0	6.7	0.0	63.2	172.9	TON	X
		W = FULL	13.8	17.4	17.7	22.7	12.9	3.5	0.0	0.0	6.7	5.0	0.0	0.0	0.0	5.0	5.0	0.0	109.8			
		+R DIPS	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	1.0	0.0				
		VT MAT	3.2	3.2	0.0	3.2	3.2	0.0	0.0	0.0	3.2	3.2	0.0	0.0	0.0	3.2	3.2	0.0		25.5	TON	
306	RECOND. (CASE 1)	0	10	100	100	65	0	0	0	0	0	0	0	0	0	0	0	275	LF	X		
	RECOND. (CASE 2)	50	100	0	0	20	20	0	0	10	0	0	0	0	0	0	0	200	LF	X		
	RECOND. (CASE 3)	0	0	0	0	35	100	100	100	90	100	100	100	100	100	100	0	1025	LF			
504	ROCK WALL		80			150												310	SF	X		
	ROCK BNK STAB.																	0	SF	X		
506	RIPRAP	6 INCH																	0	CY	X	
		9 INCH		2			2								2				6	CY	X	
		12 INCH																	0	CY	X	
		18 INCH																	0	CY	X	
603	COR. STEEL PIPE	18-IN																	0	LF	X	
		24-IN		24			24								24				72	LF	X	
607	FENCE (PLASTIC)																	200	LF	X		

DAMAGE TYPES		STATION	4500	4600	4700	4800	4900	5000	5100	5200	5300	5400	5500	5600	5700	5800	5900	6000	TOTAL LENGTH	PAY ITEM			
GULLY EROSION	G6					100	25	100	100	100	50								475	LF			
	G12					100	75												175	LF			
	G18																		0	LF			
	G24																		0	LF			
	G36																		0	LF			
SHEET EROSION	S6 (1/2)																		0	LF			
	S6	100	100	100														90	390	LF			
	S12																		0	LF			
	S18																		0	LF			
	S24																		0	LF			
NO DAMAGE			0	0	0	100	0	25	100	100	100	100	100	100	100	100	100	10		LF			
TOTAL																							
MUCK EXCAVATION																			0	CY			
DITCH EX.	(TYPE 1)	100	85	160	200	200	200	200	200	200	200	100	80	100	80	100	100	160	2265	LF	X		
	(TYPE 2)																		0	LF	X		
BERM EXCAVATION																		0	LF	X			
UNCLASSIFIED EX	20	21	40	41	41	45	41	45	41	45	41	20	16	24	16	20	20	33	485	CY			
EMBANKMENT	0	0	0	0	6	4	0	0	0	0	0	0	0	0	0	0	0	0	10	CY			
NET	20	21	40	41	35	41	41	45	41	45	41	20	16	24	16	20	20	33	475	CY			
BORROW																			50	CY	X		
204	ROLLING DIP		1	2			1	1							1				6	EA	X		
	LEADOFF DITCH																		0	LF	X		
DIST. - DITCHES	DIST. - DITCHES	800	680	1280	1600	1600	1600	1600	1600	1600	800	640	800	640	800	800	1280		18120	SF			
	DIST. SHOULDER WORK	100	100	100													0	0	100	400	LF		
	DIST. - OTHER (MLCH)				800								1700							0	SF		
	DIST. - OTHERS (SRB)																		0	SF			
	TOTAL DISTURBED AREA	1000	880	1480	2400	1600	1600	1600	1600	1600	1600	800	2340	800	640	800	800	1480		21420	SF		
207	RESTO	TOP SOIL	12	11	18	30	20	20	20	20	20	10	29	10	8	10	10	18		264	CY	X	
		SEEDING	1000	880	1480	2400	1600	1600	1600	1600	1600	800	2340	800	640	800	800	1480	21420	0.49	AC	X	
		MULCH	100	100	100	800	0	0	0	0	0	0	0	1700	0	0	0	0	100	2900	0.07	AC	X
		SR BLANK	89	76	142	178	178	178	178	178	178	89	71	89	71	89	89	142		2013	SY	X	
304	ABC CLASS 6	W < 2'	0.0	0.0	0.0	3.3	0.0	0.8	3.3	3.3	3.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	15.8				
		2' < W < 5'	0.0	0.0	0.0	0.0	6.7	5.0	0.														

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A STORMWATER DISCHARGE PERMIT FROM THE COLORADO DEPARTMENT OF HEALTH PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROPOSED DEVELOPMENT.

1. SITE DESCRIPTION
FOR PROJECT INFORMATION

A. PROJECT SITE DESCRIPTION: REPAIRS TO THE SANITAS VALLEY TRAIL TO ADDRESS FLOOD DAMAGE AND MITIGATION MEASURES TO REDUCE THE LIKELIHOOD OF DAMAGE FROM FUTURE EVENTS.

B. PROPOSED SEQUENCING FOR MAJOR ACTIVITIES:

- 1) MOBILIZATION/ CONSTRUCTION SURVEYING
- 2) EROSION CONTROL
- 3) DAMAGE REPAIR / BASES RECONDITIONING
- 4) INSTALLATION OF DRAINAGE STRUCTURES (PHASE 1 AREA ONLY)
- 5) GRADING OF DITCHES (PHASE 1 AREA ONLY)
- 6) GRADING OF ROLLING DIPS
- 7) AGGREGATE BASE COURSE FINISH SURFACE (PHASE 1 AREA ONLY)
- 8) RESTORATION / SEEDING (PHASE 1 AREA ONLY)
- 4) INSTALLATION OF DRAINAGE STRUCTURES (PHASE 2 AREA ONLY)
- 5) GRADING OF DITCHES (PHASE 2 AREA ONLY)
- 6) GRADING OF ROLLING DIPS (PHASE 2 AREA ONLY)
- 7) AGGREGATE BASE COURSE FINISH SURFACE (PHASE 2 AREA ONLY)
- 8) RESTORATION / SEEDING (PHASE 2 AREA ONLY)
- 9) CLEANING

C. RECEIVING WATER:

1. OUTFALL LOCATIONS: THERE ARE NO ADDITIONS OF OUTFALL LOCATIONS WITHIN THE PROJECT LIMITS. SIMILAR DRAINAGE PATTERNS WILL BE MAINTAINED. AN UPHILL DITCH WILL BE CONSTRUCTED ADJACENT TO THE TRAIL. CROSS CULVERTS OR ROLLING DIPS WILL BE INSTALLED AT APPROXIMATELY 250' INCREMENTS TO MAINTAIN THE OVERALL WEST TO EAST DRAINAGE PATTERN.
2. NAMES OF RECEIVING WATER(S) ON SITE AND THE ULTIMATE RECEIVING WATER: SANITAS CREEK. ALL WATER RUN RUN ACROSS EXISTING GRADE AND FOLLOW EXISTING GENERAL DRAINAGE PATTERNS. THE ULTIMATE RECEIVING WATER IS BOULDER CREEK.

D. ALLOWABLE NON-STORMWATER DISCHARGES: NO KNOWN ALLOWABLE NON-STORMWATER DISCHARGES

1. GROUNDWATER AND STORMWATER DEWATERING: DISCHARGES TO THE GROUND OF WATER FROM CONSTRUCTION DEWATERING ACTIVITIES MAY BE AUTHORIZED PROVIDED THAT:
 - a. THE SOURCE IS GROUNDWATER AND/OR GROUNDWATER COMBINED WITH STORMWATER THAT DOES NOT CONTAIN POLLUTANTS
 - b. THE SOURCE AND BMPS ARE IDENTIFIED IN THE SWMP
 - c. DISCHARGES DO NOT LEAVE THE SITE AS SURFACE RUNOFF OR TO SURFACE WATERS.
2. IF DISCHARGES DO NOT MEET THE ABOVE CRITERIA A SEPARATE PERMIT FROM THE DEPARTMENT OF HEALTH WILL BE REQUIRED. CONTAMINATED GROUNDWATER REQUIRING COVERAGE UNDER A SEPARATE PERMIT MAY INCLUDE GROUNDWATER CONTAMINATED WITH POLLUTANTS FROM A LANDFILL, MINING ACTIVITIES, INDUSTRIAL POLLUTANT PLUMES, UNDERGROUND STORAGE TANK, ETC.

2. STORMWATER MANAGEMENT CONTROLS

A. PERIMETER CONTROL

1. PERIMETER CONTROL SHALL BE ESTABLISHED AS THE FIRST ITEM ON THE SWMP TO PREVENT THE POTENTIAL FOR POLLUTANTS LEAVING THE CONSTRUCTION SITE BOUNDARIES, ENTERING THE STORMWATER DRAINAGE SYSTEM, OR DISCHARGING TO STATE WATERS.
2. PERIMETER CONTROL MAY CONSIST OF VEGETATION BUFFERS, BERMS, SILT FENCE, EROSION LOGS, EXISTING LANDFORMS, OR OTHER BMPS AS APPROVED.

3. DURING CONSTRUCTION

RESPONSIBILITIES OF THE CONTRACTOR

A. MATERIALS HANDLING AND SPILL PREVENTION

1. ANY MATERIAL STOCKPILES SHALL BE LOCATED AWAY FROM SENSITIVE AREAS (AS DEFINED BY THE PROJECT MANAGER) AND CONFINED SO THAT NO MATERIAL OR THEIR RUN-OFF WILL ENTER STATE WATERS. LOCATIONS SHALL BE APPROVED BY THE ENGINEER IN CONSULTATION WITH CITY OF BOULDER
2. CONTAIN AND CLEANUP EQUIPMENT FUEL, OIL, AND LUBRICANT LEAKS.
3. BULK STORAGE STRUCTURES FOR PETROLEUM PRODUCTS AND ANY OTHER CHEMICALS SHALL HAVE SECONDARY CONTAINMENT OR EQUIVALENT ADEQUATE PROTECTION SO AS TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIAL FROM ENTERING STATE WATERS.
4. CONTRACTOR SHALL INSPECT AND CERTIFY EQUIPMENT AND VEHICLES DAILY TO ENSURE PETROLEUM, OILS, AND LUBRICANTS (POL) ARE NOT LEAKING ONTO THE SOIL OR PAVEMENT. ABSORBENT MATERIAL OR CONTAINERS APPROVED BY THE ENGINEER SHALL BE USED TO PREVENT LEAKING POL FROM REACHING THE SOIL OR PAVEMENT. CONTRACTOR SHALL HAVE READY APPROVED ABSORBENT MATERIAL OR CONTAINERS OF SUFFICIENT CAPACITY TO CONTAIN ANY POL LEAK THAT CAN REASONABLY BE FORESEEN. ALL MATERIALS RESULTING FROM POL LEAKAGE CONTROL AND CLEANUP SHALL BE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE SITE. THE COST FOR CONTROL AND CLEANUP OF POL LEAKS SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE WORK.

B. STOCKPILE MANAGEMENT

1. SILT FENCE, BERMS OR OTHER SEDIMENT CONTROL DEVICES SHALL BE PLACED AT THE TOE (OR JUST BEYOND TOE) OF ALL ERODIBLE STOCKPILES (INCLUDING TOPSOIL). SEDIMENT CONTROL OR STOCKPILES WILL NOT BE PAID FOR SEPARATELY.
2. THERE SHALL BE NO STOCKPILING OR SIDE CASTING OF WASTE MATERIALS INCLUDING BUT NOT LIMITED TO PAINT CHIPS, ASPHALT, AND CONCRETE ADJACENT TO ANY STATE WATERS.

C. GRADING AND SLOPE STABILIZATION

1. PLACEMENT OF TOPSOIL OR SOIL CONDITIONER, SEED, MULCH AND MULCH TACKIFIER (OR BLANKETS) WILL NOT BE DONE IN A SINGLE OPERATION, BUT SHALL BE COMPLETED:
 - A) WHEN FINAL GRADING IS COMPLETED, PERMANENT STABILIZATION SHALL OCCUR WITHIN 7 DAYS
 - B) IN DISTURBED AREAS WHERE WORK IS TEMPORARILY HALTED, THE AREAS SHALL BE TEMPORARILY STABILIZED WITHIN 7 DAYS AFTER ACTIVITY HAS CEASED, UNLESS WORK IS TO BE RESUMED WITHIN 30 CALENDAR DAYS AFTER THE ACTIVITY CEASED (AS AUTHORIZED BY THE ENGINEER).

D. SURFACE ROUGHENING

1. DISTURBED SURFACES SHALL BE LEFT IN A ROUGHENED CONDITION BY EQUIPMENT TRACKING, SCARIFYING OR DISKING THE SURFACE ON CONTOUR WITH A 2 TO 4 INCH MINIMUM VARIATION IN SOIL SURFACE

E. VEHICLE TRACKING

1. CONTRACTOR SHALL CERTIFY THAT CONSTRUCTION EQUIPMENT HAS BEEN CLEANED PRIOR TO SITE ARRIVAL. VEHICLES SHALL BE FREE OF SOIL AND DEBRIS CAPABLE OF TRANSPORTING NOXIOUS WEED SEEDS OR ROOTS ONTO THE SITE.

F. TEMPORARY STABILIZATION

1. WHEN DISTURBED AREAS REQUIRE STABILIZATION DURING THE SUMMER AND WINTER WHEN SEEDING IS NOT ALLOWED, TEMPORARY STABILIZATION SHALL OCCUR. TEMPORARY STABILIZATION SHALL NOT BE PAID FOR THE CONVENIENCE OF THE CONTRACTOR. TEMPORARY STABILIZATION SHALL CONSIST OF:
 - A) EROSION LOGS PLACED AT MAXIMUM 20' SPACING IN DITCHES AND AT OUTFALLS OF NEW ROLLING DIPS.
 - B) INLET PROTECTION AT EXISTING AND NEW CULVERTS.

G. NEW INLET/CULVERT PROTECTION

1. REVIEW EXISTING AND NEW INLETS AND CULVERTS TO DETERMINE IF INLET PROTECTION IS NEEDED DUE TO WATER FLOW PATTERNS. PRIOR TO CONSTRUCTION COMMENCING, INLETS NEEDING PROTECTION SHALL BE EVALUATED AND THE SWMP REVISED ACCORDINGLY.

H. STREET CLEANING

1. WHENEVER SEDIMENT IS TRANSPORTED ONTO THE ADJACENT ROADWAY, THE ROAD SHALL BE CLEANED AS NEEDED. STORM DRAIN INLET PROTECTION SHALL BE IN PLACE PRIOR TO SHOVELING, SWEEPING, OR VACUUMING. STREET CLEANING WILL NOT BE PAID FOR SEPARATELY.

4. BMP MAINTENANCE

MAINTENANCE SHALL BE IN THE RESPONSIBILITY OF THE CONTRACTOR. BMP'S SHALL BE REGULARLY MAINTAINED AND SHALL BE REPAIRED OR REPLACED AS NEEDED, MAINTENANCE OF BMP'S WILL NOT BE PAID FOR SEPARATELY. THE CONTRACTOR SHALL MAINTAIN THE EROSION CONTROL DEVICES FOR 1 YEAR UNLESS OTHERWISE APPROVED BY THE OWNER.

5. INTERIM AND FINAL STABILIZATION

A. SEEDING PLAN

% PLS*	SPECIES	COMMON NAME	VARIETY**	OF MIX	LBS/AC
	PASCOPYRUM SMITHII	WESTERN WHEATGRASS	NATIVE OR ARRIBA	20	6.4
	ELYMUS LANCEOLATUS	THICKSPIKE WHEATGRASS	NATIVE OR CRITANA	10	2.2
	ELYMUS TRACHYCAULUS	SLENDER WHEATGRASS	NATIVE OR PRIMAR	10	2.2
	NASSELLA VIRIDULA	GREEN NEEDLEGRASS	NATIVE OR LODORM	10	3.0
	BOUTELOUA CURTIPENDULA	SIDEOTS GRAMA	NATIVE OR VAUGHN	15	2.7
	CHONDROSUM GRACILE	BLUE GRAMA	NATIVE OR LOVINGTON	15	0.9
	SCHIZACHYRUM SCOPARIUM	LITTLE BLUESTEM	NATIVE OR PASTURA	10	1.4
	BUCHLOE DACTYLODES	BUFFALOGRASS	NATIVE (BUR)	5	1.6

NOTE: SEEDING RATE PLS LBS/ACRE IS FOR BROADCAST SEEDING. THE RATE CAN BE DIMINISHED HALF IF DRILLED SEEDING IS USED.

FOLLOW THE "ECOLOGICAL BEST MANAGEMENT PRACTICES" FOR GRASS SEEDING.

* PLS = PURE LIVE SEED

** OTHER VARIETIES OF GRASS SEED MAY BE USED.

B. SEEDING APPLICATION:

DRILL SEED 0.25 INCH TO 0.5 INCH INTO THE SOIL AT HALF THE RATE. IN AREAS NOT ACCESSIBLE TO A DRILL, HAND BROADCAST AND RAKE 0.25 INCH TO 0.5 INCH INTO THE SOIL.

C. MULCHING APPLICATION:

USE MULCHING (WOOD STRAND) WHERE A BLANKET IS NOT REQUIRED.

D. SOIL CONDITIONING AND FERTILIZER REQUIREMENTS:

1. FERTILIZER SHALL NOT BE USED ON THE PROJECT.

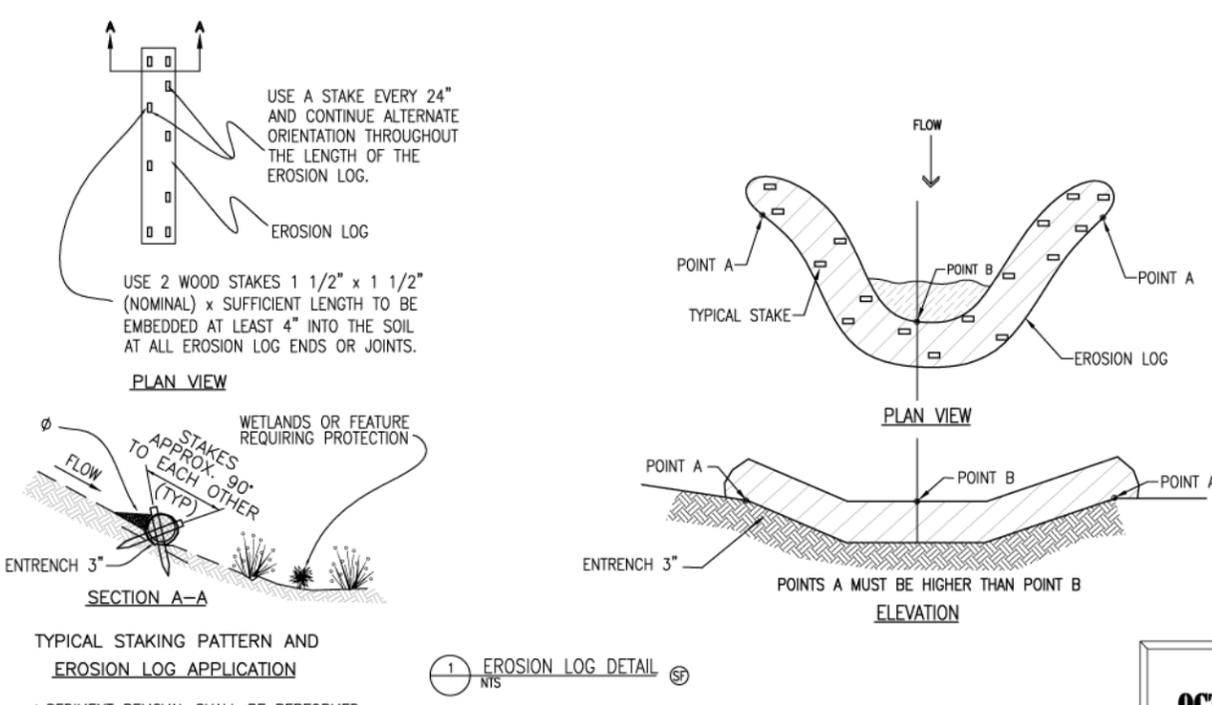
E. BLANKET APPLICATION:

ON SLOPES STEEPER THAN 3:1 AND DITCHES, THE BLANKET SHALL BE PLACED IN LIEU OF MULCH. ONLY SOIL RETENTION BLANKET (EXCELSIOR) (BIODEGRADABLE CLASS 1) SHALL BE USED WHERE BLANKET IS REQUIRED.

F. RESEEDING OPERATIONS/CORRECTIVE STABILIZATION

PRIOR TO FINAL ACCEPTANCE.

1. SEEDED AREAS SHALL BE REVIEWED DURING THE 14 DAY INSPECTIONS BY THE CITY OF BOULDER OSMP FOR BARE SOILS CAUSED BY SURFACE OR WIND EROSION. BARE AREAS CAUSED BY SURFACE OR GULLY EROSION, BLOWN AWAY MULCH, ETC. SHALL BE REGRADED, SEEDED, MULCHED AND HAVE MULCH (OR BLANKET) APPLIED AS NECESSARY.
2. AREAS WHERE SEED HAS NOT GERMINATED AFTER ONE SEASON SHALL BE EVALUATED BY THE ENGINEER AND CITY OF BOULDER OSMP. AREAS THAT HAVE NOT GERMINATED SHALL HAVE SEED, MULCH AND MULCH TACKIFIER (OR BLANKET) REAPPLIED.



BID SET
OCTOBER 16, 2014

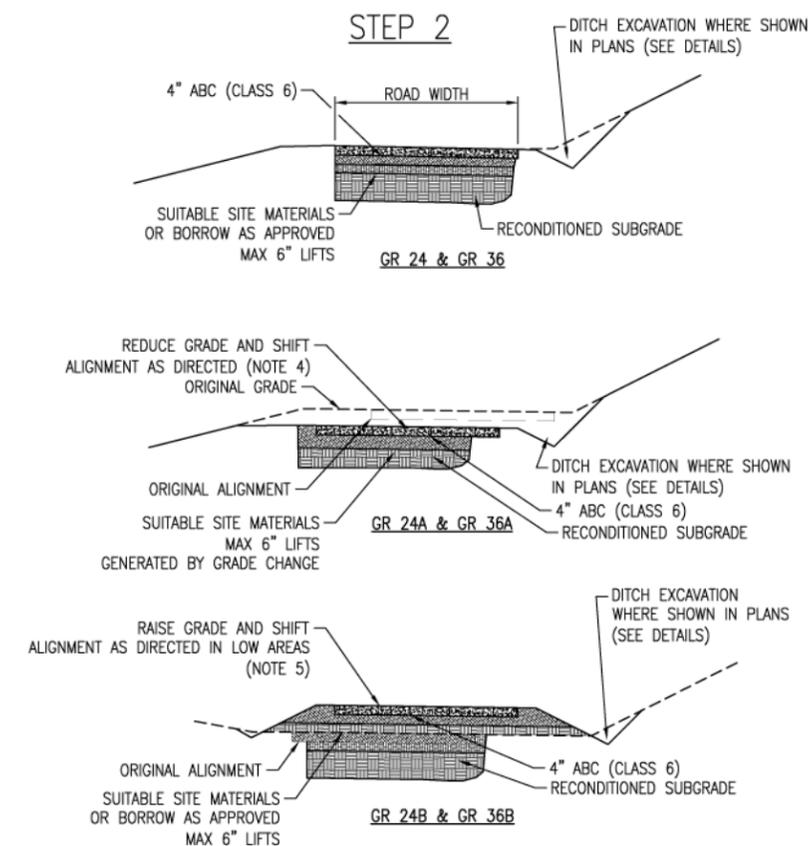
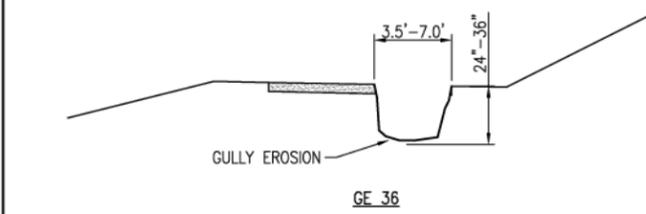
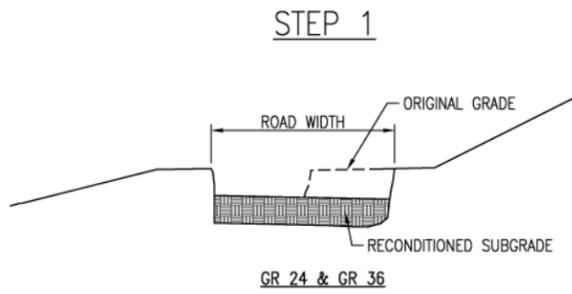
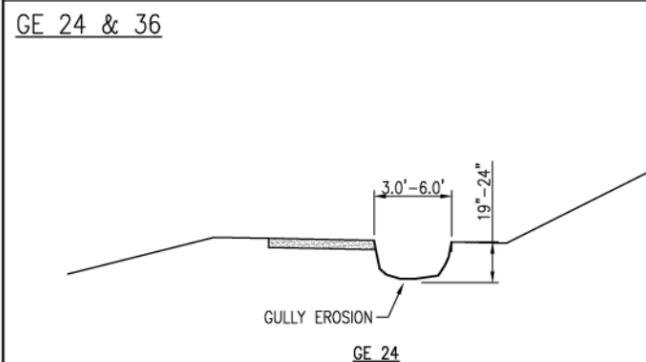
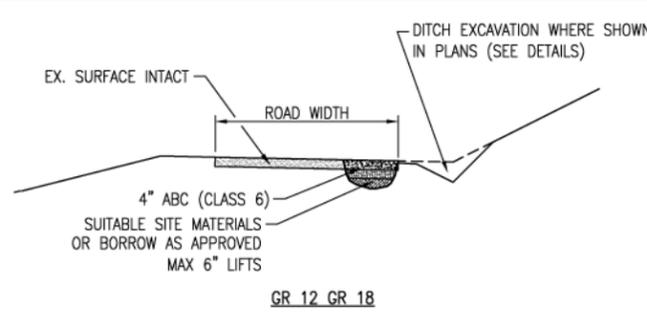
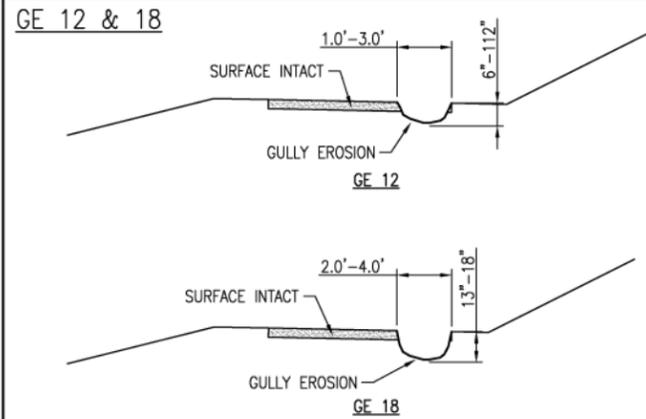
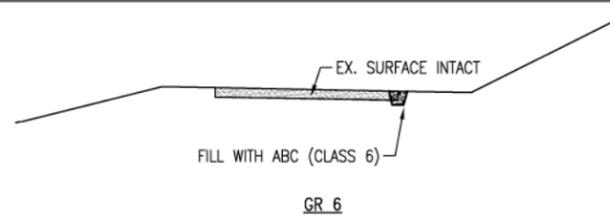
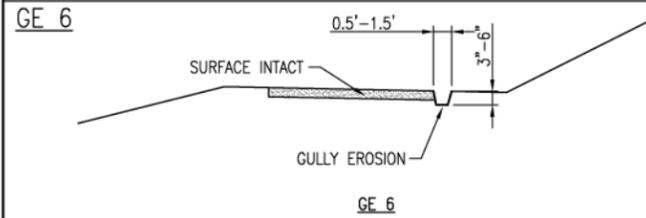
Print Date:		Sheet Revisions			Loris and Associates, Inc. 818 W. South Boulder Road, Suite 200 Louisville, Colorado 80027 303.444.2073 www.LorisandAssociates.com		As Constructed	SANITAS VALLEY ROAD - FLOOD DAMAGE REPAIR AND MITIGATION		Project No./Code
File Name:		Date:	Comments	Init.			No Revisions:	EROSION CONTROL NOTES AND DETAILS		SANITAS VALLEY ROAD
Horiz. Scale:	Vert. Scale: As Noted						Revised:	Designer: SJB	Structure Numbers	279-13134
Unit Information	Unit Leader Initials						Void:	Detailer: CWM	Subset Sheets:	Sheet Number 8
								Sheet Subset:		

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DAMAGE TYPES: GULLY EROSION
(SEE SHEETS 14-15 FOR APPROXIMATE LOCATIONS)

REPAIR TREATMENTS

CONSTRUCTION NOTES



1. SURFACING REPAIRS PAID FOR AS AGGREGATE BASE COURSE (CLASS 6) BASED ON THE ACTUAL QUANTITY PLACED AND APPROVED.

1. THE CONTRACTOR SHALL USE SUITABLE SITE MATERIALS FROM DITCH EXCAVATIONS, BERM EXCAVATIONS, ETC. FOR SUBGRADE REPAIR. THE COST FOR PLACEMENT AND COMPACTION OF SUITABLE SITE MATERIALS SHALL BE INCLUDED WITH THE ASSOCIATED EXCAVATION THAT GENERATED THE MATERIAL.
2. WHEN NO SUITABLE SITE MATERIALS ARE AVAILABLE FOR SUBGRADE REPAIR, IMPORTED MATERIAL, AS APPROVED BY THE PROJECT MANAGER, SHALL BE USED. THIS MATERIAL WILL BE PAID FOR AS BORROW.
3. SURFACING REPAIRS PAID FOR AS AGGREGATE BASE COURSE (CLASS 6) BASED ON THE ACTUAL QUANTITY PLACED AND APPROVED.

- STEP 1:**
1. THE CONTRACTOR SHALL RIP, DOZE OR OTHERWISE REWORK TO PROVIDE A UNIFORM SUBGRADE ACROSS THE ENTIRE ROADWAY WIDTH. FULLY EXPOSED ROCK GREATER THAN 6 INCHES IN GREATEST DIMENSION SHALL BE REMOVED FOR USE ELSEWHERE IN THE PROJECT AS RIPRAP. PAID FOR AS RECONDITIONING (CASE 1) (LF). PLACEMENT OF ROCK GENERATED WILL BE PAID FOR SEPARATELY AS RIPRAP.
- STEP 2:**
2. THE CONTRACTOR SHALL USE SUITABLE SITE MATERIALS FROM DITCH EXCAVATIONS, BERM EXCAVATIONS, ETC. FOR SUBGRADE REPAIR. THE COST FOR PLACEMENT AND COMPACTION OF SUITABLE SITE MATERIALS SHALL BE INCLUDED WITH THE ASSOCIATED EXCAVATION THAT GENERATED THE MATERIAL.
 3. WHEN NO SUITABLE SITE MATERIALS ARE AVAILABLE FOR SUBGRADE REPAIR, IMPORTED MATERIAL, AS APPROVED BY THE PROJECT MANAGER, SHALL BE USED. MATERIAL AND PLACEMENT WILL BE PAID FOR AS BORROW.
 4. THE ROADWAY PROFILE SHALL BE LOWERED AND ALIGNMENT ADJUSTED WHERE CALLED FOR IN THE PLANS OR OTHERWISE DIRECTED TO REDUCE THE NEED FOR IMPORTED MATERIALS. COST OF THIS WORK INCLUDED IN RECONDITIONING (CASE 1).
 5. THE ROADWAY PROFILE SHALL BE RAISED AND ALIGNMENT ADJUSTED WHERE CALLED FOR IN THE PLANS OR OTHERWISE DIRECTED. IMPORT MATERIAL IF REQUIRED TO ACHIEVE FINAL GRADE WILL BE PAID FOR AS BORROW, SEE NOTE 3 ABOVE.
 6. SURFACING REPAIRS PAID FOR AS AGGREGATE BASE COURSE (CLASS 6) BASED ON THE ACTUAL QUANTITY PLACED AND APPROVED.

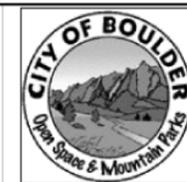


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OCTOBER 16, 2014

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Sheet Revisions		
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Void:

SANITAS VALLEY ROAD - FLOOD DAMAGE REPAIR AND MITIGATION			
TYPICAL REPAIR DETAILS			
Designer:	SJB	Structure	
Detailer:	CWM	Numbers	
Sheet Subset:		Subset Sheets:	

Project No./Code	
SANITAS VALLEY ROAD	
279-13134	
Sheet Number	9

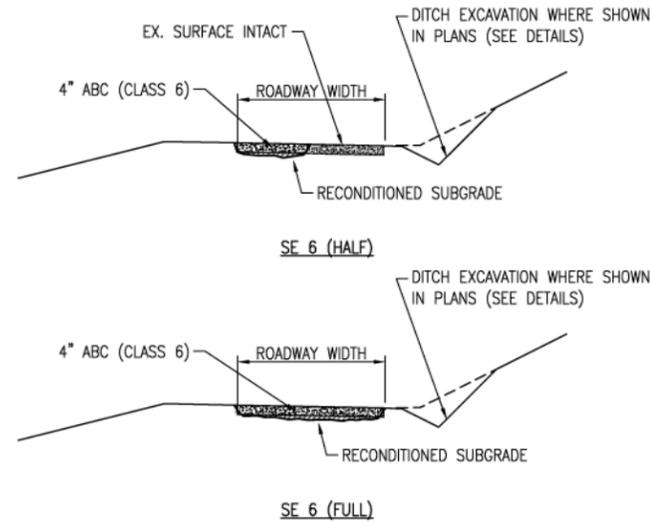
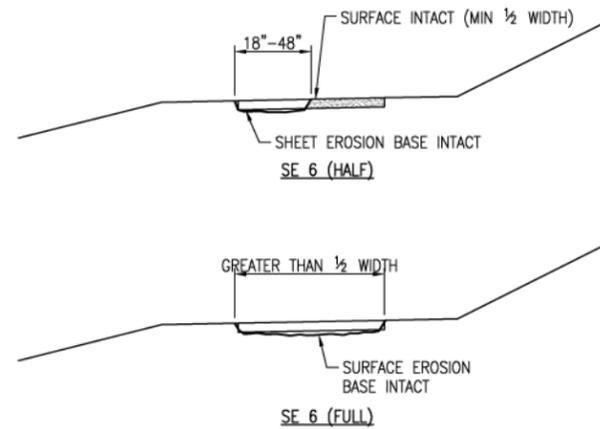
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DAMAGE TYPES: SHEET EROSION
(SEE SHEETS 14-15 FOR APPROXIMATE LOCATIONS)

REPAIR TREATMENTS

CONSTRUCTION NOTES

SE 6



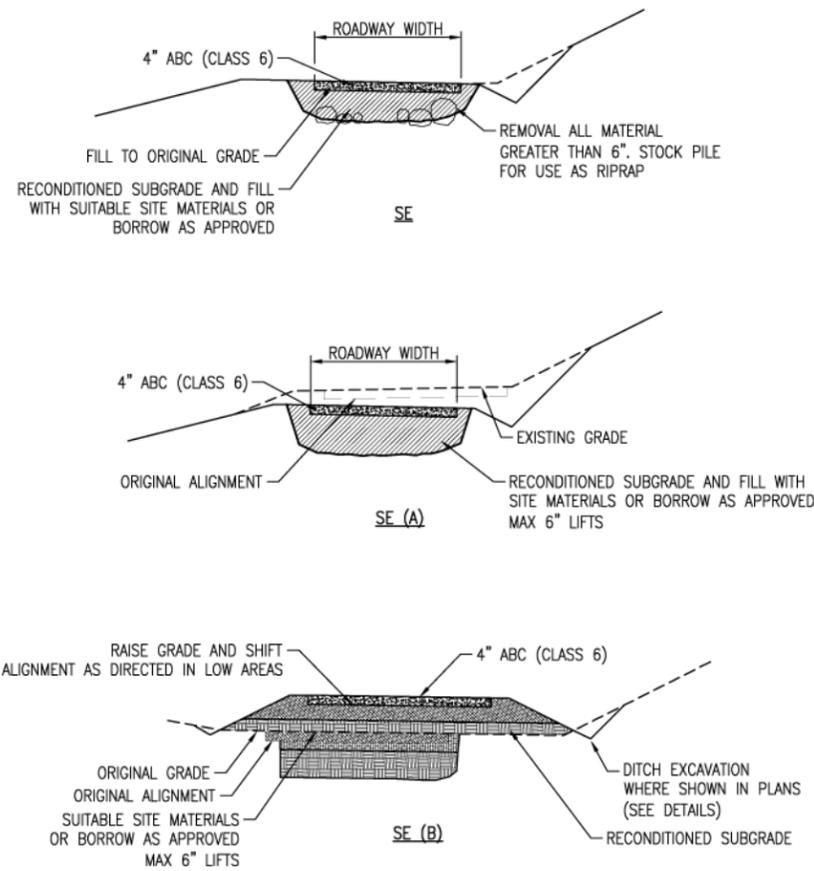
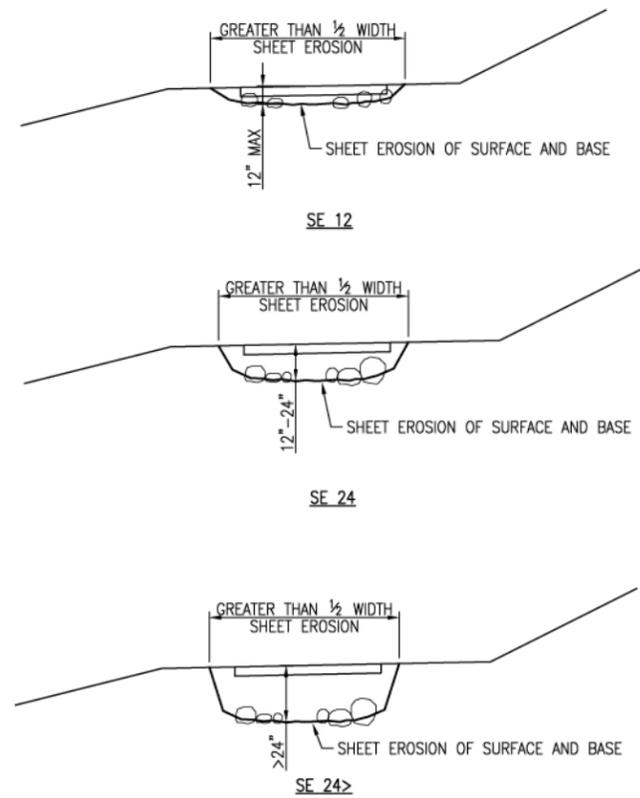
STEP 1:

1. THE CONTRACTOR SHALL RIP, DOZE OR OTHERWISE REWORK TO PROVIDE A UNIFORM SUBGRADE ACROSS THE ENTIRE ROADWAY WIDTH. ROCK GREATER THAN 6 INCHES IN GREATEST DIMENSION SHALL BE REMOVED FOR USE ELSEWHERE IN THE PROJECT AS RIPRAP. PAID FOR AS RECONDITIONING (CASE 2) (LF). PLACEMENT OF SITE ROCK USED AS RIPRAP WILL BE PAID FOR SEPARATELY.

STEP 2:

2. SURFACING REPAIRS PAID FOR AS AGGREGATE BASE COURSE (CLASS 6) BASED ON THE ACTUAL QUANTITY PLACED AND APPROVED.

SE 12 & SE >12



STEP 1:

1. THE CONTRACTOR SHALL RIP, DOZE OR OTHERWISE REWORK TO PROVIDE A UNIFORM SUBGRADE ACROSS THE ENTIRE ROADWAY WIDTH. ROCK GREATER THAN 6 INCHES IN GREATEST DIMENSION SHALL BE REMOVED FOR USE ELSEWHERE IN THE PROJECT AS RIPRAP. PAID FOR AS RECONDITIONING (CASE 2) (LF). PLACEMENT OF RIPRAP GENERATED WILL BE PAID FOR SEPARATELY AS RIPRAP.

STEP 2:

2. THE CONTRACTOR SHALL USE SUITABLE SITE MATERIALS FROM DITCH EXCAVATIONS, BERM EXCAVATIONS, ETC. FOR SUBGRADE REPAIR. THE COST FOR PLACEMENT AND COMPACTION OF SUITABLE SITE MATERIALS SHALL BE INCLUDED WITH THE ASSOCIATED EXCAVATION THAT GENERATED THE MATERIAL.
3. WHEN NO SUITABLE SITE MATERIALS ARE AVAILABLE FOR SUBGRADE REPAIR, IMPORTED MATERIAL, AS APPROVED BY THE PROJECT MANAGER, SHALL BE USED. MATERIAL AND PLACEMENT WILL BE PAID FOR AS BORROW.
4. THE ROADWAY PROFILE SHALL BE LOWERED AND ALIGNMENT ADJUSTED WHERE CALLED FOR IN THE PLANS OR OTHERWISE DIRECTED TO REDUCE THE NEED FOR IMPORTED MATERIALS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN RECONDITIONING (CASE 2) (LF).
5. THE ROADWAY PROFILE SHALL BE RAISED AND ALIGNMENT ADJUSTED WHERE CALLED FOR IN THE PLANS OR OTHERWISE DIRECTED TO TO REDUCE THE NEED TO REMOVE MATERIAL FROM THE SITE. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN RECONDITIONING (CASE 2) (LF). IMPORT MATERIAL IF REQUIRED TO ACHIEVE FINAL GRADE WILL BE PAID FOR AS BORROW, SEE NOTE 3 ABOVE.
6. SURFACING REPAIRS PAID FOR AS AGGREGATE BASE COURSE (CLASS 6) BASED ON THE ACTUAL QUANTITY PLACED AND APPROVED.



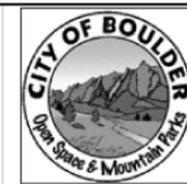
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Sheet Revisions		
Date:	Comments	Init.

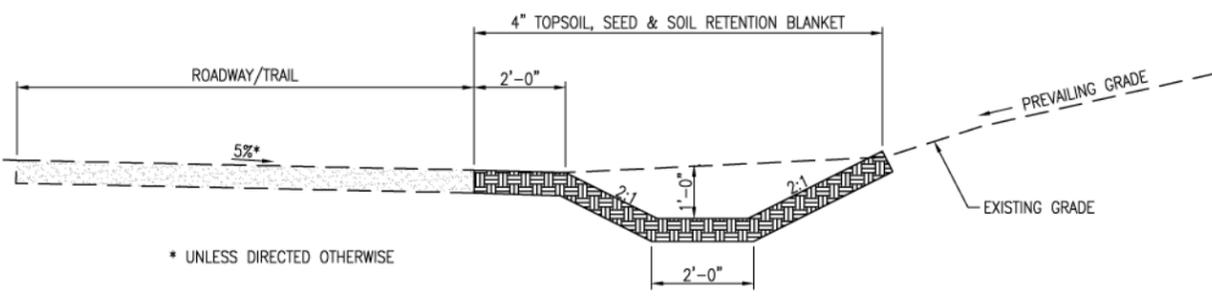
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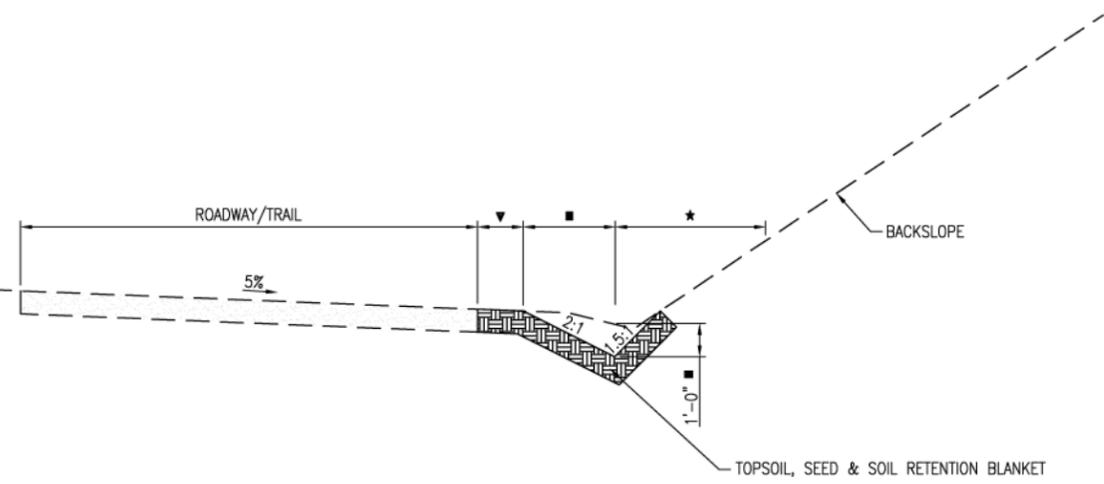
SANITAS VALLEY ROAD - FLOOD DAMAGE REPAIR AND MITIGATION			
TYPICAL REPAIR DETAILS			
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Detailer:	CWM	Numbers	
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Project No./Code	
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279-13134	
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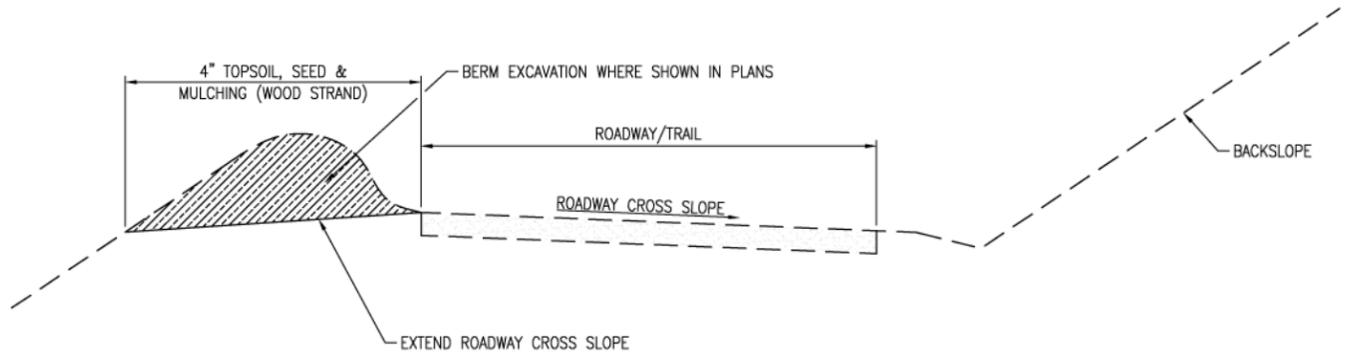


* UNLESS DIRECTED OTHERWISE

DITCH (TYPE 1) & LEADOFF DITCH



DITCH (TYPE 2)



BERM EXCAVATION

NOTES:

ALL SUITABLE MATERIALS EXCAVATED SHALL BE USED TO FILL EROSION DAMAGE ADJACENT TO THE DITCH LOCATION OR EROSION DAMAGE ELSEWHERE ON THE SITE. UNSUITABLE MATERIALS SHALL BE USED AS TOPSOIL OR REMOVED AND DISPOSED OF BY THE CONTRACTOR. STOCKPILING, TRANSPORT AND PLACEMENT OF SUITABLE MATERIAL AND TOPSOIL OR REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL WILL NOT BE MEASURED OR PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF DITCH EXCAVATION (LF).

- ▼ SHOULDER 2'-0" PREFERRED, REDUCE IF REQUIRED FOR DITCH TO LIMIT BACKSLOPE DISTURBANCE.
- 2'-0" @ 2:1 FOR 1' DEEP DITCH PREFERRED, AFTER SHOULDER REDUCTION, REDUCE DITCH WIDTH/DEPTH IF REQUIRED TO LIMIT BACKSLOPE DISTURBANCE.
- ★ 4'-0" MAX DISTURBANCE UP BACKSLOPE UNLESS OTHERWISE APPROVED.

NOTES:

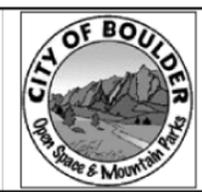
ALL SUITABLE MATERIALS EXCAVATED SHALL BE USED TO FILL EROSION DAMAGE ADJACENT TO THE BERM EXCAVATION LOCATION OR EROSION DAMAGE ELSEWHERE ON THE SITE. UNSUITABLE MATERIALS SHALL BE USED AS TOPSOIL OR REMOVED AND DISPOSED OF BY THE CONTRACTOR. STOCKPILING, TRANSPORT AND PLACEMENT OF SUITABLE MATERIAL OR REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL WILL NOT BE MEASURED OR PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF BERM EXCAVATION (LF).

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Unit Information	Unit Leader Initials

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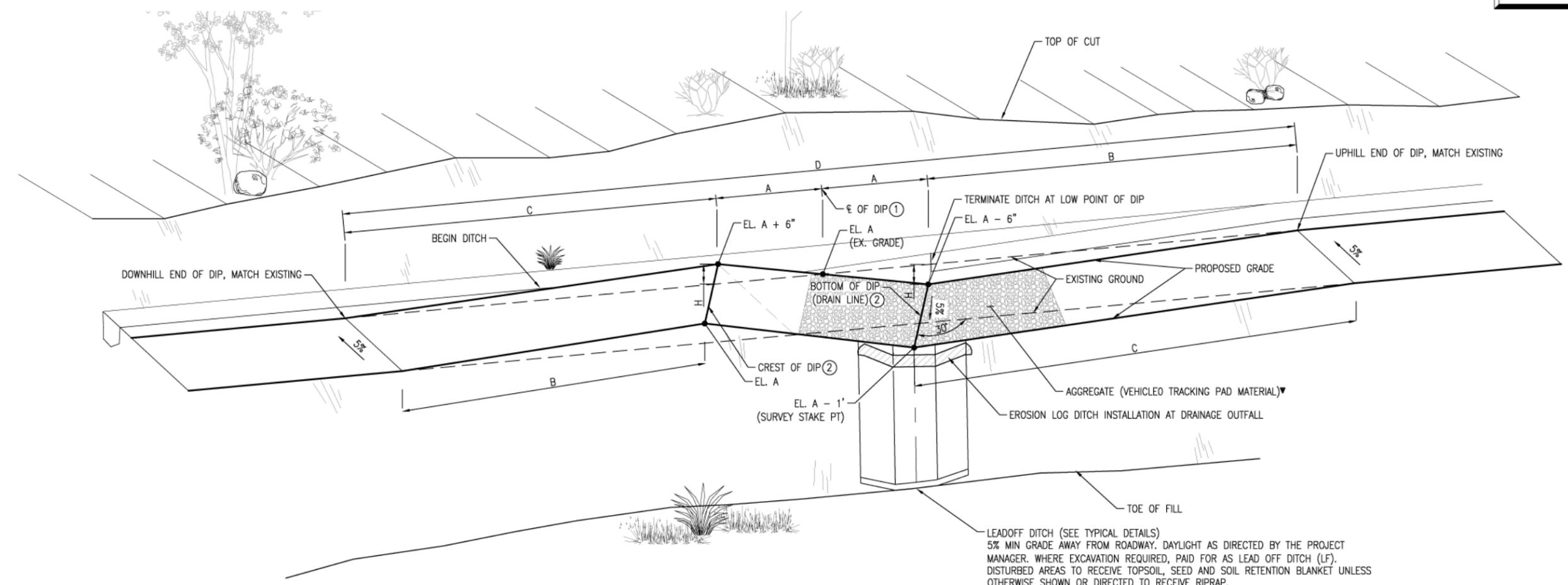
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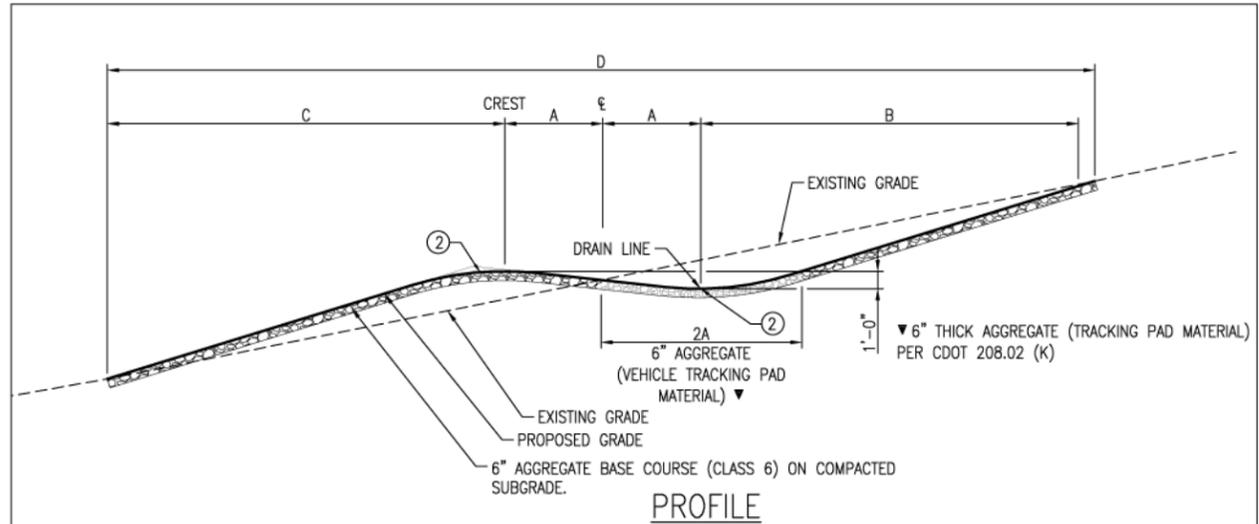
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Designer:	SJB	Structure	
Detailer:	CWM	Numbers	
Sheet Subset:		Subset Sheets:	

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SANITAS VALLEY ROAD	
279-13134	
Sheet Number	11



ROLLING DIP
N.T.S.

EACH LEADOFF DITCH SHALL INCLUDE EROSION LOG DITCH INSTALLATION AT THE DOWNSTREAM END AND AT 20' MAX SPACING IF APPLICABLE.



EXISTING % PROFILE GRADE	A	B	C	D
0% - 8%	6'	8'	12'	32'
9% - 12%	6'	10'	14'	36'
13% - 16%	7'	13'	17'	44'
17% & OVER	7'	18'	22'	54'

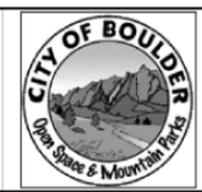
- NOTES:**
- ① ROLLING DIP STATIONS SHOWN ARE APPROXIMATE. FINAL STATION TO BE DESIGNATED BY THE PROJECT MANAGER DURING CONSTRUCTION.
 - ② ROUND GRADE
 - ▼ 6" THICK AGGREGATE (TRACKING PAD MATERIAL) PER CDOT 208.02 (K). AGGREGATE TO BE COVERED WITH SITE SOIL TO FILL VOIDS. SITE ROCK MEETING THE REQUIREMENTS OF 208.02 (K) SHALL BE USED WHEN AVAILABLE. COST OF MATERIALS AND PLACEMENT, WHETHER SITE MATERIALS OR IMPORTED SHALL BE INCLUDED IN THE COST OF ROLLING DIP (EACH)

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Unit Information	Unit Leader Initials

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Date:	Comments	Init.

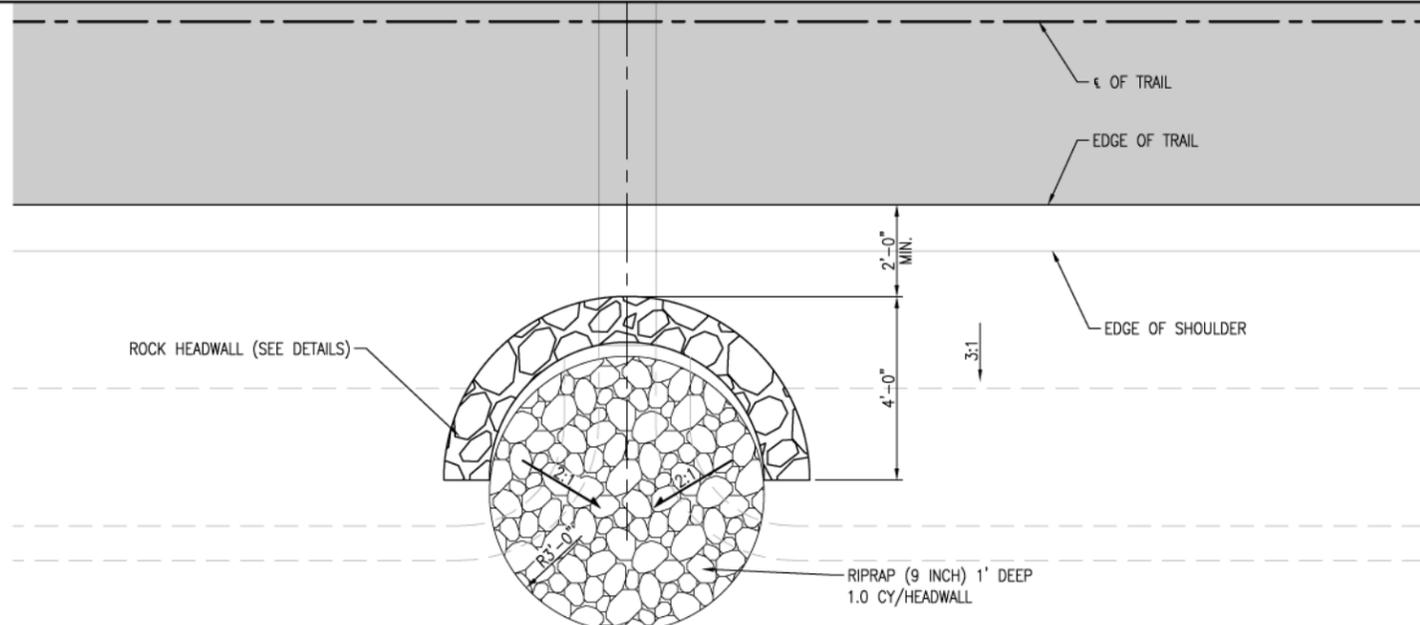
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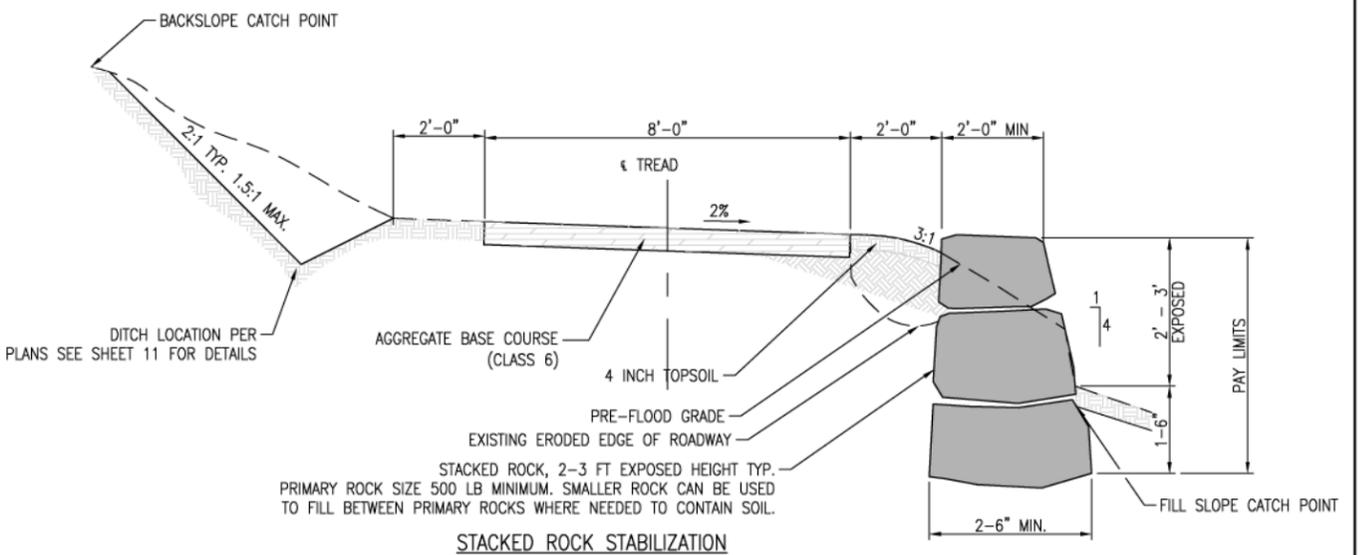
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SANITAS VALLEY ROAD - FLOOD DAMAGE REPAIR AND MITIGATION TYPICAL DETAILS			
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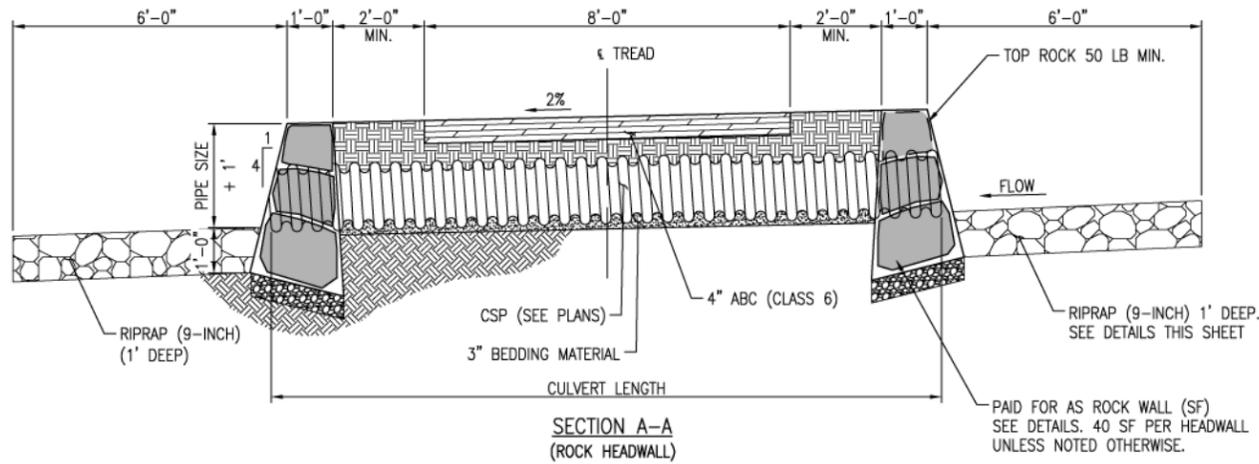
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SANITAS VALLEY ROAD	
279-13134	
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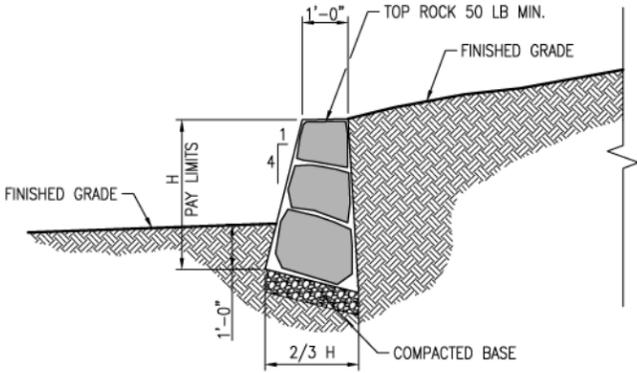
CULVERT ROCK HEADWALL PLAN
PERPENDICULAR LAYOUT
N.T.S.



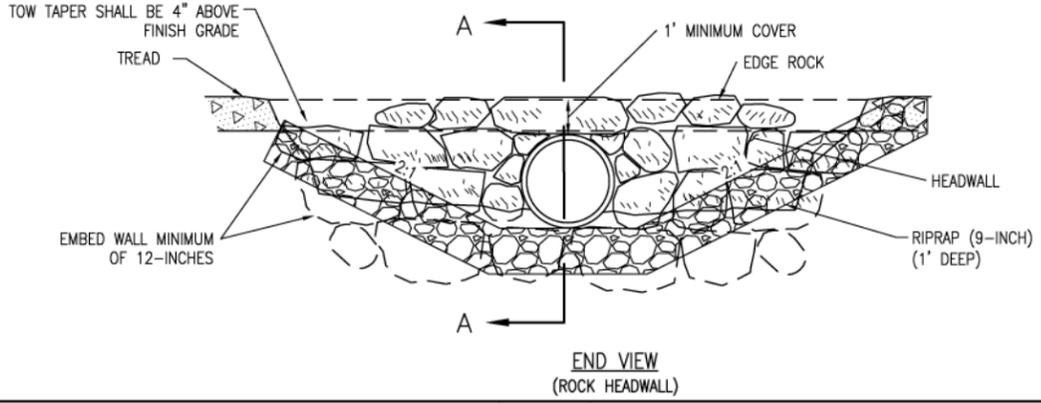
STACKED ROCK STABILIZATION



SECTION A-A
(ROCK HEADWALL)



ROCK WALL DETAIL



END VIEW
(ROCK HEADWALL)

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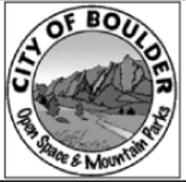


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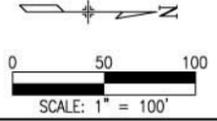
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SANITAS VALLEY ROAD	
279-13134	
Sheet Number	13



Know what's below.
Call before you dig.



NOTES:
SEE SHEETS 8 AND 9 FOR DESCRIPTIONS OF DAMAGE TYPES
CONDITION SURVEY IS APPROXIMATE AND IS FOR INFORMATION ONLY. CONDITIONS MAY VARY DUE TO CHANGES SINCE SURVEY

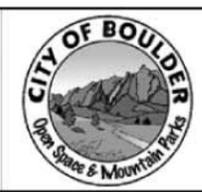


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Unit Information	Unit Leader Initials

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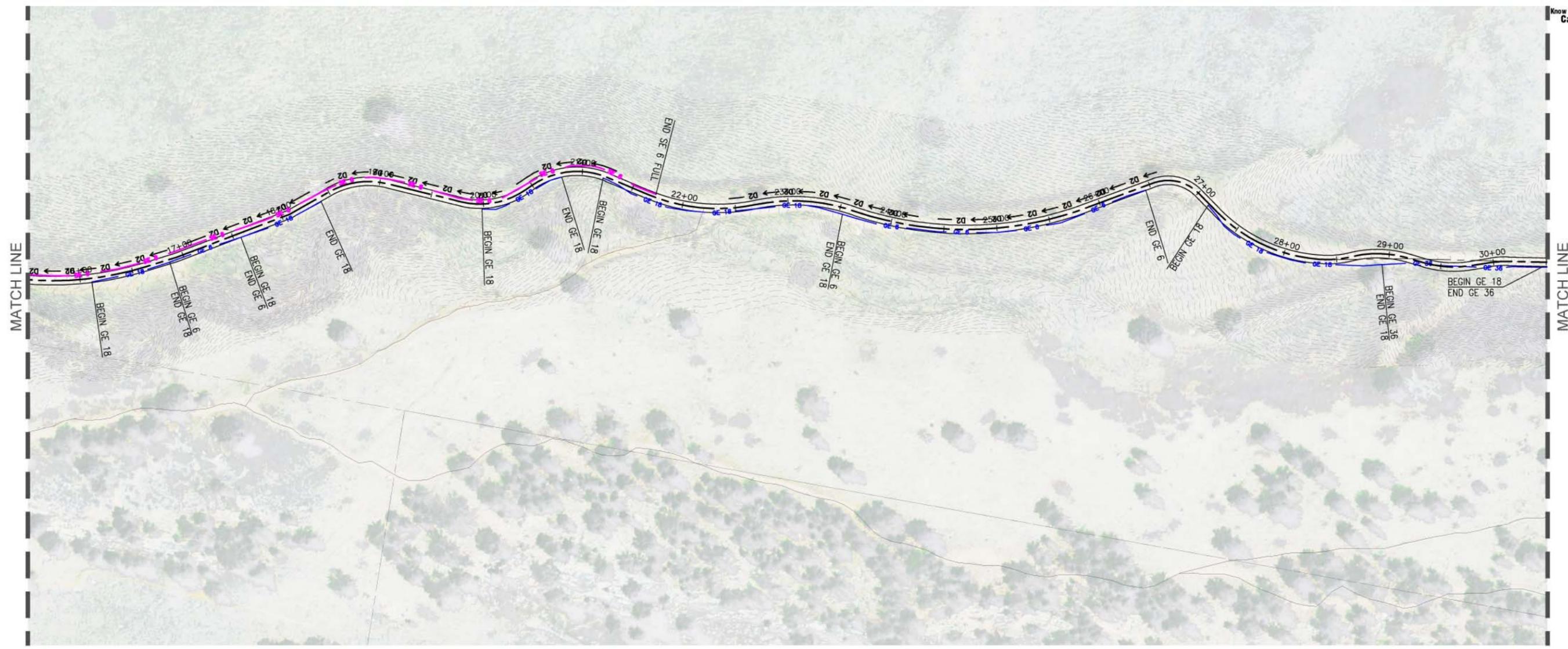
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Detailer:	LX	Numbers	
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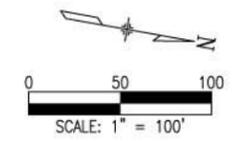
Project No./Code
SANITAS VALLEY ROAD
279-13134
Sheet Number 14



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NOTES:
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CONDITION SURVEY IS APPROXIMATE AND IS FOR INFORMATION ONLY. CONDITIONS MAY VARY DUE TO CHANGES SINCE SURVEY

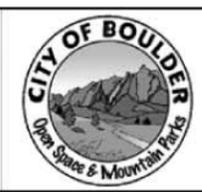


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SANITAS VALLEY ROAD - FLOOD DAMAGE REPAIR AND MITIGATION FLOOD DAMAGE SURVEY			
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Detailer:	LX	Numbers	
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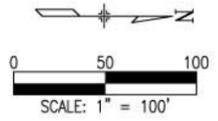
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SANITAS VALLEY ROAD	
279-13134	
Sheet Number	15



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NOTES:
SEE SHEETS 8 AND 9 FOR DESCRIPTIONS OF DAMAGE TYPES
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*LOOSE ROCK MATERIAL SHALL BE REMOVED AND USED AS RIPRAP ELSEWHERE AS SHOWN IN PLANS.

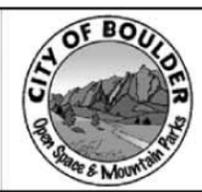


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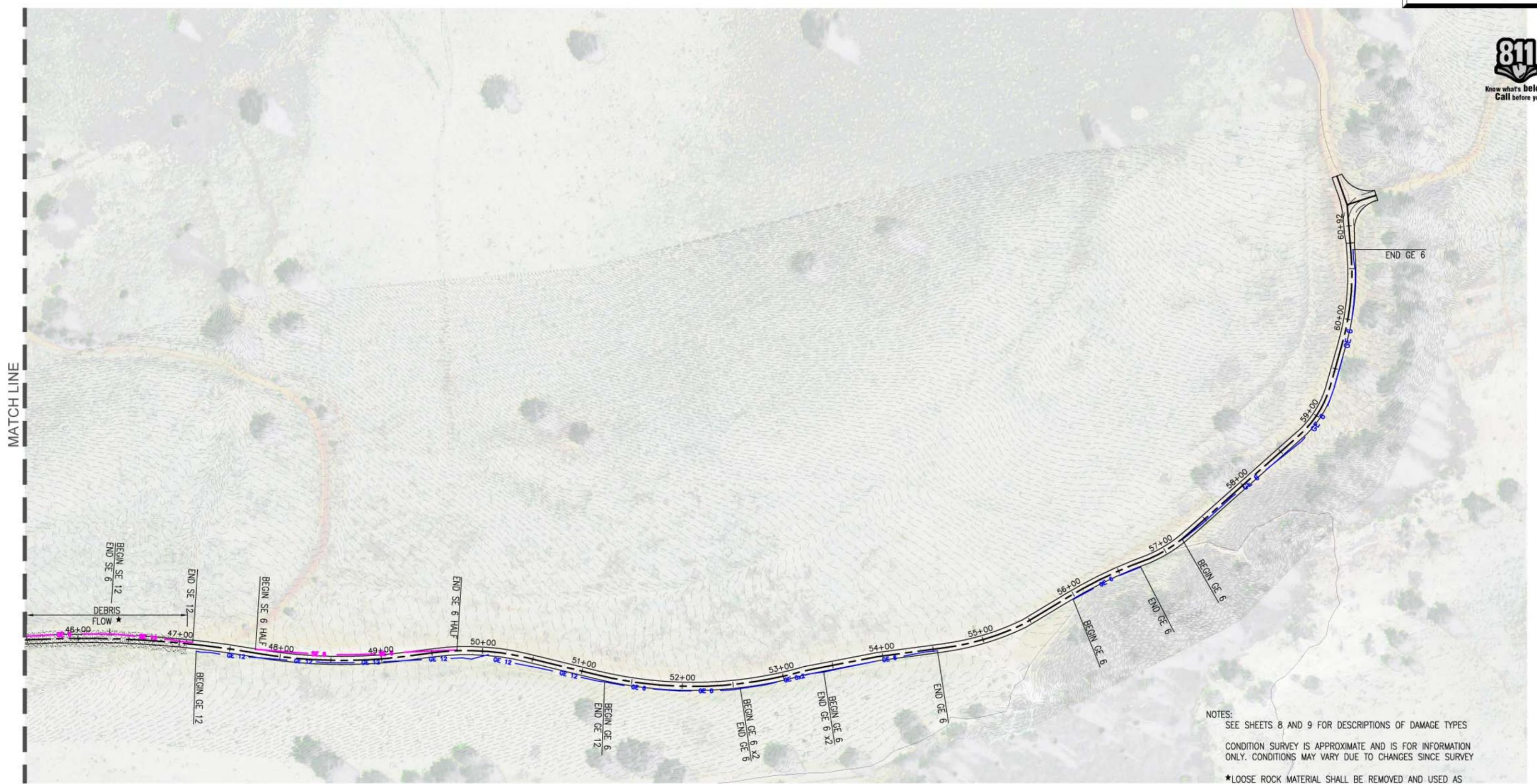
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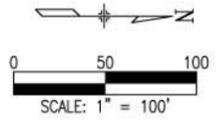
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Detailer:	LX	Numbers	
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SANITAS VALLEY ROAD	
279-13134	
Sheet Number	16



NOTES:
SEE SHEETS 8 AND 9 FOR DESCRIPTIONS OF DAMAGE TYPES
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*LOOSE ROCK MATERIAL SHALL BE REMOVED AND USED AS RIPRAP ELSEWHERE AS SHOWN IN PLANS.

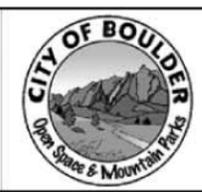


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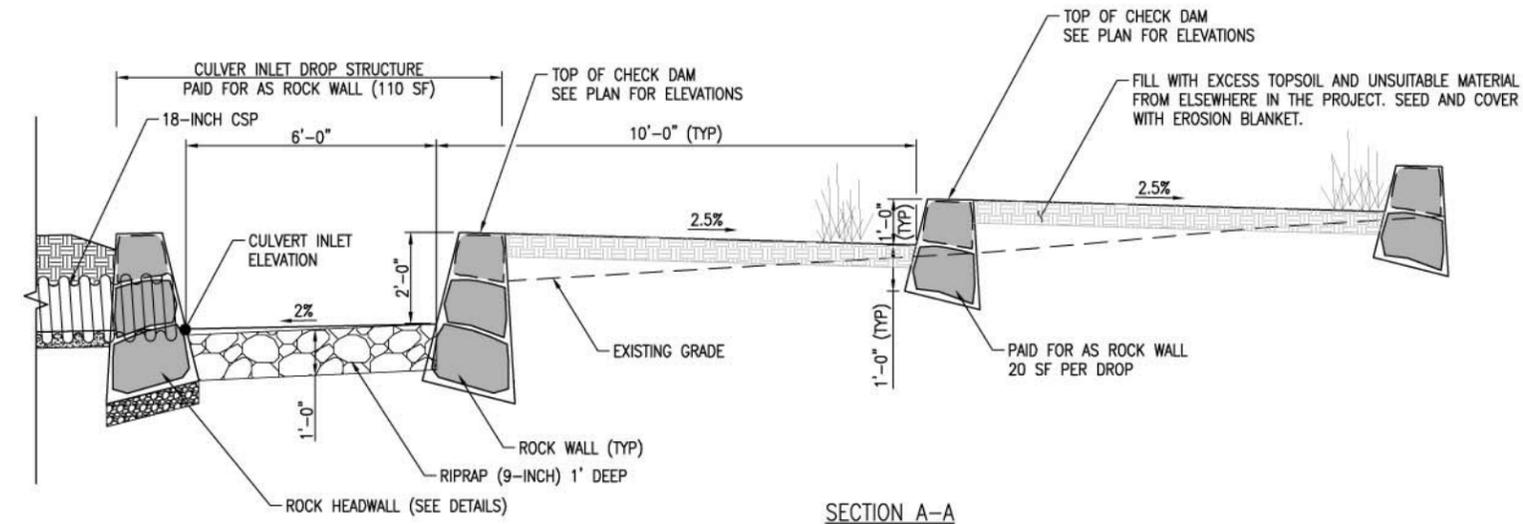
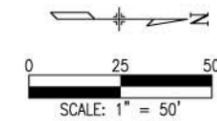
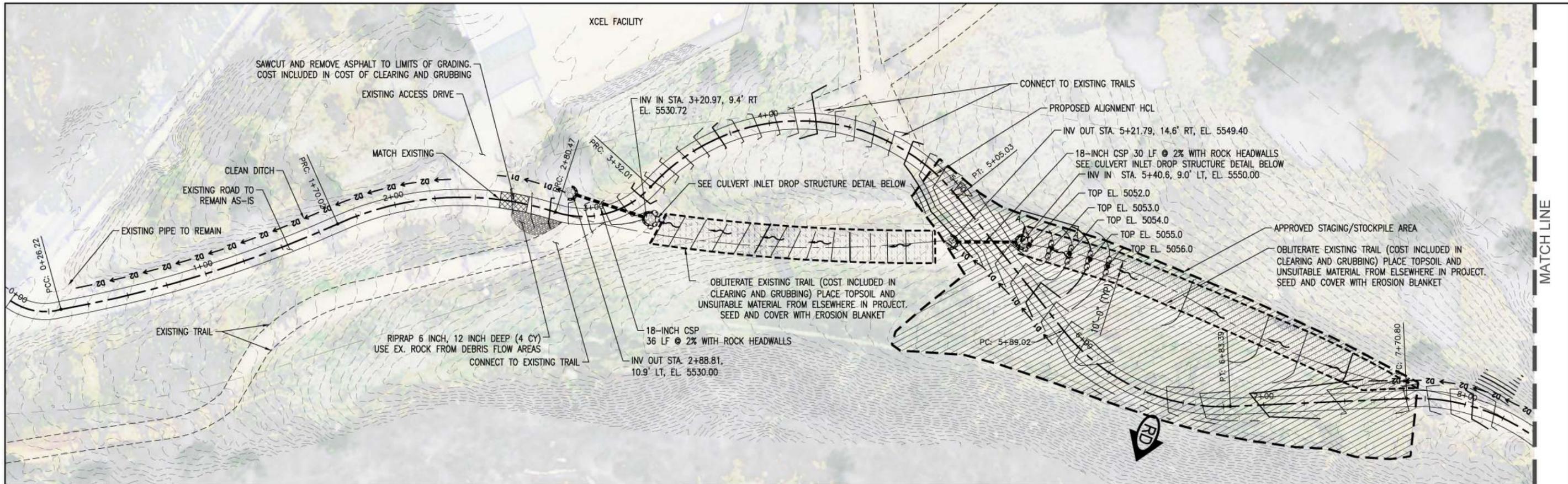
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Project No./Code	
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279-13134	
Sheet Number	17



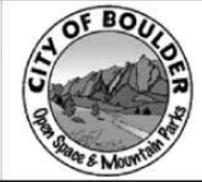
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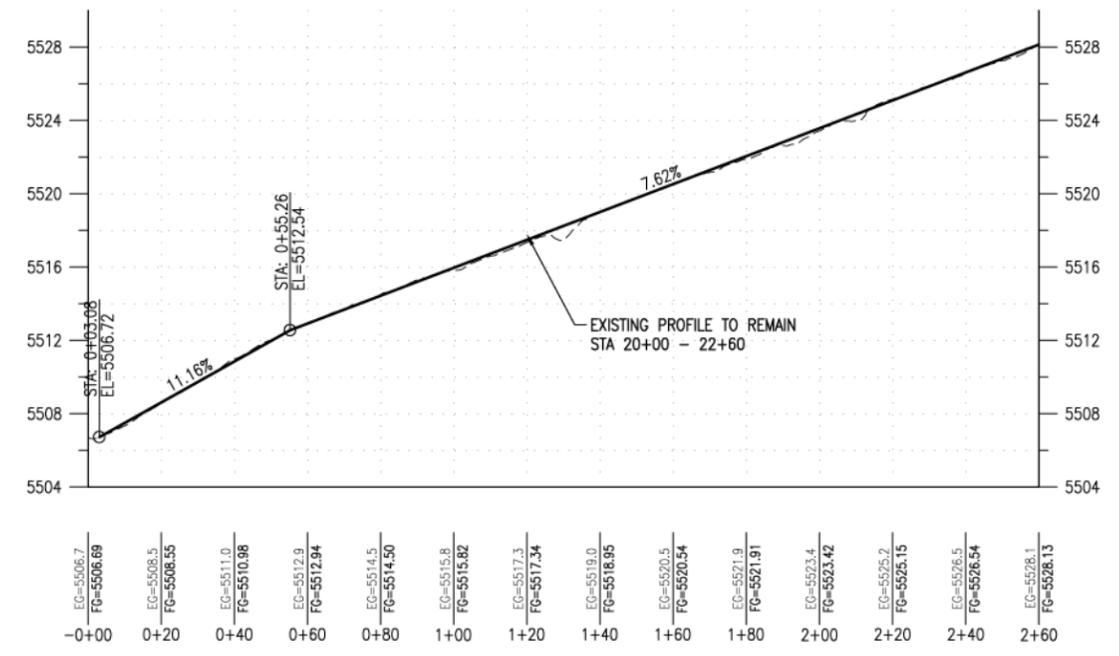
As Constructed	
No Revisions:	
Revised:	
Void:	

SANITAS VALLEY ROAD - FLOOD DAMAGE REPAIR AND MITIGATION SANITAS VALLEY ROAD LOWER REROUTE PLAN - STA 0+00 - 8+50			
Designer:	SJB	Structure	
Detailer:	CWM	Numbers	
Sheet Subset:		Subset Sheets:	

Project No./Code	
SANITAS VALLEY ROAD	
279-13134	
Sheet Number	18



Proposed Sanitas Alignment (Beginning Segment) PROFILE
SCALE: (H) 1" = 10' (V) 1" = 2'
START STA: -0+00.00, END STA: 2+60.00

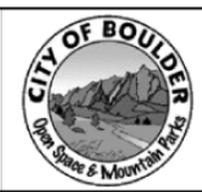


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Print Date:	
File Name:	
Horiz. Scale:	Vert. Scale: As Noted
Unit Information:	Unit Leader Initials

Sheet Revisions		
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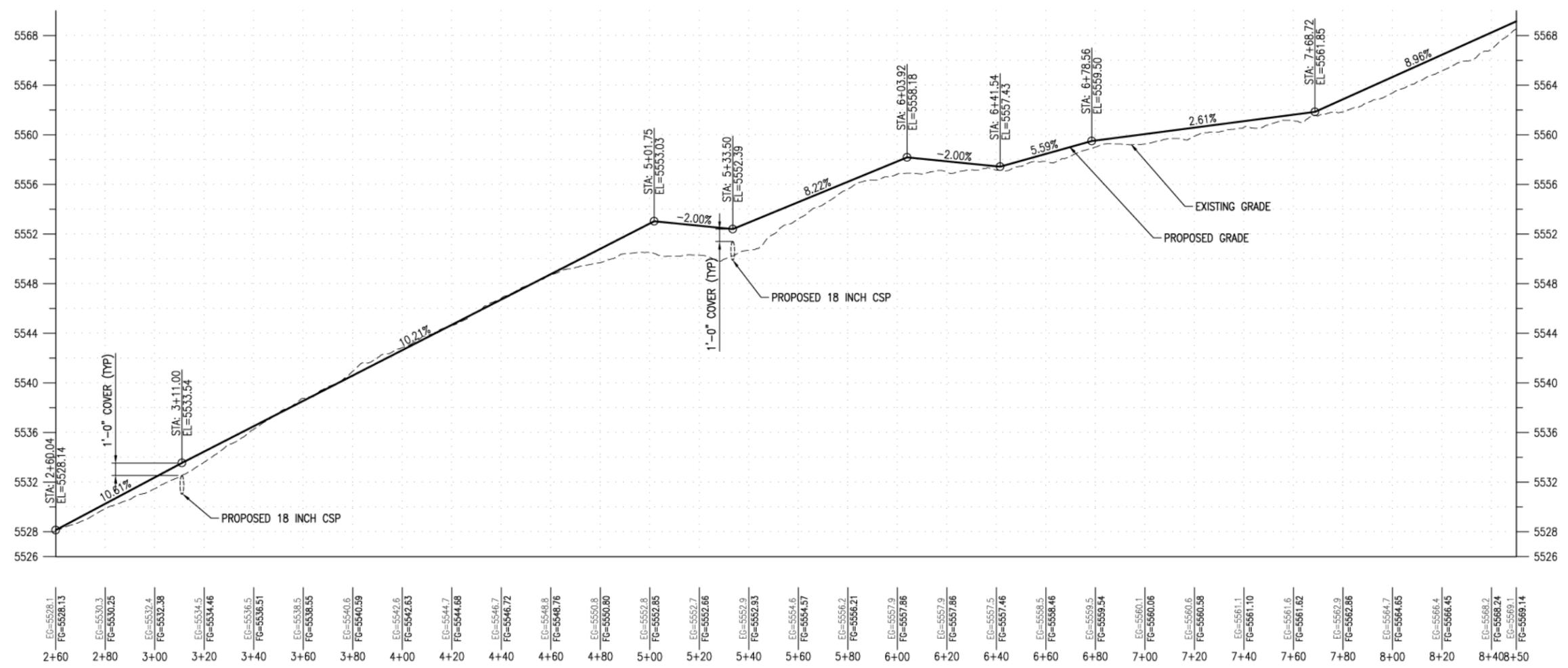
As Constructed
No Revisions:
Revised:
Void:

SANITAS VALLEY ROAD - FLOOD DAMAGE REPAIR AND MITIGATION SANITAS VALLEY ROAD LOWER REROUTE PROFILE - STATION 0+00 - 2+60			
Designer:	SJB	Structure	
Detailer:	CWM	Numbers	
Sheet Subset:		Subset Sheets:	

Project No./Code
SANITAS VALLEY ROAD
279-13134
Sheet Number 19



Proposed Sanitas Alignment (Beginning Segment) PROFILE
SCALE: (H) 1" = 10' (V) 1" = 2'
START STA: 2+60.00, END STA: 8+50.00

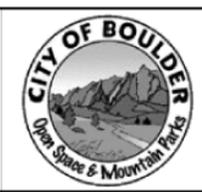


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Print Date:	
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Horiz. Scale:	Vert. Scale: As Noted
Unit Information:	Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

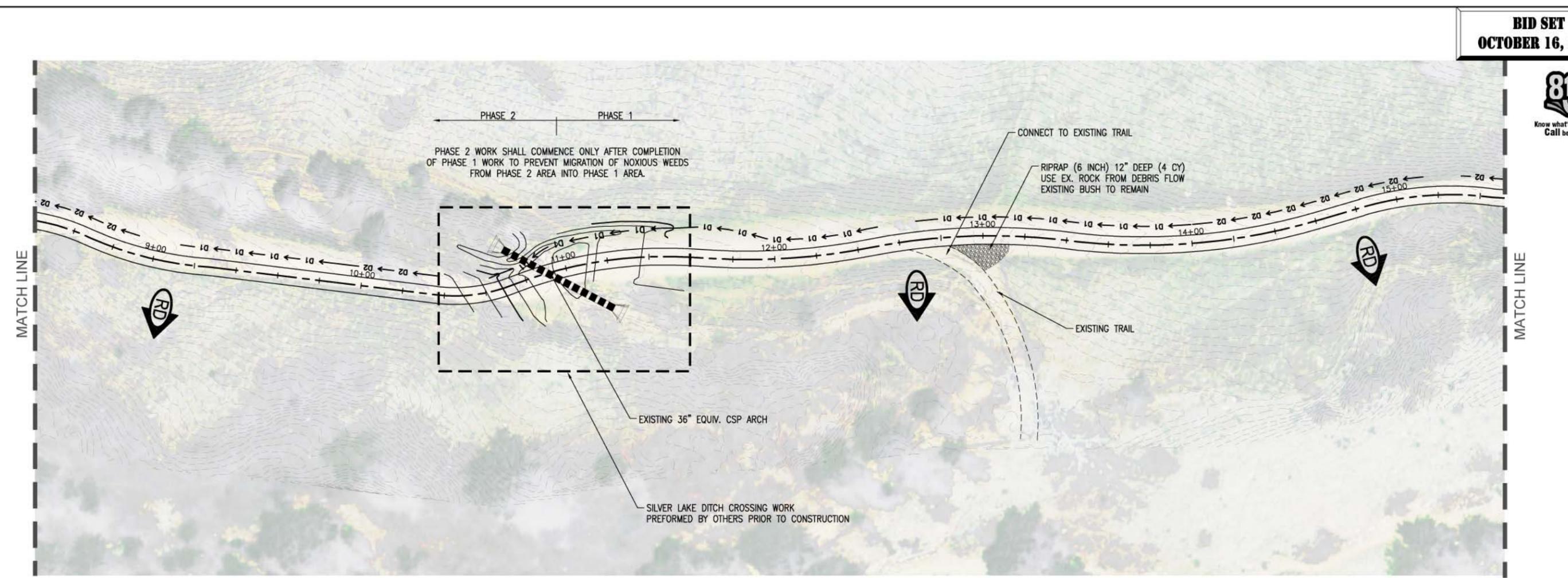
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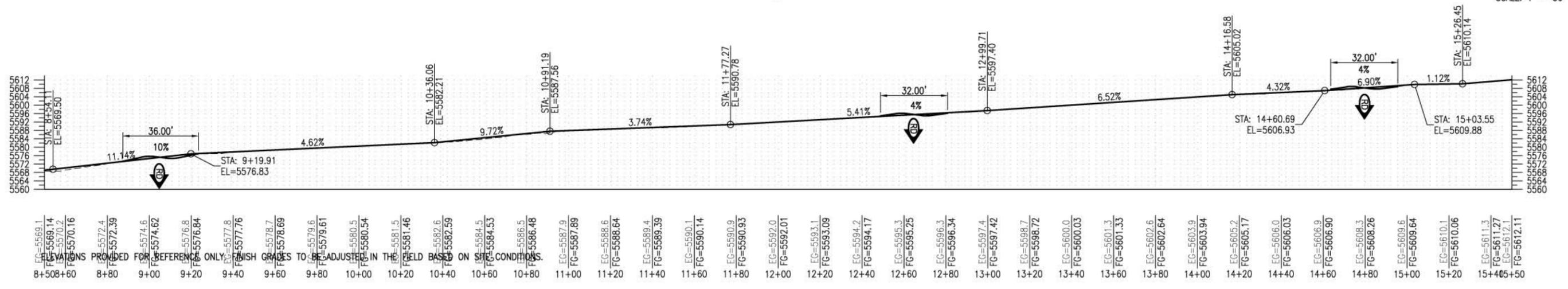
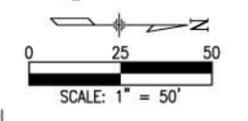
As Constructed
No Revisions:
Revised:
Void:

SANITAS VALLEY ROAD - FLOOD DAMAGE REPAIR AND MITIGATION			
SANITAS VALLEY ROAD LOWER REROUTE			
PROFILE - STATION 2+60 - 8+50			
Designer:	SJB	Structure	
Detailer:	CWM	Numbers	
Sheet Subset:		Subset Sheets:	

Project No./Code
SANITAS VALLEY ROAD
279-13134
Sheet Number 20



SCALE: (H) 1" = 10' (V) 1" = 10'
START STA: 8+50.00, END STA: 15+50.00

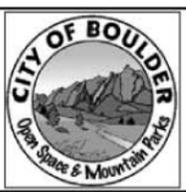


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File Name:	
Horiz. Scale:	Vert. Scale: As Noted
Unit Information:	Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

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No Revisions:	FLOOD REPAIR AND MITIGATION PLANS	
Revised:	Designer: SJB	Structure Numbers
Void:	Detailer: CWM	Subset Sheets:

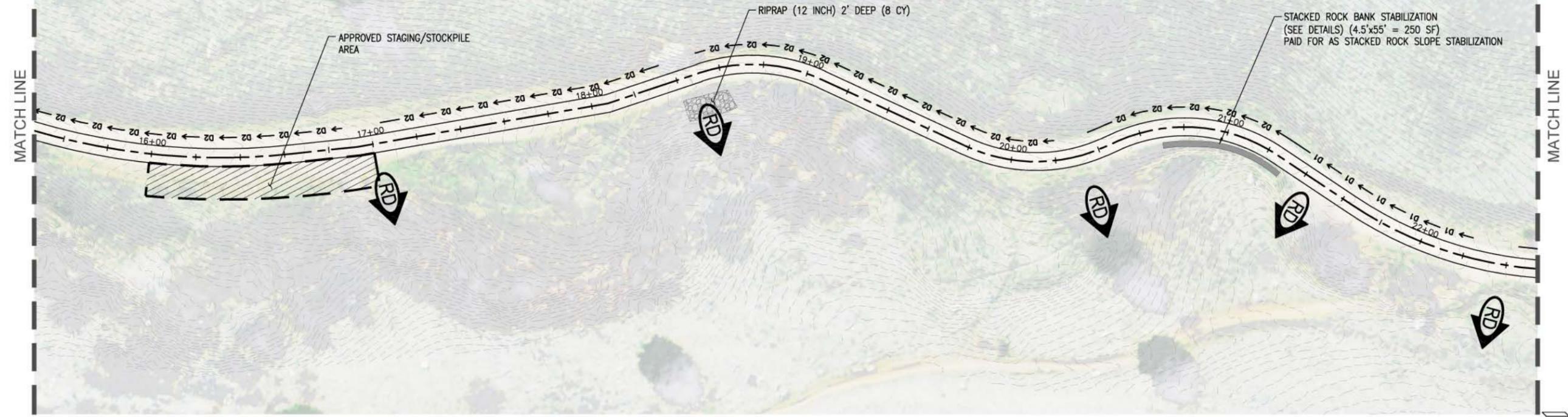
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Project No./Code	SANITAS VALLEY ROAD
	279-13134
Sheet Number	21

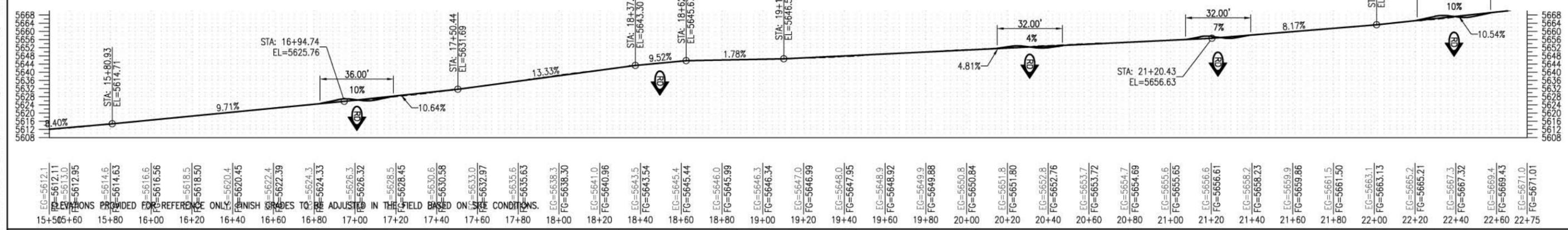
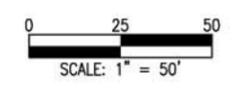


MATCH LINE

MATCH LINE



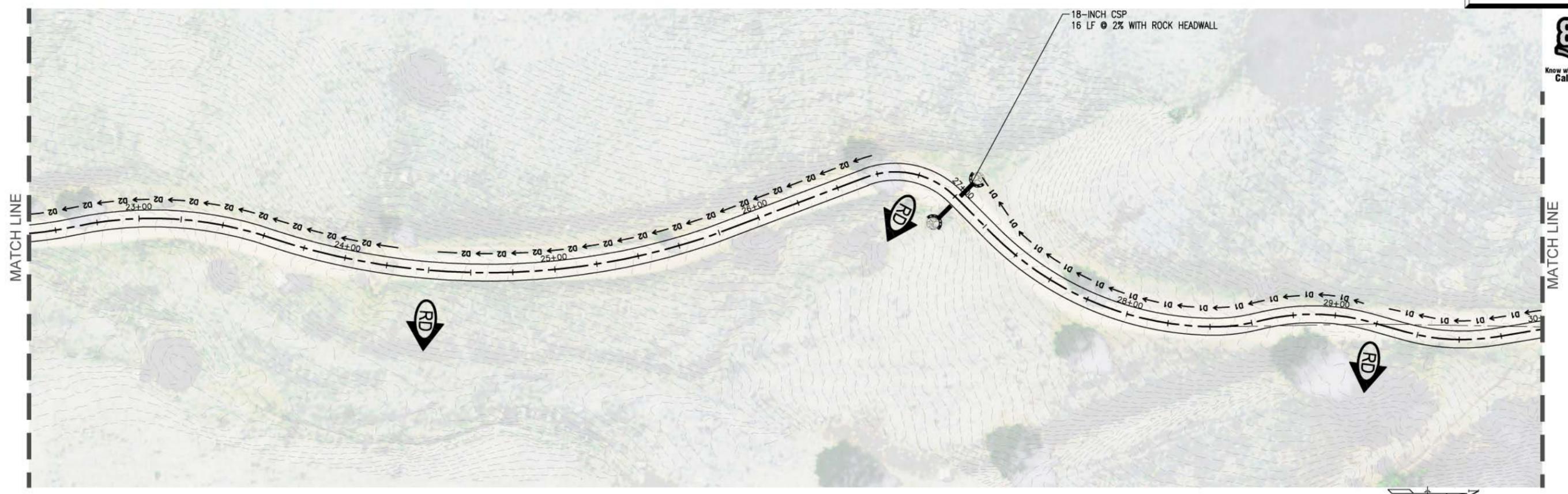
SCALE: (H) 1" = 10' (V) 1" = 10'
START STA: 15+50.00, END STA: 22+75.00



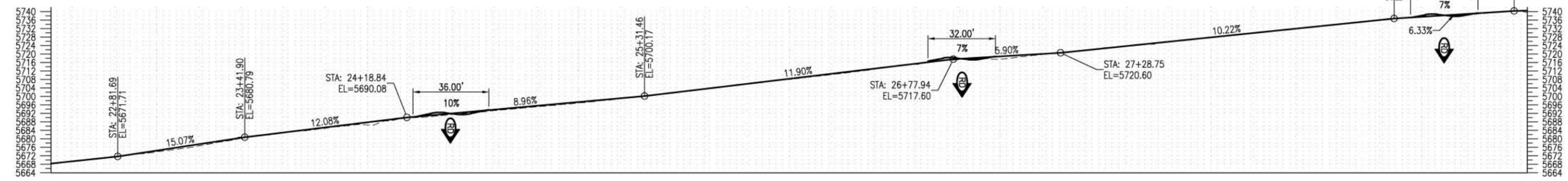
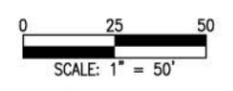
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File Name:	Date:	Comments			Init.	No Revisions:		FLOOD REPAIR AND MITIGATION PLANS		SANITAS VALLEY ROAD	
Horiz. Scale:	Vert. Scale: As Noted					Revised:	Designer: SJB	Structure Numbers	279-13134		
Unit Information	Unit Leader Initials					Void:	Detailer: CWM	Subset Sheets:	Sheet Number		22

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SCALE: (H) 1" = 10' (V) 1" = 10'
START STA: 22+50.00, END STA: 29+50.00



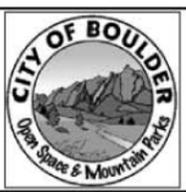
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File Name:	
Horiz. Scale:	Vert. Scale: As Noted
Unit Information:	Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

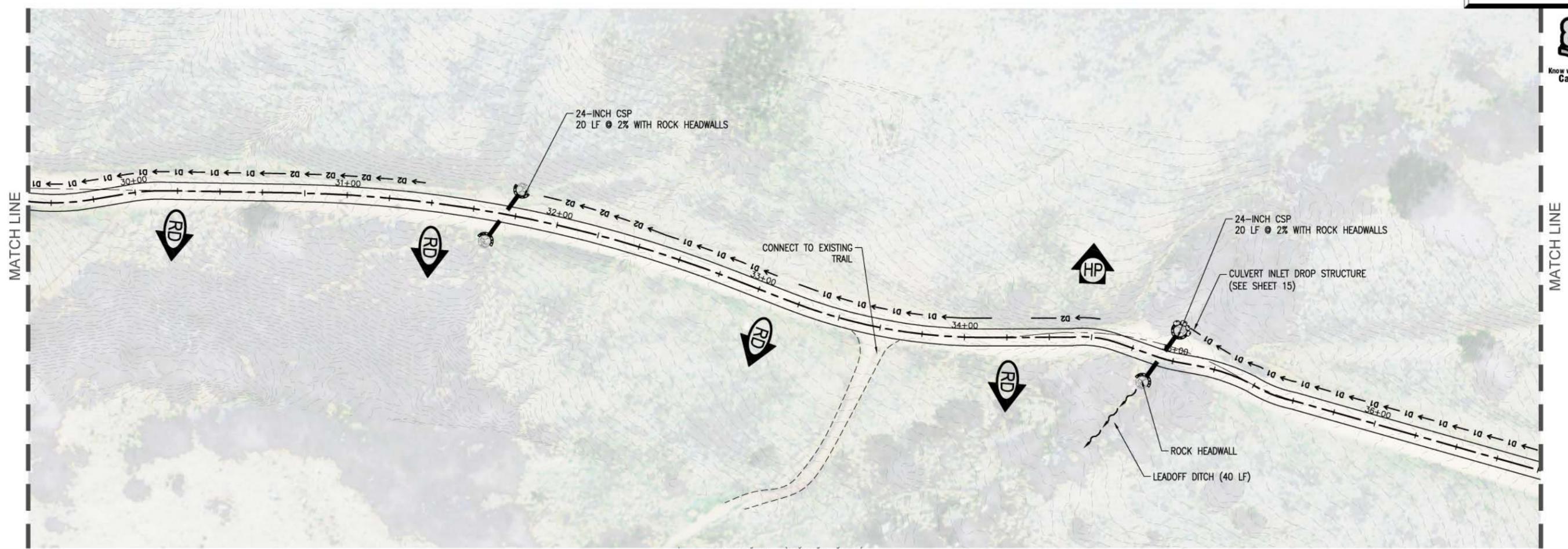
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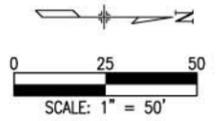
As Constructed	SANITAS VALLEY ROAD - FLOOD DAMAGE REPAIR AND MITIGATION	
No Revisions:	FLOOD REPAIR AND MITIGATION PLANS	
Revised:	Designer: SJB	Structure Numbers
Void:	Detailer: CWM	Subset Sheets:

Sheet Subset:	
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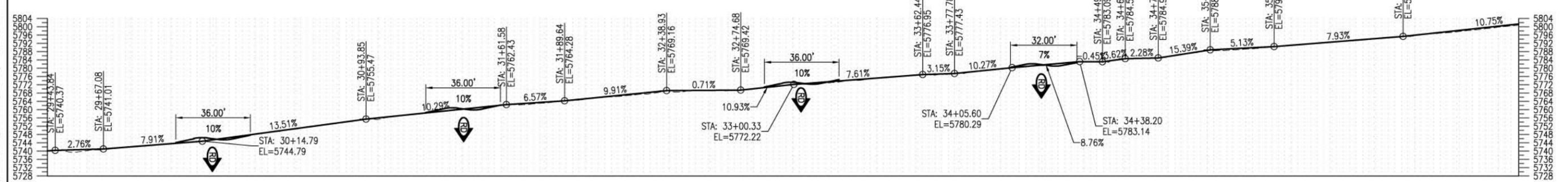
Project No./Code	SANITAS VALLEY ROAD
	279-13134
Sheet Number	23



SCALE: (H) 1" = 10' (V) 1" = 10'
START STA: 29+40.00, END STA: 36+50.00



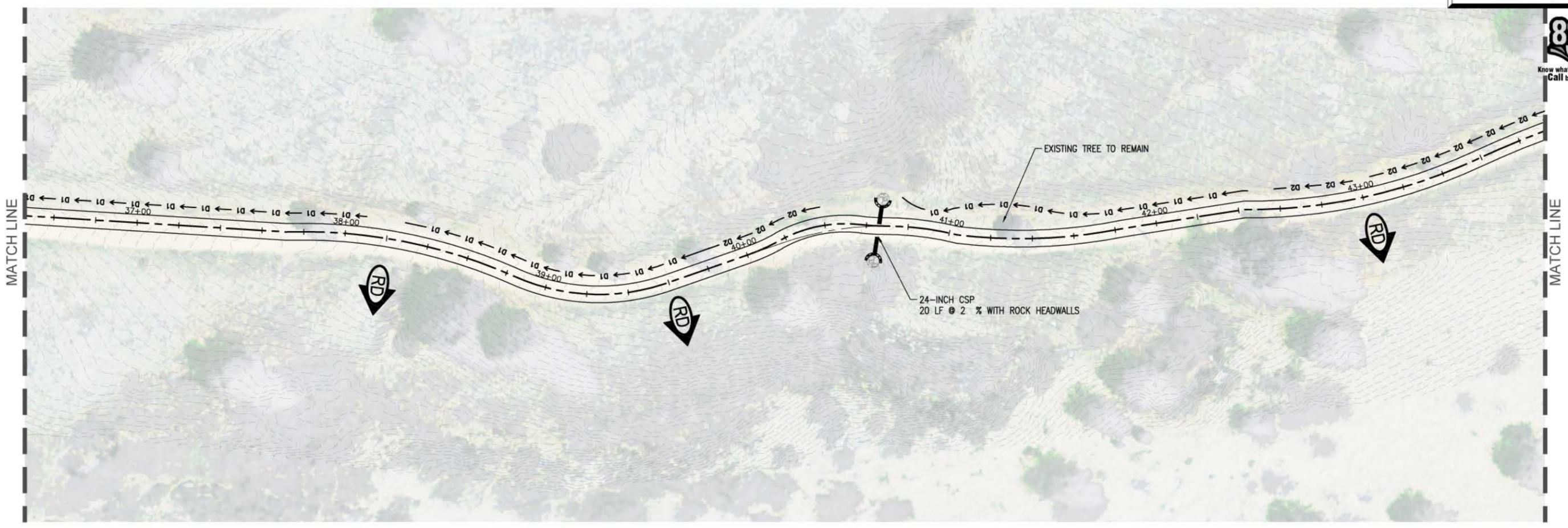
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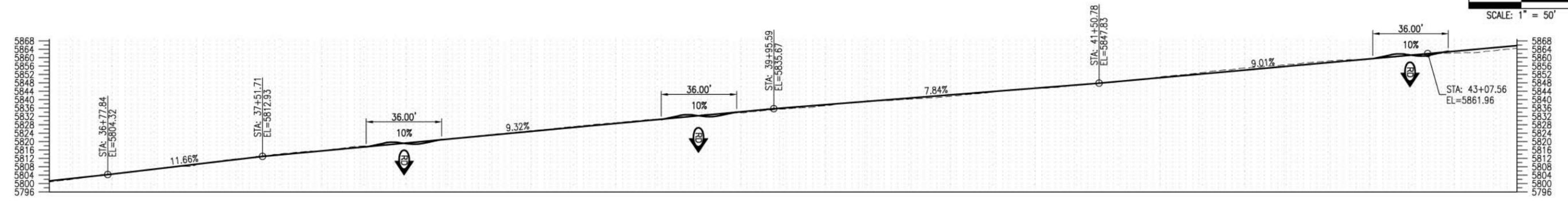
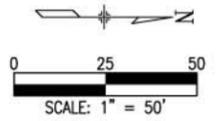
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29+40	29+60	29+80	30+00	30+20	30+40	30+60	30+80	31+00	31+20	31+40	31+60	31+80	32+00	32+20	32+40	32+60	32+80	33+00	33+20	33+40	33+60	33+80	34+00	34+20	34+40	34+60	34+80	35+00	35+20	35+40	35+60	35+80	36+00	36+20	36+40	36+50

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File Name:	Date:	Comments			Init.	No Revisions:	FLOOD REPAIR AND MITIGATION PLANS			SANITAS VALLEY ROAD
Horiz. Scale:	Vert. Scale: As Noted					Revised:	Designer: SJB	Structure Numbers		279-13134
Unit Information	Unit Leader Initials					Void:	Detailer: CWM	Subset Sheets:		Sheet Number 24

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SCALE: (H) 1" = 10' (V) 1" = 10'
START STA: 36+50.00, END STA: 43+50.00

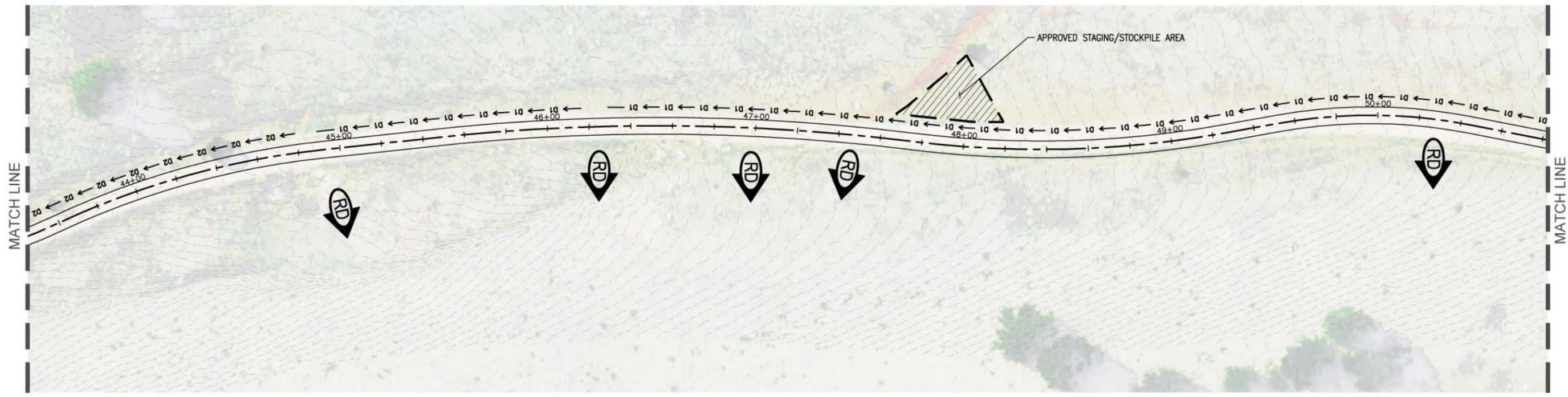


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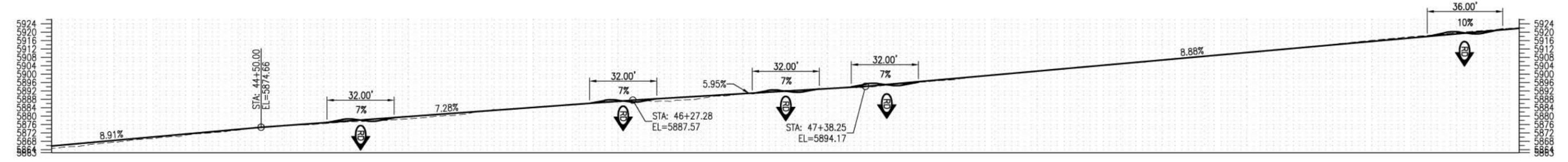
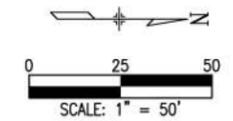
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36+50+60	36+80	37+00	37+20	37+40	37+60	37+80	38+00	38+20	38+40	38+60	38+80	39+00	39+20	39+40	39+60	39+80	40+00	40+20	40+40	40+60	40+80	41+00	41+20	41+40	41+60	41+80	42+00	42+20	42+40	42+60	42+80	43+00	43+20	43+40	43+50

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File Name:	Date:	Comments	Init.			FLOOD REPAIR AND MITIGATION PLANS		SANITAS VALLEY ROAD		279-13134	
Horiz. Scale:	Vert. Scale: As Noted				Revised:		Designer:	SJB	Structure Numbers	Sheet Number	
Unit Information:	Unit Leader Initials				Void:		Detailer:	CWM	Subset Sheets:	25	



SCALE: (H) 1" = 10' (V) 1" = 10'
START STA: 43+50.00, END STA: 50+50.00

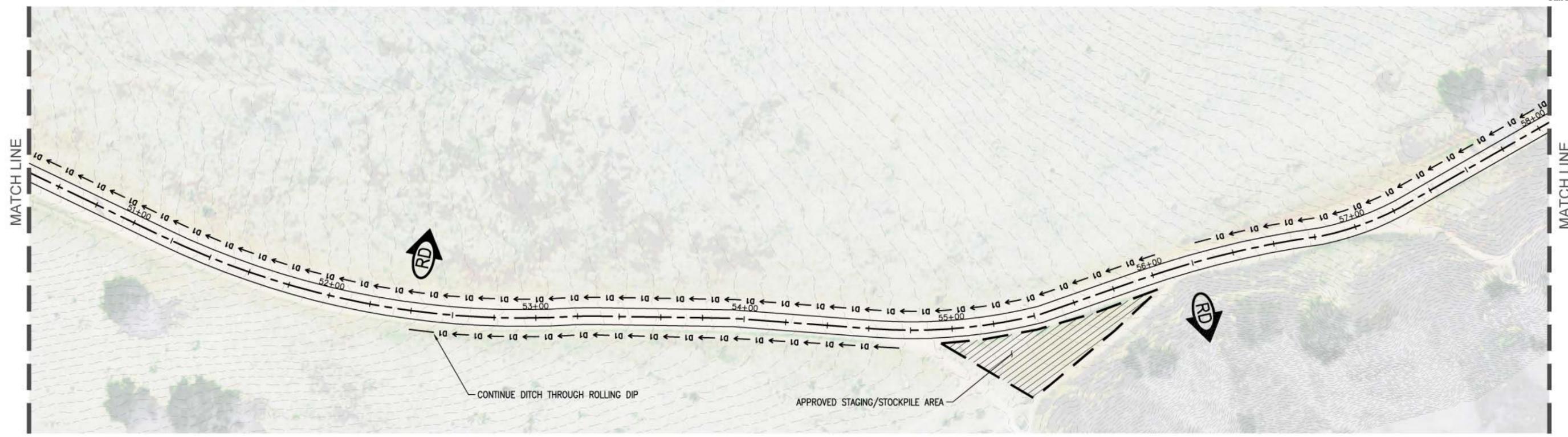


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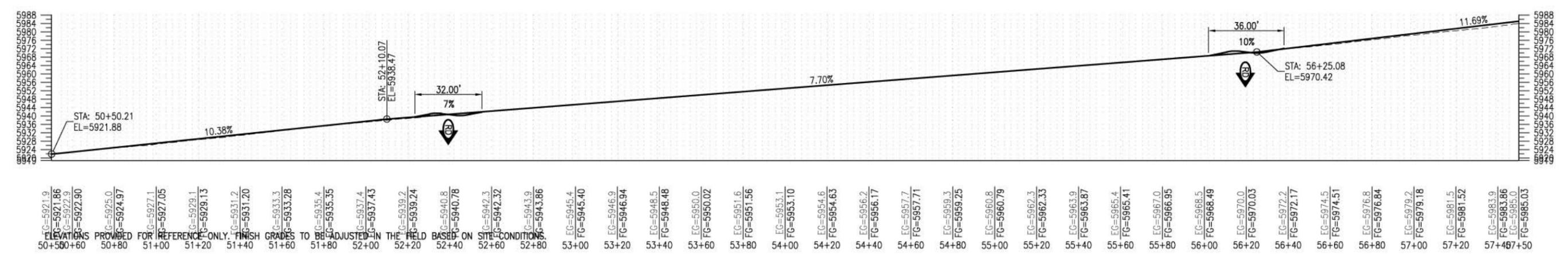
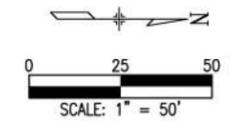
43+50.00	5865.7	5865.75	5866.6	5866.64	5866.4	5870.2	5870.20	5871.99	5873.8	5873.77	5875.4	5875.39	5876.8	5876.85	5878.3	5878.30	5879.8	5879.76	5881.2	5881.21	5882.7	5882.67	5884.1	5884.12	5885.6	5885.56	5887.0	5887.04	5888.3	5888.32	5889.5	5889.51	5890.7	5890.70	5891.9	5891.90	5893.1	5893.09	5894.3	5894.33	5895.6	5895.61	5896.8	5896.80	5897.9	5897.88	5899.7	5899.66	5901.4	5901.43	5903.2	5903.21	5905.0	5905.00	5906.8	5906.76	5908.5	5908.54	5910.3	5910.32	5912.1	5912.09	5913.9	5913.87	5915.6	5915.65	5917.4	5917.42	5919.2	5919.20	5921.0	5921.0	5922.98	5922.9	5924.86	5924.86
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File Name:	Date:	Comments:	Init.:			No Revisions:		FLOOD REPAIR AND MITIGATION PLANS		SANITAS VALLEY ROAD	
Horiz. Scale:						Revised:	Designer:	SJB	Structure Numbers:	279-13134	
Unit Information:	Vert. Scale: As Noted					Void:	Detailer:	CWM	Subset Sheets:	Sheet Number 26	



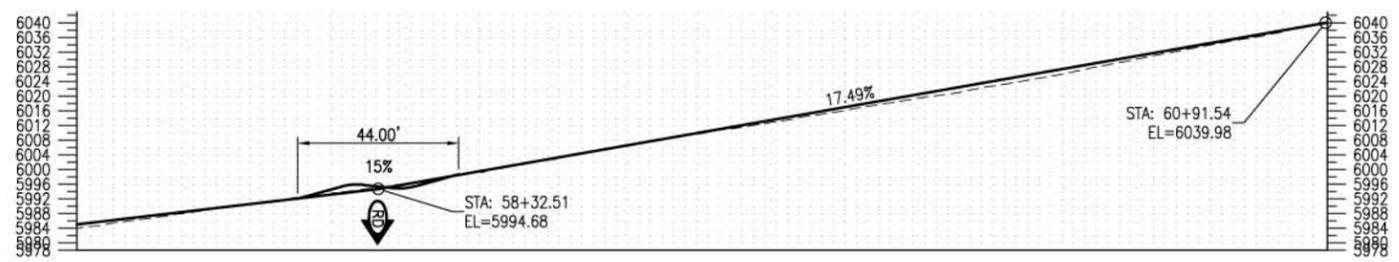
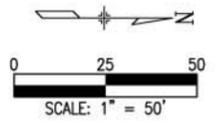
SCALE: (H) 1" = 10' (V) 1" = 10'
START STA: 50+50.00, END STA: 57+50.00



ELEVATIONS PROVIDED FOR REFERENCE ONLY. FINISH GRADES TO BE ADJUSTED IN THE FIELD BASED ON SITE CONDITIONS.

CG=5921.9	CG=5921.86	CG=5922.9	CG=5925.0	CG=5927.1	CG=5927.05	CG=5929.1	CG=5929.13	CG=5931.2	CG=5931.20	CG=5933.3	CG=5933.28	CG=5935.4	CG=5935.35	CG=5937.4	CG=5937.43	CG=5939.2	CG=5939.24	CG=5940.8	CG=5940.78	CG=5942.3	CG=5942.32	CG=5943.9	CG=5943.86	EG=5945.4	FG=5945.40	EG=5946.9	FG=5946.94	EG=5948.5	FG=5948.48	EG=5950.0	FG=5950.02	EG=5951.6	FG=5951.56	EG=5953.1	FG=5953.10	EG=5954.6	FG=5954.63	EG=5956.2	FG=5956.17	EG=5957.7	FG=5957.71	EG=5959.3	FG=5959.25	EG=5960.8	FG=5960.79	EG=5962.3	FG=5962.33	EG=5963.9	FG=5963.87	EG=5965.4	FG=5965.41	EG=5967.0	FG=5966.95	EG=5968.5	FG=5968.49	EG=5970.0	FG=5970.03	EG=5972.2	FG=5972.17	EG=5974.5	FG=5974.51	EG=5976.8	FG=5976.84	EG=5979.2	FG=5979.18	EG=5981.5	FG=5981.52	EG=5983.9	FG=5983.86	EG=5985.0	FG=5985.03																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
50+50+60	50+80	51+00	51+20	51+40	51+60	51+80	52+00	52+20	52+40	52+60	52+80	53+00	53+20	53+40	53+60	53+80	54+00	54+20	54+40	54+60	54+80	55+00	55+20	55+40	55+60	55+80	56+00	56+20	56+40	56+60	56+80	57+00	57+20	57+40	57+60	57+80	58+00	58+20	58+40	58+60	58+80	59+00	59+20	59+40	59+60	59+80	60+00	60+20	60+40	60+60	60+80	61+00	61+20	61+40	61+60	61+80	62+00	62+20	62+40	62+60	62+80	63+00	63+20	63+40	63+60	63+80	64+00	64+20	64+40	64+60	64+80	65+00	65+20	65+40	65+60	65+80	66+00	66+20	66+40	66+60	66+80	67+00	67+20	67+40	67+60	67+80	68+00	68+20	68+40	68+60	68+80	69+00	69+20	69+40	69+60	69+80	70+00	70+20	70+40	70+60	70+80	71+00	71+20	71+40	71+60	71+80	72+00	72+20	72+40	72+60	72+80	73+00	73+20	73+40	73+60	73+80	74+00	74+20	74+40	74+60	74+80	75+00	75+20	75+40	75+60	75+80	76+00	76+20	76+40	76+60	76+80	77+00	77+20	77+40	77+60	77+80	78+00	78+20	78+40	78+60	78+80	79+00	79+20	79+40	79+60	79+80	80+00	80+20	80+40	80+60	80+80	81+00	81+20	81+40	81+60	81+80	82+00	82+20	82+40	82+60	82+80	83+00	83+20	83+40	83+60	83+80	84+00	84+20	84+40	84+60	84+80	85+00	85+20	85+40	85+60	85+80	86+00	86+20	86+40	86+60	86+80	87+00	87+20	87+40	87+60	87+80	88+00	88+20	88+40	88+60	88+80	89+00	89+20	89+40	89+60	89+80	90+00	90+20	90+40	90+60	90+80	91+00	91+20	91+40	91+60	91+80	92+00	92+20	92+40	92+60	92+80	93+00	93+20	93+40	93+60	93+80	94+00	94+20	94+40	94+60	94+80	95+00	95+20	95+40	95+60	95+80	96+00	96+20	96+40	96+60	96+80	97+00	97+20	97+40	97+60	97+80	98+00	98+20	98+40	98+60	98+80	99+00	99+20	99+40	99+60	99+80	100+00	100+20	100+40	100+60	100+80	101+00	101+20	101+40	101+60	101+80	102+00	102+20	102+40	102+60	102+80	103+00	103+20	103+40	103+60	103+80	104+00	104+20	104+40	104+60	104+80	105+00	105+20	105+40	105+60	105+80	106+00	106+20	106+40	106+60	106+80	107+00	107+20	107+40	107+60	107+80	108+00	108+20	108+40	108+60	108+80	109+00	109+20	109+40	109+60	109+80	110+00	110+20	110+40	110+60	110+80	111+00	111+20	111+40	111+60	111+80	112+00	112+20	112+40	112+60	112+80	113+00	113+20	113+40	113+60	113+80	114+00	114+20	114+40	114+60	114+80	115+00	115+20	115+40	115+60	115+80	116+00	116+20	116+40	116+60	116+80	117+00	117+20	117+40	117+60	117+80	118+00	118+20	118+40	118+60	118+80	119+00	119+20	119+40	119+60	119+80	120+00	120+20	120+40	120+60	120+80	121+00	121+20	121+40	121+60	121+80	122+00	122+20	122+40	122+60	122+80	123+00	123+20	123+40	123+60	123+80	124+00	124+20	124+40	124+60	124+80	125+00	125+20	125+40	125+60	125+80	126+00	126+20	126+40	126+60	126+80	127+00	127+20	127+40	127+60	127+80	128+00	128+20	128+40	128+60	128+80	129+00	129+20	129+40	129+60	129+80	130+00	130+20	130+40	130+60	130+80	131+00	131+20	131+40	131+60	131+80	132+00	132+20	132+40	132+60	132+80	133+00	133+20	133+40	133+60	133+80	134+00	134+20	134+40	134+60	134+80	135+00	135+20	135+40	135+60	135+80	136+00	136+20	136+40	136+60	136+80	137+00	137+20	137+40	137+60	137+80	138+00	138+20	138+40	138+60	138+80	139+00	139+20	139+40	139+60	139+80	140+00	140+20	140+40	140+60	140+80	141+00	141+20	141+40	141+60	141+80	142+00	142+20	142+40	142+60	142+80	143+00	143+20	143+40	143+60	143+80	144+00	144+20	144+40	144+60	144+80	145+00	145+20	145+40	145+60	145+80	146+00	146+20	146+40	146+60	146+80	147+00	147+20	147+40	147+60	147+80	148+00	148+20	148+40	148+60	148+80	149+00	149+20	149+40	149+60	149+80	150+00	150+20	150+40	150+60	150+80	151+00	151+20	151+40	151+60	151+80	152+00	152+20	152+40	152+60	152+80	153+00	153+20	153+40	153+60	153+80	154+00	154+20	154+40	154+60	154+80	155+00	155+20	155+40	155+60	155+80	156+00	156+20	156+40	156+60	156+80	157+00	157+20	157+40	157+60	157+80	158+00	158+20	158+40	158+60	158+80	159+00	159+20	159+40	159+60	159+80	160+00	160+20	160+40	160+60	160+80	161+00	161+20	161+40	161+60	161+80	162+00	162+20	162+40	162+60	162+80	163+00	163+20	163+40	163+60	163+80	164+00	164+20	164+40	164+60	164+80	165+00	165+20	165+40	165+60	165+80	166+00	166+20	166+40	166+60	166+80	167+00	167+20	167+40	167+60	167+80	168+00	168+20	168+40	168+60	168+80	169+00	169+20	169+40	169+60	169+80	170+00	170+20	170+40	170+60	170+80	171+00	171+20	171+40	171+60	171+80	172+00	172+20	172+40	172+60	172+80	173+00	173+20	173+40	173+60	173+80	174+00	174+20	174+40	174+60	174+80	175+00	175+20	175+40	175+60	175+80	176+00	176+20	176+40	176+60	176+80	177+00	177+20	177+40	177+60	177+80	178+00	178+20	178+40	178+60	178+80	179+00	179+20	179+40	179+60	179+80	180+00	180+20	180+40	180+60	180+80	181+00	181+20	181+40	181+60	181+80	182+00	182+20	182+40	182+60	182+80	183+00	183+20	183+40	183+60	183+80	184+00	184+20	184+40	184+60	184+80	185+00	185+20	185+40	185+60	185+80	186+00	186+20	186+40	186+60	186+80	187+00	187+20	187+40	187+60	187+80	188+00	188+20	188+40	188+60	188+80	189+00	189+20	189+40	189+60	189+80	190+00	190+20	190+40	190+60	190+80	191+00	191+20	191+40	191+60	191+80	192+00	192+20	192+40	192+60	192+80	193+00	193+20	193+40	193+60	193+80	194+00	194+20	194+40	194+60	194+80	195+00	195+20	195+40	195+60	195+80	196+00	196+20	196+40	196+60	196+80	197+00	197+20	197+40	197+60	197+80	198+00	198+20	198+40	198+60	198+80	199+00	199+20	199+40	199+60	199+80	200+00	200+20	2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**BID SET
OCTOBER 16, 2014**



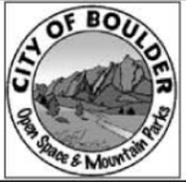
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C:\Users\AutoCad\Desktop\Public\16\13134 (21-26) Flood Damage and Mitigation.dwg Oct 15, 2014 - 2:28pm

Print Date:	
File Name:	
Horiz. Scale:	Vert. Scale: As Noted
Unit Information:	Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

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As Constructed
No Revisions:
Revised:
Void:

SANITAS VALLEY ROAD - FLOOD DAMAGE REPAIR AND MITIGATION FLOOD REPAIR AND MITIGATION PLANS			
Designer:	SJB	Structure Numbers	
Detailer:	CWM	Subset Sheets:	
Sheet Subset:			

Project No./Code	
SANITAS VALLEY ROAD	
279-13134	
Sheet Number	28