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REF. NO.	SHEET		STATION TO STATION		SIDE	203	203	601	602	605	605	611	611	611	659	659	659	659	659	659	659	670	832	832	832	832	836
	BEGIN	END				EARTH EXCAVATION	EMBANKMENT	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	CONCRETE MASONRY	6" UNCLASSIFIED PIPE UNDERDRAINS	6" BASE PIPE UNDERDRAINS	PRECAST REINFORCED CONCRETE OUTLET	CATCH BASIN ADJUST TO GRADE	6" CONDUIT TYPE F FOR UNDERDRAINS	SOIL ANALYSIS TEST	TOPSOIL	SEEDING AND MULCHING	REPAIR SEEDING AND MULCHING	COMMERCIAL FERTILIZER	LIME	WATER	DITCH EROSION PROTECTION MAT TYPE B	STORM WATER POLLUTION PREVENTION PLAN	STORM WATER POLLUTION PREVENTION INSPECTIONS	STORM WATER POLLUTION PREVENTION INSPECTIONS SOFTWARE	EROSION CONTROL	SEEDING AND EROSION CONTROL WITH TURF REINFORCEMENT MAT, TYPE 1
						CY	CY	CY	CY	FT	FT	EACH	EACH	FT	EACH	CY	SY	SY	TON	ACRE	MGAL	SY	LSUM	LSUM	LSUM	EACH	SY
			SR 177																								
D-1	16		34+48.90	34+71.72	LT			26																			
D-2	16		34+60.13	35+56.82	RT																						
D-3	16		35+63.00		LT							1															
D-5	16		34+64.90		LT				8.8																		
D-6	16		34+64.60		RT				1.1																		
UD-1	15		29+51.00	31+25.00	LT					174		1		10													
UD-2	15		29+51.00	31+25.00	RT					198																	
UD-3	15	16	31+25.00	34+52.00	LT					327	327	1		10													
UD-4	15	16	31+25.00	34+52.00	RT						327	1		10													
UD-5	16		34+69.71	36+26.82	LT						157			10													
UD-6	16		34+68.26	35+71.89	RT						104	1		10													
UD-7	16	17	37+17.00	43+30.00	LT						613	1		10													
UD-8	16	17	36+75.00	43+30.00	RT						655	1		10													
			LENGTH OF PROJECT		LT/RT	4157	682								2								1	1	1	25000	
			SOUTHWEST		LT										238	2096	106	0.29	0.44	11.38	208						
			NORTHWEST		LT										197	1731	87	0.24	0.36	9.39	292						
			NORTHEAST		RT										215	1895	96	0.26	0.39	10.28							
			SOUTHEAST		RT										250	2203	111	0.31	0.46	11.95						127	
<b>TOTALS CARRIED TO GENERAL SUMMARY</b>						4157	682	26	9.9	699	2183	6	1	70	2	900	7925	400	1.1	1.65	43	500	1	1	1	25000	127

ESTIMATED QUANTITIES

PRE-SR 177-0.70

CALCULATED  
A WH  
CHECKED  
E MM

13  
43

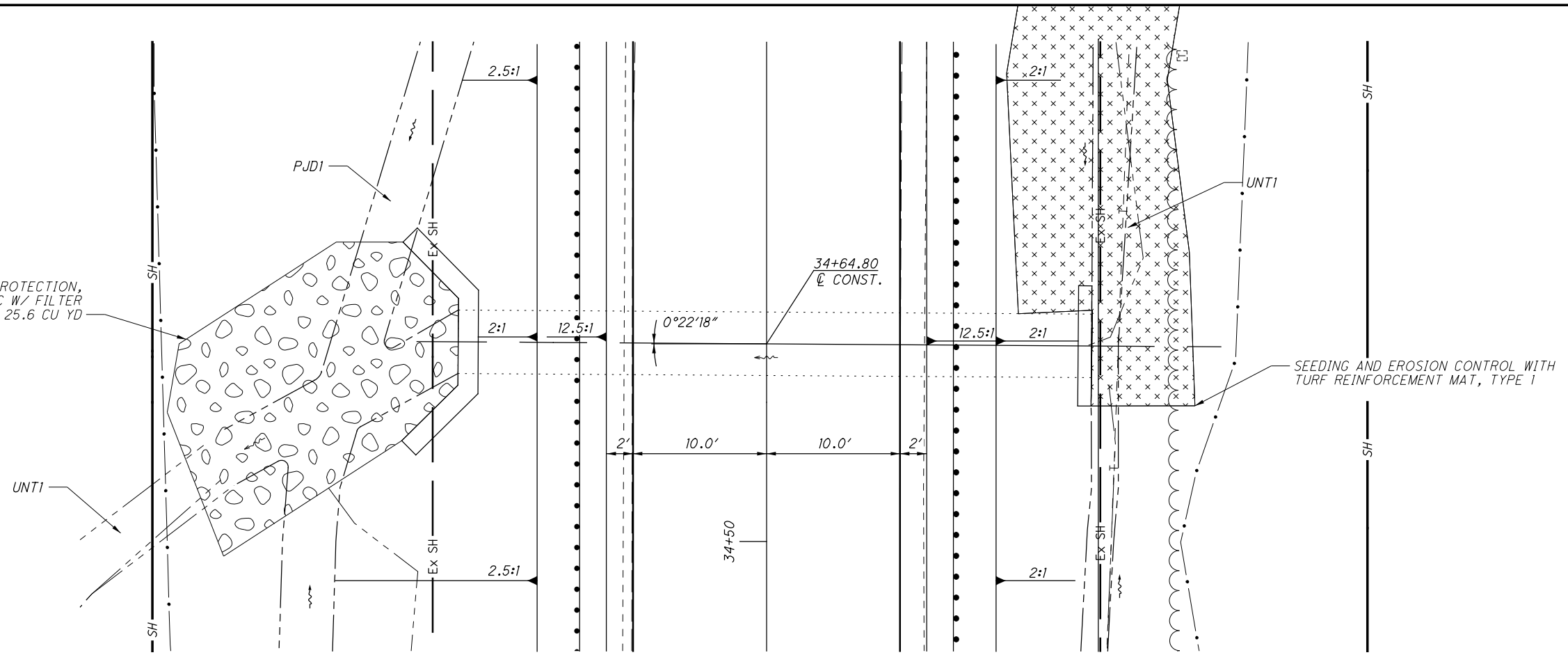


CALCULATED  
DJB  
CHECKED  
SRI

**CULVERT DETAIL**  
**SR 177, STA. 34+64.80**

**PRE-SR 177-0.70**

ROCK CHANNEL PROTECTION,  
TYPE C W/ FILTER  
23'x15'x24" THK. = 25.6 CU YD



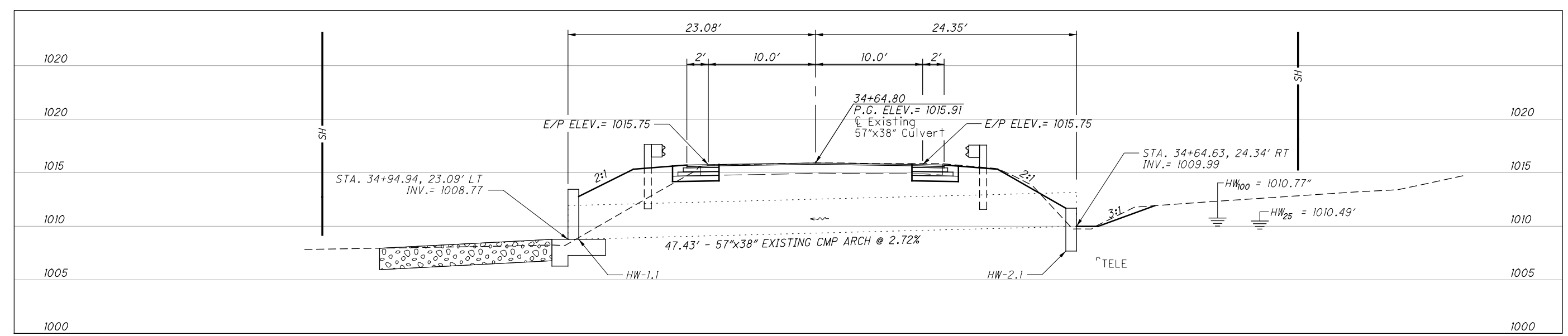
HYDRAULIC DESIGN DATA	
DRAINAGE AREA	= 107.54 AC.
Q <sub>25</sub>	= 68.21 CFS
Q <sub>100</sub>	= 87.64 CFS
HW <sub>25</sub>	= 1010.49'
HW <sub>100</sub>	= 1010.77'
V <sub>25</sub>	= 10.01 FT/S
V <sub>100</sub>	= 10.75 FT/S
ORDINARY HIGH WATER MARK:	= 1010.32'
DESIGN SERVICE LIFE:	N/A

EXISTING STRUCTURE	
TYPE:	CORRUGATED METAL PIPE ARCH
SIZE:	57"x38"
SKEW:	0°22'18" L.F. ALIGNMENT: TANGENT
DATE BUILT:	UNKNOWN
CONDITION:	FAIR

TABLE OF MODIFIED DIMENSIONS FOR STANDARD HW-1.1

PIPE DIA. D	H	a	b	c	t <sub>s</sub>	Bar# d	θ ≈ 0°			
							L <sub>2</sub>	h <sub>2</sub>	Conc. CMP (cy)	Steel (lbs.)
57"x38"	5'-0"	3'-0"	1'-6"	2'-9"	1'-6"	#5	3'-3"	3'-6"	8.8	831

ESTIMATED QUANTITIES			
ITEM	QUAN.	UNIT	DESCRIPTION
503	1	LSUM	COFFERDAMS AND EXCAVATION BRACING
503	14	CU YD	UNCLASSIFIED EXCAVATION
601	26	CU YD	ROCK CHANNEL PROTECTION, TYPE C, WITH FILTER
602	9.9	CU YD	CONCRETE MASONRY
836	127	SQ YD	SEEDING AND EROSION CONTROL WITH TURF REINFORCEMENT MAT, TYPE 1



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