



For Continuation of Ramp A See Sheet No. 30
SLM 5.38, 12"

For Details of Ramps A, A-B, B, See Sheets No. 121, 122, 125.

CURVE #3, U.S.42
 $\Delta = 15^\circ 59' 10''$
 $D = 3^\circ 00'$
 $R = 1909.86'$
 $L = 532.18'$
 $T = 268.18'$

CURVE # A-2
 $\Delta = 9^\circ 00' 00''$
 $L_a = 200.00'$
 $\theta_a = 7^\circ 00' 00''$
 $p_a = 2.04'$
 $T_1 = 126.16'$
 $T_2 = 74.25'$
 $\Delta_1 = D_1 + 1^\circ 00' 00''$
 $\Delta_2 = D_2 + 8^\circ 00' 00''$
 $R_1 = 5729.58'$
 $R_2 = 716.20'$

CURVE # A-1
 $\Delta = 4^\circ 35' 18''$
 $D = 1^\circ 00'$
 $R = 5729.58'$
 $L = 458.83'$
 $T = 229.54'$
 $E = 4.60'$

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	I-12		I-21		I-125		
			Concrete Corb	Channel	Conc.	4 Conc. Curb & Channel	Diagram	Diagram	
			Type	Type	Type	Type	Type	Type	
			2A	2B	2C	2D	2E	2F	
			Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	
1-P	70+00 Ramp A	Lt.						0.11 Lump	
2-P	771+00 to 772+00	Rt.	106	100					
3-P	78+25 to 80+16 Ramp B	Rt.	106						
4-P	80+16 to 85+87 Ramp A-B	Rt.			30				
5-P	85+51 to 86+84 Ramp A	Rt.	134						
6-P	85+14 to 85+92 Ramp A-B	Rt.	264						
7-P	53+07 to 54+52 U.S.42	Rt.	178	54				9 Lump	
8-P	70+11 to 76+02 Ramp B	Rt.						9 Lump	
9-P	783+68.14	Rt.						0.11 Lump	
10-P	86+21.60 Ramp B	Rt.						0.02	
TOTALS			788	154	125	245	220	46 Lump	0.24 Lump

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	Class J-1				I-1			I-5			I-8					SEE SH. NO.											
			12'	15'	18'	Sec. Meas. 18"	6'	8'	12'	15'	18'	Bend 6°	Bend 12°	Te 6°	Class F-4 No.1	Class F-4 No.3A	Class F-4 No.5		Class F-4 No.6	Class F-4 No.2B									
			Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.	Lin.Ft.			
1-D	72+00 to 74+50 Ramp A	Rt.																											
2-D	74+54 to 79+00 Ramp A	Rt.																											
3-D	84+00 to 85+55 Ramp A	Rt.																											
4-D	85+55 to 86+50 Ramp A	Rt.																											
5-D	74+00 to 87+00 Ramp B	Lt.																											
6-D	773+50 to 776+50	Rt.																											
7-D	776+50 to 779+10	Rt.																											
8-D	76+25 to 78+10 Ramp A	Lt.																											
9-D	76+16.19 Ramp A	-																											
10-D	80+25 Ramp A-B	-																											
11-D	82+00 Ramp A-B	-																											
12-D	53+00 U.S.42	-																											
13-D	85+20 Ramp A-B	Lt.																											
14-D	84+00 to 85+75 Ramp A-B	Rt.	120																										
15-D	85+55 Ramp A	-																											
16-D	55+40 U.S.42	Rt.	58																										
17-D	37+50 U.S.42	Rt.																											
18-D	87+05 to 88+23 Ramp B	Lt.																											
19-D	84+50 to 85+90 Ramp A-B	Lt.																											
1-R	73+00 to 77+00 Ramp A	Lt.																											
2-R	72+00 to 86+85 Ramp A	Rt.																											
3-R	76+00 to 78+25 Ramp B	Rt.																											
4-R	73+96 to 82+00 Ramp B	Lt.																											
TOTALS			206	110	174	372	30	20	46	42	255	26	108	60	1.7	2	1	1	2	2	1	4	2	6	2	19	29	25	84

SLM 5.51, 12" SEE SHEET 150

SLM 5.45, 18" SEE SHEET 148

SLM 5.53, 15" SEE SHEET 151

SLM 5.53, 18" SEE SHEET 151

SLM 5.53, 12" SEE SHEET 152

SLM 5.56, 12" SEE SHEET 150

CFN 180710552
SLM 5.51, 18"
SEE SHEET 150

CURVE #A-3
 $\Delta = 32^\circ 55' 42''$
 $Dc = 24^\circ 55' 42''$
 $Dc = 8^\circ 00'$
 $Rc = 716.20'$
 $Lc = 311.60'$
 $Tc = 158.31'$
 $Ec = 17.29'$
 $Ls1 = 0.00'$
 $Ls2 = 200.00'$
 $\theta s2 = 8^\circ 00'$
 $p2 = 2.33'$
 $k2 = 99.94'$
 $Xc2 = 199.61'$
 $Yc2 = 9.30'$
 $LT2 = 133.47'$
 $ST2 = 66.79'$
 $Ts1 = 215.94'$
 $Ts2 = 308.00'$

CURVE #A-4
 $Dc = 21^\circ 27' 33''$
 $Rc = 267.00'$
 $Lc = 0.00'$
 $Ls1 = 200.00'$
 $p = 6.21'$
 $k = 99.53'$
 $Xc = 197.21'$
 $Yc = 24.72'$
 $LT = 134.33'$
 $ST = 67.57'$
 $Ts1 = 366.53'$
 $Ts2 = 273.21'$

CURVE #A-1
 $\Delta = 75^\circ 08' 44''$
 $D = 23^\circ 03' 24''$
 $R = 248.50'$
 $L = 325.92'$
 $T = 191.18'$
 $E = 65.03'$

CURVE #B-1
 $\Delta = 150^\circ 40' 01''$
 $Dc = 125^\circ 45' 21''$
 $Dc = 24^\circ 54' 40''$
 $Rc = 230.00'$
 $Lc = 504.82'$
 $Tc = 449.03'$
 $Ec = 274.51'$
 $Ls1 = 200.00'$
 $Ls2 = 0.00'$
 $\theta s = 24^\circ 54' 40''$
 $p = 7.20'$
 $k = 99.37'$
 $Xc = 196.25'$
 $Yc = 28.60'$
 $LT = 134.68'$
 $ST = 67.89'$
 $Ts1 = 990.98'$
 $Ts2 = 893.49'$

CURVE #B-2
 $\Delta = 94^\circ 32' 09''$
 $Dc = 69^\circ 37' 29''$
 $Dc = 24^\circ 54' 40''$
 $Rc = 230.00'$
 $Lc = 279.49'$
 $Tc = 159.93'$
 $Ec = 50.14'$
 $Ls1 = 0.00'$
 $Ls2 = 200.00'$
 $\theta s = 24^\circ 54' 40''$
 $p = 7.20'$
 $k = 99.37'$
 $Xc = 196.25'$
 $Yc = 28.60'$
 $LT = 134.68'$
 $ST = 67.89'$
 $Ts1 = 256.19'$
 $Ts2 = 348.91'$

CURVE #A-5
 $\Delta = 90^\circ 47' 10''$
 $D = 38^\circ 11' 50''$
 $R = 150.00'$
 $L = 237.68'$
 $T = 152.07'$
 $E = 63.60'$

(A) See Detail Sheet No. 156