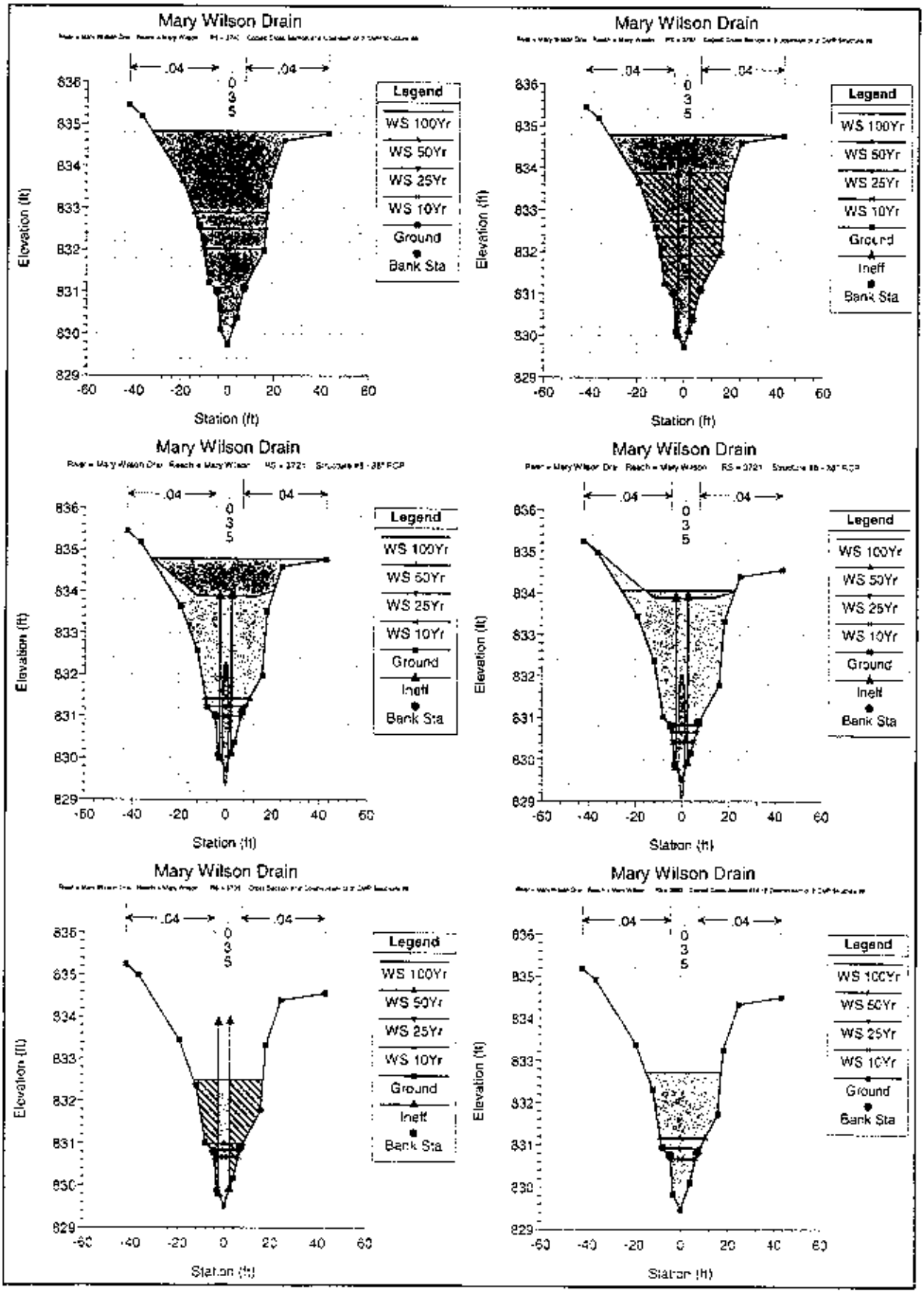
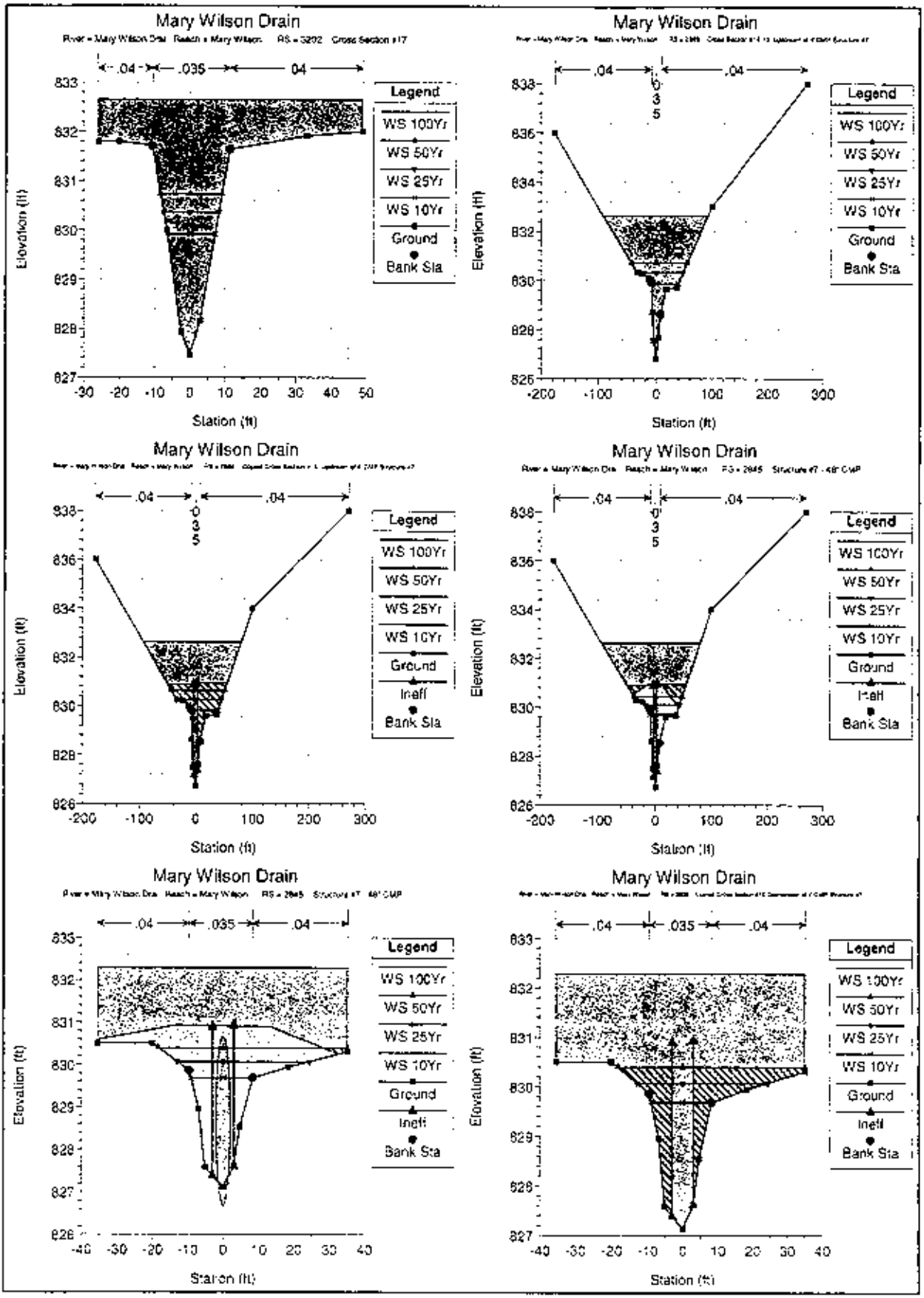
APPENDIX F

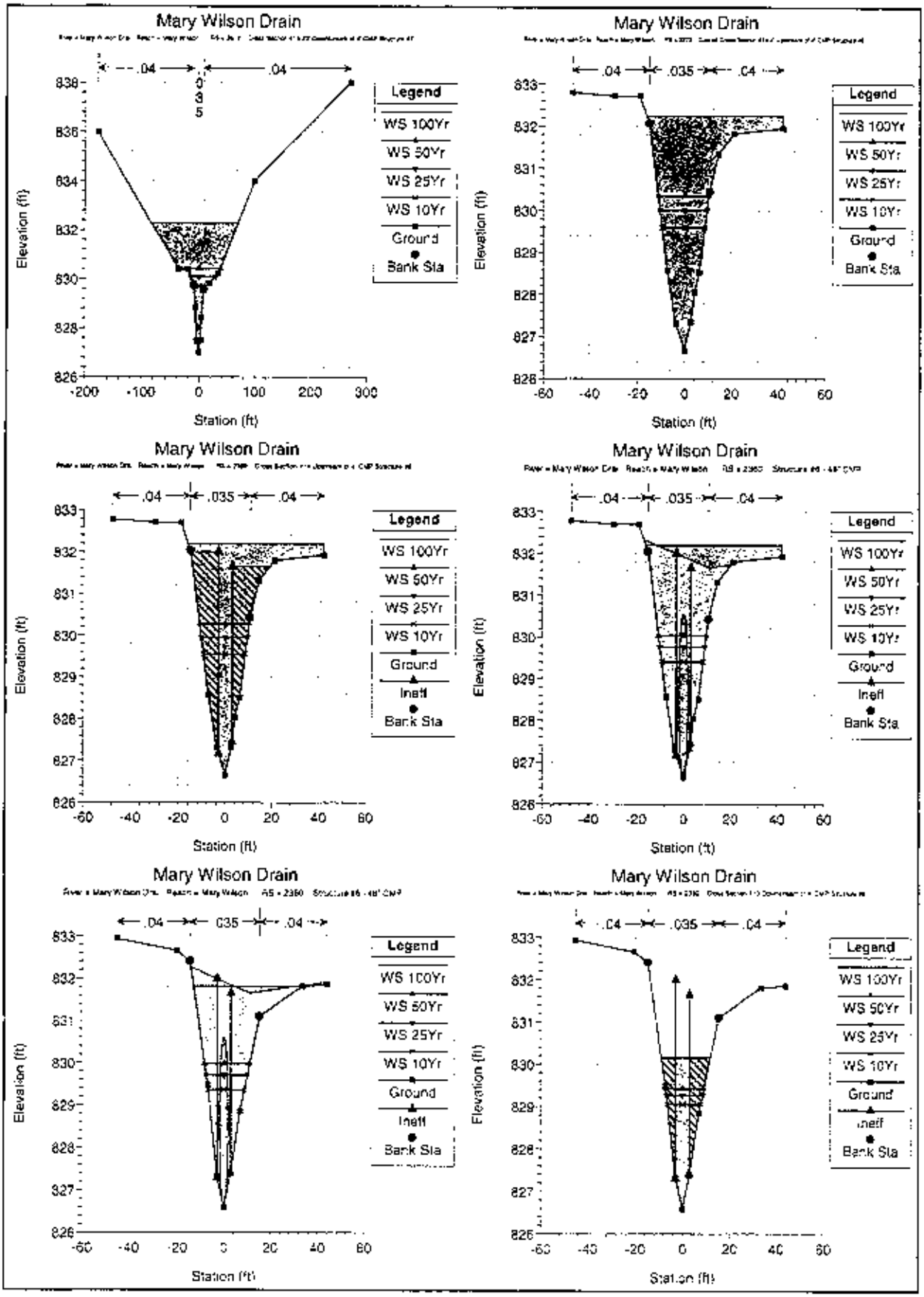
HEC-RAS MODELS

MARY WILSON DRAIN

HEC-RAS CROSS-SECTIONS AND PROFILE SUMMARY TABLE


Mary Wilson Drain
.04
.04
0
3
5
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Ineff
Elevation (ft)
Station (ft)
836
835
834
833
832
831
830
829
-60
-40
-20
0
20
40
60


Mary Wilson Drain
.04
.035
.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Mary Wilson Drain
.04
.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Mary Wilson Drain
.04
.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Mary Wilson Drain
.04
.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Mary Wilson Drain
.04
.035
.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Mary Wilson Drain
.04
.035
.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)


Mary Wilson Drain
.04
.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Mary Wilson Drain
.04
.035
.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Mary Wilson Drain
.04
.035
.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Mary Wilson Drain
.04
.035
.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Mary Wilson Drain
.04
.035
.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Mary Wilson Drain
.04
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.04
Legend
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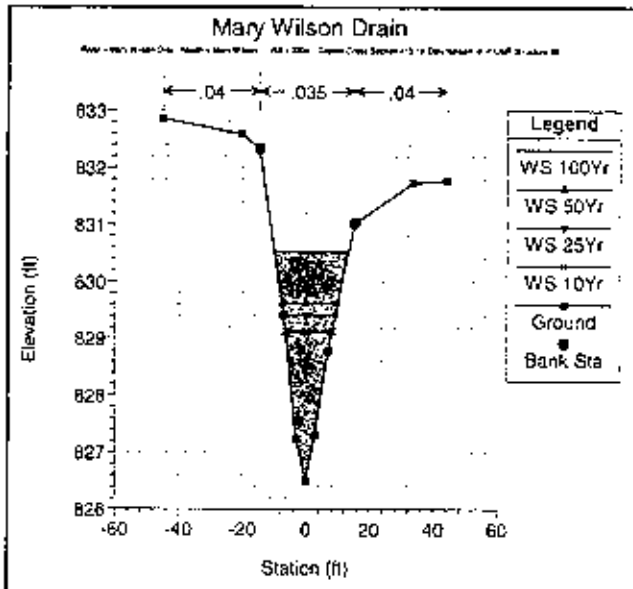
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)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Legend
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WS 50Yr
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WS 10Yr
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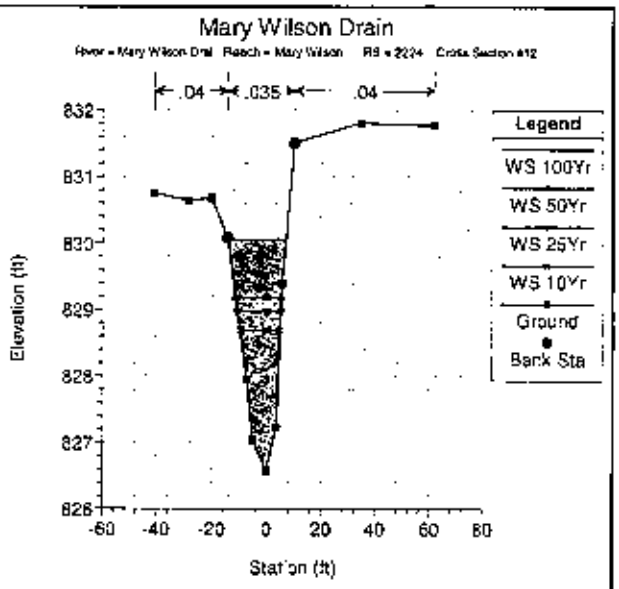
Bank Sta
Elevation (ft)
Station (ft)


Mary Wilson Drain
.04
.035
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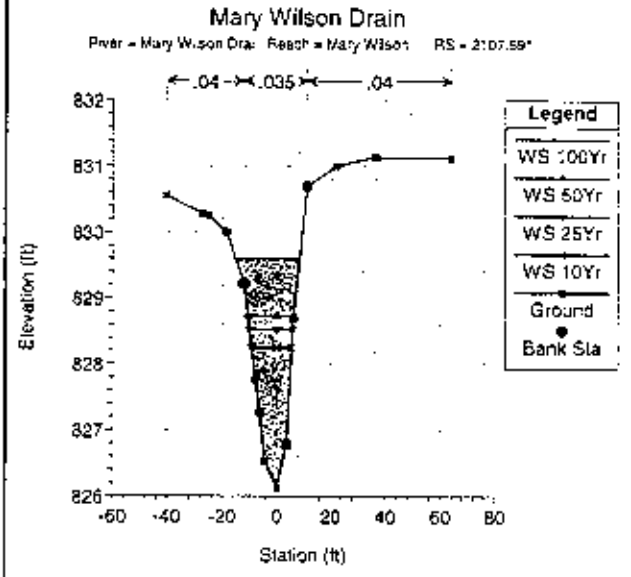
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)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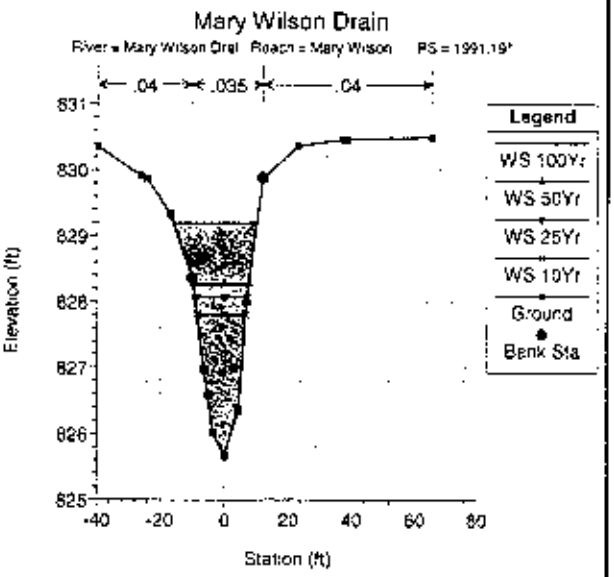
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)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.035
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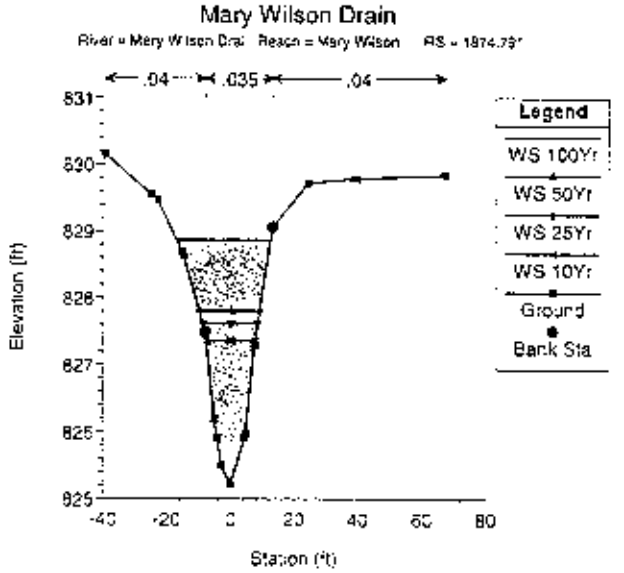
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)


Mary Wilson Drain
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.035
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Legend
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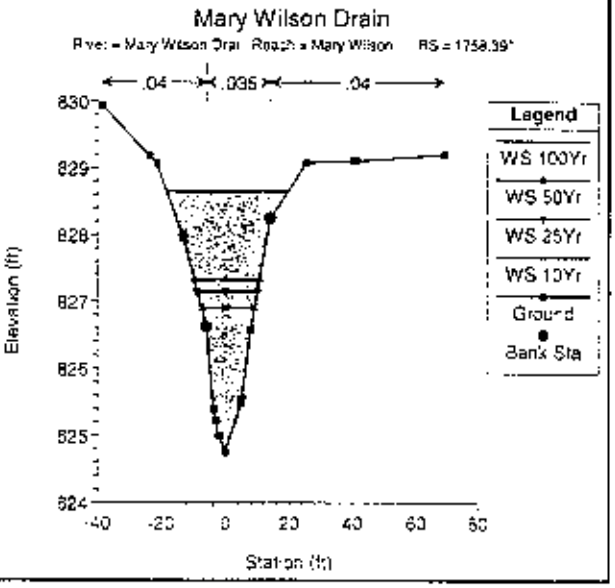
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)


Mary Wilson Drain
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.035
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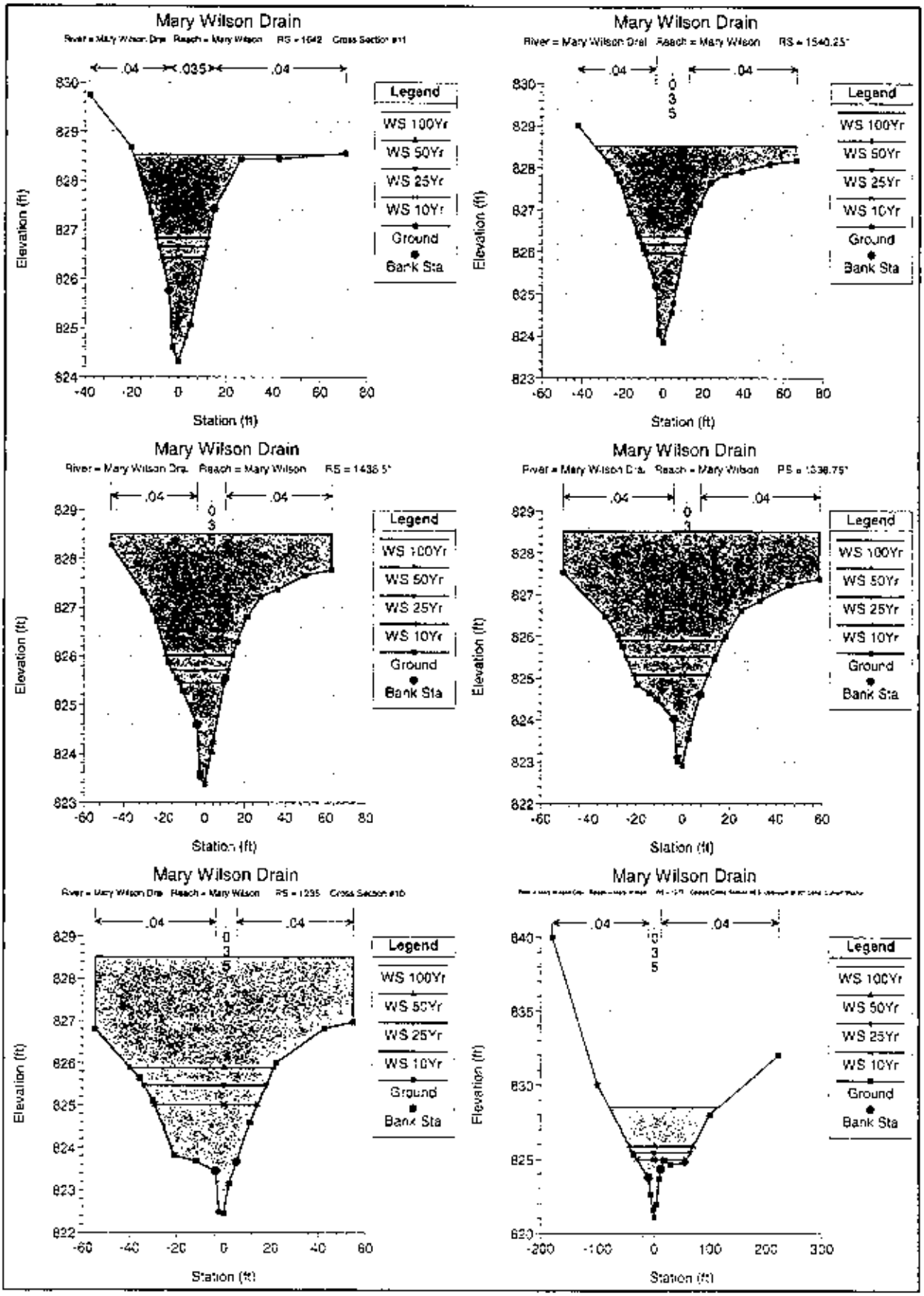
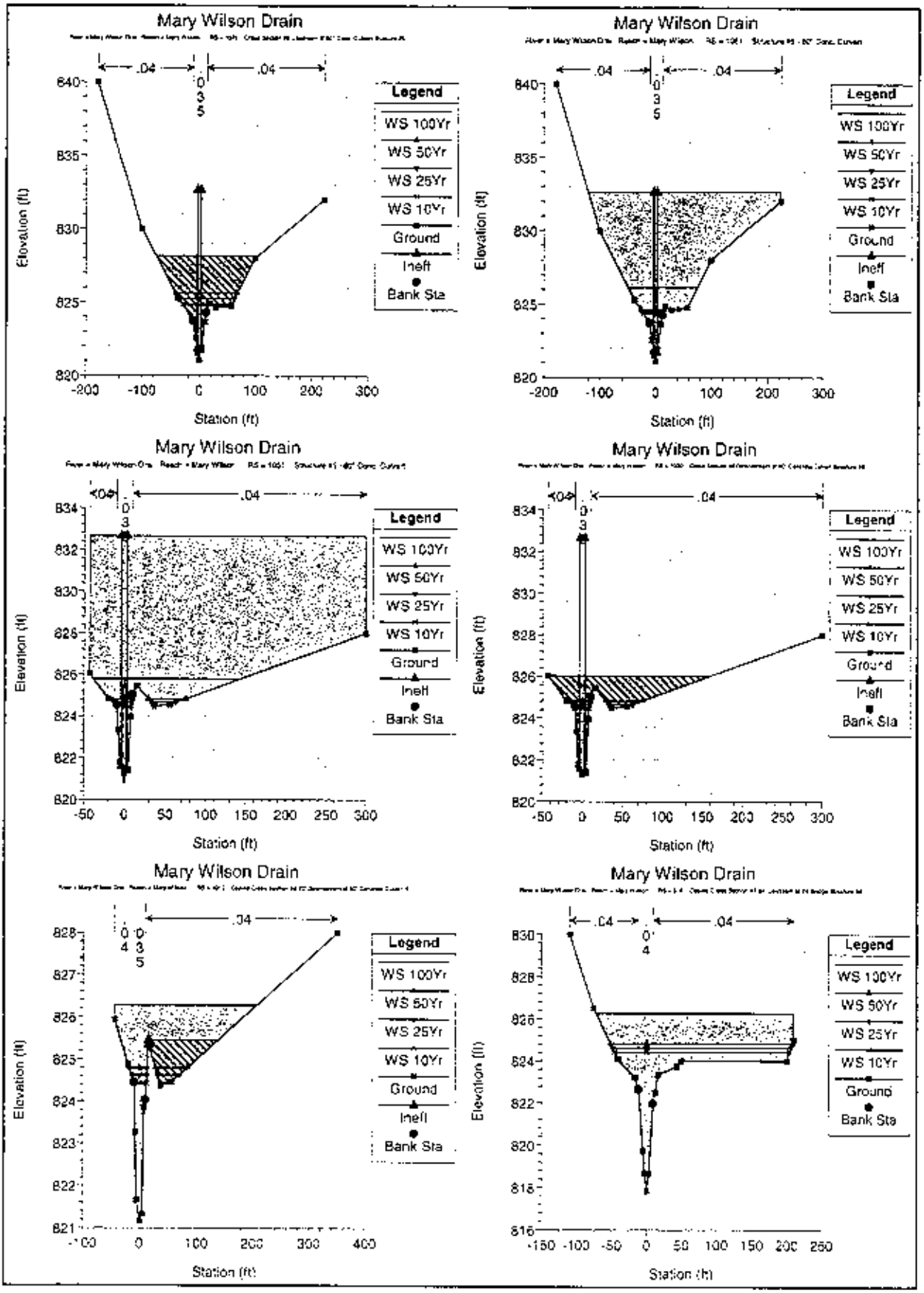
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)


Mary Wilson Drain
River = Mary Wilson Drai Reach = Mary Wilson RS = 1540.25*
.04
.035
.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Mary Wilson Drain
River = Mary Wilson Dra Reach = Mary Wilson RS = 1438.5*
Mary Wilson Drain
River = Mary Wilson Dra Reach = Mary Wilson RS = 1336.75*
Mary Wilson Drain
River = Mary Wilson Dra Reach = Mary Wilson RS = 1235 Cross Section #10
Mary Wilson Drain


Mary Wilson Drain
.04
.04
0
3
5
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Mary Wilson Drain
.04
.04
0
3
5
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Mary Wilson Drain
.04
.04
0
3
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Mary Wilson Drain
.04
.04
0
3
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Mary Wilson Drain
.04
0
4
3
5
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Mary Wilson Drain
.04
.04
0
4
Legend
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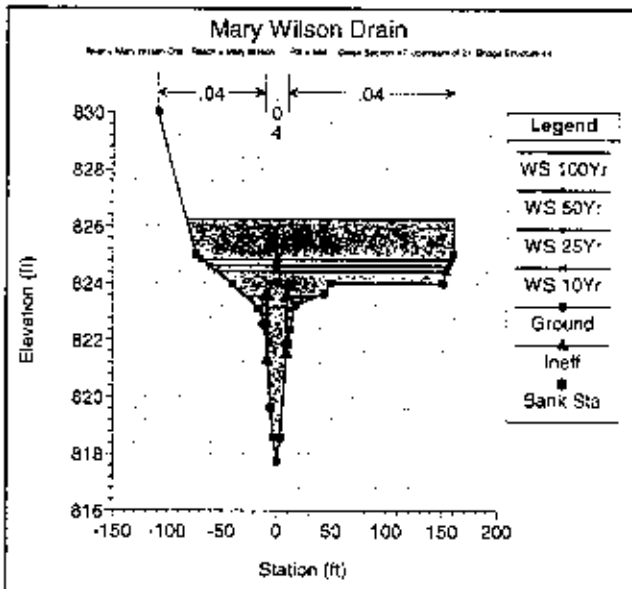
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)


Mary Wilson Drain
.04
.04
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4
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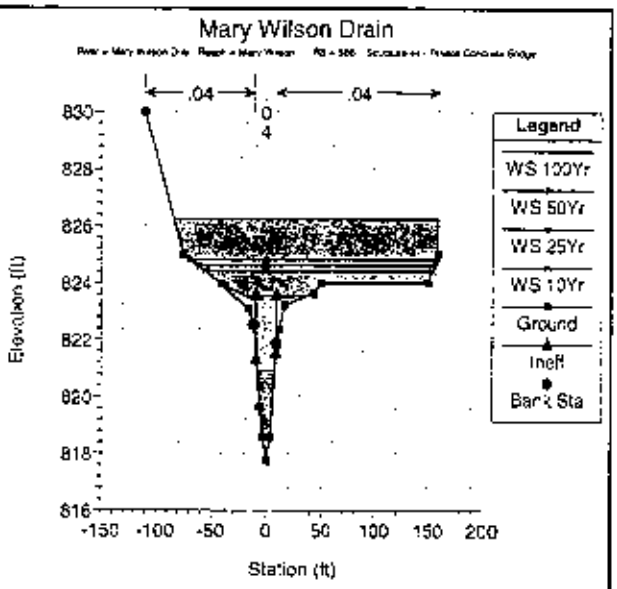
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)


Mary Wilson Drain
.04
.04
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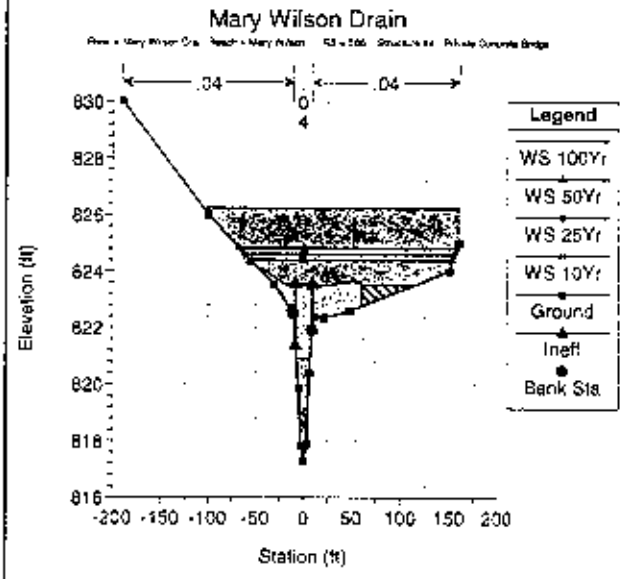
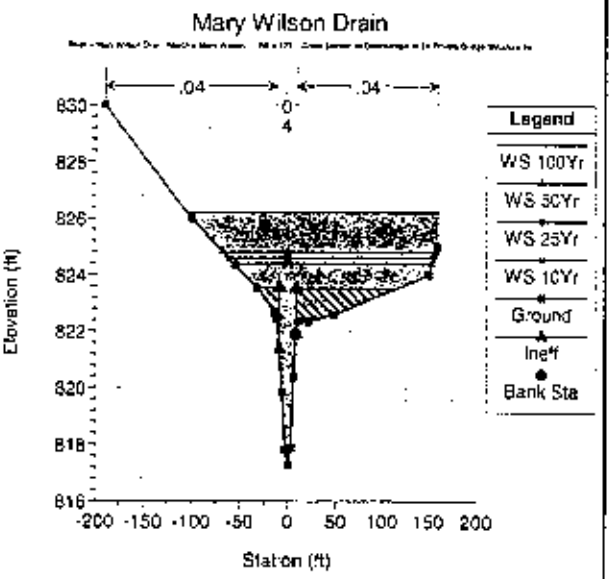
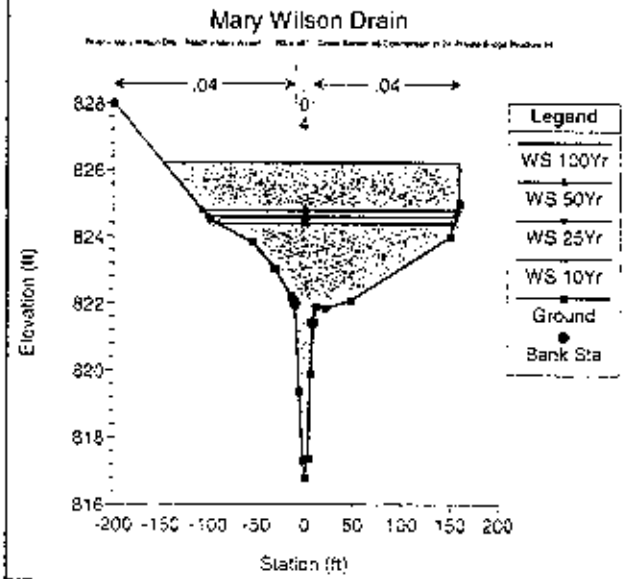
4
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)


Mary Wilson Drain
.04
.04
0
4
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)


Mary Wilson Drain
.04
.04
0
4
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)


Mary Wilson Drain
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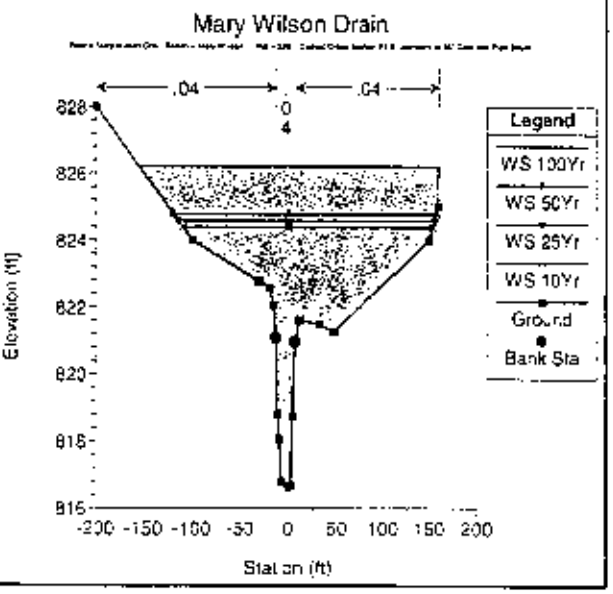
.04
0
4
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)


Mary Wilson Drain
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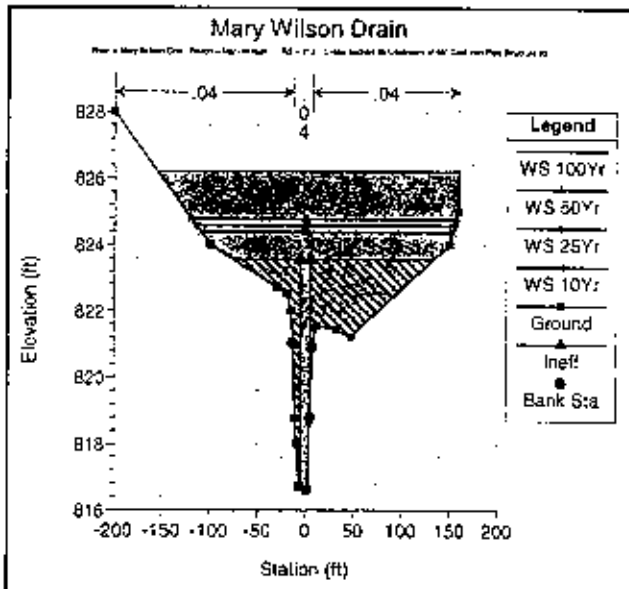
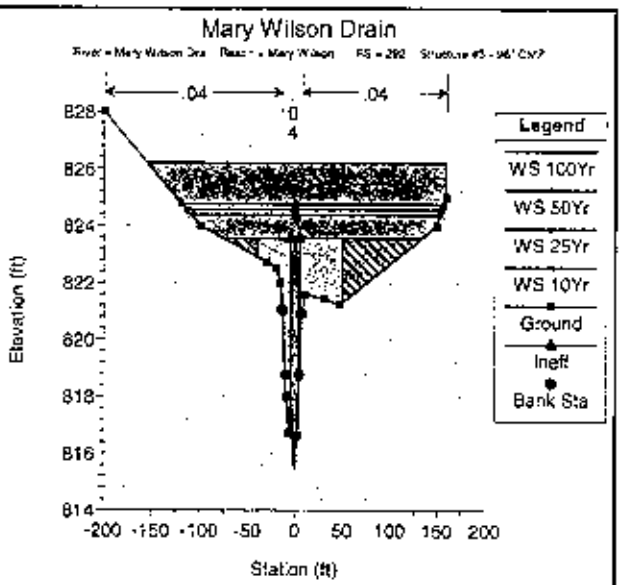
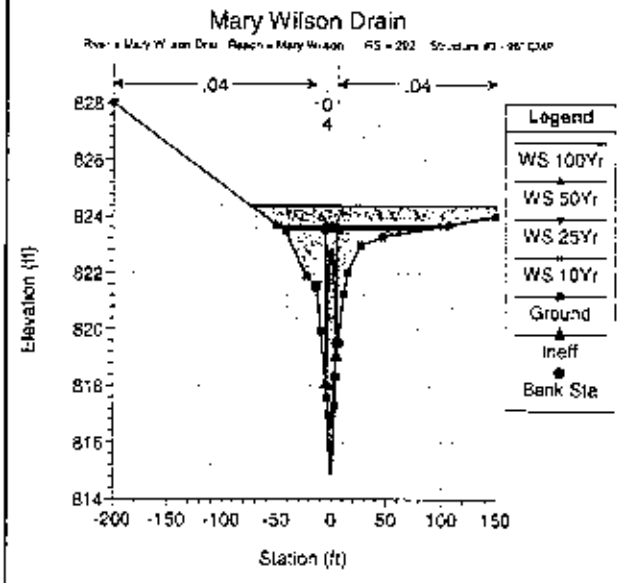
.04
0
4
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)


Mary Wilson Drain
.04
.04
0
4
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
828
826
824
822
820
818
816
-200 -150 -100 -50 0 50 100 150 200
Station (ft)


Mary Wilson Drain
.04
.04
0
4
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
828
826
824
822
820
818
816
814
-200 -150 -100 -50 0 50 100 150 200
Station (ft)


Mary Wilson Drain
.04
.04
0
4
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
828
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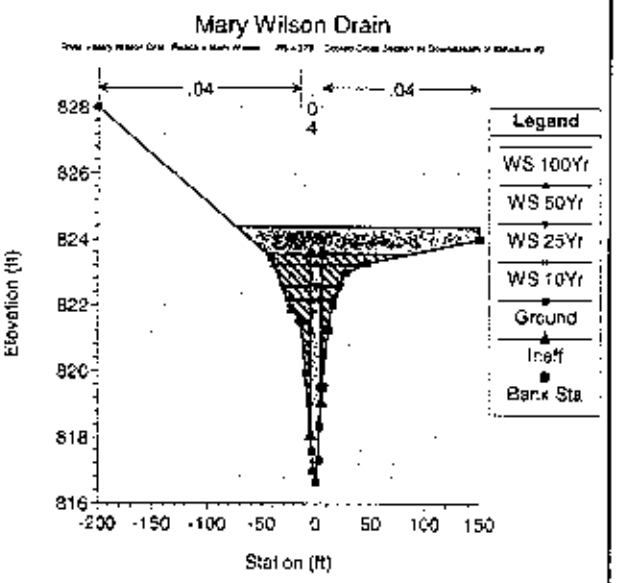
824
822
820
818
816
814
-200 -150 -100 -50 0 50 100 150
Station (ft)


Mary Wilson Drain
.04
.04
0
4
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
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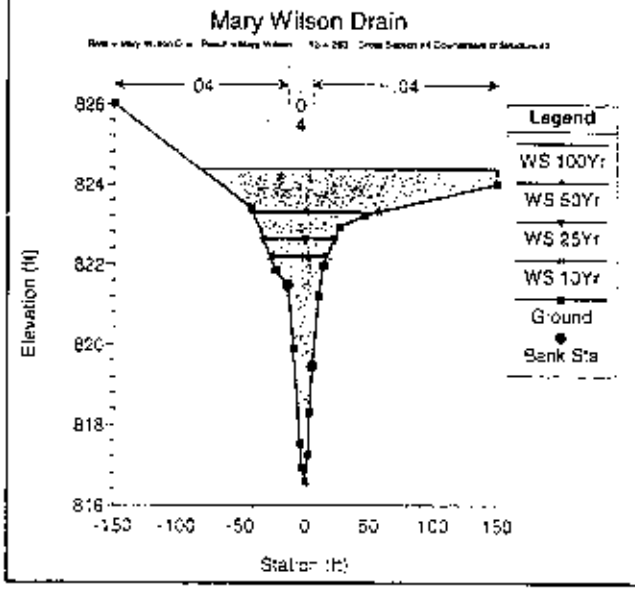
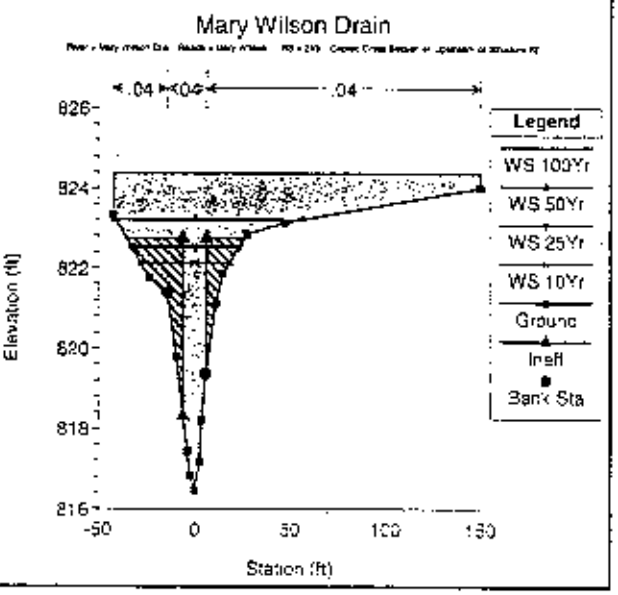
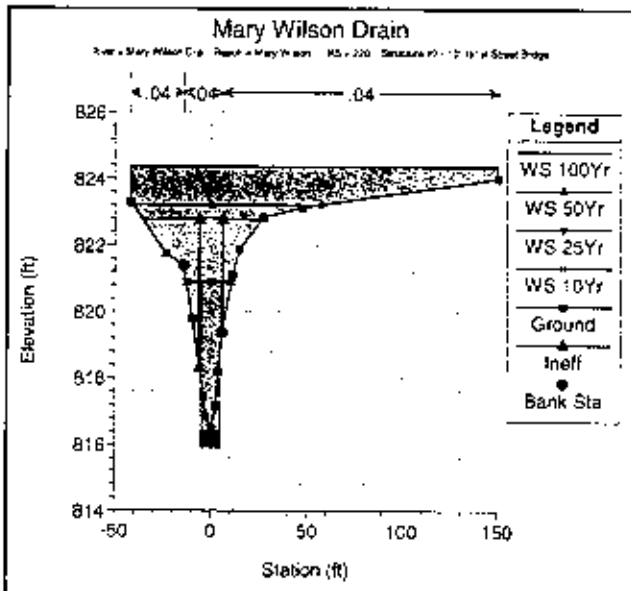
822
820
818
816
-200 -150 -100 -50 0 50 100 150
Station (ft)


Mary Wilson Drain
.04
.04
0
4
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
826
824
822
820
818
816
-150 -100 -50 0 50 100 150
Station (ft)


Mary Wilson Drain
.04
.04
.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
826
824
822
820
818
816
-50 0 50 100 150
Station (ft)


Mary Wilson Drain
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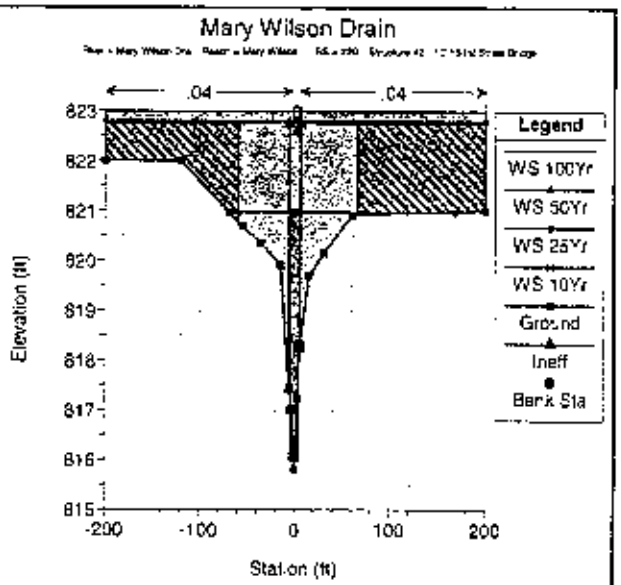
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)


Mary Wilson Drain
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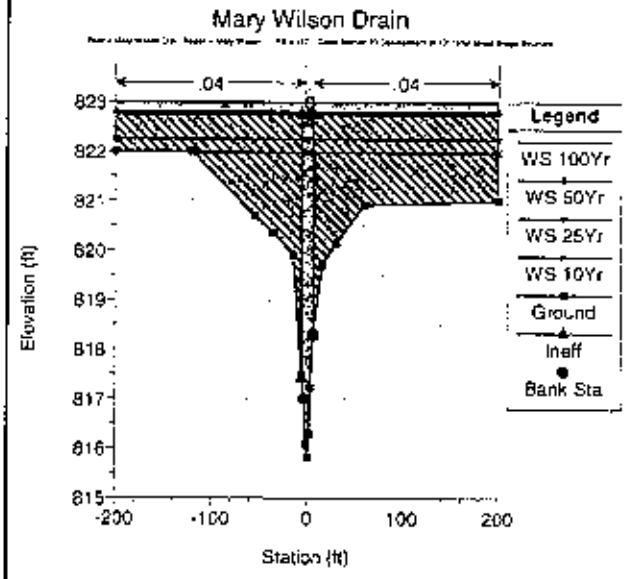
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)


Mary Wilson Drain
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Legend
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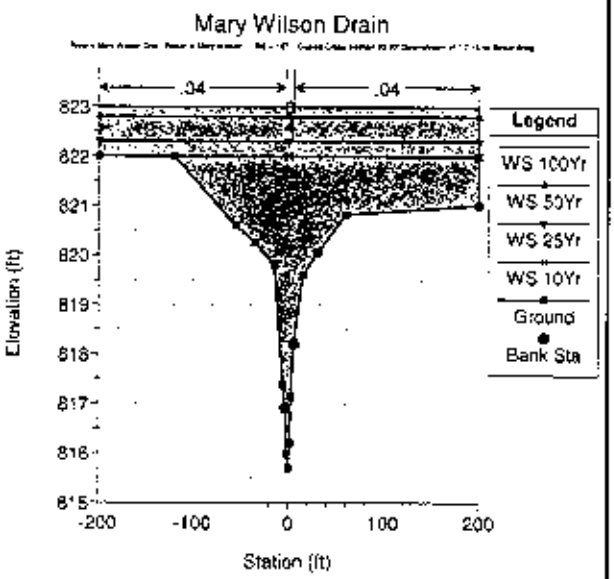
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)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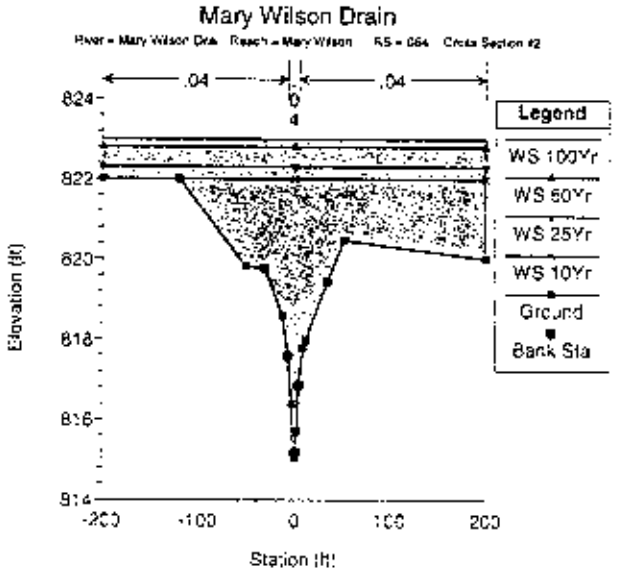
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)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Legend
WS 100Yr
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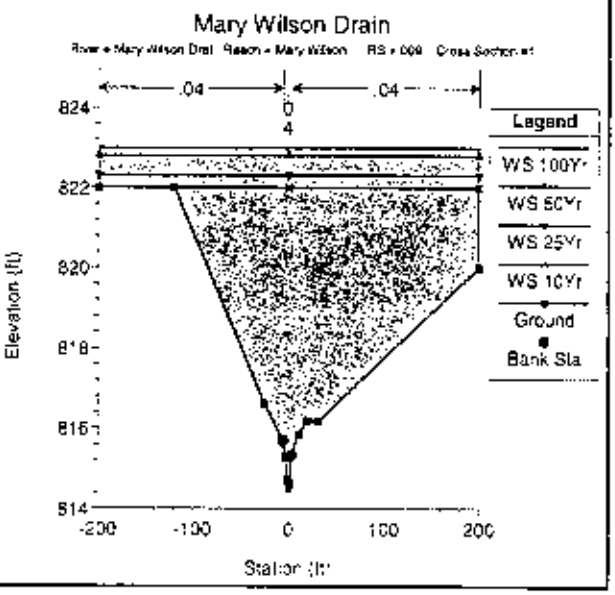
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)


Mary Wilson Drain
.04
.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)

HEC-RAS Plan: Plan 01 River: Mary Wilson Drai Reach: Mary Wilson

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Mary Wilson	3740	80.00	829.73	834.93		834.84	0.000083	0.91	139.99	75.59	0.07
Mary Wilson	3740	42.00	829.73	832.90		832.91	0.000151	0.97	54.35	31.46	0.11
Mary Wilson	3740	35.00	829.73	832.50		832.51	0.000205	1.02	42.36	28.55	0.12
Mary Wilson	3740	27.00	829.73	832.02		832.04	0.000329	1.10	29.34	26.50	0.15
Mary Wilson	3737	80.00	829.72	834.79	831.98	834.83	0.000592	1.90	65.50	75.20	0.21
Mary Wilson	3737	42.00	829.72	832.74	831.18	832.87	0.001209	2.95	14.24	30.24	0.31
Mary Wilson	3737	35.00	829.72	832.35	831.04	832.48	0.001365	2.84	12.31	27.95	0.32
Mary Wilson	3737	27.00	829.72	831.99	830.85	832.01	0.001597	2.69	10.05	25.32	0.33
Mary Wilson	3721	Culvert									
Mary Wilson	3705	80.00	829.52	832.51	831.68	833.01	0.004506	5.66	14.13	30.08	0.59
Mary Wilson	3705	42.00	829.52	830.99	830.98	831.64	0.018587	6.47	6.50	15.87	1.00
Mary Wilson	3705	35.00	829.52	830.84	830.84	831.41	0.017304	6.09	5.75	12.19	1.00
Mary Wilson	3705	27.00	829.52	830.67	830.65	831.14	0.017314	5.49	4.92	10.67	0.98
Mary Wilson	3693	80.00	829.46	832.73		832.77	0.000470	1.76	57.60	32.26	0.19
Mary Wilson	3693	42.00	829.46	831.16		831.28	0.003955	2.90	15.67	19.30	0.47
Mary Wilson	3693	35.00	829.46	830.92	830.59	831.07	0.009168	3.13	11.48	16.07	0.57
Mary Wilson	3693	27.00	829.46	830.67	830.46	830.84	0.009328	3.29	8.21	11.01	0.67
Mary Wilson	3202	80.00	827.45	832.65		832.66	0.000102	0.80	116.42	74.50	0.09
Mary Wilson	3202	42.00	827.45	830.74		830.76	0.000448	1.29	32.54	17.61	0.17
Mary Wilson	3202	35.00	827.45	830.36		830.39	0.000549	1.33	26.28	15.62	0.18
Mary Wilson	3202	27.00	827.45	829.92		829.95	0.000696	1.37	19.78	13.75	0.20
Mary Wilson	2869	80.00	826.81	832.64		832.65	0.000009	0.35	385.94	165.66	0.03
Mary Wilson	2869	42.00	826.81	830.72		830.72	0.000047	0.57	110.31	100.30	0.06
Mary Wilson	2869	35.00	826.81	830.32		830.32	0.000071	0.64	73.95	78.41	0.07
Mary Wilson	2869	27.00	826.81	829.87		829.87	0.000108	0.69	47.10	48.98	0.08
Mary Wilson	2854	80.00	826.73	832.63	828.76	832.64	0.000044	0.57	235.13	173.77	0.06
Mary Wilson	2854	42.00	826.73	830.65	828.15	830.70	0.000374	1.92	21.86	95.78	0.18
Mary Wilson	2854	35.00	826.73	830.26	828.02	830.31	0.000377	1.79	19.54	80.32	0.17
Mary Wilson	2854	27.00	826.73	829.82	827.85	829.86	0.000362	1.60	16.92	48.69	0.17
Mary Wilson	2845	Culvert									
Mary Wilson	2835	80.00	827.12	832.29	829.07	832.30	0.000031	0.59	285.20	70.70	0.05
Mary Wilson	2835	42.00	827.12	830.40	828.45	830.48	0.000642	2.27	18.52	53.60	0.23
Mary Wilson	2835	35.00	827.12	830.07	828.32	830.14	0.000649	2.11	16.55	37.30	0.22
Mary Wilson	2835	27.00	827.12	829.53	828.16	829.74	0.000636	1.90	14.25	17.59	0.22
Mary Wilson	2812	80.00	827.01	832.28		832.28	0.000021	0.48	274.45	150.95	0.04
Mary Wilson	2812	42.00	827.01	830.42		830.43	0.000148	0.68	61.30	75.36	0.10
Mary Wilson	2812	35.00	827.01	830.09		830.10	0.000201	0.93	42.81	45.33	0.11
Mary Wilson	2812	27.00	827.01	829.70		829.71	0.000260	0.92	29.66	22.76	0.13
Mary Wilson	2373	80.00	826.67	832.25		832.26	0.000075	0.62	110.20	58.43	0.08
Mary Wilson	2373	42.00	826.67	830.35		830.36	0.000181	0.91	46.42	21.91	0.11
Mary Wilson	2373	35.00	826.67	830.01		830.02	0.000200	0.89	39.18	20.39	0.11
Mary Wilson	2373	27.00	826.67	829.59		829.60	0.000225	0.87	31.08	19.53	0.12
Mary Wilson	2369	80.00	826.65	832.20	828.72	832.25	0.001282	1.68	50.44	58.31	0.27
Mary Wilson	2369	42.00	826.65	830.27	828.1	830.34	0.000522	2.12	19.84	21.66	0.2
Mary Wilson	2369	35.00	826.65	829.94	827.98	830.00	0.000514	1.95	17.87	20.22	0.20
Mary Wilson	2369	27.00	826.65	829.64	827.82	829.59	0.000498	1.75	15.46	18.41	0.19
Mary Wilson	2360	Culvert									
Mary Wilson	2350	196.00	826.56	830.16	830.16	831.78	0.012851	10.52	19.19	20.93	1.04
Mary Wilson	2350	104.00	826.56	829.42	829.09	830.19	0.009751	7.27	14.72	16.28	0.82
Mary Wilson	2350	97.00	826.56	829.27	828.93	829.88	0.007561	6.30	13.81	15.43	0.73
Mary Wilson	2350	87.00	826.56	829.05	828.53	829.50	0.006205	5.35	12.63	14.22	0.66
Mary Wilson	2334	196.00	826.50	830.52		830.78	0.003725	4.03	48.63	33.73	0.50
Mary Wilson	2334	104.00	826.50	829.62		829.81	0.003744	3.49	29.82	18.03	0.48
Mary Wilson	2334	97.00	826.50	829.41		829.56	0.003696	3.34	26.07	16.67	0.47
Mary Wilson	2334	87.00	826.50	829.12		829.27	0.003637	3.12	21.49	15.04	0.46

HEC-RAS Plan: Plan 01 River: Mary Wilson Drai Reach: Mary Wilson (Continued)

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Mary Wilson	2224	196.00	826.57	830.05		830.35	0.004125	4.31	45.53	21.29	0.52
Mary Wilson	2224	104.00	826.57	829.19		829.39	0.003901	3.60	28.86	16.94	0.49
Mary Wilson	2224	87.00	826.57	828.97		829.16	0.003875	3.42	25.41	16.07	0.48
Mary Wilson	2224	67.00	826.57	828.69		828.85	0.003875	3.19	21.03	14.89	0.47
Mary Wilson	2107.59*	196.00	826.12	829.60		829.88	0.003842	4.28	48.30	23.66	0.51
Mary Wilson	2107.59*	104.00	826.12	829.73		829.83	0.003878	3.59	29.00	17.22	0.49
Mary Wilson	2107.59*	87.00	826.12	828.52		828.70	0.003856	3.41	25.52	16.33	0.48
Mary Wilson	2107.59*	67.00	826.12	828.24		828.40	0.003891	3.18	21.09	15.17	0.47
Mary Wilson	1991.19*	196.00	825.66	829.20		829.46	0.003361	4.13	49.19	26.05	0.48
Mary Wilson	1991.19*	104.00	825.66	828.27		828.47	0.003930	3.58	29.04	17.61	0.49
Mary Wilson	1991.19*	87.00	825.66	828.07		828.25	0.003819	3.39	25.68	16.58	0.48
Mary Wilson	1991.19*	67.00	825.66	827.80		827.95	0.003762	3.13	21.37	15.37	0.47
Mary Wilson	1874.79*	196.00	825.21	828.87		829.09	0.002748	3.84	54.67	29.54	0.44
Mary Wilson	1874.79*	104.00	825.21	827.80		828.01	0.003903	3.61	29.02	19.09	0.49
Mary Wilson	1874.79*	87.00	825.21	827.62		827.80	0.003850	3.40	25.63	17.40	0.48
Mary Wilson	1874.79*	67.00	825.21	827.36		827.51	0.003781	3.13	21.39	15.53	0.47
Mary Wilson	1758.39*	196.00	824.75	828.66		828.82	0.001915	3.36	55.73	38.00	0.35
Mary Wilson	1758.39*	104.00	824.75	827.33		827.54	0.004027	3.67	29.25	20.62	0.50
Mary Wilson	1758.39*	87.00	824.75	827.15		827.34	0.003934	3.46	25.72	19.01	0.49
Mary Wilson	1758.39*	67.00	824.75	826.91		827.06	0.003832	3.17	21.33	18.82	0.47
Mary Wilson	1642	196.00	824.30	828.54		828.64	0.001056	2.82	87.54	64.42	0.29
Mary Wilson	1642	104.00	824.30	826.83		827.05	0.004937	3.78	29.14	21.91	0.53
Mary Wilson	1642	87.00	824.30	826.66		826.85	0.004515	3.60	25.39	20.29	0.52
Mary Wilson	1642	67.00	824.30	826.44		826.60	0.004284	3.28	21.15	18.29	0.50
Mary Wilson	1540.25*	196.00	823.84	828.52		828.57	0.000451	2.11	143.02	101.03	0.19
Mary Wilson	1540.25*	104.00	823.84	826.36		826.58	0.004733	3.82	29.84	24.35	0.54
Mary Wilson	1540.25*	87.00	823.84	826.18		826.38	0.004846	3.56	25.58	22.23	0.54
Mary Wilson	1540.25*	67.00	823.84	825.95		826.14	0.004669	3.39	21.03	19.78	0.52
Mary Wilson	1438.5*	196.00	823.38	828.52		828.54	0.000189	1.50	210.95	109.45	0.13
Mary Wilson	1438.5*	104.00	823.38	826.01		826.17	0.003134	3.41	36.79	33.30	0.45
Mary Wilson	1438.5*	87.00	823.38	825.71		825.89	0.004646	3.86	27.38	27.55	0.53
Mary Wilson	1438.5*	67.00	823.38	825.45		825.63	0.005387	3.94	21.03	22.56	0.56
Mary Wilson	1336.75*	196.00	822.91	828.51		828.52	0.000083	1.09	283.10	109.68	0.09
Mary Wilson	1336.75*	104.00	822.91	825.91		825.97	0.001258	2.35	59.93	44.95	0.27
Mary Wilson	1336.75*	87.00	822.91	825.51		825.59	0.001715	2.64	43.31	38.61	0.34
Mary Wilson	1336.75*	67.00	822.91	825.08		825.20	0.003130	3.01	28.12	32.60	0.43
Mary Wilson	1235	196.00	822.45	828.51		828.52	0.000042	0.63	357.47	109.90	0.06
Mary Wilson	1235	104.00	822.45	825.88		825.91	0.000345	1.56	99.54	61.19	0.18
Mary Wilson	1235	87.00	822.45	825.47		825.50	0.000470	1.65	75.41	52.21	0.19
Mary Wilson	1235	67.00	822.45	825.01		825.04	0.000654	1.75	53.24	44.10	0.22
Mary Wilson	1077	196.00	821.10	828.51		828.51	0.000015	0.54	580.21	195.70	0.04
Mary Wilson	1077	104.00	821.10	825.87		825.88	0.000085	0.86	177.34	116.32	0.08
Mary Wilson	1077	87.00	821.10	825.45		825.46	0.000120	0.94	130.97	105.12	0.10
Mary Wilson	1077	67.00	821.10	824.97		824.99	0.000175	1.01	94.29	91.05	0.11
Mary Wilson	1072	196.00	821.07	828.17	824.29	828.43	0.000783	4.14	47.34	180.82	0.28
Mary Wilson	1072	104.00	821.07	825.63	823.30	825.82	0.001031	3.52	29.57	110.56	0.30
Mary Wilson	1072	87.00	821.07	825.25	823.09	825.41	0.000985	3.33	26.93	100.45	0.29
Mary Wilson	1072	67.00	821.07	824.83	822.81	824.95	0.000557	2.79	24.01	84.73	0.27
Mary Wilson	1051	Culvert									
Mary Wilson	1030	196.00	821.27	826.24	824.27	826.62	0.002530	5.01	32.63	235.35	0.49
Mary Wilson	1030	104.00	821.27	824.92	823.27	825.11	0.001997	4.21	24.11	76.15	0.47
Mary Wilson	1030	87.00	821.27	824.66	823.06	824.88	0.001643	3.79	22.95	53.79	0.37
Mary Wilson	1030	67.00	821.27	824.45	822.79	824.60	0.001209	3.11	21.51	16.45	0.31
Mary Wilson	1010	592.00	821.17	826.89	824.58	826.33	0.000471	2.22	222.58	251.86	0.19
Mary Wilson	1010	309.00	821.17	824.79	823.53	825.04	0.002690	4.36	53.35	58.12	0.45

HEC-RAS Plan: Plan 01 River: Mary Wilson Drai Reach: Mary Wilson (Continued)

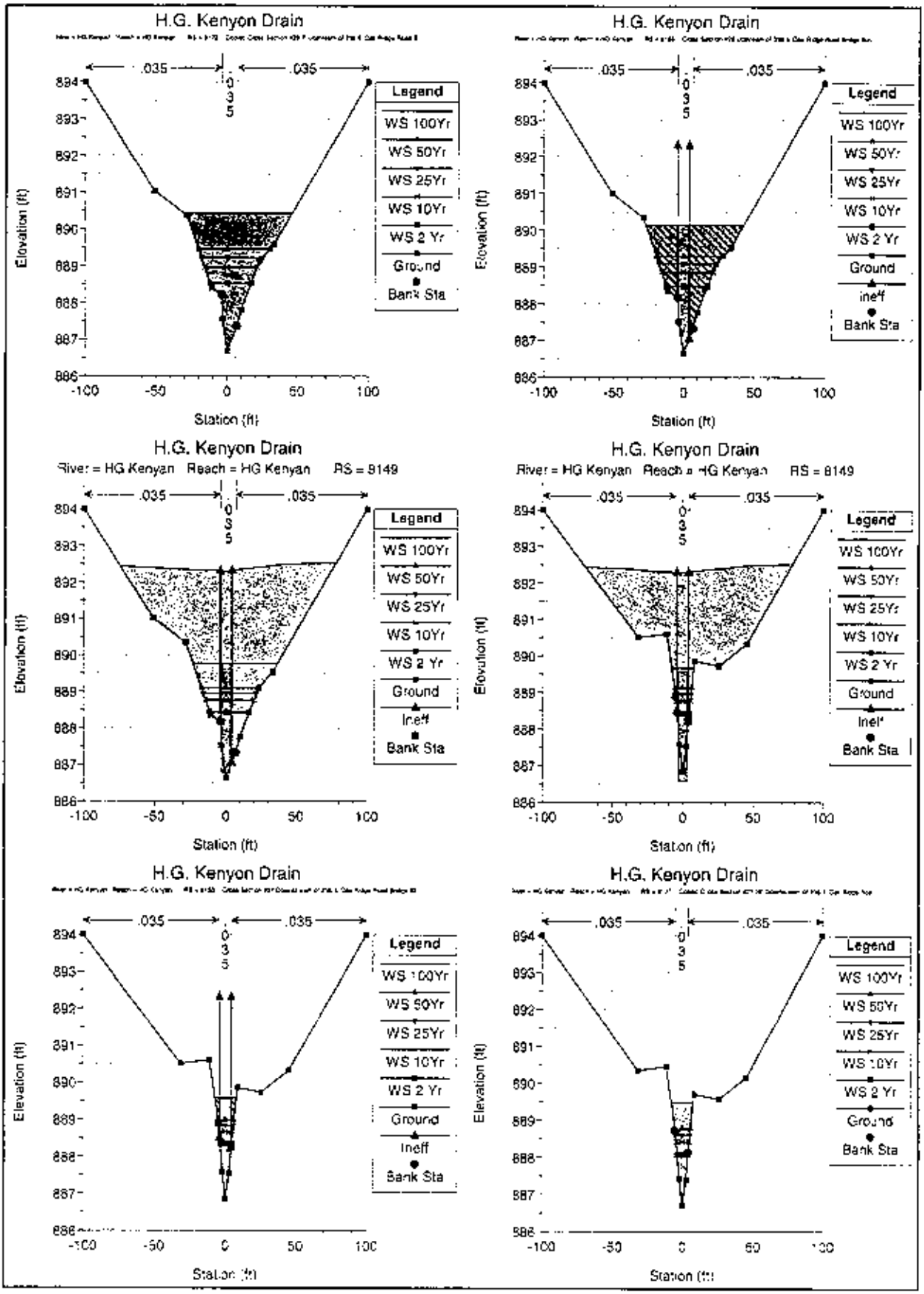
Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Mary Wilson	1010	174.00	821.17	824.62	823.30	824.83	0.002869	3.66	48.35	65.36	0.42
Mary Wilson	1010	134.00	821.17	824.43	823.01	824.58	0.002106	3.38	43.76	37.06	0.37
Mary Wilson	619	392.00	817.86	826.27		826.27	0.000052	0.86	724.99	281.74	0.06
Mary Wilson	619	208.00	817.86	824.63		824.84	0.000116	1.11	335.07	259.83	0.09
Mary Wilson	619	174.00	817.86	824.63		824.64	0.000119	1.10	281.67	254.83	0.09
Mary Wilson	619	134.00	817.86	824.42		824.44	0.000104	1.00	230.86	249.99	0.08
Mary Wilson	595	392.00	817.74	826.26	821.70	826.27	0.000069	1.00	525.99	243.83	0.07
Mary Wilson	595	208.00	817.74	824.63	820.73	824.84	0.000154	1.26	285.22	227.63	0.10
Mary Wilson	595	174.00	817.74	824.62	820.48	824.63	0.000156	1.23	238.66	218.70	0.10
Mary Wilson	595	134.00	817.74	824.42	820.16	824.43	0.000133	1.11	195.61	210.11	0.09
Mary Wilson	586	Bridge									
Mary Wilson	577	392.00	817.28	826.24	821.45	826.24	0.000039	0.77	774.22	265.37	0.05
Mary Wilson	577	208.00	817.28	824.61	820.33	824.61	0.000059	0.81	420.47	226.02	0.06
Mary Wilson	577	174.00	817.28	824.60	820.07	824.61	0.000056	0.77	374.95	218.47	0.06
Mary Wilson	577	134.00	817.28	824.40	819.72	824.41	0.000045	0.67	332.13	211.13	0.05
Mary Wilson	481	392.00	816.78	826.23		826.23	0.000025	0.65	936.52	309.47	0.04
Mary Wilson	481	208.00	816.78	824.79		824.80	0.000036	0.67	521.59	266.36	0.05
Mary Wilson	481	174.00	816.78	824.60		824.60	0.000033	0.63	469.38	259.69	0.05
Mary Wilson	481	134.00	816.78	824.40		824.40	0.000026	0.54	418.90	247.13	0.04
Mary Wilson	320	392.00	816.61	826.22		826.23	0.000016	0.57	1077.52	315.60	0.03
Mary Wilson	320	208.00	816.61	824.78		824.79	0.000018	0.53	648.69	277.40	0.04
Mary Wilson	320	174.00	816.61	824.59		824.59	0.000016	0.49	595.04	270.64	0.03
Mary Wilson	320	134.00	816.61	824.39		824.39	0.000012	0.42	543.04	263.70	0.03
Mary Wilson	312	392.00	816.57	826.22	820.49	826.22	0.000052	0.79	771.77	315.41	0.06
Mary Wilson	312	208.00	816.57	824.77	819.24	824.78	0.000140	1.08	342.21	278.98	0.09
Mary Wilson	312	174.00	816.57	824.58	818.97	824.59	0.000149	1.08	289.07	270.18	0.09
Mary Wilson	312	134.00	816.57	824.38	818.61	824.39	0.000139	1.02	236.18	263.24	0.09
Mary Wilson	292	Culvert,									
Mary Wilson	273	392.00	816.52	824.40	820.99	824.44	0.000303	1.95	347.62	224.91	0.14
Mary Wilson	273	208.00	816.52	823.23	819.74	823.42	0.000972	3.55	58.67	83.90	0.26
Mary Wilson	273	174.00	816.52	822.58	819.45	822.75	0.001004	3.33	52.20	53.94	0.26
Mary Wilson	273	134.00	816.52	822.18	819.13	822.29	0.000787	2.79	48.02	43.54	0.22
Mary Wilson	263	392.00	816.57	824.39		824.43	0.000289	1.94	357.93	233.08	0.14
Mary Wilson	263	208.00	816.57	823.30		823.34	0.000317	1.77	160.96	98.90	0.14
Mary Wilson	263	174.00	816.57	822.54		822.59	0.000419	1.84	114.03	56.47	0.16
Mary Wilson	263	134.00	816.57	822.20		822.24	0.000399	1.67	91.61	45.64	0.15
Mary Wilson	243	392.00	816.47	824.37	820.66	824.42	0.000540	2.32	282.11	192.40	0.19
Mary Wilson	243	208.00	816.47	823.20	819.53	823.31	0.001259	2.70	95.60	98.16	0.25
Mary Wilson	243	174.00	816.47	822.52	819.30	822.65	0.000766	2.88	60.92	56.10	0.22
Mary Wilson	243	134.00	816.47	822.13	818.95	822.22	0.000595	2.39	56.16	46.31	0.19
Mary Wilson	220	Culvert									
Mary Wilson	197	392.00	815.81	823.00	820.02	823.00	0.000052	0.85	954.06	400.00	0.06
Mary Wilson	197	208.00	815.81	822.90	818.91	822.60	0.000020	0.61	774.20	400.00	0.04
Mary Wilson	197	174.00	815.81	822.25	818.69	822.36	0.000602	2.67	65.31	400.00	0.20
Mary Wilson	197	134.00	815.81	821.98	818.38	822.05	0.000424	2.16	62.05	318.87	0.17
Mary Wilson	157	392.00	815.70	823.00		823.00	0.000048	0.82	875.91	400.00	0.05
Mary Wilson	157	208.00	815.70	822.90		822.60	0.000018	0.59	795.76	400.00	0.04
Mary Wilson	157	174.00	815.70	822.30		822.30	0.000031	0.67	595.71	400.00	0.05
Mary Wilson	157	134.00	815.70	822.00		822.00	0.000029	0.58	475.71	319.87	0.04
Mary Wilson	064	392.00	815.04	823.00		823.00	0.000024	0.62	1070.71	400.00	0.04
Mary Wilson	064	208.00	815.04	822.90		822.60	0.000009	0.37	993.65	400.00	0.03
Mary Wilson	064	174.00	815.04	822.30		822.30	0.000012	0.41	799.60	400.00	0.03
Mary Wilson	064	134.00	815.04	822.00		822.00	0.000010	0.36	673.61	319.99	0.03
Mary Wilson	009	392.00	814.51	822.00	817.10	823.00	0.000006	0.34	1664.74	400.00	0.02

HEC-RAS Plan: Plan 01 River: Mary Wilson Drai Reach: Mary Wilson (Continued)

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Mary Wilson	009	208.00	814.51	822.60	816.73	822.80	0.000002	0.19	1584.74	400.00	0.01
Mary Wilson	009	174.00	814.51	822.30	816.64	822.30	0.000002	0.19	1384.74	400.00	0.01
Mary Wilson	009	134.00	814.51	822.00	816.52	822.00	0.000001	0.16	1264.74	320.00	0.01

H.G. KENYON DRAIN

HEC-RAS CROSS-SECTIONS AND PROFILE SUMMARY TABLE


H.G. Kenyon Drain
.035
.035
0
3
5
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
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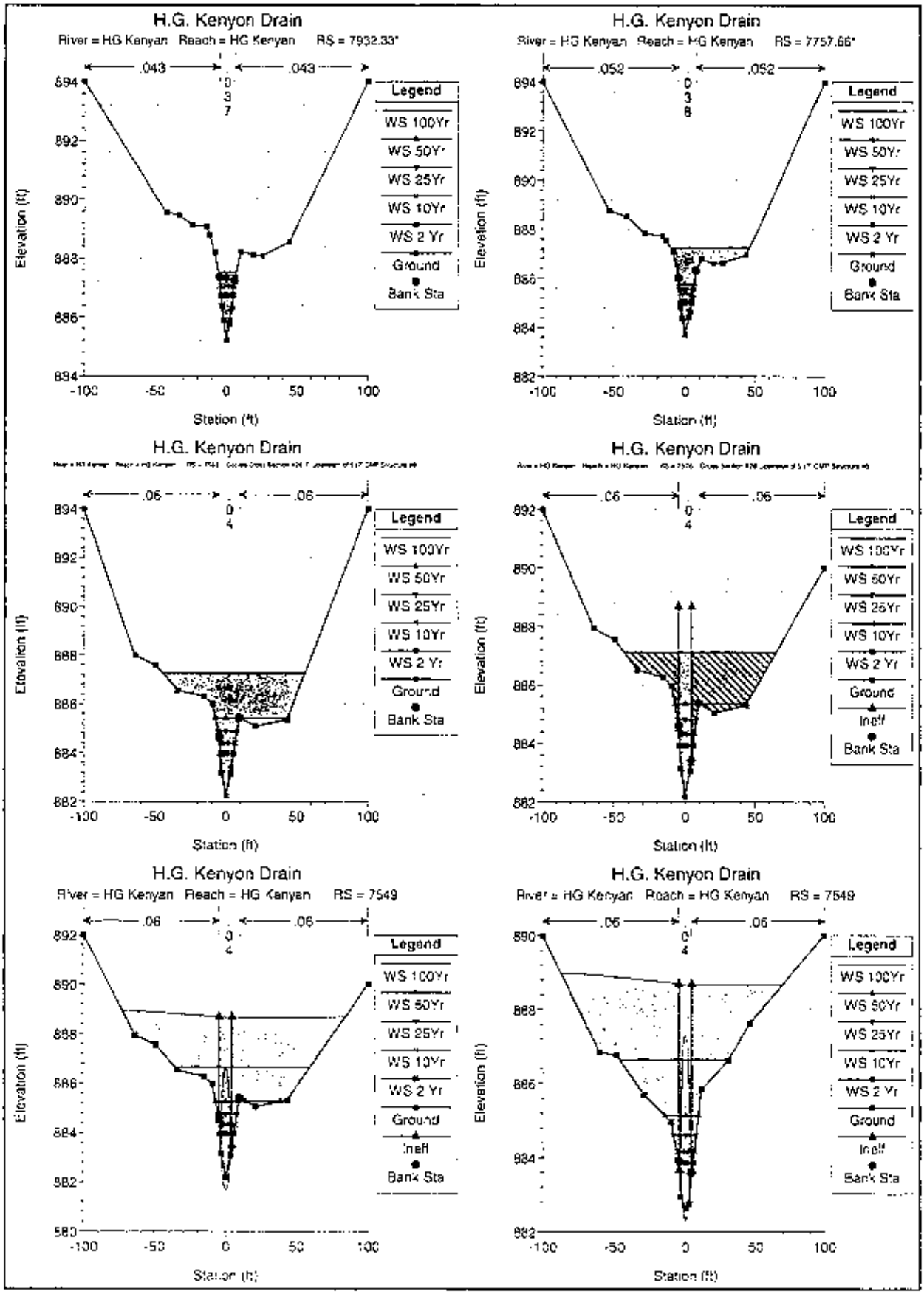
892
891
890
889
888
887
886
-100
-50
0
50
100


H.G. Kenyon Drain
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.043
0.037
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 7757.66*
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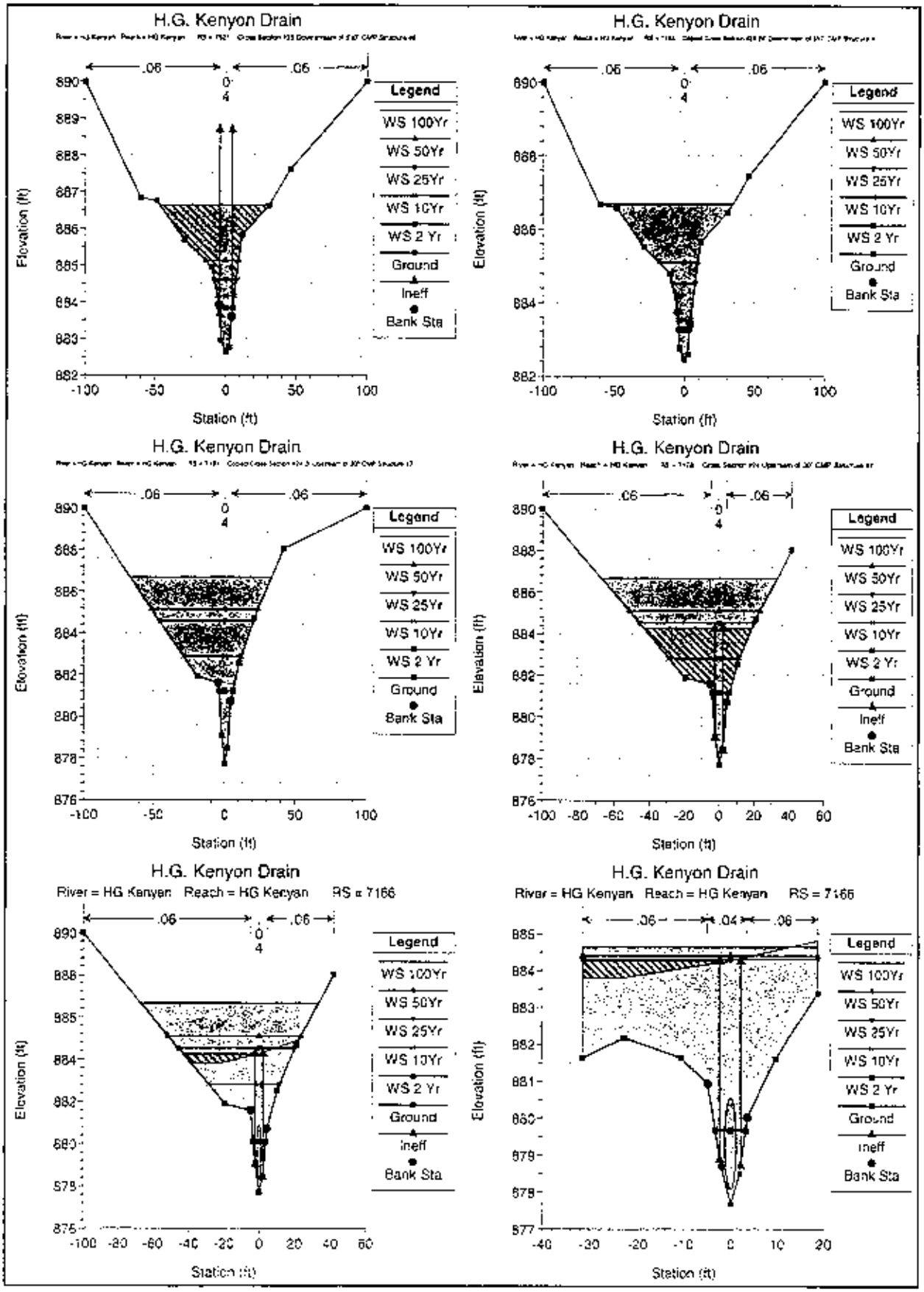
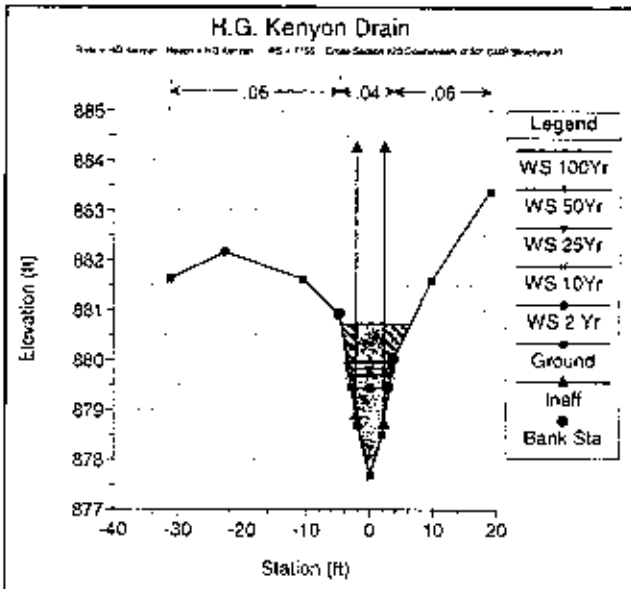
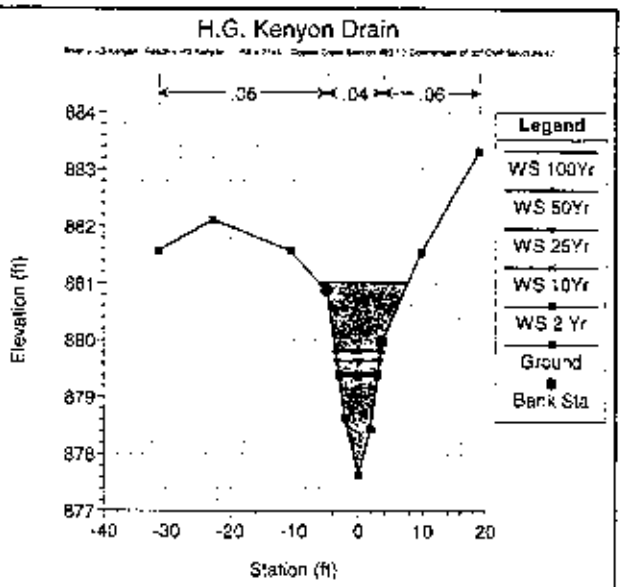
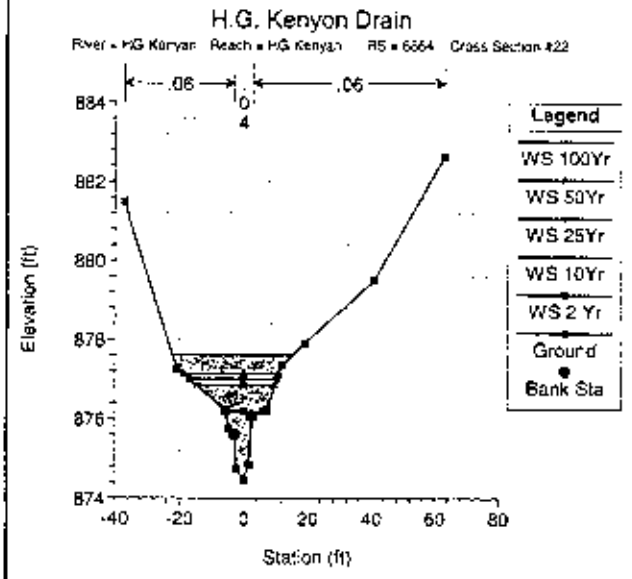
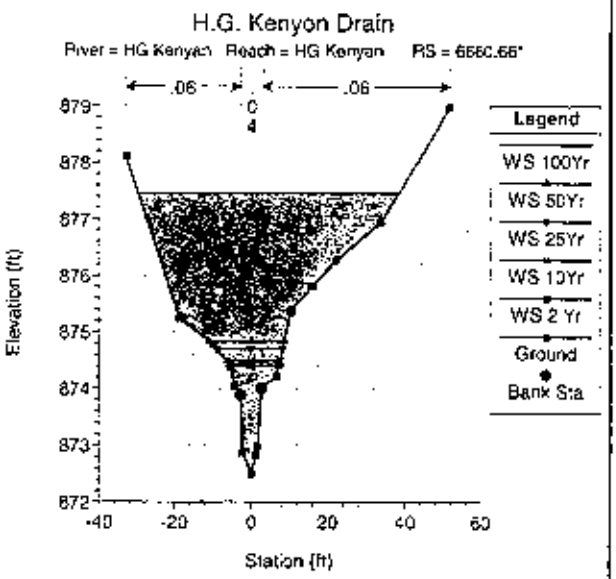
.052
0.038
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
.06
.06
0.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
.06
.06
0.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 7549
.06
.06
0.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 7549
.06
.06
0.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)

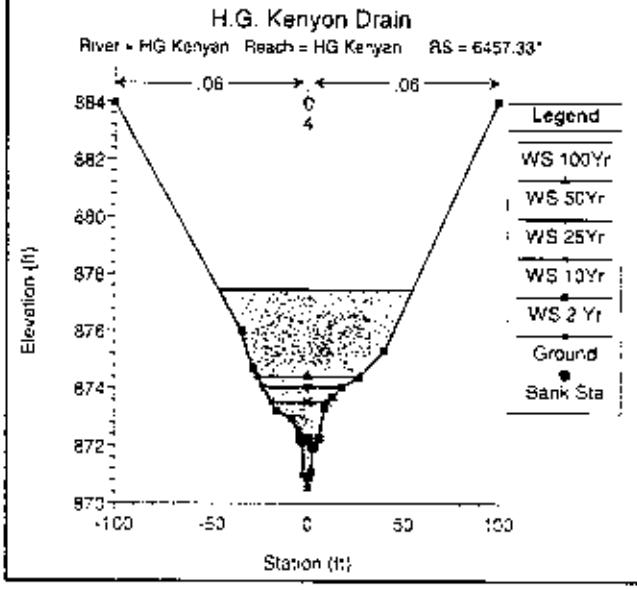

H.G. Kenyon Drain
.06
.06
0
4
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 7166
.06
.04
.06

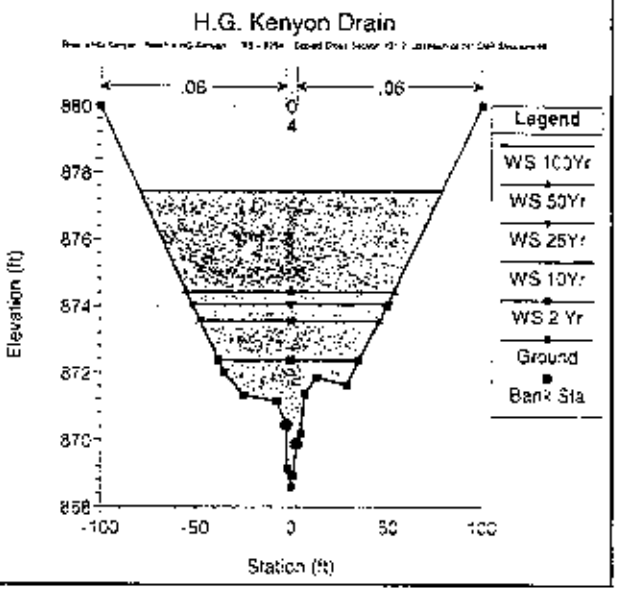

H.G. Kenyon Drain
.06
.04
.06
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)

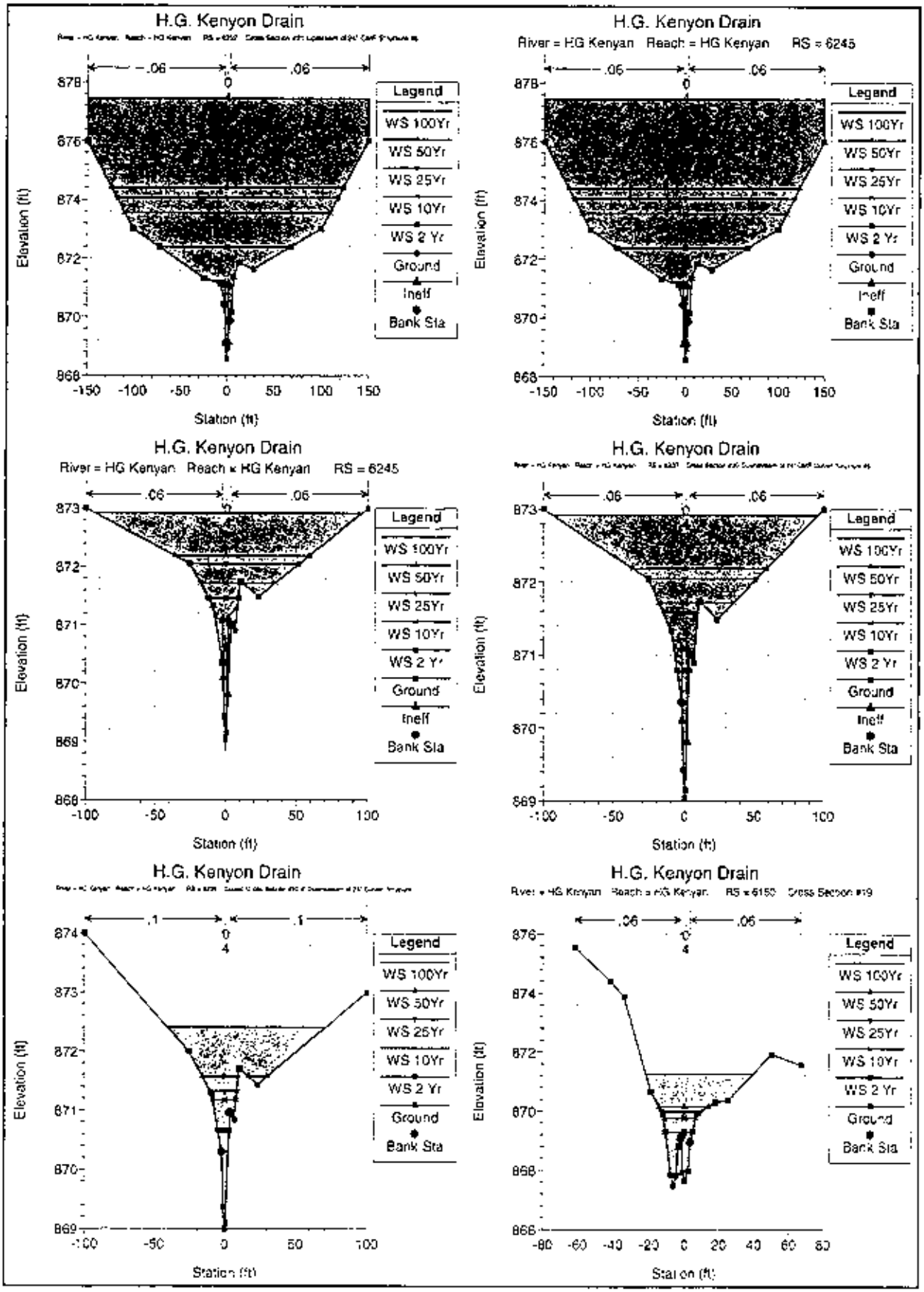

H.G. Kenyon Drain
.06
.04
.06
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)

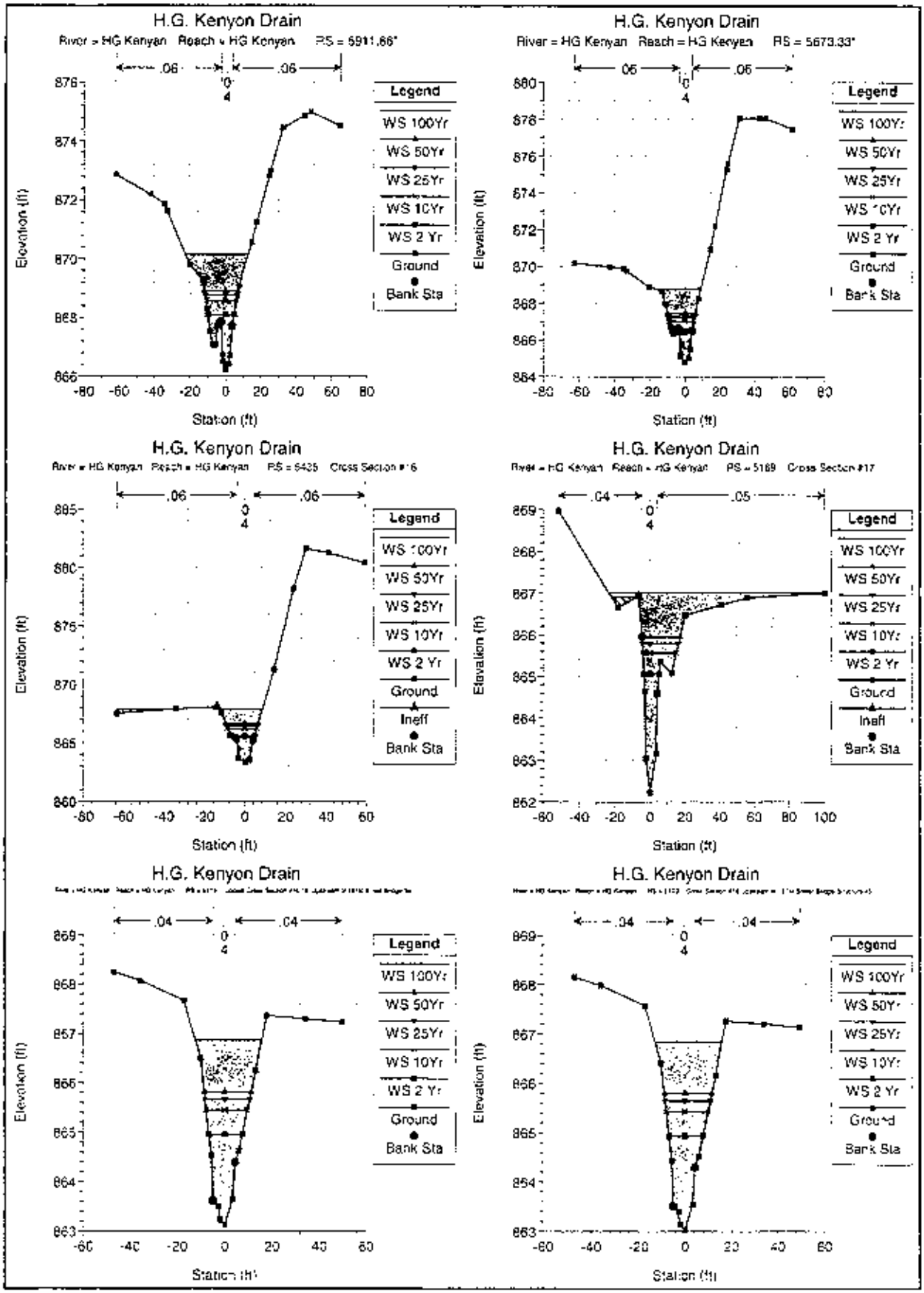

H.G. Kenyon Drain
River = HG Kenyon Reach = HG Kenyon RS = 6564 Cross Section #22
.06
.06
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)

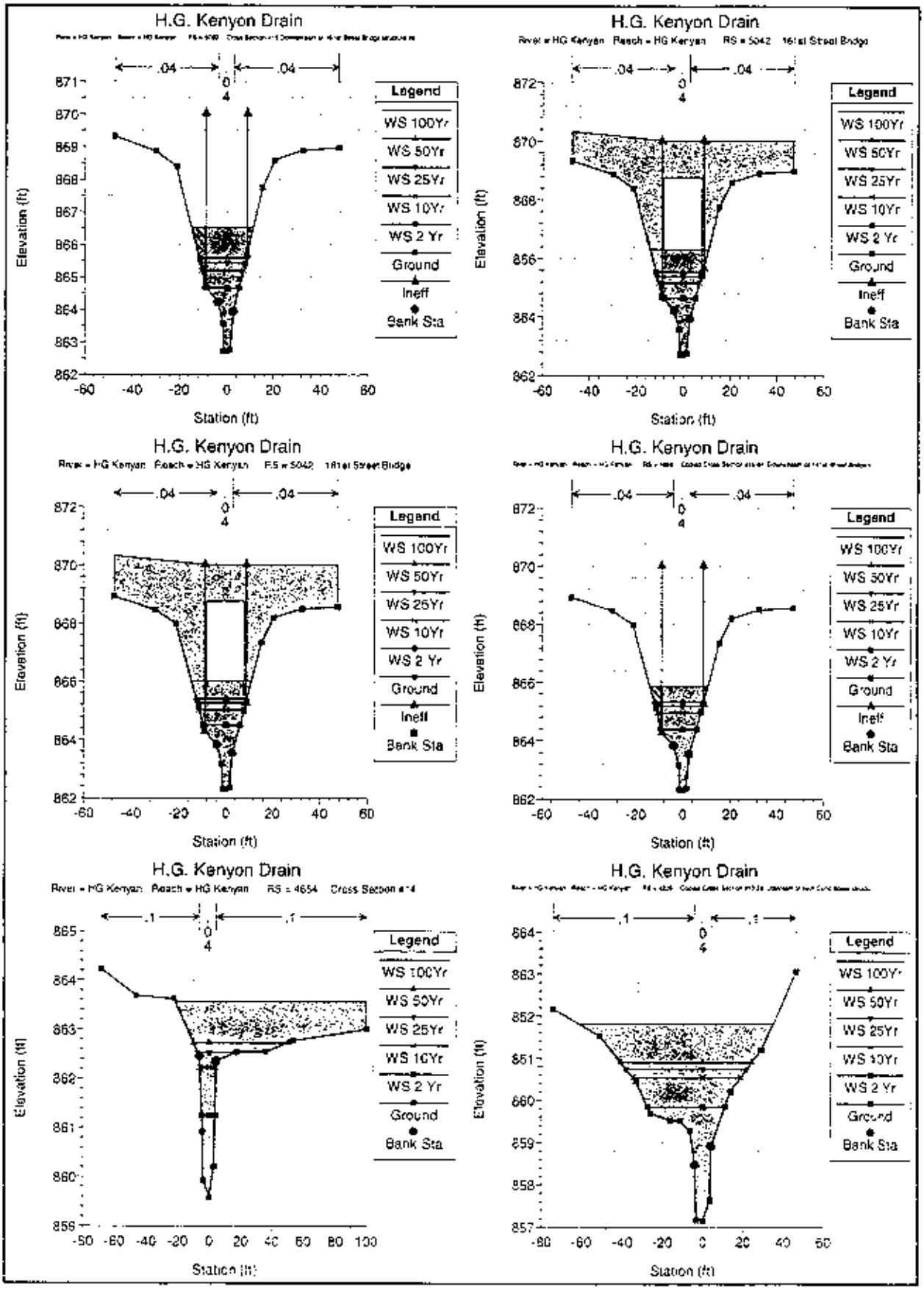

H.G. Kenyon Drain
River = HG Kenyon Reach = HG Kenyon RS = 6560.66*
.06
.06
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)

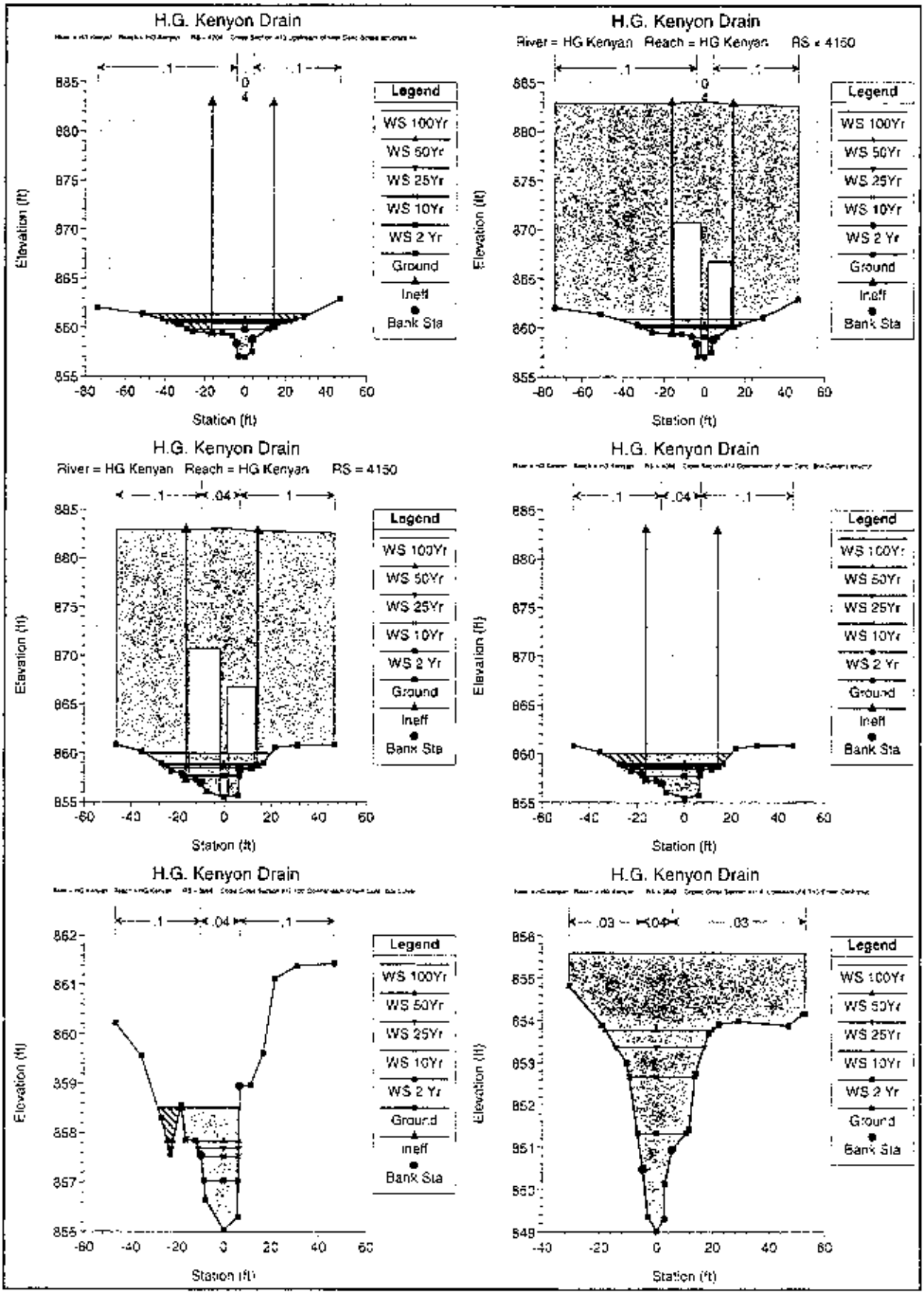

H.G. Kenyon Drain
River = HG Kenyon Reach = HG Kenyon RS = 6457.33*
.06
.06
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)

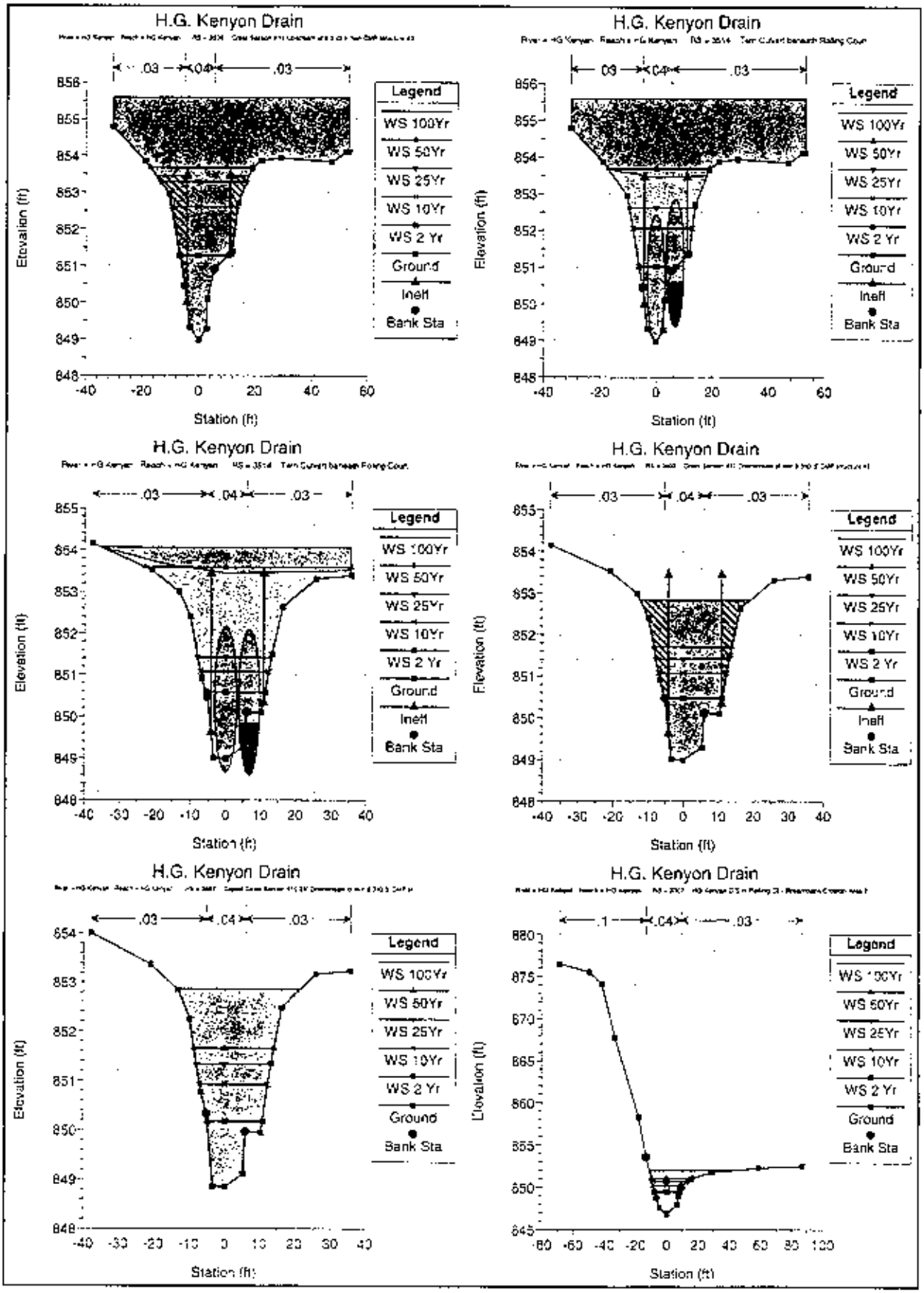

.06
.06
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)

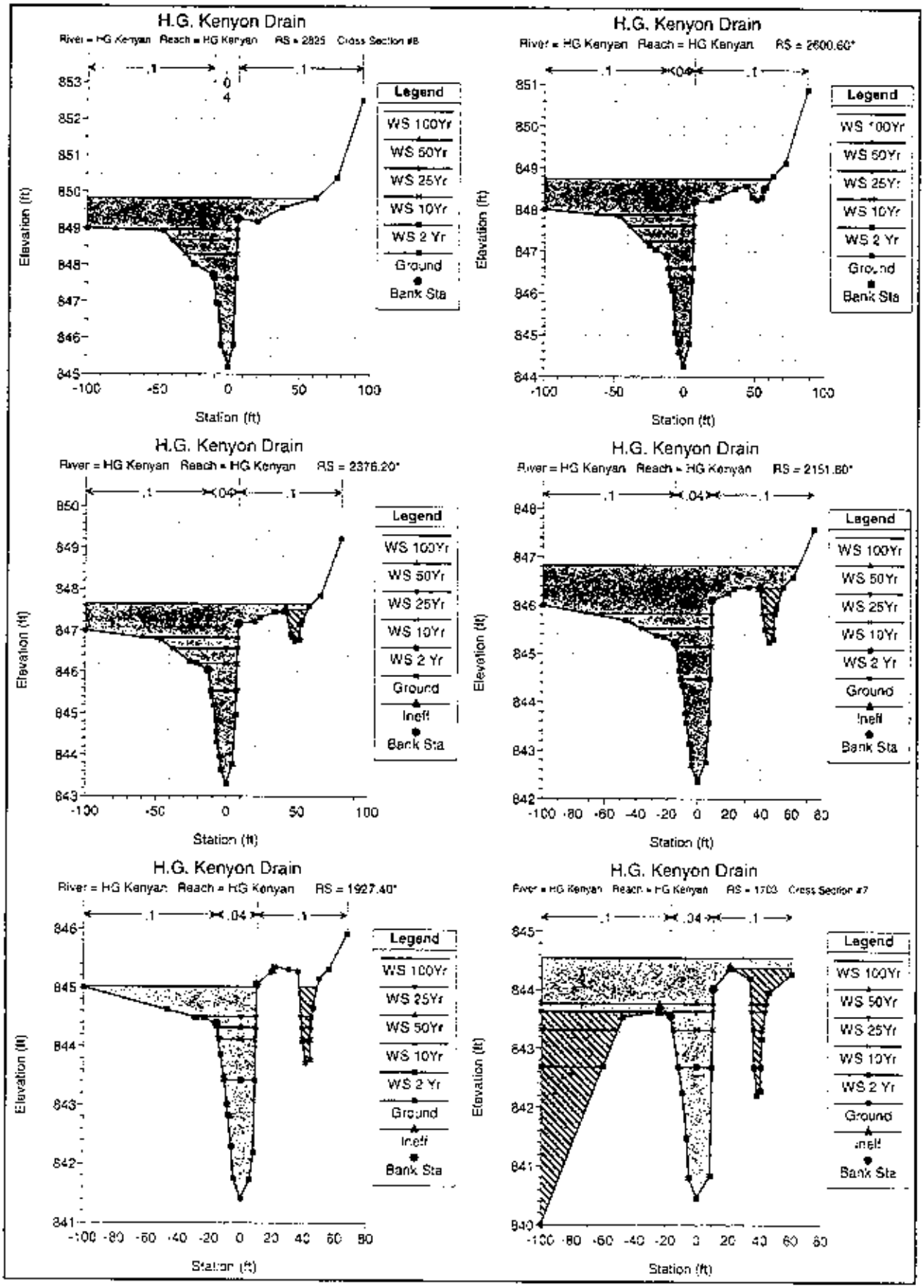

H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 6245
.06
.06
0
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 6245
.06
.06
0
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 6245
.06
.06
0
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
.06
.06
0
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
.1
.1
0
4
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 6150 Cross Section #19
.06
.06
0
4
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)

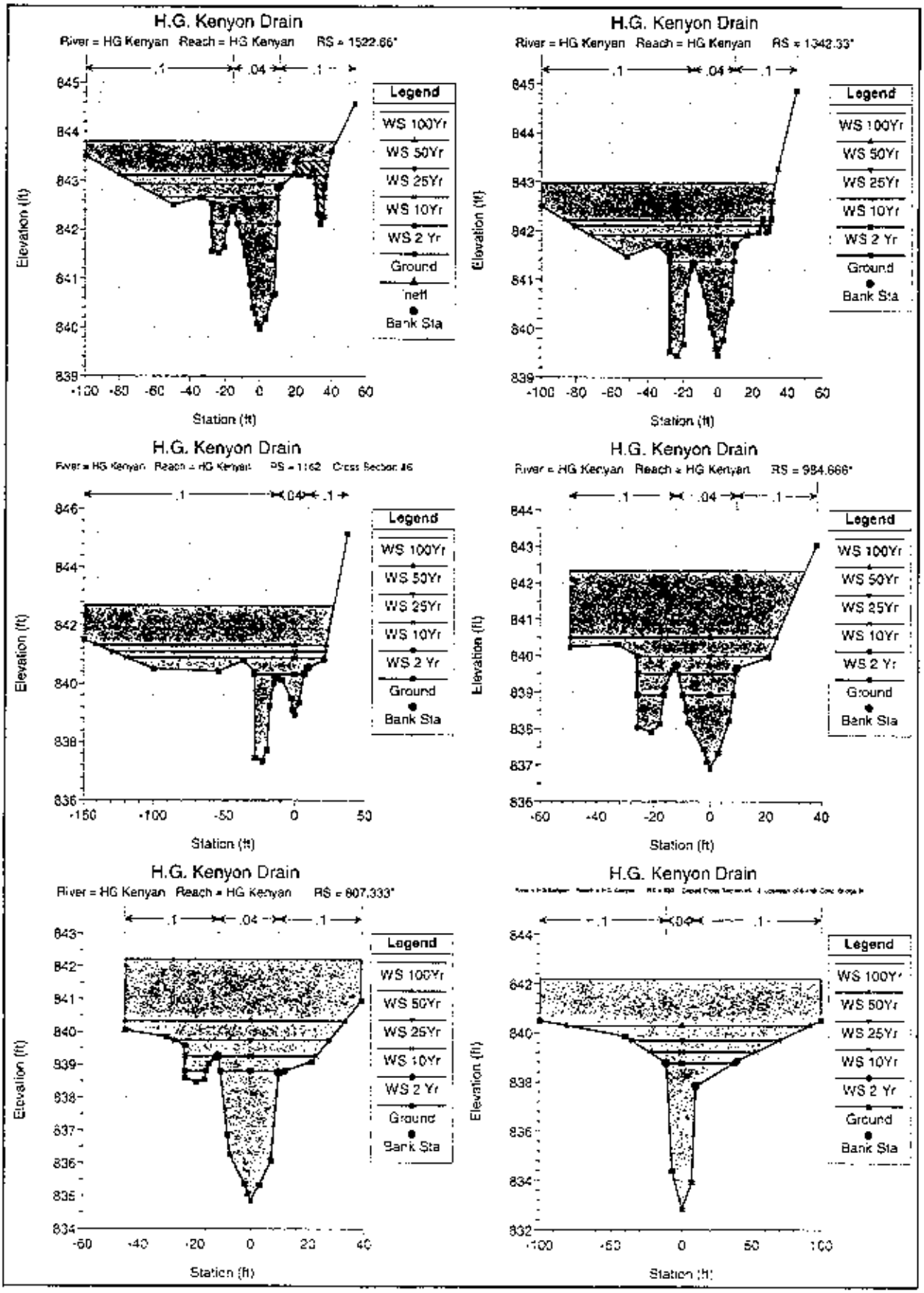

H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 5911.66*
.06
.06
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 5673.33*
.05
.06
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
.06
.06
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
.04
.05
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
.04
.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
.04
.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)

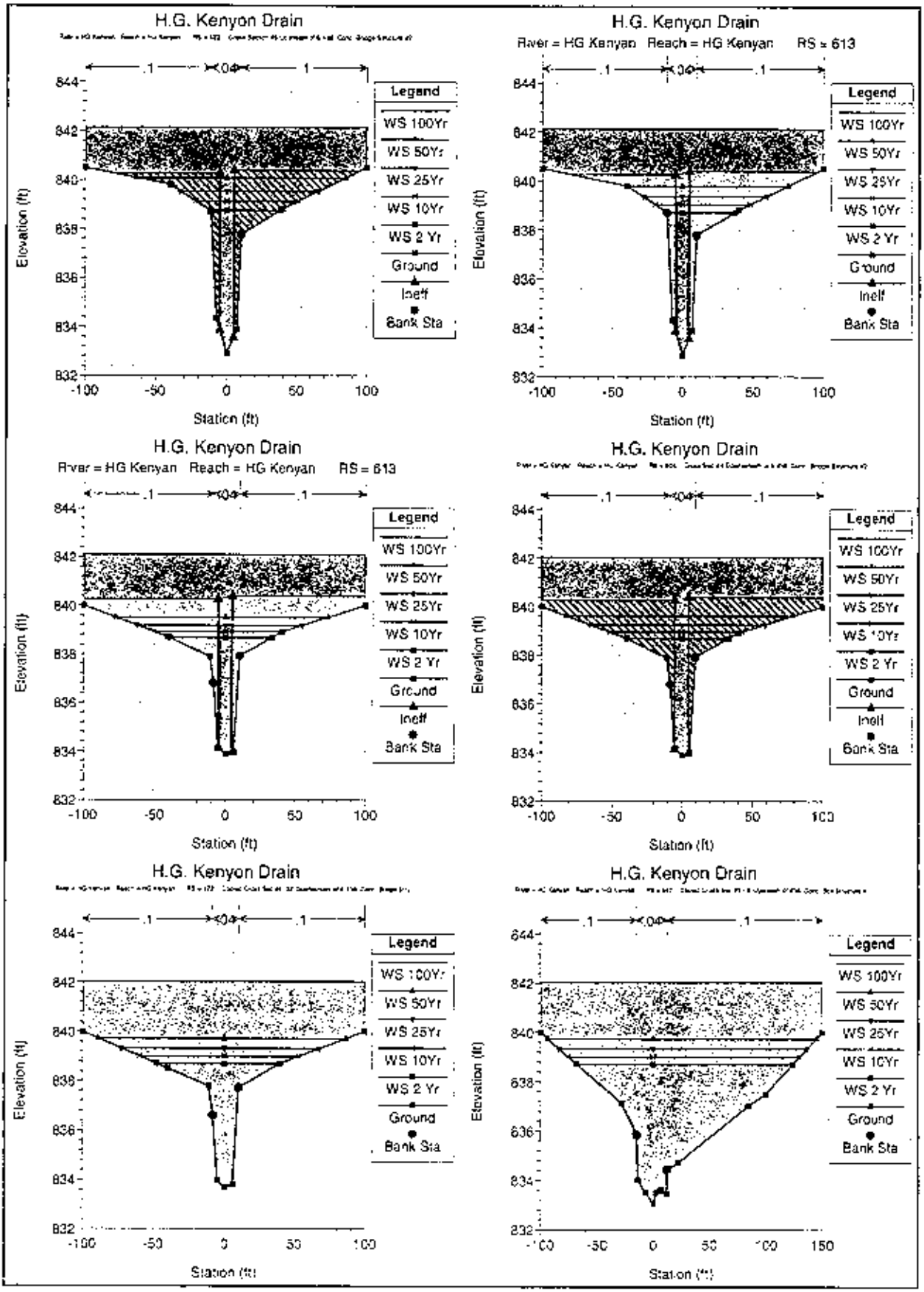

H.G. Kenyon Drain
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
H.G. Kenyon Drain
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
H.G. Kenyon Drain
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
H.G. Kenyon Drain
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
H.G. Kenyon Drain
River = HG Kenyon Reach = HG Kenyon RS = 4654 Cross Section # 4
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
H.G. Kenyon Drain
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta

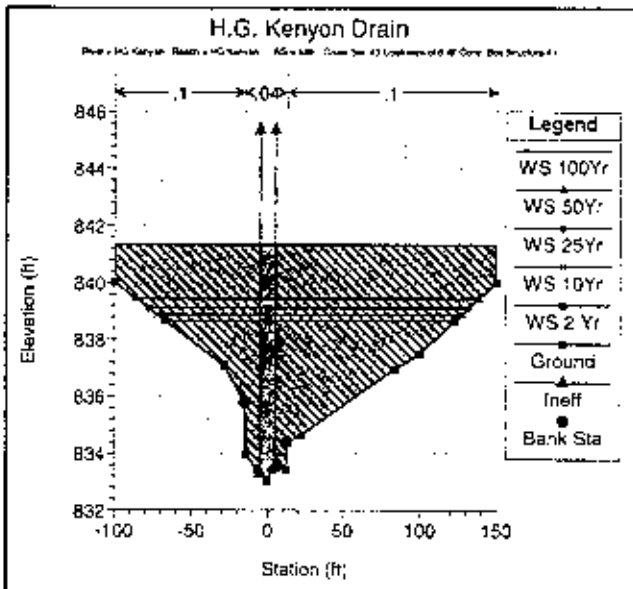

H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 4150
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
.1
.04
.03

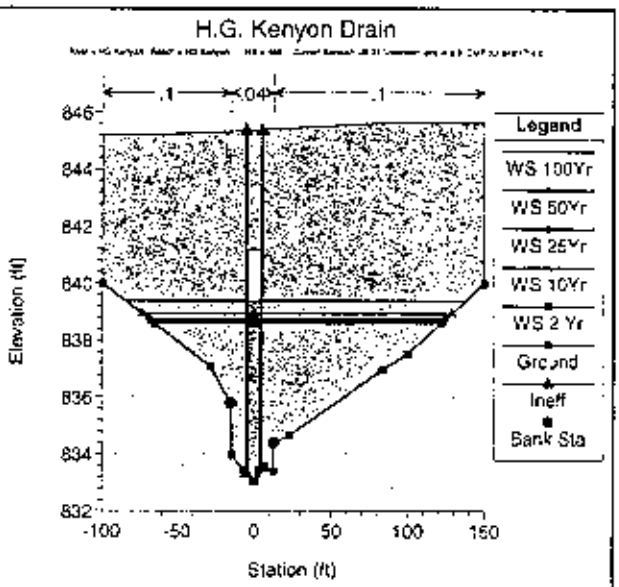

H.G. Kenyon Drain
.03
.04
.03
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
.03
.04
.03
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
.03
.04
.03
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
.03
.04
.03
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
.03
.04
.03
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
H.G. Kenyon Drain
.1
.04
.03
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)

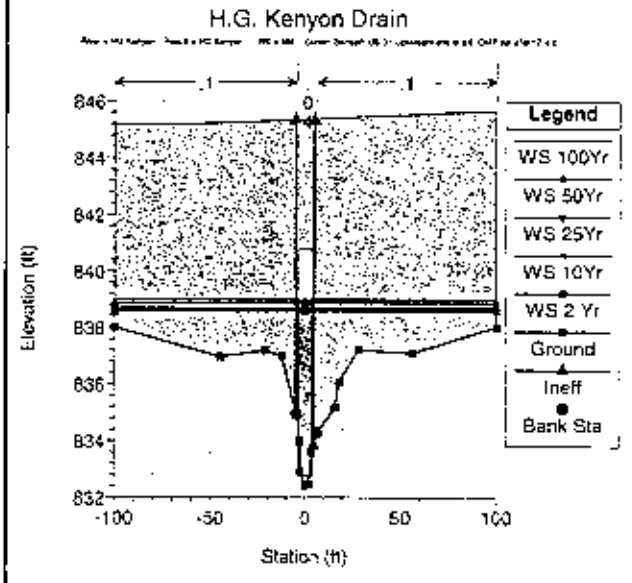

H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 2825 Cross Section #8
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 2600.60*
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 2376.20*
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 2151.80*
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 1927.40*
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 25Yr
WS 50Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta
H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 1703 Cross Section #7
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta

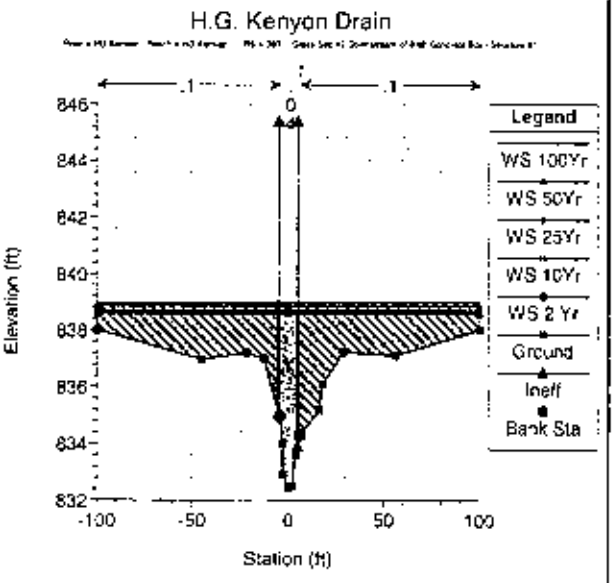

H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 1522.66*
H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 1342.33*
H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 1162 Cross Section #6
H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 984.666*
H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 807.333*
H.G. Kenyon Drain
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)

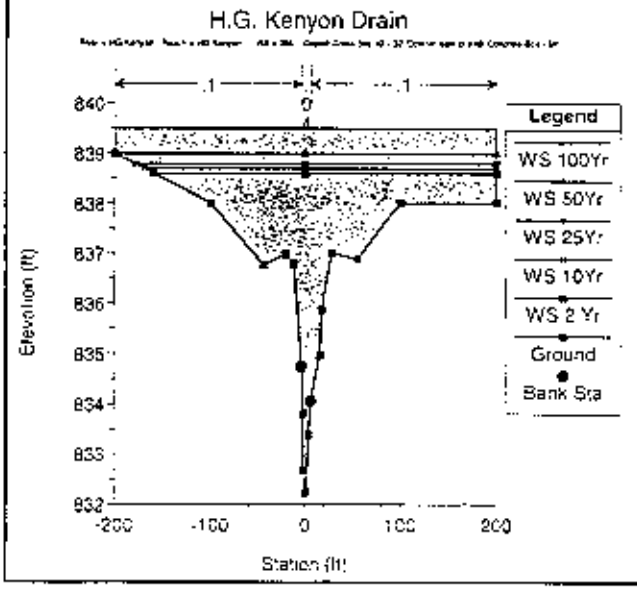

H.G. Kenyon Drain
River = HG Kenyan Reach = HG Kenyan RS = 613
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta

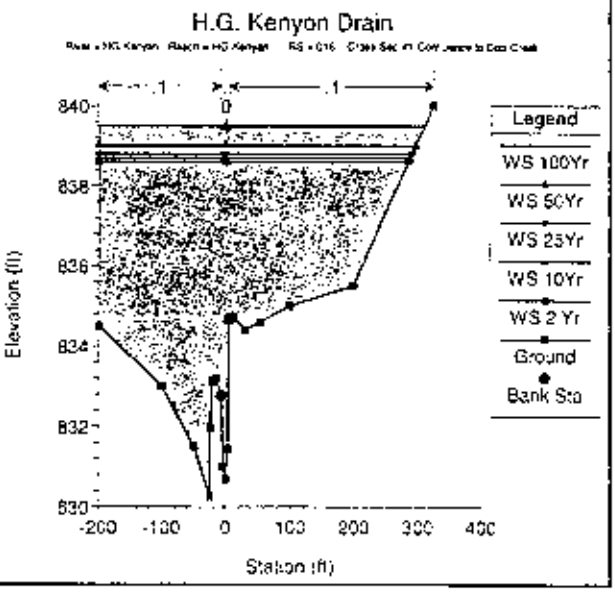

H.G. Kenyon Drain
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta


H.G. Kenyon Drain
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta


H.G. Kenyon Drain
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta


H.G. Kenyon Drain
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Ineff
Bank Sta


H.G. Kenyon Drain
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta


H.G. Kenyon Drain
Elevation (ft)
Station (ft)
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
WS 2 Yr
Ground
Bank Sta

HEC-RAS Plan: Exist Cond. River: HG Kenyan Reach: HG Kenyan

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
HG Kenyan	8172	104.00	886.68	890.44		890.46	0.000173	1.24	122.86	77.35	0.12
HG Kenyan	8172	58.00	886.68	889.43		889.47	0.000332	1.34	59.60	57.42	0.15
HG Kenyan	8172	48.00	886.68	889.22		889.24	0.000364	1.31	48.65	43.97	0.16
HG Kenyan	8172	37.00	886.68	886.96		886.98	0.000397	1.25	37.95	37.69	0.16
HG Kenyan	8172	22.00	886.68	888.52		888.54	0.000457	1.12	29.29	29.63	0.17
HG Kenyan	8165	104.00	886.64	890.15	888.67	890.39	0.001972	3.91	26.65	69.79	0.39
HG Kenyan	8165	58.00	886.64	889.29	888.13	889.43	0.001769	2.99	19.39	47.54	0.35
HG Kenyan	8165	48.00	886.64	889.10	887.99	889.21	0.001638	2.71	17.71	41.14	0.33
HG Kenyan	8165	37.00	886.64	888.87	887.83	889.05	0.001441	2.35	15.74	36.73	0.30
HG Kenyan	8165	22.00	886.64	888.48	887.57	888.53	0.001111	1.77	12.45	29.52	0.26
HG Kenyan	8149	Culvert									
HG Kenyan	8133	104.00	886.85	889.58	889.46	890.12	0.007819	5.89	17.65	15.68	0.72
HG Kenyan	8133	58.00	886.85	889.09	889.03	889.31	0.007690	4.62	12.54	11.79	0.67
HG Kenyan	8133	48.00	886.85	888.83	888.49	889.11	0.007428	4.24	11.31	10.86	0.65
HG Kenyan	8133	37.00	886.85	888.66	888.32	888.68	0.006971	3.75	9.86	10.03	0.61
HG Kenyan	8133	22.00	886.85	888.34	888.02	888.49	0.006599	3.06	7.19	8.49	0.58
HG Kenyan	8107	104.00	886.69	889.49	889.03	889.85	0.005841	4.99	22.94	16.14	0.62
HG Kenyan	8107	58.00	886.69	886.77		889.09	0.008870	4.59	12.98	11.40	0.70
HG Kenyan	8107	48.00	886.69	886.61		888.90	0.009047	4.34	11.26	10.57	0.70
HG Kenyan	8107	37.00	886.69	888.42		888.67	0.008060	3.99	9.35	9.64	0.69
HG Kenyan	8107	22.00	886.69	888.06		888.27	0.005884	3.47	6.34	8.01	0.58
HG Kenyan	7932.33*	104.00	885.20	887.53	887.49	888.18	0.017499	6.48	16.27	12.01	0.95
HG Kenyan	7932.33*	58.00	885.20	887.41	886.98	887.65	0.007381	3.96	14.70	13.02	0.61
HG Kenyan	7932.33*	48.00	885.20	887.28	886.84	887.49	0.007016	3.64	13.21	11.18	0.59
HG Kenyan	7932.33*	37.00	885.20	887.06		887.24	0.007182	3.59	10.96	10.24	0.59
HG Kenyan	7932.33*	22.00	885.20	886.74		886.85	0.005489	2.93	7.79	8.97	0.53
HG Kenyan	7757.66*	104.00	883.71	887.27		887.35	0.001591	2.72	55.59	57.34	0.30
HG Kenyan	7757.66*	58.00	883.71	886.72	886.48	886.97	0.011257	4.63	13.09	10.96	0.72
HG Kenyan	7757.66*	48.00	883.71	886.56	886.34	886.86	0.012679	4.89	10.93	10.22	0.75
HG Kenyan	7757.66*	37.00	883.71	886.39	886.16	886.64	0.012044	4.60	9.24	9.59	0.72
HG Kenyan	7757.66*	22.00	883.71	886.03	884.88	886.24	0.011436	3.65	8.03	8.20	0.75
HG Kenyan	7583	104.00	882.22	887.25		887.27	0.000156	1.06	171.07	120.64	0.10
HG Kenyan	7583	58.00	882.22	885.42		885.48	0.001359	2.00	35.59	51.83	0.25
HG Kenyan	7583	48.00	882.22	884.67		884.96	0.002520	2.39	20.29	13.65	0.33
HG Kenyan	7583	37.00	882.22	884.38		884.49	0.003935	2.58	14.33	11.25	0.40
HG Kenyan	7583	22.00	882.22	883.96		884.04	0.003858	2.22	9.90	9.72	0.39
HG Kenyan	7576	104.00	882.18	887.13	884.46	887.24	0.000883	2.71	38.33	108.60	0.23
HG Kenyan	7576	58.00	882.18	885.35	883.91	885.45	0.001662	2.60	22.33	50.79	0.29
HG Kenyan	7576	48.00	882.18	884.81	883.77	884.95	0.002579	2.75	17.47	13.52	0.35
HG Kenyan	7576	37.00	882.18	884.33	883.61	884.45	0.003797	2.60	13.19	11.21	0.41
HG Kenyan	7576	22.00	882.18	883.93	883.33	884.01	0.003450	2.26	9.72	9.75	0.37
HG Kenyan	7549	Culvert									
HG Kenyan	7521	104.00	882.63	886.65	884.50	886.80	0.001264	3.09	33.80	77.71	0.26
HG Kenyan	7521	58.00	882.63	885.13	883.98	885.26	0.002212	2.90	20.10	24.25	0.34
HG Kenyan	7521	48.00	882.63	884.80	883.95	884.75	0.003658	3.13	15.36	16.17	0.42
HG Kenyan	7521	37.00	882.63	884.16	883.70	884.32	0.005996	3.76	11.36	12.36	0.51
HG Kenyan	7521	22.00	882.63	883.84	883.44	883.94	0.005607	2.60	8.46	9.91	0.47
HG Kenyan	7493	104.00	882.46	886.69		886.72	0.000359	1.76	122.20	94.69	0.19
HG Kenyan	7493	58.00	882.46	885.15		885.18	0.001383	2.36	32.36	28.59	0.27
HG Kenyan	7493	48.00	882.46	884.59		884.64	0.002704	2.74	22.17	17.05	0.36
HG Kenyan	7493	37.00	882.46	883.53	883.53	883.93	0.026756	5.10	7.27	9.30	1.00
HG Kenyan	7493	22.00	882.46	883.27	883.27	883.57	0.029716	5.43	4.97	8.32	1.01
HG Kenyan	7181	104.00	877.73	886.69		886.69	0.000023	0.59	332.36	100.69	0.04
HG Kenyan	7181	58.00	877.73	885.13		885.13	0.000035	0.63	135.41	75.52	0.04
HG Kenyan	7181	48.00	877.73	884.58		884.58	0.000029	0.52	156.18	66.75	0.04
HG Kenyan	7181	37.00	877.73	882.87		882.88	0.000124	0.95	63.65	41.25	0.08
HG Kenyan	7181	22.00	877.73	881.20		881.22	0.000448	1.18	19.77	10.50	0.14

HEC-RAS Plan: Exst. Cond. River: HG Kenyan Reach: HG Kenyan (Continued)

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
HG Kenyan	7178	104.00	877.71	886.68	880.76	886.69	0.000117	1.05	193.27	100.75	0.08
HG Kenyan	7178	58.00	877.71	885.11	879.85	885.13	0.000299	1.33	73.48	75.35	0.12
HG Kenyan	7178	48.00	877.71	884.54	879.74	884.57	0.000504	1.55	42.52	66.34	0.15
HG Kenyan	7178	37.00	877.71	882.81	879.49	882.85	0.000347	1.79	20.66	43.74	0.15
HG Kenyan	7178	22.00	877.71	881.17	879.12	881.22	0.000534	1.85	13.30	10.48	0.17
HG Kenyan	7166	Culvert									
HG Kenyan	7155	104.00	877.67	880.73	880.73	882.02	0.020217	9.10	11.43	11.07	1.01
HG Kenyan	7155	58.00	877.67	879.98	879.91	880.79	0.020501	7.23	8.02	7.31	0.95
HG Kenyan	7155	48.00	877.67	879.84	879.71	880.49	0.018319	6.48	7.41	6.98	0.89
HG Kenyan	7155	37.00	877.67	879.71	879.47	880.16	0.014390	5.43	6.81	6.67	0.79
HG Kenyan	7155	22.00	877.67	879.45	879.09	879.69	0.009400	3.86	5.66	6.05	0.61
HG Kenyan	7145	104.00	877.61	881.02	880.49	881.46	0.009775	5.42	20.79	13.84	0.66
HG Kenyan	7145	58.00	877.61	879.82	879.82	880.47	0.027771	8.461	8.98	7.08	1.01
HG Kenyan	7145	48.00	877.61	879.64	879.64	880.24	0.026372	8.20	7.75	6.65	1.01
HG Kenyan	7145	37.00	877.61	879.42	879.42	879.95	0.029126	8.94	6.34	6.12	1.01
HG Kenyan	7145	22.00	877.61	879.37		879.58	0.011680	3.63	6.05	6.01	0.64
HG Kenyan	6884	200.00	874.45	877.82		878.18	0.012849	7.43	45.92	37.51	0.76
HG Kenyan	6884	86.00	874.45	877.13	876.76	877.38	0.006371	4.61	29.50	30.15	0.53
HG Kenyan	6884	75.00	874.45	877.01	876.64	877.25	0.006950	4.44	25.94	27.98	0.53
HG Kenyan	6884	61.00	874.45	876.85	876.43	877.06	0.006103	4.13	21.65	24.87	0.51
HG Kenyan	6884	35.00	874.45	876.18		876.44	0.010756	4.22	9.19	11.90	0.64
HG Kenyan	6660.66*	200.00	872.49	877.46		877.52	0.000892	2.85	135.57	68.28	0.24
HG Kenyan	6660.66*	86.00	872.49	874.83	874.63	875.40	0.016147	6.50	17.85	19.98	0.82
HG Kenyan	6660.66*	75.00	872.49	874.70	874.70	875.25	0.018472	6.27	15.47	17.53	0.82
HG Kenyan	6660.66*	61.00	872.49	874.49	874.49	875.03	0.018424	6.10	12.04	14.32	0.85
HG Kenyan	6660.66*	35.00	872.49	874.41	873.92	874.61	0.007487	3.75	10.91	13.08	0.54
HG Kenyan	6457.33*	200.00	870.54	877.45		877.46	0.000129	1.20	308.14	101.79	0.09
HG Kenyan	6457.33*	86.00	870.54	874.41		874.46	0.001063	2.43	66.61	53.79	0.23
HG Kenyan	6457.33*	75.00	870.54	874.05		874.12	0.001459	2.84	48.48	41.12	0.27
HG Kenyan	6457.33*	61.00	870.54	873.51		873.63	0.002572	3.09	30.61	29.83	0.34
HG Kenyan	6457.33*	35.00	870.54	872.27		872.59	0.013715	4.55	8.22	9.95	0.71
HG Kenyan	6254	200.00	868.58	877.45		877.45	0.000019	0.59	669.21	158.02	0.04
HG Kenyan	6254	86.00	868.58	874.42		874.42	0.000043	0.65	265.54	108.09	0.05
HG Kenyan	6254	75.00	868.58	874.06		874.06	0.000049	0.66	228.30	102.26	0.05
HG Kenyan	6254	61.00	868.58	873.56		873.56	0.000061	0.69	178.76	93.67	0.06
HG Kenyan	6254	35.00	868.58	872.39		872.39	0.000152	0.89	80.75	73.67	0.09
HG Kenyan	6252	200.00	868.58	877.45	872.20	877.45	0.000004	0.27	1392.50	300.00	0.02
HG Kenyan	6252	86.00	868.58	874.42	871.70	874.42	0.000015	0.38	524.18	247.21	0.03
HG Kenyan	6252	75.00	868.58	874.06	871.60	874.06	0.000019	0.38	438.75	235.41	0.03
HG Kenyan	6252	61.00	868.58	873.56	870.70	873.56	0.000029	0.44	324.00	218.56	0.04
HG Kenyan	6252	35.00	868.58	872.39	870.15	872.39	0.000169	0.65	102.85	140.59	0.09
HG Kenyan	6245	Culvert									
HG Kenyan	6237	200.00	869.05	872.92	872.39	872.98	0.002186	3.24	160.87	169.92	0.53
HG Kenyan	6237	86.00	869.05	872.19	871.89	872.28	0.002629	3.18	61.40	98.12	0.56
HG Kenyan	6237	75.00	869.05	872.05	871.95	872.15	0.002565	3.17	48.25	79.25	0.57
HG Kenyan	6237	61.00	869.05	871.72	871.62	871.83	0.004823	3.71	27.43	52.76	0.47
HG Kenyan	6237	35.00	869.05	870.79	870.71	871.39	0.020747	6.22	5.63	9.31	0.92
HG Kenyan	6229	200.00	869.00	872.41	872.41	872.84	0.010594	6.60	88.42	112.84	0.73
HG Kenyan	6229	86.00	869.00	871.57	871.57	872.11	0.014790	6.58	22.89	40.40	0.81
HG Kenyan	6229	75.00	869.00	871.33	871.33	871.94	0.019849	6.62	15.12	19.93	0.91
HG Kenyan	6229	61.00	869.00	871.16	871.16	871.71	0.013999	6.08	13.36	17.49	0.88
HG Kenyan	6229	35.00	869.00	870.86	870.66	871.15	0.025495	5.64	9.94	9.57	0.97
HG Kenyan	6150	200.00	867.65	871.57		871.40	0.003452	4.19	89.71	92.06	0.41
HG Kenyan	6150	86.00	867.65	870.15		870.50	0.004851	3.77	33.95	29.05	0.45
HG Kenyan	6150	75.00	867.65	869.98		870.11	0.004862	3.57	29.46	22.59	0.45
HG Kenyan	6150	61.00	867.65	869.76		869.83	0.004777	3.27	25.12	19.10	0.43
HG Kenyan	6150	35.00	867.65	869.29		869.37	0.004883	2.70	15.81	18.12	0.42

HEC-RAS Plan: Exst. Cond. River: HG Kenyan Reach: HG Kenyan (Continued)

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
HG Kenyan	5911.66*	200.00	866.22	870.15		870.43	0.004731	5.24	61.90	36.56	0.49
HG Kenyan	5911.66*	86.00	866.22	868.90		869.10	0.005069	4.07	28.63	19.32	0.47
HG Kenyan	5911.66*	75.00	866.22	868.75		868.94	0.005012	3.87	25.91	18.54	0.46
HG Kenyan	5911.66*	61.00	866.22	868.56	867.86	868.72	0.004913	3.60	22.31	17.46	0.45
HG Kenyan	5911.66*	35.00	866.22	868.10	867.55	868.21	0.004812	2.97	14.73	15.04	0.43
HG Kenyan	5673.33*	200.00	864.76	868.60		869.20	0.005499	5.72	49.82	26.97	0.53
HG Kenyan	5673.33*	86.00	864.76	867.43		867.72	0.005577	4.55	22.69	16.27	0.54
HG Kenyan	5673.33*	75.00	864.76	867.25		867.53	0.006952	4.42	20.07	15.49	0.54
HG Kenyan	5673.33*	61.00	864.76	867.01		867.27	0.007982	4.24	16.38	14.33	0.56
HG Kenyan	5673.33*	35.00	864.76	866.64		866.86	0.009314	3.74	9.45	8.79	0.59
HG Kenyan	5435	200.00	863.35	867.91	866.43	868.20	0.003141	4.71	55.11	52.09	0.41
HG Kenyan	5435	86.00	863.35	866.64	865.25	866.79	0.002441	2.25	30.91	16.52	0.34
HG Kenyan	5435	75.00	863.35	866.46	865.11	866.60	0.002376	3.07	28.33	15.82	0.33
HG Kenyan	5435	61.00	863.35	866.21	864.91	866.32	0.002295	2.82	24.12	14.67	0.32
HG Kenyan	5435	35.00	863.35	865.98	864.49	865.66	0.002251	2.28	15.63	11.63	0.30
HG Kenyan	5169	200.00	862.22	867.02	865.82	867.28	0.003767	4.58	79.93	123.36	0.41
HG Kenyan	5169	86.00	862.22	865.95	864.43	866.09	0.002901	3.17	32.56	21.92	0.34
HG Kenyan	5169	75.00	862.22	865.79	864.28	865.92	0.002684	3.02	29.25	20.98	0.33
HG Kenyan	5169	61.00	862.22	865.57	864.08	865.68	0.002504	2.81	24.70	19.36	0.32
HG Kenyan	5169	35.00	862.22	865.06	863.64	865.13	0.001729	2.11	16.93	8.98	0.26
HG Kenyan	5119	200.00	863.12	866.87		867.12	0.002933	4.47	56.41	29.29	0.43
HG Kenyan	5119	86.00	863.12	865.82		865.96	0.002494	3.23	31.21	20.22	0.37
HG Kenyan	5119	75.00	863.12	865.66		865.80	0.002469	3.07	28.23	19.21	0.36
HG Kenyan	5119	61.00	863.12	865.44		865.56	0.002468	2.80	24.15	17.73	0.36
HG Kenyan	5119	35.00	863.12	864.95		865.03	0.002366	2.32	16.23	14.43	0.33
HG Kenyan	5103	200.00	863.02	866.84		867.07	0.002684	4.34	58.46	28.99	0.41
HG Kenyan	5103	86.00	863.02	865.79		865.92	0.002192	3.09	32.78	20.74	0.35
HG Kenyan	5103	75.00	863.02	865.64		865.76	0.002156	2.94	29.72	19.72	0.34
HG Kenyan	5103	61.00	863.02	865.42		865.52	0.002132	2.73	25.52	18.24	0.33
HG Kenyan	5103	35.00	863.02	864.83		865.00	0.001978	2.19	17.34	14.93	0.31
HG Kenyan	5062	200.00	862.71	866.53	865.79	866.89	0.005045	5.27	43.04	26.54	0.51
HG Kenyan	5062	86.00	862.71	865.59	864.58	865.78	0.004278	3.89	26.22	20.36	0.44
HG Kenyan	5062	75.00	862.71	865.44	864.89	865.62	0.004393	3.76	23.59	19.40	0.45
HG Kenyan	5062	61.00	862.71	865.20	864.72	865.38	0.004614	3.55	19.89	17.89	0.46
HG Kenyan	5062	35.00	862.71	864.67	864.18	864.84	0.006305	3.39	11.57	13.96	0.53
HG Kenyan	5042	Bridge									
HG Kenyan	4998	200.00	862.31	865.67	865.39	866.53	0.007237	5.98	38.42	24.84	0.60
HG Kenyan	4998	86.00	862.31	865.36	864.56	865.53	0.003164	3.48	29.09	21.41	0.39
HG Kenyan	4998	75.00	862.31	865.20	864.49	865.35	0.003169	3.35	26.47	20.46	0.38
HG Kenyan	4998	61.00	862.31	864.96	864.32	865.13	0.003384	3.22	22.35	19.94	0.39
HG Kenyan	4998	35.00	862.31	864.59	863.78	864.52	0.004479	3.01	13.37	15.22	0.42
HG Kenyan	4654	300.00	859.58	863.57	863.42	863.93	0.006700	5.79	125.71	121.91	0.57
HG Kenyan	4654	159.00	859.58	862.72	862.20	863.26	0.010707	5.97	34.34	61.14	0.69
HG Kenyan	4654	138.00	859.58	862.53	861.99	863.05	0.011314	5.80	24.87	24.17	0.69
HG Kenyan	4654	112.00	859.58	862.22	861.73	862.69	0.011774	5.49	20.40	10.53	0.70
HG Kenyan	4654	53.00	859.58	861.25	860.99	861.60	0.014602	4.77	11.11	8.69	0.74
HG Kenyan	4229	300.00	857.14	861.83		862.05	0.002375	4.86	159.47	97.26	0.41
HG Kenyan	4229	159.00	857.14	860.80		861.08	0.002783	4.02	84.99	65.53	0.38
HG Kenyan	4229	138.00	857.14	860.74		860.91	0.002623	3.78	75.17	60.55	0.36
HG Kenyan	4229	112.00	857.14	860.64		860.69	0.002335	3.42	63.51	53.97	0.34
HG Kenyan	4229	53.00	857.14	859.85		859.93	0.001675	2.45	31.97	38.78	0.28
HG Kenyan	4204	300.00	856.99	861.43	860.58	861.85	0.005351	6.27	81.79	66.18	0.54
HG Kenyan	4204	159.00	856.99	860.78	859.71	860.99	0.003153	4.01	61.30	65.93	0.41
HG Kenyan	4204	138.00	856.99	860.53	859.52	860.83	0.002823	3.95	57.44	61.84	0.38
HG Kenyan	4204	112.00	856.99	860.46	859.07	860.62	0.002347	3.49	52.76	56.25	0.34
HG Kenyan	4204	53.00	856.99	859.81	858.32	859.96	0.001436	2.31	32.56	40.65	0.26
HG Kenyan	4150	Bridge									

HEC-RAS Plan: Exst. Cond. River: HG Kenyan Reach: HG Kenyan (Continued)

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
HG Kenyan	4096	300.00	855.43	860.24	857.98	860.24	0.001780	3.77	103.95	54.91	0.32
HG Kenyan	4096	159.00	855.43	858.96	857.21	859.07	0.001472	2.81	68.00	43.83	0.26
HG Kenyan	4096	138.00	855.43	858.76	857.08	858.86	0.001403	2.63	62.00	41.04	0.27
HG Kenyan	4096	112.00	855.43	858.48	856.90	858.57	0.001522	2.39	53.86	37.20	0.26
HG Kenyan	4096	53.00	855.43	857.71	856.42	857.75	0.000931	1.64	35.19	24.47	0.2
HG Kenyan	3996	300.00	856.03	858.51	858.51	859.55	0.021432	8.32	42.48	34.97	1.0
HG Kenyan	3996	159.00	856.03	857.82	857.82	859.52	0.022346	6.71	23.98	21.38	0.99
HG Kenyan	3996	138.00	856.03	857.69	857.69	858.35	0.023342	6.451	21.48	18.85	1.00
HG Kenyan	3996	112.00	856.03	857.52	857.52	858.08	0.023973	6.00	18.66	16.32	0.99
HG Kenyan	3996	53.00	856.03	857.03	857.03	857.39	0.027152	4.83	10.98	15.03	0.99
HG Kenyan	3542	300.00	849.01	855.60		855.63	0.000229	1.73	220.68	83.80	0.12
HG Kenyan	3542	159.00	849.01	853.77		853.84	0.000694	2.36	79.72	37.95	0.20
HG Kenyan	3542	138.00	849.01	853.37		853.451	0.000809	2.38	66.20	31.23	0.22
HG Kenyan	3542	112.00	849.01	852.87		852.76	0.001253	2.58	47.49	23.57	0.26
HG Kenyan	3542	53.00	849.01	851.53		851.46	0.003379	2.88	19.46	17.35	0.59
HG Kenyan	3536	300.00	848.97	855.59	852.44	855.63	0.000295	1.93	202.68	83.80	0.14
HG Kenyan	3536	159.00	848.97	853.67	851.66	853.81	0.001377	3.19	57.63	36.44	0.28
HG Kenyan	3536	138.00	848.97	853.29	851.51	853.41	0.001165	2.87	48.24	30.58	0.26
HG Kenyan	3536	112.00	848.97	852.60	851.25	852.74	0.001713	3.04	37.84	29.46	0.31
HG Kenyan	3536	53.00	848.97	851.28	850.43	851.42	0.003798	3.09	17.77	17.14	0.41
HG Kenyan	3514	Culvert									
HG Kenyan	3492	300.00	848.99	852.93	851.74	853.37	0.004411	5.67	51.27	31.52	0.52
HG Kenyan	3492	159.00	848.99	851.71	850.97	852.04	0.004811	4.65	34.19	22.32	0.51
HG Kenyan	3492	138.00	848.99	851.42	850.85	851.75	0.005724	4.69	29.80	20.98	0.55
HG Kenyan	3492	112.00	848.99	851.07	850.67	851.40	0.007137	4.68	24.55	19.57	0.59
HG Kenyan	3492	53.00	848.99	850.48	850.06	850.67	0.006881	3.60	15.50	18.49	0.55
HG Kenyan	3467	300.00	848.84	852.87		853.14	0.002882	4.61	75.04	55.25	0.42
HG Kenyan	3467	159.00	848.84	851.66		851.89	0.003539	3.98	42.44	22.81	0.44
HG Kenyan	3467	138.00	848.84	851.33		851.58	0.004830	4.14	35.27	21.25	0.48
HG Kenyan	3467	112.00	848.84	850.92		851.20	0.006902	4.42	26.77	19.55	0.57
HG Kenyan	3467	53.00	848.84	850.17		850.42	0.011405	4.08	13.55	15.98	0.68
HG Kenyan	3307	484.00	846.86	852.06		852.51	0.004645	5.67	97.78	56.43	0.51
HG Kenyan	3307	246.00	846.86	851.04		851.31	0.003508	4.24	60.06	26.23	0.43
HG Kenyan	3307	203.00	846.86	850.70		850.95	0.003529	4.00	51.78	23.15	0.43
HG Kenyan	3307	151.00	846.86	850.27		850.47	0.003389	3.67	42.48	19.59	0.41
HG Kenyan	3307	85.00	846.86	849.51		849.64	0.003106	2.91	29.23	16.04	0.38
HG Kenyan	2825	484.00	845.19	849.83		850.20	0.004978	5.63	186.08	161.75	0.52
HG Kenyan	2825	246.00	845.19	848.97		849.31	0.004983	4.80	74.89	86.88	0.51
HG Kenyan	2825	203.00	845.19	848.68		848.97	0.004813	4.44	59.59	46.85	0.49
HG Kenyan	2825	151.00	845.19	848.30		848.55	0.004764	4.04	43.38	37.25	0.48
HG Kenyan	2825	85.00	845.19	847.64		847.81	0.004727	3.30	25.74	16.08	0.46
HG Kenyan	2600.60*	484.00	844.24	848.75		849.12	0.004756	5.49	182.65	161.79	0.52
HG Kenyan	2600.60*	246.00	844.24	847.89		848.20	0.004829	4.61	71.27	75.06	0.50
HG Kenyan	2600.60*	203.00	844.24	847.62		847.90	0.004741	4.31	57.08	46.98	0.49
HG Kenyan	2600.60*	151.00	844.24	847.25		847.48	0.004699	3.99	41.75	35.46	0.48
HG Kenyan	2600.60*	85.00	844.24	846.60		846.76	0.004639	3.20	26.53	17.01	0.46
HG Kenyan	2376.20*	484.00	843.30	847.55	847.22	848.02	0.004956	5.47	174.24	160.11	0.53
HG Kenyan	2376.20*	246.00	843.30	846.83	845.68	847.13	0.004733	4.47	68.88	79.25	0.50
HG Kenyan	2376.20*	203.00	843.30	846.57	845.65	846.93	0.004694	4.17	55.14	46.80	0.49
HG Kenyan	2376.20*	151.00	843.30	846.20	845.34	846.42	0.004685	3.76	40.78	29.57	0.48
HG Kenyan	2376.20*	85.00	843.30	845.55	844.81	845.70	0.004734	3.15	27.02	18.86	0.46
HG Kenyan	2151.80*	484.00	842.35	846.85	846.12	847.09	0.003307	4.60	213.43	164.61	0.44
HG Kenyan	2151.80*	246.00	842.35	846.03	844.92	846.19	0.004521	4.21	71.47	88.13	0.48
HG Kenyan	2151.80*	203.00	842.35	845.53	844.60	845.76	0.004648	4.04	59.61	51.94	0.48
HG Kenyan	2151.80*	151.00	842.35	845.15	844.26	845.36	0.004717	3.85	41.32	22.80	0.48
HG Kenyan	2151.80*	85.00	842.35	844.48	843.78	844.64	0.004750	3.14	27.09	19.08	0.46
HG Kenyan	1927.40*	484.00	841.41	845.02	844.95	845.77	0.011680	7.12	92.59	121.95	0.75
HG Kenyan	1927.40*	246.00	841.41	844.03	843.75	844.74	0.008871	5.18	47.61	30.94	0.66

HEC-RAS Plan: Exst. Cond. River: HG Kenyan Reach: HG Kenyan (Continued)

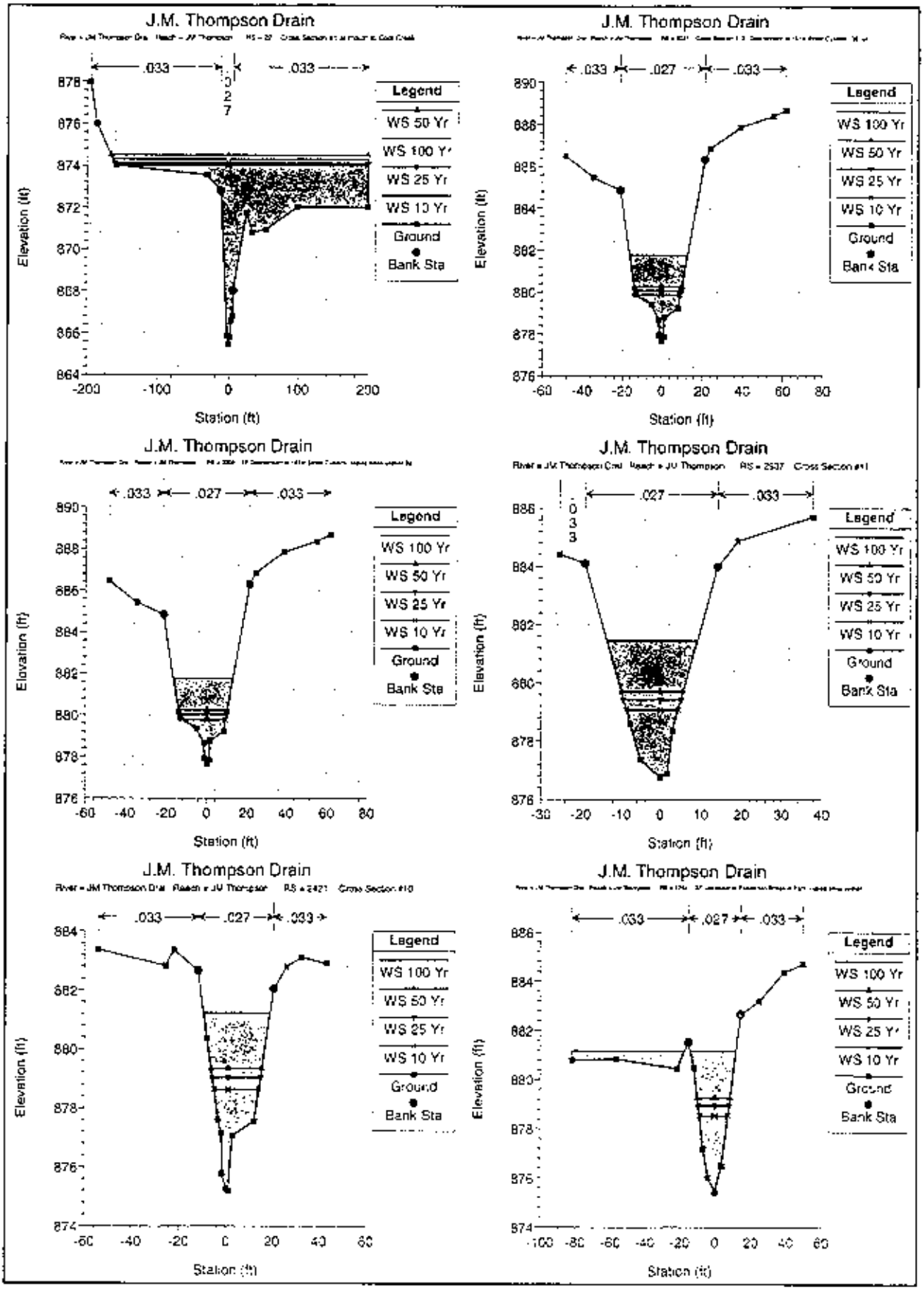
Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
HG Kenyan	1927.40*	203.00	841.41	844.51	843.53	844.74	0.004570	3.89	52.83	46.86	0.46
HG Kenyan	1927.40*	151.00	841.41	844.12	843.21	844.33	0.004564	3.55	42.51	29.19	0.47
HG Kenyan	1927.40*	85.00	841.41	843.42	842.74	843.57	0.004735	3.11	27.33	19.42	0.46
HG Kenyan	1703	484.00	840.46	844.55	843.72	844.69	0.002072	3.35	290.86	161.10	0.34
HG Kenyan	1703	246.00	840.46	843.76	842.69	843.84	0.001892	2.64	172.38	120.94	0.31
HG Kenyan	1703	203.00	840.46	843.53	842.46	843.82	0.003537	3.50	58.30	119.79	0.43
HG Kenyan	1703	151.00	840.46	843.32	842.15	843.45	0.003117	3.06	49.42	81.97	0.39
HG Kenyan	1703	85.00	840.46	842.69	841.69	842.78	0.002620	2.47	34.39	66.40	0.35
HG Kenyan	1522.66*	484.00	839.95	843.90	843.24	844.09	0.004652	4.94	190.90	142.66	0.52
HG Kenyan	1522.66*	246.00	839.95	843.11	842.31	843.33	0.004295	3.95	94.34	110.49	0.47
HG Kenyan	1522.66*	203.00	839.95	842.93	842.11	843.12	0.004205	3.58	77.31	89.56	0.46
HG Kenyan	1522.66*	151.00	839.95	842.66	841.84	842.82	0.004307	3.28	57.43	72.68	0.44
HG Kenyan	1522.66*	85.00	839.95	842.12	841.34	842.23	0.003662	2.86	35.29	32.06	0.41
HG Kenyan	1342.33*	484.00	839.44	842.98		843.21	0.004897	4.95	206.77	132.91	0.53
HG Kenyan	1342.33*	246.00	839.44	842.21		842.42	0.005860	4.21	108.23	116.71	0.55
HG Kenyan	1342.33*	203.00	839.44	842.10		842.27	0.005213	3.81	99.17	108.89	0.51
HG Kenyan	1342.33*	151.00	839.44	841.91		842.05	0.004572	3.30	76.13	89.63	0.47
HG Kenyan	1342.33*	85.00	839.44	841.37		841.46	0.004900	2.62	42.81	37.46	0.45
HG Kenyan	1162	484.00	838.93	842.68		842.74	0.001369	2.77	401.33	177.64	0.29
HG Kenyan	1162	246.00	838.93	841.23		841.43	0.004856	3.44	165.67	164.24	0.49
HG Kenyan	1162	203.00	838.93	841.10		841.21	0.006458	3.55	129.71	151.41	0.55
HG Kenyan	1162	151.00	838.93	840.88		840.99	0.007526	3.40	96.91	139.54	0.57
HG Kenyan	1162	85.00	838.93	840.32		840.38	0.007283	2.52	43.68	34.64	0.51
HG Kenyan	984.666*	484.00	836.90	842.33		842.49	0.001403	3.61	241.30	83.51	0.31
HG Kenyan	984.666*	246.00	836.90	840.50		840.70	0.003377	3.89	97.56	73.28	0.43
HG Kenyan	984.666*	203.00	836.90	839.98		840.20	0.004974	4.24	66.24	46.99	0.50
HG Kenyan	984.666*	151.00	836.90	839.52		839.72	0.006621	4.01	47.36	32.92	0.56
HG Kenyan	984.666*	85.00	836.90	838.92		839.09	0.007267	3.49	29.99	27.70	0.56
HG Kenyan	807.333*	484.00	834.86	842.21		842.21	0.000606	2.93	289.17	83.74	0.20
HG Kenyan	807.333*	246.00	834.86	840.33		840.42	0.000761	2.51	142.18	77.82	0.22
HG Kenyan	807.333*	203.00	834.86	839.74		839.85	0.000962	2.52	101.22	55.23	0.23
HG Kenyan	807.333*	151.00	834.86	839.26		839.33	0.000912	2.22	77.20	46.73	0.22
HG Kenyan	807.333*	85.00	834.86	838.80		838.93	0.000484	1.49	59.15	30.85	0.16
HG Kenyan	630	484.00	832.83	842.20		842.21	0.000190	1.79	639.36	200.00	0.11
HG Kenyan	630	246.00	832.83	840.29		840.33	0.000246	1.70	259.78	172.99	0.12
HG Kenyan	630	203.00	832.83	839.70		839.74	0.000272	1.66	179.00	106.58	0.13
HG Kenyan	630	151.00	832.83	839.22		839.25	0.000221	1.40	139.26	76.54	0.11
HG Kenyan	630	85.00	832.83	838.78		838.79	0.000130	0.89	107.54	49.12	0.07
HG Kenyan	622	484.00	832.88	842.16	837.48	842.19	0.000767	2.71	424.90	200.00	0.21
HG Kenyan	622	246.00	832.88	840.07	835.95	840.28	0.000759	2.63	67.77	148.22	0.25
HG Kenyan	622	203.00	832.88	839.53	835.62	839.70	0.000682	2.26	62.36	96.63	0.23
HG Kenyan	622	151.00	832.88	839.12	835.21	839.23	0.000473	1.89	58.27	73.27	0.19
HG Kenyan	622	85.00	832.88	838.75	834.60	838.78	0.000187	1.56	54.50	50.21	0.12
HG Kenyan	613	Bridge									
HG Kenyan	604	484.00	832.88	842.04	838.14	842.07	0.000800	1.82	683.26	200.00	0.12
HG Kenyan	604	246.00	832.88	839.62	835.61	839.91	0.001361	4.35	56.57	161.75	0.32
HG Kenyan	604	203.00	832.88	839.25	834.29	839.48	0.001163	3.84	52.84	124.23	0.29
HG Kenyan	604	151.00	832.88	838.96	833.88	839.10	0.000777	3.02	49.93	94.92	0.24
HG Kenyan	604	85.00	832.88	838.69	833.27	838.74	0.000295	1.60	47.24	73.03	0.16
HG Kenyan	572	484.00	833.68	842.04		842.07	0.000179	1.75	709.69	200.00	0.11
HG Kenyan	572	246.00	833.68	839.72		839.77	0.000409	2.26	246.04	175.65	0.16
HG Kenyan	572	203.00	833.68	839.31		839.37	0.000419	2.20	184.19	143.89	0.16
HG Kenyan	572	151.00	833.68	838.99		839.03	0.000321	1.97	142.91	112.66	0.14
HG Kenyan	572	85.00	833.68	838.70		838.71	0.000135	1.24	113.60	87.78	0.09
HG Kenyan	557	484.00	833.06	842.05		842.06	0.000059	0.93	1259.35	250.00	0.06
HG Kenyan	557	246.00	833.06	839.75		839.78	0.000249	0.94	684.52	238.75	0.09
HG Kenyan	557	203.00	833.06	839.35		839.38	0.000246	0.76	591.91	220.87	0.08
HG Kenyan	557	151.00	833.06	839.01		839.03	0.000233	0.64	520.76	205.72	0.08

HEC-RAS Plan: Exst. Cond. River: HG Kenyan Reach: HG Kenyan (Continued)

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
HG Kenyan	557	85.00	833.06	838.71		838.71	0.000014	0.39	459.86	191.96	0.03
HG Kenyan	549	484.00	833.01	841.34	837.41	841.69	0.001801	5.98	80.97	252.00	0.37
HG Kenyan	549	246.00	833.01	839.44	835.89	839.69	0.001009	3.97	61.96	225.07	0.26
HG Kenyan	549	203.00	833.01	839.11	835.57	839.30	0.000824	3.48	58.69	210.52	0.25
HG Kenyan	549	151.00	833.01	838.87	835.15	838.98	0.000524	2.68	56.29	199.68	0.20
HG Kenyan	549	85.00	833.01	838.66	834.55	838.70	0.000189	1.57	54.15	190.39	0.12
HG Kenyan	468	Culvert									
HG Kenyan	387	484.00	832.43	838.39	837.39	840.11	0.006117	8.55	57.92	200.00	0.62
HG Kenyan	387	246.00	832.43	838.87	835.86	839.17	0.001695	4.44	58.70	200.00	0.33
HG Kenyan	387	203.00	832.43	838.70	835.52	838.92	0.001272	3.72	55.08	200.00	0.29
HG Kenyan	387	151.00	832.43	838.65	835.08	838.77	0.000727	2.83	54.50	200.00	0.21
HG Kenyan	387	85.00	832.43	838.59	834.38	838.65	0.000239	1.61	53.91	200.00	0.12
HG Kenyan	355	484.00	832.23	839.50		839.53	0.000377	2.28	802.48	400.00	0.16
HG Kenyan	355	246.00	832.23	839.99		839.01	0.000204	1.59	600.23	399.44	0.11
HG Kenyan	355	203.00	832.23	838.79		838.81	0.000168	1.49	521.95	379.93	0.11
HG Kenyan	355	151.00	832.23	838.70		838.71	0.000121	1.18	485.26	368.53	0.09
HG Kenyan	355	85.00	832.23	838.60		838.60	0.000045	0.71	449.78	359.81	0.05
HG Kenyan	016	484.00	830.69	839.50	832.92	839.50	0.000017	0.55	2481.43	511.11	0.03
HG Kenyan	016	246.00	830.69	839.00	832.32	839.00	0.000008	0.31	2229.35	497.22	0.02
HG Kenyan	016	203.00	830.69	838.80	832.15	838.80	0.000005	0.27	2130.45	491.67	0.02
HG Kenyan	016	151.00	830.69	838.70	831.92	838.70	0.000003	0.20	2081.44	488.89	0.01
HG Kenyan	016	85.00	830.69	838.60	831.50	838.60	0.000001	0.12	2032.67	486.11	0.01

J.M. THOMPSON DRAIN

HEC-RAS CROSS-SECTIONS AND PROFILE SUMMARY TABLE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WS 100 Yr
WS 25 Yr
WS 10 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
J.M. Thompson Drain
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.027
.033
Legend
WS 100 Yr
WS 50 Yr
WS 25 Yr
WS 10 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
J.M. Thompson Drain
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.027
.033
Legend
WS 100 Yr
WS 50 Yr
WS 25 Yr
WS 10 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
J.M. Thompson Drain
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Legend
WS 100 Yr
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WS 25 Yr
WS 10 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
J.M. Thompson Drain
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Legend
WS 100 Yr
WS 50 Yr
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Ground
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Elevation (ft)
Station (ft)
J.M. Thompson Drain
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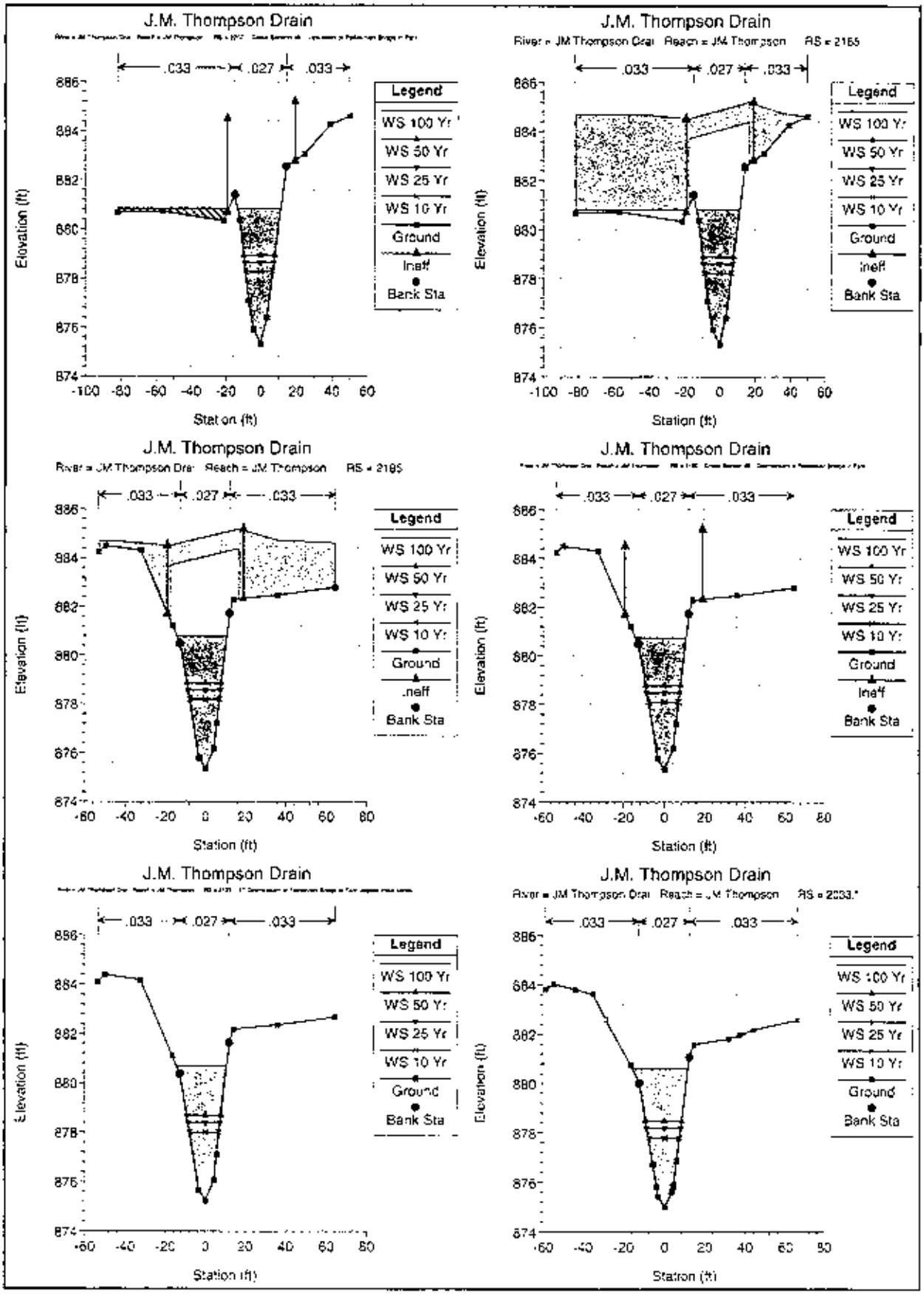
WS 10 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)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Legend
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WS 50 Yr
WS 25 Yr
WS 10 Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
J.M. Thompson Drain
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Legend
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WS 50 Yr
WS 25 Yr
WS 10 Yr
Ground
Ineff
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Elevation (ft)
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J.M. Thompson Drain
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Legend
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WS 25 Yr
WS 10 Yr
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Elevation (ft)
Station (ft)
J.M. Thompson Drain
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Legend
WS 100 Yr
WS 50 Yr
WS 25 Yr
WS 10 Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
J.M. Thompson Drain
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Legend
WS 100 Yr
WS 50 Yr
WS 25 Yr
WS 10 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
J.M. Thompson Drain
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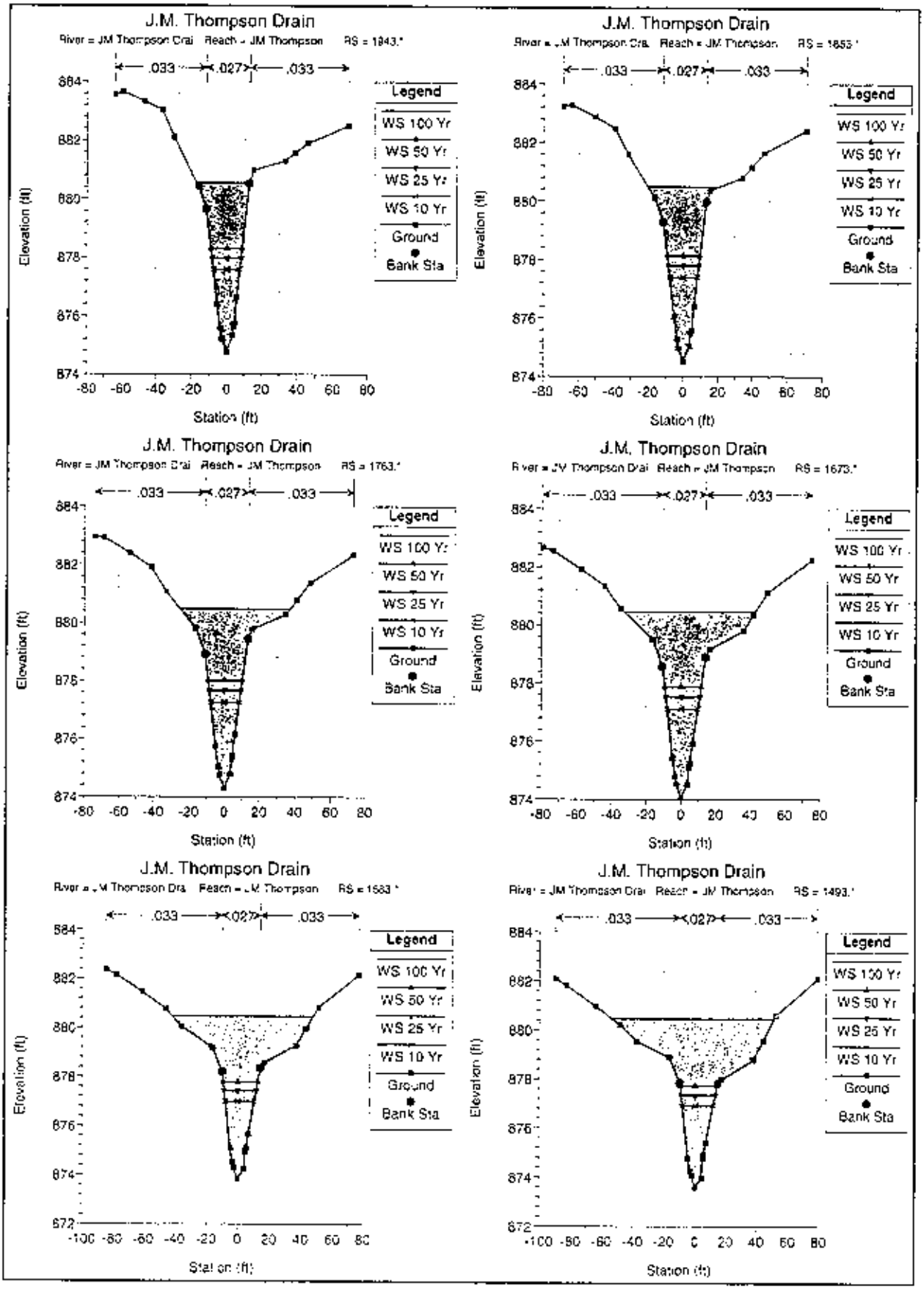
Legend
WS 100 Yr
WS 50 Yr
WS 25 Yr
WS 10 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)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Legend
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WS 50 Yr
WS 25 Yr
WS 10 Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
J.M. Thompson Drain
River = JM Thompson Drai Reach = JM Thompson RS = 1763.*
J.M. Thompson Drain
River = JM Thompson Drai Reach = JM Thompson RS = 1673.*
J.M. Thompson Drain
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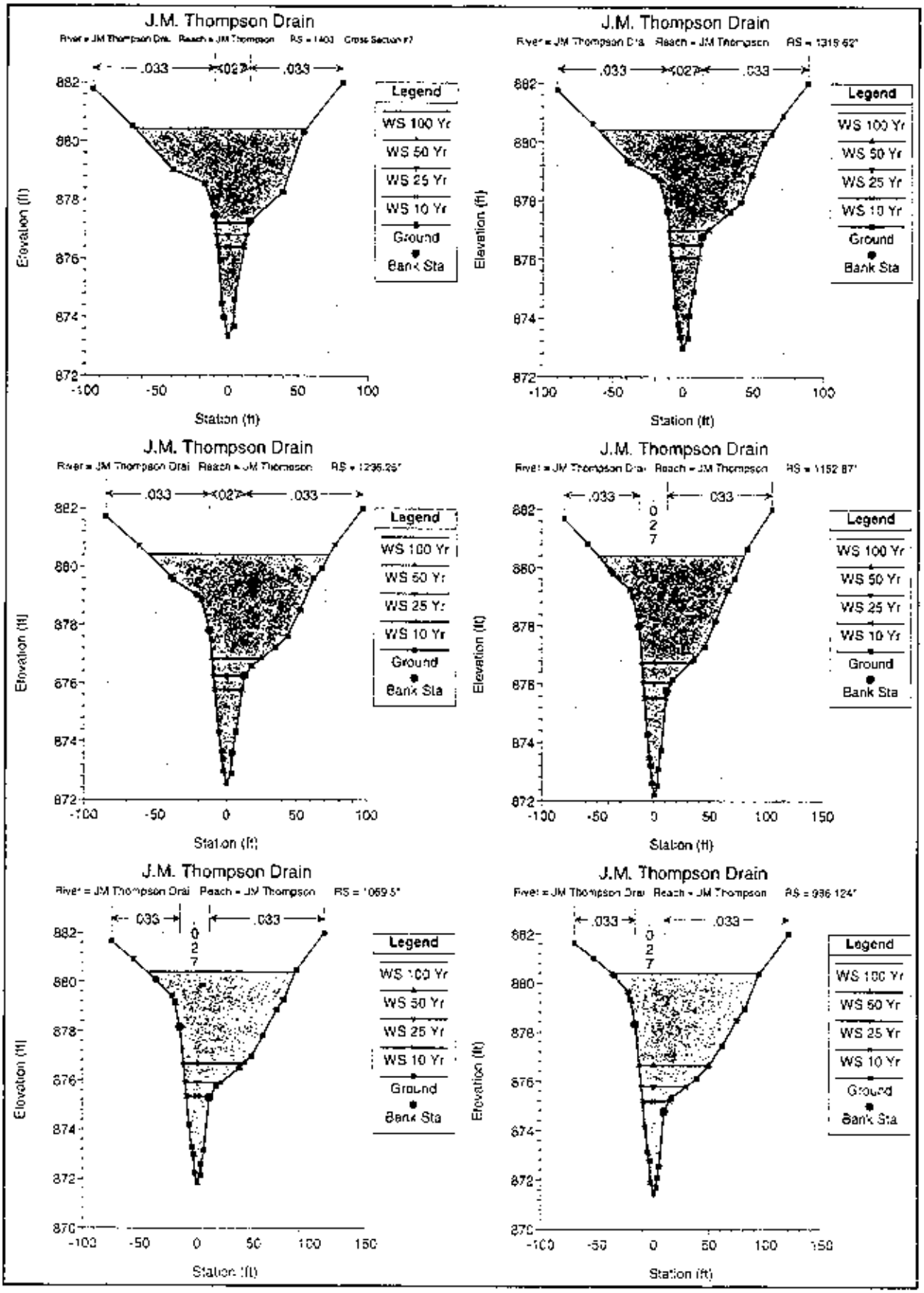
J.M. Thompson Drain
River = JM Thompson Drai Reach = JM Thompson RS = 1493.*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.027
.033
Legend
WS 100 Yr
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J.M. Thompson Drain
River = JM Thompson Drain Reach = JM Thompson RS = 1235.29
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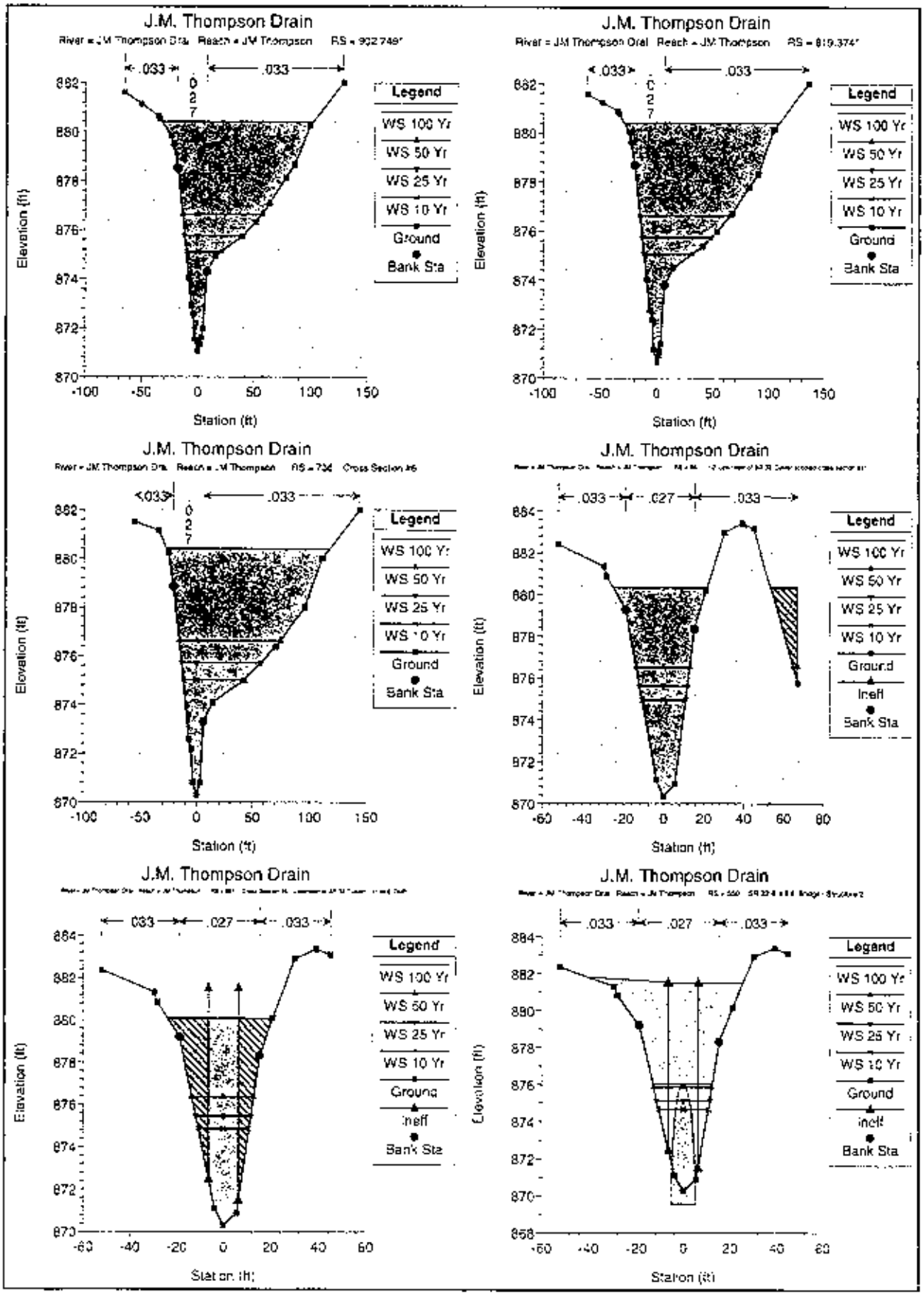
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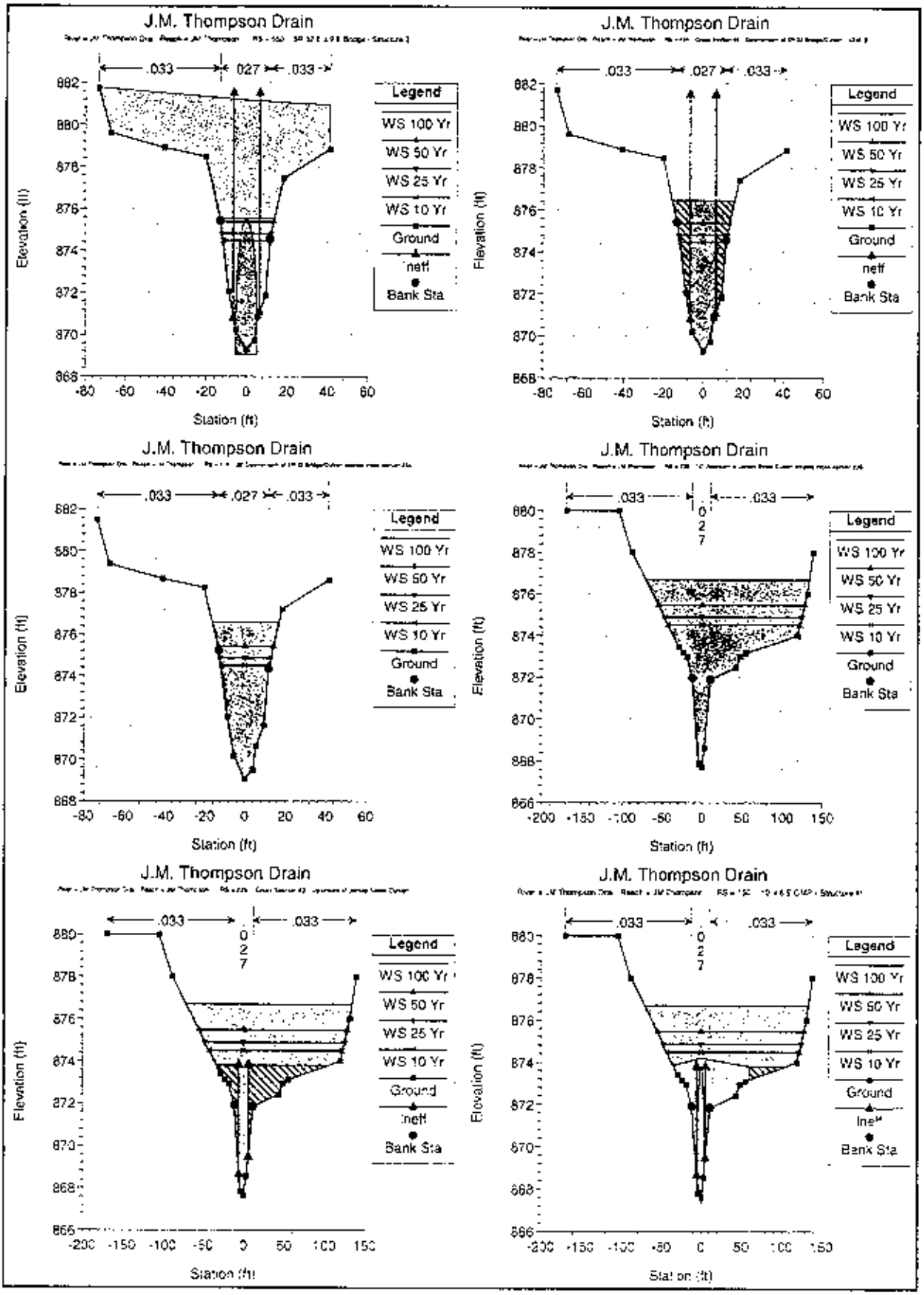
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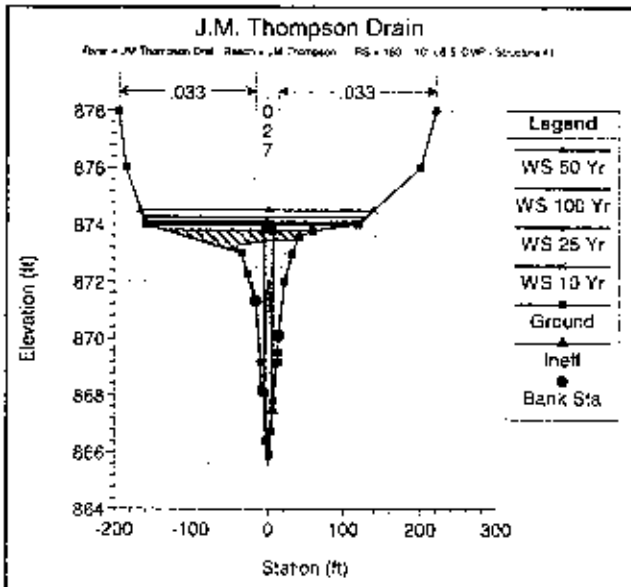
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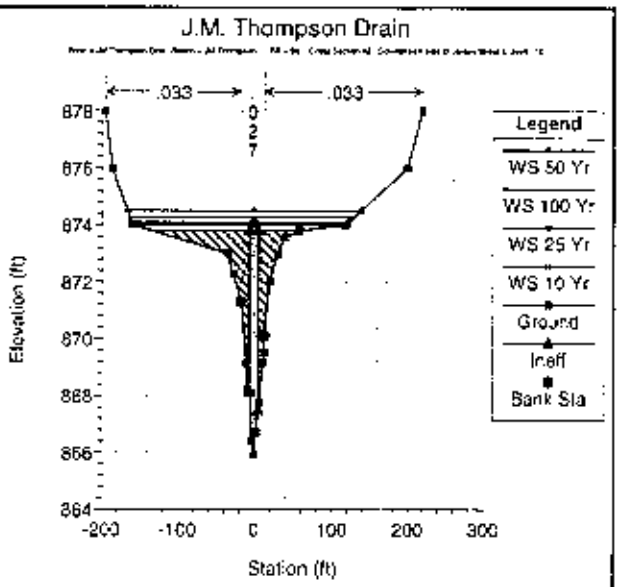
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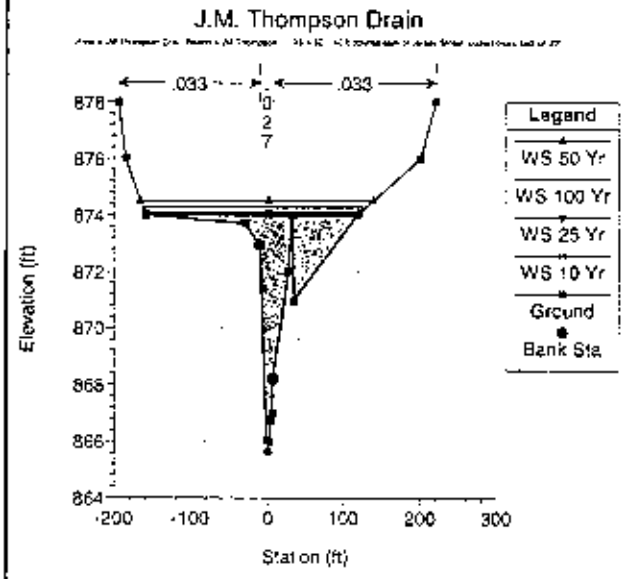
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Ground
Bank Sta
Elevation (ft)
Station (ft)
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HEC-RAS Plan: Proposed River: JM Thompson Cre Reach: JM Thompson

Reach	River Sta	Q Total	Min Ch El	W S Elev	Crit W.S	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
JM Thompson	3221	200.00	877.69	881.77		881.91	0.001054	2.98	66.95	29.34	0.36
JM Thompson	3221	84.00	877.69	880.27		880.42	0.003177	3.15	26.63	24.29	0.53
JM Thompson	3221	70.00	877.69	880.09		880.24	0.003880	3.15	22.23	23.67	0.57
JM Thompson	3221	53.00	877.69	879.87		880.02	0.004852	3.06	17.29	22.72	0.62
JM Thompson	3209	200.00	877.65	881.76		881.90	0.001054	2.95	67.81	29.44	0.34
JM Thompson	3209	84.00	877.65	880.23		880.38	0.003173	3.15	26.64	24.29	0.53
JM Thompson	3209	70.00	877.65	880.03		880.19	0.004142	3.22	21.77	23.60	0.59
JM Thompson	3209	53.00	877.65	879.77	879.53	879.94	0.006046	3.34	15.85	21.50	0.69
JM Thompson	2937	200.00	876.76	881.46		881.62	0.000977	3.17	63.10	22.65	0.34
JM Thompson	2937	84.00	876.76	879.79		879.85	0.001398	2.90	28.99	15.76	0.38
JM Thompson	2937	70.00	876.76	879.42		879.55	0.001476	2.92	24.81	14.68	0.38
JM Thompson	2937	52.00	876.76	879.07		879.18	0.001535	2.66	19.92	13.27	0.38
JM Thompson	2421	200.00	875.20	881.23		881.33	0.000370	2.13	93.92	28.88	0.21
JM Thompson	2421	84.00	875.20	879.34		879.40	0.000609	1.84	45.60	22.24	0.22
JM Thompson	2421	70.00	875.20	879.03		879.08	0.000686	1.80	38.78	21.11	0.22
JM Thompson	2421	52.00	875.20	878.62		878.67	0.000668	1.74	30.47	19.65	0.25
JM Thompson	2244	200.00	875.42	881.17		881.24	0.000350	2.15	115.66	90.51	0.21
JM Thompson	2244	84.00	875.42	879.26		879.31	0.000428	1.90	44.12	18.63	0.22
JM Thompson	2244	70.00	875.42	878.94		878.99	0.000455	1.82	38.39	17.58	0.22
JM Thompson	2244	53.00	875.42	878.53		878.57	0.000432	1.68	31.47	16.23	0.21
JM Thompson	2207	350.00	875.31	880.85	878.96	881.14	0.001473	4.53	80.81	68.27	0.42
JM Thompson	2207	168.00	875.31	876.84	877.88	879.21	0.002193	4.17	40.31	17.94	0.49
JM Thompson	2207	140.00	875.31	876.65	877.66	878.89	0.002205	3.97	35.22	16.98	0.49
JM Thompson	2207	107.00	875.31	876.27	877.39	878.48	0.002178	3.67	29.16	15.75	0.48
JM Thompson	2185	Bridge									
JM Thompson	2160	350.00	875.34	880.75	878.94	881.06	0.001525	4.46	78.63	24.90	0.43
JM Thompson	2160	168.00	875.34	876.78	877.84	879.09	0.002615	4.45	37.79	17.35	0.53
JM Thompson	2160	140.00	875.34	876.49	877.62	878.77	0.002855	4.25	32.86	16.36	0.53
JM Thompson	2160	107.00	875.34	876.10	877.34	878.35	0.002721	3.99	26.80	15.04	0.53
JM Thompson	2123	350.00	875.23	880.73		881.00	0.001443	4.38	80.15	25.30	0.42
JM Thompson	2123	168.00	875.23	876.69		876.99	0.002547	4.40	38.16	17.43	0.52
JM Thompson	2123	140.00	875.23	876.43		876.67	0.002595	4.22	33.16	16.42	0.52
JM Thompson	2123	107.00	875.23	876.01		876.25	0.002664	3.98	27.01	15.08	0.52
JM Thompson	2033.*	350.00	874.99	880.61		880.88	0.001203	4.12	85.86	27.45	0.39
JM Thompson	2033.*	168.00	874.99	876.49		876.79	0.002373	4.27	39.30	17.39	0.51
JM Thompson	2033.*	140.00	874.99	876.18		876.45	0.002459	4.12	33.95	16.30	0.51
JM Thompson	2033.*	107.00	874.99	877.79		876.02	0.002543	3.88	27.56	15.41	0.51
JM Thompson	1943.*	350.00	874.76	880.55		880.78	0.000991	3.84	92.86	30.41	0.36
JM Thompson	1943.*	168.00	874.76	876.31		876.57	0.002174	4.12	40.79	18.45	0.49
JM Thompson	1943.*	140.00	874.76	877.96		876.23	0.002312	4.01	34.98	17.26	0.50
JM Thompson	1943.*	107.00	874.76	877.58		877.90	0.002380	3.77	28.37	15.62	0.50
JM Thompson	1853.*	350.00	874.52	880.50		880.70	0.000766	3.56	102.87	47.90	0.32
JM Thompson	1853.*	168.00	874.52	876.14		876.36	0.001950	3.93	42.71	19.17	0.46
JM Thompson	1853.*	140.00	874.52	877.91		876.03	0.002071	3.83	36.55	17.90	0.47
JM Thompson	1853.*	107.00	874.52	877.40		877.61	0.002166	3.61	29.62	16.36	0.47
JM Thompson	1763.*	350.00	874.29	880.46		880.64	0.000672	3.23	123.31	62.91	0.28
JM Thompson	1763.*	168.00	874.29	876.00		876.22	0.001898	3.71	45.29	20.06	0.44
JM Thompson	1763.*	140.00	874.29	877.66		877.86	0.001870	3.63	38.60	18.67	0.44
JM Thompson	1763.*	107.00	874.29	877.24		877.43	0.001893	3.43	31.20	17.02	0.45
JM Thompson	1673.*	350.00	874.05	880.47		880.66	0.000404	2.85	152.04	75.78	0.24
JM Thompson	1673.*	168.00	874.05	877.59		878.07	0.001447	3.47	48.48	21.14	0.40
JM Thompson	1673.*	140.00	874.05	877.52		877.70	0.001562	3.40	41.18	19.61	0.41
JM Thompson	1673.*	107.00	874.05	877.10		877.26	0.001623	3.21	33.31	17.83	0.41
JM Thompson	1583.*	350.00	873.82	880.47		880.66	0.000274	2.46	190.35	89.80	0.20
JM Thompson	1583.*	168.00	873.82	877.79		877.95	0.001192	3.19	52.71	22.57	0.37
JM Thompson	1583.*	140.00	873.82	877.42		877.57	0.001286	3.13	44.72	20.69	0.38
JM Thompson	1533.*	107.00	873.82	877.00		877.13	0.001329	2.95	36.23	18.94	0.38

HEC-RAS Plan: Proposed River: JM Thompson Drai Reach: JM Thompson (Continued)

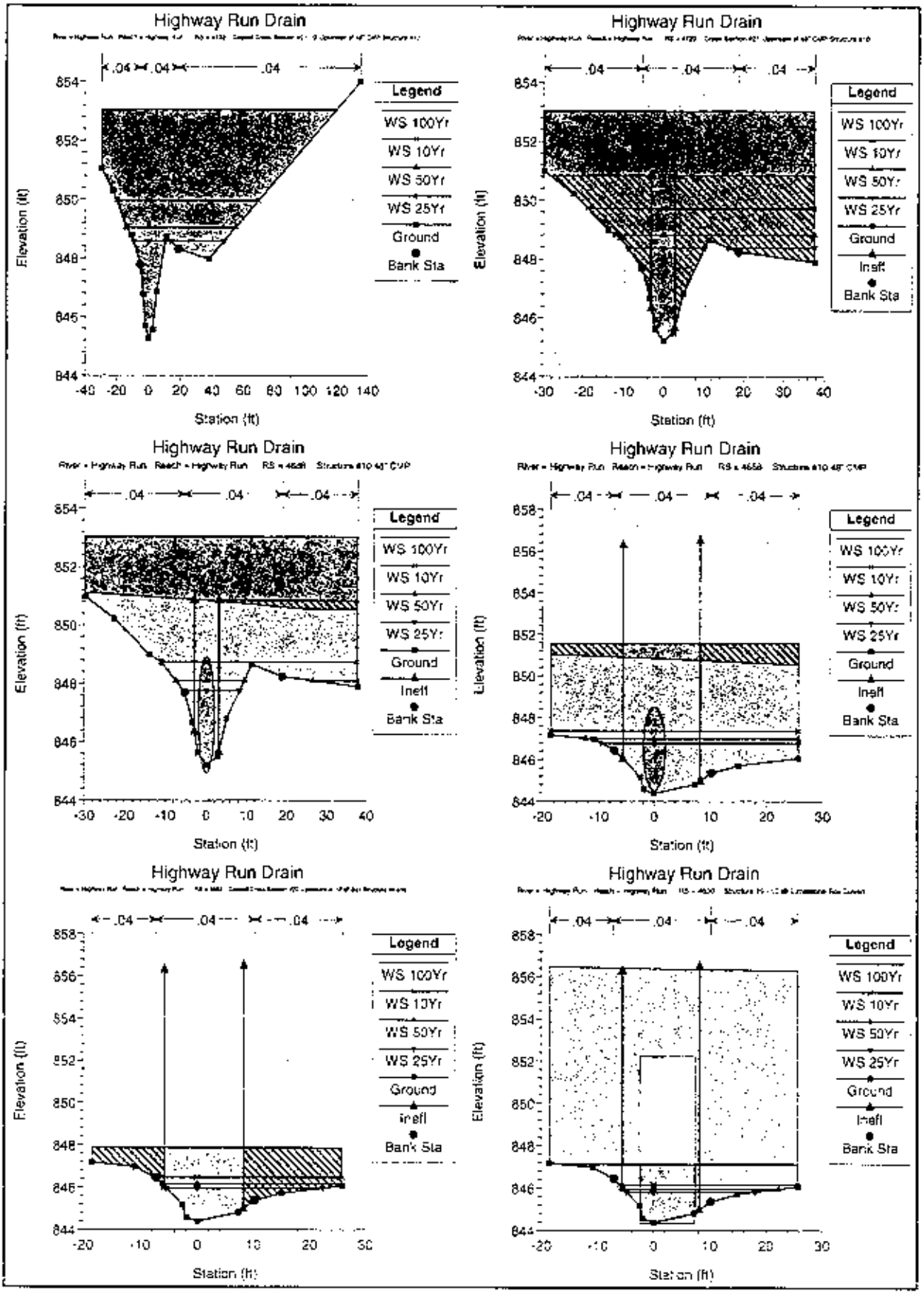
Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
JM Thompson	1493.*	350.00	873.58	880.47		880.52	0.000184	2.11	236.79	105.50	0.16
JM Thompson	1493.*	168.30	873.58	877.71		877.85	0.000960	2.90	57.92	24.34	0.33
JM Thompson	1493.*	140.30	873.58	877.34		877.47	0.001036	2.85	49.13	22.48	0.34
JM Thompson	1493.*	107.00	873.58	876.91		877.02	0.001058	2.65	39.91	20.35	0.34
JM Thompson	1403	488.00	873.35	880.42		880.50	0.000248	2.53	266.35	121.74	0.19
JM Thompson	1403	276.00	873.35	877.21		877.64	0.003457	5.24	53.04	24.24	0.62
JM Thompson	1403	231.00	873.35	876.80		877.24	0.004095	5.31	43.47	21.96	0.67
JM Thompson	1403	177.00	873.35	876.39		876.79	0.004304	5.06	34.96	19.72	0.67
JM Thompson	1319.62*	488.00	872.97	880.42		880.48	0.000196	2.34	309.73	128.16	0.17
JM Thompson	1319.62*	276.00	872.97	877.00		877.37	0.002741	4.90	57.24	29.45	0.56
JM Thompson	1319.62*	231.00	872.97	876.50		876.91	0.003546	5.11	45.19	22.23	0.63
JM Thompson	1319.62*	177.00	872.97	876.06		876.44	0.003984	4.93	35.90	19.96	0.65
JM Thompson	1236.25*	488.00	872.58	880.42		880.47	0.000150	2.12	339.66	129.77	0.15
JM Thompson	1236.25*	276.00	872.58	876.94		877.15	0.002043	4.56	64.27	35.44	0.49
JM Thompson	1236.25*	231.00	872.58	876.25		876.61	0.003099	4.85	47.66	22.47	0.59
JM Thompson	1236.25*	177.00	872.58	875.77		876.12	0.003503	4.73	37.46	20.16	0.61
JM Thompson	1152.67*	488.00	872.22	880.42		880.46	0.000115	1.88	375.70	130.57	0.13
JM Thompson	1152.67*	276.00	872.22	876.74		876.99	0.001478	4.36	75.70	44.59	0.42
JM Thompson	1152.67*	231.00	872.22	876.05		876.37	0.002427	4.54	51.38	25.67	0.53
JM Thompson	1152.67*	177.00	872.22	875.53		875.84	0.002928	4.46	39.70	20.92	0.56
JM Thompson	1069.5*	488.00	871.82	880.42		880.45	0.000087	1.68	418.22	131.65	0.12
JM Thompson	1069.5*	276.00	871.82	876.68		876.87	0.001036	3.59	90.99	54.26	0.36
JM Thompson	1069.5*	231.00	871.82	875.97		876.18	0.001842	4.19	57.33	32.08	0.46
JM Thompson	1069.5*	177.00	871.82	875.34		875.61	0.002317	4.14	42.73	21.16	0.50
JM Thompson	986.124*	488.00	871.43	880.42		880.44	0.000068	1.49	467.07	131.80	0.10
JM Thompson	986.124*	276.00	871.43	876.85		876.79	0.000704	3.12	111.92	63.38	0.30
JM Thompson	986.124*	231.00	871.43	875.82		876.04	0.001350	3.80	67.19	41.86	0.40
JM Thompson	986.124*	177.00	871.43	875.21		875.43	0.001714	3.81	47.34	24.84	0.44
JM Thompson	902.749*	488.00	871.05	880.42		880.44	0.000051	1.32	522.23	135.25	0.09
JM Thompson	902.749*	276.00	871.05	876.64		876.73	0.000479	2.68	136.81	71.55	0.25
JM Thompson	902.749*	231.00	871.05	875.76		875.93	0.000965	3.38	81.76	62.97	0.34
JM Thompson	902.749*	177.00	871.05	875.11		875.30	0.001274	3.49	54.04	32.36	0.38
JM Thompson	819.374*	488.00	870.66	880.42		880.43	0.000040	1.17	583.22	139.18	0.08
JM Thompson	819.374*	276.00	870.66	876.63		876.69	0.000329	2.30	165.97	81.25	0.21
JM Thompson	819.374*	231.00	870.66	875.73		875.85	0.000660	2.92	101.62	62.15	0.29
JM Thompson	819.374*	177.00	870.66	875.06		875.20	0.000918	3.12	65.22	43.70	0.33
JM Thompson	736	488.00	870.28	880.42		880.43	0.000031	1.03	649.84	144.79	0.07
JM Thompson	736	276.00	870.28	876.62		876.66	0.000228	1.96	199.52	90.75	0.17
JM Thompson	736	231.00	870.28	875.72		875.79	0.000460	2.50	125.55	71.46	0.24
JM Thompson	736	177.00	870.28	875.01		875.12	0.000652	2.75	81.50	55.56	0.29
JM Thompson	661	488.00	870.34	880.35	874.34	880.42	0.000142	2.13	234.80	80.76	0.15
JM Thompson	661	276.00	870.34	876.52	873.35	876.62	0.000455	2.67	104.22	29.42	0.24
JM Thompson	661	231.00	870.34	875.62	873.08	875.75	0.000619	2.85	81.08	24.22	0.27
JM Thompson	661	177.00	870.34	874.96	872.73	875.07	0.000645	2.70	65.65	22.10	0.28
JM Thompson	651	488.00	870.29	880.10	874.41	880.36	0.000302	4.07	119.83	45.14	0.24
JM Thompson	651	276.00	870.29	876.35	873.50	876.59	0.000562	3.91	71.09	26.71	0.29
JM Thompson	651	231.00	870.29	875.43	873.22	875.71	0.000592	3.87	59.69	22.92	0.30
JM Thompson	651	177.00	870.29	874.85	872.67	875.04	0.000657	3.42	51.66	21.96	0.30
JM Thompson	590	Culvert									
JM Thompson	454	488.00	869.27	875.47	873.39	876.98	0.002927	5.72	85.60	31.56	0.59
JM Thompson	454	276.00	869.27	875.36	872.30	875.61	0.000561	3.89	71.09	26.67	0.29
JM Thompson	454	231.00	869.27	874.82	872.01	875.03	0.000542	3.80	64.80	24.71	0.29
JM Thompson	454	177.00	869.27	874.47	871.67	874.61	0.000495	3.57	59.65	23.60	0.24
JM Thompson	416	488.00	869.04	875.60		876.79	0.002477	5.47	146.66	30.30	0.56
JM Thompson	416	276.00	869.04	875.43		875.53	0.000348	2.55	110.31	27.91	0.31
JM Thompson	416	231.00	869.04	874.86		874.96	0.000370	2.42	95.67	25.54	0.32
JM Thompson	416	177.00	869.04	874.50		874.55	0.000252	2.04	86.79	24.91	0.19

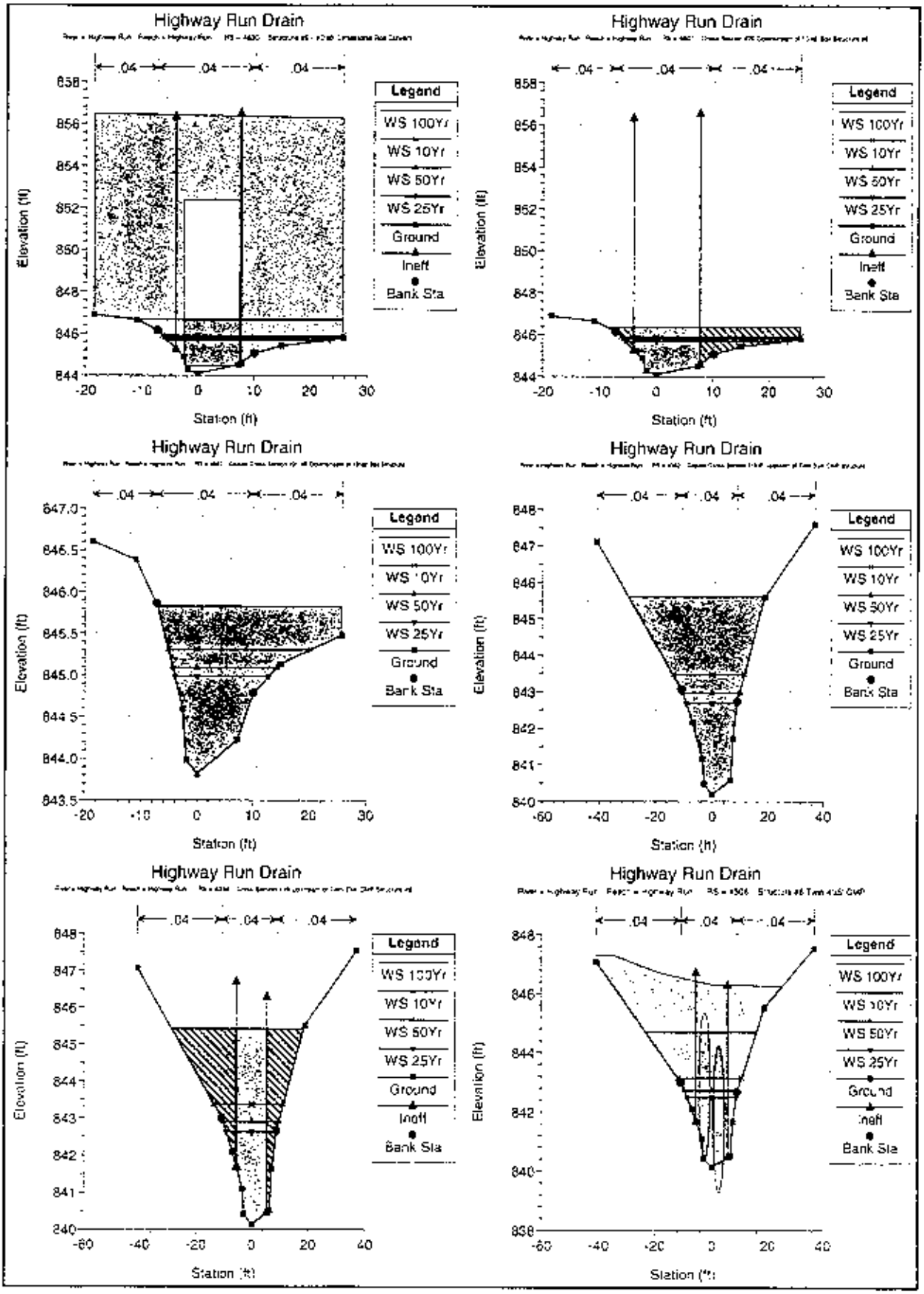
HEC-RAS Plan: Proposed River: JM Thompson Drai Reach: JM Thompson (Continued)

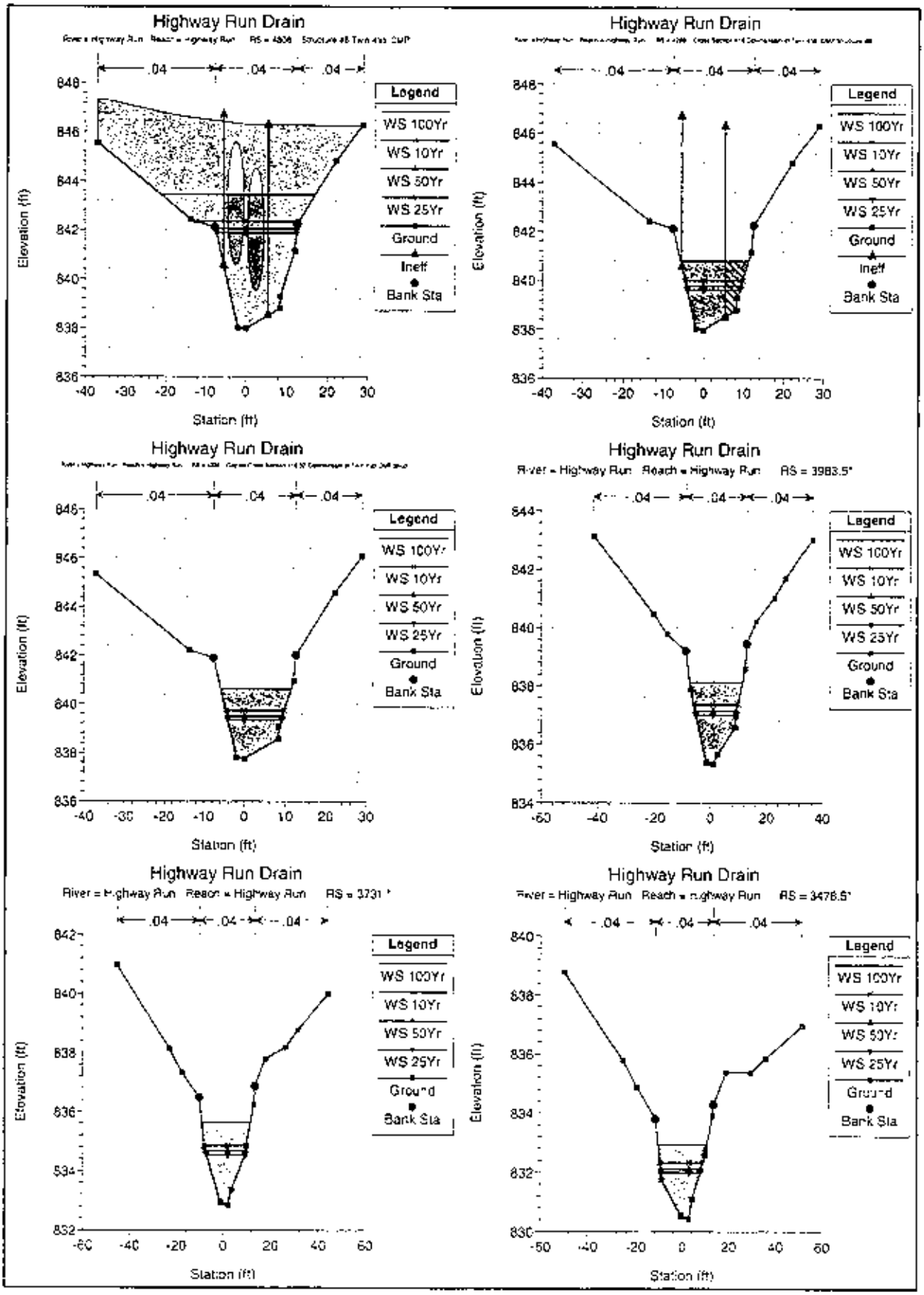
Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	sq ft	(ft)	
JM Thompson	238	488.00	867.68	876.70		876.71	0.000032	1.12	719.03	205.77	0.07
JM Thompson	238	278.00	867.68	875.48		875.49	0.000031	0.87	479.53	184.41	0.07
JM Thompson	238	231.00	867.68	874.90		874.92	0.000039	1.03	376.87	173.59	0.08
JM Thompson	238	177.00	867.68	874.52		874.53	0.000036	0.94	312.02	166.39	0.07
JM Thompson	226	488.00	867.62	876.70	871.92	876.71	0.000070	1.39	574.41	226.68	0.10
JM Thompson	226	278.00	867.62	875.47	870.75	875.48	0.000087	1.40	336.76	184.62	0.12
JM Thompson	226	231.00	867.62	874.88	870.44	874.91	0.000166	1.86	232.94	173.62	0.15
JM Thompson	226	177.00	867.62	874.49	870.07	874.52	0.000197	1.69	187.62	166.33	0.16
JM Thompson	150	Culvert									
JM Thompson	90	488.00	865.91	874.29	870.44	874.33	0.000135	2.03	413.25	294.17	0.14
JM Thompson	90	278.00	865.91	874.50	869.24	874.51	0.000094	1.04	478.26	305.76	0.07
JM Thompson	90	231.00	865.91	874.09	868.93	874.11	0.000039	1.06	358.20	263.93	0.08
JM Thompson	90	177.00	865.91	874.00	868.56	874.00	0.000025	0.85	330.68	277.10	0.06
JM Thompson	50	488.00	865.63	874.29		874.33	0.000148	2.08	442.98	294.38	0.15
JM Thompson	50	278.00	865.63	874.50		874.51	0.000097	1.07	506.81	305.76	0.07
JM Thompson	50	231.00	865.63	874.09		874.11	0.000041	1.08	367.27	284.27	0.08
JM Thompson	50	177.00	865.63	874.00		874.00	0.000025	0.84	359.63	277.46	0.06
JM Thompson	22	488.00	865.46	874.30	870.04	874.31	0.000245	1.18	753.66	363.90	0.09
JM Thompson	22	278.00	865.46	874.50	868.97	874.50	0.000112	0.61	825.71	366.50	0.04
JM Thompson	22	231.00	865.46	874.10	868.64	874.10	0.000113	0.62	681.14	361.30	0.04
JM Thompson	22	177.00	865.46	874.00	868.22	874.00	0.000059	0.50	645.08	360.00	0.03

HIGHWAY RUN DRAIN

HEC-RAS CROSS-SECTIONS AND PROFILE SUMMARY TABLE


Highway Run Drain
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)


Highway Run Drain
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)


Highway Run Drain
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
River = Highway Run Reach = Highway Run RS = 3983.5*
Highway Run Drain
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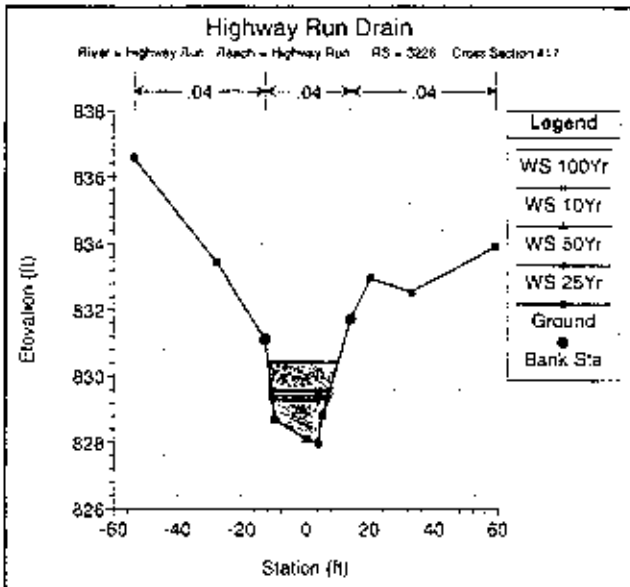
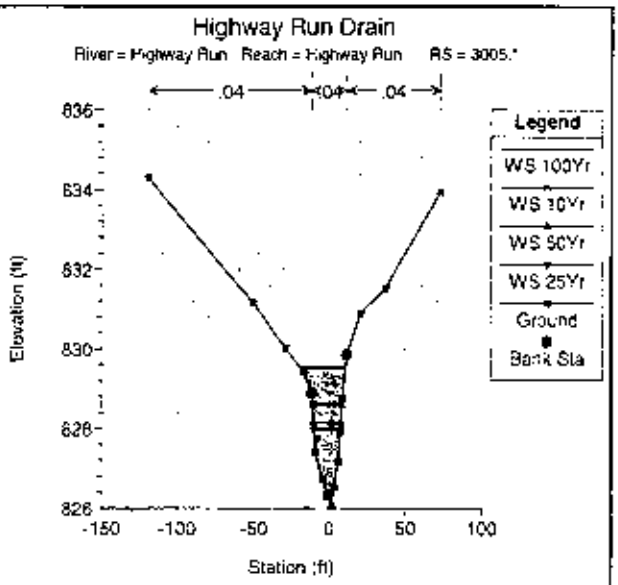
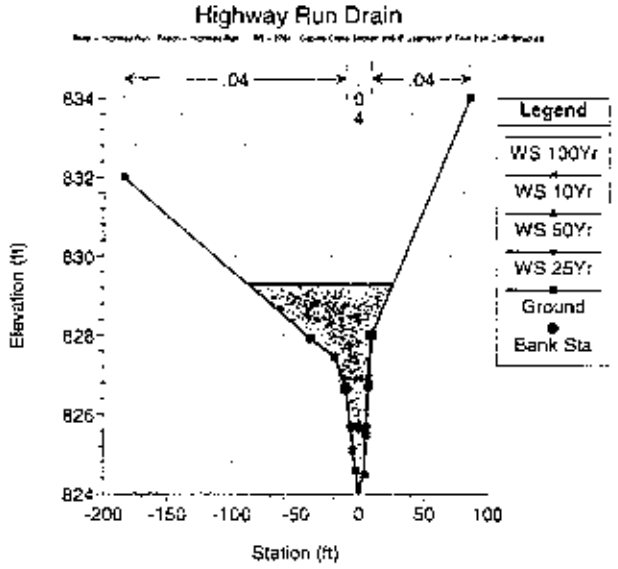
Highway Run Drain
River = Highway Run Reach = Highway Run RS = 3476.5*


Highway Run Drain
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)


Highway Run Drain
River = Highway Run Reach = Highway Run RS = 3005.*
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)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.04
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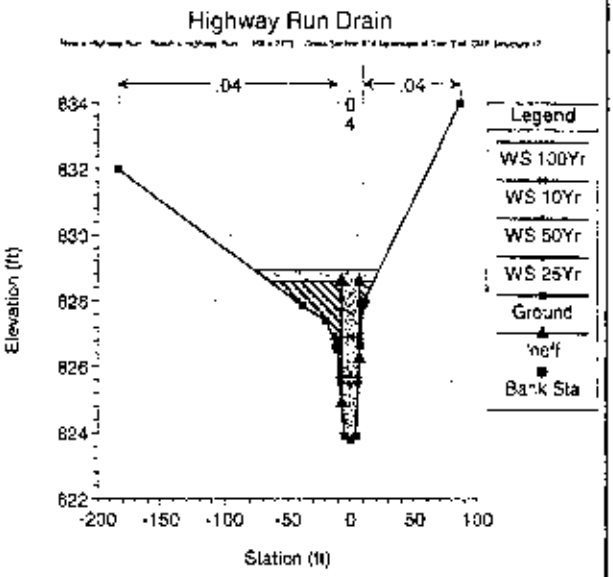
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)


Highway Run Drain
.04
.04
Legend
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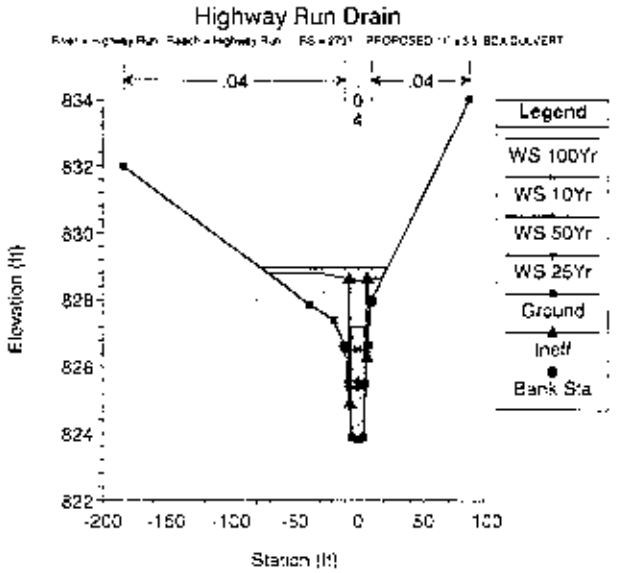
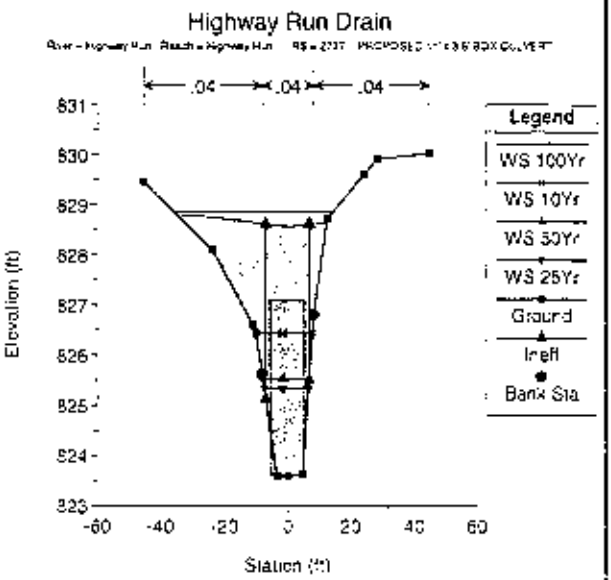
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)


Highway Run Drain
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)


Highway Run Drain
.04
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Legend
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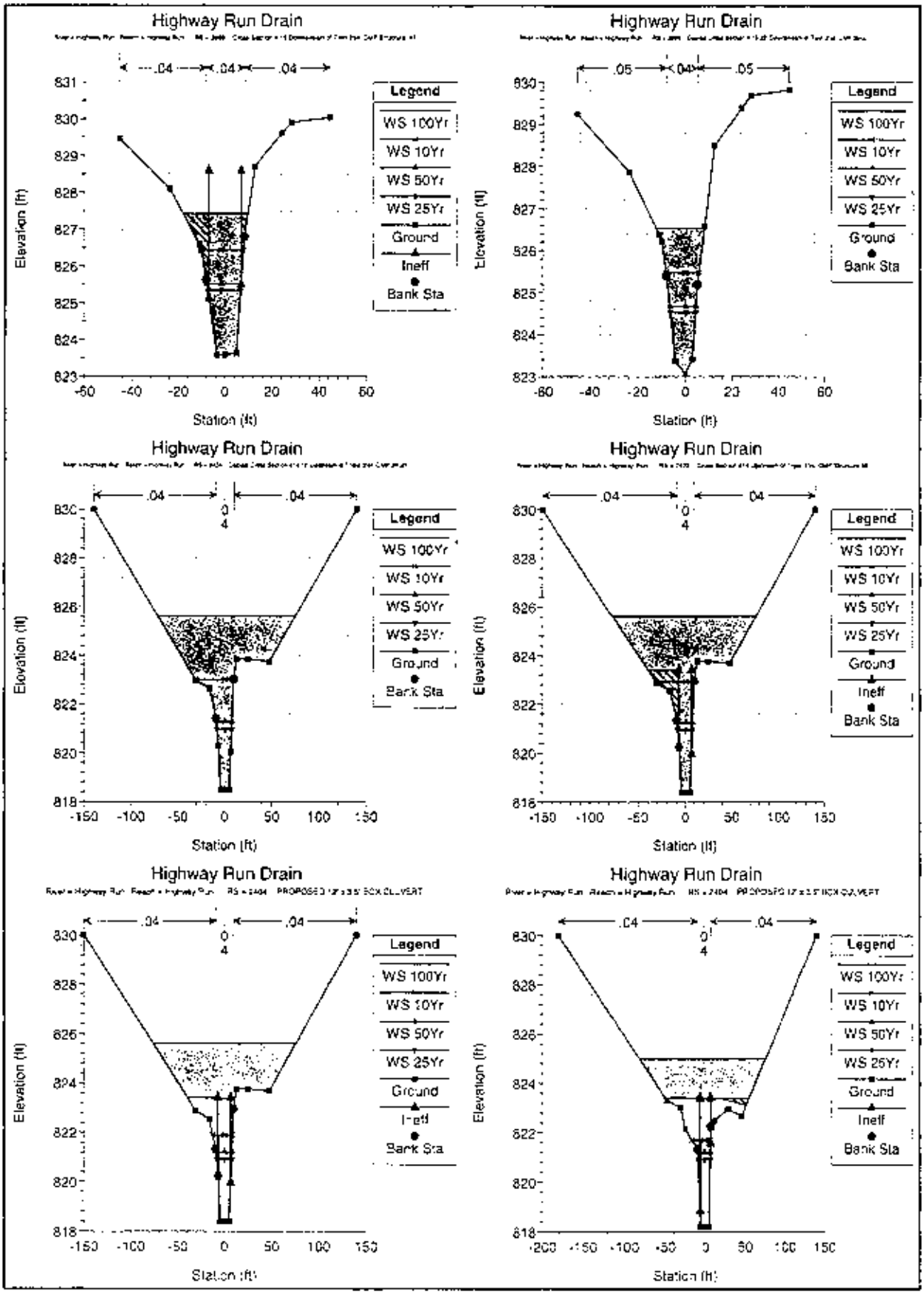
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)


Highway Run Drain
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.05
.04
.05
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
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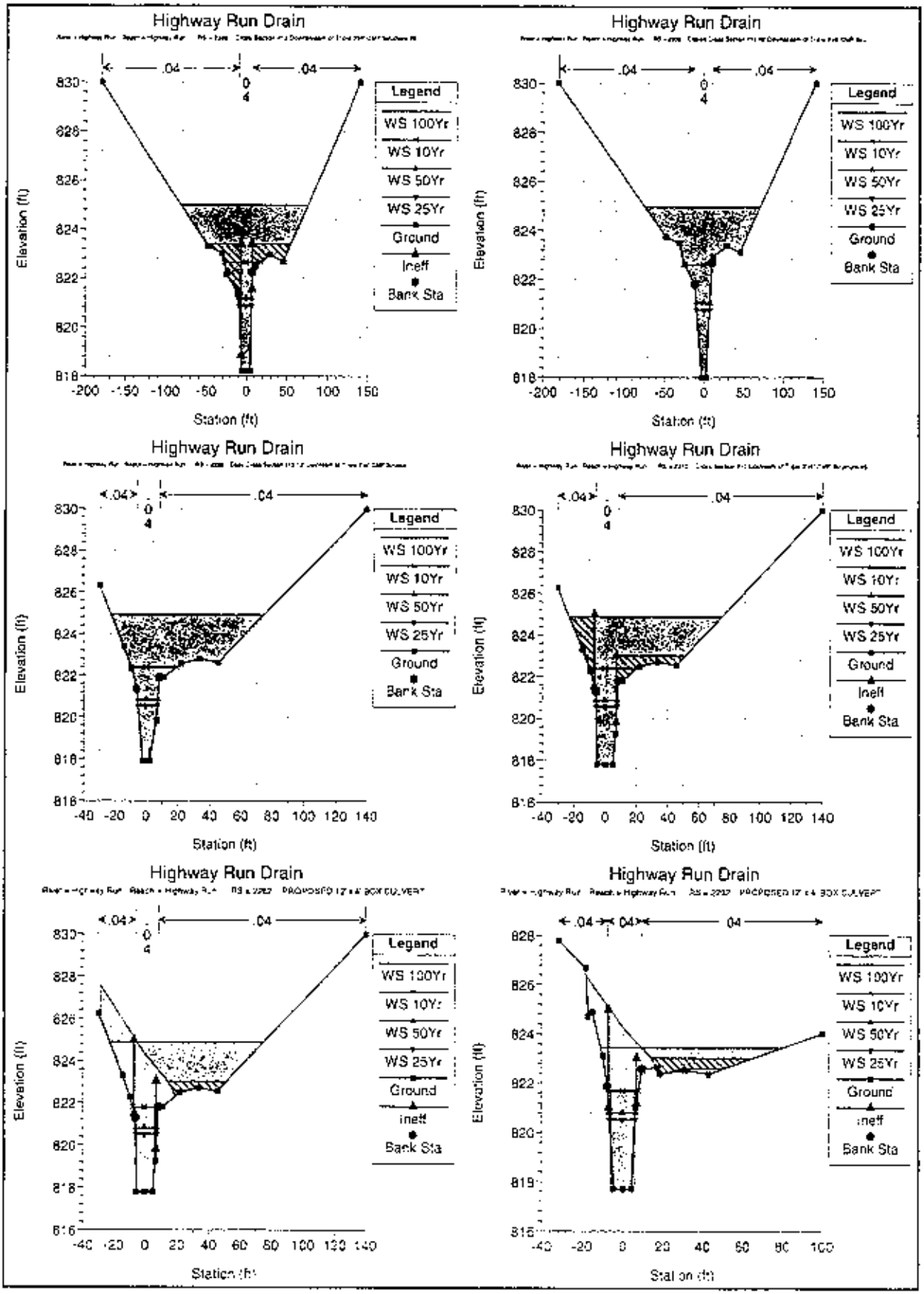
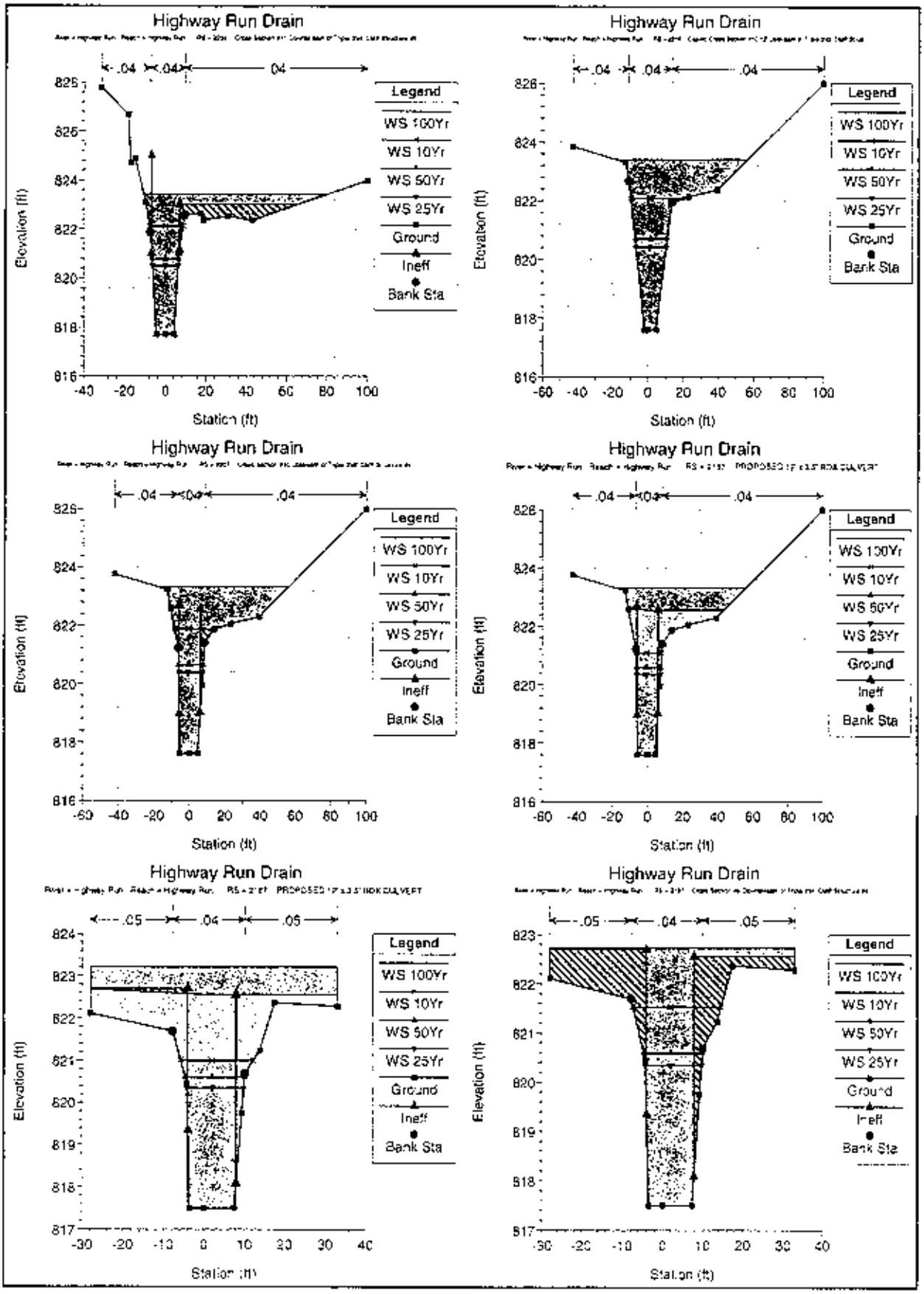
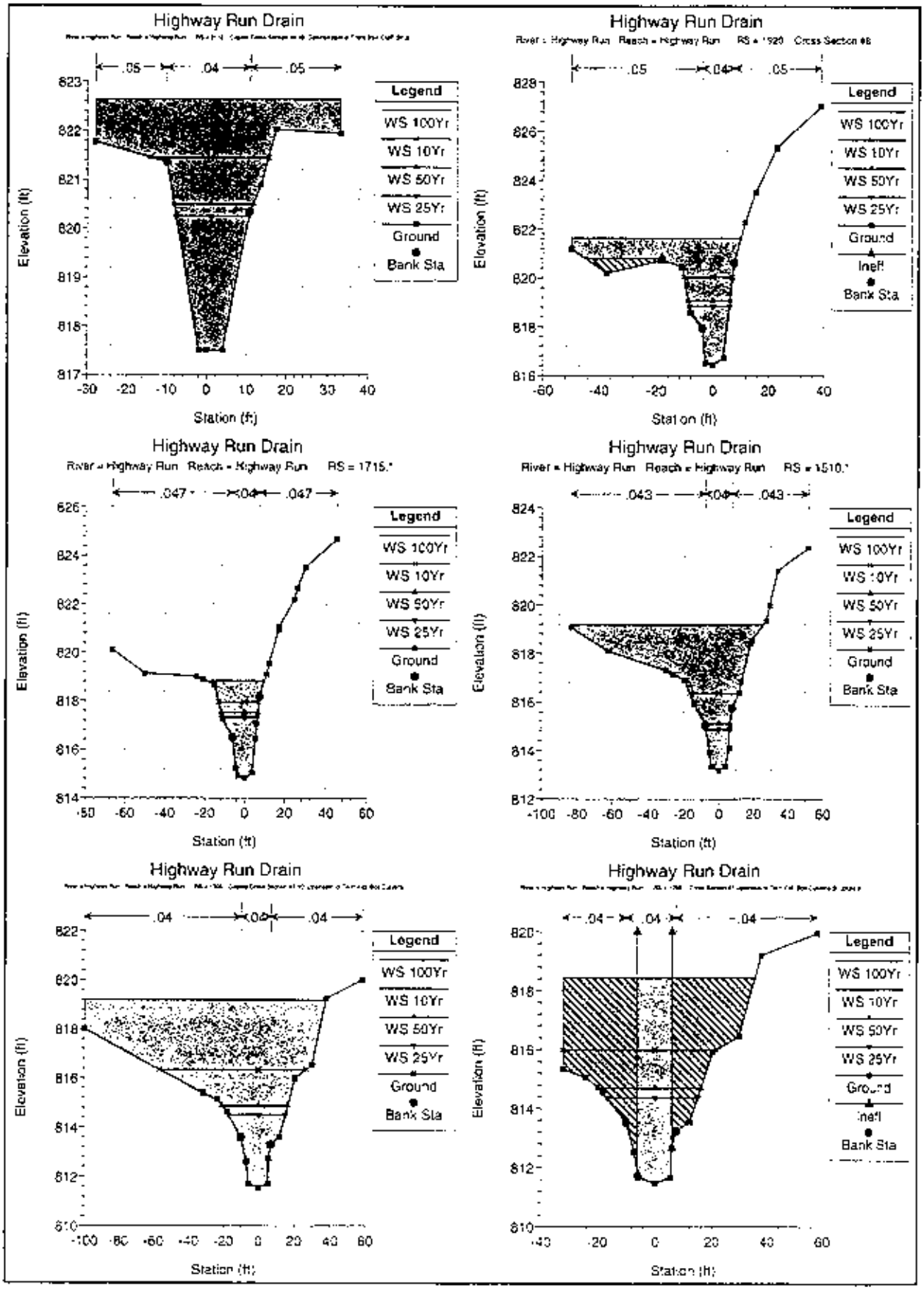
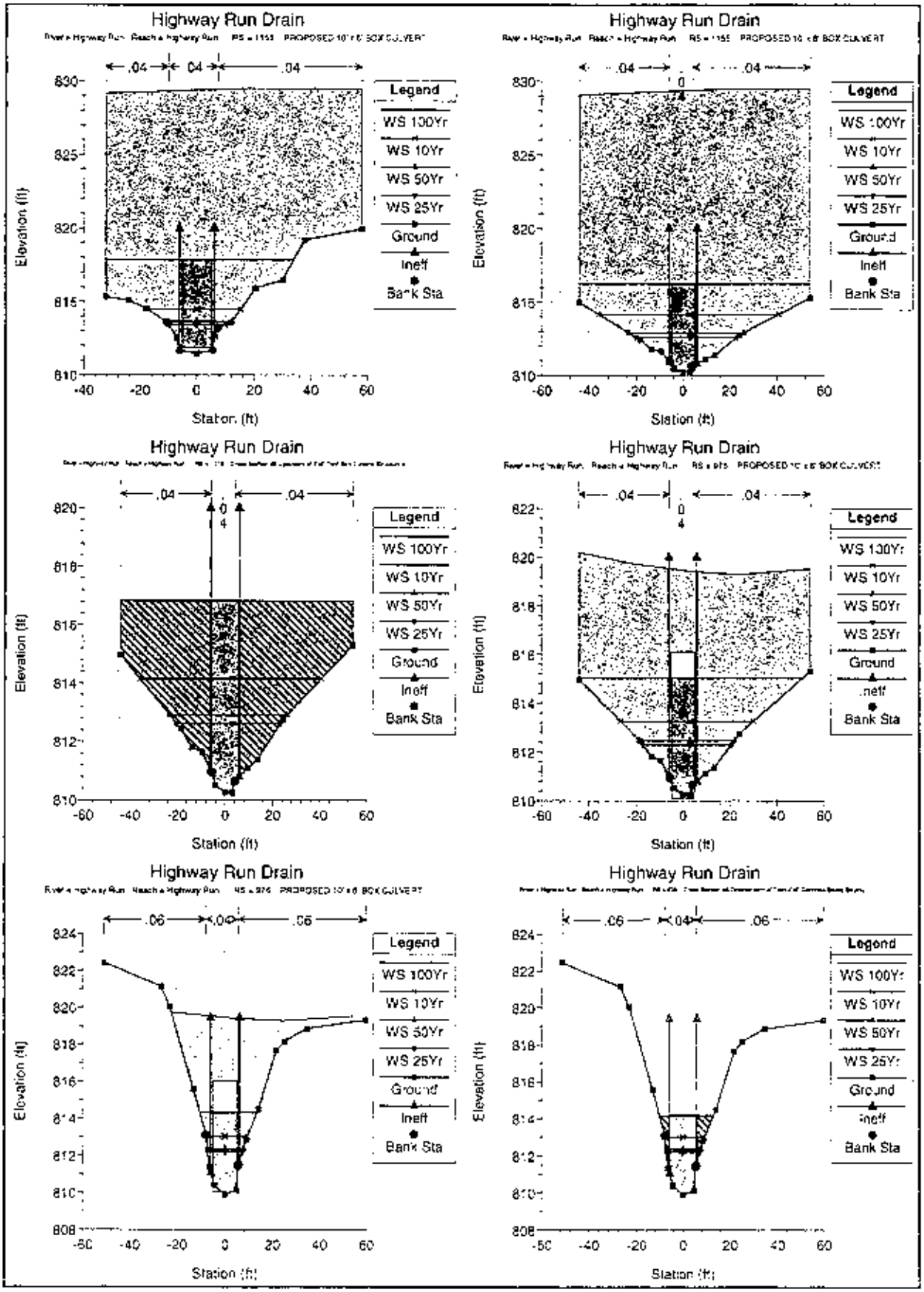
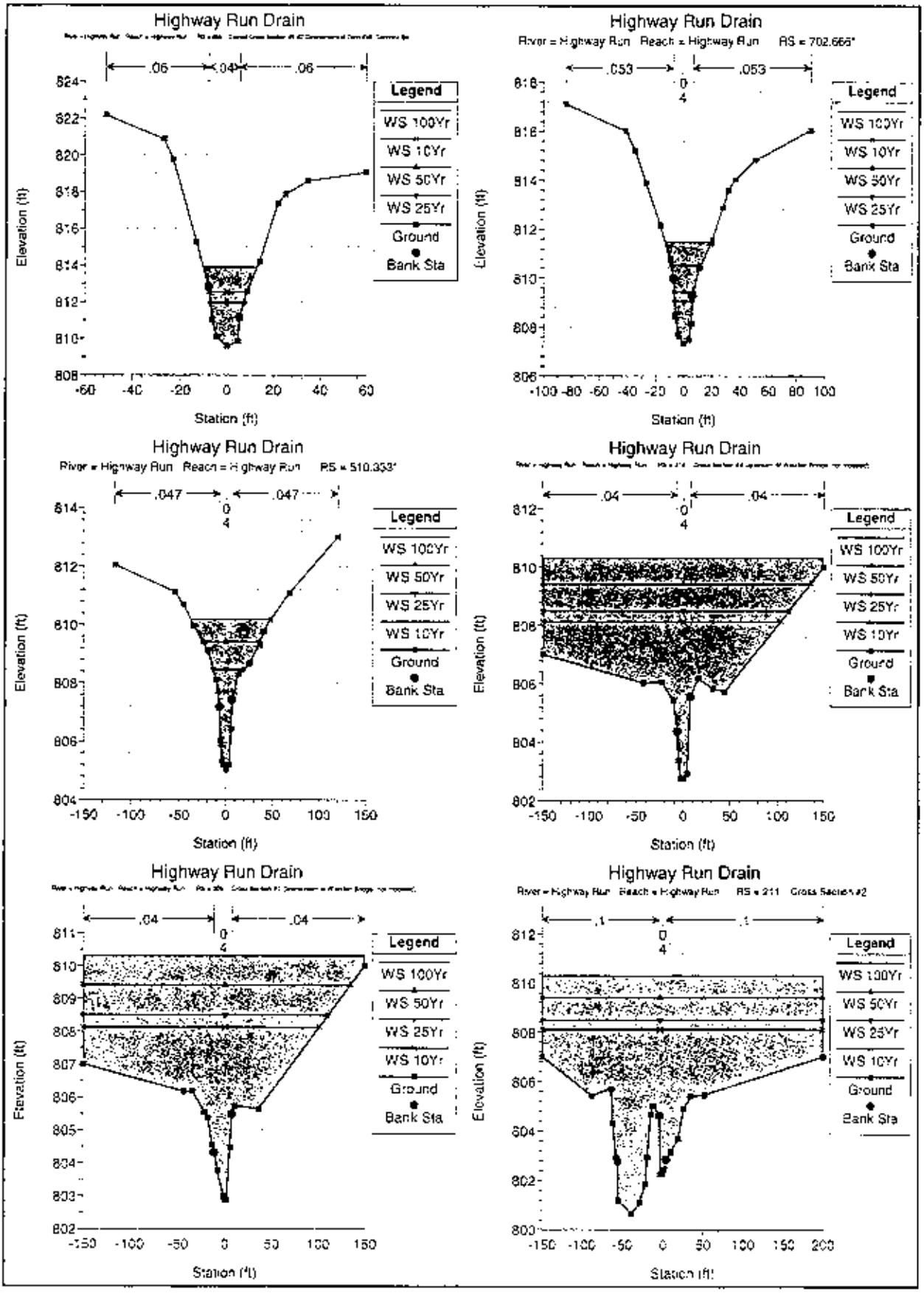
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)


Highway Run Drain
.04
.04
0
4
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
0
4
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
0
4
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
0
4
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
0
4
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Highway Run Drain
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)


Highway Run Drain
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.05
.04
.05
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.05
.04
.05
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)


Highway Run Drain
.05
.04
.05
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
River = Highway Run Reach = Highway Run RS = 1920 Cross Section #8
.05
.04
.05
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
River = Highway Run Reach = Highway Run RS = 1715.*
.047
.04
.047
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
River = Highway Run Reach = Highway Run RS = 1510.*
.043
.04
.043
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)


Highway Run Drain
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.06
.04
.06
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.06
.04
.06
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Ineff
Bank Sta
Elevation (ft)
Station (ft)


Highway Run Drain
.06
.04
.06
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
River = Highway Run Reach = Highway Run RS = 702.666*
.053
.053
Legend
WS 100Yr
WS 10Yr
WS 50Yr
WS 25Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
River = Highway Run Reach = Highway Run RS = 510.333*
.047
.047
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
.04
.04
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)
Highway Run Drain
River = Highway Run Reach = Highway Run RS = 211 Gross Section #2
.1
.1
Legend
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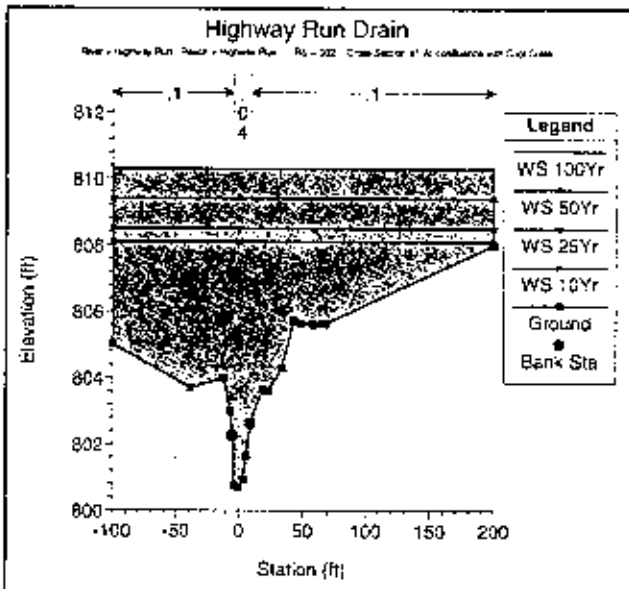
WS 10Yr
Ground
Bank Sta
Elevation (ft)
Station (ft)


Highway Run Drain
1
1
0
4
Legend
WS 100Yr
WS 50Yr
WS 25Yr
WS 10Yr
Ground
Bank Sta
Elevation (ft)
812
810
808
806
804
802
800
-100
-50
0
50
100
150
200
Station (ft)

HEC-RAS Plan: Proposed River: Highway Run Reach: Highway Run

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Highway Run	4753	186.00	845.28	853.06		853.06	0.000016	0.45	527.89	149.61	0.03
Highway Run	4733	67.00	845.28	849.04		849.05	0.000452	1.11	73.90	68.89	0.15
Highway Run	4733	56.00	845.28	848.58		848.61	0.001008	1.49	45.18	54.37	0.21
Highway Run	4733	88.00	845.28	849.96		849.97	0.000113	0.75	147.48	90.30	0.08
Highway Run	4723	186.00	845.21	853.04	848.57	852.05	0.000226	1.25	179.29	67.52	0.12
Highway Run	4723	67.00	845.21	848.62	847.04	848.00	0.001743	3.34	20.07	49.93	0.32
Highway Run	4723	56.00	845.21	848.39	846.67	848.55	0.001935	3.21	17.46	41.25	0.33
Highway Run	4723	88.00	845.21	849.73	847.36	849.91	0.001354	3.45	25.49	56.90	0.30
Highway Run	4688	Culvert									
Highway Run	4652	186.00	844.39	847.88	846.60	848.18	0.003291	4.40	42.31	44.40	0.44
Highway Run	4652	67.00	844.39	846.15	845.66	846.36	0.007090	3.88	18.21	31.93	0.57
Highway Run	4652	56.00	844.39	845.95	845.57	846.15	0.008294	3.62	15.47	27.73	0.60
Highway Run	4652	88.00	844.39	846.48	845.89	846.71	0.005776	3.86	22.81	33.25	0.53
Highway Run	4630	Culvert									
Highway Run	4607	186.00	844.09	846.37	846.37	847.37	0.019328	8.30	73.25	34.65	1.00
Highway Run	4607	67.00	844.09	845.80	845.39	846.05	0.007874	4.06	16.49	31.76	0.60
Highway Run	4607	56.00	844.09	845.58	845.28	845.89	0.007299	3.70	15.15	28.94	0.57
Highway Run	4607	88.00	844.09	845.90	845.59	846.29	0.010941	4.86	17.75	32.14	0.71
Highway Run	4567	186.00	843.81	845.83	845.83	846.34	0.017630	6.13	34.44	32.86	0.91
Highway Run	4567	67.00	843.81	845.09	845.09	845.45	0.022358	5.15	13.46	18.82	0.97
Highway Run	4567	56.00	843.81	844.98	844.98	845.36	0.024581	4.92	11.60	17.02	0.97
Highway Run	4567	88.00	843.81	845.31	845.31	845.71	0.019302	5.22	19.25	25.62	0.90
Highway Run	4352	186.00	840.19	845.61		845.65	0.000349	1.77	125.23	49.71	0.15
Highway Run	4352	67.00	840.19	842.97		843.03	0.001378	1.98	34.79	20.36	0.26
Highway Run	4352	56.00	840.19	842.69		842.75	0.001541	1.91	29.35	18.24	0.27
Highway Run	4352	88.00	840.19	843.47		843.53	0.001037	1.98	46.14	25.47	0.23
Highway Run	4344	186.00	840.13	845.43	842.57	845.61	0.000878	3.44	54.06	47.24	0.27
Highway Run	4344	67.00	840.13	842.91	841.64	843.01	0.001538	2.54	26.34	20.30	0.29
Highway Run	4344	56.00	840.13	842.64	841.40	842.72	0.001602	2.42	23.36	18.26	0.29
Highway Run	4344	88.00	840.13	843.38	841.76	843.50	0.001451	2.79	31.58	25.15	0.29
Highway Run	4306	Culvert									
Highway Run	4268	186.00	837.96	843.79	840.58	841.65	0.014643	7.44	25.00	17.24	0.87
Highway Run	4268	67.00	837.96	839.76	839.43	843.11	0.011115	4.76	14.07	15.88	0.76
Highway Run	4268	56.00	837.96	839.62	839.29	839.92	0.010657	4.42	12.68	13.42	0.68
Highway Run	4268	88.00	837.96	840.00	839.68	842.44	0.012001	5.25	16.44	14.55	0.74
Highway Run	4236	186.00	837.74	840.58		841.07	0.009419	5.36	34.89	17.41	0.67
Highway Run	4236	67.00	837.74	839.49		839.73	0.009387	3.95	16.97	13.71	0.63
Highway Run	4236	56.00	837.74	839.34		839.56	0.009452	3.75	14.95	13.23	0.62
Highway Run	4236	88.00	837.74	839.70		840.02	0.009466	4.31	20.43	14.51	0.64
Highway Run	3983.5*	186.00	835.30	928.13		938.58	0.010362	5.38	34.55	18.08	0.71
Highway Run	3983.5*	67.00	835.30	837.13		937.36	0.009360	3.84	17.45	15.06	0.63
Highway Run	3983.5*	56.00	835.30	837.00		837.20	0.009112	3.60	15.56	14.51	0.61
Highway Run	3983.5*	88.00	835.30	837.37		837.64	0.009312	4.16	21.17	16.09	0.64
Highway Run	3731*	186.00	832.65	835.65		926.06	0.009515	5.41	36.43	20.71	0.68
Highway Run	3731*	67.00	832.65	834.67		834.99	0.010186	3.76	17.82	17.21	0.65
Highway Run	3731*	56.00	832.65	834.54		834.74	0.010441	3.59	15.59	16.52	0.65
Highway Run	3731*	88.00	832.65	834.96		835.15	0.010617	4.17	21.10	17.92	0.68
Highway Run	3478.5*	186.00	830.41	832.94	832.62	833.39	0.011916	5.40	34.43	21.28	0.75
Highway Run	3478.5*	67.00	830.41	832.10		832.32	0.010184	3.72	18.02	17.75	0.65
Highway Run	3478.5*	56.00	830.41	831.99	831.71	832.18	0.009820	3.47	16.15	17.22	0.63
Highway Run	3478.5*	88.00	830.41	832.23	831.89	832.57	0.009519	3.97	22.17	18.90	0.65
Highway Run	3226	186.00	827.97	830.46	829.94	830.82	0.008813	4.84	38.39	22.30	0.65
Highway Run	3226	67.00	827.97	829.41		829.62	0.011187	3.79	17.66	17.93	0.67
Highway Run	3226	56.00	827.97	829.29	829.05	829.49	0.011605	3.62	15.46	17.40	0.68
Highway Run	3226	88.00	827.97	829.57		829.85	0.012106	4.27	20.61	18.62	0.72
Highway Run	3005.1*	186.00	826.05	829.55		829.73	0.005283	3.39	56.55	30.60	0.39
Highway Run	3005.1*	67.00	826.05	828.15	827.48	828.28	0.005377	2.59	24.90	15.74	0.41
Highway Run	3005.1*	56.00	826.05	828.00	827.39	828.16	0.005784	2.54	22.04	15.21	0.41

HEC-RAS Plan: Proposed River: Highway Run Reach: Highway Run (Continued)

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Highway Run	3005.*	89.00	826.05	828.62	827.65	829.72	0.002602	2.59	34.90	25.35	0.55
Highway Run	2784	350.00	824.13	829.21		829.40	0.001031	2.65	177.75	114.69	0.25
Highway Run	2784	85.00	824.13	825.76	825.76	826.30	0.024752	5.92	14.36	13.46	1.01
Highway Run	2784	71.00	824.13	825.62	825.62	826.11	0.025408	5.67	12.52	12.78	1.01
Highway Run	2784	180.00	824.13	826.91		827.37	0.010630	5.46	33.29	21.08	0.72
Highway Run	2776	350.00	823.80	828.97	825.62	829.33	0.003815	4.75	99.95	100.67	0.46
Highway Run	2776	85.00	823.80	825.71	825.11	825.94	0.005122	3.86	22.01	15.04	0.59
Highway Run	2776	71.00	823.80	825.49	824.58	825.78	0.005675	3.72	19.08	14.37	0.55
Highway Run	2776	180.00	823.80	826.91	825.84	827.25	0.004497	4.65	38.71	21.96	0.69
Highway Run	2737	Culvert									
Highway Run	2698	350.00	823.58	827.44	826.60	828.22	0.007581	7.12	49.17	27.93	0.67
Highway Run	2698	85.00	823.58	825.52	824.92	825.75	0.006177	3.80	22.37	14.93	0.53
Highway Run	2698	71.00	823.58	825.34	824.78	825.54	0.006294	3.58	19.84	14.30	0.53
Highway Run	2698	180.00	823.58	826.44	825.64	828.84	0.056125	5.12	35.19	16.20	0.57
Highway Run	2668	350.00	823.06	826.54	826.54	827.75	0.016146	6.92	42.03	20.85	0.94
Highway Run	2668	85.00	823.06	824.68	824.68	825.28	0.024582	6.78	13.67	11.56	1.01
Highway Run	2668	71.00	823.06	824.53	824.53	825.08	0.025082	6.93	11.57	11.11	1.01
Highway Run	2668	180.00	823.06	825.48	825.48	826.36	0.021777	7.58	28.89	14.31	1.00
Highway Run	2434	350.00	818.50	825.65		825.67	0.000188	1.57	340.03	148.37	0.11
Highway Run	2434	85.00	818.50	821.28		821.36	0.001629	2.31	36.80	17.28	0.28
Highway Run	2434	71.00	818.50	820.97		821.05	0.001718	2.24	31.66	16.26	0.28
Highway Run	2434	180.00	818.50	823.90		823.10	0.001010	2.52	78.70	41.59	0.24
Highway Run	2422	350.00	818.40	825.60	821.35	825.66	0.000266	1.76	309.93	153.29	0.12
Highway Run	2422	85.00	818.40	821.26	819.65	821.34	0.001258	2.35	36.20	17.48	0.26
Highway Run	2422	71.00	818.40	820.96	819.51	821.03	0.001336	2.22	31.99	16.47	0.26
Highway Run	2422	180.00	818.40	822.94	820.39	823.08	0.001070	3.01	59.74	41.87	0.26
Highway Run	2404	Culvert									
Highway Run	2386	400.00	818.20	825.03	821.38	825.02	0.000253	1.76	353.93	157.64	0.12
Highway Run	2386	113.00	818.20	821.17	819.57	821.30	0.001871	2.90	37.99	16.28	0.31
Highway Run	2386	91.00	818.20	820.88	819.41	820.99	0.001785	2.67	34.09	15.95	0.30
Highway Run	2386	220.00	818.20	822.65	820.36	822.87	0.001824	3.75	58.73	46.78	0.32
Highway Run	2338	400.00	818.00	824.96		825.01	0.000345	2.01	297.56	145.48	0.15
Highway Run	2338	110.00	818.00	821.06		821.19	0.002717	2.95	37.35	16.46	0.36
Highway Run	2338	91.00	818.00	820.76		820.88	0.002821	2.84	32.04	17.25	0.37
Highway Run	2338	220.00	818.00	822.60		822.75	0.001726	3.98	75.35	36.00	0.31
Highway Run	2322	400.00	817.90	824.93		824.99	0.000515	2.45	236.87	97.70	0.18
Highway Run	2322	110.00	817.90	820.84		821.11	0.005943	4.16	26.43	12.99	0.51
Highway Run	2322	91.00	817.90	820.56		820.80	0.006063	3.99	22.80	12.39	0.52
Highway Run	2322	220.00	817.90	822.39		822.69	0.003552	4.43	53.63	29.07	0.43
Highway Run	2310	400.00	817.80	824.85	821.08	824.96	0.000746	2.89	192.59	88.02	0.20
Highway Run	2310	110.00	817.80	820.87	819.26	821.00	0.002120	2.95	37.26	12.77	0.31
Highway Run	2310	91.00	817.80	820.58	819.09	820.70	0.002014	2.71	33.64	13.62	0.30
Highway Run	2310	220.00	817.80	822.40	820.06	822.62	0.002054	3.82	58.18	30.64	0.32
Highway Run	2292	Culvert									
Highway Run	2255	400.00	817.70	823.44	821.25	823.68	0.002298	4.25	128.35	81.45	0.35
Highway Run	2255	110.00	817.70	820.78	819.29	820.94	0.002747	2.98	34.62	13.39	0.35
Highway Run	2255	91.00	817.70	820.51	819.10	820.64	0.002557	2.93	31.22	12.51	0.33
Highway Run	2255	220.00	817.70	822.12	820.15	822.33	0.002793	4.13	53.31	16.93	0.37
Highway Run	2219	400.00	817.60	823.41		823.57	0.001451	3.41	143.90	75.59	0.30
Highway Run	2219	110.00	817.60	820.71		820.89	0.002382	2.82	39.21	19.60	0.34
Highway Run	2219	91.00	817.60	820.43		820.54	0.002380	2.69	33.96	17.52	0.34
Highway Run	2219	220.00	817.60	822.09		822.25	0.002040	3.21	68.98	31.09	0.33
Highway Run	2207	400.00	817.50	823.33	820.95	823.52	0.001875	4.03	154.01	75.00	0.31
Highway Run	2207	110.00	817.50	820.61	819.06	820.80	0.001585	3.12	35.29	14.09	0.29
Highway Run	2207	91.00	817.50	820.39	818.91	820.51	0.001849	2.93	32.17	13.76	0.32
Highway Run	2207	220.00	817.50	821.98	819.85	822.19	0.002465	4.09	58.12	23.45	0.39
Highway Run	2187	Culvert									

HEC-RAS Plan: Proposed River: Highway Run Reach: Highway Run (Continued)

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Highway Run	2167	400.00	817.50	822.74	820.85	823.04	0.002938	4.87	109.48	61.10	0.40
Highway Run	2167	110.00	817.50	820.59	818.92	820.73	0.001781	3.01	36.48	14.51	0.30
Highway Run	2167	91.00	817.50	820.34	818.75	820.46	0.001620	2.72	33.50	14.18	0.29
Highway Run	2167	220.00	817.50	821.53	819.73	821.66	0.002908	4.61	47.75	22.07	0.41
Highway Run	2119	400.00	817.50	822.65		822.88	0.002219	4.18	122.77	61.10	0.37
Highway Run	2119	110.00	817.50	820.50		820.62	0.002581	2.87	38.41	20.02	0.36
Highway Run	2119	91.00	817.50	820.35		820.36	0.002597	2.71	33.63	19.47	0.35
Highway Run	2119	220.00	817.50	821.45		821.66	0.002950	5.77	60.58	29.79	0.43
Highway Run	1920	510.00	816.44	821.64	820.45	822.14	0.005789	6.65	114.45	60.08	0.56
Highway Run	1920	137.00	816.44	819.08	818.74	819.58	0.010937	5.85	26.55	15.15	0.70
Highway Run	1920	114.00	816.44	818.94	818.50	819.31	0.011148	5.57	22.04	14.55	0.70
Highway Run	1920	241.00	816.44	820.04	819.46	820.84	0.009415	6.52	41.27	17.53	0.68
Highway Run	1715.*	510.00	814.81	818.85	818.76	820.19	0.016056	9.60	61.33	30.12	0.94
Highway Run	1715.*	137.00	814.81	817.53	816.83	817.85	0.005347	4.66	31.72	19.04	0.55
Highway Run	1715.*	114.00	814.81	817.33	816.62	817.61	0.005005	4.32	29.58	18.28	0.53
Highway Run	1715.*	241.00	814.81	817.95	817.62	818.58	0.010626	6.59	40.26	20.72	0.73
Highway Run	1510.*	510.00	813.17	818.19		819.31	0.000976	3.41	234.88	109.00	0.26
Highway Run	1510.*	137.00	813.17	815.10		815.73	0.016852	6.26	21.88	14.89	0.82
Highway Run	1510.*	114.00	813.17	814.86	814.82	815.47	0.021478	6.27	18.19	13.74	0.86
Highway Run	1510.*	241.00	813.17	816.56		816.81	0.006813	5.54	46.29	28.55	0.60
Highway Run	1305	510.00	811.54	819.20		819.22	0.000127	1.49	486.40	137.69	0.10
Highway Run	1305	137.00	811.54	814.87		814.96	0.001152	2.42	65.40	37.69	0.25
Highway Run	1305	114.00	811.54	814.57		814.60	0.001375	2.41	52.77	32.56	0.27
Highway Run	1305	241.00	811.54	816.34		816.40	0.000573	2.25	148.60	83.48	0.18
Highway Run	1295	510.00	811.47	818.44	815.41	819.04	0.002310	6.20	82.29	58.35	0.42
Highway Run	1295	137.00	811.47	814.89	813.17	814.30	0.002343	3.58	37.23	35.94	0.37
Highway Run	1295	114.00	811.47	814.37	812.99	814.55	0.002338	3.42	33.37	31.72	0.36
Highway Run	1295	241.00	811.47	815.98	813.90	816.31	0.002268	4.57	52.76	54.03	0.38
Highway Run	1155	Culvert									
Highway Run	1016	510.00	810.24	816.83	814.27	817.52	0.002770	5.70	76.49	58.40	0.47
Highway Run	1016	137.00	810.24	812.91	812.35	813.24	0.004840	4.72	29.38	49.54	0.63
Highway Run	1016	114.00	810.24	812.62	811.97	812.92	0.005058	4.46	25.96	43.80	0.63
Highway Run	1016	241.00	810.24	814.15	812.78	814.61	0.003801	5.48	44.36	76.74	0.56
Highway Run	978	Culvert									
Highway Run	935	510.00	809.87	814.19	814.07	816.01	0.014819	10.87	47.46	23.48	0.96
Highway Run	935	137.00	809.87	812.35	811.82	812.81	0.008461	5.43	25.40	15.10	0.65
Highway Run	935	114.00	809.87	812.21	811.69	812.57	0.007273	4.85	23.71	14.67	0.60
Highway Run	935	241.00	809.87	813.02	812.56	813.64	0.010820	7.28	33.46	17.32	0.76
Highway Run	895	510.00	809.59	813.90		815.20	0.013108	9.41	61.47	29.42	0.96
Highway Run	895	137.00	809.59	811.98	811.55	812.44	0.010167	5.43	25.95	14.83	0.69
Highway Run	895	114.00	809.59	811.82	811.55	812.26	0.007797	4.67	24.94	14.64	0.60
Highway Run	895	241.00	809.59	812.53		813.35	0.014059	7.32	34.48	16.51	0.83
Highway Run	732.666*	510.00	807.31	811.48	811.48	812.88	0.012519	9.18	66.94	33.17	0.85
Highway Run	732.666*	137.00	807.31	809.45		810.03	0.015417	6.12	22.44	14.27	0.93
Highway Run	732.666*	114.00	807.31	809.09	809.09	809.73	0.023505	6.69	17.27	12.98	1.00
Highway Run	732.666*	241.00	807.31	810.53	809.98	811.13	0.008789	6.29	41.11	21.92	0.69
Highway Run	510.333*	510.00	805.03	810.19		810.50	0.002876	5.22	152.75	86.56	0.43
Highway Run	510.333*	137.00	805.03	809.41		809.46	0.000554	2.22	94.87	62.42	0.19
Highway Run	510.333*	114.00	805.03	809.46		809.56	0.001360	2.64	46.94	22.94	0.27
Highway Run	510.333*	241.00	805.03	807.70	807.07	809.56	0.018335	7.58	31.24	18.23	0.96
Highway Run	318	510.00	802.75	810.32		810.33	0.000027	0.67	1095.16	350.00	0.04
Highway Run	318	137.00	802.75	809.42		809.42	0.000005	0.25	829.94	285.78	0.02
Highway Run	318	114.00	802.75	809.31		809.31	0.000005	0.22	579.31	283.21	0.02
Highway Run	318	241.00	802.75	809.13		809.14	0.000070	0.54	481.25	253.97	0.07
Highway Run	309	510.00	802.67	810.32		810.32	0.000027	0.67	1095.47	350.00	0.05
Highway Run	309	137.00	802.67	809.42		809.42	0.000004	0.25	827.77	284.72	0.02
Highway Run	309	114.00	802.67	809.30		809.30	0.000005	0.21	579.09	281.99	0.02
Highway Run	309	241.00	802.67	809.12		809.13	0.000067	0.53	482.34	254.24	0.07

HEC-RAS Plan: Proposed River: Highway Run Reach: Highway Run (Continued)

Reach	River Sta	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
		(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Highway Run	211	510.00	802.23	810.31		810.31	0.000037	0.80	1795.58	350.00	0.05
Highway Run	211	137.00	802.23	809.41		809.41	0.000005	0.27	1480.46	350.00	0.02
Highway Run	211	114.00	802.23	808.50		808.50	0.000007	0.30	1163.51	350.00	0.02
Highway Run	211	241.00	802.23	808.11		808.11	0.000047	0.72	1027.39	350.00	0.05
Highway Run	002	510.00	800.68	810.30	804.72	810.30	0.000042	1.30	1509.52	300.00	0.05
Highway Run	002	137.00	800.68	809.40	802.62	809.40	0.000005	0.34	1239.63	300.00	0.02
Highway Run	002	114.00	800.68	808.50	802.44	808.50	0.000007	0.38	989.62	300.00	0.02
Highway Run	002	241.00	800.68	808.10	803.22	808.10	0.000047	0.88	849.61	300.00	0.05