

HEC-RAS Plan: Plan 01 River: VER1 Reach: VER1

Reach	River Sta	Profile	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
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
VER1	3.840	Q=5	5.00	461.63	462.54	462.54	462.67	0.017783	1.60	3.12	13.24	1.05
VER1	3.840	Q=10	10.00	461.63	462.69	462.69	462.89	0.014732	1.96	5.09	13.61	1.02
VER1	3.840	Q=15	15.00	461.63	462.83	462.83	463.05	0.013401	2.11	7.11	15.78	1.00
VER1	3.840	Q10	18.00	461.63	462.89	462.89	463.14	0.013540	2.22	8.11	16.74	1.02
VER1	3.840	Q=25	25.00	461.63	463.03	463.03	463.31	0.012620	2.35	10.62	18.96	1.00
VER1	3.840	Q=30	30.00	461.63	463.11	463.11	463.42	0.012647	2.47	12.15	20.19	1.02
VER1	3.840	Q100	40.00	461.63	463.26	463.26	463.60	0.011636	2.61	15.35	21.96	0.99
VER1	3.840	Q=45	45.00	461.63	463.32	463.32	463.69	0.011386	2.71	16.62	21.96	0.99
VER1	3.840	Q500	56.00	461.63	463.43	463.43	463.87	0.011030	2.92	19.20	21.96	1.00
VER1	3.840	Q=65	65.00	461.63	463.52	463.52	464.00	0.010834	3.07	21.17	21.96	1.00
VER1	3.840	Qproj	32.00	461.63	463.14	463.14	463.46	0.012268	2.48	12.90	20.76	1.00
VER1	11.800	Q=5	5.00	461.78	462.62	462.62	462.97	0.014791	2.60	1.93	2.84	1.01
VER1	11.800	Q=10	10.00	461.78	463.04	463.04	463.53	0.014313	3.09	3.24	3.38	1.01
VER1	11.800	Q=15	15.00	461.78	463.58	463.58	463.78	0.013636	1.97	7.61	19.07	1.00
VER1	11.800	Q10	18.00	461.78	463.62	463.62	463.85	0.014323	2.15	8.38	19.07	1.03
VER1	11.800	Q=25	25.00	461.78	463.73	463.73	464.02	0.013413	2.39	10.45	19.07	1.03
VER1	11.800	Q=30	30.00	461.78	463.80	463.80	464.13	0.012774	2.53	11.86	19.07	1.02
VER1	11.800	Q100	40.00	461.78	463.94	463.94	464.33	0.012012	2.77	14.43	19.07	1.02
VER1	11.800	Q=45	45.00	461.78	464.00	464.00	464.42	0.011753	2.88	15.63	19.07	1.02
VER1	11.800	Q500	56.00	461.78	464.13	464.13	464.62	0.011263	3.09	18.13	19.07	1.01
VER1	11.800	Q=65	65.00	461.78	464.23	464.23	464.77	0.011160	3.26	19.95	19.07	1.02
VER1	11.800	Qproj	32.00	461.78	463.83	463.83	464.17	0.012518	2.58	12.42	19.07	1.02
VER1	25.250	Q=5	5.00	462.09	462.94	462.94	463.27	0.014342	2.53	1.98	3.05	1.00
VER1	25.250	Q=10	10.00	462.09	463.32	463.32	463.81	0.014791	3.11	3.22	3.51	1.04
VER1	25.250	Q=15	15.00	462.09	463.79		463.94	0.009804	1.69	8.88	21.84	0.85
VER1	25.250	Q10	18.00	462.09	463.85		464.01	0.008811	1.76	10.25	21.84	0.82
VER1	25.250	Q=25	25.00	462.09	463.98		464.17	0.007999	1.94	12.91	21.84	0.80
VER1	25.250	Q=30	30.00	462.09	464.06		464.27	0.007581	2.04	14.67	21.84	0.80
VER1	25.250	Q100	40.00	462.09	464.21		464.46	0.006833	2.21	18.08	21.84	0.78
VER1	25.250	Q=45	45.00	462.09	464.29		464.55	0.006528	2.28	19.71	21.84	0.77
VER1	25.250	Q500	56.00	462.09	464.44		464.74	0.006037	2.42	23.13	21.84	0.75
VER1	25.250	Q=65	65.00	462.09	464.57		464.89	0.005616	2.51	25.95	21.84	0.73
VER1	25.250	Qproj	32.00	462.09	464.09		464.31	0.007440	2.08	15.35	21.84	0.79

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Reach	River Sta	Profile	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
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
VER1	49.520	Q=5	5.00	462.96	463.74	463.74	464.07	0.014632	2.56	1.96	2.97	1.01
VER1	49.520	Q=10	10.00	462.96	464.15	464.15	464.63	0.014261	3.07	3.26	3.43	1.01
VER1	49.520	Q=15	15.00	462.96	464.62	464.62	464.82	0.014627	1.99	7.55	19.34	1.02
VER1	49.520	Q10	18.00	462.96	464.68	464.68	464.89	0.014591	2.06	8.73	21.19	1.03
VER1	49.520	Q=25	25.00	462.96	464.79	464.79	465.04	0.013084	2.23	11.23	22.26	1.00
VER1	49.520	Q=30	30.00	462.96	464.86	464.86	465.14	0.012745	2.37	12.65	22.26	1.00
VER1	49.520	Q100	40.00	462.96	464.98	464.98	465.32	0.012159	2.61	15.31	22.26	1.01
VER1	49.520	Q=45	45.00	462.96	465.03	465.03	465.41	0.011779	2.71	16.62	22.26	1.00
VER1	49.520	Q500	56.00	462.96	465.15	465.15	465.58	0.011372	2.91	19.22	22.26	1.00
VER1	49.520	Q=65	65.00	462.96	465.24	465.24	465.72	0.011017	3.06	21.28	22.26	1.00
VER1	49.520	Qproj	32.00	462.96	464.88	464.88	465.18	0.012458	2.41	13.25	22.26	1.00
VER1	76.210	Q=5	5.00	463.92	464.71	464.71	465.05	0.015210	2.59	1.93	2.83	1.00
VER1	76.210	Q=10	10.00	463.92	465.12	465.12	465.62	0.015154	3.14	3.19	3.21	1.01
VER1	76.210	Q=15	15.00	463.92	465.72	465.72	465.93	0.014814	2.07	7.25	17.12	1.01
VER1	76.210	Q10	18.00	463.92	465.78	465.78	466.02	0.013868	2.17	8.29	17.14	1.00
VER1	76.210	Q=25	25.00	463.92	465.90	465.90	466.19	0.013329	2.42	10.32	17.18	1.00
VER1	76.210	Q=30	30.00	463.92	465.96	465.96	466.31	0.013594	2.61	11.50	17.20	1.02
VER1	76.210	Q100	40.00	463.92	466.10	466.10	466.53	0.013441	2.89	13.86	17.25	1.03
VER1	76.210	Q=45	45.00	463.92	466.18	466.18	466.63	0.012868	2.97	15.16	17.28	1.01
VER1	76.210	Q500	56.00	463.92	466.31	466.31	466.83	0.012870	3.21	17.45	17.32	1.02
VER1	76.210	Q=65	65.00	463.92	466.42	466.42	466.99	0.012468	3.35	19.42	17.36	1.01
VER1	76.210	Qproj	32.00	463.92	465.99	465.99	466.36	0.013468	2.66	12.02	17.21	1.02
VER1	112.600	Q=5	5.00	465.05	465.63	465.63	465.92	0.014639	2.37	2.11	3.73	1.01
VER1	112.600	Q=10	10.00	465.05	465.97	465.97	466.41	0.014511	2.95	3.39	3.86	1.01
VER1	112.600	Q=15	15.00	465.05	466.25	466.25	466.82	0.014677	3.35	4.48	3.97	1.01
VER1	112.600	Q10	18.00	465.05	466.41	466.41	467.04	0.014699	3.53	5.10	4.03	1.00
VER1	112.600	Q=25	25.00	465.05	467.06	467.06	467.43	0.013628	2.70	9.25	12.28	0.99
VER1	112.600	Q=30	30.00	465.05	467.18	467.18	467.56	0.013933	2.73	10.98	14.94	1.02
VER1	112.600	Q100	40.00	465.05	467.36	467.36	467.79	0.012998	2.89	13.86	16.67	1.01
VER1	112.600	Q=45	45.00	465.05	467.44	467.44	467.89	0.012697	2.95	15.24	17.48	1.01
VER1	112.600	Q500	56.00	465.05	467.60	467.60	468.09	0.012114	3.08	18.18	19.10	1.01
VER1	112.600	Q=65	65.00	465.05	467.72	467.72	468.23	0.011863	3.18	20.43	20.26	1.01

HEC-RAS Plan: Plan 01 River: VER1 Reach: VER1 (Continued)

Reach	River Sta	Profile	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
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
VER1	112.600	Qproj	32.00	465.05	467.22	467.22	467.61	0.013378	2.76	11.58	14.94	1.00
VER1	129.840	Q=5	5.00	465.48	466.11	466.11	466.40	0.013726	2.40	2.09	3.61	1.00
VER1	129.840	Q=10	10.00	465.48	466.46	466.46	466.90	0.013504	2.95	3.39	3.86	1.01
VER1	129.840	Q=15	15.00	465.48	466.75	466.75	467.31	0.013358	3.31	4.54	4.08	1.00
VER1	129.840	Q10	18.00	465.48	466.90	466.90	467.52	0.013405	3.48	5.17	4.19	1.00
VER1	129.840	Q=25	25.00	465.48	467.22	467.22	467.96	0.013552	3.81	6.55	4.43	1.00
VER1	129.840	Q=30	30.00	465.48	467.42	467.42	468.25	0.013751	4.02	7.46	4.58	1.00
VER1	129.840	Q100	40.00	465.48	468.03	468.03	468.59	0.012893	3.33	12.00	10.93	1.02
VER1	129.840	Q=45	45.00	465.48	468.13	468.13	468.73	0.012513	3.41	13.19	11.36	1.01
VER1	129.840	Q500	56.00	465.48	468.34	468.34	469.00	0.011970	3.57	15.67	12.20	1.01
VER1	129.840	Q=65	65.00	465.48	468.50	468.50	469.19	0.011654	3.69	17.61	12.82	1.01
VER1	129.840	Qproj	32.00	465.48	467.50	467.50	468.36	0.013817	4.09	7.82	4.63	1.01
VER1	133.790	Q=5	5.00	465.58	466.21	466.21	466.50	0.013935	2.39	2.09	3.63	1.01
VER1	133.790	Q=10	10.00	465.58	466.56	466.56	466.99	0.013360	2.92	3.43	3.99	1.00
VER1	133.790	Q=15	15.00	465.58	466.85	466.85	467.39	0.013022	3.25	4.61	4.27	1.00
VER1	133.790	Q10	18.00	465.58	467.27	467.10	467.59	0.009235	2.51	7.16	7.77	0.84
VER1	133.790	Q=25	25.00	465.58	467.88	467.40	468.05	0.005084	1.85	13.50	15.59	0.64
VER1	133.790	Q=30	30.00	465.58	468.22	467.56	468.34	0.002732	1.55	19.37	18.44	0.48
VER1	133.790	Q100	40.00	465.58	468.53		468.65	0.002166	1.59	25.21	19.35	0.44
VER1	133.790	Q=45	45.00	465.58	468.66		468.79	0.002053	1.62	27.74	19.72	0.44
VER1	133.790	Q500	56.00	465.58	468.91		469.06	0.001896	1.70	32.93	20.48	0.43
VER1	133.790	Q=65	65.00	465.58	469.10		469.26	0.001810	1.76	36.87	20.86	0.42
VER1	133.790	Qproj	32.00	465.58	468.34	467.61	468.45	0.002228	1.48	21.59	18.79	0.44
VER1	151.330	Q=5	5.00	466.12	466.75	466.75	467.04	0.013939	2.39	2.09	3.63	1.01
VER1	151.330	Q=10	10.00	466.12	467.10	467.10	467.54	0.013383	2.92	3.42	3.98	1.01
VER1	151.330	Q=15	15.00	466.12	467.38	467.38	467.93	0.013188	3.27	4.59	4.26	1.00
VER1	151.330	Q10	18.00	466.12	467.54	467.54	468.14	0.013035	3.42	5.26	4.42	1.00
VER1	151.330	Q=25	25.00	466.12	468.13	468.13	468.51	0.013294	2.75	9.08	12.22	1.02
VER1	151.330	Q=30	30.00	466.12	468.28	468.28	468.65	0.012596	2.69	11.15	15.13	1.00
VER1	151.330	Q100	40.00	466.12	468.47	468.47	468.87	0.012747	2.78	14.38	18.96	1.02
VER1	151.330	Q=45	45.00	466.12	468.54	468.54	468.96	0.012379	2.88	15.62	19.04	1.02
VER1	151.330	Q500	56.00	466.12	468.82		469.18	0.007356	2.66	21.08	19.37	0.81

HEC-RAS Plan: Plan 01 River: VER1 Reach: VER1 (Continued)

Reach	River Sta	Profile	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
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
VER1	151.330	Q=65	65.00	466.12	469.03		469.37	0.005740	2.60	25.05	19.61	0.73
VER1	151.330	Qproj	32.00	466.12	468.33	468.33	468.70	0.012695	2.69	11.89	16.33	1.01
VER1	174.390	Q=5	5.00	466.82	467.45	467.45	467.74	0.013903	2.39	2.09	3.63	1.01
VER1	174.390	Q=10	10.00	466.82	467.80	467.80	468.24	0.013406	2.92	3.42	3.98	1.01
VER1	174.390	Q=15	15.00	466.82	468.08	468.08	468.63	0.013211	3.27	4.59	4.26	1.01
VER1	174.390	Q10	18.00	466.82	468.24	468.24	468.83	0.013122	3.43	5.25	4.42	1.00
VER1	174.390	Q=25	25.00	466.82	468.55	468.55	469.26	0.013089	3.74	6.68	4.73	1.01
VER1	174.390	Q=30	30.00	466.82	469.08	469.08	469.45	0.012626	2.71	11.07	14.95	1.01
VER1	174.390	Q100	40.00	466.82	469.23	469.23	469.68	0.012450	2.95	13.55	15.88	1.02
VER1	174.390	Q=45	45.00	466.82	469.31	469.31	469.78	0.012042	3.05	14.74	15.96	1.01
VER1	174.390	Q500	56.00	466.82	469.46	469.46	470.00	0.011568	3.27	17.14	16.11	1.01
VER1	174.390	Q=65	65.00	466.82	469.57	469.57	470.17	0.011256	3.42	19.00	16.23	1.01
VER1	174.390	Qproj	32.00	466.82	469.12	469.12	469.50	0.012487	2.72	11.77	15.75	1.00
VER1	202.770	Q=5	5.00	467.69	468.32	468.32	468.61	0.013938	2.39	2.09	3.63	1.01
VER1	202.770	Q=10	10.00	467.69	468.67	468.67	469.11	0.013398	2.92	3.42	3.98	1.01
VER1	202.770	Q=15	15.00	467.69	468.95	468.95	469.50	0.013207	3.27	4.59	4.27	1.01
VER1	202.770	Q10	18.00	467.69	469.10	469.10	469.70	0.013154	3.43	5.24	4.42	1.01
VER1	202.770	Q=25	25.00	467.69	469.42	469.42	470.13	0.013077	3.74	6.68	4.73	1.01
VER1	202.770	Q=30	30.00	467.69	470.01	470.01	470.35	0.012232	2.59	11.57	16.86	1.00
VER1	202.770	Q100	40.00	467.69	470.15	470.15	470.57	0.011740	2.85	14.03	17.08	1.00
VER1	202.770	Q=45	45.00	467.69	470.21	470.21	470.67	0.012063	3.00	14.98	17.15	1.03
VER1	202.770	Q500	56.00	467.69	470.36	470.36	470.87	0.011330	3.19	17.54	17.33	1.01
VER1	202.770	Q=65	65.00	467.69	470.46	470.46	471.03	0.011030	3.34	19.44	17.47	1.01
VER1	202.770	Qproj	32.00	467.69	470.03	470.03	470.39	0.012671	2.68	11.92	16.93	1.02
VER1	222.790	Q=5	5.00	468.30	468.93	468.93	469.22	0.013951	2.39	2.09	3.64	1.01
VER1	222.790	Q=10	10.00	468.30	469.28	469.28	469.71	0.013384	2.92	3.42	3.99	1.01
VER1	222.790	Q=15	15.00	468.30	469.56	469.56	470.11	0.013208	3.27	4.59	4.27	1.01
VER1	222.790	Q10	18.00	468.30	469.71	469.71	470.31	0.013159	3.43	5.24	4.42	1.01
VER1	222.790	Q=25	25.00	468.30	470.03	470.03	470.74	0.013082	3.74	6.68	4.73	1.01
VER1	222.790	Q=30	30.00	468.30	470.23	470.23	471.01	0.012947	3.91	7.67	4.94	1.00
VER1	222.790	Q100	40.00	468.30	470.59	470.59	471.49	0.012862	4.20	9.52	5.30	1.00
VER1	222.790	Q=45	45.00	468.30	471.08	471.08	471.63	0.012102	3.27	13.76	12.71	1.00

HEC-RAS Plan: Plan 01 River: VER1 Reach: VER1 (Continued)

Reach	River Sta	Profile	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
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
VER1	222.790	Q500	56.00	468.30	471.30	471.30	471.87	0.011726	3.34	16.77	14.97	1.01
VER1	222.790	Q=65	65.00	468.30	471.45	471.45	472.04	0.011423	3.40	19.14	16.54	1.01
VER1	222.790	Qproj	32.00	468.30	470.31	470.31	471.11	0.012908	3.97	8.06	5.01	1.00
VER1	238.440	Q=5	5.00	468.78	469.41	469.41	469.70	0.013909	2.39	2.09	3.63	1.01
VER1	238.440	Q=10	10.00	468.78	469.76	469.76	470.20	0.013372	2.92	3.42	3.98	1.00
VER1	238.440	Q=15	15.00	468.78	470.05	470.05	470.59	0.013204	3.27	4.59	4.26	1.00
VER1	238.440	Q10	18.00	468.78	470.20	470.20	470.80	0.013147	3.43	5.24	4.41	1.00
VER1	238.440	Q=25	25.00	468.78	470.51	470.51	471.22	0.013074	3.74	6.68	4.72	1.00
VER1	238.440	Q=30	30.00	468.78	470.71	470.71	471.50	0.013073	3.93	7.64	4.92	1.01
VER1	238.440	Q100	40.00	468.78	471.07	471.07	471.98	0.012983	4.21	9.49	5.28	1.00
VER1	238.440	Q=45	45.00	468.78	471.56	471.56	472.01	0.012032	2.96	15.21	17.55	1.01
VER1	238.440	Q500	56.00	468.78	471.73	471.73	472.21	0.011388	3.06	18.30	19.47	1.01
VER1	238.440	Q=65	65.00	468.78	471.84	471.84	472.35	0.011160	3.15	20.64	20.87	1.01
VER1	238.440	Qproj	32.00	468.78	470.79	470.79	471.60	0.013075	3.99	8.02	4.99	1.01
VER1	263.110	Q=5	5.00	469.53	470.20	470.20	470.51	0.014198	2.45	2.04	3.37	1.01
VER1	263.110	Q=10	10.00	469.53	470.57	470.57	471.03	0.013789	2.99	3.35	3.73	1.01
VER1	263.110	Q=15	15.00	469.53	470.87	470.87	471.43	0.013489	3.32	4.52	4.03	1.00
VER1	263.110	Q10	18.00	469.53	471.03	471.03	471.65	0.013450	3.48	5.17	4.19	1.00
VER1	263.110	Q=25	25.00	469.53	471.36	471.36	472.09	0.013398	3.79	6.60	4.52	1.00
VER1	263.110	Q=30	30.00	469.53	471.57	471.57	472.37	0.013372	3.97	7.57	4.72	1.00
VER1	263.110	Q100	40.00	469.53	472.13	472.13	472.57	0.012965	2.97	13.48	15.73	1.02
VER1	263.110	Q=45	45.00	469.53	472.20	472.20	472.68	0.012924	3.09	14.57	15.79	1.03
VER1	263.110	Q500	56.00	469.53	472.35	472.35	472.90	0.012461	3.28	17.09	16.18	1.02
VER1	263.110	Q=65	65.00	469.53	472.48	472.48	473.07	0.011840	3.41	19.08	16.27	1.00
VER1	263.110	Qproj	32.00	469.53	471.64	471.64	472.47	0.013530	4.05	7.91	4.80	1.01
VER1	283.730	Q=5	5.00	470.16	470.80	470.80	471.10	0.014375	2.42	2.06	3.49	1.01
VER1	283.730	Q=10	10.00	470.16	471.15	471.15	471.61	0.014076	2.98	3.36	3.76	1.01
VER1	283.730	Q=15	15.00	470.16	471.45	471.45	472.01	0.013991	3.33	4.50	4.02	1.01
VER1	283.730	Q10	18.00	470.16	471.60	471.60	472.23	0.013963	3.50	5.14	4.16	1.01
VER1	283.730	Q=25	25.00	470.16	471.93	471.93	472.67	0.013972	3.82	6.55	4.45	1.01
VER1	283.730	Q=30	30.00	470.16	472.46	472.46	472.85	0.013342	2.77	10.83	14.35	1.02
VER1	283.730	Q100	40.00	470.16	472.62	472.62	473.09	0.013151	3.05	13.12	14.49	1.02

HEC-RAS Plan: Plan 01 River: VER1 Reach: VER1 (Continued)

Reach	River Sta	Profile	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
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
VER1	283.730	Q=45	45.00	470.16	472.70	472.70	473.21	0.012799	3.15	14.30	14.56	1.01
VER1	283.730	Q500	56.00	470.16	472.87	472.87	473.44	0.012542	3.35	16.72	14.96	1.01
VER1	283.730	Q=65	65.00	470.16	472.99	472.99	473.61	0.012288	3.51	18.49	15.03	1.01
VER1	283.730	Qproj	32.00	470.16	472.49	472.49	472.90	0.013606	2.85	11.22	14.37	1.03
VER1	287.160	Q=5	5.00	470.26	470.94	470.94	471.24	0.014183	2.45	2.04	3.35	1.01
VER1	287.160	Q=10	10.00	470.26	471.31	471.31	471.76	0.013761	2.98	3.35	3.73	1.01
VER1	287.160	Q=15	15.00	470.26	471.61	471.61	472.17	0.013399	3.31	4.54	4.08	1.00
VER1	287.160	Q10	18.00	470.26	471.77	471.77	472.38	0.013323	3.46	5.20	4.26	1.00
VER1	287.160	Q=25	25.00	470.26	472.35	472.35	472.76	0.012270	2.83	8.83	10.43	0.98
VER1	287.160	Q=30	30.00	470.26	472.56	472.50	472.90	0.010599	2.58	11.61	14.45	0.92
VER1	287.160	Q100	40.00	470.26	472.72	472.67	473.14	0.010742	2.87	13.95	14.59	0.94
VER1	287.160	Q=45	45.00	470.26	472.80	472.75	473.25	0.010646	2.98	15.12	14.66	0.93
VER1	287.160	Q500	56.00	470.26	472.97	472.92	473.48	0.010471	3.18	17.59	15.02	0.94
VER1	287.160	Q=65	65.00	470.26	473.09	473.03	473.66	0.010406	3.36	19.37	15.10	0.95
VER1	287.160	Qproj	32.00	470.26	472.59	472.54	472.95	0.010777	2.66	12.05	14.48	0.93
VER1	311.140	Q=5	5.00	471.00	471.63	471.63	471.92	0.013956	2.39	2.09	3.62	1.01
VER1	311.140	Q=10	10.00	471.00	471.98	471.98	472.42	0.013472	2.93	3.41	3.94	1.01
VER1	311.140	Q=15	15.00	471.00	472.26	472.26	472.81	0.013362	3.29	4.57	4.20	1.01
VER1	311.140	Q10	18.00	471.00	472.42	472.42	473.02	0.013191	3.44	5.23	4.34	1.00
VER1	311.140	Q=25	25.00	471.00	472.97	472.97	473.49	0.012081	3.19	7.83	7.15	0.97
VER1	311.140	Q=30	30.00	471.00	473.14	473.14	473.67	0.013070	3.21	9.33	9.13	1.02
VER1	311.140	Q100	40.00	471.00	473.48	473.48	473.97	0.012810	3.10	12.91	13.23	1.00
VER1	311.140	Q=45	45.00	471.00	473.56	473.56	474.09	0.012807	3.22	13.98	13.38	1.00
VER1	311.140	Q500	56.00	471.00	473.73	473.73	474.33	0.012773	3.45	16.23	13.89	1.02
VER1	311.140	Q=65	65.00	471.00	473.86	473.86	474.52	0.012237	3.59	18.12	14.07	1.01
VER1	311.140	Qproj	32.00	471.00	473.20	473.20	473.74	0.012637	3.23	9.90	9.25	1.00
VER1	340.570	Q=5	5.00	471.89	472.52	472.52	472.82	0.014177	2.41	2.07	3.55	1.01
VER1	340.570	Q=10	10.00	471.89	472.87	472.87	473.32	0.013855	2.96	3.37	3.81	1.00
VER1	340.570	Q=15	15.00	471.89	473.16	473.16	473.73	0.013841	3.33	4.50	4.01	1.00
VER1	340.570	Q10	18.00	471.89	473.32	473.32	473.94	0.013874	3.50	5.14	4.13	1.00
VER1	340.570	Q=25	25.00	471.89	473.66	473.66	474.39	0.013662	3.78	6.61	4.54	1.00
VER1	340.570	Q=30	30.00	471.89	474.09	474.09	474.62	0.013295	3.22	9.32	8.98	1.01

HEC-RAS Plan: Plan 01 River: VER1 Reach: VER1 (Continued)

Reach	River Sta	Profile	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
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
VER1	340.570	Q100	40.00	471.89	474.32	474.32	474.95	0.013427	3.50	11.42	9.30	1.01
VER1	340.570	Q=45	45.00	471.89	474.43	474.43	475.10	0.013538	3.63	12.40	9.44	1.01
VER1	340.570	Q500	56.00	471.89	474.67	474.67	475.40	0.012923	3.78	14.80	10.21	1.00
VER1	340.570	Q=65	65.00	471.89	475.07	475.07	475.60	0.012105	3.24	20.08	19.24	1.01
VER1	340.570	Qproj	32.00	471.89	474.14	474.14	474.69	0.013235	3.27	9.78	9.05	1.01
VER1	354.930	Q=5	5.00	472.33	472.96	472.96	473.25	0.013949	2.39	2.09	3.61	1.01
VER1	354.930	Q=10	10.00	472.33	473.31	473.31	473.75	0.013489	2.93	3.41	3.94	1.01
VER1	354.930	Q=15	15.00	472.33	473.60	473.60	474.14	0.013295	3.28	4.58	4.21	1.00
VER1	354.930	Q10	18.00	472.33	473.75	473.75	474.35	0.013265	3.45	5.22	4.35	1.00
VER1	354.930	Q=25	25.00	472.33	474.06	474.06	474.78	0.013259	3.76	6.64	4.65	1.01
VER1	354.930	Q=30	30.00	472.33	474.26	474.26	475.06	0.013244	3.95	7.60	4.84	1.01
VER1	354.930	Q100	40.00	472.33	474.63	474.63	475.55	0.013244	4.25	9.42	5.18	1.01
VER1	354.930	Q=45	45.00	472.33	474.77	474.77	475.77	0.013623	4.42	10.18	5.32	1.02
VER1	354.930	Q500	56.00	472.33	475.41	475.41	475.95	0.011363	3.26	17.18	15.80	1.00
VER1	354.930	Q=65	65.00	472.33	475.55	475.55	476.10	0.011351	3.30	19.72	18.15	1.01
VER1	354.930	Qproj	32.00	472.33	474.35	474.35	475.16	0.013145	4.00	8.00	4.92	1.00
VER1	359.440	Q=5	5.00	472.47	473.10	473.10	473.38	0.013450	2.35	2.13	3.81	1.00
VER1	359.440	Q=10	10.00	472.47	473.44	473.44	473.85	0.012772	2.85	3.50	4.25	1.00
VER1	359.440	Q=15	15.00	472.47	473.71	473.71	474.22	0.012500	3.18	4.71	4.61	1.00
VER1	359.440	Q10	18.00	472.47	473.85	473.85	474.42	0.012388	3.34	5.39	4.80	1.01
VER1	359.440	Q=25	25.00	472.47	474.34	474.15	474.85	0.008403	3.17	7.89	5.41	0.84
VER1	359.440	Q=30	30.00	472.47	474.60	474.34	475.13	0.007671	3.21	9.33	5.71	0.80
VER1	359.440	Q100	40.00	472.47	475.35	474.68	475.65	0.006083	2.40	16.67	15.60	0.74
VER1	359.440	Q=45	45.00	472.47	475.66	475.22	475.88	0.003670	2.03	22.13	18.38	0.59
VER1	359.440	Q500	56.00	472.47	475.69		476.01	0.005260	2.47	22.68	18.39	0.71
VER1	359.440	Q=65	65.00	472.47	475.81		476.16	0.005382	2.63	24.73	18.43	0.72
VER1	359.440	Qproj	32.00	472.47	474.70	474.41	475.23	0.007391	3.22	9.92	5.83	0.79
VER1	373.570	Q=5	5.00	472.90	473.70	473.70	474.05	0.015179	2.61	1.92	2.80	1.01
VER1	373.570	Q=10	10.00	472.90	474.13	474.13	474.62	0.014807	3.12	3.20	3.22	1.00
VER1	373.570	Q=15	15.00	472.90	474.46	474.46	475.07	0.014746	3.46	4.34	3.56	1.00
VER1	373.570	Q10	18.00	472.90	474.64	474.64	475.30	0.014717	3.62	4.98	3.73	1.00
VER1	373.570	Q=25	25.00	472.90	475.00	475.00	475.78	0.014655	3.91	6.39	4.09	1.00

HEC-RAS Plan: Plan 01 River: VER1 Reach: VER1 (Continued)

Reach	River Sta	Profile	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
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
VER1	373.570	Q=30	30.00	472.90	475.22	475.22	476.07	0.014616	4.09	7.34	4.32	1.00
VER1	373.570	Q100	40.00	472.90	475.90	475.90	476.43	0.013291	3.22	12.41	12.22	1.02
VER1	373.570	Q=45	45.00	472.90	475.98	475.98	476.56	0.013160	3.36	13.41	12.24	1.02
VER1	373.570	Q500	56.00	472.90	476.17	476.17	476.82	0.012498	3.57	15.67	12.27	1.01
VER1	373.570	Q=65	65.00	472.90	476.33	476.33	477.01	0.012015	3.66	17.77	13.12	1.00
VER1	373.570	Qproj	32.00	472.90	475.31	475.31	476.19	0.014596	4.15	7.72	4.40	1.00
VER1	377.060	Q=5	5.00	473.01	473.81	473.81	474.16	0.015190	2.61	1.92	2.80	1.01
VER1	377.060	Q=10	10.00	473.01	474.23	474.23	474.73	0.014936	3.13	3.19	3.22	1.00
VER1	377.060	Q=15	15.00	473.01	474.57	474.57	475.18	0.014722	3.46	4.34	3.56	1.00
VER1	377.060	Q10	18.00	473.01	474.75	474.75	475.41	0.014696	3.62	4.98	3.74	1.00
VER1	377.060	Q=25	25.00	473.01	475.11	475.11	475.89	0.014647	3.91	6.39	4.10	1.00
VER1	377.060	Q=30	30.00	473.01	475.33	475.33	476.18	0.014608	4.08	7.34	4.32	1.00
VER1	377.060	Q100	40.00	473.01	476.01	475.95	476.48	0.010621	3.01	13.27	12.22	0.92
VER1	377.060	Q=45	45.00	473.01	476.10	476.04	476.60	0.010559	3.14	14.33	12.25	0.93
VER1	377.060	Q500	56.00	473.01	476.30	476.22	476.86	0.010346	3.32	16.86	13.02	0.93
VER1	377.060	Q=65	65.00	473.01	476.44	476.37	477.06	0.010227	3.47	18.74	13.41	0.94
VER1	377.060	Qproj	32.00	473.01	475.90	475.41	476.27	0.009642	2.69	11.88	12.20	0.87
VER1	395.150	Q=5	5.00	473.56	474.36	474.36	474.71	0.015176	2.61	1.92	2.80	1.01
VER1	395.150	Q=10	10.00	473.56	474.78	474.78	475.28	0.014998	3.14	3.19	3.22	1.01
VER1	395.150	Q=15	15.00	473.56	475.12	475.12	475.73	0.014757	3.46	4.33	3.55	1.00
VER1	395.150	Q10	18.00	473.56	475.30	475.30	475.96	0.014736	3.62	4.97	3.73	1.00
VER1	395.150	Q=25	25.00	473.56	475.66	475.66	476.44	0.014700	3.92	6.38	4.09	1.00
VER1	395.150	Q=30	30.00	473.56	475.87	475.87	476.74	0.014913	4.12	7.28	4.25	1.01
VER1	395.150	Q100	40.00	473.56	476.47	476.47	477.13	0.014440	3.61	11.07	8.86	1.03
VER1	395.150	Q=45	45.00	473.56	476.75	476.75	477.27	0.012570	3.20	14.07	13.37	0.99
VER1	395.150	Q500	56.00	473.56	476.94	476.94	477.50	0.012135	3.32	16.84	14.82	1.00
VER1	395.150	Q=65	65.00	473.56	477.05	477.05	477.68	0.012074	3.51	18.53	14.82	1.00
VER1	395.150	Qproj	32.00	473.56	475.96	475.96	476.85	0.014942	4.19	7.64	4.31	1.00
VER1	410.940	Q=5	5.00	474.04	474.97	474.97	475.35	0.016398	2.73	1.83	2.44	1.01
VER1	410.940	Q=10	10.00	474.04	475.43	475.43	475.97	0.016534	3.27	3.06	2.85	1.01
VER1	410.940	Q=15	15.00	474.04	475.78	475.78	476.46	0.017108	3.66	4.10	3.04	1.01
VER1	410.940	Q10	18.00	474.04	475.96	475.96	476.72	0.017521	3.86	4.67	3.11	1.01

HEC-RAS Plan: Plan 01 River: VER1 Reach: VER1 (Continued)

Reach	River Sta	Profile	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
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
VER1	410.940	Q=25	25.00	474.04	476.35	476.35	477.27	0.018447	4.24	5.89	3.25	1.01
VER1	410.940	Q=30	30.00	474.04	476.59	476.59	477.62	0.019194	4.49	6.69	3.33	1.01
VER1	410.940	Q100	40.00	474.04	477.29	477.29	477.80	0.015358	3.16	12.65	12.55	1.01
VER1	410.940	Q=45	45.00	474.04	477.37	477.37	477.92	0.015580	3.29	13.66	12.63	1.01
VER1	410.940	Q500	56.00	474.04	477.57	477.57	478.17	0.014687	3.46	16.20	13.28	1.00
VER1	410.940	Q=65	65.00	474.04	477.70	477.70	478.36	0.014340	3.62	17.95	13.40	1.00
VER1	410.940	Qproj	32.00	474.04	477.15	477.15	477.59	0.015224	2.94	10.88	12.42	1.00
VER1	442.220	Q=5	5.00	475.00	475.63	475.63	475.92	0.013864	2.39	2.09	3.64	1.00
VER1	442.220	Q=10	10.00	475.00	476.03	475.98	476.42	0.011566	2.77	3.60	4.03	0.94
VER1	442.220	Q=15	15.00	475.00	476.46		476.85	0.008116	2.74	5.47	4.44	0.79
VER1	442.220	Q10	18.00	475.00	476.71		477.09	0.007053	2.74	6.57	4.61	0.73
VER1	442.220	Q=25	25.00	475.00	477.23		477.61	0.005703	2.76	9.05	4.97	0.65
VER1	442.220	Q=30	30.00	475.00	477.56		477.96	0.005157	2.78	10.78	5.21	0.62
VER1	442.220	Q100	40.00	475.00	477.51	477.28	478.25	0.009860	3.81	10.49	5.17	0.85
VER1	442.220	Q=45	45.00	475.00	477.55	477.45	478.45	0.011823	4.20	10.70	5.20	0.94
VER1	442.220	Q500	56.00	475.00	478.28	478.28	478.79	0.011791	3.16	17.73	17.73	1.01
VER1	442.220	Q=65	65.00	475.00	478.40	478.40	478.95	0.011340	3.29	19.78	18.12	1.00
VER1	442.220	Qproj	32.00	475.00	477.41	477.00	477.93	0.007232	3.21	9.96	5.10	0.73
VER1	448.470	Q=5	5.00	475.19	475.82	475.82	476.11	0.013940	2.39	2.09	3.63	1.01
VER1	448.470	Q=10	10.00	475.19	476.17	476.17	476.61	0.013369	2.92	3.42	3.98	1.00
VER1	448.470	Q=15	15.00	475.19	476.45	476.45	477.00	0.013224	3.27	4.59	4.26	1.01
VER1	448.470	Q10	18.00	475.19	476.63	476.61	477.21	0.012360	3.36	5.36	4.44	0.97
VER1	448.470	Q=25	25.00	475.19	477.19		477.69	0.008004	3.12	8.00	4.96	0.79
VER1	448.470	Q=30	30.00	475.19	477.55		478.02	0.007500	3.05	9.82	5.99	0.76
VER1	448.470	Q100	40.00	475.19	478.05	477.91	478.35	0.008455	2.44	16.39	18.61	0.83
VER1	448.470	Q=45	45.00	475.19	478.38	478.00	478.57	0.004687	1.89	23.78	26.48	0.64
VER1	448.470	Q500	56.00	475.19	478.73		478.86	0.003001	1.63	34.45	35.65	0.53
VER1	448.470	Q=65	65.00	475.19	478.88		479.02	0.002478	1.62	40.03	35.65	0.49
VER1	448.470	Qproj	32.00	475.19	477.36	477.19	478.03	0.009965	3.61	8.86	5.08	0.87
VER1	453.990	Q=5	5.00	475.36	475.99	475.99	476.28	0.013915	2.39	2.09	3.63	1.01
VER1	453.990	Q=10	10.00	475.36	476.34	476.34	476.77	0.013393	2.92	3.42	3.98	1.01
VER1	453.990	Q=15	15.00	475.36	476.63	476.63	477.17	0.013143	3.26	4.59	4.24	1.00

HEC-RAS Plan: Plan 01 River: VER1 Reach: VER1 (Continued)

Reach	River Sta	Profile	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
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
VER1	453.990	Q10	18.00	475.36	476.78	476.78	477.38	0.013096	3.43	5.25	4.37	1.00
VER1	453.990	Q=25	25.00	475.36	477.10	477.09	477.81	0.012804	3.72	6.72	4.66	0.99
VER1	453.990	Q=30	30.00	475.36	477.49		478.11	0.009445	3.48	8.61	5.01	0.85
VER1	453.990	Q100	40.00	475.36	477.71	477.65	478.57	0.012193	4.12	9.71	5.20	0.96
VER1	453.990	Q=45	45.00	475.36	477.95	477.82	478.81	0.011011	4.09	11.01	5.38	0.91
VER1	453.990	Q500	56.00	475.36	478.49	478.49	479.09	0.012185	3.44	16.27	13.31	0.99
VER1	453.990	Q=65	65.00	475.36	478.73	478.73	479.22	0.011760	3.11	20.93	21.13	1.00
VER1	453.990	Qproj	32.00	475.36	477.36	477.36	478.19	0.013246	4.02	7.97	4.90	1.01
VER1	487.870	Q=5	5.00	476.39	477.02	477.02	477.31	0.013919	2.39	2.09	3.63	1.01
VER1	487.870	Q=10	10.00	476.39	477.37	477.37	477.81	0.013389	2.92	3.42	3.98	1.01
VER1	487.870	Q=15	15.00	476.39	477.65	477.65	478.20	0.013223	3.27	4.59	4.26	1.01
VER1	487.870	Q10	18.00	476.39	477.81	477.81	478.41	0.013168	3.43	5.24	4.41	1.01
VER1	487.870	Q=25	25.00	476.39	478.12	478.12	478.83	0.013082	3.74	6.68	4.72	1.00
VER1	487.870	Q=30	30.00	476.39	478.33	478.33	479.10	0.012896	3.90	7.69	4.96	1.00
VER1	487.870	Q100	40.00	476.39	478.71	478.71	479.57	0.012559	4.11	9.73	5.70	1.00
VER1	487.870	Q=45	45.00	476.39	478.88	478.88	479.78	0.012306	4.19	10.74	6.04	1.00
VER1	487.870	Q500	56.00	476.39	479.53	479.53	480.03	0.011463	3.13	17.87	18.29	1.01
VER1	487.870	Q=65	65.00	476.39	479.64	479.64	480.18	0.011104	3.27	19.89	18.66	1.01
VER1	487.870	Qproj	32.00	476.39	478.41	478.41	479.21	0.012909	3.96	8.09	5.11	1.00
VER1	492.500	Q=5	5.00	477.55	478.03	478.03	478.26	0.013156	2.11	2.37	5.29	1.01
VER1	492.500	Q=10	10.00	477.55	478.30	478.30	478.64	0.012046	2.59	3.85	5.67	1.00
VER1	492.500	Q=15	15.00	477.55	478.52	478.52	478.95	0.011589	2.92	5.13	5.98	1.01
VER1	492.500	Q10	18.00	477.55	478.64	478.64	479.12	0.011381	3.07	5.85	6.15	1.01
VER1	492.500	Q=25	25.00	477.55	478.89	478.89	479.46	0.011052	3.36	7.43	6.51	1.01
VER1	492.500	Q=30	30.00	477.55	479.35	479.35	479.70	0.011491	2.61	11.49	16.52	1.00
VER1	492.500	Q100	40.00	477.55	479.51	479.51	479.91	0.011280	2.79	14.32	18.40	1.01
VER1	492.500	Q=45	45.00	477.55	479.58	479.58	480.00	0.010989	2.89	15.57	18.62	1.01
VER1	492.500	Q500	56.00	477.55	479.71	479.71	480.20	0.010567	3.08	18.15	19.07	1.01
VER1	492.500	Q=65	65.00	477.55	479.82	479.82	480.35	0.010174	3.21	20.24	19.43	1.00
VER1	492.500	Qproj	32.00	477.55	479.10	479.10	479.77	0.010915	3.60	8.88	6.82	1.01
VER1	520.390	Q=5	5.00	478.88	479.36	479.36	479.58	0.012977	2.09	2.40	5.43	1.00
VER1	520.390	Q=10	10.00	478.88	479.62	479.62	479.96	0.011847	2.56	3.90	5.89	1.00

HEC-RAS Plan: Plan 01 River: VER1 Reach: VER1 (Continued)

Reach	River Sta	Profile	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
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
VER1	520.390	Q=15	15.00	478.88	479.84	479.84	480.26	0.011291	2.87	5.22	6.26	1.00
VER1	520.390	Q10	18.00	478.88	479.96	479.96	480.42	0.011080	3.02	5.96	6.46	1.00
VER1	520.390	Q=25	25.00	478.88	480.20	480.20	480.75	0.010768	3.30	7.57	6.90	1.01
VER1	520.390	Q=30	30.00	478.88	480.36	480.36	480.96	0.010505	3.43	8.74	7.33	1.00
VER1	520.390	Q100	40.00	478.88	480.86	480.86	481.27	0.011033	2.82	14.17	17.84	1.01
VER1	520.390	Q=45	45.00	478.88	480.93	480.93	481.36	0.010713	2.90	15.51	18.34	1.01
VER1	520.390	Q500	56.00	478.88	481.07	481.07	481.56	0.010477	3.08	18.16	19.30	1.01
VER1	520.390	Q=65	65.00	478.88	481.18	481.18	481.71	0.010081	3.21	20.27	19.66	1.01
VER1	520.390	Qproj	32.00	478.88	480.43	480.43	481.04	0.010428	3.48	9.21	7.54	1.00