

Estudio Hidráulico para NIVELACIÓN, CONFORMACIÓN Y BOTADERO EN FINCA PRIVADA.

Plan: Plan 03 RP_1 Alignment - (1) RS: 530 Profile: Tr=50 yr

E.G. Elev (m)	174.49	Element	Left OB	Channel	Right OB
Vel Head (m)	0.83	Wt. n-Val.		0.040	
W.S. Elev (m)	173.66	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		301.55	
E.G. Slope (m/m)	0.007780	Area (m2)		301.55	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	116.26	Top Width (m)		116.26	
Vel Total (m/s)	4.04	Avg. Vel. (m/s)		4.04	
Max Chl Dpth (m)	5.06	Hydr. Depth (m)		2.59	
Conv. Total (m3/s)	13798.9	Conv. (m3/s)		13798.9	
Length Wtd. (m)	10.00	Wetted Per. (m)		121.77	
Min Ch El (m)	168.61	Shear (N/m2)		188.94	
Alpha	1.00	Stream Power (N/m s)		762.61	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		149.97	
C & E Loss (m)	0.05	Cum SA (1000 m2)		47.94	

Plan: Plan 03 RP_1 Alignment - (1) RS: 530 Profile: Tr=100 yr

E.G. Elev (m)	174.77	Element	Left OB	Channel	Right OB
Vel Head (m)	0.84	Wt. n-Val.		0.040	
W.S. Elev (m)	173.92	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		332.52	
E.G. Slope (m/m)	0.007128	Area (m2)		332.52	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	118.62	Top Width (m)		118.62	
Vel Total (m/s)	4.06	Avg. Vel. (m/s)		4.06	
Max Chl Dpth (m)	5.32	Hydr. Depth (m)		2.80	
Conv. Total (m3/s)	15995.3	Conv. (m3/s)		15995.3	
Length Wtd. (m)	10.00	Wetted Per. (m)		124.58	
Min Ch El (m)	168.61	Shear (N/m2)		186.57	
Alpha	1.00	Stream Power (N/m s)		757.73	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		163.01	
C & E Loss (m)	0.05	Cum SA (1000 m2)		48.93	

Plan: Plan 03 RP_1 Alignment - (1) RS: 520 Profile: Tr=50 yr

E.G. Elev (m)	174.38	Element	Left OB	Channel	Right OB
Vel Head (m)	0.66	Wt. n-Val.		0.040	
W.S. Elev (m)	173.72	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		338.68	
E.G. Slope (m/m)	0.005173	Area (m2)		338.68	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	115.52	Top Width (m)		115.52	
Vel Total (m/s)	3.59	Avg. Vel. (m/s)		3.59	
Max Chl Dpth (m)	5.47	Hydr. Depth (m)		2.93	
Conv. Total (m3/s)	16923.4	Conv. (m3/s)		16923.4	
Length Wtd. (m)	10.00	Wetted Per. (m)		119.85	
Min Ch El (m)	168.25	Shear (N/m2)		143.34	
Alpha	1.00	Stream Power (N/m s)		515.13	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		146.77	
C & E Loss (m)	0.01	Cum SA (1000 m2)		46.78	



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Plan: Plan 03 RP_1 Alignment - (1) RS: 520 Profile: Tr=100 yr

E.G. Elev (m)	174.66	Element	Left OB	Channel	Right OB
Vel Head (m)	0.69	Wt. n-Val.		0.040	
W.S. Elev (m)	173.98	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		368.13	
E.G. Slope (m/m)	0.004860	Area (m2)		368.13	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	115.85	Top Width (m)		115.85	
Vel Total (m/s)	3.67	Avg. Vel. (m/s)		3.67	
Max Chl Dpth (m)	5.73	Hydr. Depth (m)		3.18	
Conv. Total (m3/s)	19371.0	Conv. (m3/s)		19371.0	
Length Wtd. (m)	10.00	Wetted Per. (m)		120.56	
Min Ch El (m)	168.25	Shear (N/m2)		145.54	
Alpha	1.00	Stream Power (N/m s)		533.90	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)		159.51	
C & E Loss (m)	0.01	Cum SA (1000 m2)		47.76	

Plan: Plan 03 RP_1 Alignment - (1) RS: 510 Profile: Tr=50 yr

E.G. Elev (m)	174.32	Element	Left OB	Channel	Right OB
Vel Head (m)	0.73	Wt. n-Val.		0.040	
W.S. Elev (m)	173.58	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		321.29	
E.G. Slope (m/m)	0.005949	Area (m2)		321.29	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	110.71	Top Width (m)		110.71	
Vel Total (m/s)	3.79	Avg. Vel. (m/s)		3.79	
Max Chl Dpth (m)	5.37	Hydr. Depth (m)		2.90	
Conv. Total (m3/s)	15780.1	Conv. (m3/s)		15780.1	
Length Wtd. (m)	10.00	Wetted Per. (m)		116.68	
Min Ch El (m)	168.22	Shear (N/m2)		160.65	
Alpha	1.00	Stream Power (N/m s)		608.59	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		143.47	
C & E Loss (m)	0.01	Cum SA (1000 m2)		45.65	

Plan: Plan 03 RP_1 Alignment - (1) RS: 510 Profile: Tr=100 yr

E.G. Elev (m)	174.60	Element	Left OB	Channel	Right OB
Vel Head (m)	0.76	Wt. n-Val.		0.040	
W.S. Elev (m)	173.84	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		349.87	
E.G. Slope (m/m)	0.005555	Area (m2)		349.87	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	110.89	Top Width (m)		110.89	
Vel Total (m/s)	3.86	Avg. Vel. (m/s)		3.86	
Max Chl Dpth (m)	5.63	Hydr. Depth (m)		3.16	
Conv. Total (m3/s)	18118.5	Conv. (m3/s)		18118.5	
Length Wtd. (m)	10.00	Wetted Per. (m)		117.36	
Min Ch El (m)	168.22	Shear (N/m2)		162.42	
Alpha	1.00	Stream Power (N/m s)		626.90	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		155.92	
C & E Loss (m)	0.02	Cum SA (1000 m2)		46.62	



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Plan: Plan 03 RP_1 Alignment - (1) RS: 500 Profile: Tr=50 yr

E.G. Elev (m)	174.24	Element	Left OB	Channel	Right OB
Vel Head (m)	0.69	Wt. n-Val.		0.040	
W.S. Elev (m)	173.55	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		330.78	
E.G. Slope (m/m)	0.006159	Area (m2)		330.78	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	122.69	Top Width (m)		122.69	
Vel Total (m/s)	3.68	Avg. Vel. (m/s)		3.68	
Max Chl Dpth (m)	5.37	Hvdr. Depth (m)		2.70	
Conv. Total (m3/s)	15509.4	Conv. (m3/s)		15509.4	
Length Wtd. (m)	10.00	Wetted Per. (m)		128.79	
Min Ch El (m)	168.19	Shear (N/m2)		155.12	
Alpha	1.00	Stream Power (N/m s)		570.79	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)		140.21	
C & E Loss (m)	0.04	Cum SA (1000 m2)		44.48	

Plan: Plan 03 RP_1 Alignment - (1) RS: 500 Profile: Tr=100 yr

E.G. Elev (m)	174.53	Element	Left OB	Channel	Right OB
Vel Head (m)	0.70	Wt. n-Val.		0.040	
W.S. Elev (m)	173.83	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		364.78	
E.G. Slope (m/m)	0.005536	Area (m2)		364.78	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	123.45	Top Width (m)		123.45	
Vel Total (m/s)	3.70	Avg. Vel. (m/s)		3.70	
Max Chl Dpth (m)	5.64	Hvdr. Depth (m)		2.95	
Conv. Total (m3/s)	18150.6	Conv. (m3/s)		18150.6	
Length Wtd. (m)	10.00	Wetted Per. (m)		129.92	
Min Ch El (m)	168.19	Shear (N/m2)		152.43	
Alpha	1.00	Stream Power (N/m s)		564.29	
Frctn Loss (m)	0.05	Cum Volume (1000 m3)		152.34	
C & E Loss (m)	0.04	Cum SA (1000 m2)		45.45	

Plan: Plan 03 RP_1 Alignment - (1) RS: 490 Profile: Tr=50 yr

E.G. Elev (m)	174.15	Element	Left OB	Channel	Right OB
Vel Head (m)	0.55	Wt. n-Val.		0.040	
W.S. Elev (m)	173.60	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		370.96	
E.G. Slope (m/m)	0.004578	Area (m2)		370.96	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	132.18	Top Width (m)		132.18	
Vel Total (m/s)	3.28	Avg. Vel. (m/s)		3.28	
Max Chl Dpth (m)	5.45	Hvdr. Depth (m)		2.81	
Conv. Total (m3/s)	17987.9	Conv. (m3/s)		17987.9	
Length Wtd. (m)	10.00	Wetted Per. (m)		137.33	
Min Ch El (m)	168.15	Shear (N/m2)		121.28	
Alpha	1.00	Stream Power (N/m s)		397.93	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)		136.70	
C & E Loss (m)	0.00	Cum SA (1000 m2)		43.21	



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Plan: Plan 03 RP_1 Alignment - (1) RS: 490 Profile: Tr=100 yr

E.G. Elev (m)	174.44	Element	Left OB	Channel	Right OB
Vel Head (m)	0.56	Wt. n-Val.		0.040	
W.S. Elev (m)	173.88	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		408.69	
E.G. Slope (m/m)	0.004266	Area (m2)		408.69	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	135.49	Top Width (m)		135.49	
Vel Total (m/s)	3.30	Avg. Vel. (m/s)		3.30	
Max Chl Dpth (m)	5.73	Hydr. Depth (m)		3.02	
Conv. Total (m3/s)	20676.4	Conv. (m3/s)		20676.4	
Length Wtd. (m)	10.00	Wetted Per. (m)		141.96	
Min Ch El (m)	168.15	Shear (N/m2)		120.43	
Alpha	1.00	Stream Power (N/m s)		397.95	
Frctn Loss (m)	0.04	Cum Volume (1000 m3)		148.47	
C & E Loss (m)	0.01	Cum SA (1000 m2)		44.16	

Plan: Plan 03 RP_1 Alignment - (1) RS: 480 Profile: Tr=50 yr

E.G. Elev (m)	174.10	Element	Left OB	Channel	Right OB
Vel Head (m)	0.59	Wt. n-Val.		0.040	
W.S. Elev (m)	173.51	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	172.62	Flow Area (m2)		359.31	
E.G. Slope (m/m)	0.004401	Area (m2)		359.31	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	117.11	Top Width (m)		117.11	
Vel Total (m/s)	3.39	Avg. Vel. (m/s)		3.39	
Max Chl Dpth (m)	5.25	Hydr. Depth (m)		3.07	
Conv. Total (m3/s)	18347.7	Conv. (m3/s)		18347.7	
Length Wtd. (m)	10.00	Wetted Per. (m)		123.09	
Min Ch El (m)	168.27	Shear (N/m2)		125.98	
Alpha	1.00	Stream Power (N/m s)		426.74	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		133.05	
C & E Loss (m)	0.08	Cum SA (1000 m2)		41.96	

Plan: Plan 03 RP_1 Alignment - (1) RS: 480 Profile: Tr=100 yr

E.G. Elev (m)	174.39	Element	Left OB	Channel	Right OB
Vel Head (m)	0.61	Wt. n-Val.		0.040	
W.S. Elev (m)	173.78	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	172.79	Flow Area (m2)		390.77	
E.G. Slope (m/m)	0.004274	Area (m2)		390.77	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	120.18	Top Width (m)		120.18	
Vel Total (m/s)	3.46	Avg. Vel. (m/s)		3.46	
Max Chl Dpth (m)	5.51	Hydr. Depth (m)		3.25	
Conv. Total (m3/s)	20656.5	Conv. (m3/s)		20656.5	
Length Wtd. (m)	10.00	Wetted Per. (m)		127.09	
Min Ch El (m)	168.27	Shear (N/m2)		128.87	
Alpha	1.00	Stream Power (N/m s)		445.36	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		144.48	
C & E Loss (m)	0.08	Cum SA (1000 m2)		42.88	

Estudio Hidráulico para NIVELACIÓN, CONFORMACIÓN Y BOTADERO EN FINCA PRIVADA.

Plan: Plan 03 RP_1 Alignment - (1) RS: 470 Profile: Tr=50 yr

E.G. Elev (m)	173.95	Element	Left OB	Channel	Right OB
Vel Head (m)	1.34	Wt. n-Val.		0.040	
W.S. Elev (m)	172.61	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	172.61	Flow Area (m2)		237.05	
E.G. Slope (m/m)	0.012097	Area (m2)		242.34	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	107.05	Top Width (m)		107.05	
Vel Total (m/s)	5.13	Avg. Vel. (m/s)		5.13	
Max Chl Dpth (m)	4.22	Hydr. Depth (m)		2.66	
Conv. Total (m3/s)	11066.4	Conv. (m3/s)		11066.4	
Length Wtd. (m)	10.00	Wetted Per. (m)		92.90	
Min Ch El (m)	168.39	Shear (N/m2)		302.71	
Alpha	1.00	Stream Power (N/m s)		1554.26	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)		130.04	
C & E Loss (m)	0.06	Cum SA (1000 m2)		40.84	

Plan: Plan 03 RP_1 Alignment - (1) RS: 470 Profile: Tr=100 yr

E.G. Elev (m)	174.24	Element	Left OB	Channel	Right OB
Vel Head (m)	1.43	Wt. n-Val.		0.040	
W.S. Elev (m)	172.81	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	172.81	Flow Area (m2)		255.31	
E.G. Slope (m/m)	0.011932	Area (m2)		264.80	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	114.26	Top Width (m)		114.26	
Vel Total (m/s)	5.29	Avg. Vel. (m/s)		5.29	
Max Chl Dpth (m)	4.42	Hydr. Depth (m)		2.82	
Conv. Total (m3/s)	12363.1	Conv. (m3/s)		12363.1	
Length Wtd. (m)	10.00	Wetted Per. (m)		94.71	
Min Ch El (m)	168.39	Shear (N/m2)		315.43	
Alpha	1.00	Stream Power (N/m s)		1668.47	
Frctn Loss (m)	0.10	Cum Volume (1000 m3)		141.20	
C & E Loss (m)	0.06	Cum SA (1000 m2)		41.71	

Plan: Plan 03 RP_1 Alignment - (1) RS: 460 Profile: Tr=50 yr

E.G. Elev (m)	173.74	Element	Left OB	Channel	Right OB
Vel Head (m)	1.14	Wt. n-Val.		0.040	
W.S. Elev (m)	172.61	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	172.29	Flow Area (m2)		257.65	
E.G. Slope (m/m)	0.008499	Area (m2)		444.96	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	188.31	Top Width (m)		188.31	
Vel Total (m/s)	4.72	Avg. Vel. (m/s)		4.72	
Max Chl Dpth (m)	4.42	Hydr. Depth (m)		3.08	
Conv. Total (m3/s)	13202.2	Conv. (m3/s)		13202.2	
Length Wtd. (m)	10.00	Wetted Per. (m)		87.81	
Min Ch El (m)	168.18	Shear (N/m2)		244.57	
Alpha	1.00	Stream Power (N/m s)		1155.37	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		126.60	
C & E Loss (m)	0.05	Cum SA (1000 m2)		39.37	



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Plan: Plan 03 RP_1 Alignment - (1) RS: 460 Profile: Tr=100 yr

E.G. Elev (m)	174.04	Element	Left OB	Channel	Right OB
Vel Head (m)	1.24	Wt. n-Val.		0.040	
W.S. Elev (m)	172.80	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	172.50	Flow Area (m2)		274.22	
E.G. Slope (m/m)	0.008567	Area (m2)		482.47	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	191.20	Top Width (m)		191.20	
Vel Total (m/s)	4.92	Avg. Vel. (m/s)		4.92	
Max Chl Dpth (m)	4.62	Hydr. Depth (m)		3.27	
Conv. Total (m3/s)	14590.0	Conv. (m3/s)		14590.0	
Length Wtd. (m)	10.00	Wetted Per. (m)		88.32	
Min Ch El (m)	168.18	Shear (N/m2)		260.85	
Alpha	1.00	Stream Power (N/m s)		1284.61	
Frctn Loss (m)	0.08	Cum Volume (1000 m3)		137.46	
C & E Loss (m)	0.06	Cum SA (1000 m2)		40.18	

Plan: Plan 03 RP_1 Alignment - (1) RS: 450 Profile: Tr=50 yr

E.G. Elev (m)	173.62	Element	Left OB	Channel	Right OB
Vel Head (m)	0.96	Wt. n-Val.		0.040	
W.S. Elev (m)	172.65	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		279.83	
E.G. Slope (m/m)	0.006733	Area (m2)		465.12	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	195.95	Top Width (m)		195.95	
Vel Total (m/s)	4.35	Avg. Vel. (m/s)		4.35	
Max Chl Dpth (m)	4.44	Hydr. Depth (m)		3.27	
Conv. Total (m3/s)	14833.3	Conv. (m3/s)		14833.3	
Length Wtd. (m)	10.00	Wetted Per. (m)		90.63	
Min Ch El (m)	168.21	Shear (N/m2)		203.86	
Alpha	1.00	Stream Power (N/m s)		886.71	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		122.05	
C & E Loss (m)	0.01	Cum SA (1000 m2)		37.44	

Plan: Plan 03 RP_1 Alignment - (1) RS: 450 Profile: Tr=100 yr

E.G. Elev (m)	173.91	Element	Left OB	Channel	Right OB
Vel Head (m)	1.05	Wt. n-Val.		0.040	
W.S. Elev (m)	172.86	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		297.46	
E.G. Slope (m/m)	0.006812	Area (m2)		505.44	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	196.57	Top Width (m)		196.57	
Vel Total (m/s)	4.54	Avg. Vel. (m/s)		4.54	
Max Chl Dpth (m)	4.64	Hydr. Depth (m)		3.46	
Conv. Total (m3/s)	16361.8	Conv. (m3/s)		16361.8	
Length Wtd. (m)	10.00	Wetted Per. (m)		91.15	
Min Ch El (m)	168.21	Shear (N/m2)		218.02	
Alpha	1.00	Stream Power (N/m s)		989.79	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		132.52	
C & E Loss (m)	0.01	Cum SA (1000 m2)		38.24	



Estudio Hidráulico para NIVELACIÓN, CONFORMACIÓN Y BOTADERO EN FINCA PRIVADA.

Plan: Plan 03 RP_1 Alignment - (1) RS: 440 Profile: Tr=50 yr

E.G. Elev (m)	173.54	Element	Left OB	Channel	Right OB
Vel Head (m)	1.02	W/L n-Val.		0.040	
W.S. Elev (m)	172.52	Reach Len. (m)	10.00	10.00	10.00
Critl W.S. (m)		Flow Area (m2)		271.71	
E.G. Slope (m/m)	0.006905	Area (m2)		370.15	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	168.84	Top Width (m)		168.84	
Vel Total (m/s)	4.48	Avg. Vel. (m/s)		4.48	
Max Chl Dpth (m)	4.33	Hydr. Depth (m)		3.35	
Conv. Total (m3/s)	14647.3	Conv. (m3/s)		14647.3	
Length Wtd. (m)	10.00	Wetted Per. (m)		85.81	
Min Ch El (m)	168.18	Shear (N/m2)		214.42	
Alpha	1.00	Stream Power (N/m s)		960.50	
Frcin Loss (m)	0.09	Cum Volume (1000 m3)		117.88	
C & E Loss (m)	0.04	Cum SA (1000 m2)		35.62	

Plan: Plan 03 RP_1 Alignment - (1) RS: 440 Profile: Tr=100 yr

E.G. Elev (m)	173.83	Element	Left OB	Channel	Right OB
Vel Head (m)	1.15	W/L n-Val.		0.040	
W.S. Elev (m)	172.68	Reach Len. (m)	10.00	10.00	10.00
Critl W.S. (m)		Flow Area (m2)		284.86	
E.G. Slope (m/m)	0.007299	Area (m2)		398.65	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	182.34	Top Width (m)		182.34	
Vel Total (m/s)	4.74	Avg. Vel. (m/s)		4.74	
Max Chl Dpth (m)	4.50	Hydr. Depth (m)		3.51	
Conv. Total (m3/s)	15806.7	Conv. (m3/s)		15806.7	
Length Wtd. (m)	10.00	Wetted Per. (m)		86.14	
Min Ch El (m)	168.18	Shear (N/m2)		236.70	
Alpha	1.00	Stream Power (N/m s)		1122.14	
Frcin Loss (m)	0.09	Cum Volume (1000 m3)		128.00	
C & E Loss (m)	0.03	Cum SA (1000 m2)		36.35	

Plan: Plan 03 RP_1 Alignment - (1) RS: 430 Profile: Tr=50 yr

E.G. Elev (m)	173.41	Element	Left OB	Channel	Right OB
Vel Head (m)	1.41	W/L n-Val.		0.040	
W.S. Elev (m)	172.00	Reach Len. (m)	10.00	10.00	10.00
Critl W.S. (m)	172.00	Flow Area (m2)		231.31	
E.G. Slope (m/m)	0.011808	Area (m2)		277.34	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	108.74	Top Width (m)		108.74	
Vel Total (m/s)	5.26	Avg. Vel. (m/s)		5.26	
Max Chl Dpth (m)	4.08	Hydr. Depth (m)		2.79	
Conv. Total (m3/s)	11201.0	Conv. (m3/s)		11201.0	
Length Wtd. (m)	10.00	Wetted Per. (m)		85.81	
Min Ch El (m)	167.93	Shear (N/m2)		312.15	
Alpha	1.00	Stream Power (N/m s)		1642.48	
Frcin Loss (m)	0.08	Cum Volume (1000 m3)		114.64	
C & E Loss (m)	0.22	Cum SA (1000 m2)		34.23	



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Plan: Plan 03 RP_1 Alignment - (1) RS: 430 Profile: Tr=100 yr

E.G. Elev (m)	173.71	Element	Left OB	Channel	Right OB
Vel Head (m)	1.43	Wt. n-Val.		0.040	
W.S. Elev (m)	172.28	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)	172.28	Flow Area (m2)		255.00	
E.G. Slope (m/m)	0.011844	Area (m2)		308.22	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	116.79	Top Width (m)		116.79	
Vel Total (m/s)	5.30	Avg. Vel. (m/s)		5.30	
Max Chl Dpth (m)	4.35	Hydr. Depth (m)		2.83	
Conv. Total (m3/s)	12408.6	Conv. (m3/s)		12408.6	
Length Wtd. (m)	10.00	Wetted Per. (m)		93.90	
Min Ch El (m)	167.93	Shear (N/m2)		315.42	
Alpha	1.00	Stream Power (N/m s)		1670.42	
Frctn Loss (m)	0.07	Cum Volume (1000 m3)		124.47	
C & E Loss (m)	0.22	Cum SA (1000 m2)		34.85	

Plan: Plan 03 RP_1 Alignment - (1) RS: 420 Profile: Tr=50 yr

E.G. Elev (m)	172.76	Element	Left OB	Channel	Right OB
Vel Head (m)	0.67	Wt. n-Val.		0.040	
W.S. Elev (m)	172.09	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		335.02	
E.G. Slope (m/m)	0.005413	Area (m2)		335.02	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	117.64	Top Width (m)		117.64	
Vel Total (m/s)	3.63	Avg. Vel. (m/s)		3.63	
Max Chl Dpth (m)	4.26	Hydr. Depth (m)		2.85	
Conv. Total (m3/s)	16544.0	Conv. (m3/s)		16544.0	
Length Wtd. (m)	10.00	Wetted Per. (m)		120.68	
Min Ch El (m)	167.83	Shear (N/m2)		147.35	
Alpha	1.00	Stream Power (N/m s)		535.32	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		111.58	
C & E Loss (m)	0.01	Cum SA (1000 m2)		33.10	

Plan: Plan 03 RP_1 Alignment - (1) RS: 420 Profile: Tr=100 yr

E.G. Elev (m)	173.04	Element	Left OB	Channel	Right OB
Vel Head (m)	0.69	Wt. n-Val.		0.040	
W.S. Elev (m)	172.35	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		365.84	
E.G. Slope (m/m)	0.005048	Area (m2)		365.84	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	118.96	Top Width (m)		118.96	
Vel Total (m/s)	3.69	Avg. Vel. (m/s)		3.69	
Max Chl Dpth (m)	4.53	Hydr. Depth (m)		3.08	
Conv. Total (m3/s)	19006.9	Conv. (m3/s)		19006.9	
Length Wtd. (m)	10.00	Wetted Per. (m)		122.11	
Min Ch El (m)	167.83	Shear (N/m2)		148.31	
Alpha	1.00	Stream Power (N/m s)		547.47	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		121.10	
C & E Loss (m)	0.01	Cum SA (1000 m2)		33.67	



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Plan: Plan 03 RP_1 Alignment - (1) RS: 410 Profile: Tr=50 yr

E.G. Elev (m)	172.69	Element	Left OB	Channel	Right OB
Vel Head (m)	0.79	Wt. n-Val.		0.040	
W.S. Elev (m)	171.90	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		309.61	
E.G. Slope (m/m)	0.006363	Area (m2)		309.61	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	107.12	Top Width (m)		107.12	
Vel Total (m/s)	3.93	Avg. Vel. (m/s)		3.93	
Max Chl Dpth (m)	4.18	Hydr. Depth (m)		2.89	
Conv. Total (m3/s)	15257.8	Conv. (m3/s)		15257.8	
Length Wtd. (m)	10.00	Wetted Per. (m)		111.87	
Min Ch El (m)	167.72	Shear (N/m2)		172.70	
Alpha	1.00	Stream Power (N/m s)		678.93	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		108.35	
C & E Loss (m)	0.00	Cum SA (1000 m2)		31.98	

Plan: Plan 03 RP_1 Alignment - (1) RS: 410 Profile: Tr=100 yr

E.G. Elev (m)	172.98	Element	Left OB	Channel	Right OB
Vel Head (m)	0.82	WL n-Val.		0.040	
W.S. Elev (m)	172.16	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		337.12	
E.G. Slope (m/m)	0.006050	Area (m2)		337.12	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	109.00	Top Width (m)		109.00	
Vel Total (m/s)	4.01	Avg. Vel. (m/s)		4.01	
Max Chl Dpth (m)	4.44	Hydr. Depth (m)		3.09	
Conv. Total (m3/s)	17361.6	Conv. (m3/s)		17361.6	
Length Wtd. (m)	10.00	Wetted Per. (m)		114.02	
Min Ch El (m)	167.72	Shear (N/m2)		175.42	
Alpha	1.00	Stream Power (N/m s)		702.73	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		117.58	
C & E Loss (m)	0.00	Cum SA (1000 m2)		32.53	

Plan: Plan 03 RP_1 Alignment - (1) RS: 400 Profile: Tr=50 yr

E.G. Elev (m)	172.63	Element	Left OB	Channel	Right OB
Vel Head (m)	0.78	WL n-Val.		0.040	
W.S. Elev (m)	171.84	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		310.48	
E.G. Slope (m/m)	0.006353	Area (m2)		310.48	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	108.01	Top Width (m)		108.01	
Vel Total (m/s)	3.92	Avg. Vel. (m/s)		3.92	
Max Chl Dpth (m)	4.24	Hydr. Depth (m)		2.87	
Conv. Total (m3/s)	15269.9	Conv. (m3/s)		15269.9	
Length Wtd. (m)	10.00	Wetted Per. (m)		112.52	
Min Ch El (m)	167.61	Shear (N/m2)		171.92	
Alpha	1.00	Stream Power (N/m s)		673.97	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		105.25	
C & E Loss (m)	0.02	Cum SA (1000 m2)		30.90	



Plan: Plan 03 RP_1 Alignment - (1) RS: 400 Profile: Tr=100 yr

E.G. Elev (m)	172.91	Element	Left OB	Channel	Right OB
Vel Head (m)	0.81	Wt. n-Val.		0.040	
W.S. Elev (m)	172.10	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		338.74	
E.G. Slope (m/m)	0.005988	Area (m2)		338.74	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	109.73	Top Width (m)		109.73	
Vel Total (m/s)	3.99	Avg. Vel. (m/s)		3.99	
Max Chl Dpth (m)	4.50	Hydr. Depth (m)		3.09	
Conv. Total (m3/s)	17451.1	Conv. (m3/s)		17451.1	
Length Wtd. (m)	10.00	Wetted Per. (m)		114.51	
Min Ch El (m)	167.61	Shear (N/m2)		173.72	
Alpha	1.00	Stream Power (N/m s)		692.57	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		114.21	
C & E Loss (m)	0.02	Cum SA (1000 m2)		31.44	

Plan: Plan 03 RP_1 Alignment - (1) RS: 390 Profile: Tr=50 yr

E.G. Elev (m)	172.55	Element	Left OB	Channel	Right OB
Vel Head (m)	0.73	Wt. n-Val.		0.040	
W.S. Elev (m)	171.82	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		322.41	
E.G. Slope (m/m)	0.005702	Area (m2)		322.41	
Q Total (m3/s)	1217.14	Flow (m3/s)		1217.14	
Top Width (m)	109.80	Top Width (m)		109.80	
Vel Total (m/s)	3.78	Avg. Vel. (m/s)		3.78	
Max Chl Dpth (m)	4.33	Hydr. Depth (m)		2.94	
Conv. Total (m3/s)	16118.0	Conv. (m3/s)		16118.0	
Length Wtd. (m)	10.00	Wetted Per. (m)		114.01	
Min Ch El (m)	167.49	Shear (N/m2)		158.13	
Alpha	1.00	Stream Power (N/m s)		596.97	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		102.09	
C & E Loss (m)	0.01	Cum SA (1000 m2)		29.81	

Plan: Plan 03 RP_1 Alignment - (1) RS: 390 Profile: Tr=100 yr

E.G. Elev (m)	172.84	Element	Left OB	Channel	Right OB
Vel Head (m)	0.75	Wt. n-Val.		0.040	
W.S. Elev (m)	172.09	Reach Len. (m)	10.00	10.00	10.00
Crit W.S. (m)		Flow Area (m2)		351.70	
E.G. Slope (m/m)	0.005399	Area (m2)		351.70	
Q Total (m3/s)	1350.45	Flow (m3/s)		1350.45	
Top Width (m)	111.88	Top Width (m)		111.88	
Vel Total (m/s)	3.84	Avg. Vel. (m/s)		3.84	
Max Chl Dpth (m)	4.59	Hydr. Depth (m)		3.14	
Conv. Total (m3/s)	18379.6	Conv. (m3/s)		18379.6	
Length Wtd. (m)	10.00	Wetted Per. (m)		116.37	
Min Ch El (m)	167.49	Shear (N/m2)		160.01	
Alpha	1.00	Stream Power (N/m s)		614.40	
Frctn Loss (m)	0.06	Cum Volume (1000 m3)		110.75	
C & E Loss (m)	0.01	Cum SA (1000 m2)		30.33	

