DRAINAGE SUBAREA SUMMARY TABLE

Project: 2232 - Midway Phase 1

Prepared by: WH

Date: Dec, 2020

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Drainage Subarea ID(s)	Concentration Point	Commercial, Industrial [ft^2]	Multiple Family Reidential [ft^2]	Medium Density Residential [ft^2]	Pavement [ft^2]	Open space [ft^2]	Total Area [ft^2]	Total Area [ac]
DA-1	RB-1	786,268	0	0	0	0	786,268	18.1
DA-2	RB-2	0	887,073	0	0	0	887,073	20.4
DA-3	RB-3	0	775,764	0	0	0	775,764	17.8
DA-4	RB-4	0	765,464	0	0	0	765,464	17.6
DA-5	RB-5	0	0	119,490	25,834	37,401	182,725	4.2
DA-6	RB-6	0	0	337,180	143,347	80,749	561,276	12.9
DA-7	RB-7	0	0	42,323	45,265	47,343	134,931	3.1
DA-8	RB-8	0	0	452,229	113,854	86,480	652,563	15.0
DA-9	RB-9	0	0	128,452	63,356	43,149	234,957	5.4
DA-10	RB-10	0	0	342,397	136,733	92,619	571,750	13.1
DA-11	RB-11	0	0	195,166	33,059	32,487	260,712	6.0
DA-12	RB-12	0	0	521,023	209,397	146,022	876,442	20.1
DA-13	RB-13	0	0	63,105	42,806	53,016	158,928	3.6
DA-14	RB-14	0	0	223,482	48,832	58,330	330,644	7.6
DA-15	RB-15	0	0	451,318	139,704	139,302	730,323	16.8
DA-16	RB-16	0	0	234,226	47,961	63,668	345,855	7.9
DA-17	RB-17	0	0	134,176	52,363	48,955	235,495	5.4
DA-18	RB-18 & 28	0	0	344,446	111,006	87,878	543,330	12.5
DA-19	RB-19	0	0	158,225	37,771	28,956	224,952	5.2
DA-20	RB-20	0	0	289,665	101,505	121,335	512,505	11.8
DA-21	RB-21 & 24	0	0	247,384	178,509	100,441	526,334	12.1
DA-22	RB-18 & 28	0	0	228,744	87,509	30,469	346,721	8.0
DA-23	RB-20	0	0	178,442	70,425	26,397	275,264	6.3
DA-24	RB-21 & 24	0	0	471,411	144,761	72,086	688,258	15.8
DA-25	RB-25	0	0	369,402	125,646	125,209	620,257	14.2
DA-26	RB-26	0	0	49,068	12,052	24,921	86,041	2.0
DA-27	RB-27	0	0	203,853	50,769	30,976	285,598	6.6
DA-28	RB-18 & 28	0	0	203,924	52,987	50,266	307,177	7.1
DA-29	RB-29	0	0	793,418	195,906	119,211	1,108,535	25.4
DA-30	RB-30	0	0	149,475	56,110	48,460	254,044	5.8
DA-31	RB-31	0	0	78,419	22,794	32,383	133,596	3.1
DA-32	RB-32	0	0	0	0	347,046	347,046	8.0
DA-33	RB-33	0	0	142,778	37,763	40,861	221,401	5.1
DA-34	RB-34	0	0	93,289	18,122	26,375	137,786	3.2
DA-35	RB-32	0	0	77,116	107,832	15,372	200,320	4.6
DA-36	RB-37	0	0	136,357	31,196	1,238	168,791	3.9
DA-37	RB-37	0	0	207,182	58,176	80,554	345,912	7.9
DA-38	RB-38	437,487	0	0	0	0	437,487	10.0
DA-39	RB-39	0	0	330,130	85,809	52,592	468,532	10.8
DA-40	RB-40	0	0	86,398	80,185	49,283	215,867	5.0
DA-41	RB-41	0	0	43,359	10,961	25,933	80,254	1.8
DA-42	RB-42	0	0	161,085	87,993	92,845	341,924	7.8
DA-43	RB-43	0	0	510,000	110,975	89,415	710,390	16.3
DA-44	RB-44	0	0	530,081	137,321	110,806	778,208	17.9
DA-45	RB-45	0	0	190,413	44,558	29,461	264,432	6.1
DA-46	RB-46	0	0	342,436	178,934	146,958	668,329	15.3
DA-47	RB-47	0	0	171,297	66,280	87,827	325,403	7.5
DA-48	RB-48	0	0	398,280	207,842	148,616	754,737	17.3
DA-49	RB-49	0	0	384,218	94,714	91,399	570,331	13.1
DA-50	RB-50	0	0	326,963	168,849	124,276	620,088	14.2
DA-51	RB-51	0	0	331,854	106,025	110,297	548,176	12.6
DA-52	RB-52	0	0	191,297	34,042	25,812	251,151	5.8
DA-53	RB-53	0	0	218,735	126,164	159,740	504,639	11.6
DA-54	RB-54	0	0	558,212	121,735	89,791	769,739	17.7
DA-55	RB-55	0	0	332,646	87,222	151,350	571,218	13.1
DA-56	RB-56	0	0	347,044	88,145	98,738	533,928	12.3
DA-57	RB-57	0	0	641,899	170,209	134,410	946,517	21.7
DA-58	RB-58	0	0	0	98,072	45,715	143,787	3.3
DA-59	RB-8	0	0	0	102,275	14,994	117,269	2.7
DA-60	RB-5	0	0	0	63,437	8,711	72,149	1.7
DA-61	RB-1	0	0	0	94,702	0	94,702	2.2
DA-62	RB-62	0	0	0	203,312	82,328	285,639	6.6
DA-63	RB-16	0	0	0	80,009	26,590	106,599	2.4
DA-64	RB-19	0	0	0	59,174	20,380	79,555	1.8
DA-65	RB-65	0	0	0	63,405	36,056	99,461	2.3
DA-66	RB-20	0	0	0	71,243	6,274	77,517	1.8
DA-67	RB-67	0	0	0	107,925	49,413	157,338	3.6
DA-68	RB-67	0	0	0	73,929	62,711	136,639	3.1
DA-69	RB-72	0	0	0	61,435	49,594	111,029	2.5
DA-70	RB-33	0	0	0	41,084	4,599	45,683	1.0
DA-71	RB-37	0	0	0	69,036	22,529	91,565	2.1
DA-72	RB-72	0	0	0	75,067	22,966	98,033	2.3
DA-73	RB-57	0	0	0	83,025	67,080	150,106	3.4

-Weighted runoff coefficient per Table 2-1 of the Pinal County Drainage Design Manual, Volume 2 (2004)

WEIGHTED RUNOFF COEFFICIENT CALCULATIONS

Project: 2232 - Midway Phase 1

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Date: Dec, 2020

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Landuse[1]	10-Year C Coefficient	100-Year C Coefficient
Commercial, Industrial	0.90	0.90
Multiple Family Residential	0.75	0.94
Medium Density Residential	0.65	0.82
Pavement	0.95	0.95
Open Space	0.40	0.50

-Weighted runoff coefficient per Table 2-1 of the Pinal County Drainage Design Manual, Volume 2 (2004)

Drainage Subarea ID(s)	Concentration Point	Land Use Category					Total	10-YR Weighted Coefficient	100-YR Weighted Coefficient
		Commercial, Industrial	Multiple Family Reidential	Medium Density Residential	Pavement	Open space			
		[ft^2]	[ft^2]	[ft^2]	[ft^2]	[ft^2]	[ft^2]	C_w	C_w
DA-1	RB-1	786,268	0	0	0	0	786,268	0.90	0.90
DA-2	RB-2	0	887,073	0	0	0	887,073	0.75	0.94
DA-3	RB-3	0	775,764	0	0	0	775,764	0.75	0.94
DA-4	RB-4	0	765,464	0	0	0	765,464	0.75	0.94
DA-5	RB-5	0	0	119,490	25,834	37,401	182,725	0.64	0.77
DA-6	RB-6	0	0	337,180	143,347	80,749	561,276	0.69	0.81
DA-7	RB-7	0	0	42,323	45,265	47,343	134,931	0.66	0.75
DA-8	RB-8	0	0	452,229	113,854	86,480	652,563	0.67	0.80
DA-9	RB-9	0	0	128,452	63,356	43,149	234,957	0.68	0.80
DA-10	RB-10	0	0	342,397	136,733	92,619	571,750	0.68	0.80
DA-11	RB-11	0	0	195,166	33,059	32,487	260,712	0.66	0.80
DA-12	RB-12	0	0	521,023	209,397	146,022	876,442	0.68	0.80
DA-13	RB-13	0	0	63,105	42,806	53,016	158,928	0.65	0.75
DA-14	RB-14	0	0	223,482	48,832	58,330	330,644	0.65	0.78
DA-15	RB-15	0	0	451,318	139,704	139,302	730,323	0.66	0.78
DA-16	RB-16	0	0	234,226	47,961	63,668	345,855	0.65	0.78
DA-17	RB-17	0	0	134,176	52,363	48,955	235,495	0.66	0.78
DA-18	RB-18 & 28	0	0	344,446	111,006	87,878	543,330	0.67	0.79
DA-19	RB-19	0	0	158,225	37,771	28,956	224,952	0.67	0.80
DA-20	RB-20	0	0	289,665	101,505	121,335	512,505	0.65	0.77
DA-21	RB-21 & 24	0	0	247,384	178,509	100,441	526,334	0.70	0.80
DA-22	RB-18 & 28	0	0	228,744	87,509	30,469	346,721	0.70	0.82
DA-23	RB-20	0	0	178,442	70,425	26,397	275,264	0.70	0.82
DA-24	RB-21 & 24	0	0	471,411	144,761	72,086	688,258	0.69	0.81
DA-25	RB-25	0	0	369,402	125,646	125,209	620,257	0.66	0.78
DA-26	RB-26	0	0	49,068	12,052	24,921	86,041	0.62	0.75
DA-27	RB-27	0	0	203,853	50,769	30,976	285,598	0.68	0.81
DA-28	RB-18 & 28	0	0	203,924	52,987	50,266	307,177	0.66	0.79
DA-29	RB-29	0	0	793,418	195,906	119,211	1,108,535	0.68	0.81
DA-30	RB-30	0	0	149,475	56,110	48,460	254,044	0.67	0.79
DA-31	RB-31	0	0	78,419	22,794	32,383	133,596	0.64	0.76
DA-32	RB-32	0	0	0	0	347,046	347,046	0.40	0.50
DA-33	RB-33	0	0	142,778	37,763	40,861	221,401	0.66	0.78
DA-34	RB-34	0	0	93,289	18,122	26,375	137,786	0.64	0.78
DA-35	RB-32	0	0	77,116	107,832	15,372	200,320	0.79	0.87
DA-36	RB-37	0	0	136,357	31,196	1,238	168,791	0.70	0.84
DA-37	RB-37	0	0	207,182	58,176	80,554	345,912	0.64	0.77
DA-38	RB-38	437,487	0	0	0	0	437,487	0.90	0.90
DA-39	RB-39	0	0	330,130	85,809	52,592	468,532	0.68	0.81
DA-40	RB-40	0	0	86,398	80,185	49,283	215,867	0.70	0.80
DA-41	RB-41	0	0	43,359	10,961	25,933	80,254	0.61	0.73
DA-42	RB-42	0	0	161,085	87,993	92,845	341,924	0.66	0.77
DA-43	RB-43	0	0	510,000	110,975	89,415	710,390	0.67	0.80
DA-44	RB-44	0	0	530,081	137,321	110,806	778,208	0.67	0.80
DA-45	RB-45	0	0	190,413	44,558	29,461	264,432	0.67	0.81
DA-46	RB-46	0	0	342,436	178,934	146,958	668,329	0.68	0.78
DA-47	RB-47	0	0	171,297	66,280	87,827	325,403	0.64	0.76
DA-48	RB-48	0	0	398,280	207,842	148,616	754,737	0.68	0.79
DA-49	RB-49	0	0	384,218	94,714	91,399	570,331	0.66	0.79
DA-50	RB-50	0	0	326,963	168,849	124,276	620,088	0.68	0.79
DA-51	RB-51	0	0	331,854	106,025	110,297	548,176	0.66	0.78
DA-52	RB-52	0	0	191,297	34,042	25,812	251,151	0.66	0.80
DA-53	RB-53	0	0	218,735	126,164	159,740	504,639	0.65	0.75
DA-54	RB-54	0	0	558,212	121,735	89,791	769,739	0.67	0.80
DA-55	RB-55	0	0	332,646	87,222	151,350	571,218	0.63	0.76
DA-56	RB-56	0	0	347,044	88,145	98,738	533,928	0.65	0.78
DA-57	RB-57	0	0	641,899	170,209	134,410	946,517	0.67	0.80
DA-58	RB-58	0	0	0	98,072	45,715	143,787	0.78	0.81
DA-59	RB-8	0	0	0	102,275	14,994	117,269	0.88	0.89
DA-60	RB-5	0	0	0	63,437	8,711	72,149	0.88	0.90
DA-61	RB-1	0	0	0	94,702	0	94,702	0.95	0.95
DA-62	RB-62	0	0	0	203,312	82,328	285,639	0.79	0.82
DA-63	RB-16	0	0	0	80,009	26,590	106,599	0.81	0.84
DA-64	RB-19	0	0	0	59,174	20,380	79,555	0.81	0.83
DA-65	RB-65	0	0	0	63,405	36,056	99,461	0.75	0.79
DA-66	RB-20	0	0	0	71,243	6,274	77,517	0.91	0.91
DA-67	RB-67	0	0	0	107,925	49,413	157,338	0.78	0.81
DA-68	RB-67	0	0	0	73,929	62,711	136,639	0.70	0.74
DA-69	RB-72	0	0	0	61,435	49,594	111,029	0.70	0.75
DA-70	RB-33	0	0	0	41,084	4,599	45,683	0.89	0.90
DA-71	RB-37	0	0	0	69,036	22,529	91,565	0.81	0.84
DA-72	RB-72	0	0	0	75,067	22,966	98,033	0.82	0.84
DA-73	RB-57	0	0	0	83,025	67,080	150,106	0.70	0.75

PRELIMINARY RETENTION CALCULATION TABLE

Project: 2232 - Midway Phase 1
Prepared by: WH
Date: Dec, 2020

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Volume Required = C * (P/ 12) * A

C = -Weighted runoff coefficient per Table 2-1 of the Pinal County Drainage Design Manual, Volume 2 (2004)

P = 2.32 in -Precipitation depth associated with the 100-year, 2-hour storm event (NOAA 14)

A = Plan-view area of increased imperviousness.

Retention Basin ID	Drainage Area	Area A [ft^2]	Area A [ac]	Weighted Runoff Coefficient C, 100-Yr	Retention Volume Required 100-Yr, 2-Hr [ft^3]	Overflow from Upstream [ft^3]	Upstream Basin ID	TOTAL Retention Volume Required 100-Yr, 2-Hr [ft^3]	TOTAL Retention Volume Provided [ft^3]	Overflow Volume [ft^3]	Downstream Basin ID
RB-1	DA-1	786,268	18.1	0.90	136,811	0	-	154,204	-	0	-
	DA-61	94,702	2.2	0.95	17,394						
RB-2	DA-2	887,073	20.4	0.94	161,211	0	-	161,211	-	0	-
RB-3	DA-3	775,764	17.8	0.94	140,982	0	-	140,982	-	0	-
RB-4	DA-4	765,464	17.6	0.94	139,110	0	-	139,110	-	0	-
RB-5	DA-5	182,725	4.2	0.77	27,303	0	-	39,797	40,874	0	-
	DA-60	72,149	1.7	0.90	12,493						
RB-6	DA-6	561,276	12.9	0.81	87,588	0	-	87,588	88,898	0	-
RB-7	DA-7	134,931	3.1	0.75	19,600	0	-	19,600	30,149	0	-
RB-8	DA-8	652,563	15.0	0.80	100,964	0	-	121,198	158,647	0	-
	DA-59	117,269	2.7	0.89	20,234						
RB-9	DA-9	234,957	5.4	0.80	36,171	0	-	36,171	42,323	0	-
RB-10	DA-10	571,750	13.1	0.80	88,348	0	-	88,348	89,438	0	-
RB-11	DA-11	260,712	6.0	0.80	40,152	0	-	40,152	40,500	0	-
RB-12	DA-12	876,442	20.1	0.80	135,174	0	-	135,174	182,007	0	-
RB-13	DA-13	158,928	3.6	0.75	22,991	0	-	22,991	61,880	0	-
RB-14	DA-14	330,644	7.6	0.78	50,037	0	-	50,037	56,672	0	-
RB-15	DA-15	730,323	16.8	0.78	110,674	0	-	110,674	160,130	0	-
RB-16	DA-16	345,855	7.9	0.78	52,096	0	-	69,361	100,789	0	-
	DA-63	106,599	2.4	0.84	17,265						
RB-17	DA-17	235,495	5.4	0.78	35,621	0	-	35,621	51,289	0	-
RB-18 & 28	DA-18	543,330	12.5	0.79	83,489	0	-	185,690	211,819	0	-
	DA-22	346,721	8.0	0.82	55,281						
	DA-28	307,177	7.1	0.79	46,920						
RB-19	DA-19	224,952	5.2	0.80	34,820	0	-	47,659	52,397	0	-
	DA-64	79,555	1.8	0.83	12,838						
RB-20	DA-20	512,505	11.8	0.77	76,294	0	-	133,295	151,350	0	-
	DA-23	275,264	6.3	0.81	43,310						
	DA-66	77,517	1.8	0.91	13,691						
RB-21 & 24	DA-21	526,334	12.1	0.80	81,714	0	-	190,004	153,824	36,180	RB-25
	DA-24	688,258	15.8	0.81	108,290						
RB-25	DA-25	620,257	14.2	0.78	93,743	36,180	RB-21 & 24	129,923	223,024	0	-
RB-26	DA-26	86,041	2.0	0.75	12,401	0	-	12,401	13,843	0	-
RB-27	DA-27	285,598	6.6	0.81	44,636	0	-	44,636	54,737	0	-
RB-29	DA-29	1,108,535	25.4	0.81	173,288	0	-	173,288	182,610	0	-
RB-30	DA-30	254,044	5.8	0.79	38,687	0	-	38,687	40,564	0	-
RB-31	DA-31	133,596	3.1	0.76	19,749	0	-	19,749	51,679	0	-
RB-32	DA-32	347,046	8.0	0.50	33,548	0	-	67,064	91,983	0	-
	DA-35	200,320	4.6	0.87	33,517						
RB-33	DA-33	221,401	5.1	0.78	33,521	0	-	41,511	69,249	0	-
	DA-70	45,683	1.0	0.90	7,990						
RB-34	DA-34	137,786	3.2	0.78	20,667	0	-	20,667	20,700	0	-
RB-37	DA-36	168,791	3.9	0.84	27,466	0	-	93,641	124,604	0	-
	DA-37	345,912	7.9	0.77	51,317						
	DA-71	91,565	2.1	0.84	14,857						
RB-38	DA-38	437,487	10.0	0.90	76,123	0	-	76,123	81,490	0	-
RB-39	DA-39	468,532	10.8	0.81	73,181	2,009	RB-40	75,190	78,401	0	-
RB-40	DA-40	215,867	5.0	0.80	33,188	0	-	33,188	31,179	2,009	RB-39
RB-41	DA-41	80,254	1.8	0.73	11,394	0	-	11,394	44,369	0	-
RB-42	DA-42	341,924	7.8	0.77	50,674	0	-	50,674	125,494	0	-
RB-43	DA-43	710,390	16.3	0.80	109,878	0	-	109,878	131,878	0	-
RB-44	DA-44	778,208	17.9	0.80	119,968	0	-	119,968	96,047	23,921	DA-57
RB-45	DA-45	264,432	6.1	0.81	41,219	1,648	RB-67	42,867	45,725	0	-
RB-46	DA-46	668,329	15.3	0.78	101,358	0	-	101,358	165,906	0	-
RB-47	DA-47	325,403	7.5	0.76	47,820	0	-	47,820	27,474	20,346	RB-49
RB-48	DA-48	754,737	17.3	0.79	115,680	0	-	115,680	138,863	0	-
RB-49	DA-49	570,331	13.1	0.79	87,142	20,346	RB-47	107,488	127,520	0	-
RB-50	DA-50	620,088	14.2	0.79	94,860	0	-	94,860	126,278	0	-
RB-51	DA-51	548,176	12.6	0.78	82,745	0	-	82,745	98,094	0	-
RB-52	DA-52	251,151	5.8	0.80	39,074	0	-	39,074	41,045	0	-
RB-53	DA-53	504,639	11.6	0.75	73,291	0	-	73,291	201,018	0	-
RB-54	DA-54	769,739	17.7	0.80	119,534	0	-	119,534	138,515	0	-
RB-55	DA-55	571,218	13.1	0.76	83,386	16,248	RB-56	99,634	162,378	0	-
RB-56	DA-56	533,928	12.3	0.78	80,752	0	-	80,752	64,504	16,248	RB-55
RB-57	DA-57	946,517	21.7	0.80	146,017	23,921	RB-44	191,671	245,809	0	-
	DA-73	150,106	3.4	0.75	21,733						
RB-58	DA-58	143,787	3.3	0.81	22,432	0		22,432	22,600	0	-
RB-62	DA-62	285,639	6.6	0.82	45,300	0	-	45,300	47,398	0	-
RB-65	DA-65	99,461	2.3	0.79	15,131	0	-	15,131	40,381	0	-
RB-67	DA-67	157,338	3.6	0.81	24,599	0	-	44,239	42,591	1,648	RB-45
	DA-68	136,639	3.1	0.74	19,640						
RB-72	DA-69	111,029	2.5	0.75	16,078	0	-	32,085	38,903	0	-
	DA-72	98,033	2.3	0.84	16,007						

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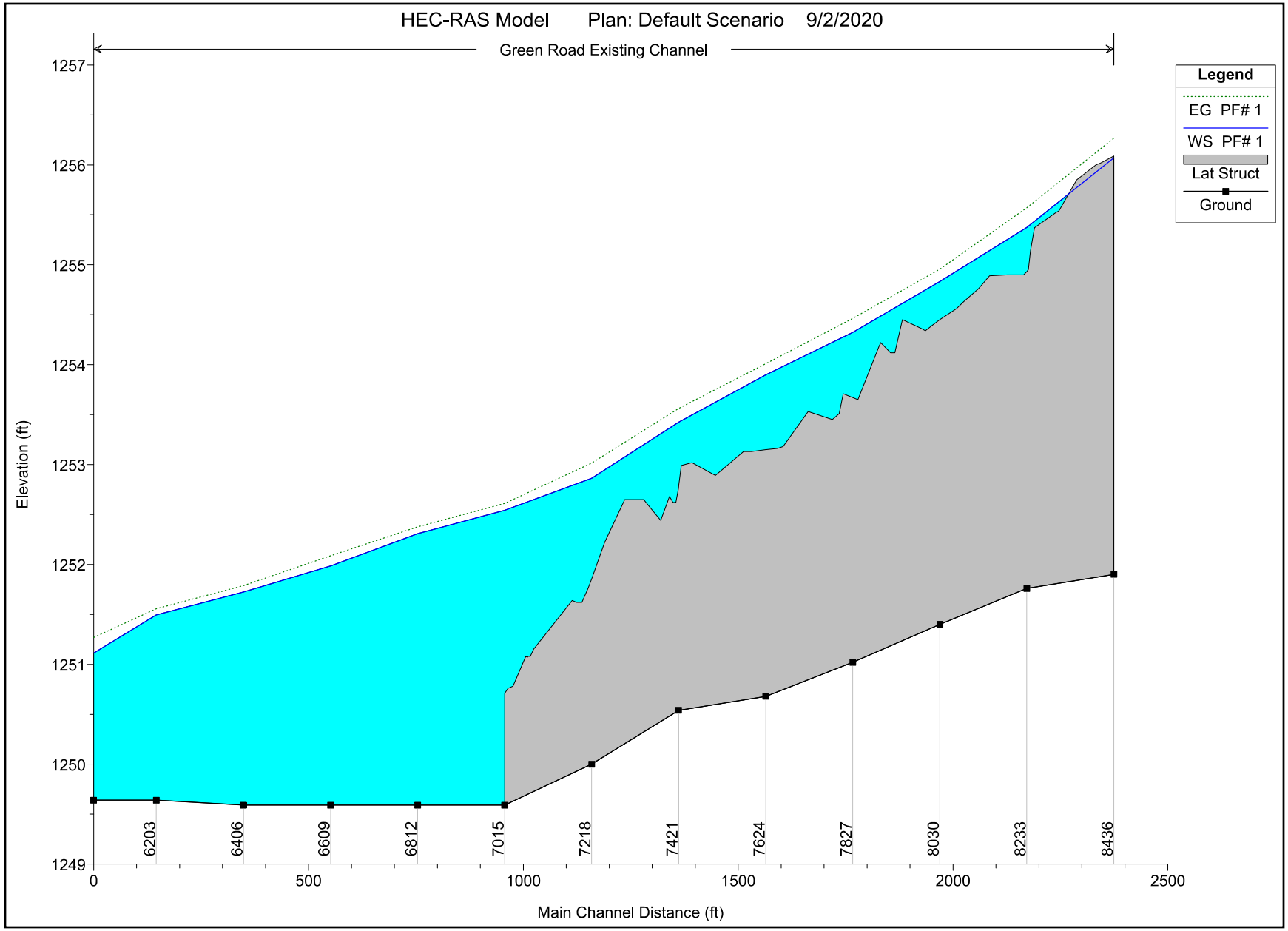
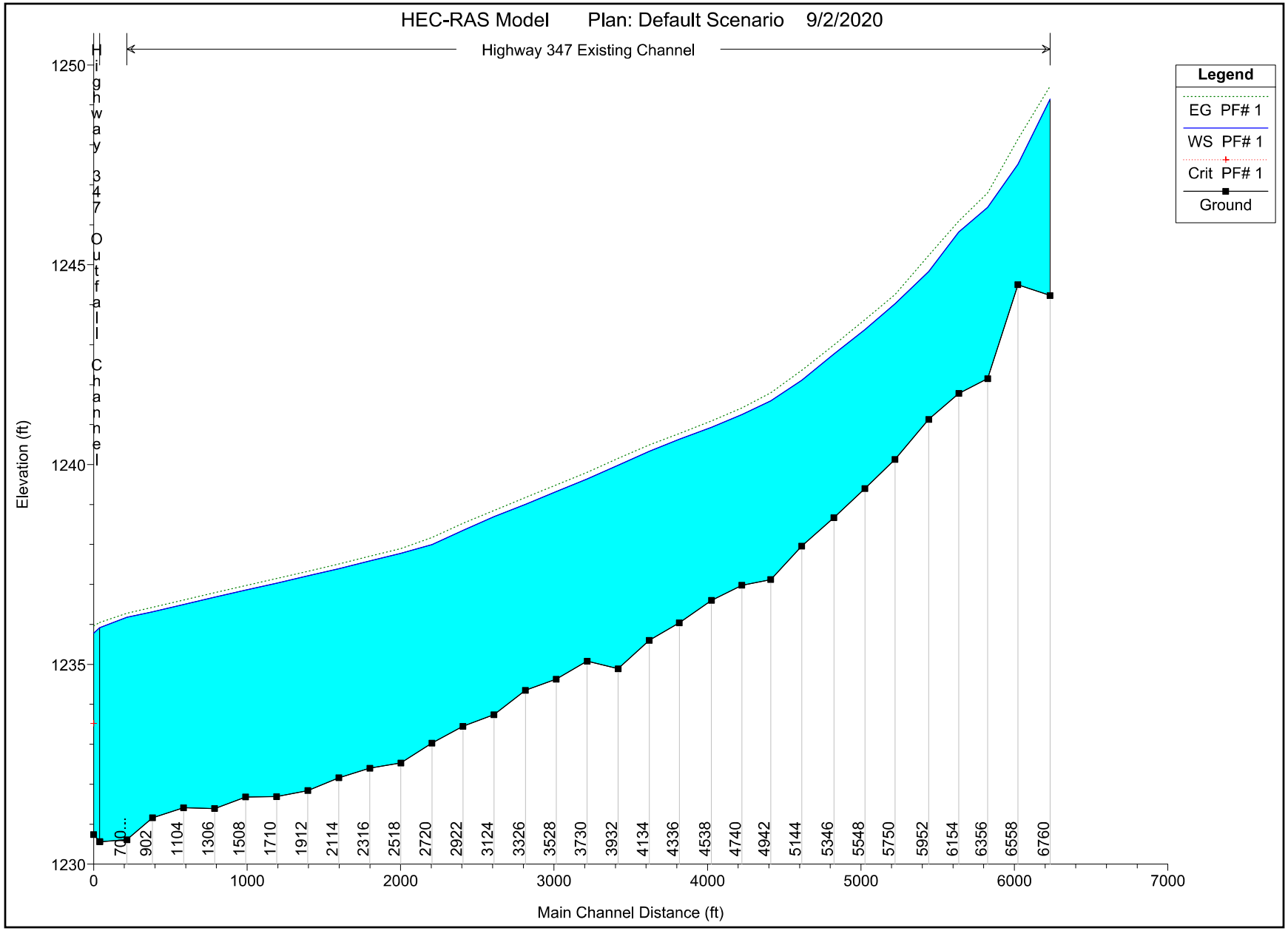
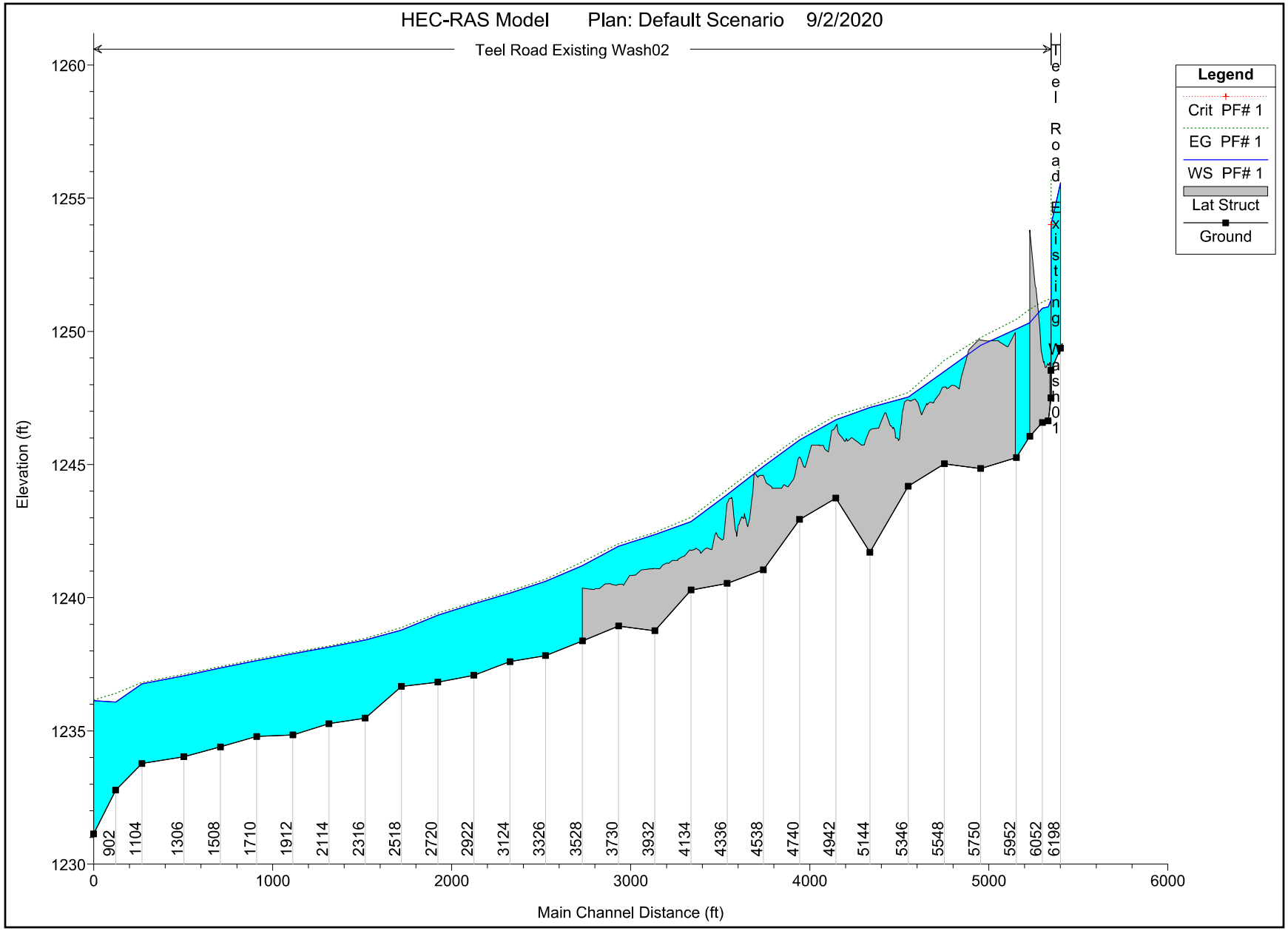
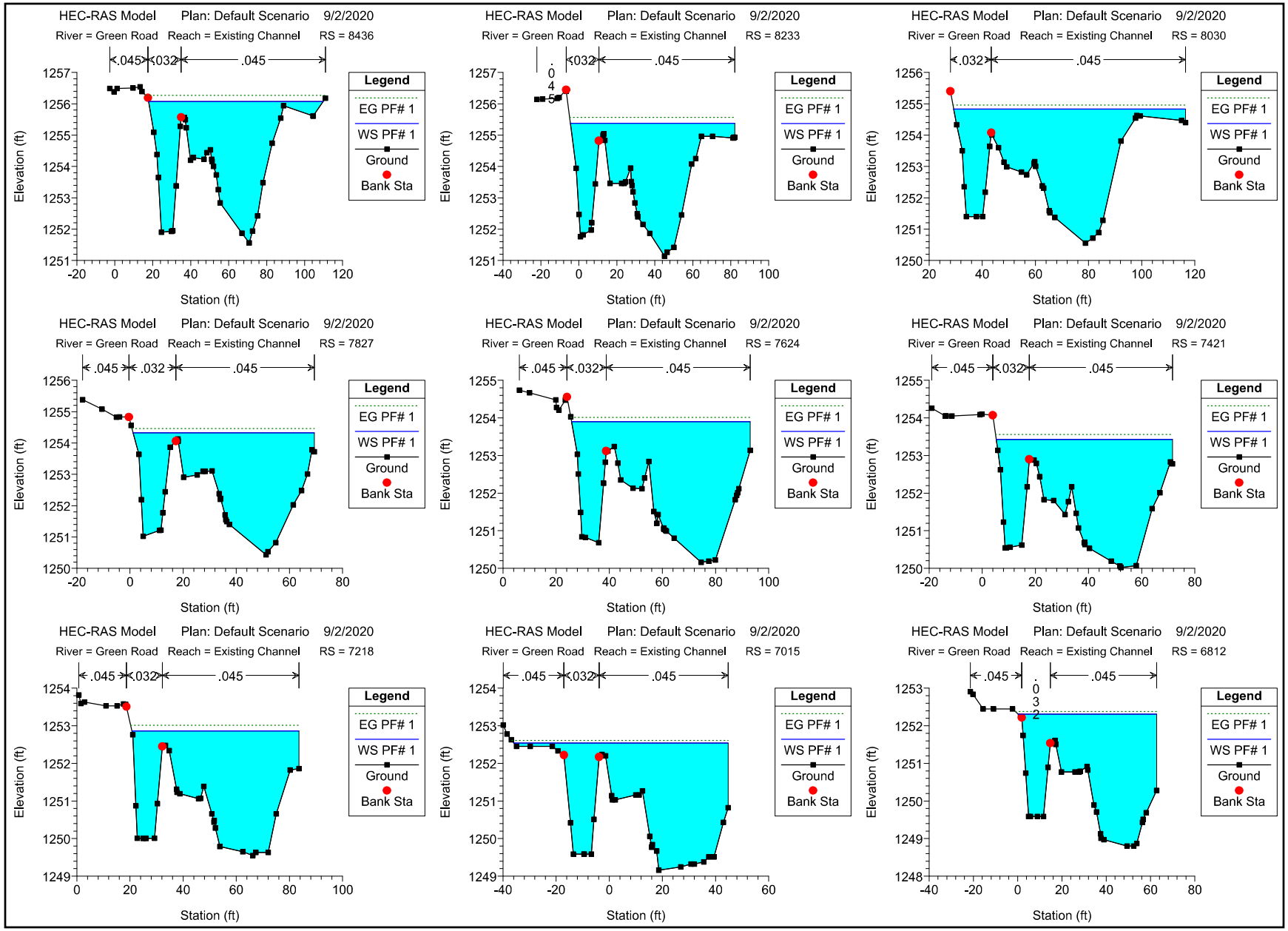
APPENDIX D

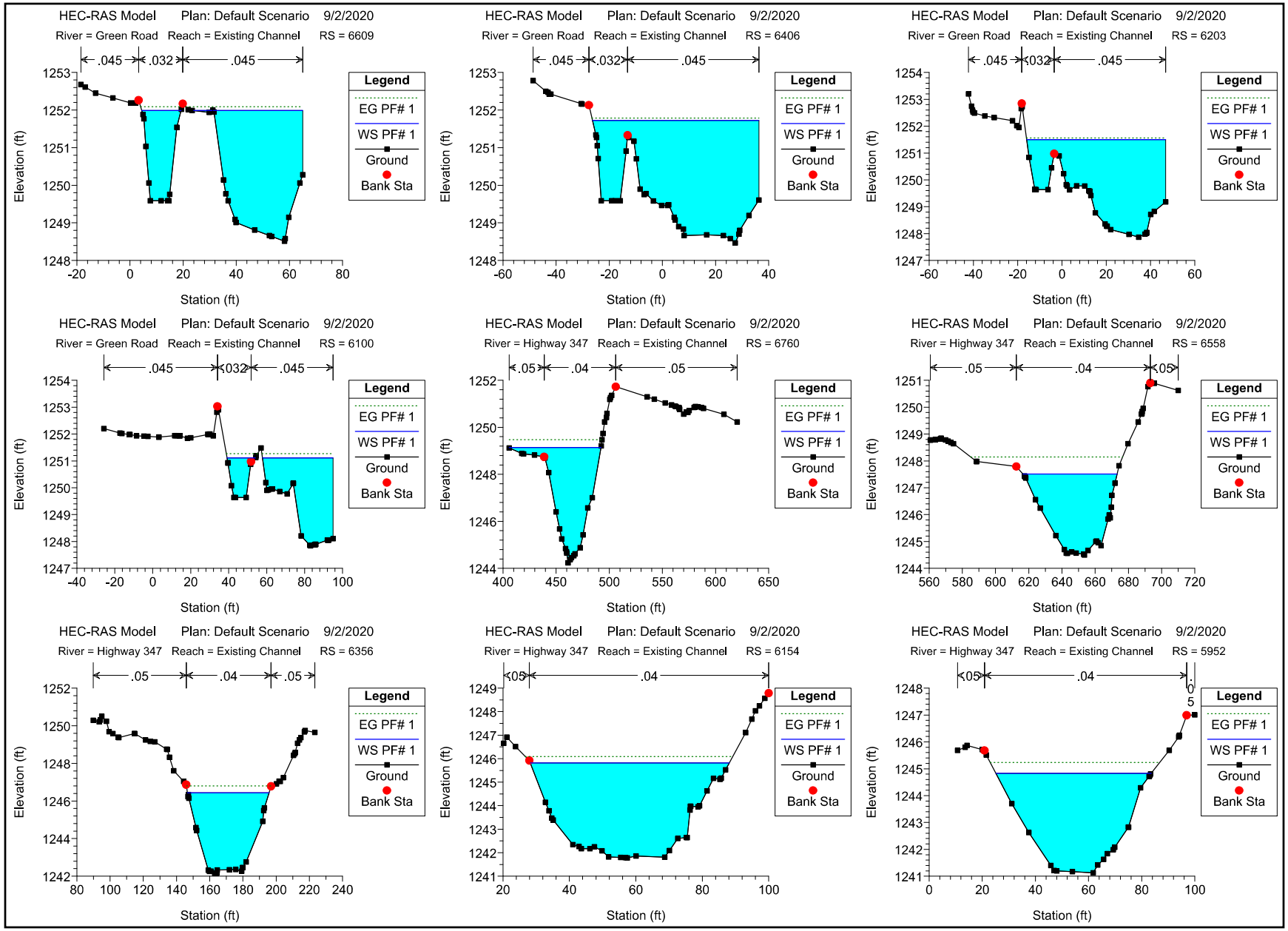
PRELIMINARY HEC-RAS RESULTS

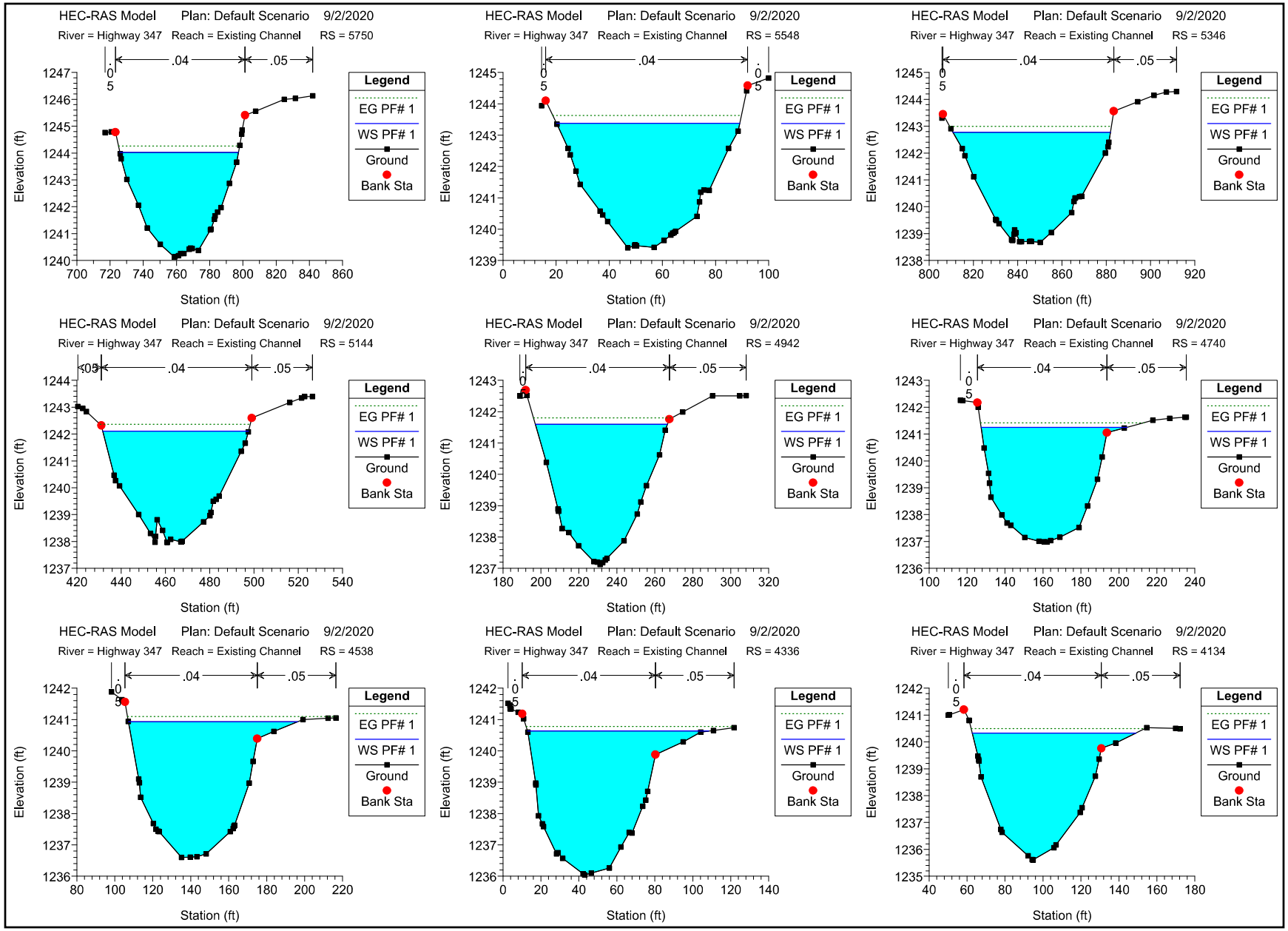

HEC-RAS Model Plan: Default Scenario 9/2/2020
Green Road Existing Channel
Legend
EG PF# 1
WS PF# 1
Lat Struct
Ground
Elevation (ft)
1257
1256
1255
1254
1253
1252
1251
1250
1249
6203
6406
6609
6812
7015
7218
7421
7624
7827
8030
8233
8436
0
500
1000
1500
2000
2500
Main Channel Distance (ft)

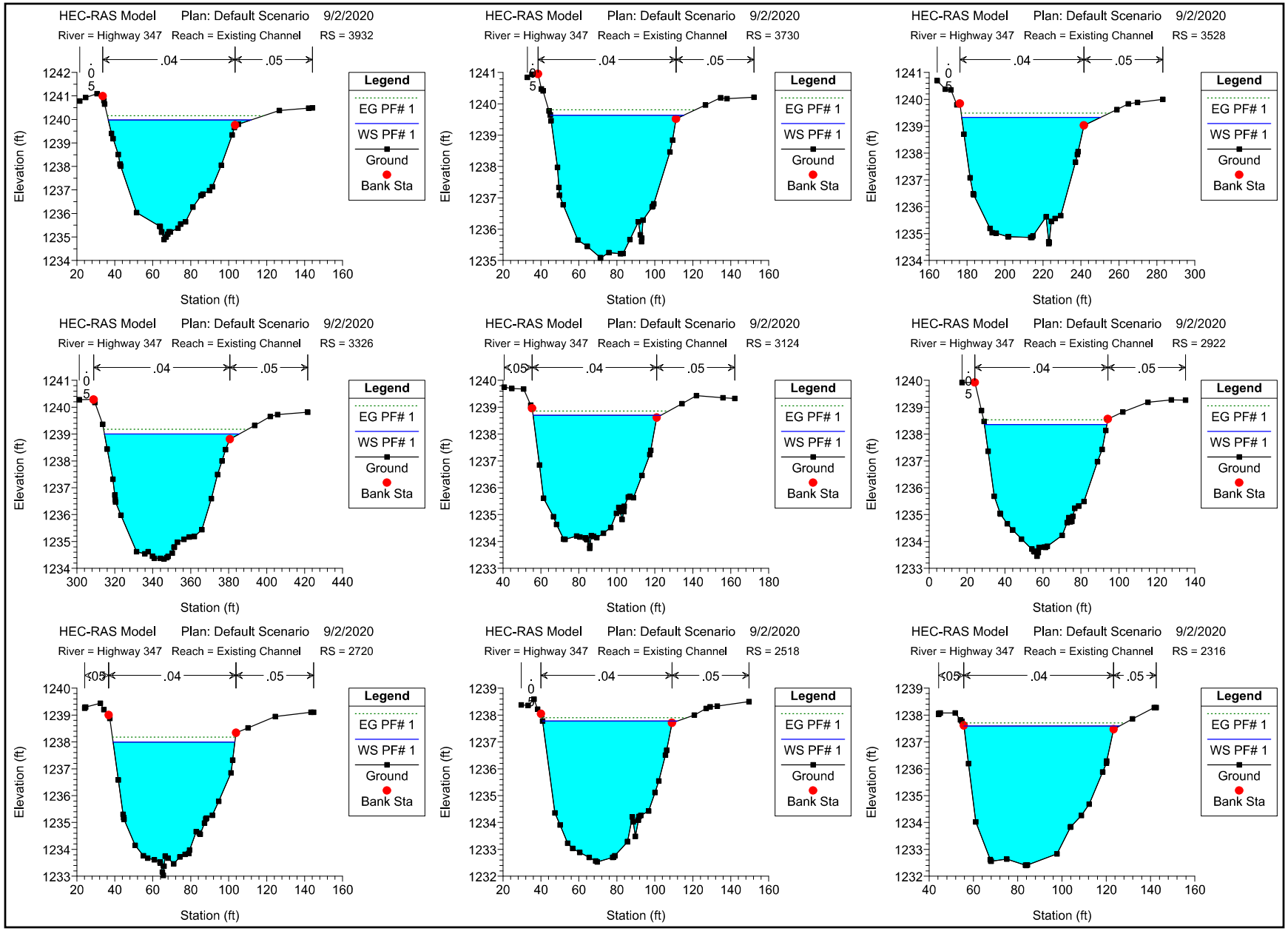

HEC-RAS Model Plan: Default Scenario 9/2/2020
Highway 347 Existing Channel
Legend
EG PF# 1
WS PF# 1
Crit PF# 1
Ground
Highway 347 Outfall Channel
Elevation (ft)
Main Channel Distance (ft)
1250
1245
1240
1235
1230
0
1000
2000
3000
4000
5000
6000
7000
700...
902
1104
1306
1508
1710
1912
2114
2316
2518
2720
2922
3124
3326
3528
3730
3932
4134
4336
4538
4740
4942
5144
5346
5548
5750
5952
6154
6356
6558
6760

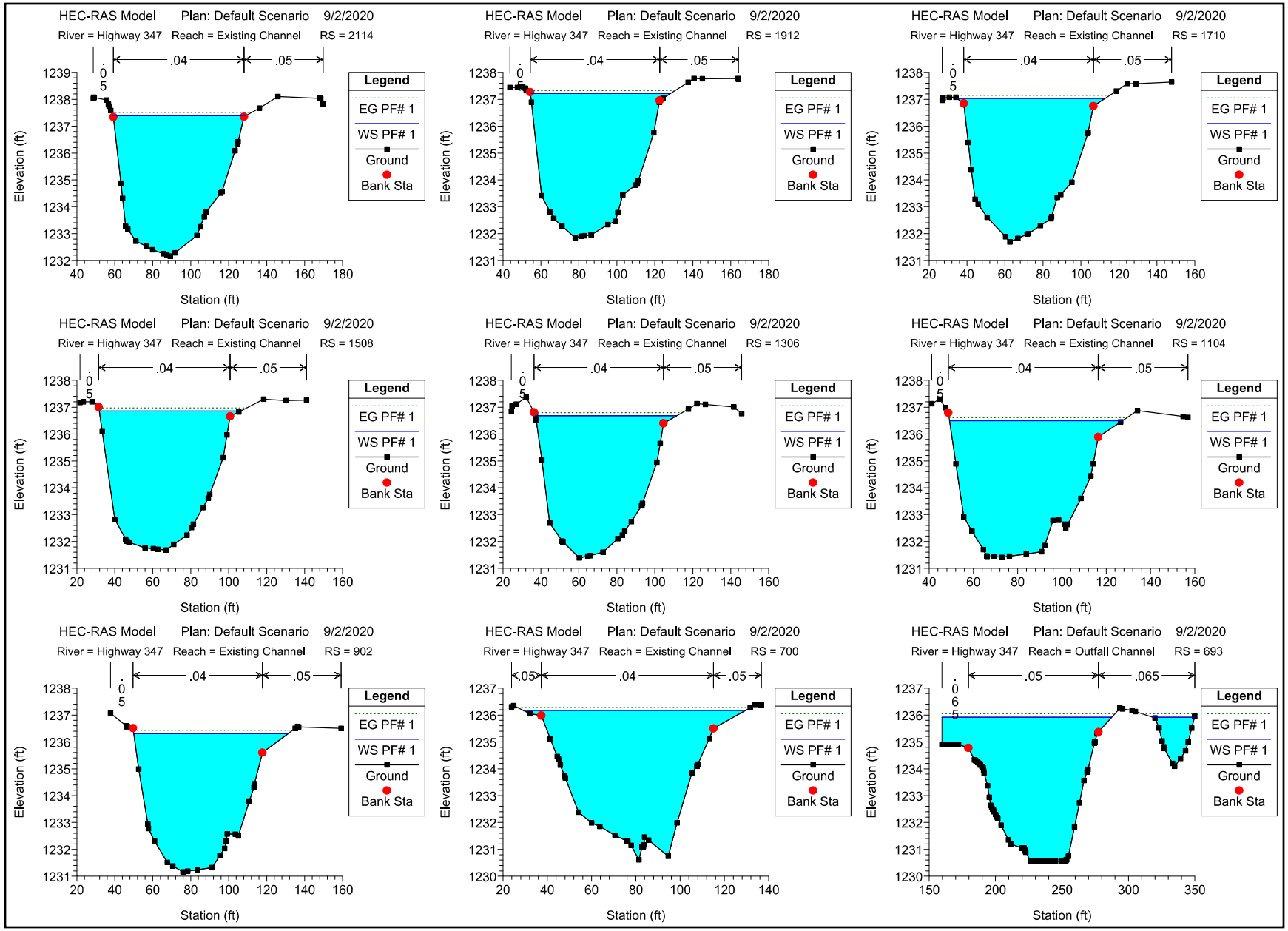

HEC-RAS Model Plan: Default Scenario 9/2/2020
Teel Road Existing Wash02
Teel Road Existing Wash01
Legend
Crit PF# 1
EG PF# 1
WS PF# 1
Lat Struct
Ground
Elevation (ft)
Main Channel Distance (ft)
1260
1255
1250
1245
1240
1235
1230
0
1000
2000
3000
4000
5000
6000
902
1104
1306
1508
1710
1912
2114
2316
2518
2720
2922
3124
3326
3528
3730
3932
4134
4336
4538
4740
4942
5144
5346
5548
5750
5952
6052
6198

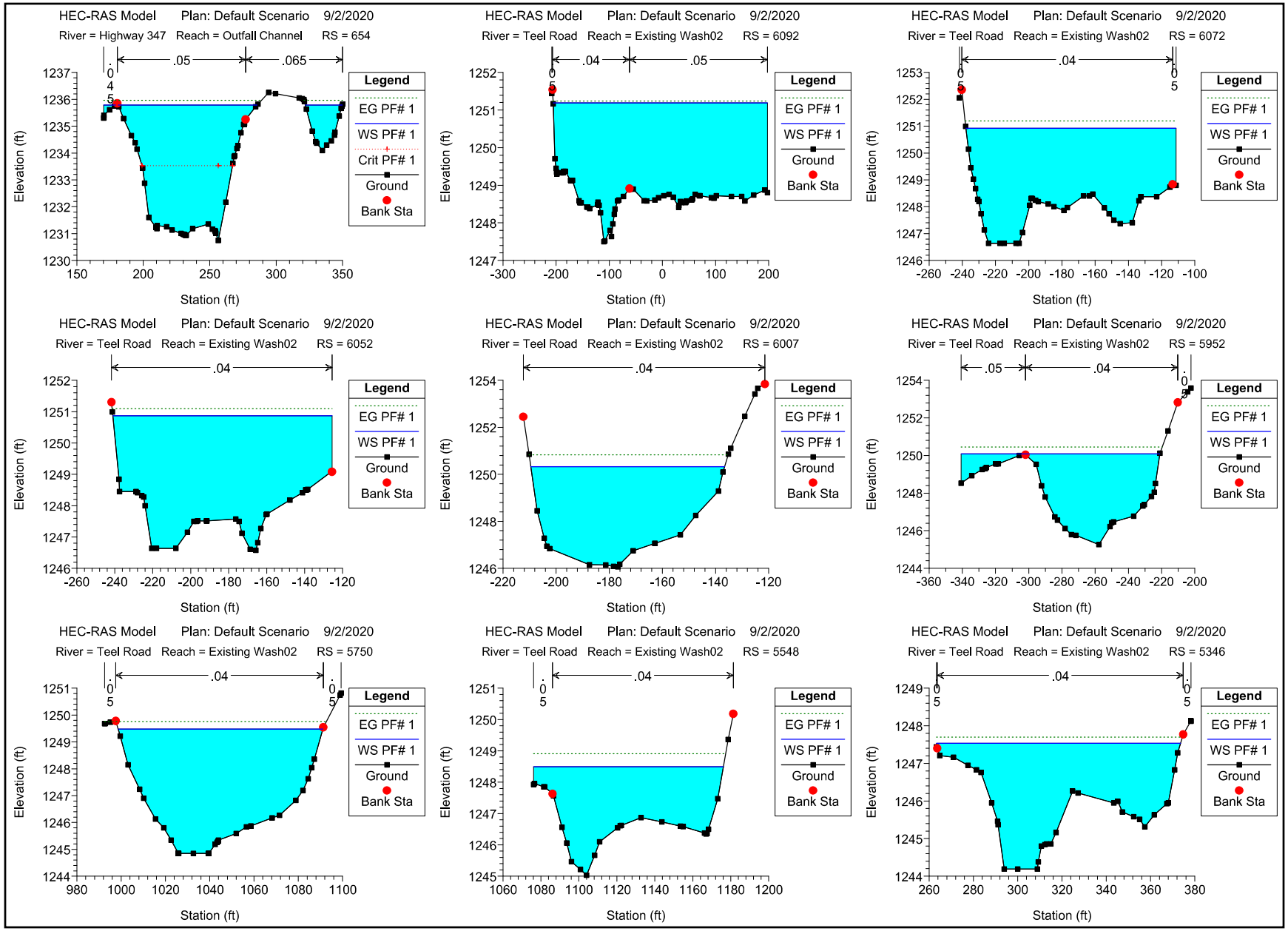

HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Green Road Reach = Existing Channel RS = 8436
.045 .032 .045
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Green Road Reach = Existing Channel RS = 8233
.045 .032 .045
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Green Road Reach = Existing Channel RS = 8030
.032 .045
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Green Road Reach = Existing Channel RS = 7827
.045 .032 .045
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Green Road Reach = Existing Channel RS = 7624
.045 .032 .045
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Green Road Reach = Existing Channel RS = 7421
.045 .032 .045
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Green Road Reach = Existing Channel RS = 7218
.045 .032 .045
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Green Road Reach = Existing Channel RS = 7015
.045 .032 .045
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Green Road Reach = Existing Channel RS = 6812
.045 .045
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)

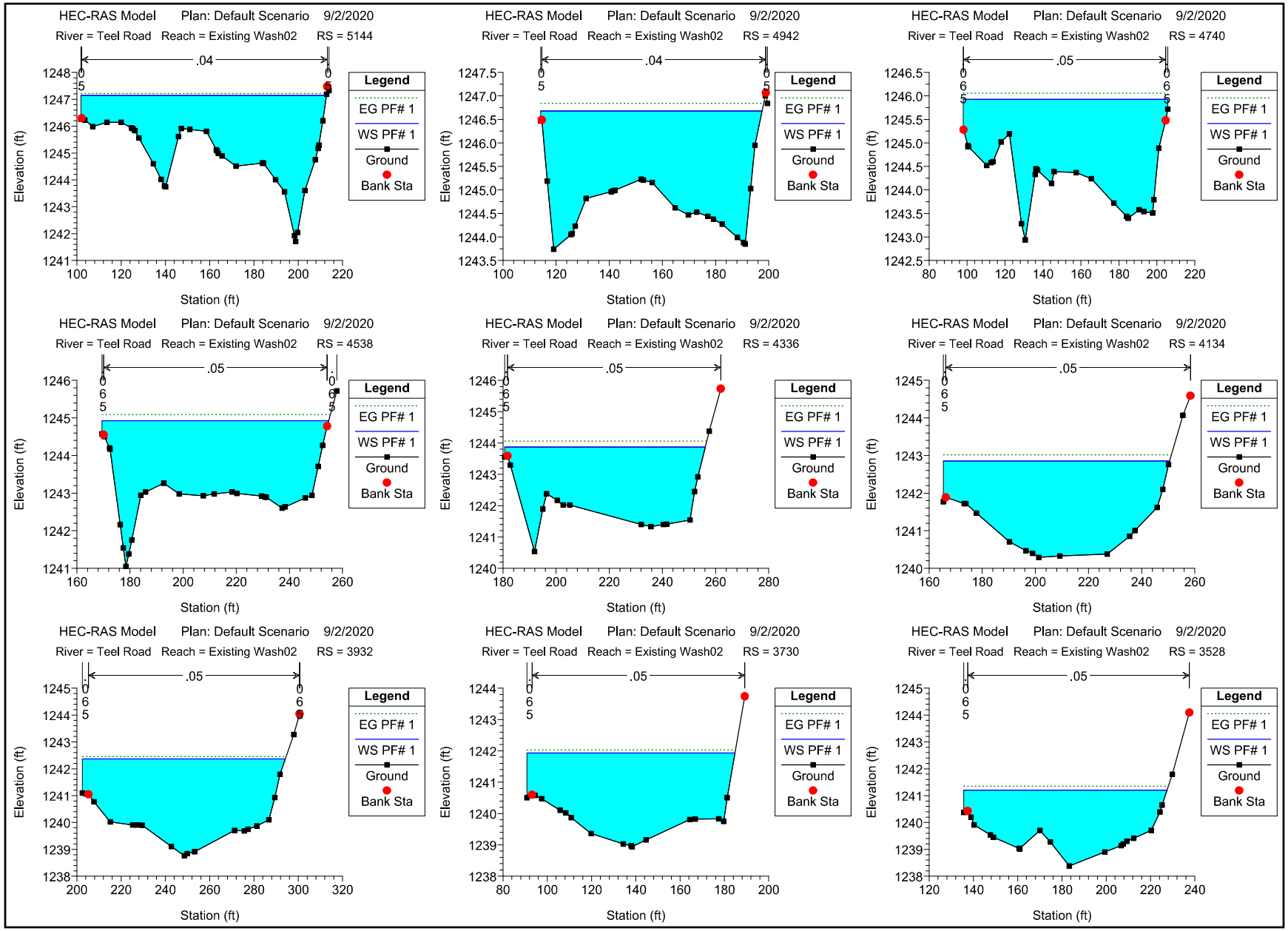

HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Green Road Reach = Existing Channel RS = 6609
.045 .032 .045
Elevation (ft)
Station (ft)
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Green Road Reach = Existing Channel RS = 6406
.045 .032 .045
Elevation (ft)
Station (ft)
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Green Road Reach = Existing Channel RS = 6203
.045 .032 .045
Elevation (ft)
Station (ft)
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Green Road Reach = Existing Channel RS = 6100
.045 .032 .045
Elevation (ft)
Station (ft)
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 6760
.05 .04 .05
Elevation (ft)
Station (ft)
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 6558
.05 .04 .05
Elevation (ft)
Station (ft)
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 6356
.05 .04 .05
Elevation (ft)
Station (ft)
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 6154
.05 .04
Elevation (ft)
Station (ft)
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 5952
.05 .04
Elevation (ft)
Station (ft)
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta

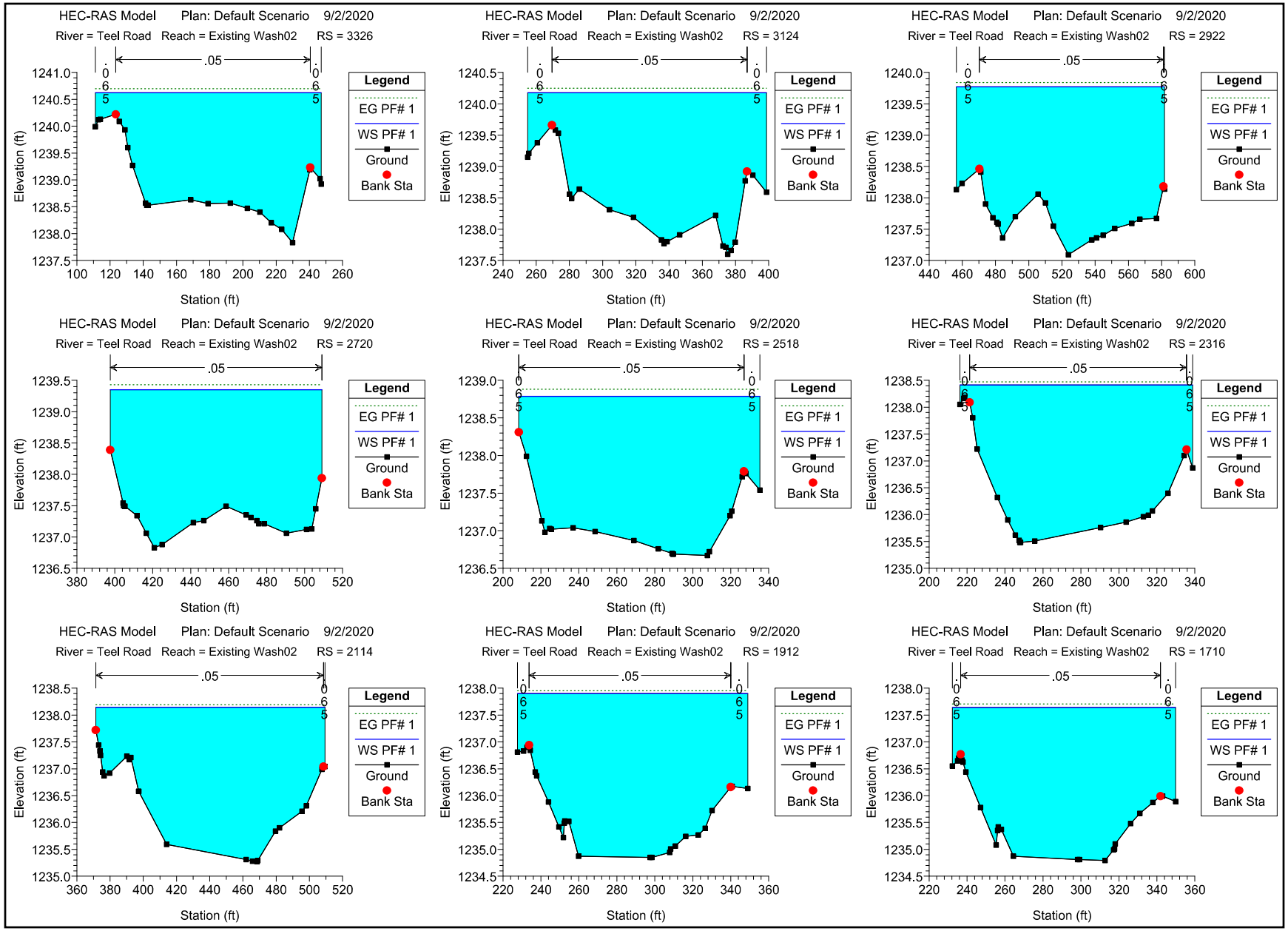

HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 5750
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 5548
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 5346
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 5144
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 4942
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 4740
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 4538
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 4336
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 4134
.04
.05
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)

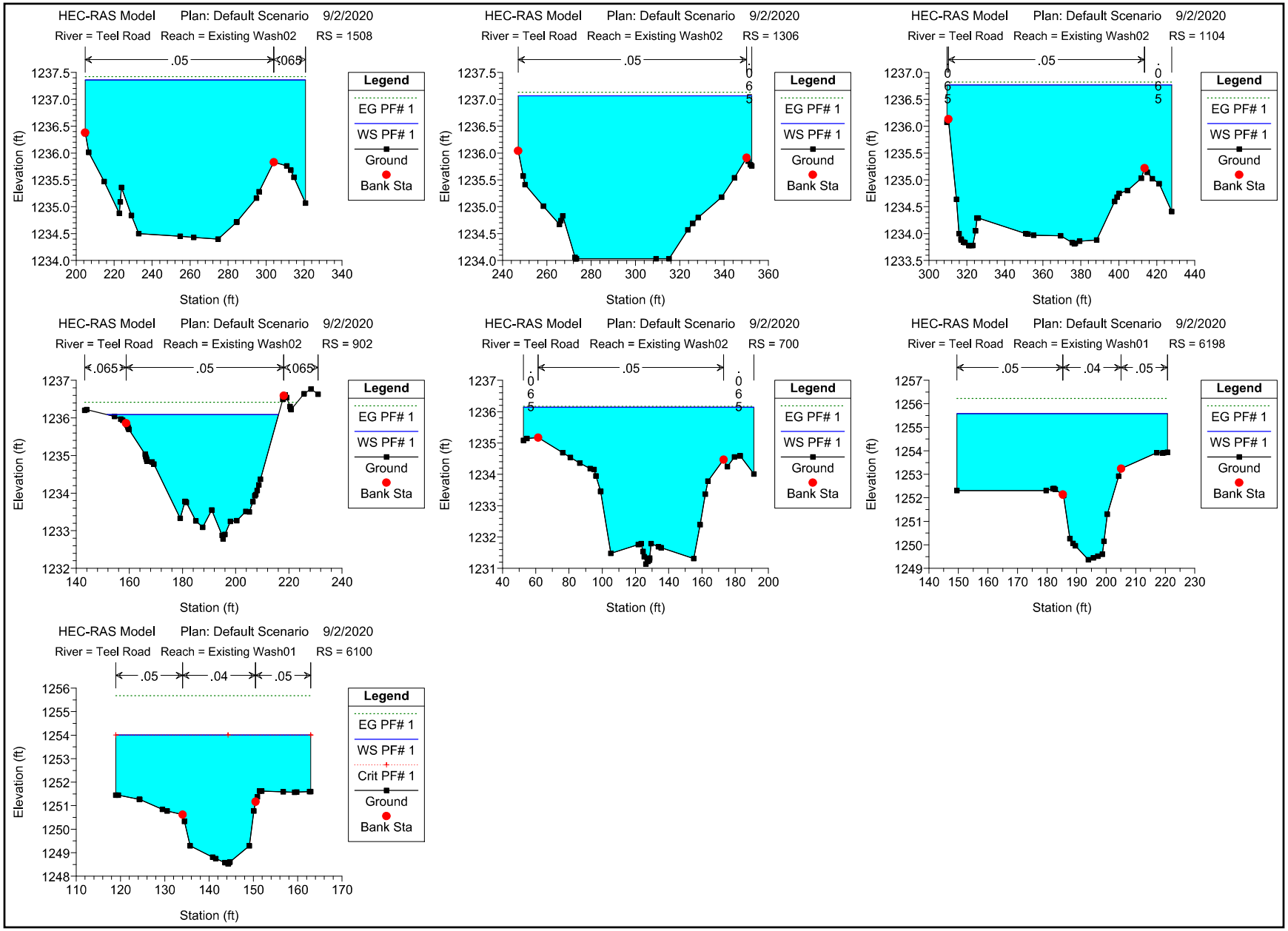

HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 3932
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 3730
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 3528
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 3326
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 3124
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 2922
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 2720
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 2518
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 2316
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)


HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 2114
.05 .04 .05
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 1912
.05 .04 .05
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 1710
.05 .04 .05
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 1508
.05 .04 .05
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 1306
.05 .04 .05
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 1104
.05 .04 .05
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 902
.05 .04 .05
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Existing Channel RS = 700
.05 .04 .05
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Outfall Channel RS = 693
.05 .05 .065
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)


HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Highway 347 Reach = Outfall Channel RS = 654
.045
.05
.065
Legend
EG PF# 1
WS PF# 1
Crit PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 6092
.05
.04
.05
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 6072
.05
.04
.05
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 6052
.04
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 6007
.04
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 5952
.05
.04
.05
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 5750
.05
.04
.05
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 5548
.05
.04
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 5346
.05
.04
.05
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)


HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 5144
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 4942
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 4740
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 4538
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 4336
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 4134
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 3932
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 3730
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 3528
.04
.05
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)


HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 3326
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 3124
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 2922
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 2720
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 2518
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 2316
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 2114
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 1912
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 1710
.05
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
Elevation (ft)
Station (ft)


HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 1508
.05
.065
Elevation (ft)
Station (ft)
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 1306
.05
.065
Elevation (ft)
Station (ft)
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 1104
.05
.065
Elevation (ft)
Station (ft)
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 902
.065
.05
.065
Elevation (ft)
Station (ft)
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash02 RS = 700
.065
.05
.065
Elevation (ft)
Station (ft)
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash01 RS = 6198
.05
.04
.05
Elevation (ft)
Station (ft)
Legend
EG PF# 1
WS PF# 1
Ground
Bank Sta
HEC-RAS Model Plan: Default Scenario 9/2/2020
River = Teel Road Reach = Existing Wash01 RS = 6100
.05
.04
.05
Elevation (ft)
Station (ft)
Legend
EG PF# 1
WS PF# 1
Crit PF# 1
Ground
Bank Sta

HEC-RAS Plan: Default Scenario Profile: PF# 1

River	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
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Teel Road	Existing Wash01	6198	PF# 1	1409.00	1249.37	1255.58		1256.22	0.005654	7.73	246.70	71.28	0.61
Teel Road	Existing Wash01	6100	PF# 1	1409.00	1248.53	1254.00	1254.00	1255.68	0.013903	11.88	154.71	43.98	0.95
Teel Road	Existing Wash02	6092	PF# 1	1703.98	1247.50	1251.19		1251.24	0.000792	1.94	1014.14	403.08	0.21
Teel Road	Existing Wash02	6085		Lat Struct									
Teel Road	Existing Wash02	6072	PF# 1	1585.25	1246.64	1250.92		1251.19	0.002879	4.16	383.35	126.52	0.42
Teel Road	Existing Wash02	6052	PF# 1	1375.86	1246.58	1250.87		1251.10	0.002384	3.81	361.18	115.49	0.38
Teel Road	Existing Wash02	6007	PF# 1	1293.41	1246.06	1250.33		1250.83	0.005313	5.70	226.94	72.94	0.57
Teel Road	Existing Wash02	5952	PF# 1	1293.41	1245.26	1250.08		1250.45	0.003884	4.94	280.42	119.63	0.49
Teel Road	Existing Wash02	5948		Lat Struct									
Teel Road	Existing Wash02	5750	PF# 1	1277.05	1244.85	1249.48		1249.76	0.002855	4.30	297.08	92.40	0.42
Teel Road	Existing Wash02	5548	PF# 1	968.05	1245.03	1248.49		1248.91	0.007775	5.23	189.33	100.02	0.65
Teel Road	Existing Wash02	5346	PF# 1	624.72	1244.19	1247.54		1247.70	0.003701	3.26	191.77	110.24	0.43
Teel Road	Existing Wash02	5144	PF# 1	532.58	1241.71	1247.14		1247.22	0.001295	2.22	240.57	110.81	0.26
Teel Road	Existing Wash02	4942	PF# 1	532.58	1243.74	1246.68		1246.84	0.003156	3.25	164.02	83.33	0.41
Teel Road	Existing Wash02	4740	PF# 1	532.58	1242.94	1245.93		1246.06	0.004756	2.92	182.97	107.82	0.39
Teel Road	Existing Wash02	4538	PF# 1	532.58	1241.05	1244.93		1245.09	0.004875	3.22	165.63	85.31	0.40
Teel Road	Existing Wash02	4336	PF# 1	532.58	1240.54	1243.88		1244.06	0.005334	3.47	153.63	75.54	0.43
Teel Road	Existing Wash02	4134	PF# 1	532.58	1240.29	1242.86		1243.02	0.004862	3.23	165.45	85.12	0.41
Teel Road	Existing Wash02	3932	PF# 1	532.58	1238.76	1242.37		1242.45	0.001700	2.30	233.62	91.65	0.25
Teel Road	Existing Wash02	3730	PF# 1	532.58	1238.94	1241.93		1242.03	0.002564	2.57	209.07	94.00	0.30
Teel Road	Existing Wash02	3528	PF# 1	532.58	1238.38	1241.20		1241.35	0.004640	3.10	172.75	91.86	0.40
Teel Road	Existing Wash02	3326	PF# 1	532.58	1237.83	1240.62		1240.70	0.002173	2.20	250.64	135.98	0.27
Teel Road	Existing Wash02	3124	PF# 1	532.58	1237.60	1240.18		1240.25	0.002309	2.21	254.45	143.85	0.28
Teel Road	Existing Wash02	2922	PF# 1	532.58	1237.09	1239.77		1239.84	0.001793	2.11	262.17	125.23	0.25
Teel Road	Existing Wash02	2720	PF# 1	532.58	1236.83	1239.35		1239.43	0.002293	2.29	232.65	111.50	0.28
Teel Road	Existing Wash02	2518	PF# 1	532.58	1236.67	1238.79		1238.88	0.003194	2.47	220.60	127.07	0.33
Teel Road	Existing Wash02	2316	PF# 1	532.58	1235.48	1238.41		1238.47	0.001339	1.94	278.43	122.64	0.22
Teel Road	Existing Wash02	2114	PF# 1	532.58	1235.27	1238.14		1238.19	0.001374	1.82	293.43	138.09	0.22
Teel Road	Existing Wash02	1912	PF# 1	532.58	1234.85	1237.90		1237.95	0.001058	1.84	301.27	121.29	0.20
Teel Road	Existing Wash02	1710	PF# 1	532.58	1234.79	1237.64		1237.70	0.001430	2.02	272.54	117.70	0.23
Teel Road	Existing Wash02	1508	PF# 1	532.58	1234.40	1237.36		1237.42	0.001362	2.01	278.31	115.98	0.22
Teel Road	Existing Wash02	1306	PF# 1	532.58	1234.03	1237.07		1237.13	0.001464	2.07	259.15	105.47	0.23
Teel Road	Existing Wash02	1104	PF# 1	532.58	1233.78	1236.77		1236.82	0.001184	1.91	291.60	118.41	0.21
Teel Road	Existing Wash02	902	PF# 1	532.58	1232.78	1236.09		1236.41	0.009498	4.59	116.51	64.41	0.57
Teel Road	Existing Wash02	700	PF# 1	532.58	1231.14	1236.14		1236.17	0.000474	1.41	401.48	138.65	0.14
Highway 347	Existing Channel	6760	PF# 1	719.00	1244.23	1249.15		1249.47	0.003771	4.59	163.87	86.33	0.47
Highway 347	Existing Channel	6558	PF# 1	719.00	1244.50	1247.51		1248.14	0.011984	6.37	112.82	56.75	0.80
Highway 347	Existing Channel	6356	PF# 1	719.00	1242.15	1246.43		1246.80	0.004016	4.83	148.86	49.18	0.49
Highway 347	Existing Channel	6154	PF# 1	719.00	1241.78	1245.82		1246.09	0.003251	4.20	171.34	59.90	0.44
Highway 347	Existing Channel	5952	PF# 1	719.00	1241.13	1244.83		1245.24	0.005974	5.12	140.56	58.43	0.58
Highway 347	Existing Channel	5750	PF# 1	719.00	1240.13	1244.02		1244.26	0.003113	3.89	184.98	71.41	0.43
Highway 347	Existing Channel	5548	PF# 1	719.00	1239.40	1243.38		1243.63	0.003325	4.02	179.01	68.94	0.44
Highway 347	Existing Channel	5346	PF# 1	719.00	1238.67	1242.77		1243.00	0.002892	3.80	189.08	71.15	0.41

HEC-RAS Plan: Default Scenario Profile: PF# 1 (Continued)

River	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
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
Highway 347	Existing Channel	5144	PF# 1	719.00	1237.96	1242.11		1242.36	0.003135	4.01	179.32	65.78	0.43
Highway 347	Existing Channel	4942	PF# 1	719.00	1237.12	1241.59		1241.80	0.002376	3.62	198.67	69.53	0.38
Highway 347	Existing Channel	4740	PF# 1	719.00	1236.98	1241.25		1241.42	0.001649	3.30	219.02	76.92	0.32
Highway 347	Existing Channel	4538	PF# 1	719.00	1236.60	1240.93		1241.09	0.001609	3.24	226.50	89.12	0.32
Highway 347	Existing Channel	4336	PF# 1	719.00	1236.04	1240.63		1240.78	0.001365	3.09	240.90	95.47	0.29
Highway 347	Existing Channel	4134	PF# 1	719.00	1235.60	1240.33		1240.49	0.001561	3.21	228.46	86.23	0.31
Highway 347	Existing Channel	3932	PF# 1	719.00	1234.89	1239.98		1240.15	0.001756	3.35	215.39	75.24	0.33
Highway 347	Existing Channel	3730	PF# 1	719.00	1235.08	1239.64		1239.81	0.001663	3.30	218.14	70.32	0.32
Highway 347	Existing Channel	3528	PF# 1	719.00	1234.63	1239.33		1239.49	0.001482	3.22	224.68	73.18	0.30
Highway 347	Existing Channel	3326	PF# 1	719.00	1234.35	1239.01		1239.17	0.001644	3.30	218.44	71.09	0.32
Highway 347	Existing Channel	3124	PF# 1	719.00	1233.74	1238.70		1238.85	0.001465	3.19	225.25	67.34	0.30
Highway 347	Existing Channel	2922	PF# 1	719.00	1233.45	1238.35		1238.53	0.001719	3.37	213.30	64.51	0.33
Highway 347	Existing Channel	2720	PF# 1	719.00	1233.03	1238.00		1238.18	0.001780	3.41	211.03	64.16	0.33
Highway 347	Existing Channel	2518	PF# 1	719.00	1232.53	1237.78		1237.90	0.000972	2.77	259.57	71.03	0.25
Highway 347	Existing Channel	2316	PF# 1	719.00	1232.40	1237.59		1237.71	0.000931	2.75	261.84	70.19	0.25
Highway 347	Existing Channel	2114	PF# 1	719.00	1232.16	1237.39		1237.51	0.000982	2.77	259.17	70.15	0.25
Highway 347	Existing Channel	1912	PF# 1	719.00	1231.84	1237.22		1237.33	0.000837	2.65	271.75	73.90	0.23
Highway 347	Existing Channel	1710	PF# 1	719.00	1231.69	1237.03		1237.15	0.000907	2.72	265.75	78.36	0.24
Highway 347	Existing Channel	1508	PF# 1	719.00	1231.68	1236.86		1236.97	0.000848	2.65	271.45	74.59	0.24
Highway 347	Existing Channel	1306	PF# 1	719.00	1231.39	1236.68		1236.79	0.000892	2.72	265.49	74.35	0.24
Highway 347	Existing Channel	1104	PF# 1	719.00	1231.41	1236.50		1236.61	0.000899	2.72	266.78	78.18	0.24
Highway 347	Existing Channel	902	PF# 1	719.00	1231.16	1236.31		1236.43	0.000910	2.73	267.75	81.50	0.24
Highway 347	Existing Channel	700	PF# 1	719.00	1230.61	1236.18		1236.28	0.000867	2.55	287.13	100.48	0.24
Highway 347	Outfall Channel	693	PF# 1	1170.58	1230.56	1235.92		1236.05	0.001658	2.96	434.19	159.30	0.27
Highway 347	Outfall Channel	654	PF# 1	1170.58	1230.74	1235.78	1233.53	1235.96	0.002676	3.46	360.78	141.27	0.33
Green Road	Existing Channel	8436	PF# 1	613.00	1251.90	1256.07		1256.27	0.003289	4.63	186.37	91.88	0.50
Green Road	Existing Channel	8435		Lat Struct									
Green Road	Existing Channel	8233	PF# 1	599.24	1251.76	1255.37		1255.57	0.003580	4.56	177.92	86.61	0.52
Green Road	Existing Channel	8030	PF# 1	481.11	1251.40	1254.83		1254.96	0.002338	3.63	178.23	87.31	0.41
Green Road	Existing Channel	7827	PF# 1	455.43	1251.02	1254.32		1254.46	0.002518	3.37	153.76	68.20	0.42
Green Road	Existing Channel	7624	PF# 1	426.86	1250.68	1253.90		1254.01	0.001914	3.18	160.55	67.24	0.37
Green Road	Existing Channel	7421	PF# 1	426.86	1250.54	1253.42		1253.56	0.002566	3.54	145.91	66.34	0.43
Green Road	Existing Channel	7218	PF# 1	426.86	1250.00	1252.86		1253.02	0.002833	3.74	139.32	62.87	0.44
Green Road	Existing Channel	7015	PF# 1	296.54	1249.59	1252.54		1252.61	0.001160	2.53	146.73	80.64	0.29
Green Road	Existing Channel	6812	PF# 1	295.98	1249.59	1252.31		1252.38	0.001155	2.45	144.41	62.61	0.29
Green Road	Existing Channel	6609	PF# 1	295.98	1249.59	1251.99		1252.09	0.001749	2.56	116.04	55.45	0.35
Green Road	Existing Channel	6406	PF# 1	295.98	1249.59	1251.73		1251.79	0.001162	2.06	146.32	62.66	0.29
Green Road	Existing Channel	6203	PF# 1	295.98	1249.64	1251.50		1251.56	0.001116	1.90	148.37	62.77	0.28
Green Road	Existing Channel	6100	PF# 1	295.98	1249.64	1251.11		1251.27	0.003936	3.07	93.16	52.05	0.51

Plan: Default Scenario Green Road Existing Channel RS: 8435 Lateral Structure Profile: PF# 1

E.G. US. (ft)	1256.27	Weir Sta US (ft)	104.87
W.S. US. (ft)	1256.07	Weir Sta DS (ft)	1418.08
E.G. DS (ft)	1252.61	Min El Weir Flow (ft)	1250.71
W.S. DS (ft)	1252.54	Wr Top Wdth (ft)	1313.21
Q US (cfs)	613.00	Weir Max Depth (ft)	1.83
Q Leaving Total (cfs)	2005.69	Weir Avg Depth (ft)	0.65
Q DS (cfs)	295.98	Weir Flow Area (sq ft)	849.62
Perc Q Leaving	51.72	Weir Coef (ft^1/2)	2.600
Q Weir (cfs)	2005.69	Weir Submerg	0.00
Q Gates (cfs)		Q Gate Group (cfs)	
Q Culv (cfs)		Gate Open Ht (ft)	
Q Lat RC (cfs)		Gate #Open	
Q Outlet TS (cfs)	0.00	Gate Area (sq ft)	
Q Breach (cfs)		Gate Submerg	
Breach Avg Velocity (ft/s)		Gate Invert (ft)	
Breach Flow Area (sq ft)		Gate Weir Coef	
Breach WD (ft)			
Breach Top El (ft)			
Breach Bottom El (ft)			
Breach SSL (ft)			
Breach SSR (ft)			

Plan: Default Scenario Teel Road Existing Wash02 RS: 6085 Lateral Structure Profile: PF# 1

E.G. US. (ft)	1251.24	Weir Sta US (ft)	0.00
W.S. US. (ft)	1251.19	Weir Sta DS (ft)	80.16
E.G. DS (ft)	1250.75	Min El Weir Flow (ft)	1248.64
W.S. DS (ft)	1250.27	Wr Top Wdth (ft)	80.16
Q US (cfs)	1703.98	Weir Max Depth (ft)	2.36
Q Leaving Total (cfs)	529.30	Weir Avg Depth (ft)	1.80
Q DS (cfs)	1293.41	Weir Flow Area (sq ft)	143.91
Perc Q Leaving	24.09	Weir Coef (ft^1/2)	2.600
Q Weir (cfs)	529.30	Weir Submerg	0.00
Q Gates (cfs)		Q Gate Group (cfs)	
Q Culv (cfs)		Gate Open Ht (ft)	
Q Lat RC (cfs)		Gate #Open	
Q Outlet TS (cfs)	0.00	Gate Area (sq ft)	
Q Breach (cfs)		Gate Submerg	
Breach Avg Velocity (ft/s)		Gate Invert (ft)	
Breach Flow Area (sq ft)		Gate Weir Coef	
Breach WD (ft)			
Breach Top El (ft)			
Breach Bottom El (ft)			
Breach SSL (ft)			
Breach SSR (ft)			

Plan: Default Scenario Teel Road Existing Wash02 RS: 5948 Lateral Structure Profile: PF# 1

E.G. US. (ft)	1250.45	Weir Sta US (ft)	0.00
W.S. US. (ft)	1250.08	Weir Sta DS (ft)	2428.28
E.G. DS (ft)	1241.34	Min El Weir Flow (ft)	1240.31
W.S. DS (ft)	1241.19	Wr Top Wdth (ft)	2291.88
Q US (cfs)	1293.41	Weir Max Depth (ft)	1.82
Q Leaving Total (cfs)	5698.49	Weir Avg Depth (ft)	0.92
Q DS (cfs)	532.58	Weir Flow Area (sq ft)	2115.98

Plan: Default Scenario Teel Road Existing Wash02 RS: 5948 Lateral Structure Profile: PF# 1 (Continued)

Perc Q Leaving	58.82	Weir Coef (ft^1/2)	2.600
Q Weir (cfs)	5698.49	Weir Submerg	0.00
Q Gates (cfs)		Q Gate Group (cfs)	
Q Culv (cfs)		Gate Open Ht (ft)	
Q Lat RC (cfs)		Gate #Open	
Q Outlet TS (cfs)	0.00	Gate Area (sq ft)	
Q Breach (cfs)		Gate Submerg	
Breach Avg Velocity (ft/s)		Gate Invert (ft)	
Breach Flow Area (sq ft)		Gate Weir Coef	
Breach WD (ft)			
Breach Top El (ft)			
Breach Bottom El (ft)			
Breach SSL (ft)			
Breach SSR (ft)			

HILGARTWILSON
ENGINEER | PLAN | SURVEY | MANAGE

APPENDIX E

PRELIMINARY HYDRAFLOW RESULTS

Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Thursday, Nov 12 2020

2232 Midway - Northern Channel Section 1_ HELM FLO-2D

User-defined

Invert Elev (ft)	= 10.00
Slope (%)	= 0.30
N-Value	= 0.032

Calculations

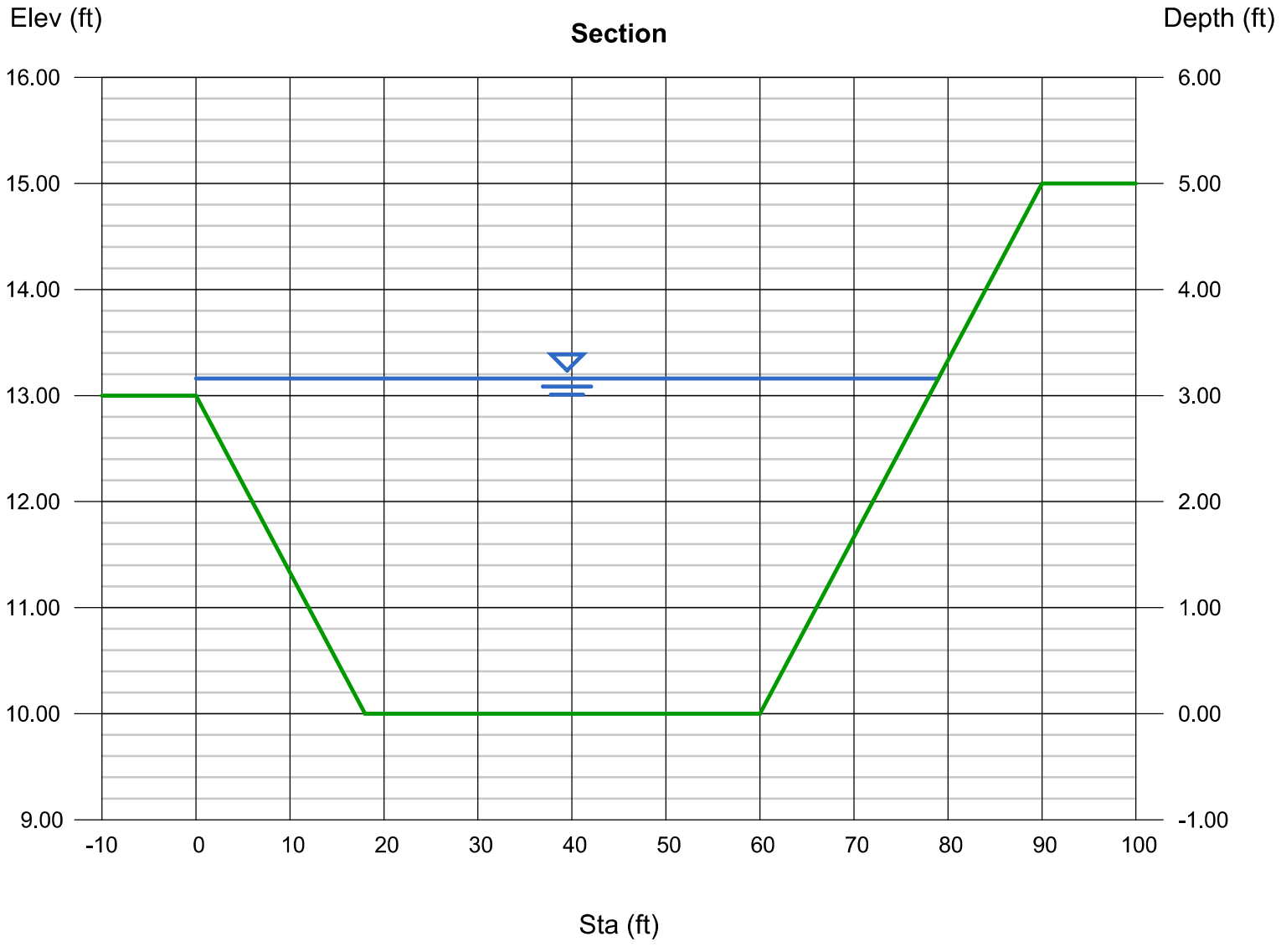
Compute by:	Known Q
Known Q (cfs)	= 880.00

Highlighted

Depth (ft)	= 3.16
Q (cfs)	= 880.00
Area (sqft)	= 192.56
Velocity (ft/s)	= 4.57
Wetted Perim (ft)	= 79.47
Crit Depth, Yc (ft)	= 2.15
Top Width (ft)	= 78.96
EGL (ft)	= 3.48

(Sta, El, n)-(Sta, El, n)...

(0.00, 13.00)-(18.00, 10.00, 0.032)-(60.00, 10.00, 0.032)-(90.00, 15.00, 0.032)



Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Thursday, Nov 12 2020

2232 Midway - Northern Channel Section 1_ HILGARTWILSON HEC-1

User-defined

Invert Elev (ft)	= 10.00
Slope (%)	= 0.30
N-Value	= 0.032

Calculations

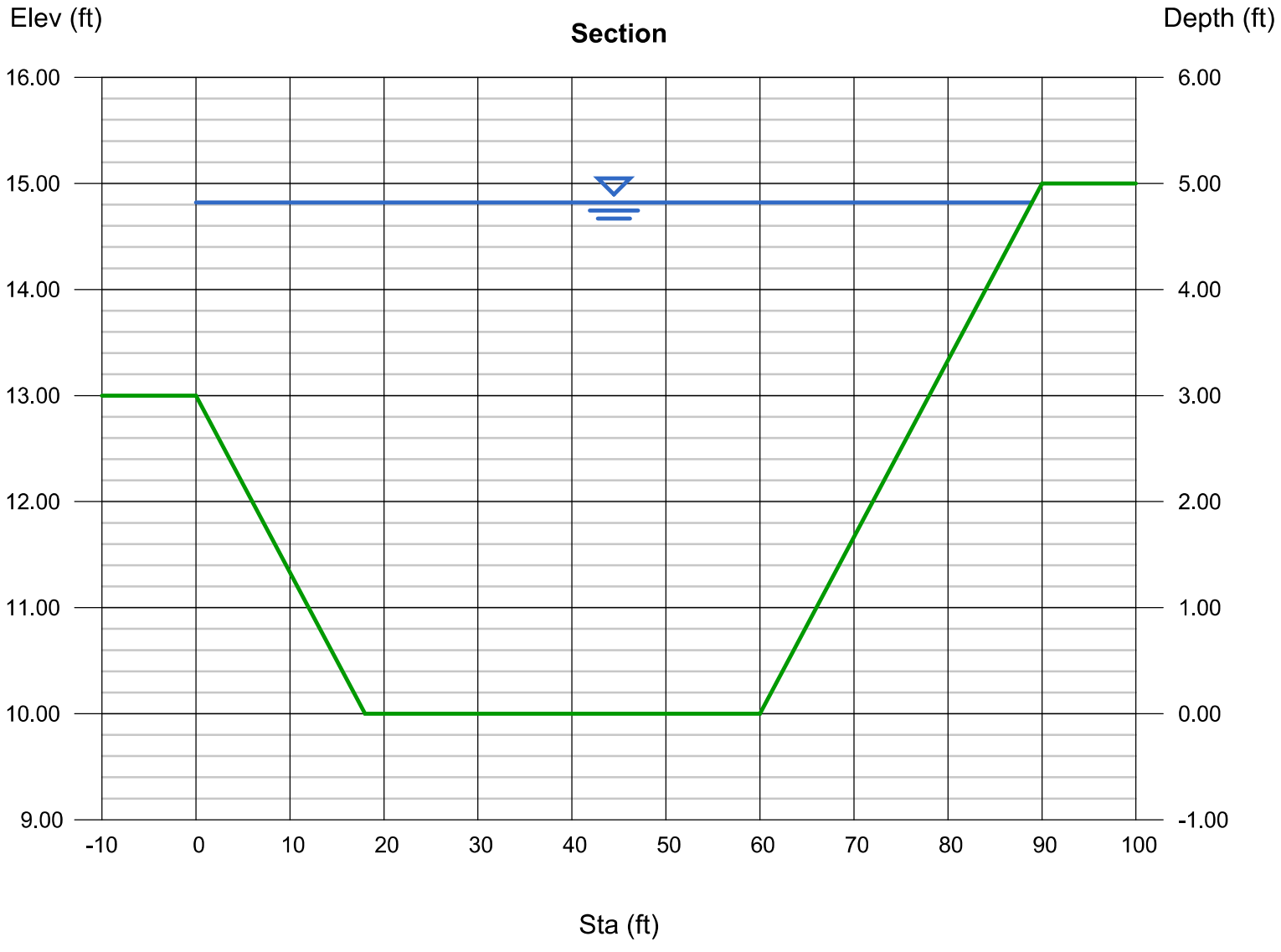
Compute by:	Known Q
Known Q (cfs)	= 2021.00

Highlighted

Depth (ft)	= 4.82
Q (cfs)	= 2,021
Area (sqft)	= 331.90
Velocity (ft/s)	= 6.09
Wetted Perim (ft)	= 89.57
Crit Depth, Yc (ft)	= 3.48
Top Width (ft)	= 88.92
EGL (ft)	= 5.40

(Sta, El, n)-(Sta, El, n)...

(0.00, 13.00)-(18.00, 10.00, 0.032)-(60.00, 10.00, 0.032)-(90.00, 15.00, 0.032)



Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Thursday, Nov 12 2020

2232 Midway - Northern Channel Section 2_FLO-2D & HEC-1

Trapezoidal

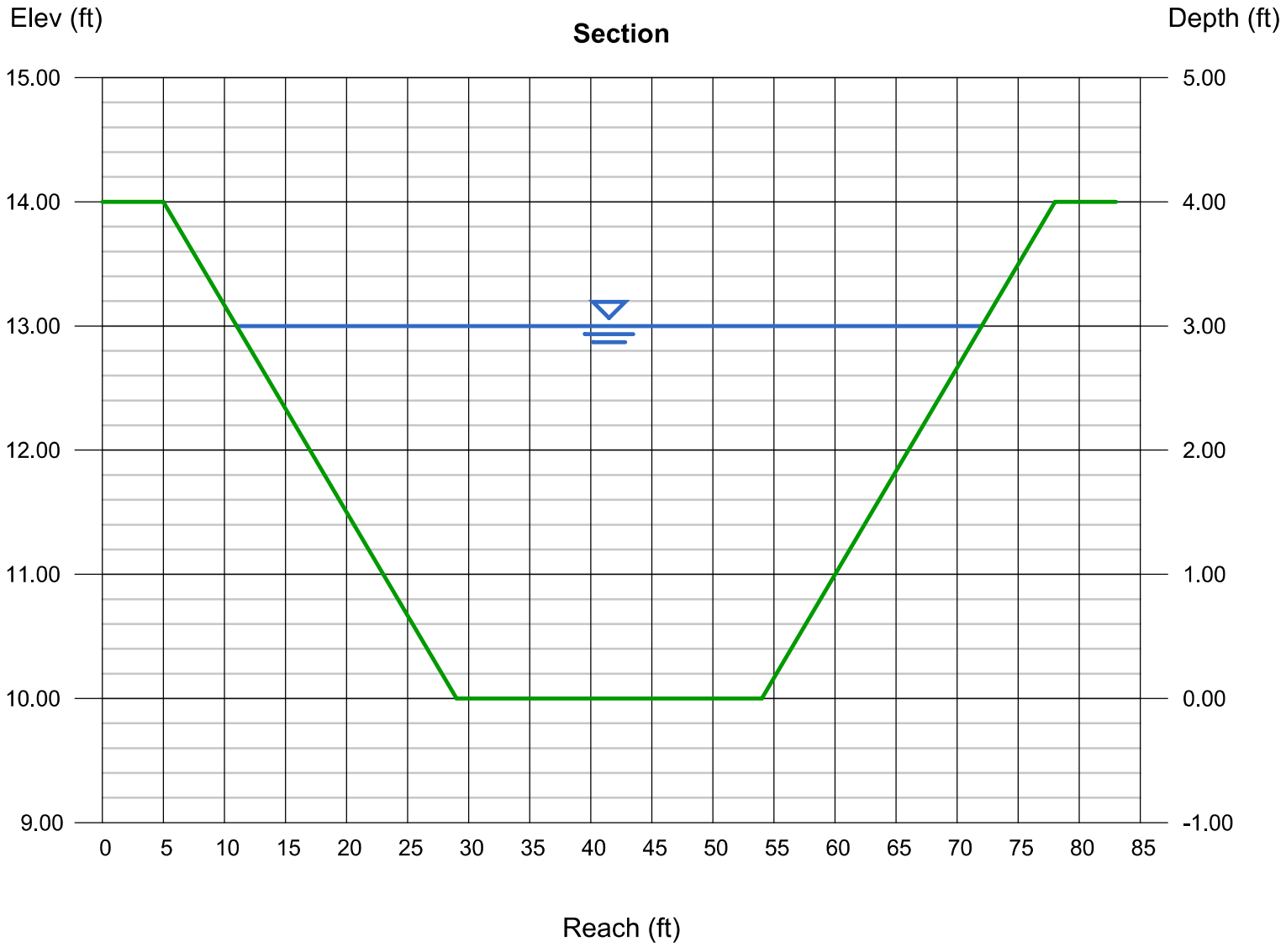
Bottom Width (ft)	= 25.00
Side Slopes (z:1)	= 6.00, 6.00
Total Depth (ft)	= 4.00
Invert Elev (ft)	= 10.00
Slope (%)	= 0.30
N-Value	= 0.032

Calculations

Compute by:	Known Q
Known Q (cfs)	= 535.00

Highlighted

Depth (ft)	= 3.00
Q (cfs)	= 535.00
Area (sqft)	= 129.00
Velocity (ft/s)	= 4.15
Wetted Perim (ft)	= 61.50
Crit Depth, Yc (ft)	= 2.05
Top Width (ft)	= 61.00
EGL (ft)	= 3.27



Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Thursday, Nov 12 2020

2232 Midway - Western Channel_HELM FLO-2D

Trapezoidal

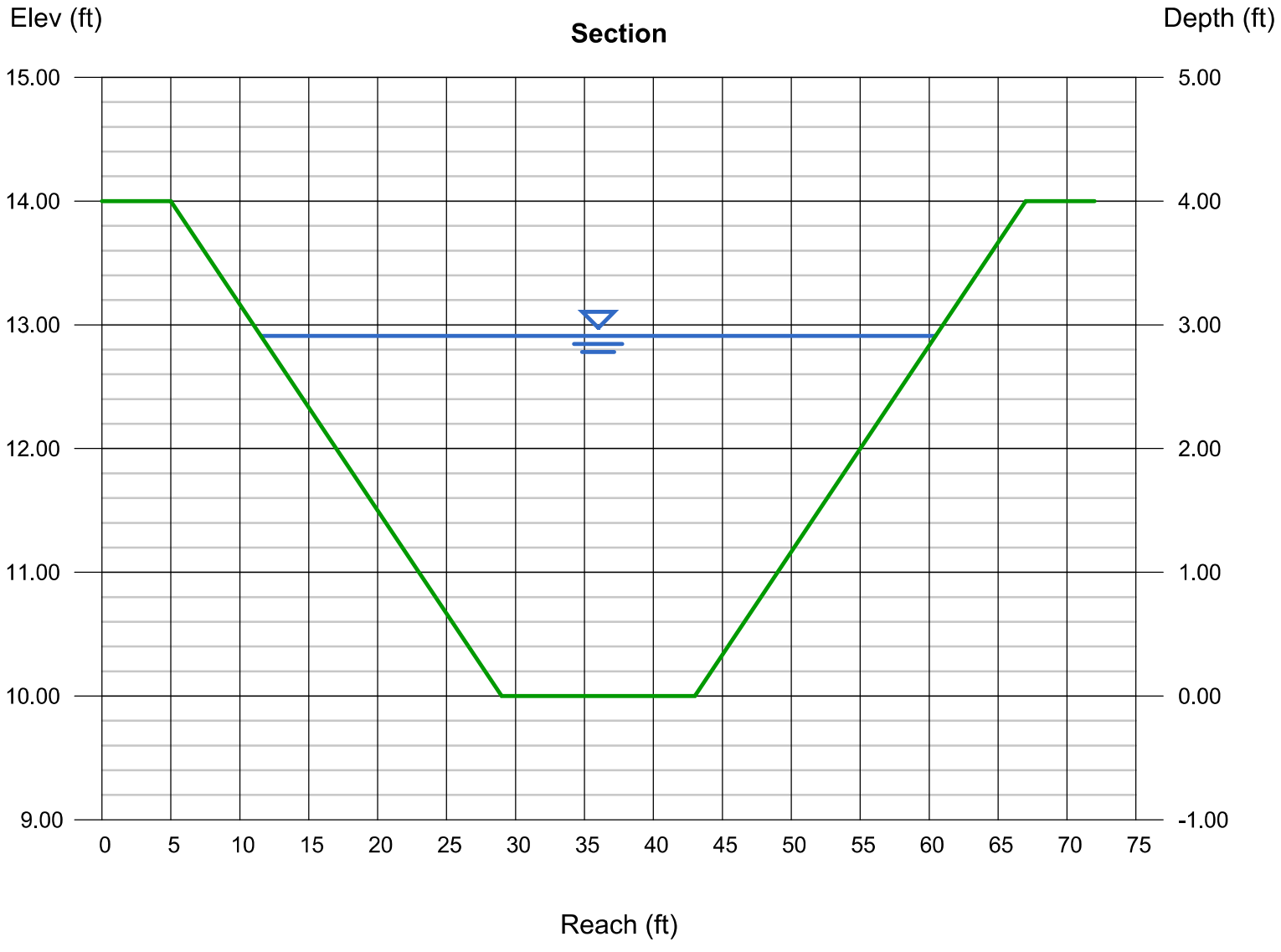
Bottom Width (ft)	= 14.00
Side Slopes (z:1)	= 6.00, 6.00
Total Depth (ft)	= 4.00
Invert Elev (ft)	= 10.00
Slope (%)	= 0.30
N-Value	= 0.032

Calculations

Compute by:	Known Q
Known Q (cfs)	= 350.00

Highlighted

Depth (ft)	= 2.91
Q (cfs)	= 350.00
Area (sqft)	= 91.55
Velocity (ft/s)	= 3.82
Wetted Perim (ft)	= 49.40
Crit Depth, Yc (ft)	= 2.02
Top Width (ft)	= 48.92
EGL (ft)	= 3.14



Culvert Report

2232 - Western Channel Culverts_HELM FLO-2D

Invert Elev Dn (ft)	=	15.00
Pipe Length (ft)	=	75.00
Slope (%)	=	0.31
Invert Elev Up (ft)	=	15.23
Rise (in)	=	48.0
Shape	=	Box
Span (in)	=	120.0
No. Barrels	=	2
n-Value	=	0.012
Culvert Type	=	Flared Wingwalls
Culvert Entrance	=	30D to 75D wingwall flares
Coeff. K,M,c,Y,k	=	0.026, 1, 0.0347, 0.81, 0.4

Embankment

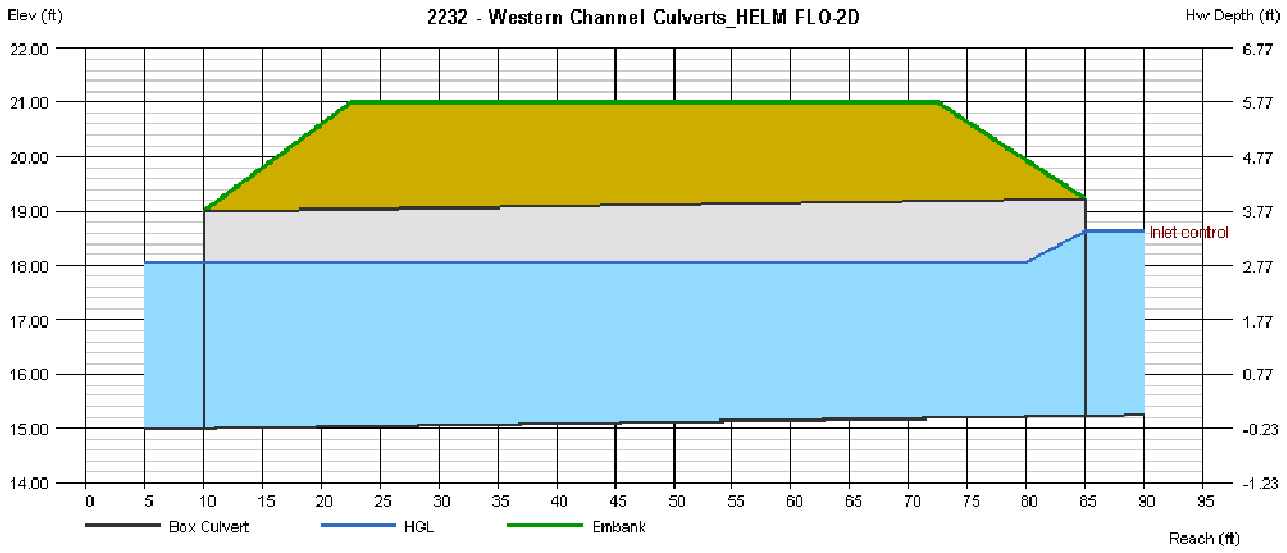
Top Elevation (ft)	=	21.00
Top Width (ft)	=	50.00
Crest Width (ft)	=	35.00

Calculations

Qmin (cfs)	=	350.00
Qmax (cfs)	=	350.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	350.00
Qpipe (cfs)	=	350.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	5.72
Veloc Up (ft/s)	=	6.18
HGL Dn (ft)	=	18.06
HGL Up (ft)	=	18.06
Hw Elev (ft)	=	18.63
Hw/D (ft)	=	0.85
Flow Regime	=	Inlet Control



Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Thursday, Nov 12 2020

2232 Midway - Western Channel_HILGARTWILSON HEC-1

Trapezoidal

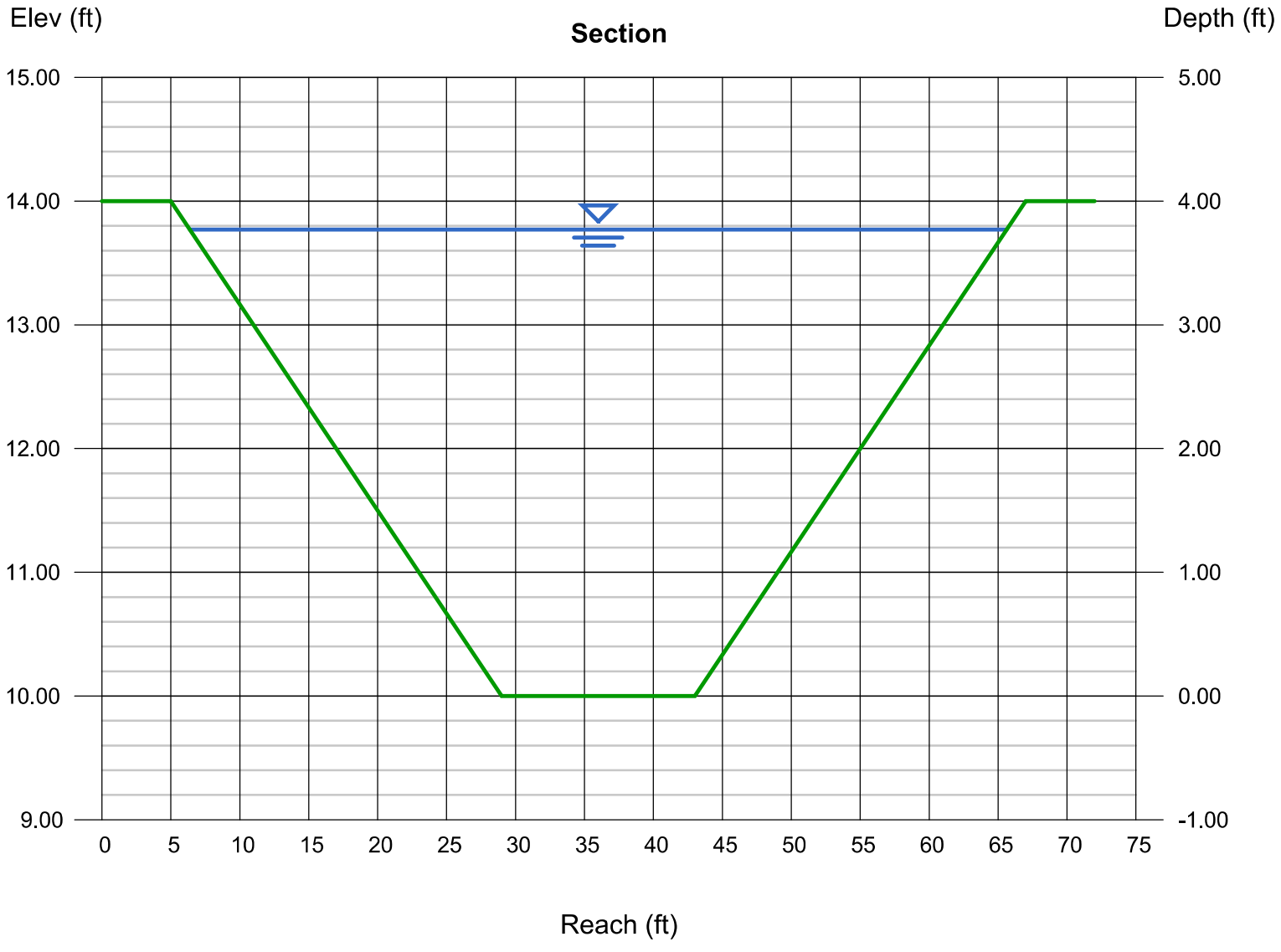
Bottom Width (ft)	= 14.00
Side Slopes (z:1)	= 6.00, 6.00
Total Depth (ft)	= 4.00
Invert Elev (ft)	= 10.00
Slope (%)	= 0.30
N-Value	= 0.032

Calculations

Compute by:	Known Q
Known Q (cfs)	= 613.00

Highlighted

Depth (ft)	= 3.77
Q (cfs)	= 613.00
Area (sqft)	= 138.06
Velocity (ft/s)	= 4.44
Wetted Perim (ft)	= 59.86
Crit Depth, Yc (ft)	= 2.71
Top Width (ft)	= 59.24
EGL (ft)	= 4.08



Culvert Report

2232 - Western Channel Culverts_HILGARTWILSON HEC-1

Invert Elev Dn (ft)	=	15.00
Pipe Length (ft)	=	75.00
Slope (%)	=	0.31
Invert Elev Up (ft)	=	15.23
Rise (in)	=	48.0
Shape	=	Box
Span (in)	=	120.0
No. Barrels	=	2
n-Value	=	0.012
Culvert Type	=	Flared Wingwalls
Culvert Entrance	=	30D to 75D wingwall flares
Coeff. K,M,c,Y,k	=	0.026, 1, 0.0347, 0.81, 0.4

Embankment

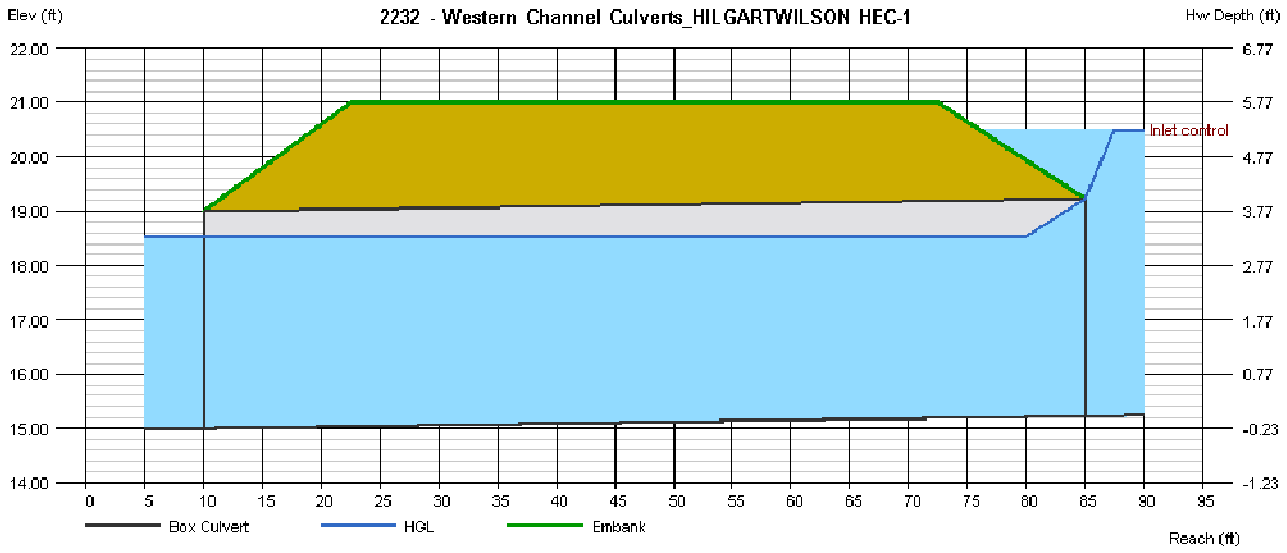
Top Elevation (ft)	=	21.00
Top Width (ft)	=	50.00
Crest Width (ft)	=	40.00

Calculations

Qmin (cfs)	=	613.00
Qmax (cfs)	=	613.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	613.00
Qpipe (cfs)	=	613.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	8.66
Veloc Up (ft/s)	=	9.26
HGL Dn (ft)	=	18.54
HGL Up (ft)	=	18.54
Hw Elev (ft)	=	20.50
Hw/D (ft)	=	1.32
Flow Regime	=	Inlet Control



Culvert Report

2232 Midway - Existing Higway 347 Channel Culverts_HILGARTWILSON HEC-1

Invert Elev Dn (ft)	=	15.00
Pipe Length (ft)	=	75.00
Slope (%)	=	0.31
Invert Elev Up (ft)	=	15.23
Rise (in)	=	48.0
Shape	=	Box
Span (in)	=	120.0
No. Barrels	=	3
n-Value	=	0.012
Culvert Type	=	Flared Wingwalls
Culvert Entrance	=	30D to 75D wingwall flares
Coeff. K,M,c,Y,k	=	0.026, 1, 0.0347, 0.81, 0.4

Embankment

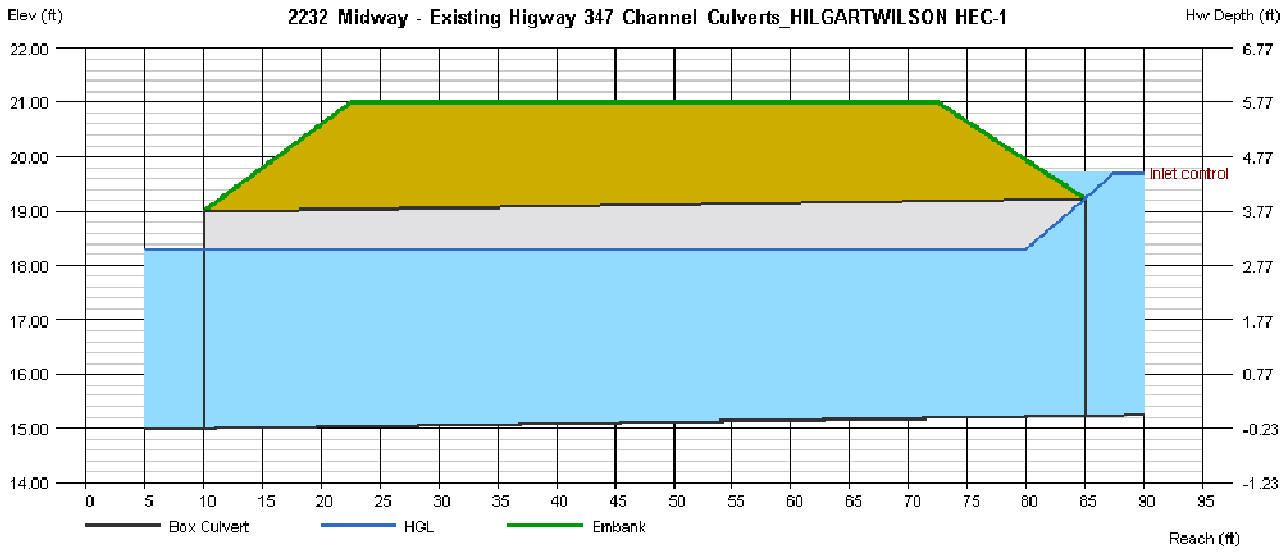
Top Elevation (ft)	=	21.00
Top Width (ft)	=	50.00
Crest Width (ft)	=	35.00

Calculations

Qmin (cfs)	=	719.00
Qmax (cfs)	=	719.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	719.00
Qpipe (cfs)	=	719.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	7.25
Veloc Up (ft/s)	=	7.79
HGL Dn (ft)	=	18.31
HGL Up (ft)	=	18.31
Hw Elev (ft)	=	19.71
Hw/D (ft)	=	1.12
Flow Regime	=	Inlet Control



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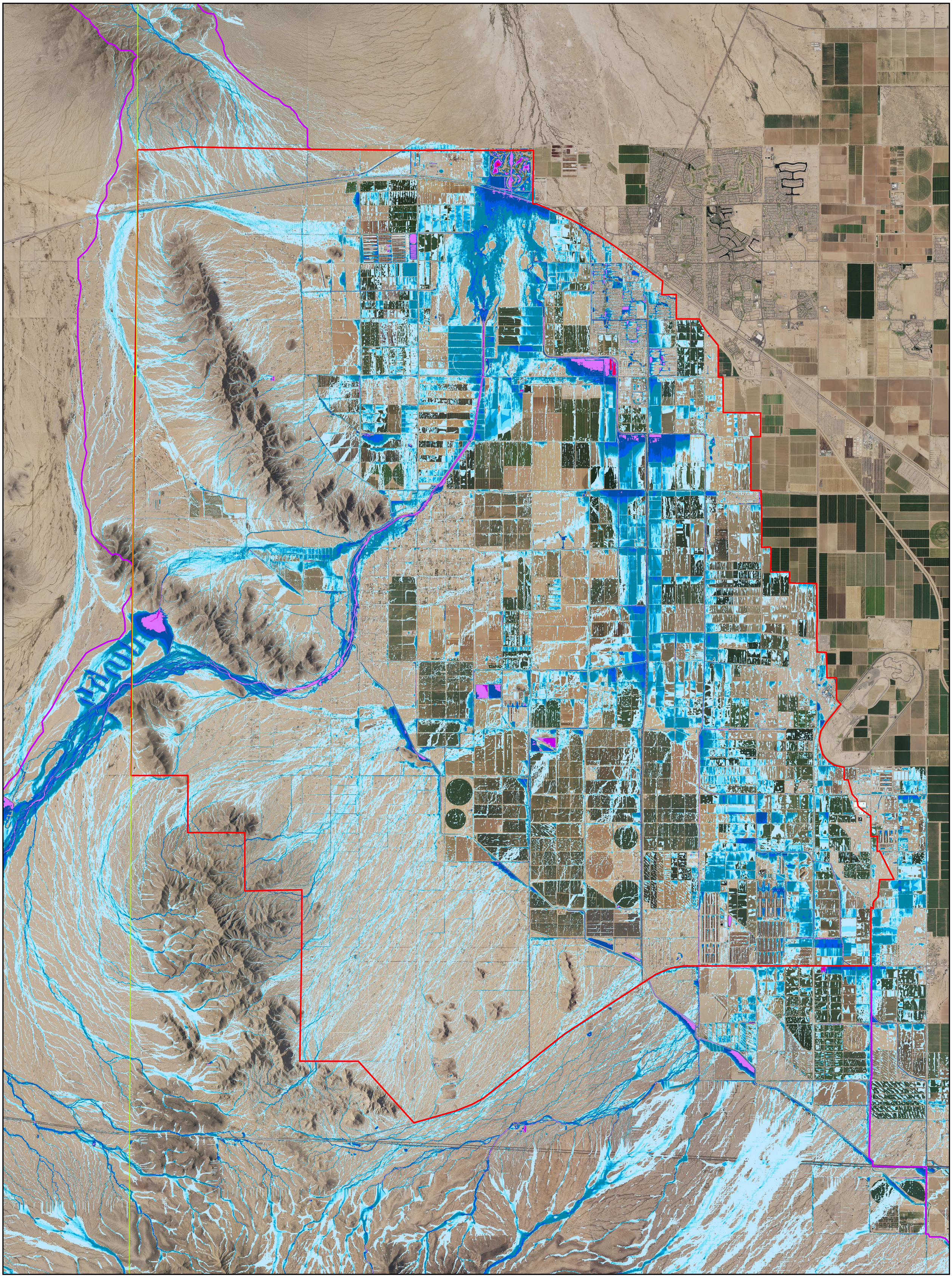
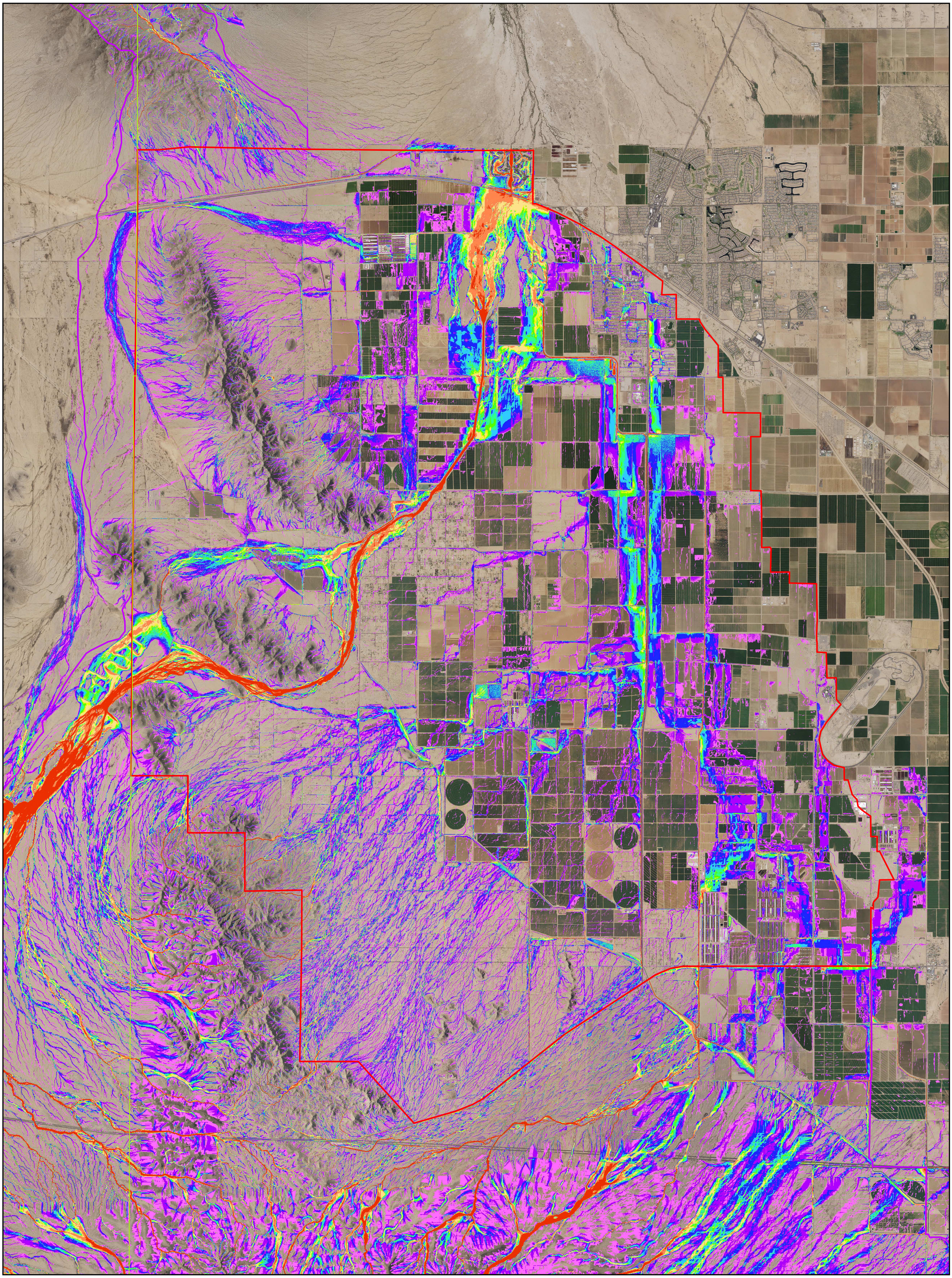
APPENDIX F

PREVIOUS DRAINAGE STUDY EXCERPTS





HIDDEN VALLEY WATERSHED PLAN EA

STUDY AREA - PRELIMINARY 100-YR, 24-HR RESULTS

Max Flow Depth (ft)
- 0 - 0.25
- 0.25 - 0.5
- 0.5 - 1
- 1 - 3
- 3 - 5
- 5 - 8
- 8 - 10
- 10 - 12
- 12 - 40

0 2,500 5,000 10,000 Feet

Name: Hidden_Valley_PrelimResults_StudyArea

Date Saved: 1/14/2020 5:15:19 PM

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ENGINEER | PLAN | SURVEY | MANAGE

MASTER WASTEWATER REPORT

FOR

MIDWAY – PHASE 1

PINAL COUNTY, ARIZONA

Prepared For:
Tres Points, LLC
1121 West Warner Road, Suite 109
Tempe, AZ 85284

Prepared By:
HILGARTWILSON, LLC
2141 E. Highland Avenue, Suite 250
Phoenix, AZ 85016
Phone: (602) 490-0535

February 2021
Project No. 2232

MASTER WASTEWATER REPORT
FOR
MIDWAY – PHASE 1

TABLE OF CONTENTS

APPENDICES

FIGURES

TABLES

1.0 INTRODUCTION

1.1 Background and Project Location

Midway is an approximately 5,750 acre master planned community located within Pinal County, and is proposed for development over multiple phases. Midway – Phase 1 (the Project) encompasses approximately 690 acres at the northern boundary of the overall Midway development, located northwest of the intersection of State Highway 347 and Miller Road in Pinal County, Arizona. The Project is bound by State Highway 347 to the east, the Teel Road alignment to the north, the Green Road alignment to the west, and Miller Road to the south. The Project lies within a portion of Section 33, Township 5 South, Range 3 East of the Gila and Salt River Meridian. Currently, the Project site is active agriculture fields.

The proposed improvements for the Project include construction of a mixed-use master planned community with corresponding roadway and utility improvements. The Project in currently envisioned to consist of a total of 25 parcels, which are proposed to be developed within four separate phases.

Figure 1 in Appendix A provides a vicinity map for the Project.

1.2 General Description

The Project is planned for approximately 2,850 residential units, a school, a park, mixed use development, and other open space uses. The Project is currently undeveloped desert land and the surrounding area generally falls to the northeast at an approximate slope of 0.4%.

The Project is located within Pinal County, in Global Water's Certificate of Convenience & Necessity (CC&N) boundary for wastewater service. The Project is planned to be served within Global Water's Palo Verde Utility Company (PVUC) service area and the wastewater infrastructure for the Project discussed in this report will be owned and operated by Global Water.

1.3 Purpose of Report

The purpose of this Master Wastewater Report is to identify and evaluate the proposed wastewater system infrastructure for serving the Project in accordance with Global Water's *Design and Construction Standards for Potable Water, Recycled Water and Wastewater Infrastructure 2020* (Global Water, 2020). This Master Wastewater Report discusses the existing wastewater infrastructure within the Project vicinity and identifies anticipated wastewater flows for average day and peak flow conditions. It also identifies anticipated sewer line sizes and alignments and presents results from a hydraulic model of the proposed wastewater infrastructure.

2.0 DESIGN CRITERIA

2.1 Global Water Design Criteria

The proposed wastewater system infrastructure for the Project has been prepared and evaluated consistent with the design criteria listed in Global Water's *Design and Construction Standards for Potable Water, Recycled Water and Wastewater Infrastructure 2020* (Global Water, 2020). A summary of the design criteria is provided in Table 1 below.

TABLE 1 WASTEWATER SYSTEM DESIGN CRITERIA			
Category		Value	Unit
Average Daily Flow			
	Residential	234	gpd/DU
	Commercial	2,200	gpd/acre
	Industrial	1,200	gpd/acre
	School	25	gpd/student
Peaking Factor			
	Residential	AAC R-18-9-E301 (See Table 2)	
	Commercial	2.0 x Average Day Demand	
	Industrial	2.0 x Average Day Demand	
	School	4.8 x Average Day Demand	
System Layout			
	Minimum Sewer Depth of Cover	6.0	ft
	Minimum Pipe Diameter	8	inches
	Manhole Diameter (pipe dia. 8" to 15")	48	inches (24" cover)
	Manhole Diameter (pipe depth > 10 feet)	60	inches (30" cover)
	Maximum Manhole Spacing (pipe dia. 8" to 15")	500	ft
	Maximum Manhole Spacing (pipe dia. 18" to 36")	600	ft
	Manhole Invert Drop (All manholes)	0.1'	Drop across manhole
Minimum Pipe Slopes			
	8-inch	0.0035	ft/ft
	10-inch	0.0024	ft/ft
	12-inch	0.0019	ft/ft
	15-inch	0.0014	ft/ft
	18-inch	0.0011	ft/ft
	21-inch	0.00092	ft/ft
	24-inch	0.00077	ft/ft
	27-inch	0.00070	ft/ft
	30-inch	0.00070	ft/ft
	36-inch	0.00070	ft/ft
System Performance			
	Manning's Roughness Coefficient (n)	0.013	
	Minimum Full-Flow Velocity	2.00	fps
	Minimum Peak Flow Velocity	1.50	fps
	Maximum Peak Flow Velocity	8.00	fps
	Sewer Capacity Ratio (d/D, max at peak flow)	0.75	
Notes: Design criteria per Global Water's *Design and Construction Standards for Potable Water, Recycled Water and Wastewater Infrastructure 2020* (Global Water, 2020).			

TABLE 2 AAC R18-9-E301 PEAKING FACTORS	
Upstream Population	**Dry Weather Peaking Factor**
100	3.62
200	3.14
300	2.90
400	2.74
500	2.64
600	2.56
700	2.50
800	2.46
900	2.42
1,000	2.38
1,001-10,000	$PF = (6.330 \times p^{-0.231}) + 1.094$
10,001-100,000	$PF = (6.177 \times p^{-0.233}) + 1.128$
> 100,000	$PF = (4.500 \times p^{-0.174}) + 0.945$
Notes: 1. PF = Peaking Factor 2. p = Upstream Population	

3.0 WASTEWATER FLOWS

3.1 Land Use

The Project is planned for approximately 2,850 residential units, a school, a park, mixed use development, and other open space uses. Table 3 shows the anticipated land use and density for the Project by sub-phase. Detailed parcel breakdown for each sub-phase is provided in Table B.1 in Appendix B and shown on Figure 2 in Appendix A.

TABLE 3 LAND USE AND DENSITY				
Sub-Phase	**Land Use**	**Gross Area (ac)**	**Dwelling Units (du)**	**Density (du/acre)**
1-1	Single Family Residential (SFR)	170.3	631	3.7
1-2	Single Family Residential (SFR)	189.2	629	3.3
1-3	Single Family Residential (SFR) Regional Park Regional School	261.0	910	3.5
1-4	Mixed-Use Residential Mixed-Use Commercial	88.5	680	7.7
Grand Total		**709.1**	**2,850**	**4.0**

3.2 Wastewater Flow Calculations

Anticipated wastewater flows for the Project have been calculated in accordance with the design criteria listed in Tables 1 and 2 and the land uses and densities listed in Table 3. A summary of the total wastewater flows for the Project is presented in Table 4. Table B.1 in Appendix B presents more detailed wastewater flow calculations for the Project, including parcels within each sub-phase. In addition, offsite flow calculations for the remainder of the overall Midway development are summarized in Table 4 below and included in Table B.1 in Appendix B for sizing of the future offsite sewer main in Green Road. Project land uses, dwelling units, and overall development information for those offsite areas not included in this report have been provided by ABLA and are included in Appendix C for reference.

TABLE 4
TOTAL WASTEWATER FLOW SUMMARY

Phase / Sub-Phase	Average Daily Flow		Population	Peaking Factor (AAC)	Peak Flow	
	gpd	gpm			gpd	gpm
PHASE 1 (The Project)						
1-1	147,654	102.5	2,019	2.19	322,655	224.1
1-2	147,186	102.2	2,013	2.19	321,750	223.4
1-3	225,440	156.6	2,912	Varies	506,474	351.7
1-4	196,630	136.5	2,336	Varies	419,756	291.5
Phase 1 Subtotal	**716,910**	**497.9**	**9,120**	**Varies**	**1,378,304**	**957.2**
OFFSITE						
Remainder of Midway I	3,574,268	2,482.1	15,917	Varies	5,992,359	4,161.4
Midway II	1,302,916	904.8	15,917	Varies	2,345,410	1,628.8
Grand Total	**5,594,094**	**3,884.8**	**71,107**	**Varies**	**9,150,037**	**6,354.2**

4.0 WASTEWATER SYSTEM INFRASTRUCTURE

4.1 Existing Wastewater System Infrastructure

Existing wastewater infrastructure within the Project vicinity includes a 42-inch sewer main approximately one mile north of the Project along Green Road. This 42-inch sewer continues north along Green Road and upsizes to a 48-inch diameter sewer main at Papago Road. The 48-inch sewer main outfalls to the Southwest Water Reclamation Facility Campus 2 (SW-WRF-2) at the southwest corner of Peters and Nall Road and Green Road.

Figures 2 and 3 in Appendix A show the existing wastewater system within the Project vicinity.

4.2 Proposed Wastewater System Improvements

Proposed wastewater collection system improvements for serving the Project include 8-inch to 15-inch sewer mains within the Project site. The collection system has been designed to minimize trunk mains within parcels and provide relative parcel and phase independence. The proposed offsite sewer main along Green Road that will outfall at the existing 42-inch sewer main at the intersection of Green Road and Val Vista Road is anticipated to be 36-inches in diameter. The remainder of the offsite sewer main, south of the northern-most collector within the Project, will be designed and constructed at the time future development south of the Project moves forward. However, preliminary offsite flows for the areas south of the Project have been included in the model to identify the anticipated trunk main sizing along Green Road.

In addition to the onsite gravity collection system, a lift station is proposed within Parcel 12 (school site) and will generally serve the northeastern and eastern parcels within the Project area. The lift station is needed to minimize sewer depths where possible, as some sewer mains would otherwise be upwards of 40-feet deep due to the area's topography if a full-gravity solution is applied. The lift station will pump to a force main that will outfall to a proposed manhole near the northwestern corner of Parcel 13 (regional park). The lift station and force main sizing and alignment will be determined during preliminary and final design.

Figure 2 in Appendix A shows the wastewater system improvements from an overall perspective and includes the proposed offsite 36-inch sewer main. Figure 3 in Appendix A shows the onsite wastewater system improvements for the Project.

4.3 Wastewater Infrastructure Phasing

It is anticipated that the Project will be developed in up to four sub-phases. The wastewater infrastructure within the site will similarly be constructed in phases as required to adequately serve each sub-phase of development. Furthermore, the sewer mains that are installed with each parcel or phase will be sized for build-out conditions.

5.0 HYDRAULIC MODEL AND RESULTS

5.1 Design Methodology

The proposed wastewater collection system was modeled using Bentley SewerCAD CONNECT Edition by Bentley Systems, Inc. The wastewater flows shown in Table 4 and Table B.1 of Appendix B were distributed to individual manholes throughout the collection system to provide an accurate representation of average daily flows and peak flows within the system. The wastewater loading for each unit is generally applied to the next upstream manhole to account for flows that enter the system at multiple points within a pipe segment, thus ensuring the entire pipe segment has sufficient capacity to convey the anticipated flow.

The onsite collection system shown on Figures 2 and 3 in Appendix A was designed to meet the design criteria, as specified in Tables 1 and 2, and as approved by Global Water. Pipes were assumed to have a Manning's n value of 0.013 and were

designed such that the normal depth of flow within the pipe does not exceed 75 percent of the pipe diameter during peak flow conditions.

5.2 Hydraulic Model Results

The hydraulic model results show that the proposed onsite and offsite wastewater system for the Project will adequately convey the projected onsite and offsite peak flows through the proposed network of 8-inch to 36-inch gravity sewer mains. Detailed hydraulic model results for the collection system are included in Appendix D. As shown in the results, all proposed gravity sewer mains will convey the peak flows with a d/D (depth/Diameter) ratio of less than 0.75 and a maximum velocity of less than 8.0 fps.

6.0 CONCLUSIONS

The proposed wastewater system will adequately serve the Project. This report has determined that:

- This Master Wastewater Report generally provides the locations and sizes of the proposed onsite and offsite wastewater collection system infrastructure to convey flows from the Project to the existing 42-inch sewer main at Val Vista Road along Green Road.

- The proposed wastewater collection system consists of a network of onsite 8-inch to 15-inch gravity sewer mains, as well as a lift station and force main to serve a portion of the community. The offsite sewer main in Green Road is proposed to be 36-inches in diameter. The proposed system meets the design criteria outlined in Tables 1 and 2.

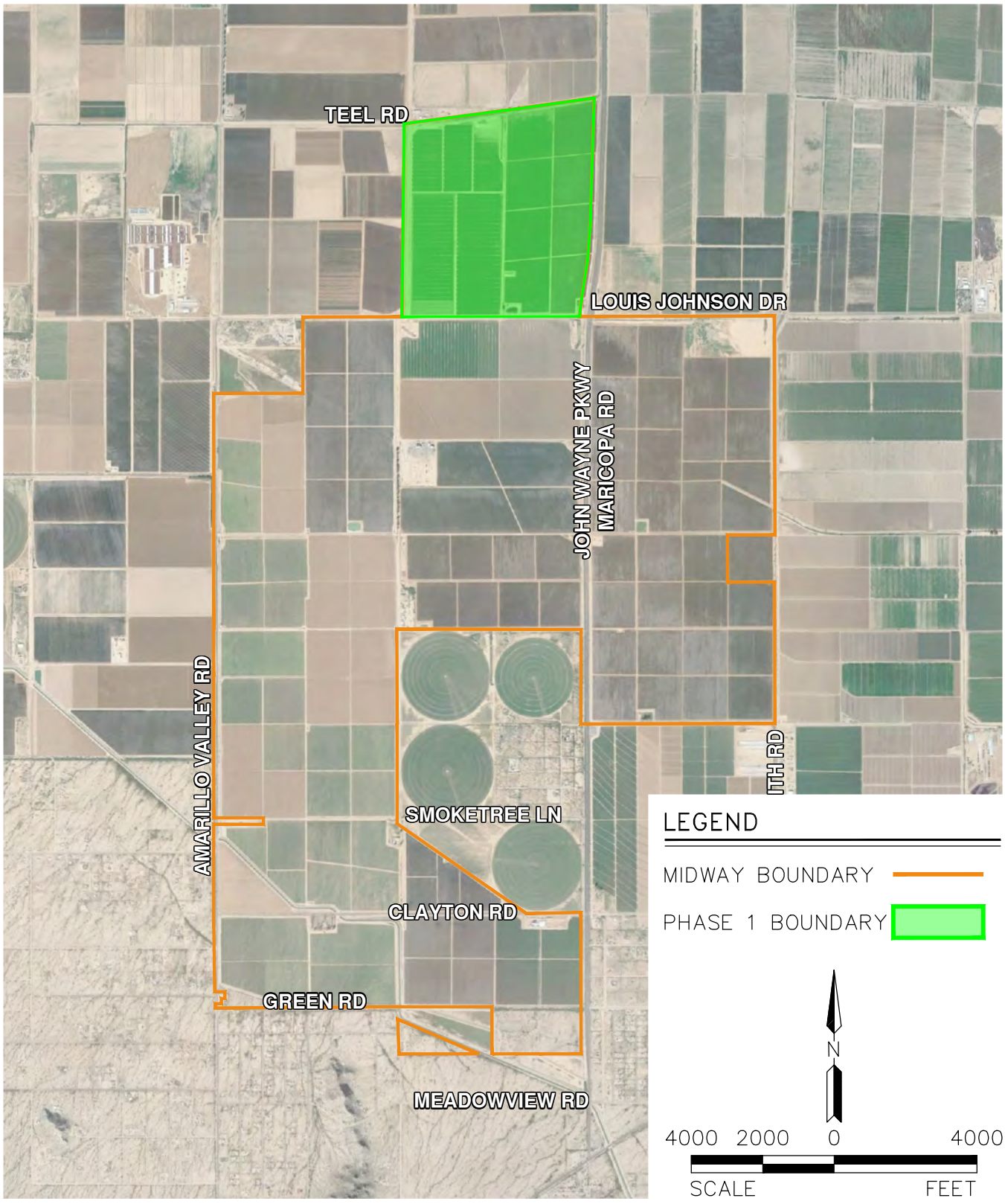
- The projected total average daily flow and peak flow generated by the Project is 716,910 gpd (497.9 gpm) and 1,378,304 gpd (957.2 gpm), respectively. With anticipated offsite flows from the remainder of Midway I and Midway II, the projected total average daily flow and peak flow generated is 5,594,094 gpd (3,884.8 gpm) and 9,150,037 gpd (6,354.2 gpm), respectively.

7.0 REFERENCES

Global Water. (2020). *Design and Construction Standards for Potable Water, Recycled Water and Wastewater Infrastructure 2020*. July 2020, Phoenix, AZ

APPENDIX A

FIGURES



PROJ.NO.:	2232
DATE:	DEC 2020
SCALE:	1" = 4,000'
DRAWN BY:	SL
CHECKED BY:	AT

MIDWAY – PHASE 1

PINAL COUNTY, ARIZONA

FIG 1: VICINITY MAP

HILGARTWILSON
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436

 J:\2200\2232\2232.01 Tres Points LLC\REPORTS\DRAINAGE\Master Drainage Report – Midway Phase 1\Exhibit\2232 FIG 1 – Vicinity Map.dwg 12/4/2020 1:02 PM

LEGEND

- MIDWAY BOUNDARY
- PROJECT BOUNDARY
- SUB–PHASE BOUNDARY
- PARCEL BOUNDARY
- EXISTING SEWER MAIN
- PROPOSED SEWER MAIN
- PROPOSED FORCE MAIN
- PROPOSED LIFT STATION (LS)
- PROPOSED MANHOLE
- PROPOSED OUTFALL

PIPE DIAMETER LEGEND

- 8.0 INCHES
- 10.0 INCHES
- 12.0 INCHES
- 15.0 INCHES
- 18.0 INCHES
- 21.0 INCHES
- 24.0 INCHES
- 27.0 INCHES
- 30.0 INCHES
- 36.0 INCHES
- 42.0 INCHES
- 48.0 INCHES

VAL VISTA RD

EXISTING MANHOLE (FROM AS-BUILTS - NAVD88 DATUM)
(ACTUAL LOCATION, RIM, & INVERTS TO BE FIELD VERIFIED)
RIM: 1229.27
INV: 1195.27 (N/S - 42")
INV: 1197.42 (W - 15")
INV: 1195.73 (E - 36")

O-1 · OFF-MH-1 · OFF-MH-2 · OFF-MH-3 · OFF-MH-4 · OFF-MH-5 · OFF-MH-6 · OFF-MH-7 · OFF-MH-8 · OFF-MH-9 · OFF-MH-10

SMITH R

ARIZONA 347

MARICOPA RD (SR-347)

TEEL RD

GREEN RD

AMARILLO VALLEY RD

LOUIS JOHNSON DR

PHASE 1 / PHASE 2

PHASE 2 / PHASE 3

PHASE 1 / PHASE 4

PHASE 3 / PHASE 4

PARCEL 1 · PARCEL 2 · PARCEL 3 · PARCEL 4 · PARCEL 5 · PARCEL 6 · PARCEL 7 · PARCEL 8 · PARCEL 9 · PARCEL 10 · PARCEL 11 · PARCEL 12 · PARCEL 13 · PARCEL 14 · PARCEL 15 · PARCEL 16 · PARCEL 17 · PARCEL 18 · PARCEL 19 · PARCEL 20 · PARCEL 21 · PARCEL 22 · PARCEL 23 · PARCEL 24 · PARCEL 25 · PARCEL 26 · PARCEL 27 · PARCEL 28

THIS PORTION OF OFFSITE SEWER NOT REQUIRED FOR PHASE 1 DEVELOPMENT. SEWER ALIGNMENT AND SIZING SHOWN FOR FUTURE DEVELOPMENT PURPOSES.

OFFSITE SEWER FLOWS FROM THE REMAINDER OF MIDWAY I AND ALL OF MIDWAY II. INVERT SET TO 34.0 FEET BELOW EXISTING GRADE TO MATCH DEPTH OF EXISTING SEWER AT VAL VISTA ROAD & GREEN ROAD.

N

1500 750 0 1500

SCALE: 1" = 1500'

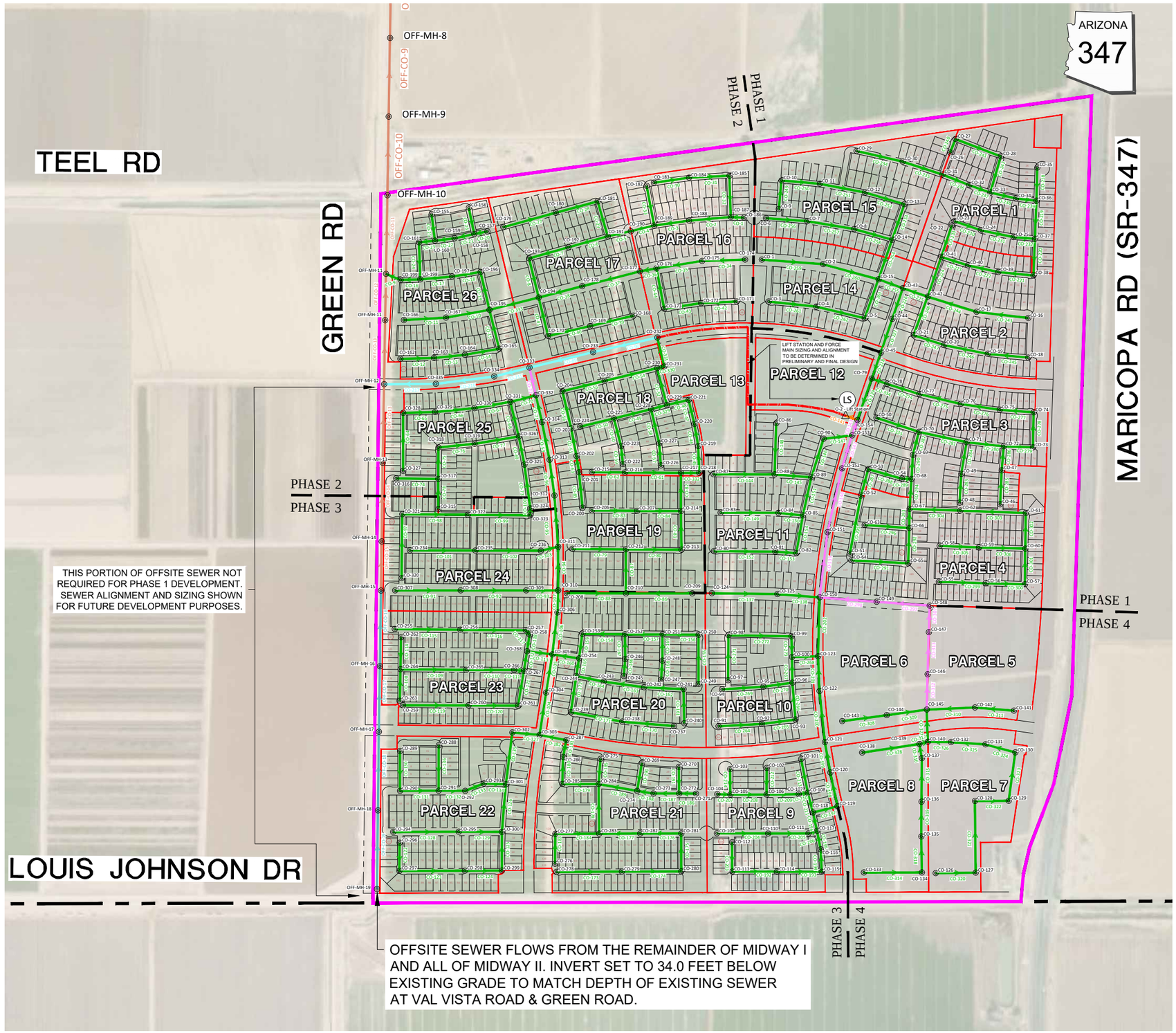
HILGARTWILSON
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436

MIDWAY – PHASE 1

LOUIS JOHNSON RD & GREEN RD
PINAL COUNTY, AZ

FIG 2: WASTEWATER SYSTEM IMPROVEMENTS (OVERALL)

PROJ.#	2232
DATE:	FEB 2020
SCALE:	1" = 1500'
DRAWN BY:	MAJ
CHECKED BY:	MI



LEGEND

- MIDWAY BOUNDARY
- PROJECT BOUNDARY
- SUB-PHASE BOUNDARY
- PARCEL BOUNDARY
- EXISTING SEWER MAIN
- PROPOSED SEWER MAIN
- PROPOSED FORCE MAIN
- PROPOSED LIFT STATION (LS)
- PROPOSED MANHOLE
- PROPOSED OUTFALL

PIPE DIAMETER LEGEND

- 8.0 INCHES
- 10.0 INCHES
- 12.0 INCHES
- 15.0 INCHES
- 18.0 INCHES
- 21.0 INCHES
- 24.0 INCHES
- 27.0 INCHES
- 30.0 INCHES
- 36.0 INCHES
- 42.0 INCHES
- 48.0 INCHES

N

800 400 0 800

SCALE FEET

HILGARTWILSON
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436

MIDWAY – PHASE 1
LOUIS JOHNSON RD & GREEN RD
PINAL COUNTY, AZ

FIG 3: WASTEWATER SYSTEM IMPROVEMENTS (ZOOMED IN)

PROJ.#	2232
DATE:	FEB 2020
SCALE:	1" = 800'
DRAWN BY:	MAJ
CHECKED BY:	MI

APPENDIX B

SUPPLEMENTARY TABLES

B.1 - Wastewater Flow Calculations

Midway - Phase 1

Maricopa, AZ

February, 2020

HILGARTWILSON

Calculated By: MAJ

Checked By: MI

Parcel	Land Use	Area		Dwelling Units	Density	Commercial / Industrial Area	Population	Students	Average Daily Flow		Peaking Factor	Peak Flow	
		Gross	Open Space[2]										
		(ac)	(ac)	(du)	(du/acre)	(ac)			(gpd)	(gpm)		(gpd)	(gpm)
PHASE 1 (PART OF MIDWAY I - The Project)													
Phase 1-1 Subtotal:													
1	Residential	20.3	3.9	84	4.1	0.0	269	0	19,656	13.7	2.90	57,002	39.6
2	Residential	23.0	3.9	97	4.2	0.0	310	0	22,698	15.8	2.74	62,193	43.2
3	Residential	29.8	6.0	144	4.8	0.0	461	0	33,696	23.4	2.64	88,957	61.8
4	Residential	30.2	4.7	152	5.0	0.0	486	0	35,568	24.7	2.64	93,900	65.2
14	Residential	17.1	2.6	60	3.5	0.0	192	0	14,040	9.8	3.14	44,086	30.6
15	Residential	24.5	4.7	94	3.8	0.0	301	0	21,996	15.3	2.74	60,269	41.9
-	Miscellaneous	25.4	0.0	0	0.0	0.0	-	0	-	-	-	-	-
Phase 1-1 Subtotal:		**170.3**	**25.9**	**631**	**3.7**	**0.0**	**2,019**	**0**	**147,654**	**102.5**	**2.19**	**322,655**	**224.1**
PHASE 1-2													
16	Residential	24.9	4.4	98	3.9	0.0	314	0	22,932	15.9	2.74	62,834	43.6
17	Residential	28.7	5.4	116	4.0	0.0	371	0	27,144	18.9	2.74	74,375	51.6
18	Residential	21.9	3.4	83	3.8	0.0	266	0	19,422	13.5	2.90	56,324	39.1
19	Residential	22.7	3.0	95	4.2	0.0	304	0	22,230	15.4	2.74	60,910	42.3
25	Residential	23.8	5.8	116	4.9	0.0	371	0	27,144	18.9	2.74	74,375	51.6
26	Residential	26.2	4.0	121	4.6	0.0	387	0	28,314	19.7	2.74	77,580	53.9
-	Miscellaneous	40.9	0.0	0	-	0.0	0	0	-	-	-	-	-
Phase 1-2 Subtotal:		**189.2**	**26.0**	**629**	**3.3**	**0.0**	**2,013**	**0**	**147,186**	**102.2**	**2.19**	**321,750**	**223.4**
PHASE 1-3													
9	Residential	23.2	4.9	100	4.3	0.0	320	0	23,400	16.3	2.74	64,116	44.5
10	Residential	21.8	5.5	84	3.9	0.0	269	0	19,656	13.7	2.90	57,002	39.6
11	Residential	27.9	4.9	101	3.6	0.0	323	0	23,634	16.4	2.74	64,757	45.0
20	Residential	30.0	4.9	130	4.3	0.0	416	0	30,420	21.1	2.64	80,309	55.8
21	Residential	31.4	4.8	130	4.1	0.0	416	0	30,420	21.1	2.64	80,309	55.8
22	Residential	29.5	5.1	107	3.6	0.0	342	0	25,038	17.4	2.74	68,604	47.6
23	Residential	24.3	3.4	127	5.2	0.0	406	0	29,718	20.6	2.64	78,456	54.5
24	Residential	24.7	2.0	131	5.3	0.0	419	0	30,654	21.3	2.64	80,927	56.2
13	Park	9.9	9.9	0	-	0.0	0	0	-	-	-	-	-
12	School	10.1	1.1	0	-	0.0	0	500	12,500	8.7	4.80	60,000	41.7
-	Miscellaneous	28.5	0.0	0	-	0.0	0	0	-	-	-	-	-
Phase 1-3 Subtotal (Residential):		**241.1**	**35.5**	**910**	**3.8**	**0.0**	**2,912**	**-**	**212,940**	**147.9**	**2.10**	**446,474**	**310.1**
Phase 1-3 Subtotal (School / Park):		**19.9**	**11.0**	**0**	**-**	**0**	**0**	**500**	**12,500**	**8.7**	**4.80**	**60,000**	**41.7**
Phase 1-3 Subtotal:		**261.0**	**46.5**	**910**	**3.5**	**0.0**	**2,912**	**500**	**225,440**	**156.6**	**-**	**506,474**	**351.7**
PHASE 1-4													
5	Mixed-Use (Residential)	15.9	1.6	127	8.0	0.0	406	0	29,718	20.6	2.64	78,456	54.5
6	Mixed-Use (Residential)	17.7	1.8	248	14.0	0.0	794	0	58,032	40.3	2.46	142,759	99.1
7	Mixed-Use (Commercial)	17.1	1.8	0.0	-	17.1	0.0	0	37,510	26.0	2.00	75,020	52.1
8	Mixed-Use (Residential)	17.0	1.7	305	18.0	0.0	976	0	71,370	49.6	2.38	169,861	118.0
-	Miscellaneous	20.9	0.0	0	-	0.0	0.0	0	-	-	-	-	-
Phase 1-4 Subtotal (Residential):		**71.5**	**5.1**	**680**	**9.5**	**0.0**	**2,176**	**-**	**159,120**	**110.5**	**2.17**	**344,736**	**239.4**
Phase 1-4 Subtotal (Commercial/Industrial):		**17.1**	**1.8**	**0**	**-**	**17.1**	**0**	**-**	**37,510**	**26.0**	**2.00**	**75,020**	**52.1**
Phase 1-4 Subtotal:		**88.5**	**6.9**	**680**	**7.7**	**17.1**	**2,176**	**0**	**196,630**	**136.5**	**-**	**419,756**	**291.5**
PHASE 1 GRAND TOTALS													
Residential		556.4	92.4	2,850	5.1	0.0	9,120	0	666,900.0	463.1	1.86	1,243,284	863.4
Schools		10.1	1.1	0	-	0.0	0.0	500	12,500.0	8.7	4.80	60,000	41.7
Commercial/Industrial		17.1	1.8	0	-	17.1	0.0	0	37,510.0	26.0	2.00	75,020	52.1
Miscellaneous/Parks/Etc		125.6	9.9	0.0	-	0.0	0.0	0	-	-	-	-	-
PHASE 1 GRAND TOTAL:		**709.1**	**105.2**	**2,850**	**4.0**	**17.1**	**9,120**	**500**	**716,910**	**497.9**	**-**	**1,378,304**	**957.2**
OFFSITE FLOWS (OFFSITE MDIWAY DEVELOPMENT SOUTH OF THE PROJECT)													
MIDWAY I (Phase 1 Above Has Been Removed)													
MIDWAY I	Residential	3,073	467.0	15,127	4.9	0.0	48,406	0	3,539,718	2,458.1	1.63	5,763,579	4,002.5
	Mixed-Use (Residential)	80.0	9.6	1,440	18.0	0.0	4,608	0	336,960	234.0	2.00	672,520	467.0
	Industrial	60.0	0.0	0.0	-	60.0	0.0	0	72,000	50.0	2.00	144,000	100.0
	Commercial	100.0	0.0	0.0	-	100.0	2,176.0	0	220,000	152.8	2.00	440,000	305.6
	Office	50.0	0.0	0.0	-	50.0	0.0	0	110,000	76.4	2.00	220,000	152.8
	Open Space	177.0	177.0	0.0	-	0.0	2,176.0	0	-	-	-	-	-
Midway I Subtotal (Residential):		**2,596.6**	**384.2**	**13,717**	**5.3**	**0.0**	**43,894**	**0**	**3,209,778**	**2,229.0**	**1.64**	**5,263,379**	**3,655.1**
Midway I Subtotal (Commercial/Industrial/Office):		**193.0**	**185.1**	**0**	**-**	**193.0**	**2,176**	**0**	**364,490**	**253.1**	**2.00**	**728,980**	**506.2**
Midway I Subtotal (Open Space):		**51.4**	**167.1**	**0**	**-**	**0.0**	**2,176**	**0**	**-**	**-**	**-**	**-**	**-**
Midway I Subtotal:		**2,840.9**	**736.4**	**13,717**	**4.8**	**193.0**	**48,246**	**0**	**3,574,268**	**2,482.1**	**-**	**5,992,359**	**4,161.4**
MIDWAY II													
MIDWAY II	Residential	933.4	141.8	4,704	5.0	0.0	15,053	0	1,100,736	764.4	1.78	1,964,526	1,364.3
	Mixed-Use (Residential)	15.0	1.8	270	18.0	0.0	864	0	63,180	43.9	2.42	152,896	106.2
	Industrial	15.0	0.0	0.0	-	15.0	0.0	0	18,000	12.5	2.00	36,000	25.0
	Commercial	30.0	0.0	0.0	-	30.0	0.0	0	66,000	45.8	2.00	132,000	91.7
	Office	25.0	0.0	0.0	-	25.0	0.0	0	55,000	38.2	2.00	110,000	76.4
	Open Space	53.6	53.6	0.0	-	0.0	0.0	0	-	-	-	-	-
Midway II Subtotal (Residential):		**948.4**	**143.6**	**4,974**	**5.2**	**0.0**	**15,917**	**0**	**1,163,916**	**808.3**	**1.78**	**2,067,410**	**1,435.7**
Midway II Subtotal (Commercial/Industrial/Office):		**70.0**	**0.0**	**0**	**-**	**70.0**	**0**	**0**	**139,000**	**96.5**	**2.00**	**278,000**	**193.1**
Midway II Subtotal (Open Space):		**53.6**	**53.6**	**0**	**-**	**0.0**	**0**	**0**	**-**	**-**	**-**	**-**	**-**
Midway II Subtotal:		**1,072.0**	**197.2**	**4,974**	**4.6**	**70.0**	**15,917**	**0**	**1,302,916**	**904.8**	**-**	**2,345,410**	**1,628.8**
GRAND TOTAL FLOWS (FOR OFFSITE SEWER TRUNK MAIN SIZING)													
Grand Total (Residential):		**4,101.4**	**620.2**	**21,541.0**	**5.3**	**0.0**	**68,931.2**	**0.0**	**5,040,594.0**	**3,500.4**	**1.59**	**8,008,037**	**5,561.1**
Grand Total (Commercial/Industrial/Office):		**280.0**	**186.9**	**0**	**-**	**280.0**	**2,176**	**0**	**541,000**	**375.7**	**2.00**	**1,082,000**	**751.4**
Grand Total (School)):		**10.1**	**1.1**	**0**	**-**	**0.0**	**0**	**500**	**12,500**	**8.7**	**4.80**	**60,000**	**41.7**
Grand Total (Miscellaneous / Open Space):		**230.6**	**230.6**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
GRAND TOTAL:		**4,622.1**	**1,038.8**	**21,541**	**4.7**	**280.0**	**71,107**	**500**	**5,594,094**	**3,884.8**	**-**	**9,150,037**	**6,354.2**

Notes:

Flow Factors:

Residential:	234	gal/day/dwelling unit
Commercial:	2,200	gal/acre/day
Industrial:	1,200	gal/acre/day
School:	25	gal/student/day

Population Factors:

Residential:	3.2	persons/cdwelling unit
Commercial:	9.4	persons/cdwelling unit

Peaking Factors:

Residential:	Refer to Table 1 of AAC R-18-9-E301.D.1.a
Commercial:	2.0 x Average Daily Flow
Industrial:	2.0 x Average Daily Flow
School:	4.8 x Average Daily Flow

(1) Demand Factors, Population Factors, and Peaking Factors were taken from the *Design and Construction Standards for Potable Water, Recycled Water, and Wastewater Infrastructure (Global Water, 2020)* .

(2) Open space area for each parcel assumed at 20% of the gross area unless specifically allocated.

(3) Information for the remainder of Midway I and Midway II provided by ABLA and can be referenced in Appendix C.

APPENDIX C

PROPOSED FUTURE DEVELOPMENT INFORMATION FOR THE REMAINDER OF MIDWAY I AND MIDWAY II

Midway I															
Pinal County Land Use Categories	Land Use Description	Existing					Proposed								
		Gross Acres	AC. Mix	Units	Density	Mix	Gross Acres	AC. Mix	Units	Density	Mix	Open Space AC.	Turf AC.	F.A.R.	Floor Area
Medium Density Residential (3.5-8 du/ac)	Low Density	194.0	5.48%	194	1.00	1.42%	85.00	2.40%	255	3.00	1.54%	12.75	1.28		
	Medium Low Density	92.0	2.60%	258	2.80	1.89%	2,698.00	76.21%	10,792	4.00	65.14%	404.70	40.47		
High Density Residential (8-24 du/ac)	Medium Density	1,455.0	41.10%	8,152	5.60	59.84%	90.00	2.54%	720	8.00	4.35%	13.50	1.35		
	Medium High Density	263.0	7.43%	2,273	8.64	16.68%	120.00	3.39%	1,440	12.00	8.69%	21.60	2.16		
	High Density	182.0	5.14%	2,747	15.09	20.16%	80.00	2.26%	1,920	24.00	11.59%	14.40	1.44		
	Mixed Use						80.00	2.26%	1,440	18.00	8.69%	9.60	0.96	0.15	522,720
	Industrial						60.00	1.69%						0.15	392,040
	Open Space						* 177.00	5.00%				* 177.0	17.70		
	Commerical	265.0	7.49%				100.00	2.82%						0.15	653,400
	Office	89.0	2.51%				50.00	1.41%						0.15	326,700
	Village Core	103.0	2.91%												
	Business Park	358.0	10.11%												
	Golf Course	416.0	11.75%												
	Lake	123.0	3.47%												
	Total	**3,540.0**		**13,624**	**3.85**	**100.00%**	**3,540.00**		**16,567**	**4.68**	**100.00%**	**653.55**	**65.36**	**1,894,860**	

*These acreages have been duplicated for the purpose of providing the total site acreage and total open space acreage.

Midway II															
Pinal County Land Use Categories	Description	Existing					Proposed								
		Gross Acres	AC. Mix	Units	Density	Mix	Gross Acres	AC. Mix	Units	Density	Mix	Open Space AC.	Turf AC.	F.A.R.	Floor Area
Medium Density Residential (3.5-8 du/ac)	Low Density	203.0	5.73%	203	1.00	6.16%	50.00	4.66%	150	3.00	3.02%	7.50	0.75		
	Medium Low Density	161.0	4.55%	451	2.80	13.68%	763.40	71.21%	3,054	4.00	61.40%	114.51	11.45		
High Density Residential (8-24 du/ac)	Medium Density	338.0	9.55%	1,894	5.60	57.46%	60.00	5.60%	480	8.00	9.65%	9.00	0.90		
	Medium High Density	74.0	2.09%	370	5.00	11.23%	35.00	3.26%	420	12.00	8.44%	6.30	0.63		
	High Density	25.0	0.71%	378	15.12	11.47%	25.00	2.33%	600	24.00	12.06%	4.50	0.45		
	Mixed Use						15.00	1.40%	270	18.00	5.43%	1.80	0.18	0.15	98,010
	Industrial						15.00	1.40%						0.15	98,010
	Open Space						* 53.60	5.00%				* 53.60	5.36		
	Commercial	13.0	0.37%				30.00	2.80%						0.15	196,020
	Office	8.0	0.23%				25.00	2.33%						0.15	163,350
	Village Core	0.0	0.00%												
	Business Park	0.0	0.00%												
	Golf Course	190.0	5.37%												
	Lake	60.0	1.69%												
	Total	**1,072.0**		**3,296**	**3.07**	**100.00%**	**1,072.00**		**4,974**	**4.64**	**100.00%**	**197.21**	**19.72**	**555,390**	

*These acreages have been duplicated for the purpose of providing the total site acreage and total open space acreage.

Verde Grande															
Pinal County Land Use Categories	Description	Existing					Proposed								
		Gross Acres	AC. Mix	Units	Density	Mix	Gross Acres	AC. Mix	Units	Density	Mix	Open Space AC.	Turf AC.	F.A.R.	Floor Area
Medium Density Residential (3.5-8 du/ac)	Low Density	0.0	0.00%	0	#DIV/0!	0.00%	50.00	1.41%	150	3.00	3.40%	7.50	0.75		
	Medium Low Density	0.0	0.00%	0	#DIV/0!	0.00%	919.05	25.96%	3,676	4.00	83.43%	137.86	13.79		
High Density Residential (8-24 du/ac)	Medium Density	1,067.0	30.14%	3,735	3.50	100.00%	35.00	0.99%	280	8.00	6.35%	5.25	0.53		
	Medium High Density	0.0	0.00%	0	#DIV/0!	0.00%	25.00	0.71%	300	12.00	6.81%	4.50	0.45		
	High Density	0.0	0.00%	0	#DIV/0!	0.00%	0.00	0.00%	0	24.00	0.00%	0.00	0.00		
	Mixed Use						0.00	0.00%	0	18.00	0.00%	0.00	0.00	0.15	0
	Industrial						0.00	0.00%						0.15	0
	Open Space						* 54.95	5.00%				* 54.95	5.50		
	Commercial	32.0	0.90%				15.00	0.42%						0.15	98,010
	Office	0.0	0.00%				0.00	0.00%						0.15	0
	Village Core	0.0	0.00%												
	Business Park	0.0	0.00%												
	Golf Course	0.0	0.00%												
	Lake	0.0	0.00%												
	Total	**1,099.0**		**3,735**	**3.40**	**100.00%**	**1,099.00**		**4,406**	**4.01**	**100.00%**	**210.06**	**21.01**	**98,010**	

*These acreages have been duplicated for the purpose of providing the total site acreage and total open space acreage.

Cando Ranch															
Pinal County Land Use Categories	Description	Existing					Proposed								
		Gross Acres	AC. Mix	Units	Density	Mix	Gross Acres	AC. Mix	Units	Density	Mix	Open Space AC.	Turf AC.	F.A.R.	Floor Area
Medium Density Residential (3.5-8 du/ac)	Low Density	0.0	0.00%	0	#DIV/0!	0.00%		0.00%	0	3.00	0.00%	0.00	0.00		
	Medium Low Density	21.1	0.60%	44	2.09	23.78%	67.55	1.91%	270	4.00	100.00%	10.13	1.01		
High Density Residential (8-24 du/ac)	Medium Density	30.0	0.85%	107	3.57	57.84%		0.00%	0	8.00	0.00%	0.00	0.00		
	Medium High Density	20.0	0.56%	34	1.70	18.38%		0.00%	0	12.00	0.00%	0.00	0.00		
	High Density	0.0	0.00%	0	#DIV/0!	0.00%		0.00%	0	24.00	0.00%	0.00	0.00		
	Mixed Use						0.00	0.00%	0	18.00	0.00%	0.00	0.00	0.15	0
	Industrial													0.15	0
	Open Space						* 3.56	5.00%				* 3.56	0.36		
	Commercial	0.0	0.00%					0.00%						0.15	0
	Office	0.0	0.00%					0.00%						0.15	0
	Village Core	0.0	0.00%												
	Business Park	0.0	0.00%												
	Golf Course	0.0	0.00%												
	Lake	0.0	0.00%												
	Total	**71.1**		**185**	**2.60**	**100.00%**	**71.10**		**270**	**3.80**	**100.00%**	**13.69**	**1.37**	**0**	

*These acreages have been duplicated for the purpose of providing the total site acreage and total open space acreage.

APPENDIX D

HYDRAULIC MODEL RESULTS

AVERAGE DAILY FLOW

Label	Diam (in)	Mannin g's n	Length (ft)	Slope (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Flow (gal/day)	Velocity at Flow (ft/s)	Flow / Capacity (Design) (%)	Capacity (Design) (gal/day)	Depth / Diam (%)	Capacity (Full Flow) (gal/day)
CO-1	8.0	0.013	100.6	0.01123	CO-186	1,231.38	6.00	CO-187	1,230.25	7.44	1,638	0.73	0.2	754,797	3.3	827,739
CO-2	8.0	0.013	320.3	0.00330	CO-187	1,230.15	7.54	CO-188	1,229.09	10.09	8,190	0.77	2.0	409,101	9.4	448,636
CO-3	8.0	0.013	268.1	0.00330	CO-188	1,228.99	10.19	CO-189	1,228.11	11.32	9,828	0.81	2.4	409,101	10.2	448,636
CO-4	8.0	0.013	184.5	0.00330	CO-189	1,228.01	11.42	CO-190	1,227.40	12.11	13,104	0.88	3.2	409,101	11.7	448,636
CO-5	8.0	0.013	179.7	0.00330	CO-190	1,227.30	12.21	CO-191	1,226.70	13.11	13,104	0.88	3.2	409,101	11.7	448,636
CO-6	8.0	0.013	312.0	0.00330	CO-191	1,226.60	13.21	CO-192	1,225.57	16.02	22,152	1.03	5.4	409,101	15.1	448,636
CO-7	8.0	0.013	311.1	0.00330	CO-192	1,225.47	16.12	CO-193	1,224.45	18.16	24,414	1.06	6.0	409,101	15.8	448,636
CO-8	8.0	0.013	307.2	0.00330	CO-193	1,224.35	18.26	CO-194	1,223.33	19.71	26,676	1.09	6.5	409,101	16.5	448,636
CO-9	8.0	0.013	119.7	0.00330	CO-199	1,218.45	27.90	OFF-MH-11	1,218.05	28.26	78,390	1.49	19.2	409,101	28.3	448,636
CO-10	8.0	0.013	337.3	0.05300	CO-167	1,239.83	7.05	CO-195	1,221.96	22.06	3,146	1.49	0.2	1,639,513	3.1	1,797,953
CO-11	8.0	0.013	322.3	0.00330	CO-166	1,241.00	6.00	CO-167	1,239.93	6.95	1,573	0.47	0.4	409,101	4.3	448,636
CO-12	8.0	0.013	255.4	0.00330	CO-162	1,241.47	6.00	CO-163	1,240.63	6.81	1,573	0.47	0.4	409,101	4.3	448,636
CO-13	8.0	0.013	237.1	0.00330	CO-163	1,240.53	6.91	CO-164	1,239.75	7.67	3,146	0.57	0.8	409,101	6.0	448,636
CO-14	8.0	0.013	266.3	0.00555	CO-164	1,239.65	7.77	CO-165	1,238.17	6.00	4,719	0.77	0.9	530,721	6.4	582,010
CO-15	8.0	0.013	305.7	0.05271	CO-165	1,238.07	6.10	CO-195	1,221.96	22.06	6,292	1.87	0.4	1,635,040	4.3	1,793,047
CO-16	8.0	0.013	151.0	0.00330	CO-198	1,219.05	26.55	CO-199	1,218.55	27.80	76,817	1.49	18.8	409,101	28.0	448,636
CO-17	8.0	0.013	244.1	0.00330	CO-197	1,219.95	25.96	CO-198	1,219.15	26.45	64,233	1.41	15.7	409,101	25.6	448,636
CO-18	8.0	0.013	219.4	0.00330	CO-196	1,220.78	24.75	CO-197	1,220.05	25.86	62,660	1.40	15.3	409,101	25.2	448,636
CO-19	8.0	0.013	296.4	0.00330	CO-195	1,221.86	22.16	CO-196	1,220.88	24.65	61,087	1.39	14.9	409,101	24.9	448,636
CO-20	8.0	0.013	101.1	0.01788	CO-157	1,239.02	6.00	CO-158	1,237.21	7.70	1,573	0.84	0.2	952,253	2.9	1,044,277
CO-21	8.0	0.013	154.6	0.00330	CO-158	1,237.11	7.80	CO-159	1,236.60	8.36	4,719	0.64	1.2	409,101	7.3	448,636
CO-22	8.0	0.013	150.6	0.00330	CO-159	1,236.50	8.46	CO-160	1,236.01	8.79	6,292	0.71	1.5	409,101	8.3	448,636
CO-23	8.0	0.013	122.2	0.00330	CO-160	1,235.91	8.89	CO-161	1,235.50	9.73	9,438	0.80	2.3	409,101	10.0	448,636
CO-24	8.0	0.013	282.3	0.05758	CO-161	1,235.40	9.83	CO-198	1,219.15	26.45	11,011	2.26	0.6	1,708,936	5.5	1,874,084
CO-25	8.0	0.013	203.3	0.01320	CO-155	1,238.69	6.00	CO-160	1,236.01	8.79	1,573	0.74	0.2	818,138	3.1	897,202
CO-26	8.0	0.013	204.1	0.00330	CO-156	1,237.89	6.00	CO-158	1,237.21	7.70	1,573	0.47	0.4	409,101	4.3	448,636
CO-27	8.0	0.013	414.9	0.00330	CO-179	1,235.89	6.00	CO-180	1,234.52	6.83	2,262	0.52	0.6	409,101	5.1	448,636
CO-28	8.0	0.013	332.5	0.00330	CO-180	1,234.42	6.93	CO-181	1,233.33	8.50	4,524	0.64	1.1	409,101	7.1	448,636
CO-29	8.0	0.013	277.1	0.02354	CO-181	1,233.23	8.60	CO-191	1,226.70	13.11	6,786	1.43	0.6	1,092,530	5.4	1,198,110
CO-30	8.0	0.013	270.1	0.00330	CO-183	1,233.56	6.00	CO-184	1,232.67	6.61	1,638	0.47	0.4	409,101	4.4	448,636
CO-31	8.0	0.013	309.9	0.00382	CO-184	1,232.57	6.71	CO-185	1,231.39	6.00	3,276	0.61	0.7	440,096	5.9	482,626
CO-32	8.0	0.013	314.7	0.00330	CO-185	1,231.29	6.10	CO-187	1,230.25	7.44	4,914	0.65	1.2	409,101	7.4	448,636
CO-33	8.0	0.013	307.8	0.01819	CO-182	1,233.71	6.00	CO-189	1,228.11	11.32	1,638	0.85	0.2	960,578	3.0	1,053,407
CO-34	8.0	0.013	329.0	0.00330	CO-174	1,231.87	6.00	CO-175	1,230.78	8.18	1,638	0.47	0.4	409,101	4.4	448,636
CO-35	8.0	0.013	351.9	0.00330	CO-175	1,230.68	8.28	CO-176	1,229.52	10.44	3,276	0.58	0.8	409,101	6.1	448,636
CO-36	8.0	0.013	128.7	0.00330	CO-176	1,229.42	10.54	CO-177	1,229.00	11.08	9,828	0.81	2.4	409,101	10.2	448,636
CO-37	8.0	0.013	454.1	0.00330	CO-177	1,228.90	11.18	CO-178	1,227.40	14.61	12,090	0.86	3.0	409,101	11.3	448,636
CO-38	8.0	0.013	343.6	0.01154	CO-178	1,227.30	14.71	CO-194	1,223.33	19.71	14,352	1.41	1.9	764,954	9.1	838,878
CO-39	8.0	0.013	340.2	0.00330	CO-168	1,234.68	6.00	CO-169	1,233.56	9.51	2,262	0.52	0.6	409,101	5.1	448,636

Label	Diam (in)	Mannin g's n	Length (ft)	Slope (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Flow (gal/day)	Velocity at Flow (ft/s)	Flow / Capacity (Design) (%)	Capacity (Design) (gal/day)	Depth / Diam (%)	Capacity (Full Flow) (gal/day)
CO-40	8.0	0.013	328.1	0.00330	CO-169	1,233.46	9.61	CO-170	1,232.37	11.20	4,524	0.64	1.1	409,101	7.1	448,636
CO-41	8.0	0.013	302.2	0.02958	CO-170	1,232.27	11.30	CO-194	1,223.33	19.71	6,786	1.55	0.6	1,224,908	5.1	1,343,281
CO-42	8.0	0.013	272.3	0.00330	CO-171	1,233.03	6.00	CO-172	1,232.13	6.93	1,638	0.47	0.4	409,101	4.4	448,636
CO-43	8.0	0.013	285.2	0.00330	CO-172	1,232.03	7.03	CO-173	1,231.09	9.14	3,276	0.58	0.8	409,101	6.1	448,636
CO-44	8.0	0.013	313.6	0.00469	CO-173	1,230.99	9.24	CO-176	1,229.52	10.44	4,914	0.74	1.0	487,536	6.8	534,651
CO-45	8.0	0.013	204.3	0.00330	CO-218	1,232.04	11.12	CO-219	1,231.37	11.24	23,693	1.05	5.8	409,101	15.6	448,636
CO-46	8.0	0.013	171.6	0.00330	CO-219	1,231.27	11.34	CO-220	1,230.70	11.77	24,907	1.07	6.1	409,101	16.0	448,636
CO-47	8.0	0.013	188.4	0.00330	CO-220	1,230.60	11.87	CO-221	1,229.98	12.21	26,120	1.08	6.4	409,101	16.4	448,636
CO-48	8.0	0.013	170.1	0.00330	CO-221	1,229.88	12.31	CO-229	1,229.32	13.31	27,334	1.10	6.7	409,101	16.7	448,636
CO-49	8.0	0.013	292.0	0.00330	CO-225	1,236.35	6.81	CO-228	1,235.39	7.21	3,642	0.60	0.9	409,101	6.4	448,636
CO-50	8.0	0.013	265.1	0.00875	CO-225	1,236.45	6.71	CO-224	1,238.77	6.00	0	0.00	0.0	666,297	(N/A)	730,687
CO-51	8.0	0.013	214.1	0.00330	CO-202	1,239.02	6.53	CO-203	1,238.31	7.59	2,223	0.52	0.5	409,101	5.1	448,636
CO-52	8.0	0.013	290.3	0.00330	CO-229	1,229.22	13.41	CO-230	1,228.26	13.81	34,618	1.18	8.5	409,101	18.8	448,636
CO-53	8.0	0.013	293.7	0.00330	CO-313	1,228.84	17.35	CO-314	1,227.87	17.24	136,032	1.74	33.3	409,101	37.8	448,636
CO-54	8.0	0.013	412.5	0.01846	CO-205	1,235.88	6.10	CO-230	1,228.26	13.81	5,865	1.26	0.6	967,660	5.3	1,061,173
CO-55	8.0	0.013	330.3	0.00354	CO-204	1,237.15	8.04	CO-205	1,235.98	6.00	4,651	0.66	1.1	423,544	7.1	464,475
CO-56	8.0	0.013	291.9	0.00330	CO-203	1,238.21	7.69	CO-204	1,237.25	7.94	3,437	0.59	0.8	409,101	6.3	448,636
CO-57	8.0	0.013	168.3	0.00504	CO-226	1,237.88	6.00	CO-227	1,237.03	6.00	1,214	0.49	0.2	505,687	3.5	554,556
CO-58	8.0	0.013	268.0	0.00574	CO-227	1,236.93	6.10	CO-228	1,235.39	7.21	2,428	0.63	0.4	539,697	4.7	591,853
CO-59	8.0	0.013	136.8	0.00889	CO-222	1,238.49	6.00	CO-223	1,237.28	6.00	1,214	0.60	0.2	671,410	3.0	736,294
CO-60	8.0	0.013	220.0	0.00330	CO-223	1,237.18	6.10	CO-225	1,236.45	6.71	2,428	0.53	0.6	409,101	5.3	448,636
CO-61	8.0	0.013	427.9	0.01346	CO-216	1,238.46	6.16	CO-217	1,232.70	10.83	1,258	0.71	0.2	826,282	2.8	906,132
CO-62	8.0	0.013	252.2	0.00330	CO-215	1,239.40	6.00	CO-216	1,238.56	6.06	746	0.37	0.2	409,101	3.1	448,636
CO-63	8.0	0.013	125.8	0.00330	CO-201	1,239.53	6.10	CO-202	1,239.12	6.43	2,223	0.52	0.5	409,101	5.1	448,636
CO-64	8.0	0.013	443.0	0.00491	CO-327	1,244.97	6.00	CO-328	1,242.79	6.00	2,262	0.59	0.5	499,242	4.7	547,488
CO-65	8.0	0.013	244.2	0.00330	CO-328	1,242.69	6.10	CO-329	1,241.89	6.91	4,524	0.64	1.1	409,101	7.1	448,636
CO-66	8.0	0.013	301.2	0.00330	CO-329	1,241.79	7.01	CO-330	1,240.79	7.18	6,786	0.73	1.7	409,101	8.6	448,636
CO-67	8.0	0.013	278.8	0.01086	CO-330	1,240.69	7.28	CO-331	1,237.66	7.53	9,048	1.19	1.2	742,226	7.4	813,954
CO-68	8.0	0.013	271.4	0.00330	CO-326	1,238.56	7.24	CO-331	1,237.66	7.53	26,052	1.08	6.4	409,101	16.4	448,636
CO-69	8.0	0.013	217.9	0.00330	CO-325	1,239.38	7.80	CO-326	1,238.66	7.14	14,742	0.92	3.6	409,101	12.4	448,636
CO-70	8.0	0.013	200.2	0.05237	CO-331	1,237.56	7.63	CO-332	1,227.08	17.75	37,362	3.18	2.3	1,629,787	10.0	1,787,287
CO-71	8.0	0.013	210.0	0.00330	CO-314	1,227.77	17.34	CO-332	1,227.08	17.75	136,032	1.74	33.3	409,101	37.8	448,636
CO-72	10.0	0.013	216.7	0.00671	CO-332	1,226.81	17.85	CO-333	1,225.36	18.70	173,394	2.36	16.4	1,057,910	26.1	1,160,144
CO-73	8.0	0.013	338.2	0.00330	CO-324	1,240.59	7.06	CO-325	1,239.48	7.70	12,480	0.87	3.1	409,101	11.5	448,636
CO-74	8.0	0.013	322.1	0.00503	CO-316	1,245.17	6.00	CO-317	1,243.55	6.41	0	0.00	0.0	505,011	(N/A)	553,815
CO-75	8.0	0.013	239.1	0.00330	CO-317	1,243.45	6.51	CO-318	1,242.66	7.79	4,524	0.64	1.1	409,101	7.1	448,636
CO-76	8.0	0.013	277.1	0.00330	CO-318	1,242.56	7.89	CO-319	1,241.64	7.34	6,786	0.73	1.7	409,101	8.6	448,636
CO-77	8.0	0.013	341.9	0.00843	CO-319	1,241.54	7.44	CO-326	1,238.66	7.14	9,048	1.10	1.4	653,971	7.8	717,169
CO-78	8.0	0.013	230.6	0.00330	CO-315	1,244.31	6.00	CO-317	1,243.55	6.41	2,262	0.52	0.6	409,101	5.1	448,636

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CO-79	8.0	0.013	408.5	0.01368	CO-211	1,241.92	6.00	CO-212	1,236.33	9.83	2,223	0.84	0.3	833,053	3.6	913,558
CO-80	8.0	0.013	423.2	0.00330	CO-212	1,236.23	9.93	CO-213	1,234.84	10.49	11,115	0.84	2.7	409,101	10.9	448,636
CO-81	8.0	0.013	295.1	0.00330	CO-213	1,234.74	10.59	CO-214	1,233.76	10.08	13,338	0.89	3.3	409,101	11.8	448,636
CO-82	8.0	0.013	291.2	0.00330	CO-214	1,233.66	10.18	CO-217	1,232.70	10.83	20,007	1.00	4.9	409,101	14.4	448,636
CO-83	8.0	0.013	346.1	0.00348	CO-206	1,239.84	6.00	CO-207	1,238.64	6.00	2,223	0.52	0.5	419,865	5.0	460,440
CO-84	8.0	0.013	334.6	0.01426	CO-207	1,238.54	6.10	CO-214	1,233.76	10.08	4,446	1.06	0.5	850,525	5.0	932,718
CO-85	8.0	0.013	272.6	0.00330	CO-200	1,240.53	6.00	CO-201	1,239.63	6.00	2,223	0.52	0.5	409,130	5.1	448,667
CO-86	8.0	0.013	507.9	0.00330	CO-209	1,239.22	6.00	CO-210	1,237.54	9.45	2,223	0.52	0.5	409,101	5.1	448,636
CO-87	8.0	0.013	335.8	0.00330	CO-210	1,237.44	9.55	CO-212	1,236.33	9.83	6,669	0.72	1.6	409,101	8.5	448,636
CO-88	8.0	0.013	450.5	0.00977	CO-208	1,241.94	6.00	CO-210	1,237.54	9.45	2,223	0.75	0.3	703,823	3.9	771,839
CO-89	15.0	0.013	500.0	0.00140	CO-233	1,225.64	17.46	CO-333	1,224.94	18.70	465,170	1.72	32.7	1,424,430	37.4	1,562,085
CO-90	15.0	0.013	502.0	0.00140	CO-232	1,226.44	13.95	CO-233	1,225.74	17.36	465,170	1.72	32.7	1,424,430	37.4	1,562,085
CO-91	8.0	0.013	500.0	0.00342	CO-307	1,246.31	6.00	CO-308	1,244.60	6.00	3,406	0.59	0.8	416,394	6.2	456,633
CO-92	8.0	0.013	500.0	0.00330	CO-308	1,244.50	6.10	CO-309	1,242.85	6.22	6,812	0.73	1.7	409,101	8.6	448,636
CO-93	8.0	0.013	244.2	0.04183	CO-309	1,242.75	6.32	CO-310	1,232.54	15.58	10,218	1.98	0.7	1,456,569	5.7	1,597,330
CO-94	8.0	0.013	333.1	0.00330	CO-310	1,232.44	15.68	CO-311	1,231.34	16.79	125,814	1.70	30.8	409,101	36.3	448,636
CO-95	8.0	0.013	391.4	0.00330	CO-311	1,231.24	16.89	CO-312	1,229.95	17.72	136,032	1.74	33.3	409,101	37.8	448,636
CO-96	8.0	0.013	274.7	0.00330	CO-312	1,229.85	17.82	CO-313	1,228.94	17.25	136,032	1.74	33.3	409,101	37.8	448,636
CO-97	8.0	0.013	487.0	0.00330	CO-320	1,246.00	6.00	CO-321	1,244.39	8.08	3,406	0.58	0.8	409,101	6.2	448,636
CO-98	8.0	0.013	500.0	0.00330	CO-321	1,244.29	8.18	CO-322	1,242.64	7.43	6,812	0.73	1.7	409,101	8.6	448,636
CO-99	8.0	0.013	476.9	0.00330	CO-322	1,242.54	7.53	CO-323	1,240.97	6.84	10,218	0.82	2.5	409,101	10.4	448,636
CO-100	8.0	0.013	52.1	0.00330	CO-323	1,240.87	6.94	CO-324	1,240.69	6.96	10,218	0.82	2.5	409,101	10.4	448,636
CO-101	8.0	0.013	500.0	0.00344	CO-234	1,245.88	6.00	CO-235	1,244.16	6.00	3,406	0.59	0.8	417,671	6.2	458,034
CO-102	8.0	0.013	500.0	0.00637	CO-235	1,244.06	6.10	CO-236	1,240.88	7.39	6,812	0.91	1.2	568,380	7.4	623,307
CO-103	8.0	0.013	135.2	0.06980	CO-236	1,240.78	7.49	CO-311	1,231.34	16.79	10,218	2.37	0.5	1,881,488	5.1	2,063,312
CO-104	8.0	0.013	325.4	0.00330	CO-303	1,236.70	14.68	CO-304	1,235.63	14.74	55,458	1.35	13.6	409,101	23.7	448,636
CO-105	8.0	0.013	296.2	0.00395	CO-304	1,235.53	14.84	CO-305	1,234.36	15.19	55,458	1.44	12.4	447,367	22.7	490,600
CO-106	8.0	0.013	322.5	0.00330	CO-305	1,234.26	15.29	CO-306	1,233.19	16.07	115,596	1.67	28.3	409,101	34.6	448,636
CO-107	8.0	0.013	168.4	0.00330	CO-306	1,233.09	16.17	CO-310	1,232.54	15.58	115,596	1.67	28.3	409,101	34.6	448,636
CO-108	8.0	0.013	241.4	0.00785	CO-263	1,248.08	6.00	CO-264	1,246.19	7.24	2,702	0.74	0.4	630,812	4.5	691,773
CO-109	8.0	0.013	500.0	0.00330	CO-264	1,246.09	7.34	CO-265	1,244.44	7.19	8,105	0.77	2.0	409,101	9.3	448,636
CO-110	8.0	0.013	366.6	0.00330	CO-265	1,244.34	7.29	CO-266	1,243.13	7.49	10,807	0.83	2.6	409,101	10.7	448,636
CO-111	8.0	0.013	75.5	0.00330	CO-266	1,243.03	7.59	CO-267	1,242.78	7.72	13,508	0.89	3.3	409,101	11.9	448,636
CO-112	8.0	0.013	151.0	0.00330	CO-267	1,242.68	7.82	CO-268	1,242.18	8.08	24,315	1.06	5.9	409,101	15.8	448,636
CO-113	8.0	0.013	195.5	0.03948	CO-268	1,242.08	8.18	CO-305	1,234.36	15.19	29,718	2.68	2.1	1,415,048	9.6	1,551,796
CO-114	8.0	0.013	244.9	0.00330	CO-262	1,246.99	6.00	CO-264	1,246.19	7.24	2,702	0.55	0.7	409,101	5.6	448,636
CO-115	8.0	0.013	500.0	0.00330	CO-255	1,247.81	6.00	CO-256	1,246.16	6.20	2,702	0.55	0.7	409,101	5.6	448,636
CO-116	8.0	0.013	500.0	0.00406	CO-256	1,246.06	6.30	CO-257	1,244.03	6.00	5,403	0.72	1.2	453,747	7.4	497,596
CO-117	8.0	0.013	43.5	0.00330	CO-257	1,243.93	6.10	CO-258	1,243.79	6.70	5,403	0.67	1.3	409,101	7.7	448,636

Label	Diam (in)	Mannin g's n	Length (ft)	Slope (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Flow (gal/day)	Velocity at Flow (ft/s)	Flow / Capacity (Design) (%)	Capacity (Design) (gal/day)	Depth / Diam (%)	Capacity (Full Flow) (gal/day)
CO-118	8.0	0.013	128.2	0.01177	CO-258	1,243.69	6.80	CO-268	1,242.18	8.08	5,403	1.05	0.7	772,586	5.7	847,248
CO-119	8.0	0.013	500.0	0.00401	CO-259	1,248.09	6.00	CO-260	1,246.09	6.00	2,702	0.58	0.6	450,694	5.3	494,248
CO-120	8.0	0.013	378.6	0.00330	CO-260	1,245.99	6.10	CO-261	1,244.74	6.18	5,403	0.67	1.3	409,101	7.7	448,636
CO-121	8.0	0.013	271.4	0.00686	CO-261	1,244.64	6.28	CO-267	1,242.78	7.72	8,105	0.99	1.4	589,843	7.8	646,845
CO-122	8.0	0.013	214.2	0.00330	CO-296	1,251.94	6.00	CO-297	1,251.24	7.81	1,788	0.48	0.4	409,101	4.6	448,636
CO-123	8.0	0.013	500.0	0.00330	CO-297	1,251.14	7.91	CO-298	1,249.49	7.49	3,577	0.59	0.9	409,101	6.4	448,636
CO-124	8.0	0.013	282.3	0.00330	CO-298	1,249.39	7.59	CO-299	1,248.46	7.37	5,365	0.67	1.3	409,101	7.7	448,636
CO-125	8.0	0.013	295.3	0.00330	CO-299	1,248.36	7.47	CO-300	1,247.38	7.47	7,154	0.74	1.7	409,101	8.8	448,636
CO-126	8.0	0.013	364.6	0.00520	CO-300	1,247.28	7.57	CO-301	1,245.39	8.05	12,519	1.02	2.4	513,537	10.3	563,164
CO-127	8.0	0.013	208.7	0.03388	CO-302	1,243.87	8.18	CO-303	1,236.80	14.58	25,038	2.42	1.9	1,310,798	9.2	1,437,471
CO-128	8.0	0.013	500.0	0.00405	CO-294	1,252.38	6.00	CO-295	1,250.35	6.00	1,788	0.52	0.4	453,310	4.4	497,117
CO-129	8.0	0.013	330.0	0.00869	CO-295	1,250.25	6.10	CO-300	1,247.38	7.47	3,577	0.83	0.5	664,054	5.1	728,227
CO-130	8.0	0.013	303.9	0.00330	CO-289	1,250.29	6.00	CO-290	1,249.28	7.58	1,788	0.48	0.4	409,101	4.6	448,636
CO-131	8.0	0.013	294.5	0.00600	CO-290	1,249.18	7.68	CO-291	1,247.42	8.30	3,577	0.73	0.6	551,551	5.5	604,852
CO-132	8.0	0.013	203.4	0.00330	CO-291	1,247.32	8.40	CO-292	1,246.64	8.16	7,154	0.74	1.7	409,101	8.8	448,636
CO-133	8.0	0.013	152.2	0.00330	CO-292	1,246.54	8.26	CO-293	1,246.04	7.99	7,154	0.74	1.7	409,101	8.8	448,636
CO-134	8.0	0.013	168.6	0.00330	CO-293	1,245.94	8.09	CO-301	1,245.39	8.05	8,942	0.79	2.2	409,101	9.8	448,636
CO-135	8.0	0.013	398.1	0.00330	CO-301	1,245.29	8.15	CO-302	1,243.97	8.08	23,250	1.05	5.7	409,101	15.5	448,636
CO-136	8.0	0.013	346.5	0.00330	CO-288	1,248.56	6.00	CO-291	1,247.42	8.30	1,788	0.48	0.4	409,101	4.6	448,636
CO-137	8.0	0.013	500.0	0.00330	CO-124	1,238.50	6.00	CO-125	1,236.85	7.11	1,969	0.50	0.5	409,101	4.8	448,636
CO-138	8.0	0.013	324.5	0.02503	CO-125	1,236.75	7.21	CO-150	1,228.63	14.94	3,939	1.23	0.3	1,126,787	4.2	1,235,678
CO-139	10.0	0.013	500.0	0.00240	CO-150	1,228.36	15.04	CO-151	1,227.16	15.02	248,367	1.81	39.3	632,566	41.3	693,696
CO-140	10.0	0.013	500.0	0.00240	CO-151	1,227.06	15.12	CO-152	1,225.86	14.50	248,367	1.81	39.3	632,566	41.3	693,696
CO-141	12.0	0.013	95.5	0.00190	CO-154	1,212.72	26.07	O-2 - Lift Station	1,212.53	26.51	410,974	1.88	44.9	915,224	44.6	1,003,669
CO-142	10.0	0.013	263.0	0.02395	CO-152	1,225.76	14.60	CO-153	1,219.47	19.78	248,367	4.12	12.4	1,998,122	22.7	2,191,217
CO-143	10.0	0.013	124.6	0.05121	CO-153	1,219.37	19.88	CO-154	1,212.98	25.97	268,062	5.52	9.2	2,921,984	19.6	3,204,359
CO-144	8.0	0.013	465.8	0.00684	CO-87	1,236.54	6.00	CO-88	1,233.36	8.38	1,969	0.64	0.3	588,937	4.1	645,851
CO-145	8.0	0.013	281.9	0.00330	CO-88	1,233.26	8.48	CO-89	1,232.32	8.85	5,908	0.70	1.4	409,101	8.0	448,636
CO-146	8.0	0.013	309.7	0.00330	CO-89	1,232.22	8.95	CO-90	1,231.20	8.87	19,695	1.00	4.8	409,101	14.3	448,636
CO-147	8.0	0.013	218.0	0.05262	CO-90	1,231.10	8.97	CO-153	1,219.63	19.78	19,695	2.61	1.2	1,633,616	7.4	1,791,486
CO-148	8.0	0.013	391.5	0.00330	CO-86	1,234.65	6.00	CO-88	1,233.36	8.38	1,969	0.50	0.5	409,101	4.8	448,636
CO-149	8.0	0.013	441.7	0.00330	CO-83	1,236.01	6.00	CO-84	1,234.55	6.87	1,969	0.50	0.5	409,101	4.8	448,636
CO-150	8.0	0.013	187.8	0.00330	CO-84	1,234.45	6.97	CO-85	1,233.83	8.19	3,939	0.61	1.0	409,101	6.7	448,636
CO-151	8.0	0.013	297.9	0.00472	CO-85	1,233.73	8.29	CO-89	1,232.32	8.85	11,817	0.97	2.4	489,450	10.3	536,750
CO-152	8.0	0.013	468.3	0.00330	CO-80	1,238.84	6.00	CO-81	1,237.29	6.30	1,969	0.50	0.5	409,101	4.8	448,636
CO-153	8.0	0.013	161.2	0.00330	CO-81	1,237.19	6.40	CO-82	1,236.66	6.85	3,939	0.61	1.0	409,101	6.7	448,636
CO-154	8.0	0.013	291.8	0.00934	CO-82	1,236.56	6.95	CO-85	1,233.83	8.19	5,908	0.99	0.9	688,421	6.3	754,949
CO-155	8.0	0.013	375.6	0.00330	CO-249	1,240.33	6.00	CO-250	1,239.09	6.93	1,789	0.48	0.4	409,101	4.6	448,636

Label	Diam (in)	Mannin g's n	Length (ft)	Slope (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Flow (gal/day)	Velocity at Flow (ft/s)	Flow / Capacity (Design) (%)	Capacity (Design) (gal/day)	Depth / Diam (%)	Capacity (Full Flow) (gal/day)
CO-156	8.0	0.013	274.0	0.00330	CO-250	1,238.99	7.03	CO-251	1,238.09	9.22	3,579	0.59	0.9	409,101	6.4	448,636
CO-157	8.0	0.013	286.6	0.00330	CO-251	1,237.99	9.32	CO-252	1,237.04	11.20	8,947	0.79	2.2	409,101	9.8	448,636
CO-158	8.0	0.013	326.0	0.00330	CO-252	1,236.94	11.30	CO-253	1,235.87	12.66	14,315	0.91	3.5	409,101	12.2	448,636
CO-159	8.0	0.013	190.5	0.00330	CO-253	1,235.77	12.76	CO-254	1,235.14	13.70	16,105	0.94	3.9	409,101	13.0	448,636
CO-160	8.0	0.013	206.6	0.00330	CO-254	1,235.04	13.80	CO-305	1,234.36	15.19	30,420	1.13	7.4	409,101	17.6	448,636
CO-161	8.0	0.013	259.7	0.00330	CO-240	1,241.78	6.00	CO-241	1,240.92	6.37	1,789	0.48	0.4	409,101	4.6	448,636
CO-162	8.0	0.013	301.8	0.00330	CO-241	1,240.82	6.47	CO-242	1,239.82	8.58	3,579	0.59	0.9	409,101	6.4	448,636
CO-163	8.0	0.013	311.6	0.00330	CO-242	1,239.72	8.68	CO-243	1,238.70	10.84	5,368	0.67	1.3	409,101	7.7	448,636
CO-164	8.0	0.013	212.6	0.00330	CO-243	1,238.60	10.94	CO-244	1,237.89	11.34	7,158	0.74	1.7	409,101	8.8	448,636
CO-165	8.0	0.013	136.6	0.01943	CO-244	1,237.79	11.44	CO-254	1,235.14	13.70	14,315	1.69	1.4	992,729	8.0	1,088,665
CO-166	8.0	0.013	129.4	0.00330	CO-245	1,242.71	6.00	CO-246	1,242.29	6.02	1,789	0.48	0.4	409,101	4.6	448,636
CO-167	8.0	0.013	190.3	0.02702	CO-246	1,242.19	6.12	CO-252	1,237.04	11.20	3,579	1.24	0.3	1,170,561	3.9	1,283,682
CO-168	8.0	0.013	144.8	0.00406	CO-247	1,241.90	6.00	CO-248	1,241.31	6.00	1,789	0.52	0.4	453,944	4.4	497,812
CO-169	8.0	0.013	199.7	0.01563	CO-248	1,241.21	6.10	CO-251	1,238.09	9.22	3,579	1.03	0.4	890,224	4.4	976,253
CO-170	8.0	0.013	396.8	0.00330	CO-237	1,242.13	6.00	CO-238	1,240.83	8.88	1,789	0.48	0.4	409,101	4.6	448,636
CO-171	8.0	0.013	398.7	0.00330	CO-238	1,240.73	8.98	CO-239	1,239.41	10.78	3,579	0.59	0.9	409,101	6.4	448,636
CO-172	8.0	0.013	278.4	0.00508	CO-239	1,239.31	10.88	CO-244	1,237.89	11.34	5,368	0.78	1.1	507,823	7.0	556,898
CO-173	8.0	0.013	500.0	0.00330	CO-278	1,248.27	6.00	CO-279	1,246.62	6.16	1,901	0.50	0.5	409,101	4.7	448,636
CO-174	8.0	0.013	453.8	0.00385	CO-279	1,246.52	6.26	CO-280	1,244.77	6.00	3,802	0.64	0.9	441,988	6.3	484,701
CO-175	8.0	0.013	288.9	0.00330	CO-280	1,244.67	6.10	CO-281	1,243.72	6.59	5,704	0.69	1.4	409,101	7.9	448,636
CO-176	8.0	0.013	313.5	0.00330	CO-281	1,243.62	6.69	CO-282	1,242.58	8.91	7,605	0.75	1.9	409,101	9.1	448,636
CO-177	8.0	0.013	313.9	0.00330	CO-282	1,242.48	9.01	CO-283	1,241.45	11.24	9,506	0.80	2.3	409,101	10.1	448,636
CO-178	8.0	0.013	378.6	0.00378	CO-283	1,241.35	11.34	CO-284	1,239.91	11.61	13,309	0.93	3.0	437,784	11.5	480,091
CO-179	8.0	0.013	277.3	0.00330	CO-284	1,239.81	11.71	CO-285	1,238.90	13.08	28,519	1.11	7.0	409,101	17.1	448,636
CO-180	8.0	0.013	206.9	0.00330	CO-285	1,238.80	13.18	CO-286	1,238.12	13.41	30,420	1.13	7.4	409,101	17.6	448,636
CO-181	8.0	0.013	130.0	0.00330	CO-286	1,238.02	13.51	CO-287	1,237.59	12.93	30,420	1.13	7.4	409,101	17.6	448,636
CO-182	8.0	0.013	208.0	0.00330	CO-287	1,237.49	13.03	CO-303	1,236.80	14.58	30,420	1.13	7.4	409,101	17.6	448,636
CO-183	8.0	0.013	227.1	0.00330	CO-276	1,248.06	6.00	CO-277	1,247.31	6.08	1,901	0.50	0.5	409,101	4.7	448,636
CO-184	8.0	0.013	334.0	0.01727	CO-277	1,247.21	6.18	CO-283	1,241.45	11.24	3,802	1.08	0.4	935,767	4.4	1,026,198
CO-185	8.0	0.013	193.0	0.02519	CO-275	1,244.78	6.00	CO-284	1,239.91	11.61	1,901	1.00	0.2	1,130,303	2.9	1,239,534
CO-186	8.0	0.013	129.0	0.00330	CO-271	1,242.69	6.00	CO-272	1,242.26	7.01	1,901	0.50	0.5	409,101	4.7	448,636
CO-187	8.0	0.013	195.6	0.00330	CO-272	1,242.16	7.11	CO-273	1,241.51	8.69	5,704	0.69	1.4	409,101	7.9	448,636
CO-188	8.0	0.013	126.2	0.00330	CO-273	1,241.41	8.79	CO-274	1,241.00	9.69	7,605	0.75	1.9	409,101	9.1	448,636
CO-189	8.0	0.013	298.0	0.00330	CO-274	1,240.90	9.79	CO-284	1,239.91	11.61	11,408	0.85	2.8	409,101	11.0	448,636
CO-190	8.0	0.013	215.8	0.01570	CO-269	1,244.39	6.00	CO-274	1,241.00	9.69	1,901	0.86	0.2	892,445	3.2	978,689
CO-191	8.0	0.013	201.9	0.00424	CO-270	1,243.12	6.00	CO-272	1,242.26	7.01	1,901	0.54	0.4	463,895	4.4	508,725
CO-192	8.0	0.013	342.1	0.00330	CO-113	1,242.96	8.67	CO-114	1,241.83	7.73	3,120	0.57	0.8	409,101	6.0	448,636
CO-193	8.0	0.013	342.4	0.00330	CO-114	1,241.73	7.83	CO-115	1,240.60	9.14	4,680	0.64	1.1	409,101	7.2	448,636
CO-194	8.0	0.013	171.4	0.00330	CO-115	1,240.50	9.24	CO-116	1,239.94	9.77	6,240	0.71	1.5	409,101	8.2	448,636

Label	Diam (in)	Mannin g's n	Length (ft)	Slope (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Flow (gal/day)	Velocity at Flow (ft/s)	Flow / Capacity (Design) (%)	Capacity (Design) (gal/day)	Depth / Diam (%)	Capacity (Full Flow) (gal/day)
CO-195	8.0	0.013	143.2	0.00330	CO-116	1,239.84	9.87	CO-117	1,239.36	10.02	7,800	0.75	1.9	409,101	9.2	448,636
CO-196	8.0	0.013	143.8	0.00811	CO-117	1,239.26	10.12	CO-118	1,238.10	9.67	12,480	1.19	1.9	641,425	9.3	703,411
CO-197	8.0	0.013	192.7	0.00330	CO-118	1,238.00	9.77	CO-119	1,237.36	10.20	23,400	1.05	5.7	409,101	15.5	448,636
CO-198	8.0	0.013	262.4	0.00330	CO-119	1,237.26	10.30	CO-120	1,236.40	11.21	23,400	1.05	5.7	409,101	15.5	448,636
CO-199	8.0	0.013	236.1	0.00330	CO-120	1,236.30	11.31	CO-121	1,235.52	10.53	23,400	1.05	5.7	409,101	15.5	448,636
CO-200	8.0	0.013	391.4	0.00330	CO-121	1,235.42	10.63	CO-122	1,234.13	10.96	23,400	1.05	5.7	409,101	15.5	448,636
CO-201	8.0	0.013	265.1	0.00330	CO-122	1,234.03	11.06	CO-123	1,233.15	11.29	23,400	1.05	5.7	409,101	15.5	448,636
CO-202	8.0	0.013	450.1	0.00982	CO-123	1,233.05	11.39	CO-150	1,228.63	14.94	43,056	1.85	6.1	705,754	16.0	773,956
CO-203	8.0	0.013	223.7	0.00330	CO-112	1,243.80	6.00	CO-113	1,243.06	8.57	1,560	0.47	0.4	409,101	4.3	448,636
CO-204	8.0	0.013	390.7	0.00330	CO-109	1,243.94	6.00	CO-110	1,242.65	7.16	1,560	0.47	0.4	409,101	4.3	448,636
CO-205	8.0	0.013	307.1	0.00330	CO-110	1,242.55	7.26	CO-111	1,241.54	7.95	3,120	0.57	0.8	409,101	6.0	448,636
CO-206	8.0	0.013	68.4	0.03031	CO-111	1,241.44	8.05	CO-117	1,239.36	10.02	3,120	1.23	0.3	1,239,902	3.6	1,359,724
CO-207	8.0	0.013	99.1	0.00902	CO-104	1,241.86	6.00	CO-105	1,240.97	6.74	1,560	0.65	0.2	676,379	3.4	741,743
CO-208	8.0	0.013	276.3	0.00330	CO-105	1,240.87	6.84	CO-106	1,239.95	7.63	4,680	0.64	1.1	409,101	7.2	448,636
CO-209	8.0	0.013	245.6	0.00330	CO-106	1,239.85	7.73	CO-107	1,239.04	8.51	7,800	0.75	1.9	409,101	9.2	448,636
CO-210	8.0	0.013	70.7	0.00330	CO-107	1,238.94	8.61	CO-108	1,238.71	8.84	7,800	0.75	1.9	409,101	9.2	448,636
CO-211	8.0	0.013	155.4	0.00330	CO-108	1,238.61	8.94	CO-118	1,238.10	9.67	10,920	0.83	2.7	409,101	10.8	448,636
CO-212	8.0	0.013	202.2	0.00789	CO-102	1,241.55	6.00	CO-106	1,239.95	7.63	1,560	0.62	0.2	632,441	3.5	693,559
CO-213	8.0	0.013	263.0	0.01059	CO-101	1,241.50	6.00	CO-108	1,238.71	8.84	1,560	0.71	0.2	732,950	3.2	803,781
CO-214	8.0	0.013	193.8	0.00330	CO-103	1,241.61	6.00	CO-105	1,240.97	6.74	1,560	0.47	0.4	409,101	4.3	448,636
CO-215	15.0	0.013	277.6	0.00140	CO-333	1,224.84	18.80	CO-334	1,224.45	19.50	638,564	1.87	44.8	1,424,430	44.5	1,562,085
CO-216	15.0	0.013	449.6	0.00140	CO-334	1,224.35	19.60	CO-335	1,223.72	23.38	638,564	1.87	44.8	1,424,430	44.5	1,562,085
CO-217	15.0	0.013	394.0	0.00140	CO-335	1,223.62	23.48	OFF-MH-12	1,223.07	24.68	638,564	1.87	44.8	1,424,430	44.5	1,562,085
CO-218	8.0	0.013	253.2	0.01417	CO-35	1,227.33	6.00	CO-36	1,223.74	9.76	1,512	0.76	0.2	847,751	3.0	929,677
CO-219	8.0	0.013	291.2	0.00330	CO-36	1,223.64	9.86	CO-37	1,222.68	11.29	16,495	0.95	4.0	409,101	13.1	448,636
CO-220	8.0	0.013	280.0	0.00330	CO-37	1,222.58	11.39	CO-38	1,221.66	12.86	22,543	1.04	5.5	409,101	15.2	448,636
CO-221	8.0	0.013	270.9	0.00330	CO-38	1,221.56	12.96	CO-39	1,220.67	14.08	25,065	1.07	6.1	409,101	16.1	448,636
CO-222	8.0	0.013	236.5	0.00330	CO-39	1,220.57	14.18	CO-40	1,219.78	15.49	27,587	1.10	6.7	409,101	16.8	448,636
CO-223	8.0	0.013	213.1	0.00330	CO-40	1,219.68	15.59	CO-41	1,218.98	16.51	30,109	1.13	7.4	409,101	17.5	448,636
CO-224	8.0	0.013	320.9	0.00330	CO-41	1,218.88	16.61	CO-42	1,217.82	18.14	31,621	1.15	7.7	409,101	18.0	448,636
CO-225	8.0	0.013	200.7	0.00330	CO-42	1,217.72	18.24	CO-43	1,217.06	19.19	46,753	1.29	11.4	409,101	21.8	448,636
CO-226	8.0	0.013	247.9	0.00330	CO-43	1,216.96	19.29	CO-44	1,216.14	21.20	78,390	1.49	19.2	409,101	28.3	448,636
CO-227	8.0	0.013	273.7	0.00330	CO-44	1,216.04	21.30	CO-45	1,215.14	22.73	78,390	1.49	19.2	409,101	28.3	448,636
CO-228	8.0	0.013	208.7	0.00330	CO-45	1,215.04	22.83	CO-79	1,214.35	23.92	78,390	1.49	19.2	409,101	28.3	448,636
CO-229	8.0	0.013	333.4	0.00330	CO-79	1,214.25	24.02	CO-154	1,213.15	25.97	142,912	1.77	34.9	409,101	38.8	448,636
CO-230	8.0	0.013	211.2	0.00330	CO-23	1,228.81	6.00	CO-24	1,228.11	6.40	1,512	0.46	0.4	409,101	4.2	448,636
CO-231	8.0	0.013	256.4	0.00330	CO-24	1,228.01	6.50	CO-25	1,227.17	6.82	3,024	0.56	0.7	409,101	5.9	448,636
CO-232	8.0	0.013	163.1	0.02689	CO-25	1,227.07	6.92	CO-37	1,222.68	11.29	4,536	1.34	0.4	1,167,864	4.3	1,280,725
CO-233	8.0	0.013	254.1	0.03921	CO-22	1,228.95	6.00	CO-41	1,218.98	16.51	1,512	1.10	0.1	1,410,101	2.4	1,546,370

Label	Diam (in)	Mannin g's n	Length (ft)	Slope (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Flow (gal/day)	Velocity at Flow (ft/s)	Flow / Capacity (Design) (%)	Capacity (Design) (gal/day)	Depth / Diam (%)	Capacity (Full Flow) (gal/day)
CO-234	8.0	0.013	361.1	0.00330	CO-29	1,229.00	6.00	CO-30	1,227.81	6.61	2,200	0.51	0.5	409,101	5.1	448,636
CO-235	8.0	0.013	319.6	0.00330	CO-30	1,227.71	6.71	CO-31	1,226.65	7.20	4,399	0.63	1.1	409,101	7.0	448,636
CO-236	8.0	0.013	219.5	0.00330	CO-31	1,226.55	7.30	CO-32	1,225.83	8.17	5,911	0.70	1.4	409,101	8.0	448,636
CO-237	8.0	0.013	171.0	0.00351	CO-32	1,225.73	8.27	CO-33	1,225.13	8.69	7,423	0.76	1.8	422,196	8.8	462,996
CO-238	8.0	0.013	201.2	0.00330	CO-33	1,225.03	8.79	CO-34	1,224.36	9.27	11,959	0.86	2.9	409,101	11.2	448,636
CO-239	8.0	0.013	156.9	0.00330	CO-34	1,224.26	9.37	CO-36	1,223.74	9.76	13,471	0.89	3.3	409,101	11.9	448,636
CO-240	8.0	0.013	111.9	0.00330	CO-26	1,227.86	6.00	CO-27	1,227.49	6.15	0	0.00	0.0	409,101	(N/A)	448,636
CO-241	8.0	0.013	369.8	0.00330	CO-27	1,227.39	6.25	CO-28	1,226.17	7.37	1,512	0.46	0.4	409,101	4.2	448,636
CO-242	8.0	0.013	287.4	0.00330	CO-28	1,226.07	7.47	CO-33	1,225.13	8.69	3,024	0.56	0.7	409,101	5.9	448,636
CO-243	8.0	0.013	397.2	0.00330	CO-16	1,229.16	6.00	CO-17	1,227.85	7.73	2,522	0.53	0.6	409,101	5.4	448,636
CO-244	8.0	0.013	389.5	0.02548	CO-17	1,227.75	7.83	CO-42	1,217.82	18.14	5,044	1.35	0.4	1,136,682	4.6	1,246,529
CO-245	8.0	0.013	310.1	0.00330	CO-18	1,230.28	6.00	CO-19	1,229.26	7.22	2,522	0.53	0.6	409,101	5.4	448,636
CO-246	8.0	0.013	339.8	0.00330	CO-19	1,229.16	7.32	CO-20	1,228.04	8.61	5,044	0.66	1.2	409,101	7.5	448,636
CO-247	8.0	0.013	244.2	0.00330	CO-20	1,227.94	8.71	CO-21	1,227.13	9.63	7,566	0.75	1.8	409,101	9.0	448,636
CO-248	8.0	0.013	312.8	0.02944	CO-21	1,227.03	9.73	CO-42	1,217.82	18.14	10,088	1.74	0.8	1,221,911	6.2	1,339,995
CO-249	8.0	0.013	220.3	0.00330	CO-9	1,230.76	6.00	CO-10	1,230.03	6.52	2,200	0.51	0.5	409,101	5.1	448,636
CO-250	8.0	0.013	293.2	0.00330	CO-10	1,229.93	6.62	CO-11	1,228.96	6.96	4,399	0.63	1.1	409,101	7.0	448,636
CO-251	8.0	0.013	351.6	0.00330	CO-11	1,228.86	7.06	CO-12	1,227.70	7.41	6,599	0.72	1.6	409,101	8.5	448,636
CO-252	8.0	0.013	313.4	0.00330	CO-12	1,227.60	7.51	CO-13	1,226.57	8.29	8,798	0.78	2.2	409,101	9.7	448,636
CO-253	8.0	0.013	286.6	0.00330	CO-13	1,226.47	8.39	CO-14	1,225.52	10.37	10,998	0.84	2.7	409,101	10.8	448,636
CO-254	8.0	0.013	319.3	0.00330	CO-14	1,225.42	10.47	CO-15	1,224.37	12.33	17,597	0.96	4.3	409,101	13.5	448,636
CO-255	8.0	0.013	198.2	0.03635	CO-15	1,224.27	12.43	CO-43	1,217.06	19.19	31,637	2.66	2.3	1,357,852	10.1	1,489,073
CO-256	8.0	0.013	315.8	0.00330	CO-6	1,231.28	6.00	CO-7	1,230.23	6.49	2,200	0.51	0.5	409,101	5.1	448,636
CO-257	8.0	0.013	363.6	0.00330	CO-7	1,230.13	6.59	CO-8	1,228.93	6.68	4,399	0.63	1.1	409,101	7.0	448,636
CO-258	8.0	0.013	300.6	0.01103	CO-8	1,228.83	6.78	CO-14	1,225.52	10.37	6,599	1.09	0.9	747,800	6.4	820,066
CO-259	8.0	0.013	468.7	0.00330	CO-1	1,231.76	6.00	CO-2	1,230.21	6.95	2,808	0.55	0.7	409,101	5.7	448,636
CO-260	8.0	0.013	437.6	0.01312	CO-2	1,230.11	7.05	CO-15	1,224.37	12.33	5,616	1.10	0.7	815,701	5.7	894,529
CO-261	8.0	0.013	365.9	0.00330	CO-3	1,232.59	6.00	CO-4	1,231.38	6.58	2,808	0.55	0.7	409,101	5.7	448,636
CO-262	8.0	0.013	379.3	0.00330	CO-4	1,231.28	6.68	CO-5	1,230.03	7.34	5,616	0.69	1.4	409,101	7.8	448,636
CO-263	8.0	0.013	315.2	0.01766	CO-5	1,229.93	7.44	CO-15	1,224.37	12.33	8,424	1.38	0.9	946,384	6.4	1,037,841
CO-264	8.0	0.013	330.6	0.00330	CO-91	1,240.79	6.00	CO-92	1,239.70	6.78	2,184	0.51	0.5	409,101	5.0	448,636
CO-265	8.0	0.013	260.6	0.00330	CO-92	1,239.60	6.88	CO-93	1,238.74	7.08	4,368	0.63	1.1	409,101	7.0	448,636
CO-266	8.0	0.013	281.8	0.00330	CO-93	1,238.64	7.18	CO-96	1,237.71	7.60	6,552	0.72	1.6	409,101	8.4	448,636
CO-267	8.0	0.013	196.4	0.00449	CO-96	1,237.61	7.70	CO-100	1,236.73	7.94	13,104	0.98	2.7	477,032	10.9	523,132
CO-268	8.0	0.013	198.8	0.01752	CO-100	1,236.63	8.04	CO-123	1,233.15	11.29	19,656	1.80	2.1	942,561	9.5	1,033,649
CO-269	8.0	0.013	316.6	0.00330	CO-94	1,240.52	6.00	CO-95	1,239.48	6.15	2,184	0.51	0.5	409,101	5.0	448,636
CO-270	8.0	0.013	223.3	0.00744	CO-95	1,239.38	6.25	CO-96	1,237.71	7.60	4,368	0.84	0.7	614,424	5.8	673,800
CO-271	8.0	0.013	343.3	0.00330	CO-97	1,240.17	6.00	CO-98	1,239.04	6.69	2,184	0.51	0.5	409,101	5.0	448,636
CO-272	8.0	0.013	481.7	0.00330	CO-98	1,238.94	6.79	CO-99	1,237.35	7.30	4,368	0.63	1.1	409,101	7.0	448,636

Label	Diam (in)	Mannin g's n	Length (ft)	Slope (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Flow (gal/day)	Velocity at Flow (ft/s)	Flow / Capacity (Design) (%)	Capacity (Design) (gal/day)	Depth / Diam (%)	Capacity (Full Flow) (gal/day)
CO-273	8.0	0.013	157.5	0.00330	CO-99	1,237.25	7.40	CO-100	1,236.73	7.94	6,552	0.72	1.6	409,101	8.4	448,636
CO-274	8.0	0.013	257.6	0.00330	CO-77	1,216.97	20.51	CO-78	1,216.12	22.18	64,522	1.41	15.8	409,101	25.6	448,636
CO-275	8.0	0.013	324.7	0.00330	CO-77	1,217.07	20.41	CO-76	1,218.14	19.14	59,708	1.38	14.6	409,101	24.6	448,636
CO-276	8.0	0.013	300.5	0.00330	CO-76	1,218.24	19.04	CO-75	1,219.23	17.76	57,301	1.36	14.0	409,101	24.2	448,636
CO-277	8.0	0.013	259.5	0.00330	CO-75	1,219.33	17.66	CO-74	1,220.19	16.64	54,894	1.35	13.4	409,101	23.6	448,636
CO-278	8.0	0.013	266.9	0.00330	CO-74	1,220.29	16.54	CO-73	1,221.17	16.05	52,487	1.33	12.8	409,101	23.1	448,636
CO-279	8.0	0.013	222.8	0.00330	CO-72	1,222.00	15.40	CO-73	1,221.27	15.95	50,080	1.31	12.2	409,101	22.6	448,636
CO-280	8.0	0.013	285.0	0.00330	CO-72	1,222.10	15.30	CO-71	1,223.04	14.66	45,267	1.28	11.1	409,101	21.4	448,636
CO-281	8.0	0.013	372.5	0.00330	CO-71	1,223.14	14.56	CO-70	1,224.37	13.65	40,453	1.23	9.9	409,101	20.3	448,636
CO-282	8.0	0.013	182.0	0.00330	CO-70	1,224.47	13.55	CO-69	1,225.07	13.48	35,639	1.19	8.7	409,101	19.0	448,636
CO-283	8.0	0.013	220.0	0.00330	CO-48	1,232.64	6.00	CO-49	1,231.91	6.27	2,407	0.53	0.6	409,101	5.3	448,636
CO-284	8.0	0.013	245.3	0.03532	CO-49	1,231.81	6.37	CO-71	1,223.14	14.56	2,407	1.20	0.2	1,338,401	3.0	1,467,742
CO-285	8.0	0.013	260.1	0.00330	CO-46	1,232.24	6.00	CO-47	1,231.38	6.36	2,407	0.53	0.6	409,101	5.3	448,636
CO-286	8.0	0.013	183.4	0.05004	CO-47	1,231.28	6.46	CO-72	1,222.10	15.30	2,407	1.36	0.2	1,593,000	2.8	1,746,945
CO-287	8.0	0.013	208.3	0.00330	CO-52	1,233.72	6.58	CO-53	1,233.03	6.68	4,778	0.65	1.2	409,101	7.3	448,636
CO-288	8.0	0.013	267.2	0.00695	CO-53	1,232.93	6.78	CO-54	1,231.07	7.81	7,185	0.95	1.2	593,679	7.4	651,051
CO-289	8.0	0.013	73.0	0.06980	CO-54	1,230.97	7.91	CO-68	1,225.88	12.97	7,185	2.15	0.4	1,881,488	4.3	2,063,312
CO-290	8.0	0.013	182.2	0.00330	CO-68	1,225.78	13.07	CO-69	1,225.17	13.38	35,639	1.19	8.7	409,101	19.0	448,636
CO-291	8.0	0.013	434.6	0.00332	CO-64	1,235.65	6.00	CO-65	1,234.21	6.00	2,371	0.53	0.6	410,233	5.2	449,877
CO-292	8.0	0.013	269.0	0.00330	CO-65	1,234.11	6.10	CO-66	1,233.22	6.60	4,742	0.65	1.2	409,101	7.3	448,636
CO-293	8.0	0.013	147.7	0.04331	CO-66	1,233.12	6.70	CO-67	1,226.73	12.59	9,485	1.96	0.6	1,482,014	5.5	1,625,234
CO-294	8.0	0.013	228.3	0.00330	CO-67	1,226.63	12.69	CO-68	1,225.88	12.97	28,454	1.11	7.0	409,101	17.1	448,636
CO-295	8.0	0.013	451.9	0.00330	CO-51	1,235.31	6.00	CO-52	1,233.82	6.48	2,371	0.53	0.6	409,101	5.2	448,636
CO-296	8.0	0.013	340.3	0.00434	CO-63	1,234.70	6.00	CO-66	1,233.22	6.60	2,371	0.58	0.5	468,993	4.9	514,316
CO-297	10.0	0.013	406.6	0.00240	CO-148	1,230.58	10.09	CO-149	1,229.61	12.20	199,001	1.70	31.5	632,566	36.7	693,696
CO-298	10.0	0.013	435.1	0.00240	CO-149	1,229.51	12.30	CO-150	1,228.46	14.94	201,372	1.71	31.8	632,566	36.9	693,696
CO-299	8.0	0.013	357.3	0.00330	CO-55	1,234.12	6.00	CO-56	1,232.94	6.72	2,371	0.53	0.6	409,101	5.2	448,636
CO-300	8.0	0.013	300.2	0.00330	CO-56	1,232.84	6.82	CO-57	1,231.85	7.46	4,742	0.65	1.2	409,101	7.3	448,636
CO-301	8.0	0.013	271.3	0.00330	CO-57	1,231.75	7.56	CO-60	1,230.85	7.96	7,114	0.74	1.7	409,101	8.8	448,636
CO-302	8.0	0.013	273.0	0.00330	CO-60	1,230.75	8.06	CO-61	1,229.85	8.43	14,227	0.91	3.5	409,101	12.2	448,636
CO-303	8.0	0.013	500.0	0.00330	CO-61	1,229.75	8.53	CO-62	1,228.10	10.59	16,598	0.95	4.1	409,101	13.1	448,636
CO-304	8.0	0.013	386.5	0.00330	CO-62	1,228.00	10.69	CO-67	1,226.73	12.59	18,970	0.99	4.6	409,101	14.0	448,636
CO-305	8.0	0.013	300.0	0.00330	CO-58	1,233.76	6.00	CO-59	1,232.77	6.57	2,371	0.53	0.6	409,101	5.2	448,636
CO-306	8.0	0.013	354.2	0.00513	CO-59	1,232.67	6.67	CO-60	1,230.85	7.96	4,742	0.75	0.9	509,892	6.6	559,168
CO-307	10.0	0.013	202.3	0.00240	CO-147	1,231.17	9.96	CO-148	1,230.68	9.99	196,630	1.69	31.1	632,566	36.5	693,696
CO-308	8.0	0.013	343.4	0.00330	CO-143	1,239.40	6.00	CO-144	1,238.27	6.32	29,016	1.12	7.1	409,101	17.2	448,636
CO-309	8.0	0.013	307.9	0.01660	CO-144	1,238.17	6.42	CO-145	1,233.05	10.11	58,032	2.42	6.3	917,656	16.3	1,006,337
CO-310	8.0	0.013	368.0	0.00403	CO-142	1,234.54	7.70	CO-145	1,233.05	10.11	29,718	1.21	6.6	451,980	16.6	495,659
CO-311	8.0	0.013	299.1	0.00330	CO-141	1,235.62	6.00	CO-142	1,234.64	7.60	14,859	0.92	3.6	409,101	12.5	448,636

Label	Diam (in)	Mannin g's n	Length (ft)	Slope (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Flow (gal/day)	Velocity at Flow (ft/s)	Flow / Capacity (Design) (%)	Capacity (Design) (gal/day)	Depth / Diam (%)	Capacity (Full Flow) (gal/day)
CO-312	10.0	0.013	269.0	0.00240	CO-145	1,232.79	10.21	CO-146	1,232.14	9.76	196,630	1.69	31.1	632,566	36.5	693,696
CO-313	10.0	0.013	322.3	0.00240	CO-146	1,232.04	9.86	CO-147	1,231.27	9.86	196,630	1.69	31.1	632,566	36.5	693,696
CO-314	8.0	0.013	442.8	0.00330	CO-133	1,243.43	6.00	CO-134	1,241.97	6.02	11,895	0.86	2.9	409,101	11.2	448,636
CO-315	8.0	0.013	331.7	0.00338	CO-136	1,239.79	6.10	CO-137	1,238.67	6.00	47,580	1.31	11.5	414,121	21.9	454,141
CO-316	8.0	0.013	109.2	0.00342	CO-137	1,238.57	6.10	CO-139	1,238.20	6.00	59,475	1.40	14.3	416,682	24.4	456,949
CO-317	8.0	0.013	65.9	0.06270	CO-139	1,238.10	6.10	CO-140	1,233.96	10.02	71,370	4.12	4.0	1,783,181	13.1	1,955,504
CO-318	8.0	0.013	274.1	0.00330	CO-134	1,241.87	6.12	CO-135	1,240.96	6.01	23,790	1.05	5.8	409,101	15.6	448,636
CO-319	8.0	0.013	265.9	0.00364	CO-135	1,240.86	6.11	CO-136	1,239.89	6.00	35,685	1.23	8.3	429,662	18.6	471,184
CO-320	8.0	0.013	305.3	0.00330	CO-126	1,241.69	6.00	CO-127	1,240.69	6.97	5,359	0.67	1.3	409,101	7.7	448,636
CO-321	8.0	0.013	547.3	0.00330	CO-127	1,240.59	7.07	CO-128	1,238.78	6.08	10,717	0.83	2.6	409,101	10.7	448,636
CO-322	8.0	0.013	258.5	0.00330	CO-128	1,238.68	6.18	CO-129	1,237.83	6.28	16,076	0.94	3.9	409,101	12.9	448,636
CO-323	8.0	0.013	371.7	0.00330	CO-129	1,237.73	6.38	CO-130	1,236.50	6.34	21,434	1.02	5.2	409,101	14.9	448,636
CO-324	8.0	0.013	236.8	0.00330	CO-130	1,236.40	6.44	CO-131	1,235.62	7.37	26,793	1.09	6.5	409,101	16.6	448,636
CO-325	8.0	0.013	262.6	0.00330	CO-131	1,235.52	7.47	CO-132	1,234.65	8.88	32,151	1.15	7.9	409,101	18.1	448,636
CO-326	8.0	0.013	178.2	0.00330	CO-132	1,234.55	8.98	CO-140	1,233.96	10.02	37,510	1.21	9.2	409,101	19.6	448,636
CO-327	8.0	0.013	245.2	0.00330	CO-140	1,233.86	10.12	CO-145	1,233.05	10.11	108,880	1.64	26.6	409,101	33.5	448,636
CO-328	8.0	0.013	442.3	0.00515	CO-139	1,238.20	6.00	CO-138	1,240.48	6.00	11,895	1.00	2.3	511,190	10.1	560,591
CO-329	8.0	0.013	125.3	0.04763	CO-228	1,235.29	7.31	CO-229	1,229.32	13.31	7,283	1.85	0.5	1,554,168	4.8	1,704,360
CO-330	8.0	0.013	55.8	0.00330	CO-230	1,228.16	13.91	CO-231	1,227.98	13.97	41,696	1.24	10.2	409,101	20.6	448,636
CO-331	8.0	0.013	227.6	0.00330	CO-231	1,227.88	14.07	CO-232	1,227.13	13.85	41,696	1.24	10.2	409,101	20.6	448,636
CO-332	8.0	0.013	139.2	0.00330	CO-217	1,232.60	10.93	CO-218	1,232.14	11.02	22,479	1.04	5.5	409,101	15.2	448,636
CO-333	8.0	0.013	387.6	0.00330	CO-194	1,223.23	19.81	CO-195	1,221.96	22.06	50,076	1.31	12.2	409,101	22.6	448,636
CO-334	8.0	0.013	124.4	0.01341	CO-78	1,216.02	22.28	CO-79	1,214.35	23.92	64,522	2.32	7.8	824,640	18.1	904,332
CO-335	8.0	0.013	342.0	0.02378	CO-50	1,232.61	6.00	CO-70	1,224.47	13.55	2,407	1.06	0.2	1,098,272	3.3	1,204,407
OFF-CO-1	36.0	0.013	600.0	0.00070	OFF-MH-1	1,210.42	19.58	O-1	1,210.00	16.27	5,594,138	2.48	53.8	10,399,747	49.4	11,404,761
OFF-CO-2	36.0	0.013	600.0	0.00070	OFF-MH-2	1,210.94	20.06	OFF-MH-1	1,210.52	19.48	5,594,138	2.48	53.8	10,399,747	49.4	11,404,761
OFF-CO-3	36.0	0.013	600.0	0.00070	OFF-MH-3	1,211.46	18.54	OFF-MH-2	1,211.04	19.96	5,594,138	2.48	53.8	10,399,747	49.4	11,404,761
OFF-CO-4	36.0	0.013	600.0	0.00070	OFF-MH-4	1,211.98	21.02	OFF-MH-3	1,211.56	18.44	5,594,138	2.48	53.8	10,399,747	49.4	11,404,761
OFF-CO-5	36.0	0.013	600.0	0.00070	OFF-MH-5	1,212.50	21.50	OFF-MH-4	1,212.08	20.92	5,594,138	2.48	53.8	10,399,747	49.4	11,404,761
OFF-CO-6	36.0	0.013	600.0	0.00070	OFF-MH-6	1,213.02	22.98	OFF-MH-5	1,212.60	21.40	5,594,138	2.48	53.8	10,399,747	49.4	11,404,761
OFF-CO-7	36.0	0.013	600.0	0.00070	OFF-MH-7	1,213.54	23.46	OFF-MH-6	1,213.12	22.88	5,594,138	2.48	53.8	10,399,747	49.4	11,404,761
OFF-CO-8	36.0	0.013	600.0	0.00070	OFF-MH-8	1,214.06	23.94	OFF-MH-7	1,213.64	23.36	5,594,138	2.48	53.8	10,399,747	49.4	11,404,761
OFF-CO-9	36.0	0.013	600.0	0.00070	OFF-MH-9	1,214.58	27.42	OFF-MH-8	1,214.16	23.84	5,594,138	2.48	53.8	10,399,747	49.4	11,404,761
OFF-CO-10	36.0	0.013	600.0	0.00070	OFF-MH-10	1,215.10	30.56	OFF-MH-9	1,214.68	27.32	5,594,138	2.48	53.8	10,399,747	49.4	11,404,761
OFF-CO-11	36.0	0.013	600.0	0.00070	OFF-MH-11	1,215.62	28.36	OFF-MH-10	1,215.20	30.46	5,594,138	2.48	53.8	10,399,747	49.4	11,404,761
OFF-CO-12	36.0	0.013	353.8	0.00754	OFF-MH-11	1,218.39	26.28	OFF-MH-11	1,215.72	28.26	5,515,748	5.86	16.2	34,131,819	25.9	37,430,261
OFF-CO-13	36.0	0.013	488.5	0.00559	OFF-MH-12	1,221.22	24.78	OFF-MH-11	1,218.49	26.18	5,515,748	5.27	18.8	29,398,026	28.0	32,239,002
OFF-CO-13	36.0	0.013	600.0	0.00754	OFF-MH-13	1,225.85	23.31	OFF-MH-12	1,221.32	24.68	4,877,184	5.66	14.3	34,131,819	24.4	37,430,261
OFF-CO-14	36.0	0.013	600.0	0.00754	OFF-MH-14	1,230.47	19.70	OFF-MH-13	1,225.95	23.21	4,877,184	5.66	14.3	34,131,819	24.4	37,430,261

Label	Diam (in)	Mannin g's n	Length (ft)	Slope (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Flow (gal/day)	Velocity at Flow (ft/s)	Flow / Capacity (Design) (%)	Capacity (Design) (gal/day)	Depth / Diam (%)	Capacity (Full Flow) (gal/day)
OFF-CO-15	36.0	0.013	374.5	0.00754	OFF-MH-15	1,233.39	16.96	OFF-MH-14	1,230.57	19.60	4,877,184	5.66	14.3	34,131,819	24.4	37,430,261
OFF-CO-16	30.0	0.013	577.5	0.00945	OFF-MH-16	1,239.45	12.70	OFF-MH-15	1,233.99	16.86	4,877,184	6.24	20.8	23,498,475	29.5	25,769,328
OFF-CO-17	30.0	0.013	499.6	0.00945	OFF-MH-17	1,244.27	10.04	OFF-MH-16	1,239.55	12.60	4,877,184	6.24	20.8	23,498,475	29.5	25,769,328
OFF-CO-18	30.0	0.013	600.0	0.00941	OFF-MH-18	1,250.02	6.10	OFF-MH-17	1,244.37	9.94	4,877,184	6.23	20.8	23,447,495	29.5	25,713,421
OFF-CO-19	30.0	0.013	600.0	0.00347	OFF-MH-19	1,252.20	6.00	OFF-MH-18	1,250.12	6.00	4,877,184	4.35	34.2	14,248,583	38.4	15,625,542

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Depth (Structure) (ft)	Flow (Total Out) (gal/day)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CO-1	1,238.42	1,231.76	6.67	2,808	1,231.79	1,231.79
CO-2	1,237.83	1,230.11	7.72	5,616	1,230.15	1,230.15
CO-3	1,239.26	1,232.59	6.67	2,808	1,232.63	1,232.63
CO-4	1,238.63	1,231.28	7.35	5,616	1,231.34	1,231.34
CO-5	1,238.04	1,229.93	8.10	8,424	1,229.98	1,229.98
CO-6	1,237.94	1,231.28	6.67	2,200	1,231.31	1,231.31
CO-7	1,237.39	1,230.13	7.26	4,399	1,230.18	1,230.18
CO-8	1,236.28	1,228.83	7.45	6,599	1,228.88	1,228.88
CO-9	1,237.42	1,230.76	6.67	2,200	1,230.79	1,230.79
CO-10	1,237.21	1,229.93	7.28	4,399	1,229.98	1,229.98
CO-11	1,236.59	1,228.86	7.73	6,599	1,228.92	1,228.92
CO-12	1,235.78	1,227.60	8.18	8,798	1,227.67	1,227.67
CO-13	1,235.52	1,226.47	9.05	10,998	1,226.54	1,226.54
CO-14	1,236.55	1,225.42	11.13	17,597	1,225.51	1,225.51
CO-15	1,237.36	1,224.27	13.10	31,637	1,224.37	1,224.37
CO-16	1,235.82	1,229.16	6.67	2,522	1,229.19	1,229.19
CO-17	1,236.25	1,227.75	8.50	5,044	1,227.79	1,227.79
CO-18	1,236.95	1,230.28	6.67	2,522	1,230.32	1,230.32
CO-19	1,237.15	1,229.16	7.99	5,044	1,229.21	1,229.21
CO-20	1,237.31	1,227.94	9.38	7,566	1,228.00	1,228.00
CO-21	1,237.43	1,227.03	10.39	10,088	1,227.09	1,227.09
CO-22	1,235.61	1,228.95	6.67	1,512	1,228.97	1,228.97
CO-23	1,235.48	1,228.81	6.67	1,512	1,228.84	1,228.84
CO-24	1,235.18	1,228.01	7.17	3,024	1,228.05	1,228.05
CO-25	1,234.65	1,227.07	7.58	4,536	1,227.11	1,227.11
CO-26	1,234.53	1,227.86	6.67	0	1,227.86	1,227.86
CO-27	1,234.31	1,227.39	6.92	1,512	1,227.42	1,227.42
CO-28	1,234.21	1,226.07	8.14	3,024	1,226.11	1,226.11
CO-29	1,235.66	1,229.00	6.67	2,200	1,229.03	1,229.03
CO-30	1,235.08	1,227.71	7.38	4,399	1,227.75	1,227.75
CO-31	1,234.51	1,226.55	7.96	5,911	1,226.60	1,226.60
CO-32	1,234.67	1,225.73	8.94	7,423	1,225.79	1,225.79
CO-33	1,234.49	1,225.03	9.46	11,959	1,225.10	1,225.10
CO-34	1,234.30	1,224.26	10.03	13,471	1,224.34	1,224.34
CO-35	1,234.00	1,227.33	6.67	1,512	1,227.35	1,227.35
CO-36	1,234.17	1,223.64	10.52	16,495	1,223.73	1,223.73
CO-37	1,234.64	1,222.58	12.06	22,543	1,222.68	1,222.68
CO-38	1,235.18	1,221.56	13.63	25,065	1,221.67	1,221.67
CO-39	1,235.41	1,220.57	14.84	27,587	1,220.68	1,220.68
CO-40	1,235.94	1,219.68	16.25	30,109	1,219.80	1,219.80
CO-41	1,236.16	1,218.88	17.28	31,621	1,219.00	1,219.00
CO-42	1,236.63	1,217.72	18.91	46,753	1,217.87	1,217.87
CO-43	1,236.91	1,216.96	19.95	78,390	1,217.15	1,217.15
CO-44	1,238.00	1,216.04	21.96	78,390	1,216.23	1,216.23
CO-45	1,238.53	1,215.04	23.49	78,390	1,215.23	1,215.23
CO-46	1,238.90	1,232.24	6.67	2,407	1,232.27	1,232.27
CO-47	1,238.41	1,231.28	7.13	2,407	1,231.31	1,231.31
CO-48	1,239.30	1,232.64	6.67	2,407	1,232.67	1,232.67
CO-49	1,238.85	1,231.81	7.04	2,407	1,231.84	1,231.84

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Depth (Structure) (ft)	Flow (Total Out) (gal/day)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CO-50	1,239.27	1,232.61	6.67	2,407	1,232.63	1,232.63
CO-51	1,241.97	1,235.31	6.67	2,371	1,235.34	1,235.34
CO-52	1,240.96	1,233.72	7.25	4,778	1,233.76	1,233.76
CO-53	1,240.38	1,232.93	7.45	7,185	1,232.98	1,232.98
CO-54	1,239.55	1,230.97	8.58	7,185	1,231.02	1,231.02
CO-55	1,240.79	1,234.12	6.67	2,371	1,234.15	1,234.15
CO-56	1,240.33	1,232.84	7.48	4,742	1,232.89	1,232.89
CO-57	1,239.98	1,231.75	8.23	7,114	1,231.81	1,231.81
CO-58	1,240.43	1,233.76	6.67	2,371	1,233.80	1,233.80
CO-59	1,240.01	1,232.67	7.34	4,742	1,232.71	1,232.71
CO-60	1,239.48	1,230.75	8.73	14,227	1,230.84	1,230.84
CO-61	1,238.95	1,229.75	9.20	16,598	1,229.84	1,229.84
CO-62	1,239.37	1,228.00	11.36	18,970	1,228.10	1,228.10
CO-63	1,241.37	1,234.70	6.67	2,371	1,234.73	1,234.73
CO-64	1,242.32	1,235.65	6.67	2,371	1,235.69	1,235.69
CO-65	1,240.88	1,234.11	6.77	4,742	1,234.16	1,234.16
CO-66	1,240.49	1,233.12	7.37	9,485	1,233.18	1,233.18
CO-67	1,239.99	1,226.63	13.36	28,454	1,226.74	1,226.74
CO-68	1,239.51	1,225.78	13.74	35,639	1,225.90	1,225.90
CO-69	1,239.22	1,225.07	14.14	35,639	1,225.20	1,225.20
CO-70	1,238.69	1,224.37	14.31	40,453	1,224.51	1,224.51
CO-71	1,238.37	1,223.04	15.33	45,267	1,223.19	1,223.19
CO-72	1,238.07	1,222.00	16.07	50,080	1,222.15	1,222.15
CO-73	1,237.89	1,221.17	16.72	52,487	1,221.32	1,221.32
CO-74	1,237.49	1,220.19	17.31	54,894	1,220.35	1,220.35
CO-75	1,237.66	1,219.23	18.42	57,301	1,219.39	1,219.39
CO-76	1,237.95	1,218.14	19.81	59,708	1,218.30	1,218.30
CO-77	1,238.14	1,216.97	21.18	64,522	1,217.14	1,217.14
CO-78	1,238.97	1,216.02	22.95	64,522	1,216.16	1,216.16
CO-79	1,238.94	1,214.25	24.69	142,912	1,214.51	1,214.51
CO-80	1,245.50	1,238.84	6.67	1,969	1,238.87	1,238.87
CO-81	1,244.26	1,237.19	7.07	3,939	1,237.24	1,237.24
CO-82	1,244.18	1,236.56	7.62	5,908	1,236.60	1,236.60
CO-83	1,242.68	1,236.01	6.67	1,969	1,236.04	1,236.04
CO-84	1,242.09	1,234.45	7.64	3,939	1,234.50	1,234.50
CO-85	1,242.69	1,233.73	8.96	11,817	1,233.80	1,233.80
CO-86	1,241.31	1,234.65	6.67	1,969	1,234.68	1,234.68
CO-87	1,243.21	1,236.54	6.67	1,969	1,236.57	1,236.57
CO-88	1,242.41	1,233.26	9.15	5,908	1,233.31	1,233.31
CO-89	1,241.84	1,232.22	9.61	19,695	1,232.32	1,232.32
CO-90	1,240.74	1,231.10	9.64	19,695	1,231.18	1,231.18
CO-91	1,247.46	1,240.79	6.67	2,184	1,240.83	1,240.83
CO-92	1,247.15	1,239.60	7.55	4,368	1,239.65	1,239.65
CO-93	1,246.49	1,238.64	7.85	6,552	1,238.70	1,238.70
CO-94	1,247.19	1,240.52	6.67	2,184	1,240.55	1,240.55
CO-95	1,246.29	1,239.38	6.92	4,368	1,239.41	1,239.41
CO-96	1,245.98	1,237.61	8.36	13,104	1,237.69	1,237.69
CO-97	1,246.84	1,240.17	6.67	2,184	1,240.21	1,240.21
CO-98	1,246.40	1,238.94	7.46	4,368	1,238.99	1,238.99

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Depth (Structure) (ft)	Flow (Total Out) (gal/day)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CO-99	1,245.32	1,237.25	8.07	6,552	1,237.31	1,237.31
CO-100	1,245.34	1,236.63	8.71	19,656	1,236.71	1,236.71
CO-101	1,248.16	1,241.50	6.67	1,560	1,241.52	1,241.52
CO-102	1,248.22	1,241.55	6.67	1,560	1,241.57	1,241.57
CO-103	1,248.27	1,241.61	6.67	1,560	1,241.63	1,241.63
CO-104	1,248.53	1,241.86	6.67	1,560	1,241.88	1,241.88
CO-105	1,248.37	1,240.87	7.50	4,680	1,240.91	1,240.91
CO-106	1,248.25	1,239.85	8.39	7,800	1,239.92	1,239.92
CO-107	1,248.22	1,238.94	9.28	7,800	1,239.00	1,239.00
CO-108	1,248.22	1,238.61	9.61	10,920	1,238.68	1,238.68
CO-109	1,250.61	1,243.94	6.67	1,560	1,243.97	1,243.97
CO-110	1,250.47	1,242.55	7.92	3,120	1,242.59	1,242.59
CO-111	1,250.15	1,241.44	8.71	3,120	1,241.47	1,241.47
CO-112	1,250.47	1,243.80	6.67	1,560	1,243.83	1,243.83
CO-113	1,252.29	1,242.96	9.33	3,120	1,243.00	1,243.00
CO-114	1,250.23	1,241.73	8.50	4,680	1,241.78	1,241.78
CO-115	1,250.41	1,240.50	9.91	6,240	1,240.56	1,240.56
CO-116	1,250.37	1,239.84	10.54	7,800	1,239.90	1,239.90
CO-117	1,250.05	1,239.26	10.79	12,480	1,239.33	1,239.33
CO-118	1,248.43	1,238.00	10.44	23,400	1,238.10	1,238.10
CO-119	1,248.23	1,237.26	10.97	23,400	1,237.37	1,237.37
CO-120	1,248.28	1,236.30	11.98	23,400	1,236.40	1,236.40
CO-121	1,246.71	1,235.42	11.30	23,400	1,235.52	1,235.52
CO-122	1,245.75	1,234.03	11.72	23,400	1,234.13	1,234.13
CO-123	1,245.11	1,233.05	12.06	43,056	1,233.17	1,233.17
CO-124	1,245.17	1,238.50	6.67	1,969	1,238.54	1,238.54
CO-125	1,244.63	1,236.75	7.87	3,939	1,236.79	1,236.79
CO-126	1,248.36	1,241.69	6.67	5,359	1,241.74	1,241.74
CO-127	1,248.32	1,240.59	7.73	10,717	1,240.66	1,240.66
CO-128	1,245.53	1,238.68	6.85	16,076	1,238.77	1,238.77
CO-129	1,244.77	1,237.73	7.05	21,434	1,237.83	1,237.83
CO-130	1,243.51	1,236.40	7.11	26,793	1,236.51	1,236.51
CO-131	1,243.65	1,235.52	8.13	32,151	1,235.64	1,235.64
CO-132	1,244.20	1,234.55	9.65	37,510	1,234.68	1,234.68
CO-133	1,250.09	1,243.43	6.67	11,895	1,243.50	1,243.50
CO-134	1,248.65	1,241.87	6.78	23,790	1,241.97	1,241.97
CO-135	1,247.64	1,240.86	6.77	35,685	1,240.98	1,240.98
CO-136	1,246.56	1,239.79	6.77	47,580	1,239.94	1,239.94
CO-137	1,245.34	1,238.57	6.77	59,475	1,238.73	1,238.73
CO-138	1,247.14	1,240.48	6.67	11,895	1,240.54	1,240.54
CO-139	1,244.86	1,238.10	6.77	71,370	1,238.25	1,238.25
CO-140	1,244.65	1,233.86	10.79	108,880	1,234.09	1,234.09
CO-141	1,242.29	1,235.62	6.67	14,859	1,235.71	1,235.71
CO-142	1,242.90	1,234.54	8.36	29,718	1,234.65	1,234.65
CO-143	1,246.07	1,239.40	6.67	29,016	1,239.52	1,239.52
CO-144	1,245.25	1,238.17	7.08	58,032	1,238.30	1,238.30
CO-145	1,243.83	1,232.79	11.05	196,630	1,233.09	1,233.09
CO-146	1,242.73	1,232.04	10.69	196,630	1,232.35	1,232.35
CO-147	1,241.96	1,231.17	10.79	196,630	1,231.47	1,231.47

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Depth (Structure) (ft)	Flow (Total Out) (gal/day)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CO-148	1,241.50	1,230.58	10.92	199,001	1,230.89	1,230.89
CO-149	1,242.64	1,229.51	13.13	201,372	1,229.81	1,229.81
CO-150	1,244.24	1,228.36	15.88	248,367	1,228.71	1,228.71
CO-151	1,243.01	1,227.06	15.95	248,367	1,227.41	1,227.41
CO-152	1,241.20	1,225.76	15.44	248,367	1,226.03	1,226.03
CO-153	1,240.08	1,219.37	20.71	268,062	1,219.65	1,219.65
CO-154	1,239.79	1,212.72	27.07	410,974	1,213.16	1,213.16
CO-155	1,245.35	1,238.69	6.67	1,573	1,238.71	1,238.71
CO-156	1,244.55	1,237.89	6.67	1,573	1,237.91	1,237.91
CO-157	1,245.69	1,239.02	6.67	1,573	1,239.04	1,239.04
CO-158	1,245.58	1,237.11	8.47	4,719	1,237.16	1,237.16
CO-159	1,245.63	1,236.50	9.13	6,292	1,236.56	1,236.56
CO-160	1,245.46	1,235.91	9.55	9,438	1,235.97	1,235.97
CO-161	1,245.90	1,235.40	10.50	11,011	1,235.46	1,235.46
CO-162	1,248.14	1,241.47	6.67	1,573	1,241.50	1,241.50
CO-163	1,248.11	1,240.53	7.57	3,146	1,240.57	1,240.57
CO-164	1,248.08	1,239.65	8.44	4,719	1,239.69	1,239.69
CO-165	1,244.84	1,238.07	6.77	6,292	1,238.11	1,238.11
CO-166	1,247.66	1,241.00	6.67	1,573	1,241.02	1,241.02
CO-167	1,247.55	1,239.83	7.72	3,146	1,239.86	1,239.86
CO-168	1,241.35	1,234.68	6.67	2,262	1,234.71	1,234.71
CO-169	1,243.73	1,233.46	10.27	4,524	1,233.50	1,233.50
CO-170	1,244.24	1,232.27	11.96	6,786	1,232.32	1,232.32
CO-171	1,239.70	1,233.03	6.67	1,638	1,233.06	1,233.06
CO-172	1,239.73	1,232.03	7.70	3,276	1,232.07	1,232.07
CO-173	1,240.90	1,230.99	9.90	4,914	1,231.04	1,231.04
CO-174	1,238.54	1,231.87	6.67	1,638	1,231.90	1,231.90
CO-175	1,239.63	1,230.68	8.95	3,276	1,230.72	1,230.72
CO-176	1,240.63	1,229.42	11.21	9,828	1,229.49	1,229.49
CO-177	1,240.75	1,228.90	11.85	12,090	1,228.97	1,228.97
CO-178	1,242.67	1,227.30	15.37	14,352	1,227.37	1,227.37
CO-179	1,242.56	1,235.89	6.67	2,262	1,235.93	1,235.93
CO-180	1,242.02	1,234.42	7.59	4,524	1,234.47	1,234.47
CO-181	1,242.50	1,233.23	9.27	6,786	1,233.27	1,233.27
CO-182	1,240.37	1,233.71	6.67	1,638	1,233.73	1,233.73
CO-183	1,240.23	1,233.56	6.67	1,638	1,233.59	1,233.59
CO-184	1,239.94	1,232.57	7.37	3,276	1,232.61	1,232.61
CO-185	1,238.05	1,231.29	6.77	4,914	1,231.34	1,231.34
CO-186	1,238.04	1,231.38	6.67	1,638	1,231.40	1,231.40
CO-187	1,238.36	1,230.15	8.21	8,190	1,230.21	1,230.21
CO-188	1,239.85	1,228.99	10.86	9,828	1,229.06	1,229.06
CO-189	1,240.09	1,228.01	12.08	13,104	1,228.08	1,228.08
CO-190	1,240.18	1,227.30	12.88	13,104	1,227.38	1,227.38
CO-191	1,240.48	1,226.60	13.87	22,152	1,226.71	1,226.71
CO-192	1,242.27	1,225.47	16.79	24,414	1,225.58	1,225.58
CO-193	1,243.27	1,224.35	18.92	26,676	1,224.46	1,224.46
CO-194	1,243.71	1,223.23	20.47	50,076	1,223.39	1,223.39
CO-195	1,244.68	1,221.86	22.83	61,087	1,222.02	1,222.02
CO-196	1,246.20	1,220.78	25.42	62,660	1,220.95	1,220.95

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Depth (Structure) (ft)	Flow (Total Out) (gal/day)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CO-197	1,246.58	1,219.95	26.63	64,233	1,220.12	1,220.12
CO-198	1,246.27	1,219.05	27.22	76,817	1,219.23	1,219.23
CO-199	1,247.02	1,218.45	28.57	78,390	1,218.64	1,218.64
CO-200	1,247.20	1,240.53	6.67	2,223	1,240.56	1,240.56
CO-201	1,246.30	1,239.53	6.77	2,223	1,239.56	1,239.56
CO-202	1,246.21	1,239.02	7.20	2,223	1,239.05	1,239.05
CO-203	1,246.57	1,238.21	8.36	3,437	1,238.25	1,238.25
CO-204	1,245.85	1,237.15	8.71	4,651	1,237.19	1,237.19
CO-205	1,242.64	1,235.88	6.77	5,865	1,235.92	1,235.92
CO-206	1,246.51	1,239.84	6.67	2,223	1,239.87	1,239.87
CO-207	1,245.30	1,238.54	6.77	4,446	1,238.57	1,238.57
CO-208	1,248.61	1,241.94	6.67	2,223	1,241.97	1,241.97
CO-209	1,245.89	1,239.22	6.67	2,223	1,239.25	1,239.25
CO-210	1,247.66	1,237.44	10.22	6,669	1,237.50	1,237.50
CO-211	1,248.59	1,241.92	6.67	2,223	1,241.95	1,241.95
CO-212	1,246.83	1,236.23	10.60	11,115	1,236.31	1,236.31
CO-213	1,245.99	1,234.74	11.26	13,338	1,234.82	1,234.82
CO-214	1,244.51	1,233.66	10.84	20,007	1,233.76	1,233.76
CO-215	1,246.06	1,239.40	6.67	746	1,239.42	1,239.42
CO-216	1,245.29	1,238.46	6.82	1,258	1,238.48	1,238.48
CO-217	1,244.20	1,232.60	11.59	22,479	1,232.70	1,232.70
CO-218	1,243.83	1,232.04	11.79	23,693	1,232.15	1,232.15
CO-219	1,243.27	1,231.27	12.00	24,907	1,231.38	1,231.38
CO-220	1,243.14	1,230.60	12.54	26,120	1,230.71	1,230.71
CO-221	1,242.86	1,229.88	12.98	27,334	1,229.99	1,229.99
CO-222	1,245.16	1,238.49	6.67	1,214	1,238.51	1,238.51
CO-223	1,243.95	1,237.18	6.77	2,428	1,237.21	1,237.21
CO-224	1,245.44	1,238.77	6.67	0	1,238.77	1,238.77
CO-225	1,243.83	1,236.35	7.47	3,642	1,236.40	1,236.40
CO-226	1,244.54	1,237.88	6.67	1,214	1,237.90	1,237.90
CO-227	1,243.70	1,236.93	6.77	2,428	1,236.96	1,236.96
CO-228	1,243.27	1,235.29	7.98	7,283	1,235.34	1,235.34
CO-229	1,243.29	1,229.22	14.07	34,618	1,229.35	1,229.35
CO-230	1,242.73	1,228.16	14.57	41,696	1,228.30	1,228.30
CO-231	1,242.62	1,227.88	14.74	41,696	1,228.02	1,228.02
CO-232	1,241.64	1,226.44	15.20	465,170	1,226.91	1,226.91
CO-233	1,244.36	1,225.64	18.71	465,170	1,226.11	1,226.11
CO-234	1,252.55	1,245.88	6.67	3,406	1,245.92	1,245.92
CO-235	1,250.83	1,244.06	6.77	6,812	1,244.11	1,244.11
CO-236	1,248.94	1,240.78	8.16	10,218	1,240.84	1,240.84
CO-237	1,248.80	1,242.13	6.67	1,789	1,242.17	1,242.17
CO-238	1,250.37	1,240.73	9.65	3,579	1,240.77	1,240.77
CO-239	1,250.86	1,239.31	11.55	5,368	1,239.36	1,239.36
CO-240	1,248.44	1,241.78	6.67	1,789	1,241.81	1,241.81
CO-241	1,247.96	1,240.82	7.14	3,579	1,240.86	1,240.86
CO-242	1,249.07	1,239.72	9.35	5,368	1,239.78	1,239.78
CO-243	1,250.20	1,238.60	11.61	7,158	1,238.65	1,238.65
CO-244	1,249.91	1,237.79	12.11	14,315	1,237.86	1,237.86
CO-245	1,249.38	1,242.71	6.67	1,789	1,242.74	1,242.74

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Depth (Structure) (ft)	Flow (Total Out) (gal/day)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CO-246	1,248.97	1,242.19	6.79	3,579	1,242.22	1,242.22
CO-247	1,248.57	1,241.90	6.67	1,789	1,241.93	1,241.93
CO-248	1,247.98	1,241.21	6.77	3,579	1,241.24	1,241.24
CO-249	1,247.00	1,240.33	6.67	1,789	1,240.36	1,240.36
CO-250	1,246.69	1,238.99	7.70	3,579	1,239.04	1,239.04
CO-251	1,247.98	1,237.99	9.99	8,947	1,238.06	1,238.06
CO-252	1,248.91	1,236.94	11.96	14,315	1,237.03	1,237.03
CO-253	1,249.20	1,235.77	13.43	16,105	1,235.85	1,235.85
CO-254	1,249.51	1,235.04	14.47	30,420	1,235.16	1,235.16
CO-255	1,254.48	1,247.81	6.67	2,702	1,247.85	1,247.85
CO-256	1,253.03	1,246.06	6.97	5,403	1,246.11	1,246.11
CO-257	1,250.70	1,243.93	6.77	5,403	1,243.98	1,243.98
CO-258	1,251.16	1,243.69	7.47	5,403	1,243.73	1,243.73
CO-259	1,254.76	1,248.09	6.67	2,702	1,248.13	1,248.13
CO-260	1,252.75	1,245.99	6.77	5,403	1,246.04	1,246.04
CO-261	1,251.59	1,244.64	6.95	8,105	1,244.69	1,244.69
CO-262	1,253.66	1,246.99	6.67	2,702	1,247.03	1,247.03
CO-263	1,254.75	1,248.08	6.67	2,702	1,248.11	1,248.11
CO-264	1,254.10	1,246.09	8.01	8,105	1,246.15	1,246.15
CO-265	1,252.29	1,244.34	7.96	10,807	1,244.41	1,244.41
CO-266	1,251.28	1,243.03	8.25	13,508	1,243.11	1,243.11
CO-267	1,251.16	1,242.68	8.49	24,315	1,242.78	1,242.78
CO-268	1,250.92	1,242.08	8.84	29,718	1,242.18	1,242.18
CO-269	1,251.05	1,244.39	6.67	1,901	1,244.41	1,244.41
CO-270	1,249.78	1,243.12	6.67	1,901	1,243.15	1,243.15
CO-271	1,249.35	1,242.69	6.67	1,901	1,242.72	1,242.72
CO-272	1,249.93	1,242.16	7.77	5,704	1,242.21	1,242.21
CO-273	1,250.87	1,241.41	9.45	7,605	1,241.47	1,241.47
CO-274	1,251.35	1,240.90	10.45	11,408	1,240.97	1,240.97
CO-275	1,251.44	1,244.78	6.67	1,901	1,244.80	1,244.80
CO-276	1,254.73	1,248.06	6.67	1,901	1,248.09	1,248.09
CO-277	1,254.06	1,247.21	6.84	3,802	1,247.25	1,247.25
CO-278	1,254.93	1,248.27	6.67	1,901	1,248.30	1,248.30
CO-279	1,253.45	1,246.52	6.93	3,802	1,246.56	1,246.56
CO-280	1,251.44	1,244.67	6.77	5,704	1,244.72	1,244.72
CO-281	1,250.97	1,243.62	7.35	7,605	1,243.68	1,243.68
CO-282	1,252.16	1,242.48	9.67	9,506	1,242.55	1,242.55
CO-283	1,253.35	1,241.35	12.01	13,309	1,241.42	1,241.42
CO-284	1,252.19	1,239.81	12.38	28,519	1,239.93	1,239.93
CO-285	1,252.64	1,238.80	13.84	30,420	1,238.92	1,238.92
CO-286	1,252.20	1,238.02	14.18	30,420	1,238.13	1,238.13
CO-287	1,251.18	1,237.49	13.70	30,420	1,237.60	1,237.60
CO-288	1,255.23	1,248.56	6.67	1,788	1,248.59	1,248.59
CO-289	1,256.95	1,250.29	6.67	1,788	1,250.32	1,250.32
CO-290	1,257.53	1,249.18	8.34	3,577	1,249.22	1,249.22
CO-291	1,256.38	1,247.32	9.07	7,154	1,247.37	1,247.37
CO-292	1,255.47	1,246.54	8.92	7,154	1,246.60	1,246.60
CO-293	1,254.70	1,245.94	8.75	8,942	1,246.01	1,246.01
CO-294	1,259.04	1,252.38	6.67	1,788	1,252.41	1,252.41

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Depth (Structure) (ft)	Flow (Total Out) (gal/day)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CO-295	1,257.02	1,250.25	6.77	3,577	1,250.28	1,250.28
CO-296	1,258.61	1,251.94	6.67	1,788	1,251.98	1,251.98
CO-297	1,259.71	1,251.14	8.58	3,577	1,251.18	1,251.18
CO-298	1,257.64	1,249.39	8.26	5,365	1,249.44	1,249.44
CO-299	1,256.49	1,248.36	8.13	7,154	1,248.41	1,248.41
CO-300	1,255.52	1,247.28	8.24	12,519	1,247.35	1,247.35
CO-301	1,254.10	1,245.29	8.82	23,250	1,245.39	1,245.39
CO-302	1,252.72	1,243.87	8.85	25,038	1,243.96	1,243.96
CO-303	1,252.04	1,236.70	15.34	55,458	1,236.86	1,236.86
CO-304	1,251.04	1,235.53	15.51	55,458	1,235.68	1,235.68
CO-305	1,250.21	1,234.26	15.95	115,596	1,234.49	1,234.49
CO-306	1,249.93	1,233.09	16.83	115,596	1,233.33	1,233.33
CO-307	1,252.98	1,246.31	6.67	3,406	1,246.35	1,246.35
CO-308	1,251.27	1,244.50	6.77	6,812	1,244.56	1,244.56
CO-309	1,249.74	1,242.75	6.99	10,218	1,242.81	1,242.81
CO-310	1,248.79	1,232.44	16.35	125,814	1,232.68	1,232.68
CO-311	1,248.79	1,231.24	17.55	136,032	1,231.49	1,231.49
CO-312	1,248.34	1,229.85	18.49	136,032	1,230.10	1,230.10
CO-313	1,246.85	1,228.84	18.01	136,032	1,229.09	1,229.09
CO-314	1,245.78	1,227.77	18.01	136,032	1,228.02	1,228.02
CO-315	1,250.97	1,244.31	6.67	2,262	1,244.34	1,244.34
CO-316	1,251.83	1,245.17	6.67	0	1,245.17	1,245.17
CO-317	1,250.63	1,243.45	7.18	4,524	1,243.49	1,243.49
CO-318	1,251.11	1,242.56	8.56	6,786	1,242.61	1,242.61
CO-319	1,249.65	1,241.54	8.10	9,048	1,241.60	1,241.60
CO-320	1,252.66	1,246.00	6.67	3,406	1,246.04	1,246.04
CO-321	1,253.14	1,244.29	8.85	6,812	1,244.35	1,244.35
CO-322	1,250.74	1,242.54	8.19	10,218	1,242.61	1,242.61
CO-323	1,248.48	1,240.87	7.61	10,218	1,240.94	1,240.94
CO-324	1,248.33	1,240.59	7.73	12,480	1,240.67	1,240.67
CO-325	1,247.84	1,239.38	8.46	14,742	1,239.46	1,239.46
CO-326	1,246.47	1,238.56	7.91	26,052	1,238.67	1,238.67
CO-327	1,251.64	1,244.97	6.67	2,262	1,245.00	1,245.00
CO-328	1,249.46	1,242.69	6.77	4,524	1,242.74	1,242.74
CO-329	1,249.46	1,241.79	7.67	6,786	1,241.84	1,241.84
CO-330	1,248.64	1,240.69	7.95	9,048	1,240.75	1,240.75
CO-331	1,245.86	1,237.56	8.29	37,362	1,237.67	1,237.67
CO-332	1,245.50	1,226.81	18.69	173,394	1,227.04	1,227.04
CO-333	1,244.89	1,224.84	20.05	638,564	1,225.40	1,225.40
CO-334	1,245.20	1,224.35	20.85	638,564	1,224.91	1,224.91
CO-335	1,248.35	1,223.62	24.73	638,564	1,224.18	1,224.18
OFF-MH-1	1,233.00	1,210.42	22.58	5,594,138	1,211.84	1,211.84
OFF-MH-2	1,234.00	1,210.94	23.06	5,594,138	1,212.39	1,212.39
OFF-MH-3	1,233.00	1,211.46	21.54	5,594,138	1,212.91	1,212.91
OFF-MH-4	1,236.00	1,211.98	24.02	5,594,138	1,213.43	1,213.43
OFF-MH-5	1,237.00	1,212.50	24.50	5,594,138	1,213.95	1,213.95
OFF-MH-6	1,239.00	1,213.02	25.98	5,594,138	1,214.47	1,214.47
OFF-MH-7	1,240.00	1,213.54	26.46	5,594,138	1,214.99	1,214.99
OFF-MH-8	1,241.00	1,214.06	26.94	5,594,138	1,215.51	1,215.51

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Depth (Structure) (ft)	Flow (Total Out) (gal/day)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
OFF-MH-9	1,245.00	1,214.58	30.42	5,594,138	1,216.03	1,216.03
OFF-MH-10	1,248.66	1,215.10	33.56	5,594,138	1,216.55	1,216.55
OFF-MH-11	1,246.98	1,215.62	31.36	5,594,138	1,217.07	1,217.07
OFF-MH-11	1,247.67	1,218.39	29.28	5,515,748	1,219.31	1,219.31
OFF-MH-12	1,249.00	1,221.22	27.78	5,515,748	1,222.14	1,222.14
OFF-MH-13	1,252.16	1,225.85	26.31	4,877,184	1,226.71	1,226.71
OFF-MH-14	1,253.17	1,230.47	22.70	4,877,184	1,231.33	1,231.33
OFF-MH-15	1,253.35	1,233.39	19.96	4,877,184	1,234.26	1,234.26
OFF-MH-16	1,254.65	1,239.45	15.20	4,877,184	1,240.36	1,240.36
OFF-MH-17	1,256.81	1,244.27	12.54	4,877,184	1,245.18	1,245.18
OFF-MH-18	1,258.62	1,250.02	8.60	4,877,184	1,250.93	1,250.93
OFF-MH-19	1,260.70	1,226.70	34.00	4,877,184	1,253.16	1,253.16

FlexTable: Outfall Table

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Hydraulic Grade (ft)	Flow (Total Out) (gal/day)
O-1	1,229.27	1,210.00	1,210.93	5,594,138
O-2 - Lift Station	1,240.04	1,212.53	1,212.87	410,974

PEAK FLOW

Label	Diam (in)	Mannin g's n	Length (ft)	Slope (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Flow (gal/day)	Velocity at Flow (ft/s)	Flow / Capacity (Design) (%)	Capacity (Design) (gal/day)	Depth / Diam (%)	Capacity (Full Flow) (gal/day)
CO-1	8.0	0.013	100.6	0.01123	CO-186	1,231.38	6.00	CO-187	1,230.25	7.44	5,930	1.06	0.8	754,797	6.1	827,739
CO-2	8.0	0.013	320.3	0.00330	CO-187	1,230.15	7.54	CO-188	1,229.09	10.09	25,717	1.08	6.3	409,101	16.3	448,636
CO-3	8.0	0.013	268.1	0.00330	CO-188	1,228.99	10.19	CO-189	1,228.11	11.32	30,860	1.14	7.5	409,101	17.8	448,636
CO-4	8.0	0.013	184.5	0.00330	CO-189	1,228.01	11.42	CO-190	1,227.40	12.11	41,147	1.24	10.1	409,101	20.5	448,636
CO-5	8.0	0.013	179.7	0.00330	CO-190	1,227.30	12.21	CO-191	1,226.70	13.11	41,147	1.24	10.1	409,101	20.5	448,636
CO-6	8.0	0.013	312.0	0.00330	CO-191	1,226.60	13.21	CO-192	1,225.57	16.02	60,696	1.39	14.8	409,101	24.8	448,636
CO-7	8.0	0.013	311.1	0.00330	CO-192	1,225.47	16.12	CO-193	1,224.45	18.16	66,894	1.43	16.4	409,101	26.1	448,636
CO-8	8.0	0.013	307.2	0.00330	CO-193	1,224.35	18.26	CO-194	1,223.33	19.71	73,092	1.46	17.9	409,101	27.3	448,636
CO-9	8.0	0.013	119.7	0.00330	CO-199	1,218.45	27.90	OFF-MH-11	1,218.05	28.26	184,771	1.89	45.2	409,101	44.7	448,636
CO-10	8.0	0.013	337.3	0.05300	CO-167	1,239.83	7.05	CO-195	1,221.96	22.06	11,389	2.22	0.7	1,639,513	5.7	1,797,953
CO-11	8.0	0.013	322.3	0.00330	CO-166	1,241.00	6.00	CO-167	1,239.93	6.95	5,694	0.69	1.4	409,101	7.9	448,636
CO-12	8.0	0.013	255.4	0.00330	CO-162	1,241.47	6.00	CO-163	1,240.63	6.81	5,694	0.69	1.4	409,101	7.9	448,636
CO-13	8.0	0.013	237.1	0.00330	CO-163	1,240.53	6.91	CO-164	1,239.75	7.67	11,389	0.85	2.8	409,101	11.0	448,636
CO-14	8.0	0.013	266.3	0.00555	CO-164	1,239.65	7.77	CO-165	1,238.17	6.00	17,083	1.15	3.2	530,721	11.8	582,010
CO-15	8.0	0.013	305.7	0.05271	CO-165	1,238.07	6.10	CO-195	1,221.96	22.06	22,777	2.76	1.4	1,635,040	7.9	1,793,047
CO-16	8.0	0.013	151.0	0.00330	CO-198	1,219.05	26.55	CO-199	1,218.55	27.80	181,519	1.88	44.4	409,101	44.2	448,636
CO-17	8.0	0.013	244.1	0.00330	CO-197	1,219.95	25.96	CO-198	1,219.15	26.45	155,444	1.81	38.0	409,101	40.6	448,636
CO-18	8.0	0.013	219.4	0.00330	CO-196	1,220.78	24.75	CO-197	1,220.05	25.86	151,637	1.79	37.1	409,101	40.1	448,636
CO-19	8.0	0.013	296.4	0.00330	CO-195	1,221.86	22.16	CO-196	1,220.88	24.65	147,831	1.78	36.1	409,101	39.5	448,636
CO-20	8.0	0.013	101.1	0.01788	CO-157	1,239.02	6.00	CO-158	1,237.21	7.70	5,694	1.23	0.6	952,253	5.3	1,044,277
CO-21	8.0	0.013	154.6	0.00330	CO-158	1,237.11	7.80	CO-159	1,236.60	8.36	17,083	0.96	4.2	409,101	13.3	448,636
CO-22	8.0	0.013	150.6	0.00330	CO-159	1,236.50	8.46	CO-160	1,236.01	8.79	22,777	1.04	5.6	409,101	15.3	448,636
CO-23	8.0	0.013	122.2	0.00330	CO-160	1,235.91	8.89	CO-161	1,235.50	9.73	29,635	1.13	7.2	409,101	17.4	448,636
CO-24	8.0	0.013	282.3	0.05758	CO-161	1,235.40	9.83	CO-198	1,219.15	26.45	34,575	3.20	2.0	1,708,936	9.5	1,874,084
CO-25	8.0	0.013	203.3	0.01320	CO-155	1,238.69	6.00	CO-160	1,236.01	8.79	5,694	1.11	0.7	818,138	5.7	897,202
CO-26	8.0	0.013	204.1	0.00330	CO-156	1,237.89	6.00	CO-158	1,237.21	7.70	5,694	0.69	1.4	409,101	7.9	448,636
CO-27	8.0	0.013	414.9	0.00330	CO-179	1,235.89	6.00	CO-180	1,234.52	6.83	8,188	0.77	2.0	409,101	9.4	448,636
CO-28	8.0	0.013	332.5	0.00330	CO-180	1,234.42	6.93	CO-181	1,233.33	8.50	16,377	0.94	4.0	409,101	13.1	448,636
CO-29	8.0	0.013	277.1	0.02354	CO-181	1,233.23	8.60	CO-191	1,226.70	13.11	24,565	2.12	2.2	1,092,530	9.9	1,198,110
CO-30	8.0	0.013	270.1	0.00330	CO-183	1,233.56	6.00	CO-184	1,232.67	6.61	5,930	0.70	1.4	409,101	8.0	448,636
CO-31	8.0	0.013	309.9	0.00382	CO-184	1,232.57	6.71	CO-185	1,231.39	6.00	11,859	0.90	2.7	440,096	10.8	482,626
CO-32	8.0	0.013	314.7	0.00330	CO-185	1,231.29	6.10	CO-187	1,230.25	7.44	17,789	0.97	4.3	409,101	13.6	448,636
CO-33	8.0	0.013	307.8	0.01819	CO-182	1,233.71	6.00	CO-189	1,228.11	11.32	5,930	1.26	0.6	960,578	5.4	1,053,407
CO-34	8.0	0.013	329.0	0.00330	CO-174	1,231.87	6.00	CO-175	1,230.78	8.18	5,930	0.70	1.4	409,101	8.0	448,636
CO-35	8.0	0.013	351.9	0.00330	CO-175	1,230.68	8.28	CO-176	1,229.52	10.44	11,859	0.86	2.9	409,101	11.2	448,636
CO-36	8.0	0.013	128.7	0.00330	CO-176	1,229.42	10.54	CO-177	1,229.00	11.08	30,860	1.14	7.5	409,101	17.8	448,636
CO-37	8.0	0.013	454.1	0.00330	CO-177	1,228.90	11.18	CO-178	1,227.40	14.61	37,963	1.21	9.3	409,101	19.7	448,636
CO-38	8.0	0.013	343.6	0.01154	CO-178	1,227.30	14.71	CO-194	1,223.33	19.71	45,065	1.98	5.9	764,954	15.7	838,878
CO-39	8.0	0.013	340.2	0.00330	CO-168	1,234.68	6.00	CO-169	1,233.56	9.51	8,188	0.77	2.0	409,101	9.4	448,636

Label	Diam (in)	Mannin g's n	Length (ft)	Slope (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Flow (gal/day)	Velocity at Flow (ft/s)	Flow / Capacity (Design) (%)	Capacity (Design) (gal/day)	Depth / Diam (%)	Capacity (Full Flow) (gal/day)
CO-40	8.0	0.013	328.1	0.00330	CO-169	1,233.46	9.61	CO-170	1,232.37	11.20	16,377	0.94	4.0	409,101	13.1	448,636
CO-41	8.0	0.013	302.2	0.02958	CO-170	1,232.27	11.30	CO-194	1,223.33	19.71	24,565	2.30	2.0	1,224,908	9.4	1,343,281
CO-42	8.0	0.013	272.3	0.00330	CO-171	1,233.03	6.00	CO-172	1,232.13	6.93	5,930	0.70	1.4	409,101	8.0	448,636
CO-43	8.0	0.013	285.2	0.00330	CO-172	1,232.03	7.03	CO-173	1,231.09	9.14	11,859	0.86	2.9	409,101	11.2	448,636
CO-44	8.0	0.013	313.6	0.00469	CO-173	1,230.99	9.24	CO-176	1,229.52	10.44	17,789	1.10	3.6	487,536	12.5	534,651
CO-45	8.0	0.013	204.3	0.00330	CO-218	1,232.04	11.12	CO-219	1,231.37	11.24	64,918	1.42	15.9	409,101	25.7	448,636
CO-46	8.0	0.013	171.6	0.00330	CO-219	1,231.27	11.34	CO-220	1,230.70	11.77	68,244	1.44	16.7	409,101	26.4	448,636
CO-47	8.0	0.013	188.4	0.00330	CO-220	1,230.60	11.87	CO-221	1,229.98	12.21	71,570	1.46	17.5	409,101	27.0	448,636
CO-48	8.0	0.013	170.1	0.00330	CO-221	1,229.88	12.31	CO-229	1,229.32	13.31	74,896	1.48	18.3	409,101	27.6	448,636
CO-49	8.0	0.013	292.0	0.00330	CO-225	1,236.35	6.81	CO-228	1,235.39	7.21	13,183	0.88	3.2	409,101	11.8	448,636
CO-50	8.0	0.013	265.1	0.00875	CO-225	1,236.45	6.71	CO-224	1,238.77	6.00	0	0.00	0.0	666,297	(N/A)	730,687
CO-51	8.0	0.013	214.1	0.00330	CO-202	1,239.02	6.53	CO-203	1,238.31	7.59	8,047	0.77	2.0	409,101	9.3	448,636
CO-52	8.0	0.013	290.3	0.00330	CO-229	1,229.22	13.41	CO-230	1,228.26	13.81	91,390	1.56	22.3	409,101	30.6	448,636
CO-53	8.0	0.013	293.7	0.00330	CO-313	1,228.84	17.35	CO-314	1,227.87	17.24	300,096	2.13	73.4	409,101	59.8	448,636
CO-54	8.0	0.013	412.5	0.01846	CO-205	1,235.88	6.10	CO-230	1,228.26	13.81	21,230	1.86	2.2	967,660	9.8	1,061,173
CO-55	8.0	0.013	330.3	0.00354	CO-204	1,237.15	8.04	CO-205	1,235.98	6.00	16,836	0.98	4.0	423,544	13.0	464,475
CO-56	8.0	0.013	291.9	0.00330	CO-203	1,238.21	7.69	CO-204	1,237.25	7.94	12,441	0.87	3.0	409,101	11.5	448,636
CO-57	8.0	0.013	168.3	0.00504	CO-226	1,237.88	6.00	CO-227	1,237.03	6.00	4,394	0.73	0.9	505,687	6.4	554,556
CO-58	8.0	0.013	268.0	0.00574	CO-227	1,236.93	6.10	CO-228	1,235.39	7.21	8,788	0.95	1.6	539,697	8.5	591,853
CO-59	8.0	0.013	136.8	0.00889	CO-222	1,238.49	6.00	CO-223	1,237.28	6.00	4,394	0.89	0.7	671,410	5.5	736,294
CO-60	8.0	0.013	220.0	0.00330	CO-223	1,237.18	6.10	CO-225	1,236.45	6.71	8,788	0.78	2.1	409,101	9.7	448,636
CO-61	8.0	0.013	427.9	0.01346	CO-216	1,238.46	6.16	CO-217	1,232.70	10.83	4,554	1.05	0.6	826,282	5.1	906,132
CO-62	8.0	0.013	252.2	0.00330	CO-215	1,239.40	6.00	CO-216	1,238.56	6.06	2,700	0.55	0.7	409,101	5.6	448,636
CO-63	8.0	0.013	125.8	0.00330	CO-201	1,239.53	6.10	CO-202	1,239.12	6.43	8,047	0.77	2.0	409,101	9.3	448,636
CO-64	8.0	0.013	443.0	0.00491	CO-327	1,244.97	6.00	CO-328	1,242.79	6.00	8,188	0.88	1.6	499,242	8.5	547,488
CO-65	8.0	0.013	244.2	0.00330	CO-328	1,242.69	6.10	CO-329	1,241.89	6.91	16,377	0.94	4.0	409,101	13.1	448,636
CO-66	8.0	0.013	301.2	0.00330	CO-329	1,241.79	7.01	CO-330	1,240.79	7.18	24,565	1.06	6.0	409,101	15.9	448,636
CO-67	8.0	0.013	278.8	0.01086	CO-330	1,240.69	7.28	CO-331	1,237.66	7.53	28,411	1.69	3.8	742,226	12.8	813,954
CO-68	8.0	0.013	271.4	0.00330	CO-326	1,238.56	7.24	CO-331	1,237.66	7.53	71,382	1.45	17.4	409,101	27.0	448,636
CO-69	8.0	0.013	217.9	0.00330	CO-325	1,239.38	7.80	CO-326	1,238.66	7.14	42,752	1.25	10.5	409,101	20.9	448,636
CO-70	8.0	0.013	200.2	0.05237	CO-331	1,237.56	7.63	CO-332	1,227.08	17.75	95,647	4.21	5.9	1,629,787	15.7	1,787,287
CO-71	8.0	0.013	210.0	0.00330	CO-314	1,227.77	17.34	CO-332	1,227.08	17.75	300,096	2.13	73.4	409,101	59.8	448,636
CO-72	10.0	0.013	216.7	0.00671	CO-332	1,226.81	17.85	CO-333	1,225.36	18.70	372,007	2.93	35.2	1,057,910	39.0	1,160,144
CO-73	8.0	0.013	338.2	0.00330	CO-324	1,240.59	7.06	CO-325	1,239.48	7.70	39,187	1.22	9.6	409,101	20.0	448,636
CO-74	8.0	0.013	322.1	0.00503	CO-316	1,245.17	6.00	CO-317	1,243.55	6.41	0	0.00	0.0	505,011	(N/A)	553,815
CO-75	8.0	0.013	239.1	0.00330	CO-317	1,243.45	6.51	CO-318	1,242.66	7.79	16,377	0.94	4.0	409,101	13.1	448,636
CO-76	8.0	0.013	277.1	0.00330	CO-318	1,242.56	7.89	CO-319	1,241.64	7.34	24,565	1.06	6.0	409,101	15.9	448,636
CO-77	8.0	0.013	341.9	0.00843	CO-319	1,241.54	7.44	CO-326	1,238.66	7.14	28,411	1.55	4.3	653,971	13.6	717,169
CO-78	8.0	0.013	230.6	0.00330	CO-315	1,244.31	6.00	CO-317	1,243.55	6.41	8,188	0.77	2.0	409,101	9.4	448,636

Label	Diam (in)	Mannin g's n	Length (ft)	Slope (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Flow (gal/day)	Velocity at Flow (ft/s)	Flow / Capacity (Design) (%)	Capacity (Design) (gal/day)	Depth / Diam (%)	Capacity (Full Flow) (gal/day)
CO-79	8.0	0.013	408.5	0.01368	CO-211	1,241.92	6.00	CO-212	1,236.33	9.83	8,047	1.24	1.0	833,053	6.7	913,558
CO-80	8.0	0.013	423.2	0.00330	CO-212	1,236.23	9.93	CO-213	1,234.84	10.49	34,901	1.18	8.5	409,101	18.9	448,636
CO-81	8.0	0.013	295.1	0.00330	CO-213	1,234.74	10.59	CO-214	1,233.76	10.08	41,881	1.25	10.2	409,101	20.6	448,636
CO-82	8.0	0.013	291.2	0.00330	CO-214	1,233.66	10.18	CO-217	1,232.70	10.83	58,020	1.37	14.2	409,101	24.3	448,636
CO-83	8.0	0.013	346.1	0.00348	CO-206	1,239.84	6.00	CO-207	1,238.64	6.00	8,047	0.77	1.9	419,865	9.2	460,440
CO-84	8.0	0.013	334.6	0.01426	CO-207	1,238.54	6.10	CO-214	1,233.76	10.08	16,095	1.57	1.9	850,525	9.1	932,718
CO-85	8.0	0.013	272.6	0.00330	CO-200	1,240.53	6.00	CO-201	1,239.63	6.00	8,047	0.77	2.0	409,130	9.3	448,667
CO-86	8.0	0.013	507.9	0.00330	CO-209	1,239.22	6.00	CO-210	1,237.54	9.45	8,047	0.77	2.0	409,101	9.3	448,636
CO-87	8.0	0.013	335.8	0.00330	CO-210	1,237.44	9.55	CO-212	1,236.33	9.83	24,142	1.06	5.9	409,101	15.8	448,636
CO-88	8.0	0.013	450.5	0.00977	CO-208	1,241.94	6.00	CO-210	1,237.54	9.45	8,047	1.11	1.1	703,823	7.2	771,839
CO-89	15.0	0.013	500.0	0.00140	CO-233	1,225.64	17.46	CO-333	1,224.94	18.70	945,994	2.06	66.4	1,424,430	56.2	1,562,085
CO-90	15.0	0.013	502.0	0.00140	CO-232	1,226.44	13.95	CO-233	1,225.74	17.36	945,994	2.06	66.4	1,424,430	56.2	1,562,085
CO-91	8.0	0.013	500.0	0.00342	CO-307	1,246.31	6.00	CO-308	1,244.60	6.00	12,330	0.88	3.0	416,394	11.3	456,633
CO-92	8.0	0.013	500.0	0.00330	CO-308	1,244.50	6.10	CO-309	1,242.85	6.22	24,659	1.07	6.0	409,101	15.9	448,636
CO-93	8.0	0.013	244.2	0.04183	CO-309	1,242.75	6.32	CO-310	1,232.54	15.58	32,085	2.81	2.2	1,456,569	9.8	1,597,330
CO-94	8.0	0.013	333.1	0.00330	CO-310	1,232.44	15.68	CO-311	1,231.34	16.79	280,101	2.10	68.5	409,101	57.2	448,636
CO-95	8.0	0.013	391.4	0.00330	CO-311	1,231.24	16.89	CO-312	1,229.95	17.72	300,096	2.13	73.4	409,101	59.8	448,636
CO-96	8.0	0.013	274.7	0.00330	CO-312	1,229.85	17.82	CO-313	1,228.94	17.25	300,096	2.13	73.4	409,101	59.8	448,636
CO-97	8.0	0.013	487.0	0.00330	CO-320	1,246.00	6.00	CO-321	1,244.39	8.08	12,330	0.87	3.0	409,101	11.4	448,636
CO-98	8.0	0.013	500.0	0.00330	CO-321	1,244.29	8.18	CO-322	1,242.64	7.43	24,659	1.07	6.0	409,101	15.9	448,636
CO-99	8.0	0.013	476.9	0.00330	CO-322	1,242.54	7.53	CO-323	1,240.97	6.84	32,085	1.15	7.8	409,101	18.1	448,636
CO-100	8.0	0.013	52.1	0.00330	CO-323	1,240.87	6.94	CO-324	1,240.69	6.96	32,085	1.15	7.8	409,101	18.1	448,636
CO-101	8.0	0.013	500.0	0.00344	CO-234	1,245.88	6.00	CO-235	1,244.16	6.00	12,330	0.88	3.0	417,671	11.3	458,034
CO-102	8.0	0.013	500.0	0.00637	CO-235	1,244.06	6.10	CO-236	1,240.88	7.39	24,659	1.34	4.3	568,380	13.6	623,307
CO-103	8.0	0.013	135.2	0.06980	CO-236	1,240.78	7.49	CO-311	1,231.34	16.79	32,085	3.36	1.7	1,881,488	8.7	2,063,312
CO-104	8.0	0.013	325.4	0.00330	CO-303	1,236.70	14.68	CO-304	1,235.63	14.74	136,427	1.75	33.3	409,101	37.8	448,636
CO-105	8.0	0.013	296.2	0.00395	CO-304	1,235.53	14.84	CO-305	1,234.36	15.19	136,427	1.86	30.5	447,367	36.1	490,600
CO-106	8.0	0.013	322.5	0.00330	CO-305	1,234.26	15.29	CO-306	1,233.19	16.07	259,939	2.06	63.5	409,101	54.6	448,636
CO-107	8.0	0.013	168.4	0.00330	CO-306	1,233.09	16.17	CO-310	1,232.54	15.58	259,939	2.06	63.5	409,101	54.6	448,636
CO-108	8.0	0.013	241.4	0.00785	CO-263	1,248.08	6.00	CO-264	1,246.19	7.24	9,780	1.10	1.6	630,812	8.3	691,773
CO-109	8.0	0.013	500.0	0.00330	CO-264	1,246.09	7.34	CO-265	1,244.44	7.19	25,449	1.08	6.2	409,101	16.2	448,636
CO-110	8.0	0.013	366.6	0.00330	CO-265	1,244.34	7.29	CO-266	1,243.13	7.49	33,933	1.17	8.3	409,101	18.6	448,636
CO-111	8.0	0.013	75.5	0.00330	CO-266	1,243.03	7.59	CO-267	1,242.78	7.72	42,416	1.25	10.4	409,101	20.8	448,636
CO-112	8.0	0.013	151.0	0.00330	CO-267	1,242.68	7.82	CO-268	1,242.18	8.08	66,622	1.43	16.3	409,101	26.0	448,636
CO-113	8.0	0.013	195.5	0.03948	CO-268	1,242.08	8.18	CO-305	1,234.36	15.19	78,456	3.60	5.5	1,415,048	15.3	1,551,796
CO-114	8.0	0.013	244.9	0.00330	CO-262	1,246.99	6.00	CO-264	1,246.19	7.24	9,780	0.81	2.4	409,101	10.2	448,636
CO-115	8.0	0.013	500.0	0.00330	CO-255	1,247.81	6.00	CO-256	1,246.16	6.20	9,780	0.81	2.4	409,101	10.2	448,636
CO-116	8.0	0.013	500.0	0.00406	CO-256	1,246.06	6.30	CO-257	1,244.03	6.00	19,560	1.07	4.3	453,747	13.5	497,596
CO-117	8.0	0.013	43.5	0.00330	CO-257	1,243.93	6.10	CO-258	1,243.79	6.70	19,560	1.00	4.8	409,101	14.2	448,636

Label	Diam (in)	Mannin g's n	Length (ft)	Slope (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Flow (gal/day)	Velocity at Flow (ft/s)	Flow / Capacity (Design) (%)	Capacity (Design) (gal/day)	Depth / Diam (%)	Capacity (Full Flow) (gal/day)
CO-118	8.0	0.013	128.2	0.01177	CO-258	1,243.69	6.80	CO-268	1,242.18	8.08	19,560	1.55	2.5	772,586	10.5	847,248
CO-119	8.0	0.013	500.0	0.00401	CO-259	1,248.09	6.00	CO-260	1,246.09	6.00	9,780	0.86	2.2	450,694	9.8	494,248
CO-120	8.0	0.013	378.6	0.00330	CO-260	1,245.99	6.10	CO-261	1,244.74	6.18	19,560	1.00	4.8	409,101	14.2	448,636
CO-121	8.0	0.013	271.4	0.00686	CO-261	1,244.64	6.28	CO-267	1,242.78	7.72	25,449	1.39	4.3	589,843	13.5	646,845
CO-122	8.0	0.013	214.2	0.00330	CO-296	1,251.94	6.00	CO-297	1,251.24	7.81	6,474	0.72	1.6	409,101	8.4	448,636
CO-123	8.0	0.013	500.0	0.00330	CO-297	1,251.14	7.91	CO-298	1,249.49	7.49	12,948	0.88	3.2	409,101	11.7	448,636
CO-124	8.0	0.013	282.3	0.00330	CO-298	1,249.39	7.59	CO-299	1,248.46	7.37	19,422	0.99	4.7	409,101	14.2	448,636
CO-125	8.0	0.013	295.3	0.00330	CO-299	1,248.36	7.47	CO-300	1,247.38	7.47	25,896	1.08	6.3	409,101	16.3	448,636
CO-126	8.0	0.013	364.6	0.00520	CO-300	1,247.28	7.57	CO-301	1,245.39	8.05	39,310	1.44	7.7	513,537	17.9	563,164
CO-127	8.0	0.013	208.7	0.03388	CO-302	1,243.87	8.18	CO-303	1,236.80	14.58	68,604	3.27	5.2	1,310,798	14.9	1,437,471
CO-128	8.0	0.013	500.0	0.00405	CO-294	1,252.38	6.00	CO-295	1,250.35	6.00	6,474	0.77	1.4	453,310	8.0	497,117
CO-129	8.0	0.013	330.0	0.00869	CO-295	1,250.25	6.10	CO-300	1,247.38	7.47	12,948	1.23	1.9	664,054	9.3	728,227
CO-130	8.0	0.013	303.9	0.00330	CO-289	1,250.29	6.00	CO-290	1,249.28	7.58	6,474	0.72	1.6	409,101	8.4	448,636
CO-131	8.0	0.013	294.5	0.00600	CO-290	1,249.18	7.68	CO-291	1,247.42	8.30	12,948	1.08	2.3	551,551	10.1	604,852
CO-132	8.0	0.013	203.4	0.00330	CO-291	1,247.32	8.40	CO-292	1,246.64	8.16	25,896	1.08	6.3	409,101	16.3	448,636
CO-133	8.0	0.013	152.2	0.00330	CO-292	1,246.54	8.26	CO-293	1,246.04	7.99	25,896	1.08	6.3	409,101	16.3	448,636
CO-134	8.0	0.013	168.6	0.00330	CO-293	1,245.94	8.09	CO-301	1,245.39	8.05	28,078	1.11	6.9	409,101	17.0	448,636
CO-135	8.0	0.013	398.1	0.00330	CO-301	1,245.29	8.15	CO-302	1,243.97	8.08	63,704	1.41	15.6	409,101	25.5	448,636
CO-136	8.0	0.013	346.5	0.00330	CO-288	1,248.56	6.00	CO-291	1,247.42	8.30	6,474	0.72	1.6	409,101	8.4	448,636
CO-137	8.0	0.013	500.0	0.00330	CO-124	1,238.50	6.00	CO-125	1,236.85	7.11	7,130	0.74	1.7	409,101	8.8	448,636
CO-138	8.0	0.013	324.5	0.02503	CO-125	1,236.75	7.21	CO-150	1,228.63	14.94	14,259	1.83	1.3	1,126,787	7.6	1,235,678
CO-139	10.0	0.013	500.0	0.00240	CO-150	1,228.36	15.04	CO-151	1,227.16	15.02	517,608	2.16	81.8	632,566	64.4	693,696
CO-140	10.0	0.013	500.0	0.00240	CO-151	1,227.06	15.12	CO-152	1,225.86	14.50	517,608	2.16	81.8	632,566	64.4	693,696
CO-141	12.0	0.013	95.5	0.00190	CO-154	1,212.72	26.07	O-2 - Lift Station	1,212.53	26.51	812,488	2.20	88.8	915,224	68.2	1,003,669
CO-142	10.0	0.013	263.0	0.02395	CO-152	1,225.76	14.60	CO-153	1,219.47	19.78	517,608	5.09	25.9	1,998,122	33.1	2,191,217
CO-143	10.0	0.013	124.6	0.05121	CO-153	1,219.37	19.88	CO-154	1,212.98	25.97	554,217	6.81	19.0	2,921,984	28.1	3,204,359
CO-144	8.0	0.013	465.8	0.00684	CO-87	1,236.54	6.00	CO-88	1,233.36	8.38	7,130	0.94	1.2	588,937	7.4	645,851
CO-145	8.0	0.013	281.9	0.00330	CO-88	1,233.26	8.48	CO-89	1,232.32	8.85	21,389	1.02	5.2	409,101	14.9	448,636
CO-146	8.0	0.013	309.7	0.00330	CO-89	1,232.22	8.95	CO-90	1,231.20	8.87	57,115	1.36	14.0	409,101	24.1	448,636
CO-147	8.0	0.013	218.0	0.05262	CO-90	1,231.10	8.97	CO-153	1,219.63	19.78	57,115	3.63	3.5	1,633,616	12.2	1,791,486
CO-148	8.0	0.013	391.5	0.00330	CO-86	1,234.65	6.00	CO-88	1,233.36	8.38	7,130	0.74	1.7	409,101	8.8	448,636
CO-149	8.0	0.013	441.7	0.00330	CO-83	1,236.01	6.00	CO-84	1,234.55	6.87	7,130	0.74	1.7	409,101	8.8	448,636
CO-150	8.0	0.013	187.8	0.00330	CO-84	1,234.45	6.97	CO-85	1,233.83	8.19	14,259	0.91	3.5	409,101	12.2	448,636
CO-151	8.0	0.013	297.9	0.00472	CO-85	1,233.73	8.29	CO-89	1,232.32	8.85	37,105	1.37	7.6	489,450	17.8	536,750
CO-152	8.0	0.013	468.3	0.00330	CO-80	1,238.84	6.00	CO-81	1,237.29	6.30	7,130	0.74	1.7	409,101	8.8	448,636
CO-153	8.0	0.013	161.2	0.00330	CO-81	1,237.19	6.40	CO-82	1,236.66	6.85	14,259	0.91	3.5	409,101	12.2	448,636
CO-154	8.0	0.013	291.8	0.00934	CO-82	1,236.56	6.95	CO-85	1,233.83	8.19	21,389	1.47	3.1	688,421	11.6	754,949
CO-155	8.0	0.013	375.6	0.00330	CO-249	1,240.33	6.00	CO-250	1,239.09	6.93	6,478	0.72	1.6	409,101	8.4	448,636

Label	Diam (in)	Mannin g's n	Length (ft)	Slope (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Flow (gal/day)	Velocity at Flow (ft/s)	Flow / Capacity (Design) (%)	Capacity (Design) (gal/day)	Depth / Diam (%)	Capacity (Full Flow) (gal/day)
CO-156	8.0	0.013	274.0	0.00330	CO-250	1,238.99	7.03	CO-251	1,238.09	9.22	12,955	0.88	3.2	409,101	11.7	448,636
CO-157	8.0	0.013	286.6	0.00330	CO-251	1,237.99	9.32	CO-252	1,237.04	11.20	28,094	1.11	6.9	409,101	17.0	448,636
CO-158	8.0	0.013	326.0	0.00330	CO-252	1,236.94	11.30	CO-253	1,235.87	12.66	44,950	1.27	11.0	409,101	21.4	448,636
CO-159	8.0	0.013	190.5	0.00330	CO-253	1,235.77	12.76	CO-254	1,235.14	13.70	46,704	1.29	11.4	409,101	21.8	448,636
CO-160	8.0	0.013	206.6	0.00330	CO-254	1,235.04	13.80	CO-305	1,234.36	15.19	80,309	1.51	19.6	409,101	28.6	448,636
CO-161	8.0	0.013	259.7	0.00330	CO-240	1,241.78	6.00	CO-241	1,240.92	6.37	6,478	0.72	1.6	409,101	8.4	448,636
CO-162	8.0	0.013	301.8	0.00330	CO-241	1,240.82	6.47	CO-242	1,239.82	8.58	12,955	0.88	3.2	409,101	11.7	448,636
CO-163	8.0	0.013	311.6	0.00330	CO-242	1,239.72	8.68	CO-243	1,238.70	10.84	19,433	0.99	4.8	409,101	14.2	448,636
CO-164	8.0	0.013	212.6	0.00330	CO-243	1,238.60	10.94	CO-244	1,237.89	11.34	25,911	1.08	6.3	409,101	16.3	448,636
CO-165	8.0	0.013	136.6	0.01943	CO-244	1,237.79	11.44	CO-254	1,235.14	13.70	44,950	2.37	4.5	992,729	13.9	1,088,665
CO-166	8.0	0.013	129.4	0.00330	CO-245	1,242.71	6.00	CO-246	1,242.29	6.02	6,478	0.72	1.6	409,101	8.4	448,636
CO-167	8.0	0.013	190.3	0.02702	CO-246	1,242.19	6.12	CO-252	1,237.04	11.20	12,955	1.82	1.1	1,170,561	7.1	1,283,682
CO-168	8.0	0.013	144.8	0.00406	CO-247	1,241.90	6.00	CO-248	1,241.31	6.00	6,478	0.77	1.4	453,944	8.0	497,812
CO-169	8.0	0.013	199.7	0.01563	CO-248	1,241.21	6.10	CO-251	1,238.09	9.22	12,955	1.52	1.5	890,224	8.0	976,253
CO-170	8.0	0.013	396.8	0.00330	CO-237	1,242.13	6.00	CO-238	1,240.83	8.88	6,478	0.72	1.6	409,101	8.4	448,636
CO-171	8.0	0.013	398.7	0.00330	CO-238	1,240.73	8.98	CO-239	1,239.41	10.78	12,955	0.88	3.2	409,101	11.7	448,636
CO-172	8.0	0.013	278.4	0.00508	CO-239	1,239.31	10.88	CO-244	1,237.89	11.34	19,433	1.16	3.8	507,823	12.8	556,898
CO-173	8.0	0.013	500.0	0.00330	CO-278	1,248.27	6.00	CO-279	1,246.62	6.16	6,883	0.73	1.7	409,101	8.6	448,636
CO-174	8.0	0.013	453.8	0.00385	CO-279	1,246.52	6.26	CO-280	1,244.77	6.00	13,765	0.94	3.1	441,988	11.6	484,701
CO-175	8.0	0.013	288.9	0.00330	CO-280	1,244.67	6.10	CO-281	1,243.72	6.59	20,648	1.01	5.0	409,101	14.6	448,636
CO-176	8.0	0.013	313.5	0.00330	CO-281	1,243.62	6.69	CO-282	1,242.58	8.91	23,880	1.06	5.8	409,101	15.7	448,636
CO-177	8.0	0.013	313.9	0.00330	CO-282	1,242.48	9.01	CO-283	1,241.45	11.24	29,850	1.13	7.3	409,101	17.5	448,636
CO-178	8.0	0.013	378.6	0.00378	CO-283	1,241.35	11.34	CO-284	1,239.91	11.61	41,789	1.31	9.5	437,784	19.9	480,091
CO-179	8.0	0.013	277.3	0.00330	CO-284	1,239.81	11.71	CO-285	1,238.90	13.08	78,141	1.49	19.1	409,101	28.2	448,636
CO-180	8.0	0.013	206.9	0.00330	CO-285	1,238.80	13.18	CO-286	1,238.12	13.41	80,309	1.51	19.6	409,101	28.6	448,636
CO-181	8.0	0.013	130.0	0.00330	CO-286	1,238.02	13.51	CO-287	1,237.59	12.93	80,309	1.51	19.6	409,101	28.6	448,636
CO-182	8.0	0.013	208.0	0.00330	CO-287	1,237.49	13.03	CO-303	1,236.80	14.58	80,309	1.51	19.6	409,101	28.6	448,636
CO-183	8.0	0.013	227.1	0.00330	CO-276	1,248.06	6.00	CO-277	1,247.31	6.08	6,883	0.73	1.7	409,101	8.6	448,636
CO-184	8.0	0.013	334.0	0.01727	CO-277	1,247.21	6.18	CO-283	1,241.45	11.24	13,765	1.60	1.5	935,767	8.1	1,026,198
CO-185	8.0	0.013	193.0	0.02519	CO-275	1,244.78	6.00	CO-284	1,239.91	11.61	6,883	1.47	0.6	1,130,303	5.4	1,239,534
CO-186	8.0	0.013	129.0	0.00330	CO-271	1,242.69	6.00	CO-272	1,242.26	7.01	6,883	0.73	1.7	409,101	8.6	448,636
CO-187	8.0	0.013	195.6	0.00330	CO-272	1,242.16	7.11	CO-273	1,241.51	8.69	20,648	1.01	5.0	409,101	14.6	448,636
CO-188	8.0	0.013	126.2	0.00330	CO-273	1,241.41	8.79	CO-274	1,241.00	9.69	23,880	1.06	5.8	409,101	15.7	448,636
CO-189	8.0	0.013	298.0	0.00330	CO-274	1,240.90	9.79	CO-284	1,239.91	11.61	35,820	1.19	8.8	409,101	19.1	448,636
CO-190	8.0	0.013	215.8	0.01570	CO-269	1,244.39	6.00	CO-274	1,241.00	9.69	6,883	1.25	0.8	892,445	6.0	978,689
CO-191	8.0	0.013	201.9	0.00424	CO-270	1,243.12	6.00	CO-272	1,242.26	7.01	6,883	0.80	1.5	463,895	8.1	508,725
CO-192	8.0	0.013	342.1	0.00330	CO-113	1,242.96	8.67	CO-114	1,241.83	7.73	11,294	0.84	2.8	409,101	10.9	448,636
CO-193	8.0	0.013	342.4	0.00330	CO-114	1,241.73	7.83	CO-115	1,240.60	9.14	16,942	0.95	4.1	409,101	13.3	448,636
CO-194	8.0	0.013	171.4	0.00330	CO-115	1,240.50	9.24	CO-116	1,239.94	9.77	22,589	1.04	5.5	409,101	15.3	448,636

Label	Diam (in)	Mannin g's n	Length (ft)	Slope (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Flow (gal/day)	Velocity at Flow (ft/s)	Flow / Capacity (Design) (%)	Capacity (Design) (gal/day)	Depth / Diam (%)	Capacity (Full Flow) (gal/day)
CO-195	8.0	0.013	143.2	0.00330	CO-116	1,239.84	9.87	CO-117	1,239.36	10.02	24,492	1.06	6.0	409,101	15.9	448,636
CO-196	8.0	0.013	143.8	0.00811	CO-117	1,239.26	10.12	CO-118	1,238.10	9.67	39,187	1.68	6.1	641,425	16.0	703,411
CO-197	8.0	0.013	192.7	0.00330	CO-118	1,238.00	9.77	CO-119	1,237.36	10.20	64,116	1.41	15.7	409,101	25.5	448,636
CO-198	8.0	0.013	262.4	0.00330	CO-119	1,237.26	10.30	CO-120	1,236.40	11.21	64,116	1.41	15.7	409,101	25.5	448,636
CO-199	8.0	0.013	236.1	0.00330	CO-120	1,236.30	11.31	CO-121	1,235.52	10.53	64,116	1.41	15.7	409,101	25.5	448,636
CO-200	8.0	0.013	391.4	0.00330	CO-121	1,235.42	10.63	CO-122	1,234.13	10.96	64,116	1.41	15.7	409,101	25.5	448,636
CO-201	8.0	0.013	265.1	0.00330	CO-122	1,234.03	11.06	CO-123	1,233.15	11.29	64,116	1.41	15.7	409,101	25.5	448,636
CO-202	8.0	0.013	450.1	0.00982	CO-123	1,233.05	11.39	CO-150	1,228.63	14.94	110,223	2.43	15.6	705,754	25.5	773,956
CO-203	8.0	0.013	223.7	0.00330	CO-112	1,243.80	6.00	CO-113	1,243.06	8.57	5,647	0.69	1.4	409,101	7.8	448,636
CO-204	8.0	0.013	390.7	0.00330	CO-109	1,243.94	6.00	CO-110	1,242.65	7.16	5,647	0.69	1.4	409,101	7.8	448,636
CO-205	8.0	0.013	307.1	0.00330	CO-110	1,242.55	7.26	CO-111	1,241.54	7.95	11,294	0.84	2.8	409,101	10.9	448,636
CO-206	8.0	0.013	68.4	0.03031	CO-111	1,241.44	8.05	CO-117	1,239.36	10.02	11,294	1.82	0.9	1,239,902	6.5	1,359,724
CO-207	8.0	0.013	99.1	0.00902	CO-104	1,241.86	6.00	CO-105	1,240.97	6.74	5,647	0.97	0.8	676,379	6.2	741,743
CO-208	8.0	0.013	276.3	0.00330	CO-105	1,240.87	6.84	CO-106	1,239.95	7.63	16,942	0.95	4.1	409,101	13.3	448,636
CO-209	8.0	0.013	245.6	0.00330	CO-106	1,239.85	7.73	CO-107	1,239.04	8.51	24,492	1.06	6.0	409,101	15.9	448,636
CO-210	8.0	0.013	70.7	0.00330	CO-107	1,238.94	8.61	CO-108	1,238.71	8.84	24,492	1.06	6.0	409,101	15.9	448,636
CO-211	8.0	0.013	155.4	0.00330	CO-108	1,238.61	8.94	CO-118	1,238.10	9.67	34,289	1.18	8.4	409,101	18.7	448,636
CO-212	8.0	0.013	202.2	0.00789	CO-102	1,241.55	6.00	CO-106	1,239.95	7.63	5,647	0.92	0.9	632,441	6.4	693,559
CO-213	8.0	0.013	263.0	0.01059	CO-101	1,241.50	6.00	CO-108	1,238.71	8.84	5,647	1.02	0.8	732,950	6.0	803,781
CO-214	8.0	0.013	193.8	0.00330	CO-103	1,241.61	6.00	CO-105	1,240.97	6.74	5,647	0.69	1.4	409,101	7.8	448,636
CO-215	15.0	0.013	277.6	0.00140	CO-333	1,224.84	18.80	CO-334	1,224.45	19.50	1,245,524	2.19	87.4	1,424,430	67.5	1,562,085
CO-216	15.0	0.013	449.6	0.00140	CO-334	1,224.35	19.60	CO-335	1,223.72	23.38	1,245,524	2.19	87.4	1,424,430	67.5	1,562,085
CO-217	15.0	0.013	394.0	0.00140	CO-335	1,223.62	23.48	OFF-MH-12	1,223.07	24.68	1,245,524	2.19	87.4	1,424,430	67.5	1,562,085
CO-218	8.0	0.013	253.2	0.01417	CO-35	1,227.33	6.00	CO-36	1,223.74	9.76	5,473	1.12	0.6	847,751	5.5	929,677
CO-219	8.0	0.013	291.2	0.00330	CO-36	1,223.64	9.86	CO-37	1,222.68	11.29	47,836	1.30	11.7	409,101	22.0	448,636
CO-220	8.0	0.013	280.0	0.00330	CO-37	1,222.58	11.39	CO-38	1,221.66	12.86	61,768	1.40	15.1	409,101	25.1	448,636
CO-221	8.0	0.013	270.9	0.00330	CO-38	1,221.56	12.96	CO-39	1,220.67	14.08	68,679	1.44	16.8	409,101	26.4	448,636
CO-222	8.0	0.013	236.5	0.00330	CO-39	1,220.57	14.18	CO-40	1,219.78	15.49	75,589	1.48	18.5	409,101	27.7	448,636
CO-223	8.0	0.013	213.1	0.00330	CO-40	1,219.68	15.59	CO-41	1,218.98	16.51	79,488	1.50	19.4	409,101	28.5	448,636
CO-224	8.0	0.013	320.9	0.00330	CO-41	1,218.88	16.61	CO-42	1,217.82	18.14	83,480	1.52	20.4	409,101	29.2	448,636
CO-225	8.0	0.013	200.7	0.00330	CO-42	1,217.72	18.24	CO-43	1,217.06	19.19	116,883	1.67	28.6	409,101	34.9	448,636
CO-226	8.0	0.013	247.9	0.00330	CO-43	1,216.96	19.29	CO-44	1,216.14	21.20	184,771	1.89	45.2	409,101	44.7	448,636
CO-227	8.0	0.013	273.7	0.00330	CO-44	1,216.04	21.30	CO-45	1,215.14	22.73	184,771	1.89	45.2	409,101	44.7	448,636
CO-228	8.0	0.013	208.7	0.00330	CO-45	1,215.04	22.83	CO-79	1,214.35	23.92	184,771	1.89	45.2	409,101	44.7	448,636
CO-229	8.0	0.013	333.4	0.00330	CO-79	1,214.25	24.02	CO-154	1,213.15	25.97	313,472	2.15	76.6	409,101	61.6	448,636
CO-230	8.0	0.013	211.2	0.00330	CO-23	1,228.81	6.00	CO-24	1,228.11	6.40	5,473	0.67	1.3	409,101	7.8	448,636
CO-231	8.0	0.013	256.4	0.00330	CO-24	1,228.01	6.50	CO-25	1,227.17	6.82	10,947	0.84	2.7	409,101	10.8	448,636
CO-232	8.0	0.013	163.1	0.02689	CO-25	1,227.07	6.92	CO-37	1,222.68	11.29	16,420	1.98	1.4	1,167,864	7.9	1,280,725
CO-233	8.0	0.013	254.1	0.03921	CO-22	1,228.95	6.00	CO-41	1,218.98	16.51	5,473	1.61	0.4	1,410,101	4.3	1,546,370

Label	Diam (in)	Mannin g's n	Length (ft)	Slope (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Flow (gal/day)	Velocity at Flow (ft/s)	Flow / Capacity (Design) (%)	Capacity (Design) (gal/day)	Depth / Diam (%)	Capacity (Full Flow) (gal/day)
CO-234	8.0	0.013	361.1	0.00330	CO-29	1,229.00	6.00	CO-30	1,227.81	6.61	7,963	0.76	1.9	409,101	9.3	448,636
CO-235	8.0	0.013	319.6	0.00330	CO-30	1,227.71	6.71	CO-31	1,226.65	7.20	15,925	0.94	3.9	409,101	12.9	448,636
CO-236	8.0	0.013	219.5	0.00330	CO-31	1,226.55	7.30	CO-32	1,225.83	8.17	21,399	1.02	5.2	409,101	14.9	448,636
CO-237	8.0	0.013	171.0	0.00351	CO-32	1,225.73	8.27	CO-33	1,225.13	8.69	23,309	1.07	5.5	422,196	15.3	462,996
CO-238	8.0	0.013	201.2	0.00330	CO-33	1,225.03	8.79	CO-34	1,224.36	9.27	37,552	1.21	9.2	409,101	19.6	448,636
CO-239	8.0	0.013	156.9	0.00330	CO-34	1,224.26	9.37	CO-36	1,223.74	9.76	42,300	1.25	10.3	409,101	20.7	448,636
CO-240	8.0	0.013	111.9	0.00330	CO-26	1,227.86	6.00	CO-27	1,227.49	6.15	0	0.00	0.0	409,101	(N/A)	448,636
CO-241	8.0	0.013	369.8	0.00330	CO-27	1,227.39	6.25	CO-28	1,226.17	7.37	5,473	0.67	1.3	409,101	7.8	448,636
CO-242	8.0	0.013	287.4	0.00330	CO-28	1,226.07	7.47	CO-33	1,225.13	8.69	10,947	0.84	2.7	409,101	10.8	448,636
CO-243	8.0	0.013	397.2	0.00330	CO-16	1,229.16	6.00	CO-17	1,227.85	7.73	9,130	0.79	2.2	409,101	9.9	448,636
CO-244	8.0	0.013	389.5	0.02548	CO-17	1,227.75	7.83	CO-42	1,217.82	18.14	18,259	2.00	1.6	1,136,682	8.4	1,246,529
CO-245	8.0	0.013	310.1	0.00330	CO-18	1,230.28	6.00	CO-19	1,229.26	7.22	9,130	0.79	2.2	409,101	9.9	448,636
CO-246	8.0	0.013	339.8	0.00330	CO-19	1,229.16	7.32	CO-20	1,228.04	8.61	18,259	0.97	4.5	409,101	13.8	448,636
CO-247	8.0	0.013	244.2	0.00330	CO-20	1,227.94	8.71	CO-21	1,227.13	9.63	23,757	1.05	5.8	409,101	15.6	448,636
CO-248	8.0	0.013	312.8	0.02944	CO-21	1,227.03	9.73	CO-42	1,217.82	18.14	31,676	2.47	2.6	1,221,911	10.6	1,339,995
CO-249	8.0	0.013	220.3	0.00330	CO-9	1,230.76	6.00	CO-10	1,230.03	6.52	7,963	0.76	1.9	409,101	9.3	448,636
CO-250	8.0	0.013	293.2	0.00330	CO-10	1,229.93	6.62	CO-11	1,228.96	6.96	15,925	0.94	3.9	409,101	12.9	448,636
CO-251	8.0	0.013	351.6	0.00330	CO-11	1,228.86	7.06	CO-12	1,227.70	7.41	23,888	1.06	5.8	409,101	15.7	448,636
CO-252	8.0	0.013	313.4	0.00330	CO-12	1,227.60	7.51	CO-13	1,226.57	8.29	27,627	1.10	6.8	409,101	16.8	448,636
CO-253	8.0	0.013	286.6	0.00330	CO-13	1,226.47	8.39	CO-14	1,225.52	10.37	34,534	1.18	8.4	409,101	18.8	448,636
CO-254	8.0	0.013	319.3	0.00330	CO-14	1,225.42	10.47	CO-15	1,224.37	12.33	51,031	1.32	12.5	409,101	22.8	448,636
CO-255	8.0	0.013	198.2	0.03635	CO-15	1,224.27	12.43	CO-43	1,217.06	19.19	83,521	3.56	6.2	1,357,852	16.1	1,489,073
CO-256	8.0	0.013	315.8	0.00330	CO-6	1,231.28	6.00	CO-7	1,230.23	6.49	7,963	0.76	1.9	409,101	9.3	448,636
CO-257	8.0	0.013	363.6	0.00330	CO-7	1,230.13	6.59	CO-8	1,228.93	6.68	15,925	0.94	3.9	409,101	12.9	448,636
CO-258	8.0	0.013	300.6	0.01103	CO-8	1,228.83	6.78	CO-14	1,225.52	10.37	23,888	1.61	3.2	747,800	11.7	820,066
CO-259	8.0	0.013	468.7	0.00330	CO-1	1,231.76	6.00	CO-2	1,230.21	6.95	10,165	0.82	2.5	409,101	10.4	448,636
CO-260	8.0	0.013	437.6	0.01312	CO-2	1,230.11	7.05	CO-15	1,224.37	12.33	20,330	1.63	2.5	815,701	10.4	894,529
CO-261	8.0	0.013	365.9	0.00330	CO-3	1,232.59	6.00	CO-4	1,231.38	6.58	10,165	0.82	2.5	409,101	10.4	448,636
CO-262	8.0	0.013	379.3	0.00330	CO-4	1,231.28	6.68	CO-5	1,230.03	7.34	20,330	1.00	5.0	409,101	14.5	448,636
CO-263	8.0	0.013	315.2	0.01766	CO-5	1,229.93	7.44	CO-15	1,224.37	12.33	26,451	1.96	2.8	946,384	11.0	1,037,841
CO-264	8.0	0.013	330.6	0.00330	CO-91	1,240.79	6.00	CO-92	1,239.70	6.78	7,906	0.76	1.9	409,101	9.2	448,636
CO-265	8.0	0.013	260.6	0.00330	CO-92	1,239.60	6.88	CO-93	1,238.74	7.08	15,812	0.93	3.9	409,101	12.8	448,636
CO-266	8.0	0.013	281.8	0.00330	CO-93	1,238.64	7.18	CO-96	1,237.71	7.60	23,718	1.05	5.8	409,101	15.6	448,636
CO-267	8.0	0.013	196.4	0.00449	CO-96	1,237.61	7.70	CO-100	1,236.73	7.94	41,147	1.38	8.6	477,032	18.9	523,132
CO-268	8.0	0.013	198.8	0.01752	CO-100	1,236.63	8.04	CO-123	1,233.15	11.29	57,002	2.46	6.0	942,561	15.9	1,033,649
CO-269	8.0	0.013	316.6	0.00330	CO-94	1,240.52	6.00	CO-95	1,239.48	6.15	7,906	0.76	1.9	409,101	9.2	448,636
CO-270	8.0	0.013	223.3	0.00744	CO-95	1,239.38	6.25	CO-96	1,237.71	7.60	15,812	1.24	2.6	614,424	10.6	673,800
CO-271	8.0	0.013	343.3	0.00330	CO-97	1,240.17	6.00	CO-98	1,239.04	6.69	7,906	0.76	1.9	409,101	9.2	448,636
CO-272	8.0	0.013	481.7	0.00330	CO-98	1,238.94	6.79	CO-99	1,237.35	7.30	15,812	0.93	3.9	409,101	12.8	448,636

Label	Diam (in)	Mannin g's n	Length (ft)	Slope (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Flow (gal/day)	Velocity at Flow (ft/s)	Flow / Capacity (Design) (%)	Capacity (Design) (gal/day)	Depth / Diam (%)	Capacity (Full Flow) (gal/day)
CO-273	8.0	0.013	157.5	0.00330	CO-99	1,237.25	7.40	CO-100	1,236.73	7.94	23,718	1.05	5.8	409,101	15.6	448,636
CO-274	8.0	0.013	257.6	0.00330	CO-77	1,216.97	20.51	CO-78	1,216.12	22.18	156,142	1.81	38.2	409,101	40.7	448,636
CO-275	8.0	0.013	324.7	0.00330	CO-77	1,217.07	20.41	CO-76	1,218.14	19.14	144,493	1.77	35.3	409,101	39.0	448,636
CO-276	8.0	0.013	300.5	0.00330	CO-76	1,218.24	19.04	CO-75	1,219.23	17.76	140,961	1.76	34.5	409,101	38.5	448,636
CO-277	8.0	0.013	259.5	0.00330	CO-75	1,219.33	17.66	CO-74	1,220.19	16.64	135,040	1.74	33.0	409,101	37.6	448,636
CO-278	8.0	0.013	266.9	0.00330	CO-74	1,220.29	16.54	CO-73	1,221.17	16.05	129,119	1.72	31.6	409,101	36.7	448,636
CO-279	8.0	0.013	222.8	0.00330	CO-72	1,222.00	15.40	CO-73	1,221.27	15.95	125,201	1.70	30.6	409,101	36.2	448,636
CO-280	8.0	0.013	285.0	0.00330	CO-72	1,222.10	15.30	CO-71	1,223.04	14.66	113,167	1.66	27.7	409,101	34.3	448,636
CO-281	8.0	0.013	372.5	0.00330	CO-71	1,223.14	14.56	CO-70	1,224.37	13.65	103,560	1.62	25.3	409,101	32.7	448,636
CO-282	8.0	0.013	182.0	0.00330	CO-70	1,224.47	13.55	CO-69	1,225.07	13.48	94,088	1.57	23.0	409,101	31.1	448,636
CO-283	8.0	0.013	220.0	0.00330	CO-48	1,232.64	6.00	CO-49	1,231.91	6.27	8,713	0.78	2.1	409,101	9.7	448,636
CO-284	8.0	0.013	245.3	0.03532	CO-49	1,231.81	6.37	CO-71	1,223.14	14.56	8,713	1.78	0.7	1,338,401	5.5	1,467,742
CO-285	8.0	0.013	260.1	0.00330	CO-46	1,232.24	6.00	CO-47	1,231.38	6.36	8,713	0.78	2.1	409,101	9.7	448,636
CO-286	8.0	0.013	183.4	0.05004	CO-47	1,231.28	6.46	CO-72	1,222.10	15.30	8,713	2.01	0.5	1,593,000	5.1	1,746,945
CO-287	8.0	0.013	208.3	0.00330	CO-52	1,233.72	6.58	CO-53	1,233.03	6.68	17,297	0.96	4.2	409,101	13.4	448,636
CO-288	8.0	0.013	267.2	0.00695	CO-53	1,232.93	6.78	CO-54	1,231.07	7.81	26,009	1.41	4.4	593,679	13.6	651,051
CO-289	8.0	0.013	73.0	0.06980	CO-54	1,230.97	7.91	CO-68	1,225.88	12.97	26,009	3.17	1.4	1,881,488	7.8	2,063,312
CO-290	8.0	0.013	182.2	0.00330	CO-68	1,225.78	13.07	CO-69	1,225.17	13.38	94,088	1.57	23.0	409,101	31.1	448,636
CO-291	8.0	0.013	434.6	0.00332	CO-64	1,235.65	6.00	CO-65	1,234.21	6.00	8,584	0.77	2.1	410,233	9.6	449,877
CO-292	8.0	0.013	269.0	0.00330	CO-65	1,234.11	6.10	CO-66	1,233.22	6.60	17,167	0.96	4.2	409,101	13.4	448,636
CO-293	8.0	0.013	147.7	0.04331	CO-66	1,233.12	6.70	CO-67	1,226.73	12.59	29,782	2.79	2.0	1,482,014	9.4	1,625,234
CO-294	8.0	0.013	228.3	0.00330	CO-67	1,226.63	12.69	CO-68	1,225.88	12.97	77,965	1.49	19.1	409,101	28.2	448,636
CO-295	8.0	0.013	451.9	0.00330	CO-51	1,235.31	6.00	CO-52	1,233.82	6.48	8,584	0.77	2.1	409,101	9.6	448,636
CO-296	8.0	0.013	340.3	0.00434	CO-63	1,234.70	6.00	CO-66	1,233.22	6.60	8,584	0.86	1.8	468,993	9.0	514,316
CO-297	10.0	0.013	406.6	0.00240	CO-148	1,230.58	10.09	CO-149	1,229.61	12.20	424,303	2.07	67.1	632,566	56.5	693,696
CO-298	10.0	0.013	435.1	0.00240	CO-149	1,229.51	12.30	CO-150	1,228.46	14.94	428,843	2.07	67.8	632,566	56.9	693,696
CO-299	8.0	0.013	357.3	0.00330	CO-55	1,234.12	6.00	CO-56	1,232.94	6.72	8,584	0.77	2.1	409,101	9.6	448,636
CO-300	8.0	0.013	300.2	0.00330	CO-56	1,232.84	6.82	CO-57	1,231.85	7.46	17,167	0.96	4.2	409,101	13.4	448,636
CO-301	8.0	0.013	271.3	0.00330	CO-57	1,231.75	7.56	CO-60	1,230.85	7.96	25,751	1.08	6.3	409,101	16.3	448,636
CO-302	8.0	0.013	273.0	0.00330	CO-60	1,230.75	8.06	CO-61	1,229.85	8.43	44,673	1.27	10.9	409,101	21.3	448,636
CO-303	8.0	0.013	500.0	0.00330	CO-61	1,229.75	8.53	CO-62	1,228.10	10.59	48,135	1.30	11.8	409,101	22.1	448,636
CO-304	8.0	0.013	386.5	0.00330	CO-62	1,228.00	10.69	CO-67	1,226.73	12.59	55,012	1.35	13.4	409,101	23.6	448,636
CO-305	8.0	0.013	300.0	0.00330	CO-58	1,233.76	6.00	CO-59	1,232.77	6.57	8,584	0.77	2.1	409,101	9.6	448,636
CO-306	8.0	0.013	354.2	0.00513	CO-59	1,232.67	6.67	CO-60	1,230.85	7.96	17,167	1.12	3.4	509,892	12.0	559,168
CO-307	10.0	0.013	202.3	0.00240	CO-147	1,231.17	9.96	CO-148	1,230.68	9.99	419,756	2.06	66.4	632,566	56.1	693,696
CO-308	8.0	0.013	343.4	0.00330	CO-143	1,239.40	6.00	CO-144	1,238.27	6.32	79,504	1.50	19.4	409,101	28.5	448,636
CO-309	8.0	0.013	307.9	0.01660	CO-144	1,238.17	6.42	CO-145	1,233.05	10.11	142,759	3.16	15.6	917,656	25.4	1,006,337
CO-310	8.0	0.013	368.0	0.00403	CO-142	1,234.54	7.70	CO-145	1,233.05	10.11	78,456	1.60	17.4	451,980	26.9	495,659
CO-311	8.0	0.013	299.1	0.00330	CO-141	1,235.62	6.00	CO-142	1,234.64	7.60	43,091	1.26	10.5	409,101	20.9	448,636

Label	Diam (in)	Mannin g's n	Length (ft)	Slope (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Flow (gal/day)	Velocity at Flow (ft/s)	Flow / Capacity (Design) (%)	Capacity (Design) (gal/day)	Depth / Diam (%)	Capacity (Full Flow) (gal/day)
CO-312	10.0	0.013	269.0	0.00240	CO-145	1,232.79	10.21	CO-146	1,232.14	9.76	419,756	2.06	66.4	632,566	56.1	693,696
CO-313	10.0	0.013	322.3	0.00240	CO-146	1,232.04	9.86	CO-147	1,231.27	9.86	419,756	2.06	66.4	632,566	56.1	693,696
CO-314	8.0	0.013	442.8	0.00330	CO-133	1,243.43	6.00	CO-134	1,241.97	6.02	37,350	1.20	9.1	409,101	19.5	448,636
CO-315	8.0	0.013	331.7	0.00338	CO-136	1,239.79	6.10	CO-137	1,238.67	6.00	118,950	1.69	28.7	414,121	35.0	454,141
CO-316	8.0	0.013	109.2	0.00342	CO-137	1,238.57	6.10	CO-139	1,238.20	6.00	143,929	1.80	34.5	416,682	38.5	456,949
CO-317	8.0	0.013	65.9	0.06270	CO-139	1,238.10	6.10	CO-140	1,233.96	10.02	169,712	5.32	9.5	1,783,181	19.9	1,955,504
CO-318	8.0	0.013	274.1	0.00330	CO-134	1,241.87	6.12	CO-135	1,240.96	6.01	65,185	1.42	15.9	409,101	25.8	448,636
CO-319	8.0	0.013	265.9	0.00364	CO-135	1,240.86	6.11	CO-136	1,239.89	6.00	94,208	1.63	21.9	429,662	30.3	471,184
CO-320	8.0	0.013	305.3	0.00330	CO-126	1,241.69	6.00	CO-127	1,240.69	6.97	10,717	0.83	2.6	409,101	10.7	448,636
CO-321	8.0	0.013	547.3	0.00330	CO-127	1,240.59	7.07	CO-128	1,238.78	6.08	21,434	1.02	5.2	409,101	14.9	448,636
CO-322	8.0	0.013	258.5	0.00330	CO-128	1,238.68	6.18	CO-129	1,237.83	6.28	32,151	1.15	7.9	409,101	18.1	448,636
CO-323	8.0	0.013	371.7	0.00330	CO-129	1,237.73	6.38	CO-130	1,236.50	6.34	42,869	1.25	10.5	409,101	20.9	448,636
CO-324	8.0	0.013	236.8	0.00330	CO-130	1,236.40	6.44	CO-131	1,235.62	7.37	53,586	1.34	13.1	409,101	23.3	448,636
CO-325	8.0	0.013	262.6	0.00330	CO-131	1,235.52	7.47	CO-132	1,234.65	8.88	64,303	1.41	15.7	409,101	25.6	448,636
CO-326	8.0	0.013	178.2	0.00330	CO-132	1,234.55	8.98	CO-140	1,233.96	10.02	75,020	1.48	18.3	409,101	27.6	448,636
CO-327	8.0	0.013	245.2	0.00330	CO-140	1,233.86	10.12	CO-145	1,233.05	10.11	244,732	2.03	59.8	409,101	52.7	448,636
CO-328	8.0	0.013	442.3	0.00515	CO-139	1,238.20	6.00	CO-138	1,240.48	6.00	37,350	1.41	7.3	511,190	17.5	560,591
CO-329	8.0	0.013	125.3	0.04763	CO-228	1,235.29	7.31	CO-229	1,229.32	13.31	26,365	2.77	1.7	1,554,168	8.7	1,704,360
CO-330	8.0	0.013	55.8	0.00330	CO-230	1,228.16	13.91	CO-231	1,227.98	13.97	106,742	1.63	26.1	409,101	33.2	448,636
CO-331	8.0	0.013	227.6	0.00330	CO-231	1,227.88	14.07	CO-232	1,227.13	13.85	106,742	1.63	26.1	409,101	33.2	448,636
CO-332	8.0	0.013	139.2	0.00330	CO-217	1,232.60	10.93	CO-218	1,232.14	11.02	61,592	1.39	15.1	409,101	25.0	448,636
CO-333	8.0	0.013	387.6	0.00330	CO-194	1,223.23	19.81	CO-195	1,221.96	22.06	125,190	1.70	30.6	409,101	36.2	448,636
CO-334	8.0	0.013	124.4	0.01341	CO-78	1,216.02	22.28	CO-79	1,214.35	23.92	156,142	3.00	18.9	824,640	28.1	904,332
CO-335	8.0	0.013	342.0	0.02378	CO-50	1,232.61	6.00	CO-70	1,224.47	13.55	8,713	1.55	0.8	1,098,272	6.1	1,204,407
OFF-CO-1	36.0	0.013	600.0	0.00070	OFF-MH-1	1,210.42	19.58	O-1	1,210.00	16.27	9,150,102	2.77	88.0	10,399,747	67.8	11,404,761
OFF-CO-2	36.0	0.013	600.0	0.00070	OFF-MH-2	1,210.94	20.06	OFF-MH-1	1,210.52	19.48	9,150,102	2.77	88.0	10,399,747	67.8	11,404,761
OFF-CO-3	36.0	0.013	600.0	0.00070	OFF-MH-3	1,211.46	18.54	OFF-MH-2	1,211.04	19.96	9,150,102	2.77	88.0	10,399,747	67.8	11,404,761
OFF-CO-4	36.0	0.013	600.0	0.00070	OFF-MH-4	1,211.98	21.02	OFF-MH-3	1,211.56	18.44	9,150,102	2.77	88.0	10,399,747	67.8	11,404,761
OFF-CO-5	36.0	0.013	600.0	0.00070	OFF-MH-5	1,212.50	21.50	OFF-MH-4	1,212.08	20.92	9,150,102	2.77	88.0	10,399,747	67.8	11,404,761
OFF-CO-6	36.0	0.013	600.0	0.00070	OFF-MH-6	1,213.02	22.98	OFF-MH-5	1,212.60	21.40	9,150,102	2.77	88.0	10,399,747	67.8	11,404,761
OFF-CO-7	36.0	0.013	600.0	0.00070	OFF-MH-7	1,213.54	23.46	OFF-MH-6	1,213.12	22.88	9,150,102	2.77	88.0	10,399,747	67.8	11,404,761
OFF-CO-8	36.0	0.013	600.0	0.00070	OFF-MH-8	1,214.06	23.94	OFF-MH-7	1,213.64	23.36	9,150,102	2.77	88.0	10,399,747	67.8	11,404,761
OFF-CO-9	36.0	0.013	600.0	0.00070	OFF-MH-9	1,214.58	27.42	OFF-MH-8	1,214.16	23.84	9,150,102	2.77	88.0	10,399,747	67.8	11,404,761
OFF-CO-10	36.0	0.013	600.0	0.00070	OFF-MH-10	1,215.10	30.56	OFF-MH-9	1,214.68	27.32	9,150,102	2.77	88.0	10,399,747	67.8	11,404,761
OFF-CO-11	36.0	0.013	600.0	0.00070	OFF-MH-11	1,215.62	28.36	OFF-MH-10	1,215.20	30.46	9,150,102	2.77	88.0	10,399,747	67.8	11,404,761
OFF-CO-12	36.0	0.013	353.8	0.00754	OFF-MH-11	1,218.39	26.28	OFF-MH-11	1,215.72	28.26	9,033,928	6.74	26.5	34,131,819	33.5	37,430,261
OFF-CO-13	36.0	0.013	488.5	0.00559	OFF-MH-12	1,221.22	24.78	OFF-MH-11	1,218.49	26.18	9,033,928	6.05	30.7	29,398,026	36.2	32,239,002
OFF-CO-13	36.0	0.013	600.0	0.00754	OFF-MH-13	1,225.85	23.31	OFF-MH-12	1,221.32	24.68	8,023,250	6.52	23.5	34,131,819	31.4	37,430,261
OFF-CO-14	36.0	0.013	600.0	0.00754	OFF-MH-14	1,230.47	19.70	OFF-MH-13	1,225.95	23.21	8,023,250	6.52	23.5	34,131,819	31.4	37,430,261

Label	Diam (in)	Mannin g's n	Length (ft)	Slope (ft/ft)	Start Node	Invert (Start) (ft)	Cover (Start) (ft)	Stop Node	Invert (Stop) (ft)	Cover (Stop) (ft)	Flow (gal/day)	Velocity at Flow (ft/s)	Flow / Capacity (Design) (%)	Capacity (Design) (gal/day)	Depth / Diam (%)	Capacity (Full Flow) (gal/day)
OFF-CO-15	36.0	0.013	374.5	0.00754	OFF-MH-15	1,233.39	16.96	OFF-MH-14	1,230.57	19.60	8,023,250	6.52	23.5	34,131,819	31.4	37,430,261
OFF-CO-16	30.0	0.013	577.5	0.00945	OFF-MH-16	1,239.45	12.70	OFF-MH-15	1,233.99	16.86	8,023,250	7.17	34.1	23,498,475	38.3	25,769,328
OFF-CO-17	30.0	0.013	499.6	0.00945	OFF-MH-17	1,244.27	10.04	OFF-MH-16	1,239.55	12.60	8,023,250	7.17	34.1	23,498,475	38.3	25,769,328
OFF-CO-18	30.0	0.013	600.0	0.00941	OFF-MH-18	1,250.02	6.10	OFF-MH-17	1,244.37	9.94	8,023,250	7.16	34.2	23,447,495	38.4	25,713,421
OFF-CO-19	30.0	0.013	600.0	0.00347	OFF-MH-19	1,252.20	6.00	OFF-MH-18	1,250.12	6.00	8,023,250	4.96	56.3	14,248,583	50.8	15,625,542

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Depth (Structure) (ft)	Flow (Total Out) (gal/day)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CO-1	1,238.42	1,231.76	6.67	10,165	1,231.82	1,231.82
CO-2	1,237.83	1,230.11	7.72	20,330	1,230.19	1,230.19
CO-3	1,239.26	1,232.59	6.67	10,165	1,232.66	1,232.66
CO-4	1,238.63	1,231.28	7.35	20,330	1,231.38	1,231.38
CO-5	1,238.04	1,229.93	8.10	26,451	1,230.02	1,230.02
CO-6	1,237.94	1,231.28	6.67	7,963	1,231.34	1,231.34
CO-7	1,237.39	1,230.13	7.26	15,925	1,230.22	1,230.22
CO-8	1,236.28	1,228.83	7.45	23,888	1,228.92	1,228.92
CO-9	1,237.42	1,230.76	6.67	7,963	1,230.82	1,230.82
CO-10	1,237.21	1,229.93	7.28	15,925	1,230.01	1,230.01
CO-11	1,236.59	1,228.86	7.73	23,888	1,228.97	1,228.97
CO-12	1,235.78	1,227.60	8.18	27,627	1,227.71	1,227.71
CO-13	1,235.52	1,226.47	9.05	34,534	1,226.59	1,226.59
CO-14	1,236.55	1,225.42	11.13	51,031	1,225.57	1,225.57
CO-15	1,237.36	1,224.27	13.10	83,521	1,224.43	1,224.43
CO-16	1,235.82	1,229.16	6.67	9,130	1,229.22	1,229.22
CO-17	1,236.25	1,227.75	8.50	18,259	1,227.82	1,227.82
CO-18	1,236.95	1,230.28	6.67	9,130	1,230.35	1,230.35
CO-19	1,237.15	1,229.16	7.99	18,259	1,229.25	1,229.25
CO-20	1,237.31	1,227.94	9.38	23,757	1,228.04	1,228.04
CO-21	1,237.43	1,227.03	10.39	31,676	1,227.13	1,227.13
CO-22	1,235.61	1,228.95	6.67	5,473	1,228.99	1,228.99
CO-23	1,235.48	1,228.81	6.67	5,473	1,228.86	1,228.86
CO-24	1,235.18	1,228.01	7.17	10,947	1,228.09	1,228.09
CO-25	1,234.65	1,227.07	7.58	16,420	1,227.14	1,227.14
CO-26	1,234.53	1,227.86	6.67	0	1,227.86	1,227.86
CO-27	1,234.31	1,227.39	6.92	5,473	1,227.45	1,227.45
CO-28	1,234.21	1,226.07	8.14	10,947	1,226.15	1,226.15
CO-29	1,235.66	1,229.00	6.67	7,963	1,229.06	1,229.06
CO-30	1,235.08	1,227.71	7.38	15,925	1,227.79	1,227.79
CO-31	1,234.51	1,226.55	7.96	21,399	1,226.65	1,226.65
CO-32	1,234.67	1,225.73	8.94	23,309	1,225.83	1,225.83
CO-33	1,234.49	1,225.03	9.46	37,552	1,225.16	1,225.16
CO-34	1,234.30	1,224.26	10.03	42,300	1,224.40	1,224.40
CO-35	1,234.00	1,227.33	6.67	5,473	1,227.37	1,227.37
CO-36	1,234.17	1,223.64	10.52	47,836	1,223.79	1,223.79
CO-37	1,234.64	1,222.58	12.06	61,768	1,222.75	1,222.75
CO-38	1,235.18	1,221.56	13.63	68,679	1,221.74	1,221.74
CO-39	1,235.41	1,220.57	14.84	75,589	1,220.75	1,220.75
CO-40	1,235.94	1,219.68	16.25	79,488	1,219.87	1,219.87
CO-41	1,236.16	1,218.88	17.28	83,480	1,219.08	1,219.08
CO-42	1,236.63	1,217.72	18.91	116,883	1,217.95	1,217.95
CO-43	1,236.91	1,216.96	19.95	184,771	1,217.26	1,217.26
CO-44	1,238.00	1,216.04	21.96	184,771	1,216.34	1,216.34
CO-45	1,238.53	1,215.04	23.49	184,771	1,215.34	1,215.34
CO-46	1,238.90	1,232.24	6.67	8,713	1,232.30	1,232.30
CO-47	1,238.41	1,231.28	7.13	8,713	1,231.33	1,231.33
CO-48	1,239.30	1,232.64	6.67	8,713	1,232.70	1,232.70
CO-49	1,238.85	1,231.81	7.04	8,713	1,231.86	1,231.86

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Depth (Structure) (ft)	Flow (Total Out) (gal/day)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CO-50	1,239.27	1,232.61	6.67	8,713	1,232.66	1,232.66
CO-51	1,241.97	1,235.31	6.67	8,584	1,235.37	1,235.37
CO-52	1,240.96	1,233.72	7.25	17,297	1,233.80	1,233.80
CO-53	1,240.38	1,232.93	7.45	26,009	1,233.02	1,233.02
CO-54	1,239.55	1,230.97	8.58	26,009	1,231.06	1,231.06
CO-55	1,240.79	1,234.12	6.67	8,584	1,234.18	1,234.18
CO-56	1,240.33	1,232.84	7.48	17,167	1,232.93	1,232.93
CO-57	1,239.98	1,231.75	8.23	25,751	1,231.86	1,231.86
CO-58	1,240.43	1,233.76	6.67	8,584	1,233.82	1,233.82
CO-59	1,240.01	1,232.67	7.34	17,167	1,232.75	1,232.75
CO-60	1,239.48	1,230.75	8.73	44,673	1,230.90	1,230.90
CO-61	1,238.95	1,229.75	9.20	48,135	1,229.90	1,229.90
CO-62	1,239.37	1,228.00	11.36	55,012	1,228.16	1,228.16
CO-63	1,241.37	1,234.70	6.67	8,584	1,234.76	1,234.76
CO-64	1,242.32	1,235.65	6.67	8,584	1,235.72	1,235.72
CO-65	1,240.88	1,234.11	6.77	17,167	1,234.20	1,234.20
CO-66	1,240.49	1,233.12	7.37	29,782	1,233.22	1,233.22
CO-67	1,239.99	1,226.63	13.36	77,965	1,226.82	1,226.82
CO-68	1,239.51	1,225.78	13.74	94,088	1,225.98	1,225.98
CO-69	1,239.22	1,225.07	14.14	94,088	1,225.28	1,225.28
CO-70	1,238.69	1,224.37	14.31	103,560	1,224.59	1,224.59
CO-71	1,238.37	1,223.04	15.33	113,167	1,223.27	1,223.27
CO-72	1,238.07	1,222.00	16.07	125,201	1,222.24	1,222.24
CO-73	1,237.89	1,221.17	16.72	129,119	1,221.41	1,221.41
CO-74	1,237.49	1,220.19	17.31	135,040	1,220.44	1,220.44
CO-75	1,237.66	1,219.23	18.42	140,961	1,219.49	1,219.49
CO-76	1,237.95	1,218.14	19.81	144,493	1,218.40	1,218.40
CO-77	1,238.14	1,216.97	21.18	156,142	1,217.24	1,217.24
CO-78	1,238.97	1,216.02	22.95	156,142	1,216.24	1,216.24
CO-79	1,238.94	1,214.25	24.69	313,472	1,214.66	1,214.66
CO-80	1,245.50	1,238.84	6.67	7,130	1,238.89	1,238.89
CO-81	1,244.26	1,237.19	7.07	14,259	1,237.27	1,237.27
CO-82	1,244.18	1,236.56	7.62	21,389	1,236.64	1,236.64
CO-83	1,242.68	1,236.01	6.67	7,130	1,236.07	1,236.07
CO-84	1,242.09	1,234.45	7.64	14,259	1,234.53	1,234.53
CO-85	1,242.69	1,233.73	8.96	37,105	1,233.85	1,233.85
CO-86	1,241.31	1,234.65	6.67	7,130	1,234.71	1,234.71
CO-87	1,243.21	1,236.54	6.67	7,130	1,236.59	1,236.59
CO-88	1,242.41	1,233.26	9.15	21,389	1,233.35	1,233.35
CO-89	1,241.84	1,232.22	9.61	57,115	1,232.39	1,232.39
CO-90	1,240.74	1,231.10	9.64	57,115	1,231.24	1,231.24
CO-91	1,247.46	1,240.79	6.67	7,906	1,240.86	1,240.86
CO-92	1,247.15	1,239.60	7.55	15,812	1,239.69	1,239.69
CO-93	1,246.49	1,238.64	7.85	23,718	1,238.75	1,238.75
CO-94	1,247.19	1,240.52	6.67	7,906	1,240.58	1,240.58
CO-95	1,246.29	1,239.38	6.92	15,812	1,239.45	1,239.45
CO-96	1,245.98	1,237.61	8.36	41,147	1,237.74	1,237.74
CO-97	1,246.84	1,240.17	6.67	7,906	1,240.24	1,240.24
CO-98	1,246.40	1,238.94	7.46	15,812	1,239.03	1,239.03

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Depth (Structure) (ft)	Flow (Total Out) (gal/day)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CO-99	1,245.32	1,237.25	8.07	23,718	1,237.36	1,237.36
CO-100	1,245.34	1,236.63	8.71	57,002	1,236.77	1,236.77
CO-101	1,248.16	1,241.50	6.67	5,647	1,241.54	1,241.54
CO-102	1,248.22	1,241.55	6.67	5,647	1,241.59	1,241.59
CO-103	1,248.27	1,241.61	6.67	5,647	1,241.66	1,241.66
CO-104	1,248.53	1,241.86	6.67	5,647	1,241.90	1,241.90
CO-105	1,248.37	1,240.87	7.50	16,942	1,240.95	1,240.95
CO-106	1,248.25	1,239.85	8.39	24,492	1,239.96	1,239.96
CO-107	1,248.22	1,238.94	9.28	24,492	1,239.05	1,239.05
CO-108	1,248.22	1,238.61	9.61	34,289	1,238.74	1,238.74
CO-109	1,250.61	1,243.94	6.67	5,647	1,243.99	1,243.99
CO-110	1,250.47	1,242.55	7.92	11,294	1,242.62	1,242.62
CO-111	1,250.15	1,241.44	8.71	11,294	1,241.50	1,241.50
CO-112	1,250.47	1,243.80	6.67	5,647	1,243.85	1,243.85
CO-113	1,252.29	1,242.96	9.33	11,294	1,243.03	1,243.03
CO-114	1,250.23	1,241.73	8.50	16,942	1,241.82	1,241.82
CO-115	1,250.41	1,240.50	9.91	22,589	1,240.60	1,240.60
CO-116	1,250.37	1,239.84	10.54	24,492	1,239.94	1,239.94
CO-117	1,250.05	1,239.26	10.79	39,187	1,239.38	1,239.38
CO-118	1,248.43	1,238.00	10.44	64,116	1,238.17	1,238.17
CO-119	1,248.23	1,237.26	10.97	64,116	1,237.43	1,237.43
CO-120	1,248.28	1,236.30	11.98	64,116	1,236.47	1,236.47
CO-121	1,246.71	1,235.42	11.30	64,116	1,235.59	1,235.59
CO-122	1,245.75	1,234.03	11.72	64,116	1,234.20	1,234.20
CO-123	1,245.11	1,233.05	12.06	110,223	1,233.24	1,233.24
CO-124	1,245.17	1,238.50	6.67	7,130	1,238.56	1,238.56
CO-125	1,244.63	1,236.75	7.87	14,259	1,236.82	1,236.82
CO-126	1,248.36	1,241.69	6.67	10,717	1,241.76	1,241.76
CO-127	1,248.32	1,240.59	7.73	21,434	1,240.68	1,240.68
CO-128	1,245.53	1,238.68	6.85	32,151	1,238.80	1,238.80
CO-129	1,244.77	1,237.73	7.05	42,869	1,237.87	1,237.87
CO-130	1,243.51	1,236.40	7.11	53,586	1,236.56	1,236.56
CO-131	1,243.65	1,235.52	8.13	64,303	1,235.69	1,235.69
CO-132	1,244.20	1,234.55	9.65	75,020	1,234.74	1,234.74
CO-133	1,250.09	1,243.43	6.67	37,350	1,243.56	1,243.56
CO-134	1,248.65	1,241.87	6.78	65,185	1,242.04	1,242.04
CO-135	1,247.64	1,240.86	6.77	94,208	1,241.06	1,241.06
CO-136	1,246.56	1,239.79	6.77	118,950	1,240.03	1,240.03
CO-137	1,245.34	1,238.57	6.77	143,929	1,238.83	1,238.83
CO-138	1,247.14	1,240.48	6.67	37,350	1,240.59	1,240.59
CO-139	1,244.86	1,238.10	6.77	169,712	1,238.33	1,238.33
CO-140	1,244.65	1,233.86	10.79	244,732	1,234.21	1,234.21
CO-141	1,242.29	1,235.62	6.67	43,091	1,235.76	1,235.76
CO-142	1,242.90	1,234.54	8.36	78,456	1,234.72	1,234.72
CO-143	1,246.07	1,239.40	6.67	79,504	1,239.59	1,239.59
CO-144	1,245.25	1,238.17	7.08	142,759	1,238.38	1,238.38
CO-145	1,243.83	1,232.79	11.05	419,756	1,233.26	1,233.26
CO-146	1,242.73	1,232.04	10.69	419,756	1,232.51	1,232.51
CO-147	1,241.96	1,231.17	10.79	419,756	1,231.64	1,231.64

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Depth (Structure) (ft)	Flow (Total Out) (gal/day)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CO-148	1,241.50	1,230.58	10.92	424,303	1,231.05	1,231.05
CO-149	1,242.64	1,229.51	13.13	428,843	1,229.98	1,229.98
CO-150	1,244.24	1,228.36	15.88	517,608	1,228.90	1,228.90
CO-151	1,243.01	1,227.06	15.95	517,608	1,227.60	1,227.60
CO-152	1,241.20	1,225.76	15.44	517,608	1,226.16	1,226.16
CO-153	1,240.08	1,219.37	20.71	554,217	1,219.78	1,219.78
CO-154	1,239.79	1,212.72	27.07	812,488	1,213.37	1,213.37
CO-155	1,245.35	1,238.69	6.67	5,694	1,238.73	1,238.73
CO-156	1,244.55	1,237.89	6.67	5,694	1,237.94	1,237.94
CO-157	1,245.69	1,239.02	6.67	5,694	1,239.06	1,239.06
CO-158	1,245.58	1,237.11	8.47	17,083	1,237.20	1,237.20
CO-159	1,245.63	1,236.50	9.13	22,777	1,236.60	1,236.60
CO-160	1,245.46	1,235.91	9.55	29,635	1,236.02	1,236.02
CO-161	1,245.90	1,235.40	10.50	34,575	1,235.51	1,235.51
CO-162	1,248.14	1,241.47	6.67	5,694	1,241.53	1,241.53
CO-163	1,248.11	1,240.53	7.57	11,389	1,240.60	1,240.60
CO-164	1,248.08	1,239.65	8.44	17,083	1,239.73	1,239.73
CO-165	1,244.84	1,238.07	6.77	22,777	1,238.15	1,238.15
CO-166	1,247.66	1,241.00	6.67	5,694	1,241.05	1,241.05
CO-167	1,247.55	1,239.83	7.72	11,389	1,239.89	1,239.89
CO-168	1,241.35	1,234.68	6.67	8,188	1,234.74	1,234.74
CO-169	1,243.73	1,233.46	10.27	16,377	1,233.54	1,233.54
CO-170	1,244.24	1,232.27	11.96	24,565	1,232.36	1,232.36
CO-171	1,239.70	1,233.03	6.67	5,930	1,233.09	1,233.09
CO-172	1,239.73	1,232.03	7.70	11,859	1,232.11	1,232.11
CO-173	1,240.90	1,230.99	9.90	17,789	1,231.08	1,231.08
CO-174	1,238.54	1,231.87	6.67	5,930	1,231.92	1,231.92
CO-175	1,239.63	1,230.68	8.95	11,859	1,230.76	1,230.76
CO-176	1,240.63	1,229.42	11.21	30,860	1,229.54	1,229.54
CO-177	1,240.75	1,228.90	11.85	37,963	1,229.03	1,229.03
CO-178	1,242.67	1,227.30	15.37	45,065	1,227.42	1,227.42
CO-179	1,242.56	1,235.89	6.67	8,188	1,235.96	1,235.96
CO-180	1,242.02	1,234.42	7.59	16,377	1,234.51	1,234.51
CO-181	1,242.50	1,233.23	9.27	24,565	1,233.31	1,233.31
CO-182	1,240.37	1,233.71	6.67	5,930	1,233.75	1,233.75
CO-183	1,240.23	1,233.56	6.67	5,930	1,233.62	1,233.62
CO-184	1,239.94	1,232.57	7.37	11,859	1,232.64	1,232.64
CO-185	1,238.05	1,231.29	6.77	17,789	1,231.38	1,231.38
CO-186	1,238.04	1,231.38	6.67	5,930	1,231.42	1,231.42
CO-187	1,238.36	1,230.15	8.21	25,717	1,230.26	1,230.26
CO-188	1,239.85	1,228.99	10.86	30,860	1,229.11	1,229.11
CO-189	1,240.09	1,228.01	12.08	41,147	1,228.14	1,228.14
CO-190	1,240.18	1,227.30	12.88	41,147	1,227.43	1,227.43
CO-191	1,240.48	1,226.60	13.87	60,696	1,226.77	1,226.77
CO-192	1,242.27	1,225.47	16.79	66,894	1,225.65	1,225.65
CO-193	1,243.27	1,224.35	18.92	73,092	1,224.53	1,224.53
CO-194	1,243.71	1,223.23	20.47	125,190	1,223.48	1,223.48
CO-195	1,244.68	1,221.86	22.83	147,831	1,222.12	1,222.12
CO-196	1,246.20	1,220.78	25.42	151,637	1,221.04	1,221.04

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Depth (Structure) (ft)	Flow (Total Out) (gal/day)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CO-197	1,246.58	1,219.95	26.63	155,444	1,220.22	1,220.22
CO-198	1,246.27	1,219.05	27.22	181,519	1,219.34	1,219.34
CO-199	1,247.02	1,218.45	28.57	184,771	1,218.75	1,218.75
CO-200	1,247.20	1,240.53	6.67	8,047	1,240.59	1,240.59
CO-201	1,246.30	1,239.53	6.77	8,047	1,239.59	1,239.59
CO-202	1,246.21	1,239.02	7.20	8,047	1,239.08	1,239.08
CO-203	1,246.57	1,238.21	8.36	12,441	1,238.29	1,238.29
CO-204	1,245.85	1,237.15	8.71	16,836	1,237.23	1,237.23
CO-205	1,242.64	1,235.88	6.77	21,230	1,235.96	1,235.96
CO-206	1,246.51	1,239.84	6.67	8,047	1,239.90	1,239.90
CO-207	1,245.30	1,238.54	6.77	16,095	1,238.61	1,238.61
CO-208	1,248.61	1,241.94	6.67	8,047	1,241.99	1,241.99
CO-209	1,245.89	1,239.22	6.67	8,047	1,239.28	1,239.28
CO-210	1,247.66	1,237.44	10.22	24,142	1,237.55	1,237.55
CO-211	1,248.59	1,241.92	6.67	8,047	1,241.97	1,241.97
CO-212	1,246.83	1,236.23	10.60	34,901	1,236.36	1,236.36
CO-213	1,245.99	1,234.74	11.26	41,881	1,234.88	1,234.88
CO-214	1,244.51	1,233.66	10.84	58,020	1,233.83	1,233.83
CO-215	1,246.06	1,239.40	6.67	2,700	1,239.43	1,239.43
CO-216	1,245.29	1,238.46	6.82	4,554	1,238.50	1,238.50
CO-217	1,244.20	1,232.60	11.59	61,592	1,232.77	1,232.77
CO-218	1,243.83	1,232.04	11.79	64,918	1,232.21	1,232.21
CO-219	1,243.27	1,231.27	12.00	68,244	1,231.44	1,231.44
CO-220	1,243.14	1,230.60	12.54	71,570	1,230.78	1,230.78
CO-221	1,242.86	1,229.88	12.98	74,896	1,230.07	1,230.07
CO-222	1,245.16	1,238.49	6.67	4,394	1,238.53	1,238.53
CO-223	1,243.95	1,237.18	6.77	8,788	1,237.24	1,237.24
CO-224	1,245.44	1,238.77	6.67	0	1,238.77	1,238.77
CO-225	1,243.83	1,236.35	7.47	13,183	1,236.43	1,236.43
CO-226	1,244.54	1,237.88	6.67	4,394	1,237.92	1,237.92
CO-227	1,243.70	1,236.93	6.77	8,788	1,236.99	1,236.99
CO-228	1,243.27	1,235.29	7.98	26,365	1,235.38	1,235.38
CO-229	1,243.29	1,229.22	14.07	91,390	1,229.42	1,229.42
CO-230	1,242.73	1,228.16	14.57	106,742	1,228.38	1,228.38
CO-231	1,242.62	1,227.88	14.74	106,742	1,228.10	1,228.10
CO-232	1,241.64	1,226.44	15.20	945,994	1,227.15	1,227.15
CO-233	1,244.36	1,225.64	18.71	945,994	1,226.34	1,226.34
CO-234	1,252.55	1,245.88	6.67	12,330	1,245.96	1,245.96
CO-235	1,250.83	1,244.06	6.77	24,659	1,244.15	1,244.15
CO-236	1,248.94	1,240.78	8.16	32,085	1,240.88	1,240.88
CO-237	1,248.80	1,242.13	6.67	6,478	1,242.19	1,242.19
CO-238	1,250.37	1,240.73	9.65	12,955	1,240.80	1,240.80
CO-239	1,250.86	1,239.31	11.55	19,433	1,239.39	1,239.39
CO-240	1,248.44	1,241.78	6.67	6,478	1,241.83	1,241.83
CO-241	1,247.96	1,240.82	7.14	12,955	1,240.90	1,240.90
CO-242	1,249.07	1,239.72	9.35	19,433	1,239.82	1,239.82
CO-243	1,250.20	1,238.60	11.61	25,911	1,238.70	1,238.70
CO-244	1,249.91	1,237.79	12.11	44,950	1,237.91	1,237.91
CO-245	1,249.38	1,242.71	6.67	6,478	1,242.77	1,242.77

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Depth (Structure) (ft)	Flow (Total Out) (gal/day)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CO-246	1,248.97	1,242.19	6.79	12,955	1,242.25	1,242.25
CO-247	1,248.57	1,241.90	6.67	6,478	1,241.95	1,241.95
CO-248	1,247.98	1,241.21	6.77	12,955	1,241.28	1,241.28
CO-249	1,247.00	1,240.33	6.67	6,478	1,240.39	1,240.39
CO-250	1,246.69	1,238.99	7.70	12,955	1,239.07	1,239.07
CO-251	1,247.98	1,237.99	9.99	28,094	1,238.10	1,238.10
CO-252	1,248.91	1,236.94	11.96	44,950	1,237.09	1,237.09
CO-253	1,249.20	1,235.77	13.43	46,704	1,235.91	1,235.91
CO-254	1,249.51	1,235.04	14.47	80,309	1,235.23	1,235.23
CO-255	1,254.48	1,247.81	6.67	9,780	1,247.88	1,247.88
CO-256	1,253.03	1,246.06	6.97	19,560	1,246.15	1,246.15
CO-257	1,250.70	1,243.93	6.77	19,560	1,244.03	1,244.03
CO-258	1,251.16	1,243.69	7.47	19,560	1,243.77	1,243.77
CO-259	1,254.76	1,248.09	6.67	9,780	1,248.16	1,248.16
CO-260	1,252.75	1,245.99	6.77	19,560	1,246.08	1,246.08
CO-261	1,251.59	1,244.64	6.95	25,449	1,244.73	1,244.73
CO-262	1,253.66	1,246.99	6.67	9,780	1,247.06	1,247.06
CO-263	1,254.75	1,248.08	6.67	9,780	1,248.13	1,248.13
CO-264	1,254.10	1,246.09	8.01	25,449	1,246.19	1,246.19
CO-265	1,252.29	1,244.34	7.96	33,933	1,244.46	1,244.46
CO-266	1,251.28	1,243.03	8.25	42,416	1,243.16	1,243.16
CO-267	1,251.16	1,242.68	8.49	66,622	1,242.85	1,242.85
CO-268	1,250.92	1,242.08	8.84	78,456	1,242.24	1,242.24
CO-269	1,251.05	1,244.39	6.67	6,883	1,244.43	1,244.43
CO-270	1,249.78	1,243.12	6.67	6,883	1,243.17	1,243.17
CO-271	1,249.35	1,242.69	6.67	6,883	1,242.74	1,242.74
CO-272	1,249.93	1,242.16	7.77	20,648	1,242.26	1,242.26
CO-273	1,250.87	1,241.41	9.45	23,880	1,241.52	1,241.52
CO-274	1,251.35	1,240.90	10.45	35,820	1,241.02	1,241.02
CO-275	1,251.44	1,244.78	6.67	6,883	1,244.82	1,244.82
CO-276	1,254.73	1,248.06	6.67	6,883	1,248.12	1,248.12
CO-277	1,254.06	1,247.21	6.84	13,765	1,247.28	1,247.28
CO-278	1,254.93	1,248.27	6.67	6,883	1,248.32	1,248.32
CO-279	1,253.45	1,246.52	6.93	13,765	1,246.59	1,246.59
CO-280	1,251.44	1,244.67	6.77	20,648	1,244.77	1,244.77
CO-281	1,250.97	1,243.62	7.35	23,880	1,243.72	1,243.72
CO-282	1,252.16	1,242.48	9.67	29,850	1,242.60	1,242.60
CO-283	1,253.35	1,241.35	12.01	41,789	1,241.48	1,241.48
CO-284	1,252.19	1,239.81	12.38	78,141	1,240.00	1,240.00
CO-285	1,252.64	1,238.80	13.84	80,309	1,238.99	1,238.99
CO-286	1,252.20	1,238.02	14.18	80,309	1,238.21	1,238.21
CO-287	1,251.18	1,237.49	13.70	80,309	1,237.68	1,237.68
CO-288	1,255.23	1,248.56	6.67	6,474	1,248.62	1,248.62
CO-289	1,256.95	1,250.29	6.67	6,474	1,250.34	1,250.34
CO-290	1,257.53	1,249.18	8.34	12,948	1,249.25	1,249.25
CO-291	1,256.38	1,247.32	9.07	25,896	1,247.42	1,247.42
CO-292	1,255.47	1,246.54	8.92	25,896	1,246.65	1,246.65
CO-293	1,254.70	1,245.94	8.75	28,078	1,246.06	1,246.06
CO-294	1,259.04	1,252.38	6.67	6,474	1,252.43	1,252.43

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Depth (Structure) (ft)	Flow (Total Out) (gal/day)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CO-295	1,257.02	1,250.25	6.77	12,948	1,250.31	1,250.31
CO-296	1,258.61	1,251.94	6.67	6,474	1,252.00	1,252.00
CO-297	1,259.71	1,251.14	8.58	12,948	1,251.22	1,251.22
CO-298	1,257.64	1,249.39	8.26	19,422	1,249.48	1,249.48
CO-299	1,256.49	1,248.36	8.13	25,896	1,248.46	1,248.46
CO-300	1,255.52	1,247.28	8.24	39,310	1,247.40	1,247.40
CO-301	1,254.10	1,245.29	8.82	63,704	1,245.46	1,245.46
CO-302	1,252.72	1,243.87	8.85	68,604	1,244.02	1,244.02
CO-303	1,252.04	1,236.70	15.34	136,427	1,236.95	1,236.95
CO-304	1,251.04	1,235.53	15.51	136,427	1,235.77	1,235.77
CO-305	1,250.21	1,234.26	15.95	259,939	1,234.62	1,234.62
CO-306	1,249.93	1,233.09	16.83	259,939	1,233.46	1,233.46
CO-307	1,252.98	1,246.31	6.67	12,330	1,246.39	1,246.39
CO-308	1,251.27	1,244.50	6.77	24,659	1,244.61	1,244.61
CO-309	1,249.74	1,242.75	6.99	32,085	1,242.85	1,242.85
CO-310	1,248.79	1,232.44	16.35	280,101	1,232.82	1,232.82
CO-311	1,248.79	1,231.24	17.55	300,096	1,231.64	1,231.64
CO-312	1,248.34	1,229.85	18.49	300,096	1,230.25	1,230.25
CO-313	1,246.85	1,228.84	18.01	300,096	1,229.24	1,229.24
CO-314	1,245.78	1,227.77	18.01	300,096	1,228.17	1,228.17
CO-315	1,250.97	1,244.31	6.67	8,188	1,244.37	1,244.37
CO-316	1,251.83	1,245.17	6.67	0	1,245.17	1,245.17
CO-317	1,250.63	1,243.45	7.18	16,377	1,243.53	1,243.53
CO-318	1,251.11	1,242.56	8.56	24,565	1,242.66	1,242.66
CO-319	1,249.65	1,241.54	8.10	28,411	1,241.64	1,241.64
CO-320	1,252.66	1,246.00	6.67	12,330	1,246.07	1,246.07
CO-321	1,253.14	1,244.29	8.85	24,659	1,244.40	1,244.40
CO-322	1,250.74	1,242.54	8.19	32,085	1,242.66	1,242.66
CO-323	1,248.48	1,240.87	7.61	32,085	1,240.99	1,240.99
CO-324	1,248.33	1,240.59	7.73	39,187	1,240.73	1,240.73
CO-325	1,247.84	1,239.38	8.46	42,752	1,239.52	1,239.52
CO-326	1,246.47	1,238.56	7.91	71,382	1,238.74	1,238.74
CO-327	1,251.64	1,244.97	6.67	8,188	1,245.03	1,245.03
CO-328	1,249.46	1,242.69	6.77	16,377	1,242.78	1,242.78
CO-329	1,249.46	1,241.79	7.67	24,565	1,241.89	1,241.89
CO-330	1,248.64	1,240.69	7.95	28,411	1,240.79	1,240.79
CO-331	1,245.86	1,237.56	8.29	95,647	1,237.74	1,237.74
CO-332	1,245.50	1,226.81	18.69	372,007	1,227.15	1,227.15
CO-333	1,244.89	1,224.84	20.05	1,245,524	1,225.67	1,225.67
CO-334	1,245.20	1,224.35	20.85	1,245,524	1,225.19	1,225.19
CO-335	1,248.35	1,223.62	24.73	1,245,524	1,224.47	1,224.47
OFF-MH-1	1,233.00	1,210.42	22.58	9,150,102	1,212.29	1,212.29
OFF-MH-2	1,234.00	1,210.94	23.06	9,150,102	1,212.86	1,212.86
OFF-MH-3	1,233.00	1,211.46	21.54	9,150,102	1,213.40	1,213.40
OFF-MH-4	1,236.00	1,211.98	24.02	9,150,102	1,213.93	1,213.93
OFF-MH-5	1,237.00	1,212.50	24.50	9,150,102	1,214.45	1,214.45
OFF-MH-6	1,239.00	1,213.02	25.98	9,150,102	1,214.97	1,214.97
OFF-MH-7	1,240.00	1,213.54	26.46	9,150,102	1,215.49	1,215.49
OFF-MH-8	1,241.00	1,214.06	26.94	9,150,102	1,216.01	1,216.01

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Depth (Structure) (ft)	Flow (Total Out) (gal/day)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
OFF-MH-9	1,245.00	1,214.58	30.42	9,150,102	1,216.53	1,216.53
OFF-MH-10	1,248.66	1,215.10	33.56	9,150,102	1,217.05	1,217.05
OFF-MH-11	1,246.98	1,215.62	31.36	9,150,102	1,217.57	1,217.57
OFF-MH-11	1,247.67	1,218.39	29.28	9,033,928	1,219.58	1,219.58
OFF-MH-12	1,249.00	1,221.22	27.78	9,033,928	1,222.41	1,222.41
OFF-MH-13	1,252.16	1,225.85	26.31	8,023,250	1,226.96	1,226.96
OFF-MH-14	1,253.17	1,230.47	22.70	8,023,250	1,231.59	1,231.59
OFF-MH-15	1,253.35	1,233.39	19.96	8,023,250	1,234.51	1,234.51
OFF-MH-16	1,254.65	1,239.45	15.20	8,023,250	1,240.63	1,240.63
OFF-MH-17	1,256.81	1,244.27	12.54	8,023,250	1,245.45	1,245.45
OFF-MH-18	1,258.62	1,250.02	8.60	8,023,250	1,251.20	1,251.20
OFF-MH-19	1,260.70	1,226.70	34.00	8,023,250	1,253.47	1,253.47

FlexTable: Outfall Table

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Hydraulic Grade (ft)	Flow (Total Out) (gal/day)
O-1	1,229.27	1,210.00	1,211.20	9,150,102
O-2 - Lift Station	1,240.04	1,212.53	1,213.01	812,488

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MASTER WATER REPORT

FOR

MIDWAY – PHASE 1

PINAL COUNTY, ARIZONA

Prepared For:
Tres Points, LLC
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February 2021
Project No. 2232

MASTER WATER REPORT
FOR
MIDWAY – PHASE 1

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1.0 INTRODUCTION

1.1 Background and Project Location

Midway is an approximately 5,750 acre master planned community located within Pinal County, and is proposed for development over multiple phases. Midway – Phase 1 (the Project) encompasses approximately 690 acres at the northern boundary of the overall Midway development, located northwest of the intersection of State Highway 347 and Miller Road in Pinal County, Arizona. The Project is bound by State Highway 347 to the east, the Teel Road alignment to the north, the Green Road alignment to the west, and Miller Road to the south. The Project lies within a portion of Section 33, Township 5 South, Range 3 East of the Gila and Salt River Meridian. Currently, the Project site is active agriculture fields.

The proposed improvements for the Project include construction of a mixed-use master planned community with corresponding roadway and utility improvements. The Project in currently envisioned to consist of a total of 25 parcels, which are proposed to be developed within four separate phases.

Figure 1 in Appendix A provides a vicinity map for the Project.

1.2 General Description

The Project is planned for approximately 2,850 residential units, a school, a park, mixed use development, and other open space uses. The Project is currently undeveloped desert land and the surrounding area generally falls to the northeast at an approximate slope of 0.4%.

The Project is located within Pinal County, in Global Water's Certificate of Convenience & Necessity (CC&N) boundary for water service. The Project is planned to be served within Global Water's Pressure Zone 1 by the partially constructed Terrazzo Water Campus and the water infrastructure for the Project discussed in this report will be owned and operated by Global Water.

1.3 Purpose of Report

The purpose of this Master Water Report is to identify and evaluate the proposed water system infrastructure for serving the Project in accordance with Global Water's *Design and Construction Standards for Potable Water, Recycled Water and Wastewater Infrastructure 2020* (Global Water, 2020). This Master Water Report discusses the existing water infrastructure within the Project vicinity and identifies anticipated water demands for average day, maximum day, peak hour, and maximum day plus fire flow conditions. It also identifies anticipated water line sizes and alignments and presents results from a hydraulic model of the proposed water infrastructure.

2.0 DESIGN CRITERIA

2.1 Global Water Design Criteria

The proposed water system infrastructure for the Project has been prepared and evaluated consistent with the design criteria listed in Global Water's *Design and Construction Standards for Potable Water, Recycled Water and Wastewater Infrastructure 2020* (Global Water, 2020). A summary of the design criteria is provided in Table 1 below.

TABLE 1 WATER SYSTEM DESIGN CRITERIA			
Category		Value	Unit
Average Day Water Demand			
	Single-Family Residential	250	gpd/DU
	Commercial (acreage based)	2,800	gpad
	School	50	gpd/student
	Developed Open Space	1,800	gpad
Peaking Factors (Residential)			
	Maximum Day	2.0	x Average Day
	Peak Hour	1.7	x Maximum Day
Peaking Factors (Developed Open Space)			
	Maximum Day	N/A	
	Peak Hour	N/A	
Average Day, Maximum Day, and Peak Hour System Performance			
	Minimum Pressure (static)	40	psi
	Maximum Pressure*	80	psi
Maximum Day + Fire Flow System Performance			
	Minimum Pressure	20	psi
	Residential Fire Flow (≤ 3,600 sf)**	1,000	gpm for 2 hours
	Commercial Fire Flow***	3,000	gpm for 2 hours
	Maximum Velocity	8	fps
Maximum Day Pipeline Velocity and Headloss Requirements			
	Maximum Velocity	5	fps
	Maximum Headloss	6	ft/1,000 ft
Peak Hour Pipeline Velocity and Headloss Requirements			
	Maximum Velocity	6	fps
	Maximum Headloss	8	ft/1,000 ft
Minimum Pipe Diameter		8	inches
Hazen Williams 'C' Factor		130	

Notes:
*Any structure experiencing pressures greater than 80 psi shall have an individual PRV.
**Residential Fire Flow is based off the International Fire Code (2012) and Global Water's required fire flow reserve for storage. Homes larger than 3,600 SF may require additional fire flow.
*** Commercial fire flow is assumed at 3,000 gpm for 2 hours. Actual fire flow for commercial parcels will be based on the International Fire Code and the square footage of the building when known.

3.0 WATER DEMANDS

3.1 Land Use

The Project is planned for approximately 2,850 residential units, a school, a park, mixed use development, and other open space uses. Table 2 shows the anticipated land use and density for the Project by sub-phase. Detailed parcel breakdown for each sub-phase is provided in Table B.1 in Appendix B and shown on Figure 2 in Appendix A.

TABLE 2
LAND USE AND DENSITY

Sub-Phase	Land Use	Gross Area (ac)	Dwelling Units (du)	Density (du/acre)
1-1	Single Family Residential (SFR)	170.3	631	3.7
1-2	Single Family Residential (SFR)	189.2	629	3.3
1-3	Single Family Residential (SFR) Regional Park Regional School	261.0	910	3.5
1-4	Mixed-Use Residential Mixed-Use Commercial	88.5	680	7.7
Grand Total		**709.1**	**2,850**	**4.0**

3.2 Water Demand Calculations

Anticipated water demands for the Project have been calculated in accordance with the design criteria listed in Table 1 and the land uses and densities listed in Table 2. The total water demands for the Project are summarized in Table 3. Table B.1 in Appendix B presents more detailed water demand calculations for the Project, including parcels within each sub-phase. In addition, well supply, storage capacity, and booster pumping capacity sizing calculations for the Project can be found in Tables B.2, B.3, and B.4 in Appendix B, respectively.

TABLE 3 TOTAL WATER DEMAND SUMMARY						
Sub-Phase	Average Day Demand		Maximum Day Demand		Peak Hour Demand	
	gpd	gpm	gpd	gpm	gpd	gpm
PHASE 1						
1-1	204,316	141.9	362,066	251.4	582,916	404.8
1-2	203,960	141.6	361,210	250.8	581,360	403.7
1-3	336,146	233.4	588,646	408.8	942,146	654.3
1-4	230,160	159.8	447,900	311.0	752,736	522.7
Grand Total	**974,582**	**676.8**	**1,759,822**	**1,222.1**	**2,859,158**	**1,985.5**

4.0 WATER SYSTEM INFRASTRUCTURE

4.1 Existing Water System Infrastructure

Existing water infrastructure within the Project vicinity includes the Terrazo Water Distribution Center (WDC), located at the northwest corner of White Road and Louis Johnson Drive and the Amarillo Creek East Well Site, located north of Papago Road between Green Road and Amarillo Valley Road,. The Terrazo WDC was constructed years ago and has since sat idle and incomplete. Existing infrastructure at the site includes a 2.5 million gallon storage reservoir and some underground piping. The Amarillo Creek East Well will need to be rehabilitated prior to supplying any water to the Terrazo WDC.

A 24-inch water main extends along Louis Johnson Road from the Terrazo WDC to Amarillo Valley Road and along Amarillo Valley Road from Louis Johnson Road to Teel Road. 16-inch water distribution mains extend along Amarillo Valley Road from Teel Road to Papago Road, along Louis Johnson Road from Amarillo Valley Road to Green Road, and along Green Road from Louis Johnson Road to Val Vista Road.

Figures 2 and 3 in Appendix A show the existing water system within the Project vicinity.

4.2 Proposed Distribution System Improvements

Proposed water distribution system improvements include a 16-inch water main along Louis Johnson Road from Green Road to SR-347 (Maricopa Road). A 12-inch water main will be constructed near the half-mile street alignment through Phases 3 and 4 and will jog down between the Phase 4 mixed-use developments and along the east side of the school in Phase 3 - Parcel 12. 8-inch water distribution mains will make up the bulk of the onsite piping improvements for the Project along local and local collector streets to provide a looped system within the development.

Figure 3 in Appendix A shows the water distribution system improvements for the Project.

4.3 Water Infrastructure Phasing

It is anticipated that the Project will be developed in up to four sub-phases. The water infrastructure within the site will similarly be constructed in phases as required to adequately serve each sub-phase of development. Furthermore, the water mains that are installed will be sized for build-out conditions, will provide adequate looping in the water system (i.e. two points of connection), and will meet the required fire flows for the area being developed.

5.0 PROPOSED WATER SUPPLY AND CAMPUS

5.1 Overview

Water for the Project is anticipated to be served by the Terrazo WDC. This WDC was constructed years ago and has since sat idle and incomplete. Although some infrastructure is useable (storage tank and underground piping), additional improvements will be required at the site to bring it up to full functionality. Anticipated improvements at the site include pumping, chlorination, electrical, and piping infrastructure. Treatment at the site, if required, will be determined upon the completion of a well siting study and groundwater quality testing for the project. Well capacity, storage capacity, and pumping requirements to serve the Project are outlined in Sections 5.2 through 5.4 of this report. In addition, well supply, storage capacity, and booster pumping capacity sizing calculations for the Project can be found in Tables B.2, B.3, and B.4 in Appendix B, respectively.

5.2 Water Supply (Wells)

The Project, and the Midway community as a whole, will require multiple wells throughout the development area to supply groundwater to the Terrazo WDC for treatment (if required), storage, and pumping. Table 4 outlines the anticipated cumulative well capacity requirements for the Project by sub-phase. Table B.2 in Appendix B provides detailed well capacity calculations. Final well pumping capacities will be determined as the wells are drilled and tested, and sufficient wells will be provided to meet the applicable required well capacity at the end of each phase or sub-phase. Final well capacity requirements will be determined during final design.

TABLE 4
WELL CAPACITY REQUIREMENT SUMMARY

Sub-Phase(s)	Maximum Day Demand (Cumulative)	18-Hour Firm Well Capacity Required (Cumulative)
	(gpm)	(gpm)
1	251	335
1 & 2	502	670
1, 2, & 3	911	1,215
1 – 4 (Buildout)	1,222	1,629

5.3 Storage Capacity

Global Water requires that sufficient storage volume be available to meet the larger of the following:

- Fire Flow Storage: 30% Maximum Day Demand + Required Fire Flow

  OR

- Average Day Storage: Average Day Demand (during peak month) Minus Firm Well Production Capacity

The preliminary required storage volume for the Project is shown in Table 5. Table B.3 in Appendix B presents more detailed calculations for storage volume requirements. Since the firm well capacity for the Project is not yet known, the storage requirement identified in Table 5 and in Table B.3 in Appendix B is based solely on the fire flow storage requirement (30% Maximum Day Demand + Required Fire Flow). Final storage tank sizing will be determined during final design once the firm well capacity is known.

TABLE 5
STORAGE VOLUME SUMMARY

Phase	Required Storage Volume		Storage Capacity to be Provided[1]
	(gallons)	(MG)	(MG)
1	887,947	0.89	900,000

Notes:
1) The storage capacity provided is rounded up to the nearest 100,000 gallons.

5.4 Booster Pumping Requirements

Global Water requires that each pump station have a firm pumping capacity (i.e., the pumping capacity with the largest pump out of service) equal to or exceeding the greater of the peak hour demand and the maximum day demand plus fire flow. Table 6 below presents the required firm pumping capacity for the Project. Table B.4 in Appendix B includes more detailed calculations for booster pump requirements. Final pump sizing will be determined during preliminary and final design.

TABLE 6
BOOSTER PUMP CAPACITY SUMMARY

Phase	Required Firm Capacity
	(gpm)
1	4,222

6.0 HYDRAULIC MODEL AND RESULTS

6.1 Design Methodology

The proposed water distribution system was modeled using WaterCAD CONNECT Edition by Bentley Systems, Inc. Five scenarios were modeled: average day, maximum day, peak hour, residual pressure during fire flow plus maximum day conditions, and available fire flow during maximum day conditions. A residual pressure during fire flow plus maximum day analysis applies the required fire flow to each corresponding junction in the system to confirm the system's ability to meet the minimum pressure and maximum velocity requirements while providing the required fire flow during maximum day conditions. The available fire flow analysis estimates the maximum flow available at each junction while maintaining the minimum required residual pressure throughout the proposed system during maximum day conditions. For this report, a minimum fire flow of 3,000 gpm, representing a commercial/industrial fire flow has been assigned to all arterial streets in addition to the mixed-use development properties in Sub Phase 1-4.

The onsite water system infrastructure was modeled by placing a reservoir at the location of the Terrazo WDC. The hydraulic grade line (HGL) was set at an elevation of 1,390.00 feet, representing the minimum HGL required to ensure the Project meets the minimum pressure requirement of 40.0 psi throughout the site for all domestic scenarios as well as the 20.0 psi minimum residual pressure during a fire flow scenario. The proposed hydraulic grade line used in this report will be re-evaluated as the Midway development progresses and will ultimately be determined during final design of the water campus.

6.2 Hydraulic Model Results

Detailed hydraulic model results for the proposed system are provided in Appendix C. Table 7 below provides a summary of the results. As shown in Table 7 and the hydraulic model results in Appendix C, pressures throughout the modeled area remained between 40.0 psi and 80.0 psi for the domestic scenarios modeled. Velocities and head losses for the peak hour scenario fall within the allowable limits shown in Table 1. The fire flow analysis showed that the proposed system provides the required 1,000 gpm of fire flow for single family residential development and the assumed 3,000 gpm for commercial/industrial development within the Project while maintaining a residual pressure of at least 20 psi and a maximum velocity of less than 10 feet per second.

TABLE 7 HYDRAULIC MODELING SUMMARY						
	Average Day		Maximum Day		Peak Hour	
	Value	Location	Value	Location	Value	Location
Minimum Pressure (psi)	47.9	J-1	47.7	J-1	47.1	J-1
Maximum Pressure (psi)	66.5	J-54	64.5	J-54	60.1	J-54
Maximum Velocity (fps)	1.08	P-2	1.95	P-2	3.17	P-2
Maximum Head loss (feet/1,000 feet of pipe)	0.303	P-2	0.905	P-2	2.223	P-2

Maximum Day Demand + Fire Flow - Residual Pressure Analysis			
	Value	Location	Fire Flow Location and Flow
Minimum Residual Pressure (psi)	22.5	J-16	J-16 @ 3,000 GPM
Maximum Velocity (fps)	9.39	P-15	J-15 @ 3,000 GPM J-16 @ 3,000 GPM

Maximum Day Demand + Fire Flow - Available Fire Flow Analysis		
	Value	Location
Minimum Available Fire Flow - Residential	1,554.5	J-113
Minimum Available Fire Flow - Commercial (gpm)	3,121.4`	J-10

Notes:
* Full model results are provided in Appendix C

7.0 CONCLUSIONS

The proposed onsite water system will adequately serve the Project. This report has determined that:

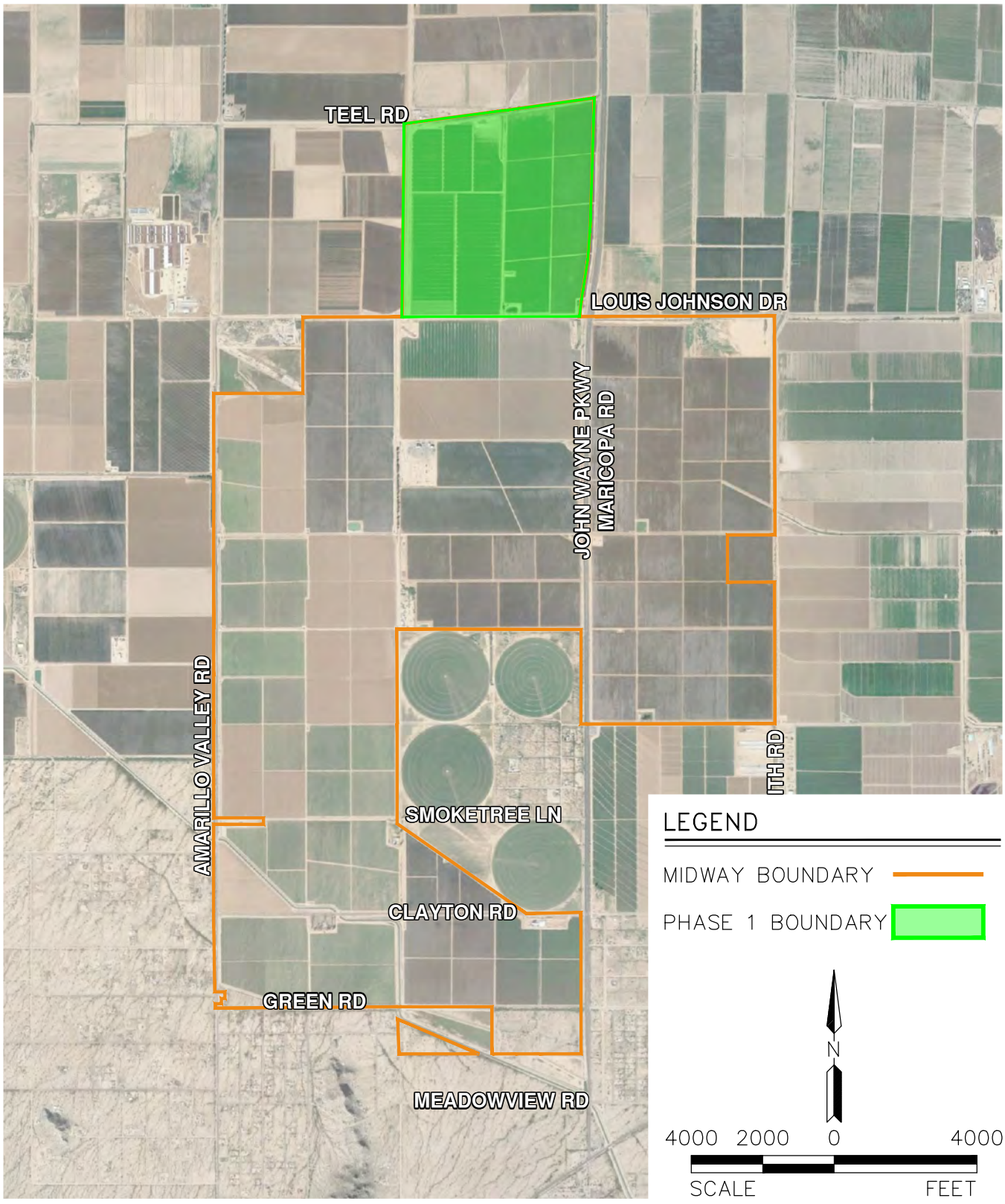
- The average day, maximum day, and peak hour demands for the Project are 974,582 gpd (676.8 gpm), 1,759,822 gpd (1,222.1 gpm), and 2,859,158 gpd (1,985.5 gpm), respectively.
- Existing facilities in the Project Vicinity include the Terrazo WDC and the Amarillo Creek East Well. It is anticipated that the Project will be served by the Terrao WDC.
- The hydraulic model shows that the Project can be adequately served by the proposed system of 8-inch, 12-inch, and 16-inch looped water mains.
- Hydraulic model results show that pressures, velocities, and head losses for the proposed system fall within the allowable limits established by Global Water during the domestic scenarios modeled.
- The proposed system can provide the required 1,000 gpm of fire flow (residential) and 3,000 gpm (assumed for commercial) to the Project while maintaining the minimum required residual pressure of 20 psi.

8.0 REFERENCES

Global Water. (2020). *Design and Construction Standards for Potable Water, Recycled Water and Wastewater Infrastructure 2020*. July 2020, Phoenix, AZ

APPENDIX A

FIGURES



PROJ.NO.:	2232
DATE:	DEC 2020
SCALE:	1" = 4,000'
DRAWN BY:	SL
CHECKED BY:	AT

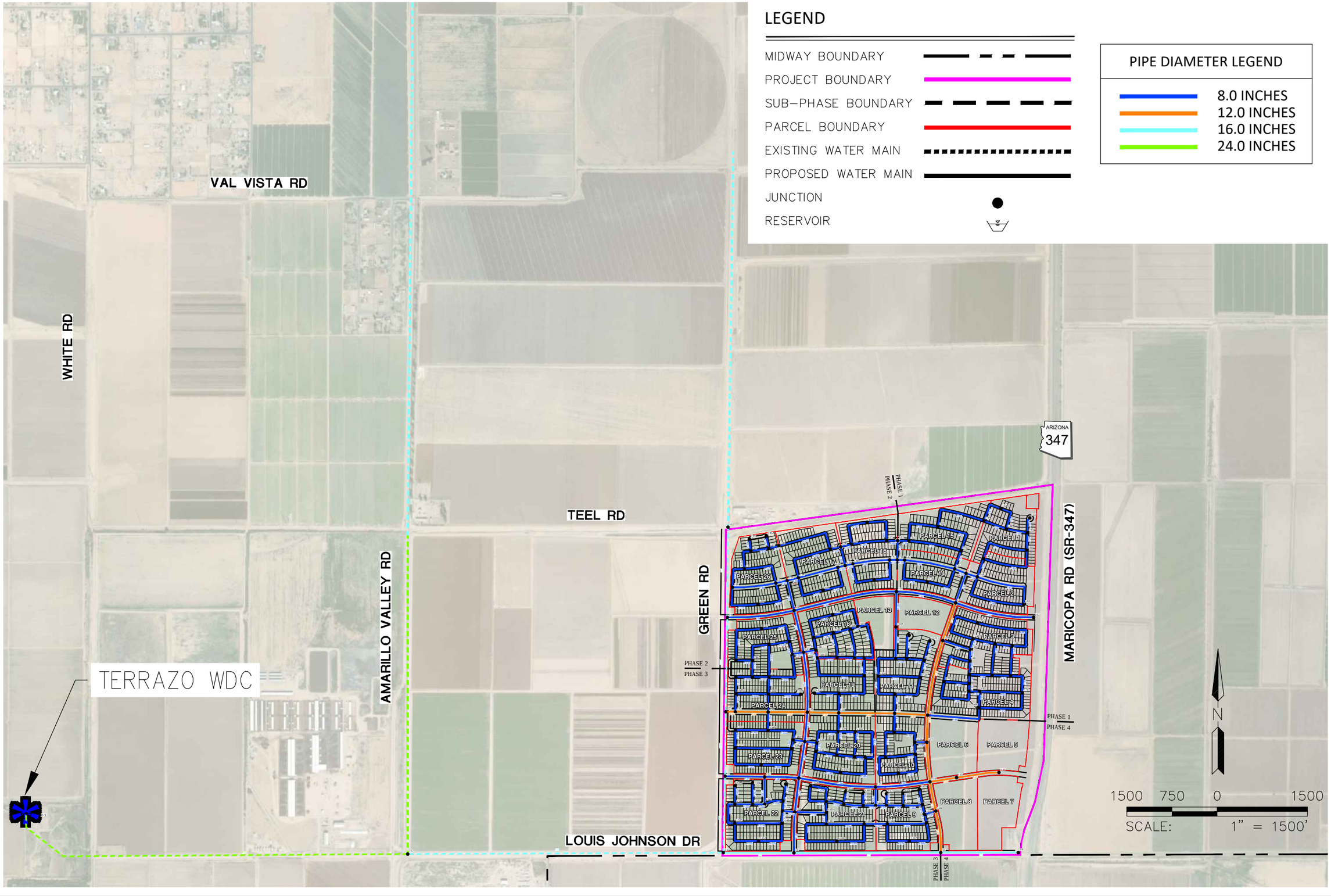
MIDWAY – PHASE 1

PINAL COUNTY, ARIZONA

FIG 1: VICINITY MAP

HILGARTWILSON
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436

 J:\2200\2232\2232.01 Tres Points LLC\REPORTS\DRAINAGE\Master Drainage Report – Midway Phase 1\Exhibit\2232 FIG 1 – Vicinity Map.dwg 12/4/2020 1:02 PM



HILGARTWILSON
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436

MIDWAY – PHASE 1

LOUIS JOHNSON RD & GREEN RD
PINAL COUNTY, AZ

PROJ. NO.:	2232
DATE:	FEB 2020
SCALE:	1” = 1500’
DRAWN BY:	MAJ
CHECKED BY:	MI

FIG 2: WATER SYSTEM IMPROVEMENTS (OVERALL)

LEGEND

- MIDWAY BOUNDARY
- PROJECT BOUNDARY
- SUB–PHASE BOUNDARY
- PARCEL BOUNDARY
- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- JUNCTION
- RESERVOIR

PIPE DIAMETER LEGEND
8.0 INCHES
12.0 INCHES
16.0 INCHES
24.0 INCHES

N

800 400 0 800

SCALE FEET

HILGARTWILSON
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436

MIDWAY – PHASE 1
LOUIS JOHNSON RD & GREEN RD
PINAL COUNTY, AZ

FIG 3: WATER SYSTEM IMPROVEMENTS (ZOOMED IN)

PROJ. NO.:	2232
DATE:	FEB 2020
SCALE:	1" = 800'
DRAWN BY:	MAJ
CHECKED BY:	MI

APPENDIX B

SUPPLEMENTARY TABLES

B.1 - Water Demand Calculations

Midway - Phase 1

Maricopa, AZ
February, 2020

HILGARTWILSON

Calculated By: MAJ
Checked By: MI

Parcel	Land Use	Area		Dwelling Units	Density	Mixed-Use Area	Population / Number of Students	Average Day Demand				Maximum Day Demand		Peak Hour Demand	
		Gross	Open Space[3]					Land Use	Open Space[4]	Total					
		(ac)	(ac)	(du)	(du/acre)	(ac)		(gpd)	(gpd)	(gpd)	(gpm)	(gpd)	(gpm)	(gpd)	(gpm)
PHASE 1-1															
1	Residential	20.3	3.9	84	4.1	-	269	21,000	7,092	28,092	19.5	49,092	34.1	78,492	54.5
2	Residential	23.0	3.9	97	4.2	-	310	24,250	7,092	31,342	21.8	55,592	38.6	89,542	62.2
3	Residential	29.8	6.0	144	4.8	-	461	36,000	10,764	46,764	32.5	82,764	57.5	133,164	92.5
4	Residential	30.2	4.7	152	5.0	-	486	38,000	8,406	46,406	32.2	84,406	58.6	137,606	95.6
14	Residential	17.1	2.6	60	3.5	-	192	15,000	4,716	19,716	13.7	34,716	24.1	55,716	38.7
15	Residential	24.5	4.7	94	3.8	-	301	23,500	8,496	31,996	22.2	55,496	38.5	88,396	61.4
-	Miscellaneous	25.4	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase 1-1 Subtotal:		**170.3**	**25.9**	**631**	**3.7**	**0.0**	**2,019**	**157,750**	**46,566**	**204,316**	**141.9**	**362,066**	**251.4**	**582,916**	**404.8**
PHASE 1-2															
16	Residential	24.9	4.4	98	3.9	-	314	24,500	7,992	32,492	22.6	56,992	39.6	91,292	63.4
17	Residential	28.7	5.4	116	4.0	-	371	29,000	9,648	38,648	26.8	67,648	47.0	108,248	75.2
18	Residential	21.9	3.4	83	3.8	-	266	20,750	6,138	26,888	18.7	47,638	33.1	76,688	53.3
19	Residential	22.7	3.0	95	4.2	-	304	23,750	5,418	29,168	20.3	52,918	36.7	86,168	59.8
25	Residential	23.8	5.8	116	4.9	-	371	29,000	10,368	39,368	27.3	68,368	47.5	108,968	75.7
26	Residential	26.2	4.0	121	4.6	-	387	30,250	7,146	37,396	26.0	67,646	47.0	109,996	76.4
-	Miscellaneous	40.9	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase 1-2 Subtotal:		**189.2**	**26.0**	**629**	**3.3**	**0.0**	**2,013**	**157,250**	**46,710**	**203,960**	**141.6**	**361,210**	**250.8**	**581,360**	**403.7**
PHASE 1-3															
9	Residential	23.2	4.9	100	4.3	-	320	25,000	8,892	33,892	23.5	58,892	40.9	93,892	65.2
10	Residential	21.8	5.5	84	3.9	-	269	21,000	9,972	30,972	21.5	51,972	36.1	81,372	56.5
11	Residential	27.9	4.9	101	3.6	-	323	25,250	8,874	34,124	23.7	59,374	41.2	94,724	65.8
20	Residential	30.0	4.9	130	4.3	-	416	32,500	8,748	41,248	28.6	73,748	51.2	119,248	82.8
21	Residential	31.4	4.8	130	4.1	-	416	32,500	8,550	41,050	28.5	73,550	51.1	119,050	82.7
22	Residential	29.5	5.1	107	3.6	-	342	26,750	9,108	35,858	24.9	62,608	43.5	100,058	69.5
23	Residential	24.3	3.4	127	5.2	-	406	31,750	6,192	37,942	26.3	69,692	48.4	114,142	79.3
24	Residential	24.7	2.0	131	5.3	-	419	32,750	3,564	36,314	25.2	69,064	48.0	114,914	79.8
13	Park	9.9	9.9	-	-	-	-	0	17,766	17,766	12.3	17,766	12.3	17,766	12.3
12	School	10.1	1.1	-	-	-	500	25,000	1,980	26,980	18.7	51,980	36.1	86,980	60.4
-	Miscellaneous	28.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase 1-3 Subtotal:		**261.0**	**46.5**	**910**	**3.5**	**0.0**	**3,412**	**252,500**	**83,646**	**336,146**	**233.4**	**588,646**	**408.8**	**942,146**	**654.3**
PHASE 1-4															
5	Mixed-Use (Residential)	15.9	1.6	127	-	15.9	406	31,750	2,880	34,630	24.0	66,380	46.1	110,830	77.0
6	Mixed-Use (Residential)	17.7	1.8	248	-	17.7	794	62,000	3,240	65,240	45.3	127,240	88.4	214,040	148.6
7	Mixed-Use (Commercial)	17.1	1.8	-	-	17.1	191	47,740	3,240	50,980	35.4	98,720	68.6	165,556	115.0
8	Mixed-Use (Residential)	17.0	1.7	305	-	17.0	976	76,250	3,060	79,310	55.1	155,560	108.0	262,310	182.2
-	Miscellaneous	20.9	-	-	-	-	-	-	-	-	-	-	-	-	-
Phase 1-6 Subtotal:		**88.5**	**6.9**	**680**	**7.7**	**67.6**	**2,367**	**217,740**	**12,420**	**230,160**	**159.8**	**447,900**	**311.0**	**752,736**	**522.7**
Grand Total:		**709.1**	**105.2**	**2,850**	**4.0**	**67.6**	**9,811**	**785,240**	**189,342**	**974,582**	**676.8**	**1,759,822**	**1,222.1**	**2,859,158**	**1,985.5**

Notes:

Flow Factors:

Residential:	250	gal/day/dwelling unit
Commercial (Building Square Footage Based):	0.125	gal/square foot/day
Commercial (Area Based):	2,800	gal/acre/day
Industrial:	1,800	gal/acre/day
School:	50	gal/student/day
Parks/Landscape/Open Space:	1,800	gal/acre/day

Population Factors:

Residential:	3.2	persons/dwelling unit

Peaking Factors:

Maximum Day Demand:	2.0	x Average Day Demand
Peak Hour Demand:	1.7	x Maximum Day Demand

Fire Flow[2]:

Residential:	1,000	gpm for 2 hours	
Commercial/Industrial/Etc:	3,000	gpm for 2 hours	*(Building type and size unknown at this time. General 3,000 gpm fire flow assumed)*

(1) Demand Factors, Population Factors, and Peaking Factors were taken from the *Design and Construction Standards for Potable Water, Recycled Water, and Wastewater Infrastructure* (Global Water, 2017).
(2) Fire Flow based on the *2012 International Fire Code* (ICC, 2012).
(3) Open space area for parcels with undetermined open space (Phase 1-4) assumed at 10% of the gross acreage.
(4) Open space and landscape demands are anticipated to remain fairly constant and are not peaked.

Table B.2 - Well Capacity Requirements

Midway - Phase 1

Maricopa, AZ
February, 2020

Calculated By: MAJ
Checked By: MI

PHASE 1

Well Capacity Requirements:

Well capacity shall meet the Maximum Day Demand while pumping at 18 hours/day with the largest well out of service.

PHASE 1-1			
Maximum Day Demand:	251	gpm	
Required Well Capacity:	**335**	**gpm**	*(Pumping at 18 hrs/day) (With largest well out of service)*
PHASE 1-2 (Cumulative)			
Maximum Day Demand:	502	gpm	
Required Well Capacity:	**670**	**gpm**	*(Pumping at 18 hrs/day) (With largest well out of service)*
PHASE 1-3 (Cumulative)			
Maximum Day Demand:	911	gpm	
Required Well Capacity:	**1,215**	**gpm**	*(Pumping at 18 hrs/day) (With largest well out of service)*
PHASE 1-4 (Cumulative)			
Maximum Day Demand:	1,222	gpm	
Required Well Capacity:	**1,629**	**gpm**	*(Pumping at 18 hrs/day) (With largest well out of service)*

Table B.3 - Storage Requirements

Midway - Phase 1

Maricopa, AZ
February, 2020

Calculated By: MAJ
Checked By: MI

PHASE 1

Storage Requirements:

The largest of the following is used for calculating ultimate storage:

A) Fire Flow:

30% Maximum Day Demand + Required Fire Flow: 887,947 gallons

(Phase 1 assumes a commercial fire flow of 3,000 gpm for 2 hours)

B) Average Day Storage:

Average Day Demand (during peak month) Minus Firm Well Production Capacity: - gallons

(Firm well production capacity is unknown at this time)

Phase 1 Storage Required:	**887,947**	**gallons**	**=**	**0.89 MG**

Table B.4 - Booster Pump Requirements

Midway - Phase 1

Maricopa, AZ
February, 2020

Calculated By: MAJ
Checked By: MI

PHASE 1

Booster Pump Requirements:

Shall meet or exceed the greater of (with the largest pump out of service):

Peak Hour Demand OR

Maximum Day Demand + Fire Flow

Peak Hour Demand:

Peak Hour Demand:	1,986 gpm	
Firm Pumping Capcity:	1,986 gpm	(with the largest pump out of service)

Maximum Day Demand + Fire Flow:

Maximum Day Demand:	1,222 gpm	
Fire Flow:	3,000 gpm	
Firm Pumping Capacity:	4,222 gpm	(with the largest pump out of service)

Firm Pumping Capacity:	**4,222 gpm**	(with the largest pump out of service)

APPENDIX C

HYDRAULIC MODEL RESULTS

AVERAGE DAY DEMAND

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	1,279.0	0.0	1,389.7	47.9
J-2	1,262.1	0.0	1,388.1	54.5
J-3	1,256.8	0.0	1,388.0	56.8
J-4	1,249.0	0.0	1,387.9	60.1
J-5	1,247.4	0.0	1,387.9	60.8
J-6	1,255.7	0.0	1,388.1	57.3
J-7	1,252.1	0.0	1,388.0	58.8
J-8	1,250.7	0.0	1,388.0	59.4
J-9	1,245.1	0.0	1,387.8	61.7
J-10	1,239.6	0.0	1,387.7	64.1
J-11	1,238.6	0.0	1,387.7	64.5
J-12	1,237.1	0.0	1,387.7	65.2
J-13	1,252.0	0.0	1,387.9	58.8
J-14	1,246.7	0.0	1,387.8	61.0
J-15	1,245.8	100.4	1,387.8	61.4
J-16	1,243.4	59.5	1,387.8	62.5
J-18	1,253.3	0.0	1,387.9	58.2
J-19	1,250.2	0.0	1,387.8	59.5
J-20	1,248.8	0.0	1,387.8	60.2
J-21	1,246.9	0.0	1,387.8	61.0
J-22	1,243.9	0.0	1,387.7	62.2
J-23	1,253.4	0.0	1,387.9	58.2
J-24	1,254.0	0.0	1,387.9	57.9
J-25	1,247.9	0.0	1,387.9	60.5
J-26	1,248.2	0.0	1,387.9	60.4
J-27	1,245.1	0.0	1,387.8	61.7
J-28	1,244.2	0.0	1,387.8	62.1
J-29	1,240.1	0.0	1,387.7	63.9
J-30	1,236.9	0.0	1,387.7	65.2
J-31	1,252.8	0.0	1,387.9	58.5
J-32	1,250.9	0.0	1,387.9	59.2
J-34	1,247.8	0.0	1,387.8	60.6
J-35	1,245.1	0.0	1,387.8	61.7
J-36	1,247.6	3.2	1,387.7	60.6
J-37	1,245.2	3.2	1,387.7	61.7
J-38	1,243.8	6.7	1,387.7	62.3
J-39	1,240.7	6.7	1,387.7	63.6
J-40	1,240.5	3.8	1,387.7	63.7
J-41	1,238.9	3.8	1,387.7	64.4
J-42	1,238.3	4.6	1,387.7	64.6
J-43	1,237.4	4.6	1,387.7	65.0
J-44	1,236.6	10.9	1,387.7	65.3
J-45	1,236.2	0.0	1,387.7	65.5
J-46	1,234.6	3.9	1,387.7	66.2
J-47	1,234.2	3.9	1,387.7	66.4
J-48	1,234.5	3.9	1,387.7	66.3
J-49	1,234.5	0.0	1,387.7	66.3
J-50	1,236.2	7.4	1,387.7	65.5
J-51	1,236.6	7.4	1,387.7	65.4
J-52	1,236.9	10.9	1,387.7	65.2

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-53	1,234.3	3.9	1,387.7	66.4
J-54	1,234.0	3.9	1,387.7	66.5
J-55	1,237.6	7.4	1,387.7	64.9
J-56	1,238.5	0.0	1,387.7	64.5
J-57	1,238.0	0.0	1,387.7	64.8
J-58	1,238.6	4.6	1,387.7	64.5
J-59	1,239.3	5.4	1,387.7	64.2
J-60	1,238.7	5.4	1,387.7	64.5
J-61	1,238.2	5.4	1,387.7	64.7
J-62	1,238.1	5.4	1,387.7	64.7
J-63	1,238.4	5.4	1,387.7	64.6
J-64	1,240.8	5.4	1,387.7	63.6
J-65	1,240.5	5.4	1,387.7	63.7
J-66	1,240.6	5.4	1,387.7	63.6
J-67	1,240.5	5.4	1,387.7	63.7
J-68	1,240.0	0.0	1,387.7	63.9
J-69	1,239.5	5.4	1,387.7	64.1
J-70	1,241.5	5.4	1,387.7	63.3
J-71	1,239.5	5.4	1,387.7	64.1
J-72	1,239.0	0.0	1,387.7	64.3
J-73	1,239.4	0.0	1,387.7	64.2
J-74	1,240.7	0.0	1,387.7	63.6
J-75	1,240.2	0.0	1,387.7	63.8
J-76	1,240.1	3.8	1,387.7	63.8
J-77	1,238.4	3.8	1,387.7	64.6
J-78	1,239.8	3.8	1,387.7	64.0
J-79	1,240.5	6.7	1,387.7	63.7
J-80	1,242.5	0.0	1,387.7	62.8
J-81	1,245.6	3.2	1,387.7	61.5
J-82	1,245.5	3.2	1,387.7	61.5
J-83	1,246.3	3.2	1,387.7	61.2
J-84	1,245.3	3.2	1,387.7	61.6
J-85	1,244.6	3.2	1,387.7	61.9
J-86	1,248.1	3.2	1,387.7	60.4
J-87	1,239.7	3.8	1,387.7	64.0
J-88	1,243.9	6.7	1,387.7	62.2
J-89	1,247.8	4.6	1,387.8	60.6
J-90	1,250.2	0.0	1,387.8	59.5
J-91	1,252.1	0.0	1,387.8	58.7
J-92	1,253.0	6.3	1,387.8	58.3
J-93	1,251.6	4.6	1,387.8	58.9
J-94	1,250.6	4.6	1,387.8	59.4
J-95	1,249.7	4.6	1,387.8	59.8
J-96	1,246.5	4.6	1,387.8	61.2
J-97	1,249.0	4.6	1,387.8	60.1
J-98	1,246.2	2.1	1,387.8	61.3
J-99	1,245.4	2.1	1,387.8	61.6
J-100	1,243.5	2.1	1,387.8	62.4
J-101	1,243.3	2.1	1,387.8	62.5
J-102	1,244.5	2.1	1,387.8	62.0

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-103	1,245.3	2.1	1,387.8	61.6
J-104	1,246.3	0.0	1,387.8	61.2
J-105	1,243.8	2.1	1,387.8	62.3
J-106	1,243.2	2.1	1,387.8	62.6
J-107	1,252.6	6.3	1,387.9	58.5
J-108	1,250.8	6.3	1,387.8	59.3
J-109	1,248.9	6.3	1,387.8	60.1
J-110	1,244.2	2.1	1,387.8	62.1
J-111	1,244.5	6.8	1,387.8	62.0
J-112	1,247.1	6.8	1,387.8	60.9
J-113	1,248.5	6.8	1,387.8	60.3
J-114	1,241.3	31.1	1,387.7	63.4
J-115	1,242.7	3.0	1,387.7	62.8
J-116	1,243.9	3.0	1,387.8	62.2
J-117	1,244.9	3.0	1,387.8	61.8
J-118	1,242.4	3.0	1,387.7	62.9
J-119	1,241.9	3.0	1,387.8	63.1
J-120	1,242.7	3.0	1,387.8	62.8
J-121	1,240.8	3.0	1,387.7	63.6
J-122	1,241.3	3.0	1,387.7	63.4
J-123	1,246.2	4.3	1,387.8	61.3
J-124	1,247.0	4.3	1,387.8	60.9
J-125	1,246.0	4.3	1,387.8	61.3
J-126	1,245.3	4.3	1,387.8	61.6
J-127	1,247.3	4.3	1,387.8	60.8
J-128	1,248.9	3.6	1,387.8	60.1
J-129	1,249.5	3.6	1,387.8	59.8
J-130	1,248.0	3.6	1,387.8	60.5
J-131	1,248.0	3.6	1,387.8	60.5
J-132	1,250.1	3.6	1,387.8	59.6
J-133	1,249.9	3.6	1,387.8	59.7
J-134	1,249.7	3.6	1,387.8	59.8
J-135	1,248.6	3.6	1,387.8	60.2
J-136	1,254.3	4.4	1,387.8	57.8
J-137	1,254.1	4.4	1,387.8	57.9
J-138	1,251.2	4.4	1,387.8	59.1
J-139	1,250.9	4.4	1,387.8	59.2
J-140	1,251.9	4.4	1,387.8	58.8
J-141	1,253.0	4.4	1,387.8	58.3
J-142	1,255.5	2.5	1,387.9	57.3
J-143	1,254.1	2.5	1,387.9	57.9
J-144	1,254.6	0.0	1,387.9	57.7
J-145	1,256.4	2.5	1,387.9	56.9
J-146	1,257.5	2.5	1,387.9	56.4
J-147	1,258.8	2.5	1,387.9	55.8
J-148	1,255.5	2.5	1,387.9	57.3
J-149	1,257.0	2.5	1,387.9	56.7
J-150	1,255.2	2.5	1,387.9	57.4
J-151	1,253.4	2.5	1,387.9	58.2
J-152	1,258.0	2.5	1,387.9	56.2

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-153	1,252.8	2.9	1,387.9	58.4
J-154	1,252.2	2.9	1,387.9	58.7
J-155	1,251.3	2.9	1,387.9	59.1
J-156	1,249.9	2.9	1,387.9	59.7
J-157	1,248.4	0.0	1,387.9	60.3
J-158	1,252.0	2.9	1,387.9	58.8
J-159	1,250.9	2.9	1,387.9	59.3
J-160	1,249.8	2.9	1,387.9	59.7
J-161	1,253.4	2.9	1,387.9	58.2
J-162	1,253.4	2.9	1,387.9	58.2
J-163	1,251.0	2.9	1,387.9	59.2
J-164	1,250.7	2.6	1,387.9	59.4
J-165	1,250.1	2.6	1,387.9	59.6
J-166	1,248.4	0.0	1,387.9	60.3
J-167	1,250.4	2.6	1,387.9	59.5
J-168	1,248.4	2.6	1,387.9	60.3
J-169	1,248.3	2.6	1,387.9	60.4
J-170	1,248.2	2.6	1,387.9	60.4
J-171	1,248.3	2.6	1,387.9	60.4
J-172	1,248.2	2.6	1,387.9	60.4
J-173	1,248.1	2.6	1,387.9	60.4

Label	Length (ft)	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-1	6,697	R-1	J-1	24.0	130.0	676.8	0.48	0.042
P-2	5,240	J-1	J-2	16.0	130.0	676.8	1.08	0.303
P-3	1,269	J-2	J-3	16.0	130.0	372.7	0.59	0.100
P-5	1,499	J-4	J-5	16.0	130.0	0.0	0.00	0.000
P-6	1,173	J-2	J-6	16.0	130.0	304.0	0.49	0.069
P-7	2,438	J-6	J-7	16.0	130.0	214.2	0.34	0.036
P-8	1,287	J-7	J-8	16.0	130.0	0.0	0.00	0.000
P-9	1,119	J-4	J-9	8.0	130.0	68.9	0.44	0.129
P-10	1,736	J-9	J-10	8.0	130.0	25.8	0.16	0.021
P-11	1,002	J-10	J-11	8.0	130.0	15.2	0.10	0.008
P-12	1,325	J-11	J-12	8.0	130.0	0.0	0.00	0.000
P-15	448	J-14	J-15	12.0	130.0	159.8	0.45	0.085
P-16	709	J-15	J-16	12.0	130.0	59.5	0.17	0.014
P-18	678	J-6	J-18	8.0	130.0	89.8	0.57	0.210
P-19	569	J-18	J-13	8.0	130.0	37.2	0.24	0.041
P-20	614	J-13	J-19	8.0	130.0	53.3	0.34	0.080
P-21	488	J-19	J-20	8.0	130.0	17.0	0.11	0.010
P-22	999	J-20	J-21	8.0	130.0	22.3	0.14	0.016
P-23	712	J-21	J-9	8.0	130.0	41.0	0.26	0.049
P-24	508	J-9	J-22	8.0	130.0	84.1	0.54	0.187
P-25	1,073	J-3	J-23	16.0	130.0	303.3	0.48	0.069
P-26	1,565	J-23	J-4	16.0	130.0	68.9	0.11	0.004
P-27	658	J-3	J-24	8.0	130.0	69.5	0.44	0.131
P-28	569	J-24	J-13	8.0	130.0	45.0	0.29	0.059
P-29	1,284	J-13	J-25	8.0	130.0	28.9	0.18	0.026
P-30	909	J-25	J-14	8.0	130.0	44.8	0.29	0.058
P-31	696	J-7	J-26	12.0	130.0	214.2	0.61	0.146
P-32	495	J-26	J-14	12.0	130.0	198.5	0.56	0.127
P-33	660	J-14	J-27	12.0	130.0	83.4	0.24	0.026
P-34	449	J-27	J-28	12.0	130.0	66.7	0.19	0.017
P-35	1,266	J-28	J-29	12.0	130.0	82.1	0.23	0.025
P-36	661	J-29	J-11	12.0	130.0	53.3	0.15	0.011
P-37	520	J-11	J-30	8.0	130.0	68.4	0.44	0.127
P-39	545	J-31	J-32	12.0	130.0	163.0	0.46	0.088
P-40	651	J-32	J-20	12.0	130.0	102.7	0.29	0.037
P-42	159	J-23	J-31	12.0	130.0	234.4	0.66	0.172
P-43	522	J-20	J-34	12.0	130.0	97.3	0.28	0.034
P-44	927	J-34	J-35	12.0	130.0	100.2	0.28	0.036
P-45	549	J-35	J-28	12.0	130.0	51.3	0.15	0.010
P-46	724	J-36	J-37	8.0	130.0	9.2	0.06	0.003
P-47	194	J-37	J-22	8.0	130.0	33.0	0.21	0.033
P-48	191	J-22	J-38	8.0	130.0	51.1	0.33	0.074
P-49	681	J-38	J-39	8.0	130.0	16.3	0.10	0.009
P-51	617	J-40	J-41	8.0	130.0	6.0	0.04	0.001
P-53	845	J-42	J-43	8.0	130.0	6.0	0.04	0.001
P-54	202	J-43	J-30	8.0	130.0	33.0	0.21	0.033
P-55	196	J-30	J-44	8.0	130.0	35.5	0.23	0.038
P-56	322	J-44	J-45	8.0	130.0	13.7	0.09	0.006
P-57	917	J-45	J-46	8.0	130.0	7.0	0.04	0.002

Label	Length (ft)	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-58	286	J-46	J-47	8.0	130.0	9.8	0.06	0.003
P-59	353	J-47	J-48	8.0	130.0	2.0	0.01	0.000
P-60	395	J-48	J-49	8.0	130.0	2.9	0.02	0.000
P-61	1,032	J-49	J-50	8.0	130.0	5.8	0.04	0.001
P-62	784	J-50	J-51	8.0	130.0	6.7	0.04	0.002
P-63	320	J-51	J-43	8.0	130.0	15.9	0.10	0.008
P-64	1,006	J-45	J-46	8.0	130.0	6.7	0.04	0.002
P-65	1,099	J-44	J-52	8.0	130.0	5.6	0.04	0.001
P-66	1,206	J-44	J-52	8.0	130.0	5.3	0.03	0.001
P-67	480	J-49	J-53	8.0	130.0	2.9	0.02	0.001
P-68	463	J-53	J-48	8.0	130.0	1.0	0.01	0.000
P-69	261	J-47	J-54	8.0	130.0	3.9	0.02	0.000
P-70	754	J-50	J-55	8.0	130.0	6.5	0.04	0.002
P-71	884	J-55	J-51	8.0	130.0	1.8	0.01	0.000
P-72	126	J-41	J-56	8.0	130.0	4.2	0.03	0.001
P-73	122	J-56	J-42	8.0	130.0	3.3	0.02	0.001
P-74	184	J-55	J-57	8.0	130.0	12.1	0.08	0.005
P-75	321	J-57	J-56	8.0	130.0	7.5	0.05	0.002
P-76	708	J-42	J-58	8.0	130.0	1.9	0.01	0.000
P-77	680	J-58	J-43	8.0	130.0	6.4	0.04	0.001
P-78	481	J-29	J-59	8.0	130.0	28.8	0.18	0.026
P-79	182	J-59	J-60	8.0	130.0	12.8	0.08	0.006
P-80	1,020	J-60	J-61	8.0	130.0	3.5	0.02	0.000
P-81	1,309	J-61	J-62	8.0	130.0	1.9	0.01	0.000
P-82	287	J-62	J-63	8.0	130.0	2.4	0.02	0.000
P-83	375	J-63	J-60	8.0	130.0	3.8	0.02	0.001
P-84	1,038	J-28	J-64	8.0	130.0	35.9	0.23	0.038
P-85	268	J-64	J-65	8.0	130.0	20.2	0.13	0.014
P-86	175	J-65	J-66	8.0	130.0	12.6	0.08	0.006
P-87	128	J-66	J-67	8.0	130.0	5.2	0.03	0.001
P-88	151	J-67	J-68	8.0	130.0	1.5	0.01	0.001
P-89	224	J-68	J-69	8.0	130.0	3.2	0.02	0.000
P-90	189	J-69	J-59	8.0	130.0	10.7	0.07	0.005
P-91	870	J-66	J-70	8.0	130.0	2.1	0.01	0.000
P-92	762	J-70	J-69	8.0	130.0	2.1	0.01	0.000
P-93	415	J-70	J-67	8.0	130.0	1.3	0.01	0.000
P-94	979	J-64	J-71	8.0	130.0	10.3	0.07	0.004
P-95	707	J-71	J-65	8.0	130.0	2.2	0.01	0.000
P-96	471	J-71	J-72	8.0	130.0	7.2	0.05	0.002
P-97	308	J-72	J-73	8.0	130.0	2.2	0.01	0.000
P-98	378	J-73	J-68	8.0	130.0	1.7	0.01	0.000
P-99	522	J-73	J-63	8.0	130.0	4.0	0.03	0.001
P-100	496	J-72	J-62	8.0	130.0	4.9	0.03	0.001
P-101	124	J-39	J-74	8.0	130.0	17.2	0.11	0.010
P-102	128	J-74	J-40	8.0	130.0	15.5	0.10	0.009
P-103	320	J-74	J-75	8.0	130.0	1.8	0.01	0.000
P-104	185	J-75	J-76	8.0	130.0	15.8	0.10	0.009
P-105	586	J-76	J-77	8.0	130.0	6.4	0.04	0.001
P-106	182	J-77	J-57	8.0	130.0	4.6	0.03	0.001

Label	Length (ft)	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-107	632	J-76	J-78	8.0	130.0	5.7	0.04	0.001
P-108	631	J-78	J-77	8.0	130.0	2.0	0.01	0.000
P-109	935	J-38	J-79	8.0	130.0	13.8	0.09	0.007
P-110	179	J-79	J-75	8.0	130.0	14.1	0.09	0.007
P-111	1,087	J-79	J-80	8.0	130.0	7.0	0.04	0.002
P-112	170	J-80	J-81	8.0	130.0	7.0	0.04	0.002
P-113	302	J-81	J-82	8.0	130.0	13.5	0.09	0.006
P-114	410	J-82	J-83	8.0	130.0	20.0	0.13	0.013
P-115	758	J-83	J-37	8.0	130.0	12.6	0.08	0.006
P-116	203	J-82	J-84	8.0	130.0	3.2	0.02	0.001
P-117	205	J-81	J-85	8.0	130.0	3.2	0.02	0.001
P-118	479	J-36	J-83	8.0	130.0	10.7	0.07	0.004
P-119	742	J-36	J-86	8.0	130.0	4.7	0.03	0.001
P-120	681	J-86	J-37	8.0	130.0	7.9	0.05	0.003
P-121	621	J-40	J-87	8.0	130.0	5.7	0.04	0.001
P-122	577	J-87	J-41	8.0	130.0	1.9	0.01	0.000
P-123	653	J-38	J-88	8.0	130.0	14.4	0.09	0.007
P-124	646	J-88	J-39	8.0	130.0	7.7	0.05	0.002
P-125	191	J-21	J-89	8.0	130.0	41.6	0.27	0.051
P-126	822	J-89	J-90	8.0	130.0	23.8	0.15	0.018
P-127	276	J-90	J-91	8.0	130.0	6.9	0.04	0.002
P-128	273	J-91	J-92	8.0	130.0	33.1	0.21	0.033
P-130	271	J-93	J-94	8.0	130.0	14.5	0.09	0.007
P-131	511	J-94	J-95	8.0	130.0	7.1	0.05	0.002
P-132	342	J-95	J-96	8.0	130.0	21.5	0.14	0.015
P-133	214	J-96	J-89	8.0	130.0	22.3	0.14	0.016
P-134	273	J-94	J-91	8.0	130.0	26.2	0.17	0.021
P-135	536	J-95	J-90	8.0	130.0	18.9	0.12	0.012
P-136	920	J-93	J-97	8.0	130.0	10.0	0.06	0.004
P-137	679	J-97	J-96	8.0	130.0	5.4	0.03	0.001
P-138	205	J-21	J-98	8.0	130.0	22.9	0.15	0.017
P-139	215	J-98	J-99	8.0	130.0	10.2	0.07	0.003
P-140	680	J-99	J-100	8.0	130.0	3.6	0.02	0.001
P-141	647	J-100	J-101	8.0	130.0	1.5	0.01	0.000
P-143	291	J-102	J-103	8.0	130.0	3.6	0.02	0.000
P-144	334	J-103	J-104	8.0	130.0	6.5	0.04	0.002
P-145	131	J-104	J-98	8.0	130.0	10.6	0.07	0.004
P-146	331	J-99	J-105	8.0	130.0	4.6	0.03	0.001
P-147	291	J-105	J-106	8.0	130.0	3.4	0.02	0.000
P-148	127	J-106	J-101	8.0	130.0	1.1	0.01	0.000
P-149	416	J-105	J-103	8.0	130.0	0.9	0.01	0.000
P-150	490	J-106	J-102	8.0	130.0	0.2	0.00	0.000
P-151	274	J-92	J-107	8.0	130.0	39.4	0.25	0.046
P-152	304	J-107	J-31	8.0	130.0	71.3	0.46	0.137
P-153	283	J-90	J-108	8.0	130.0	35.9	0.23	0.038
P-154	299	J-108	J-32	8.0	130.0	22.8	0.15	0.017
P-155	543	J-107	J-108	8.0	130.0	25.6	0.16	0.021
P-156	532	J-108	J-109	8.0	130.0	6.3	0.04	0.002
P-157	876	J-101	J-110	8.0	130.0	0.5	0.00	0.000

Label	Length (ft)	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-158	158	J-110	J-102	8.0	130.0	1.7	0.01	0.000
P-159	1,042	J-104	J-111	8.0	130.0	4.1	0.03	0.001
P-160	721	J-111	J-112	8.0	130.0	2.5	0.02	0.000
P-161	322	J-112	J-34	8.0	130.0	16.0	0.10	0.008
P-162	291	J-110	J-111	8.0	130.0	0.1	0.00	0.000
P-163	406	J-112	J-113	8.0	130.0	6.8	0.04	0.002
P-164	587	J-10	J-114	8.0	130.0	10.6	0.07	0.004
P-165	524	J-114	J-115	8.0	130.0	20.5	0.13	0.014
P-166	581	J-115	J-116	8.0	130.0	16.6	0.11	0.009
P-167	567	J-116	J-117	8.0	130.0	21.4	0.14	0.015
P-168	319	J-117	J-35	8.0	130.0	44.1	0.28	0.057
P-169	184	J-115	J-118	8.0	130.0	6.8	0.04	0.001
P-170	288	J-118	J-119	8.0	130.0	12.7	0.08	0.006
P-171	294	J-119	J-120	8.0	130.0	18.6	0.12	0.011
P-172	658	J-120	J-117	8.0	130.0	19.8	0.13	0.013
P-173	692	J-116	J-120	8.0	130.0	1.7	0.01	0.000
P-174	331	J-119	J-121	8.0	130.0	3.0	0.02	0.000
P-175	405	J-118	J-122	8.0	130.0	3.0	0.02	0.000
P-176	312	J-35	J-123	8.0	130.0	4.7	0.03	0.001
P-177	558	J-123	J-124	8.0	130.0	4.1	0.03	0.001
P-178	492	J-124	J-125	8.0	130.0	1.9	0.01	0.000
P-179	199	J-125	J-126	8.0	130.0	8.8	0.06	0.003
P-180	199	J-126	J-27	8.0	130.0	16.8	0.11	0.009
P-181	492	J-123	J-126	8.0	130.0	3.6	0.02	0.000
P-182	708	J-124	J-127	8.0	130.0	1.7	0.01	0.000
P-183	583	J-127	J-125	8.0	130.0	2.6	0.02	0.000
P-184	312	J-34	J-128	8.0	130.0	18.9	0.12	0.012
P-185	521	J-128	J-129	8.0	130.0	18.1	0.12	0.011
P-186	201	J-129	J-19	8.0	130.0	47.5	0.30	0.065
P-187	283	J-128	J-130	8.0	130.0	0.6	0.00	0.000
P-188	827	J-130	J-131	8.0	130.0	1.2	0.01	0.000
P-189	683	J-131	J-132	8.0	130.0	4.9	0.03	0.001
P-190	737	J-132	J-133	8.0	130.0	8.5	0.05	0.003
P-191	142	J-133	J-129	8.0	130.0	25.8	0.16	0.022
P-192	354	J-133	J-134	8.0	130.0	13.8	0.09	0.006
P-193	291	J-134	J-135	8.0	130.0	5.3	0.03	0.001
P-194	177	J-135	J-131	8.0	130.0	0.1	0.00	0.000
P-195	388	J-134	J-128	8.0	130.0	4.9	0.03	0.001
P-196	411	J-130	J-135	8.0	130.0	1.8	0.01	0.000
P-198	298	J-136	J-137	8.0	130.0	11.2	0.07	0.004
P-199	934	J-137	J-138	8.0	130.0	3.1	0.02	0.001
P-200	150	J-138	J-139	8.0	130.0	2.0	0.01	0.001
P-201	193	J-139	J-19	8.0	130.0	11.2	0.07	0.004
P-202	541	J-136	J-140	8.0	130.0	15.6	0.10	0.008
P-203	595	J-140	J-139	8.0	130.0	17.6	0.11	0.010
P-204	303	J-32	J-140	8.0	130.0	37.5	0.24	0.042
P-205	706	J-137	J-141	8.0	130.0	3.7	0.02	0.001
P-206	737	J-141	J-138	8.0	130.0	0.7	0.00	0.000
P-207	455	J-24	J-142	8.0	130.0	24.5	0.16	0.019

Label	Length (ft)	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-208	323	J-142	J-143	8.0	130.0	10.0	0.06	0.003
P-209	165	J-143	J-144	8.0	130.0	5.0	0.03	0.001
P-210	203	J-144	J-18	8.0	130.0	0.4	0.00	0.000
P-211	201	J-142	J-145	8.0	130.0	11.9	0.08	0.005
P-212	294	J-145	J-146	8.0	130.0	7.0	0.04	0.002
P-213	535	J-147	J-146	8.0	130.0	2.0	0.01	0.000
P-214	779	J-147	J-148	8.0	130.0	1.3	0.01	0.000
P-215	206	J-148	J-144	8.0	130.0	5.5	0.04	0.001
P-216	307	J-146	J-149	8.0	130.0	2.5	0.02	0.000
P-217	352	J-145	J-150	8.0	130.0	2.5	0.02	0.000
P-218	285	J-143	J-151	8.0	130.0	2.5	0.02	0.000
P-219	691	J-147	J-152	8.0	130.0	0.8	0.01	0.000
P-220	678	J-152	J-148	8.0	130.0	1.7	0.01	0.000
P-221	522	J-18	J-153	8.0	130.0	52.2	0.33	0.077
P-222	186	J-153	J-154	8.0	130.0	28.6	0.18	0.025
P-223	296	J-154	J-155	8.0	130.0	22.9	0.15	0.017
P-224	324	J-155	J-156	8.0	130.0	17.2	0.11	0.010
P-225	207	J-156	J-157	8.0	130.0	11.5	0.07	0.005
P-226	308	J-157	J-25	8.0	130.0	15.9	0.10	0.008
P-227	531	J-154	J-158	8.0	130.0	1.4	0.01	0.000
P-228	483	J-158	J-154	8.0	130.0	1.5	0.01	0.000
P-229	203	J-155	J-159	8.0	130.0	2.9	0.02	0.000
P-230	204	J-156	J-160	8.0	130.0	2.9	0.02	0.000
P-231	192	J-153	J-161	8.0	130.0	20.8	0.13	0.014
P-232	1,123	J-161	J-162	8.0	130.0	7.0	0.04	0.002
P-233	742	J-162	J-163	8.0	130.0	4.2	0.03	0.001
P-234	629	J-163	J-161	8.0	130.0	10.9	0.07	0.004
P-235	384	J-163	J-164	8.0	130.0	12.2	0.08	0.005
P-236	649	J-164	J-165	8.0	130.0	5.0	0.03	0.001
P-237	146	J-165	J-166	8.0	130.0	4.4	0.03	0.001
P-238	193	J-166	J-26	8.0	130.0	15.8	0.10	0.008
P-239	651	J-164	J-167	8.0	130.0	4.6	0.03	0.001
P-240	630	J-167	J-165	8.0	130.0	1.9	0.01	0.000
P-241	179	J-157	J-168	8.0	130.0	4.4	0.03	0.001
P-242	278	J-168	J-169	8.0	130.0	9.7	0.06	0.003
P-243	318	J-169	J-170	8.0	130.0	14.9	0.10	0.008
P-244	165	J-170	J-166	8.0	130.0	20.1	0.13	0.013
P-245	194	J-168	J-171	8.0	130.0	2.6	0.02	0.001
P-246	203	J-169	J-172	8.0	130.0	2.6	0.02	0.000
P-247	259	J-170	J-173	8.0	130.0	2.6	0.02	0.000

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,390.0	676.8	1,390.0

MAXIMUM DAY DEMAND

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	1,279.0	0.0	1,389.2	47.7
J-2	1,262.1	0.0	1,384.4	52.9
J-3	1,256.8	0.0	1,384.0	55.1
J-4	1,249.0	0.0	1,383.8	58.3
J-5	1,247.4	0.0	1,383.8	59.0
J-6	1,255.7	0.0	1,384.2	55.6
J-7	1,252.1	0.0	1,383.9	57.0
J-8	1,250.7	0.0	1,383.9	57.7
J-9	1,245.1	0.0	1,383.4	59.8
J-10	1,239.6	0.0	1,383.3	62.1
J-11	1,238.6	0.0	1,383.2	62.6
J-12	1,237.1	0.0	1,383.2	63.2
J-13	1,252.0	0.0	1,383.7	57.0
J-14	1,246.7	0.0	1,383.4	59.1
J-15	1,245.8	196.4	1,383.3	59.5
J-16	1,243.4	114.7	1,383.2	60.5
J-18	1,253.3	0.0	1,383.7	56.4
J-19	1,250.2	0.0	1,383.5	57.7
J-20	1,248.8	0.0	1,383.5	58.3
J-21	1,246.9	0.0	1,383.5	59.1
J-22	1,243.9	0.0	1,383.1	60.2
J-23	1,253.4	0.0	1,383.8	56.4
J-24	1,254.0	0.0	1,383.8	56.1
J-25	1,247.9	0.0	1,383.6	58.7
J-26	1,248.2	0.0	1,383.6	58.6
J-27	1,245.1	0.0	1,383.4	59.8
J-28	1,244.2	0.0	1,383.4	60.2
J-29	1,240.1	0.0	1,383.3	62.0
J-30	1,236.9	0.0	1,383.1	63.2
J-31	1,252.8	0.0	1,383.7	56.7
J-32	1,250.9	0.0	1,383.6	57.4
J-34	1,247.8	0.0	1,383.5	58.7
J-35	1,245.1	0.0	1,383.4	59.8
J-36	1,247.6	5.9	1,383.1	58.6
J-37	1,245.2	5.9	1,383.1	59.7
J-38	1,243.8	11.7	1,383.1	60.3
J-39	1,240.7	11.7	1,383.0	61.6
J-40	1,240.5	6.6	1,383.0	61.7
J-41	1,238.9	6.6	1,383.0	62.4
J-42	1,238.3	8.0	1,383.0	62.6
J-43	1,237.4	8.0	1,383.0	63.0
J-44	1,236.6	19.3	1,383.0	63.3
J-45	1,236.2	0.0	1,383.0	63.5
J-46	1,234.6	6.8	1,383.0	64.2
J-47	1,234.2	6.8	1,383.0	64.4
J-48	1,234.5	6.8	1,383.0	64.3
J-49	1,234.5	0.0	1,383.0	64.3
J-50	1,236.2	12.8	1,383.0	63.5
J-51	1,236.6	12.8	1,383.0	63.4
J-52	1,236.9	19.3	1,383.0	63.2

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-53	1,234.3	6.8	1,383.0	64.4
J-54	1,234.0	6.8	1,383.0	64.5
J-55	1,237.6	12.8	1,383.0	62.9
J-56	1,238.5	0.0	1,383.0	62.5
J-57	1,238.0	0.0	1,383.0	62.8
J-58	1,238.6	8.0	1,383.0	62.5
J-59	1,239.3	9.6	1,383.2	62.3
J-60	1,238.7	9.6	1,383.2	62.5
J-61	1,238.2	9.6	1,383.2	62.8
J-62	1,238.1	9.6	1,383.2	62.8
J-63	1,238.4	9.6	1,383.2	62.7
J-64	1,240.8	9.8	1,383.2	61.6
J-65	1,240.5	9.8	1,383.2	61.8
J-66	1,240.6	9.8	1,383.2	61.7
J-67	1,240.5	9.8	1,383.2	61.8
J-68	1,240.0	0.0	1,383.2	62.0
J-69	1,239.5	9.6	1,383.2	62.2
J-70	1,241.5	9.8	1,383.2	61.3
J-71	1,239.5	9.8	1,383.2	62.2
J-72	1,239.0	0.0	1,383.2	62.4
J-73	1,239.4	0.0	1,383.2	62.2
J-74	1,240.7	0.0	1,383.0	61.6
J-75	1,240.2	0.0	1,383.0	61.8
J-76	1,240.1	6.6	1,383.0	61.8
J-77	1,238.4	6.6	1,383.0	62.6
J-78	1,239.8	6.6	1,383.0	62.0
J-79	1,240.5	11.7	1,383.0	61.7
J-80	1,242.5	0.0	1,383.1	60.8
J-81	1,245.6	5.9	1,383.1	59.5
J-82	1,245.5	5.9	1,383.1	59.5
J-83	1,246.3	5.9	1,383.1	59.2
J-84	1,245.3	5.9	1,383.1	59.6
J-85	1,244.6	5.9	1,383.1	59.9
J-86	1,248.1	5.9	1,383.1	58.4
J-87	1,239.7	6.6	1,383.0	62.0
J-88	1,243.9	11.7	1,383.1	60.2
J-89	1,247.8	7.9	1,383.5	58.7
J-90	1,250.2	0.0	1,383.5	57.7
J-91	1,252.1	0.0	1,383.5	56.9
J-92	1,253.0	12.0	1,383.6	56.5
J-93	1,251.6	7.9	1,383.5	57.1
J-94	1,250.6	7.9	1,383.5	57.5
J-95	1,249.7	7.9	1,383.5	57.9
J-96	1,246.5	7.9	1,383.5	59.3
J-97	1,249.0	7.9	1,383.5	58.2
J-98	1,246.2	3.7	1,383.5	59.4
J-99	1,245.4	3.7	1,383.5	59.7
J-100	1,243.5	3.7	1,383.5	60.5
J-101	1,243.3	3.7	1,383.5	60.6
J-102	1,244.5	3.7	1,383.5	60.1

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-103	1,245.3	3.7	1,383.5	59.8
J-104	1,246.3	0.0	1,383.5	59.3
J-105	1,243.8	3.7	1,383.5	60.4
J-106	1,243.2	3.7	1,383.5	60.7
J-107	1,252.6	12.0	1,383.6	56.7
J-108	1,250.8	12.0	1,383.6	57.4
J-109	1,248.9	12.0	1,383.6	58.3
J-110	1,244.2	3.7	1,383.5	60.3
J-111	1,244.5	12.2	1,383.5	60.1
J-112	1,247.1	12.2	1,383.5	59.0
J-113	1,248.5	12.2	1,383.5	58.4
J-114	1,241.3	48.4	1,383.3	61.4
J-115	1,242.7	5.2	1,383.3	60.8
J-116	1,243.9	5.2	1,383.3	60.3
J-117	1,244.9	5.2	1,383.3	59.9
J-118	1,242.4	5.2	1,383.3	60.9
J-119	1,241.9	5.2	1,383.3	61.2
J-120	1,242.7	5.2	1,383.3	60.8
J-121	1,240.8	5.2	1,383.3	61.7
J-122	1,241.3	5.2	1,383.3	61.4
J-123	1,246.2	7.2	1,383.4	59.4
J-124	1,247.0	7.2	1,383.4	59.0
J-125	1,246.0	7.2	1,383.4	59.4
J-126	1,245.3	7.2	1,383.4	59.7
J-127	1,247.3	7.2	1,383.4	58.9
J-128	1,248.9	6.4	1,383.5	58.2
J-129	1,249.5	6.4	1,383.5	58.0
J-130	1,248.0	6.4	1,383.5	58.6
J-131	1,248.0	6.4	1,383.5	58.6
J-132	1,250.1	6.4	1,383.5	57.7
J-133	1,249.9	6.4	1,383.5	57.8
J-134	1,249.7	6.4	1,383.5	57.9
J-135	1,248.6	6.4	1,383.5	58.4
J-136	1,254.3	8.1	1,383.5	55.9
J-137	1,254.1	8.1	1,383.5	56.0
J-138	1,251.2	8.1	1,383.5	57.3
J-139	1,250.9	8.1	1,383.5	57.4
J-140	1,251.9	8.1	1,383.6	57.0
J-141	1,253.0	8.1	1,383.5	56.5
J-142	1,255.5	4.3	1,383.8	55.5
J-143	1,254.1	4.3	1,383.8	56.1
J-144	1,254.6	0.0	1,383.7	55.9
J-145	1,256.4	4.3	1,383.8	55.1
J-146	1,257.5	4.3	1,383.7	54.6
J-147	1,258.8	4.3	1,383.7	54.0
J-148	1,255.5	4.3	1,383.7	55.5
J-149	1,257.0	4.3	1,383.7	54.9
J-150	1,255.2	4.3	1,383.8	55.6
J-151	1,253.4	4.3	1,383.8	56.4
J-152	1,258.0	4.3	1,383.7	54.4

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-153	1,252.8	5.1	1,383.6	56.6
J-154	1,252.2	5.1	1,383.6	56.9
J-155	1,251.3	5.1	1,383.6	57.2
J-156	1,249.9	5.1	1,383.6	57.8
J-157	1,248.4	0.0	1,383.6	58.5
J-158	1,252.0	5.1	1,383.6	56.9
J-159	1,250.9	5.1	1,383.6	57.4
J-160	1,249.8	5.1	1,383.6	57.9
J-161	1,253.4	5.1	1,383.6	56.4
J-162	1,253.4	5.1	1,383.6	56.3
J-163	1,251.0	5.1	1,383.6	57.4
J-164	1,250.7	4.5	1,383.6	57.5
J-165	1,250.1	4.5	1,383.6	57.8
J-166	1,248.4	0.0	1,383.6	58.5
J-167	1,250.4	4.5	1,383.6	57.6
J-168	1,248.4	4.5	1,383.6	58.5
J-169	1,248.3	4.5	1,383.6	58.6
J-170	1,248.2	4.5	1,383.6	58.6
J-171	1,248.3	4.5	1,383.6	58.5
J-172	1,248.2	4.5	1,383.6	58.6
J-173	1,248.1	4.5	1,383.6	58.6

Label	Length (ft)	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-1	6,697	R-1	J-1	24.0	130.0	1,222.1	0.87	0.126
P-2	5,240	J-1	J-2	16.0	130.0	1,222.1	1.95	0.905
P-3	1,269	J-2	J-3	16.0	130.0	671.6	1.07	0.299
P-5	1,499	J-4	J-5	16.0	130.0	0.0	0.00	0.000
P-6	1,173	J-2	J-6	16.0	130.0	550.5	0.88	0.207
P-7	2,438	J-6	J-7	16.0	130.0	388.5	0.62	0.108
P-8	1,287	J-7	J-8	16.0	130.0	0.0	0.00	0.000
P-9	1,119	J-4	J-9	8.0	130.0	123.0	0.78	0.377
P-10	1,736	J-9	J-10	8.0	130.0	45.5	0.29	0.060
P-11	1,002	J-10	J-11	8.0	130.0	30.2	0.19	0.028
P-12	1,325	J-11	J-12	8.0	130.0	0.0	0.00	0.000
P-15	448	J-14	J-15	12.0	130.0	311.0	0.88	0.292
P-16	709	J-15	J-16	12.0	130.0	114.7	0.33	0.046
P-18	678	J-6	J-18	8.0	130.0	161.9	1.03	0.627
P-19	569	J-18	J-13	8.0	130.0	67.2	0.43	0.123
P-20	614	J-13	J-19	8.0	130.0	95.2	0.61	0.235
P-21	488	J-19	J-20	8.0	130.0	29.8	0.19	0.027
P-22	999	J-20	J-21	8.0	130.0	39.3	0.25	0.046
P-23	712	J-21	J-9	8.0	130.0	71.6	0.46	0.138
P-24	508	J-9	J-22	8.0	130.0	149.1	0.95	0.538
P-25	1,073	J-3	J-23	16.0	130.0	545.9	0.87	0.203
P-26	1,565	J-23	J-4	16.0	130.0	123.0	0.20	0.013
P-27	658	J-3	J-24	8.0	130.0	125.7	0.80	0.392
P-28	569	J-24	J-13	8.0	130.0	81.5	0.52	0.176
P-29	1,284	J-13	J-25	8.0	130.0	53.4	0.34	0.080
P-30	909	J-25	J-14	8.0	130.0	82.6	0.53	0.180
P-31	696	J-7	J-26	12.0	130.0	388.5	1.10	0.440
P-32	495	J-26	J-14	12.0	130.0	362.9	1.03	0.388
P-33	660	J-14	J-27	12.0	130.0	134.5	0.38	0.062
P-34	449	J-27	J-28	12.0	130.0	111.1	0.32	0.043
P-35	1,266	J-28	J-29	12.0	130.0	142.4	0.40	0.069
P-36	661	J-29	J-11	12.0	130.0	89.6	0.25	0.029
P-37	520	J-11	J-30	8.0	130.0	119.8	0.76	0.359
P-39	545	J-31	J-32	12.0	130.0	294.1	0.83	0.263
P-40	651	J-32	J-20	12.0	130.0	184.7	0.52	0.111
P-42	159	J-23	J-31	12.0	130.0	422.9	1.20	0.515
P-43	522	J-20	J-34	12.0	130.0	175.2	0.50	0.101
P-44	927	J-34	J-35	12.0	130.0	181.6	0.52	0.108
P-45	549	J-35	J-28	12.0	130.0	94.6	0.27	0.032
P-46	724	J-36	J-37	8.0	130.0	16.5	0.11	0.009
P-47	194	J-37	J-22	8.0	130.0	58.9	0.38	0.096
P-48	191	J-22	J-38	8.0	130.0	90.2	0.58	0.212
P-49	681	J-38	J-39	8.0	130.0	28.7	0.18	0.025
P-51	617	J-40	J-41	8.0	130.0	10.7	0.07	0.004
P-53	845	J-42	J-43	8.0	130.0	10.5	0.07	0.004
P-54	202	J-43	J-30	8.0	130.0	57.4	0.37	0.092
P-55	196	J-30	J-44	8.0	130.0	62.4	0.40	0.107
P-56	322	J-44	J-45	8.0	130.0	23.8	0.15	0.018
P-57	917	J-45	J-46	8.0	130.0	12.2	0.08	0.005

Label	Length (ft)	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-58	286	J-46	J-47	8.0	130.0	17.0	0.11	0.009
P-59	353	J-47	J-48	8.0	130.0	3.3	0.02	0.001
P-60	395	J-48	J-49	8.0	130.0	5.2	0.03	0.001
P-61	1,032	J-49	J-50	8.0	130.0	10.3	0.07	0.004
P-62	784	J-50	J-51	8.0	130.0	11.8	0.08	0.005
P-63	320	J-51	J-43	8.0	130.0	27.7	0.18	0.024
P-64	1,006	J-45	J-46	8.0	130.0	11.6	0.07	0.005
P-65	1,099	J-44	J-52	8.0	130.0	9.9	0.06	0.004
P-66	1,206	J-44	J-52	8.0	130.0	9.4	0.06	0.003
P-67	480	J-49	J-53	8.0	130.0	5.1	0.03	0.001
P-68	463	J-53	J-48	8.0	130.0	1.7	0.01	0.000
P-69	261	J-47	J-54	8.0	130.0	6.8	0.04	0.002
P-70	754	J-50	J-55	8.0	130.0	11.4	0.07	0.005
P-71	884	J-55	J-51	8.0	130.0	3.1	0.02	0.000
P-72	126	J-41	J-56	8.0	130.0	7.5	0.05	0.002
P-73	122	J-56	J-42	8.0	130.0	5.6	0.04	0.001
P-74	184	J-55	J-57	8.0	130.0	21.1	0.13	0.015
P-75	321	J-57	J-56	8.0	130.0	13.1	0.08	0.006
P-76	708	J-42	J-58	8.0	130.0	3.1	0.02	0.000
P-77	680	J-58	J-43	8.0	130.0	11.2	0.07	0.004
P-78	481	J-29	J-59	8.0	130.0	52.8	0.34	0.079
P-79	182	J-59	J-60	8.0	130.0	23.2	0.15	0.017
P-80	1,020	J-60	J-61	8.0	130.0	6.3	0.04	0.001
P-81	1,309	J-61	J-62	8.0	130.0	3.3	0.02	0.000
P-82	287	J-62	J-63	8.0	130.0	4.4	0.03	0.001
P-83	375	J-63	J-60	8.0	130.0	7.3	0.05	0.002
P-84	1,038	J-28	J-64	8.0	130.0	63.3	0.40	0.110
P-85	268	J-64	J-65	8.0	130.0	35.5	0.23	0.038
P-86	175	J-65	J-66	8.0	130.0	21.8	0.14	0.015
P-87	128	J-66	J-67	8.0	130.0	8.6	0.05	0.003
P-88	151	J-67	J-68	8.0	130.0	3.4	0.02	0.001
P-89	224	J-68	J-69	8.0	130.0	6.4	0.04	0.002
P-90	189	J-69	J-59	8.0	130.0	20.0	0.13	0.013
P-91	870	J-66	J-70	8.0	130.0	3.5	0.02	0.001
P-92	762	J-70	J-69	8.0	130.0	4.1	0.03	0.001
P-93	415	J-70	J-67	8.0	130.0	2.2	0.01	0.000
P-94	979	J-64	J-71	8.0	130.0	18.1	0.12	0.011
P-95	707	J-71	J-65	8.0	130.0	3.9	0.02	0.001
P-96	471	J-71	J-72	8.0	130.0	12.2	0.08	0.005
P-97	308	J-72	J-73	8.0	130.0	3.8	0.02	0.000
P-98	378	J-73	J-68	8.0	130.0	2.9	0.02	0.000
P-99	522	J-73	J-63	8.0	130.0	6.7	0.04	0.002
P-100	496	J-72	J-62	8.0	130.0	8.4	0.05	0.003
P-101	124	J-39	J-74	8.0	130.0	30.6	0.20	0.029
P-102	128	J-74	J-40	8.0	130.0	27.3	0.17	0.023
P-103	320	J-74	J-75	8.0	130.0	3.3	0.02	0.000
P-104	185	J-75	J-76	8.0	130.0	27.8	0.18	0.024
P-105	586	J-76	J-77	8.0	130.0	11.2	0.07	0.004
P-106	182	J-77	J-57	8.0	130.0	8.1	0.05	0.003

Label	Length (ft)	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-107	632	J-76	J-78	8.0	130.0	10.0	0.06	0.004
P-108	631	J-78	J-77	8.0	130.0	3.4	0.02	0.000
P-109	935	J-38	J-79	8.0	130.0	24.4	0.16	0.019
P-110	179	J-79	J-75	8.0	130.0	24.6	0.16	0.019
P-111	1,087	J-79	J-80	8.0	130.0	12.0	0.08	0.005
P-112	170	J-80	J-81	8.0	130.0	12.0	0.08	0.005
P-113	302	J-81	J-82	8.0	130.0	23.7	0.15	0.018
P-114	410	J-82	J-83	8.0	130.0	35.4	0.23	0.038
P-115	758	J-83	J-37	8.0	130.0	22.4	0.14	0.016
P-116	203	J-82	J-84	8.0	130.0	5.9	0.04	0.002
P-117	205	J-81	J-85	8.0	130.0	5.9	0.04	0.001
P-118	479	J-36	J-83	8.0	130.0	18.9	0.12	0.012
P-119	742	J-36	J-86	8.0	130.0	8.3	0.05	0.002
P-120	681	J-86	J-37	8.0	130.0	14.2	0.09	0.007
P-121	621	J-40	J-87	8.0	130.0	10.0	0.06	0.004
P-122	577	J-87	J-41	8.0	130.0	3.4	0.02	0.000
P-123	653	J-38	J-88	8.0	130.0	25.3	0.16	0.020
P-124	646	J-88	J-39	8.0	130.0	13.6	0.09	0.006
P-125	191	J-21	J-89	8.0	130.0	74.7	0.48	0.150
P-126	822	J-89	J-90	8.0	130.0	42.4	0.27	0.052
P-127	276	J-90	J-91	8.0	130.0	12.4	0.08	0.005
P-128	273	J-91	J-92	8.0	130.0	58.7	0.37	0.096
P-130	271	J-93	J-94	8.0	130.0	25.7	0.16	0.021
P-131	511	J-94	J-95	8.0	130.0	12.6	0.08	0.005
P-132	342	J-95	J-96	8.0	130.0	38.2	0.24	0.043
P-133	214	J-96	J-89	8.0	130.0	40.2	0.26	0.047
P-134	273	J-94	J-91	8.0	130.0	46.2	0.30	0.062
P-135	536	J-95	J-90	8.0	130.0	33.5	0.21	0.034
P-136	920	J-93	J-97	8.0	130.0	17.8	0.11	0.010
P-137	679	J-97	J-96	8.0	130.0	9.9	0.06	0.003
P-138	205	J-21	J-98	8.0	130.0	42.4	0.27	0.052
P-139	215	J-98	J-99	8.0	130.0	18.9	0.12	0.012
P-140	680	J-99	J-100	8.0	130.0	6.6	0.04	0.002
P-141	647	J-100	J-101	8.0	130.0	3.0	0.02	0.000
P-143	291	J-102	J-103	8.0	130.0	6.8	0.04	0.002
P-144	334	J-103	J-104	8.0	130.0	12.1	0.08	0.005
P-145	131	J-104	J-98	8.0	130.0	19.8	0.13	0.013
P-146	331	J-99	J-105	8.0	130.0	8.6	0.05	0.003
P-147	291	J-105	J-106	8.0	130.0	6.4	0.04	0.001
P-148	127	J-106	J-101	8.0	130.0	2.1	0.01	0.001
P-149	416	J-105	J-103	8.0	130.0	1.5	0.01	0.000
P-150	490	J-106	J-102	8.0	130.0	0.6	0.00	0.000
P-151	274	J-92	J-107	8.0	130.0	70.7	0.45	0.135
P-152	304	J-107	J-31	8.0	130.0	128.8	0.82	0.411
P-153	283	J-90	J-108	8.0	130.0	63.5	0.41	0.111
P-154	299	J-108	J-32	8.0	130.0	41.3	0.26	0.050
P-155	543	J-107	J-108	8.0	130.0	46.2	0.29	0.061
P-156	532	J-108	J-109	8.0	130.0	12.0	0.08	0.005
P-157	876	J-101	J-110	8.0	130.0	1.4	0.01	0.000

Label	Length (ft)	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-158	158	J-110	J-102	8.0	130.0	3.8	0.02	0.001
P-159	1,042	J-104	J-111	8.0	130.0	7.8	0.05	0.002
P-160	721	J-111	J-112	8.0	130.0	3.0	0.02	0.000
P-161	322	J-112	J-34	8.0	130.0	27.5	0.18	0.023
P-162	291	J-110	J-111	8.0	130.0	1.5	0.01	0.000
P-163	406	J-112	J-113	8.0	130.0	12.2	0.08	0.005
P-164	587	J-10	J-114	8.0	130.0	15.3	0.10	0.008
P-165	524	J-114	J-115	8.0	130.0	33.1	0.21	0.033
P-166	581	J-115	J-116	8.0	130.0	27.7	0.18	0.024
P-167	567	J-116	J-117	8.0	130.0	35.9	0.23	0.039
P-168	319	J-117	J-35	8.0	130.0	74.3	0.47	0.148
P-169	184	J-115	J-118	8.0	130.0	10.6	0.07	0.004
P-170	288	J-118	J-119	8.0	130.0	20.9	0.13	0.014
P-171	294	J-119	J-120	8.0	130.0	31.2	0.20	0.030
P-172	658	J-120	J-117	8.0	130.0	33.3	0.21	0.034
P-173	692	J-116	J-120	8.0	130.0	3.0	0.02	0.000
P-174	331	J-119	J-121	8.0	130.0	5.2	0.03	0.001
P-175	405	J-118	J-122	8.0	130.0	5.2	0.03	0.001
P-176	312	J-35	J-123	8.0	130.0	12.7	0.08	0.005
P-177	558	J-123	J-124	8.0	130.0	7.9	0.05	0.002
P-178	492	J-124	J-125	8.0	130.0	2.4	0.02	0.000
P-179	199	J-125	J-126	8.0	130.0	13.8	0.09	0.007
P-180	199	J-126	J-27	8.0	130.0	23.3	0.15	0.017
P-181	492	J-123	J-126	8.0	130.0	2.4	0.02	0.000
P-182	708	J-124	J-127	8.0	130.0	3.1	0.02	0.000
P-183	583	J-127	J-125	8.0	130.0	4.1	0.03	0.001
P-184	312	J-34	J-128	8.0	130.0	33.9	0.22	0.034
P-185	521	J-128	J-129	8.0	130.0	32.5	0.21	0.032
P-186	201	J-129	J-19	8.0	130.0	85.1	0.54	0.190
P-187	283	J-128	J-130	8.0	130.0	1.0	0.01	0.000
P-188	827	J-130	J-131	8.0	130.0	2.2	0.01	0.000
P-189	683	J-131	J-132	8.0	130.0	8.8	0.06	0.003
P-190	737	J-132	J-133	8.0	130.0	15.2	0.10	0.008
P-191	142	J-133	J-129	8.0	130.0	46.3	0.30	0.062
P-192	354	J-133	J-134	8.0	130.0	24.6	0.16	0.019
P-193	291	J-134	J-135	8.0	130.0	9.4	0.06	0.003
P-194	177	J-135	J-131	8.0	130.0	0.2	0.00	0.000
P-195	388	J-134	J-128	8.0	130.0	8.8	0.06	0.003
P-196	411	J-130	J-135	8.0	130.0	3.2	0.02	0.001
P-198	298	J-136	J-137	8.0	130.0	20.2	0.13	0.014
P-199	934	J-137	J-138	8.0	130.0	5.5	0.04	0.001
P-200	150	J-138	J-139	8.0	130.0	4.0	0.03	0.001
P-201	193	J-139	J-19	8.0	130.0	19.7	0.13	0.013
P-202	541	J-136	J-140	8.0	130.0	28.2	0.18	0.025
P-203	595	J-140	J-139	8.0	130.0	31.8	0.20	0.031
P-204	303	J-32	J-140	8.0	130.0	68.1	0.43	0.126
P-205	706	J-137	J-141	8.0	130.0	6.6	0.04	0.002
P-206	737	J-141	J-138	8.0	130.0	1.5	0.01	0.000
P-207	455	J-24	J-142	8.0	130.0	44.3	0.28	0.057

Label	Length (ft)	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-208	323	J-142	J-143	8.0	130.0	18.5	0.12	0.011
P-209	165	J-143	J-144	8.0	130.0	9.8	0.06	0.004
P-210	203	J-144	J-18	8.0	130.0	0.8	0.00	0.000
P-211	201	J-142	J-145	8.0	130.0	21.4	0.14	0.015
P-212	294	J-145	J-146	8.0	130.0	12.7	0.08	0.005
P-213	535	J-147	J-146	8.0	130.0	4.0	0.03	0.001
P-214	779	J-147	J-148	8.0	130.0	2.0	0.01	0.000
P-215	206	J-148	J-144	8.0	130.0	9.0	0.06	0.003
P-216	307	J-146	J-149	8.0	130.0	4.3	0.03	0.001
P-217	352	J-145	J-150	8.0	130.0	4.3	0.03	0.001
P-218	285	J-143	J-151	8.0	130.0	4.3	0.03	0.001
P-219	691	J-147	J-152	8.0	130.0	1.6	0.01	0.000
P-220	678	J-152	J-148	8.0	130.0	2.7	0.02	0.000
P-221	522	J-18	J-153	8.0	130.0	95.5	0.61	0.236
P-222	186	J-153	J-154	8.0	130.0	51.9	0.33	0.076
P-223	296	J-154	J-155	8.0	130.0	41.7	0.27	0.051
P-224	324	J-155	J-156	8.0	130.0	31.5	0.20	0.030
P-225	207	J-156	J-157	8.0	130.0	21.3	0.14	0.015
P-226	308	J-157	J-25	8.0	130.0	29.2	0.19	0.026
P-227	531	J-154	J-158	8.0	130.0	2.5	0.02	0.000
P-228	483	J-158	J-154	8.0	130.0	2.6	0.02	0.000
P-229	203	J-155	J-159	8.0	130.0	5.1	0.03	0.001
P-230	204	J-156	J-160	8.0	130.0	5.1	0.03	0.001
P-231	192	J-153	J-161	8.0	130.0	38.5	0.25	0.044
P-232	1,123	J-161	J-162	8.0	130.0	13.1	0.08	0.006
P-233	742	J-162	J-163	8.0	130.0	8.0	0.05	0.002
P-234	629	J-163	J-161	8.0	130.0	20.3	0.13	0.013
P-235	384	J-163	J-164	8.0	130.0	23.1	0.15	0.017
P-236	649	J-164	J-165	8.0	130.0	9.9	0.06	0.003
P-237	146	J-165	J-166	8.0	130.0	9.5	0.06	0.003
P-238	193	J-166	J-26	8.0	130.0	25.6	0.16	0.020
P-239	651	J-164	J-167	8.0	130.0	8.7	0.06	0.003
P-240	630	J-167	J-165	8.0	130.0	4.2	0.03	0.001
P-241	179	J-157	J-168	8.0	130.0	7.9	0.05	0.003
P-242	278	J-168	J-169	8.0	130.0	17.0	0.11	0.010
P-243	318	J-169	J-170	8.0	130.0	26.1	0.17	0.021
P-244	165	J-170	J-166	8.0	130.0	35.1	0.22	0.037
P-245	194	J-168	J-171	8.0	130.0	4.5	0.03	0.001
P-246	203	J-169	J-172	8.0	130.0	4.5	0.03	0.001
P-247	259	J-170	J-173	8.0	130.0	4.5	0.03	0.001

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,390.0	1,222.1	1,390.0

PEAK HOUR DEMAND

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-1	1,279.0	0.0	1,387.9	47.1
J-2	1,262.1	0.0	1,376.3	49.4
J-3	1,256.8	0.0	1,375.4	51.3
J-4	1,249.0	0.0	1,374.8	54.4
J-5	1,247.4	0.0	1,374.8	55.1
J-6	1,255.7	0.0	1,375.7	51.9
J-7	1,252.1	0.0	1,375.0	53.2
J-8	1,250.7	0.0	1,375.0	53.8
J-9	1,245.1	0.0	1,373.7	55.7
J-10	1,239.6	0.0	1,373.5	57.9
J-11	1,238.6	0.0	1,373.4	58.4
J-12	1,237.1	0.0	1,373.4	59.0
J-13	1,252.0	0.0	1,374.5	53.0
J-14	1,246.7	0.0	1,373.8	55.0
J-15	1,245.8	330.8	1,373.5	55.2
J-16	1,243.4	191.9	1,373.4	56.3
J-18	1,253.3	0.0	1,374.6	52.5
J-19	1,250.2	0.0	1,374.1	53.6
J-20	1,248.8	0.0	1,374.1	54.2
J-21	1,246.9	0.0	1,374.0	55.0
J-22	1,243.9	0.0	1,373.1	55.9
J-23	1,253.4	0.0	1,374.8	52.5
J-24	1,254.0	0.0	1,374.7	52.2
J-25	1,247.9	0.0	1,374.2	54.6
J-26	1,248.2	0.0	1,374.3	54.5
J-27	1,245.1	0.0	1,373.7	55.6
J-28	1,244.2	0.0	1,373.7	56.0
J-29	1,240.1	0.0	1,373.5	57.7
J-30	1,236.9	0.0	1,373.0	58.9
J-31	1,252.8	0.0	1,374.6	52.7
J-32	1,250.9	0.0	1,374.3	53.4
J-34	1,247.8	0.0	1,374.0	54.6
J-35	1,245.1	0.0	1,373.7	55.6
J-36	1,247.6	9.5	1,373.0	54.3
J-37	1,245.2	9.5	1,373.0	55.3
J-38	1,243.8	18.8	1,373.0	55.9
J-39	1,240.7	18.8	1,372.9	57.2
J-40	1,240.5	10.6	1,372.9	57.3
J-41	1,238.9	10.6	1,372.9	58.0
J-42	1,238.3	12.9	1,372.9	58.2
J-43	1,237.4	12.9	1,372.9	58.7
J-44	1,236.6	31.1	1,372.9	59.0
J-45	1,236.2	0.0	1,372.9	59.2
J-46	1,234.6	10.9	1,372.9	59.8
J-47	1,234.2	10.9	1,372.9	60.0
J-48	1,234.5	10.9	1,372.9	59.9
J-49	1,234.5	0.0	1,372.9	59.9
J-50	1,236.2	20.5	1,372.9	59.2
J-51	1,236.6	20.5	1,372.9	59.0
J-52	1,236.9	31.1	1,372.9	58.9

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-53	1,234.3	10.9	1,372.9	60.0
J-54	1,234.0	10.9	1,372.9	60.1
J-55	1,237.6	20.5	1,372.9	58.5
J-56	1,238.5	0.0	1,372.9	58.2
J-57	1,238.0	0.0	1,372.9	58.4
J-58	1,238.6	12.9	1,372.9	58.1
J-59	1,239.3	15.4	1,373.4	58.0
J-60	1,238.7	15.4	1,373.4	58.3
J-61	1,238.2	15.4	1,373.4	58.5
J-62	1,238.1	15.4	1,373.4	58.5
J-63	1,238.4	15.4	1,373.4	58.4
J-64	1,240.8	15.9	1,373.4	57.4
J-65	1,240.5	15.9	1,373.4	57.5
J-66	1,240.6	15.9	1,373.4	57.4
J-67	1,240.5	15.9	1,373.4	57.5
J-68	1,240.0	0.0	1,373.4	57.7
J-69	1,239.5	15.4	1,373.4	57.9
J-70	1,241.5	15.9	1,373.4	57.1
J-71	1,239.5	15.9	1,373.4	57.9
J-72	1,239.0	0.0	1,373.4	58.1
J-73	1,239.4	0.0	1,373.4	58.0
J-74	1,240.7	0.0	1,372.9	57.2
J-75	1,240.2	0.0	1,372.9	57.4
J-76	1,240.1	10.6	1,372.9	57.5
J-77	1,238.4	10.6	1,372.9	58.2
J-78	1,239.8	10.6	1,372.9	57.6
J-79	1,240.5	18.8	1,372.9	57.3
J-80	1,242.5	0.0	1,373.0	56.4
J-81	1,245.6	9.5	1,373.0	55.1
J-82	1,245.5	9.5	1,373.0	55.1
J-83	1,246.3	9.5	1,373.0	54.8
J-84	1,245.3	9.5	1,373.0	55.2
J-85	1,244.6	9.5	1,373.0	55.6
J-86	1,248.1	9.5	1,373.0	54.0
J-87	1,239.7	10.6	1,372.9	57.6
J-88	1,243.9	18.8	1,373.0	55.8
J-89	1,247.8	12.6	1,374.1	54.6
J-90	1,250.2	0.0	1,374.2	53.6
J-91	1,252.1	0.0	1,374.2	52.8
J-92	1,253.0	20.0	1,374.2	52.5
J-93	1,251.6	12.6	1,374.1	53.0
J-94	1,250.6	12.6	1,374.1	53.4
J-95	1,249.7	12.6	1,374.1	53.8
J-96	1,246.5	12.6	1,374.1	55.2
J-97	1,249.0	12.6	1,374.1	54.1
J-98	1,246.2	5.9	1,374.0	55.3
J-99	1,245.4	5.9	1,373.9	55.6
J-100	1,243.5	5.9	1,373.9	56.4
J-101	1,243.3	5.9	1,373.9	56.5
J-102	1,244.5	5.9	1,373.9	56.0

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-103	1,245.3	5.9	1,373.9	55.6
J-104	1,246.3	0.0	1,374.0	55.2
J-105	1,243.8	5.9	1,373.9	56.3
J-106	1,243.2	5.9	1,373.9	56.6
J-107	1,252.6	20.0	1,374.3	52.7
J-108	1,250.8	20.0	1,374.2	53.4
J-109	1,248.9	20.0	1,374.2	54.2
J-110	1,244.2	5.9	1,373.9	56.1
J-111	1,244.5	19.9	1,373.9	56.0
J-112	1,247.1	19.9	1,373.9	54.9
J-113	1,248.5	19.9	1,373.9	54.3
J-114	1,241.3	72.7	1,373.5	57.2
J-115	1,242.7	8.2	1,373.5	56.6
J-116	1,243.9	8.2	1,373.6	56.1
J-117	1,244.9	8.2	1,373.6	55.7
J-118	1,242.4	8.2	1,373.5	56.7
J-119	1,241.9	8.2	1,373.5	57.0
J-120	1,242.7	8.2	1,373.6	56.6
J-121	1,240.8	8.2	1,373.5	57.4
J-122	1,241.3	8.2	1,373.5	57.2
J-123	1,246.2	11.3	1,373.7	55.2
J-124	1,247.0	11.3	1,373.7	54.8
J-125	1,246.0	11.3	1,373.7	55.3
J-126	1,245.3	11.3	1,373.7	55.5
J-127	1,247.3	11.3	1,373.7	54.7
J-128	1,248.9	10.4	1,374.0	54.1
J-129	1,249.5	10.4	1,374.0	53.9
J-130	1,248.0	10.4	1,374.0	54.5
J-131	1,248.0	10.4	1,374.0	54.5
J-132	1,250.1	10.4	1,374.0	53.6
J-133	1,249.9	10.4	1,374.0	53.7
J-134	1,249.7	10.4	1,374.0	53.8
J-135	1,248.6	10.4	1,374.0	54.2
J-136	1,254.3	13.2	1,374.1	51.8
J-137	1,254.1	13.2	1,374.1	51.9
J-138	1,251.2	13.2	1,374.1	53.2
J-139	1,250.9	13.2	1,374.1	53.3
J-140	1,251.9	13.2	1,374.2	52.9
J-141	1,253.0	13.2	1,374.1	52.4
J-142	1,255.5	6.9	1,374.7	51.6
J-143	1,254.1	6.9	1,374.6	52.1
J-144	1,254.6	0.0	1,374.6	51.9
J-145	1,256.4	6.9	1,374.6	51.2
J-146	1,257.5	6.9	1,374.6	50.7
J-147	1,258.8	6.9	1,374.6	50.1
J-148	1,255.5	6.9	1,374.6	51.5
J-149	1,257.0	6.9	1,374.6	50.9
J-150	1,255.2	6.9	1,374.6	51.7
J-151	1,253.4	6.9	1,374.6	52.5
J-152	1,258.0	6.9	1,374.6	50.4

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-153	1,252.8	8.3	1,374.3	52.6
J-154	1,252.2	8.3	1,374.3	52.8
J-155	1,251.3	8.3	1,374.3	53.2
J-156	1,249.9	8.3	1,374.2	53.8
J-157	1,248.4	0.0	1,374.2	54.5
J-158	1,252.0	8.3	1,374.3	52.9
J-159	1,250.9	8.3	1,374.3	53.4
J-160	1,249.8	8.3	1,374.2	53.9
J-161	1,253.4	8.3	1,374.3	52.3
J-162	1,253.4	8.3	1,374.3	52.3
J-163	1,251.0	8.3	1,374.3	53.4
J-164	1,250.7	7.2	1,374.3	53.5
J-165	1,250.1	7.2	1,374.3	53.7
J-166	1,248.4	0.0	1,374.3	54.4
J-167	1,250.4	7.2	1,374.3	53.6
J-168	1,248.4	7.2	1,374.2	54.4
J-169	1,248.3	7.2	1,374.2	54.5
J-170	1,248.2	7.2	1,374.3	54.5
J-171	1,248.3	7.2	1,374.2	54.5
J-172	1,248.2	7.2	1,374.2	54.5
J-173	1,248.1	7.2	1,374.3	54.6

Label	Length (ft)	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-1	6,697	R-1	J-1	24.0	130.0	1,985.5	1.41	0.309
P-2	5,240	J-1	J-2	16.0	130.0	1,985.5	3.17	2.223
P-3	1,269	J-2	J-3	16.0	130.0	1,090.2	1.74	0.732
P-5	1,499	J-4	J-5	16.0	130.0	0.0	0.00	0.000
P-6	1,173	J-2	J-6	16.0	130.0	895.4	1.43	0.509
P-7	2,438	J-6	J-7	16.0	130.0	632.5	1.01	0.267
P-8	1,287	J-7	J-8	16.0	130.0	0.0	0.00	0.000
P-9	1,119	J-4	J-9	8.0	130.0	198.8	1.27	0.917
P-10	1,736	J-9	J-10	8.0	130.0	73.2	0.47	0.144
P-11	1,002	J-10	J-11	8.0	130.0	51.2	0.33	0.074
P-12	1,325	J-11	J-12	8.0	130.0	0.0	0.00	0.000
P-15	448	J-14	J-15	12.0	130.0	522.7	1.48	0.762
P-16	709	J-15	J-16	12.0	130.0	191.9	0.54	0.119
P-18	678	J-6	J-18	8.0	130.0	262.9	1.68	1.538
P-19	569	J-18	J-13	8.0	130.0	109.2	0.70	0.302
P-20	614	J-13	J-19	8.0	130.0	154.0	0.98	0.571
P-21	488	J-19	J-20	8.0	130.0	47.8	0.31	0.065
P-22	999	J-20	J-21	8.0	130.0	63.2	0.40	0.110
P-23	712	J-21	J-9	8.0	130.0	114.5	0.73	0.330
P-24	508	J-9	J-22	8.0	130.0	240.1	1.53	1.301
P-25	1,073	J-3	J-23	16.0	130.0	885.7	1.41	0.498
P-26	1,565	J-23	J-4	16.0	130.0	198.8	0.32	0.031
P-27	658	J-3	J-24	8.0	130.0	204.4	1.30	0.966
P-28	569	J-24	J-13	8.0	130.0	132.5	0.85	0.432
P-29	1,284	J-13	J-25	8.0	130.0	87.7	0.56	0.201
P-30	909	J-25	J-14	8.0	130.0	135.4	0.86	0.450
P-31	696	J-7	J-26	12.0	130.0	632.5	1.79	1.085
P-32	495	J-26	J-14	12.0	130.0	593.0	1.68	0.963
P-33	660	J-14	J-27	12.0	130.0	205.7	0.58	0.136
P-34	449	J-27	J-28	12.0	130.0	173.6	0.49	0.099
P-35	1,266	J-28	J-29	12.0	130.0	226.7	0.64	0.162
P-36	661	J-29	J-11	12.0	130.0	140.5	0.40	0.067
P-37	520	J-11	J-30	8.0	130.0	191.6	1.22	0.857
P-39	545	J-31	J-32	12.0	130.0	477.7	1.36	0.645
P-40	651	J-32	J-20	12.0	130.0	299.7	0.85	0.272
P-42	159	J-23	J-31	12.0	130.0	687.0	1.95	1.264
P-43	522	J-20	J-34	12.0	130.0	284.3	0.81	0.247
P-44	927	J-34	J-35	12.0	130.0	295.8	0.84	0.266
P-45	549	J-35	J-28	12.0	130.0	154.9	0.44	0.080
P-46	724	J-36	J-37	8.0	130.0	26.6	0.17	0.022
P-47	194	J-37	J-22	8.0	130.0	95.2	0.61	0.234
P-48	191	J-22	J-38	8.0	130.0	144.9	0.92	0.510
P-49	681	J-38	J-39	8.0	130.0	46.1	0.29	0.061
P-51	617	J-40	J-41	8.0	130.0	17.2	0.11	0.010
P-53	845	J-42	J-43	8.0	130.0	16.6	0.11	0.009
P-54	202	J-43	J-30	8.0	130.0	91.6	0.58	0.218
P-55	196	J-30	J-44	8.0	130.0	100.0	0.64	0.257
P-56	322	J-44	J-45	8.0	130.0	37.9	0.24	0.042
P-57	917	J-45	J-46	8.0	130.0	19.4	0.12	0.012

Label	Length (ft)	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-58	286	J-46	J-47	8.0	130.0	26.9	0.17	0.023
P-59	353	J-47	J-48	8.0	130.0	5.1	0.03	0.001
P-60	395	J-48	J-49	8.0	130.0	8.5	0.05	0.003
P-61	1,032	J-49	J-50	8.0	130.0	16.7	0.11	0.009
P-62	784	J-50	J-51	8.0	130.0	18.9	0.12	0.012
P-63	320	J-51	J-43	8.0	130.0	44.2	0.28	0.056
P-64	1,006	J-45	J-46	8.0	130.0	18.5	0.12	0.011
P-65	1,099	J-44	J-52	8.0	130.0	15.9	0.10	0.009
P-66	1,206	J-44	J-52	8.0	130.0	15.2	0.10	0.008
P-67	480	J-49	J-53	8.0	130.0	8.2	0.05	0.003
P-68	463	J-53	J-48	8.0	130.0	2.7	0.02	0.000
P-69	261	J-47	J-54	8.0	130.0	10.9	0.07	0.005
P-70	754	J-50	J-55	8.0	130.0	18.3	0.12	0.011
P-71	884	J-55	J-51	8.0	130.0	4.9	0.03	0.001
P-72	126	J-41	J-56	8.0	130.0	12.2	0.08	0.006
P-73	122	J-56	J-42	8.0	130.0	8.7	0.06	0.003
P-74	184	J-55	J-57	8.0	130.0	33.8	0.22	0.035
P-75	321	J-57	J-56	8.0	130.0	20.8	0.13	0.014
P-76	708	J-42	J-58	8.0	130.0	4.9	0.03	0.001
P-77	680	J-58	J-43	8.0	130.0	17.8	0.11	0.010
P-78	481	J-29	J-59	8.0	130.0	86.3	0.55	0.195
P-79	182	J-59	J-60	8.0	130.0	37.7	0.24	0.042
P-80	1,020	J-60	J-61	8.0	130.0	10.3	0.07	0.004
P-81	1,309	J-61	J-62	8.0	130.0	5.2	0.03	0.001
P-82	287	J-62	J-63	8.0	130.0	7.2	0.05	0.002
P-83	375	J-63	J-60	8.0	130.0	12.1	0.08	0.005
P-84	1,038	J-28	J-64	8.0	130.0	101.8	0.65	0.265
P-85	268	J-64	J-65	8.0	130.0	56.9	0.36	0.090
P-86	175	J-65	J-66	8.0	130.0	34.7	0.22	0.036
P-87	128	J-66	J-67	8.0	130.0	13.4	0.09	0.007
P-88	151	J-67	J-68	8.0	130.0	6.2	0.04	0.002
P-89	224	J-68	J-69	8.0	130.0	10.8	0.07	0.004
P-90	189	J-69	J-59	8.0	130.0	33.1	0.21	0.033
P-91	870	J-66	J-70	8.0	130.0	5.4	0.03	0.001
P-92	762	J-70	J-69	8.0	130.0	6.9	0.04	0.002
P-93	415	J-70	J-67	8.0	130.0	3.6	0.02	0.000
P-94	979	J-64	J-71	8.0	130.0	28.9	0.18	0.026
P-95	707	J-71	J-65	8.0	130.0	6.3	0.04	0.002
P-96	471	J-71	J-72	8.0	130.0	19.3	0.12	0.012
P-97	308	J-72	J-73	8.0	130.0	5.9	0.04	0.001
P-98	378	J-73	J-68	8.0	130.0	4.6	0.03	0.001
P-99	522	J-73	J-63	8.0	130.0	10.5	0.07	0.004
P-100	496	J-72	J-62	8.0	130.0	13.4	0.09	0.006
P-101	124	J-39	J-74	8.0	130.0	49.2	0.31	0.069
P-102	128	J-74	J-40	8.0	130.0	43.9	0.28	0.055
P-103	320	J-74	J-75	8.0	130.0	5.4	0.03	0.001
P-104	185	J-75	J-76	8.0	130.0	44.7	0.29	0.057
P-105	586	J-76	J-77	8.0	130.0	18.0	0.11	0.011
P-106	182	J-77	J-57	8.0	130.0	13.0	0.08	0.005

Label	Length (ft)	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-107	632	J-76	J-78	8.0	130.0	16.1	0.10	0.009
P-108	631	J-78	J-77	8.0	130.0	5.5	0.04	0.001
P-109	935	J-38	J-79	8.0	130.0	39.2	0.25	0.045
P-110	179	J-79	J-75	8.0	130.0	39.3	0.25	0.046
P-111	1,087	J-79	J-80	8.0	130.0	18.8	0.12	0.012
P-112	170	J-80	J-81	8.0	130.0	18.8	0.12	0.011
P-113	302	J-81	J-82	8.0	130.0	37.9	0.24	0.043
P-114	410	J-82	J-83	8.0	130.0	57.0	0.36	0.091
P-115	758	J-83	J-37	8.0	130.0	36.2	0.23	0.039
P-116	203	J-82	J-84	8.0	130.0	9.5	0.06	0.004
P-117	205	J-81	J-85	8.0	130.0	9.5	0.06	0.004
P-118	479	J-36	J-83	8.0	130.0	30.4	0.19	0.028
P-119	742	J-36	J-86	8.0	130.0	13.4	0.09	0.006
P-120	681	J-86	J-37	8.0	130.0	22.9	0.15	0.017
P-121	621	J-40	J-87	8.0	130.0	16.1	0.10	0.009
P-122	577	J-87	J-41	8.0	130.0	5.5	0.04	0.001
P-123	653	J-38	J-88	8.0	130.0	40.7	0.26	0.049
P-124	646	J-88	J-39	8.0	130.0	21.9	0.14	0.015
P-125	191	J-21	J-89	8.0	130.0	121.0	0.77	0.365
P-126	822	J-89	J-90	8.0	130.0	68.4	0.44	0.127
P-127	276	J-90	J-91	8.0	130.0	20.2	0.13	0.013
P-128	273	J-91	J-92	8.0	130.0	94.5	0.60	0.231
P-130	271	J-93	J-94	8.0	130.0	41.3	0.26	0.050
P-131	511	J-94	J-95	8.0	130.0	20.4	0.13	0.014
P-132	342	J-95	J-96	8.0	130.0	61.7	0.39	0.105
P-133	214	J-96	J-89	8.0	130.0	65.2	0.42	0.116
P-134	273	J-94	J-91	8.0	130.0	74.3	0.47	0.148
P-135	536	J-95	J-90	8.0	130.0	53.9	0.34	0.082
P-136	920	J-93	J-97	8.0	130.0	28.7	0.18	0.025
P-137	679	J-97	J-96	8.0	130.0	16.1	0.10	0.009
P-138	205	J-21	J-98	8.0	130.0	69.7	0.44	0.132
P-139	215	J-98	J-99	8.0	130.0	31.0	0.20	0.029
P-140	680	J-99	J-100	8.0	130.0	10.9	0.07	0.004
P-141	647	J-100	J-101	8.0	130.0	5.0	0.03	0.001
P-143	291	J-102	J-103	8.0	130.0	11.4	0.07	0.005
P-144	334	J-103	J-104	8.0	130.0	19.8	0.13	0.013
P-145	131	J-104	J-98	8.0	130.0	32.7	0.21	0.032
P-146	331	J-99	J-105	8.0	130.0	14.2	0.09	0.007
P-147	291	J-105	J-106	8.0	130.0	10.7	0.07	0.004
P-148	127	J-106	J-101	8.0	130.0	3.5	0.02	0.001
P-149	416	J-105	J-103	8.0	130.0	2.4	0.02	0.000
P-150	490	J-106	J-102	8.0	130.0	1.3	0.01	0.000
P-151	274	J-92	J-107	8.0	130.0	114.5	0.73	0.330
P-152	304	J-107	J-31	8.0	130.0	209.3	1.34	1.009
P-153	283	J-90	J-108	8.0	130.0	102.2	0.65	0.267
P-154	299	J-108	J-32	8.0	130.0	67.2	0.43	0.123
P-155	543	J-107	J-108	8.0	130.0	74.9	0.48	0.150
P-156	532	J-108	J-109	8.0	130.0	20.0	0.13	0.013
P-157	876	J-101	J-110	8.0	130.0	2.6	0.02	0.000

Label	Length (ft)	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-158	158	J-110	J-102	8.0	130.0	6.8	0.04	0.002
P-159	1,042	J-104	J-111	8.0	130.0	12.9	0.08	0.006
P-160	721	J-111	J-112	8.0	130.0	3.5	0.02	0.001
P-161	322	J-112	J-34	8.0	130.0	43.4	0.28	0.055
P-162	291	J-110	J-111	8.0	130.0	3.5	0.02	0.000
P-163	406	J-112	J-113	8.0	130.0	19.9	0.13	0.013
P-164	587	J-10	J-114	8.0	130.0	22.0	0.14	0.016
P-165	524	J-114	J-115	8.0	130.0	50.8	0.32	0.073
P-166	581	J-115	J-116	8.0	130.0	43.1	0.27	0.054
P-167	567	J-116	J-117	8.0	130.0	56.1	0.36	0.088
P-168	319	J-117	J-35	8.0	130.0	116.5	0.74	0.341
P-169	184	J-115	J-118	8.0	130.0	15.9	0.10	0.009
P-170	288	J-118	J-119	8.0	130.0	32.4	0.21	0.032
P-171	294	J-119	J-120	8.0	130.0	48.8	0.31	0.068
P-172	658	J-120	J-117	8.0	130.0	52.2	0.33	0.077
P-173	692	J-116	J-120	8.0	130.0	4.9	0.03	0.001
P-174	331	J-119	J-121	8.0	130.0	8.2	0.05	0.003
P-175	405	J-118	J-122	8.0	130.0	8.2	0.05	0.002
P-176	312	J-35	J-123	8.0	130.0	24.4	0.16	0.019
P-177	558	J-123	J-124	8.0	130.0	12.7	0.08	0.006
P-178	492	J-124	J-125	8.0	130.0	3.5	0.02	0.000
P-179	199	J-125	J-126	8.0	130.0	21.2	0.14	0.015
P-180	199	J-126	J-27	8.0	130.0	32.2	0.21	0.031
P-181	492	J-123	J-126	8.0	130.0	0.3	0.00	0.000
P-182	708	J-124	J-127	8.0	130.0	4.9	0.03	0.001
P-183	583	J-127	J-125	8.0	130.0	6.4	0.04	0.001
P-184	312	J-34	J-128	8.0	130.0	55.0	0.35	0.085
P-185	521	J-128	J-129	8.0	130.0	52.5	0.34	0.078
P-186	201	J-129	J-19	8.0	130.0	137.8	0.88	0.465
P-187	283	J-128	J-130	8.0	130.0	1.5	0.01	0.000
P-188	827	J-130	J-131	8.0	130.0	3.6	0.02	0.001
P-189	683	J-131	J-132	8.0	130.0	14.3	0.09	0.007
P-190	737	J-132	J-133	8.0	130.0	24.6	0.16	0.019
P-191	142	J-133	J-129	8.0	130.0	74.9	0.48	0.150
P-192	354	J-133	J-134	8.0	130.0	39.9	0.25	0.047
P-193	291	J-134	J-135	8.0	130.0	15.3	0.10	0.008
P-194	177	J-135	J-131	8.0	130.0	0.3	0.00	0.000
P-195	388	J-134	J-128	8.0	130.0	14.3	0.09	0.007
P-196	411	J-130	J-135	8.0	130.0	5.2	0.03	0.001
P-198	298	J-136	J-137	8.0	130.0	32.7	0.21	0.032
P-199	934	J-137	J-138	8.0	130.0	8.8	0.06	0.003
P-200	150	J-138	J-139	8.0	130.0	6.9	0.04	0.002
P-201	193	J-139	J-19	8.0	130.0	31.6	0.20	0.030
P-202	541	J-136	J-140	8.0	130.0	46.0	0.29	0.061
P-203	595	J-140	J-139	8.0	130.0	51.7	0.33	0.076
P-204	303	J-32	J-140	8.0	130.0	110.8	0.71	0.311
P-205	706	J-137	J-141	8.0	130.0	10.7	0.07	0.004
P-206	737	J-141	J-138	8.0	130.0	2.5	0.02	0.000
P-207	455	J-24	J-142	8.0	130.0	72.0	0.46	0.140

Label	Length (ft)	Start Node	Stop Node	Diameter (in)	Hazen-Williams C	Flow (Absolute) (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-208	323	J-142	J-143	8.0	130.0	30.4	0.19	0.028
P-209	165	J-143	J-144	8.0	130.0	16.5	0.11	0.010
P-210	203	J-144	J-18	8.0	130.0	2.5	0.02	0.000
P-211	201	J-142	J-145	8.0	130.0	34.6	0.22	0.036
P-212	294	J-145	J-146	8.0	130.0	20.7	0.13	0.014
P-213	535	J-147	J-146	8.0	130.0	6.8	0.04	0.002
P-214	779	J-147	J-148	8.0	130.0	2.8	0.02	0.000
P-215	206	J-148	J-144	8.0	130.0	14.0	0.09	0.007
P-216	307	J-146	J-149	8.0	130.0	6.9	0.04	0.002
P-217	352	J-145	J-150	8.0	130.0	6.9	0.04	0.002
P-218	285	J-143	J-151	8.0	130.0	6.9	0.04	0.002
P-219	691	J-147	J-152	8.0	130.0	2.7	0.02	0.000
P-220	678	J-152	J-148	8.0	130.0	4.2	0.03	0.001
P-221	522	J-18	J-153	8.0	130.0	156.1	1.00	0.586
P-222	186	J-153	J-154	8.0	130.0	84.7	0.54	0.189
P-223	296	J-154	J-155	8.0	130.0	68.1	0.43	0.126
P-224	324	J-155	J-156	8.0	130.0	51.6	0.33	0.075
P-225	207	J-156	J-157	8.0	130.0	35.1	0.22	0.037
P-226	308	J-157	J-25	8.0	130.0	47.8	0.30	0.065
P-227	531	J-154	J-158	8.0	130.0	4.0	0.03	0.001
P-228	483	J-158	J-154	8.0	130.0	4.2	0.03	0.001
P-229	203	J-155	J-159	8.0	130.0	8.3	0.05	0.003
P-230	204	J-156	J-160	8.0	130.0	8.3	0.05	0.003
P-231	192	J-153	J-161	8.0	130.0	63.2	0.40	0.110
P-232	1,123	J-161	J-162	8.0	130.0	21.5	0.14	0.015
P-233	742	J-162	J-163	8.0	130.0	13.2	0.08	0.006
P-234	629	J-163	J-161	8.0	130.0	33.4	0.21	0.034
P-235	384	J-163	J-164	8.0	130.0	38.4	0.25	0.044
P-236	649	J-164	J-165	8.0	130.0	16.6	0.11	0.009
P-237	146	J-165	J-166	8.0	130.0	16.7	0.11	0.009
P-238	193	J-166	J-26	8.0	130.0	39.5	0.25	0.046
P-239	651	J-164	J-167	8.0	130.0	14.6	0.09	0.007
P-240	630	J-167	J-165	8.0	130.0	7.3	0.05	0.002
P-241	179	J-157	J-168	8.0	130.0	12.7	0.08	0.005
P-242	278	J-168	J-169	8.0	130.0	27.2	0.17	0.023
P-243	318	J-169	J-170	8.0	130.0	41.7	0.27	0.051
P-244	165	J-170	J-166	8.0	130.0	56.2	0.36	0.088
P-245	194	J-168	J-171	8.0	130.0	7.2	0.05	0.002
P-246	203	J-169	J-172	8.0	130.0	7.2	0.05	0.002
P-247	259	J-170	J-173	8.0	130.0	7.2	0.05	0.002

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
R-1	1,390.0	1,985.5	1,390.0

MAXIMUM DAY DEMAND PLUS FIRE FLOW

RESIDUAL PRESSURE ANALYSIS

AVAILABLE FIRE FLOW ANALYSIS

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Junction w/ Minimum Pressure (System)	Pipe w/ Maximum Velocity	Maximum Velocity (ft/s)	Satisfies Fire Flow Constraints?
J-1	0.0	1,000.0	1,000.0	1,000.0	1,000.0	46.9	52.2	J-2	J-2	P-2	1.95	True
J-2	0.0	3,000.0	3,000.0	3,000.0	3,000.0	31.3	32.5	J-147	J-147	P-2	6.74	True
J-3	0.0	3,000.0	3,000.0	3,000.0	3,000.0	31.3	30.8	J-147	J-147	P-2	6.74	True
J-4	0.0	3,000.0	3,000.0	3,000.0	3,000.0	30.9	30.5	J-147	J-147	P-2	6.74	True
J-5	0.0	3,000.0	3,000.0	3,000.0	3,000.0	28.5	30.5	J-147	J-147	P-2	6.74	True
J-6	0.0	3,000.0	3,000.0	3,000.0	3,000.0	32.1	31.0	J-147	J-147	P-2	6.74	True
J-7	0.0	3,000.0	3,000.0	3,000.0	3,000.0	31.3	30.5	J-147	J-147	P-2	6.74	True
J-8	0.0	3,000.0	3,000.0	3,000.0	3,000.0	29.3	30.5	J-147	J-147	P-2	6.74	True
J-9	0.0	1,000.0	1,000.0	1,000.0	1,000.0	52.9	46.9	J-1	J-1	P-2	3.55	True
J-10	0.0	3,000.0	3,000.0	3,000.0	3,000.0	22.6	25.7	J-114	J-114	P-11	7.52	True
J-11	0.0	3,000.0	3,000.0	3,000.0	3,000.0	30.0	28.9	J-86	J-86	P-2	6.74	True
J-12	0.0	1,000.0	1,000.0	1,000.0	1,000.0	45.8	46.9	J-1	J-1	P-12	6.38	True
J-13	0.0	1,000.0	1,000.0	1,000.0	1,000.0	50.8	46.9	J-1	J-1	P-2	3.55	True
J-14	0.0	3,000.0	3,000.0	3,000.0	3,000.0	32.0	29.9	J-147	J-147	P-2	6.74	True
J-15	196.4	3,000.0	3,196.4	3,000.0	3,196.4	27.9	28.9	J-16	J-16	P-15	9.39	True
J-16	114.7	3,000.0	3,114.7	3,000.0	3,114.7	22.5	27.9	J-15	J-15	P-15	9.39	True
J-18	0.0	1,000.0	1,000.0	1,000.0	1,000.0	50.4	46.9	J-1	J-1	P-2	3.55	True
J-19	0.0	1,000.0	1,000.0	1,000.0	1,000.0	51.5	46.9	J-1	J-1	P-2	3.55	True
J-20	0.0	1,000.0	1,000.0	1,000.0	1,000.0	52.3	46.9	J-1	J-1	P-2	3.55	True
J-21	0.0	1,000.0	1,000.0	1,000.0	1,000.0	52.6	46.9	J-1	J-1	P-2	3.55	True
J-22	0.0	1,000.0	1,000.0	1,000.0	1,000.0	51.6	46.9	J-1	J-1	P-24	4.62	True
J-23	0.0	3,000.0	3,000.0	3,000.0	3,000.0	31.4	30.6	J-147	J-147	P-2	6.74	True
J-24	0.0	1,000.0	1,000.0	1,000.0	1,000.0	49.9	46.9	J-1	J-1	P-2	3.55	True
J-25	0.0	1,000.0	1,000.0	1,000.0	1,000.0	52.0	46.9	J-1	J-1	P-2	3.55	True
J-26	0.0	3,000.0	3,000.0	3,000.0	3,000.0	32.1	30.0	J-147	J-147	P-2	6.74	True
J-27	0.0	3,000.0	3,000.0	3,000.0	3,000.0	32.0	30.0	J-147	J-147	P-2	6.74	True
J-28	0.0	3,000.0	3,000.0	3,000.0	3,000.0	32.0	30.0	J-147	J-147	P-2	6.74	True
J-29	0.0	3,000.0	3,000.0	3,000.0	3,000.0	30.7	30.0	J-86	J-86	P-2	6.74	True
J-30	0.0	1,000.0	1,000.0	1,000.0	1,000.0	54.6	46.9	J-1	J-1	P-37	4.54	True
J-31	0.0	1,000.0	1,000.0	1,000.0	1,000.0	50.9	46.9	J-1	J-1	P-2	3.55	True
J-32	0.0	1,000.0	1,000.0	1,000.0	1,000.0	51.5	46.9	J-1	J-1	P-2	3.55	True
J-34	0.0	1,000.0	1,000.0	1,000.0	1,000.0	52.7	46.9	J-1	J-1	P-2	3.55	True
J-35	0.0	1,000.0	1,000.0	1,000.0	1,000.0	53.6	46.9	J-1	J-1	P-2	3.55	True
J-36	5.9	1,000.0	1,005.9	1,000.0	1,005.9	48.2	46.9	J-1	J-1	P-47	5.04	True
J-37	5.9	1,000.0	1,005.9	1,000.0	1,005.9	50.1	46.9	J-1	J-1	P-47	5.21	True
J-38	11.7	1,000.0	1,011.7	1,000.0	1,011.7	51.4	46.9	J-1	J-1	P-24	4.43	True
J-39	11.7	1,000.0	1,011.7	1,000.0	1,011.7	52.4	46.9	J-1	J-1	P-24	4.29	True

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Junction w/ Minimum Pressure (System)	Pipe w/ Maximum Velocity	Maximum Velocity (ft/s)	Satisfies Fire Flow Constraints?
J-40	6.6	1,000.0	1,006.6	1,000.0	1,006.6	52.4	46.9	J-1	J-1	P-24	4.16	True
J-41	6.6	1,000.0	1,006.6	1,000.0	1,006.6	53.1	46.9	J-1	J-1	P-24	4.07	True
J-42	8.0	1,000.0	1,008.0	1,000.0	1,008.0	53.4	46.9	J-1	J-1	P-37	4.18	True
J-43	8.0	1,000.0	1,008.0	1,000.0	1,008.0	54.1	46.9	J-1	J-1	P-37	4.32	True
J-44	19.3	1,000.0	1,019.3	1,000.0	1,019.3	53.6	46.9	J-1	J-1	P-55	5.40	True
J-45	0.0	1,000.0	1,000.0	1,000.0	1,000.0	52.7	46.9	J-1	J-1	P-55	4.75	True
J-46	6.8	1,000.0	1,006.8	1,000.0	1,006.8	52.8	46.9	J-1	J-1	P-37	4.44	True
J-47	6.8	1,000.0	1,006.8	1,000.0	1,006.8	52.6	46.9	J-1	J-1	P-37	4.43	True
J-48	6.8	1,000.0	1,006.8	1,000.0	1,006.8	52.4	46.9	J-1	J-1	P-37	4.41	True
J-49	0.0	1,000.0	1,000.0	1,000.0	1,000.0	52.4	46.9	J-1	J-1	P-37	4.39	True
J-50	12.8	1,000.0	1,012.8	1,000.0	1,012.8	53.5	46.9	J-1	J-1	P-37	4.28	True
J-51	12.8	1,000.0	1,012.8	1,000.0	1,012.8	53.9	46.9	J-1	J-1	P-37	4.25	True
J-52	19.3	1,000.0	1,019.3	1,000.0	1,019.3	50.9	46.9	J-1	J-1	P-55	5.40	True
J-53	6.8	1,000.0	1,006.8	1,000.0	1,006.8	51.6	46.9	J-1	J-1	P-37	4.40	True
J-54	6.8	1,000.0	1,006.8	1,000.0	1,006.8	50.6	46.9	J-1	J-1	P-69	6.43	True
J-55	12.8	1,000.0	1,012.8	1,000.0	1,012.8	53.5	46.9	J-1	J-1	P-37	4.20	True
J-56	0.0	1,000.0	1,000.0	1,000.0	1,000.0	53.4	46.9	J-1	J-1	P-37	4.11	True
J-57	0.0	1,000.0	1,000.0	1,000.0	1,000.0	53.6	46.9	J-1	J-1	P-37	4.11	True
J-58	8.0	1,000.0	1,008.0	1,000.0	1,008.0	52.1	46.9	J-1	J-1	P-37	4.25	True
J-59	9.6	1,000.0	1,009.6	1,000.0	1,009.6	53.9	46.9	J-1	J-1	P-78	4.34	True
J-60	9.6	1,000.0	1,009.6	1,000.0	1,009.6	53.6	46.9	J-1	J-1	P-78	4.27	True
J-61	9.6	1,000.0	1,009.6	1,000.0	1,009.6	51.4	46.9	J-1	J-1	P-78	4.24	True
J-62	9.6	1,000.0	1,009.6	1,000.0	1,009.6	53.4	46.9	J-1	J-1	P-78	4.20	True
J-63	9.6	1,000.0	1,009.6	1,000.0	1,009.6	53.5	46.9	J-1	J-1	P-78	4.22	True
J-64	9.8	1,000.0	1,009.8	1,000.0	1,009.8	53.0	46.9	J-1	J-1	P-78	3.76	True
J-65	9.8	1,000.0	1,009.8	1,000.0	1,009.8	53.0	46.9	J-1	J-1	P-78	3.96	True
J-66	9.8	1,000.0	1,009.8	1,000.0	1,009.8	52.8	46.9	J-1	J-1	P-78	4.08	True
J-67	9.8	1,000.0	1,009.8	1,000.0	1,009.8	52.9	46.9	J-1	J-1	P-78	4.12	True
J-68	0.0	1,000.0	1,000.0	1,000.0	1,000.0	53.2	46.9	J-1	J-1	P-78	4.17	True
J-69	9.6	1,000.0	1,009.6	1,000.0	1,009.6	53.5	46.9	J-1	J-1	P-78	4.23	True
J-70	9.8	1,000.0	1,009.8	1,000.0	1,009.8	52.0	46.9	J-1	J-1	P-78	4.14	True
J-71	9.8	1,000.0	1,009.8	1,000.0	1,009.8	53.0	46.9	J-1	J-1	P-78	4.00	True
J-72	0.0	1,000.0	1,000.0	1,000.0	1,000.0	53.3	46.9	J-1	J-1	P-78	4.13	True
J-73	0.0	1,000.0	1,000.0	1,000.0	1,000.0	53.2	46.9	J-1	J-1	P-78	4.17	True
J-74	0.0	1,000.0	1,000.0	1,000.0	1,000.0	52.5	46.9	J-1	J-1	P-24	4.23	True
J-75	0.0	1,000.0	1,000.0	1,000.0	1,000.0	52.7	46.9	J-1	J-1	P-24	4.23	True
J-76	6.6	1,000.0	1,006.6	1,000.0	1,006.6	52.4	46.9	J-1	J-1	P-24	4.15	True

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Junction w/ Minimum Pressure (System)	Pipe w/ Maximum Velocity	Maximum Velocity (ft/s)	Satisfies Fire Flow Constraints?
J-77	6.6	1,000.0	1,006.6	1,000.0	1,006.6	53.1	46.9	J-1	J-1	P-24	4.08	True
J-78	6.6	1,000.0	1,006.6	1,000.0	1,006.6	51.3	46.9	J-1	J-1	P-24	4.12	True
J-79	11.7	1,000.0	1,011.7	1,000.0	1,011.7	52.4	46.9	J-1	J-1	P-24	4.32	True
J-80	0.0	1,000.0	1,000.0	1,000.0	1,000.0	49.5	46.9	J-1	J-1	P-24	4.49	True
J-81	5.9	1,000.0	1,005.9	1,000.0	1,005.9	48.1	46.9	J-1	J-1	P-24	4.50	True
J-82	5.9	1,000.0	1,005.9	1,000.0	1,005.9	48.4	46.9	J-1	J-1	P-24	4.52	True
J-83	5.9	1,000.0	1,005.9	1,000.0	1,005.9	48.9	46.9	J-1	J-1	P-47	4.70	True
J-84	5.9	1,000.0	1,005.9	1,000.0	1,005.9	46.9	46.9	J-1	J-1	P-116	6.42	True
J-85	5.9	1,000.0	1,005.9	1,000.0	1,005.9	47.0	46.9	J-1	J-1	P-117	6.42	True
J-86	5.9	1,000.0	1,005.9	1,000.0	1,005.9	47.1	46.9	J-1	J-1	P-47	5.15	True
J-87	6.6	1,000.0	1,006.6	1,000.0	1,006.6	51.6	46.9	J-1	J-1	P-24	4.12	True
J-88	11.7	1,000.0	1,011.7	1,000.0	1,011.7	49.9	46.9	J-1	J-1	P-24	4.37	True
J-89	7.9	1,000.0	1,007.9	1,000.0	1,007.9	52.1	46.9	J-1	J-1	P-2	3.55	True
J-90	0.0	1,000.0	1,000.0	1,000.0	1,000.0	51.1	46.9	J-1	J-1	P-2	3.55	True
J-91	0.0	1,000.0	1,000.0	1,000.0	1,000.0	50.1	46.9	J-1	J-1	P-2	3.55	True
J-92	12.0	1,000.0	1,012.0	1,000.0	1,012.0	49.6	46.9	J-1	J-1	P-151	3.57	True
J-93	7.9	1,000.0	1,007.9	1,000.0	1,007.9	49.0	46.9	J-1	J-1	P-130	4.48	True
J-94	7.9	1,000.0	1,007.9	1,000.0	1,007.9	50.4	46.9	J-1	J-1	P-2	3.55	True
J-95	7.9	1,000.0	1,007.9	1,000.0	1,007.9	50.9	46.9	J-1	J-1	P-2	3.55	True
J-96	7.9	1,000.0	1,007.9	1,000.0	1,007.9	52.3	46.9	J-1	J-1	P-2	3.55	True
J-97	7.9	1,000.0	1,007.9	1,000.0	1,007.9	49.5	46.9	J-1	J-1	P-137	3.69	True
J-98	3.7	1,000.0	1,003.7	1,000.0	1,003.7	52.2	46.9	J-1	J-1	P-138	4.59	True
J-99	3.7	1,000.0	1,003.7	1,000.0	1,003.7	52.1	46.9	J-1	J-1	P-138	4.48	True
J-100	3.7	1,000.0	1,003.7	1,000.0	1,003.7	51.5	46.9	J-1	J-1	P-138	4.43	True
J-101	3.7	1,000.0	1,003.7	1,000.0	1,003.7	52.6	46.9	J-1	J-1	P-138	4.39	True
J-102	3.7	1,000.0	1,003.7	1,000.0	1,003.7	52.3	46.9	J-1	J-1	P-138	4.36	True
J-103	3.7	1,000.0	1,003.7	1,000.0	1,003.7	52.0	46.9	J-1	J-1	P-138	4.39	True
J-104	0.0	1,000.0	1,000.0	1,000.0	1,000.0	51.9	46.9	J-1	J-1	P-138	4.46	True
J-105	3.7	1,000.0	1,003.7	1,000.0	1,003.7	52.6	46.9	J-1	J-1	P-138	4.41	True
J-106	3.7	1,000.0	1,003.7	1,000.0	1,003.7	52.8	46.9	J-1	J-1	P-138	4.39	True
J-107	12.0	1,000.0	1,012.0	1,000.0	1,012.0	50.3	46.9	J-1	J-1	P-2	3.55	True
J-108	12.0	1,000.0	1,012.0	1,000.0	1,012.0	51.1	46.9	J-1	J-1	P-2	3.55	True
J-109	12.0	1,000.0	1,012.0	1,000.0	1,012.0	47.6	46.9	J-1	J-1	P-156	6.46	True
J-110	3.7	1,000.0	1,003.7	1,000.0	1,003.7	52.5	46.9	J-1	J-1	P-138	4.31	True
J-111	12.2	1,000.0	1,012.2	1,000.0	1,012.2	52.6	46.9	J-1	J-1	P-138	4.00	True
J-112	12.2	1,000.0	1,012.2	1,000.0	1,012.2	51.8	46.9	J-1	J-1	P-161	4.42	True
J-113	12.2	1,000.0	1,012.2	1,000.0	1,012.2	47.9	46.9	J-1	J-1	P-163	6.46	True

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Junction w/ Minimum Pressure (System)	Pipe w/ Maximum Velocity	Maximum Velocity (ft/s)	Satisfies Fire Flow Constraints?
J-114	48.4	1,000.0	1,048.4	1,000.0	1,048.4	52.7	46.9	J-1	J-1	P-164	3.56	True
J-115	5.2	1,000.0	1,005.2	1,000.0	1,005.2	52.4	46.9	J-1	J-1	P-168	4.18	True
J-116	5.2	1,000.0	1,005.2	1,000.0	1,005.2	52.0	46.9	J-1	J-1	P-168	4.54	True
J-117	5.2	1,000.0	1,005.2	1,000.0	1,005.2	52.2	46.9	J-1	J-1	P-168	4.87	True
J-118	5.2	1,000.0	1,005.2	1,000.0	1,005.2	52.1	46.9	J-1	J-1	P-168	4.31	True
J-119	5.2	1,000.0	1,005.2	1,000.0	1,005.2	52.3	46.9	J-1	J-1	P-168	4.44	True
J-120	5.2	1,000.0	1,005.2	1,000.0	1,005.2	52.4	46.9	J-1	J-1	P-168	4.55	True
J-121	5.2	1,000.0	1,005.2	1,000.0	1,005.2	50.1	46.9	J-1	J-1	P-174	6.42	True
J-122	5.2	1,000.0	1,005.2	1,000.0	1,005.2	49.4	46.9	J-1	J-1	P-175	6.42	True
J-123	7.2	1,000.0	1,007.2	1,000.0	1,007.2	52.5	46.9	J-1	J-1	P-2	3.55	True
J-124	7.2	1,000.0	1,007.2	1,000.0	1,007.2	51.3	46.9	J-1	J-1	P-180	3.69	True
J-125	7.2	1,000.0	1,007.2	1,000.0	1,007.2	52.0	46.9	J-1	J-1	P-179	4.33	True
J-126	7.2	1,000.0	1,007.2	1,000.0	1,007.2	52.9	46.9	J-1	J-1	P-180	4.07	True
J-127	7.2	1,000.0	1,007.2	1,000.0	1,007.2	50.1	46.9	J-1	J-1	P-179	4.06	True
J-128	6.4	1,000.0	1,006.4	1,000.0	1,006.4	51.5	46.9	J-1	J-1	P-2	3.55	True
J-129	6.4	1,000.0	1,006.4	1,000.0	1,006.4	51.3	46.9	J-1	J-1	P-186	3.92	True
J-130	6.4	1,000.0	1,006.4	1,000.0	1,006.4	51.3	46.9	J-1	J-1	P-2	3.55	True
J-131	6.4	1,000.0	1,006.4	1,000.0	1,006.4	51.1	46.9	J-1	J-1	P-186	3.55	True
J-132	6.4	1,000.0	1,006.4	1,000.0	1,006.4	49.2	46.9	J-1	J-1	P-186	3.63	True
J-133	6.4	1,000.0	1,006.4	1,000.0	1,006.4	50.8	46.9	J-1	J-1	P-191	3.86	True
J-134	6.4	1,000.0	1,006.4	1,000.0	1,006.4	50.8	46.9	J-1	J-1	P-186	3.57	True
J-135	6.4	1,000.0	1,006.4	1,000.0	1,006.4	51.0	46.9	J-1	J-1	P-2	3.55	True
J-136	8.1	1,000.0	1,008.1	1,000.0	1,008.1	48.0	46.9	J-1	J-1	P-2	3.55	True
J-137	8.1	1,000.0	1,008.1	1,000.0	1,008.1	48.2	46.9	J-1	J-1	P-200	3.81	True
J-138	8.1	1,000.0	1,008.1	1,000.0	1,008.1	50.0	46.9	J-1	J-1	P-200	4.75	True
J-139	8.1	1,000.0	1,008.1	1,000.0	1,008.1	50.7	46.9	J-1	J-1	P-201	3.95	True
J-140	8.1	1,000.0	1,008.1	1,000.0	1,008.1	50.3	46.9	J-1	J-1	P-204	3.70	True
J-141	8.1	1,000.0	1,008.1	1,000.0	1,008.1	47.6	46.9	J-1	J-1	P-200	4.36	True
J-142	4.3	1,000.0	1,004.3	1,000.0	1,004.3	48.6	46.9	J-1	J-1	P-2	3.55	True
J-143	4.3	1,000.0	1,004.3	1,000.0	1,004.3	49.1	46.9	J-1	J-1	P-210	3.98	True
J-144	0.0	1,000.0	1,000.0	1,000.0	1,000.0	49.2	46.9	J-1	J-1	P-210	4.23	True
J-145	4.3	1,000.0	1,004.3	1,000.0	1,004.3	47.5	46.9	J-1	J-1	P-211	4.55	True
J-146	4.3	1,000.0	1,004.3	1,000.0	1,004.3	46.5	46.8	J-149	J-149	P-210	3.85	True
J-147	4.3	1,000.0	1,004.3	1,000.0	1,004.3	46.0	46.8	J-152	J-152	P-210	3.98	True
J-148	4.3	1,000.0	1,004.3	1,000.0	1,004.3	48.0	46.8	J-147	J-147	P-215	4.70	True
J-149	4.3	1,000.0	1,004.3	1,000.0	1,004.3	44.3	46.5	J-146	J-146	P-216	6.41	True
J-150	4.3	1,000.0	1,004.3	1,000.0	1,004.3	45.2	46.9	J-1	J-1	P-217	6.41	True

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J-151	4.3	1,000.0	1,004.3	1,000.0	1,004.3	47.1	46.9	J-1	J-1	P-218	6.41	True
J-152	4.3	1,000.0	1,004.3	1,000.0	1,004.3	45.4	46.5	J-147	J-147	P-215	4.39	True
J-153	5.1	1,000.0	1,005.1	1,000.0	1,005.1	49.8	46.9	J-1	J-1	P-2	3.55	True
J-154	5.1	1,000.0	1,005.1	1,000.0	1,005.1	49.7	46.9	J-1	J-1	P-222	4.12	True
J-155	5.1	1,000.0	1,005.1	1,000.0	1,005.1	49.8	46.9	J-1	J-1	P-2	3.55	True
J-156	5.1	1,000.0	1,005.1	1,000.0	1,005.1	50.6	46.9	J-1	J-1	P-225	3.98	True
J-157	0.0	1,000.0	1,000.0	1,000.0	1,000.0	51.7	46.9	J-1	J-1	P-2	3.55	True
J-158	5.1	1,000.0	1,005.1	1,000.0	1,005.1	48.6	46.9	J-1	J-1	P-222	4.12	True
J-159	5.1	1,000.0	1,005.1	1,000.0	1,005.1	48.4	46.9	J-1	J-1	P-229	6.42	True
J-160	5.1	1,000.0	1,005.1	1,000.0	1,005.1	49.1	46.9	J-1	J-1	P-230	6.42	True
J-161	5.1	1,000.0	1,005.1	1,000.0	1,005.1	49.1	46.9	J-1	J-1	P-231	4.21	True
J-162	5.1	1,000.0	1,005.1	1,000.0	1,005.1	47.2	46.9	J-1	J-1	P-231	3.90	True
J-163	5.1	1,000.0	1,005.1	1,000.0	1,005.1	49.8	46.9	J-1	J-1	P-2	3.55	True
J-164	4.5	1,000.0	1,004.5	1,000.0	1,004.5	50.1	46.9	J-1	J-1	P-237	3.90	True
J-165	4.5	1,000.0	1,004.5	1,000.0	1,004.5	50.8	46.9	J-1	J-1	P-237	4.59	True
J-166	0.0	1,000.0	1,000.0	1,000.0	1,000.0	52.0	46.9	J-1	J-1	P-238	3.87	True
J-167	4.5	1,000.0	1,004.5	1,000.0	1,004.5	49.3	46.9	J-1	J-1	P-237	4.32	True
J-168	4.5	1,000.0	1,004.5	1,000.0	1,004.5	51.4	46.9	J-1	J-1	P-241	3.92	True
J-169	4.5	1,000.0	1,004.5	1,000.0	1,004.5	51.3	46.9	J-1	J-1	P-2	3.55	True
J-170	4.5	1,000.0	1,004.5	1,000.0	1,004.5	51.6	46.9	J-1	J-1	P-244	4.33	True
J-171	4.5	1,000.0	1,004.5	1,000.0	1,004.5	49.9	46.9	J-1	J-1	P-245	6.41	True
J-172	4.5	1,000.0	1,004.5	1,000.0	1,004.5	49.7	46.9	J-1	J-1	P-246	6.41	True
J-173	4.5	1,000.0	1,004.5	1,000.0	1,004.5	49.6	46.9	J-1	J-1	P-247	6.41	True

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J-1	0.0	1,000.0	1,000.0	10,000.0	10,000.0	46.9	52.2	J-2	J-2	P-1	7.96	True
J-2	0.0	3,000.0	3,000.0	3,981.0	3,981.0	31.3	32.5	J-147	J-147	P-2	8.30	True
J-3	0.0	3,000.0	3,000.0	3,877.4	3,877.4	31.3	30.8	J-147	J-147	P-2	8.14	True
J-4	0.0	3,000.0	3,000.0	3,736.5	3,736.5	30.9	30.5	J-147	J-5	P-2	7.91	True
J-5	0.0	3,000.0	3,000.0	3,513.4	3,513.4	28.5	30.5	J-147	J-4	P-2	7.56	True
J-6	0.0	3,000.0	3,000.0	3,894.6	3,894.6	32.1	31.0	J-147	J-147	P-2	8.16	True
J-7	0.0	3,000.0	3,000.0	3,822.5	3,822.5	31.3	30.5	J-147	J-147	P-2	8.05	True
J-8	0.0	3,000.0	3,000.0	3,609.8	3,609.8	29.3	30.5	J-147	J-7	P-2	7.71	True
J-9	0.0	1,000.0	1,000.0	3,421.6	3,421.6	52.9	46.9	J-1	J-86	P-23	7.59	True
J-10	0.0	3,000.0	3,000.0	3,121.4	3,121.4	22.6	25.7	J-114	J-114	P-11	7.83	True
J-11	0.0	3,000.0	3,000.0	3,572.8	3,572.8	30.0	28.9	J-86	J-86	P-2	7.65	True
J-12	0.0	1,000.0	1,000.0	1,566.7	1,566.7	45.8	46.9	J-1	J-2	P-12	10.00	True
J-13	0.0	1,000.0	1,000.0	3,544.2	3,544.2	50.8	46.9	J-1	J-147	P-2	7.61	True
J-14	0.0	3,000.0	3,000.0	3,783.7	3,783.7	32.0	29.9	J-147	J-147	P-2	7.99	True
J-15	196.4	3,000.0	3,196.4	3,214.1	3,410.5	27.9	28.9	J-16	J-16	P-15	10.00	True
J-16	114.7	3,000.0	3,114.7	3,126.5	3,241.2	22.5	27.9	J-15	J-15	P-15	9.75	True
J-18	0.0	1,000.0	1,000.0	3,461.8	3,461.8	50.4	46.9	J-1	J-147	P-2	7.47	True
J-19	0.0	1,000.0	1,000.0	3,594.7	3,594.7	51.5	46.9	J-1	J-137	P-2	7.69	True
J-20	0.0	1,000.0	1,000.0	3,727.3	3,727.3	52.3	46.9	J-1	J-136	P-2	7.90	True
J-21	0.0	1,000.0	1,000.0	3,563.4	3,563.4	52.6	46.9	J-1	J-98	P-125	7.67	True
J-22	0.0	1,000.0	1,000.0	2,426.5	2,426.5	51.6	46.9	J-1	J-86	P-24	10.00	True
J-23	0.0	3,000.0	3,000.0	3,845.1	3,845.1	31.4	30.6	J-147	J-136	P-2	8.09	True
J-24	0.0	1,000.0	1,000.0	3,367.3	3,367.3	49.9	46.9	J-1	J-147	P-27	8.48	True
J-25	0.0	1,000.0	1,000.0	3,362.2	3,362.2	52.0	46.9	J-1	J-157	P-226	8.44	True
J-26	0.0	3,000.0	3,000.0	3,796.0	3,796.0	32.1	30.0	J-147	J-147	P-2	8.01	True
J-27	0.0	3,000.0	3,000.0	3,777.9	3,777.9	32.0	30.0	J-147	J-127	P-2	7.98	True
J-28	0.0	3,000.0	3,000.0	3,795.9	3,795.9	32.0	30.0	J-147	J-147	P-2	8.01	True
J-29	0.0	3,000.0	3,000.0	3,639.2	3,639.2	30.7	30.0	J-86	J-86	P-2	7.76	True
J-30	0.0	1,000.0	1,000.0	2,447.0	2,447.0	54.6	46.9	J-1	J-52	P-37	10.00	True
J-31	0.0	1,000.0	1,000.0	3,799.2	3,799.2	50.9	46.9	J-1	J-136	P-2	8.01	True
J-32	0.0	1,000.0	1,000.0	3,714.0	3,714.0	51.5	46.9	J-1	J-136	P-2	7.88	True
J-34	0.0	1,000.0	1,000.0	3,746.4	3,746.4	52.7	46.9	J-1	J-136	P-2	7.93	True
J-35	0.0	1,000.0	1,000.0	3,795.7	3,795.7	53.6	46.9	J-1	J-147	P-2	8.01	True
J-36	5.9	1,000.0	1,005.9	2,028.0	2,033.9	48.2	46.9	J-1	J-86	P-47	10.00	True
J-37	5.9	1,000.0	1,005.9	1,963.0	1,968.9	50.1	46.9	J-1	J-86	P-47	10.00	True
J-38	11.7	1,000.0	1,011.7	2,555.3	2,567.1	51.4	46.9	J-1	J-88	P-24	10.00	True
J-39	11.7	1,000.0	1,011.7	2,666.0	2,677.7	52.4	46.9	J-1	J-88	P-24	10.00	True

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J-40	6.6	1,000.0	1,006.6	2,656.9	2,663.5	52.4	46.9	J-1	J-87	P-102	10.00	True
J-41	6.6	1,000.0	1,006.6	2,685.5	2,692.1	53.1	46.9	J-1	J-87	P-72	10.00	True
J-42	8.0	1,000.0	1,008.0	2,733.0	2,741.1	53.4	46.9	J-1	J-58	P-37	10.00	True
J-43	8.0	1,000.0	1,008.0	2,605.2	2,613.3	54.1	46.9	J-1	J-58	P-37	10.00	True
J-44	19.3	1,000.0	1,019.3	1,908.7	1,928.0	53.6	46.9	J-1	J-52	P-55	10.00	True
J-45	0.0	1,000.0	1,000.0	2,192.4	2,192.4	52.7	46.9	J-1	J-46	P-55	10.00	True
J-46	6.8	1,000.0	1,006.8	2,408.4	2,415.3	52.8	46.9	J-1	J-47	P-55	10.00	True
J-47	6.8	1,000.0	1,006.8	2,358.0	2,364.8	52.6	46.9	J-1	J-54	P-37	9.36	True
J-48	6.8	1,000.0	1,006.8	2,328.7	2,335.5	52.4	46.9	J-1	J-53	P-37	9.21	True
J-49	0.0	1,000.0	1,000.0	2,332.3	2,332.3	52.4	46.9	J-1	J-53	P-37	9.19	True
J-50	12.8	1,000.0	1,012.8	2,636.4	2,649.2	53.5	46.9	J-1	J-49	P-37	9.97	True
J-51	12.8	1,000.0	1,012.8	2,665.0	2,677.8	53.9	46.9	J-1	J-55	P-37	10.00	True
J-52	19.3	1,000.0	1,019.3	1,908.7	1,928.0	50.9	46.9	J-1	J-44	P-55	10.00	True
J-53	6.8	1,000.0	1,006.8	2,209.1	2,215.9	51.6	46.9	J-1	J-49	P-37	8.76	True
J-54	6.8	1,000.0	1,006.8	1,559.9	1,566.7	50.6	46.9	J-1	J-47	P-69	10.00	True
J-55	12.8	1,000.0	1,012.8	2,715.3	2,728.1	53.5	46.9	J-1	J-57	P-37	10.00	True
J-56	0.0	1,000.0	1,000.0	2,792.9	2,792.9	53.4	46.9	J-1	J-41	P-37	10.00	True
J-57	0.0	1,000.0	1,000.0	2,792.1	2,792.1	53.6	46.9	J-1	J-77	P-37	10.00	True
J-58	8.0	1,000.0	1,008.0	2,520.1	2,528.1	52.1	46.9	J-1	J-42	P-37	9.50	True
J-59	9.6	1,000.0	1,009.6	2,421.2	2,430.8	53.9	46.9	J-1	J-70	P-78	10.00	True
J-60	9.6	1,000.0	1,009.6	2,471.1	2,480.7	53.6	46.9	J-1	J-61	P-78	10.00	True
J-61	9.6	1,000.0	1,009.6	2,327.5	2,337.0	51.4	46.9	J-1	J-62	P-78	9.38	True
J-62	9.6	1,000.0	1,009.6	2,514.8	2,524.4	53.4	46.9	J-1	J-61	P-78	10.00	True
J-63	9.6	1,000.0	1,009.6	2,504.4	2,514.0	53.5	46.9	J-1	J-62	P-78	10.00	True
J-64	9.8	1,000.0	1,009.8	2,864.7	2,874.5	53.0	46.9	J-1	J-65	P-78	10.00	True
J-65	9.8	1,000.0	1,009.8	2,691.2	2,701.0	53.0	46.9	J-1	J-66	P-78	10.00	True
J-66	9.8	1,000.0	1,009.8	2,601.1	2,610.9	52.8	46.9	J-1	J-70	P-78	10.00	True
J-67	9.8	1,000.0	1,009.8	2,571.6	2,581.4	52.9	46.9	J-1	J-70	P-78	10.00	True
J-68	0.0	1,000.0	1,000.0	2,538.5	2,538.5	53.2	46.9	J-1	J-70	P-78	10.00	True
J-69	9.6	1,000.0	1,009.6	2,498.8	2,508.4	53.5	46.9	J-1	J-70	P-78	10.00	True
J-70	9.8	1,000.0	1,009.8	2,557.8	2,567.5	52.0	46.9	J-1	J-67	P-78	10.00	True
J-71	9.8	1,000.0	1,009.8	2,663.1	2,672.9	53.0	46.9	J-1	J-65	P-78	10.00	True
J-72	0.0	1,000.0	1,000.0	2,561.2	2,561.2	53.3	46.9	J-1	J-73	P-78	10.00	True
J-73	0.0	1,000.0	1,000.0	2,537.2	2,537.2	53.2	46.9	J-1	J-72	P-78	10.00	True
J-74	0.0	1,000.0	1,000.0	2,718.1	2,718.1	52.5	46.9	J-1	J-88	P-24	10.00	True
J-75	0.0	1,000.0	1,000.0	2,715.0	2,715.0	52.7	46.9	J-1	J-81	P-24	10.00	True
J-76	6.6	1,000.0	1,006.6	2,709.7	2,716.3	52.4	46.9	J-1	J-78	P-104	10.00	True

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Junction w/ Minimum Pressure (System)	Pipe w/ Maximum Velocity	Maximum Velocity (ft/s)	Satisfies Fire Flow Constraints?
J-77	6.6	1,000.0	1,006.6	2,742.4	2,749.0	53.1	46.9	J-1	J-78	P-106	9.99	True
J-78	6.6	1,000.0	1,006.6	2,452.4	2,459.0	51.3	46.9	J-1	J-76	P-24	8.81	True
J-79	11.7	1,000.0	1,011.7	2,640.6	2,652.4	52.4	46.9	J-1	J-81	P-24	10.00	True
J-80	0.0	1,000.0	1,000.0	2,295.7	2,295.7	49.5	46.9	J-1	J-81	P-24	9.16	True
J-81	5.9	1,000.0	1,005.9	2,250.0	2,255.9	48.1	46.9	J-1	J-85	P-24	9.03	True
J-82	5.9	1,000.0	1,005.9	2,288.7	2,294.5	48.4	46.9	J-1	J-84	P-24	9.21	True
J-83	5.9	1,000.0	1,005.9	2,183.3	2,189.2	48.9	46.9	J-1	J-82	P-47	10.00	True
J-84	5.9	1,000.0	1,005.9	1,560.8	1,566.7	46.9	46.9	J-1	J-82	P-116	10.00	True
J-85	5.9	1,000.0	1,005.9	1,560.8	1,566.7	47.0	46.9	J-1	J-81	P-117	10.00	True
J-86	5.9	1,000.0	1,005.9	1,986.9	1,992.7	47.1	46.9	J-1	J-36	P-47	10.00	True
J-87	6.6	1,000.0	1,006.6	2,497.2	2,503.8	51.6	46.9	J-1	J-40	P-24	8.96	True
J-88	11.7	1,000.0	1,011.7	2,452.8	2,464.5	49.9	46.9	J-1	J-38	P-24	9.47	True
J-89	7.9	1,000.0	1,007.9	3,076.0	3,083.9	52.1	46.9	J-1	J-93	P-125	10.00	True
J-90	0.0	1,000.0	1,000.0	3,396.4	3,396.4	51.1	46.9	J-1	J-91	P-153	8.78	True
J-91	0.0	1,000.0	1,000.0	3,249.7	3,249.7	50.1	46.9	J-1	J-93	P-127	7.92	True
J-92	12.0	1,000.0	1,012.0	2,892.5	2,904.5	49.6	46.9	J-1	J-91	P-151	10.00	True
J-93	7.9	1,000.0	1,007.9	2,248.6	2,256.5	49.0	46.9	J-1	J-97	P-130	10.00	True
J-94	7.9	1,000.0	1,007.9	3,114.8	3,122.7	50.4	46.9	J-1	J-93	P-134	9.95	True
J-95	7.9	1,000.0	1,007.9	3,173.0	3,180.9	50.9	46.9	J-1	J-93	P-125	8.42	True
J-96	7.9	1,000.0	1,007.9	2,955.7	2,963.6	52.3	46.9	J-1	J-97	P-133	10.00	True
J-97	7.9	1,000.0	1,007.9	2,632.9	2,640.8	49.5	46.9	J-1	J-93	P-137	9.67	True
J-98	3.7	1,000.0	1,003.7	2,233.6	2,237.3	52.2	46.9	J-1	J-104	P-138	10.00	True
J-99	3.7	1,000.0	1,003.7	2,291.2	2,294.9	52.1	46.9	J-1	J-100	P-138	10.00	True
J-100	3.7	1,000.0	1,003.7	2,320.6	2,324.3	51.5	46.9	J-1	J-99	P-138	10.00	True
J-101	3.7	1,000.0	1,003.7	2,342.4	2,346.0	52.6	46.9	J-1	J-100	P-138	10.00	True
J-102	3.7	1,000.0	1,003.7	2,356.8	2,360.5	52.3	46.9	J-1	J-103	P-138	10.00	True
J-103	3.7	1,000.0	1,003.7	2,343.6	2,347.3	52.0	46.9	J-1	J-102	P-138	10.00	True
J-104	0.0	1,000.0	1,000.0	2,301.7	2,301.7	51.9	46.9	J-1	J-103	P-138	10.00	True
J-105	3.7	1,000.0	1,003.7	2,327.6	2,331.3	52.6	46.9	J-1	J-99	P-138	10.00	True
J-106	3.7	1,000.0	1,003.7	2,343.2	2,346.9	52.8	46.9	J-1	J-101	P-138	10.00	True
J-107	12.0	1,000.0	1,012.0	3,164.4	3,176.4	50.3	46.9	J-1	J-92	P-152	10.00	True
J-108	12.0	1,000.0	1,012.0	3,446.2	3,458.2	51.1	46.9	J-1	J-109	P-154	10.00	True
J-109	12.0	1,000.0	1,012.0	1,554.7	1,566.7	47.6	46.9	J-1	J-2	P-156	10.00	True
J-110	3.7	1,000.0	1,003.7	2,390.0	2,393.7	52.5	46.9	J-1	J-102	P-138	10.00	True
J-111	12.2	1,000.0	1,012.2	2,590.3	2,602.5	52.6	46.9	J-1	J-110	P-138	10.00	True
J-112	12.2	1,000.0	1,012.2	2,311.9	2,324.1	51.8	46.9	J-1	J-113	P-161	10.00	True
J-113	12.2	1,000.0	1,012.2	1,554.5	1,566.7	47.9	46.9	J-1	J-2	P-163	10.00	True

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Junction w/ Minimum Pressure (System)	Pipe w/ Maximum Velocity	Maximum Velocity (ft/s)	Satisfies Fire Flow Constraints?
J-114	48.4	1,000.0	1,048.4	2,815.8	2,864.3	52.7	46.9	J-1	J-115	P-164	9.68	True
J-115	5.2	1,000.0	1,005.2	2,511.4	2,516.6	52.4	46.9	J-1	J-118	P-168	10.00	True
J-116	5.2	1,000.0	1,005.2	2,299.4	2,304.6	52.0	46.9	J-1	J-120	P-168	10.00	True
J-117	5.2	1,000.0	1,005.2	2,126.9	2,132.1	52.2	46.9	J-1	J-116	P-168	10.00	True
J-118	5.2	1,000.0	1,005.2	2,432.6	2,437.8	52.1	46.9	J-1	J-122	P-168	10.00	True
J-119	5.2	1,000.0	1,005.2	2,352.7	2,357.8	52.3	46.9	J-1	J-121	P-168	10.00	True
J-120	5.2	1,000.0	1,005.2	2,293.6	2,298.7	52.4	46.9	J-1	J-119	P-168	10.00	True
J-121	5.2	1,000.0	1,005.2	1,561.6	1,566.7	50.1	46.9	J-1	J-119	P-174	10.00	True
J-122	5.2	1,000.0	1,005.2	1,561.6	1,566.7	49.4	46.9	J-1	J-118	P-175	10.00	True
J-123	7.2	1,000.0	1,007.2	2,945.4	2,952.6	52.5	46.9	J-1	J-124	P-176	10.00	True
J-124	7.2	1,000.0	1,007.2	2,766.2	2,773.4	51.3	46.9	J-1	J-127	P-180	10.00	True
J-125	7.2	1,000.0	1,007.2	2,331.8	2,339.0	52.0	46.9	J-1	J-127	P-179	10.00	True
J-126	7.2	1,000.0	1,007.2	2,502.6	2,509.8	52.9	46.9	J-1	J-127	P-180	10.00	True
J-127	7.2	1,000.0	1,007.2	2,492.2	2,499.5	50.1	46.9	J-1	J-124	P-179	10.00	True
J-128	6.4	1,000.0	1,006.4	2,984.2	2,990.6	51.5	46.9	J-1	J-134	P-184	10.00	True
J-129	6.4	1,000.0	1,006.4	2,666.4	2,672.8	51.3	46.9	J-1	J-133	P-186	10.00	True
J-130	6.4	1,000.0	1,006.4	2,975.1	2,981.5	51.3	46.9	J-1	J-135	P-187	10.00	True
J-131	6.4	1,000.0	1,006.4	2,977.2	2,983.6	51.1	46.9	J-1	J-132	P-186	10.00	True
J-132	6.4	1,000.0	1,006.4	2,657.0	2,663.4	49.2	46.9	J-1	J-131	P-186	9.17	True
J-133	6.4	1,000.0	1,006.4	2,631.8	2,638.2	50.8	46.9	J-1	J-132	P-191	10.00	True
J-134	6.4	1,000.0	1,006.4	2,960.4	2,966.8	50.8	46.9	J-1	J-132	P-186	10.00	True
J-135	6.4	1,000.0	1,006.4	2,993.2	2,999.6	51.0	46.9	J-1	J-131	P-186	10.00	True
J-136	8.1	1,000.0	1,008.1	2,743.6	2,751.7	48.0	46.9	J-1	J-137	P-202	9.59	True
J-137	8.1	1,000.0	1,008.1	2,681.8	2,689.9	48.2	46.9	J-1	J-136	P-200	10.00	True
J-138	8.1	1,000.0	1,008.1	2,130.1	2,138.1	50.0	46.9	J-1	J-137	P-200	10.00	True
J-139	8.1	1,000.0	1,008.1	2,579.1	2,587.2	50.7	46.9	J-1	J-137	P-201	10.00	True
J-140	8.1	1,000.0	1,008.1	2,766.2	2,774.3	50.3	46.9	J-1	J-136	P-204	10.00	True
J-141	8.1	1,000.0	1,008.1	2,326.8	2,334.9	47.6	46.9	J-1	J-137	P-200	10.00	True
J-142	4.3	1,000.0	1,004.3	2,926.9	2,931.2	48.6	46.9	J-1	J-145	P-210	10.00	True
J-143	4.3	1,000.0	1,004.3	2,565.6	2,570.0	49.1	46.9	J-1	J-151	P-210	10.00	True
J-144	0.0	1,000.0	1,000.0	2,410.7	2,410.7	49.2	46.9	J-1	J-147	P-210	10.00	True
J-145	4.3	1,000.0	1,004.3	2,222.1	2,226.5	47.5	46.9	J-1	J-150	P-211	10.00	True
J-146	4.3	1,000.0	1,004.3	2,601.0	2,605.3	46.5	46.8	J-149	J-149	P-210	9.81	True
J-147	4.3	1,000.0	1,004.3	2,563.3	2,567.6	46.0	46.8	J-152	J-152	P-210	10.00	True
J-148	4.3	1,000.0	1,004.3	2,149.2	2,153.6	48.0	46.8	J-147	J-152	P-215	10.00	True
J-149	4.3	1,000.0	1,004.3	1,562.4	1,566.7	44.3	46.5	J-146	J-146	P-216	10.00	True
J-150	4.3	1,000.0	1,004.3	1,562.4	1,566.7	45.2	46.9	J-1	J-145	P-217	10.00	True

Label	Demand (gpm)	Fire Flow (Needed) (gpm)	Flow (Total Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual @ Total Flow Needed) (psi)	Pressure (Calculated Zone Lower Limit @ Total Flow Needed) (psi)	Junction w/ Minimum Pressure (Zone @ Total Flow Needed)	Junction w/ Minimum Pressure (System)	Pipe w/ Maximum Velocity	Maximum Velocity (ft/s)	Satisfies Fire Flow Constraints?
J-151	4.3	1,000.0	1,004.3	1,562.4	1,566.7	47.1	46.9	J-1	J-147	P-218	10.00	True
J-152	4.3	1,000.0	1,004.3	2,300.0	2,304.3	45.4	46.5	J-147	J-147	P-215	10.00	True
J-153	5.1	1,000.0	1,005.1	3,197.5	3,202.6	49.8	46.9	J-1	J-161	P-221	9.37	True
J-154	5.1	1,000.0	1,005.1	2,483.4	2,488.5	49.7	46.9	J-1	J-158	P-222	10.00	True
J-155	5.1	1,000.0	1,005.1	2,956.3	2,961.4	49.8	46.9	J-1	J-159	P-222	9.71	True
J-156	5.1	1,000.0	1,005.1	2,519.9	2,525.0	50.6	46.9	J-1	J-160	P-225	10.00	True
J-157	0.0	1,000.0	1,000.0	3,315.0	3,315.0	51.7	46.9	J-1	J-156	P-226	9.17	True
J-158	5.1	1,000.0	1,005.1	2,483.6	2,488.7	48.6	46.9	J-1	J-154	P-222	10.00	True
J-159	5.1	1,000.0	1,005.1	1,561.6	1,566.7	48.4	46.9	J-1	J-155	P-229	10.00	True
J-160	5.1	1,000.0	1,005.1	1,561.6	1,566.7	49.1	46.9	J-1	J-147	P-230	10.00	True
J-161	5.1	1,000.0	1,005.1	2,417.2	2,422.3	49.1	46.9	J-1	J-162	P-231	10.00	True
J-162	5.1	1,000.0	1,005.1	2,438.8	2,443.9	47.2	46.9	J-1	J-161	P-231	9.33	True
J-163	5.1	1,000.0	1,005.1	2,895.9	2,901.0	49.8	46.9	J-1	J-162	P-231	10.00	True
J-164	4.5	1,000.0	1,004.5	2,587.9	2,592.4	50.1	46.9	J-1	J-167	P-237	10.00	True
J-165	4.5	1,000.0	1,004.5	2,193.9	2,198.5	50.8	46.9	J-1	J-167	P-237	10.00	True
J-166	0.0	1,000.0	1,000.0	2,615.8	2,615.8	52.0	46.9	J-1	J-165	P-238	10.00	True
J-167	4.5	1,000.0	1,004.5	2,330.9	2,335.4	49.3	46.9	J-1	J-164	P-237	10.00	True
J-168	4.5	1,000.0	1,004.5	2,571.1	2,575.6	51.4	46.9	J-1	J-171	P-241	10.00	True
J-169	4.5	1,000.0	1,004.5	2,994.0	2,998.5	51.3	46.9	J-1	J-172	P-244	10.00	True
J-170	4.5	1,000.0	1,004.5	2,328.4	2,333.0	51.6	46.9	J-1	J-173	P-244	10.00	True
J-171	4.5	1,000.0	1,004.5	1,562.2	1,566.7	49.9	46.9	J-1	J-147	P-245	10.00	True
J-172	4.5	1,000.0	1,004.5	1,562.2	1,566.7	49.7	46.9	J-1	J-147	P-246	10.00	True
J-173	4.5	1,000.0	1,004.5	1,562.2	1,566.7	49.6	46.9	J-1	J-147	P-247	10.00	True

AFFIDAVIT OF Mailing of Notice of Hearing*

I, Alex Fish, Applicant for case PZ-PD-006-21, PZ-006-21 (Case number), personally caused 34 mailer(s) to be mailed by first class post regarding the public hearing associated with case Midway PZ-PD-006-21, PZ-006-21 on 3/25/2022 (Date), on a form prescribed by the planning division at least 28 days before the Planning and Zoning Commission Public Hearing, regarding the proposed PAD and MCPA (Type of application), in unincorporated Pinal County.

The notice(s) and mailing lists were mailed as attached.

Applicant

STATE OF ARIZONA)
) ss:
COUNTY OF PINAL)

SANDRA FRIEDLANDER
Notary Public - Arizona
Maricopa County
Commission # 599372
My Comm. Expires Jan 13, 2025

Subscribed and sworn to me by ~~Max~~ Sandra Friedlander this 25th day of March, 2022.

Notary Public
My Commission Expires: January 13, 2025

*** as directed by your staff Coordinator**
*** please attach the mailer and the list addresses**

1. 4T FARMS LLC PO BOX 189 STANFIELD, AZ 85172
2. ABCDW LLC FKA BADC LLC 1121 W WARNER RD STE 109 TEMPE, AZ 85284
3. BDD STUDS LLC PO BOX 189 MARICOPA, AZ 85139
4. BRYCON RESIDENTIAL CONST... 134 FRONTAGE RD NE RIO RANCHO, NM 87124
5. CARDONA CRUZ & CHARLOTT... 2935 N WHISPERING WINDS R... MARICOPA, AZ 85139
6. CLB FAMILY LLC 15420 E SILVER CREEK CT GILBERT, AZ 85298
7. CLB REAL PROPERTY HOLDIN... 1121 W WARNER RD STE 109 TEMPE, AZ 85284
8. ENTITLEMENTS LLC 1121 W WARNER RD STE 109 TEMPE, AZ 85284
9. FB5 LLC 2040 S ALMA SCHOOL RD STE ... CHANDLER, AZ 85286
10. HAM MESA LLC PO BOX 15662 PHOENIX, AZ 85060
11. JAVORSKI PAUL A & CAROL A 3045 N WHISPERING WINDS R... MARICOPA, AZ 85139
12. JB HOLDINGS INC MAIL RETURN
13. JOHNSTON BILL JR PO BOX 226 MARICOPA, AZ 85139
14. KILLIAN C MAX TR 4445 E HOLMES AVE STE 102 MESA, AZ 85206
15. KINDER MORGAN PO BOX 4372 HOUSTON, TX 77210
16. MARICOPA INVESTMENTS INC 14 N GRAND AVE FT THOMAS, KY 41075
17. MELANIE MIDWAY II LLC 2776 E VIRGINIA ST GILBERT, AZ 85296
18. MERIDIAN 80 LLC 1121 W WARNER RD STE 109 TEMPE, AZ 85284
19. PANTANO MIDWAY LLC 2776 E VIRGINIA ST GILBERT, AZ 85296
20. PBS & SM MIDWAY IV LLC 2776 E VIRGINIA ST GILBERT, AZ 85296
21. PLANNING DIVISION 85 N. FLORENCE STREET FIRST FLOOR, P.O. BOX 2973 FLORENCE, AZ 85132
22. RANCHO LOGAN MARICOPA LL... 8723 N 67TH ST PARADISE VALLEY, AZ 85253
23. RED RIVER EL DORADO 6500 L... 8501 N SCOTTSDALE RD STE 1... SCOTTSDALE, AZ 85253
24. RICHARDSON STEPHEN E & VI... 2763 S LARKSPUR ST GILBERT, AZ 85295
25. RIO INVESTMENTS LLC 1955 W BASELINE RD 113-319 MESA, AZ 85202
26. SA LOAN FUND LLC 1670 E RIVER RD STE 124 TUCSON, AZ 85718
27. SIMMONS HOLDINGS LLC PO BOX 2480 GILBERT, AZ 85299
28. STATE OF ARIZONA PO BOX 1348 FLORENCE, AZ 85132
29. STELLAR HOMES FINANCIAL G... 5727 N 7TH ST STE 407 PHOENIX, AZ 85014
30. TIM T LLC 731 N SMITH RD MARICOPA, AZ 85138
31. TOUSA RECOVERY ACQUISITI... 4350 E CAMELBACK RD STE A-... PHOENIX, AZ 85018
32. TP MIDWAY SPE LLC 1121 W WARNER RD STE 109 TEMPE, AZ 85284
33. TRES POINTS LLC 1121 W WARNER RD STE 109 TEMPE, AZ 85284
34. TRINITY FARMS INC PO BOX 4909 SCOTTSDALE, AZ 85261

Pinal County
AFFIDAVIT OF POSTING BROADCAST SIGN

I, the applicant's representative for case # PZ-006-21/PZ-PD-006-21, personally caused at least one sign to be posted in a visible place on or near the proposed project site at NEC Louis Johnson Dr and Teel Rd, at least 28 days before the Planning and Zoning Commission Public Hearing, in Pinal County.

See attached photo exhibit.

Dynamite Signs
Sign Company Name

Meghan Liggett
Sign Company Representative

Subscribed and sworn to be on 03/23/22 by Meghan Liggett.

IN WITNESS WHEREOF, I Hereto set my hand and official seal.

MaryBeth Conrad
Notary Public

MARYBETH CONRAD
Notary Public - Arizona
Maricopa County
Commission # 591461
My Comm. Expires Oct 25, 2024

My Commission expires: 10-25-24


PINAL COUNTY
Public Hearings
Case Numbers: PZ-006-21/PZ-PD-006-21
Existing Zoning: SR PAD, CR-3 PAD, CR-4 PAD, CR-5 PAD and CB-1 PAD
Proposed Zoning: R-7 PAD, MD PAD, MR PAD and C-1 PAD
Acreage: 704.05 Acres
Applicant Name: Alex Fish
Applicant Phone Number: 480-503-0718
Public Hearing Information
Case Information Available at Pinal County Planning & Development Services
(520) 866-6442
NLA-1
Maps
45240–45598 W Louis Johnson Dr
Maricopa AZ 85139
+32.939716,-112.065539
Wednesday, March 23, 2022 at 1:19:00 PM


PINAL COUNTY
Public Hearings
Case Numbers: PZ-006-21/PZ-PD-006-21
Existing Zoning: SR PAD, CR-3 PAD, CR-4 PAD, CR-5 PAD and CB-1 PAD
Proposed Zoning: R-7 PAD, MD PAD, MR PAD and C-1 PAD
Acreage: 704.05 Acres
Applicant Name: Alex Fish
Applicant Phone Number: 480-503-0718
Public Hearing Information
Case Information Available at Pinal County Planning & Development Services
(520) 866-6442
Maps
N Green Rd
Maricopa AZ 85139
+32.954028,-112.065563
Wednesday, March 23, 2022 at 1:42:32 PM

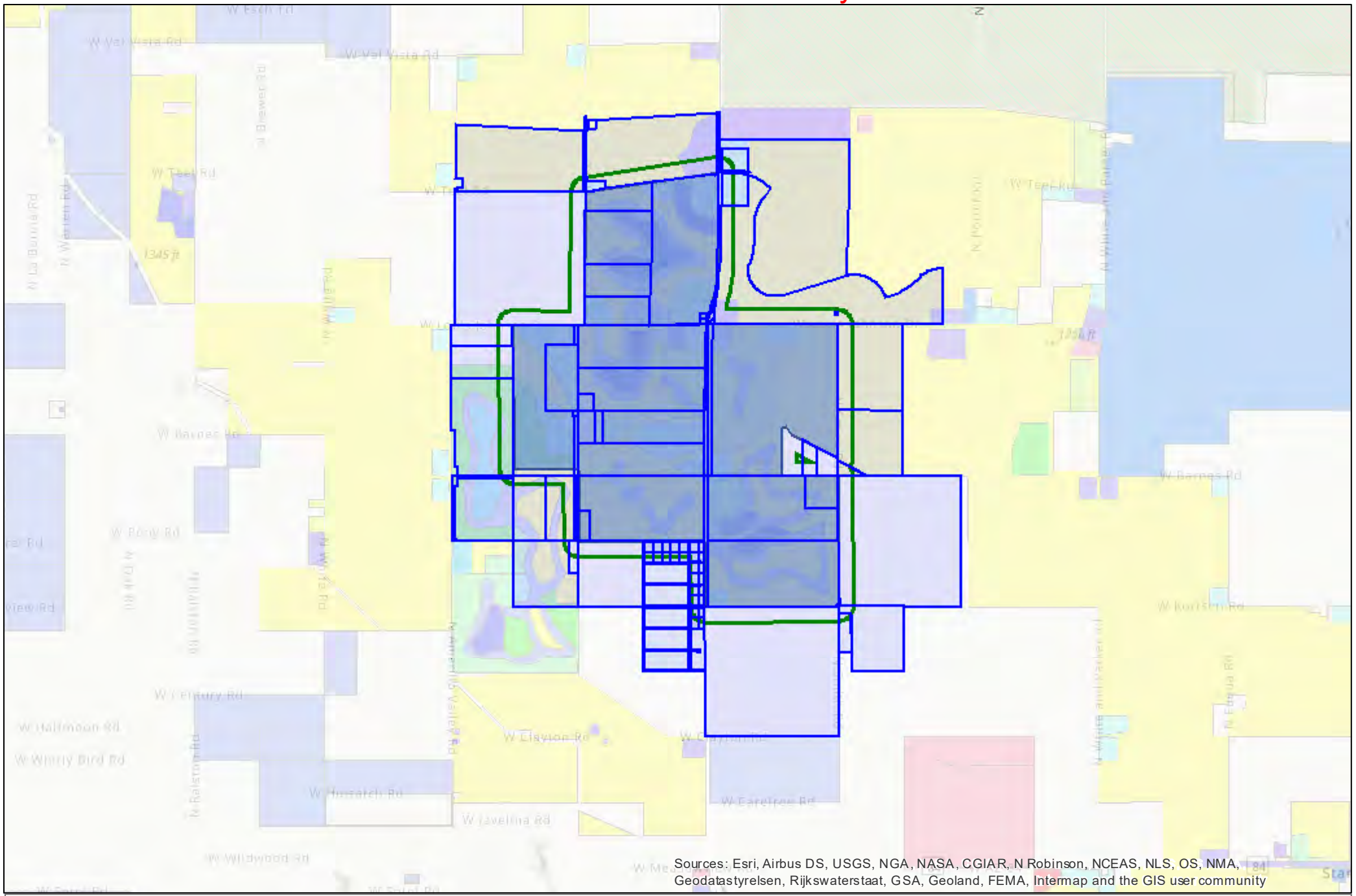

PINAL COUNTY
Public Hearings
Case Numbers: PZ-006-21/PZ-PD-006-21
Existing Zoning: SR PAD, CR-3 PAD, CR-4 PAD, CR-5 PAD and CB-1 PAD
Proposed Zoning: R-7 PAD, MD PAD, MR PAD and C-1 PAD
Acreage: 704.05 Acres
Applicant Name: Alex Fish
Applicant Phone Number: 480-503-0718
Public Hearing Information
Case Information Available at Pinal County Planning & Development Services
(520) 866-6442
Maps
45556 W Louis Johnson Dr
Maricopa AZ 85139
+32.956410,-112.048240
Wednesday, March 23, 2022 at 2:26:57 PM


PINAL COUNTY
Public Hearings
Case Numbers: PZ-006-21/PZ-PD-006-21
Existing Zoning: SR PAD, CR-3 PAD, CR-4 PAD, CR-5 PAD and CB-1 PAD
Proposed Zoning: R-7 PAD, MD PAD, MR PAD and C-1 PAD
Acreage: 704.05 Acres
Public Hearing Information
Applicant Name: Alex Fish
Applicant Phone Number: 480-503-0718
Case Information Available at Pinal County Planning & Development Services
(520) 866-6442
Maps
45556 W Louis Johnson Dr
Maricopa AZ 85139
+32.941080,-112.049437
Wednesday, March 23, 2022 at 4:22:06 PM

PINAL COUNTY
WIDE OPEN OPPORTUNITY

Community Development Status Viewer

600ft Buffer from Midway I PAD



600ft Buffer from Midway I PAD

,	,	CLB REAL PROPERTY HOLDIN... 1121 W WARNER RD STE 109 TEMPE, AZ 85284
,	CARDONA CRUZ & CHARLOTT... 2935 N WHISPERING WINDS R... MARICOPA, AZ 85139	CLB REAL PROPERTY HOLDIN... 1121 W WARNER RD STE 109 TEMPE, AZ 85284
,	TRINITY FARMS INC PO BOX 4909 SCOTTSDALE, AZ 85261	CLB REAL PROPERTY HOLDIN... 1121 W WARNER RD STE 109 TEMPE, AZ 85284
,	4T FARMS LLC PO BOX 189 STANFIELD, AZ 85172	CLB REAL PROPERTY HOLDIN... 1121 W WARNER RD STE 109 TEMPE, AZ 85284
,	CLB REAL PROPERTY HOLDIN... 1121 W WARNER RD STE 109 TEMPE, AZ 85284	CLB REAL PROPERTY HOLDIN... 1121 W WARNER RD STE 109 TEMPE, AZ 85284
,	JAVORSKI PAUL A & CAROL A 3045 N WHISPERING WINDS R... MARICOPA, AZ 85139	CLB REAL PROPERTY HOLDIN... 1121 W WARNER RD STE 109 TEMPE, AZ 85284
,	CLB REAL PROPERTY HOLDIN... 1121 W WARNER RD STE 109 TEMPE, AZ 85284	CLB REAL PROPERTY HOLDIN... 1121 W WARNER RD STE 109 TEMPE, AZ 85284
,	RIO INVESTMENTS LLC 1955 W BASELINE RD 113-319 MESA, AZ 85202	CLB REAL PROPERTY HOLDIN... 1121 W WARNER RD STE 109 TEMPE, AZ 85284
,	CLB REAL PROPERTY HOLDIN... 1121 W WARNER RD STE 109 TEMPE, AZ 85284	CLB REAL PROPERTY HOLDIN... 1121 W WARNER RD STE 109 TEMPE, AZ 85284
,	CLB REAL PROPERTY HOLDIN... 1121 W WARNER RD STE 109 TEMPE, AZ 85284	CLB REAL PROPERTY HOLDIN... 1121 W WARNER RD STE 109 TEMPE, AZ 85284

CLB REAL PROPERTY HOLDIN...
1121 W WARNER RD STE 109
TEMPE, AZ 85284

PBS & SM MIDWAY IV LLC
2776 E VIRGINIA ST
GILBERT, AZ 85296

RED RIVER EL DORADO 6500 L...
8501 N SCOTTSDALE RD STE 1...
SCOTTSDALE, AZ 85253

CLB REAL PROPERTY HOLDIN...
1121 W WARNER RD STE 109
TEMPE, AZ 85284

ABCDW LLC FKA BADC LLC
1121 W WARNER RD STE 109
TEMPE, AZ 85284

BDD STUDS LLC
PO BOX 189
MARICOPA, AZ 85139

CLB REAL PROPERTY HOLDIN...
1121 W WARNER RD STE 109
TEMPE, AZ 85284

PANTANO MIDWAY LLC
2776 E VIRGINIA ST
GILBERT, AZ 85296

PBS & SM MIDWAY IV LLC
2776 E VIRGINIA ST
GILBERT, AZ 85296

CLB REAL PROPERTY HOLDIN...
1121 W WARNER RD STE 109
TEMPE, AZ 85284

MELANIE MIDWAY III LLC
2776 E VIRGINIA ST
GILBERT, AZ 85296

MARICOPA INVESTMENTS INC
14 N GRAND AVE
FT THOMAS, KY 41075

CLB REAL PROPERTY HOLDIN...
1121 W WARNER RD STE 109
TEMPE, AZ 85284

MELANIE MIDWAY III LLC
2776 E VIRGINIA ST
GILBERT, AZ 85296

TP MIDWAY SPE LLC
1121 W WARNER RD STE 109
TEMPE, AZ 85284

CLB REAL PROPERTY HOLDIN...
1121 W WARNER RD STE 109
TEMPE, AZ 85284

MELANIE MIDWAY III LLC
2776 E VIRGINIA ST
GILBERT, AZ 85296

KINDER MORGAN
PO BOX 4372
HOUSTON, TX 77210

CLB REAL PROPERTY HOLDIN...
1121 W WARNER RD STE 109
TEMPE, AZ 85284

PANTANO MIDWAY LLC
2776 E VIRGINIA ST
GILBERT, AZ 85296

RED RIVER EL DORADO 6500 L...
8501 N SCOTTSDALE RD STE 1...
SCOTTSDALE, AZ 85253

CLB REAL PROPERTY HOLDIN...
1121 W WARNER RD STE 109
TEMPE, AZ 85284

PANTANO MIDWAY LLC
2776 E VIRGINIA ST
GILBERT, AZ 85296

PBS & SM MIDWAY IV LLC
2776 E VIRGINIA ST
GILBERT, AZ 85296

CLB REAL PROPERTY HOLDIN...
1121 W WARNER RD STE 109
TEMPE, AZ 85284

JB HOLDINGS INC
MAIL RETURN
,

KINDER MORGAN
PO BOX 4372
HOUSTON, TX 77210

CLB FAMILY LLC
15420 E SILVER CREEK CT
GILBERT, AZ 85298

SA LOAN FUND LLC
1670 E RIVER RD STE 124
TUCSON, AZ 85718

KINDER MORGAN
PO BOX 4372
HOUSTON, TX 77210

KINDER MORGAN
PO BOX 4372
HOUSTON, TX 77210

RED RIVER EL DORADO 6500 L...
8501 N SCOTTSDALE RD STE 1...
SCOTTSDALE, AZ 85253

ENTITLEMENTS LLC
1121 W WARNER RD STE 109
TEMPE, AZ 85284

PANTANO MIDWAY LLC
2776 E VIRGINIA ST
GILBERT, AZ 85296

JOHNSTON BILL JR
PO BOX 226
MARICOPA, AZ 85139

RANCHO LOGAN MARICOPA LL...
8723 N 67TH ST
PARADISE VALLEY, AZ 85253

PBS & SM MIDWAY IV LLC
2776 E VIRGINIA ST
GILBERT, AZ 85296

PINAL COUNTY
PO BOX 827
FLORENCE, AZ 85132

STATE OF ARIZONA
PO BOX 1348
FLORENCE, AZ 85132

PINAL COUNTY
PO BOX 827
FLORENCE, AZ 85132

JOHNSTON BILL JR
PO BOX 226
MARICOPA, AZ 85139

TOUSA RECOVERY ACQUISITI...
4350 E CAMELBACK RD STE A-...
PHOENIX, AZ 85018

TP MIDWAY SPE LLC
1121 W WARNER RD STE 109
TEMPE, AZ 85284

TOUSA RECOVERY ACQUISITI...
4350 E CAMELBACK RD STE A-...
PHOENIX, AZ 85018

BRYCON RESIDENTIAL CONST...
134 FRONTAGE RD NE
RIO RANCHO, NM 87124

SIMMONS HOLDINGS LLC
PO BOX 2480
GILBERT, AZ 85299

PINAL COUNTY
PO BOX 827
FLORENCE, AZ 85132

MERIDIAN 80 LLC
1121 W WARNER RD STE 109
TEMPE, AZ 85284

STELLAR HOMES FINANCIAL G...
5727 N 7TH ST STE 407
PHOENIX, AZ 85014

RICHARDSON STEPHEN E & VI...
2763 S LARKSPUR ST
GILBERT, AZ 85295

BRYCON RESIDENTIAL CONST...
134 FRONTAGE RD NE
RIO RANCHO, NM 87124

TP MIDWAY SPE LLC
1121 W WARNER RD STE 109
TEMPE, AZ 85284

TRES POINTS LLC
1121 W WARNER RD STE 109
TEMPE, AZ 85284

TOUSA RECOVERY ACQUISITI...
4350 E CAMELBACK RD STE A-...
PHOENIX, AZ 85018

PBS & SM MIDWAY IV LLC
2776 E VIRGINIA ST
GILBERT, AZ 85296

FB5 LLC
2040 S ALMA SCHOOL RD STE ...
CHANDLER, AZ 85286

HAM MESA LLC
PO BOX 15662
PHOENIX, AZ 85060

KILLIAN C MAX TR
4445 E HOLMES AVE STE 102
MESA, AZ 85206

,

HAM MESA LLC
PO BOX 15662
PHOENIX, AZ 85060

TRES POINTS LLC
15420 E SILVER CREEK CT
GILBERT, AZ 85298

,

PINAL COUNTY
PO BOX 827
FLORENCE, AZ 85132

4T FARMS LLC
PO BOX 189
STANFIELD, AZ 85172

MELANIE MIDWAY II LLC
2776 E VIRGINIA ST
GILBERT, AZ 85296

PINAL COUNTY
PO BOX 827
FLORENCE, AZ 85132

TIM T LLC
731 N SMITH RD
MARICOPA, AZ 85138

MELANIE MIDWAY II LLC
2776 E VIRGINIA ST
GILBERT, AZ 85296