

**DRAINAGE SHEETS WILLOW ROAD STA 661+00 TO STA 672+00 RIGHT SYSTEM**

SHEET	PIPE NUMBER	STRUCTURE		DESCRIPTION	CLASS	TYPE	SIZE (IN)	LENGTH (FT)	SLOPE (%)	TBF (CY)
		FROM	TO							
7	7-1	7-1	7-3	STORM SEWERS, RG	A	1	12	67.0	1.00%	9.6
7	7-2	7-3	7-2	STORM SEWERS, RG	A	1	12	8.0	1.00%	0.0
7	7-3	7-5	7-4	STORM SEWERS, RG	A	1	12	12.7	1.00%	0.0
7	7-4	7-6	7-7	STORM SEWERS	A	1	12	62.0	1.00%	8.4
7	7-5	7-7	7-8	STORM SEWERS	A	1	12	61.0	1.00%	8.1
7	7-6	7-8	N/A	STORM SEWERS, RG	A	1	12	5.8	1.00%	0.0
7	7-7	7-9	7-10	STORM SEWERS	A	1	12	8.3	1.00%	0.6
7	7-8	7-10	7-13	STORM SEWERS (WM REQ)			12	39.3	1.00%	3.7
7	7-9	7-11	7-14	STORM SEWERS	A	1	EQ RS 30	59.6	0.50%	16.1
7	7-10	7-12	7-13	STORM SEWERS (WM REQ)			12	8.4	1.00%	0.6
7	7-11	7-13	7-14	STORM SEWERS (WM REQ)			12	17.0	1.00%	1.8
7	7-12	7-14	6-13	STORM SEWERS	A	1	EQ RS 30	43.8	0.50%	11.4

**DRAINAGE SHEET WILLOW ROAD STA 672+00 TO STA 683+00**

SHEET	PIPE NUMBER	STRUCTURE		DESCRIPTION	CLASS	TYPE	SIZE (IN)	LENGTH (FT)	SLOPE (%)	TBF (CY)
		FROM	TO							
8	8-1	8-1	8-2	STORM SEWERS, RG	A	2	12	37.3	1.00%	9.7
8	8-2	8-2	8-6	STORM SEWERS	A	2	48	146.4	0.50%	257.8
8	8-3	8-3	8-4	STORM SEWERS, RG	A	1	12	7.2	1.00%	0.0
8	8-4	8-4	8-8	STORM SEWERS (WM REQ)			12	83.2	1.00%	10.1
8	8-5	8-5	8-6	STORM SEWERS	A	1	12	35.2	1.00%	2.1
8	8-6	8-7	8-6	STORM SEWERS	A	1	12	4.3	1.00%	0.4
8	8-7	8-9	8-5	STORM SEWERS	A	1	12	45.3	1.00%	2.5
8	8-8	8-6	8-12	STORM SEWERS, RG	A	2	48	135.4	0.50%	220.3
8	8-9	8-8	8-10	STORM SEWERS (WM REQ)			12	78.3	1.00%	11.2
8	8-10	8-10	8-11	STORM SEWERS, RG	A	2	12	29.0	1.00%	5.7
8	8-11	8-11	8-12	STORM SEWERS	A	2	12	4.3	1.00%	0.8
8	8-12	8-12	8-16	STORM SEWERS	A	2	48	101.0	0.50%	185.8
8	8-13	8-13	8-14	STORM SEWERS, RG	A	1	12	7.2	1.00%	0.0
8	8-14	8-14	8-15	STORM SEWERS, RG	A	2	12	29.0	1.00%	4.3
8	8-15	8-15	8-16	STORM SEWERS	A	2	12	10.8	1.00%	2.5
8	8-16	8-16	8-19	STORM SEWERS	A	2	48	96.1	0.50%	199.5
8	8-17	8-17	8-18	STORM SEWERS, RG	A	2	12	29.0	1.00%	5.3
8	8-18	8-18	8-19	STORM SEWERS	A	2	12	10.8	1.00%	2.9
8	8-19	8-19	8-22	STORM SEWERS	A	2	48	96.1	0.50%	190.8
8	8-20	8-20	8-21	STORM SEWERS, RG	A	2	12	29.0	1.00%	7.5
8	8-21	8-21	8-22	STORM SEWERS	A	2	12	10.8	1.00%	5.8
8	8-22	8-23	8-22	STORM SEWERS	A	2	12	15.9	1.00%	1.4
8	8-23	8-22	8-25	STORM SEWERS	A	2	48	85.9	0.50%	162.7
8	8-24	8-24	8-25	STORM SEWERS	A	2	12	10.8	1.00%	1.7
8	8-25	8-25	8-29	STORM SEWERS	A	2	48	110.6	0.50%	190.7
8	8-26	8-26	8-20	STORM SEWERS (WM REQ)			12	48.1	1.00%	6.4
8	8-27	8-27	8-28	STORM SEWERS (WM REQ)			12	90.3	1.00%	12.9
8	8-28	8-28	8-29	STORM SEWERS, RG	A	2	12	43.8	1.00%	11.5
8	8-29	8-29	8-41	STORM SEWERS	A	2	48	224.0	0.50%	328.0
8	8-30	8-30	8-32	STORM SEWERS	A	1	12	47.0	1.00%	6.7
8	8-31	8-31	8-34	STORM SEWERS (WM REQ)			12	67.0	1.00%	10.5
8	8-32	8-32	8-35	STORM SEWERS	A	1	12	51.0	1.00%	7.6
8	8-33	8-33	8-34	STORM SEWERS, RG	A	1	12	7.1	1.00%	0.0
8	8-34	8-36	8-35	STORM SEWERS	A	1	12	4.2	1.00%	0.0
8	8-35	8-35	8-38	STORM SEWERS	A	2	12	76.0	1.00%	13.8
8	8-36	8-34	8-37	STORM SEWERS (WM REQ)			12	51.0	1.00%	9.4
8	8-37	8-37	8-39	STORM SEWERS (WM REQ)			12	31.0	1.00%	6.0
8	8-38	8-38	8-41	STORM SEWERS	A	2	12	4.3	1.00%	0.5
8	8-39	8-40	8-41	STORM SEWERS	A	2	12	12.5	1.00%	6.6
8	8-40	8-39	8-40	STORM SEWERS, RG	A	2	12	27.3	1.00%	8.3
8	8-41	8-42	8-39	STORM SEWERS (WM REQ)			12	57.0	1.00%	11.6
8	8-42	8-41	9-10	STORM SEWERS	A	2	48	289.0	0.50%	346.6

**DRAINAGE SHEET WILLOW ROAD STA 683+00 TO STA 693+00 LEFT SYSTEM**

SHEET	PIPE NUMBER	STRUCTURE		DESCRIPTION	CLASS	TYPE	SIZE (IN)	LENGTH (FT)	SLOPE (%)	TBF (CY)
		FROM	TO							
9	9-1	9-1	9-4	STORM SEWERS	A	1	12	72.0	1.00%	11.0
9	9-2	9-2	9-6	STORM SEWERS (WM REQ)			12	57.0	1.00%	8.0
9	9-3	9-3	9-4	STORM SEWERS	A	2	12	6.6	1.00%	0.0
9	9-4	9-4	9-7	STORM SEWERS	A	2	12	71.0	1.00%	24.4
9	9-5	9-5	9-6	STORM SEWERS, RG	A	1	12	9.5	1.00%	0.0
9	9-6	9-6	9-8	STORM SEWERS (WM REQ)			12	56.0	1.00%	11.4
9	9-7	9-7	9-9	STORM SEWERS	A	2	12	76.0	1.00%	28.2
9	9-8	9-8	9-12	STORM SEWERS (WM REQ)			12	51.0	1.00%	11.2
9	9-9	9-9	9-10	STORM SEWERS	A	2	12	4.3	1.00%	1.5
9	9-10	9-11	9-12	STORM SEWERS, RG	A	1	12	17.2	1.00%	3.4
9	9-11	9-12	9-10	STORM SEWERS, RG	A	2	15	43.8	1.00%	14.3
9	9-12	9-10	9-17	STORM SEWERS	A	2	48	158.5	0.50%	156.3
9	9-13	9-13	9-19	STORM SEWERS (WM REQ)			12	107.0	1.00%	17.8
9	9-14	9-14	9-15	STORM SEWERS	A	1	12	4.5	1.00%	0.0
9	9-15	9-15	9-16	STORM SEWERS	A	2	12	81.0	1.00%	15.9
9	9-16	9-16	9-17	STORM SEWERS	A	2	12	4.3	1.00%	0.5
9	9-17	9-18	9-19	STORM SEWERS (WM REQ)			12	6.5	1.00%	0.0
9	9-18	9-19	9-17	STORM SEWERS, RG	A	2	12	42.8	1.00%	9.4
9	9-19	9-17	9-21	STORM SEWERS	A	2	60	64.0	0.20%	63.8
9	9-20	9-23	9-22	STORM SEWERS	A	1	12	27.4	1.00%	4.4
9	9-21	9-20	9-21	STORM SEWERS	A	1	12	4.3	1.00%	0.4
9	9-22	9-22	9-21	STORM SEWERS	A	2	12	17.8	1.00%	2.7
9	9-23	9-21	9-27	STORM SEWERS	A	2	60	108.8	0.20%	103.9
9	9-24	9-24	9-26	STORM SEWERS	A	1	12	26.8	1.00%	4.2
9	9-25	9-25	9-26	STORM SEWERS	A	2	12	15.7	1.00%	2.3
9	9-26	9-26	9-27	STORM SEWERS	A	2	12	4.3	1.00%	1.7
9	9-27	9-27	9-29	STORM SEWERS	A	2	60	88.0	0.20%	93.5
9	9-28	9-28	9-29	STORM SEWERS	A	1	12	4.3	1.00%	0.4
9	9-29	9-29	9-30	STORM SEWERS	A	2	60	100.7	0.20%	138.6
9	9-30	9-30	9-32	STORM SEWERS, RG	A	2	60	76.2	0.20%	129.3
9	9-31	9-31	9-32	STORM SEWERS	A	1	12	17.0	1.00%	3.4
9	9-32	9-32	11-2	STORM SEWERS	A	2	60	160.4	0.20%	297.7
9	9-33	9-33	9-19	STORM SEWERS (WM REQ)			12	9.0	1.00%	1.1

**DRAINAGE SHEET WILLOW ROAD STA 683+00 TO STA 693+00 RIGHT SYSTEM**

SHEET	PIPE NUMBER	STRUCTURE		DESCRIPTION	CLASS	TYPE	SIZE (IN)	LENGTH (FT)	SLOPE (%)	TBF (CY)
		FROM	TO							
10	10-1	10-1	10-2	STORM SEWERS, RG	A	1	36	18.6	1.00%	3.5
10	10-2	10-2	10-4	STORM SEWERS	A	2	42	162.5	0.10%	163.4
10	10-3	10-3	10-4	STORM SEWERS, RG	A	1	12	21.2	1.00%	2.0
10	10-4	10-4	10-5	STORM SEWERS, RG	A	2	42	160.7	0.10%	216.1
10	10-5	10-5	12-2	STORM SEWERS	A	2	60	153.3	0.20%	276.8

**DRAINAGE SHEET WILLOW ROAD STA 693+00 TO STA 704+00 LEFT SYSTEM**

SHEET	PIPE NUMBER	STRUCTURE		DESCRIPTION	CLASS	TYPE	SIZE (IN)	LENGTH (FT)	SLOPE (%)	TBF (CY)
		FROM	TO							
11	11-1	12-1	11-1	STORM SEWERS (WM REQ)			42	66.2	0.50%	91.1
11	11-2	11-2	11-5	STORM SEWERS	A	2	60	82.4	0.20%	144.8
11	11-3	11-3	11-4	STORM SEWERS	A	1	12	8.6	1.00%	1.5
11	11-4	11-4	11-5	STORM SEWERS	A	1	12	4.3	1.00%	0.3
11	11-5	11-5	11-8	STORM SEWERS	A	2	60	149.0	0.20%	244.2
11	11-6	11-6	11-7	STORM SEWERS	A	1	12	74.3	1.00%	12.1
11	11-7	11-7	11-8	STORM SEWERS	A	2	12	8.8	1.00%	1.6
11	11-8	11-8	11-12	STORM SEWERS, RG	A	2	60	102.4	0.20%	152.1
11	11-9	11-9	11-10	STORM SEWERS	A	1	12	38.8	1.00%	6.1
11	11-10	11-10	11-11	STORM SEWERS (WM REQ)			12	24.1	1.00%	4.5
11	11-11	11-11	11-12	STORM SEWERS (WM REQ)			12	15.2	1.00%	3.5
11	11-12	11-12	11-17	STORM SEWERS	A	2	60	177.5	0.20%	231.0
11	11-13	11-13	11-14	STORM SEWERS	A	1	12	37.0	1.00%	5.6
11	11-14	11-14	11-15	STORM SEWERS	A	2	12	36.0	1.00%	6.2
11	11-15	11-15	11-16	STORM SEWERS	A	2	12	36.0	1.00%	7.1
11	11-16	11-16	11-17	STORM SEWERS	A	2	12	8.0	1.00%	1.6
11	11-17	11-18	11-16	STORM SEWERS	A	2	12	37.0	1.00%	6.4
11	11-18	11-17	11-24	STORM SEWERS	A	2	66	197.0	0.15%	234.2
11	11-19	11-19	11-20	STORM SEWERS	A	1	12	37.0	1.00%	5.9
11	11-20	11-20	11-21	STORM SEWERS	A	2	12	36.0	1.00%	7.0