

AS-BUILT

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William R. Winkelmann
WINKELMANN AND ASSOCIATES, INC.

04-20-2026
DATE

NOTES:

1. ALL RESPONSIBILITY FOR ADEQUACY OF DESIGN REMAINS WITH THE DESIGN ENGINEER. THE CITY OF ROCKWALL, IN REVIEWING AND RELEASING PLANS FOR CONSTRUCTION, ASSUMES NO RESPONSIBILITY FOR ADEQUACY OR ACCURACY OF DESIGN.
2. ALL STORM IS PRIVATE UNLESS NOTED AS PUBLIC

COMPUTATION SHEET
HYDRAULIC COMPUTATIONS FOR STORM DRAINS

FROM		TO		PIPE LENGTH ft	DRAINAGE AREA INC. AREA	TOTAL AREA	RUNOFF COEFF. 'C'	INCRE-MENTAL 'CA'	TOTAL 'CA'	TIME OF CONCENTRATION			10-YEAR INTENSITY (IN/HR)	25-YEAR INTENSITY (IN/HR)	50-YEAR INTENSITY (IN/HR)	100-YEAR INTENSITY (IN/HR)	Q10 (CFS)	Q100 (CFS)	INLET BYPASS (CFS)	Q PIPE (CFS)	PIPE SIZE (IN)	n	Sf (F/FT)	HEADLOSS CALCULATIONS						DESIGN HGL Elev	INVERT ELEV. FROM (FT)	TO ELEV. (FT)	T/C ELEV. (FT)	COMMENTS			
START	END	START	END							MIN.	TRAVEL (MIN.)	TOTAL (MIN.)												V1(N) f/sec	V2(OUT) f/sec	V1'2/2g (FT)	V2'2/2g (FT)	Kj	KvV1'2/2g (FT)						Hk (FT)	HGL Elev	US Elev
LAT 1B																																					
0+00.00	0+14.30	14.30	C-2,C-3,C-4	6.593	6.593	0.90	5.934	5.934	10.00	0.00	10.00	7.10	8.30	9.00	9.80	42.13	58.15	0.00	58.15	36	0.013	0.0076	588.07	588.18	0.00	8.23	0.00	1.05	0.75	0.00	0.79	588.97	581.99	582.13	589.50	CONNECT TO PIPE	
LAT 1C																																					
0+00.00	0+15.00	15.00	C-7	0.854	0.854	0.90	0.769	0.769	10.00	0.00	10.00	7.10	8.30	9.00	9.80	5.46	7.53	0.00	7.53	24	0.013	0.0011	589.12	589.14	0.00	2.40	0.00	0.09	1.25	0.00	0.11	589.25	582.37	582.97	589.50	CURB INLET	
LAT 1D																																					
0+00.00	0+22.07	22.07	C-5	9.955	9.955	0.90	8.960	8.960	10.00	0.00	10.00	7.10	8.30	9.00	9.80	63.61	87.80	0.00	87.80	48	0.013	0.0037	589.12	589.20	0.00	6.99	0.00	0.76	0.75	0.00	0.57	589.77	582.37	582.59	590.00	CONNECT TO PIPE	
LAT 1E																																					
0+00.00	0+17.32	17.32	C-6	0.996	0.996	0.90	0.896	0.896	10.00	0.00	10.00	7.10	8.30	9.00	9.80	6.36	8.78	0.00	8.78	24	0.013	0.0015	590.34	590.37	0.00	2.80	0.00	0.12	1.25	0.00	0.15	590.52	584.85	585.02	591.50	CURB INLET	
LAT 1F																																					
0+33.55	0+40.53	6.98	C-10	0.069	0.069	0.90	0.063	0.063	10.00	0.00	10.00	7.10	8.30	9.00	9.80	0.44	0.61	0.00	0.61	10	0.010	0.0005	597.22	597.23	0.00	1.12	0.00	0.02	1.25	0.00	0.10	597.33	588.30	588.37	600.00	ROOF DRAIN	
0+09.88	0+33.55	23.67		0.069	0.069	0.90	0.063	0.063	10.00	0.10	10.00	7.10	8.30	9.00	9.80	-	-	0.00	0.61	10	0.010	0.0005	597.11	597.12	1.12	1.12	0.02	0.02	0.50	0.01	0.10	597.22	588.06	588.30	600.00	BEEHIVE DRAIN	
0+00.00	0+09.88	9.88		0.069	0.069	0.90	0.063	0.063	10.00	0.45	10.00	7.10	8.30	9.00	9.80	-	-	0.00	0.61	10	0.010	0.0005	597.01	597.01	1.12	1.12	0.02	0.02	0.35	0.01	0.10	597.11	587.96	588.06	600.00	45° BEND	
LAT 2A																																					
0+07.73	0+31.70	23.97	C-14	0.267	0.267	0.90	0.240	0.240	10.00	0.00	10.00	7.10	8.30	9.00	9.80	1.71	2.35	0.00	2.35	18	0.013	0.0100	586.48	586.72	0.00	4.11	0.00	0.26	1.25	0.00	0.33	587.05	585.93	586.17	591.12	CURB INLET	
0+00.00	0+07.73	7.73		0.267	0.267	0.90	0.240	0.240	10.00	0.10	10.00	7.10	8.30	9.00	9.80	-	-	0.00	2.35	18	0.013	0.0100	587.21	587.29	4.11	4.11	0.26	0.26	0.25	0.07	0.10	586.48	585.85	585.93	591.12	30° BEND	
LAT 2B																																					
2+84.81	3+00.12	15.31	C-10	0.416	0.416	0.90	0.374	0.374	10.00	0.00	10.00	7.10	8.30	9.00	9.80	2.66	3.67	0.00	3.67	18	0.013	0.0012	588.55	588.57	0.00	2.08	0.00	0.07	1.25	0.00	0.10	588.67	587.41	587.49	595.00	ROOF DRAIN	
2+58.73	2+84.81	26.08		0.416	0.416	0.90	0.374	0.374	10.00	0.12	10.00	7.10	8.30	9.00	9.80	-	-	0.00	3.67	18	0.013	0.0050	588.31	588.44	2.08	3.68	0.07	0.21	0.50	0.03	0.11	588.55	587.28	587.41	595.00	BEEHIVE DRAIN	
2+33.76	2+58.73	24.97		0.416	0.416	0.90	0.374	0.374	10.00	0.24	10.00	7.10	8.30	9.00	9.80	-	-	0.00	3.67	18	0.013	0.0050	588.09	588.21	3.68	3.68	0.21	0.21	0.43	0.09	0.10	588.31	587.16	587.28	595.00	60° BEND	
1+46.81	2+33.76	86.95		0.416	0.416	0.90	0.374	0.374	10.00	0.35	10.00	7.10	8.30	9.00	9.80	-	-	0.00	3.67	18	0.013	0.0050	587.55	587.99	3.68	3.68	0.21	0.21	0.25	0.05	0.10	588.09	586.72	587.16	595.00	30° BEND	
0+90.94	1+46.81	55.87	C-10	0.416	0.832	0.90	0.374	0.749	10.00	0.75	10.00	7.10	8.30	9.00	9.80	2.66	3.67	0.00	7.34	18	0.013	0.0049	588.19	588.47	3.68	4.15	0.21	0.27	0.75	0.16	0.20	587.55	586.44	586.72	595.00	45° WYE	
0+85.69	0+90.94	25.25		0.832	0.832	0.90	0.749	0.749	10.00	0.97	10.00	7.10	8.30	9.00	9.80	8.96	-	-	0.00	7.34	24	0.013	0.0011	588.07	588.09	4.15	2.34	0.27	0.08	0.10	0.10	588.19	585.82	585.94	595.00	PIPE SIZE CHANGE	
0+55.82	0+65.69	9.87		0.832	0.832	0.90	0.749	0.749	10.00	1.15	10.00	7.10	8.30	9.00	9.80	8.96	-	-	0.00	7.34	24	0.013	0.0011	587.96	587.97	2.34	2.34	0.08	0.08	0.25	0.02	0.10	588.07	585.77	585.82	595.00	30° BEND
0+00.00	0+55.82	55.82	C-10	0.416	1.248	0.90	0.374	1.123	10.00	1.22	11.22	7.10	8.30	9.00	9.80	2.66	3.30	0.00	10.64	24	0.013	0.0022	587.70	587.82	2.34	3.39	0.08	0.18	0.75	0.06	0.13	587.96	585.49	585.77	595.00	60° WYE, LAT 2B-1	
LAT 2B-1																																					
0+50.34	0+68.80	18.46	C-10	0.416	0.416	0.90	0.374	0.374	10.00	0.00	10.00	7.10	8.30	9.00	9.80	2.66	3.67	0.00	3.67	24	0.013	0.0050	587.11	587.20	0.00	3.47	0.00	0.19	1.25	0.00	0.23	587.43	586.36	586.45	595.00	ROOF DRAIN	
0+00.00	0+50.34	50.34		0.416	0.416	0.90	0.374	0.374	10.00	0.09	10.00	7.10	8.30	9.00	9.80	-	-	0.00	3.67	24	0.013	0.0050	587.96	588.21	3.47	3.47	0.19	0.19	0.19	0.50	0.09	0.10	587.11	585.97	586.22	595.00	BEEHIVE DRAIN
LAT 2C																																					
0+00.00	0+14.20	14.20	C-9	0.302	0.302	0.90	0.272	0.272	10.00	0.00	10.00	7.10	8.30	9.00	9.80	1.93	2.66	0.00	2.66	21	0.013	0.0003	588.06	588.06	0.00	1.11	0.00	0.02	1.25	0.00	0.10	588.16	585.64	585.78	592.63	CURB INLET	
LAT 2D																																					
0+94.29	1+18.38	24.09	C-15	0.716	0.716	0.90	0.644	0.644	10.00	0.00	10.00	7.10	8.30	9.00	9.80	4.58	6.32	0.00	6.32	21	0.013	0.0016	588.04	588.08	0.00	2.63	0.00	0.11	1.25	0.00	0.13	588.21	585.42	585.48	590.06	CURB INLET	
0+00.00	0+94.29	94.29	C-8	0.180	0.896	0.90	0.162	0.806	10.00	0.15	10.15	7.10	8.30	9.00	9.80	1.15	1.59	0.00	7.90	21	0.013	0.0025	587.68	587.92	2.63	3.29	0.11	0.17	0.75	0.08	0.13	588.04	585.18	585.42	590.06	60° WYE, LAT 2D-1	
LAT 2E																																					
0+00.00	0+10.63	10.63	C-11	0.205	0.205	0.90	0.185	0.185	10.00	0.00	10.00	7.10	8.30	9.00	9.80	1.31	1.81	0.00	1.81	21	0.013	0.0001	588.63	588.63	0.00	0.75	0.00	0.01	1.25	0.00	0.10	588.73	586.75	586.86	593.40	CURB INLET	
LAT 2F																																					
2+05.67	2+10.61	4.94	C-10	0.069	0.069	0.90	0.062	0.062	10.00	0.00	10.00	7.10	8.30	9.00	9.80	0.44	0.61	0.00	0.61	10	0.010	0.0005	593.51	593.51	0.00	1.12	0.00	0.02	0.75	0.00	0.10	593.61	589.91	589.96	595.00	60° WYE	
1+85.33	2+05.67	20.34	C-10	0.069	0.138	0.90	0.062	0.124	10.00	0.07	10.07	7.10	8.30	9.00	9.80	0.44	0.61	0.00	1.22	10	0.010	0.0018	593.38	593.41	1.12	2.23	0.02	0.08	0.75	0.01	0.10	593.51	589.71	589.91	595.00	60° WYE	
1+55.33	1+85.33	30.00	C-10	0.069	0.207	0.90	0.062	0.186	10.00	0.23	10.23	7.10	8.30	9.00	9.80	0.44	0.61	0.00	1.83	10	0.010	0.0041	593.12	593.24	2.23	3.35	0.08	0.17	0.75	0.06	0.13	593.38	589.41	589.71	595.00	60° WYE	
1+25.33	1+55.33	30.00	C-10	0.069	0.276	0.90	0.062	0.248	10.00	0.38	10.38	7.10	8.30	9.00	9.80	0.44	0.61	0.00	2.43	10	0.010	0.0073	592.67	592.89	3.35	4.46	0.17	0.31	0.75	0.13	0.23	593.12	589.11	589.41	595.00	60° WYE	
0+95.33	1+25.33	30.00	C-10	0.069	0.345	0.90	0.062	0.311	10.00	0.49	10.49	7.10	8.30	9.00	9.80	0.44	0.61	0.00	3.04	10	0.010	0.															