

RUNOFF COLLECTION POINT		Distance Between Collection Points "L" (feet)	DRAINAGE AREA			Runoff Coeff. "C"	Incr. "CA" (acres)	Intensity "I" (in./hr.)	STORMWATER RUNOFF		PROPOSED STORM SEWER			Proposed Storm Sewer Slope "S _s " (ft/ft.)	Slope of Hydraulic Gradient Based on Pipe Size "S" (ft/ft.)	Full Flow Capacity "C" (c.f.s.)	Depth of Flow "y" (ft.)	Actual Flow Velocity "V _a " (f.p.s.)	Q100 Flow Velocity "V ₁₀₀ " (f.p.s.)	Head Loss Coeff. K _j	Velocity Head Loss at Upstream Station $V_u^2/2g$ 2g (feet)	Pipe Flowline Elev. Downstream (feet)	Pipe Flowline Elev. Upstream (feet)	Top of Pipe Elev. Downstream (feet)	Top of Pipe Elev. Upstream (feet)	Hg Elev. Downstream (feet)	Hg Elev. Upstream (feet)	Full/Partial Flow			
Downstream Station	Upstream Station		Drainage Area Name	Incr. "A" (acres)	Accum. "A" (acres)				Incr. "Q" (c.f.s.)	Accum. "Q" (c.f.s.)	Pipe or Box	Round Pipe Diameter "d" (in.)	Rectangular Box Width/Height "w" "h" (ft.)																		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	27	28	30	29	32	31	34	33	35		
Storm Sewer Line A																															
2+38.88																															
2+38.88	2+38.88	13.88	A-2	1.06	1.06	0.75	0.80	9.80	7.79	7.79	Pipe	18	-	-	0.0475	0.0055	22.89	0.47	12.32	4.41	1.25	0.38		547.51	547.51	549.01	549.01	545.59	545.21	PARTIAL	
2+25.00	2+25.00	65.00	MH	1.43	2.49	0.75	1.87	9.80	10.51	18.30	Pipe	24	-	-	0.0315	0.0065	40.15	0.95	12.49	5.83	0.25	0.45		546.85	545.35	548.85	547.35	545.13	544.68	PARTIAL	
1+60.00	1+60.00	60.00	MH	0.00	2.49	0.75	1.87	9.80	0.00	18.30	Pipe	24	-	-	0.0800	0.0065	63.99	0.71	17.66	5.83	0.25	0.40		543.30	541.80	545.30	543.80	544.26	543.86	PARTIAL	
1+00.00												24	-	-	0.0800	0.0065	63.99	0.71	17.66	5.83	0.25	0.40		537.00	541.80	539.00	543.80	543.47	543.86	FULL	
Storm Sewer Lateral A-1																															
2+30.91																															
2+30.91	2+30.91	16.97	A-1	0.48	0.48	0.75	0.36	9.80	3.53	3.53	Pipe	18	-	-	0.0050	0.0011	7.43	0.59	4.36	2.00	1.25	0.08		547.50	547.50	549.00	549.00	545.40	545.32	PARTIAL	
2+13.94	2+13.94	113.94	45 Bend	0.00	0.48	0.75	0.36	9.80	0.00	3.53	Pipe	18	-	-	0.0050	0.0011	7.43	0.59	4.36	2.00	0.35	0.04		547.42	547.42	548.92	548.92	545.30	545.26	PARTIAL	
1+00.00												18	-	-	0.0050	0.0011	7.43	0.59	4.36	2.00	0.35	0.04		546.85	547.42	546.85	548.92	545.13	545.26	PARTIAL	
Storm Sewer Lateral A-2																															
3+90.00																															
3+90.00	3+90.00	50.33	A-2	0.52	0.52	0.75	0.39	9.80	3.82	3.82	Pipe	18	-	-	0.0454	0.0013	22.37	0.01	11.17	2.16	1.25	0.09		560.00	560.00	561.50	561.50	546.20	546.11	PARTIAL	
3+39.67	3+39.67	167.33	45 Bend	0.00	0.52	0.75	0.39	9.80	0.00	3.82	Pipe	18	-	-	0.0454	0.0013	22.37	0.01	11.17	2.16	0.75	0.02		557.72	557.72	559.22	559.22	546.04	546.02	PARTIAL	
1+72.34	1+72.34	61.41	45 Wye	0.43	0.95	0.75	0.71	9.80	3.16	6.98	Pipe	18	-	-	0.0454	0.0044	22.37	0.45	11.77	3.95	0.75	0.19		550.13	550.13	551.63	551.63	545.80	545.61	PARTIAL	
1+10.93	1+10.93	10.93	45 Bend	0.00	0.95	0.75	0.71	9.80	0.00	6.98	Pipe	18	-	-	0.0454	0.0044	22.37	0.45	11.77	3.95	0.35	0.16		547.34	547.34	548.84	548.84	545.34	545.18	PARTIAL	
1+00.00												18	-	-	0.0454	0.0044	22.37	0.45	11.77	3.95	0.35	0.16		546.85	547.34	546.85	548.84	545.13	545.18	PARTIAL	
Storm Sewer Line B																															
5+13.02																															
5+13.02	5+13.02	16.97	Inlet	0.20	0.20	0.75	0.15	9.80	1.47	1.47	Pipe	24	-	-	0.0140	0.0000	26.77	2.00	12.50	0.47	1.25	0.00		542.81	542.81	544.81	544.81	545.22	545.22	FULL	
4+96.05	4+96.05	4.97	45 Bend	0.00	0.20	0.75	0.15	9.80	0.00	1.47	Pipe	24	-	-	0.0140	0.0000	26.77	2.00	12.50	0.47	0.50	0.00		542.57	542.57	544.57	544.57	545.22	545.22	FULL	
4+91.08	4+91.08	45.68	45 Wye	1.19	1.39	0.75	1.04	9.80	8.75	10.22	Pipe	24	-	-	0.0140	0.0020	26.77	0.85	7.96	3.25	0.35	0.16		542.50	542.50	544.50	544.50	545.22	545.22	FULL	
4+45.40	4+45.40	14.14	45 Bend	0.00	1.39	0.75	1.04	9.80	0.00	10.22	Pipe	24	-	-	0.0140	0.0020	26.77	0.85	7.96	3.25	0.50	0.08		541.86	541.86	543.86	543.86	544.96	544.88	FULL	
4+31.26	4+31.26	76.58	45 Bend	0.00	1.39	0.75	1.04	9.80	0.00	10.22	Pipe	24	-	-	0.0140	0.0020	26.77	0.85	7.96	3.25	0.50	0.08		541.67	541.67	543.67	543.67	544.85	544.77	FULL	
3+54.68	3+54.68	18.74	45 Bend	0.00	1.39	0.75	1.04	9.80	0.00	10.22	Pipe	24	-	-	0.0140	0.0020	26.77	0.85	7.96	3.25	0.50	0.08		540.59	540.59	542.59	542.59	544.61	544.53	FULL	
3+35.94	3+35.94	19.00	45 Bend	0.00	1.39	0.75	1.04	9.80	0.00	10.22	Pipe	24	-	-	0.0140	0.0020	26.77	0.85	7.96	3.25	0.50	0.08		540.33	540.33	542.33	542.33	544.49	544.41	FULL	
3+16.94	3+16.94	218.90	45 Wye	0.35	1.74	0.75	1.31	9.80	2.57	12.79	Pipe	24	-	-	0.0140	0.0032	26.77	0.97	8.42	4.07	0.35	0.20		540.06	540.06	542.06	542.06	544.37	544.17	FULL	
0+98.04																								537.00	540.06	539.00	543.47	544.17	FULL		
Storm Sewer Lateral B-1																															
1+24.40																															
1+24.40	1+24.40	24.40	Inlet	0.35	0.35	0.75	0.26	9.80	2.57	2.57	Pipe	18	-	-	0.1010	0.0006	33.38	1.11	9.23	1.46	1.25	0.04		542.78	542.78	544.28	544.28	544.43	544.38	FULL	
1+00.00												18	-	-	0.1010	0.0006	33.38	1.11	9.23	1.46	1.25	0.04		540.31	542.78	541.81	544.37	544.38	FULL		
Storm Sewer Line C																															
2+52.28																															
2+52.28	2+52.28	32.06	C-1	0.23	0.23	0.75	0.17	9.80	1.69	1.69	Pipe	18	-	-	0.0090	0.0003	9.97	0.01	4.97	0.96	1.25	0.02		544.37	544.37	545.87	545.87	545.65	545.63	PARTIAL	
2+20.22	2+20.22	96.22	C-2	0.96	1.19	0.75	0.89	9.80	7.06	8.75	Pipe	24	-	-	0.0090	0.0015	21.46	0.88	6.49	2.78	0.75	0.11		544.08	543.58	546.08	545.58	545.62	545.51	PARTIAL	
1+24.00	1+24.00	24.00	45 Bend	0.00	1.19	0.75	0.89	9.80	0.00	8.75	Pipe	24	-	-	0.0090	0.0015	21.46	0.88	6.49	2.78	0.35	0.12		542.72	542.72	544.72	544.72	545.37	545.25	PARTIAL	
1+00.00												24	-	-	0.0090	0.0015	21.46	0.88	6.49	2.78	0.35	0.12		542.50	542.72	542.50	544.72	545.22	FULL		
Storm Sewer Lateral C-1																															
1+50.00																															
1+50.00	1+50.00	50.00	C-1	0.96	0.96	0.75	0.72	9.80	7.06	7.06	Pipe	18	-	-	0.0100	0.0045	10.50	0.74	6.72	3.99	1.25	0.31		544.33	544.33	545.83	545.83	546.16	545.85	FULL	
1+00.00																								543.83	544.33	545.33	545.62	545.85	FULL		
Storm Sewer Line D																															
6+11.46																															
6+11.46	6+11.46	150.21	D-2	0.21	0.21	0.75	0.16	9.80	1.54	1.54	Pipe	18	-	-	0.0085	0.0002	9.68	0.01	4.70	0.87	1.25	0.01		546.35	546.35	547.85	547.85	547.62	547.60	PARTIAL	
4+61.25	4+61.25	12.07	3-H-1,2,3	2.60	2.81	0.75	2.11	9.80	19.11	20.65	Pipe	24	-	-	0.0160	0.0083	28.62	1.24	9.98	6.57	0.75	0.66		545.05	544.55	547.05	546.55	547.57	546.91	PARTIAL	
4+49.18	4+49.18	151.01	N/A	0.00	2.81	0.75	2.11	9.80	0.00	20.65	Pipe	24	-	-	0.0160	0.0083	28.62	1.24	9.98	6.57	1.00	0.00		544.36	544.36	546.36	546.36	546.81	546.81	FULL	
2+98.17	2+98.17	116.89	D-1	0.77	3.58	0.75	2.69	9.80	5.66	26.31	Pipe	30	-	-	0.0160	0.0041	51.88	1.43	10.26	5.36	0.75	0.00		541.94	541.44	544.44	543.94	545.55	545.55	FULL	
1+81.28	1+81.28	70.17	Line E/MH	8.16	11.74	0.75	8.81	9.80	59.98	86.29	Pipe	42	-	-	0.0220	0.0074	149.23	2.48	14.99	8.97	0.25	1.08		539.57	538.54	543.07	542.04	545.07	543.99	FULL	
1+11.11																								537.00	538.54	540.50	543.47	543.99	FULL		
Storm Sewer Lateral D-1																															
1+08.59																															
1+08.59	1+08.59	8.59	D-1	0.77	0.77	0.75	0.58	9.80	5.66	5.66	Pipe	18	-	-	0.3160	0.0029	59.05	0.74	6.72	3.20	1.25	0.20		544.66	544.66	546.16	546.16	545.84	545.65	PARTIAL	
1+00.00																								541.94	544.66	543.44	545.62	545.65	PARTIAL		

MANSIONS FAMILY - ROCKWALL, RKMCE PROJECT # 1026-005

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REV.	DATE	REMARKS					B
STORM SEWER CALCULATIONS							
MANSIONS FAMILY							
CITY of ROCKWALL, TEXAS							
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