

NOTE: COMPACTED GRANULAR FILL IS REQUIRED BETWEEN SEWER/WATER MAIN PIPES AT EVERY LOCATION THAT PIPES CROSS OVER/UNDER OTHER PIPES.

NOTE: ALL STRUCTURES AND FLARED END SECTIONS SHALL BE CONCRETE. HDPE PIPE WILL NOT BE ALLOWED FOR DETENTION BASIN OUTFLOWS OR FINAL PIPE RUN TO CREEK DISCHARGE.

GRIMES CONSULTING, INC.

The Jewel

Hydraflow Civil 3D 2016

HYDRAULIC DATA 15 YEAR STORM

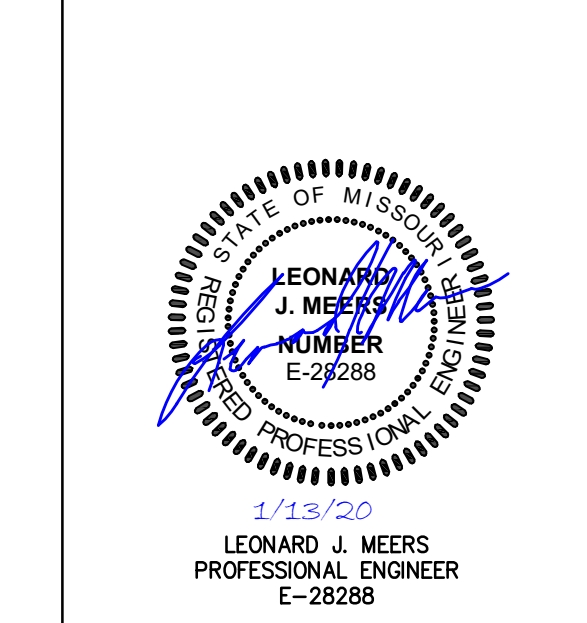
STRUCTURE	LOWER	UPPER	PIPE ID	UPPER	LOWER	LENGTH	PIPE GRADE	PIPE SIZE	PIPE	"n"	TOTAL Q	V	MINOR	ENERGY	HYD	HYD	LOWEST	PIPE	DEPTH	
						FT.	%	IN	SHAPE	FACTOR	cfs	f.p.s.	LOSSES	LOSSES	GRADE UP	GRADE DOWN	OPENING****	FREEBOARD	CAPACITY	IN PIPE
53	54	P-54	577.00	575.00	89.62	2.23	36	Cir	Cir	0.013	37.26	6.39	n/a	0.37	578.98	578.00	582.50	3.52	99.63	1.98
8	22	P-22	587.00	583.25	17.41	21.54	12	Cir	Cir	0.013	1.67	2.13	0.07	0.04	588.05	587.94	597.40	9.35	16.53	0.98
56	21	P-21	590.48	590.00	48.14	1.00	12	Cir	Cir	0.013	1.06	1.87	0.09	0.08	591.12	591.01	596.70	5.58	3.56	0.55
15	16	P-16	589.80	588.95	85.43	0.99	12	Cir	Cir	0.013	0.04	0.76	n/a	0.00	589.88	589.27	596.80	6.92	3.55	0.08**
14	15	P-15	588.95	587.53	141.94	1.00	12	Cir	Cir	0.013	0.59	1.97	n/a	0.00	589.27	588.13	599.34	10.07	3.56	0.32**
8	14	P-14	587.53	583.25	28.83	14.85	12	Cir	Cir	0.013	1.98	3.27	0.13	0.14	588.13	587.94	597.33	9.20	13.72	0.60**
19	20	P-20	595.10	594.36	73.76	1.00	12	Cir	Cir	0.013	1.13	2.83	n/a	0.00	595.55	594.95	600.10	4.55	3.57	0.45**
18	19	P-19	594.36	593.32	104.26	1.00	12	Cir	Cir	0.013	1.92	3.59	n/a	0.00	594.95	594.03	599.70	4.75	3.56	0.59**
17	18	P-18	593.32	591.31	100.56	2.00	12	Cir	Cir	0.013	2.78	4.81	0.17	0.00	594.03	591.98	599.74	5.71	5.03	0.71**
9	17	P-17	591.31	590.95	35.99	1.00	15	Cir	Cir	0.013	2.78	4.61	n/a	0.00	591.98	591.52	599.20	7.22	6.46	0.67**
24	25	P-25	598.78	596.79	39.81	5.00	12	Cir	Cir	0.013	0.46	1.88	n/a	0.00	599.06	597.28	603.40	4.34	7.96	0.28**
23	24	P-24	596.79	595.75	103.82	1.00	12	Cir	Cir	0.013	1.34	3.07	n/a	0.00	597.28	596.37	603.55	6.27	3.56	0.49**
10	23	P-23	595.75	593.26	29.89	8.33	12	Cir	Cir	0.013	2.09	3.39	n/a	0.16	596.37	595.06	604.15	7.78	10.28	0.62**
28	29	P-29	603.00	598.78	74.71	5.65	12	Cir	Cir	0.013	0.71	2.33	n/a	0.00	603.35	599.29	607.00	3.65	8.46	0.35**
27	28	P-28	598.78	595.75	63.19	1.00	12	Cir	Cir	0.013	1.45	3.02	n/a	0.00	599.29	598.86	606.20	6.91	3.56	0.51**
26	27	P-27	598.15	597.01	114.00	1.00	12	Cir	Cir	0.013	2.73	4.26	n/a	0.00	598.86	597.84	605.60	6.74	3.56	0.71**
11	26	P-26	597.01	594.00	66.39	4.53	12	Cir	Cir	0.013	3.78	5.13	n/a	0.74	597.84	595.75	605.30	7.46	7.58	0.83**
32	33	P-33	606.21	604.03	54.54	4.00	12	Cir	Cir	0.013	0.42	1.90	n/a	0.00	606.48	604.45	610.85	4.37	7.12	0.27**
31	32	P-32	604.03	603.22	81.36	1.00	12	Cir	Cir	0.013	1.02	2.58	n/a	0.00	604.45	603.85	610.65	6.20	3.55	0.42**
30	31	P-31	603.22	602.35	87.05	1.00	12	Cir	Cir	0.013	2.20	3.90	n/a	0.00	603.85	603.08	610.65	6.80	3.56	0.63**
12	30	P-30	602.35	601.07	30.47	4.20	12	Cir	Cir	0.013	2.87	4.18	n/a	0.23	603.08	602.62	611.25	8.17	7.30	0.73**
36	37	P-37	609.00	605.99	69.18	4.35	12	Cir	Cir	0.013	1.16	2.87	n/a	0.00	609.45	606.58	613.00	3.55	7.43	0.45**
35	36	P-36	605.99	605.12	87.14	1.00	12	Cir	Cir	0.013	1.93	3.22	n/a	0.424	606.58	606.15	611.9	5.32	3.56	0.59**
34	35	P-35	605.12	603.90	121.94	1.00	12	Cir	Cir	0.013	3.48	4.67	0.19	1.14	606.15	604.90	612.50	6.35	3.56	0.84**
12	34	P-34	603.90	601.07	29.32	9.65	15	Cir	Cir	0.013	4.27	4.19	n/a	0.17	604.74	602.62	612.55	7.81	20.06	0.84**
39	42	P-42	616.15	610.30	86.61	6.75	12	Cir	Cir	0.013	0.87	2.27	n/a	0.00	616.54	611.00	620.15	3.61	9.26	0.39**
44	45	P-45	612.99	611.90	108.93	1.00	12	Cir	Cir	0.013	0.77	1.97	n/a	0.00	613.36	612.89	619.90	6.54	3.56	0.37**
40	41	P-41	614.75	611.06	47.50	7.77	12	Cir	Cir	0.013	0.97	2.86	n/a	0.00	615.16	611.55	618.75	3.59	9.93	0.41**
39	40	P-40	611.06	610.30	75.98	1.00	12	Cir	Cir	0.013	1.34	2.89	n/a	0.00	611.55	611.00	617.75	6.20	3.56	0.49**
38	39	P-39	610.30	609.38	92.38	1.00	15	Cir	Cir	0.013	3.07	4.15	n/a	0.00	611.00	610.13	617.60	6.80	6.44	0.70**
13	38	P-38	609.38	609.07	30.87	1.00	18	Cir	Cir	0.013	3.86	3.38	n/a	0.00	610.13	610.36	617.70	7.57	10.52	0.75**
48	49	P-49	617.98	617.38	60.00	1.00	12	Cir	Cir	0.013	0.37	1.72	n/a	0.00	618.23	617.84	624.55	6.32	3.56	0.25**
47	48	P-48	617.38	616.77	61.30	1.00	12	Cir	Cir	0.013	1.2	2.72	n/a	0.00	617.84	617.47	624.55	6.71	3.55	0.46**
46	47	P-47	616.77	616.02	74.70	1.00	12	Cir	Cir	0.013	2.66	4.17	n/a	0.00	617.47	616.86	625.42	7.95	3.57	0.70**
44	46	P-46	616.02	611.90	186.70	2.21	15	Cir	Cir	0.013	4.26	4.48	n/a	0.00	616.86	612.89	625.50	8.64	9.59	0.84**
43	44	P-44	611.90	610.00	100.11	1.90	18	Cir	Cir	0.013	6.61	5.14	n/a	0.00	612.89	611.06	618.65	5.76	14.47	0.99**
13	43	P-43	610.00	609.07	29.01	3.21	18	Cir	Cir	0.013	7.49	5.13	n/a	0.00	611.06	610.36	618.50	7.44	18.80	1.06**
51	52	P-52	619.57	618.83	73.70	1.00	12	Cir	Cir	0.013	0.35	1.69	n/a	0.00	619.81	619.28	625.90	6.09	3.57	0.24**
46	51	P-51	618.83	616.02	84.23	3.34	12	Cir	Cir	0.013	1.14	2.48	n/a	0.00	619.28	616.86	625.65	6.37	6.50	0.45**
12	13	P-13	609.07	601.07	199.89	4.00	18	Cir	Cir	0.013	11.35	6.73	n/a	2.26	610.36	602.62	618.40	8.04	21.01	1.29**
11	12	P-12	601.07	594.00	201.76	3.50	24	Cir	Cir	0.013	18.49	6.72	n/a	0.00	602.62	595.75	612.00	9.38	42.34	1.55**
10	11	P-11	594.00	593.26	37.29	1.98	24	Cir	Cir	0.013	24.60	8.35	n/a	0.00	595.75	595.06	604.60	8.85	31.86	1.75**
9	10	P-10	593.26	589.61	146.09	2.50	24	Cir	Cir	0.013	26.69	10.72	n/a	0.00	595.06	590.90	604.22	9.16	35.75	1.80**
6	9	P-9	584.41	583.25	38.83	2.99	24	Cir	Cir	0.013	29.47	9.38	1.37	0.66	589.97	587.94	598.31	8.34	39.09	2.00
7	8	P-8	583.25	582.80	45.35	0.99	30	Cir	Cir	0.013	33.12	6.75	0.70	0.30	587.94	586.95	591.25	3.31	40.85	2.50
5	7	P-7	584.99	581.28	46.12	8.04	30	Cir	Cir	0.013	33.12	7.39	n/a	0.32	586.95	584.32	590.45	3.50	116.32	1.96**
4	5	P-5	581.28	581.00	27.69	1.01	30	Cir	Cir	0.013	33.12	6.83	0.68	0.17	584.32	583.50	589.73	5.41	41.24	2.35

5 VERT.
30 HORIZ.
SCALE:

NO.	DESCRIPTION	DATE
1	REV 1	7-24-2019
2	REV 2	8-23-2019
3	REV 4	10-25-2019
4	REV 5	11-26-2019

PROJECT TITLE
THE JEWEL
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Approval Date: 6/6/2019
City No.
Page No.
C9.3

STORM PROFILES