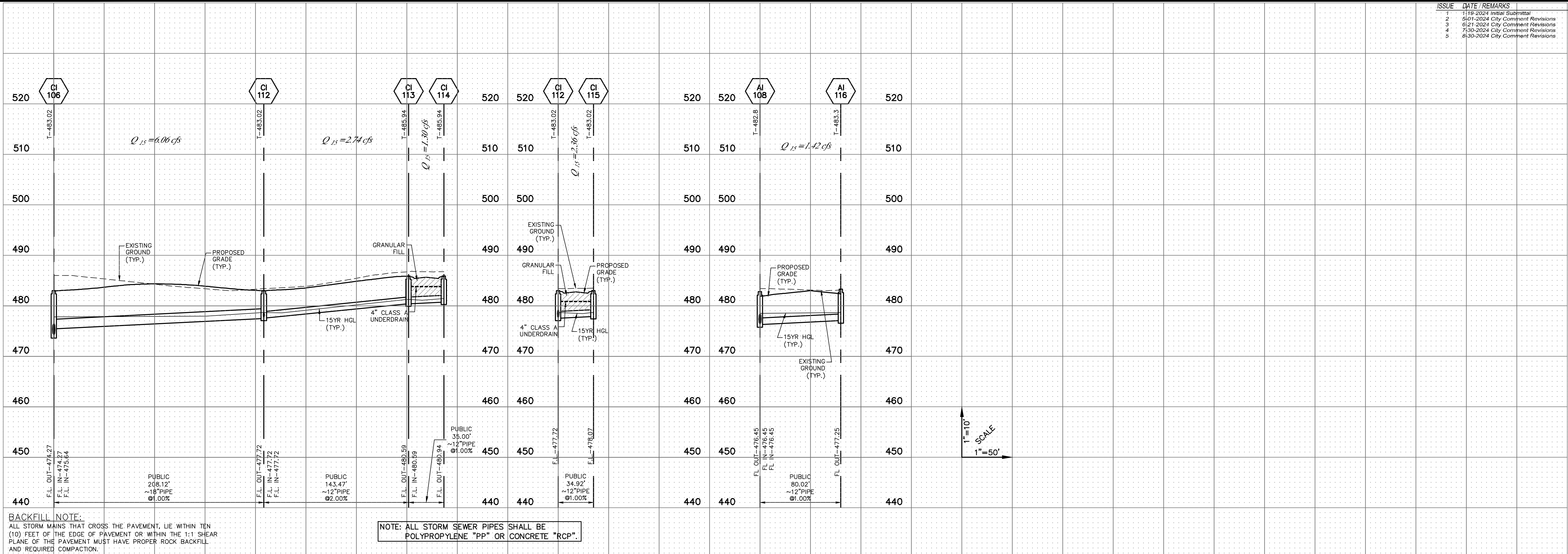


Drawing name: V:\2020224 Brookside Addition East\Drawings\Engineering\Improvements\224-MP-SEWER.dwg Plotted on: Aug 30, 2024 - 8:15am Plotted by: bbroder



BACKFILL NOTE:
ALL STORM MAINS THAT CROSS THE PAVEMENT, LIE WITHIN TEN (10) FEET OF THE EDGE OF PAVEMENT OR WITHIN THE 1:1 SHEAR PLANE OF THE PAVEMENT MUST HAVE PROPER ROCK BACKFILL AND REQUIRED COMPACTION.

NOTE: COMPACTED GRANULAR TRENCH FILL IS REQUIRED BETWEEN ALL LOCATIONS WHERE THE SANITARY SEWER OR WATER MAINS CROSS OVER OR UNDER THE STORM SEWER PIPES.

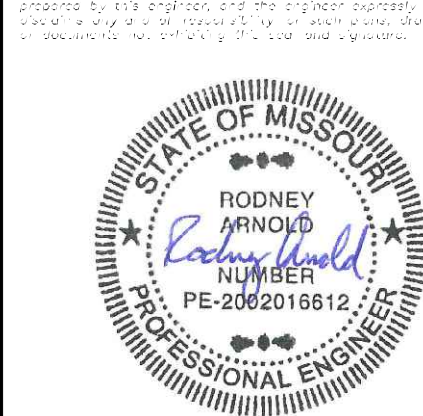
NOTE: ALL STORM SEWER PIPES SHALL BE POLYPROPYLENE "PP" OR CONCRETE "RCP".

15 YEAR - 20 MINUTE																			
LineNo.	LineID	LineSize	FlowRate	InvertDn	InvertUp	LineLength	LineSlope	VelAve	Grnd/Rim/Elev Dn	Grnd/Rim/Elev Up	HGLDn	HGLUp	Rim-Hw	CriticalDepth	EGLDn	EGLUp	EnergyLoss	CapacityFull	In-valuePipe
		(in)	(cfs)	(ft)	(ft)	(ft)	(%)	(ft/s)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(cfs)	
1	FES 100-MH 101	30	22.44	469.50	469.84	34.00	1.00	4.73	471.83	476.90	472.00	472.05	4.76	1.61	472.33	472.42	0.096	41.01	0.013
2	MH 101-MH 102	27	22.44	469.84	473.38	105.04	3.37	6.40	476.90	482.80	472.14	475.04	7.76	1.66	472.64	475.83	0.622	56.85	0.013
3	MH 102-MH 104	27	22.44	474.22	475.72	15.03	9.98	12.19	482.80	483.00	475.04	477.38	5.62	1.66	475.83	478.17	0.000	97.82	0.013
4	MH 104-CI 105	27	22.44	473.66	473.92	26.16	0.99	5.64	483.00	482.10	477.38	477.51	4.51	1.66	477.87	478.01	0.137	30.87	0.013
5	CI 105-CI 106	27	21.24	473.92	474.27	35.00	1.00	5.34	482.10	482.10	477.59	477.75	3.93	1.61	478.03	478.20	0.165	30.96	0.013
6	CI 106-AI 107	24	14.39	474.27	475.57	130.00	1.00	4.58	482.10	481.48	478.17	478.70	2.46	1.37	478.50	479.03	0.526	22.62	0.013
7	AI 107-AI 108	24	12.88	475.57	476.45	88.00	1.00	4.10	481.48	481.88	479.02	479.31	2.40	1.29	479.28	479.57	0.285	22.62	0.013
8	AI 108-MH 109	21	10.48	476.45	478.31	186.44	1.00	4.36	481.88	490.40	479.48	480.29	9.82	1.20	479.77	480.59	0.816	15.82	0.013
9	MH 109-MH 110	21	10.48	478.53	479.49	95.51	1.01	4.70	490.40	496.20	480.58	480.90	14.90	1.20	480.87	481.30	0.424	15.88	0.013
10	MH 110-CI 63	21	10.48	479.49	481.56	206.66	1.00	5.15	496.20	487.09	481.30	482.77	4.33	1.20	481.59	483.31	1.126	15.85	0.013
11	CI 63-DCI 64	21	10.02	481.56	481.74	35.00	0.51	5.33	487.09	487.09	482.84	483.02	3.68	1.18	483.28	483.46	0.180	11.36	0.013
12	DCI 64-MH 65	21	8.66	481.74	482.08	68.00	0.50	3.83	487.09	487.80	483.41	483.56	4.01	1.09	483.62	483.80	0.185	11.20	0.013
13	MH 65-AI 119	21	8.66	482.08	482.84	76.00	1.00	4.55	487.80	487.00	483.79	483.93	3.07	1.09	484.26	484.40	0.000	15.84	0.013
14	AI 119-AI 120	15	4.34	482.84	485.53	179.43	1.50	4.37	487.00	490.00	483.93	486.37	3.63	0.84	484.31	486.75	0.000	7.91	0.013
15	CI 106-CI 112	18	6.06	475.64	477.72	208.12	1.00	3.86	482.10	482.10	478.17	478.84	2.99	0.95	478.36	479.12	0.768	10.50	0.013
16	CI 112-CI 113	12	2.74	477.72	480.59	143.47	2.00	4.05	482.10	485.02	479.11	481.30	3.72	0.71	479.30	481.63	1.011	5.04	0.013
17	CI 113-CI 114	12	1.30	480.59	480.94	35.00	1.00	2.83	485.02	485.02	481.30	481.42	3.60	0.48	481.49	481.61	0.000	3.56	0.013
18	CI 112-CI 115	12	2.36	477.72	478.07	34.92	1.00	3.01	482.10	482.10	479.11	479.26	2.70	0.66	479.25	479.40	0.153	3.57	0.013
19	AI 108-AI 116	12	1.42	476.45	477.25	80.02	1.00	1.81	481.88	482.28	479.48	479.60	2.63	0.50	479.53	479.65	0.127	3.56	0.013
100 YEAR - 20 MINUTE FLOODED																			
LineNo.	LineID	LineSize	FlowRate	InvertDn	InvertUp	LineLength	LineSlope	VelAve	Grnd/Rim/Elev Dn	Grnd/Rim/Elev Up	HGLDn	HGLUp	Rim-Hw	CriticalDepth	EGLDn	EGLUp	EnergyLoss	CapacityFull	In-valuePipe
		(in)	(cfs)	(ft)	(ft)	(ft)	(%)	(ft/s)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(cfs)	
1	FES 100-MH 101	30	30.30	469.50	469.84	34.00	1.00	6.17	471.83	476.90	474.70	474.89	1.87	1.87	475.29	475.48	0.186	41.01	0.013
2	MH 101-MH 102	27	30.30	469.84	473.38	105.04	3.37	7.62	476.90	482.80	475.03	476.04	6.62	1.90	475.94	476.94	1.006	56.85	0.013
3	MH 102-MH 104	27	30.30	474.22	475.72	15.03	9.98	8.35	482.80	483.00	476.18	477.62	5.38	1.90	477.28	478.73	0.000	97.82	0.013
4	MH 104-CI 105	27	30.30	473.66	473.92	26.16	0.99	7.62	483.00	482.10	477.62	477.87	4.09	1.90	478.53	478.78	0.251	30.87	0.013
5	CI 105-CI 106	27	28.68	473.92	474.27	35.00	1.00	7.21	482.10	482.10	478.01	478.31	3.02	1.86	478.82	479.12	0.300	30.96	0.013
6	CI 106-AI 107	24	19.43	474.27	475.57	130.00	1.00	6.19	482.10	481.48	479.08	480.04	0.86	1.58	479.67	480.63	0.960	22.62	0.013
7	AI 107-AI 108	24	17.39	475.57	476.45	88.00	1.00	5.54	481.48	481.88	480.62	481.14	0.43	1.50	481.10	481.62	0.520	22.62	0.013
8	AI 108-MH 109	21	14.15	476.45	478.31	186.44	1.00	5.88	481.88	490.40	481.45	482.94	6.94	1.40	481.99	483.48	1.488	15.82	0.013
9	MH 109-MH 110	21	14.15	478.53	479.49	95.51	1.01	5.88	490.40	496.20	483.46	484.22	11.44	1.40	484.00	484.76	0.762	15.88	0.013
10	MH 110-CI 63	21	14.15	479.49	481.56	206.66	1.00	5.88	496.20	487.09	484.76	486.41	0.16	1.40	485.30	486.95	1.649	15.85	0.013
11	CI 63-DCI 64	21	13.53	481.56	481.74	35.00	0.51	5.63	487.09	487.09	486.93	487.19	-0.54	1.37	487.43	487.68	0.255	11.36	0.013
12	DCI 64-MH 65	21	11.69	481.74	482.08	68.00	0.50	4.86	487.09	487.80	487.63	488.00	-0.54	1.27	487.99	488.36	0.370	11.20	0.013
13	MH 65-AI 119	21	11.69	482.08	482.84	76.00	1.00	4.86	487.80	487.00	488.34	488.76	-2.12	1.27	488.71	489.12	0.414	15.84	0.013
14	AI 119-AI 120	15	5.86	482.84	485.53	179.43	1.50	4.78	487.00	490.00	489.12	490.60	-0.96	0.98	489.48	490.96	1.478	7.91	0.013
15	CI 106-CI 112	18	8.18	475.64	477.72	208.12	1.00	4.63	482.10	482.10	479.08	480.34	1.44	1.11	479.41	480.68	1.263	10.50	0.013
16	CI 112-CI 113	12	3.69	477.72	480.59	143.47	2.00	4.70	482.10	485.02	480.66	482.20	2.52	0.82	481.00	482.54	1.541	5.04	0.013
17	CI 113-CI 114	12	1.75	480.59	480.94	35.00	1.00	2.23	485.02	485.02	482.50	482.58	2.36	0.56	482.58	482.66	0.085	3.56	0.013
18	CI 112-CI 115	12	3.19	477.72	478.07	34.92	1.00	4.06	482.10	482.10	480.66	480.94	0.90	0.76	480.92	481.20	0.280	3.57	0.013
19	AI 108-AI 116	12	1.92	476.45	477.25	80.02	1.00	2.44	481.88	482.28	481.45	481.68	0.50	0.59	481.54	481.78	0.233	3.56	0.013

ISSUE	DATE	REMARKS
1	1/19/2024	Initial Submittal
2	6/01/2024	City Comment Revisions
3	6/21/2024	City Comment Revisions
4	7/30/2024	City Comment Revisions
5	8/30/2024	City Comment Revisions

PROJECT TITLE
BROOKSIDE
ADDITION
PHASE 4
OFFALLON, MISSOURI

THE **STERLING** CO.
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5055 New Baumgartner Road
St. Louis, Missouri 63129
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Date: 8/30/2024
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STORM PROFILES AND HYDRAULIC
CALCULATIONS

P+Z No. 23-010457
City No. 24-000568
Date: 8/30/2024
Job No. 22-09-284

Page No.

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