Accepted
Master Drainage Plan

This as-graded Master Drainage Plan (MDP) has been reviewed for accuracy. It is accepted for basic conformance to the approved MDP and may be used for the review of individual lot grading (plot) plans.

EARTHWORK SUMMARY	
CUT	6,074
FILL	0
NET	6,074 CY CUT

EARTHWORK NOTE:

EARTHWORK CALCULATIONS DESIGNED TO FINISH GRADE WITH A COMPACTION FACTOR OF 1.15

NOTE:

THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATIONS.

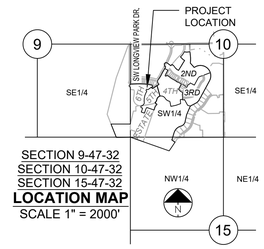
- DENOTES PROPOSED MAJOR CONTOUR
- DENOTES PROPOSED MINOR CONTOUR
- DENOTES EXISTING MAJOR CONTOUR
- DENOTES EXISTING MINOR CONTOUR
- DENOTES AS-BUILT MAJOR CONTOUR
- DENOTES AS-BUILT MINOR CONTOUR

RECORD DRAWING

The information provided on this drawing conforms to construction records; it is not intended for construction, implementation or recording purposes; and it is solely based on information obtained by Schlagel and Associates.

"~~100.00~~ 100.10", "~~1.00%~~ 1.15% slope", or "8-inch ~~HDPE~~ PVC pipe" are all typical examples of revisions that indicate that design data has been replaced with "as-built" information. All other data is as designed and has not been field verified.

Date: 1/15/26
Certified by: BAL
Title: Design Engineer
Firm: Schlagel and Associates, P.A.



MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCH MARK:

BM JA-148, IS A STAMPED KC METRO DISK SET IN CONCRETE LOCATED 2 MILES WEST OF THE INTERSECTION OF HIGHWAY 50 AND 3RD ST. IT IS 44 FT NORTH OF THE CENTER OF 3RD ST. AND 102.5 FT WEST OF THE CENTER OF THE EXIT FROM THE ADJACENT PARKING LOT.

ELEV. 935.18

PROJECT BENCHMARK:

CHISELED "SQUARE" ON STORM CURB INLET AT NORTHWEST INTERSECTION OF SW. TOWER PARK DRIVE AND SW. LONGVIEW BOULEVARD.

NORTHING: 998893.4148
EASTING: 2803318.5413
ELEV. 1004.09

SURVEY NOTES

The bases of bearing and coordinates are base on the Missouri Coordinate System of 1983, West Zone (2003 Adjustment) with a Grid Factor of 0.9999020.

NOTES:

ALL CONSTRUCTION ON THIS PROJECT SHALL CONFORM TO THE CITY OF LEE'S SUMMIT TECHNICAL SPECIFICATIONS.

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SCHLAGEL
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WWW.SCHLAGEL-ASSOCIATES.COM
Missouri State Certificates of Authority
#E2000030800-F #LA2001005237 #LS2000208859-F

PREPARED BY:

STATE OF MISSOURI
MARK ALLEN BREUER
NUMBER PE-2009007268
01.16.2026
PROFESSIONAL ENGINEER

SCHLAGEL & ASSOCIATES, P.A.

PERGOLA PARK 6TH PLAT
STREET, STORMWATER, MASTER DRAINAGE PLAN
---- LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
1 11-8-24	CITY COMMENTS
2 12-4-24	CITY COMMENTS
3 1-15-26	AS-BUILTS
4	
5	
6	
7	
8	

DRAWN BY: BAL
CHECKED BY: MAB
DATE PREPARED: 8-19-24
PROJ. NUMBER: 24-041

MASTER DRAINAGE PLAN - GRADING PLAN

SHEET 3

Accepted
Master Drainage Plan

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LOT TYPE TABLE

LOT #	BASEMENT TYPE
134	STANDARD
135	STANDARD
136	STANDARD
137	STANDARD
138	STANDARD
139	STANDARD
140	STANDARD
141	STANDARD
142	STANDARD
143	STANDARD
144	STANDARD
145	STANDARD

DRAINAGE NOTE:

INDIVIDUAL LOT OWNER(S) SHALL NOT CHANGE OR OBSTRUCT THE DRAINAGE FLOW LINES ON THE LOTS INCLUDED IN THE MASTER DRAINAGE PLAN, UNLESS SPECIFIC APPLICATION IS MADE AND APPROVED BY THE CITY ENGINEER.

NOTE:

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- DENOTES PROPOSED MAJOR CONTOUR
- DENOTES PROPOSED MINOR CONTOUR
- DENOTES EXISTING MAJOR CONTOUR
- DENOTES EXISTING MINOR CONTOUR
- DENOTES AS-BUILT MAJOR CONTOUR
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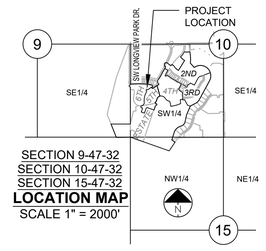
Date: 1/15/26
Certified by: BAL
Title: Design Engineer
Firm: Schlagel and Associates, P.A.



MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCH MARK:

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ELEV. 935.18

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ELEV. 1004.09

NOTES:

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SURVEY NOTES

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PREPARED BY:

STATE OF MISSOURI
MARK ALLEN BREUER
NUMBER PE-2009007268
01.16.2026
PROFESSIONAL ENGINEER

SCHLAGEL & ASSOCIATES, P.A.

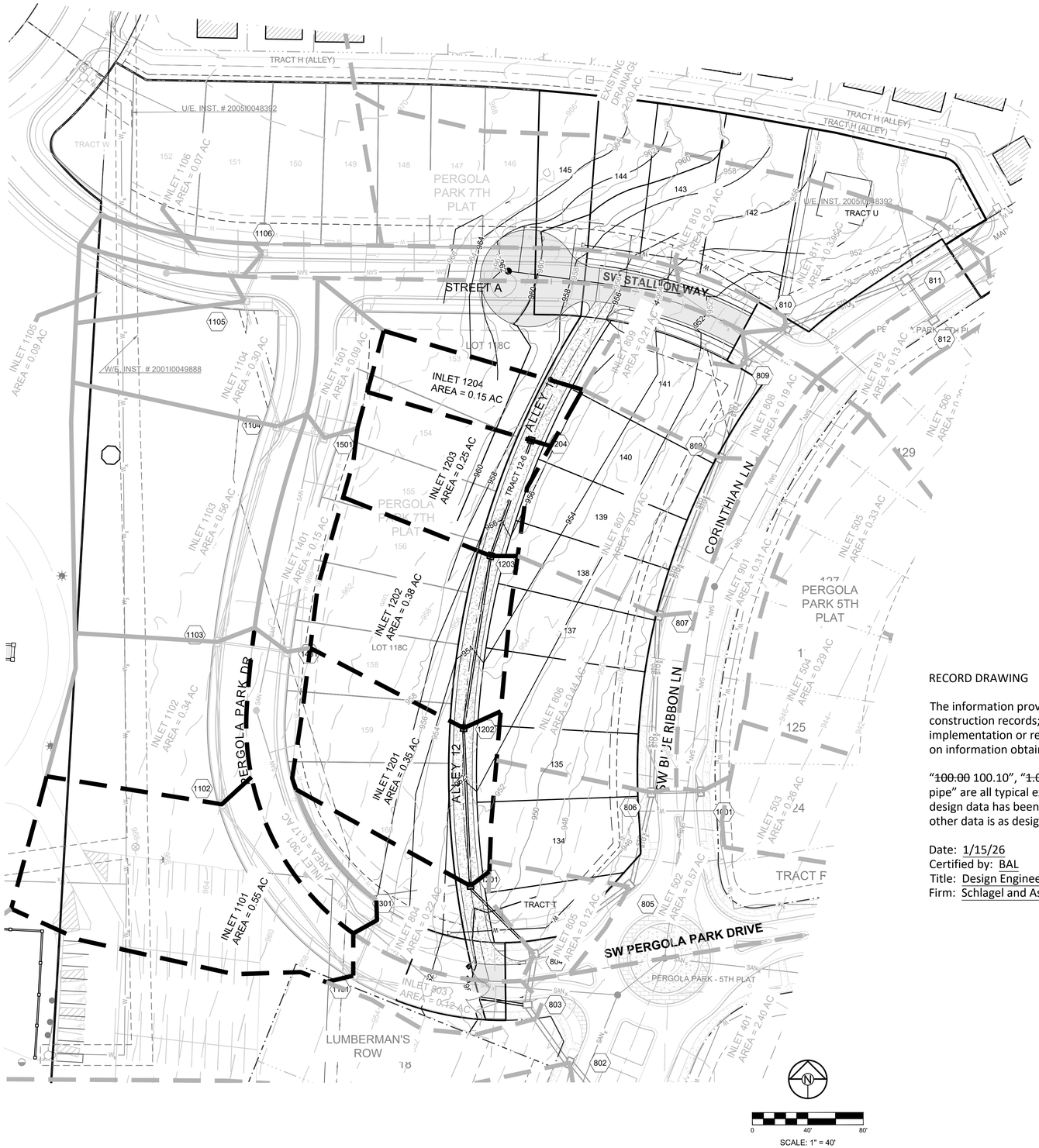
PERGOLA PARK 6TH PLAT
STREET, STORMWATER, MASTER DRAINAGE PLAN
---- LEE'S SUMMIT, MISSOURI

REVISION	DATE	DESCRIPTION
1	11-8-24	CITY COMMENTS
2	12-4-24	CITY COMMENTS
3	1-15-26	AS-BUILTS

DRAWN BY: BAL
CHECKED BY: MAB
DATE PREPARED: 8-19-24
PROJ. NUMBER: 24-041

MASTER DRAINAGE PLAN - LOT INFO

SHEET 4



Accepted
Master Drainage Plan

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PROPOSED DRAINAGE
EXISTING DRAINAGE
FUTURE DRAINAGE

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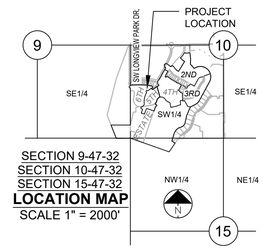

SECTION 9-47-32
SECTION 10-47-32
SECTION 15-47-32
LOCATION MAP
SCALE 1" = 2000'

MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCH MARK:

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PREPARED BY:

SCHLAGEL & ASSOCIATES, P.A.

PERGOLA PARK 6TH PLAT
STREET, STORMWATER, MASTER DRAINAGE PLAN
---- LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
1 11-8-24	CITY COMMENTS
2 12-4-24	CITY COMMENTS
3 1-15-26	AS-BUILTS
4	
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6	
7	
8	

DRAWN BY:	BAL
CHECKED BY:	MAB
DATE PREPARED:	8-19-24
PROJ. NUMBER:	24-041

MASTER DRAINAGE PLAN - DRAINAGE MAP

SHEET
5

Accepted
Master Drainage Plan

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Schlagel & Associates, P.A.

Project Name: PERGOLA PARK 5TH PLAT — Curb Type: B
Project #: 19-002 — City: LEE'S SUMMIT
Time: 11/27/2024 14:28

Design Storm: 10
"K" Value: 1.00
"F" Factor: 1.00

Runoff Calculations															Pipe Properties												
Inlet #	Area (acres)	"C" Value	Cumul. Area (acres)	Cumul. CxA	Tc	Intensity	Runoff To Inlet	Cumul. Runoff	Pipe Cap.	Pipe Vel.	Up Piped Inlet 1	Up Piped Inlet 2	Up Area (acres)	Up CxA	Up Inlet	Down Inlet	Pipe Type	"n" Value	Pipe Size	Length	Slope %	Drop In Inlet	FL Up	FL Down	Inlet Top	HGL Elev.
EXISTING LINE 400																									DS TAILWATER @ STR #400	931.52
401	2.40	0.66	46.76	30.86	5.7	7.13	11.29	220.00	220.20	9.27	501		3.38	2.23	401	400	RCP	0.013	66	53.87	0.43	0.50	927.98	927.75	936.98	933.27
402	0.04	0.66	40.98	27.05	5.4	7.24	0.19	195.88	286.92	12.08			0.00	0.00	402	401	RCP	0.013	66	279.37	0.73	0.50	930.42	928.38	941.97	935.25
403	0.07	0.66	40.94	27.02	5.3	7.27	0.34	196.43	300.36	12.64	601		0.90	0.59	403	402	RCP	0.013	66	68.66	0.80	0.50	931.17	930.62	944.37	936.00
404	0.06	0.66	39.97	26.38	5.1	7.32	0.29	193.18	270.74	11.40	701		1.41	0.93	404	403	RCP	0.013	66	119.40	0.65	1.00	932.35	931.57	948.40	937.14
405	38.50	0.66	38.50	25.41	5.0	7.35	186.84	186.84	251.06	15.79			0.00	0.00	405	404	RCP	0.013	54	92.89	1.63	N/A	934.86	933.35	947.96	940.04
EXISTING LINE 600																						Drop in Inlet 403	4.00			
601	0.36	0.66	0.90	0.59	5.1	7.33	1.74	4.35	19.45	11.00			0.00	0.00	601	403	HDPE	0.012	18	36.00	2.92	0.50	936.02	934.97	944.39	937.04
602	0.54	0.66	0.54	0.36	5.0	7.35	2.62	2.62	13.70	11.16			0.00	0.00	602	601	HDPE	0.012	15	55.86	3.83	N/A	938.53	936.39	946.23	939.31
EXISTING LINE 700																						Drop in Inlet 404	4.25			
701	1.14	0.66	1.41	0.93	5.1	7.32	5.51	6.82	9.26	7.54			0.00	0.00	701	404	PEP	0.012	15	102.48	1.75	0.50	941.69	939.90	949.19	943.04
702	0.27	0.66	0.27	0.18	5.0	7.35	1.31	1.31	7.10	5.79			0.00	0.00	702	701	PEP	0.012	15	33.00	1.03	N/A	942.48	942.14	949.13	943.04
EXISTING LINE 500																						Drop in Inlet 401	3.00			
501	1.06	0.66	3.38	2.23	6.2	7.01	4.90	15.64	28.10	5.73			0.00	0.00	501	401	PEP	0.012	30	35.50	0.40	0.45	931.12	930.98	936.98	933.39
502	0.57	0.66	2.32	1.53	6.0	7.05	2.65	10.79	24.51	7.80			0.00	0.00	502	501	PEP	0.012	24	65.53	1.00	0.50	932.23	931.57	937.83	933.65
503	0.26	0.66	1.75	1.16	5.9	7.08	1.22	8.18	24.51	7.80			0.00	0.00	503	502	PEP	0.012	24	51.05	1.00	0.50	933.24	932.73	939.40	934.46
504	0.29	0.66	1.49	0.98	5.7	7.13	1.37	7.02	12.47	7.05			0.00	0.00	504	503	PEP	0.012	18	78.60	1.20	0.50	934.68	933.74	940.30	935.94
505	0.33	0.66	1.20	0.79	5.5	7.20	1.57	5.70	11.38	6.44			0.00	0.00	505	504	PEP	0.012	18	88.86	1.00	0.50	936.07	935.18	941.62	937.19
506	0.29	0.66	0.87	0.57	5.3	7.28	1.39	4.18	7.34	5.98			0.00	0.00	506	505	PEP	0.012	15	87.96	1.10	0.50	937.54	936.57	942.92	938.55
507	0.58	0.66	0.58	0.38	5.0	7.35	2.81	2.81	7.00	5.70			0.00	0.00	507	506	PEP	0.012	15	86.70	1.00	N/A	938.90	938.04	943.98	939.71
EXISTING LINE 800																									DS TAILWATER @ STR #800	931.52
801	0.29	0.51	9.07	5.50	6.6	6.89	1.02	37.90	66.70	9.44	1801		1.57	0.80	801	800	RCP	0.013	36	243.24	1.00	2.50	930.93	928.50	944.84	933.38
802	1.38	0.51	7.21	4.55	6.5	6.93	4.88	31.54	68.55	9.70			0.00	0.00	802	801	PEP	0.012	36	83.38	0.90	0.50	934.18	933.43	944.41	936.39
803	0.12	0.66	5.83	3.85	6.3	6.96	0.55	26.79	51.09	7.23	1101		2.32	1.53	803	802	PEP	0.012	36	51.75	0.50	0.50	934.94	934.68	948.20	936.95
804	0.22	0.66	3.39	2.24	6.2	6.99	1.01	15.64	31.42	6.40	1201		1.43	0.94	804	803	PEP	0.012	30	36.23	0.50	0.50	935.62	935.44	948.20	937.22
805	0.12	0.66	1.74	1.15	6.0	7.05	0.56	8.10	31.42	6.40			0.00	0.00	805	804	PEP	0.012	30	84.51	0.50	0.50	936.55	936.12	946.57	937.67
806	0.40	0.66	1.62	1.07	5.8	7.10	1.88	7.59	31.42	6.40	1001		0.31	0.20	806	805	PEP	0.012	30	69.15	0.50	0.50	937.39	937.05	945.85	938.48
807	0.40	0.66	0.91	0.60	5.5	7.20	1.90	4.32	31.42	6.40			0.00	0.00	807	806	PEP	0.012	30	127.94	0.50	0.50	938.53	937.89	947.25	939.34
808	0.19	0.66	0.51	0.34	5.2	7.30	0.91	2.46	31.42	6.40			0.00	0.00	808	807	PEP	0.012	30	121.88	0.50	0.50	939.64	939.03	948.73	940.24
809	0.32	0.66	0.32	0.21	5.0	7.35	1.55	1.55	31.42	6.40			0.00	0.00	809	808	PEP	0.012	30	72.14	0.50	0.50	940.50	940.14	950.54	940.98
810	0.21	0.66	0.21	0.14	5.0	7.35	1.02	1.02	31.42	6.40			0.00	0.00	810	809	PEP	0.012	30	37.09	0.50	0.50	941.19	941.00	950.13	941.57
811	2.32	0.66	2.63	1.74	5.1	7.31	11.19	12.69	31.42	6.40			0.00	0.00	811	810	PEP	0.012	30	93.67	0.50	1.25	942.15	941.69	948.43	943.58
812	0.13	0.66	0.13	0.09	5.0	7.35	0.63	0.63	4.95	4.03			0.00	0.00	812	811	PEP	0.012	15	35.50	0.50	N/A	943.58	943.40	948.43	943.94
EXISTING LINE 1000																						Drop in Inlet 806	1.25			
1001	0.31	0.66	0.31	0.20	5.0	7.35	1.50	1.50	4.95	4.03			0.00	0.00	1001	806	PEP	0.012	15	35.00	0.50	N/A	938.82	938.64	945.85	939.39
LINE 1100																						Drop in Inlet 803	1.50			
1101	0.55	0.66	2.32	1.53	6.2	7.01	2.54	10.73	30.11	17.04	1301		0.17	0.11	1101	803	PEP	0.012	18	127.32	7.00	3.00	945.35	936.44	954.50	946.97
1102	0.34	0.66	1.60	1.06	6.0	7.06	1.58	7.45	25.45	14.40			0.00	0.00	1102	1101	PEP	0.012	18	156.72	5.00	0.50	956.14	948.35	961.72	957.44
1103	0.56	0.66	1.26	0.83	5.8	7.12	2.63	5.92	10.50	8.55	1401		0.15	0.10	1103	1102	PEP	0.012	15	117.18	2.25	0.50	959.28	956.64	964.38	960.51
1104	0.30	0.66	0.55	0.36	5.3	7.26	1.44	2.64	7.00	5.70	1501		0.09	0.06	1104	1103	PEP	0.012	15	161.35	1.00	0.50	961.39	959.78	966.89	962.17
1105	0.09	0.66	0.16	0.11	5.1	7.32	0.43	0.77	9.90	8.06			0.00	0.00	1105	1104	PEP	0.012	15	93.36	2.00	0.50	963.76	961.89	969.80	964.16
1106	0.07	0.66	0.07	0.05	5.0	7.35	0.34	0.34	7.00	5.70			0.00	0.00	1106	1105	PEP	0.012	15	37.07	1.00	N/A	964.63	964.26	969.53	964.90
LINE 1200																						Drop in Inlet 804	1.00			
1201	0.65	0.66	1.43	0.94	5.6	7.19	3.08	6.78	30.11	17.04			0.00	0.00	1201	804	PEP	0.012	18	67.70	7.00	0.50	941.36	936.62	950.33	942.59
1202	0.38	0.66	0.78	0.51	5.4	7.23	1.81	3.72	21.29	12.05			0.00	0.00	1202	1201	PEP	0.012	18	113.91	3.50	0.50	945.85	941.86	952.68	946.73
1203	0.25	0.66	0.40	0.26	5.2	7.30	1.20	1.93	11.06	9.02			0.00	0.00	1203	1202	PEP	0.012	15	125.72	2.50	0.50	949.49	946.35	955.28	950.15
1204	0.15	0.66	0.15	0.10	5.0	7.35	0.73	0.73	11.06	9.02			0.00	0.00	1204	1203	PEP	0.012	15	88.30	2.50	N/A	952.20	949.99	957.10	952.59
LINE 1300																						Drop in Inlet 1101	3.00			
1301	0.17	0.66	0.17	0.11	5.0	7.35	0.83	0.83	12.12	9.88			0.00	0.00	1301	1101	PEP	0.012	15	43.48	3.00	N/A	949.66	948.35	954.89	950.08
FUTURE LINE 1400																						Drop in Inlet 1103	0.50			
1401	0.15	0.66	0.15	0.10	5.0	7.35	0.73	0.73	4.95	4.03			0.00	0.00	1401	1103	PEP	0.012	15	51.01	0.50	N/A	960.03	959.78	964.36	960.54
FUTURE LINE 1500																						Drop in Inlet 1104	0.50			
1501	0.09	0.66	0.09	0.06	5.0	7.35	0.44	0.44	4.95	4.03			0.00	0.00	1501	1104	PEP	0.012	15	35.13	0.50	N/A	962.07	961.89	966.94	#VALUE!
EXISTING LINE 1600																									DS TAILWATER @ STR #1600	931.52
1601	0.47	0.51	4.29	2.19	6.1	7.04	1.69	15.40	31.99	10.18			0.00	0.00	1601	1600	RCP	0.013	24	219.15	2.00	3.00	935.29	930.91	947.22	937.03
1602	0.84	0.51	3.82	1.95	5.9	7.08	3.03	13.80	25.70	8.18			0.00	0.00	1602	1601	PEP	0.012	24	74.06	1.10	0.50	939.11	938.29	947.25	940.74
1603	1.22	0.51	2.98	1.52	5.8	7.13	4.43	10.83	24.51	7.80			0.00	0.00	1603	1602	PEP	0.012	24	68.27	1.00	0.50	940.29	939.61	948.02	941.71
1604	0.96	0.51	1.76	0.90	5.4	7.24	3.54	6.49	11.94	6.75			0.00	0.00	1604	1603	PEP	0.012	18	150.42	1.10	0.50	942.44	940.79	949.70	943.65
1605	0.80	0.51	0.80	0.41	5.0	7.35	3.00	3.00	11.38	6.44			0.00	0.00	1605	1604	PEP	0.012	18	149.50	1.00	N/A	944.44	942.94	951.38	945.22
EXISTING LINE 1700																						Drop in Inlet 1604	0.50			
1701	0.59	0.51	0.59	0.30	5.0	7.35	2.21	2.21	7.00	5.70			0.00	0.00	1701	1604	PEP	0.012	15	74.21	1.00	N/A	943.69	942.94	949.77	944.40
EXISTING LINE 1800																						Drop in Inlet 801	6.50			
1801	0.20	0.51	1.57	0.80	5.4	7.23	0.74	5.79	11.38	6.44			0.00	0.00	1801	801	PEP	0.012	18	126.83	1.00	0.50	938.70	937.43	946.33	939.83
1802	0.86	0.51	1.37	0.70	5.2	7.29	3.20	5.09	11.38	6.44			0.00	0.00	1802	1801	PEP	0.012	18	74.00	1.00	0.50	939.94	939.20	946.33	940.99
1803	0.51	0.51	0.51	0.26	5.0	7.35	1.91	1.91	7.00	5.70			0.00	0.00	1803	1802	PEP	0.012	15	74.45	1.00	N/A	941.19	940.44	945.56	941.84

EXISTING STORM
PROPOSED 6TH PLAT
FUTURE STORM
EXISTING STORM

Schlagel & Associates, P.A.

Project Name: PERGOLA PARK 5TH PLAT — Curb Type: B
Project #: 19-002 — City: LEE'S SUMMIT
Time: 11/27/2024 14:28

Design Storm: 100
"K" Value: 1.25
"F" Factor: 1.00

Runoff Calculations															Pipe Properties												
Inlet #	Area (acres)	"C" Value	Cumul. Area (acres)	Cumul. CxA	Tc	Intensity	Runoff To Inlet	Cumul. Runoff	Pipe Cap.	Pipe Vel.	Up Piped Inlet 1	Up Piped Inlet 2	Up Area (acres)	Up CxA	Up Inlet	Down Inlet	Pipe Type	"n" Value	Pipe Size	Length	Slope %	Drop In Inlet	FL Up	FL Down	Inlet Top	HGL Elev.
EXISTING LINE 400																									DS TAILWATER @ STR #400	931.52
401	2.40	0.66	46.76	30.86	5.7	10.02	19.84	386.54	220.20	9.27	501		3.38	2.23	401	400	RCP	0.013	66	53.87	0.43	0.50	927.98	927.75	936.98	935.88
402	0.04	0.66	40.98	27.05	5.4	10.17	0.34	343.95	286.92	12.08			0.00	0.00	402	401	RCP	0.013	66	279.37	0.73	0.50	930.42	928.38	941.97	940.44
403	0.07	0.66	40.94	27.02	5.3	10.21	0.59	344.86	300.36	12.64	601		0.90	0.59	403	402	RCP	0.013	66	68.66	0.80	0.50	931.17	930.62	944.37	942.80
404	0.06	0.66	39.97	26.38	5.1	10.28	0.51	339.05	270.74	11.40	701		1.41	0.93	404	403	RCP	0.013	66	119.40	0.65	1.00	932.35	931.57	948.40	945.61
405	38.50	0.66	38.50	25.41	5.0	10.32	327.87	327.87	251.06	15.79			0.00	0.00	405	404	RCP	0.013	54	92.89	1.63	N/A	934.86	933.35	947.96	#VALUE!
EXISTING LINE 600																						Drop in Inlet 403	4.00			
601	0.36	0.66	0.90	0.59	5.1	10.29	3.06	7.64	19.45	11.00			0.00	0.00	601	403	HDPE	0.012	18	36.00	2.92	0.50	936.02	934.97	944.39	943.11
602	0.54	0.66	0.54	0.36	5.0	10.32	4.60	4.60	13.70	11.16			0.00	0.00	602	601	HDPE	0.012	15	55.86	3.83	N/A	938.53	936.39	946.23	943.46
EXISTING LINE 700																						Drop in Inlet 404	4.25			
701	1.14	0.66	1.41	0.93	5.1	10.28	9.67	11.96	9.26	7.54			0.00	0.00	701	404	PEP	0.012	15	102.48	1.75	0.50	941.69	939.90	949.19	949.33
702	0.27	0.66	0.27	0.18	5.0	10.32	2.30	2.30	7.10	5.79			0.00	0.00	702	701	PEP	0.012	15	33.00	1.03	N/A	942.48	942.14	949.13	949.26
EXISTING LINE 500																						Drop in Inlet 401	3.00			
501	1.06	0.66	3.38	2.23	6.2	9.86	8.62	27.49	28.10	5.73			0.00	0.00	501	401	PEP	0.012	30	35.50	0.40	0.45	931.12	930.98	936.98	936.26
502	0.57	0.66	2.32	1.53	6.0	9.91	4.66	18.97	24.51	7.80			0.00	0.00	502	501	PEP	0.012	24	65.53	1.00	0.50	932.23	931.57	937.83	936.94
503	0.26	0.66	1.75	1.16	5.9	9.96	2.14	14.37	24.51	7.80			0.00	0.00	503	502	PEP	0.012	24	51.05	1.00	0.50	933.24	932.73	939.40	937.28
504	0.29	0.66	1.49	0.98	5.7	10.03	2.40	12.33	12.47	7.05			0.00	0.00	504	503	PEP	0.012	18	78.60	1.20	0.50	934.68	933.74	940.30	938.58
505	0.33	0.66	1.20	0.79	5.5	10.12	2.75	10.02	11.38	6.44			0.00	0.00	505	504	PEP	0.012	18	88.86	1.00	0.50	936.07	935.18	941.62	939.52
506	0.29	0.66	0.87	0.57	5.3	10.22	2.44	7.33	7.34	5.98			0.00	0.00	506	505	PEP	0.012	15	87.96	1.10	0.50	937.54	936.57	942.92	940.76
507	0.58	0.66	0.58	0.38	5.0	10.32	4.94	4.94	7.00	5.70			0.00	0.00	507	506	PEP	0.012	15	86.70	1.00	N/A	938.90	938.04	943.98	941.32
EXISTING LINE 800																									DS TAILWATER @ STR #800	931.52
801	0.29	0.51	9.07	5.50	6.6	9.70	1.79	66.68	66.70	9.44	1801		1.57	0.80	801	800	RCP	0.013	36	243.24	1.00	2.50	930.93	928.50	944.84	934.64
802	1.38	0.51	7.21	4.55	6.5	9.75	8.58	55.48	68.55	9.70			0.00	0.00	802	801	PEP	0.012	36	83.38	0.90	0.50	934.18	933.43	944.41	937.24
803	0.12	0.66	5.83	3.85	6.3	9.80	0.97	47.12	51.09	7.23	1101		2.32	1.53	803	802	PEP	0.012	36	51.75	0.50	0.50	934.94	934.68	948.20	937.84
804	0.22	0.66	3.39	2.24	6.2	9.83	1.78	27.50	31.42	6.40	1201		1.43	0.94	804	803	PEP	0.012	30	36.23	0.50	0.50	935.62	935.44	948.20	938.21
805	0.12	0.66	1.74	1.15	6.0	9.92	0.98	14.23	31.42	6.40			0.00	0.00	805	804	PEP	0.012	30	84.51	0.50	0.50	936.55	936.12	946.57	938.35
806	0.40	0.66	1.62	1.07	5.8	9.99	3.30	13.35	31.42	6.40	1001		0.31	0.20	806	805	PEP	0.012	30	69.15	0.50	0.50	937.39	937.05	945.85	938.86
807	0.40	0.66	0.91	0.60	5.5	10.12	3.34	7.59	31.42	6.40			0.00	0.00	807	806	PEP	0.012	30	127.94	0.50	0.50	938.53	937.89	947.25	939.62
808	0.19	0.66	0.51	0.34	5.2	10.24	1.61	4.31	31.42	6.40			0.00	0.00	808	807	PEP	0.012	30	121.88	0.50	0.50	939.64	939.03	948.73	940.45
809	0.32	0.66	0.32	0.21	5.0	10.32	2.73	2.73	31.42	6.40			0.00	0.00	809	808	PEP	0.012	30	72.14	0.50	0.50	940.50	940.14	950.54	941.13
810	0.21	0.66	0.21	0.14	5.0	10.32	1.79	1.79	31.42	6.40			0.00	0.00	810	809	PEP	0.012	30	37.09	0.50	0.50	941.19	941.00	950.13	941.70
811	2.32	0.66	2.63	1.74	5.1	10.26	19.64	22.27	31.42	6.40			0.00	0.00	811	810	PEP	0.012	30	93.67	0.50	1.25	942.15	941.69	948.43	944.11
812	0.13	0.66	0.13	0.09	5.0	10.32	1.11	1.11	4.95	4.03			0.00	0.00	812	811	PEP	0.012	15	35.50	0.50	N/A	943.58	943.40	948.43	944.15
EXISTING LINE 1000																						Drop in Inlet 806	1.25			
1001	0.31	0.66	0.31	0.20	5.0	10.32	2.64	2.64	4.95	4.03			0.00	0.00	1001	806	PEP	0.012	15	35.00	0.50	N/A	938.82	938.64	945.85	939.60
LINE 1100																						Drop in Inlet 803	1.50			
1101	0.55	0.66	2.32	1.53	6.2	9.85	4.47	18.86	30.11	17.04	1301		0.17	0.11	1101	803	PEP	0.012	18	127.32	7.00	3.00	945.35	936.44	954.50	947.74
1102	0.34	0.66	1.60	1.06	6.0	9.92	2.78	13.10	25.45	14.40			0.00	0.00	1102	1101	PEP	0.012	18	156.72	5.00	0.50	956.14	948.35	961.72	957.97
1103	0.56	0.66	1.26	0.83	5.8	10.01	4.62	10.41	10.50	8.55	1401		0.15	0.10	1103	1102	PEP	0.012	15	117.18	2.25	0.50	959.28	956.64	964.38	961.05
1104	0.30	0.66	0.55	0.36	5.3	10.20	2.52	4.63	7.00	5.70	1501		0.09	0.06	1104	1103	PEP	0.012	15	161.35	1.00	0.50	961.39	959.78	966.89	962.46
1105	0.09	0.66	0.16	0.11	5.1	10.28	0.76	1.36	9.90	8.06			0.00	0.00	1105	1104	PEP	0.012	15	93.36	2.00	0.50	963.76	961.89	969.80	964.30
1106	0.07	0.66	0.07	0.05	5.0	10.32	0.60	0.60	7.00	5.70			0.00	0.00	1106	1105	PEP	0.012	15	37.07	1.00	N/A	964.63	964.26	969.53	965.05
LINE 1200																						Drop in Inlet 804	1.00			
1201	0.65	0.66	1.43	0.94	5.6	10.10	5.41	11.91	30.11	17.04			0.00	0.00	1201	804	PEP	0.012	18	67.70	7.00	0.50	941.36	936.62	950.33	943.08
1202	0.38	0.66	0.78	0.51	5.4	10.16	3.19	6.54	21.29	12.05			0.00	0.00	1202	1201	PEP	0.012	18	113.91	3.50	0.50	945.85	941.86	952.68	947.06
1203	0.25	0.66	0.40	0.26	5.2	10.26	2.12	3.38	11.06	9.02			0.00	0.00	1203	1202	PEP	0.012	15	125.72	2.50	0.50	949.49	946.35	955.28	950.39
1204	0.15	0.66	0.15	0.10	5.0	10.32	1.28	1.28	11.06	9.02			0.00	0.00	1204	1203	PEP	0.012	15	88.30	2.50	N/A	952.20	949.99	957.10	952.73
LINE 1300																						Drop in Inlet 1101	3.00			
1301	0.17	0.66	0.17	0.11	5.0	10.32	1.45	1.45	12.12	9.88			0.00	0.00	1301	1101	PEP	0.012	15	43.48	3.00	N/A	949.66	948.35	954.89	950.22
FUTURE LINE 1400																						Drop in Inlet 1103	0.50			
1401	0.15	0.66	0.15	0.10	5.0	10.32	1.28	1.28	4.95	4.03			0.00	0.00	1401	1103	PEP	0.012	15	51.01	0.50	N/A	960.03	959.78	964.36	961.07
FUTURE LINE 1500																						Drop in Inlet 1104	0.50			
1501	0.09	0.66	0.09	0.06	5.0	10.32	0.77	0.77	4.95	4.03			0.00	0.00	1501	1104	PEP	0.012	15	35.13	0.50	N/A	962.07	961.89	966.94	962.50
EXISTING LINE 1600																									DS TAILWATER @ STR #1600	931.52
1601	0.47

GUTTER SPREAD AND INLET CAPACITY CALCULATIONS - LUMBERMAN'S ROW

DESIGN STORM 10
"K" FACTOR 1.00

CURB TYPE "A" = LAZY BACK
CURB TYPE "B" = HIGH BACK

	RUNOFF CALCULATIONS												INLET DESIGN							GUTTER DESIGN			
	INLET #	COMPOSITE "C"	AREA	INLET Tc	INTENSITY	RUNOFF	UPSTREAM INLET	UPSTREAM INLET	UPSTREAM INLET	UPSTREAM INLET	BYPASS FROM UPSTREAM INLET	TOTAL RUNOFF	STREET GRADE	STREET CROSS SLOPE	CURB TYPE	INLET LENGTH	EFFICTIVE LENGTH	INLET INTERCEPTION	BYPASS TO DOWNSTREAM INLET	STREET GRADE	STREET CROSS SLOPE	DEPTH AT CURB	SPREAD OF FLOW
EXISTING STORM	EXISTING LINE 400																						
	401	0.66	2.40	5	7.35	11.64	801	802	803		0.79	12.43	SUMP	2.08	A	8	6.4	17.92	0.00	SUMP	2.08	< 0.21	**< 10.50**
	402	0.66	0.04	5	7.35	0.19	403				0.02	0.21	3.24	2.08	A	6	4.8	0.20	0.00	3.24	2.08	0.06	**3.48**
	403	0.66	0.07	5	7.35	0.34	404				0.01	0.35	3.24	2.08	A	6	4.8	0.33	0.02	3.24	2.08	0.08	**4.12**
	404	0.66	0.06	5	7.35	0.29					0.00	0.29	3.24	2.08	A	6	4.8	0.28	0.01	3.24	2.08	0.07	**3.88**
	EXISTING LINE 500																						
	501	0.66	1.06	5	7.35	5.14	402	502			1.09	6.24	SUMP	2.08	A	6	4.8	13.44	0.00	SUMP	2.08	< 0.21	**< 10.50**
	502	0.66	0.57	5	7.35	2.77	804	503	806	901	0.84	3.61	1.95	2.08	A	6	4.8	2.52	1.09	1.95	2.08	0.20	**10.05**
	503	0.66	0.26	5	7.35	1.26	504				0.33	1.59	1.49	2.08	A	4	3.2	1.33	0.26	1.49	2.08	0.15	**7.89**
	504	0.66	0.29	5	7.35	1.41	505				0.40	1.81	1.49	2.08	A	4	3.2	1.48	0.33	1.49	2.08	0.16	**8.25**
	505	0.66	0.33	5	7.35	1.60	506				0.41	2.01	1.49	2.08	A	4	3.2	1.61	0.40	1.49	2.08	0.17	**8.57**
	506	0.66	0.29	5	7.35	1.41	507				0.63	2.03	1.49	2.08	A	4	3.2	1.63	0.41	1.49	2.08	0.17	**8.60**
	507	0.66	0.58	5	7.35	2.81					0.00	2.81	1.13	2.08	A	4	3.2	2.19	0.63	1.13	2.08	0.20	**10.14**
	EXISTING LINE 800																						
	801	0.51	0.29	5	7.35	1.09	1601	1801			0.25	1.34	1.12	2.08	A	6	4.8	1.25	0.08	1.12	2.08	0.15	**7.80**
	802	0.51	0.51	5	7.35	1.91	1701				0.12	2.04	1.12	2.08	A	6	4.8	1.82	0.21	1.12	2.08	0.18	**9.05**
	803	0.66	0.12	5	7.35	0.58	1101				1.61	2.19	3.00	2.08	A	6	4.8	1.70	0.49	3.00	2.08	0.15	**7.81**
	804	0.66	0.22	5	7.35	1.07	1301	1201			0.67	1.74	3.00	2.08	A	6	4.8	1.43	0.31	3.00	2.08	0.14	**7.20**
	805	0.66	0.12	5	7.35	0.58					0.00	0.58	3.00	2.08	A	6	4.8	0.55	0.03	3.00	2.08	0.09	**4.94**
	806	0.66	0.40	5	7.35	1.94	807				0.23	2.17	1.28	2.08	A	6	4.8	1.90	0.27	1.28	2.08	0.18	**9.04**
	807	0.66	0.40	5	7.35	1.94	808				0.07	2.01	1.28	2.08	A	6	4.8	1.78	0.23	1.28	2.08	0.17	**8.80**
	808	0.66	0.19	5	7.35	0.92	809				0.24	1.16	1.28	2.08	A	6	4.8	1.09	0.07	1.28	2.08	0.14	**7.25**
	809	0.66	0.32	5	7.35	1.55					0.00	1.55	2.75	2.08	A	6	4.8	1.32	0.24	2.75	2.08	0.14	**7.03**
	810	0.66	0.21	5	7.35	1.02	1106				0.00	1.02	2.75	2.08	A	6	4.8	0.92	0.10	2.75	2.08	0.12	**6.08**
	811	0.66	2.32	5	7.35	11.25	810				0.10	11.35	SUMP	2.08	A	6	4.8	16.80	0.00	SUMP	2.08	< 0.21	**< 10.50**
	812	0.66	0.13	5	7.35	0.63					0.00	0.63	SUMP	2.08	A	6	4.8	16.80	0.00	SUMP	2.08	< 0.21	**< 10.50**
PROPOSED 6TH PLAT	EXISTING LINE 1000																						
	1001	0.66	0.31	5	7.35	1.50					0.00	1.50	1.28	2.08	A	6	4.8	1.38	0.12	1.28	2.08	0.15	**7.94**
	LINE 1100																						
	1101	0.66	0.55	5	7.35	2.67	1102				0.77	3.44	6.02	2.08	A	6	4.8	1.83	1.61	6.02	2.08	0.16	**8.09**
	1102	0.66	0.34	5	7.35	1.65	1103				0.59	2.24	6.02	2.08	A	6	4.8	1.47	0.77	6.02	2.08	0.13	**6.97**
	1103	0.66	0.56	5	7.35	2.72	1104				0.15	2.87	1.80	2.08	A	6	4.8	2.28	0.59	1.80	2.08	0.19	**9.40**
	1104	0.66	0.30	5	7.35	1.46	1105				0.01	1.46	1.80	2.08	A	6	4.8	1.31	0.15	1.80	2.08	0.14	**7.41**
	1105	0.66	0.09	5	7.35	0.44					0.00	0.44	1.50	2.08	A	6	4.8	0.43	0.01	1.50	2.08	0.09	**5.04**
	1106	0.66	0.07	5	7.35	0.34					0.00	0.34	1.50	2.08	A	6	4.8	0.34	0.00	1.50	2.08	0.09	**4.64**
	LINE 1200																						
	1201	0.66	0.35	5	7.35	1.70	1202				0.49	2.19	2.45	2.08	A	4	3.2	1.64	0.55	2.45	2.08	0.16	**8.08**
	1202	0.66	0.38	5	7.35	1.84	1203				0.20	2.05	2.45	2.08	A	4	3.2	1.56	0.49	2.45	2.08	0.15	**7.90**
	1203	0.66	0.25	5	7.35	1.21	1204				0.07	1.28	2.45	2.08	A	4	3.2	1.08	0.20	2.45	2.08	0.13	**6.71**
	1204	0.66	0.15	5	7.35	0.73					0.00	0.73	2.45	2.08	A	4	3.2	0.66	0.07	2.45	2.08	0.10	**5.52**
FUTURE STORM	LINE 1300																						
	1301	0.66	0.17	5	7.35	0.82	1401				0.03	0.86	6.02	2.08	A	6	4.8	0.73	0.12	6.02	2.08	0.09	**5.01**
	FUTURE LINE 1400																						
	1401	0.66	0.15	5	7.35	0.73	1501				0.01	0.74	1.80	2.08	A	6	4.8	0.70	0.03	1.80	2.08	0.11	**5.84**
	FUTURE LINE 1500																						
	1501	0.66	0.09	5	7.35	0.44					0.00	0.44	1.80	2.08	A	6	4.8	0.43	0.01	1.80	2.08	0.09	**4.89**
EXISTING STORM	EXISTING LINE 1600																						
	1601	0.51	0.47	5	7.35	1.76	1701				0.25	2.01	1.12	2.08	A	6	6	1.81	0.21	1.12	2.08	0.18	**9.01**
	1602	0.51	0.84	5	7.35	3.15	1603				1.47	4.62	1.12	2.08	A	6	6	3.53	1.09	1.12	2.08	0.24	**12.13**
	1603	0.51	1.22	5	7.35	4.57	1604				0.85	5.43	1.12	2.08	A	6	6	3.95	1.47	1.12	2.08	0.26	**12.85**
	1604	0.51	0.96	5	7.35	3.60	1605				0.47	4.07	1.12	2.08	A	6	6	3.21	0.85	1.12	2.08	0.23	**11.58**
	1605	0.51	0.80	5	7.35	3.00					0.00	3.00	1.12	2.08	A	6	6	2.53	0.47	1.12	2.08	0.21	**10.39**
	EXISTING LINE 1700																						
	1701	0.51	0.59	5	7.35	2.21					0.00	2.21	1.12	2.08	A	6	6	1.96	0.25	1.12	2.08	0.18	**9.32**
	EXISTING LINE 1800																						
	1801	0.51	0.20	5	7.35	0.75	1601				0.21	0.96	1.12	2.08	A	6	6	0.92	0.04	1.12	2.08	0.13	**6.94**
	1802	0.51	0.86	5	7.35	3.22	1602				1.09	4.31	1.12	2.08	A	6	6	3.36	0.96	1.12	2.08	0.24	**11.83**
	1803	0.51	0.51	5	7.35	1.91	1802				0.96	2.87	1.12	2.08	A	6	6	2.44	0.43	1.12	2.08	0.20	**10.22**

NOTES:
1. CAPACITY OF INLETS ON GRADE DETERMINED USING ROUTINE OUTLINED ON PGS 56-95 TO 56-97, SECTION 5600 APWA
2. CAPACITY OF SUMP INLETS CALCULATED USING FIGURE 5604-21, SECTION 5600 APWA
3. MANNINGS "n" VALUE FOR COMBINED ASPHALT PAVEMENT AND CONCRETE CURB - 0.014

RECORD DRAWING

The information provided on this drawing conforms to construction records; it is not intended for construction, implementation or recording purposes; and it is solely based on information obtained by Schlagel and Associates.

"~~100.00~~ 100.10", "~~1.00%~~ 1.15% slope", or "8-inch ~~HDPE~~ PVC pipe" are all typical examples of revisions that indicate that design data has been replaced with "as-built" information. All other data is as designed and has not been field verified.

Date: 1/15/26
Certified by: BAL
Title: Design Engineer
Firm: Schlagel and Associates, P.A.

Accepted
Master Drainage Plan

This as-graded Master Drainage Plan (MDP) has been reviewed for accuracy. It is accepted for basic conformance to the approved MDP and may be used for the review of individual lot grading (plot) plans.

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PREPARED BY:

STATE OF MISSOURI
MARK ALLEN BREUER
NUMBER PE-2009007268
01.16.2026
PROFESSIONAL ENGINEER

SCHLAGEL & ASSOCIATES, P.A.

PERGOLA PARK 6TH PLAT
STREET, STORMWATER, MASTER DRAINAGE PLAN
---- LEE'S SUMMIT, MISSOURI

REVISION	DATE	DESCRIPTION
1	11-8-24	CITY COMMENTS
2	12-4-24	CITY COMMENTS
3	1-15-26	AS-BUILTS
4		
5		
6		
7		
8		

DRAWN BY: BAL
CHECKED BY: MAB
DATE PREPARED: 8-19-24
PROJ. NUMBER: 24-041

MASTER DRAINAGE PLAN - DRAINAGE CALCS CONT.

SHEET 7