

Storm Sewer Design Calculation Table													
10 Year Return Frequency													
Upstream Structure	Downstream Structure		Upstream Invert	Downstream Invert			Manning's n	Total Flow	Velocity	Capacity		Upstream Struct. HGL	Upstream Top Elev.
		Length (ft)	(ft)	(ft)	Slope (%)	Diameter (in)		(cfs)	(ft/s)	(cfs)	Flow Depth (ft)	(ft)	(ft)
C.I. #1-2	STUB #1-1	5.24	995.57	995.46	2.10	15	0.012	2.98	7.17	10.14	0.69	996.26	1003.95
C.I. #1-3	C.I. #1-2	142.00	998.91	996.07	2.00	15	0.012	2.30	6.56	9.89	0.61	999.52	1005.15
C.I. #2-2	M.H. #2-1	16.72	997.87	997.54	1.97	15	0.012	0.69	4.62	9.83	0.32	998.19	1005.70
STUB #2-3	C.I. #2-2	10.00	998.57	998.37	2.00	15	0.012	0.58	4.39	9.89	0.30	998.87	1000.00

Drainage Area Design Table					
100 Year Return Frequency					
Inlet ID	Drainage Area	C	Tc	i	Peak Flow
	(ac)		(min)	(in/hr)	(cfs)
C.I. #1-2	0.13	0.87	5.0	7.34	0.83
C.I. #1-3	0.10	0.87	5.0	7.34	0.64
C.I. #2-2	0.02	0.87	5.0	7.34	0.13
STUB #2-3	0.09	0.87	5.0	7.34	0.58
C.I. #3-1	0.11	0.87	5.0	7.34	0.58
EX. C.I. #3-2	0.29	0.87	5.0	7.34	1.85
Roof Drains	0.17	0.87	5	7.34	1.09

Inlet Design Table						
100 Year Return Frequency						
Inlet ID	Inlet Location	Peak Flow	Carryover Flow	Captured Flow	Bypass Flow	Inlet Efficiency (Note 2)
		(cfs)	(cfs)	(cfs)	(cfs)	(%)
C.I. #1-2	Sag	0.83	0	0.83	0	100
C.I. #1-3	Sag	2.30	0	2.30	0	100
C.I. #2-2	Sag	0.13	0	0.13	0	100
STUB #2-3	Sag	0.58				
C.I. #3-1	Sag	0.58	0	0.58	0	100
EX. C.I. #3-2	Sag	1.85	0	1.85	0	100

Storm Sewer Design Calculation Table													
100 Year Return Frequency													
Upstream	Downstream		Upstream	Downstream			Manning's					Upstream	Upstream
Structure	Structure	Length	Invert	Invert	Slope	Diameter	n	Total Flow	Velocity	Capacity	Flow Depth	Struct. HGL	Top Elev.
		(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(ft/s)	(cfs)	(ft)	(ft)	(ft)
C.I. #1-2	STUB #1-1	5.238	995.57	995.46	2.1	15	0.012	5.35	8.37	10.14	0.94	996.51	1003.95
C.I. #1-3	C.I. #1-2	141.995	998.91	996.07	2	15	0.012	4.04	7.65	9.89	0.81	999.72	1005.15
C.I. #2-2	M.H. #2-1	16.722	997.87	997.54	1.97	15	0.012	1.22	5.46	9.83	0.44	998.31	1005.7
STUB #2-3	C.I. #2-2	10	998.57	998.37	2	15	0.012	1.01	5.18	9.89	0.39	998.96	1000

Drainage Area Design Table					
100 Year Return Frequency					
Inlet ID	Drainage Area	C	Tc	i	Peak Flow
	(ac)		(min)	(in/hr)	(cfs)
C.I. #1-2	0.13	0.87	5	12.9	1.46
C.I. #1-3	0.10	0.87	5	12.9	1.12
C.I. #2-2	0.02	0.87	5	12.9	0.22
STUB #2-3	0.09	0.87	5	12.9	1.01
C.I. #3-1	0.11	0.87	5	12.9	1.01
EX. C.I. #3-2	0.29	0.87	5	12.9	3.25
Roof Drains	0.17	0.87	5	12.9	1.91

Inlet Design Table						
100 Year Return Frequency						
Inlet ID	Inlet Location	Peak Flow	Carryover Flow	Captured Flow	Bypass Flow	Inlet Efficiency (Note 2)
		(cfs)	(cfs)	(cfs)	(cfs)	(%)
C.I. #1-2	Sag	1.46	0	1.46	0	100
C.I. #1-3	Sag	4.04	0	4.04	0	100
C.I. #2-2	Sag	0.22	0	0.22	0	100
STUB #2-3	Sag	1.01				
C.I. #3-1	Sag	1.01	0	1.01	0	100
EX. C.I. #3-2	Sag	3.25	0	3.25	0	100

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DATE

BY

REVISIONS DESCRIPTION

REVISIONS

DRAINAGE TABLES
FINAL DEVELOPMENT PLANS

NEW LONGVIEW
LOT 44

LEE'S SUMMIT, MO

2018

drawn by: D.A.H.Q.
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project no.: 018-1095
date: 2018.04.04

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