

Storm Sewer Calculations

Walmart Supercenter No. 4590-01
3410 SW Market Street
Lee's Summit, MO. 64082

Project No. 12-5082
November 25, 2015

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Planning & Codes Admin

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Date

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STORM SEWER CALCULATIONS

Walmart Supercenter No. 4590-01
3410 SW Market Street
Lee's Summit, MO. 64082
Project No. 12-5082
November 25, 2015

The following storm sewer calculations have been performed for final design for the Walmart Supercenter located in Lee's Summit, Missouri. Said calculations were performed in accordance with City of Lee's Summit Design and Construction Manual, Section 5600. All storm sewer design was performed with the aid of Hydroflow Storm Sewers.

STORM SEWER NETWORK SIZING:

Calculations have been performed modeling the proposed storm sewer network during a 2-year, 10-year, and 100-year storm. Listed below are the structure numbers with the top elevation and the hydraulic grade line (HGL) elevation for each structure.

The inlet hydraulic calculations are included in this report.

The structure numbers listed correlate with the structure numbers on the associated plans. A drainage area map is included at the end of this report.

STORM SEWER LINE 1			
Structure Number	Top Elevation (ft)	10-Year HGL (ft)	100-Year HGL (ft)
Existing Curb Inlet 'A'	1014.57	1004.47	1004.64
Curb Inlet 1	1014.00	1004.76	1004.96
Curb Inlet 2	1013.70	1005.09	1005.28
Outlet Structure 3	1015.50	1005.62	1005.81

STORM SEWER LINE 2			
Structure Number	Top Elevation (ft)	10-Year HGL (ft)	100-Year HGL (ft)
Flared End 4	-	1006.53	1006.88
Double Curb Inlet 5	1015.80	1006.85	1007.24
Curb Inlet 6	1016.75	1008.76	1009.12
Curb Inlet 7	1017.00	1009.99	1010.33
Curb Inlet 8	1015.80	1011.00	1011.28
Junction Box 9	1019.25	1011.78	1011.96

STORM SEWER LINE 3			
Structure Number	Top Elevation (ft)	10-Year HGL (ft)	100-Year HGL (ft)
Flared End 10	-	1009.24	1010.10
Double Curb Inlet 11	1015.80	1009.52	1011.06
Grated Curb Inlet 12	1018.50	1010.31	1012.16
Grated Curb Inlet 13	1018.50	1010.51	1012.70
Curb Inlet 14	1017.10	1010.72	1013.18
Curb Inlet 15	1019.50	1015.32	1015.61

STORM SEWER LINE 4			
Structure Number	Top Elevation (ft)	10-Year HGL (ft)	100-Year HGL (ft)
Curb Inlet 14	1017.10	1010.72	1013.18
Junction Box 16	1023.00	1018.91	1019.04

STORM SEWER LINE 5			
Structure Number	Top Elevation (ft)	10-Year HGL (ft)	100-Year HGL (ft)
Flared End 17	-	1008.24	1008.58
Curb Inlet 18	1018.00	1008.69	1009.04
Curb Inlet 19	1018.00	1009.02	1009.38
Outlet Structure 20	1019.00	1009.22	1009.56

STORM SEWER LINE 6			
Structure Number	Top Elevation (ft)	10-Year HGL (ft)	100-Year HGL (ft)
Flared End 21	-	1009.44	1009.94
Curb Inlet 22	1019.90	1009.86	1010.32
Curb Inlet 23	1020.00	1010.73	1012.39
Curb Inlet 24	1021.10	1011.63	1014.04
Curb Inlet 25	1020.50	1012.22	1014.59
Curb Inlet 26	1020.10	1013.41	1015.31
Curb Inlet 27	1018.50	1014.26	1015.78
Curb Inlet 28	1019.00	1014.74	1016.01
Junction Box 29	1020.00	1015.38	1015.72
Junction Box 30	1019.75	1015.86	1016.16
Siphonic Manhole 31	1021.20	1017.47	1017.63

STORM SEWER LINE 7			
Structure Number	Top Elevation (ft)	10-Year HGL (ft)	100-Year HGL (ft)
Curb Inlet 24	1021.10	1011.63	1014.04
Siphonic Manhole 32	1021.65	1017.69	1017.91

STORM SEWER LINE 8			
Structure Number	Top Elevation (ft)	10-Year HGL (ft)	100-Year HGL (ft)
Junction Box 29	1020.00	1015.38	1016.60
Siphonic Manhole 33	1021.30	1017.64	1017.84

STORM SEWER LINE 9			
Structure Number	Top Elevation (ft)	10-Year HGL (ft)	100-Year HGL (ft)
Junction Box 30	1019.75	1015.86	1016.25
Curb Inlet 34	1019.25	1016.35	1016.84

STORM SEWER LINE 10			
Structure Number	Top Elevation (ft)	10-Year HGL (ft)	100-Year HGL (ft)
Flared End 35	-	1011.32	1011.40
Curb Inlet 36	1020.91	1011.70	1011.82

STORM SEWER LINE 11			
Structure Number	Top Elevation (ft)	10-Year HGL (ft)	100-Year HGL (ft)
Flared End 37	-	1014.15	1014.63
Curb Inlet 38	1020.50	1014.38	1014.81
Junction Box 39	1020.65	1014.71	1015.13
Grated Inlet 40	1019.00	1015.13	1015.50
Grated Inlet 41	1019.00	1015.62	1015.99
Grated Inlet 42	1019.00	1016.15	1017.01
Curb Inlet 43	1019.30	1016.22	1017.54
Grated Inlet 44	1019.00	1016.32	1017.71

STORM SEWER LINE 12			
Structure Number	Top Elevation (ft)	10-Year HGL (ft)	100-Year HGL (ft)
Junction Box 39	1020.65	1016.82	1015.13
Junction Box 45	1021.28	1017.43	1017.66
Siphonic Manhole 46	1021.86	1017.78	1018.01

STORM SEWER LINE 13			
Structure Number	Top Elevation (ft)	10-Year HGL (ft)	100-Year HGL (ft)
Flared End 47	-	1013.53	1013.79
Curb Inlet 48	1019.70	1013.67	1014.21

STORM SEWER REPORT
10-YEAR

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	CI'A - CI#1	8.69	36	Cir	31.932	1003.67	1003.83	0.501	1004.47	1004.76	n/a	1004.76	End	Curb-Horiz
2	CI#1-CI#2	8.45	36	Cir	48.046	1003.93	1004.17	0.499	1004.76	1005.09	n/a	1005.09	1	Curb-Horiz
3	CI#2-OS#3	8.04	36	Cir	92.058	1004.27	1004.73	0.500	1005.09	1005.62	n/a	1005.62	2	Manhole
4	FE #4 - DCI #5	14.16	36	Cir	30.000	1005.50	1005.65	0.500	1006.53	1006.85	0.05	1006.85	End	Curb-Horiz
5	DCI#5-CI#6	10.07	24	Cir	72.659	1007.25	1007.62	0.509	1008.28	1008.76	0.23	1008.76	4	Curb-Horiz
6	CI#6-CI#7	8.31	24	Cir	123.997	1007.72	1008.96	1.000	1008.76	1009.99	n/a	1009.99 j	5	Curb-Horiz
7	CI#7-CI#8	5.15	24	Cir	50.323	1009.06	1010.20	2.265	1009.99	1011.00	n/a	1011.00 j	6	Curb-Horiz
8	CI#8-JB#9	2.29	24	Cir	190.000	1010.30	1011.25	0.500	1011.00	1011.78	n/a	1011.78 j	7	Manhole
9	FE #10-DCI #11	26.35	30	Cir	34.000	1007.60	1007.77	0.500	1009.24	1009.52	n/a	1009.52	End	Curb-Horiz
10	DCI#11-CI#12	19.54	30	Cir	187.470	1007.87	1008.81	0.501	1009.52	1010.31	n/a	1010.31 j	9	Combination
11	CI #12-CI #13	19.18	30	Cir	23.670	1008.91	1009.03	0.507	1010.31	1010.51	0.43	1010.51	10	Combination
12	CI#13-CI#14	18.82	30	Cir	23.710	1009.13	1009.25	0.506	1010.51	1010.72	n/a	1010.72	11	Curb-Horiz
13	CI#14-CI#15	5.45	24	Cir	282.859	1011.67	1014.50	1.001	1012.28	1015.32	n/a	1015.32	12	Curb-Horiz
14	CI#14-JB#16	6.00	30	Cir	171.060	1009.35	1018.10	5.115	1010.72	1018.91	n/a	1018.91 j	12	Manhole
15	FE#17-CI#18	20.69	36	Cir	42.978	1007.00	1007.23	0.535	1008.24	1008.69	n/a	1008.69	End	Curb-Horiz
16	CI#18-CI#19	20.54	36	Cir	47.995	1007.33	1007.57	0.500	1008.69	1009.02	0.06	1009.02	15	Curb-Horiz
17	CI#19-OS#20	19.91	36	Cir	7.025	1007.67	1007.79	1.708	1009.02	1009.22	n/a	1009.22	16	Manhole
18	FE #21-CI #22	25.85	36	Cir	44.167	1008.00	1008.22	0.498	1009.44	1009.86	0.31	1009.86	End	Combination
19	CI #22-CI #23	23.78	30	Cir	112.792	1008.51	1009.07	0.496	1010.05	1010.73	0.51	1010.73	18	Combination
20	CI #23-CI #24	23.37	30	Cir	163.887	1009.17	1009.99	0.500	1010.73	1011.63	n/a	1011.63	19	Combination
21	CI #24-CI #25	17.47	30	Cir	142.862	1010.09	1010.81	0.504	1011.63	1012.22	n/a	1012.22 j	20	Combination
22	CI #25-CI #26	16.03	30	Cir	229.104	1010.91	1012.06	0.502	1012.22	1013.41	n/a	1013.41	21	Curb-Horiz
23	CI #26-CI #27	15.31	30	Cir	156.709	1012.16	1012.94	0.498	1013.41	1014.26	n/a	1014.26	22	Curb-Horiz
24	CI #27-CI #28	12.54	30	Cir	102.846	1013.04	1013.55	0.496	1014.26	1014.74	n/a	1014.74 j	23	Curb-Horiz

Project File: 11-25-15 (10 Yr) Jeff.sim

Number of lines: 41

Run Date: 11/25/2015

NOTES: Known Qs only ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
25	CI #28-JB #29	11.39	30	Cir	119,260	1013.65	1014.25	0.503	1014.74	1015.38	0.26	1015.38	24	Manhole
26	JB#29-JB#30	6.93	24	Cir	115,826	1014.35	1014.93	0.501	1015.38	1015.86	n/a	1015.86 j	25	Manhole
27	JB#30-SMH#31	2.72	24	Cir	64,968	1016.58	1016.90	0.493	1017.10	1017.47	0.21	1017.47	26	Manhole
28	CI#24-SMH#32	5.08	24	Cir	30,336	1016.20	1016.90	2.308	1016.68	1017.69	0.30	1017.69	20	Manhole
29	JB#29-SMH#33	4.46	24	Cir	100,033	1015.90	1016.90	1.000	1016.45	1017.64	n/a	1017.64	25	Manhole
30	JB#30 - CI#34	4.21	18	Cir	43,231	1015.03	1015.25	0.509	1015.86	1016.04	0.31	1016.35	26	Curb-Horiz
31	FE#35-CI#36	1.23	18	Cir	28,503	1011.00	1011.29	1.017	1011.32	1011.70	n/a	1011.70	End	Curb-Horiz
32	FE #37-CI #38	22.11	36	Cir	29,868	1012.75	1012.87	0.402	1014.15	1014.38	0.16	1014.38	End	Curb-Horiz
33	CI #38-JB #39	21.14	36	Cir	65,037	1012.97	1013.23	0.400	1014.38	1014.71	n/a	1014.71	32	Manhole
34	JB #39-GI #40	14.98	36	Cir	141,931	1013.33	1013.90	0.402	1014.71	1015.13	n/a	1015.13 j	33	DropGrate
35	GI #40-GI #41	12.33	30	Cir	116,000	1014.00	1014.47	0.405	1015.13	1015.65	0.05	1015.65	34	DropGrate
36	GI #41-GI #42	9.08	24	Cir	134,000	1014.57	1014.91	0.254	1015.77	1016.11	0.03	1016.15	35	DropGrate
37	GI #42-GI #43	5.78	19x30	Ell	126,165	1015.01	1015.33	0.254	1016.48	1016.22	n/a	1016.22	36	Curb-Horiz
38	GI #43-GI #44	2.50	19x30	Ell	128,835	1015.43	1015.75	0.248	1016.37	1016.32	0.01	1016.32	37	DropGrate
39	JB#39-JB#45	6.16	24	Cir	104,109	1016.03	1016.55	0.499	1016.82	1017.43	0.16	1017.43	33	Manhole
40	JB#45-SMH#46	6.16	24	Cir	49,003	1016.65	1016.90	0.510	1017.43	1017.78	0.34	1017.78	39	Manhole
41	FE#47-CI#48	1.61	12	Cir	26,393	1013.00	1013.13	0.493	1013.53	1013.67	0.22	1013.67	End	Curb-Horiz

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Number of lines: 41

Run Date: 11/25/2015

NOTES: Known Qs only ; j - Line contains hyd, jump.

Storm Sewer Evaluation

Station	Len	Drng Area		Rfcoff coeff	Area x C		Tc		Rain (l)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
	To Line	Incr	Total		Incr	Total	Inlet	Syst					Size	Slope	Dn	Up	Dn	Up	Dn	Up	
(ft)	(ac)	(ac)	(C)			(min)	(min)	(in/hr)	(cfs)	(cfs)	(ft/s)		(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
1	End	31.932	0.00	0.00	0.00	0.00	5.0	5.5	0.0	8.69	55.80	5.19	36	0.50	1003.67	1003.83	1004.47	1004.76	1014.57	1014.00	CI'A - CI#1
2	1	48.046	0.00	0.00	0.00	0.00	5.0	5.3	0.0	8.45	55.71	4.96	36	0.50	1003.93	1004.17	1004.76	1005.09	1014.00	1013.70	CI#1-CI#2
3	2	92.058	0.00	0.00	0.00	0.00	5.0	5.0	0.0	8.04	55.71	4.86	36	0.50	1004.27	1004.73	1005.09	1005.62	1013.70	1015.00	CI#2-OS#3
4	End	30.000	0.00	0.00	0.00	0.00	5.0	6.9	0.0	14.16	55.74	5.98	36	0.50	1005.50	1005.65	1006.53	1006.85	0.00	1015.80	FE #4 - DCI #5
5	4	72.659	0.00	0.00	0.00	0.00	5.0	6.7	0.0	10.07	19.07	5.81	24	0.51	1007.25	1007.62	1008.28	1008.76	1015.80	1016.75	DCI#5-CI#6
6	5	123.997	0.00	0.00	0.00	0.00	5.0	6.3	0.0	8.31	26.73	5.09	24	1.00	1007.72	1008.96	1008.76	1009.99	1016.75	1017.00	CI#6-CI#7
7	6	50.323	0.00	0.00	0.00	0.00	5.0	6.1	0.0	5.15	40.23	4.01	24	2.27	1009.06	1010.20	1009.99	1011.00	1017.00	1015.80	CI#7-CI#8
8	7	190.000	0.00	0.00	0.00	0.00	5.0	5.0	0.0	2.29	18.90	2.91	24	0.50	1010.30	1011.25	1011.00	1011.78	1015.80	1019.25	CI#8-JB#9
9	End	34.000	0.00	0.00	0.00	0.00	5.0	6.5	0.0	26.35	34.28	7.44	30	0.50	1007.60	1007.77	1009.24	1009.52	0.00	1015.80	FE #10-DCI #11
10	9	187.470	0.00	0.00	0.00	0.00	5.0	6.0	0.0	19.54	34.32	6.03	30	0.50	1007.87	1008.81	1009.52	1010.31	1015.80	1018.50	DCI#11-CI#12
11	10	23.670	0.00	0.00	0.00	0.00	5.0	5.9	0.0	19.18	34.52	6.55	30	0.51	1008.91	1009.03	1010.31	1010.51	1018.50	1018.50	CI #12-CI #13
12	11	23.710	0.00	0.00	0.00	0.00	5.0	5.9	0.0	18.82	34.48	6.51	30	0.51	1009.13	1009.25	1010.51	1010.72	1018.50	1017.10	CI#13-CI#14
13	12	282.859	0.00	0.00	0.00	0.00	5.0	5.0	0.0	5.45	26.74	5.58	24	1.00	1011.67	1014.50	1012.28	1015.32	1017.10	1019.50	CI#14-CI#15
14	12	171.060	0.00	0.00	0.00	0.00	5.0	5.0	0.0	6.00	109.6	3.27	30	5.12	1009.35	1018.10	1010.72	1018.91	1017.10	1023.00	CI#14-JB#16
15	End	42.978	0.00	0.00	0.00	0.00	5.0	5.1	0.0	20.69	57.66	6.77	36	0.54	1007.00	1007.23	1008.24	1008.69	0.00	1018.00	FE#17-CI#18
16	15	47.995	0.00	0.00	0.00	0.00	5.0	5.0	0.0	20.54	55.74	6.32	36	0.50	1007.33	1007.57	1008.69	1009.02	1018.00	1018.00	CI#18-CI#19
17	16	7.025	0.00	0.00	0.00	0.00	5.0	5.0	0.0	19.91	103.0	6.21	36	1.71	1007.67	1007.79	1009.02	1009.22	1018.00	1019.00	CI#19-OS#20
18	End	44.167	0.00	0.00	0.00	0.00	5.0	18.4	0.0	25.85	55.63	7.13	36	0.50	1008.00	1008.22	1009.44	1009.86	1.76	1019.90	FE #21-CI #22
19	18	112.792	0.00	0.00	0.00	0.00	5.0	18.1	0.0	23.78	34.15	7.20	30	0.50	1008.51	1009.07	1010.05	1010.73	1019.90	1020.00	CI #22-CI #23
20	19	163.887	0.00	0.00	0.00	0.00	5.0	17.8	0.0	23.37	34.28	7.04	30	0.50	1009.17	1009.99	1010.73	1011.63	1020.00	1021.20	CI #23-CI #24
21	20	142.862	0.00	0.00	0.00	0.00	5.0	17.3	0.0	17.47	34.41	5.80	30	0.50	1010.09	1010.81	1011.63	1012.22	1021.20	1020.50	CI #24-CI #25
22	21	229.104	0.00	0.00	0.00	0.00	5.0	16.7	0.0	16.03	34.34	6.03	30	0.50	1010.91	1012.06	1012.22	1013.41	1020.50	1020.10	CI #25-CI #26

Project File: 11-25-15 (10 Yr) Jeff.stm

Number of lines: 41

Run Date: 11/25/2015

NOTES: Known Qs only ; c = cir e = ellip b = box

Storm Sewer Tabulation

Station	Len	Drng Area		Rfoff coeff	Area x C		Tc		Rain (l)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
		Incr	Total		Incr	Total	Inlet	Syst					Size	Slope	Dn	Up	Dn	Up	Dn	Up	
Line	To Line	(ft)	(ac)	(ac)	(C)		(min)	(min)	(in/hr)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
23	22	156.709	0.00	0.00	0.00	0.00	5.0	16.3	0.0	15.31	34.20	6.03	30	0.50	1012.16	1012.94	1013.41	1014.26	1020.10	1018.50	CI #26-CI #27
24	23	102.846	0.00	0.00	0.00	0.00	5.0	16.0	0.0	12.54	34.13	5.37	30	0.50	1013.04	1013.55	1014.26	1014.74	1018.50	1019.00	CI #27-CI #28
25	24	119.260	0.00	0.00	0.00	0.00	15.0	15.6	0.0	11.39	34.38	5.42	30	0.50	1013.65	1014.25	1014.74	1015.38	1019.00	1020.00	CI #28-JB #29
26	25	115.826	0.00	0.00	0.00	0.00	5.0	15.2	0.0	6.93	18.92	4.54	24	0.50	1014.35	1014.93	1015.38	1015.86	1020.00	1019.75	JB#29-JB#30
27	26	64.968	0.00	0.00	0.00	0.00	5.0	5.0	0.0	2.72	18.76	3.95	24	0.49	1016.58	1016.90	1017.10	1017.47	1019.75	1021.20	JB#30-SMH#31
28	20	30.336	0.00	0.00	0.00	0.00	5.0	5.0	0.0	5.08	40.60	6.60	24	2.31	1016.20	1016.90	1016.68	1017.69	1021.20	1021.65	CI#24-SMH#32
29	25	100.033	0.00	0.00	0.00	0.00	5.0	5.0	0.0	4.46	26.73	5.26	24	1.00	1015.90	1016.90	1016.45	1017.64	1020.00	1021.30	JB#29-SMH#33
30	26	43.231	0.00	0.00	0.00	0.00	15.0	15.0	0.0	4.21	7.49	4.32	18	0.51	1015.03	1015.25	1015.86	1016.04	1019.75	1019.25	JB#30 - CI#34
31	End	28.503	0.00	0.00	0.00	0.00	5.0	5.0	0.0	1.23	12.52	3.80	18	1.02	1011.00	1011.29	1011.32	1011.70	1013.64	1020.90	FE#35-CI#36
32	End	29.868	0.00	0.00	0.00	0.00	5.0	7.9	0.0	22.11	49.96	6.52	36	0.40	1012.75	1012.87	1014.15	1014.38	0.00	1020.50	FE #37-CI #38
33	32	65.037	0.00	0.00	0.00	0.00	5.0	7.7	0.0	21.14	49.84	6.29	36	0.40	1012.97	1013.23	1014.38	1014.71	1020.50	1020.65	CI #38-JB #39
34	33	141.931	0.00	0.00	0.00	0.00	5.0	7.2	0.0	14.98	49.95	5.10	36	0.40	1013.33	1013.90	1014.71	1015.13	1019.00	1019.00	JB #39-GI #40
35	34	116.000	0.00	0.00	0.00	0.00	5.0	6.9	0.0	12.33	30.85	5.56	30	0.41	1014.00	1014.47	1015.13	1015.65	1019.00	1019.00	GI #40-GI #41
36	35	134.000	0.00	0.00	0.00	0.00	5.0	6.4	0.0	9.08	13.46	4.60	24	0.25	1014.57	1014.91	1015.77	1016.11	1019.00	1019.00	GI #41-GI #42
37	36	126.165	0.00	0.00	0.00	0.00	5.0	5.8	0.0	5.78	13.05	3.53	19	0.25	1015.01	1015.33	1016.48	1016.22	1019.00	1019.30	GI #42-GI #43
38	37	128.835	0.00	0.00	0.00	0.00	5.0	5.0	0.0	2.50	12.91	2.68	19	0.25	1015.43	1015.75	1016.37	1016.32	1019.30	1019.00	GI #43-GI #44
39	33	104.109	0.00	0.00	0.00	0.00	5.0	5.2	0.0	6.16	18.89	5.01	24	0.50	1016.03	1016.55	1016.82	1017.43	1020.65	1021.28	JB#39-JB#45
40	39	49.003	0.00	0.00	0.00	0.00	5.0	5.0	0.0	6.16	19.09	5.03	24	0.51	1016.65	1016.90	1017.43	1017.78	1021.28	1021.86	JB#45-SMH#46
41	End	26.393	0.00	0.00	0.00	0.00	5.0	5.0	0.0	1.61	2.95	3.79	12	0.49	1013.00	1013.13	1013.53	1013.67	0.00	1019.70	FE#47-CI#48

Project File: 11-25-15 (10 Yr) Jeff.stm

Number of lines: 41

Run Date: 11/25/2015

NOTES: Known Qs only ; c = cir e = ellip b = box

STORM SEWER REPORT
100-YEAR

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	CI/A' - CI#1	12.67	36	Cir	31.932	1003.67	1003.83	0.501	1004.64	1004.96	n/a	1004.96	End	Curb-Horiz
2	CI#1-CI#2	12.25	36	Cir	48.046	1003.93	1004.17	0.499	1004.96	1005.28	0.17	1005.28	1	Curb-Horiz
3	CI#2-OS#3	11.52	36	Cir	92.058	1004.27	1004.73	0.500	1005.28	1005.81	0.40	1005.81	2	Manhole
4	FE #4 - DCI #5	24.23	36	Cir	30.000	1005.50	1005.65	0.500	1006.88	1007.24	n/a	1007.24	End	Curb-Horiz
5	DCI#5-CI#6	17.36	24	Cir	72.659	1007.25	1007.62	0.509	1008.75	1009.12	0.37	1009.12	4	Curb-Horiz
6	CI#6-CI#7	14.37	24	Cir	123.997	1007.72	1008.96	1.000	1009.12	1010.33	n/a	1010.33 j	5	Curb-Horiz
7	CI#7-CI#8	9.12	24	Cir	50.323	1009.06	1010.20	2.265	1010.33	1011.28	n/a	1011.28 j	6	Curb-Horiz
8	CI#8-JB#9	4.06	24	Cir	190.000	1010.30	1011.25	0.500	1011.28	1011.96	n/a	1011.96 j	7	Manhole
9	FE #10-DCI #11	42.79	30	Cir	34.000	1007.60	1007.77	0.500	1010.10*	1010.37*	0.70	1011.06	End	Curb-Horiz
10	DCI#11-CI#12	31.80	30	Cir	187.470	1007.87	1008.81	0.501	1011.06*	1011.87*	0.29	1012.16	9	Combination
11	CI #12-CI #13	31.23	30	Cir	23.670	1008.91	1009.03	0.507	1012.16*	1012.26*	0.43	1012.70	10	Combination
12	CI#13-CI#14	30.66	30	Cir	23.710	1009.13	1009.25	0.506	1012.70*	1012.79*	0.39	1013.18	11	Curb-Horiz
13	CI#14-CI#15	9.67	24	Cir	282.859	1011.67	1014.50	1.001	1013.18	1015.61	n/a	1015.61 j	12	Curb-Horiz
14	CI#14-JB#16	7.93	30	Cir	171.060	1009.35	1018.10	5.115	1013.18	1019.04	n/a	1019.04 j	12	Manhole
15	FE#17-CI#18	31.33	36	Cir	42.978	1007.00	1007.23	0.535	1008.58	1009.04	n/a	1009.04	End	Curb-Horiz
16	CI#18-CI#19	31.09	36	Cir	47.995	1007.33	1007.57	0.500	1009.04	1009.38	0.08	1009.38	15	Curb-Horiz
17	CI#19-OS#20	30.04	36	Cir	7.025	1007.67	1007.79	1.708	1009.38	1009.56	n/a	1009.56	16	Manhole
18	FE #21-CI #22	41.79	36	Cir	44.167	1008.00	1008.22	0.498	1009.94	1010.32	0.45	1010.32	End	Combination
19	CI #22-CI #23	38.48	30	Cir	112.792	1008.51	1009.07	0.496	1011.01*	1011.72*	0.67	1012.39	18	Combination
20	CI #23-CI #24	37.83	30	Cir	163.887	1009.17	1009.99	0.500	1012.39*	1013.39*	0.65	1014.04	19	Combination
21	CI #24-CI #25	28.54	30	Cir	142.862	1010.09	1010.81	0.504	1014.04*	1014.53*	0.06	1014.59	20	Combination
22	CI #25-CI #26	26.28	30	Cir	229.104	1010.91	1012.06	0.502	1014.59*	1015.27*	0.04	1015.31	21	Curb-Horiz
23	CI #26-CI #27	25.15	30	Cir	156.709	1012.16	1012.94	0.498	1015.31*	1015.74*	0.04	1015.78	22	Curb-Horiz
24	CI #27-CI #28	20.79	30	Cir	102.846	1013.04	1013.55	0.496	1015.78	1015.94	0.06	1016.01	23	Curb-Horiz

Project File: 11-23-15 (100 Yr) Jeff.stm

Number of lines: 41

Run Date: 11/25/2015

NOTES: Known Os only ; *Surcharged (HGL above crown), ; j - Line contains hyd. jump.

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
25	CI #28-JB #29	18.76	30	Cir	119.260	1013.65	1014.25	0.503	1016.01	1015.72	0.37	1015.72	24	Manhole
26	JB#29-JB#30	11.73	24	Cir	115.826	1014.35	1014.93	0.501	1015.72	1016.16	n/a	1016.16 j	25	Manhole
27	JB#30-SMH#31	4.28	24	Cir	64.968	1016.58	1016.90	0.493	1017.23	1017.63	0.27	1017.63	26	Manhole
28	CI#24-SMH#32	8.00	24	Cir	30.336	1016.20	1016.90	2.308	1016.80	1017.91	n/a	1017.91	20	Manhole
29	JB#29-SMH#33	7.03	24	Cir	100.033	1015.90	1016.90	1.000	1016.60	1017.84	0.36	1017.84	25	Manhole
30	JB#30 - CI#34	7.45	18	Cir	43.231	1015.03	1015.25	0.509	1016.25	1016.47	0.36	1016.84	26	Curb-Horiz
31	FE#35-CI#36	1.94	18	Cir	28.503	1011.00	1011.29	1.017	1011.40	1011.82	0.19	1011.82	End	Curb-Horiz
32	FE #37-CI #38	35.79	36	Cir	29.868	1012.75	1012.87	0.402	1014.63	1014.81	0.23	1014.81	End	Curb-Horiz
33	CI #38-JB #39	34.25	36	Cir	65.037	1012.97	1013.23	0.400	1014.81	1015.13	n/a	1015.13	32	Manhole
34	JB #39-GI #40	24.55	36	Cir	141.931	1013.33	1013.90	0.402	1015.13	1015.50	n/a	1015.50 j	33	DropGrate
35	GI #40-GI #41	20.11	30	Cir	116.000	1014.00	1014.47	0.405	1015.50	1015.99	0.06	1015.99	34	DropGrate
36	GI #41-GI #42	14.78	24	Cir	134.000	1014.57	1014.91	0.254	1016.57*	1016.98*	0.03	1017.01	35	DropGrate
37	GI #42-CI #43	9.37	19x30	Ell	126.165	1015.01	1015.33	0.254	1017.36*	1017.52*	0.01	1017.54	36	Curb-Horiz
38	GI #43-GI #44	4.04	19x30	Ell	128.835	1015.43	1015.75	0.248	1017.68*	1017.71*	0.00	1017.71	37	DropGrate
39	JB#39-JB#45	9.70	24	Cir	104.109	1016.03	1016.55	0.499	1017.05	1017.66	n/a	1017.66	33	Manhole
40	JB#45-SMH#46	9.70	24	Cir	49.003	1016.65	1016.90	0.510	1017.66	1018.01	n/a	1018.01	39	Manhole
41	FE#47-CI#48	2.85	12	Cir	26.393	1013.00	1013.13	0.493	1013.79	1013.92	0.29	1014.21	End	Curb-Horiz

Project File: 11-23-15 (100 Yr) Jeff.stm

Number of lines: 41

Run Date: 11/25/2015

NOTES: Known Qs only ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

Storm Sewer Rehabilitation

Station	Len	Drng Area		Rooff coeff	Area x C		Tc		Rain (l)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
		Incr	Total		Incr	Total	Inlet	Syst					Size	Slope	Dn	Up	Dn	Up	Dn	Up	
Line	To Line	(ft)	(ac)	(ac)	(C)		(min)	(min)	(in/hr)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
1	End	31.932	0.00	0.00	0.00	0.00	5.0	5.4	0.0	12.67	55.80	5.79	36	0.50	1003.67	1003.83	1004.64	1004.96	1014.57	1014.00	CI\A' - CI#1
2	1	48.046	0.00	0.00	0.00	0.00	5.0	5.3	0.0	12.25	55.71	5.43	36	0.50	1003.93	1004.17	1004.96	1005.28	1014.00	1013.70	CI#1-CI#2
3	2	92.058	0.00	0.00	0.00	0.00	5.0	5.0	0.0	11.52	55.71	5.28	36	0.50	1004.27	1004.73	1005.28	1005.81	1013.70	1015.00	CI#2-OS#3
4	End	30.000	0.00	0.00	0.00	0.00	5.0	6.6	0.0	24.23	55.74	7.00	36	0.50	1005.50	1005.65	1006.88	1007.24	0.00	1015.80	FE #4 - DCI #5
5	4	72.659	0.00	0.00	0.00	0.00	5.0	6.4	0.0	17.36	19.07	6.87	24	0.51	1007.25	1007.62	1008.75	1009.12	1015.80	1016.75	DCI#5-CI#6
6	5	123.997	0.00	0.00	0.00	0.00	5.0	6.1	0.0	14.37	26.73	6.20	24	1.00	1007.72	1008.96	1009.12	1010.33	1016.75	1017.00	CI#6-CI#7
7	6	50.323	0.00	0.00	0.00	0.00	5.0	5.9	0.0	9.12	40.23	4.82	24	2.27	1009.06	1010.20	1010.33	1011.28	1017.00	1015.80	CI#7-CI#8
8	7	190.000	0.00	0.00	0.00	0.00	5.0	5.0	0.0	4.06	18.90	3.38	24	0.50	1010.30	1011.25	1011.28	1011.96	1015.80	1019.25	CI#8-JB#9
9	End	34.000	0.00	0.00	0.00	0.00	5.0	6.6	0.0	42.79	34.28	8.72	30	0.50	1007.60	1007.77	1010.10	1010.37	0.00	1015.80	FE #10-DCI #11
10	9	187.470	0.00	0.00	0.00	0.00	5.0	6.2	0.0	31.80	34.32	6.48	30	0.50	1007.87	1008.81	1011.06	1011.87	1015.80	1018.50	DCI#11-CI#12
11	10	23.670	0.00	0.00	0.00	0.00	5.0	6.1	0.0	31.23	34.52	6.36	30	0.51	1008.91	1009.03	1012.16	1012.26	1018.50	1018.50	CI #12-CI #13
12	11	23.710	0.00	0.00	0.00	0.00	5.0	6.0	0.0	30.66	34.48	6.25	30	0.51	1009.13	1009.25	1012.70	1012.79	1018.50	1017.10	CI#13-CI#14
13	12	282.859	0.00	0.00	0.00	0.00	5.0	5.0	0.0	9.67	26.74	4.60	24	1.00	1011.67	1014.50	1013.18	1015.61	1017.10	1019.50	CI#14-CI#15
14	12	171.060	0.00	0.00	0.00	0.00	5.0	5.0	0.0	7.93	109.6	3.17	30	5.12	1009.35	1018.10	1013.18	1019.04	1017.10	1023.00	CI#14-JB#16
15	End	42.978	0.00	0.00	0.00	0.00	5.0	5.1	0.0	31.33	57.66	7.67	36	0.54	1007.00	1007.23	1008.58	1009.04	0.00	1018.00	FE#17-CI#18
16	15	47.995	0.00	0.00	0.00	0.00	5.0	5.0	0.0	31.09	55.74	7.22	36	0.50	1007.33	1007.57	1009.04	1009.38	1018.00	1018.00	CI#18-CI#19
17	16	7.025	0.00	0.00	0.00	0.00	5.0	5.0	0.0	30.04	103.0	7.07	36	1.71	1007.67	1007.79	1009.38	1009.56	1018.00	1019.00	CI#19-OS#20
18	End	44.167	0.00	0.00	0.00	0.00	5.0	18.5	0.0	41.79	55.63	8.26	36	0.50	1008.00	1008.22	1009.94	1010.32	1.76	1019.90	FE #21-CI #22
19	18	112.792	0.00	0.00	0.00	0.00	5.0	18.3	0.0	38.48	34.15	7.84	30	0.50	1008.51	1009.07	1011.01	1011.72	1019.90	1020.00	CI #22-CI #23
20	19	163.887	0.00	0.00	0.00	0.00	5.0	17.9	0.0	37.83	34.28	7.71	30	0.50	1009.17	1009.99	1012.39	1013.39	1020.00	1021.20	CI #23-CI #24
21	20	142.862	0.00	0.00	0.00	0.00	5.0	17.5	0.0	28.54	34.41	5.81	30	0.50	1010.09	1010.81	1014.04	1014.53	1021.20	1020.50	CI #24-CI #25
22	21	229.104	0.00	0.00	0.00	0.00	5.0	16.8	0.0	26.28	34.34	5.35	30	0.50	1010.91	1012.06	1014.59	1015.27	1020.50	1020.10	CI #25-CI #26

Project File: 11-23-15 (100 Yr) Jeff.stm

Number of lines: 41

Run Date: 11/25/2015

NOTES: Known Qs only ; c = cir e = ellip b = box

Storm Sewer Tabulation

Station	Len	Drng Area		Rinoff coeff	Area x C		Tc		Rain (l)	Total flow	Cap full	Vel	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
		Incr	Total		Incr	Total	Inlet	Syst					Size	Slope	Dn	Up	Dn	Up	Dn	Up	
Line	To Line	(ft)	(ac)	(ac)	(C)		(min)	(min)	(in/hr)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
23	22	156.709	0.00	0.00	0.00	0.00	5.0	16.3	0.0	25.15	34.20	5.12	30	0.50	1012.16	1012.94	1015.31	1015.74	1020.10	1018.50	CI #26-CI #27
24	23	102.846	0.00	0.00	0.00	0.00	15.0	15.9	0.0	20.79	34.13	4.27	30	0.50	1013.04	1013.55	1015.78	1015.94	1018.50	1019.00	CI #27-CI #28
25	24	119.260	0.00	0.00	0.00	0.00	5.0	15.5	0.0	18.76	34.38	5.09	30	0.50	1013.65	1014.25	1016.01	1015.72	1019.00	1020.00	CI #28-JB #29
26	25	115.826	0.00	0.00	0.00	0.00	5.0	15.1	0.0	11.73	18.92	5.46	24	0.50	1014.35	1014.93	1015.72	1016.16	1020.00	1019.75	JB#29-JB#30
27	26	64.968	0.00	0.00	0.00	0.00	5.0	5.0	0.0	4.28	18.76	4.50	24	0.49	1016.58	1016.90	1017.23	1017.63	1019.75	1021.20	JB#30-SM#31
28	20	30.336	0.00	0.00	0.00	0.00	5.0	5.0	0.0	8.00	40.60	7.55	24	2.31	1016.20	1016.90	1016.80	1017.91	1021.20	1021.65	CI#24-SM#32
29	25	100.033	0.00	0.00	0.00	0.00	5.0	5.0	0.0	7.03	26.73	6.01	24	1.00	1015.90	1016.90	1016.60	1017.84	1020.00	1021.30	JB#29-SM#33
30	26	43.231	0.00	0.00	0.00	0.00	15.0	15.0	0.0	7.45	7.49	4.83	18	0.51	1015.03	1015.25	1016.25	1016.47	1019.75	1019.25	JB#30 - CI#34
31	End	28.503	0.00	0.00	0.00	0.00	5.0	5.0	0.0	1.94	12.52	4.33	18	1.02	1011.00	1011.29	1011.40	1011.82	1013.64	1020.90	FE#35-CI#36
32	End	29.868	0.00	0.00	0.00	0.00	5.0	8.7	0.0	35.79	49.96	7.54	36	0.40	1012.75	1012.87	1014.63	1014.81	0.00	1020.50	FE #37-CI #38
33	32	65.037	0.00	0.00	0.00	0.00	5.0	8.5	0.0	34.25	49.84	7.39	36	0.40	1012.97	1013.23	1014.81	1015.13	1020.50	1020.65	CI #38-JB #39
34	33	141.931	0.00	0.00	0.00	0.00	5.0	8.1	0.0	24.55	49.95	5.98	36	0.40	1013.33	1013.90	1015.13	1015.50	1019.00	1019.00	JB #39-GI #40
35	34	116.000	0.00	0.00	0.00	0.00	5.0	7.8	0.0	20.11	30.85	6.50	30	0.41	1014.00	1014.47	1015.50	1015.99	1019.00	1019.00	GI #40-GI #41
36	35	134.000	0.00	0.00	0.00	0.00	5.0	7.4	0.0	14.78	13.46	4.71	24	0.25	1014.57	1014.91	1016.57	1016.98	1019.00	1019.00	GI #41-GI #42
37	36	126.165	0.00	0.00	0.00	0.00	5.0	6.7	0.0	9.37	13.05	3.01	19	0.25	1015.01	1015.33	1017.36	1017.52	1019.00	1019.30	GI #42-CI #43
38	37	128.835	0.00	0.00	0.00	0.00	5.0	5.0	0.0	4.04	12.91	1.30	19	0.25	1015.43	1015.75	1017.68	1017.71	1019.30	1019.00	GI #43-GI #44
39	33	104.109	0.00	0.00	0.00	0.00	5.0	5.1	0.0	9.70	18.89	5.73	24	0.50	1016.03	1016.55	1017.05	1017.66	1020.65	1021.28	JB#39-JB#45
40	39	49.003	0.00	0.00	0.00	0.00	5.0	5.0	0.0	9.70	19.09	5.74	24	0.51	1016.65	1016.90	1017.66	1018.01	1021.28	1021.86	JB#45-SM#46
41	End	26.393	0.00	0.00	0.00	0.00	5.0	5.0	0.0	2.85	2.95	4.28	12	0.49	1013.00	1013.13	1013.79	1013.92	0.00	1019.70	FE#47-CI#48

Project File: 11-23-15 (100 Yr) Jeff.stm

Number of lines: 41

Run Date: 11/25/2015

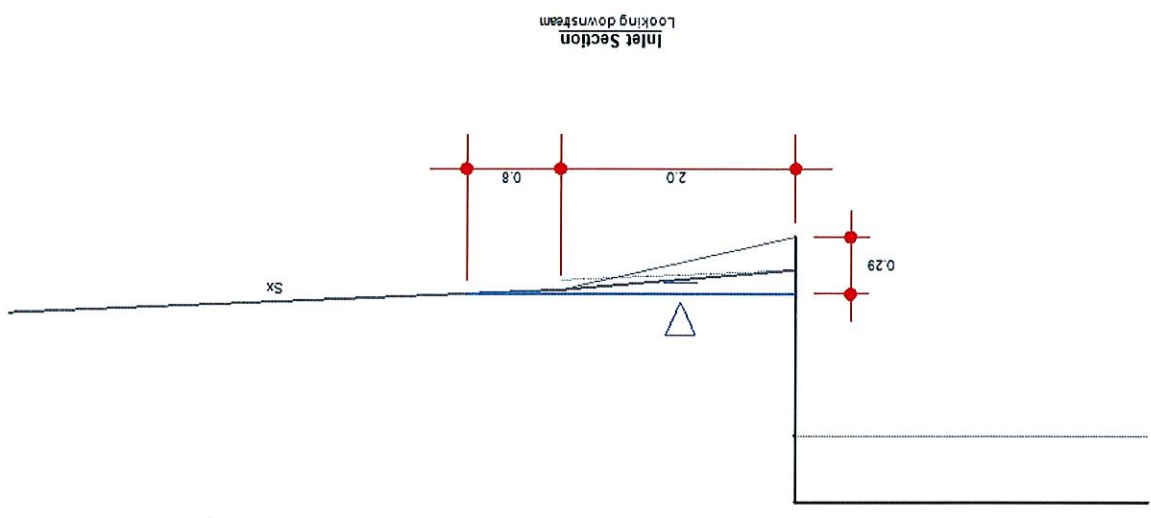
NOTES: Known Qs only ; c = cir e = ellip b = box

INLET ANALYSIS

Inlet Report

Curb Inlet #1 (100-Year)

Curb Inlet		Calculations	
Location	= On grade	Compute by:	Known Q
Curb Length (ft)	= 4.00	Q (cfs)	= 0.42
Throat Height (in)	= 8.00	Highlighted	
Grate Area (sqft)	= -0-	Q Total (cfs)	= 0.42
Grate Width (ft)	= -0-	Q Capt (cfs)	= 0.37
Grate Length (ft)	= -0-	Q Bypass (cfs)	= 0.05
Gutter		Depth at Inlet (in)	= 3.44
Slope, Sw (ft/ft)	= 0.050	Efficiency (%)	= 87
Slope, Sx (ft/ft)	= 0.025	Gutter Spread (ft)	= 2.80
Local Depr (in)	= 2.00	Gutter Vel (ft/s)	= 2.84
Gutter Width (ft)	= 2.00	Bypass Spread (ft)	= 1.20
Gutter Slope (%)	= 3.00	Bypass Depth (in)	= 0.72
Gutter n-value	= 0.016		

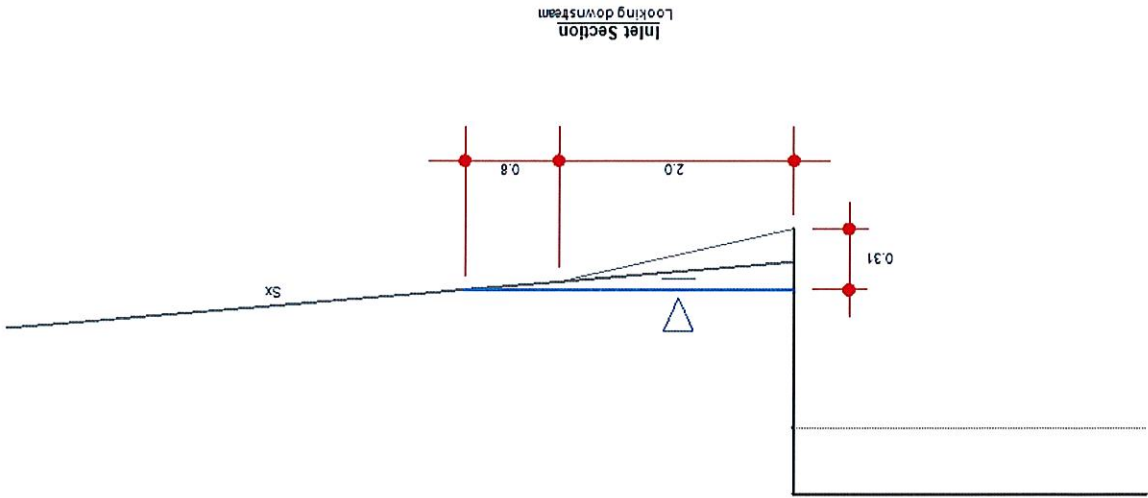


dimensions in feet

Inlet Report

Curb Inlet #2 (100-Year)

Curb Inlet		Calculations	
Location	= On grade	Compute by:	Known Q
Curb Length (ft)	= 4.00	Q (cfs)	= 0.73
Throat Height (in)	= 8.00	Highlighted	
Grate Area (sqft)	= -0-	Q Total (cfs)	= 0.73
Grate Width (ft)	= -0-	Q Capt (cfs)	= 0.52
Grate Length (ft)	= -0-	Q Bypass (cfs)	= 0.21
Gutter		Depth at Inlet (in)	= 3.68
Slope, Sw (ft/ft)	= 0.050	Efficiency (%)	= 71
Slope, Sx (ft/ft)	= 0.050	Gutter Spread (ft)	= 2.80
Local Depr (in)	= 2.00	Gutter Vel (ft/s)	= 3.72
Gutter Width (ft)	= 2.00	Bypass Spread (ft)	= 1.80
Gutter Slope (%)	= 4.00	Bypass Depth (in)	= 1.08
Gutter n-value	= 0.016		

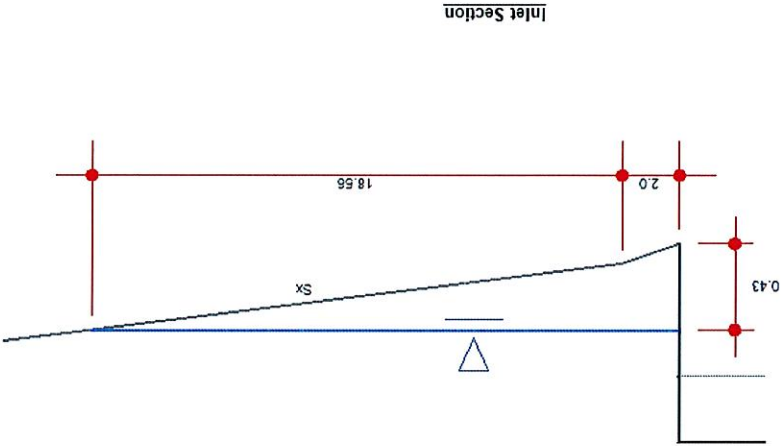


Inlet Report

Double Curb Inlet #5 (100-Year)

Curb Inlet		Location		= Sag	
		Curb Length (ft)		= 8.00	
		Throat Height (in)		= 8.00	
		Grate Area (sqft)		= -0-	
		Grate Width (ft)		= -0-	
		Grate Length (ft)		= -0-	
Gutter		Slope, Sw (ft/ft)		= 0.050	
		Slope, Sx (ft/ft)		= 0.018	
		Local Depr (in)		= -0-	
		Gutter Width (ft)		= 2.00	
		Gutter Slope (%)		= -0-	
		Gutter n-value		= -0-	
Calculations		Compute by:		Known Q	
		Q (cfs)		= 6.87	
Highlighted		Q Total (cfs)		= 6.87	
		Q Capt (cfs)		= 6.87	
		Q Bypass (cfs)		= -0-	
		Depth at Inlet (in)		= 5.21	
		Efficiency (%)		= 100	
		Gutter Spread (ft)		= 20.56	
		Gutter Vel (ft/s)		= -0-	
		Bypass Spread (ft)		= -0-	
		Bypass Depth (in)		= -0-	

dimensions in feet



Curb Inlet #6 (100-Year)

Hydralflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Tuesday, Nov 24 2015

Curb Inlet

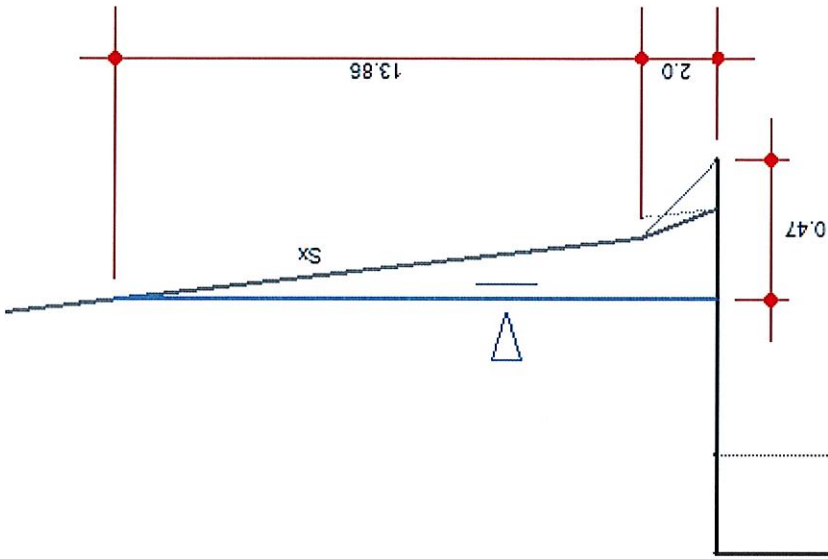
Location	=	Sag
Curb Length (ft)	=	4.00
Throat Height (in)	=	8.00
Grate Area (sqft)	=	-0-
Gate Width (ft)	=	-0-
Gate Length (ft)	=	-0-

Gutter

Slope, Sw (ft/ft)	= 0.050
Slope, Sx (ft/ft)	= 0.015
Local Depr (in)	= 2.00
Gutter Width (ft)	= 2.00
Gutter Slope (%)	= -0-
Gutter n-value	= -0-

Calculations	
Compute by:	Q (cfs)
Known Q	= 2.99
Highlighted	
Q Total (cfs)	= 2.99
Q Capt (cfs)	= 2.99
Q Bypass (cfs)	= -0-
Depth at Inlet (in)	= 5.70
Efficiency (%)	= 100
Gutter Spread (ft)	= 15.86
Gutter Vel (ft/s)	= 0.67
Bypass Spread (ft)	= -0-
Bypass Depth (in)	= -0-

Dimensions in feet



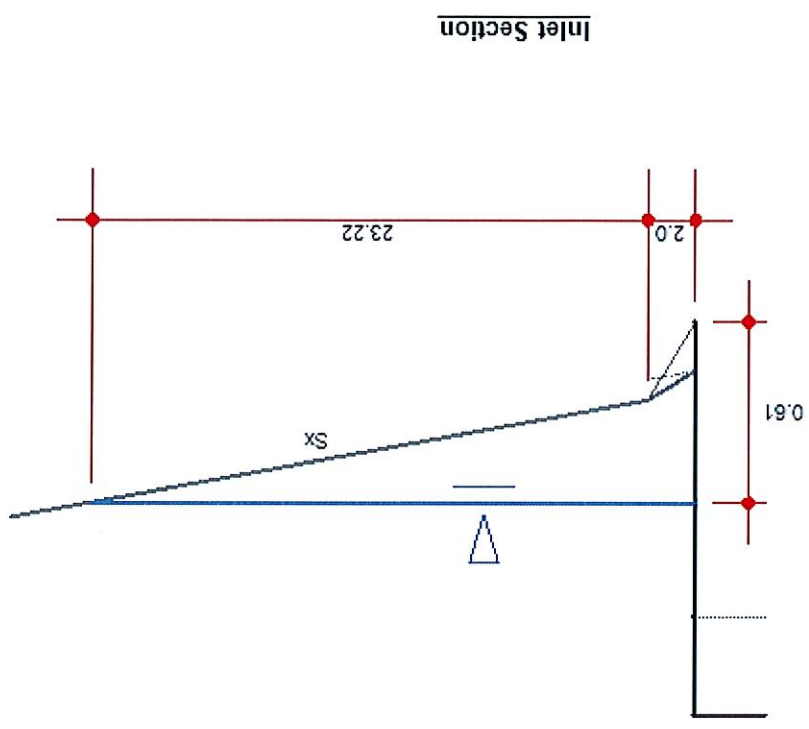
Inlet Section

Inlet Report

Curb Inlet #7 (100-Year)

Curb Inlet		
Location	= Sag	
Curb Length (ft)	= 4.00	
Throat Height (in)	= 8.00	
Grate Area (sqft)	= -0-	
Grate Width (ft)	= -0-	
Grate Length (ft)	= -0-	
Gutter		
Slope, Sw (ft/ft)	= 0.050	
Slope, Sx (ft/ft)	= 0.015	
Local Depr (in)	= 2.00	
Gutter Width (ft)	= 2.00	
Gutter Slope (%)	= -0-	
Gutter n-value	= -0-	
Calculations		
Compute by:	Known Q	
Q (cfs)	= 5.25	
Highlighted		
Q Total (cfs)	= 5.25	
Q Capt (cfs)	= 5.25	
Q Bypass (cfs)	= -0-	
Depth at Inlet (in)	= 7.38	
Efficiency (%)	= 100	
Gutter Spread (ft)	= 25.22	
Gutter Vel (ft/s)	= 0.67	
Bypass Spread (ft)	= -0-	
Bypass Depth (in)	= -0-	

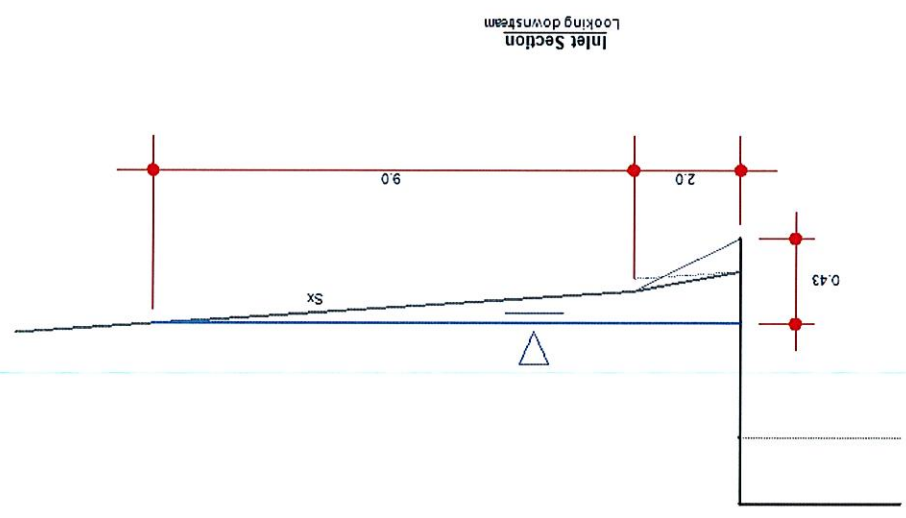
All dimensions in feet



Inlet Report

Curb Inlet #8 (100-Year)

Curb Inlet		
Location	= On grade	
Curb Length (ft)	= 4.00	
Throat Height (in)	= 8.00	
Grate Area (sqft)	= -0-	
Grate Width (ft)	= -0-	
Grate Length (ft)	= -0-	
Gutter		
Slope, Sw (ft/ft)	= 0.050	
Slope, Sx (ft/ft)	= 0.018	
Local Depr (in)	= 2.00	
Gutter Width (ft)	= 2.00	
Gutter Slope (%)	= 2.00	
Gutter n-value	= 0.013	
Calculations		
Compute by:	Known Q	
Q (cfs)	= 5.06	
Highlighted		
Q Total (cfs)	= 5.06	
Q Capt (cfs)	= 1.61	
Q Bypass (cfs)	= 3.45	
Depth at Inlet (in)	= 5.14	
Efficiency (%)	= 32	
Gutter Spread (ft)	= 11.00	
Gutter Vel (ft/s)	= 4.39	
Bypass Spread (ft)	= 9.78	
Bypass Depth (in)	= 2.88	



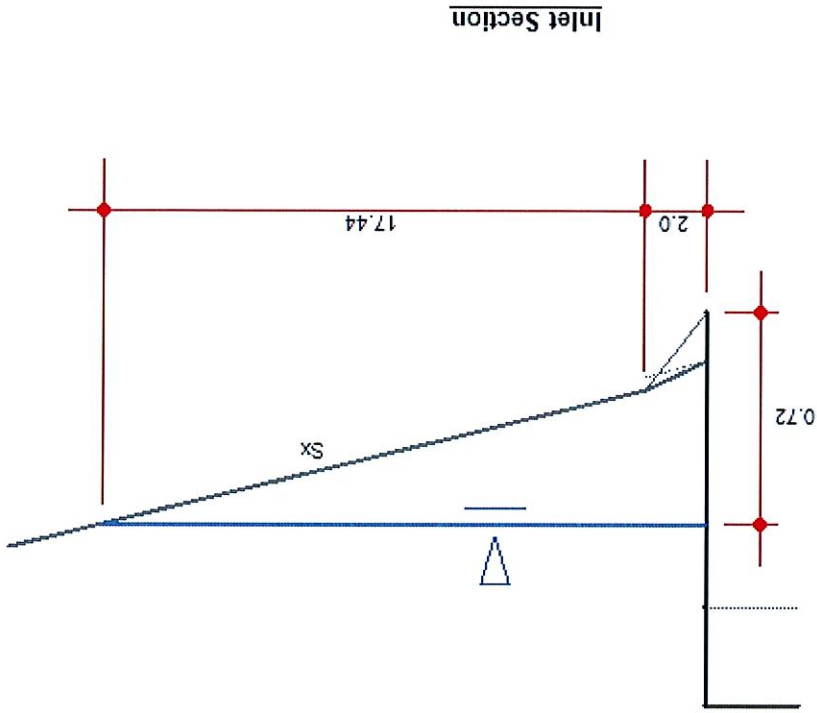
dimensions in feet

Inlet Report

Double Curb Inlet #11 (100-Year)

Curb Inlet		Calculations	
Location	= Sag	Compute by:	Known Q
Curb Length (ft)	= 8.00	Q (cfs)	= 10.99
Throat Height (in)	= 8.00	Highlighted	
Grate Area (sqft)	= -0-	Q Total (cfs)	= 10.99
Grate Width (ft)	= -0-	Q Capt (cfs)	= 10.99
Grate Length (ft)	= -0-	Q Bypass (cfs)	= -0-
Gutter		Depth at Inlet (in)	= 8.64
Slope, Sw (ft/ft)	= 0.050	Efficiency (%)	= 100
Slope, Sx (ft/ft)	= 0.026	Gutter Spread (ft)	= 19.44
Local Depr (in)	= 2.00	Gutter Vel (ft/s)	= 0.76
Gutter Width (ft)	= 2.00	Bypass Spread (ft)	= -0-
Gutter Slope (%)	= -0-	Bypass Depth (in)	= -0-
Gutter n-value	= -0-		

All dimensions in feet

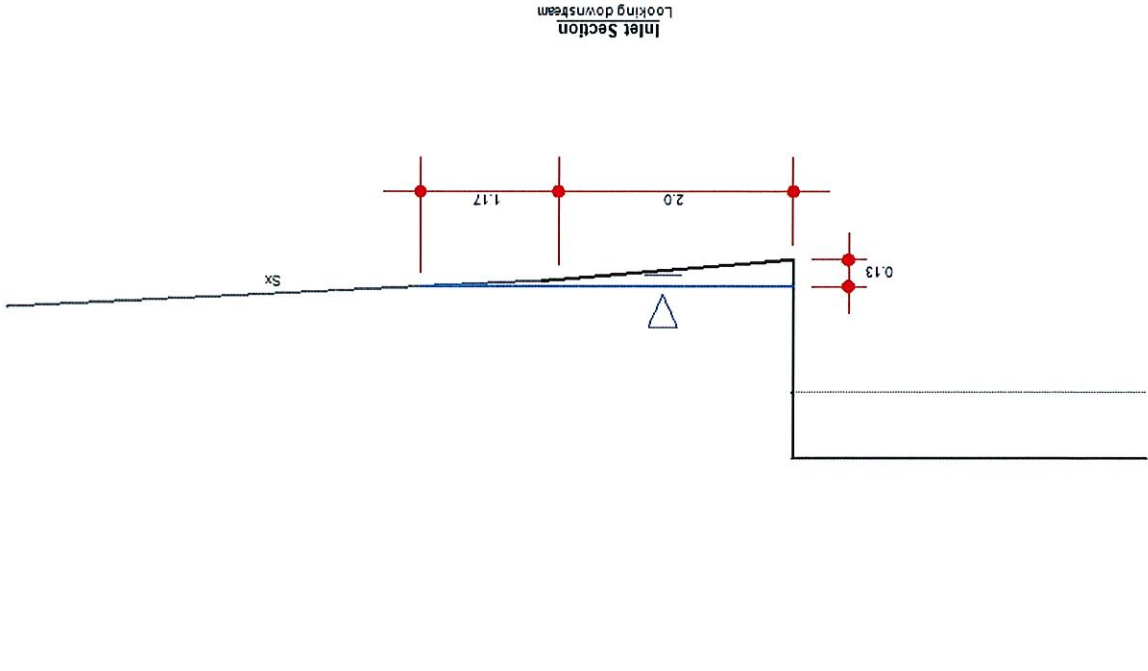


Inlet Section

Inlet Report

Grated Curb Inlet #12 (100-Year)

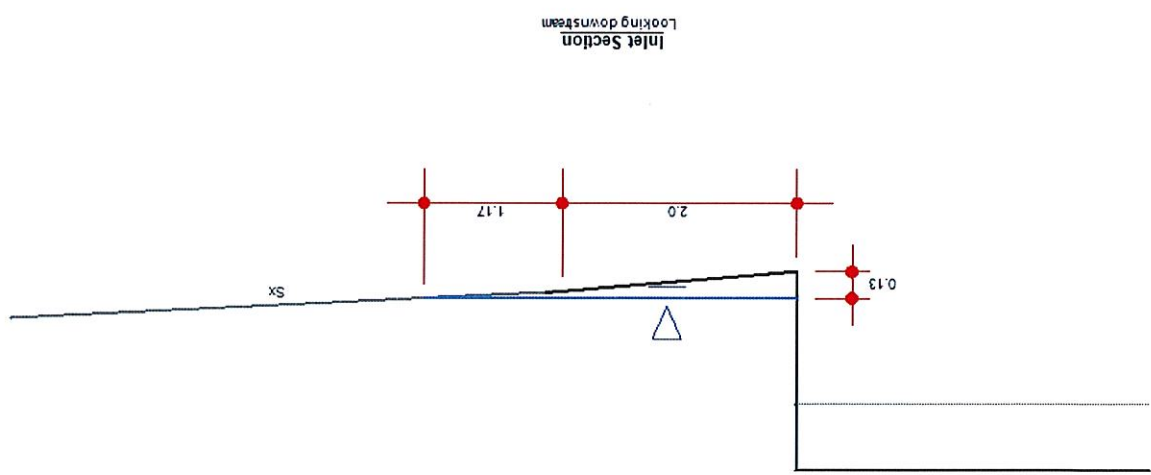
Combination Inlet		Location	= On grade
		Curb Length (ft)	= 3.13
		Throat Height (in)	= 8.00
		Grate Area (sqft)	= -0-
		Grate Width (ft)	= 2.13
		Grate Length (ft)	= 3.13
Gutter		Slope, Sw (ft/ft)	= 0.050
		Slope, Sx (ft/ft)	= 0.029
		Local Depr (in)	= -0-
		Gutter Width (ft)	= 2.00
		Gutter Slope (%)	= 2.00
		Gutter n-value	= 0.013
Calculations		Compute by:	Q (cfs)
		Known Q	= 0.57
Highlighted		Q Total (cfs)	= 0.57
		Q Capt (cfs)	= 0.56
		Q Bypass (cfs)	= 0.01
		Depth at Inlet (in)	= 1.61
		Efficiency (%)	= 98
		Gutter Spread (ft)	= 3.17
		Gutter Vel (ft/s)	= 3.03
		Bypass Spread (ft)	= 0.80
		Bypass Depth (in)	= 0.48



Inlet Report

Grated Curb Inlet #13 (100-Year)

Combination Inlet		Location	= On grade
		Curb Length (ft)	= 3.13
		Throat Height (in)	= 8.00
		Grate Area (sqft)	= -0-
		Grate Width (ft)	= 2.13
		Grate Length (ft)	= 3.13
Gutter		Slope, Sw (ft/ft)	= 0.050
		Slope, Sx (ft/ft)	= 0.029
		Local Depr (in)	= -0-
		Gutter Width (ft)	= 2.00
		Gutter Slope (%)	= 2.00
		Gutter n-value	= 0.013
Calculations		Compute by:	Known Q
		Q (cfs)	= 0.57
Highlighted		Q Total (cfs)	= 0.57
		Q Capt (cfs)	= 0.56
		Q Bypass (cfs)	= 0.01
		Depth at Inlet (in)	= 1.61
		Efficiency (%)	= 98
		Gutter Spread (ft)	= 3.17
		Gutter Vel (ft/s)	= 3.03
		Bypass Spread (ft)	= 0.80
		Bypass Depth (in)	= 0.48



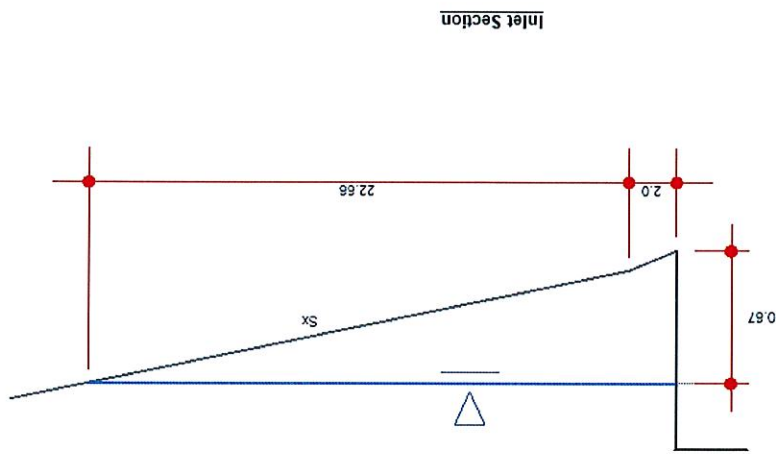
dimensions in feet

Inlet Report

Curb Inlet #14 (100-Year)

Curb Inlet	
Location	= Sag
Curb Length (ft)	= 8.00
Throat Height (in)	= 8.00
Grate Area (sqft)	= -0-
Grate Width (ft)	= -0-
Grate Length (ft)	= -0-
Gutter	
Slope, Sw (ft/ft)	= 0.050
Slope, Sx (ft/ft)	= 0.025
Local Depr (in)	= -0-
Gutter Width (ft)	= 2.00
Gutter Slope (%)	= -0-
Gutter n-value	= -0-

Calculations	
Compute by:	Known Q
Q (cfs)	= 13.06
Highlighted	
Q Total (cfs)	= 13.06
Q Capt (cfs)	= 13.06
Q Bypass (cfs)	= -0-
Depth at Inlet (in)	= 8.00
Efficiency (%)	= 100
Gutter Spread (ft)	= 24.66
Gutter Vel (ft/s)	= 0.50
Bypass Spread (ft)	= -0-
Bypass Depth (in)	= -0-



Inlet Section

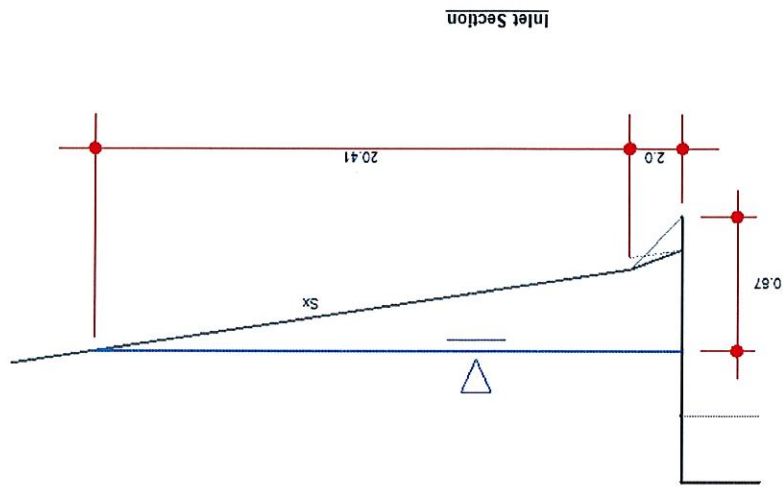
Inlet Report

Curb Inlet #15 (100-Year)

Curb Inlet		
Location	= Sag	
Curb Length (ft)	= 8.00	
Throat Height (in)	= 8.00	
Grate Area (sqft)	= -0-	
Grate Width (ft)	= -0-	
Grate Length (ft)	= -0-	
Gutter		
Slope, Sw (ft/ft)	= 0.050	
Slope, Sx (ft/ft)	= 0.020	
Local Depr (in)	= 2.00	
Gutter Width (ft)	= 2.00	
Gutter Slope (%)	= -0-	
Gutter n-value	= -0-	

Calculations		
Compute by:	Known Q	
Q (cfs)	= 9.67	
Highlighted		
Q Total (cfs)	= 9.67	
Q Capt (cfs)	= 9.67	
Q Bypass (cfs)	= -0-	
Depth at Inlet (in)	= 8.10	
Efficiency (%)	= 100	
Gutter Spread (ft)	= 22.41	
Gutter Vel (ft/s)	= 3.03	
Bypass Spread (ft)	= -0-	
Bypass Depth (in)	= -0-	

dimensions in feet

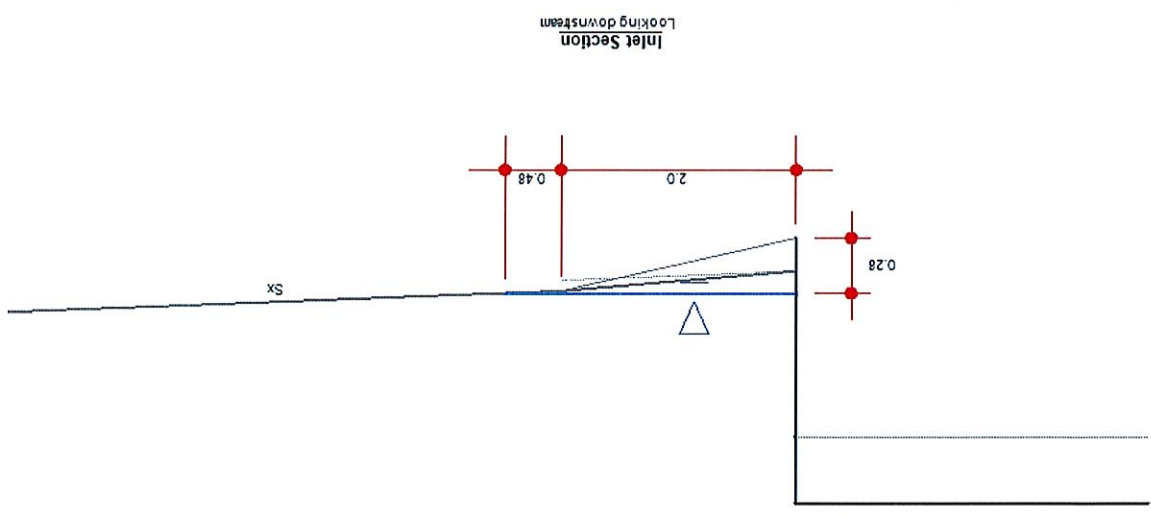


Inlet Report

Curb Inlet #18 (100-Year)

Curb Inlet		Location		= On grade	
		Curb Length (ft)		= 4.00	
		Throat Height (in)		= 8.00	
		Grate Area (sqft)		= -0-	
		Grate Width (ft)		= -0-	
		Grate Length (ft)		= -0-	
Gutter		Slope, Sw (ft/ft)		= 0.050	
		Slope, Sx (ft/ft)		= 0.023	
		Local Depr (in)		= 2.00	
		Gutter Width (ft)		= 2.00	
		Gutter Slope (%)		= 1.00	
		Gutter n-value		= 0.013	
Calculations		Compute by:		Known Q	
		Q (cfs)		= 0.24	
Highlighted		Q Total (cfs)		= 0.24	
		Q Capt (cfs)		= 0.24	
		Q Bypass (cfs)		= -0-	
		Depth at Inlet (in)		= 3.33	
		Efficiency (%)		= 100	
		Gutter Spread (ft)		= 2.48	
		Gutter Vel (ft/s)		= 1.93	
		Bypass Spread (ft)		= -0-	
		Bypass Depth (in)		= -0-	

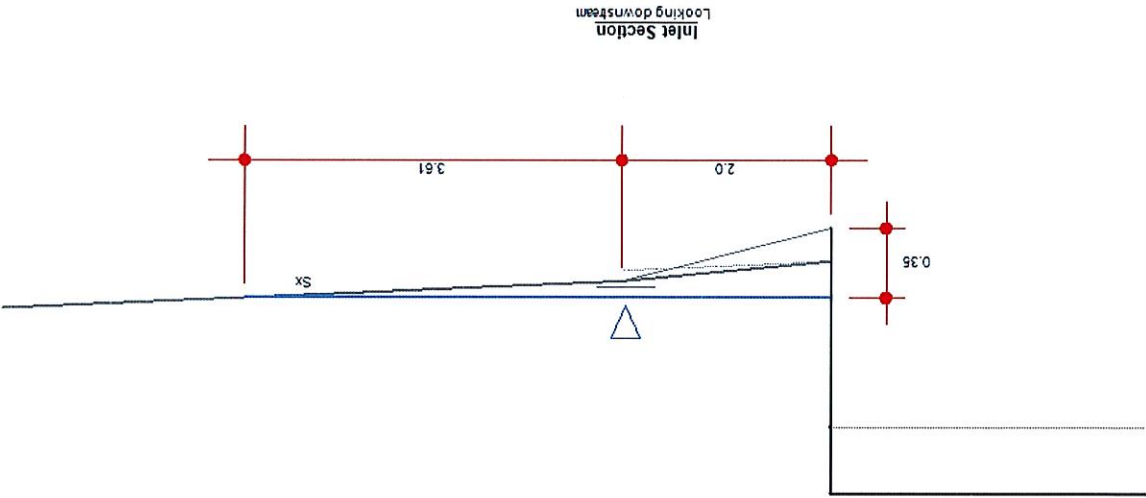
dimensions in feet



Inlet Report

Curb Inlet #19 (100-Year)

Curb Inlet		Calculations	
Location	= On grade	Compute by:	Known Q
Curb Length (ft)	= 4.00	Q (cfs)	= 1.05
Throat Height (in)	= 8.00	Highlighted	
Grate Area (sqft)	= -0-	Q Total (cfs)	= 1.05
Grate Width (ft)	= -0-	Q Capt (cfs)	= 0.82
Grate Length (ft)	= -0-	Q Bypass (cfs)	= 0.23
Gutter		Depth at Inlet (in)	
Slope, Sw (ft/ft)	= 0.050	Efficiency (%)	= 78
Slope, Sx (ft/ft)	= 0.023	Gutter Spread (ft)	= 5.61
Local Depr (in)	= 2.00	Gutter Vel (ft/s)	= 2.53
Gutter Width (ft)	= 2.00	Bypass Spread (ft)	= 2.43
Gutter Slope (%)	= 1.00	Bypass Depth (in)	= 1.32
Gutter n-value	= 0.013		

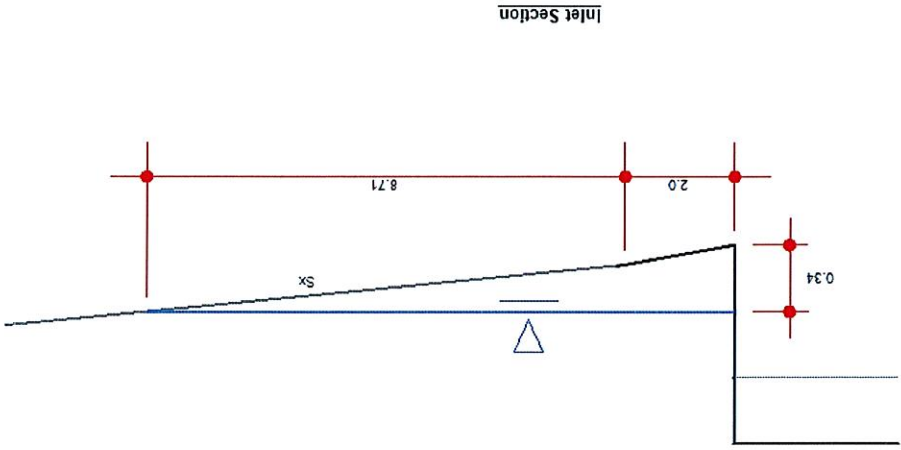


dimensions in feet

Inlet Report

Grated Curb Inlet #22 (100-Year)

Combination Inlet		Calculations	
Location	= Sag	Compute by:	Known Q
Curb Length (ft)	= 3.13	Q (cfs)	= 3.31
Throat Height (in)	= 8.00	Highlighted	
Grate Area (sqft)	= 2.00	Q Total (cfs)	= 3.31
Grate Width (ft)	= 2.13	Q Capt (cfs)	= 3.31
Grate Length (ft)	= 3.13	Q Bypass (cfs)	= -0-
Gutter		Depth at Inlet (in)	= 4.02
Slope, Sw (ft/ft)	= 0.050	Efficiency (%)	= 100
Slope, Sx (ft/ft)	= 0.027	Gutter Spread (ft)	= 10.71
Local Depr (in)	= -0-	Gutter Vel (ft/s)	= -0-
Gutter Width (ft)	= 2.00	Bypass Spread (ft)	= -0-
Gutter Slope (%)	= -0-	Bypass Depth (in)	= -0-
Gutter n-value	= -0-		

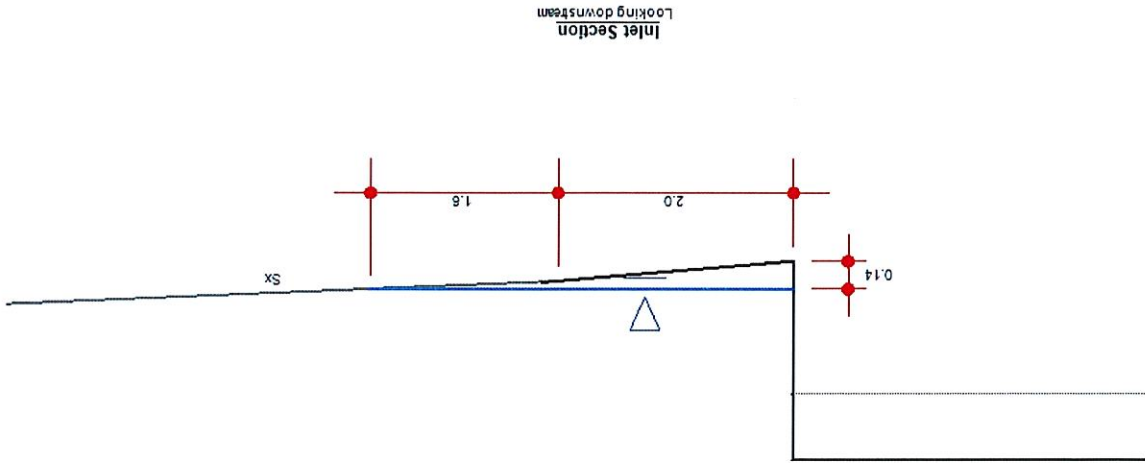


Grated Curb Inlet #23 (100-Year)

Hydralow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Tuesday, Dec 1 2015

Combination Inlet		Gutter	
Location	= On grade	Slope, Sw (ft/ft)	= 0.050
Curb Length (ft)	= 3.13	Slope, Sx (ft/ft)	= 0.025
Throat Height (in)	= 8.00	Local Depr (in)	= -0-
Grate Area (sqft)	= -0-	Gutter Width (ft)	= 2.00
Grate Width (ft)	= 2.13	Gutter Slope (%)	= 2.00
Grate Length (ft)	= 3.13	Gutter n-value	= 0.013
		Highlighted	
Q Total (cfs)	= 0.65	Q Bypass (cfs)	= 0.03
Q Capt (cfs)	= 0.62	Depth at Inlet (in)	= 1.68
		Efficiency (%)	= 96
		Gutter Spread (ft)	= 3.60
		Gutter Vel (ft/s)	= 3.07
		Bypass Spread (ft)	= 1.00
		Bypass Depth (in)	= 0.60
Compute by: Known Q		Q (cfs) = 0.65	
Calculations			



dimensions in feet

Grated Curb Inlet #24 (100-Year)

Hydralow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Tuesday, Dec 1 2015

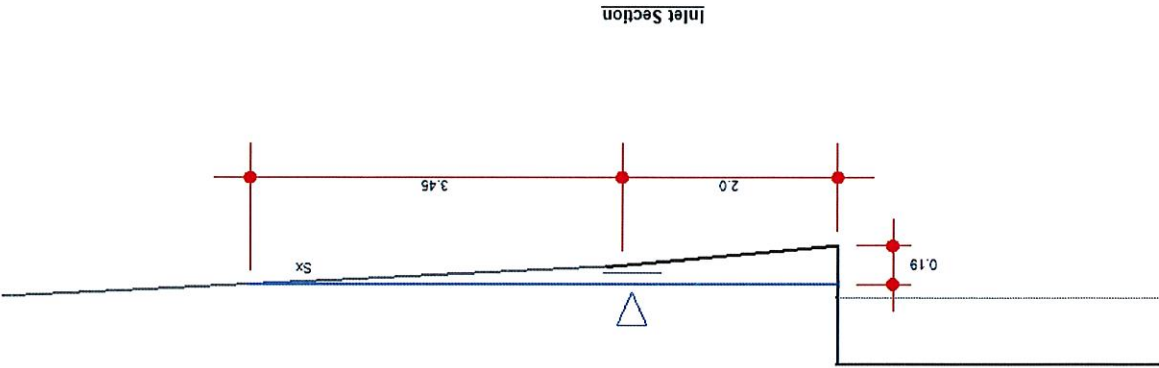
Combination Inlet

Location	Curb Length (ft)	Throat Height (in)	Grate Area (sqft)	Gate Width (ft)	Gate Length (ft)
Sag	= 4.00	= 3.13	= 2.00	= 2.13	= 3.13

Gutter	
Slope, Sw (ft/ft)	= 0.050
Slope, Sx (ft/ft)	= 0.027
Local Depr (in)	= -0-
Gutter Width (ft)	= 2.00
Gutter Slope (%)	= -0-
Gutter n-value	= -0-

Calculations

Compute by:	Q (cfs)	= 1.29
Known Q		
Highlighted		
Q Total (cfs)	=	1.29
Q Capt (cfs)	=	1.29
Q Bypass (cfs)	=	-0-
Depth at Inlet (in)	=	2.32
Efficiency (%)	=	100
Gutter Spread (ft)	=	5.45
Gutter Vel (ft/s)	=	-0-
Bypass Spread (ft)	=	-0-
Bypass Depth (in)	=	-0-

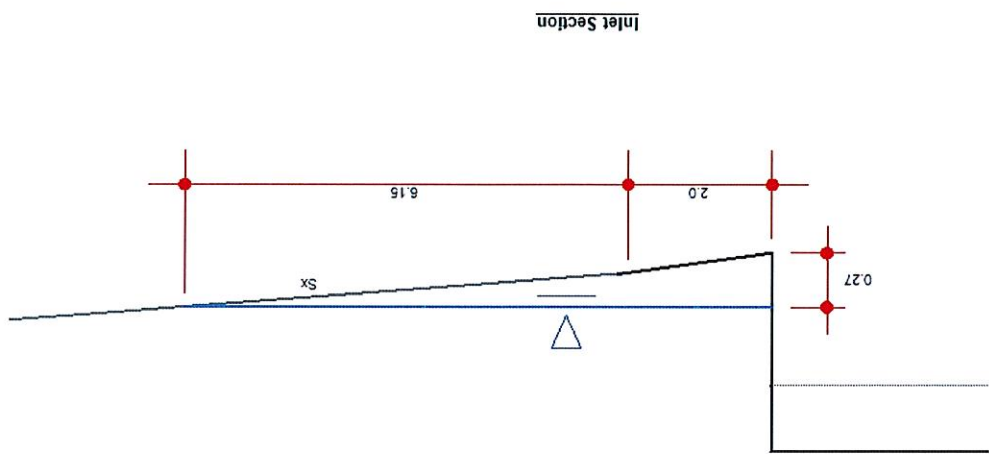


Inlet Report

Grated Curb Inlet #25 (100-Year)

Combination Inlet		Location	= Sag
		Curb Length (ft)	= 3.13
		Throat Height (in)	= 8.00
		Grate Area (sqft)	= 2.00
		Grate Width (ft)	= 2.13
		Grate Length (ft)	= 3.13
Gutter		Slope, Sw (ft/ft)	= 0.050
		Slope, Sx (ft/ft)	= 0.028
		Local Depr (in)	= -0-
		Gutter Width (ft)	= 2.00
		Gutter Slope (%)	= -0-
		Gutter n-value	= -0-
Calculations		Compute by:	Known Q
		Q (cfs)	= 2.26
Highlighted		Q Total (cfs)	= 2.26
		Q Capt (cfs)	= 2.26
		Q Bypass (cfs)	= -0-
		Depth at Inlet (in)	= 3.27
		Efficiency (%)	= 100
		Gutter Spread (ft)	= 8.15
		Gutter Vel (ft/s)	= -0-
		Bypass Spread (ft)	= -0-
		Bypass Depth (in)	= -0-

dimensions in feet

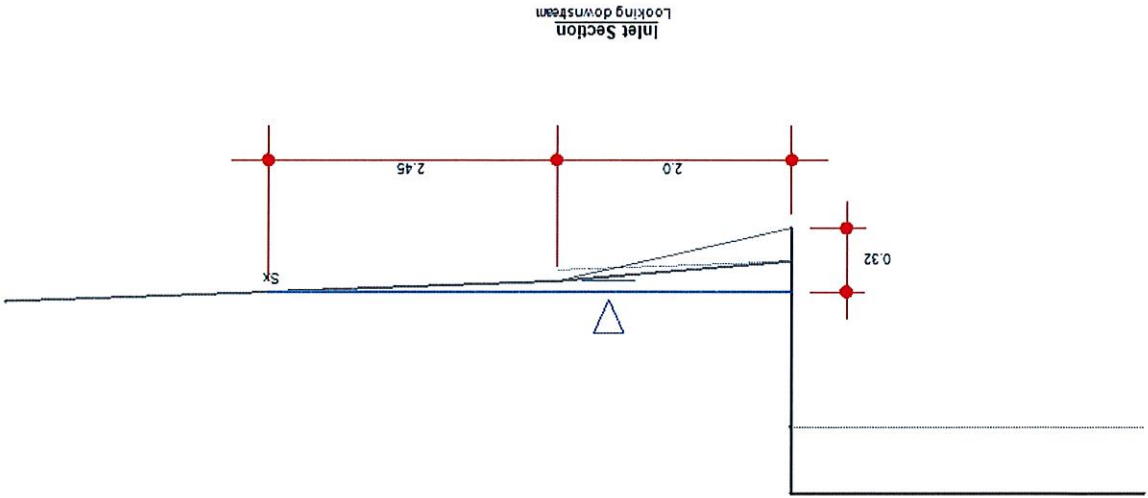


Inlet Report

Curb Inlet #26 (100-Year)

Curb Inlet		Location		= On grade	
Curb Length (ft)		= 4.00			
Throat Height (in)		= 8.00			
Grate Area (sqft)		= -0-			
Grate Width (ft)		= -0-			
Grate Length (ft)		= -0-			
Gutter		Slope, Sw (ft/ft)		= 0.050	
Slope, Sx (ft/ft)		= 0.022			
Local Depr (in)		= 2.00			
Gutter Width (ft)		= 2.00			
Gutter Slope (%)		= 5.00			
Gutter n-value		= 0.016			
Calculations		Compute by:		Known Q	
Q (cfs)				= 1.13	
Highlighted		Q Total (cfs)		= 1.13	
Q Capt (cfs)		= 0.63			
Q Bypass (cfs)		= 0.50			
Depth at Inlet (in)		= 3.85			
Efficiency (%)		= 56			
Gutter Spread (ft)		= 4.45			
Gutter Vel (ft/s)		= 4.12			
Bypass Spread (ft)		= 2.91			
Bypass Depth (in)		= 1.44			

dimensions in feet

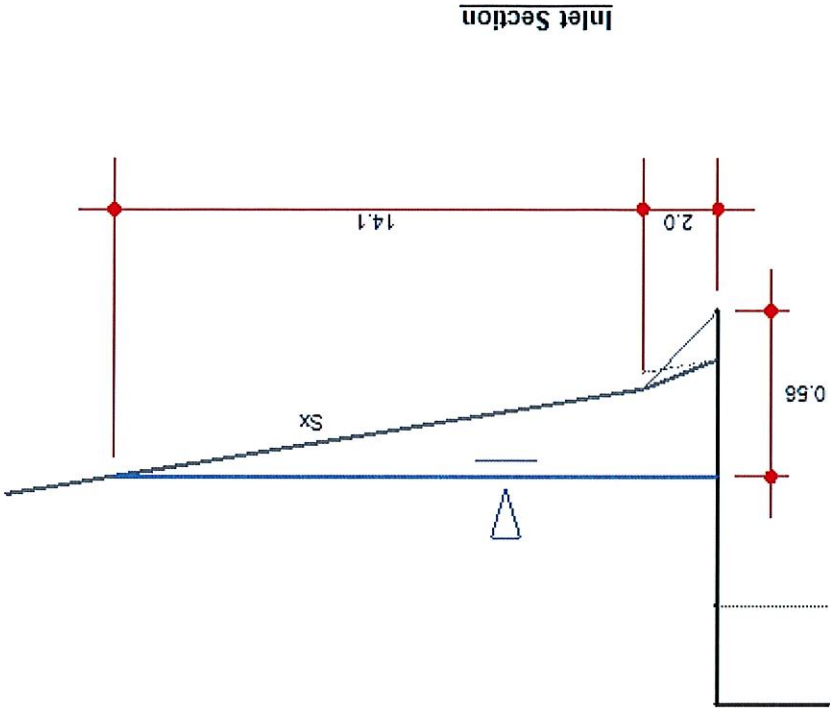


Inlet Report

Curb Inlet #27 (100-Year)

Curb Inlet		Calculations	
Location	= Sag	Compute by:	Known Q
Curb Length (ft)	= 4.00	Q (cfs)	= 4.36
Throat Height (in)	= 8.00	Highlighted	
Grate Area (sqft)	= -0-	Q Total (cfs)	= 4.36
Grate Width (ft)	= -0-	Q Capt (cfs)	= 4.36
Grate Length (ft)	= -0-	Q Bypass (cfs)	= -0-
Gutter		Depth at Inlet (in)	= 6.75
Slope, Sw (ft/ft)	= 0.050	Efficiency (%)	= 100
Slope, Sx (ft/ft)	= 0.021	Gutter Spread (ft)	= 16.10
Local Depr (in)	= 2.00	Gutter Vel (ft/s)	= 0.59
Gutter Width (ft)	= 2.00	Bypass Spread (ft)	= -0-
Gutter Slope (%)	= -0-	Bypass Depth (in)	= -0-
Gutter n-value	= -0-		

All dimensions in feet



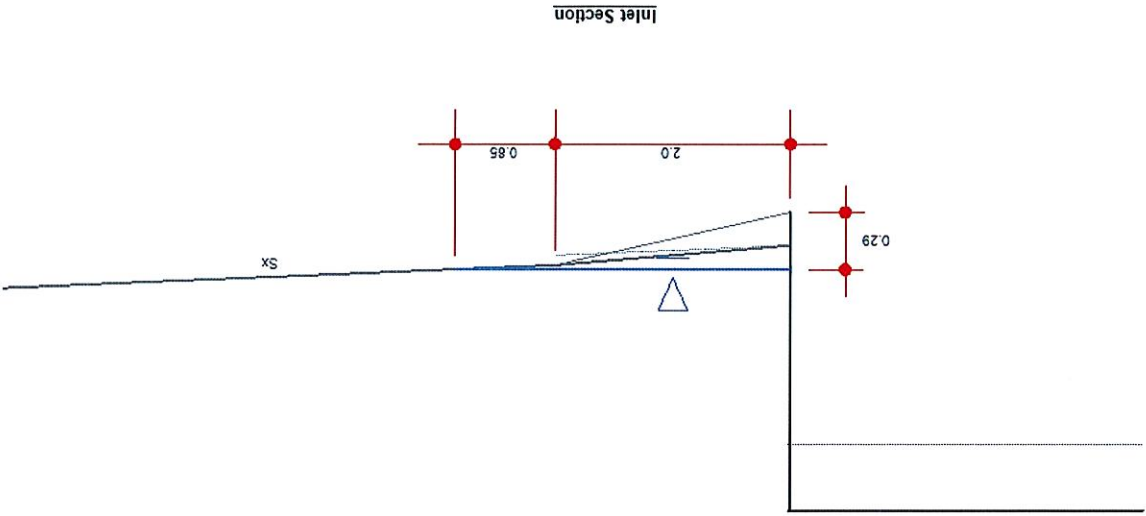
Inlet Section

Inlet Report

Area Inlet #28 (100-Year)

Curb Inlet	
Location	= Sag
Curb Length (ft)	= 16.00
Throat Height (in)	= 10.00
Grate Area (sqft)	= -0-
Grate Width (ft)	= -0-
Grate Length (ft)	= -0-
Gutter	
Slope, Sw (ft/ft)	= 0.050
Slope, Sx (ft/ft)	= 0.025
Local Depr (in)	= 2.00
Gutter Width (ft)	= 2.00
Gutter Slope (%)	= -0-
Gutter n-value	= -0-
Calculations	
Compute by:	Known Q
Q (cfs)	= 2.03
Highlighted	
Q Total (cfs)	= 2.03
Q Capt (cfs)	= 2.03
Q Bypass (cfs)	= -0-
Depth at Inlet (in)	= 3.46
Efficiency (%)	= 100
Gutter Spread (ft)	= 2.85
Gutter Vel (ft/s)	= 0.67
Bypass Spread (ft)	= -0-
Bypass Depth (in)	= -0-

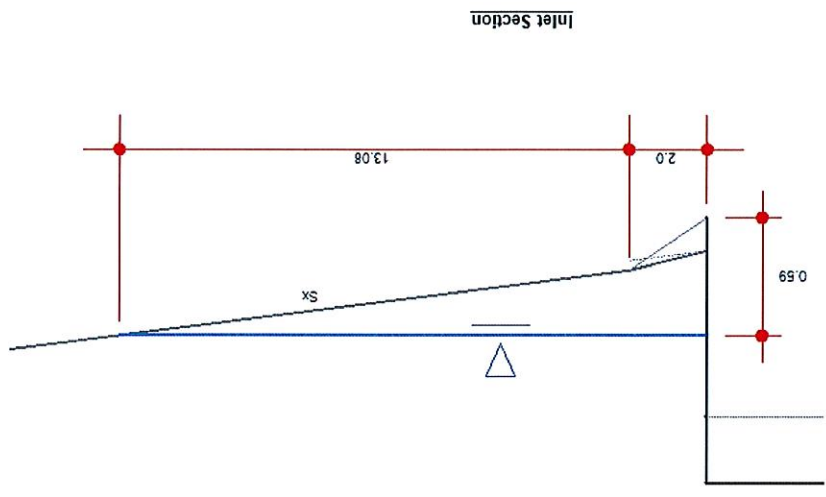
dimensions in feet



Inlet Report

Curb Inlet #34 (100-Year)

Curb Inlet		
Location	= Sag	
Curb Length (ft)	= 8.00	
Throat Height (in)	= 8.00	
Grate Area (sqft)	= -0-	
Grate Width (ft)	= -0-	
Grate Length (ft)	= -0-	
Gutter		
Slope, Sw (ft/ft)	= 0.050	
Slope, Sx (ft/ft)	= 0.025	
Local Depr (in)	= 2.00	
Gutter Width (ft)	= 2.00	
Gutter Slope (%)	= -0-	
Gutter n-value	= -0-	
Calculations		
Compute by:	Known Q	
Q (cfs)	= 7.45	
Highlighted		
Q Total (cfs)	= 7.45	
Q Capt (cfs)	= 7.45	
Q Bypass (cfs)	= -0-	
Depth at Inlet (in)	= 7.12	
Efficiency (%)	= 100	
Gutter Spread (ft)	= 15.08	
Gutter Vel (ft/s)	= 0.67	
Bypass Spread (ft)	= -0-	
Bypass Depth (in)	= -0-	



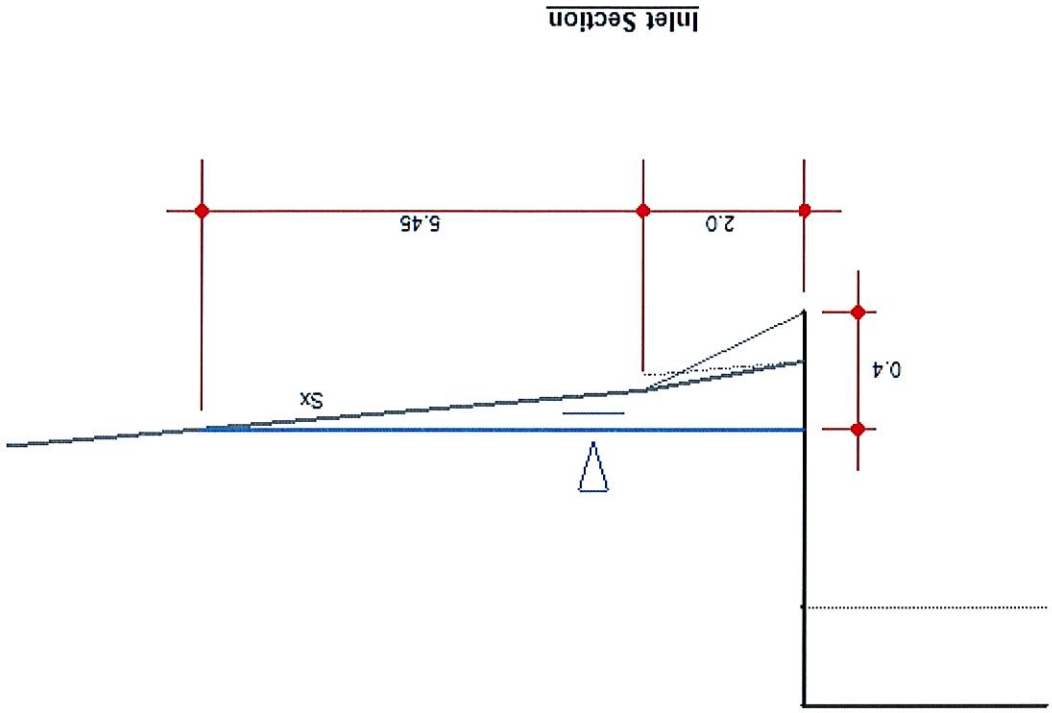
dimensions in feet

Inlet Report

Curb Inlet #36 (100-Year)

Curb Inlet		Calculations	
Location	= Sag	Compute by:	Known Q
Curb Length (ft)	= 4.00	Q (cfs)	= 1.94
Throat Height (in)	= 8.00	Highlighted	
Grate Area (sqft)	= -0-	Q Total (cfs)	= 1.94
Grate Width (ft)	= -0-	Q Capt (cfs)	= 1.94
Grate Length (ft)	= -0-	Q Bypass (cfs)	= -0-
Gutter		Depth at Inlet (in)	= 4.77
Slope, Sw (ft/ft)	= 0.050	Efficiency (%)	= 100
Slope, Sx (ft/ft)	= 0.024	Gutter Spread (ft)	= 7.45
Local Depr (in)	= 2.00	Gutter Vel (ft/s)	= 0.59
Gutter Width (ft)	= 2.00	Bypass Spread (ft)	= -0-
Gutter Slope (%)	= -0-	Bypass Depth (in)	= -0-
Gutter n-value	= -0-		

all dimensions in feet

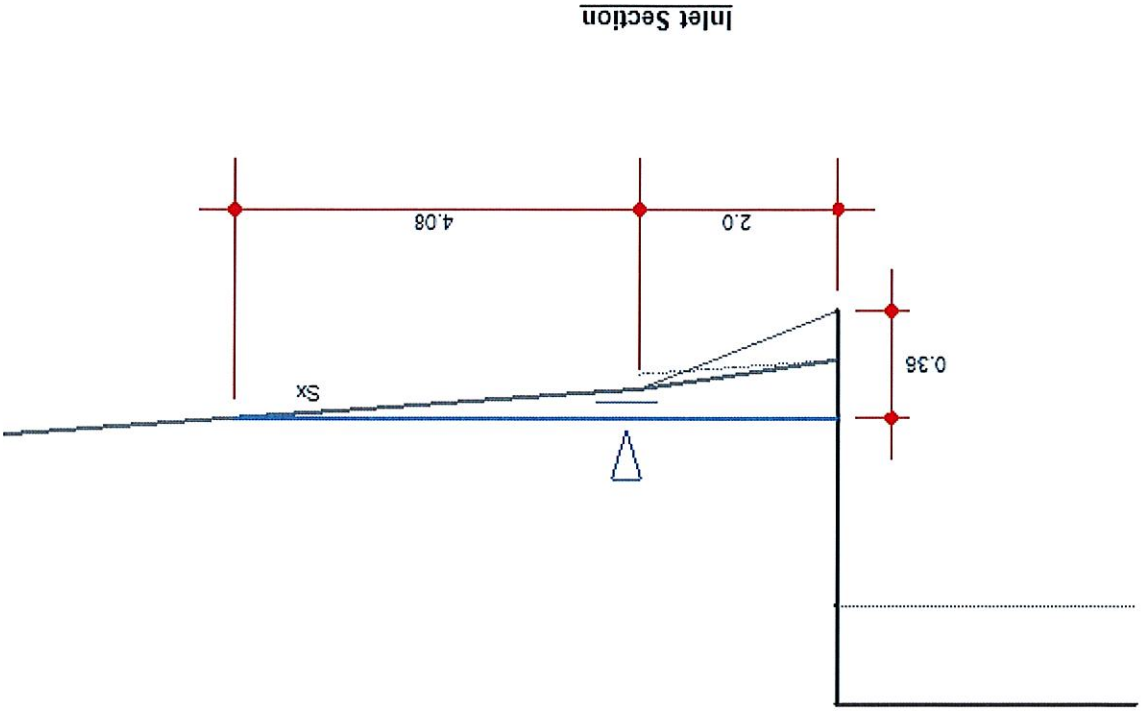


Inlet Report

Curb Inlet #38 (100-Year)

Curb Inlet		
Location	= Sag	
Curb Length (ft)	= 4.00	
Throat Height (in)	= 8.00	
Grate Area (sqft)	= -0-	
Grate Width (ft)	= -0-	
Grate Length (ft)	= -0-	
Gutter		
Slope, Sw (ft/ft)	= 0.050	
Slope, Sx (ft/ft)	= 0.024	
Local Depr (in)	= 2.00	
Gutter Width (ft)	= 2.00	
Gutter Slope (%)	= -0-	
Gutter n-value	= -0-	
Calculations		
Compute by:	Known Q	
Q (cfs)	= 1.54	
Highlighted		
Q Total (cfs)	= 1.54	
Q Capt (cfs)	= 1.54	
Q Bypass (cfs)	= -0-	
Depth at Inlet (in)	= 4.37	
Efficiency (%)	= 100	
Gutter Spread (ft)	= 6.08	
Gutter Vel (ft/s)	= 0.59	
Bypass Spread (ft)	= -0-	
Bypass Depth (in)	= -0-	

All dimensions in feet



Curb Inlet #43 (100-Year)

Hydralflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Wednesday, Nov 25 2015

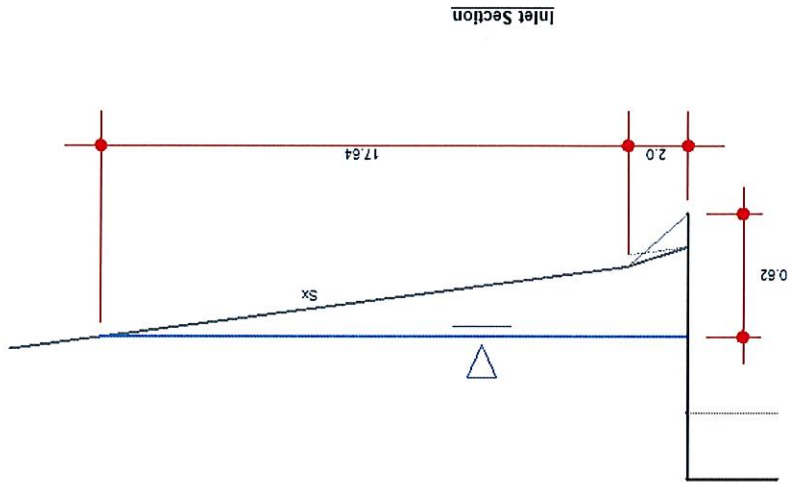
Curb Inlet

Location	= Sag
Curb Length (ft)	= 4.00
Throat Height (in)	= 8.00
Grate Area (sqft)	= -0-
Grate Width (ft)	= -0-
Grate Length (ft)	= -0-

Gutter

Slope, Sw (ft/ft)	=	0.050
Slope, Sx (ft/ft)	=	0.020
Local Depr (in)	=	2.00
Gutter Width (ft)	=	2.00
Gutter Slope (%)	=	-0-
Gutter n-value	=	-0-

Calculations	
Compute by:	Q (cfs)
Known Q	= 5.33
	Highlighted
Q Total (cfs)	= 5.33
Q Capt (cfs)	= 5.33
Q Bypass (cfs)	= -0-
Depth at Inlet (in)	= 7.43
Efficiency (%)	= 100
Gutter Spread (ft)	= 19.64
Gutter Vel (ft/s)	= -0-
Bypass Spread (ft)	= -0-
Bypass Depth (in)	= -0-

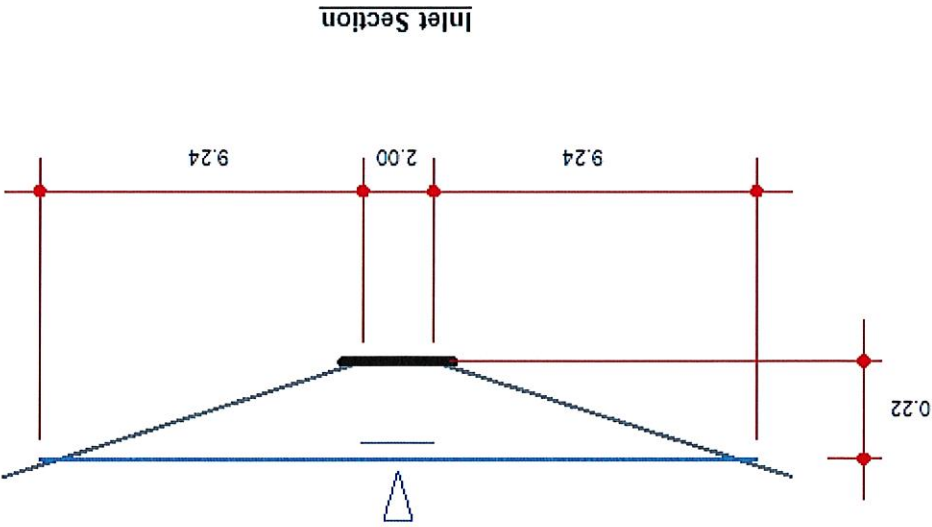


Inlet Report

Grated Inlet #40 (100-Year)

Drop Grate Inlet		Location	= Sag
		Curb Length (ft)	= -0-
		Throat Height (in)	= -0-
		Grate Area (sqft)	= 5.00
		Grate Width (ft)	= 3.17
		Grate Length (ft)	= 4.17
Gutter		Slope, Sw (ft/ft)	= 0.025
		Slope, Sx (ft/ft)	= 0.025
		Local Depr (in)	= 2.00
		Gutter Width (ft)	= 2.00
		Gutter Slope (%)	= -0-
		Gutter n-value	= -0-
Calculations		Compute by:	Known Q
		Q (cfs)	= 4.44
Highlighted		Q Total (cfs)	= 4.44
		Q Capt (cfs)	= 4.44
		Q Bypass (cfs)	= -0-
		Depth at Inlet (in)	= 2.60
		Efficiency (%)	= 100
		Gutter Spread (ft)	= 20.49
		Gutter Vel (ft/s)	= 0.30
		Bypass Spread (ft)	= -0-
		Bypass Depth (in)	= -0-

All dimensions in feet

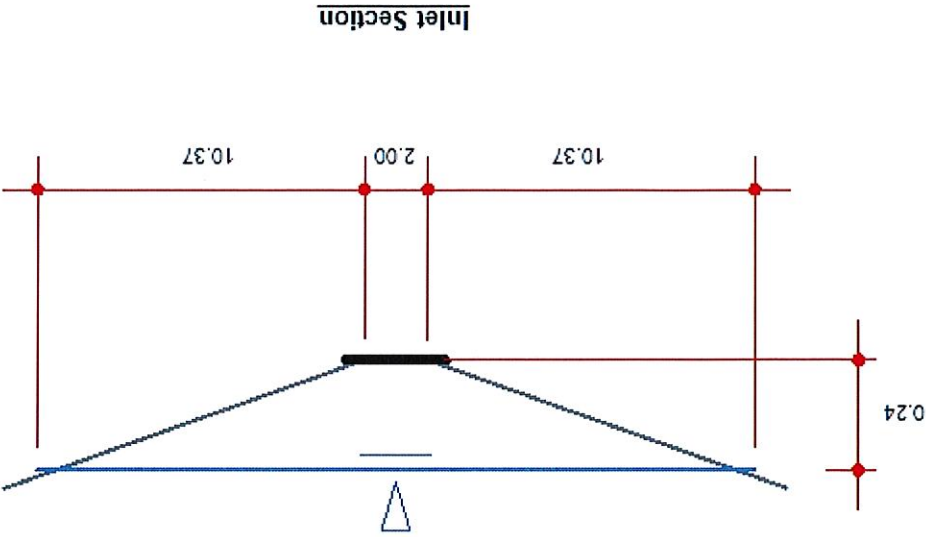


Inlet Report

Grated Inlet #41 (100-Year)

Drop Grate Inlet		Location	= Sag
		Curb Length (ft)	= -0-
		Throat Height (in)	= -0-
		Grate Area (sqft)	= 5.00
		Grate Width (ft)	= 3.17
		Grate Length (ft)	= 4.17
Gutter		Slope, Sw (ft/ft)	= 0.025
		Slope, Sx (ft/ft)	= 0.025
		Local Depr (in)	= 2.00
		Gutter Width (ft)	= 2.00
		Gutter Slope (%)	= -0-
		Gutter n-value	= -0-
Calculations		Compute by:	Known Q
		Q (cfs)	= 5.33
Highlighted		Q Total (cfs)	= 5.33
		Q Capt (cfs)	= 5.33
		Q Bypass (cfs)	= -0-
		Depth at Inlet (in)	= 2.93
		Efficiency (%)	= 100
		Gutter Spread (ft)	= 22.73
		Gutter Vel (ft/s)	= 0.30
		Bypass Spread (ft)	= -0-
		Bypass Depth (in)	= -0-

, all dimensions in feet

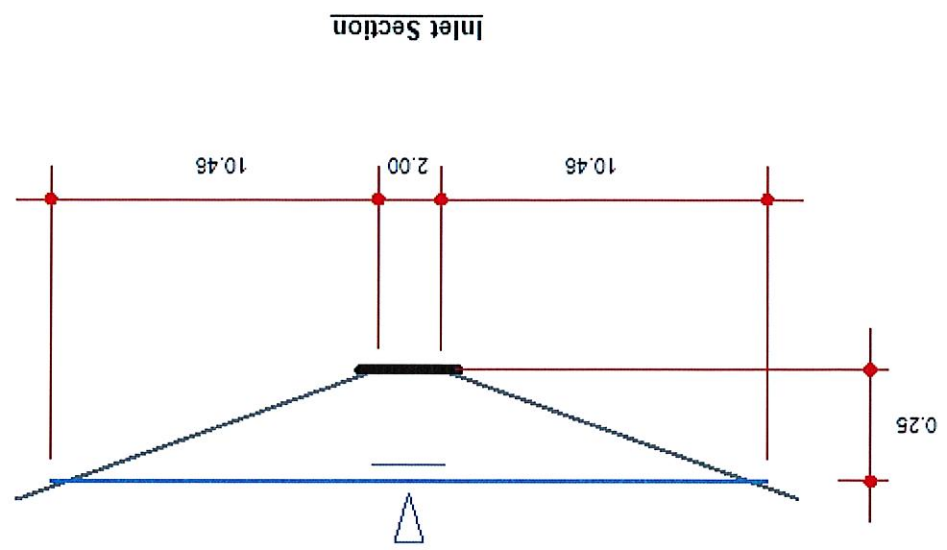


Inlet Report

Grated Inlet #42 (100-Year)

Drop Grate Inlet		Location		= Sag	
		Curb Length (ft)		= -0-	
		Throat Height (in)		= -0-	
		Grate Area (sqft)		= 5.00	
		Grate Width (ft)		= 3.17	
		Grate Length (ft)		= 4.17	
Gutter		Slope, Sw (ft/ft)		= 0.025	
		Slope, Sx (ft/ft)		= 0.025	
		Local Depr (in)		= 2.00	
		Gutter Width (ft)		= 2.00	
		Gutter Slope (%)		= -0-	
		Gutter n-value		= -0-	
Calculations		Compute by:		Known Q	
		Q (cfs)		= 5.41	
Highlighted		Q Total (cfs)		= 5.41	
		Q Capt (cfs)		= 5.41	
		Q Bypass (cfs)		= -0-	
		Depth at Inlet (in)		= 2.96	
		Efficiency (%)		= 100	
		Gutter Spread (ft)		= 22.93	
		Gutter Vel (ft/s)		= 0.30	
		Bypass Spread (ft)		= -0-	
		Bypass Depth (in)		= -0-	

All dimensions in feet



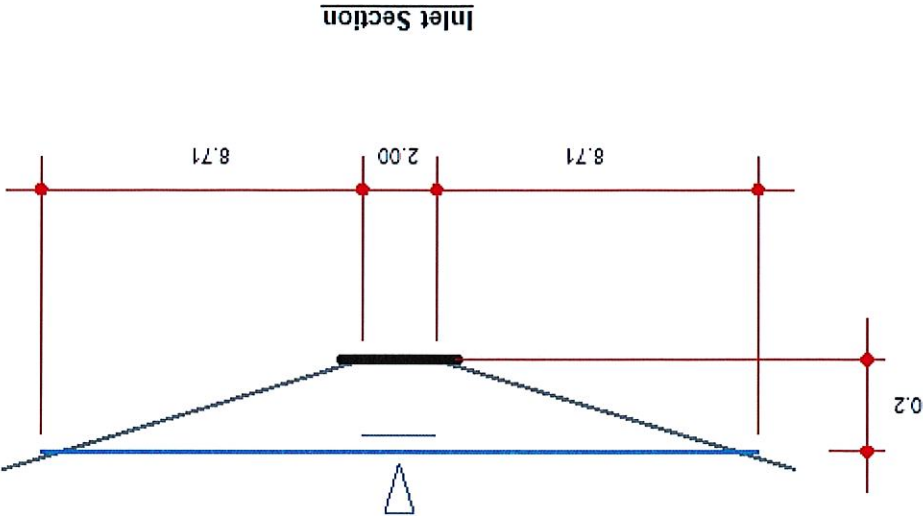
Inlet Section

Inlet Report

Grated Inlet #44 (100-Year)

Drop Grate Inlet		Location	= Sag
		Curb Length (ft)	= -0-
		Throat Height (in)	= -0-
		Grate Area (sqft)	= 5.00
		Grate Width (ft)	= 3.17
		Grate Length (ft)	= 4.17
Gutter		Slope, Sw (ft/ft)	= 0.025
		Slope, Sx (ft/ft)	= 0.025
		Local Depr (in)	= 2.00
		Gutter Width (ft)	= 2.00
		Gutter Slope (%)	= -0-
		Gutter n-value	= -0-
Calculations		Compute by:	Known Q
		Q (cfs)	= 4.04
Highlighted		Q Total (cfs)	= 4.04
		Q Capt (cfs)	= 4.04
		Q Bypass (cfs)	= -0-
		Depth at Inlet (in)	= 2.44
		Efficiency (%)	= 100
		Gutter Spread (ft)	= 19.43
		Gutter Vel (ft/s)	= 0.30
		Bypass Spread (ft)	= -0-
		Bypass Depth (in)	= -0-

All dimensions in feet

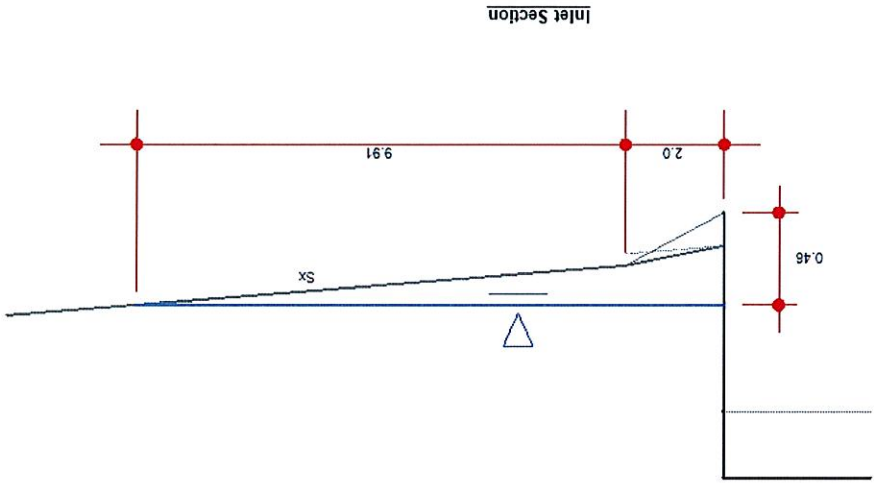


Inlet Section

Inlet Report

Curb Inlet #48 (100-Year)

Curb Inlet		Location		= Sag	
		Curb Length (ft)		= 4.00	
		Throat Height (in)		= 8.00	
		Grate Area (sqft)		= -0-	
		Grate Width (ft)		= -0-	
		Grate Length (ft)		= -0-	
Gutter		Slope, Sw (ft/ft)		= 0.050	
		Slope, Sx (ft/ft)		= 0.020	
		Local Depr (in)		= 2.00	
		Gutter Width (ft)		= 2.00	
		Gutter Slope (%)		= -0-	
		Gutter n-value		= -0-	
Calculations		Compute by:		Known Q	
		Q (cfs)		= 2.85	
Highlighted		Q Total (cfs)		= 2.85	
		Q Capt (cfs)		= 2.85	
		Q Bypass (cfs)		= -0-	
		Depth at Inlet (in)		= 5.58	
		Efficiency (%)		= 100	
		Gutter Spread (ft)		= 11.91	
		Gutter Vel (ft/s)		= 0.67	
		Bypass Spread (ft)		= -0-	
		Bypass Depth (in)		= -0-	



dimensions in feet

DRAINAGE AREA MAP