

PROJECT NAME : 205 BYPASS-Section 1
JOB NUMBER :
PROJECT DESCRIPTION : System A Inlets
ANALYSIS FREQUENCY : 25 Years
MEASUREMENT UNITS: ENGLISH

OUTPUT FOR ANALYSIS FREQUENCY of: 25 Years

Runoff Computation for Design Frequency.

ID	C Value	Area (acre)	Tc (min)	Tc Used (min)	Intensity (in/hr)	Supply Q (cfs)	Total Q (cfs)
OSA4	0.35	16.70	20.00	20.00	6.70	0.000	39.162
A-1	0.9	0.87	10.00	10.00	8.25	0.000	6.441
A-6	0.9	0.58	10.00	10.00	8.25	0.000	4.285
A-9	0.9	0.63	10.00	10.00	8.25	0.000	4.679
A-18	0.9	0.71	10.00	10.00	8.25	0.000	5.272
A-21	0.9	0.42	10.00	10.00	8.25	0.000	3.105
A-23	0.9	0.55	10.00	10.00	8.25	0.000	4.091
A-27	0.9	0.41	10.00	10.00	8.25	0.000	3.068
A-32	0.9	0.76	10.00	10.00	8.25	0.000	5.628
A-2	0.9	0.87	10.00	10.00	8.25	0.000	6.442
A-5	0.9	0.55	10.00	10.00	8.25	0.000	4.105
A-7	0.9	0.70	10.00	10.00	8.25	0.000	5.205
A-10	0.9	0.41	10.00	10.00	8.25	0.000	3.032
A-22	0.9	0.48	10.00	10.00	8.25	0.000	3.585
A-24	0.9	0.49	10.00	10.00	8.25	0.000	3.647
A-12	0.9	0.24	10.00	10.00	8.25	0.000	1.796
A-16	0.9	0.29	10.00	10.00	8.25	0.000	2.134
A-13	0.9	0.22	10.00	10.00	8.25	0.000	1.654
A-35	0.9	0.33	10.00	10.00	8.25	0.000	2.430
A-34	0.9	0.33	10.00	10.00	8.25	0.000	2.484
A-33	0.9	0.13	10.00	10.00	8.25	0.000	0.937
A-31	0.9	0.82	10.00	10.00	8.25	0.000	6.087
A-8	0.9	0.64	10.00	10.00	8.25	0.000	4.766
A-37	0.9	0.50	10.00	10.00	8.25	0.000	3.684
A-38	0.9	0.35	10.00	10.00	8.25	0.000	2.566
RSA1	0.35	28.16	20.00	20.00	6.70	0.000	66.035
RSA2	0.35	0.99	20.00	20.00	6.70	0.000	2.322
A-36	0.9	0.18	10.00	10.00	8.25	0.000	1.322

On Grade Inlet Configuration Data

Inlet ID	Inlet Type	Inlet Length (ft)	Slopes Long (%)	Slopes Trans (%)	Gutter n	Gutter Depr. (ft)	Grate Width (ft)	Grate Type	Pond Width Allowed (ft)	Critic Elev. (ft)
A-16	Curb	10.00	1.37	2.00	0.016	0.25	n/a	n/a	14.00	535.51
A-35	Curb	10.00	0.50	2.00	0.016	0.25	n/a	n/a	14.00	504.10
A-34	Curb	10.00	0.30	2.00	0.016	0.25	n/a	n/a	14.00	503.85
A-18	Curb	15.00	1.85	2.00	0.016	0.25	n/a	n/a	14.00	532.58
A-21	Curb	10.00	0.50	2.00	0.016	0.25	n/a	n/a	14.00	530.46
A-23	Curb	10.00	0.50	2.00	0.016	0.25	n/a	n/a	14.00	528.46
A-27	Curb	10.00	0.50	2.00	0.016	0.25	n/a	n/a	14.00	526.96
A-32	Curb	15.00	3.48	2.00	0.016	0.25	n/a	n/a	14.00	508.65
A-2	Curb	10.00	1.33	2.00	0.016	0.25	n/a	n/a	14.00	542.34
A-5	Curb	15.00	1.25	2.00	0.016	0.25	n/a	n/a	14.00	537.22
A-8	Curb	10.00	1.85	2.00	0.016	0.25	n/a	n/a	14.00	532.58
A-10	Curb	10.00	0.50	2.00	0.016	0.25	n/a	n/a	14.00	530.46
A-22	Curb	10.00	0.50	2.00	0.016	0.25	n/a	n/a	14.00	528.71
A-24	Curb	15.00	0.50	2.00	0.016	0.25	n/a	n/a	14.00	527.01
A-12	Curb	10.00	0.55	2.00	0.016	0.25	n/a	n/a	14.00	534.89
A-13	Curb	10.00	0.55	2.00	0.016	0.25	n/a	n/a	14.00	535.17
A-1	Curb	10.00	1.33	2.00	0.016	0.25	n/a	n/a	14.00	542.34
A-6	Curb	15.00	1.25	2.00	0.016	0.25	n/a	n/a	14.00	537.22
A-31	Curb	15.00	3.48	1.90	0.016	0.25	n/a	n/a	14.00	508.70
A-37	Curb	10.00	0.90	1.80	0.016	0.25	n/a	n/a	25.00	505.41
A-38	Curb	10.00	0.35	0.80	0.016	0.25	n/a	n/a	25.00	504.98

On Grade Inlets Computation Data.

Inlet ID	Inlet Type	Total Q (cfs)	Intercept Capacity (cfs)	Q Allow (cfs)	Q Bypass Actual (cfs)	To Inlet Required Length (ft)	Inlet ID	Actual Length (ft)	Ponded Width (ft)
A-16	Curb	2.134	2.132	0.000	0.002	A-9	10.21	10.00	9.00
A-35	Curb	2.430	2.430	0.000	0.000	A-33	8.66	10.00	11.45
A-34	Curb	3.156	3.156	0.000	0.000	A-33	8.94	10.00	13.90
A-18	Curb	5.272	5.056	0.000	0.216	A-21	18.06	15.00	12.00
A-21	Curb	3.321	3.315	0.000	0.006	A-23	10.32	10.00	12.85
A-23	Curb	4.097	3.976	0.000	0.121	A-27	11.65	10.00	13.95
A-27	Curb	3.189	3.188	0.000	0.001	A-32	10.10	10.00	12.70
A-32	Curb	5.629	4.957	0.000	0.672	A-34	21.65	15.00	10.90
A-2	Curb	6.442	4.803	0.000	1.639	A-5	18.78	10.00	13.75
A-5	Curb	5.743	5.588	0.000	0.155	A-7	17.33	15.00	13.30
A-8	Curb	4.766	3.792	0.000	0.974	A-10	17.06	10.00	11.55
A-10	Curb	4.006	3.905	0.000	0.101	A-22	11.49	10.00	13.80
A-22	Curb	3.686	3.640	0.000	0.046	A-24	10.96	10.00	13.40
A-24	Curb	3.693	3.693	0.000	0.000	A-31	10.97	15.00	13.40
A-12	Curb	1.796	1.796	0.000	0.000	A-9	7.49	10.00	10.05
A-13	Curb	1.654	1.654	0.000	0.000	A-9	7.16	10.00	9.75
A-1	Curb	6.441	4.803	0.000	1.638	A-6	18.78	10.00	13.75
A-6	Curb	5.923	5.730	0.000	0.193	A-9	17.64	15.00	13.45
A-31	Curb	6.087	5.194	0.000	0.893	A-38	22.87	15.00	11.58
A-37	Curb	3.684	3.443	0.000	0.242	A-36	12.82	10.00	12.78
A-38	Curb	3.459	3.298	0.000	0.161	A-36	12.22	10.00	24.75

Sag Inlets Configuration Data.

Inlet ID	Inlet Type	Inlet Length/Perim. (ft)	Grate Area (sf)	Left-Slope Long Trans (%)	Right-Slope Long Trans (%)	Gutter n	Depth DeprW (ft)	Depth Allowed (ft)	Critic Elev. (ft)
A-33	Curb	15.00	n/a	0.20	2.00	0.016	2.00	0.50	503.81
A-7	Curb	15.00	n/a	0.15	2.00	0.016	2.00	0.50	534.93
OSA4	Curb	20.00	n/a	0.10	1.00	0.010	1.50	1.25	533.75
A-9	Curb	15.00	n/a	0.15	2.00	0.016	2.00	0.50	534.93
A-36	Curb	15.00	n/a	0.20	1.30	0.016	2.00	0.28	505.12

Sag Inlets Computation Data.

Inlet ID	Inlet Type	Length (ft)	Grate Perim Area (sf)	Total Q (cfs)	Inlet Capacity (cfs)	Total Head (ft)	Ponded Left (ft)	Ponded Right (ft)
A-33	Curb	15.00	n/a	0.937	15.125	0.078	7.35	7.35
A-7	Curb	15.00	n/a	5.360	15.125	0.250	14.90	14.10
OSA4	Curb	20.00	n/a	39.162	45.711	0.973	43.80	43.80
A-9	Curb	15.00	n/a	4.875	15.125	0.235	14.35	13.60
A-36	Curb	15.00	n/a	1.724	6.338	0.118	12.08	12.08

=====END=====

NORMAL TERMINATION OF WINSTORM.

COMPUTATION SHEETS

- THIS OUTPUT FILE SHOWS RESULTS FOR ROCKWALL'S 25-YR DISCHARGE CONDITIONS TO SIZE AND PLACE INLETS.


- ALL COMPUTATIONS ARE BASED ON EXISTING WATERSHED CONDITIONS.

- MAXIMUM ALLOWABLE PONDED WIDTH USED FOR DESIGN IS 14' PER CITY OF ROCKWALL VARIANCE.

P:\4328\60004153-205Bypass\CADD\Sheets\Section1-140-00-To-FM55A\Record Drawing 10_7_09\077_084_Hydraulic\04dra-01_08.dgn 11/11/2009

RECORD DRAWING
This drawing is a compilation of the original sealed engineering drawing and modifications by addenda, change orders and information furnished by the contractor. Information shown that was provided by the contractor and others not associated with the design engineer cannot be verified for accuracy or completeness. Original sealed drawing is on file at the office of AECOM USA Group, Inc., TBPE REG. NO. F-3082

ORIGINAL DRAWING SEALED & SIGNED BY
Matthew L. Abbe, P.E.
TX NO. 92715

 City of Rockwall, Texas			
205 BYPASS SECTION 1			
HYDRAULIC DATA SYSTEM A INLETS - 25 YR FLOWS			
5 OF 8			
TCB AECOM		<small>TCB INC. WWW.TCB.AECOM.COM 17300 DALLAS PARKWAY, SUITE 1010 DALLAS, TEXAS 75248</small>	
Unit	PW-DAL-FW	Scale: Horiz AS SHOWN Vert: AS SHOWN	Date 11/11/2009
Designed	SRR/SDB	Checked TCB	Project No. 60004153
Drawn	FG	Approved TCB	Sheet 81 of 217