



**LEGEND**

- DRAINAGE AREA BOUNDARY
- ① DESIGN POINT
- DR / AC DRAINAGE AREA NUMBER / ACREAGE
- DIRECTION OF RUNOFF
- - - EXISTING CONTOURS

**COMPUTATION SHEET NO. 1  
HYDRAULIC COMPUTATIONS FOR STORM DRAINS**

BY: SDH  
DATE: 3/13/2003  
CHKD: THH  
DATE: 3/13/2003  
"n" = 0.013

CONTRACT OR FILE NO. ROK01354

Manhole or Inlet Design Point	From	To	Drainage Area				Coefficient of Runoff "C"	Incremental "CA"	Time of Concentration	Intensity	Discharge "Q"	Slope of Pipe	Head Loss at Change in Section				Elev. of Inlet at Design Point (Col. 1)	Elev. of Invert at Design Point (Col. 1)	Notes										
			No.	Area	Total Area	Time							V <sub>1</sub>	V <sub>2</sub>	V <sub>1</sub> <sup>2</sup>	V <sub>2</sub> <sup>2</sup>				h <sub>f</sub>	h <sub>v</sub>	h <sub>s</sub>							
SD LINE "A"																													
A1a	A1	25.40	A1	2.02	2.02	0.90	1.82	1.82	10	0.04	10.04	100	9.80	17.82	18	0.0206	530.08	529.34	0.00	10.27	1.64	0.00	1.25	2.05	2.05	532.12	527.84	526.00	

Area Designation	Design Point	Area	T <sub>c</sub>	Runoff Coefficient	CA	I <sub>100</sub>	Q <sub>100</sub>	Comments
A1		3.64	10	0.74	2.68	9.80	26.23	
A2		4.93	10	0.73	3.62	9.80	35.47	

**GUTTER FLOW / INLET COMPUTATIONS FOR DALTON RD FROM SH 205 TO HARLAN STREET**

ID	INLET LOCATION	D.A. No.	Q (cfs)	CO (cfs)	Q(a) (cfs)	z	n	S <sub>c</sub> (ft/ft)	S <sub>w</sub> or S <sub>u</sub> (ft/ft)	y (ft)	w (ft)	a (ft)	qL (cfs/ft)	Lr (ft)	La (ft)	La/Lr	aly	Q1/Qa	Q1 (cfs)	Qa-Q1	Carry-over to:	Remarks
A1	19475 22' RT	A1	26.23	0.00	26.23	37.74	0.0175	0.0463	0.0265	0.42	15.97	0.33	0.71	36.90	20	0.54	0.78	0.68	17.84	8.40	A4	

- LEGEND:**  
 Q - Discharge Calculated for D.A.  
 CO - Carryover from upstream inlet  
 Q(a) - Actual Discharge = Q+CO  
 z - Reciprocal of cross-slope (can use avg. slope equivalence for parabolic crown)  
 n - Manning's roughness coefficient (0.0175)  
 S<sub>c</sub> - Longitudinal slope of roadway  
 S<sub>w</sub> or S<sub>u</sub> - Cross-slope or Gutter Slope  
 y - Gutter depth of flow  
 w - Width of street conveying flow  
 a - depth of depression  
 qL - Capture per foot of inlet with 100% interception  
 Lr - Required inlet for 100% interception  
 La - Actual inlet length  
 Q1/Qa - From Figure  
 Q1 - Actual inlet interception  
 \* - Inlets in sag, weir equation (calculated y from length of inlet)

**RECORD DRAWING**  
 BASED ON INFORMATION SUPPLIED BY THE CONTRACTOR  
 TO: TRICIA H. HATLEY  
 DATE: JANUARY 7, 2003

THIS DOCUMENT WAS ORIGINALLY SIGNED, SEALED AND DATED BY:  
 ENGINEER: TRICIA H. HATLEY  
 TEXAS REGISTRATION NO.: 83282  
 DATE: APRIL 5, 2002

Tricia H. Hatley 3-13-02

CITY OF ROCKWALL

**DALTON ROAD RECONSTRUCTION**

**DRAINAGE AREA MAP AND CALCS**

F&N JOB NO. ROK01354

FILE DA-MAP

DATE 10-29-2002

DESIGNED KRJ/SDH

DRAWN JUS

REVISION

CHECKED THH

NO. REVISION

DATE

BY

Bar is one inch on original drawing. If not one inch on this sheet, adjust scale.

VERIFY SCALE

SHEET **DAMAP**

SEQ.

**RECORD DRAWINGS**

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