

RUNOFF COMPUTATIONS

DRAIN. AREA NO.	ACRES - DRAINED			TOTAL C.A.	TIME OF CONCENTRATION MINUTES	I <sub>s</sub>	Q <sub>s</sub>	REMARKS
	PAVT. C-0.9	R.O.W. (AVG) C-0.5	R.O.W. FUTURE DEVEL. C-0.7					
1	0.67	0.67		0.60	540 / 2.65X60 - 3.4 MIN USE 10 MIN	6.93	4.16	TO EXIST. 10' CURB INLET
2	2.69	1.84	0.85	2.08	360 / 3.20X60 - 2.20 / 1X60 - 5.6 MIN USE 10 MIN	6.93	14.41	TO EXIST. 15' CURB INLET
3	0.72	0.58	0.14	0.59	620 / 2.80X60 - 3.7 MIN USE 10 MIN	6.93	4.09	TO CI-1
4	0.68	0.54	0.14	0.56	495 / 2.60X60 - 3.2 MIN USE 10 MIN	6.93	3.88	TO CI-2
5	0.54	0.43	0.11	0.44	585 / 2.80X60 - 3.5 MIN USE 10 MIN	6.93	3.05	TO CI-3
6	1.76	0.42		1.34	650 / 1.50X60 - 7.2 MIN USE 10 MIN	6.93	9.15	TO CI-4
7	0.58	0.52	0.06	0.50	400 / 3.80X60 - 1.8 MIN USE 10 MIN	6.93	3.47	TO CI-5
8	0.48		0.48	0.24	200 / 2.50X60 - 1.3 MIN USE 10 MIN	6.93	1.66	TO EXIST. DROP INLET
9	0.51	0.05	0.46	0.28	320 / 2.00X60 - 2.7 MIN USE 10 MIN	6.93	1.94	TO EXIST. DROP INLET (2 GR)
10	0.39	0.39		0.35	440 / 3.50X60 - 2.1 MIN USE 10 MIN	6.93	2.43	TO EXIST. 10' CURB INLET
11	0.47	0.47		0.42	360 / 3.25X60 - 1.8 MIN USE 10 MIN	6.93	2.91	TO EXIST. 10' CURB INLET

INLET COMPUTATIONS

INLET NO.	LOCATION	TYPE	RUN OFF COMPUTATIONS										INLET DESIGN														REMARKS		
			DA NO.	CA	TIME OF CONCENTRATION		DESIGN FREQ.	INTENSITY	Q <sub>a</sub>	CARRY OVER	TOTAL Q <sub>o</sub>	Z	Z/N	S	Y	PONDED WIDTH	α	q <sub>L</sub>	L <sub>r</sub> = Q <sub>a</sub> /Q <sub>L</sub>	L	L/L <sub>r</sub>	A/Y	Q/Q <sub>a</sub>	Q	ALLOW HEAD	ACTUAL HEAD		NO. OF GRATES	CARRY OVER
					ACTUAL (MIN)	DESIGN (MIN)	(YRS)	(IN/HRS)	(CFS)	(CFS)	(CFS)			(FT/FT)	(FT)	(FT)	(CFS)	(FT)	(FT)			(CFS)	(FT)	(FT)	(EA)	(CFS)			
EX. CI	25' RT OF HORIZON RD. STA 13-21	I-10'	1	0.60	3.4	10	5	6.93	4.16	0	4.16	48	3200	0	.20	9.6	.25	1.0	4.16	10					0	EXIST. CURB INLET ADEQUATE			
EX. CI	20' LT OF HORIZON RD. STA 13-21	I-15'	2	2.08	5.6	10	5	6.93	14.41	0	14.41	48	3200	0	.22	10.6	.25	1.0	14.41	15					0	EXIST. CURB INLET ADEQUATE			
CI-1	35.5' LT OF FM 740 STA 107-60	I-15'	3	0.59	3.7	10	5	6.93	4.09	0	4.09	48	3200	.0200	.21	10.1	.25	.38	10.76	15					0				
CI-2	35.5' RT OF FM 740 STA 108-80	I-15'	4	0.56	3.2	10	5	6.93	3.88	0	3.88	48	3200	.0220	.21	10.1	.25	.37	10.48	15					0				
CI-3	8.5' LT OF FM 740 STA 118-60	I-10'	5	0.44	3.5	10	5	6.93	3.05	0	3.05	34	2267	.0370	.19	6.5	.25	.36	8.47	10					0				
CI-4	35.5' RT OF FM 740 STA 118-80	I-15'	6	1.32	7.2	10	5	6.93	9.15	0	9.15	30	2000	.0290	.32	9.6	.25	.47	19.47	15	.77	.78	.875	8.00	1.15	CARRY-OVER TO CI-5			
CI-5	47.7' RT OF FM 740 STA 122-20	I-15'	7	0.50	1.8	10	5	6.93	3.47	1.15	4.62	63	4200	.0469	.17	10.7	.25	.35	13.20	15					0				
EX. DI	90.6' LT OF FM 740 STA 122-78	C	8	0.24	1.3	10	5	6.93	1.66	0	1.66						.25							1.66	2.0	< .5	1	0	EXIST. DROP INLET ADEQUATE
EX. DI	66.0' RT OF FM 740 STA 123-97	C	9	0.28	2.7	10	5	6.93	1.94	0	1.94						.25							1.94	1.6	< .5	2	0	EXIST. DROP INLET ADEQUATE
EX. CI	86.6' LT OF FM 740 STA 124-02	I-10'	10	0.35	2.1	10	5	6.93	2.43	0	2.43	58	3867	.0188	.17	9.9	.25	.34	7.14	10					0	EXIST. CURB INLET ADEQUATE			
EX. CI	37' RT OF FM 740 STA 125-00	I-10'	11	0.42	1.8	10	5	6.93	2.91	0	2.91	64	4267	.0056	.21	13.4	.25	.37	7.86	10					0	EXIST. CURB INLET ADEQUATE			

STORM SEWER COMPUTATIONS

LINE	FROM	TO	DRAINAGE AREA NO.	TOTAL D.A. AC.	TOTAL C.A.	LGTH. FT.	TIME OF CONCENTRATION-MINUTES					FREQ. YRS.	I IN/HR	Q CFS	DESIGN				REMARKS
							ALONG SEWER LINE			INLET TIME	USED IN DES.				SLOPE Z		DIA. IN.	H.G.	
A	CI-2	CI-1	4	.68	.56	140	-----	3.20	10	5	6.93	3.88	18	1.857	.11	15.3	7.6		
A	CI-1	MH-1	3,4	1.40	1.15	125	3.20 • [140/(7.6X60)] • 3.50	3.70	10	5	6.93	7.97	18	2.650	.49	18.2	10.0		
A	MH-1	JCT EX-2	3,4	1.40	1.15	283	3.70 • [125/(10.0X60)] • 3.90	---	10	5	6.93	7.97	24	3.030	.11	42.0	10.8		
A	JCT EX-2	JCT EX-3	2,3,4	4.09	3.23	18	3.90 • [283/(10.8X60)] • 4.33	---	10	5	6.93	30.88	30	4.670	.48	100.0	17.0		
A	JCT EX-3	OUTFALL	1,2,3,4	4.76	3.83	199	4.33 • [18/(17.0X60)] • 4.35	---	10	5	6.93	35.04	30	4.670	.62	100.0	17.0		
B	CI-3	CI-4	5	.54	.44	46	-----	3.50	10	5	6.93	3.05	18	4.326	.07	23.0	9.2		
B	CI-4	CI-5	5,6	2.30	1.76	323	3.50 • [46/(19.2X60)] • 3.58	7.20	10	5	6.93	12.20	18	4.334	1.15	23.0	13.2		
B	CI-5	EX DI	5,6,7	2.88	2.26	186	7.20 • [323/(13.2X60)] • 7.61	1.80	10	5	6.93	16.82	18	3.341	1.90	19.5	12.5		
B	EX DI	EX CI	5,6,7,9	EXISTING IH 30 STORM SEWER SYSTEM IS DESIGNED TO ACCOMMODATE THE FLOW REACHING THE EXISTING DROP INLET															

\* DOES NOT INCLUDE DRAINAGE AREA AWAY FROM THE PROJECT THAT CONTRIBUTES 8.5 CFS TO THE EXISTING STORM DRAIN SYSTEM  
 \*\* FLOW INCLUDES 8.5 CFS GENERATED AWAY FROM THE PROJECT



G. K. Weizig  
5/3/96

HYDRAULIC DATA SHEET  
SHEET 1 OF 1

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
6	STP 96 (830) MM	18
STATE	DISTRICT	COUNTY
TEXAS	DALLAS	ROCKWALL
CONTROL SECTION	JOB	HIGHWAY NO.
1014	03	041 FM 740