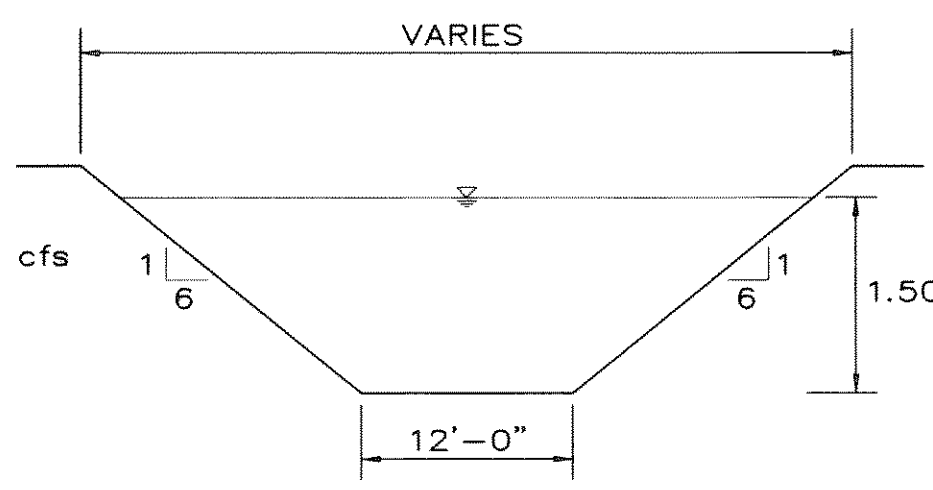
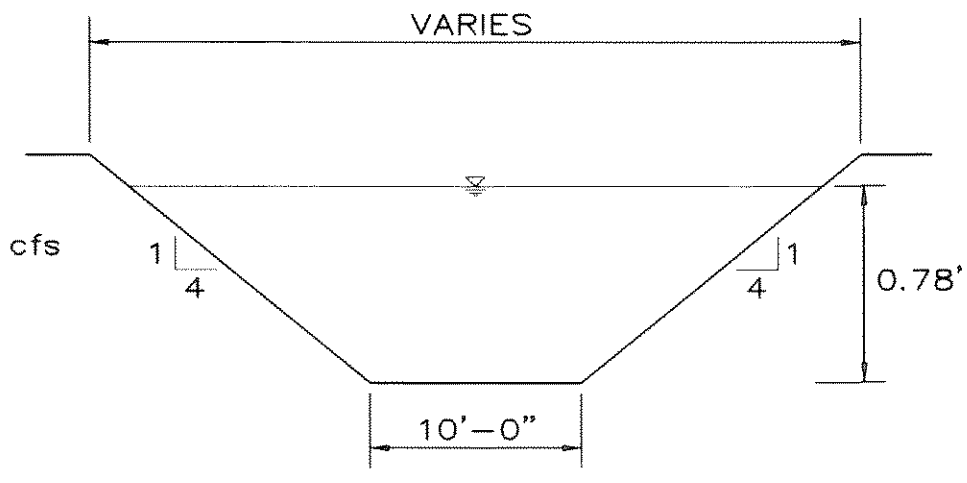


Q100 = 160.2 cfs  
 s = 1.00%  
 n = 0.030  
 d = 1.50'  
 v = 5.09 fps



Q100 = 26.3 cfs  
 s = 0.50%  
 n = 0.030  
 d = 0.78'  
 v = 2.56 fps



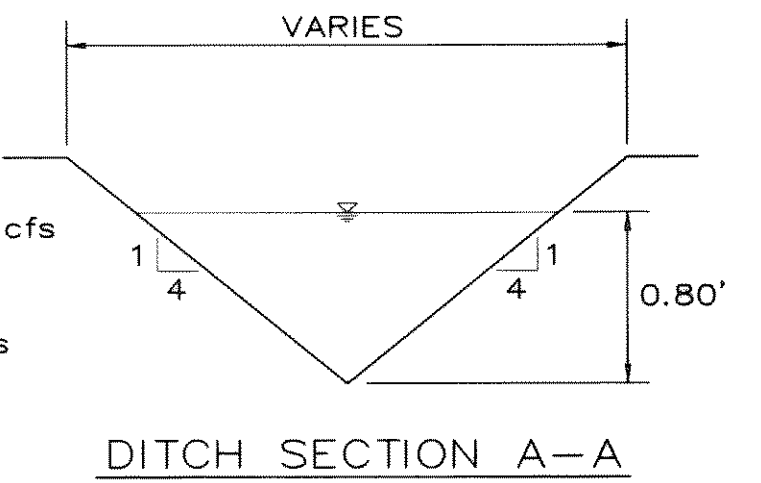
CITY OF ROCKWALL, TEXAS  
 HICKORY RIDGE - PHASE 1  
 JOB #99066

INLET DESIGN CALCULATIONS  
 BY JAMES SWAM  
 DATE 09-29-2000

NO.	LOCATION	DESIGN STORM FREQ. (YRS.)	TIME OF CONC. (MIN.)	INTENSITY I (IN./HR.)	AREA RUNOFF		BY-PASS FROM UPSTREAM INLET (C.F.S.)	TOTAL GUTTER OR INVERT FLOW (C.F.S.)	STREET OR ALLEY CAPACITY (C.F.S.)	GUTTER OR INVERT SLOPE (%)	CROWN OR INVERT SIZE	SELECTED INLET		INTERCEPTED FLOW BY INLET (C.F.S.)	BY-PASS TO DOWNSTREAM INLET (C.F.S.)
					COEFF. "C"	"Q" (C.F.S.)						LENGTH "L" (FEET)	TYPE		
1	STA 13+58 WEST RYAN DRIVE	100	10	9.80	0.50	0.87	4.3	0.0	4.3	4.1	0.50	6" CROWN	1'-10" SID	7.3	0.0
2	STA 4+95 WEST RYAN DRIVE	100	10	9.80	0.50	0.75	3.7	0.0	3.7	4.1	0.50	6" CROWN	1'-5" SID	3.0	0.7
3	STA 0+41 ALLEY "M"	100	10	9.80	0.50	0.77	3.8	0.9	4.7	6.2	0.70	5" INVERT	1'-10" SID	6.7	4.7
4	STA 2+61 ALLEY "M"	100	10	9.80	0.50	1.42	7.0	0.0	7.0	9.1	1.50	5" INVERT	1'-10" SID	6.1	6.1
5	STA 4+89 TIMBER RIDGE DRIVE	100	10	9.80	0.50	1.44	7.1	0.0	7.1	1.80	0.74	6" CROWN	1'-15" SID	10.4	7.1
6	STA 8+18 MISTY RIDGE LANE	100	10	9.80	0.50	1.90	9.3	0.0	9.3	10.1	3.00	6" CROWN	1'-15" SID	9.5	9.5
7	STA 8+18 MISTY RIDGE LANE	100	10	9.80	0.50	1.25	6.1	0.0	6.1	10.1	3.00	6" CROWN	1'-15" SID	9.5	6.1
8	STA 0+48 BROOKDALE DRIVE	100	10	9.80	0.50	0.51	2.5	0.7	3.2	8.3	2.00	6" CROWN	1'-5" SID	2.6	2.6
9	STA 0+90 ALLEY "L"	100	10	9.80	0.50	2.05	10.0	0.0	10.0	12.4	2.76	5" INVERT	1'-15" SID	9.3	9.3
10	STA 8+94 WILD OAK LANE	100	10	9.80	0.50	1.38	6.8	0.0	6.8	10.1	3.00	6" CROWN	1'-15" SID	9.5	6.8
11	STA 8+94 WILD OAK LANE	100	10	9.80	0.50	1.32	6.5	0.0	6.5	8.3	2.00	6" CROWN	1'-15" SID	10.0	6.5
12	STA 2+42 RICHFIELD COURT	100	10	9.80	0.50	1.18	5.8	0.0	5.8	7.4	1.60	6" CROWN	1'-10" SID	6.2	5.8
13	STA 14+15 ALLEY "A"	100	10	9.80	0.50	1.71	8.4	0.0	8.4	12.2	2.89	5" INVERT	1'-15" SID	9.2	8.4
14	STA 3+58 ALLEY "A"	100	10	9.80	0.50	0.33	4.6	0.0	4.6	10.8	2.12	5" INVERT	1'-10" SID	5.7	4.6
15	STA 1+42 RIDGETOP COURT	100	10	9.80	0.50	1.08	5.3	0.0	5.3	7.4	1.60	6" CROWN	1'-10" SID	6.2	5.3
16	STA 2+95 MISTY RIDGE LANE	100	10	9.80	0.50	1.65	8.1	0.6	8.7	10.1	3.00	6" CROWN	1'-15" SID	9.5	8.7
17	STA 2+65 MISTY RIDGE LANE	100	10	9.80	0.50	1.34	6.6	0.5	7.1	10.1	3.00	6" CROWN	1'-15" SID	9.5	7.1
18	STA 0+44 ALLEY "A"	100	10	9.80	0.50	1.67	8.2	0.0	8.2	9.7	1.69	5" INVERT	1'-15" SID	10.0	8.2
19	STA 2+15 WALNUT RIDGE DRIVE	100	10	9.80	0.50	1.88	9.2	0.0	9.2	10.1	3.00	6" CROWN	1'-10" SID	21.0	9.2
20	STA 1+95 WALNUT RIDGE DRIVE	100	10	9.80	0.50	0.23	1.1	0.0	1.1	---	SAC	6" CROWN	1'-10" SID	21.0	1.1
21	STA 0+48 ALLEY "B"	100	10	9.80	0.50	2.12	10.4	0.0	10.4	12.1	2.65	5" INVERT	1'-15" SID	9.3	9.3
22	STA 0+58 WILD OAK LANE	100	10	9.80	0.50	0.59	2.9	0.0	2.9	11.2	3.66	6" CROWN	1'-10" SID	5.8	2.9
23	STA 0+58 WILD OAK LANE	100	10	9.80	0.50	1.67	8.2	0.0	8.2	11.2	3.66	6" CROWN	1'-10" SID	5.8	8.2
24	STA 6+38 WALNUT RIDGE DRIVE	100	10	9.80	0.50	0.31	1.5	0.0	1.5	3.7	5.2	6" CROWN	1'-10" SID	7.1	5.2
25	STA 13+64 ALLEY "M"	100	10	9.80	0.50	1.07	5.2	0.0	5.2	6.6	0.78	5" INVERT	1'-10" SID	6.6	5.2
26	FUTURE DEVELOPMENT (STUB-OUT)	100	10	9.80	0.50	1.95	9.6	---	9.6	---	---	---	---	---	---
27	STA 4+20 ALLEY "M"	100	10	9.80	0.50	1.25	6.1	0.0	6.1	8.7	1.37	5" INVERT	1'-10" SID	6.1	6.1
28	FUTURE DEVELOPMENT (STUB-OUT)	100	10	9.80	0.50	1.82	8.9	---	8.9	---	---	---	---	---	---
29	STA 4+40 COOLWOOD LANE	100	10	9.80	0.50	0.77	3.8	0.0	3.8	4.9	0.70	6" CROWN	1'-5" SID	2.9	2.9

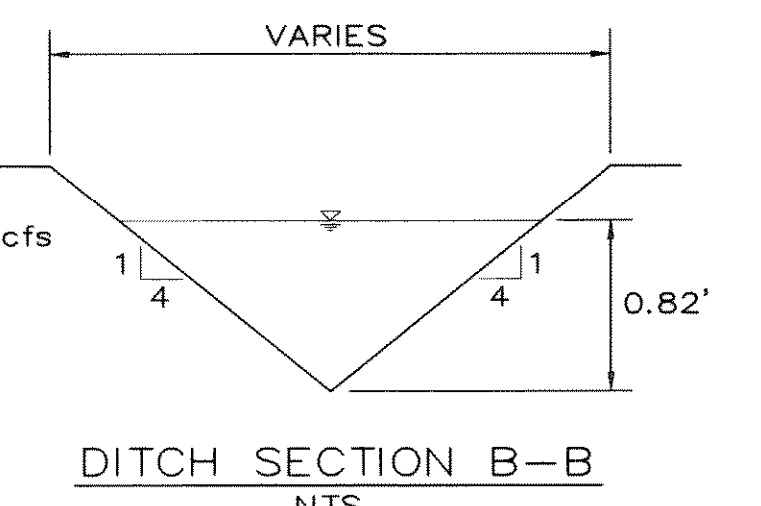
**RECORD DRAWINGS OCT. 8, 2001**  
 NOTE: THE INTENT OF THE OWNER AND ENGINEER WAS TO CONSTRUCT THE IMPROVEMENTS ACCORDING TO THESE PLANS AS APPROVED BY THE CITY OF ROCKWALL. THE LINES AND GRADES WERE SET ON THE GROUND FOR CONSTRUCTION ACCORDING TO SAID PLANS. WE ARE NOT AWARE OF ANY CHANGES OR REVISIONS TO THESE PLANS DURING CONSTRUCTION EXCEPT AS NOTED ON THE PLANS.

Q100 = 9.6 cfs  
 s = 2.00%  
 n = 0.030  
 d = 0.80'  
 v = 3.73 fps



**CAUTION!**  
 EXISTING GAS LINE IN THIS AREA. CONTRACTOR TO CALL 1-800-DIG-TESS (344-8377) AT LEAST 72 HOURS PRIOR TO CONSTRUCTION TO VERIFY LOCATION & ELEVATION.

Q100 = 11.2 cfs  
 s = 2.40%  
 n = 0.030  
 d = 0.82'  
 v = 4.15 fps



**RATIONAL METHOD:**  
 Q = CIA  
 WHERE:  
 Q = DISCHARGE IN cfs  
 C = RUN-OFF COEFFICIENT = 0.5  
 I = RAINFALL INTENSITY IN in/hr = 9.8  
 A = AREA IN ACRES  
 Q100 = (0.5)(9.8)A = 4.9A

- ACRES
- "Q" (C.F.S.) OR RUN-OFF
- INLET #
- DRAINAGE AREA DIVIDE
- FUTURE DRAINAGE AREA DIVIDE

**DRAINAGE AREA MAP**  
**HICKORY RIDGE - PHASE 1**

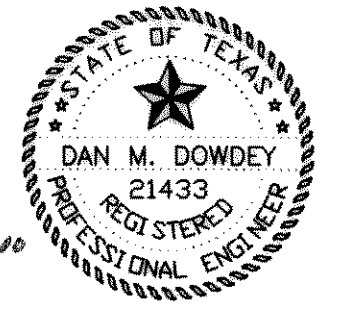
CITY OF ROCKWALL  
 ROCKWALL COUNTY, TEXAS

**DOWDEY, ANDERSON & ASSOCIATES, INC.**  
 5225 VILLAGE CREEK DR., STE. 200 (972) 931-0694 PLANO, TEXAS

DESIGN	DRAWN	CHECKED	DATE	SCALE	JOB	SHEET
JDS	JDS	DD	SEP, 2000	1"=100'	99066	1

THESE CONSTRUCTION PLANS WERE PREPARED UNDER THE RESPONSIBLE SUPERVISION OF DAN M. DOWDEY REGISTERED PROFESSIONAL ENGINEER No. 21433.

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY DAN M. DOWDEY P.E.#21433



BENCHMARK: SQUARE CUT ON TOP OF HEADWALL AT THE MOST NORTHERLY CORNER OF BRIDGE. NORTHEASTERLY SIDE OF FM 205. 1680± NORTHWEST OF CL OF MIMS ROAD. ELEV = 529.11

BENCHMARK: CITY OF ROCKWALL, TEXAS CONTROL MONUMENT #929. TOP OF HEADWALL IN NORTHWEST CORNER OF BRIDGE OVER SQUABBLE CREEK. SOUTHWESTERLY SIDE OF FM 205. ELEV = 524.55

NO.	DATE	BY	REVISION