

**RATING TABLE**

DISCHARGE (cfs)	HEADWATER ELEVATION (ft)	VELOCITY (ft/s)
0.00	N/A	N/A
1.00	0.46	1.12
2.00	0.63	2.25
3.00	0.90	3.37
4.00	1.28	4.49
5.00	1.77	5.62
6.00	2.37	6.74
7.00	3.08	7.87
8.00	3.90	8.99
9.00	4.82	10.11

Allowable Discharge  
 Area = 3.14 Acres  
 Cres = 0.35  
 I100 = 8.2  
 TC = 20 min  
 Q(allowable) = 9.01 cfs use 9.0 cfs

Storm Duration calculations CA = (0.9)(3.14) = 6.12

10min = 9.8	Q = 27.7
20min = 8.2	Q = 23.2
30min = 6.9	Q = 19.5
40min = 5.8	Q = 16.4
50min = 5.0	Q = 14.1
60min = 4.5	Q = 12.7
70min = 4.2	Q = 11.8
80min = 3.9	Q = 11.0
90min = 3.5	Q = 9.9

Volume Determination

10min	10 x 27.7 x 60 = 16,620
	0.5 x 20 x 9.0 x 60 = 5,400
	11,220 c.f.
20min	20 x 23.2 x 60 = 27,840
	0.5 x 30 x 9.0 x 60 = 8,100
	19,740 c.f.
30min	30 x 19.5 x 60 = 35,100
	0.5 x 40 x 9.0 x 60 = 10,800
	24,300 c.f.
40min	40 x 16.4 x 60 = 39,360
	0.5 x 50 x 9.0 x 60 = 13,500
	25,860 c.f.
50min	50 x 14.1 x 60 = 42,300
	0.5 x 60 x 9.0 x 60 = 16,200
	26,100 c.f.
60min	60 x 12.7 x 60 = 45,720
	0.5 x 70 x 9.0 x 60 = 18,900
	26,820 c.f.
70min	70 x 11.8 x 60 = 49,560
	0.5 x 80 x 9.0 x 60 = 21,600
	27,960 c.f.
80min	80 x 11.0 x 60 = 52,800
	0.5 x 90 x 9.0 x 60 = 24,300
	28,500 c.f.*
90min	90 x 9.9 x 60 = 55,460
	0.5 x 100 x 9.0 x 60 = 27,000
	26,460 c.f.

\*Maximum Volume Required = 28,500 c.f.  
 Detention Pond Volume = 22,128 c.f.  
 NOTE: Balance of volume required will be provided in Phase II

**STORM WATER RUNOFF CALCULATIONS**

AREA NO.	ACRES	TC (min)	"C"	"100" (IN./HR.)	"Q100" (cfs)	DISCHARGE TO
A	3.14	10	0.9	9.8	27.7	DET. POND
B	0.16	10	0.9	9.8	1.4	FRONTAGE ROAD

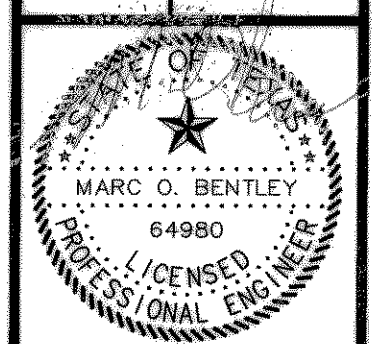
ROCKWALL CENTRAL SHOPPING CENTER  
 CAB B, SLIDE 237 & 232  
 M.R.R.C.T.

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**RECORD DRAWING**

**DRAINAGE AREA MAP**

**ROCKWALL HONDA**  
**CITY OF ROCKWALL, TEXAS**



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MARC O. BENTLEY, P.E. NO. 64980 ON 9/11/01

Scale: 1"=20'  
 File Name: HONDASITE  
 Date: JAN. 2001  
 Project No.: 20123  
 Designed: B.E.I.  
 Drawn: B.E.I.  
 Checked: M.O.B.

SHEET  
**C4**

**RECORD DRAWING**

IMPROVEMENTS INDICATED ON THIS PLAN WHERE MADE IN ACCORDANCE WITH THE PROJECT PLANS & SPECIFICATIONS. THE DESIGN ENGINEER IS NOT AWARE OF ANY CHANGES TO THESE PLANS OTHER THAN THOSE PROVIDED ON A CONTRACTORS SET OF MARKUPS.

DATE: OCTOBER 2, 2002