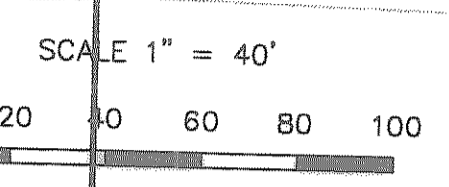


Lot 2, Block 1  
13.2000 Ac.



Offsite Flow is directed around site in a drainage ditch.

Undeveloped	Developed
A = 1.05 Acres	A = 1.05 Acres
C = .35	C = .9
I = 8.3 "/hr	I = 9.8 "/hr
TC = 20 min	TC = 10 min
$Q_{100} = .35 \times 8.3 \times 1.05 = 3.1$ cfs	$Q_{100} = .9 \times 9.8 \times 1.05 = 9.3$ cfs
	Detention required when developed.

ID	Area	C	TC	I <sub>100</sub>	Q <sub>100</sub>	Remarks
A	.16	.9	10	9.8	2.00*	Roof Drain
B	.32	.9	10	9.8	2.82	Roof Drain
C	.14	.9	10	9.8	1.25	Play Area
D	.14	.9	10	9.8	1.25	Play Area
E	.23	.9	10	9.8	2.03	Roof Drain

\* 1.41 cfs + 0.59 cfs for lawn runoff

Rational Method Used:  $Q_{100} = C \times I \times A$   
 $Q_{100}$  = 100 year discharge in Cubic Feet per Sec  
 C = Runoff Coefficient  
 TC = Time of Concentration in Minutes  
 I<sub>100</sub> = 100 year Rainfall Intensity Rate in Inches per Hour  
 A = Area in Acres

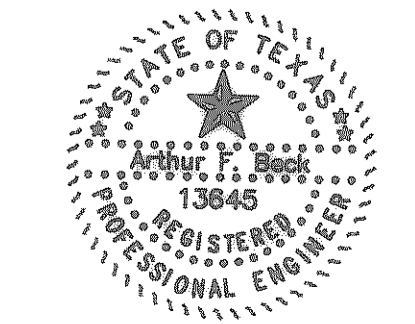
All site drainage is directed to Detention Ponds constructed in Phase I. Detention Pond System was designed to include drainage from this site. Calculations hereon are for sizing internal "Private System" pipes.

RECORD DRAWINGS  
5-24-07

July 11, 2006 PHASE 2

**DRAINAGE AREA MAP**  
**FIRST UNITED METHODIST CHURCH,**  
**ROCKWALL**  
 CITY OF ROCKWALL, TEXAS  
 F&S PARTNERS and BSM ENGINEERS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO
F&S	BSM	4-06		BSM		552



Arthur D. Beck

