

Course of 2-10x10' Box Culverts

①	N 71° 05' 20\"	- 47.06'
②	S 89° 00' 26\"	- 350.39'
③	N 45° 59' 34\"	- 70.71'
④	N 00° 59' 34\"	- 140.00'
⑤	N 45° 59' 34\"	- 70.71'
⑥	S 89° 00' 26\"	- 365.67'
⑦	N 50° 10' 41\"	- 38.21'

Note: All lateral connections are at 90° to the Box Culvert except as shown.

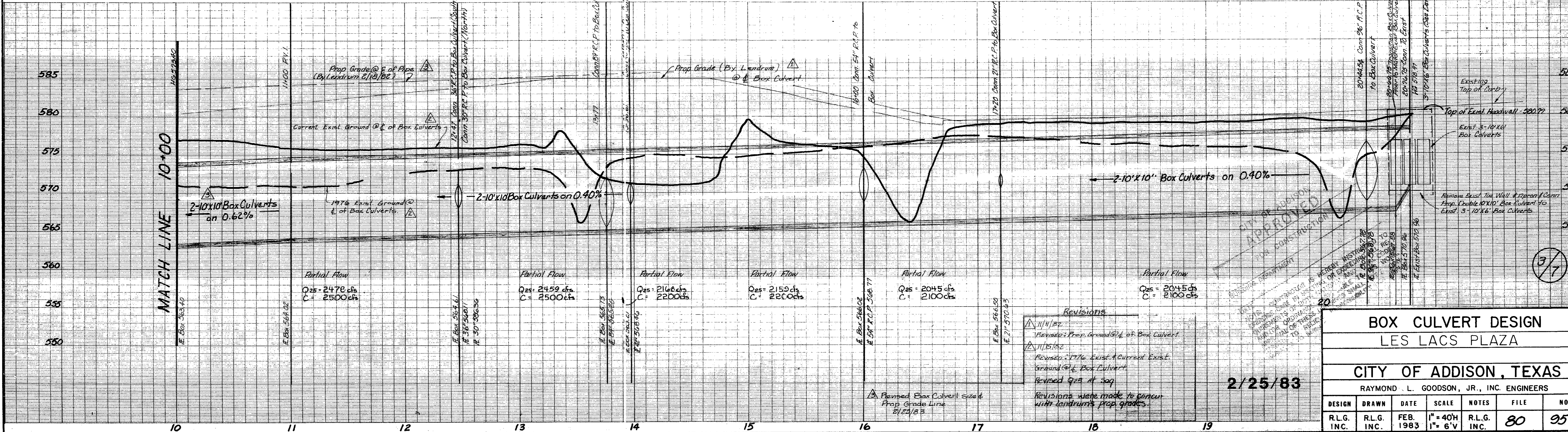
Construct 6-10x10' Cast-In-Place Reinforced Concrete Box Culverts See Detail Sht 7

**DESIGN SPECIFICATIONS**  
 City of Addison - Use Q25 & T.H.D. Standards  
 $Q_{25} = C \times I_{25} \times A$   
 $C = \text{Avg. Value Accepted} = 0.75$   
 $I_{25} = \frac{b}{(F+d)}$  Using Table VII T.H.D. for Dallas County  
 $b = 150$   $c = 0.865$   
 $d = 28$

**BOX CULVERT DESIGN**

Contributing Line	Contributing Area	Additional Drainage Area (AC)	Total D.A. (AC)	Tc (min)	I(25) in/hr	Q25 (cfs)
Line D"1.0"	A & B	580	580	27 min	4.7	2045
Line D"1.1"	C	1.7	581.7	27 min + 330/(13x60) = 27 $\frac{1}{2}$	4.66	2045
Line D"1.2"	A1	38.6	620.3	27 $\frac{1}{2}$ min + 120/(13x60) = 27 $\frac{3}{4}$	4.64	2159
Line D"1.3"	D	5.5	625.8	27 $\frac{3}{4}$ min + 203/(13.6x60) = 27 $\frac{3}{4}$	4.62	2168
Line D"1.4"	E	83.9	709.7	27 $\frac{3}{4}$ min + 20/(13.6x60) = 27 $\frac{3}{4}$	4.62	2459
Line D"1.5" & "1.6"	F/3, G/3	5.4	715.1	27 $\frac{3}{4}$ min + 130/(15.4x60) = 27 $\frac{3}{4}$	4.62	2478
Line D"1.7"	F/3	2.2	717.3	27 $\frac{3}{4}$ min + 252/(15.4x60) = 28 $\frac{1}{2}$	4.6	2478
Line D"1.8"	G/3	3.2	720.5	28 $\frac{1}{2}$ min + 137/(15.4x60) = 28 $\frac{1}{2}$	4.59	2480
Line D"1.9" & "2.0"	Street	0.8	721.3	28 $\frac{1}{2}$ min + 132/(15.4x60) = 28 $\frac{1}{2}$	4.58	2480
Line D"2.1"	F/3	2.2	723.5	28 $\frac{1}{2}$ min + 145/(15.4x60) = 28 $\frac{1}{2}$	4.57	2480
Line D"2.2"	G/3	3.2	726.7	28 $\frac{1}{2}$ min + 21/(15.4x60) = 28 $\frac{1}{2}$	4.57	2490
Line D"2.3"	Street & H/3	3.2	729.9	28 $\frac{1}{2}$ min + 90/(15.4x60) = 28 $\frac{1}{2}$	4.56	2496
Line D"2.4" & "2.5"	H/3, I/2	4.8	734.7	28 $\frac{1}{2}$ min + 76/(15.4x60) = 28 $\frac{1}{2}$	4.55	2506
Line D"2.6"	H/3 & Street	3	737.7	28 $\frac{1}{2}$ min + 276/(15.4x60) = 29 $\frac{1}{2}$	4.53	2506
Line D"2.7"	I/2	2.2	739.9	29 $\frac{1}{2}$ + 30/(15.4x60) = 29 $\frac{1}{2}$	4.53	2513
End of Box	-	-	739.8	29.1	4.53	2513

**Bench Marks**  
 "D" Top of Curb at the Center of a 10' Inlet and 75' West of Centerline Commercial at the North Side of Belt Line Rd. Elevation: 580.83  
 "D" Top of Concrete Footing at N.W. Corner Tower #12N-3W-7288. Elevation: 605.20



**BOX CULVERT DESIGN**  
 LES LACS PLAZA  
 CITY OF ADDISON, TEXAS  
 RAYMOND L. GOODSON, JR., INC. ENGINEERS

DESIGN	DRAWN	DATE	SCALE	NOTES	FILE	NO.
RLG INC.	RLG INC.	FEB. 1983	1" = 40'H 1" = 6'V		80	95

2/25/83

**CONSTRUCTION SET**