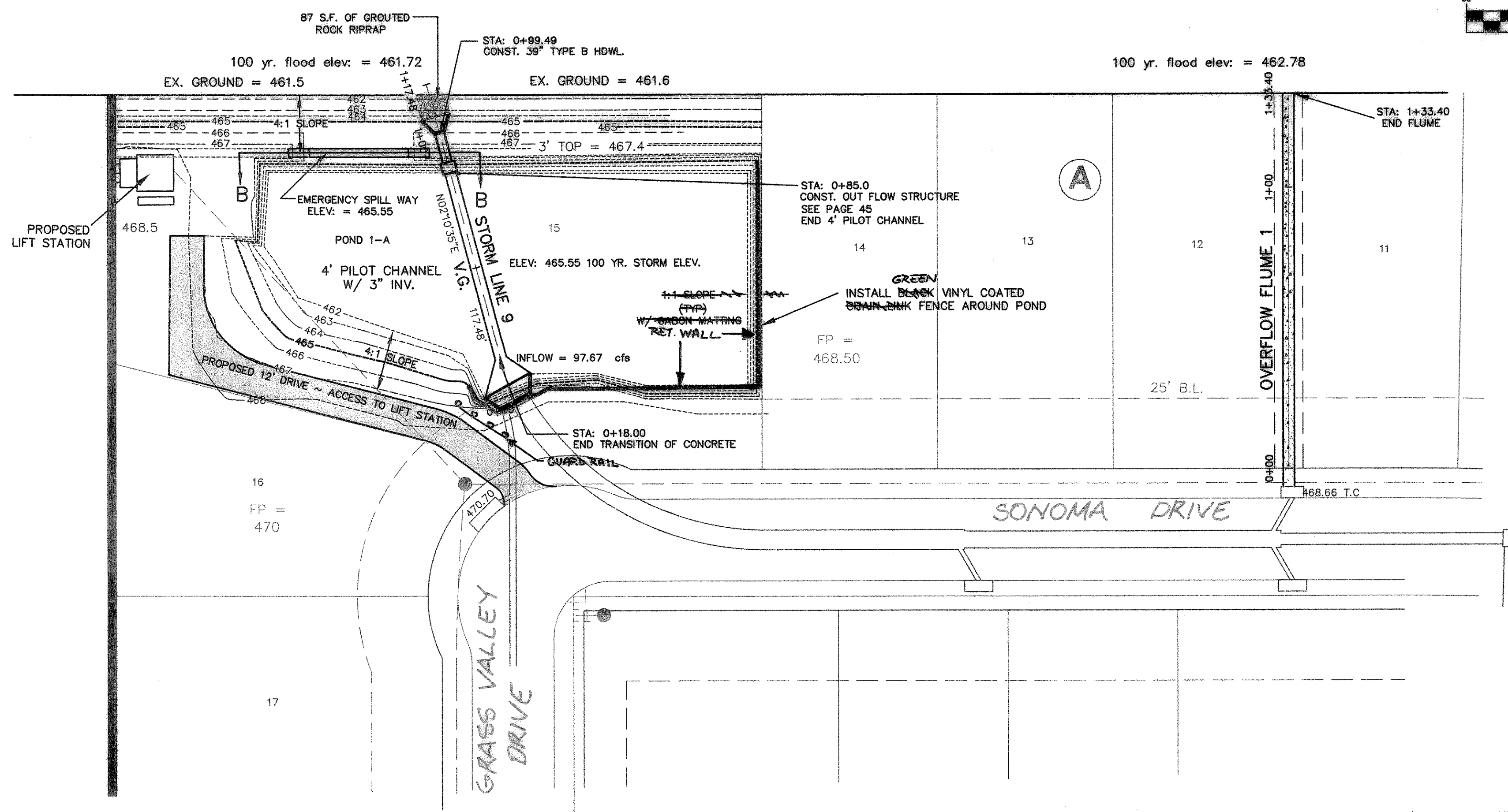
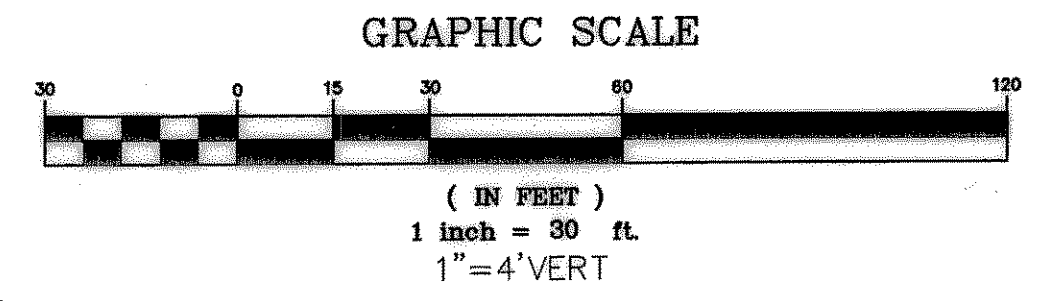


DOUPHRATE & ASSOCIATES, INC.  
 ENGINEERING - PROJECT MANAGEMENT - SURVEYING  
 2235 RIDGE RD., # 200 ROCKWALL, TEXAS 75087  
 PHONE: (972)771-9004 FAX: (972)771-9005

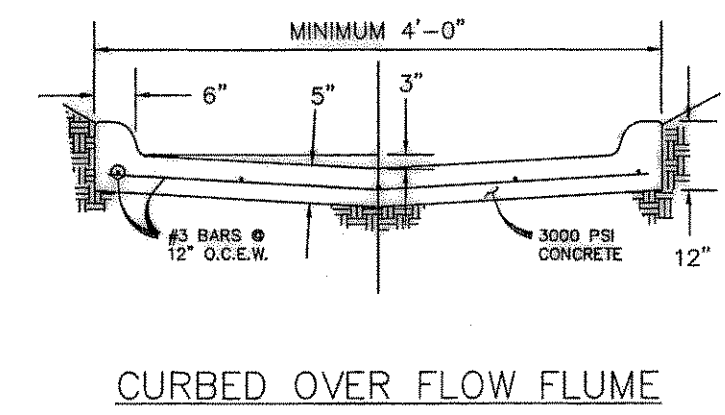
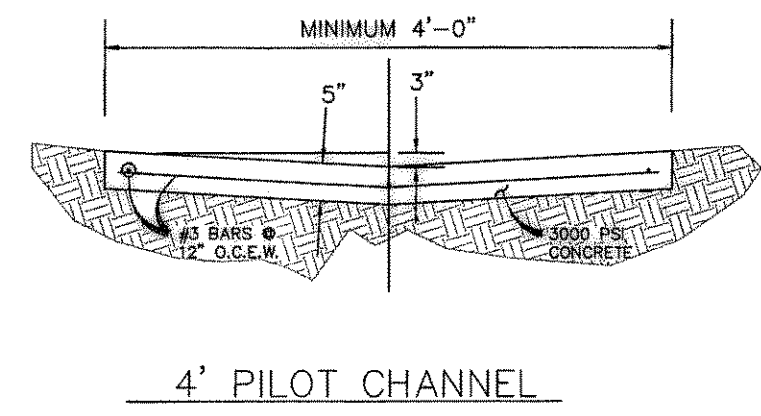
STORM SEWER PLAN & PROFILE  
 STORM LINE 9 & OVERFLOW FLUME 1  
 LAKEVIEW SUMMIT, PHASE 1A  
 CITY OF ROCKWALL, COUNTY OF ROCKWALL

REVISION:  
 RET WALL AT  
 DETENTION POND

REVISION	DATE	PROJECT
W.L.D. CHECKED		
K.E.B. DRAWN	8/22/00	
	9919-1astm6	
		42 OF



BENCHMARK:  
 BRASS CAP MONUMENT NO. 10 SET IN  
 CONCRETE IN THE CENTER OF GRASS  
 MEDIAN IN MASTERS DRIVE BETWEEN  
 NORTH LAKESHORE & SHORES BLVD.  
 N 7032464.6317, E 2589554.1518  
 ELEV. = 524.62



DETAIL OF OUTFALL STRUCTURE  
 SEE SHEET 45

ELEVATION	AREA SF	TOTAL AVE. STORAGE AVE.
462	11024.00	11348.00
463	11857.00	12142.50
464	12690.00	12937.00
465	13523.00	13731.50
466	14356.00	14526.00
467	15189.00	15320.50

MODIFIED RATIONAL METHOD DETENTION BASIN DESIGN

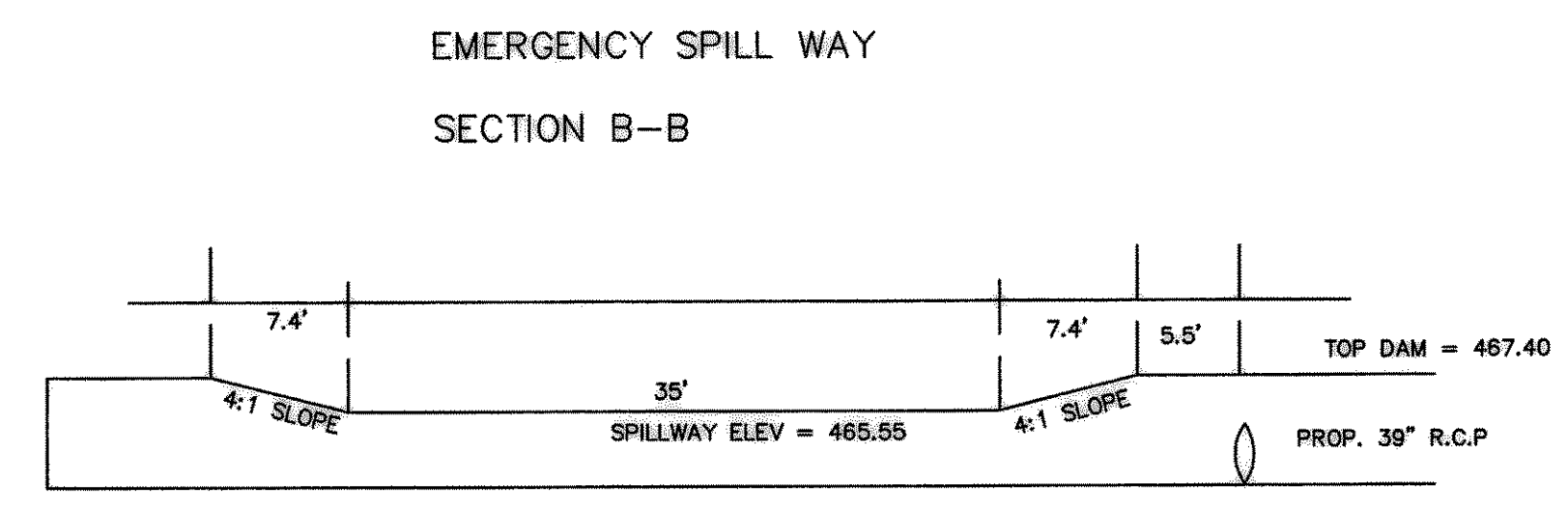
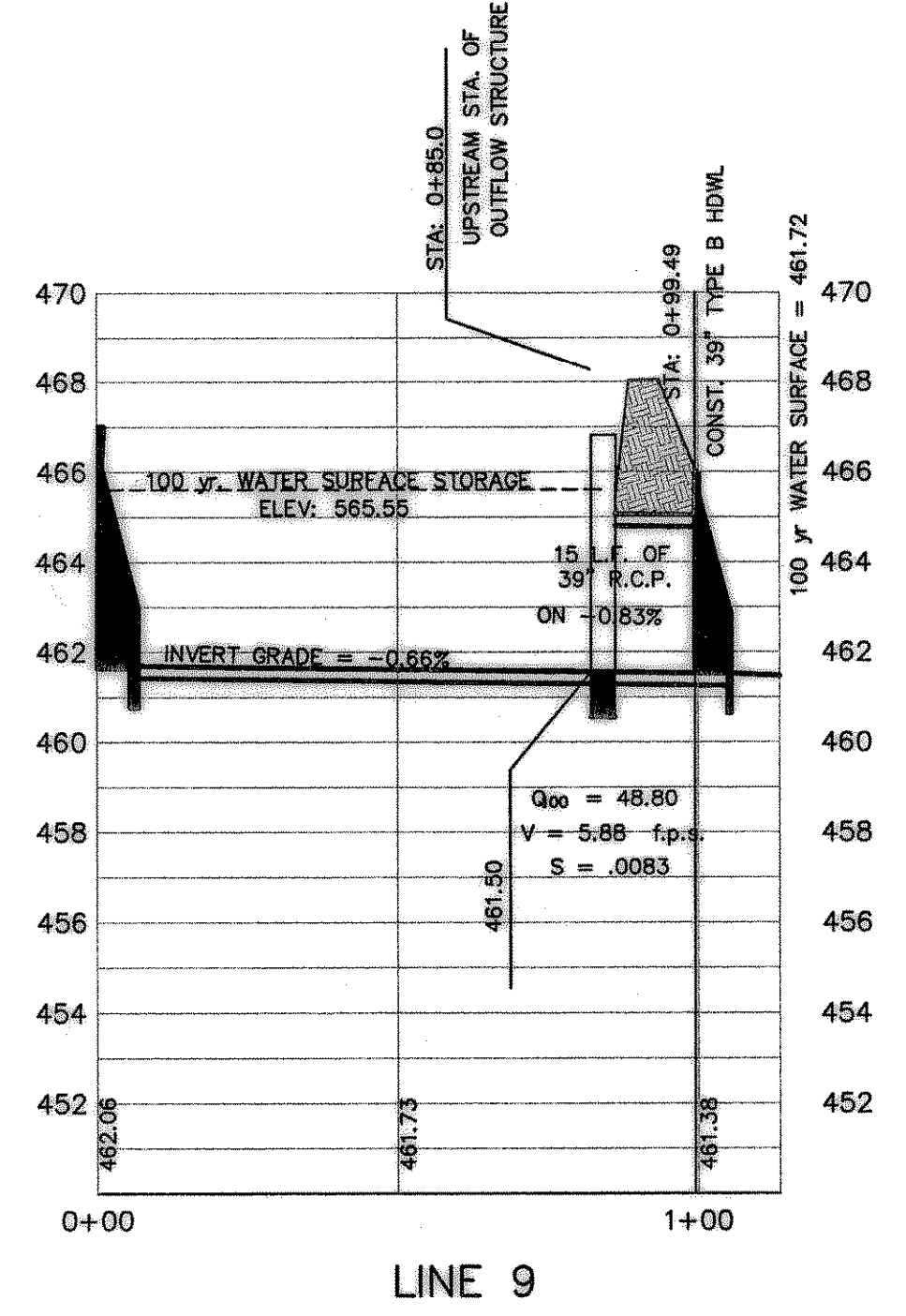
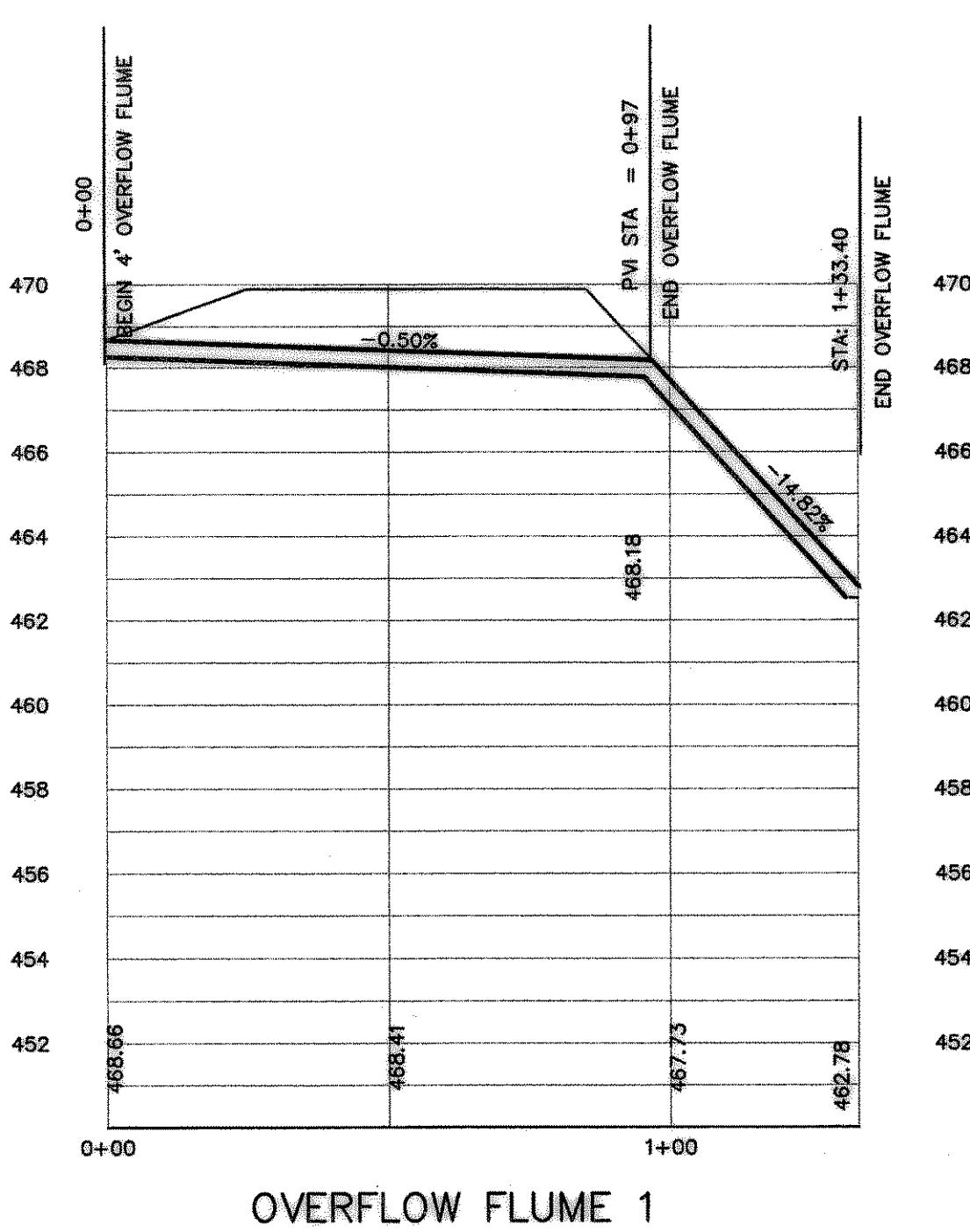
PRESENT CONDITIONS

Q = CIA  
 AREA = 18.93 acres  
 C = 0.35  
 T = 20 minutes  
 Q100 = 8.3 cfs  
 Q1000 = 57.9 max inpm release rate

FUTURE CONDITIONS

C	T	Q100	Q1000
0.5	40	8.3	57.9
10	20	8.3	57.9
3.0	10 min	8.3	57.9
37.68		82.71	20 min
0.5	40	8.3	57.9
10	20	8.3	57.9
30	30 min	8.3	57.9
70.75		58.79	40 min
0.5	40	8.3	57.9
10	20	8.3	57.9
50	50 min	8.3	57.9
49.83		44.34	60 min
0.5	40	8.3	57.9
10	20	8.3	57.9
4	70 min	8.3	57.9
39.86		35.87	80 min
0.5	40	8.3	57.9
10	20	8.3	57.9
3.4	90 min	8.3	57.9
33.88			

inflow	10050	10050	10050
outflow	0.25(1+10)Q100	10-DESIGN	TIME=10
	cfs		REQUIRED STORAGE CF
10 min storm	inflow = 38994		23856
	outflow = 37178		
20 min storm	inflow = 89253		47144
	outflow = 52107		
30 min storm	inflow = 127353		57877
	outflow = 69478		
40 min storm	inflow = 141104		54259
	outflow = 86545		
50 min storm	inflow = 149475		45281
	outflow = 104214		
60 min storm	inflow = 161433		39850
	outflow = 121583		
70 min storm	inflow = 167412		28460
	outflow = 138952		
80 min storm	inflow = 176978		20657
	outflow = 156321		
90 min storm	inflow = 182957		9267
	outflow = 173590		



RECORD DRAWINGS:  
 THE INTENT OF THE OWNER AND ENGINEER  
 WAS TO CONSTRUCT THESE FACILITIES  
 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.  
 THE CITY OF ROCKWALL INSPECTED  
 THE CONSTRUCTION. THE OWNER NOR  
 ENGINEER DID NOT VERIFY LINES OR GRADES  
 FOR THE CONSTRUCTION. WE ARE NOT AWARE  
 OF ANY CHANGES OR REVISIONS TO THESE  
 PLANS DURING CONSTRUCTION EXCEPT AS  
 NOTED 4/18/02