

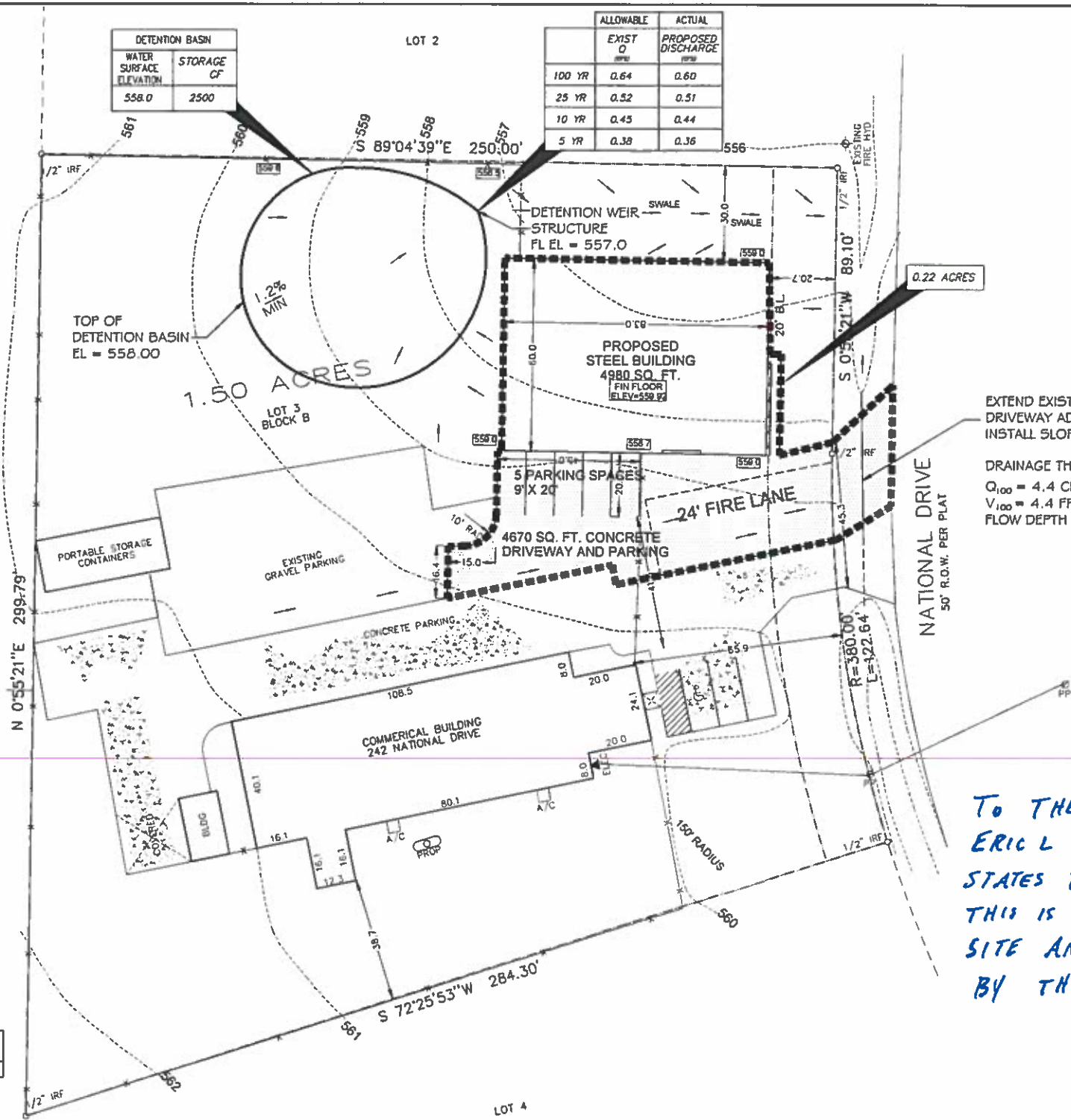


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DETENTION PLAN
ENGINEERED FOR
TIM SEYMORE

PLAN: DRAINAGE
ELD JOB NO.:
DRAWN BY: BW
FIRM REGISTRATION #: 3887
CITY: ROCKWALL, TEXAS

SCALE: 1"=20'
SHEET C-01



	ALLOWABLE	ACTUAL
	EXIST Q	PROPOSED DISCHARGE
100 YR	0.64	0.60
25 YR	0.52	0.51
10 YR	0.45	0.44
5 YR	0.38	0.36

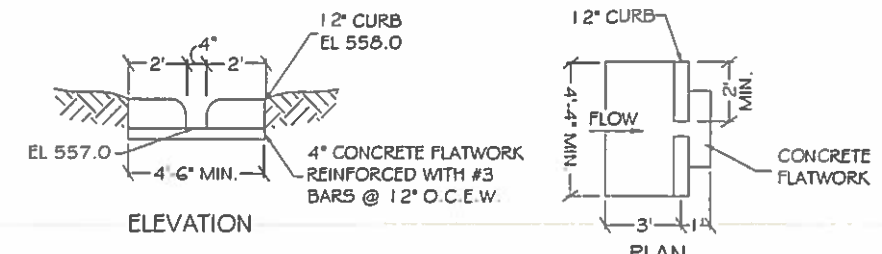
DETENTION BASIN	
WATER SURFACE ELEVATION	STORAGE CF
558.0	2500

EXTEND EXISTING 18" RCP UNDER DRIVEWAY ADDITION. 0.5% PIPE SLOPE. INSTALL SLOPPED END TREATMENT

DRAINAGE THRU CULVERT:
Q₁₀₀ = 4.4 CFS
V₁₀₀ = 4.4 FPS
FLOW DEPTH = 0.83 FT.

To THE BEST OF OUR KNOWLEDGE ERIC L DAVIS ENGINEERING, INC., HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE OWNER.

Reviewed 10/10/17



DETENTION WEIR STRUCTURE
N.T.S.

	FLOW DEPTH (FT)
100 YR	0.92
25 YR	0.73
10 YR	0.63
5 YR	0.53

DETENTION BASIN

DETENTION BASIN DESIGN MODIFIED RATIONAL METHOD

AREA AC	C (EXIST)	Tc (EXIST) MIN	I 100 (E) IN/HR	C (PROP)	Tc (PROP) MIN	I 100 (P) IN/HR	Q (EXIST) CFS	Q (PROP) CFS
0.22	0.35	20	8.3	0.9	10	9.8	0.639	1.940

* MAX RELEASE RATE

CHECK VARIOUS DURATION STORMS

	I 100 IN/HR	Q CFS	INFLOW CF	OUTFLOW CF	STORAGE CF
10 MIN	9.8	1.940	1164	383.46	780.78
15 MIN	9	1.782	1604	479.325	1124.48
20 MIN	8.3	1.643	1972	575.19	1396.89
30 MIN	6.9	1.366	2459	766.92	1692.24
40 MIN	5.8	1.148	2756	958.65	1797.51
50 MIN	5	0.990	2970	1150.38	1819.62
60 MIN	4.5	0.891	3208	1342.11	1865.49
70 MIN	4	0.792	3326	1533.84	1792.56
80 MIN	3.7	0.733	3516	1725.57	1790.91
90 MIN	3.5	0.693	3742	1917.3	1824.90
100 MIN	3.4	0.673	4039	2109.03	1930.17
110 MIN	3.2	0.634	4182	2300.76	1881.00

Max ← Storage Volume Required

ALL ELEVATIONS ARE BASED ON SURVEY DATA PROVIDED BY THE OWNER AND/OR SURVEYOR. DESIGN ENGINEER ASSUMES NO RESPONSIBILITY FOR DISCREPANCIES RESULTING FROM SURVEY DATA.

