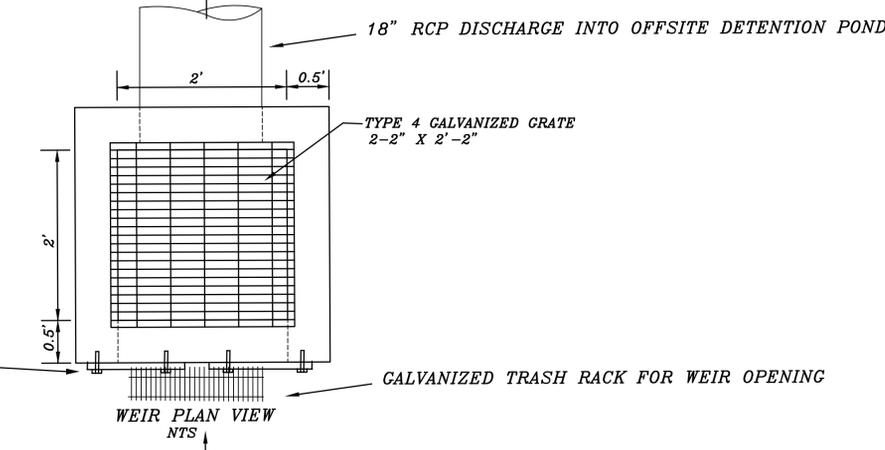
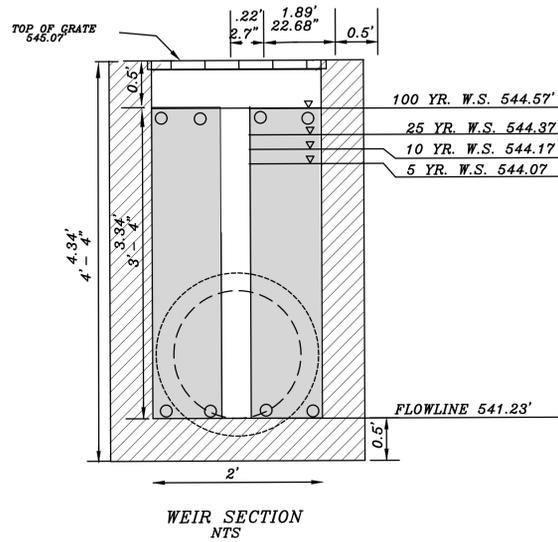


WEIR NO 3 DETAIL



DETENTION REQUIRED - 1698 cf BYPASSED (AT WEIR 4) + 3592 cf (DA 11 & 12) = 5290 cf
 DETENTION PROVIDED - 9315 cf

ALLOWABLE Q DISCHARGE THRU WEIR = 4.56 cfs

DETENTION POND NO. 3 OVER DETAINS 1698 cf FOR VOLUME OVERFLOW AT WEIR 4

WEIR NO 3 CALCULATIONS

Rectangular Suppressed Weir

$$Q = 3.33 h^{1.5} (L)$$

Q = Exist. Conditions Flowrate = 4.56 cfs
 h1 = Height of Weir at 100 yr elev = 3.34' = 3' ft - 4" in.
 L = Length of Weir

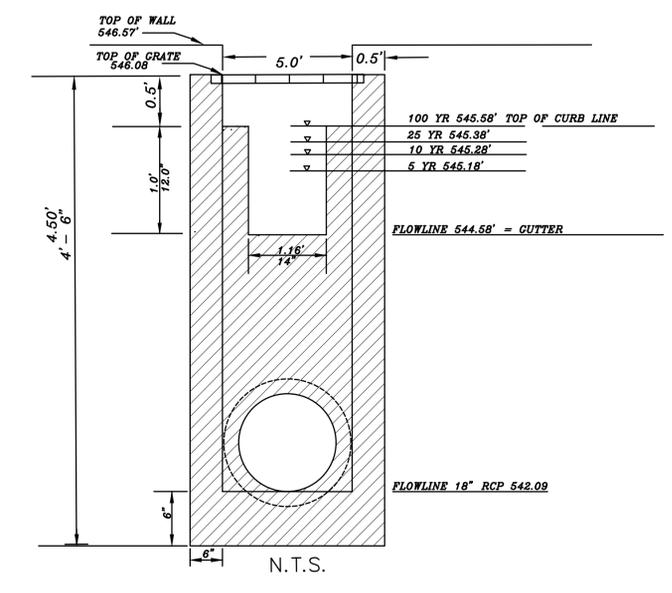
$$4.56 = 3.33 (3.34)^{1.5} (L)$$

$$L = 0.22 \text{ ft.} = 2.7 \text{ in.}$$

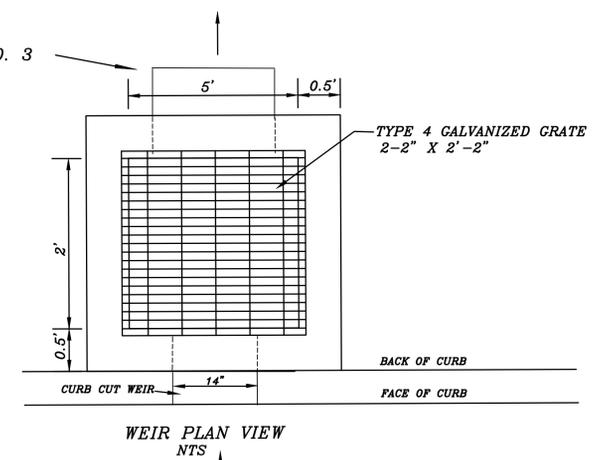
STORM	d	ELEVATION	VOLUME	Qallowable	Qactual
5 YR	2.84	544.07ft	1845 cf	1.81 cfs	1.81 cfs
10 YR	2.94	544.17ft	2082 cf	2.13 cfs	2.13 cfs
25 YR	3.14	544.37ft	2593 cf	2.43 cfs	2.43 cfs
100 YR	3.34	544.57ft	5290 cf	4.56 cfs	4.56 cfs

ALL RESPONSIBILITY FOR ADEQUACY OF DESIGN REMAINS WITH THE DESIGN ENGINEER. THE CITY OF ROCKWALL, IN REVIEWING AND RELEASING PLANS FOR CONSTRUCTION, ASSUMES NO RESPONSIBILITY FOR ADEQUACY OR ACCURACY OF DESIGN.

CURB INLET / WEIR NO. 4 DETAIL



18" RCP DISCHARGE INTO DET. POND NO. 3



DETENTION REQUIRED - 3858 cf (DA 10 & 13)
 DETENTION PROVIDED - 2160 cf
 DETENTION VOLUME BYPASSED - 1698 cf
 Q BYPASSED = 1698/3858 X 6.88 cfs (Developed Flow) = 3.03 cfs
 Q DETAINED THRU WEIR = 6.88 - 3.03 = 3.85 cfs

DETENTION POND NO. 3 OVER DETAINS 1698 cf FOR VOLUME OVERFLOW AT WEIR 4

WEIR NO. 4 CALCULATIONS

Rectangular Suppressed Weir

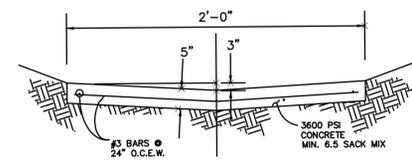
$$Q = 3.33 h^{1.5} (L)$$

Q = Exist. Conditions Flowrate Allowed = 4.05 cfs
 h1 = Height of Weir = 12 in. = 1.0 ft.
 L = Length of Weir

$$3.85 = 3.33 (1.0)^{1.5} (L)$$

$$L = 1.16 \text{ ft.} = 13.9 \text{ in.}$$

STORM	d	ELEVATION	VOLUME	Qallowable	Qactual
5 YR	0.60	545.2 ft	1360 cf	2.52cfs	2.52cfs
10 YR	0.70	545.3 ft	1555 cf	2.98cfs	2.98cfs
25 YR	0.80	545.4 ft	1928 cf	3.39cfs	3.39 cfs
100 YR	1.00	545.6 ft	2160 cf	4.0cfs	3.85cfs



2' CONC. PILOT CHANNEL BOTTOM
 FOR DET POND NO. 3
 SEE GRADING SHT 6.0

REVISED TO CONFORM TO CONSTRUCTION RECORDS.
 DATE: 2-17-26



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

WEIR DETAILS 3 & 4, CONC. PILOT FLUME
 LOT 5, BLOCK A
 MAVERICK RANCH ADDITION
 CITY ROCKWALL
 ROCKWALL COUNTY, TEXAS

REVISION
 WLD.
 CHECKED
 GCW.
 DRAWN
 SCALE
 1" = 30'
 DATE
 MAY, 2024
 PROJECT
 23028
 4.2