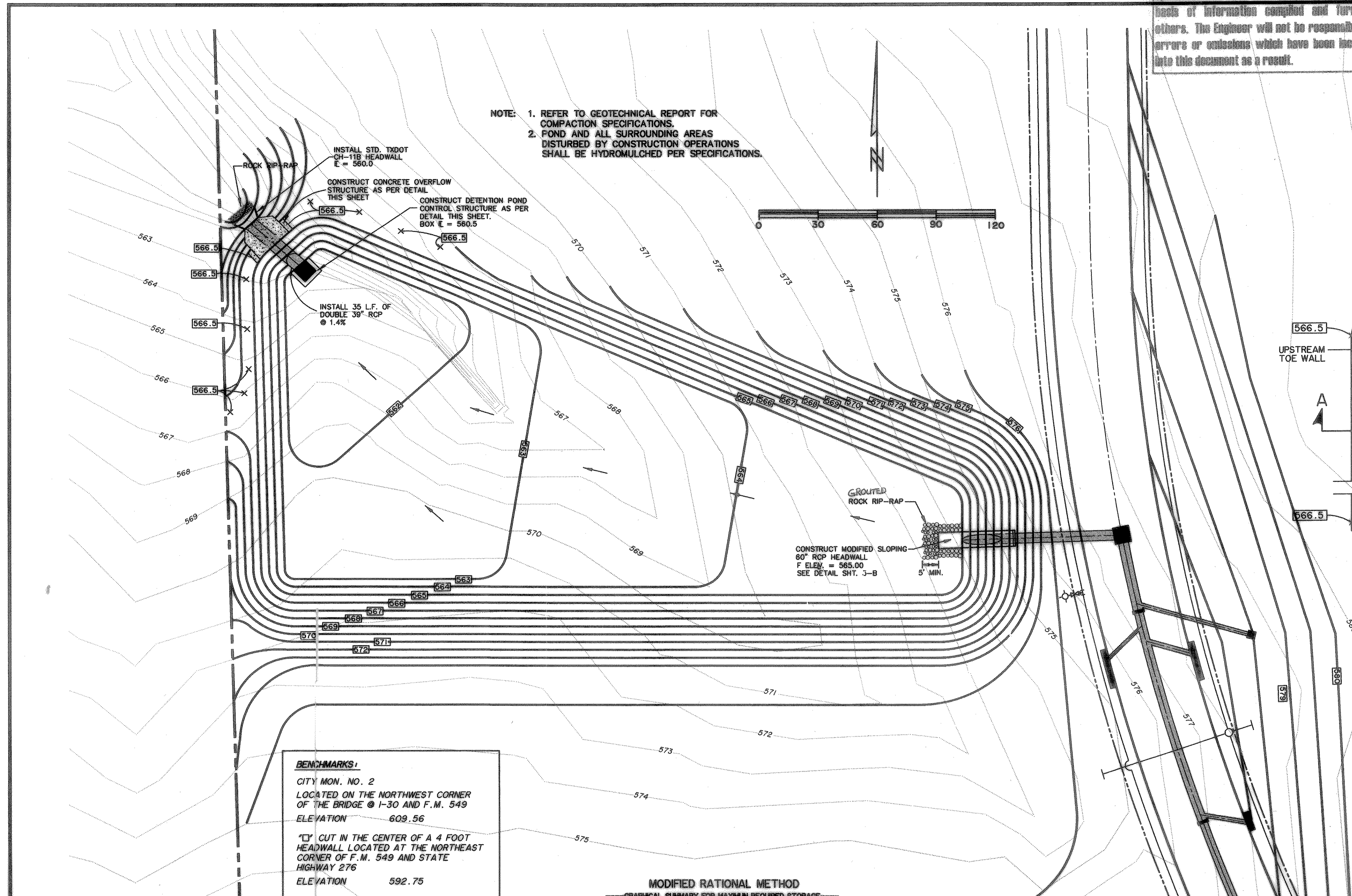


**RECORD DRAWINGS**

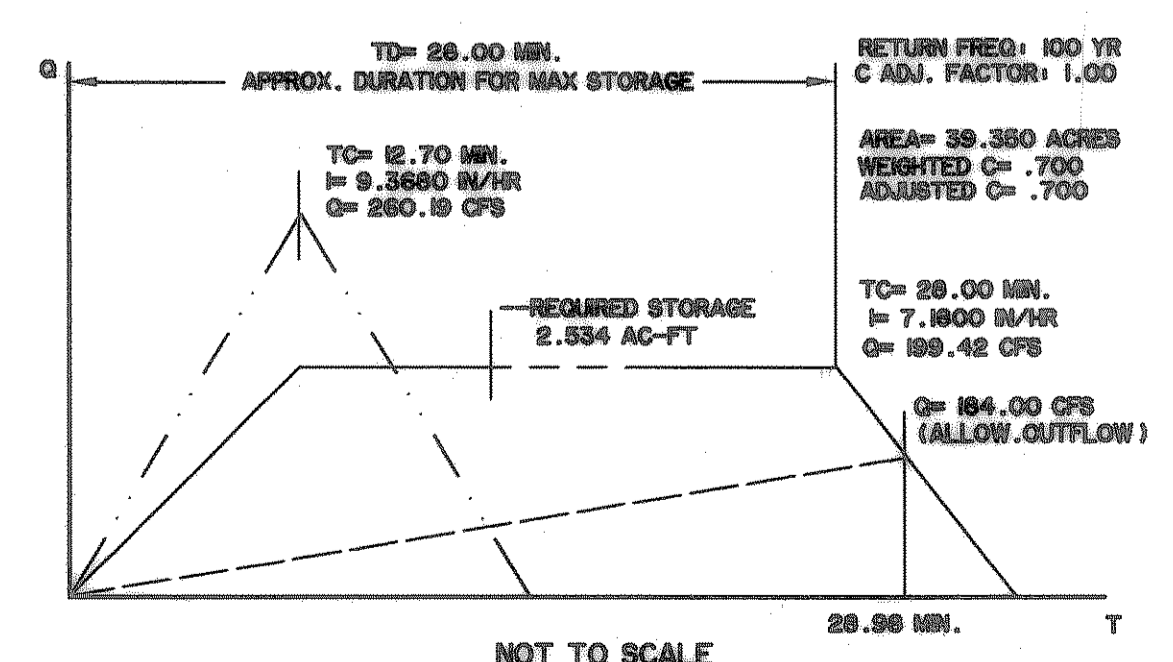
These as-built or record drawings (or corrected specifications) have been prepared, in part, on the basis of information compiled and furnished by others. The Engineer will not be responsible for any errors or omissions which have been incorporated into this document as a result.



**BENCHMARKS:**  
CITY MON. NO. 2  
LOCATED ON THE NORTHWEST CORNER OF THE BRIDGE @ I-30 AND F.M. 549  
ELEVATION 609.56  
"C" CUT IN THE CENTER OF A 4 FOOT HEADWALL LOCATED AT THE NORTHEAST CORNER OF F.M. 549 AND STATE HIGHWAY 276  
ELEVATION 592.75

**MODIFIED RATIONAL METHOD**  
GRAPHICAL SUMMARY FOR MAXIMUM REQUIRED STORAGE  
Q=CIA @ UNITS CONVERSION, WHERE CONVERSION= 43560 / (12\*3600)

RETURN FREQUENCY: 100 YR	ALLOWABLE OUTFLOW: 184.00 CFS
C' ADJUSTMENT: 1.000	REQUIRED STORAGE: 2,534 AC-FT
PEAK FLOW: 189.42 CFS	
.HYG FILE: 98041, HYG 98041 100	

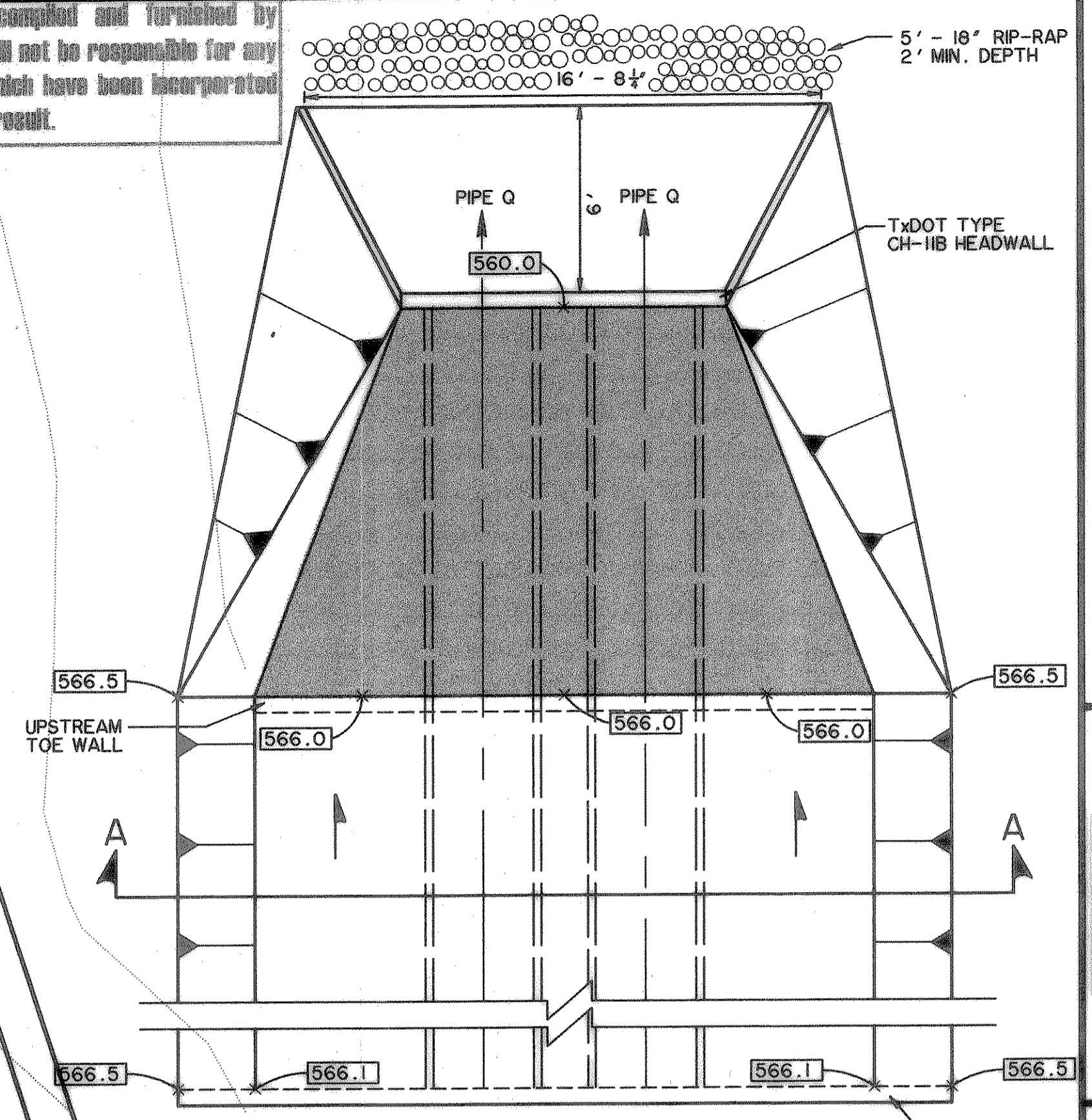


**DETENTION POND CALCULATIONS**

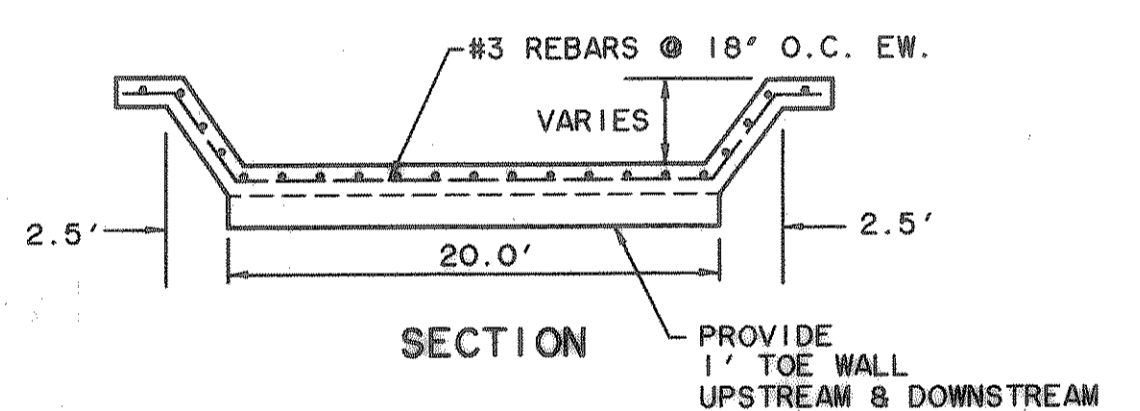
1. PEAK FLOW ALLOWED FOR RESIDENTIAL CONDITION (t<sub>c</sub> = 12.7 MINUTES), BASED ON OVERLAND FLOW WHERE V = 1 FPS MAX.

AREA DESIGNATION	AREA ACRES	C	C <sub>F</sub>	C <sub>x</sub> C <sub>F</sub>	ΣC <sub>x</sub> C <sub>F</sub>	t <sub>c</sub>	I <sub>100</sub>	Q <sub>100</sub>
*A	39.35	0.70	1.00	0.70	0.70	12.70	9.368	260
ALLOWABLE OUTFALL @ RESIDENTIAL RATES	39.35	0.50	1.00	0.50	0.50	12.70	9.368	184

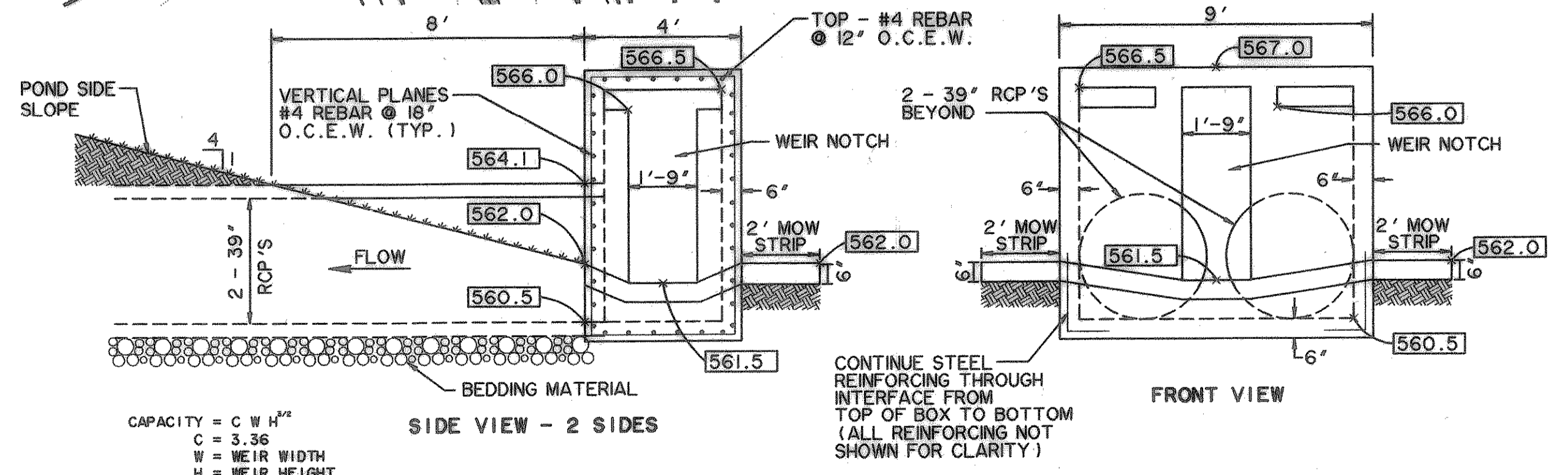
- \* AREA FLOWING TO PROPOSED DETENTION POND AT FUTURE DEVELOPED CONDITIONS INCLUDING DRAINAGE AREAS D-5 AND D-6. NUMBERS COMPUTED BY PONDPACK.
- 2. ALLOWABLE OUTFALL FROM DETENTION POND = 184.0 cfs
- 3. DETENTION VOLUME REQUIRED:  
SEE HYDROGRAPH CALCULATION WHERE VOLUME REQUIRED = 2,534 AC. FEET
- 4. POND VOLUME PROVIDED:  
2,583 ac. ft. @ 100 YR. PEAK ELEV. OF 566.0



**DETENTION POND OVERFLOW STRUCTURE DETAIL - PLAN**  
SCALE 1" = 4'



**OVERFLOW STRUCTURE DETAIL - SECTION A-A**  
N.T.S.

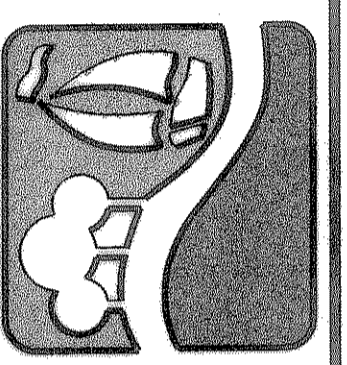


**DETENTION POND CONTROL STRUCTURE DETAIL**  
SCALE 1" = 3'

DETENTION POND CONTROL STRUCTURE CHART

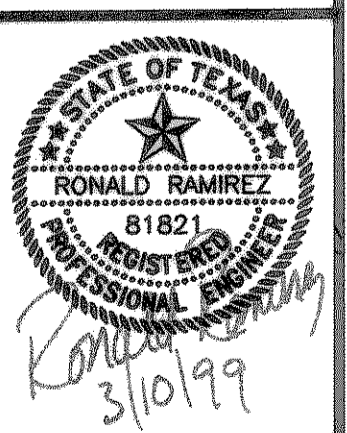
PEAK Q cfs	NUMBER OF WEIR NOTCHES	EACH WIDTH WEIR	POND FULL ELEV.	WEIR NOTCH FLOW LINE ELEV.	POND HEIGHT
184.0	3	1'-9"	566.00	561.50	4.5'

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**ROCKWALL TECHNOLOGY PARK**

**DETENTION POND 'A'**



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