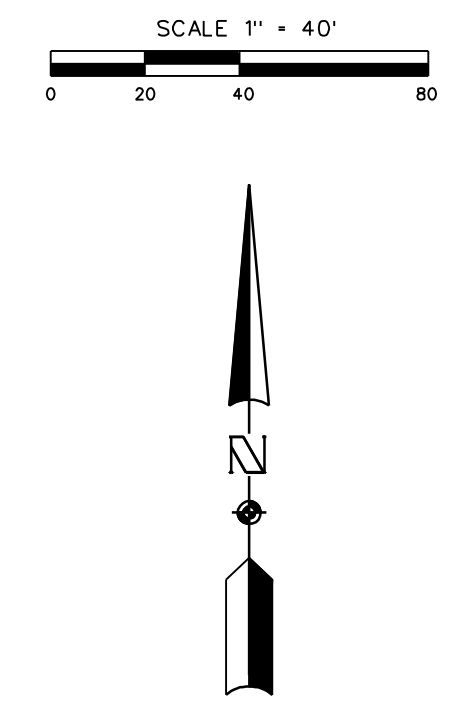


NOTES:
1. STORM DRAINAGE DESIGNED PER CITY OF ROCKWALL DESIGN MANUAL.
2. RATIONAL METHOD USED FOR DRAINAGE COMPUTATIONS (Q-CIA).
3. C = 0.90 (BUSINESS/RETAIL) ; C = 0.35 (OPEN AREAS)

LEGEND

- DRAINAGE AREA
- DRAINAGE DIVIDE
- FLOW DIRECTION ARROW



RUNOFF CALCULATIONS

AREA	AREA (ACRES)	TC (MIN.)	C	I100 (IN/HR)	Q100 (CFS)	COMMENTS
O1	0.57	10	0.9	9.8	5.0	TO PROPOSED FLUME (UNDETAINED)
A1	0.75	10	0.9	9.8	6.6	TO CURB CUT (TO DETENTION)
A2	0.08	10	0.9	9.8	0.7	TO CURB INLET (TO DETENTION)
A3	0.09	10	0.9	9.8	0.8	TO STORM DRAIN (TO DETENTION)
A4	0.09	10	0.9	9.8	0.8	TO DETENTION
A1-A4	1.01	10	0.9	9.8	8.9	TOTAL TO DETENTION
B1	0.19	10	0.9	9.8	1.7	TO S. GOLIAD (LESS THAN PRE-DEV)
C1	0.07	10	0.9	9.8	0.6	BYPASSES DETENTION

Q5 = 0.07(0.9)(6.2) = 0.4 CFS
Q10 = 0.07(0.9)(7.3) = 0.5 CFS
Q25 = 0.07(0.9)(8.2) = 0.5 CFS

USER DEFINED VOLUME RATING TABLE

Elevation (ft)	Volume (cu-ft)
553.00	.000
554.00	.006
555.00	.004
556.00	.056
557.00	.105
558.00	.177

OUTLET STRUCTURE INPUT DATA

Structure ID = 08
Structure Type = Orifice-Circular
W of Opening = 1
Invert Elev. = 552.50 ft
Orifice Coeff. = .60

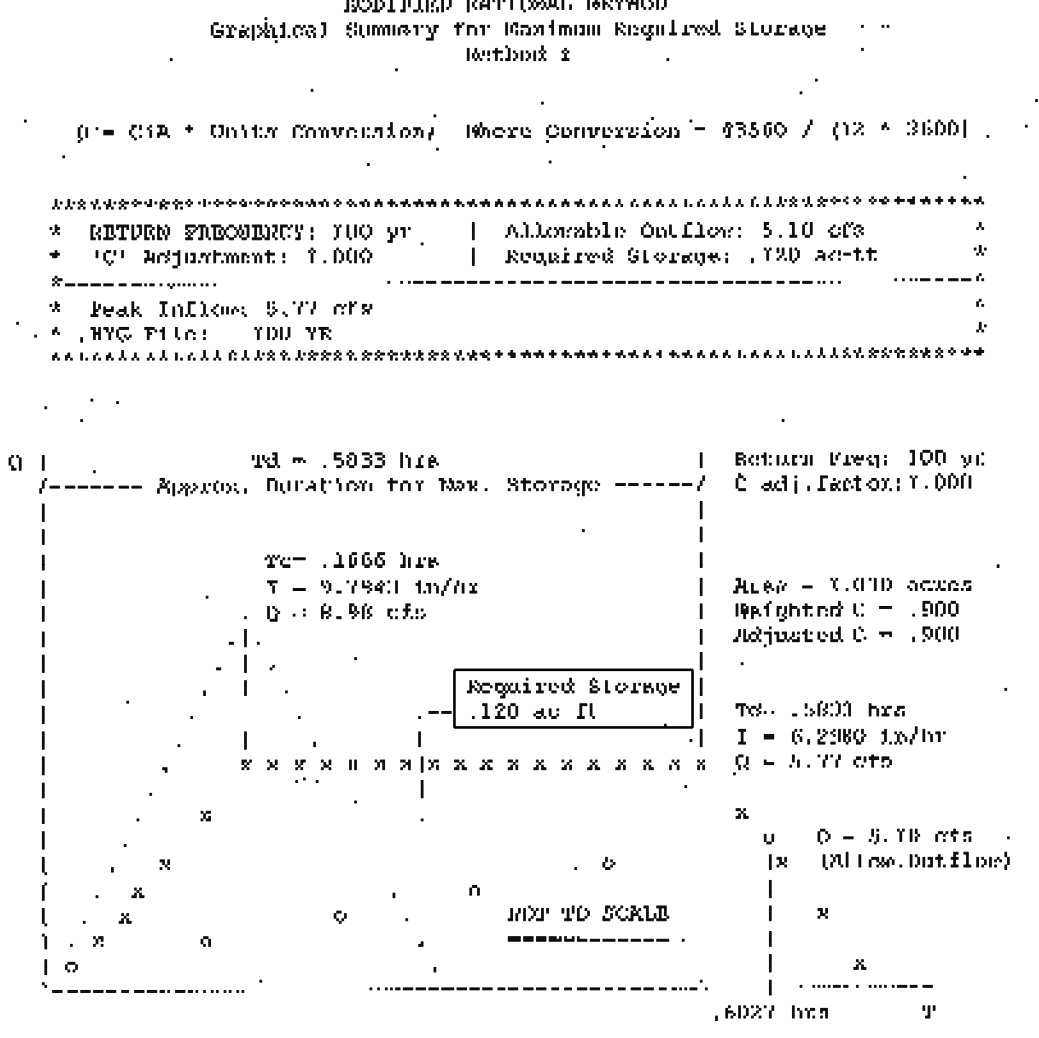
LEVEL POOL ROUTE

Elevation (ft)	Outflow (cfs)	Storage (cu-ft)	Inflow (cfs)	Q Total (cfs)	Storage (cu-ft)
555.00	0.00	0.00	0.00	0.00	0.00
553.50	0.58	0.00	0.00	0.58	2.03
554.00	1.39	0.06	0.00	1.35	4.30
556.50	3.69	0.15	0.00	3.64	9.10
552.00	2.21	0.02	0.00	2.21	23.82
556.50	2.51	0.04	0.00	2.51	31.03
556.00	2.79	0.06	0.00	2.79	39.89
555.50	3.04	0.08	0.00	3.04	42.00
557.00	3.27	0.10	0.00	3.27	54.09
557.50	3.49	0.12	0.00	3.49	71.78
558.00	3.69	0.17	0.00	3.69	89.36

DETENTION POND CALCULATIONS
DETENTION PROVIDED SUCH THAT POST-DEVELOPED FLOWS DO NOT EXCEED PRE-DEVELOPED FLOWS

Q100(PRE) = 5.7 CFS
Q100(BYPASS) = 0.6 CFS
Q100(ALLOWABLE) = QPRE - QBYPASS = 5.7 - 0.6 = **5.1 CFS**

DEVELOPED FLOW TO POND:
AREA = 1.01 ACRES
C = 0.90
TC 10 MIN.



LEVEL POOL ROUTING SUMMARY

HYG Dir = C:\Users\Keith\Documents\1
Inflow HYG file = work_pad.hyg - FOMD 10
Outflow HYG file = work_pad.hyg - FOMD 10 OUT 100 YR

Pond Node Data = FOMD 10
Pond Volume Data = FOMD 10
Pond Outlet Data = Outlet 1

No Infiltration

INITIAL CONDITIONS

Starting Ws Elev = 553.00 ft
Starting Volume = .000 ac-ft
Starting Outflow = .00 cfs
Starting Inflow = .00 cfs
Starting Total Out = .00 cfs
Time Increment = .0500 hrs

TRIBUTARY/OUTFLOW HYDROGRAPH SUMMARY

Peak Inflow = 5.77 cfs at 2000 hrs
Peak Outflow = 3.40 cfs at 6500 hrs

Peak Elevation = 557.30 ft
Peak Storage = 120 ac-ft

As Builts 7/13/17

