Culvert Calculator

Entered Data:

Shape	Rectangular
Number of Barrels	2
Solving for	Headwater
Chart Number	1
Scale Number	1
Chart Description	CONCRETE PIPE CULVERT; NO BEVELED RING ENTRANCE
Scale Decsription	SQUARE EDGE ENTRANCE WITH HEADWALL
Flowrate	368.2400 cfs
Manning's n	0.0130
Roadway Elevation	561.3300 ft
Inlet Elevation	554.4400 ft
Outlet Elevation	553.9300 ft
Height	48.0000 in
Width	84.0000 in
Length	102.0700 ft
Entrance Loss	0.5000
Tailwater	4.0000 ft

Computed Results:

Headwater	559.1817 ft Outlet Control
Slope	0.0050 ft/ft
Velocity	6.5757 fps

Messages:

Outlet head > Inlet head.

Headwater: 559.1817 ft

DIS-CHARGE FLOW	HEAD-WATER ELEV	INLET CONTROL DEPTH	OUTLET CONTROL DEPTH	FLOW TYPE	NORMAL DEPTH	CRITICAL DEPTH	VEL	OUTLET DEPTH	VEL	TAILWATER DEPTH
cfs	ft	ft	ft		in	in	fps	ft	fps	ft
37.25	557.98	1.44	3.54	NA	10.18	33.37	1.33	2.52	0.00	4.00
74.51	558.13	2.34	3.69	NA	16.11	33.37	2.66	2.52	0.00	4.00
111.76	558.39	3.14	3.95	NA	21.26	33.37	3.99	2.52	0.00	4.00
149.02	558.75	3.89	4.31	NA	26.01	33.37	5.32	2.52	0.00	4.00
186.27	559.21	4.63	4.77	NA	30.50	33.37	6.65	2.52	0.00	4.00
223.52	559.77	5.22	5.33	NA	34.83	33.37	7.98	2.52	0.00	4.00
260.78	560.56	6.12	6.00	NA	39.02	42.09	11.46	3.25	0.00	4.00
298.03	561.33	6.89	6.77	NA	48.00	48.00	10.64	4.00	0.00	4.00
335.29	561.33	0.00	6.89	NA	48.00	48.00	11.97	4.00	0.00	4.00

Culvert Calculator

Entered Data:

Shape	Rectangular
Number of Barrels	2
Solving for	Headwater
Chart Number	1
Scale Number	1
Chart Description	CONCRETE PIPE CULVERT; NO BEVELED RING ENTRANCE
Scale Decsription	SQUARE EDGE ENTRANCE WITH HEADWALL
Flowrate	277.2000 cfs
Manning's n	0.0130
Roadway Elevation	567.0000 ft
Inlet Elevation	561.6400 ft
Outlet Elevation	560.1900 ft
Height	36.0000 in
Width	96.0000 in
Length	208.6900 ft
Entrance Loss	0.5000
Tailwater	3.0000 ft

Computed Results:

Headwater	565.1142 ft Inlet Control
Slope	0.0069 ft/ft
Velocity	10.5263 fps

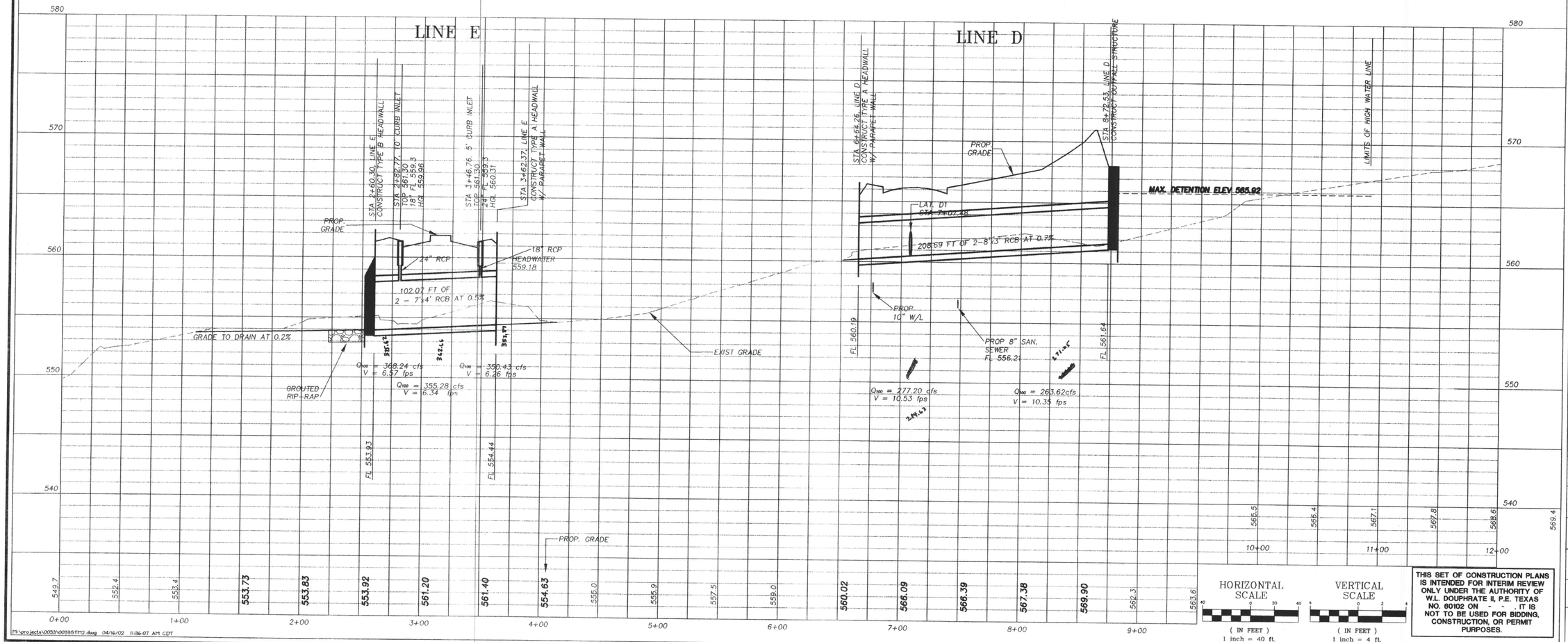
Messages:

Inlet head > Outlet head.

Headwater: 565.1142 ft

DIS-CHARGE FLOW	HEAD-WATER ELEV	INLET CONTROL DEPTH	OUTLET CONTROL DEPTH	FLOW TYPE	NORMAL DEPTH	CRITICAL DEPTH	VEL	OUTLET DEPTH	VEL	TAILWATER DEPTH
cfs	ft	ft	ft		in	in	fps	ft	fps	ft
55.16	563.39	1.75	1.75	NA	10.73	13.67	7.71	0.89	0.00	3.00
110.31	564.55	2.91	2.34	NA	16.93	21.70	9.77	1.41	0.00	3.00
165.47	565.55	3.91	3.33	NA	22.29	28.43	11.13	1.86	0.00	3.00
220.62	567.00	5.36	4.72	NA	27.22	34.44	12.16	2.27	0.00	3.00
275.78	567.00	0.00	5.36	NA	36.00	34.44	11.49	2.27	0.00	3.00

BENCHMARK: NW CORNER OF CONCRETE HEADWALL, +/- 285' EAST OF THE SOUTHEAST LOT CORNER OF TRACT 8 ALONG N. ROW LINE OF HWY 276. ELEV 581.52.



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HORIZONTAL SCALE
(IN FEET)
1 inch = 40 ft.

VERTICAL SCALE
(IN FEET)
1 inch = 4 ft.

THIS SET OF CONSTRUCTION PLANS IS INTENDED FOR INTERIM REVIEW ONLY UNDER THE AUTHORITY OF W.L. DOUPHRATE II, P.E. TEXAS NO. 80102 ON - - - IT IS NOT TO BE USED FOR BIDDING, CONSTRUCTION, OR PERMIT PURPOSES.

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY W.L. DOUPHRATE II TEXAS P.E. NO. 80102 ON

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STORM SEWER - LINE D AND E PROFILE

ROCKWALL DISTRIBUTION COMPLEX - PH. I

CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

REVISION	
- PER CITY COMMENTS	08/31/01
- PER DEVELOPER	04/01/02

CHECKED: W.L.D.

DRAWN: A.L.

DATE: 08/01

DRAWING: 0033STM2

PROJECT: 0033

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