DRAINAGE PLAN

MEADOWLAKE BEACH ADDITION

TO

WICHITA, SEDGWICK COUNTY, KANSAS

Prepared By

Baughman

ENGINEERING | SURVEYING | PLANNING
LANDSCAPE ARCHITECTURE

25 OCTOBER 2006

10/27/06

Drainage Plan
MEADOWLAKE BEACH ADDITION
Wichita, Sedgwick County, Kansas

Baughman Company, P.A.
25 October 2006

Existing Site Conditions

The proposed Meadowlake Beach Addition is located on the NW and SW corners of 55th Street South and Clifton Avenue. The development consists of approximately 135 acres of existing agricultural ground. The site is generally flat and drains to the south and southwest. There is an existing lake (Meadow Lake) located just west of the proposed development. This lake will remain as existing.

The soil types on the site consist primarily of Type A, B, and D soils. All soil types are of the sandy loam variety. The NRCS Soil Survey can be found in Appendix B.

The entire site is currently located within the FEMA 100-yr floodplain boundary and outside the designated floodway, according to preliminary Sedgwick County FEMA FIRM Panels 508 and 510 of 700.

Proposed Site Conditions

The proposed site will consist of a residential subdivision with associated streets, ponds, and utilities. The proposed subdivision will consist of approximately 115± lots. Storm sewer will be utilized throughout the subdivision to convey the runoff to the entrance pond and existing pond. Meadow Lake will be utilized and will drain directly into the Arkansas River via a 24" RCP. One entrance pond will be located along Clifton Avenue and drain into the existing Clifton Avenue ditch that runs along the east edge of the property via 2-24" RCP. The ponds will be referred to in this report as they are labeled on the according to their Reserve. Pond D was modeled using the 10-yr tailwater of the Arkansas River. At this point in the river, the 10, 50, 100, and 500-yr Base Flood Elevations coincide. The pond outlet will include a flap-gate into the river.

Pond D Summary

Static Water Surface Elevation	=	1255.0
100 year Design Surface Elevation	=	1258.0
Outlet	=	24" RCP

Pond E Summary

Static Water Surface Elevation	=	1260.5
100 year Design Surface Elevation	=	1262.8
Outlet	=	2 – 24" RCP

Offsite Flow

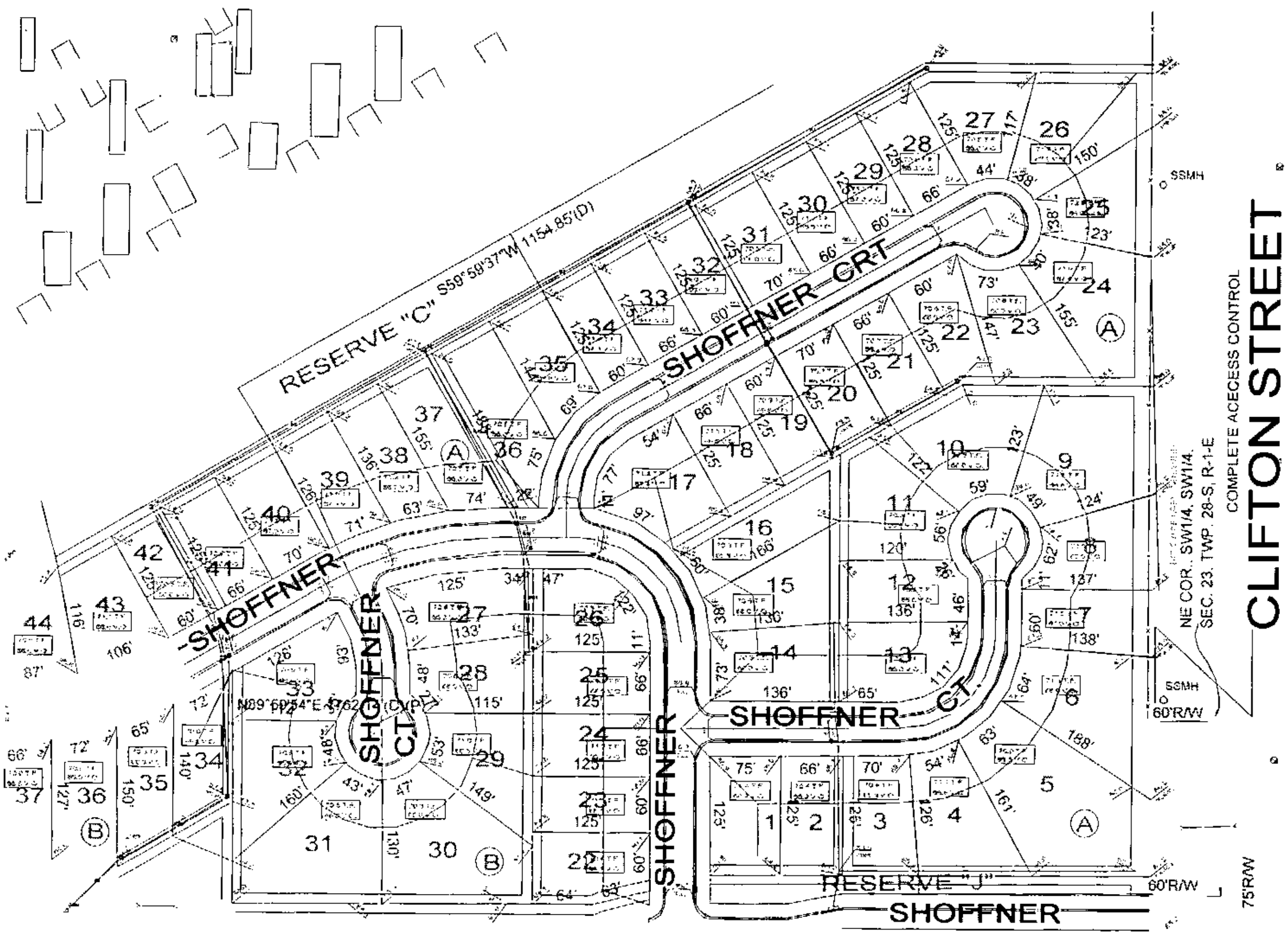
There is one introduction of offsite flow onto the proposed site. According to the USGS Quadrangle Sheet and site visits, there is approximately 20 acres draining from the north onto this property. The offsite flow enters the site via the Clifton Right of Way ditch along the east edge of the property. This area contributes approximately 90 cfs during a 100 year event. An entry culvert will be utilized to convey this drainage and is expected to be a 48" RCP or equivalent.

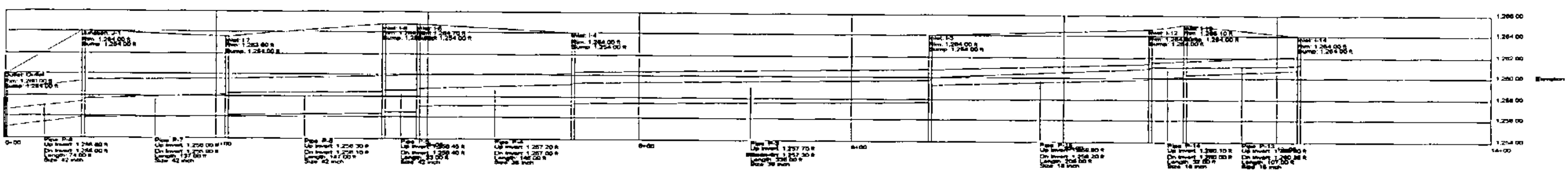
Overall Site Flow Summary

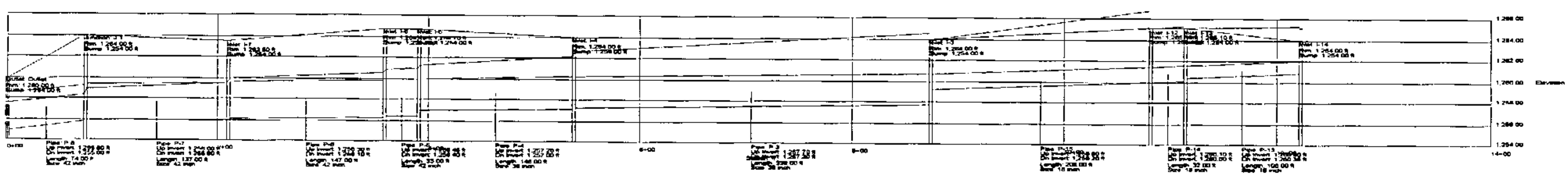
Although the existing pond and the entrance pond will provide detention, the majority of the runoff will flow directly to the Arkansas River via storm water sewer or existing ditches/channels. Due to the site's proximity to the river and the Arkansas River's large drainage basin, detention was not factored in to the site design. The site is expected to drain prior to the peak flow of the river.

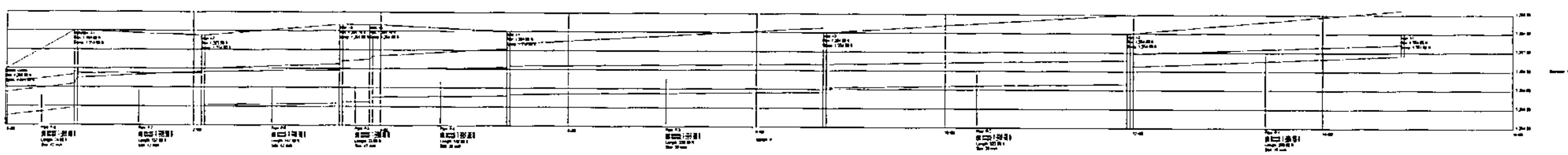
APPENDIX A

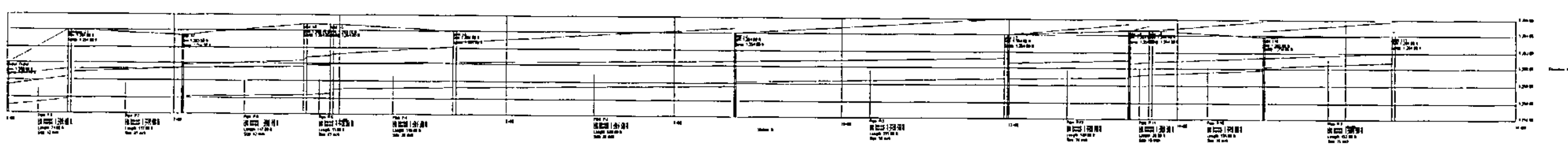
StormCad

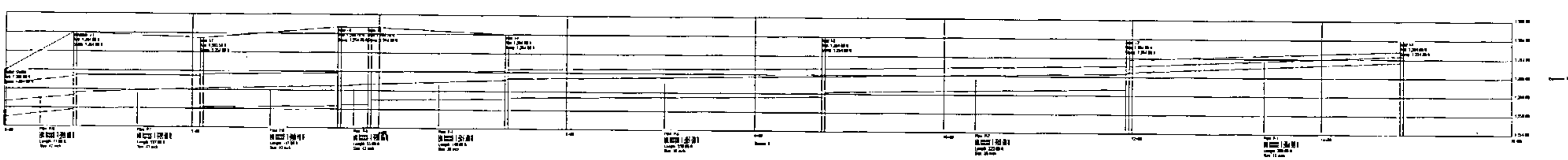

CLIFTON STREET
COMPLETE ACECESS CONTROL
NE COR., SW1/4, SW1/4,
SEC. 23, TWP. 28-S, R-1-E
SHOFFNER CRT
SHOFFNER CT.
SHOFFNER
RESERVE "C"
S59°58'37"W 1154.85'(D)
RESERVE "J"
SSMH
60'R/W
75'R/W

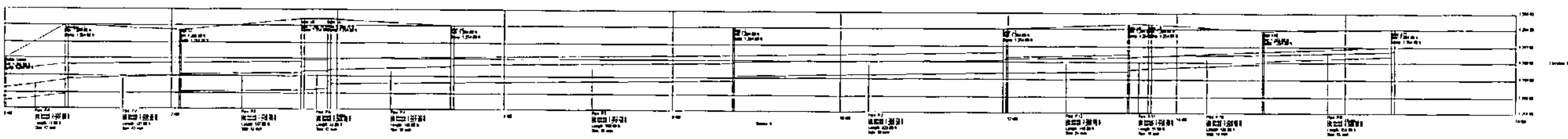


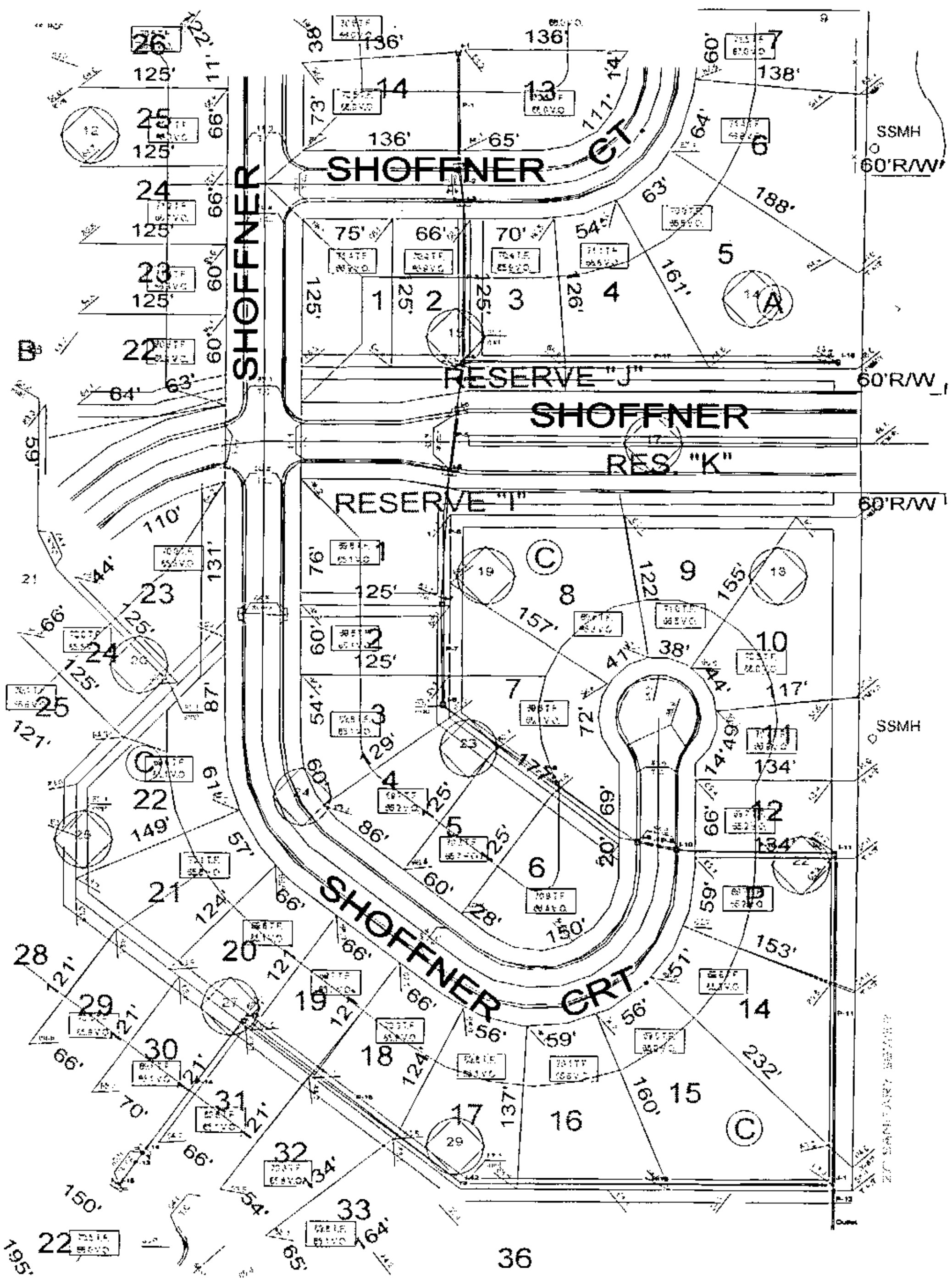


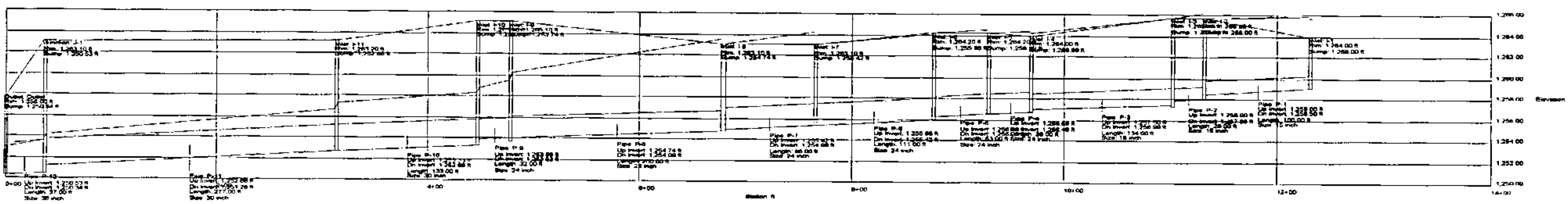


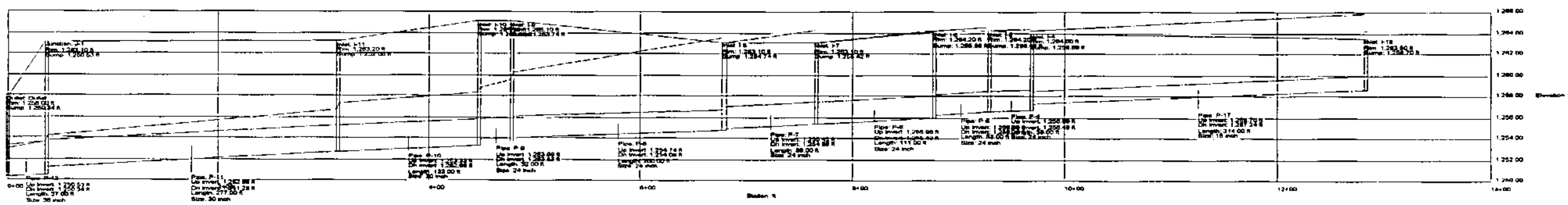


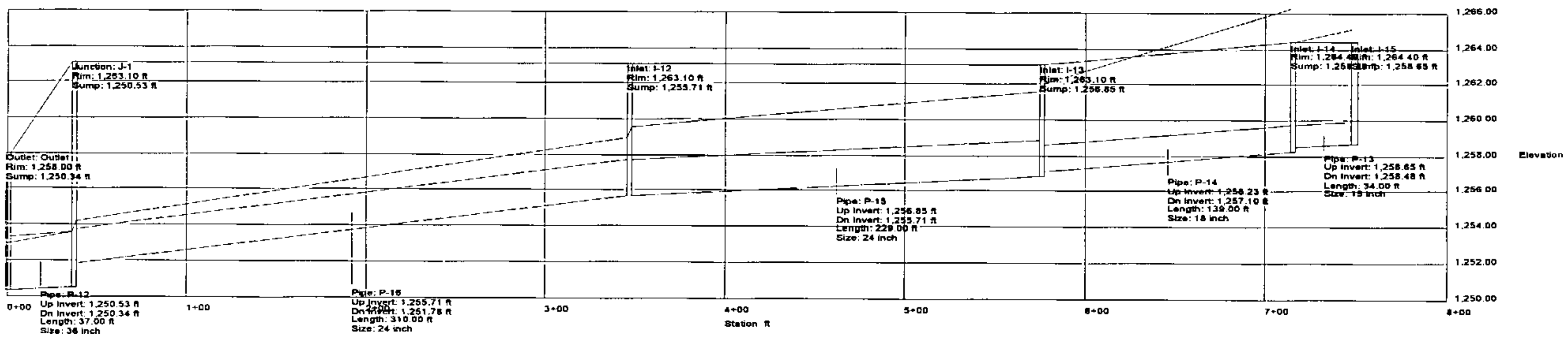




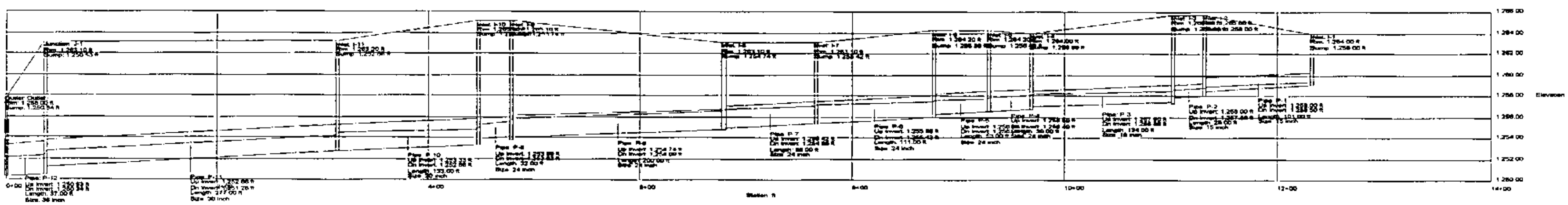

SHOFFNER CT.
SHOFFNER
RESERVE "J"
RES. "K"
RESERVE "I"
SHOFFNER CRT.
60'R/W
SSMH
36



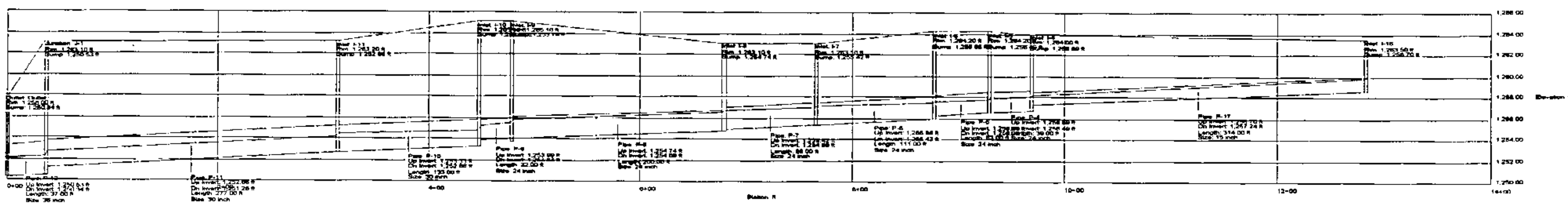


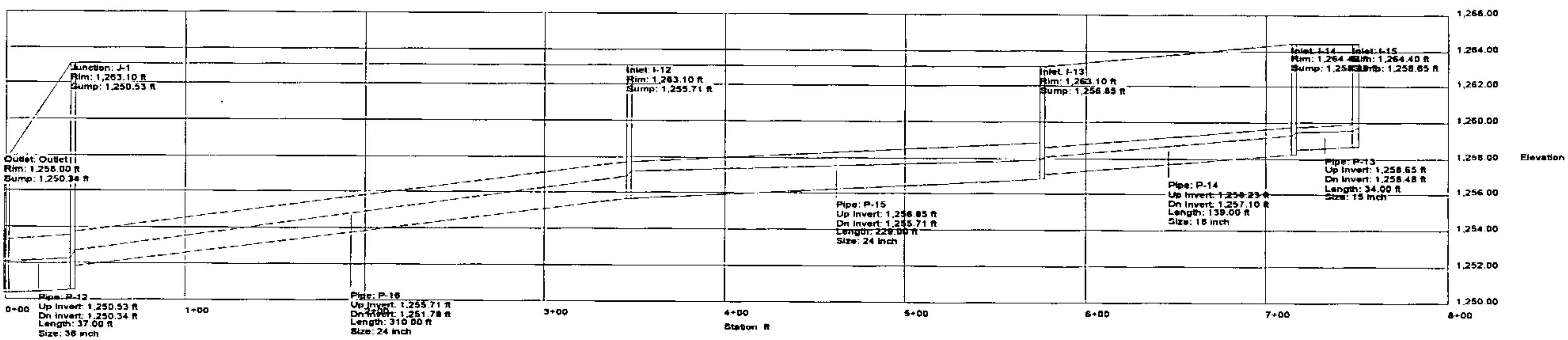


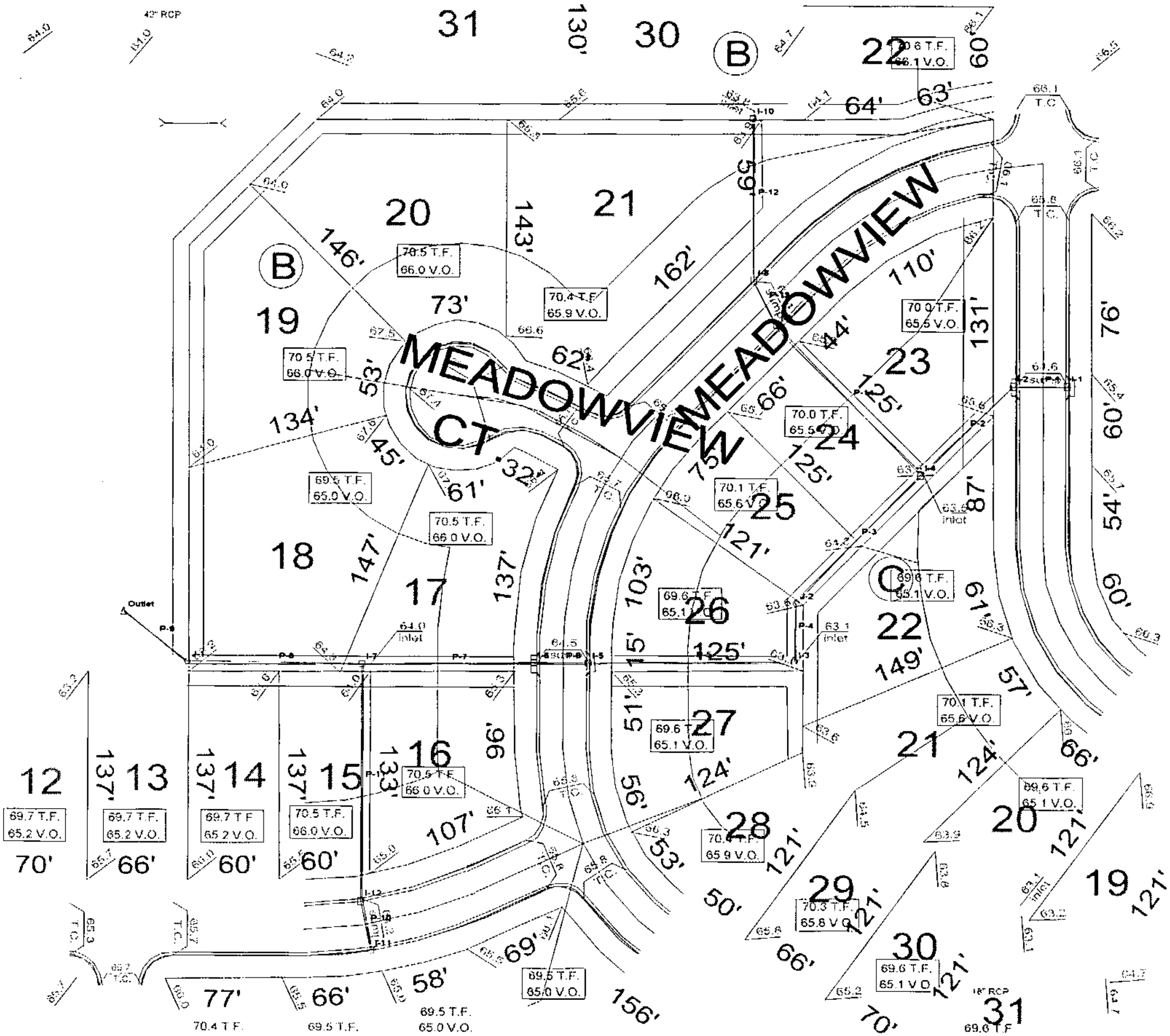
Baughman Co., P.A.



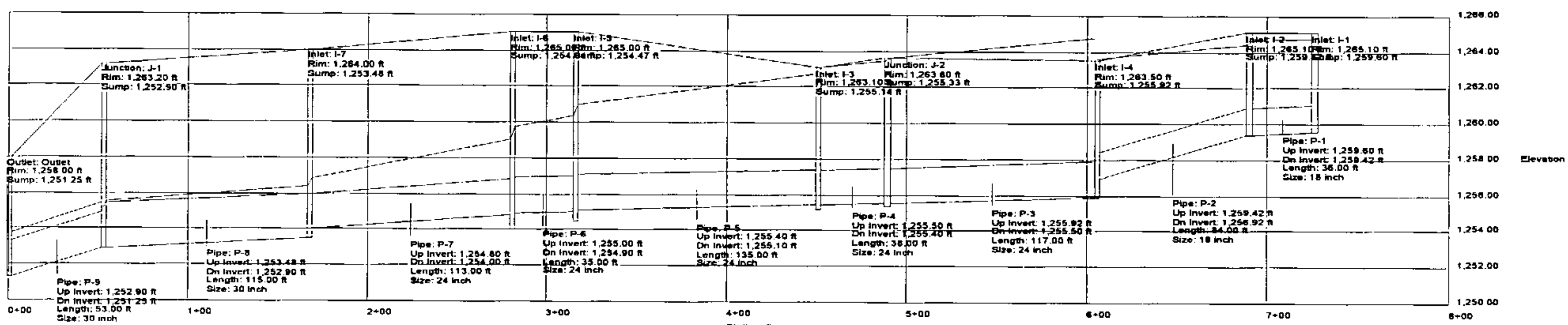
0+00
4+00
6+00
8+00
10+00
12+00
14+00

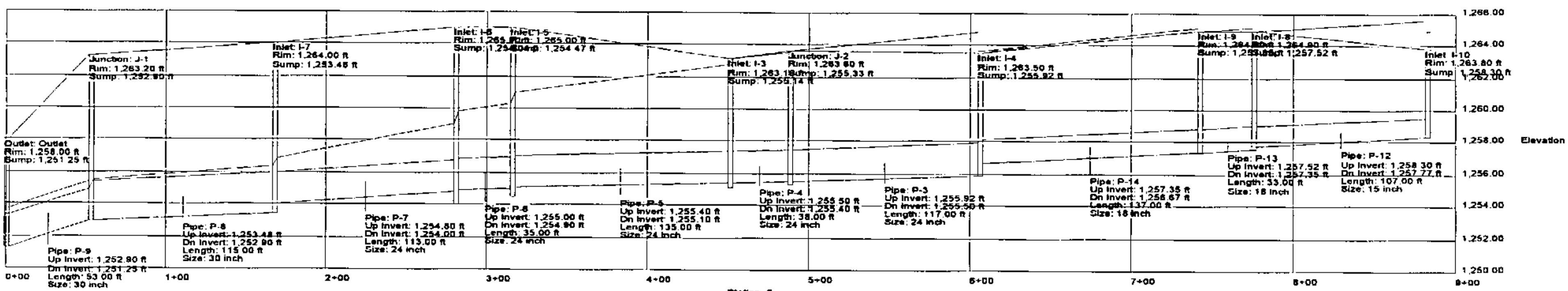



Junction: J-1
Rim: 1,263.10 ft
Sump: 1,250.53 ft
Outlet: Outlet
Rim: 1,258.00 ft
Sump: 1,250.34 ft
Inlet: I-12
Rim: 1,263.10 ft
Sump: 1,255.71 ft
Inlet: I-13
Rim: 1,263.10 ft
Sump: 1,256.85 ft
Inlet: I-14
Inlet: I-15
Rim: 1,264.40 ft
Sump: 1,258.65 ft
Pipe: P-12
Up Invert: 1,250.53 ft
Dn Invert: 1,250.34 ft
Length: 37.00 ft
Size: 36 inch
Pipe: P-16
Up Invert: 1,255.71 ft
Dn Invert: 1,251.78 ft
Length: 310.00 ft
Size: 24 inch
Pipe: P-15
Up Invert: 1,256.85 ft
Dn Invert: 1,255.71 ft
Length: 229.00 ft
Size: 24 inch
Pipe: P-14
Up Invert: 1,258.23 ft
Dn Invert: 1,257.10 ft
Length: 139.00 ft
Size: 18 inch
Pipe: P-13
Up Invert: 1,258.65 ft
Dn Invert: 1,258.48 ft
Length: 34.00 ft
Size: 15 inch
1,266.00
1,264.00
1,262.00
1,260.00
1,258.00
1,256.00
1,254.00
1,252.00
1,250.00
Elevation ft
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
Station ft

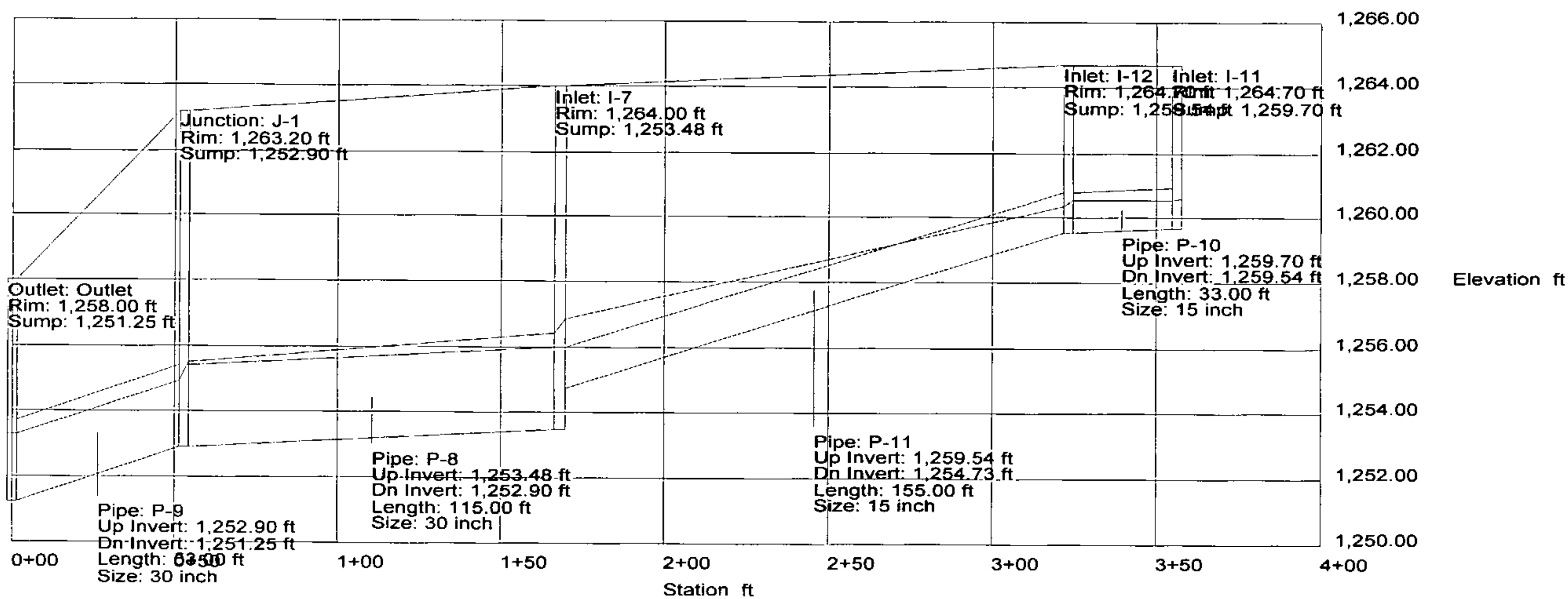


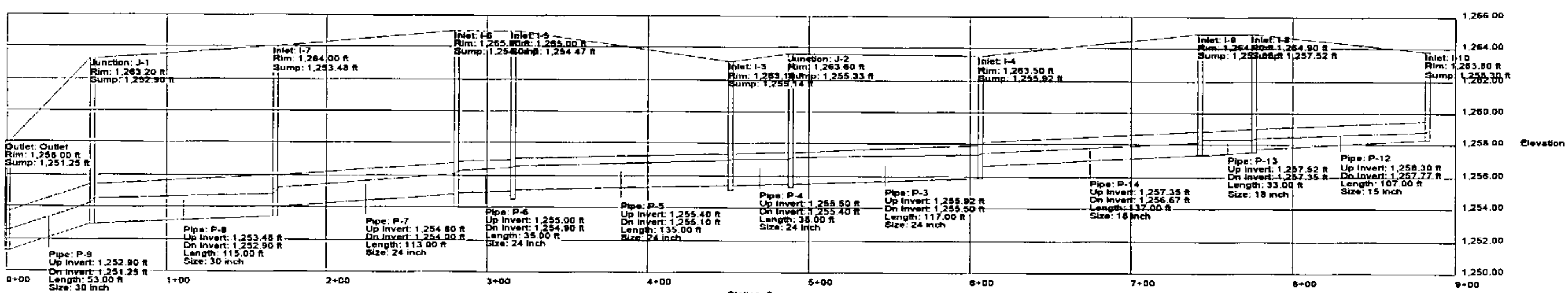
Baughman Co., P.A.


Outlet: Outlet
Rim: 1,258.00 ft
Sump: 1,251.25 ft
Junction: J-1
Rim: 1,263.20 ft
Sump: 1,252.90 ft
Inlet: I-7
Rim: 1,264.00 ft
Sump: 1,253.48 ft
Inlet: I-6
Inlet: I-5
Rim: 1,265.00 ft
Sump: 1,254.47 ft
Inlet: I-3
Sump: 1,255.14 ft
Junction: J-2
Rim: 1,263.60 ft
Sump: 1,255.33 ft
Inlet: I-4
Rim: 1,263.50 ft
Sump: 1,255.92 ft
Inlet: I-2
Inlet: I-1
Rim: 1,265.10 ft
Sump: 1,259.60 ft
Pipe: P-9
Up Invert: 1,252.90 ft
Dn Invert: 1,251.25 ft
Length: 53.00 ft
Size: 30 inch
Pipe: P-8
Up Invert: 1,253.48 ft
Dn Invert: 1,252.90 ft
Length: 115.00 ft
Size: 30 inch
Pipe: P-7
Up Invert: 1,254.80 ft
Dn Invert: 1,254.00 ft
Length: 113.00 ft
Size: 24 inch
Pipe: P-6
Up Invert: 1,255.00 ft
Dn Invert: 1,254.90 ft
Length: 35.00 ft
Size: 24 inch
Pipe: P-5
Up Invert: 1,255.40 ft
Dn Invert: 1,255.10 ft
Length: 135.00 ft
Size: 24 inch
Pipe: P-4
Up Invert: 1,255.50 ft
Dn Invert: 1,255.40 ft
Length: 38.00 ft
Size: 24 inch
Pipe: P-3
Up Invert: 1,255.92 ft
Dn Invert: 1,255.50 ft
Length: 117.00 ft
Size: 24 inch
Pipe: P-2
Up Invert: 1,259.42 ft
Dn Invert: 1,256.92 ft
Length: 84.00 ft
Size: 18 inch
Pipe: P-1
Up Invert: 1,259.60 ft
Dn Invert: 1,259.42 ft
Length: 36.00 ft
Size: 18 inch
Elevation ft
1,266.00
1,264.00
1,262.00
1,260.00
1,258.00
1,256.00
1,254.00
1,252.00
1,250.00
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
Station ft

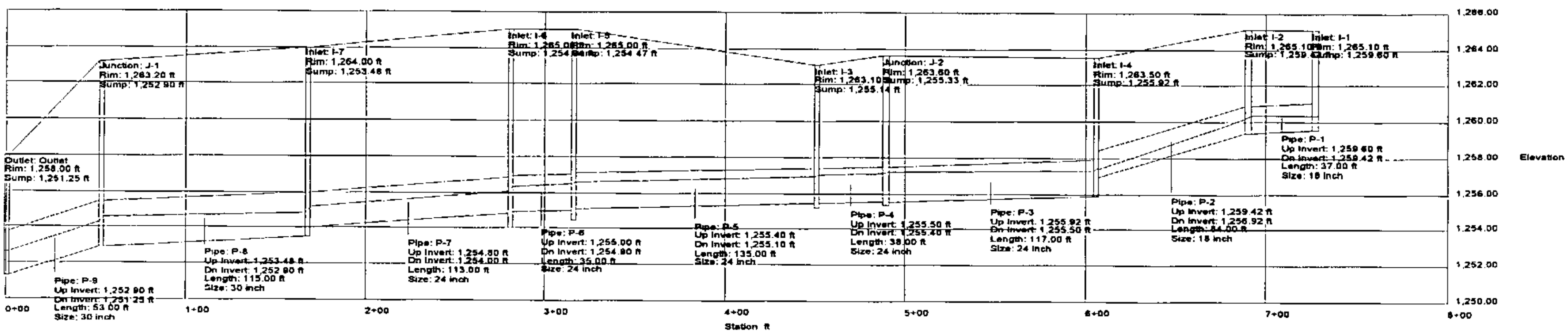


Baughman Co., P.A.

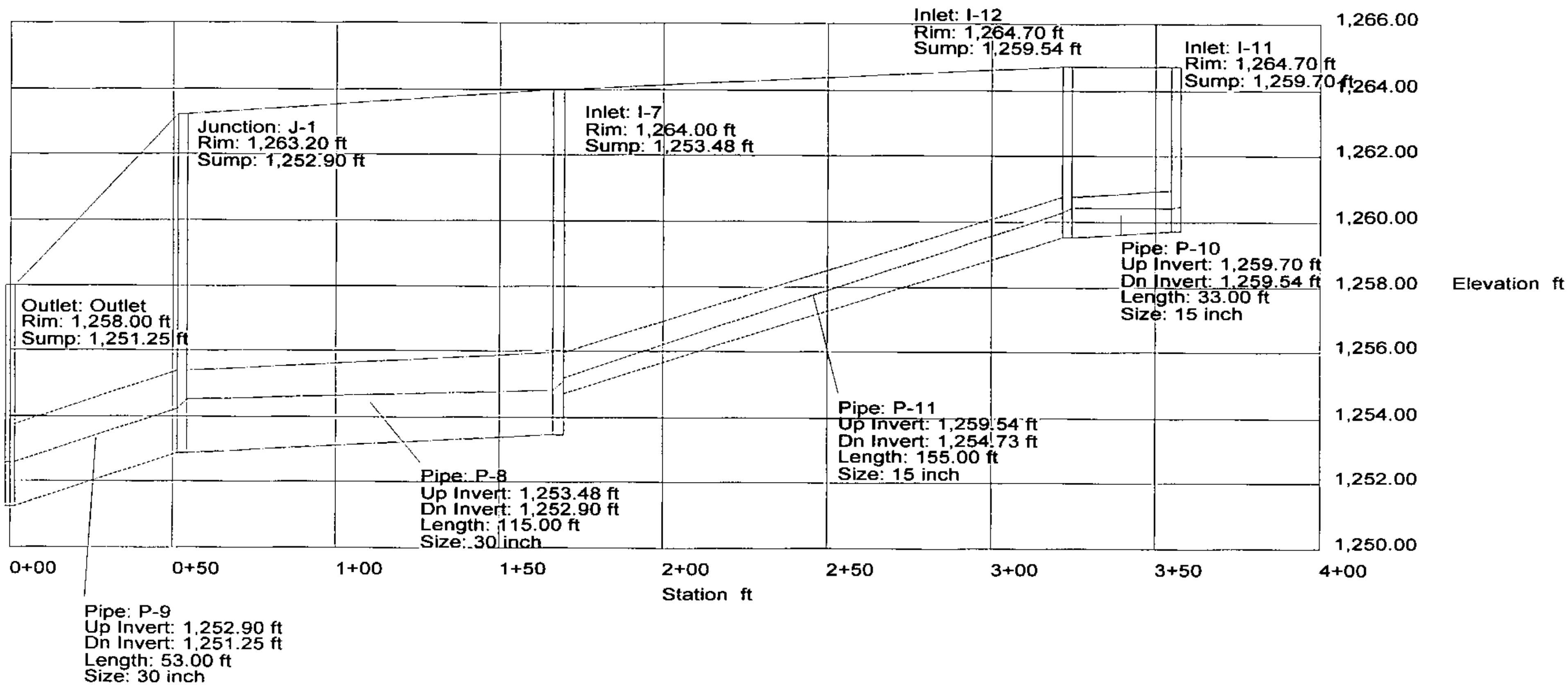

Outlet: Outlet
Rim: 1,258.00 ft
Sump: 1,251.25 ft
Junction: J-1
Rim: 1,263.20 ft
Sump: 1,252.90 ft
Inlet: I-7
Rim: 1,264.00 ft
Sump: 1,253.48 ft
Inlet: I-12
Inlet: I-11
Rim: 1,264.70 ft
Sump: 1,259.70 ft
Pipe: P-9
Up Invert: 1,252.90 ft
Dn Invert: 1,251.25 ft
Size: 30 inch
Pipe: P-8
Up Invert: 1,253.48 ft
Dn Invert: 1,252.90 ft
Length: 115.00 ft
Size: 30 inch
Pipe: P-11
Up Invert: 1,259.54 ft
Dn Invert: 1,254.73 ft
Length: 155.00 ft
Size: 15 inch
Pipe: P-10
Up Invert: 1,259.70 ft
Dn Invert: 1,259.54 ft
Length: 33.00 ft
Size: 15 inch
1,266.00
1,264.00
1,262.00
1,260.00
1,258.00
1,256.00
1,254.00
1,252.00
1,250.00
Elevation ft
0+00
1+00
1+50
2+00
2+50
3+00
3+50
4+00
Station ft

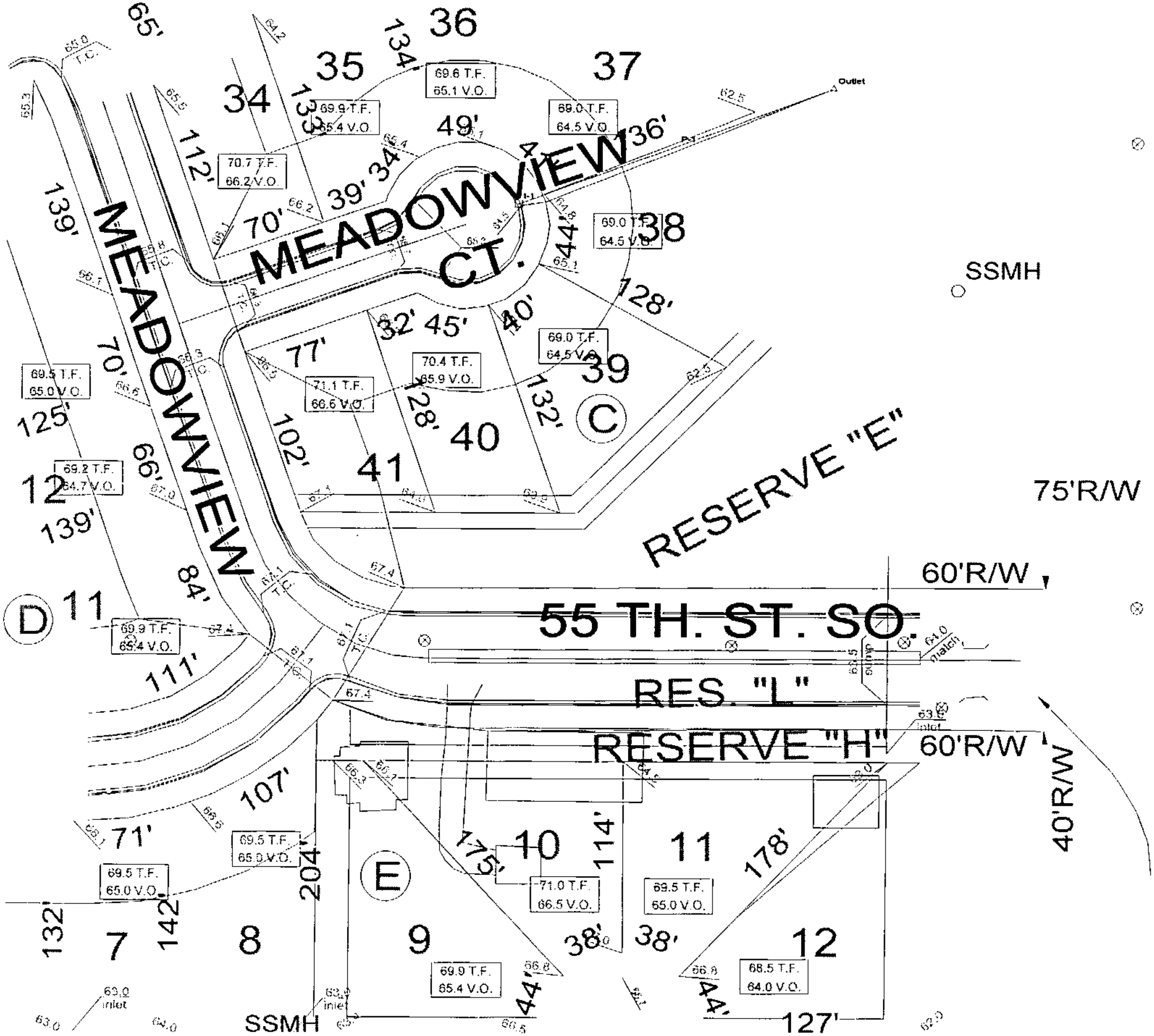


Outlet: Outlet
Rim: 1,258.00 ft
Sump: 1,251.25 ft
Junction: J-1
Rim: 1,263.20 ft
Sump: 1,252.90 ft
Inlet: I-7
Rim: 1,264.00 ft
Sump: 1,253.48 ft
Inlet: I-6
Inlet: I-5
Sump: 1,254.47 ft
Inlet: I-3
Junction: J-2
Rim: 1,263.60 ft
Sump: 1,255.33 ft
Inlet: I-4
Rim: 1,263.50 ft
Sump: 1,255.92 ft
Inlet: I-9
Inlet: I-8
Inlet: I-10
Rim: 1,263.80 ft
Pipe: P-9
Up Invert: 1,252.90 ft
Dn Invert: 1,251.25 ft
Length: 53.00 ft
Size: 30 inch
Pipe: P-8
Up Invert: 1,253.48 ft
Dn Invert: 1,252.90 ft
Length: 115.00 ft
Size: 30 inch
Pipe: P-7
Up Invert: 1,254.80 ft
Dn Invert: 1,254.00 ft
Length: 113.00 ft
Size: 24 inch
Pipe: P-6
Up Invert: 1,255.00 ft
Dn Invert: 1,254.90 ft
Length: 35.00 ft
Size: 24 inch
Pipe: P-5
Up Invert: 1,255.40 ft
Dn Invert: 1,255.10 ft
Length: 135.00 ft
Size: 24 inch
Pipe: P-4
Up Invert: 1,255.50 ft
Dn Invert: 1,255.40 ft
Length: 38.00 ft
Size: 24 inch
Pipe: P-3
Up Invert: 1,255.92 ft
Dn Invert: 1,255.50 ft
Length: 117.00 ft
Size: 24 inch
Pipe: P-14
Up Invert: 1,257.35 ft
Dn Invert: 1,256.67 ft
Length: 137.00 ft
Size: 18 inch
Pipe: P-13
Up Invert: 1,257.52 ft
Dn Invert: 1,257.35 ft
Length: 33.00 ft
Size: 18 inch
Pipe: P-12
Up Invert: 1,258.30 ft
Dn Invert: 1,257.77 ft
Length: 107.00 ft
Size: 15 inch
1,266.00
1,264.00
1,262.00
1,260.00
1,258.00
1,256.00
1,254.00
1,252.00
1,250.00
Elevation ft
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
Station ft

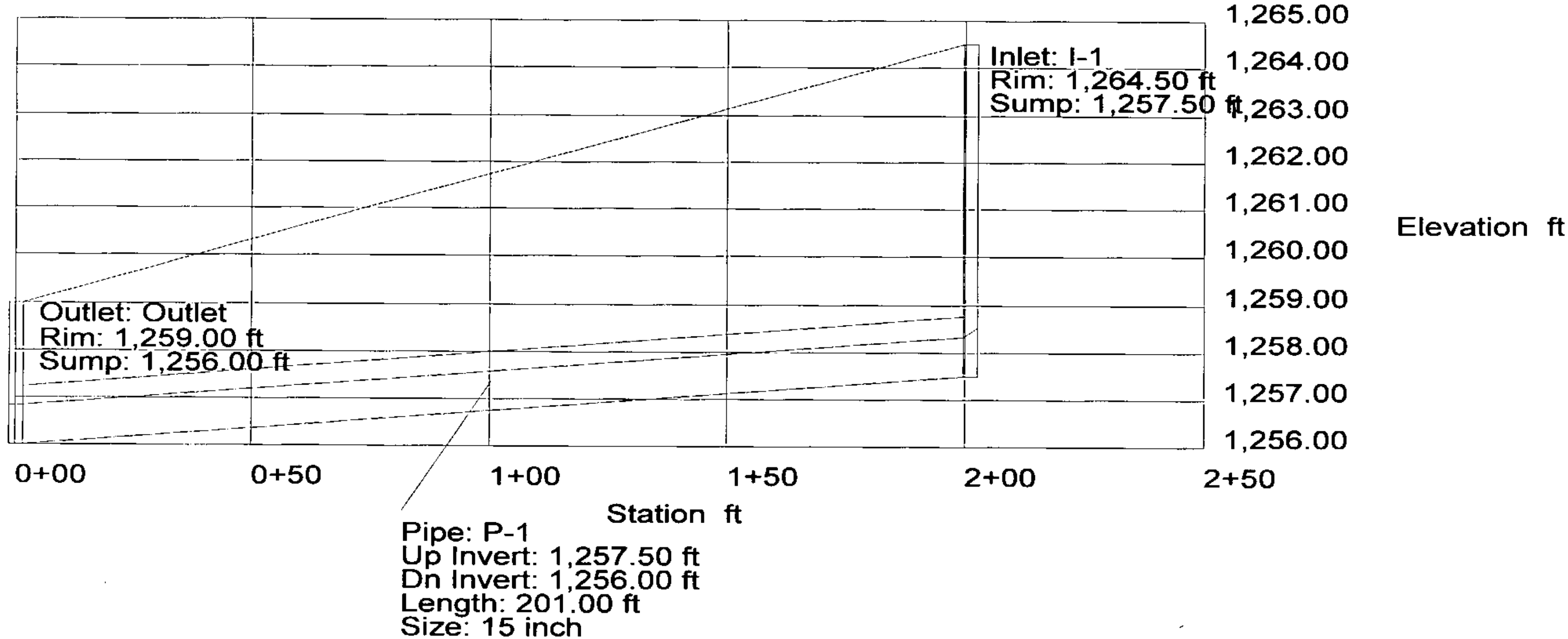


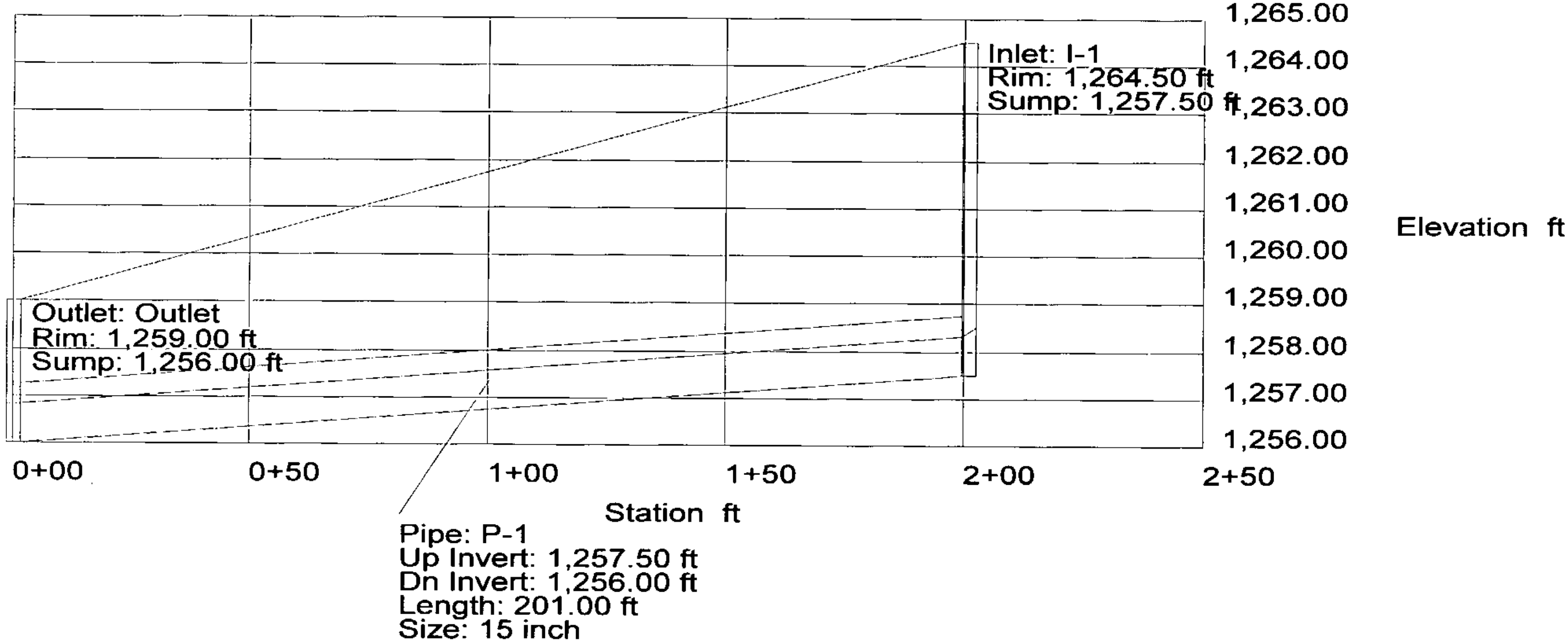
Baughman Co., P.A.


Inlet: I-12
Rim: 1,264.70 ft
Sump: 1,259.54 ft
Inlet: I-11
Rim: 1,264.70 ft
Sump: 1,259.70 ft
Junction: J-1
Rim: 1,263.20 ft
Sump: 1,252.90 ft
Inlet: I-7
Rim: 1,264.00 ft
Sump: 1,253.48 ft
Pipe: P-10
Up Invert: 1,259.70 ft
Dn Invert: 1,259.54 ft
Length: 33.00 ft
Size: 15 inch
Outlet: Outlet
Rim: 1,258.00 ft
Sump: 1,251.25 ft
Pipe: P-11
Up Invert: 1,259.54 ft
Dn Invert: 1,254.73 ft
Length: 155.00 ft
Size: 15 inch
Pipe: P-8
Up Invert: 1,253.48 ft
Dn Invert: 1,252.90 ft
Length: 115.00 ft
Size: 30 inch
Pipe: P-9
Up Invert: 1,252.90 ft
Dn Invert: 1,251.25 ft
Length: 53.00 ft
Size: 30 inch
1,266.00
1,264.00
1,262.00
1,260.00
1,258.00
1,256.00
1,254.00
1,252.00
1,250.00
Elevation ft
0+00
0+50
1+00
1+50
2+00
2+50
3+00
3+50
4+00
Station ft

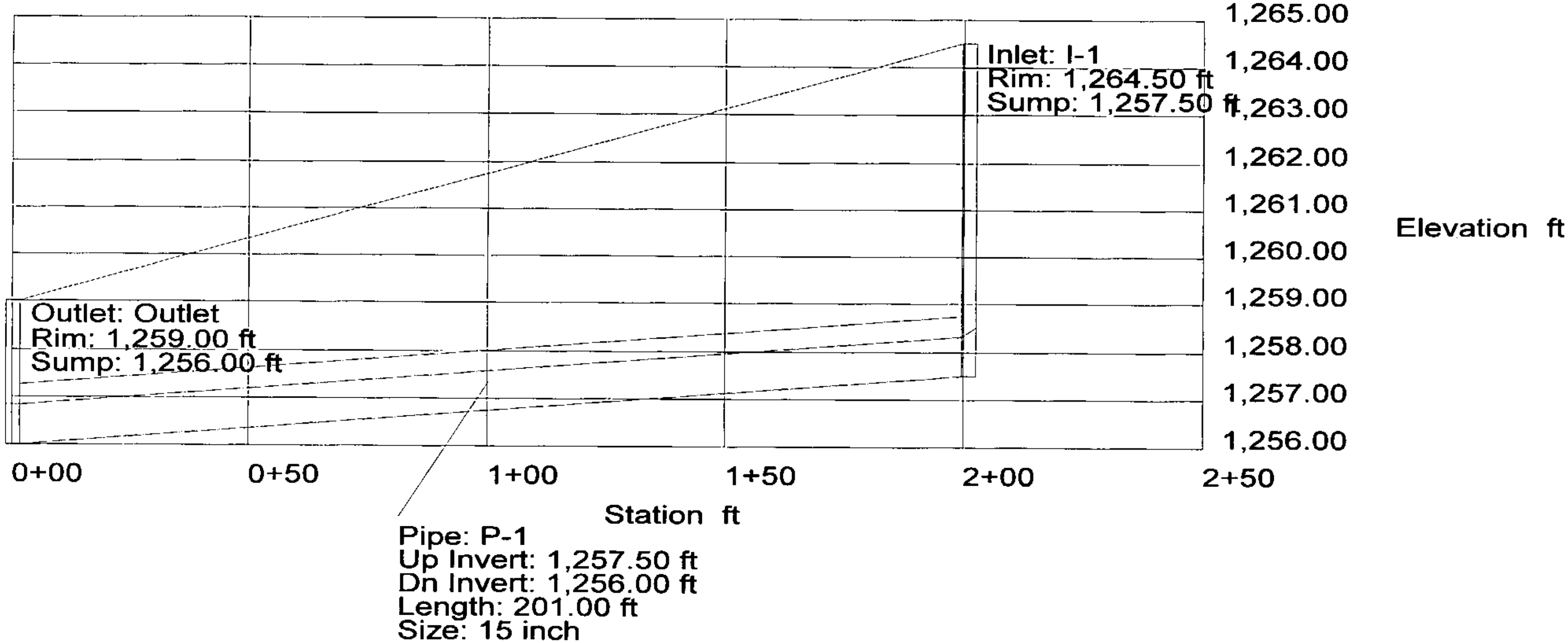


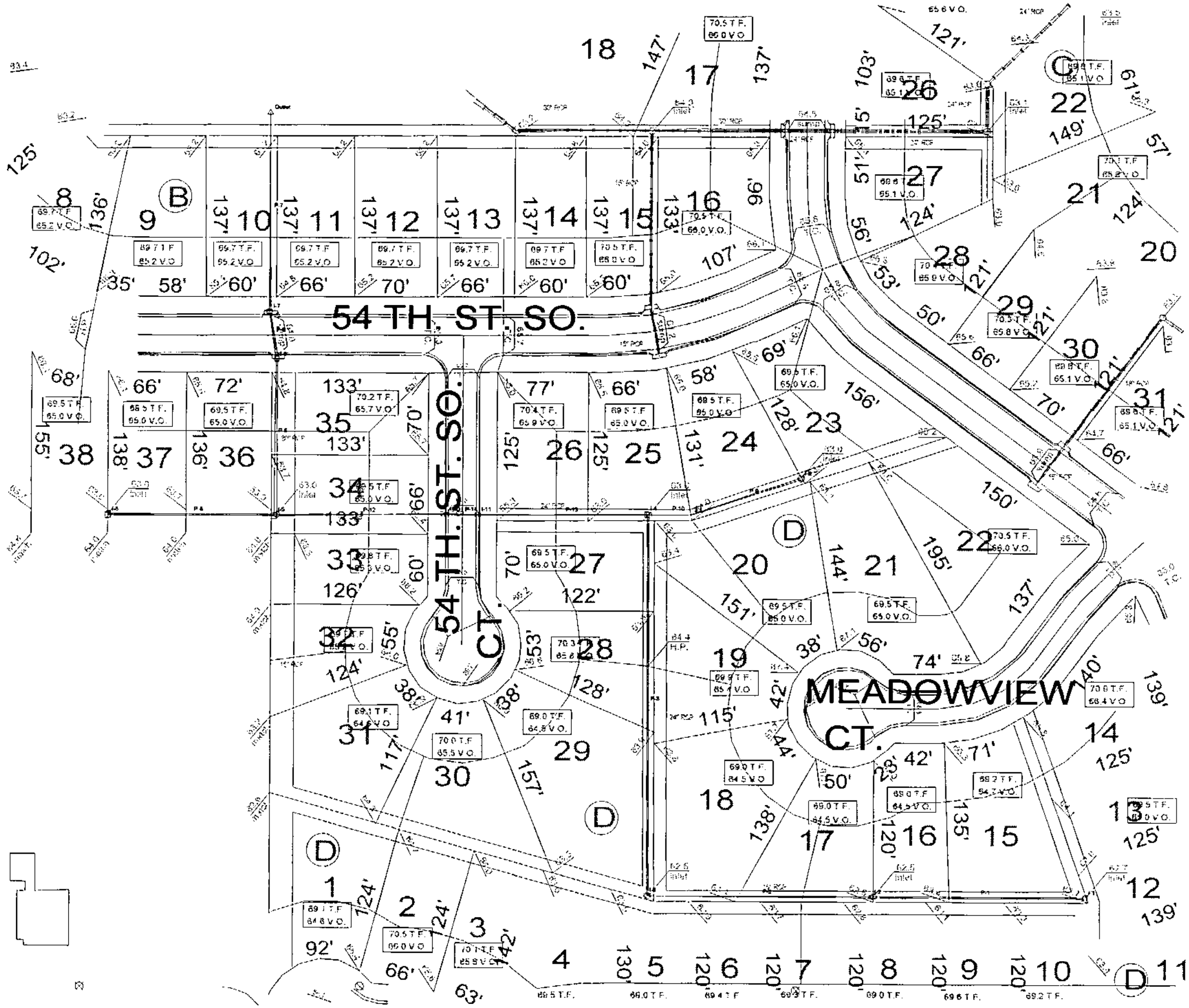
Baughman Co., P.A.

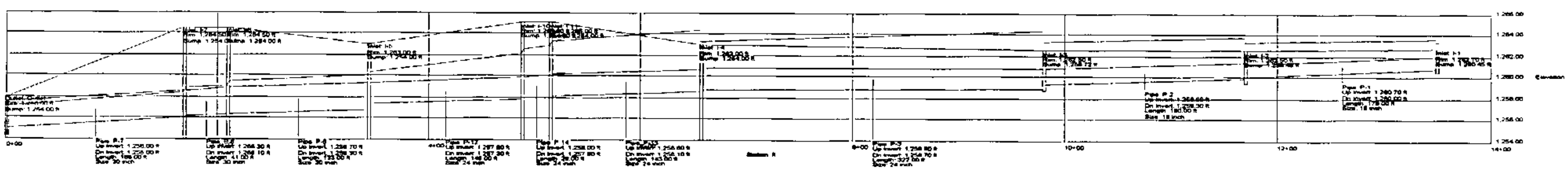

Inlet: I-1
Rim: 1,264.50 ft
Sump: 1,257.50 ft
Outlet: Outlet
Rim: 1,259.00 ft
Sump: 1,256.00 ft
1,265.00
1,264.00
1,263.00
1,262.00
1,261.00
1,260.00
1,259.00
1,258.00
1,257.00
1,256.00
Elevation ft
0+00
0+50
1+00
1+50
2+00
2+50
Station ft
Pipe: P-1
Up Invert: 1,257.50 ft
Dn Invert: 1,256.00 ft
Length: 201.00 ft
Size: 15 inch



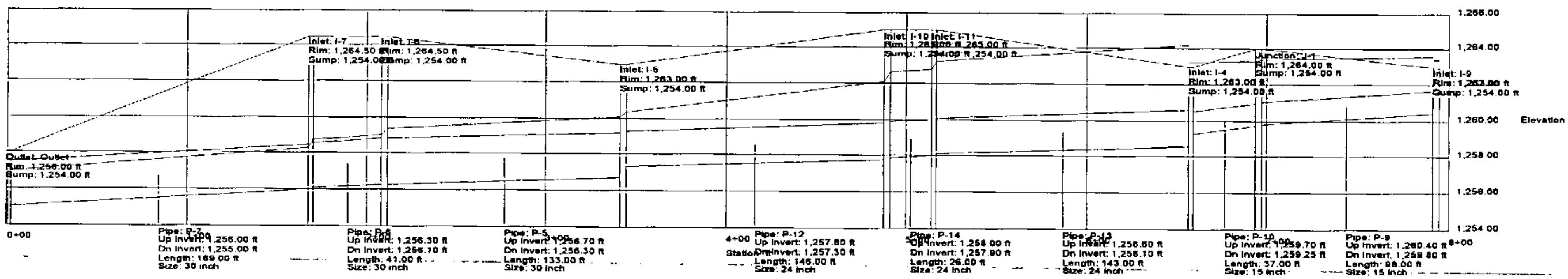
Inlet: I-1
Rim: 1,264.50 ft
Sump: 1,257.50 ft
Outlet: Outlet
Rim: 1,259.00 ft
Sump: 1,256.00 ft
1,265.00
1,264.00
1,263.00
1,262.00
1,261.00
1,260.00
1,259.00
1,258.00
1,257.00
1,256.00
Elevation ft
0+00
0+50
1+00
1+50
2+00
2+50
Station ft
Pipe: P-1
Up Invert: 1,257.50 ft
Dn Invert: 1,256.00 ft
Length: 201.00 ft
Size: 15 inch

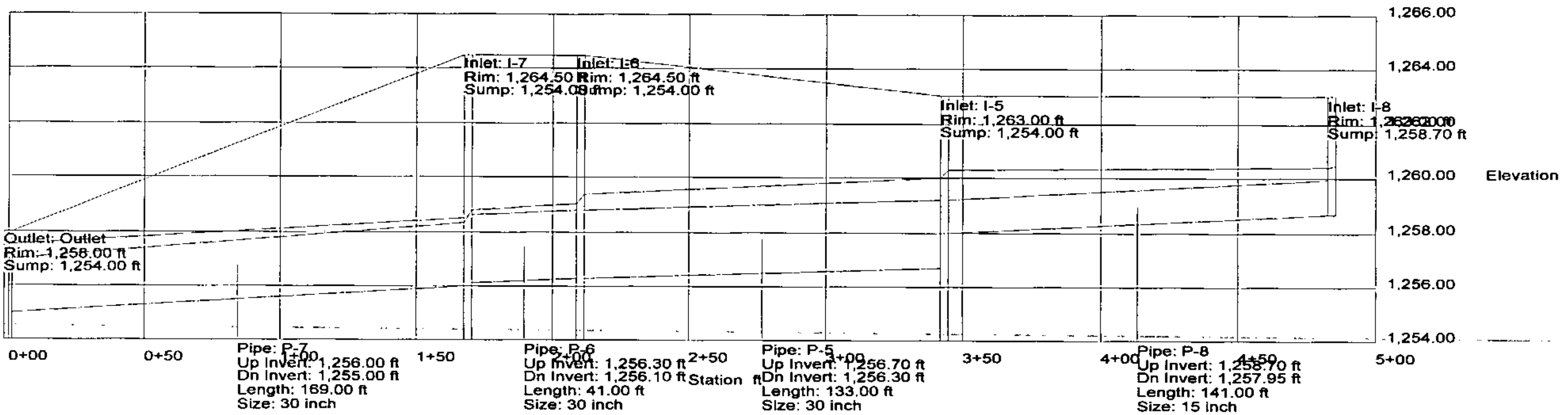

Inlet: I-1
Rim: 1,264.50 ft
Sump: 1,257.50 ft
Outlet: Outlet
Rim: 1,259.00 ft
Sump: 1,256.00 ft
1,265.00
1,264.00
1,263.00
1,262.00
1,261.00
1,260.00
1,259.00
1,258.00
1,257.00
1,256.00
Elevation ft
0+00
0+50
1+00
1+50
2+00
2+50
Station ft
Pipe: P-1
Up Invert: 1,257.50 ft
Dn Invert: 1,256.00 ft
Length: 201.00 ft
Size: 15 inch

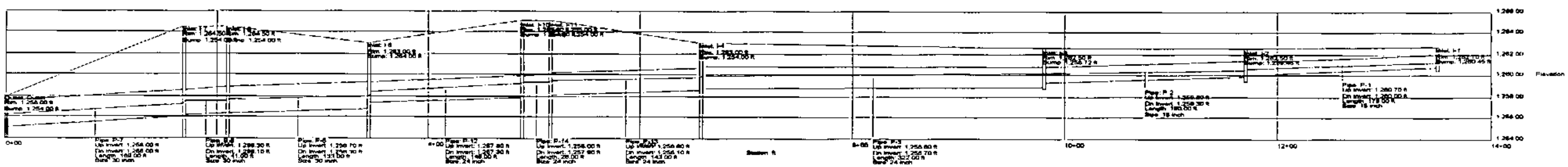

54 TH. ST. SO.
54 TH. ST. SO. CT.
MEADOWVIEW CT.



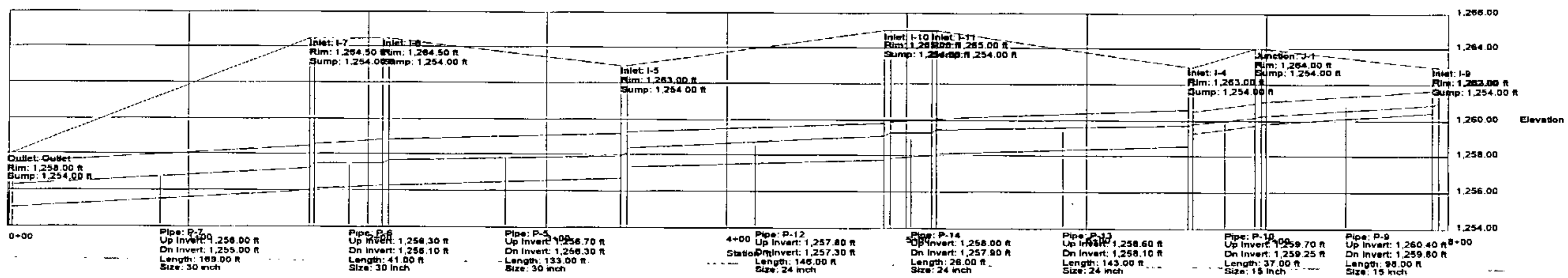
Baughman Co., P.A.


Outlet: Outlet
Sump: 1,254.00 ft
Inlet: I-7
Rim: 1,264.50 ft
Inlet: I-8
Rim: 1,264.50 ft
Sump: 1,254.00 ft
Inlet: I-6
Rim: 1,263.00 ft
Sump: 1,254.00 ft
Inlet: I-10
Inlet: I-11
Inlet: I-4
Rim: 1,263.00 ft
Sump: 1,254.00 ft
Junction: J-1
Rim: 1,264.00 ft
Sump: 1,254.00 ft
Inlet: I-9
Sump: 1,254.00 ft
1,266.00
1,264.00
1,260.00
Elevation ft
1,258.00
1,256.00
1,254.00
0+00
4+00
8+00
Station
Pipe: P-7
Dn Invert: 1,255.00 ft
Length: 169.00 ft
Size: 30 inch
Pipe: P-6
Dn Invert: 1,256.10 ft
Length: 41.00 ft
Size: 30 inch
Pipe: P-5
Dn Invert: 1,256.30 ft
Length: 133.00 ft
Size: 30 inch
Pipe: P-12
Up Invert: 1,257.80 ft
Length: 146.00 ft
Size: 24 inch
Pipe: P-14
Dn Invert: 1,257.90 ft
Length: 26.00 ft
Size: 24 inch
Pipe: P-13
Dn Invert: 1,258.10 ft
Length: 143.00 ft
Size: 24 inch
Pipe: P-10
Dn Invert: 1,259.25 ft
Length: 37.00 ft
Size: 15 inch
Pipe: P-9
Up Invert: 1,260.40 ft
Length: 98.00 ft
Size: 15 inch


Inlet: I-7
Rim: 1,264.50 ft
Sump: 1,254.00 ft
Inlet: I-6
Rim: 1,264.50 ft
Sump: 1,254.00 ft
Inlet: I-5
Rim: 1,263.00 ft
Sump: 1,254.00 ft
Inlet: I-8
Sump: 1,258.70 ft
Outlet: Outlet
Rim: 1,258.00 ft
Sump: 1,254.00 ft
1,266.00
1,264.00
1,260.00
1,258.00
1,256.00
1,254.00
Elevation ft
0+00
0+50
1+00
1+50
2+00
2+50
3+00
3+50
4+00
4+50
5+00
Station ft
Pipe: P-7
Up Invert: 1,256.00 ft
Dn Invert: 1,255.00 ft
Length: 169.00 ft
Size: 30 inch
Pipe: P-6
Up Invert: 1,256.30 ft
Dn Invert: 1,256.10 ft
Length: 41.00 ft
Size: 30 inch
Pipe: P-5
Up Invert: 1,256.70 ft
Dn Invert: 1,256.30 ft
Length: 133.00 ft
Size: 30 inch
Pipe: P-8
Up Invert: 1,258.70 ft
Dn Invert: 1,257.95 ft
Length: 141.00 ft
Size: 15 inch



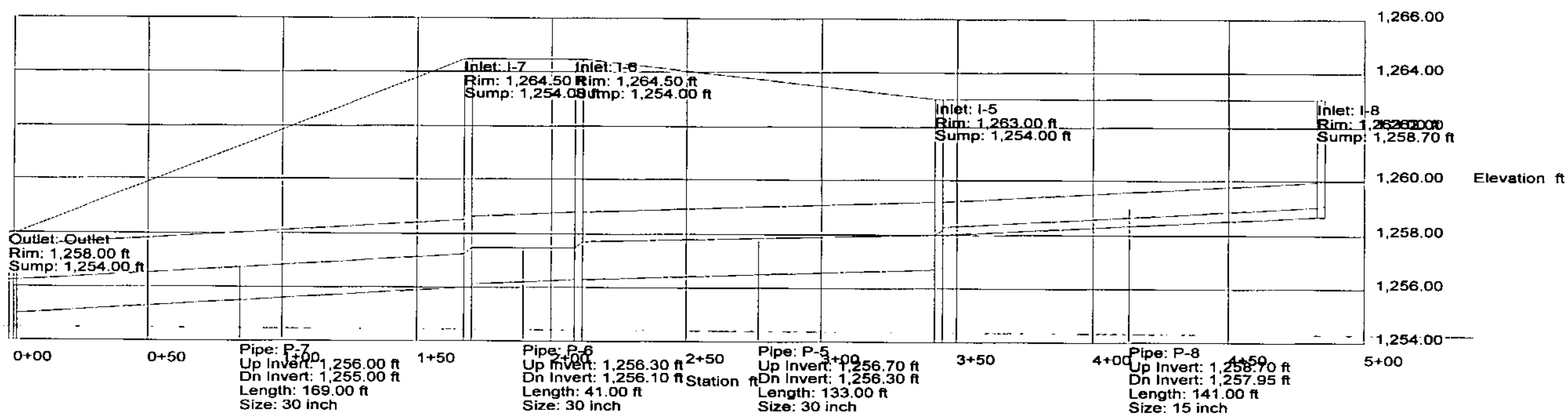
Station ft
Elevation ft

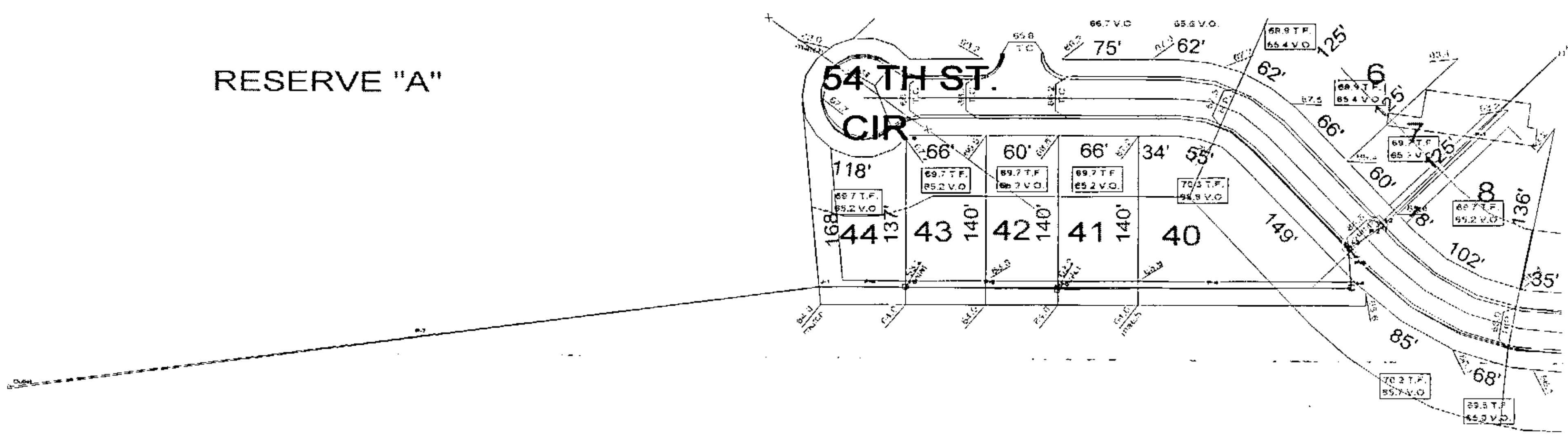


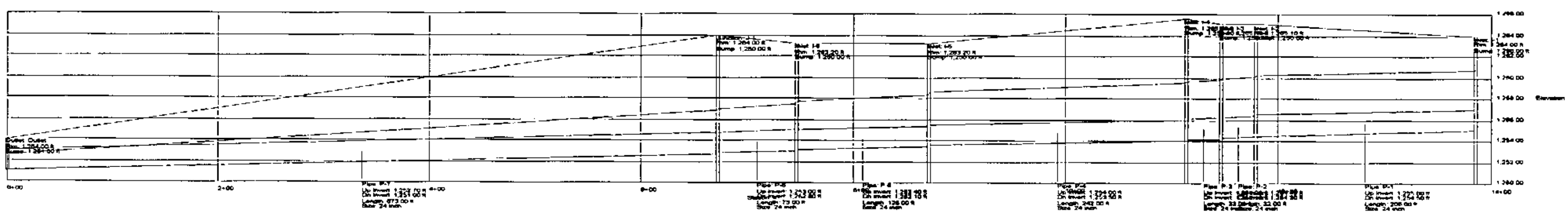
f:\...\stormcad\sws7_2.stm
10/26/06 09:54:12 AM

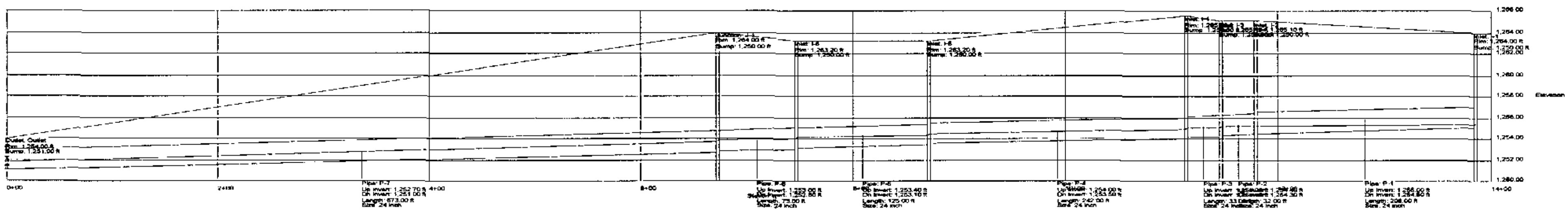
Baughman Co., P.A.

StormCAD v1.0


Outlet: Outlet
Rim: 1,258.00 ft
Sump: 1,254.00 ft
Inlet: I-7
Rim: 1,264.50 ft
Sump: 1,254.00 ft
Inlet: I-6
Rim: 1,264.50 ft
Sump: 1,254.00 ft
Inlet: I-5
Rim: 1,263.00 ft
Sump: 1,254.00 ft
Inlet: I-8
Sump: 1,258.70 ft
Pipe: P-7
Up Invert: 1,256.00 ft
Dn Invert: 1,255.00 ft
Length: 169.00 ft
Size: 30 inch
Pipe: P-6
Up Invert: 1,256.30 ft
Dn Invert: 1,256.10 ft
Length: 41.00 ft
Size: 30 inch
Pipe: P-5
Up Invert: 1,256.70 ft
Dn Invert: 1,256.30 ft
Length: 133.00 ft
Size: 30 inch
Pipe: P-8
Dn Invert: 1,257.95 ft
Length: 141.00 ft
Size: 15 inch
1,266.00
1,264.00
1,260.00
1,258.00
1,256.00
1,254.00
Elevation ft
0+00
0+50
1+00
1+50
2+00
2+50
3+00
3+50
4+00
4+50
5+00
Station ft


RESERVE "A"
54 TH ST. CIR.
75'
62'
66.7 V.O.
65.6 V.O.
68.9 T.F.
65.4 V.O.
125'
62'
6
7
8
66'
60'
78'
102'
136'
35'
85'
68'
149'
55'
34'
66'
60'
66'
118'
44
43
42
41
40
137'
140'
140'
140'
168'
69.7 T.F.
65.2 V.O.
70.3 T.F.
70.2 T.F.
69.5 T.F.





Project Title: Meadow Lake Beach
f:\...\stormcad\sws8_2.stm
10/26/06 02:29:53 PM

Baughman Co., P.A.
© Haestad Methods, Inc. 37 Brookside Road Waterbury, CT 06708 USA (203) 755-1666

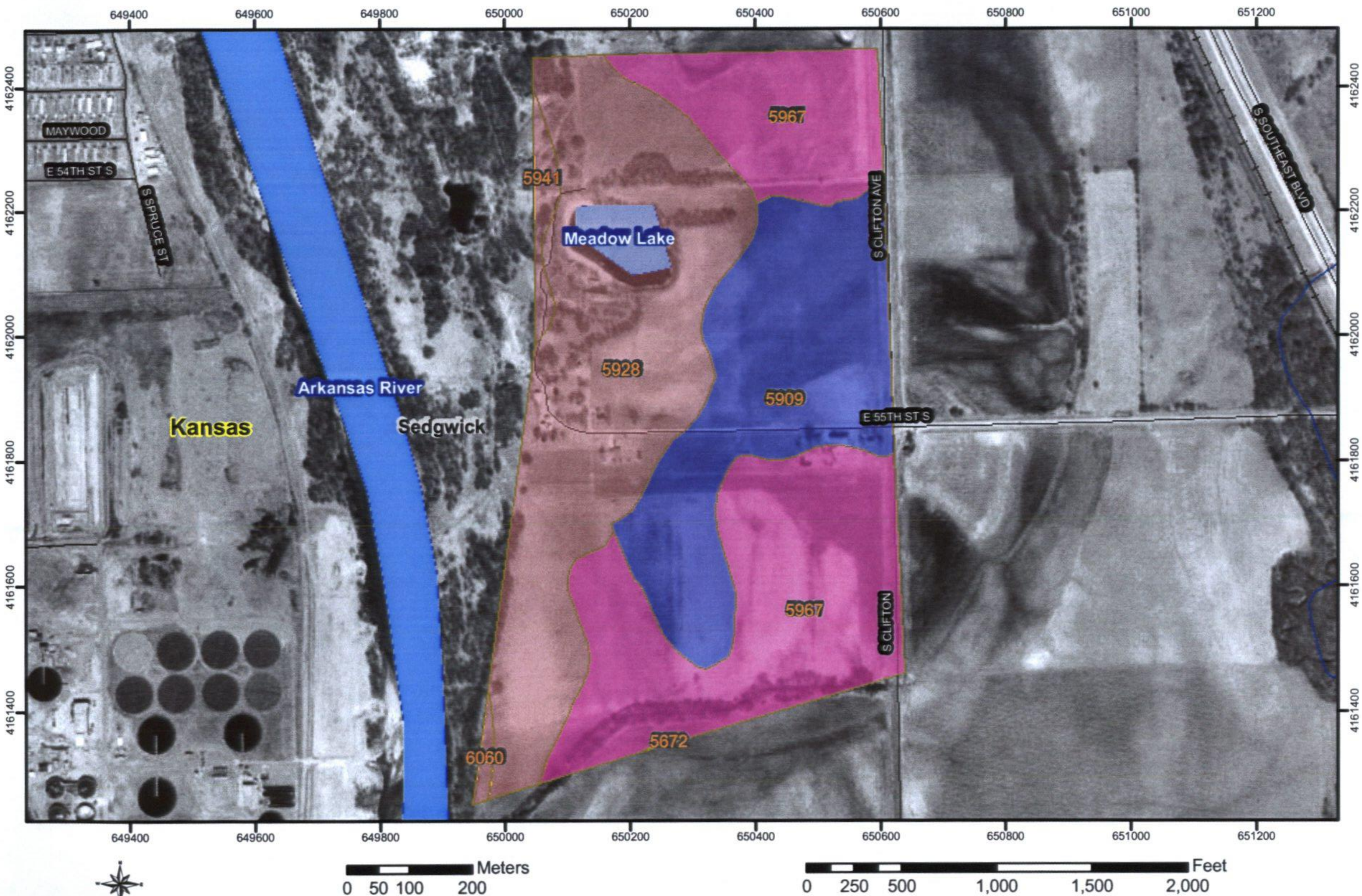
Project Engineer: Baughman Company, P.A.
StormCAD v1.0

APPENDIX B

Soil Survey

HYDROLOGIC GROUP RATING FOR SEDGWICK COUNTY, KANSAS

Meadowlake Beach



USDA Natural Resources Conservation Service

Web Soil Survey 1.1
National Cooperative Soil Survey

10/2/2006

HYDROLOGIC GROUP RATING FOR SEDGWICK COUNTY, KANSAS

Meadowlake Beach

MAP LEGEND

Hydrologic Group

{Dominant Condition, <}

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available
- Soil Map Units
- Cities
- Detailed Counties
- Detailed States
- Interstate Highways
- Roads
- Rails
- Water
- Hydrography
- Oceans

MAP INFORMATION

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov

Coordinate System: UTM Zone 14

Soil Survey Area: Sedgwick County, Kansas
Spatial Version of Data: 1
Soil Map Compilation Scale: 1:24000

Map comprised of aerial images photographed on these dates:
3/20/1996

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Tables - Hydrologic Group

Summary by Map Unit - Sedgwick County, Kansas

Soil Survey Area Map Unit Symbol	Map Unit Name	Rating	Total Acres in AOI	Percent of AOI
5672	Waldeck sandy loam, occasionally flooded	C	0.2	0.1
5909	Naron fine sandy loam, 0 to 1 percent slopes	B	38.9	24.1
5928	Pratt loamy fine sand, 1 to 5 percent slopes	A	59.9	37.2
5941	Pratt-Tivoli loamy fine sands, 5 to 15 percent slopes	A	2.4	1.5
5967	Tabler silty clay loam, 0 to 1 percent slopes	D	59.0	36.6
6060	Lincoln soils, frequently flooded	A	0.8	0.5

Description - Hydrologic Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are placed into four groups A, B, C, and D, and three dual classes, A/D, B/D, and C/D. Definitions of the classes are as follows:

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only soils that are rated D in their natural condition are assigned to dual classes.

Parameter Summary - Hydrologic Group

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie.

The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff:

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Lower

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

APPENDIX C

PondPack

Entrance Pond

Table of Contents

MASTER DESIGN STORM SUMMARY

Default Network Design Storm File, ID SEDGWICK.RNQ Sedgwick24

Return Event	Total Depth in	Rainfall Type	RNF File	RNF ID
2y24h	3.5000	Synthetic Curve	SCSTYPES	TypeII 24hr
5y24h	4.5000	Synthetic Curve	SCSTYPES	TypeII 24hr
100y24	7.9000	Synthetic Curve	SCSTYPES	TypeII 24hr

MASTER NETWORK SUMMARY
SCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversion;)
(Trun= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left&Rt)

Storage Node ID	Type	Return Event	HYG Vol ac-ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Max Pond ac-ft
*DITCH	JCT	2	1.120		12.6500	2.38		
*DITCH	JCT	5	1.955		12.4500	6.28		
*DITCH	JCT	100	5.496		12.3000	28.70		
RESERVE E IN	POND	2	1.121		12.0500	14.32		
RESERVE E IN	POND	5	1.955		12.0500	27.13		
RESERVE E IN	POND	100	5.496		12.0500	79.90		
RESERVE E OUT	POND	2	1.120		12.6500	2.38	1261.05	.384
RESERVE E OUT	POND	5	1.955		12.4500	6.28	1261.43	.680
RESERVE E OUT	POND	100	5.496		12.3000	28.70	1262.80	1.900
SUBDIVISION	AREA	2	1.121		12.0500	14.32		
SUBDIVISION	AREA	5	1.955		12.0500	27.13		
SUBDIVISION	AREA	100	5.496		12.0500	79.90		

JOB TITLE NOT SPECIFIED
Click Project Summary on the File Menu to enter title

DESIGN STORMS SUMMARY

```
Design Storm File,ID = SEDGWICK.RNQ  Sedgwick24


Storm Tag Name      = 2y24h
-----------------------------------------------------------------------
Data Type, File, ID = Synthetic Storm  SCSTYPES.RNF  TypeII  24hr
Storm Frequency     = 2 yr
Total Rainfall Depth= 3.5000 in
Duration Multiplier =  1
Resulting Duration  = 24.0000 hrs
Resulting Start Time= .0000 hrs  Step= .1000 hrs  End= 24.0000 hrs


Storm Tag Name      = 5y24h
Description: Sedgwick County 5-yr 24 hour Duration
-----------------------------------------------------------------------
Data Type, File, ID = Synthetic Storm  SCSTYPES.RNF  TypeII  24hr
Storm Frequency     = 5 yr
Total Rainfall Depth= 4.5000 in
Duration Multiplier =  1
Resulting Duration  = 24.0000 hrs
Resulting Start Time= .0000 hrs  Step= .1000 hrs  End= 24.0000 hrs


Storm Tag Name      = 100y24
Description: Sedgwick County 100-yr 24 hour Duration
-----------------------------------------------------------------------
Data Type, File, ID = Synthetic Storm  SCSTYPES.RNF  TypeII  24hr
Storm Frequency     = 100 yr
Total Rainfall Depth= 7.9000 in
Duration Multiplier =  1
Resulting Duration  = 24.0000 hrs
Resulting Start Time= .0000 hrs  Step= .1000 hrs  End= 24.0000 hrs
```

DESIGN STORMS SUMMARY

```
Design Storm File,ID = SEDGWICK.RNQ  Sedgwick24


Storm Tag Name      = 2y24h
---------------------------------------------------------------------
Data Type, File, ID = Synthetic Storm  SCSTYPES.RNF  TypeII  24hr
Storm Frequency     = 2 yr
Total Rainfall Depth= 3.5000 in
Duration Multiplier =  1
Resulting Duration  = 24.0000 hrs
Resulting Start Time= .0000 hrs  Step= .1000 hrs  End= 24.0000 hrs


Storm Tag Name      = 5y24h
Description: Sedgwick County 5-yr 24 hour Duration
---------------------------------------------------------------------
Data Type, File, ID = Synthetic Storm  SCSTYPES.RNF  TypeII  24hr
Storm Frequency     = 5 yr
Total Rainfall Depth= 4.5000 in
Duration Multiplier =  1
Resulting Duration  = 24.0000 hrs
Resulting Start Time= .0000 hrs  Step= .1000 hrs  End= 24.0000 hrs


Storm Tag Name      = 100y24
Description: Sedgwick County 100-yr 24 hour Duration
---------------------------------------------------------------------
Data Type, File, ID = Synthetic Storm  SCSTYPES.RNF  TypeII  24hr
Storm Frequency     = 100 yr
Total Rainfall Depth= 7.9000 in
Duration Multiplier =  1
Resulting Duration  = 24.0000 hrs
Resulting Start Time= .0000 hrs  Step= .1000 hrs  End= 24.0000 hrs
```

Elevation (ft)	Planimeter (sq.in)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (ac-ft)	Volume Sum (ac-ft)
1260.50	-----	.6400	.0000	.000	.000
1261.00	-----	.7500	2.0828	.347	.347
1262.00	-----	.8800	2.4424	.814	1.161
1263.00	-----	1.0000	2.8181	.939	2.101
1264.00	-----	1.2000	3.2954	1.098	3.199

POND VOLUME EQUATIONS

* Incremental volume computed by the Conic Method for Reservoir Volumes.

Volume = (1/3) * (EL2-EL1) * (Area1 + Area2 + sq.rt.(Area1*Area2))

where: EL1, EL2 = Lower and upper elevations of the increment
Area1,Area2 = Areas computed for EL1, EL2, respectively
Volume = Incremental volume between EL1 and EL2

REQUESTED POND WS ELEVATIONS:

Min. Elev.= 1260.50 ft
Increment = .50 ft
Max. Elev.= 1264.00 ft

****

OUTLET CONNECTIVITY

****

---> Forward Flow Only (UpStream to DnStream)
<--- Reverse Flow Only (DnStream to UpStream)
<---> Forward and Reverse Both Allowed

Structure	No.		Outfall	E1, ft	E2, ft
Culvert-Circular	cv	--->	TW	1260.500	1264.000
TW SETUP, DS Channel					

OUTLET STRUCTURE INPUT DATA

```
Structure ID      = cv
Structure Type    = Culvert-Circular
------------------------------------
No. Barrels       =        2
Barrel Diameter   =   2.0000 ft
Upstream Invert   =  1260.50 ft
Dnstream Invert   =  1260.00 ft
Horiz. Length     =   140.00 ft
Barrel Length     =   140.00 ft
Barrel Slope      =   .00357 ft/ft

OUTLET CONTROL DATA...
Mannings n        =     .0130
Ke                =     .5000  (forward entrance loss)
Kb                =   .012411  (per ft of full flow)
Kr                =     .5000  (reverse entrance loss)
HW Convergence    =      .001  +/- ft

INLET CONTROL DATA...
Equation form     =        1
Inlet Control K   =     .0098
Inlet Control M   =    2.0000
Inlet Control c   =    .03980
Inlet Control Y   =     .6700
T1 ratio (HW/D)   =     1.158
T2 ratio (HW/D)   =     1.305
Slope Factor      =     -.500
```

```
Use unsubmerged inlet control Form 1 equ. below T1 elev.
Use   submerged inlet control Form 1 equ. above T2 elev.

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...
At T1 Elev =   1262.82 ft  ---> Flow =     15.55 cfs
At T2 Elev =   1263.11 ft  ---> Flow =     17.77 cfs
```

```
Structure ID      = TW
Structure Type    = TW SETUP, DS Channel
------------------------------------
FREE OUTFALL CONDITIONS SPECIFIED

CONVERGENCE TOLERANCES...
Maximum Iterations=    30
Min. TW tolerance =    .01 ft
Max. TW tolerance =    .01 ft
Min. HW tolerance =    .01 ft
Max. HW tolerance =    .01 ft
Min.  Q tolerance =    .10 cfs
Max.  Q tolerance =    .10 cfs
```

Index of Starting Page Numbers for ID Names

APPENDIX D

PondPack

Existing Pond

Table of Contents

Table of Contents (continued)

MASTER DESIGN STORM SUMMARY

Default Network Design Storm File, ID SEDGWICK.RNQ Sedgwick24

Return Event	Total Depth in	Rainfall Type	RNF File	RNF ID
1	1.0000	Synthetic Curve	SCS	SCSII
5y24h	4.5000	Synthetic Curve	SCSTYPES	TypeII 24hr
100y24	7.9000	Synthetic Curve	SCSTYPES	TypeII 24hr
2y24h	3.5000	Synthetic Curve	SCSTYPES	TypeII 24hr

ICPM CALCULATION TOLERANCES

```
Target Convergence=      .000 cfs +/-
Max. Iterations   =        35 loops
ICPM   Time Step  =     .0100 hrs
Output Time Step  =     .0100 hrs
ICPM Ending Time  =   35.0000 hrs
```

MASTER NETWORK SUMMARY
SCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversion;)
(Trun= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left&Rt)

Storage Node ID	Type	Return Event	HYG Vol ac-ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Max Pond ac-ft
*ARK RIVER	T-E	1	.000		.0100	.00	1263.00	
*ARK RIVER	T-E	5	.000		.0100	.00	1263.00	
*ARK RIVER	T-E	100	.000		.0100	.00	1263.00	
*ARK RIVER	T-E	2	.000		.0100	.00	1263.00	
EXIST POND	POND	1	.000		.0100	.00		
EXIST POND	POND	5	4.317		12.0600	60.28		
EXIST POND	POND	100	12.137		12.0400	176.81		
EXIST POND	POND	2	2.474		12.0700	32.23		
EXIST POND OUT	POND	1	.000		.0100	.00	1255.00	.000
EXIST POND OUT	POND	5	.000		.0100	.00	1256.10	4.311
EXIST POND OUT	POND	100	.000		.0100	.00	1257.96	12.143
EXIST POND OUT	POND	2	.000		.0100	.00	1255.63	2.439

MASTER NETWORK SUMMARY
SCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversion;)
(Trun= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left&Rt)

Storage Node ID	Type	Return Event	HYG Vol ac-ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Max Pond ac-ft
SCS UH 10	AREA	1	.000		.0100	.00		
SCS UH 10	AREA	5	4.317		12.0600	60.28		
SCS UH 10	AREA	100	12.137		12.0400	176.81		
SCS UH 10	AREA	2	2.474		12.0700	32.23		

NETWORK SUMMARY -- NODES
(Trun.= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left & Rt)

DEFAULT Design Storm File,ID = SEDGWICK.RNQ Sedgwick24

Storm Tag Name   = 1

Data Type, File, ID = Synthetic Storm SCS.RNF SCSII
Storm Frequency   = 1 yr
Total Rainfall Depth= 1.0000 in
Duration Multiplier = 1
Resulting Duration = 24.0000 hrs
Resulting Start Time= .0000 hrs Step= 1.0000 hrs End= 24.0000 hrs

ICPM CALCULATION TOLERANCES

Target Convergence=   .000 cfs +/-
Max. Iterations   =   35 loops
ICPM   Time Step =   .0100 hrs
Output Time Step =   .0100 hrs
ICPM Ending Time = 35.0000 hrs

	Node ID	Type	HYG Vol ac-ft	Trun.	Qpeak hrs	Qpeak cfs	Max WSEL ft
Outfall	ARK RIVER	T-E	.000		.0100	.00	1263.00
	EXIST POND	POND	.000		.0100	.00	
	EXIST POND OUT	POND	.000		.0100	.00	1255.00
	SCS UH 10	AREA	.000		.0100	.00	

NETWORK SUMMARY -- LINKS
(UN=Upstream Node; DL=DNstream End of Link; DN=DNstream Node)
(Trun.= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left & Rt)

DEFAULT Design Storm File,ID = SEDGWICK.RNQ Sedgwick24

Storm Tag Name = 1

Data Type, File, ID = Synthetic Storm SCS.RNF SCSII
Storm Frequency = 1 yr
Total Rainfall Depth= 1.0000 in
Duration Multiplier = 1
Resulting Duration = 24.0000 hrs
Resulting Start Time= .0000 hrs Step= 1.0000 hrs End= 24.0000 hrs

---

ICPM CALCULATION TOLERANCES

Target Convergence= .000 cfs +/-
Max. Iterations = 35 loops
ICPM Time Step = .0100 hrs
Output Time Step = .0100 hrs
ICPM Ending Time = 35.0000 hrs

Link ID	Type		HYG Vol ac-ft	Trun.	Peak Time hrs	Peak Q cfs	End Points
A 10	ADD	UN	.000		.0100	.00	SCS UH 10
		DL	.000		.0100	.00	
		DN	.000		.0100	.00	EXIST POND
PR 10	PONDrt	UN	.000		.0100	.00	EXIST POND IN
PR 10			.000		.0100	.00	EXIST POND OUT
		DL	.000		.0100	.00	
		DN	.000		.0100	.00	ARK RIVER

Title...

JOB TITLE NOT SPECIFIED
Click Project Summary on the File Menu to enter title

DESIGN STORMS SUMMARY

Design Storm File,ID = SEDGWICK.RNQ Sedgwick24

```
Storm Tag Name       = 1
----------------------------------------------------------------------
Data Type, File, ID = Synthetic Storm  SCS.RNF  SCSII
Storm Frequency      = 1 yr
Total Rainfall Depth= 1.0000 in
Duration Multiplier =  1
Resulting Duration  = 24.0000 hrs
Resulting Start Time= .0000 hrs  Step= 1.0000 hrs  End= 24.0000 hrs


Storm Tag Name       = 5y24h
Description: Sedgwick County 5-yr 24 hour Duration
----------------------------------------------------------------------
Data Type, File, ID = Synthetic Storm  SCSTYPES.RNF  TypeII  24hr
Storm Frequency      = 5 yr
Total Rainfall Depth= 4.5000 in
Duration Multiplier =  1
Resulting Duration  = 24.0000 hrs
Resulting Start Time= .0000 hrs  Step= .1000 hrs  End= 24.0000 hrs


Storm Tag Name       = 100y24
Description: Sedgwick County 100-yr 24 hour Duration
----------------------------------------------------------------------
Data Type, File, ID = Synthetic Storm  SCSTYPES.RNF  TypeII  24hr
Storm Frequency      = 100 yr
Total Rainfall Depth= 7.9000 in
Duration Multiplier =  1
Resulting Duration  = 24.0000 hrs
Resulting Start Time= .0000 hrs  Step= .1000 hrs  End= 24.0000 hrs


Storm Tag Name       = 2y24h
Description: Sedgwick County 2-yr 24 hour Duration
----------------------------------------------------------------------
Data Type, File, ID = Synthetic Storm  SCSTYPES.RNF  TypeII  24hr
Storm Frequency      = 2 yr
Total Rainfall Depth= 3.5000 in
Duration Multiplier =  1
Resulting Duration  = 24.0000 hrs
Resulting Start Time= .0000 hrs  Step= .1000 hrs  End= 24.0000 hrs
```

CUMULATIVE RAINFALL FRACTIONS

Output Time increment = 1.0000 hrs

Time on left represents time for first value in each row.

Time hrs					
.0000	.000	.011	.022	.035	.048
5.0000	.063	.080	.098	.120	.147
10.0000	.181	.235	.663	.772	.820
15.0000	.854	.880	.902	.921	.937
20.0000	.952	.965	.978	.989	1.000

SCS UNIT HYDROGRAPH METHOD
(Computational Notes)

```
 DEFINITION OF TERMS: ------------------------------------------

 At     = Total area (acres):  At = Ai+Ap
 Ai     = Impervious area (acres)
 Ap     = Pervious area (acres)
 CNi    = Runoff curve number for impervious area
 CNp    = Runoff curve number for pervious area
 fLoss  = f loss constant infiltration (depth/time)
 dt     = Computational increment (duration of unit excess rainfall)
          Default dt is smallest value of 0.1333Tc, rtm, and th
          (Smallest dt is then adjusted to match up with Tp)
UDdt    = User specified override computational main time increment
          (only used if UDdt is => .1333Tc)
 D(t)   = Point on distribution curve (fraction of P) for time step t

 K      = 2 / (1 + (Tr/Tp)):  default K = 0.75: (for Tr/Tp = 1.67)
 Ks     = Hydrograph shape factor
        = Unit Conversions * K:
        = ((1hr/3600sec) * (1ft/12in) * ((5280ft)**2/sq.mi)) * K
          Default Ks = 645.333 * 0.75 = 484

 Lag    = Lag time from center of excess runoff (dt) to Tp:  Lag = 0.6Tc
 P      = Total precipitation depth, inches
 Pa(t)  = Accumulated rainfall at time step t
 Pi(t)  = Incremental rainfall at time step t
 qp     = Peak discharge (cfs) for 1in. runoff, for 1hr, for 1 sq.mi.
        = (Ks * A * Q) / Tp   (where Q = 1in. runoff, A=sq.mi.)
 Qu(t)  = Unit hydrograph ordinate (cfs) at time step t
 Q(t)   = Final hydrograph ordinate (cfs) at time step t
 Rai(t)= Accumulated runoff (inches) at time step t for impervious area
 Rap(t)= Accumulated runoff (inches) at time step t for pervious area
 Rii(t)= Incremental runoff (inches) at time step t for impervious area
 Rip(t)= Incremental runoff (inches) at time step t for pervious area
 R(t)   = Incremental weighted total runoff (inches)
 Rtm    = Time increment for rainfall table (.RNF file)
 Si     = S for impervious area:  Si = (1000/CNi) - 10
 Sp     = S for pervious area:    Sp = (1000/CNp) - 10
 t      = Time step (row) number
 Tc     = Time of concentration
 Tb     = Time (hrs) of entire unit hydrograph:  Tb = Tp + Tr
 Tp     = Time (hrs) to peak of a unit hydrograph:  Tp = (dt/2) + Lag
 Tr     = Time (hrs) of receding limb of unit hydrograph:  Tr = ratio of Tp
```

SCS UNIT HYDROGRAPH METHOD
(Computational Notes)

PRECIPITATION: --
Column (1): Time for time step t
Column (2): D(t) = Point on distribution curve for time step t
Column (3): Pi(t) = Pa(t) - Pa(t-1): Col.(4) - Preceding Col.(4)
Column (4): Pa(t) = D(t) x P: Col.(2) x P

PERVIOUS AREA RUNOFF (using SCS Runoff CN Method) ----------------------
Column (5): Rap(t) = Accumulated pervious runoff for time step t
If (Pa(t) is <= 0.2Sp) then use: Rap(t) = 0.0
If (Pa(t) is > 0.2Sp) then use:

Rap(t) = (Col.(4)-0.2Sp)**2 / (Col.(4)+0.8Sp)

Column (6): Rip(t) = Incremental pervious runoff for time step t
Rip(t) = Rap(t) - Rap(t-1)
Rip(t) = Col.(5) for current row - Col.(5) for preceding row.

IMPERVIOUS AREA RUNOFF ---
Column (7 & 8)... Did not specify to use impervious areas.

INCREMENTAL WEIGHTED RUNOFF: ---
Column (9): R(t) = (Ap/At) x Rip(t) + (Ai/At) x Rii(t)
R(t) = (Ap/At) x Col.(6) + (Ai/At) x Col.(8)

SCS UNIT HYDROGRAPH METHOD: --
Column (10): Q(t) is computed with the SCS unit hydrograph method
using R() and Qu().

ICPM HYDROGRAPH...
HYG file =
HYG ID = ARK RIVER
HYG Tag = 1

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .0100 hrs
Time on left represents time for first value in each row.

Time hrs		
.0000	.00	.00

ICPR TIME-ELEVATION TABLE

Time, hrs	Elev, ft
.0000	1263.00
1.0000	1263.00
5.0000	1263.00
10.0000	1263.00
15.0000	1263.00
25.0000	1263.00
50.0000	1263.00
100.0000	1263.00
150.0000	1263.00

TIME vs. VOLUME (ac-ft)

Time hrs	Output Time increment = .0100 hrs Time on left represents time for first value in each row.	
.0000	.000	.000

Elevation (ft)	Planimeter (sq.in)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (ac-ft)	Volume Sum (ac-ft)
1255.00	-----	3.8000	.0000	.000	.000
1256.00	-----	4.0000	11.6987	3.900	3.900
1258.00	-----	4.4000	12.5952	8.397	12.296
1260.00	-----	4.7000	13.6475	9.098	21.395
1262.00	-----	5.0000	14.5477	9.698	31.093
1264.00	-----	5.4000	15.5962	10.397	41.491

POND VOLUME EQUATIONS

* Incremental volume computed by the Conic Method for Reservoir Volumes.

Volume = (1/3) * (EL2-EL1) * (Area1 + Area2 + sq.rt.(Area1*Area2))

where: EL1, EL2 = Lower and upper elevations of the increment
Area1,Area2 = Areas computed for EL1, EL2, respectively
Volume = Incremental volume between EL1 and EL2

REQUESTED POND WS ELEVATIONS:

Min. Elev.= 1255.00 ft
Increment = .50 ft
Max. Elev.= 1264.00 ft

****
OUTLET CONNECTIVITY
****

---> Forward Flow Only (UpStream to DnStream)
<--- Reverse Flow Only (DnStream to UpStream)
<---> Forward and Reverse Both Allowed

Structure	No.		Outfall	E1, ft	E2, ft
Culvert-Circular	cv	--->	TW	1255.000	1264.000
TW SETUP, DS Channel					

```
          OUTLET STRUCTURE INPUT DATA



          Structure ID      = cv
          Structure Type    = Culvert-Circular
          ------------------------------------
          No. Barrels       =          1
          Barrel Diameter   =     2.0000 ft
          Upstream Invert   =    1255.00 ft
          Dnstream Invert   =    1250.90 ft
          Horiz. Length     =    1300.00 ft
          Barrel Length     =    1300.01 ft
          Barrel Slope      =     .00315 ft/ft

          OUTLET CONTROL DATA...
          Mannings n        =      .0130
          Ke                =      .5000  (forward entrance loss)
          Kb                =    .012411  (per ft of full flow)
          Kr                =      .5000  (reverse entrance loss)
          HW Convergence    =       .001  +/- ft

          INLET CONTROL DATA...
          Equation form     =          1
          Inlet Control K   =      .0098
          Inlet Control M   =     2.0000
          Inlet Control c   =     .03980
          Inlet Control Y   =      .6700
          T1 ratio (HW/D)   =      1.159
          T2 ratio (HW/D)   =      1.305
          Slope Factor      =      -.500

Use unsubmerged inlet control Form 1 equ. below T1 elev.
Use   submerged inlet control Form 1 equ. above T2 elev.

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...
At T1 Elev =   1257.32 ft  ---> Flow =     15.55 cfs
At T2 Elev =   1257.61 ft  ---> Flow =     17.77 cfs
```

ICPM POND ROUTING SUMMARY

Inflow HYG file = EXIST POND IN 1
Outflow HYG file = EXIST POND OUT 1

Pond Node Data = EXIST POND
Pond Volume Data = EXIST POND
Pond Outlet Data = PR 10

No Infiltration

INITIAL CONDITIONS

Starting WS Elev = 1255.00 ft
Starting Volume = .000 ac-ft
Starting Outflow = .00 cfs

CALCULATION TOLERANCES

Target Convergence= .000 cfs +/-
Max. Iterations = 35 loops
ICPM Time Step = .0100 hrs
Output Time Step = .0100 hrs
ICPM Ending Time = 35.0000 hrs

MAXIMUM STORAGE

Tp, hrs	Elev, ft	Vol, ac-ft
.0000	1255.00	.000

	FORWARD FLOW PEAKS		REVERSE FLOW PEAKS	
	Tp, hrs	Qp, cfs	Tp, hrs	Qp, cfs
Pond Inflow.....	.0100	.00	.0000	.00
Pond Outflow....	.0100	.00	.0000	.00

	TOTAL VOLUME IN		TOTAL VOLUME OUT	
	Vol, ac-ft	Direction	Vol, ac-ft	Direction
Pond Inflow.....	.000	Forward	.000	Reverse
Pond Outflow....	.000	Reverse	.000	Forward

MASS BALANCE (ac-ft)

+ Initial Vol.....	.000	
+ Total Vol IN....	.000	
- Total Vol OUT...	.000	
- Ending Pond Vol.	.000	<-- (At .0100 hrs Elev.= 1255.00 ft)
Difference......	.000 ac-ft	

Index of Starting Page Numbers for ID Names