

19411-8 (18)



Bound Reports

1720

**KINGS RIDGE NORTH
STORMWATER CALCULATIONS
FBA NO. 941216.077**

4-069-0326 AM 9-
ERK
19411-~~18~~8

**FARNER, BARLEY & ASSOCIATES, INC.
350 NORTH SINCLAIR AVENUE
TAVARES, FLORIDA 32778**

BY: _____

**DUANE K. BOOTH, P.E.
FLORIDA REG. NO. 44631**

DATE: _____

AUG 10 1999

TABLE OF CONTENTS

1. Stormwater Design Summary
2. Maps: USGS
Soils
Survey
3. Basin Summary and CN Calculation
4. ICPR Input Data
5. ICPR Developed Hydrograph Summary 25 year-96 hour Storm
6. ICPR Node Max Conditions 25 year-96 hour Storm
7. ICPR Routed Hydrograph 25 year-96 hour Storm
8. "Ponds" Infiltration Analysis 25 year-96 hour Storm
9. "Ponds" Recovery Analysis (Treatment Volume)
10. "Ponds" Recovery Analysis (Total Runoff Volume)
11. 50 year-24 hour Storm Event Hydrology and Routing Analysis
12. Storm Sewer Tabulations
13. Soils Report:
 - A. Geotechnical Investigation of Kings Ridge North April 29, 1999

KINGS RIDGE NORTH

STORMWATER DESIGN SUMMARY

Kings Ridge North is located in Section 4 of Township 23S, Range 26E on Hancock Road consisting of approximately 228.80 acres. The property as existing today is an abandoned orange grove.

The property has a positive outfall to Lake Felter bordering part of its boundary. The stormwater management system is designed to retain the total runoff from the 25 year-96 hour storm event.

The Stormwater Calculations meet or exceed the requirements of St. Johns River Water Management District, the City of Clermont, and Florida Department of Transportation.

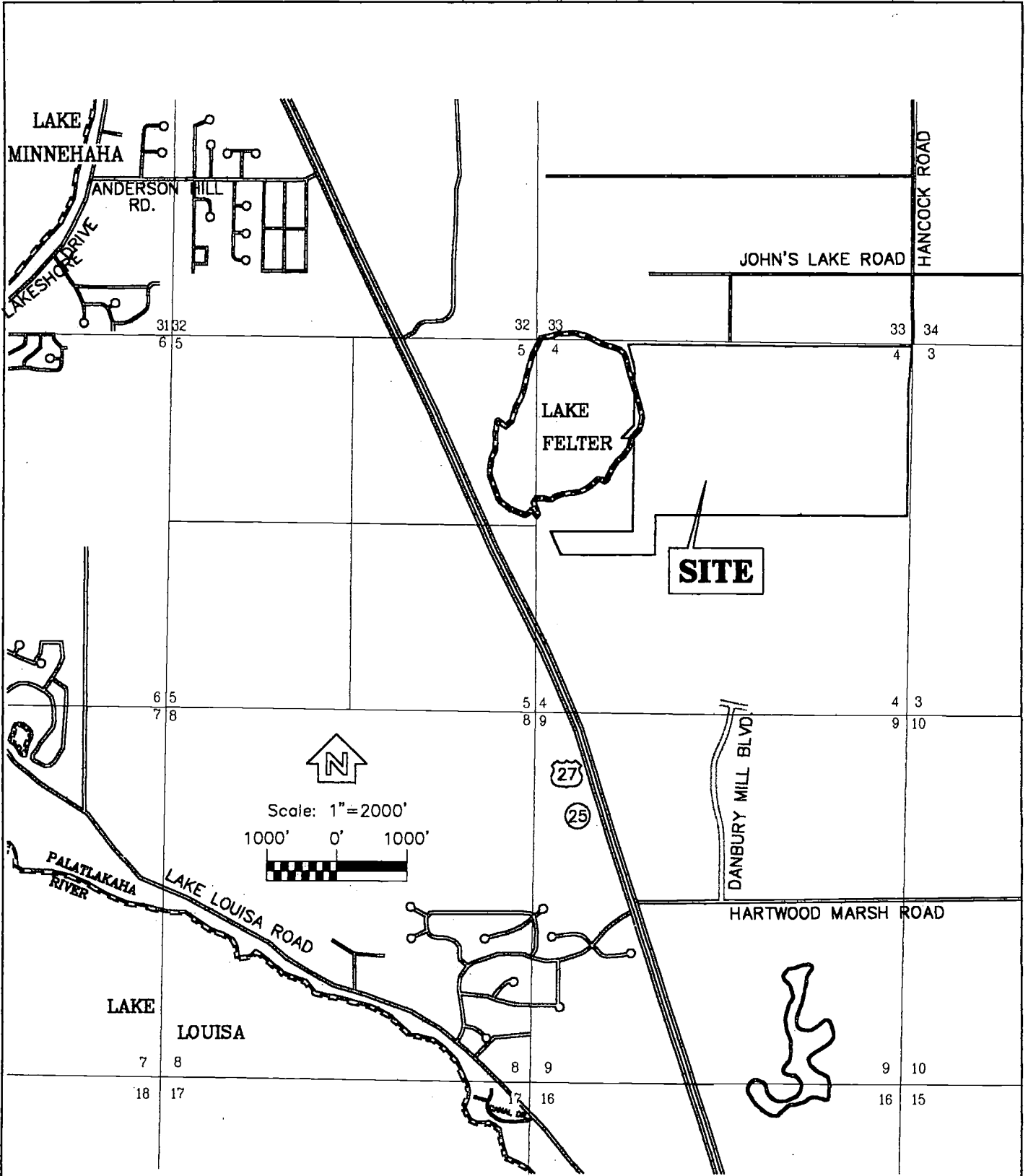
See ICPR Max Node conditions for comparison of peak stage versus pond max elevation and ponds Recovery analysis for stormwater treatment volume calculation and recovery analysis.

Pond 2 has been designed as a lined irrigation pond to serve the residential community and golf course. It is designed to contain consecutive 25 year-96 hour storm events.

<i>POND</i>	<i>TOP OF POND ELEVATION</i>	<i>PEAK STAGE</i>	<i>TREATMENT VOLUME Cu.Ft.</i>	<i>TREATMENT RECOVERY TIME (Hrs.)</i>
2	250.0	249.04*	---	---
3	243.0	238.40	47,154	1.60
4	230.0	226.66	71,184	2.68
4B	246.0	241.59	17,061	1.09
5	135.0	128.33	159,212	2.67
6	239.0	234.21	50,167	1.01
7	193.0	189.88	31,799	1.96
9	155.0	153.66	40,583	4.30
11	186.0	182.10	67,591	2.39
13	166.0	161.37	23,740	1.42
14	149.0	146.74	18,985	1.21
17	150.0	148.99	34,812	3.47
18	162.0	161.76	13,758	2.90
19	90.0	89.0	157,469	3.37

*Peak Stage of 2nd storm due to lined pond not allowing recovery.

MAPS



E:\LOC-MAPI.dwg 07/27/99 10:27



**FARNER
BARLEY
AND ASSOCIATES, INC.**

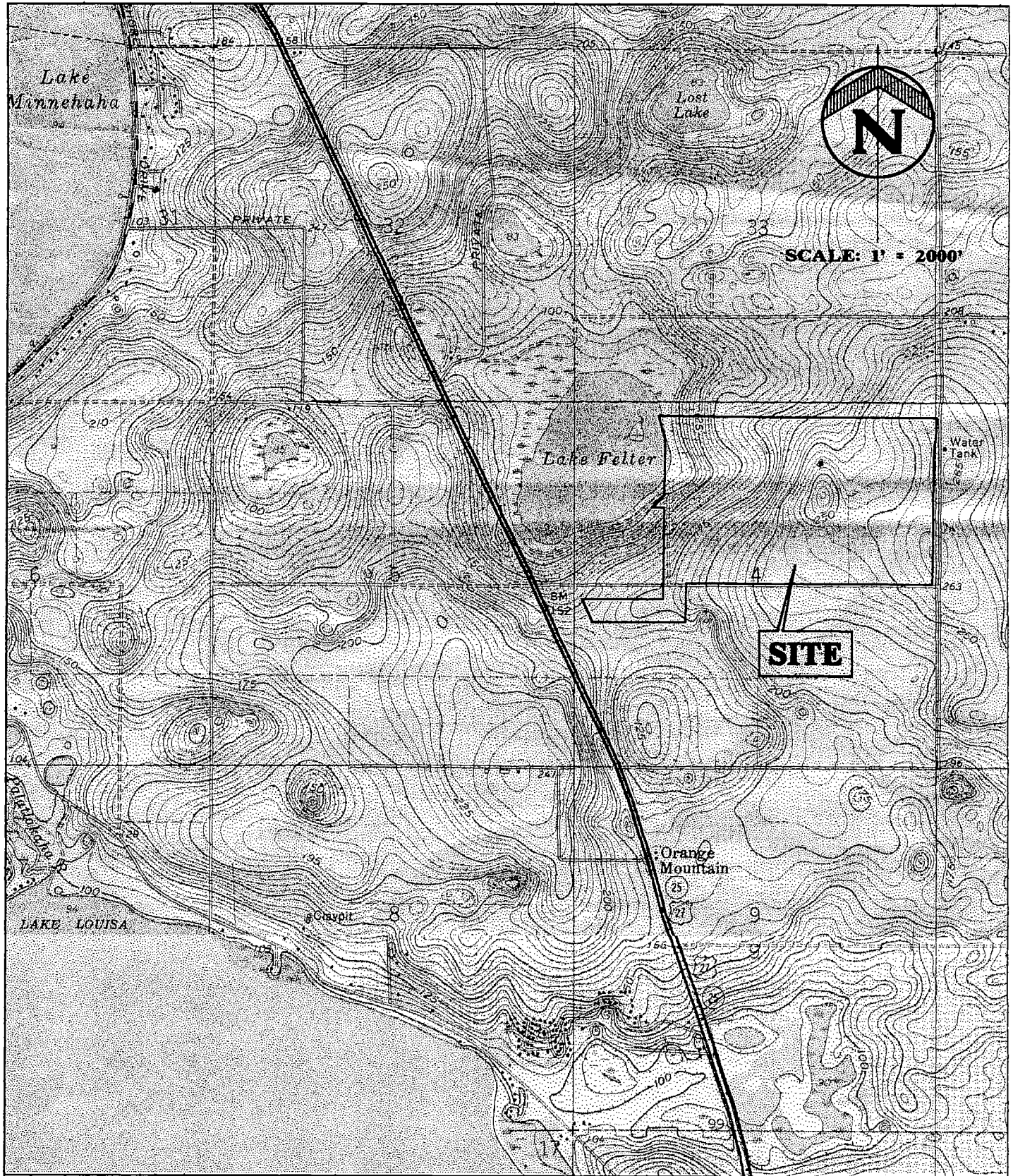
▲ ENGINEERS
▲ SURVEYORS
▲ PLANNERS

380 North State Avenue • Tallahassee, Florida 32310 • (904) 842-8401

**KINGS RIDGE
NORTH
LOCATION MAP**

DATE: MARCH 12, 1999

JOB NO. 941246076



**CLERMONT EAST QUADRANGLE FLORIDA
LAKE LOUISA EAST QUADRANGLE FLORIDA**

E:\Viegs.dwg 07/27/99 10:28



**PARNER
BARLEY
AND ASSOCIATES, INC.**

**A ENGINEERS
A SURVEYORS
A PLANNERS**

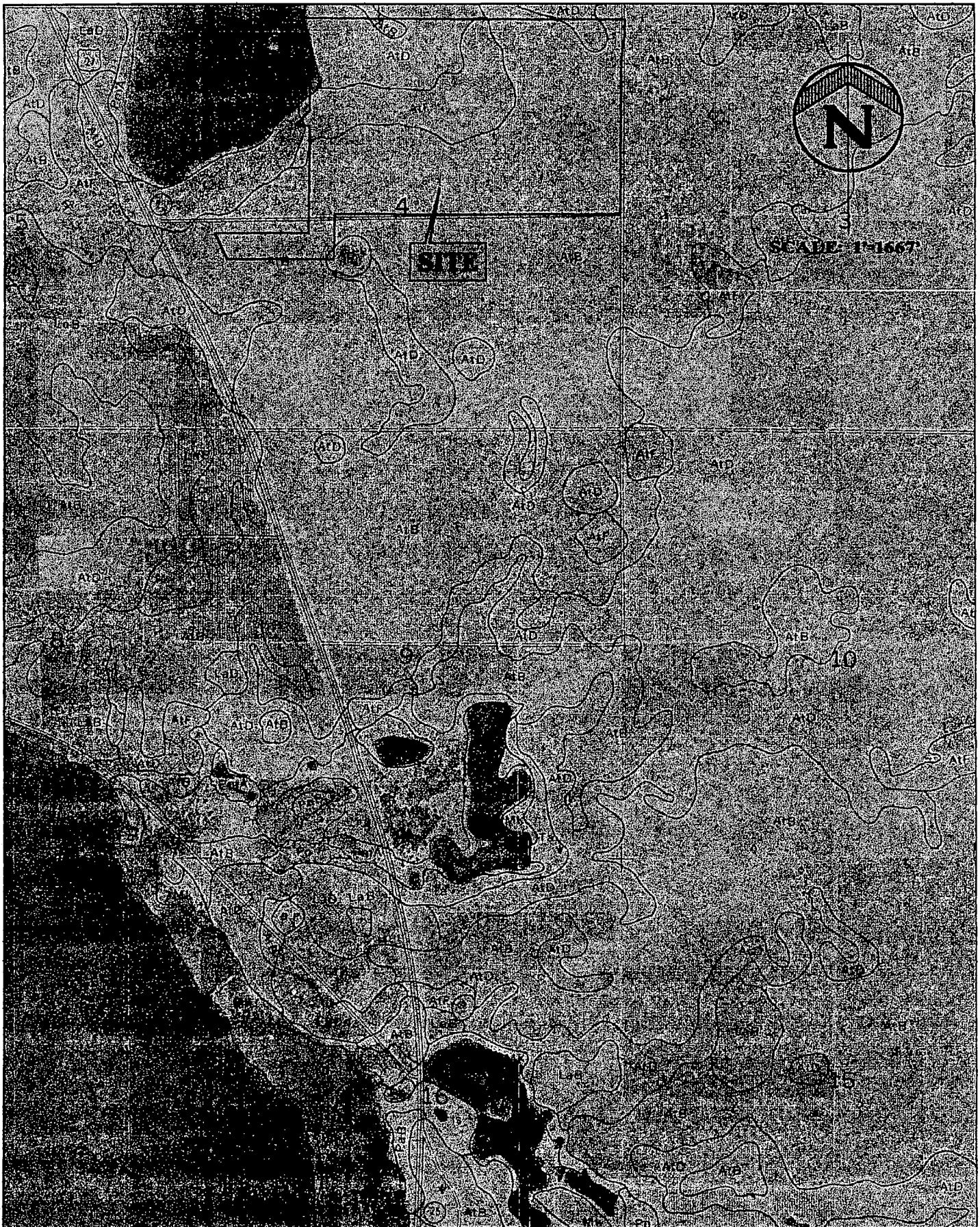
350 North Shaded Avenue • Tallahassee, Florida 32310 • (904) 843-6491

**KINGS RIDGE
NORTH**

USGS MAP

DATE: MARCH 10, 1999

JOB NO. 94226.076



E:\v\theocil.dwg 07/27/99 10:28


**FARNER
BARLEY
AND ASSOCIATES, INC.**
 880 North Bristol Avenue • Tallahassee, Florida 32310 • (904) 343-6461

▲ ENGINEERS
 ▲ SURVEYORS
 ▲ PLANNERS

**KINGS RIDGE
NORTH**
SOILS MAP

--

DATE: MARCH 10, 1999
JOB NO. 941216.076

**DEVELOPED BASIN SUMMARY
AND CURVE NUMBER CALCULATION**

 ***** POND VOLUME COMPUTATIONS *****

Description: POND 3
 DATE: Jul 14 , 1999 TIME: 1:37:38 PM

BOTTOM AREA = 17631 SQ FT
 BOTTOM ELEVATION = 235
 BOTTOM PERIMETER = 667
 SLOPE = 4 TO 1
 TOP OF BERM ELEVATION = 243

ELEV	AREA (SF) (AC)	AVERAGE AREA (SF)	DELTA H (SF)	DELTA VOL (CF)	STORAGE (CF)	STORAGE (AC FT)
235.00	.405 17631					0.00
236.00	.467 20349	18990	1.00	18990	18990	0.44
237.00	.532 23168	21759	1.00	21759	40749	0.94
238.00	.599 26087	24628	1.00	24628	65377	1.50
239.00	.668 29107	27597	1.00	27597	92974	2.13
240.00	.740 32228	30667	1.00	30667	123641	2.84
241.00	.814 35449	33838	1.00	33838	157479	3.62
242.00	.890 38770	37109	1.00	37109	194589	4.47
243.00	.969 42192	40481	1.00	40481	235070	5.40

 ***** POND VOLUME COMPUTATIONS *****

Description: POND 4
 DATE: Jun 14 , 1999 TIME: 10:32:15 AM

BOTTOM AREA = 18228 SQ FT
 BOTTOM ELEVATION = 220
 BOTTOM PERIMETER = 572
 SLOPE = 4 TO 1
 TOP OF BERM ELEVATION = 230

ELEV	AREA (SF) (AC)	AVERAGE AREA (SF)	DELTA H (SF)	DELTA VOL (CF)	STORAGE (CF)	STORAGE (AC FT)
220.00	.419 18228					0.00
221.00	.472 20566	19397	1.00	19397	19397	0.45
222.00	.528 23005	21786	1.00	21786	41183	0.95
223.00	.586 25544	24275	1.00	24275	65458	1.50
224.00	.647 28184	26864	1.00	26864	92322	2.12
225.00	.710 30925	29554	1.00	29554	121876	2.80
226.00	.775 33766	32345	1.00	32345	154221	3.54
227.00	.843 36707	35236	1.00	35236	189458	4.35
228.00	.913 39749	38228	1.00	38228	227686	5.23
229.00	.985 42892	41320	1.00	41320	269006	6.18
230.00	1.059 46135	44513	1.00	44513	313519	7.20

 ***** POND VOLUME COMPUTATIONS *****

Description: POND 4b

DATE: Jun 2 , 1999 TIME: 10:43:40 AM

BOTTOM AREA = 16386 SQ FT
 BOTTOM ELEVATION = 240
 BOTTOM PERIMETER = 533
 SLOPE = 4 TO 1
 TOP OF BERM ELEVATION = 246

ELEV	AREA (SF) (AC)	AVERAGE AREA (SF)	DELTA H (SF)	DELTA VOL (CF)	STORAGE (CF)	STORAGE (AC FT)
240.00	.376 16386					0.00
241.00	.426 18568	17477	1.00	17477	17477	0.40
242.00	.479 20851	19710	1.00	19710	37187	0.85
243.00	.533 23234	22043	1.00	22043	59230	1.36
244.00	.590 25718	24476	1.00	24476	83706	1.92
245.00	.650 28303	27010	1.00	27010	110716	2.54
246.00	.711 30988	29645	1.00	29645	140361	3.22

 ***** POND VOLUME COMPUTATIONS *****

Description: POND 5
 DATE: Jul 14 , 1999 TIME: 1:42:05 PM

BOTTOM AREA = 55786 SQ FT
 BOTTOM ELEVATION = 125
 BOTTOM PERIMETER = 1298
 SLOPE = 4 TO 1
 TOP OF BERM ELEVATION = 135

ELEV	AREA (SF) (AC)	AVERAGE AREA (SF)	DELTA H (SF)	DELTA VOL (CF)	STORAGE (CF)	STORAGE (AC FT)
125.00	1.281 55786	58407	1.00	58407		0.00
126.00	1.401 61028	63700	1.00	63700	58407	1.34
127.00	1.524 66371	69093	1.00	69093	122107	2.80
128.00	1.649 71814	74586	1.00	74586	191200	4.39
129.00	1.776 77358	80180	1.00	80180	265786	6.10
130.00	1.906 83003	85875	1.00	85875	345966	7.94
131.00	2.037 88748	91670	1.00	91670	431841	9.91
132.00	2.172 94593	97566	1.00	97566	523512	12.02
133.00	2.308 100539	103562	1.00	103562	621078	14.26
134.00	2.447 106586	109659	1.00	109659	724640	16.64
135.00	2.588 112733				834299	19.15

 ***** POND VOLUME COMPUTATIONS *****

Description: POND 6
 DATE: Jun 2 , 1999 TIME: 10:46:55 AM

BOTTOM AREA = 40661 SQ FT
 BOTTOM ELEVATION = 233
 BOTTOM PERIMETER = 842
 SLOPE = 6 TO 1
 TOP OF BERM ELEVATION = 239

ELEV	AREA (SF) (AC)	AVERAGE AREA (SF)	DELTA H (SF)	DELTA VOL (CF)	STORAGE (CF)	STORAGE (AC FT)
233.00	0.933 40661					0.00
234.00	1.052 45826	43244	1.00	43244	43244	0.99
235.00	1.176 51217	48522	1.00	48522	91765	2.11
236.00	1.305 56835	54026	1.00	54026	145791	3.35
237.00	1.439 62679	59757	1.00	59757	205548	4.72
238.00	1.578 68748	65713	1.00	65713	271262	6.23
239.00	1.723 75045	71896	1.00	71896	343158	7.88

 ***** POND VOLUME COMPUTATIONS *****

Description: POND 7
 DATE: Jun 2 , 1999 TIME: 10:48:15 AM

BOTTOM AREA = 5070 SQ FT
 BOTTOM ELEVATION = 183
 BOTTOM PERIMETER = 316
 SLOPE = 4 TO 1
 TOP OF BERM ELEVATION = 193

ELEV	AREA (SF) (Ac)	AVERAGE AREA (SF)	DELTA H (SF)	DELTA VOL (CF)	STORAGE (CF)	STORAGE (AC FT)
183.00	.116 5070					0.00
		5727	1.00	5727		
184.00	.147 6384				5727	0.13
		7092	1.00	7092		
185.00	.179 7799				12819	0.29
		8557	1.00	8557		
186.00	.214 9314				21376	0.49
		10122	1.00	10122		
187.00	.251 10930				31498	0.72
		11788	1.00	11788		
188.00	.290 12647				43286	0.99
		13555	1.00	13555		
189.00	.332 14464				56841	1.30
		15422	1.00	15422		
190.00	.376 16381				72264	1.66
		17390	1.00	17390		
191.00	.422 18399				89654	2.06
		19458	1.00	19458		
192.00	.471 20518				109112	2.50
		21627	1.00	21627		
193.00	.522 22737				130739	3.00

 ***** POND VOLUME COMPUTATIONS *****

Description: POND 9
 DATE: Jul 14 , 1999 TIME: 1:46:00 PM

BOTTOM AREA = 9390 SQ FT
 BOTTOM ELEVATION = 146
 BOTTOM PERIMETER = 387
 SLOPE = 4 TO 1
 TOP OF BERM ELEVATION = 155

ELEV	AREA (SF) (AC)	AVERAGE AREA (SF)	DELTA H (SF)	DELTA VOL (CF)	STORAGE (CF)	STORAGE (AC FT)
146.00	.216 9390					0.00
147.00	.252 10988	10189	1.00	10189	10189	0.23
148.00	.291 12687	11838	1.00	11838	22027	0.51
149.00	.333 14486	13587	1.00	13587	35614	0.82
150.00	.376 16386	15436	1.00	15436	51050	1.17
151.00	.422 18387	17386	1.00	17386	68436	1.57
152.00	.470 20488	19437	1.00	19437	87873	2.02
153.00	.521 22689	21588	1.00	21588	109462	2.51
154.00	.574 24991	23840	1.00	23840	133302	3.06
155.00	.629 27394	26192	1.00	26192	159494	3.66

 ***** POND VOLUME COMPUTATIONS *****

Description: POND 11
 DATE: Jun 2 , 1999 TIME: 10:54:46 AM

BOTTOM AREA = 14733 SQ FT
 BOTTOM ELEVATION = 176
 BOTTOM PERIMETER = 569
 SLOPE = 4 TO 1
 TOP OF BERM ELEVATION = 186

ELEV	AREA (SF) (AC)	AVERAGE AREA (SF)	DELTA H (SF)	DELTA VOL (CF)	STORAGE (CF)	STORAGE (AC FT)
176.00	14733 0.34	15896	1.00	15896		0.00
177.00	17059 0.39	18273	1.00	18273	15896	0.36
178.00	19486 0.44	20750	1.00	20750	34169	0.78
179.00	22013 0.51	23327	1.00	23327	54919	1.26
180.00	24641 0.56	26005	1.00	26005	78246	1.80
181.00	27370 0.63	28784	1.00	28784	104251	2.39
182.00	30199 0.69	31663	1.00	31663	133035	3.05
183.00	33128 0.76	34643	1.00	34643	164699	3.78
184.00	36158 0.83	37723	1.00	37723	199342	4.58
185.00	39289 0.90	40904	1.00	40904	237065	5.44
186.00	42520 .98				277969	6.38

 ***** POND VOLUME COMPUTATIONS *****

Description: POND 13
 DATE: Jul 14 , 1999 TIME: 1:48:30 PM

BOTTOM AREA = 9878 SQ FT
 BOTTOM ELEVATION = 158
 BOTTOM PERIMETER = 439
 SLOPE = 4 TO 1
 TOP OF BERM ELEVATION = 166

ELEV	AREA (SF)	AVERAGE AREA (SF)	DELTA H (SF)	DELTA VOL (CF)	STORAGE (CF)	STORAGE (AC FT)
158.00	9878 0.23	10781	1.00	10781	10781	0.00
159.00	11684 0.27	12638	1.00	12638	23419	0.25
160.00	13591 0.31	14595	1.00	14595	38014	0.54
161.00	15598 0.36	16652	1.00	16652	54666	0.87
162.00	17706 0.41	18810	1.00	18810	73476	1.25
163.00	19915 0.46	21069	1.00	21069	94545	1.69
164.00	22224 0.51	23428	1.00	23428	117974	2.17
165.00	24633 0.56	25888	1.00	25888	143862	2.71
166.00	27143 0.62					3.30

***** POND VOLUME COMPUTATIONS *****

Description: POND 14

DATE: Jul 14 , 1999 TIME: 1:51:05 PM

BOTTOM AREA = 7703 SQ FT
BOTTOM ELEVATION = 142
BOTTOM PERIMETER = 403
SLOPE = 4 TO 1
TOP OF BERM ELEVATION = 149

ELEV	AREA (SF)	AVERAGE AREA (SF)	DELTA H (SF)	DELTA VOL (CF)	STORAGE (CF)	STORAGE (AC FT)
142.00	0.18 7703	8534	1.00	8534		0.00
143.00	0.22 9365	10247	1.00	10247	8534	0.20
144.00	0.26 11128	12060	1.00	12060	18781	0.43
145.00	0.30 12991	13973	1.00	13973	30841	0.71
146.00	0.34 14955	15987	1.00	15987	44814	1.03
147.00	0.39 17020	18102	1.00	18102	60801	1.40
148.00	0.44 19185	20317	1.00	20317	78903	1.81
149.00	0.49 21450				99221	2.28

 ***** POND VOLUME COMPUTATIONS *****

Description: POND 17
 DATE: Jun 2 , 1999 TIME: 10:59:24 AM

BOTTOM AREA = 2733 SQ FT
 BOTTOM ELEVATION = 140
 BOTTOM PERIMETER = 229
 SLOPE = 4 TO 1
 TOP OF BERM ELEVATION = 150

ELEV	AREA (SF)	AVERAGE AREA (SF)	DELTA H (SF)	DELTA VOL (CF)	STORAGE (CF)	STORAGE (AC FT)
140.00	0.06 2733					0.00
141.00	0.08 3699	3216	1.00	3216	3216	0.07
142.00	0.11 4766	4233	1.00	4233	7449	0.17
143.00	0.14 5933	5350	1.00	5350	12799	0.29
144.00	0.17 7201	6567	1.00	6567	19366	0.44
145.00	0.20 8570	7885	1.00	7885	27251	0.63
146.00	0.23 10039	9304	1.00	9304	36555	0.84
147.00	0.27 11608	10823	1.00	10823	47379	1.09
148.00	0.30 13278	12443	1.00	12443	59822	1.37
149.00	0.35 15049	14163	1.00	14163	73985	1.70
150.00	0.39 16920	15984	1.00	15984	89969	2.07

***** POND VOLUME COMPUTATIONS *****

Description: POND 18

DATE: Jul 22 , 1999 TIME: 5:09:21 PM

BOTTOM AREA = 1148 SQ FT
BOTTOM ELEVATION = 157
BOTTOM PERIMETER = 185
SLOPE = 4 TO 1
TOP OF BERM ELEVATION = 162

ELEV	AREA (SF)	AVERAGE AREA (SF)	DELTA H (SF)	DELTA VOL (CF)	STORAGE (CF)	STORAGE (AC FT)
157.00	1148					0.00
		1543	1.00	1543		
158.00	1938				1543	0.04
		2384	1.00	2384		
159.00	2829				3927	0.09
		3325	1.00	3325		
160.00	3820				7252	0.17
		4366	1.00	4366		
161.00	4912				11618	0.27
		5508	1.00	5508		
162.00	6105				17126	0.39

STORM RUNOFF WORKSHEET

PROJECT #: 941216.077 PROJECT: NORTH RIDGE DATE: 5/28/99 PRE-DEVELOPMENT POST-DEVELOPMENT

BASIN NO. <u>B1</u>		TOTAL AREA <u>30.57 ac.</u>			STORM: <u>25</u> YEAR <u>96</u> HOUR		
SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
	A	GREEN GRASS (GOOD)	21.52		39	70.40	2746
		44 X 3500 = 154,000					
		25 X 1227 = 30,675					
		63 X 2000 + 1830 X 25 = 209,550		9.05	98	29.60	2901
		209,550	394,225 TOTALS			100	5647

RAINFALL (P) = 11.2 in. RUNOFF R = 5.89 in. 5.83 ac.ft. 253,924 cu.ft. PRODUCT COVERAGE = \bar{CN} = 57

BASIN NO. <u>B2</u>		TOTAL AREA <u>8.93 ac.</u>			STORM: <u>25</u> YEAR <u>96</u> HOUR		
SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
	A	GREEN GRASS (GOOD)	7.54		39	84	3276
		14 X 3500 = 49,000					
		11,740					
		60,740		1.39	98	16	1568
TOTALS						100	4844

RAINFALL (P) = 11.2 in. RUNOFF R = 4.11 in. 3.06 ac.ft. 133,146 cu.ft. PRODUCT COVERAGE = \bar{CN} = 48

BASIN NO. <u>B3</u>		TOTAL AREA <u>12.99 ac.</u>			STORM: <u>25</u> YEAR <u>96</u> HOUR		
SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
	A	GREEN GRASS (GOOD)	9.97		39	77	3003
		28 X 3500 = 98,000					
		1 X 4250 = 4,250					
		PVMT = 29,450					
		131,700		3.02	98	23	2254
TOTALS						100	5257

RAINFALL (P) = 11.2 in. RUNOFF R = 4.86 in. 5.24 ac.ft. 229,030 cu.ft. PRODUCT COVERAGE = \bar{CN} = 53

$S = \frac{1000}{CN} - 10$
 $R = \frac{(P - 0.2S)^2}{(P + 0.8S)}$
 R = runoff (in.)
 P = rainfall (in.)

STORM RUNOFF WORKSHEET

PROJECT # 941216.077 PROJECT: NORTH RIDGE DATE: 6/14/99 PRE-DEVELOPMENT POST-DEVELOPMENT

BASIN NO. <u>B4</u>		TOTAL AREA <u>19.61 ac.</u>			STORM: <u>25</u> YEAR <u>96</u> HOUR		
SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
	A	GREEN GRASS (GOOD)	12.31		39	63	2457
		$6 \times 3500 = 21,000$ $51 \times 4250 = 216,750$ $= 80,175$ <hr/> $317,925$		7.30	98	37	3624
TOTALS							6083

RAINFALL (P) = 11.2 in. RUNOFF R = 6.03 in. 9.84 ac.ft. 429,479 cu.ft. PRODUCT COVERAGE = $\overline{CN} = 61$

BASIN NO. <u>B4b</u>		TOTAL AREA <u>4.70 ac.</u>			STORM: <u>25</u> YEAR <u>96</u> HOUR		
SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
	A	GREEN GRASS (GOOD)	2.79		39	59	2301
		$15 \times 4250 = 63,750$ $25 \times 778 = 19,450$ <hr/> $83,200$		1.91	98	41	4018
TOTALS						100	6319

RAINFALL (P) = 11.2 in. RUNOFF R = 6.32 in. 2.48 ac.ft. 107,858 cu.ft. PRODUCT COVERAGE = $\overline{CN} = 63$

BASIN NO. <u>B5</u>		TOTAL AREA <u>43.86 ac.</u>			STORM: <u>25</u> YEAR <u>96</u> HOUR		
SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
	A	GREEN GRASS (GOOD)	32.91		39	75	2925
		$110 \times 4250 = 467,500$ $1 \times 3500 = 3,500$ $PUMP =$ <hr/> $477,184$		10.95	98	25	2450
TOTALS						100	5375

RAINFALL (P) = 11.2 in. RUNOFF R = 5.01 in. 18.30 ac.ft. cu.ft. PRODUCT COVERAGE = $\overline{CN} = 54$

$S = \frac{1000}{CN} - 10$
 $R = \frac{(P - 0.2S)^2}{(P + 0.8S)}$
R = runoff (in.)
P = rainfall (in.)

STORM RUNOFF WORKSHEET

PROJECT #: 941216.077 PROJECT: NORTH RIDGE DATE: 5/28/99 PRE-DEVELOPMENT POST-DEVELOPMENT

BASIN NO. <u>B6</u>		TOTAL AREA <u>13.82 ac.</u>			STORM: <u>25</u> YEAR <u>96</u> HOUR		
SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
	A	GREEN GRASS (GOOD)	10.12		39	73	2847
		16 X 3500 = 56,000					
		18 X 4250 = 76,500					
		25 X 1140 = 28,500					
		161,000		3.70	98	27	2646
TOTALS						100	5493

RAINFALL (P) = 11.2 in. RUNOFF R = 5.15 in. 5.94 ac.ft. 258,567 cu.ft. PRODUCT COVERAGE = $\overline{CN} = 55$

BASIN NO. <u>B7</u>		TOTAL AREA <u>8.76</u>			STORM: <u>25</u> YEAR <u>96</u> HOUR		
SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
	A	GREEN GRASS (GOOD)	6.09		39	70	2730
		12 X 4250 = 97,750					
		= 18,650					
		116,400		2.67	98	30	2940
TOTALS						100	5670

RAINFALL (P) = 11.2 in. RUNOFF R = 5.45 in. 3.98 ac.ft. 173,283 cu.ft. PRODUCT COVERAGE = $\overline{CN} = 57$

BASIN NO. _____		TOTAL AREA _____			STORM: _____ YEAR _____ HOUR		
SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
TOTALS							

RAINFALL (P) = 11.2 in. RUNOFF R = _____ in. _____ ac.ft. _____ cu.ft. PRODUCT COVERAGE = $\overline{CN} =$ _____

$S = \frac{1000}{CN} - 10$
 $R = \frac{(P - 0.2S)^2}{(P + 0.8S)}$
 R = runoff (in.)
 P = rainfall (in.)

STORM RUNOFF WORKSHEET

PROJECT # 941216.077 PROJECT: NORTH RIDGE DATE: 5/28/99 PRE-DEVELOPMENT POST-DEVELOPMENT

BASIN NO. B9 TOTAL AREA 11.18 ac. STORM: 25 YEAR 96 HOUR

SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
	A	GREEN GRASS (GOOD)	6.59		39	59	2301
		47 X 4250 = 199,750					
				4.59	98	41	4018
TOTALS						100	6319

RAINFALL (P) = 11.2 in. RUNOFF R = 6.32 in. 5.89 ac.ft. _____ cu.ft. PRODUCT COVERAGE = \overline{CN} = 63

BASIN NO. _____ TOTAL AREA _____ STORM: _____ YEAR _____ HOUR

SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
TOTALS							

RAINFALL (P) = 11.2 in. RUNOFF R = _____ in. _____ ac.ft. _____ cu.ft. PRODUCT COVERAGE = \overline{CN} = _____

BASIN NO. B11 TOTAL AREA 18.62 ac. STORM: 25 YEAR 96 HOUR

SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
	A	GREEN GRASS (GOOD)	13.18		39	71	2769
		32 X 3500 = 112,000 16 X 4250 = 68,000 PUMP = 56,857 = 236,857					
				5.44	98	29	2842
TOTALS							5611

RAINFALL (P) = 11.2 in. RUNOFF R = 5.30 in. 8.23 ac.ft. 358,366 cu.ft. PRODUCT COVERAGE = \overline{CN} = 56

$S = \frac{1000}{CN} - 10$
 $R = \frac{(P - 0.2S)^2}{(P + 0.8S)}$
 R = runoff (in.)
 P = rainfall (in.)

STORM RUNOFF WORKSHEET

PROJECT # 941216.077 PROJECT: NORTH RIDGE DATE: 5/28/99 PRE-DEVELOPMENT POST-DEVELOPMENT

BASIN NO. <u>B12</u>		TOTAL AREA <u>19.15 ac.</u>			STORM: <u>25</u> YEAR <u>96</u> HOUR		
SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
	A	GREEN GRASS (GOOD)	13.99		39	73.03	2848
		3 X 3500 = 10,500 76 X 70 X 65 = 119,600 46 X 10 X 32 = 147,200 + 21,250 27,200 12,304 14,200 22,900		5.16	98	26.97	2643
(225,014) TOTALS						100	5491

RAINFALL (P) = 11.2 in. RUNOFF R = 8.94 in. 0.25 ac.ft. 10,707 cu.ft. PRODUCT COVERAGE = \overline{CN} = 55

BASIN NO. <u>B13</u>		TOTAL AREA <u>6.54 ac.</u>			STORM: <u>25</u> YEAR <u>96</u> HOUR		
SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
	A	GREEN GRASS (GOOD)	3.64		39	56	2184
		31 X 3500 = 108,500 25 X 706 = 17,650 126,150		2.90	98	44	4312
TOTALS						100	6496

RAINFALL (P) = 11.2 in. RUNOFF R = 6.61 in. 3.60 ac.ft. _____ cu.ft. PRODUCT COVERAGE = \overline{CN} = 65

BASIN NO. <u>B14</u>		TOTAL AREA <u>5.23 ac.</u>			STORM: <u>25</u> YEAR <u>96</u> HOUR		
SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
	A	GREEN GRASS (GOOD)	2.81		39	54	2106
		21 X 3500 = 73,500 PUMT = 32,000 105,500		2.42	98	46	4508
TOTALS							6614

RAINFALL (P) = 11.2 in. RUNOFF R = 6.75 in. 2.94 ac.ft. 128,154 cu.ft. PRODUCT COVERAGE = \overline{CN} = 66

$S = \frac{1000}{CN} - 10$
 $R = \frac{(P - 0.2S)^2}{(P + 0.8S)}$
 R = runoff (in.)
 P = rainfall (in.)

STORM RUNOFF WORKSHEET

PROJECT # 941216.077 PROJECT: NORTH RIDGE DATE: 5/28/99 PRE-DEVELOPMENT POST-DEVELOPMENT

BASIN NO. B15 TOTAL AREA 10.83 ac. STORM: 25 YEAR 96 HOUR

SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
	A	GREEN GRASS (GOOD)	8.35		39	77.10	3006
		8 x 3500 = 28,000 17 x 40 x 65 17 x 10 x 30 240 x 25 3.17 x 60 x 60 (108,284)		2.48	98	22.90	2244
80,284			TOTALS			100	5251

RAINFALL (P) = 11.2 in. RUNOFF R = 7.31 in. 0.76 ac.ft. _____ cu.ft. PRODUCT COVERAGE = \overline{CN} = 53

BASIN NO. _____ TOTAL AREA _____ STORM: _____ YEAR _____ HOUR

SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
TOTALS							

RAINFALL (P) = 11.2 in. RUNOFF R = 5.89 in. 2.63 ac.ft. _____ cu.ft. PRODUCT COVERAGE = \overline{CN} = _____

BASIN NO. B17 TOTAL AREA 9.59 ac. STORM: 25 YEAR 96 HOUR

SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
	A	GREEN GRASS (GOOD)	7.53		39	79	3081
		17 x 4250 = 72,250 29 x 598 = 17,342 89,592		2.06	98	21	2058
TOTALS						100	5139

RAINFALL (P) = 11.2 in. RUNOFF R = 4.56 in. 3.64 ac.ft. 158,682 cu.ft. PRODUCT COVERAGE = \overline{CN} = 52

$S = \frac{1000}{CN} - 10$
 $R = \frac{(P - 0.2S)^2}{(P + 0.8S)}$
 R = runoff (in.)
 P = rainfall (in.)

STORM RUNOFF WORKSHEET

PROJECT #: 941216.077 PROJECT: NORTH RIDGE DATE: 5/28/99 PRE-DEVELOPMENT POST-DEVELOPMENT

BASIN NO. <u>B18</u>		TOTAL AREA <u>3.79 ac.</u>			STORM: <u>25</u> YEAR <u>96</u> HOUR		
SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
	<u>A</u>	<u>GREEN GRASS (GOOD)</u>	<u>2.42</u>		<u>39</u>	<u>64</u>	<u>2496</u>
		<u>17 x 3500 = 59,500</u>					
				<u>1.37</u>	<u>98</u>	<u>36</u>	<u>3528</u>
TOTALS						<u>100</u>	<u>6024</u>

RAINFALL (P) = 11.2 in. RUNOFF R = 5.89 in. 1.84 ac.ft. _____ cu.ft. PRODUCT COVERAGE = \overline{CN} = 60

BASIN NO. <u>B19</u>		TOTAL AREA <u>43.38</u>			STORM: <u>25</u> YEAR <u>96</u> HOUR		
SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
	<u>A</u>	<u>GREEN GRASS (GOOD)</u>	<u>31.54</u>		<u>39</u>	<u>73</u>	<u>2835</u>
		<u>49 x 3500 = 171,500</u>					
		<u>26 x 4250 = 110,500</u>					
		<u>STREETS & CLUBHOUSE = 149,499</u>					
		<u>431,499</u>		<u>11.84</u>	<u>98</u>	<u>27</u>	<u>2675</u>
TOTALS						<u>100</u>	<u>5510</u>

RAINFALL (P) = 11.2 in. RUNOFF R = 5.01 in. 15.86 ac.ft. _____ cu.ft. PRODUCT COVERAGE = \overline{CN} = 55

BASIN NO. _____		TOTAL AREA _____			STORM: _____ YEAR _____ HOUR		
SOIL	GROUP	LAND USE	AREA Pervious (acres)	AREA Imperv. (acres)	CN	AREA (%)	PRODUCT CN x AREA
TOTALS							

RAINFALL (P) = _____ in. RUNOFF R = _____ in. _____ ac.ft. _____ cu.ft. PRODUCT COVERAGE = \overline{CN} = _____

$S = \frac{1000}{CN} - 10$
 $R = \frac{(P - 0.2S)^2}{(P + 0.8S)}$
 R = runoff (in.)
 P = rainfall (in.)

ICPR INPUT DATA

Basins 1, 12, and 15 were previously calculated and approved under the original permit. These basins were called 1-G, 1-F, and 1-C respectively. The following 3 pages demonstrates that the new final buildout calculations do not exceed what was previously permitted.

**POST DEVELOPMENT
WATERSHED DATA TABLE
BASIN NO. 1**

BASIN NO.	DRAINAGE AREA (AC.)	LAND USES	WEIGHTED C.N.
1-A	74.16	COMMERCIAL, RECREATION/ OPEN SPACE, RETENTION	86
1-B	22.13	RESIDENTIAL, RECREATION/ OPEN SPACE	62
1-C	11.79	RESIDENTIAL, RECREATION/ OPEN SPACE, RETENTION	67
1-D	4.97	RESIDENTIAL, RECREATION/ OPEN SPACE, RETENTION	69
1-E	6.73	RESIDENTIAL, RETENTION	80
1-F	19.82	RESIDENTIAL, RECREATION/ OPEN SPACE	66
1-G	33.08	RESIDENTIAL, RECREATION/ OPEN SPACE, RETENTION	75
1-H	23.98	RESIDENTIAL, RECREATION/ OPEN SPACE	65
1-I	23.50	RESIDENTIAL, RECREATION/ OPEN SPACE	64
1-J	15.29	RESIDENTIAL, RETENTION	79
1-K	22.62	RESIDENTIAL, RETENTION, RECREATION/ OPEN SPACE	71

BASIN
15

BASIN
12

BASIN
1

PREVIOUSLY
APPROVED

KINGS RIDGE BASIN NO. 1 POST-DEVELOPED

***** Basin Summary - KINGS *****

Basin Name:	1-A	1-B	1-C	1-D	1-E
Group Name:	BASE	BASE	BASE	BASE	BASE
Node Name:	1-A	1-B	1-C	1-D	1-E
Hydrograph Type:	SB	SB	SB	SB	SB
Spec Time Inc (sec):	13.20	6.00	11.70	5.00	6.00
Comp Time Inc (sec):	13.20	6.00	11.70	5.00	6.00
Rainfall File:	SJRWMD96	SJRWMD96	SJRWMD96	SJRWMD96	SJRWMD96
Rainfall Amount (in):	11.40	11.40	11.40	11.40	11.40
Storm Duration (hr):	96.00	96.00	96.00	96.00	96.00
Status:	ONSITE	ONSITE	ONSITE	ONSITE	ONSITE
Time of Conc. (min):	26.40	12.00	23.40	10.00	12.00
Lag Time (hr):	0.00	0.00	0.00	0.00	0.00
Area (acres):	74.16	22.13	11.79	4.97	6.73
Curve Number:	86.00	62.00	67.00	69.00	80.00
DCIA (%):	0.00	0.00	0.00	0.00	0.00
Time Max (hrs):	59.84	59.90	59.86	59.92	59.90
Flow Max (cfs):	265.80	85.40	36.11	22.81	33.82
Runoff Volume (in):	9.65	6.35	7.07	7.35	8.87
Runoff Volume (cf):	2598125	510049	302507	132623	216604

BASIN
15

Basin Name:	1-P	1-G	1-H	1-I	1-J
Group Name:	BASE	BASE	BASE	BASE	BASE
Node Name:	1-P	1-G	1-H	1-I	1-J
Hydrograph Type:	SB	SB	SB	SB	SB
Spec Time Inc (sec):	11.40	13.50	8.10	9.90	6.00
Comp Time Inc (sec):	11.40	13.50	8.10	9.90	6.00
Rainfall File:	SJRWMD96	SJRWMD96	SJRWMD96	SJRWMD96	SJRWMD96
Rainfall Amount (in):	11.40	11.40	11.40	11.40	11.40
Storm Duration (hr):	96.00	96.00	96.00	96.00	96.00
Status:	ONSITE	ONSITE	ONSITE	ONSITE	ONSITE
Time of Conc. (min):	22.80	27.00	16.20	19.80	12.00
Lag Time (hr):	0.00	0.00	0.00	0.00	0.00
Area (acres):	19.82	33.08	23.98	23.50	15.29
Curve Number:	66.00	75.00	65.00	64.00	79.00
DCIA (%):	0.00	0.00	0.00	0.00	0.00
Time Max (hrs):	59.85	59.85	59.94	59.89	59.90
Flow Max (cfs):	60.46	104.34	83.36	74.21	76.08
Runoff Volume (in):	6.93	8.18	6.78	6.63	8.73
Runoff Volume (cf):	498286	982600	590501	565926	484676

BASIN 12 BASIN 1

Basin Name:	1-K	1-L	1-M	1-M2	1-M3
-------------	-----	-----	-----	------	------

PREVIOUSLY PERMITTED

25YR96HR STORM EVENT

***** Basin Summary - KINGSNO *****

Group Name:	BASE	BASE	BASE	BASE	BASE
Node Name:	13	14	17	18	19
Hydrograph Type:	SB	SB	SB	SB	SB
Spec Time Inc (sec):	60.00	60.00	60.00	60.00	60.00
Comp Time Inc (sec):	60.00	60.00	60.00	60.00	60.00
Rainfall File:	SJRWMD96	SJRWMD96	SJRWMD96	SJRWMD96	SJRWMD96
Rainfall Amount (in):	11.20	11.20	11.20	11.20	11.20
Storm Duration (hr):	96.00	96.00	96.00	96.00	96.00
Status:	ONSITE	ONSITE	ONSITE	ONSITE	ONSITE
Time of Conc. (min):	15.00	15.00	15.00	15.00	15.00
Lag Time (hr):	0.00	0.00	0.00	0.00	0.00
Area (acres):	6.54	5.23	9.59	3.79	43.38
Curve Number:	65.00	66.00	52.00	60.00	55.00
DCIA (%):	0.00	0.00	0.00	0.00	0.00
Time Max (hrs):	59.00	59.00	59.00	59.00	59.00
Flow Max (cfs):	10.95	8.94	11.21	5.64	56.05
Runoff Volume (in):	6.61	6.75	4.71	5.89	5.16
Runoff Volume (cf):	156906	128176	163925	81023	811792

Basin Name:	1	12	15
Group Name:	BASE	BASE	BASE
Node Name:	1	12	15
Hydrograph Type:	SB	SB	SB
Spec Time Inc (sec):	60.00	60.00	60.00
Comp Time Inc (sec):	60.00	60.00	60.00
Rainfall File:	SJRWMD96	SJRWMD96	SJRWMD96
Rainfall Amount (in):	11.20	11.20	11.20
Storm Duration (hr):	96.00	96.00	96.00
Status:	ONSITE	ONSITE	ONSITE
Time of Conc. (min):	15.00	15.00	15.00
Lag Time (hr):	0.00	0.00	0.00
Area (acres):	30.57	19.15	10.83
Curve Number:	57.00	55.00	53.00
DCIA (%):	0.00	0.00	0.00
Time Max (hrs):	59.00	59.00	59.00
Flow Max (cfs):	41.95	24.74	13.11
Runoff Volume (in):	5.45	5.16	4.86
Runoff Volume (cf):	604830	358364	190987

DOES NOT EXCEED PREVIOUSLY APPROVED
 PROJECTED RUNOFF CALCULATIONS
 DESIGN OK

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Node-----

Name: 11 Base Flow(cfs): 0 Init Stage(ft): 176
Group: BASE Length(ft): 0 Warn Stage(ft): 186
Comment:

Stage(ft)	Area(ac)
176	0.34
177	0.39
178	0.44
179	0.51
180	0.56
181	0.63
182	0.69
183	0.76
184	0.83
185	0.9
186	0.98

-----Class: Node-----

Name: 13 Base Flow(cfs): 0 Init Stage(ft): 158
Group: BASE Length(ft): 0 Warn Stage(ft): 166
Comment:

Stage(ft)	Area(ac)
158	0.23
159	0.27
160	0.31
161	0.36
162	0.41
163	0.46
164	0.51
165	0.56
166	0.66

-----Class: Node-----

Name: 14 Base Flow(cfs): 0 Init Stage(ft): 142
Group: BASE Length(ft): 0 Warn Stage(ft): 149
Comment:

Stage(ft)	Area(ac)
142	0.18
143	0.22
144	0.26
145	0.3
146	0.34
147	0.39
148	0.44
149	0.49

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Node-----

Name: 17 Base Flow(cfs): 0 Init Stage(ft): 140
Group: BASE Length(ft): 0 Warn Stage(ft): 150
Comment:

Stage(ft)	Area(ac)
140	0.06
141	0.08
142	0.11
143	0.14
144	0.17
145	0.2
146	0.23
147	0.27
148	0.3
149	0.35
150	0.39

-----Class: Node-----

Name: 18 Base Flow(cfs): 0 Init Stage(ft): 157
Group: BASE Length(ft): 0 Warn Stage(ft): 162
Comment:

Stage(ft)	Area(ac)
157	0.031
158	0.056
159	0.088
160	0.125
161	0.166
162	0.209

-----Class: Node-----

Name: 19 Base Flow(cfs): 0 Init Stage(ft): 80
Group: BASE Length(ft): 0 Warn Stage(ft): 90
Comment:

Stage(ft)	Area(ac)
80	0.45
81	0.53
82	0.61
83	0.69
84	0.77
85	0.86
86	0.95
87	1.04
88	1.23
89	1.49
90	1.74

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Node-----
Name: 2 Base Flow(cfs): 0 Init Stage(ft): 245.24
Group: BASE Length(ft): 0 Warn Stage(ft): 250
Comment:

Stage(ft)	Area(ac)
245.24	1.859
246	1.95
247	2.072
248	2.196
249	2.323
250	2.452

-----Class: Node-----
Name: 3 Base Flow(cfs): 0 Init Stage(ft): 235
Group: BASE Length(ft): 0 Warn Stage(ft): 243
Comment:

Stage(ft)	Area(ac)
235	0.405
236	0.467
237	0.532
238	0.599
239	0.668
240	0.74
241	0.814
242	0.89
243	0.969

-----Class: Node-----
Name: 4 Base Flow(cfs): 0 Init Stage(ft): 220
Group: BASE Length(ft): 0 Warn Stage(ft): 230
Comment:

Stage(ft)	Area(ac)
220	0.419
221	0.472
222	0.528
223	0.586
224	0.647
225	0.71
226	0.775
227	0.843
228	0.913
229	0.985
230	1.059

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Node-----

Name: 4B Base Flow(cfs): 0 Init Stage(ft): 240
Group: BASE Length(ft): 0 Warn Stage(ft): 246
Comment:

Stage(ft)	Area(ac)
240	0.376
241	0.426
242	0.479
243	0.533
244	0.59
245	0.65
246	0.711

-----Class: Node-----

Name: 5 Base Flow(cfs): 0 Init Stage(ft): 125
Group: BASE Length(ft): 0 Warn Stage(ft): 135
Comment:

Stage(ft)	Area(ac)
125	1.281
126	1.401
127	1.524
128	1.649
129	1.776
130	1.906
131	2.037
132	2.172
133	2.308
134	2.447
135	2.588

-----Class: Node-----

Name: 6 Base Flow(cfs): 0 Init Stage(ft): 233
Group: BASE Length(ft): 0 Warn Stage(ft): 239
Comment:

Stage(ft)	Area(ac)
233	0.933
234	1.052
235	1.176
236	1.305
237	1.439
238	1.578
239	1.723

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Node-----

Name: 7 Base Flow(cfs): 0 Init Stage(ft): 183
Group: BASE Length(ft): 0 Warn Stage(ft): 193
Comment:

Stage(ft)	Area(ac)
183	0.116
184	0.147
185	0.179
186	0.214
187	0.251
188	0.29
189	0.332
190	0.376
191	0.422
192	0.471
193	0.522

-----Class: Node-----

Name: 9 Base Flow(cfs): 0 Init Stage(ft): 146
Group: BASE Length(ft): 0 Warn Stage(ft): 155
Comment:

Stage(ft)	Area(ac)
146	0.216
147	0.252
148	0.291
149	0.333
150	0.376
151	0.422
152	0.47
153	0.521
154	0.574
155	0.629

-----Class: Node-----

Name: 999 Base Flow(cfs): 0 Init Stage(ft): 87
Group: BASE Length(ft): 0 Warn Stage(ft): 89
Comment:

Time(hrs)	Stage(ft)
0	87
30	87.5
60	88
96	88.6

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Basin-----

Basin: 1 Node: 1 Status: On Site Type: Santa Barbara

Group: BASE

 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 30.57 DCIA(%): 0
 Curve #: 57

-----Class: Basin-----

Basin: 11 Node: 11 Status: On Site Type: Santa Barbara

Group: BASE

 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 18.62 DCIA(%): 0
 Curve #: 56

-----Class: Basin-----

Basin: 12 Node: 12 Status: On Site Type: Santa Barbara

Group: BASE

 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 19.15 DCIA(%): 0
 Curve #: 55

-----Class: Basin-----

Basin: 13 Node: 13 Status: On Site Type: Santa Barbara

Group: BASE

 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 6.54 DCIA(%): 0
 Curve #: 65

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Basin-----
Basin: 14 Node: 14 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 5.23 DCIA(%): 0
 Curve #: 66

-----Class: Basin-----
Basin: 15 Node: 15 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 10.83 DCIA(%): 0
 Curve #: 53

-----Class: Basin-----
Basin: 17 Node: 17 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 9.59 DCIA(%): 0
 Curve #: 52

-----Class: Basin-----
Basin: 18 Node: 18 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 3.79 DCIA(%): 0
 Curve #: 60

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Basin-----
Basin: 19 Node: 19 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 43.38 DCIA(%): 0
 Curve #: 55

-----Class: Basin-----
Basin: 2 Node: 2 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 8.93 DCIA(%): 0
 Curve #: 48

-----Class: Basin-----
Basin: 3 Node: 3 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 12.99 DCIA(%): 0
 Curve #: 53

-----Class: Basin-----
Basin: 4 Node: 4 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 19.61 DCIA(%): 0
 Curve #: 61

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Basin-----
Basin: 4B Node: 4B Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 4.7 DCIA(%): 0
 Curve #: 63

-----Class: Basin-----
Basin: 5 Node: 5 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 43.86 DCIA(%): 0
 Curve #: 54

-----Class: Basin-----
Basin: 6 Node: 6 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 13.82 DCIA(%): 0
 Curve #: 55

-----Class: Basin-----
Basin: 7 Node: 7 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 8.76 DCIA(%): 0
 Curve #: 57

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Basin-----

Basin: 9 Node: 9 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 11.18 DCIA(%): 0
 Curve #: 63

-----Class: Basin-----

Basin: 999 Node: 999 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 1 DCIA(%): 0
 Curve #: 1

-----Class: Simulation-----

C:\ICPR2\DATA\KINGSNO
Execution: Both
Header: 25YR96HR STORM EVENT

-----HYDRAULICS-----HYDROLOGY-----

 Max Delta Z (ft): 1
 Delta Z Factor: 0.05 Override Defaults: No
Time Step Optimizer: 10
Drop Structure Optimizer: 10
Sim Start Time(hrs): 0
Sim End Time(hrs): 96
Min Calc Time(sec): 15
Max Calc Time(sec): 60
 To Hour: PInc(min): To Hour: PInc(min):
 96 60 96 60

-----GROUP SELECTIONS-----

+ BASE [07/27/99]

25YR96HR STORM EVENT

***** Basin Summary - KINGSNO *****

Basin Name:	999	2	3	4	4B
Group Name:	BASE	BASE	BASE	BASE	BASE
Node Name:	999	2	3	4	4B
Hydrograph Type:	SB	SB	SB	SB	SB

Spec Time Inc (sec):	60.00	60.00	60.00	60.00	60.00
Comp Time Inc (sec):	60.00	60.00	60.00	60.00	60.00
Rainfall File:	SJRWMD96	SJRWMD96	SJRWMD96	SJRWMD96	SJRWMD96
Rainfall Amount (in):	11.20	11.20	11.20	11.20	11.20
Storm Duration (hr):	96.00	96.00	96.00	96.00	96.00
Status:	ONSITE	ONSITE	ONSITE	ONSITE	ONSITE
Time of Conc. (min):	15.00	15.00	15.00	15.00	15.00
Lag Time (hr):	0.00	0.00	0.00	0.00	0.00
Area (acres):	1.00	8.93	12.99	19.61	4.70
Curve Number:	1.00	48.00	53.00	61.00	63.00
DCIA (%):	0.00	0.00	0.00	0.00	0.00

Time Max (hrs):	0.00	59.00	59.00	59.00	59.00
Flow Max (cfs):	0.00	8.91	15.72	29.95	7.53
Runoff Volume (in):	0.00	4.11	4.86	6.03	6.32
Runoff Volume (cf):	0	133177	229079	429560	107878

Basin Name:	5	6	7	9	11
Group Name:	BASE	BASE	BASE	BASE	BASE
Node Name:	5	6	7	9	11
Hydrograph Type:	SB	SB	SB	SB	SB

Spec Time Inc (sec):	60.00	60.00	60.00	60.00	60.00
Comp Time Inc (sec):	60.00	60.00	60.00	60.00	60.00
Rainfall File:	SJRWMD96	SJRWMD96	SJRWMD96	SJRWMD96	SJRWMD96
Rainfall Amount (in):	11.20	11.20	11.20	11.20	11.20
Storm Duration (hr):	96.00	96.00	96.00	96.00	96.00
Status:	ONSITE	ONSITE	ONSITE	ONSITE	ONSITE
Time of Conc. (min):	15.00	15.00	15.00	15.00	15.00
Lag Time (hr):	0.00	0.00	0.00	0.00	0.00
Area (acres):	43.86	13.82	8.76	11.18	18.62
Curve Number:	54.00	55.00	57.00	63.00	56.00
DCIA (%):	0.00	0.00	0.00	0.00	0.00

Time Max (hrs):	59.00	59.00	59.00	59.00	59.00
Flow Max (cfs):	54.88	17.86	12.02	17.91	24.81
Runoff Volume (in):	5.01	5.16	5.45	6.32	5.30
Runoff Volume (cf):	797159	258621	173317	256613	358439

Basin Name:	13	14	17	18	19
-------------	----	----	----	----	----

25YR96HR STORM EVENT

***** Basin Summary - KINGSNO *****

 Group Name: BASE BASE BASE BASE BASE
 Node Name: 13 14 17 18 19
 Hydrograph Type: SB SB SB SB SB

Spec Time Inc (sec): 60.00 60.00 60.00 60.00 60.00
 Comp Time Inc (sec): 60.00 60.00 60.00 60.00 60.00
 Rainfall File: SJRWD96 SJRWD96 SJRWD96 SJRWD96 SJRWD96
 Rainfall Amount (in): 11.20 11.20 11.20 11.20 11.20
 Storm Duration (hr): 96.00 96.00 96.00 96.00 96.00
 Status: ONSITE ONSITE ONSITE ONSITE ONSITE
 Time of Conc. (min): 15.00 15.00 15.00 15.00 15.00
 Lag Time (hr): 0.00 0.00 0.00 0.00 0.00
 Area (acres): 6.54 5.23 9.59 3.79 43.38
 Curve Number: 65.00 66.00 52.00 60.00 55.00
 DCIA (%): 0.00 0.00 0.00 0.00 0.00

Time Max (hrs): 59.00 59.00 59.00 59.00 59.00
 Flow Max (cfs): 10.95 8.94 11.21 5.64 56.05
 Runoff Volume (in): 6.61 6.75 4.71 5.89 5.16
 Runoff Volume (cf): 156906 128176 163925 81023 811792

Basin Name: 1 12 15
 Group Name: BASE BASE BASE
 Node Name: 1 12 15
 Hydrograph Type: SB SB SB

Spec Time Inc (sec): 60.00 60.00 60.00
 Comp Time Inc (sec): 60.00 60.00 60.00
 Rainfall File: SJRWD96 SJRWD96 SJRWD96
 Rainfall Amount (in): 11.20 11.20 11.20
 Storm Duration (hr): 96.00 96.00 96.00
 Status: ONSITE ONSITE ONSITE
 Time of Conc. (min): 15.00 15.00 15.00
 Lag Time (hr): 0.00 0.00 0.00
 Area (acres): 30.57 19.15 10.83
 Curve Number: 57.00 55.00 53.00
 DCIA (%): 0.00 0.00 0.00

Time Max (hrs): 59.00 59.00 59.00
 Flow Max (cfs): 41.95 24.74 13.11
 Runoff Volume (in): 5.45 5.16 4.86
 Runoff Volume (cf): 604830 358364 190987

**ICPR NODE MAX CONDITIONS
(STORMWATER ROUTING SUMMARY)
25 YEAR-96 HOUR STORM**

25YR96HR STORM EVENT

***** Node Maximum Conditions - KINGSNO *****

(Time units - hours)

Node Name	Group Name	Max Time Conditions	Max Stage (ft)	Warning Stage (ft)	Max Delta Stage (ft)	Max Surface Area (sf)	Max Time Inflow	Max Inflow (cfs)	Max Time Outflow	Max Outflow (cfs)
11	BASE	60.86	182.10	186.00	0.0328	30357.41	59.01	21.17	0.00	0.00
13	BASE	60.61	161.37	166.00	0.0199	16484.89	59.01	7.93	0.00	0.00
14	BASE	60.81	146.74	149.00	0.0250	16426.41	59.69	10.61	0.00	0.00
17	BASE	60.98	148.99	150.00	0.0496	15221.92	59.01	10.47	0.00	0.00
18	BASE	59.69	161.76	162.00	0.0355	8655.43	59.01	4.97	59.70	4.20
19	BASE	60.89	89.00	90.00	0.0497	64935.27	59.01	50.50	0.00	0.00
2	BASE	96.00	246.80	250.00	0.0040	89214.47	59.01	8.91	0.00	0.00
3	BASE	60.79	238.40	243.00	0.0182	27288.21	59.01	12.19	0.00	0.00
4	BASE	60.93	226.66	230.00	0.0342	35716.52	59.01	26.75	0.00	0.00
4B	BASE	60.66	241.59	246.00	0.0088	19907.82	59.01	5.00	0.00	0.00
5	BASE	60.68	128.33	135.00	0.0185	73647.15	59.01	36.76	0.00	0.00
6	BASE	60.54	234.21	239.00	-0.0085	46957.15	59.01	9.76	0.00	0.00
7	BASE	60.88	189.88	193.00	0.0387	16156.01	59.01	10.75	0.00	0.00
9	BASE	62.91	153.66	155.00	0.0358	24229.26	59.01	16.88	0.00	0.00
999	BASE	96.00	88.60	89.00	0.0003	0.00	0.00	0.00	0.00	0.00

**ICPR ROUTED HYDROGRAPH
BY BASIN
WITH INFILTRATION INPUTED FROM "PONDS"**

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
*** Group: BASE		Node: 11							
0.000	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
1.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
2.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
3.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
4.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
5.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
6.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
7.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
8.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
9.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
10.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
11.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
12.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
13.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
14.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
15.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
16.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
17.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
18.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
19.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
20.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
21.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
22.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
23.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
24.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
25.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
26.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
27.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
28.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
29.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
30.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
31.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
32.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
33.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
34.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
35.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
36.004	176.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	
37.004	176.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	
38.004	176.00	0.00	0.00	0.01	-0.01	0.00	0.00	0.00	
39.004	176.00	0.00	0.00	0.02	-0.02	0.00	0.00	0.00	
40.003	176.00	0.34	0.00	0.04	-0.04	0.00	0.00	0.00	
41.003	176.00	0.34	0.00	0.06	-0.06	0.00	0.00	0.00	
42.003	176.00	0.34	0.00	0.08	-0.08	0.00	0.00	0.00	
43.003	176.00	0.34	0.00	0.10	-0.10	0.00	0.00	0.00	
44.003	176.00	0.34	0.00	0.12	-0.12	0.00	0.00	0.00	

45.003 176.00 0.34 0.00 0.13 -0.13 0.00 0.00 0.00



25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	!<-----Inflow----->!					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
46.003	176.00	0.34	0.00	0.15	-0.15	0.00	0.00	0.00	
47.011	176.00	0.00	0.00	0.17	-0.18	0.00	0.00	0.00	
48.004	176.00	0.34	0.00	0.23	-0.22	0.00	0.00	0.00	
49.009	176.00	0.34	0.00	0.28	-0.28	0.00	0.00	0.00	
50.013	176.00	0.34	0.00	0.33	-0.33	0.00	0.00	0.00	
51.008	176.00	0.00	0.00	0.39	-0.40	0.00	0.00	0.00	
52.001	176.00	0.34	0.00	0.49	-0.49	0.00	0.00	0.00	
53.007	176.00	0.00	0.00	0.58	-0.60	0.00	0.00	0.00	
54.007	176.00	0.34	0.00	0.73	-0.73	0.00	0.00	0.00	
55.010	176.00	0.00	0.00	0.87	-0.93	0.00	0.00	0.00	
56.010	176.00	0.34	0.00	1.26	-1.25	0.00	0.00	0.00	
57.000	176.00	0.00	0.00	1.61	-1.77	0.00	0.00	0.00	
58.012	176.00	0.34	0.00	2.89	-2.61	0.00	0.00	0.00	
59.006	178.24	0.46	0.00	24.80	-3.63	0.00	0.00	0.00	
60.005	181.17	0.64	0.00	22.58	-4.99	0.00	0.00	0.00	
61.011	182.07	0.69	0.00	3.17	-6.06	0.00	0.00	0.00	
62.011	181.79	0.68	0.00	4.41	-6.23	0.00	0.00	0.00	
63.011	181.47	0.66	0.00	2.79	-6.04	0.00	0.00	0.00	
64.011	181.05	0.63	0.00	2.52	-5.83	0.00	0.00	0.00	
65.011	180.58	0.60	0.00	1.78	-5.56	0.00	0.00	0.00	
66.011	180.08	0.57	0.00	2.04	-5.29	0.00	0.00	0.00	
67.011	179.61	0.54	0.00	1.97	-5.02	0.00	0.00	0.00	
68.011	179.12	0.52	0.00	1.56	-4.75	0.00	0.00	0.00	
69.011	178.59	0.48	0.00	1.26	-4.48	0.00	0.00	0.00	
70.011	178.05	0.44	0.00	1.37	-4.19	0.00	0.00	0.00	
71.011	177.54	0.42	0.00	1.33	-3.92	0.00	0.00	0.00	
72.011	176.99	0.39	0.00	0.92	-3.64	0.00	0.00	0.00	
73.011	176.46	0.36	0.00	0.63	-2.74	0.00	0.00	0.00	
74.011	176.14	0.35	0.00	0.73	-1.35	0.00	0.00	0.00	
75.011	176.07	0.34	0.00	0.70	-0.71	0.00	0.00	0.00	
76.011	176.07	0.34	0.00	0.71	-0.71	0.00	0.00	0.00	
77.011	176.07	0.34	0.00	0.71	-0.71	0.00	0.00	0.00	
78.011	176.07	0.34	0.00	0.72	-0.72	0.00	0.00	0.00	
79.011	176.07	0.34	0.00	0.72	-0.72	0.00	0.00	0.00	
80.011	176.07	0.34	0.00	0.71	-0.71	0.00	0.00	0.00	
81.011	176.07	0.34	0.00	0.71	-0.71	0.00	0.00	0.00	
82.011	176.07	0.34	0.00	0.71	-0.71	0.00	0.00	0.00	
83.002	176.07	0.34	0.00	0.72	-0.72	0.00	0.00	0.00	
84.002	176.08	0.34	0.00	0.72	-0.57	0.00	0.00	0.00	
85.002	176.14	0.35	0.00	0.72	-0.43	0.00	0.00	0.00	
86.002	176.20	0.35	0.00	0.72	-0.44	0.00	0.00	0.00	
87.002	176.27	0.35	0.00	0.72	-0.43	0.00	0.00	0.00	
88.002	176.34	0.36	0.00	0.73	-0.43	0.00	0.00	0.00	
89.002	176.41	0.36	0.00	0.73	-0.42	0.00	0.00	0.00	
90.002	176.48	0.36	0.00	0.73	-0.42	0.00	0.00	0.00	

91.002	176.55	0.37	0.00	0.73	-0.42	0.00	0.00	0.00
92.002	176.62	0.37	0.00	0.73	-0.42	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	!<-----Inflow----->!					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
93.002	176.68	0.37	0.00	0.73	-0.42	0.00	0.00	0.00	
94.002	176.75	0.38	0.00	0.73	-0.42	0.00	0.00	0.00	
95.002	176.82	0.38	0.00	0.73	-0.41	0.00	0.00	0.00	
96.002	176.88	0.38	0.00	0.00	0.00	0.00	0.00	0.00	
96.011	176.88	0.38	0.00	0.00	0.00	0.00	0.00	0.00	

*** Group: BASE Node: 13

0.000	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
1.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
2.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
3.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
4.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
5.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
6.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
7.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
8.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
9.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
10.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
11.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
12.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
13.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
14.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
15.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
16.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
17.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
18.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
19.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
20.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
21.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
22.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
23.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
24.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
25.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
26.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
27.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
28.004	158.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
29.004	158.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
30.004	158.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
31.004	158.00	0.00	0.00	0.01	-0.01	0.00	0.00	0.00
32.004	158.00	0.23	0.00	0.02	-0.02	0.00	0.00	0.00
33.004	158.00	0.23	0.00	0.03	-0.03	0.00	0.00	0.00
34.004	158.00	0.23	0.00	0.04	-0.04	0.00	0.00	0.00
35.004	158.00	0.23	0.00	0.05	-0.05	0.00	0.00	0.00
36.004	158.00	0.23	0.00	0.05	-0.05	0.00	0.00	0.00
37.004	158.00	0.23	0.00	0.06	-0.06	0.00	0.00	0.00

38.004	158.00	0.23	0.00	0.07	-0.07	0.00	0.00	0.00
39.004	158.00	0.23	0.00	0.08	-0.08	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
40.003	158.00	0.23	0.00	0.09	-0.09	0.00	0.00	0.00	
41.003	158.00	0.23	0.00	0.10	-0.09	0.00	0.00	0.00	
42.003	158.00	0.23	0.00	0.10	-0.10	0.00	0.00	0.00	
43.003	158.00	0.23	0.00	0.11	-0.11	0.00	0.00	0.00	
44.003	158.00	0.23	0.00	0.11	-0.11	0.00	0.00	0.00	
45.003	158.00	0.23	0.00	0.12	-0.12	0.00	0.00	0.00	
46.003	158.00	0.23	0.00	0.13	-0.13	0.00	0.00	0.00	
47.011	158.00	0.00	0.00	0.13	-0.14	0.00	0.00	0.00	
48.004	158.00	0.23	0.00	0.17	-0.17	0.00	0.00	0.00	
49.009	158.00	0.23	0.00	0.20	-0.20	0.00	0.00	0.00	
50.013	158.00	0.23	0.00	0.23	-0.23	0.00	0.00	0.00	
51.008	158.00	0.00	0.00	0.26	-0.26	0.00	0.00	0.00	
52.001	158.00	0.23	0.00	0.31	-0.30	0.00	0.00	0.00	
53.007	158.00	0.00	0.00	0.35	-0.36	0.00	0.00	0.00	
54.007	158.00	0.23	0.00	0.42	-0.42	0.00	0.00	0.00	
55.010	158.00	0.00	0.00	0.49	-0.52	0.00	0.00	0.00	
56.010	158.00	0.23	0.00	0.68	-0.67	0.00	0.00	0.00	
57.000	158.00	0.00	0.00	0.84	-0.92	0.00	0.00	0.00	
58.012	158.00	0.23	0.00	1.43	-1.36	0.00	0.00	0.00	
59.006	159.30	0.28	0.00	10.94	-3.01	0.00	0.00	0.00	
60.005	161.01	0.36	0.00	9.66	-4.40	0.00	0.00	0.00	
61.011	161.22	0.37	0.00	1.14	-4.39	0.00	0.00	0.00	
62.011	160.62	0.34	0.00	1.82	-3.76	0.00	0.00	0.00	
63.011	160.28	0.32	0.00	1.10	-1.91	0.00	0.00	0.00	
64.011	160.23	0.32	0.00	1.01	-0.59	0.00	0.00	0.00	
65.011	160.31	0.33	0.00	0.71	-0.48	0.00	0.00	0.00	
66.011	160.39	0.33	0.00	0.81	-0.42	0.00	0.00	0.00	
67.011	160.49	0.33	0.00	0.78	-0.38	0.00	0.00	0.00	
68.011	160.57	0.34	0.00	0.62	-0.35	0.00	0.00	0.00	
69.011	160.63	0.34	0.00	0.50	-0.32	0.00	0.00	0.00	
70.011	160.68	0.34	0.00	0.54	-0.30	0.00	0.00	0.00	
71.011	160.73	0.35	0.00	0.52	-0.29	0.00	0.00	0.00	
72.011	160.77	0.35	0.00	0.36	-0.27	0.00	0.00	0.00	
73.011	160.78	0.35	0.00	0.25	-0.26	0.00	0.00	0.00	
74.011	160.78	0.35	0.00	0.29	-0.25	0.00	0.00	0.00	
75.011	160.79	0.35	0.00	0.27	-0.24	0.00	0.00	0.00	
76.011	160.80	0.35	0.00	0.28	-0.23	0.00	0.00	0.00	
77.011	160.82	0.35	0.00	0.28	-0.22	0.00	0.00	0.00	
78.011	160.83	0.35	0.00	0.28	-0.21	0.00	0.00	0.00	
79.011	160.85	0.35	0.00	0.28	-0.21	0.00	0.00	0.00	
80.011	160.86	0.35	0.00	0.28	-0.20	0.00	0.00	0.00	
81.011	160.88	0.35	0.00	0.28	-0.20	0.00	0.00	0.00	
82.011	160.90	0.36	0.00	0.28	-0.20	0.00	0.00	0.00	
83.002	160.92	0.36	0.00	0.28	-0.19	0.00	0.00	0.00	
84.002	160.94	0.36	0.00	0.28	-0.19	0.00	0.00	0.00	

85.002	160.96	0.36	0.00	0.28	-0.19	0.00	0.00	0.00
86.002	160.98	0.36	0.00	0.28	-0.18	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar. (ac)	<-----Inflow----->					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
87.002	161.01	0.36	0.00	0.28	-0.18	0.00	0.00	0.00	
88.002	161.03	0.36	0.00	0.28	-0.18	0.00	0.00	0.00	
89.002	161.05	0.36	0.00	0.28	-0.18	0.00	0.00	0.00	
90.002	161.08	0.36	0.00	0.28	-0.18	0.00	0.00	0.00	
91.002	161.10	0.37	0.00	0.28	-0.17	0.00	0.00	0.00	
92.002	161.12	0.37	0.00	0.28	-0.17	0.00	0.00	0.00	
93.002	161.15	0.37	0.00	0.28	-0.17	0.00	0.00	0.00	
94.002	161.17	0.37	0.00	0.28	-0.17	0.00	0.00	0.00	
95.002	161.20	0.37	0.00	0.28	-0.17	0.00	0.00	0.00	
96.002	161.22	0.37	0.00	0.00	0.00	0.00	0.00	0.00	
96.011	161.22	0.37	0.00	0.00	0.00	0.00	0.00	0.00	

*** Group: BASE Node: 14

0.000	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
1.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
2.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
3.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
4.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
5.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
6.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
7.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
8.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
9.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
10.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
11.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
12.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
13.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
14.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
15.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
16.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
17.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
18.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
19.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
20.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
21.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
22.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
23.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
24.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
25.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
26.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
27.004	142.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
28.004	142.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
29.004	142.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
30.004	142.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00
31.004	142.00	0.18	0.00	0.01	-0.01	0.00	0.00	0.00

32.004	142.00	0.18	0.00	0.02	-0.02	0.00	0.00	0.00
33.004	142.00	0.18	0.00	0.03	-0.03	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	!<-----Inflow----->!					Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)	
34.004	142.00	0.18	0.00	0.04	-0.04	0.00	0.00	0.00
35.004	142.00	0.18	0.00	0.04	-0.04	0.00	0.00	0.00
36.004	142.00	0.18	0.00	0.05	-0.05	0.00	0.00	0.00
37.004	142.00	0.18	0.00	0.06	-0.06	0.00	0.00	0.00
38.004	142.00	0.18	0.00	0.06	-0.06	0.00	0.00	0.00
39.004	142.00	0.18	0.00	0.07	-0.07	0.00	0.00	0.00
40.003	142.00	0.18	0.00	0.08	-0.08	0.00	0.00	0.00
41.003	142.00	0.18	0.00	0.08	-0.08	0.00	0.00	0.00
42.003	142.00	0.18	0.00	0.09	-0.09	0.00	0.00	0.00
43.003	142.00	0.18	0.00	0.09	-0.09	0.00	0.00	0.00
44.003	142.00	0.18	0.00	0.10	-0.10	0.00	0.00	0.00
45.003	142.00	0.18	0.00	0.10	-0.10	0.00	0.00	0.00
46.003	142.00	0.18	0.00	0.11	-0.11	0.00	0.00	0.00
47.011	142.00	0.00	0.00	0.11	-0.12	0.00	0.00	0.00
48.004	142.00	0.18	0.00	0.14	-0.14	0.00	0.00	0.00
49.009	142.00	0.18	0.00	0.17	-0.17	0.00	0.00	0.00
50.013	142.00	0.18	0.00	0.19	-0.19	0.00	0.00	0.00
51.008	142.00	0.00	0.00	0.22	-0.22	0.00	0.00	0.00
52.001	142.00	0.18	0.00	0.26	-0.26	0.00	0.00	0.00
53.007	142.00	0.00	0.00	0.30	-0.30	0.00	0.00	0.00
54.007	142.00	0.18	0.00	0.35	-0.35	0.00	0.00	0.00
55.010	142.00	0.00	0.00	0.41	-0.43	0.00	0.00	0.00
56.010	142.00	0.18	0.00	0.56	-0.56	0.00	0.00	0.00
57.000	142.00	0.00	0.00	0.70	-0.76	0.00	0.00	0.00
58.012	142.00	0.18	0.00	1.18	-1.07	0.00	0.00	0.00
59.006	143.50	0.24	0.00	8.94	-1.46	0.00	0.00	0.00
60.005	145.82	0.33	0.00	7.87	-1.97	0.00	3.85	0.00
61.011	146.71	0.38	0.00	0.91	-2.36	0.00	0.00	0.00
62.011	146.44	0.36	0.00	1.48	-2.39	0.00	0.00	0.00
63.011	146.17	0.35	0.00	0.89	-2.29	0.00	0.00	0.00
64.011	145.84	0.33	0.00	0.82	-2.19	0.00	0.00	0.00
65.011	145.47	0.32	0.00	0.57	-2.07	0.00	0.00	0.00
66.011	145.10	0.30	0.00	0.66	-1.94	0.00	0.00	0.00
67.011	144.76	0.29	0.00	0.63	-1.82	0.00	0.00	0.00
68.011	144.41	0.28	0.00	0.50	-1.70	0.00	0.00	0.00
69.011	144.04	0.26	0.00	0.40	-1.58	0.00	0.00	0.00
70.011	143.69	0.25	0.00	0.44	-1.46	0.00	0.00	0.00
71.011	143.41	0.24	0.00	0.42	-1.03	0.00	0.00	0.00
72.011	143.27	0.23	0.00	0.29	-0.46	0.00	0.00	0.00
73.011	143.24	0.23	0.00	0.20	-0.23	0.00	0.00	0.00
74.011	143.23	0.23	0.00	0.23	-0.22	0.00	0.00	0.00
75.011	143.23	0.23	0.00	0.22	-0.22	0.00	0.00	0.00
76.011	143.23	0.23	0.00	0.23	-0.22	0.00	0.00	0.00
77.011	143.23	0.23	0.00	0.23	-0.23	0.00	0.00	0.00
78.011	143.23	0.23	0.00	0.23	-0.23	0.00	0.00	0.00

79.011	143.23	0.23	0.00	0.23	-0.23	0.00	0.00	0.00
80.011	143.23	0.23	0.00	0.23	-0.23	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	Inflow					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
81.011	143.23	0.23	0.00	0.22	-0.22	0.00	0.00	0.00	
82.011	143.23	0.23	0.00	0.23	-0.22	0.00	0.00	0.00	
83.002	143.23	0.23	0.00	0.23	-0.23	0.00	0.00	0.00	
84.002	143.23	0.23	0.00	0.23	-0.23	0.00	0.00	0.00	
85.002	143.23	0.23	0.00	0.23	-0.23	0.00	0.00	0.00	
86.002	143.23	0.23	0.00	0.23	-0.23	0.00	0.00	0.00	
87.002	143.23	0.23	0.00	0.23	-0.23	0.00	0.00	0.00	
88.002	143.23	0.23	0.00	0.23	-0.23	0.00	0.00	0.00	
89.002	143.23	0.23	0.00	0.23	-0.23	0.00	0.00	0.00	
90.002	143.23	0.23	0.00	0.23	-0.23	0.00	0.00	0.00	
91.002	143.23	0.23	0.00	0.23	-0.23	0.00	0.00	0.00	
92.002	143.23	0.23	0.00	0.23	-0.23	0.00	0.00	0.00	
93.002	143.23	0.23	0.00	0.23	-0.23	0.00	0.00	0.00	
94.002	143.23	0.23	0.00	0.23	-0.23	0.00	0.00	0.00	
95.002	143.24	0.23	0.00	0.23	-0.19	0.00	0.00	0.00	
96.002	143.26	0.23	0.00	0.00	0.00	0.00	0.00	0.00	
96.011	143.26	0.23	0.00	0.00	0.00	0.00	0.00	0.00	

*** Group: BASE Node: 17

0.000	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
1.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
2.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
3.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
4.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
5.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
6.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
7.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
8.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
9.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
10.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
11.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
12.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
13.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
14.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
15.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
16.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
17.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
18.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
19.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
20.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
21.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
22.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
23.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
24.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
25.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00

26.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
27.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	!<-----Inflow----->!					Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)	
28.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
29.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
30.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
31.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
32.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
33.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
34.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
35.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
36.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
37.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
38.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
39.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
40.003	140.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
41.003	140.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
42.003	140.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
43.003	140.00	0.00	0.00	0.01	-0.01	0.00	0.00	0.00
44.003	140.00	0.06	0.00	0.02	-0.02	0.00	0.00	0.00
45.003	140.00	0.06	0.00	0.03	-0.03	0.00	0.00	0.00
46.003	140.00	0.06	0.00	0.03	-0.03	0.00	0.00	0.00
47.011	140.00	0.00	0.00	0.04	-0.04	0.00	0.00	0.00
48.004	140.00	0.06	0.00	0.06	-0.06	0.00	0.00	0.00
49.009	140.00	0.00	0.00	0.08	-0.08	0.00	0.00	0.00
50.013	140.00	0.00	0.00	0.11	-0.11	0.00	0.00	0.00
51.008	140.00	0.00	0.00	0.13	-0.13	0.00	0.00	0.00
52.001	140.00	0.00	0.00	0.17	-0.17	0.00	0.00	0.00
53.007	140.00	0.00	0.00	0.21	-0.22	0.00	0.00	0.00
54.007	140.00	0.00	0.00	0.27	-0.27	0.00	0.00	0.00
55.010	140.01	0.06	0.00	0.33	-0.33	0.00	0.00	0.00
56.010	140.11	0.06	0.00	0.50	-0.35	0.00	0.00	0.00
57.000	140.37	0.07	0.00	0.65	-0.37	0.00	0.00	0.00
58.012	140.92	0.08	0.00	1.22	-0.43	0.00	0.00	0.00
59.006	144.48	0.18	0.00	11.20	-0.73	0.00	0.00	0.00
60.005	147.86	0.30	0.00	10.38	-1.34	0.00	0.00	0.00
61.011	148.99	0.35	0.00	1.59	-1.80	0.00	0.00	0.00
62.011	148.98	0.35	0.00	2.07	-1.92	0.00	0.00	0.00
63.011	148.93	0.35	0.00	1.34	-1.91	0.00	0.00	0.00
64.011	148.78	0.34	0.00	1.20	-1.89	0.00	0.00	0.00
65.011	148.58	0.33	0.00	0.86	-1.84	0.00	0.00	0.00
66.011	148.34	0.32	0.00	0.98	-1.79	0.00	0.00	0.00
67.011	148.13	0.31	0.00	0.94	-1.75	0.00	0.00	0.00
68.011	147.89	0.30	0.00	0.75	-1.70	0.00	0.00	0.00
69.011	147.61	0.29	0.00	0.61	-1.64	0.00	0.00	0.00
70.011	147.33	0.28	0.00	0.66	-1.58	0.00	0.00	0.00
71.011	147.06	0.27	0.00	0.64	-1.52	0.00	0.00	0.00
72.011	146.76	0.26	0.00	0.44	-1.46	0.00	0.00	0.00

73.011	146.42	0.25	0.00	0.30	-1.40	0.00	0.00	0.00
74.011	146.06	0.23	0.00	0.35	-1.33	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
75.011	145.72	0.22	0.00	0.34	-1.26	0.00	0.00	0.00	
76.011	145.38	0.21	0.00	0.34	-1.19	0.00	0.00	0.00	
77.011	145.05	0.20	0.00	0.34	-1.13	0.00	0.00	0.00	
78.011	144.73	0.19	0.00	0.35	-1.07	0.00	0.00	0.00	
79.011	144.43	0.18	0.00	0.35	-1.02	0.00	0.00	0.00	
80.011	144.13	0.17	0.00	0.35	-0.96	0.00	0.00	0.00	
81.011	143.84	0.17	0.00	0.34	-0.91	0.00	0.00	0.00	
82.011	143.56	0.16	0.00	0.35	-0.86	0.00	0.00	0.00	
83.002	143.30	0.15	0.00	0.35	-0.82	0.00	0.00	0.00	
84.002	143.04	0.14	0.00	0.35	-0.77	0.00	0.00	0.00	
85.002	142.80	0.13	0.00	0.35	-0.73	0.00	0.00	0.00	
86.002	142.57	0.13	0.00	0.35	-0.70	0.00	0.00	0.00	
87.002	142.21	0.12	0.00	0.35	-1.05	0.00	0.00	0.00	
88.002	141.67	0.10	0.00	0.35	-1.06	0.00	0.00	0.00	
89.002	141.24	0.09	0.00	0.35	-0.61	0.00	0.00	0.00	
90.002	141.07	0.08	0.00	0.35	-0.46	0.00	0.00	0.00	
91.002	141.00	0.08	0.00	0.35	-0.39	0.00	0.00	0.00	
92.002	140.99	0.08	0.00	0.35	-0.35	0.00	0.00	0.00	
93.002	141.00	0.08	0.00	0.35	-0.33	0.00	0.00	0.00	
94.002	141.04	0.08	0.00	0.35	-0.31	0.00	0.00	0.00	
95.002	141.09	0.08	0.00	0.35	-0.29	0.00	0.00	0.00	
96.002	141.18	0.09	0.00	0.00	0.00	0.00	0.00	0.00	
96.011	141.18	0.09	0.00	0.00	0.00	0.00	0.00	0.00	

*** Group: BASE Node: 18

0.000	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
1.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
2.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
3.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
4.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
5.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
6.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
7.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
8.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
9.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
10.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
11.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
12.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
13.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
14.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
15.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
16.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
17.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
18.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
19.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
22.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
23.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
24.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
25.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
26.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
27.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
28.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
29.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
30.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
31.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
32.004	157.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	
33.004	157.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	
34.004	157.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	
35.004	157.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	
36.004	157.00	0.03	0.00	0.01	-0.01	0.00	0.00	0.00	
37.004	157.00	0.03	0.00	0.01	-0.01	0.00	0.00	0.00	
38.004	157.00	0.03	0.00	0.02	-0.02	0.00	0.00	0.00	
39.004	157.00	0.03	0.00	0.02	-0.02	0.00	0.00	0.00	
40.003	157.00	0.03	0.00	0.03	-0.03	0.00	0.00	0.00	
41.003	157.00	0.03	0.00	0.03	-0.03	0.00	0.00	0.00	
42.003	157.00	0.03	0.00	0.03	-0.03	0.00	0.00	0.00	
43.003	157.00	0.03	0.00	0.04	-0.04	0.00	0.00	0.00	
44.003	157.00	0.03	0.00	0.04	-0.04	0.00	0.00	0.00	
45.003	157.00	0.03	0.00	0.04	-0.04	0.00	0.00	0.00	
46.003	157.00	0.03	0.00	0.05	-0.05	0.00	0.00	0.00	
47.011	157.00	0.00	0.00	0.05	-0.06	0.00	0.00	0.00	
48.004	157.00	0.03	0.00	0.07	-0.07	0.00	0.00	0.00	
49.009	157.00	0.03	0.00	0.08	-0.08	0.00	0.00	0.00	
50.013	157.00	0.03	0.00	0.10	-0.10	0.00	0.00	0.00	
51.008	157.00	0.00	0.00	0.11	-0.11	0.00	0.00	0.00	
52.001	157.00	0.03	0.00	0.13	-0.13	0.00	0.00	0.00	
53.007	157.00	0.00	0.00	0.16	-0.16	0.00	0.00	0.00	
54.007	157.00	0.03	0.00	0.19	-0.19	0.00	0.00	0.00	
55.010	157.02	0.03	0.00	0.22	-0.21	0.00	0.00	0.00	
56.010	157.14	0.03	0.00	0.32	-0.23	0.00	0.00	0.00	
57.000	157.38	0.04	0.00	0.40	-0.26	0.00	0.00	0.00	
58.012	157.79	0.05	0.00	0.70	-0.33	0.00	0.00	0.00	
59.006	160.24	0.14	0.00	5.64	-0.67	0.00	0.00	0.00	
60.005	161.76	0.20	0.00	5.06	-1.22	0.00	0.00	3.85	
61.011	161.72	0.20	0.00	0.65	-1.48	0.00	0.00	0.00	
62.011	161.43	0.18	0.00	0.97	-1.48	0.00	0.00	0.00	
63.011	161.11	0.17	0.00	0.60	-1.48	0.00	0.00	0.00	
64.011	160.47	0.14	0.00	0.55	-2.10	0.00	0.00	0.00	
65.011	159.49	0.11	0.00	0.39	-1.77	0.00	0.00	0.00	
66.011	158.77	0.08	0.00	0.44	-0.71	0.00	0.00	0.00	

67.011	158.57	0.07	0.00	0.42	-0.53	0.00	0.00	0.00
68.011	158.45	0.07	0.00	0.34	-0.44	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
69.011	158.31	0.07	0.00	0.27	-0.38	0.00	0.00	0.00	
70.011	158.21	0.06	0.00	0.29	-0.35	0.00	0.00	0.00	
71.011	158.16	0.06	0.00	0.29	-0.32	0.00	0.00	0.00	
72.011	158.07	0.06	0.00	0.20	-0.29	0.00	0.00	0.00	
73.011	157.92	0.05	0.00	0.14	-0.26	0.00	0.00	0.00	
74.011	157.75	0.05	0.00	0.16	-0.24	0.00	0.00	0.00	
75.011	157.62	0.05	0.00	0.15	-0.22	0.00	0.00	0.00	
76.011	157.50	0.04	0.00	0.15	-0.21	0.00	0.00	0.00	
77.011	157.39	0.04	0.00	0.15	-0.20	0.00	0.00	0.00	
78.011	157.30	0.04	0.00	0.15	-0.19	0.00	0.00	0.00	
79.011	157.21	0.04	0.00	0.15	-0.19	0.00	0.00	0.00	
80.011	157.14	0.03	0.00	0.15	-0.18	0.00	0.00	0.00	
81.011	157.08	0.03	0.00	0.15	-0.18	0.00	0.00	0.00	
82.011	157.02	0.03	0.00	0.15	-0.17	0.00	0.00	0.00	
83.002	157.00	0.00	0.00	0.15	-0.17	0.00	0.00	0.00	
84.002	157.00	0.00	0.00	0.15	-0.17	0.00	0.00	0.00	
85.002	157.00	0.00	0.00	0.15	-0.16	0.00	0.00	0.00	
86.002	157.00	0.00	0.00	0.15	-0.16	0.00	0.00	0.00	
87.002	157.00	0.00	0.00	0.15	-0.16	0.00	0.00	0.00	
88.002	157.00	0.00	0.00	0.16	-0.16	0.00	0.00	0.00	
89.002	157.00	0.03	0.00	0.16	-0.15	0.00	0.00	0.00	
90.002	157.01	0.03	0.00	0.16	-0.15	0.00	0.00	0.00	
91.002	157.02	0.03	0.00	0.16	-0.15	0.00	0.00	0.00	
92.002	157.04	0.03	0.00	0.16	-0.15	0.00	0.00	0.00	
93.002	157.06	0.03	0.00	0.16	-0.15	0.00	0.00	0.00	
94.002	157.08	0.03	0.00	0.16	-0.15	0.00	0.00	0.00	
95.002	157.11	0.03	0.00	0.16	-0.14	0.00	0.00	0.00	
96.002	157.19	0.04	0.00	0.00	0.00	0.00	0.00	0.00	
96.011	157.19	0.04	0.00	0.00	0.00	0.00	0.00	0.00	

*** Group: BASE Node: 19

0.000	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
1.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
2.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
3.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
4.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
5.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
6.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
7.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
8.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
9.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
10.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
11.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
12.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
13.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00

14.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
15.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
16.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
17.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
18.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
19.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
20.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
21.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
22.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
23.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
24.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
25.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
26.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
27.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
28.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
29.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
30.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
31.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
32.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
33.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
34.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
35.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
36.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	
37.004	80.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	
38.004	80.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	
39.004	80.00	0.00	0.00	0.01	-0.02	0.00	0.00	0.00	
40.003	80.00	0.00	0.00	0.05	-0.05	0.00	0.00	0.00	
41.003	80.00	0.45	0.00	0.10	-0.10	0.00	0.00	0.00	
42.003	80.00	0.45	0.00	0.14	-0.14	0.00	0.00	0.00	
43.003	80.00	0.45	0.00	0.19	-0.18	0.00	0.00	0.00	
44.003	80.00	0.45	0.00	0.22	-0.22	0.00	0.00	0.00	
45.003	80.00	0.45	0.00	0.26	-0.26	0.00	0.00	0.00	
46.003	80.00	0.45	0.00	0.30	-0.30	0.00	0.00	0.00	
47.011	80.00	0.00	0.00	0.33	-0.36	0.00	0.00	0.00	
48.004	80.00	0.45	0.00	0.46	-0.46	0.00	0.00	0.00	
49.009	80.00	0.45	0.00	0.58	-0.58	0.00	0.00	0.00	
50.013	80.00	0.00	0.00	0.70	-0.70	0.00	0.00	0.00	
51.008	80.00	0.00	0.00	0.83	-0.85	0.00	0.00	0.00	
52.001	80.00	0.45	0.00	1.04	-1.04	0.00	0.00	0.00	
53.007	80.00	0.00	0.00	1.26	-1.28	0.00	0.00	0.00	
54.007	80.00	0.45	0.00	1.58	-1.58	0.00	0.00	0.00	
55.010	80.00	0.00	0.00	1.90	-2.04	0.00	0.00	0.00	
56.010	80.00	0.45	0.00	2.76	-2.75	0.00	0.00	0.00	
57.000	80.00	0.00	0.00	3.55	-3.63	0.00	0.00	0.00	
58.012	80.15	0.46	0.00	6.43	-4.15	0.00	0.00	0.00	
59.006	83.76	0.75	0.00	56.02	-5.53	0.00	0.00	0.00	
60.005	87.84	1.20	0.00	51.22	-8.92	0.00	0.00	0.00	

61.011	88.99	1.49	0.00	7.35	-12.24	0.00	0.00	0.00
62.011	88.76	1.43	0.00	10.06	-13.18	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)	
63.011	88.48	1.36	0.00	6.40	-12.55	0.00	0.00	0.00
64.011	88.10	1.26	0.00	5.76	-11.78	0.00	0.00	0.00
65.011	87.66	1.17	0.00	4.09	-10.92	0.00	0.00	0.00
66.011	87.21	1.08	0.00	4.68	-10.12	0.00	0.00	0.00
67.011	86.80	1.02	0.00	4.51	-9.47	0.00	0.00	0.00
68.011	86.36	0.98	0.00	3.57	-9.05	0.00	0.00	0.00
69.011	85.88	0.94	0.00	2.90	-8.67	0.00	0.00	0.00
70.011	85.39	0.90	0.00	3.14	-8.28	0.00	0.00	0.00
71.011	84.92	0.85	0.00	3.06	-7.89	0.00	0.00	0.00
72.011	84.41	0.81	0.00	2.11	-7.50	0.00	0.00	0.00
73.011	83.83	0.76	0.00	1.45	-7.07	0.00	0.00	0.00
74.011	83.23	0.71	0.00	1.67	-6.62	0.00	0.00	0.00
75.011	82.66	0.66	0.00	1.60	-6.18	0.00	0.00	0.00
76.011	82.09	0.62	0.00	1.64	-5.75	0.00	0.00	0.00
77.011	81.55	0.57	0.00	1.64	-5.35	0.00	0.00	0.00
78.011	81.03	0.53	0.00	1.64	-4.96	0.00	0.00	0.00
79.011	80.53	0.49	0.00	1.65	-4.47	0.00	0.00	0.00
80.011	80.18	0.46	0.00	1.64	-2.91	0.00	0.00	0.00
81.011	80.07	0.46	0.00	1.64	-1.64	0.00	0.00	0.00
82.011	80.07	0.46	0.00	1.64	-1.64	0.00	0.00	0.00
83.002	80.07	0.46	0.00	1.64	-1.64	0.00	0.00	0.00
84.002	80.07	0.46	0.00	1.65	-1.65	0.00	0.00	0.00
85.002	80.07	0.46	0.00	1.65	-1.65	0.00	0.00	0.00
86.002	80.10	0.46	0.00	1.65	-1.28	0.00	0.00	0.00
87.002	80.20	0.47	0.00	1.65	-0.95	0.00	0.00	0.00
88.002	80.32	0.48	0.00	1.67	-0.98	0.00	0.00	0.00
89.002	80.44	0.49	0.00	1.67	-0.97	0.00	0.00	0.00
90.002	80.56	0.49	0.00	1.68	-0.96	0.00	0.00	0.00
91.002	80.68	0.50	0.00	1.68	-0.96	0.00	0.00	0.00
92.002	80.79	0.51	0.00	1.67	-0.96	0.00	0.00	0.00
93.002	80.91	0.52	0.00	1.67	-0.95	0.00	0.00	0.00
94.002	81.02	0.53	0.00	1.67	-0.96	0.00	0.00	0.00
95.002	81.13	0.54	0.00	1.67	-0.92	0.00	0.00	0.00
96.002	81.23	0.55	0.00	0.00	0.00	0.00	0.00	0.00
96.011	81.23	0.55	0.00	0.00	0.00	0.00	0.00	0.00

*** Group: BASE Node: 2

0.000	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
1.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
2.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
3.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
4.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
5.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
6.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
7.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00

8.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
9.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	!<-----Inflow----->!					Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)	
10.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
11.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
12.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
13.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
14.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
15.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
16.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
17.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
18.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
19.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
20.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
21.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
22.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
23.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
24.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
25.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
26.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
27.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
28.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
29.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
30.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
31.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
32.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
33.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
34.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
35.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
36.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
37.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
38.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
39.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
40.003	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
41.003	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
42.003	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
43.003	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
44.003	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
45.003	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
46.003	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
47.011	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
48.004	245.24	1.86	0.00	0.01	0.00	0.00	0.00	0.00
49.009	245.24	1.86	0.00	0.02	0.00	0.00	0.00	0.00
50.013	245.24	1.86	0.00	0.04	0.00	0.00	0.00	0.00
51.008	245.24	1.86	0.00	0.06	0.00	0.00	0.00	0.00
52.001	245.25	1.86	0.00	0.08	0.00	0.00	0.00	0.00
53.007	245.25	1.86	0.00	0.11	0.00	0.00	0.00	0.00
54.007	245.26	1.86	0.00	0.16	0.00	0.00	0.00	0.00

55.010	245.27	1.86	0.00	0.21	0.00	0.00	0.00	0.00
56.010	245.28	1.86	0.00	0.33	0.00	0.00	0.00	0.00

2.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
3.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)	
4.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
5.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
6.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
7.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
8.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
9.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
10.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
11.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
12.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
13.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
14.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
15.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
16.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
17.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
18.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
19.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
20.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
21.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
22.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
23.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
24.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
25.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
26.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
27.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
28.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
29.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
30.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
31.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
32.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
33.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
34.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
35.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
36.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
37.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
38.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
39.004	235.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
40.003	235.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
41.003	235.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
42.003	235.00	0.00	0.00	0.01	-0.01	0.00	0.00	0.00
43.003	235.00	0.41	0.00	0.03	-0.03	0.00	0.00	0.00
44.003	235.00	0.41	0.00	0.04	-0.04	0.00	0.00	0.00
45.003	235.00	0.41	0.00	0.05	-0.05	0.00	0.00	0.00
46.003	235.00	0.41	0.00	0.06	-0.06	0.00	0.00	0.00
47.011	235.00	0.00	0.00	0.07	-0.08	0.00	0.00	0.00
48.004	235.00	0.41	0.00	0.10	-0.10	0.00	0.00	0.00

49.009	235.00	0.00	0.00	0.13	-0.13	0.00	0.00	0.00
50.013	235.00	0.00	0.00	0.16	-0.17	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)	
51.008	235.00	0.00	0.00	0.20	-0.21	0.00	0.00	0.00
52.001	235.00	0.41	0.00	0.26	-0.26	0.00	0.00	0.00
53.007	235.00	0.00	0.00	0.31	-0.32	0.00	0.00	0.00
54.007	235.00	0.00	0.00	0.40	-0.40	0.00	0.00	0.00
55.010	235.00	0.00	0.00	0.49	-0.53	0.00	0.00	0.00
56.010	235.00	0.41	0.00	0.72	-0.72	0.00	0.00	0.00
57.000	235.00	0.00	0.00	0.94	-1.04	0.00	0.00	0.00
58.012	235.00	0.00	0.00	1.74	-2.28	0.00	0.00	0.00
59.006	236.10	0.47	0.00	15.71	-3.53	0.00	0.00	0.00
60.005	237.85	0.59	0.00	14.49	-4.25	0.00	0.00	0.00
61.011	238.36	0.62	0.00	2.17	-4.86	0.00	0.00	0.00
62.011	238.04	0.60	0.00	2.87	-4.90	0.00	0.00	0.00
63.011	237.70	0.58	0.00	1.85	-4.72	0.00	0.00	0.00
64.011	237.28	0.55	0.00	1.66	-4.51	0.00	0.00	0.00
65.011	236.82	0.52	0.00	1.18	-4.27	0.00	0.00	0.00
66.011	236.35	0.49	0.00	1.35	-4.02	0.00	0.00	0.00
67.011	235.90	0.46	0.00	1.30	-3.78	0.00	0.00	0.00
68.011	235.48	0.43	0.00	1.03	-3.12	0.00	0.00	0.00
69.011	235.19	0.42	0.00	0.84	-1.73	0.00	0.00	0.00
70.011	235.11	0.41	0.00	0.91	-0.89	0.00	0.00	0.00
71.011	235.12	0.41	0.00	0.89	-0.82	0.00	0.00	0.00
72.011	235.12	0.41	0.00	0.61	-0.63	0.00	0.00	0.00
73.011	235.11	0.41	0.00	0.42	-0.48	0.00	0.00	0.00
74.011	235.11	0.41	0.00	0.48	-0.46	0.00	0.00	0.00
75.011	235.11	0.41	0.00	0.46	-0.47	0.00	0.00	0.00
76.011	235.11	0.41	0.00	0.48	-0.47	0.00	0.00	0.00
77.011	235.11	0.41	0.00	0.48	-0.48	0.00	0.00	0.00
78.011	235.11	0.41	0.00	0.48	-0.48	0.00	0.00	0.00
79.011	235.11	0.41	0.00	0.48	-0.48	0.00	0.00	0.00
80.011	235.11	0.41	0.00	0.48	-0.48	0.00	0.00	0.00
81.011	235.11	0.41	0.00	0.47	-0.48	0.00	0.00	0.00
82.011	235.11	0.41	0.00	0.48	-0.48	0.00	0.00	0.00
83.002	235.11	0.41	0.00	0.48	-0.48	0.00	0.00	0.00
84.002	235.11	0.41	0.00	0.48	-0.48	0.00	0.00	0.00
85.002	235.11	0.41	0.00	0.48	-0.48	0.00	0.00	0.00
86.002	235.11	0.41	0.00	0.48	-0.48	0.00	0.00	0.00
87.002	235.11	0.41	0.00	0.48	-0.48	0.00	0.00	0.00
88.002	235.11	0.41	0.00	0.48	-0.48	0.00	0.00	0.00
89.002	235.11	0.41	0.00	0.49	-0.49	0.00	0.00	0.00
90.002	235.11	0.41	0.00	0.49	-0.49	0.00	0.00	0.00
91.002	235.11	0.41	0.00	0.49	-0.49	0.00	0.00	0.00
92.002	235.11	0.41	0.00	0.49	-0.49	0.00	0.00	0.00
93.002	235.11	0.41	0.00	0.49	-0.49	0.00	0.00	0.00
94.002	235.11	0.41	0.00	0.49	-0.49	0.00	0.00	0.00
95.002	235.12	0.41	0.00	0.49	-0.40	0.00	0.00	0.00

96.002	235.14	0.41	0.00	0.00	0.00	0.00	0.00	0.00
96.011	235.14	0.41	0.00	0.00	0.00	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
*** Group: BASE		Node: 4							
0.000	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
1.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
2.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
3.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
4.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
5.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
6.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
7.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
8.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
9.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
10.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
11.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
12.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
13.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
14.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
15.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
16.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
17.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
18.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
19.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
20.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
21.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
22.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
23.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
24.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
25.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
26.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
27.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
28.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
29.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
30.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
31.004	220.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	
32.004	220.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	
33.004	220.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	
34.004	220.00	0.00	0.00	0.02	-0.02	0.00	0.00	0.00	
35.004	220.00	0.42	0.00	0.04	-0.04	0.00	0.00	0.00	
36.004	220.00	0.42	0.00	0.07	-0.07	0.00	0.00	0.00	
37.004	220.00	0.42	0.00	0.09	-0.09	0.00	0.00	0.00	
38.004	220.00	0.42	0.00	0.11	-0.11	0.00	0.00	0.00	
39.004	220.00	0.42	0.00	0.13	-0.14	0.00	0.00	0.00	
40.003	220.00	0.42	0.00	0.16	-0.16	0.00	0.00	0.00	
41.003	220.00	0.42	0.00	0.18	-0.18	0.00	0.00	0.00	
42.003	220.00	0.42	0.00	0.20	-0.20	0.00	0.00	0.00	
43.003	220.00	0.42	0.00	0.23	-0.22	0.00	0.00	0.00	

44.003	220.00	0.42	0.00	0.24	-0.24	0.00	0.00	0.00
45.003	220.00	0.42	0.00	0.26	-0.26	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
46.003	220.00	0.42	0.00	0.27	-0.27	0.00	0.00	0.00	
47.011	220.00	0.00	0.00	0.29	-0.31	0.00	0.00	0.00	
48.004	220.00	0.42	0.00	0.38	-0.38	0.00	0.00	0.00	
49.009	220.00	0.42	0.00	0.46	-0.46	0.00	0.00	0.00	
50.013	220.00	0.42	0.00	0.53	-0.53	0.00	0.00	0.00	
51.008	220.00	0.00	0.00	0.61	-0.62	0.00	0.00	0.00	
52.001	220.00	0.42	0.00	0.73	-0.73	0.00	0.00	0.00	
53.007	220.00	0.00	0.00	0.86	-0.87	0.00	0.00	0.00	
54.007	220.00	0.42	0.00	1.04	-1.04	0.00	0.00	0.00	
55.010	220.00	0.00	0.00	1.22	-1.30	0.00	0.00	0.00	
56.010	220.00	0.42	0.00	1.72	-1.71	0.00	0.00	0.00	
57.000	220.00	0.00	0.00	2.15	-2.34	0.00	0.00	0.00	
58.012	220.05	0.42	0.00	3.74	-2.75	0.00	0.00	0.00	
59.006	222.42	0.55	0.00	29.93	-3.18	0.00	0.00	0.00	
60.005	225.56	0.75	0.00	26.76	-4.26	0.00	0.00	0.00	
61.011	226.65	0.82	0.00	3.39	-5.13	0.00	0.00	0.00	
62.011	226.56	0.81	0.00	5.12	-5.34	0.00	0.00	0.00	
63.011	226.43	0.80	0.00	3.15	-5.29	0.00	0.00	0.00	
64.011	226.20	0.79	0.00	2.87	-5.21	0.00	0.00	0.00	
65.011	225.91	0.77	0.00	2.02	-5.09	0.00	0.00	0.00	
66.011	225.60	0.75	0.00	2.32	-4.96	0.00	0.00	0.00	
67.011	225.31	0.73	0.00	2.22	-4.83	0.00	0.00	0.00	
68.011	224.99	0.71	0.00	1.76	-4.70	0.00	0.00	0.00	
69.011	224.63	0.69	0.00	1.43	-4.56	0.00	0.00	0.00	
70.011	224.26	0.66	0.00	1.54	-4.41	0.00	0.00	0.00	
71.011	223.91	0.64	0.00	1.50	-4.26	0.00	0.00	0.00	
72.011	223.53	0.62	0.00	1.03	-4.11	0.00	0.00	0.00	
73.011	223.09	0.59	0.00	0.71	-3.95	0.00	0.00	0.00	
74.011	222.65	0.57	0.00	0.82	-3.78	0.00	0.00	0.00	
75.011	222.22	0.54	0.00	0.79	-3.61	0.00	0.00	0.00	
76.011	221.79	0.52	0.00	0.80	-3.45	0.00	0.00	0.00	
77.011	221.37	0.49	0.00	0.80	-3.29	0.00	0.00	0.00	
78.011	220.96	0.47	0.00	0.80	-3.13	0.00	0.00	0.00	
79.011	220.57	0.45	0.00	0.81	-2.75	0.00	0.00	0.00	
80.011	220.29	0.43	0.00	0.80	-1.84	0.00	0.00	0.00	
81.011	220.17	0.43	0.00	0.80	-1.07	0.00	0.00	0.00	
82.011	220.14	0.43	0.00	0.80	-0.84	0.00	0.00	0.00	
83.002	220.14	0.43	0.00	0.80	-0.72	0.00	0.00	0.00	
84.002	220.17	0.43	0.00	0.80	-0.65	0.00	0.00	0.00	
85.002	220.20	0.43	0.00	0.80	-0.61	0.00	0.00	0.00	
86.002	220.24	0.43	0.00	0.81	-0.58	0.00	0.00	0.00	
87.002	220.29	0.43	0.00	0.81	-0.56	0.00	0.00	0.00	
88.002	220.34	0.44	0.00	0.81	-0.54	0.00	0.00	0.00	
89.002	220.39	0.44	0.00	0.82	-0.53	0.00	0.00	0.00	
90.002	220.44	0.44	0.00	0.82	-0.52	0.00	0.00	0.00	

91.002	220.50	0.45	0.00	0.82	-0.51	0.00	0.00	0.00
92.002	220.56	0.45	0.00	0.81	-0.50	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	!<-----Inflow----->!					Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)	
93.002	220.61	0.45	0.00	0.81	-0.50	0.00	0.00	0.00
94.002	220.67	0.45	0.00	0.81	-0.50	0.00	0.00	0.00
95.002	220.73	0.46	0.00	0.81	-0.48	0.00	0.00	0.00
96.002	220.78	0.46	0.00	0.00	0.00	0.00	0.00	0.00
96.011	220.78	0.46	0.00	0.00	0.00	0.00	0.00	0.00

*** Group: BASE Node: 4B

0.000	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
1.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
2.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
3.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
4.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
5.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
6.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
7.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
8.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
9.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
10.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
11.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
12.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
13.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
14.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
15.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
16.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
17.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
18.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
19.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
20.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
21.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
22.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
23.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
24.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
25.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
26.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
27.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
28.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
29.004	240.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
30.004	240.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
31.004	240.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
32.004	240.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
33.004	240.00	0.00	0.00	0.01	-0.01	0.00	0.00	0.00
34.004	240.00	0.38	0.00	0.02	-0.01	0.00	0.00	0.00
35.004	240.00	0.38	0.00	0.02	-0.02	0.00	0.00	0.00
36.004	240.00	0.38	0.00	0.03	-0.03	0.00	0.00	0.00
37.004	240.00	0.38	0.00	0.03	-0.03	0.00	0.00	0.00

38.004	240.00	0.38	0.00	0.04	-0.04	0.00	0.00	0.00
39.004	240.00	0.38	0.00	0.04	-0.04	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)	
40.003	240.00	0.38	0.00	0.05	-0.05	0.00	0.00	0.00
41.003	240.00	0.38	0.00	0.06	-0.06	0.00	0.00	0.00
42.003	240.00	0.38	0.00	0.06	-0.06	0.00	0.00	0.00
43.003	240.00	0.38	0.00	0.07	-0.07	0.00	0.00	0.00
44.003	240.00	0.38	0.00	0.07	-0.07	0.00	0.00	0.00
45.003	240.00	0.38	0.00	0.07	-0.07	0.00	0.00	0.00
46.003	240.00	0.38	0.00	0.08	-0.08	0.00	0.00	0.00
47.011	240.00	0.00	0.00	0.08	-0.09	0.00	0.00	0.00
48.004	240.00	0.38	0.00	0.11	-0.11	0.00	0.00	0.00
49.009	240.00	0.38	0.00	0.13	-0.13	0.00	0.00	0.00
50.013	240.00	0.38	0.00	0.14	-0.15	0.00	0.00	0.00
51.008	240.00	0.00	0.00	0.16	-0.17	0.00	0.00	0.00
52.001	240.00	0.38	0.00	0.20	-0.20	0.00	0.00	0.00
53.007	240.00	0.00	0.00	0.23	-0.23	0.00	0.00	0.00
54.007	240.00	0.38	0.00	0.28	-0.28	0.00	0.00	0.00
55.010	240.00	0.00	0.00	0.32	-0.34	0.00	0.00	0.00
56.010	240.00	0.38	0.00	0.45	-0.45	0.00	0.00	0.00
57.000	240.00	0.00	0.00	0.56	-0.61	0.00	0.00	0.00
58.012	240.00	0.00	0.00	0.96	-1.60	0.00	0.00	0.00
59.006	240.47	0.40	0.00	7.52	-2.53	0.00	0.00	0.00
60.005	241.35	0.44	0.00	6.68	-2.74	0.00	0.00	0.00
61.011	241.51	0.45	0.00	0.82	-2.91	0.00	0.00	0.00
62.011	241.17	0.44	0.00	1.27	-2.88	0.00	0.00	0.00
63.011	240.82	0.42	0.00	0.77	-2.76	0.00	0.00	0.00
64.011	240.45	0.40	0.00	0.71	-2.38	0.00	0.00	0.00
65.011	240.19	0.39	0.00	0.50	-1.30	0.00	0.00	0.00
66.011	240.10	0.38	0.00	0.57	-0.55	0.00	0.00	0.00
67.011	240.11	0.38	0.00	0.55	-0.52	0.00	0.00	0.00
68.011	240.11	0.38	0.00	0.43	-0.44	0.00	0.00	0.00
69.011	240.11	0.38	0.00	0.35	-0.38	0.00	0.00	0.00
70.011	240.11	0.38	0.00	0.38	-0.37	0.00	0.00	0.00
71.011	240.11	0.38	0.00	0.37	-0.34	0.00	0.00	0.00
72.011	240.11	0.38	0.00	0.25	-0.26	0.00	0.00	0.00
73.011	240.11	0.38	0.00	0.17	-0.20	0.00	0.00	0.00
74.011	240.11	0.38	0.00	0.20	-0.19	0.00	0.00	0.00
75.011	240.11	0.38	0.00	0.19	-0.20	0.00	0.00	0.00
76.011	240.11	0.38	0.00	0.20	-0.20	0.00	0.00	0.00
77.011	240.11	0.38	0.00	0.20	-0.20	0.00	0.00	0.00
78.011	240.11	0.38	0.00	0.20	-0.20	0.00	0.00	0.00
79.011	240.11	0.38	0.00	0.20	-0.20	0.00	0.00	0.00
80.011	240.11	0.38	0.00	0.20	-0.20	0.00	0.00	0.00
81.011	240.11	0.38	0.00	0.20	-0.20	0.00	0.00	0.00
82.011	240.11	0.38	0.00	0.20	-0.20	0.00	0.00	0.00
83.002	240.11	0.38	0.00	0.20	-0.20	0.00	0.00	0.00
84.002	240.11	0.38	0.00	0.20	-0.20	0.00	0.00	0.00

85.002	240.11	0.38	0.00	0.20	-0.20	0.00	0.00	0.00
86.002	240.11	0.38	0.00	0.20	-0.20	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar. (ac)	<-----Inflow----->					Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)	
87.002	240.11	0.38	0.00	0.20	-0.20	0.00	0.00	0.00
88.002	240.11	0.38	0.00	0.20	-0.20	0.00	0.00	0.00
89.002	240.11	0.38	0.00	0.20	-0.20	0.00	0.00	0.00
90.002	240.11	0.38	0.00	0.20	-0.20	0.00	0.00	0.00
91.002	240.11	0.38	0.00	0.20	-0.20	0.00	0.00	0.00
92.002	240.11	0.38	0.00	0.20	-0.20	0.00	0.00	0.00
93.002	240.11	0.38	0.00	0.20	-0.20	0.00	0.00	0.00
94.002	240.11	0.38	0.00	0.20	-0.20	0.00	0.00	0.00
95.002	240.11	0.38	0.00	0.20	-0.17	0.00	0.00	0.00
96.002	240.12	0.38	0.00	0.00	0.00	0.00	0.00	0.00
96.011	240.12	0.38	0.00	0.00	0.00	0.00	0.00	0.00

*** Group: BASE Node: 5

0.000	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
1.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
2.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
3.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
4.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
5.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
6.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
7.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
8.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
9.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
10.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
11.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
12.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
13.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
14.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
15.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
16.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
17.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
18.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
19.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
20.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
21.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
22.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
23.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
24.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
25.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
26.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
27.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
28.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
29.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
30.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
31.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)	
34.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
35.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
36.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
37.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
38.004	125.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
39.004	125.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
40.003	125.00	0.00	0.00	0.01	-0.02	0.00	0.00	0.00
41.003	125.00	0.00	0.00	0.05	-0.05	0.00	0.00	0.00
42.003	125.00	1.28	0.00	0.10	-0.09	0.00	0.00	0.00
43.003	125.00	1.28	0.00	0.14	-0.14	0.00	0.00	0.00
44.003	125.00	1.28	0.00	0.18	-0.18	0.00	0.00	0.00
45.003	125.00	1.28	0.00	0.21	-0.21	0.00	0.00	0.00
46.003	125.00	1.28	0.00	0.25	-0.25	0.00	0.00	0.00
47.011	125.00	0.00	0.00	0.29	-0.31	0.00	0.00	0.00
48.004	125.00	1.28	0.00	0.41	-0.40	0.00	0.00	0.00
49.009	125.00	1.28	0.00	0.51	-0.52	0.00	0.00	0.00
50.013	125.00	0.00	0.00	0.63	-0.63	0.00	0.00	0.00
51.008	125.00	0.00	0.00	0.76	-0.78	0.00	0.00	0.00
52.001	125.00	1.28	0.00	0.96	-0.96	0.00	0.00	0.00
53.007	125.00	0.00	0.00	1.17	-1.19	0.00	0.00	0.00
54.007	125.00	0.00	0.00	1.48	-1.48	0.00	0.00	0.00
55.010	125.00	0.00	0.00	1.79	-1.92	0.00	0.00	0.00
56.010	125.00	1.28	0.00	2.62	-2.61	0.00	0.00	0.00
57.000	125.00	0.00	0.00	3.38	-3.74	0.00	0.00	0.00
58.012	124.99	0.00	0.00	6.19	-11.05	0.00	0.00	0.00
59.006	126.00	1.40	0.00	54.86	-18.10	0.00	0.00	0.00
60.005	127.83	1.63	0.00	50.37	-20.33	0.00	0.00	0.00
61.011	128.20	1.67	0.00	7.39	-22.20	0.00	0.00	0.00
62.011	127.52	1.59	0.00	9.94	-21.89	0.00	0.00	0.00
63.011	126.82	1.50	0.00	6.36	-20.68	0.00	0.00	0.00
64.011	126.04	1.41	0.00	5.71	-18.83	0.00	0.00	0.00
65.011	125.44	1.33	0.00	4.06	-10.98	0.00	0.00	0.00
66.011	125.23	1.31	0.00	4.65	-4.46	0.00	0.00	0.00
67.011	125.24	1.31	0.00	4.48	-4.29	0.00	0.00	0.00
68.011	125.24	1.31	0.00	3.55	-3.62	0.00	0.00	0.00
69.011	125.23	1.31	0.00	2.88	-3.11	0.00	0.00	0.00
70.011	125.23	1.31	0.00	3.12	-3.04	0.00	0.00	0.00
71.011	125.24	1.31	0.00	3.04	-2.83	0.00	0.00	0.00
72.011	125.24	1.31	0.00	2.10	-2.17	0.00	0.00	0.00
73.011	125.23	1.31	0.00	1.44	-1.66	0.00	0.00	0.00
74.011	125.23	1.31	0.00	1.66	-1.59	0.00	0.00	0.00
75.011	125.23	1.31	0.00	1.59	-1.62	0.00	0.00	0.00
76.011	125.23	1.31	0.00	1.63	-1.62	0.00	0.00	0.00
77.011	125.23	1.31	0.00	1.63	-1.63	0.00	0.00	0.00
78.011	125.23	1.31	0.00	1.64	-1.63	0.00	0.00	0.00

79.011	125.23	1.31	0.00	1.64	-1.64	0.00	0.00	0.00
80.011	125.23	1.31	0.00	1.63	-1.63	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar. (ac)	<-----Inflow----->					Link Q (cfs)	Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
81.011	125.23	1.31	0.00	1.63	-1.63	0.00	0.00	0.00	
82.011	125.23	1.31	0.00	1.63	-1.63	0.00	0.00	0.00	
83.002	125.23	1.31	0.00	1.64	-1.64	0.00	0.00	0.00	
84.002	125.23	1.31	0.00	1.64	-1.64	0.00	0.00	0.00	
85.002	125.23	1.31	0.00	1.64	-1.64	0.00	0.00	0.00	
86.002	125.23	1.31	0.00	1.65	-1.65	0.00	0.00	0.00	
87.002	125.23	1.31	0.00	1.65	-1.65	0.00	0.00	0.00	
88.002	125.23	1.31	0.00	1.66	-1.66	0.00	0.00	0.00	
89.002	125.23	1.31	0.00	1.67	-1.67	0.00	0.00	0.00	
90.002	125.23	1.31	0.00	1.67	-1.67	0.00	0.00	0.00	
91.002	125.23	1.31	0.00	1.67	-1.67	0.00	0.00	0.00	
92.002	125.23	1.31	0.00	1.67	-1.67	0.00	0.00	0.00	
93.002	125.23	1.31	0.00	1.66	-1.66	0.00	0.00	0.00	
94.002	125.23	1.31	0.00	1.67	-1.67	0.00	0.00	0.00	
95.002	125.24	1.31	0.00	1.67	-1.39	0.00	0.00	0.00	
96.002	125.27	1.31	0.00	0.00	0.00	0.00	0.00	0.00	
96.011	125.27	1.31	0.00	0.00	0.00	0.00	0.00	0.00	

*** Group: BASE Node: 6

0.000	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
1.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
2.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
3.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
4.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
5.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
6.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
7.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
8.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
9.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
10.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
11.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
12.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
13.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
14.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
15.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
16.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
17.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
18.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
19.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
20.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
21.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
22.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
23.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
24.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
25.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00

26.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
27.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
28.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00	
29.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00	
30.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00	
31.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00	
32.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00	
33.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00	
34.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00	
35.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00	
36.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00	
37.004	233.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	
38.004	233.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	
39.004	233.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	
40.003	233.00	0.00	0.00	0.02	-0.02	0.00	0.00	0.00	
41.003	233.00	0.93	0.00	0.03	-0.03	0.00	0.00	0.00	
42.003	233.00	0.93	0.00	0.05	-0.05	0.00	0.00	0.00	
43.003	233.00	0.93	0.00	0.06	-0.06	0.00	0.00	0.00	
44.003	233.00	0.93	0.00	0.07	-0.07	0.00	0.00	0.00	
45.003	233.00	0.93	0.00	0.08	-0.08	0.00	0.00	0.00	
46.003	233.00	0.93	0.00	0.09	-0.09	0.00	0.00	0.00	
47.011	233.00	0.00	0.00	0.11	-0.11	0.00	0.00	0.00	
48.004	233.00	0.93	0.00	0.15	-0.15	0.00	0.00	0.00	
49.009	233.00	0.93	0.00	0.18	-0.18	0.00	0.00	0.00	
50.013	233.00	0.00	0.00	0.22	-0.22	0.00	0.00	0.00	
51.008	233.00	0.00	0.00	0.26	-0.27	0.00	0.00	0.00	
52.001	233.00	0.93	0.00	0.33	-0.33	0.00	0.00	0.00	
53.007	233.00	0.00	0.00	0.40	-0.41	0.00	0.00	0.00	
54.007	233.00	0.93	0.00	0.50	-0.50	0.00	0.00	0.00	
55.010	233.00	0.00	0.00	0.61	-0.65	0.00	0.00	0.00	
56.010	233.00	0.93	0.00	0.88	-0.88	0.00	0.00	0.00	
57.000	233.00	0.00	0.00	1.13	-1.25	0.00	0.00	0.00	
58.012	232.99	0.00	0.00	2.05	-4.79	0.00	0.00	0.00	
59.006	233.33	0.97	0.00	17.85	-8.09	0.00	0.00	0.00	
60.005	234.05	1.06	0.00	16.32	-8.54	0.00	0.00	0.00	
61.011	234.09	1.06	0.00	2.34	-8.93	0.00	0.00	0.00	
62.011	233.62	1.01	0.00	3.20	-8.29	0.00	0.00	0.00	
63.011	233.29	0.97	0.00	2.04	-4.78	0.00	0.00	0.00	
64.011	233.18	0.95	0.00	1.83	-1.75	0.00	0.00	0.00	
65.011	233.18	0.95	0.00	1.30	-1.48	0.00	0.00	0.00	
66.011	233.17	0.95	0.00	1.49	-1.43	0.00	0.00	0.00	
67.011	233.18	0.95	0.00	1.44	-1.37	0.00	0.00	0.00	
68.011	233.18	0.95	0.00	1.14	-1.16	0.00	0.00	0.00	
69.011	233.17	0.95	0.00	0.92	-1.00	0.00	0.00	0.00	
70.011	233.17	0.95	0.00	1.00	-0.97	0.00	0.00	0.00	
71.011	233.18	0.95	0.00	0.97	-0.90	0.00	0.00	0.00	
72.011	233.18	0.95	0.00	0.67	-0.69	0.00	0.00	0.00	

73.011	233.17	0.95	0.00	0.46	-0.53	0.00	0.00	0.00
74.011	233.17	0.95	0.00	0.53	-0.51	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
75.011	233.17	0.95	0.00	0.51	-0.52	0.00	0.00	0.00	
76.011	233.17	0.95	0.00	0.52	-0.52	0.00	0.00	0.00	
77.011	233.17	0.95	0.00	0.52	-0.52	0.00	0.00	0.00	
78.011	233.17	0.95	0.00	0.52	-0.52	0.00	0.00	0.00	
79.011	233.17	0.95	0.00	0.52	-0.52	0.00	0.00	0.00	
80.011	233.17	0.95	0.00	0.52	-0.52	0.00	0.00	0.00	
81.011	233.17	0.95	0.00	0.52	-0.52	0.00	0.00	0.00	
82.011	233.17	0.95	0.00	0.52	-0.52	0.00	0.00	0.00	
83.002	233.17	0.95	0.00	0.52	-0.52	0.00	0.00	0.00	
84.002	233.17	0.95	0.00	0.52	-0.52	0.00	0.00	0.00	
85.002	233.17	0.95	0.00	0.53	-0.53	0.00	0.00	0.00	
86.002	233.17	0.95	0.00	0.53	-0.53	0.00	0.00	0.00	
87.002	233.17	0.95	0.00	0.53	-0.53	0.00	0.00	0.00	
88.002	233.17	0.95	0.00	0.53	-0.53	0.00	0.00	0.00	
89.002	233.17	0.95	0.00	0.53	-0.53	0.00	0.00	0.00	
90.002	233.17	0.95	0.00	0.53	-0.53	0.00	0.00	0.00	
91.002	233.17	0.95	0.00	0.53	-0.53	0.00	0.00	0.00	
92.002	233.17	0.95	0.00	0.53	-0.53	0.00	0.00	0.00	
93.002	233.17	0.95	0.00	0.53	-0.53	0.00	0.00	0.00	
94.002	233.17	0.95	0.00	0.53	-0.53	0.00	0.00	0.00	
95.002	233.18	0.95	0.00	0.53	-0.44	0.00	0.00	0.00	
96.002	233.19	0.96	0.00	0.00	0.00	0.00	0.00	0.00	
96.011	233.19	0.96	0.00	0.00	0.00	0.00	0.00	0.00	

*** Group: BASE Node: 7

0.000	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
1.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
2.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
3.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
4.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
5.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
6.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
7.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
8.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
9.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
10.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
11.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
12.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
13.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
14.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
15.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
16.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
17.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
18.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
19.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00

20.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
21.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)	
22.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
23.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
24.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
25.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
26.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
27.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
28.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
29.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
30.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
31.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
32.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
33.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
34.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
35.004	183.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
36.004	183.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
37.004	183.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
38.004	183.00	0.00	0.00	0.01	-0.01	0.00	0.00	0.00
39.004	183.00	0.12	0.00	0.02	-0.02	0.00	0.00	0.00
40.003	183.00	0.00	0.00	0.03	-0.03	0.00	0.00	0.00
41.003	183.00	0.12	0.00	0.04	-0.04	0.00	0.00	0.00
42.003	183.00	0.12	0.00	0.05	-0.05	0.00	0.00	0.00
43.003	183.00	0.12	0.00	0.06	-0.06	0.00	0.00	0.00
44.003	183.00	0.12	0.00	0.07	-0.07	0.00	0.00	0.00
45.003	183.00	0.12	0.00	0.07	-0.07	0.00	0.00	0.00
46.003	183.00	0.12	0.00	0.08	-0.08	0.00	0.00	0.00
47.011	183.00	0.00	0.00	0.09	-0.09	0.00	0.00	0.00
48.004	183.00	0.12	0.00	0.12	-0.12	0.00	0.00	0.00
49.009	183.00	0.12	0.00	0.15	-0.15	0.00	0.00	0.00
50.013	183.00	0.12	0.00	0.17	-0.17	0.00	0.00	0.00
51.008	183.00	0.00	0.00	0.20	-0.21	0.00	0.00	0.00
52.001	183.00	0.12	0.00	0.25	-0.25	0.00	0.00	0.00
53.007	183.00	0.00	0.00	0.30	-0.30	0.00	0.00	0.00
54.007	183.00	0.12	0.00	0.37	-0.37	0.00	0.00	0.00
55.010	183.00	0.00	0.00	0.44	-0.47	0.00	0.00	0.00
56.010	183.00	0.12	0.00	0.63	-0.62	0.00	0.00	0.00
57.000	183.00	0.12	0.00	0.80	-0.80	0.00	0.00	0.00
58.012	183.15	0.12	0.00	1.42	-0.90	0.00	0.00	0.00
59.006	185.97	0.21	0.00	12.02	-1.27	0.00	0.00	0.00
60.005	188.97	0.33	0.00	10.90	-2.07	0.00	0.00	0.00
61.011	189.87	0.37	0.00	1.50	-2.66	0.00	0.00	0.00
62.011	189.66	0.36	0.00	2.12	-2.76	0.00	0.00	0.00
63.011	189.43	0.35	0.00	1.33	-2.69	0.00	0.00	0.00
64.011	189.10	0.34	0.00	1.20	-2.59	0.00	0.00	0.00
65.011	188.72	0.32	0.00	0.85	-2.48	0.00	0.00	0.00
66.011	188.33	0.30	0.00	0.98	-2.35	0.00	0.00	0.00

67.011	187.95	0.29	0.00	0.94	-2.23	0.00	0.00	0.00
68.011	187.56	0.27	0.00	0.74	-2.11	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	!<-----Inflow----->!					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
69.011	187.13	0.26	0.00	0.60	-1.99	0.00	0.00	0.00	
70.011	186.70	0.24	0.00	0.65	-1.87	0.00	0.00	0.00	
71.011	186.28	0.22	0.00	0.64	-1.74	0.00	0.00	0.00	
72.011	185.85	0.21	0.00	0.44	-1.63	0.00	0.00	0.00	
73.011	185.35	0.19	0.00	0.30	-1.50	0.00	0.00	0.00	
74.011	184.85	0.17	0.00	0.35	-1.37	0.00	0.00	0.00	
75.011	184.37	0.16	0.00	0.33	-1.25	0.00	0.00	0.00	
76.011	183.90	0.14	0.00	0.34	-1.13	0.00	0.00	0.00	
77.011	183.47	0.13	0.00	0.34	-1.00	0.00	0.00	0.00	
78.011	183.15	0.12	0.00	0.34	-0.64	0.00	0.00	0.00	
79.011	183.05	0.12	0.00	0.34	-0.34	0.00	0.00	0.00	
80.011	183.05	0.12	0.00	0.34	-0.34	0.00	0.00	0.00	
81.011	183.05	0.12	0.00	0.34	-0.34	0.00	0.00	0.00	
82.011	183.05	0.12	0.00	0.34	-0.34	0.00	0.00	0.00	
83.002	183.05	0.12	0.00	0.34	-0.34	0.00	0.00	0.00	
84.002	183.05	0.12	0.00	0.34	-0.34	0.00	0.00	0.00	
85.002	183.05	0.12	0.00	0.34	-0.34	0.00	0.00	0.00	
86.002	183.05	0.12	0.00	0.34	-0.34	0.00	0.00	0.00	
87.002	183.05	0.12	0.00	0.34	-0.34	0.00	0.00	0.00	
88.002	183.05	0.12	0.00	0.35	-0.35	0.00	0.00	0.00	
89.002	183.05	0.12	0.00	0.35	-0.35	0.00	0.00	0.00	
90.002	183.05	0.12	0.00	0.35	-0.35	0.00	0.00	0.00	
91.002	183.05	0.12	0.00	0.35	-0.35	0.00	0.00	0.00	
92.002	183.05	0.12	0.00	0.35	-0.35	0.00	0.00	0.00	
93.002	183.05	0.12	0.00	0.35	-0.35	0.00	0.00	0.00	
94.002	183.05	0.12	0.00	0.35	-0.35	0.00	0.00	0.00	
95.002	183.07	0.12	0.00	0.35	-0.29	0.00	0.00	0.00	
96.002	183.13	0.12	0.00	0.00	0.00	0.00	0.00	0.00	
96.011	183.13	0.12	0.00	0.00	0.00	0.00	0.00	0.00	

*** Group: BASE Node: 9

0.000	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
1.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
2.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
3.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
4.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
5.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
6.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
7.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
8.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
9.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
10.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
11.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
12.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
13.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00

25YR96HR STORM EVENT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	!<-----Inflow----->!					Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)	
16.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
17.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
18.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
19.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
20.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
21.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
22.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
23.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
24.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
25.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
26.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
27.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
28.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
29.004	146.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
30.004	146.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
31.004	146.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
32.004	146.00	0.00	0.00	0.01	-0.01	0.00	0.00	0.00
33.004	146.00	0.00	0.00	0.02	-0.02	0.00	0.00	0.00
34.004	146.00	0.22	0.00	0.04	-0.04	0.00	0.00	0.00
35.004	146.00	0.22	0.00	0.05	-0.05	0.00	0.00	0.00
36.004	146.00	0.22	0.00	0.06	-0.06	0.00	0.00	0.00
37.004	146.00	0.22	0.00	0.08	-0.08	0.00	0.00	0.00
38.004	146.00	0.22	0.00	0.09	-0.09	0.00	0.00	0.00
39.004	146.00	0.22	0.00	0.10	-0.10	0.00	0.00	0.00
40.003	146.00	0.22	0.00	0.12	-0.12	0.00	0.00	0.00
41.003	146.00	0.22	0.00	0.13	-0.13	0.00	0.00	0.00
42.003	146.00	0.22	0.00	0.15	-0.15	0.00	0.00	0.00
43.003	146.00	0.22	0.00	0.16	-0.16	0.00	0.00	0.00
44.003	146.00	0.22	0.00	0.17	-0.17	0.00	0.00	0.00
45.003	146.00	0.22	0.00	0.17	-0.17	0.00	0.00	0.00
46.003	146.00	0.22	0.00	0.19	-0.18	0.00	0.00	0.00
47.011	146.00	0.00	0.00	0.20	-0.21	0.00	0.00	0.00
48.004	146.00	0.22	0.00	0.25	-0.25	0.00	0.00	0.00
49.009	146.00	0.22	0.00	0.30	-0.30	0.00	0.00	0.00
50.013	146.00	0.22	0.00	0.34	-0.35	0.00	0.00	0.00
51.008	146.00	0.00	0.00	0.39	-0.40	0.00	0.00	0.00
52.001	146.00	0.22	0.00	0.47	-0.47	0.00	0.00	0.00
53.007	146.00	0.00	0.00	0.54	-0.55	0.00	0.00	0.00
54.007	146.00	0.22	0.00	0.66	-0.66	0.00	0.00	0.00
55.010	146.01	0.22	0.00	0.77	-0.74	0.00	0.00	0.00
56.010	146.07	0.22	0.00	1.07	-0.76	0.00	0.00	0.00
57.000	146.23	0.22	0.00	1.33	-0.78	0.00	0.00	0.00
58.012	146.57	0.24	0.00	2.29	-0.81	0.00	0.00	0.00
59.006	149.21	0.34	0.00	17.90	-1.02	0.00	0.00	0.00
60.005	152.34	0.49	0.00	15.90	-1.46	0.00	0.00	0.00

61.011	153.50	0.55	0.00	1.94	-1.83	0.00	0.00	0.00
62.011	153.59	0.55	0.00	3.02	-1.94	0.00	0.00	0.00

**"PONDS" INFILTRATION ANALYSIS
25 YEAR-96 HOUR STORM**

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north3
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 340.00
Equivalent Pond Width, [W] (ft): 130.00

Base Of Aquifer Elevation, [B] (ft above datum): 232.00
Water Table Elevation, [WT] (ft above datum): 232.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 32.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 16.00
Maximum area for unsaturated infiltration, (sq ft): 42192

Groundwater mound intersects pond bottom?: Yes

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
235.000	17631.0
236.000	20349.0
237.000	23168.0
238.000	26087.0
239.000	29107.0
240.000	32228.0
241.000	35449.0
242.000	38770.0
243.000	42192.0

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	15.72
Time, (hrs):	59.00
Cumulative Inflow Volume, (ft ³):	228883

Stage

Peak Stage, (ft datum):	238.30
Time, (hrs):	61.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	4.9050
Time, (hrs):	62.00
Cumulative Infiltration Volume, (ft ³):	228883

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north4
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 280.00
Equivalent Pond Width, [W] (ft): 190.00

Base Of Aquifer Elevation, [B] (ft above datum): 215.00
Water Table Elevation, [WT] (ft above datum): 215.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 25.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 13.00
Maximum area for unsaturated infiltration, (sq ft): 46135

Groundwater mound intersects pond bottom?: Yes

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
220.000	18228.0
221.000	20566.0
222.000	23005.0
223.000	25544.0
224.000	28184.0
225.000	30925.0
226.000	33766.0
227.000	36707.0
228.000	39749.0
229.000	42892.0
230.000	46135.0

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	29.95
Time, (hrs):	59.00
Cumulative Inflow Volume, (ft ³):	429235

Stage

Peak Stage, (ft datum):	226.64
Time, (hrs):	61.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	5.3390
Time, (hrs):	62.00
Cumulative Infiltration Volume, (ft ³):	415989

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north4b
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 240.00
Equivalent Pond Width, [W] (ft): 130.00

Base Of Aquifer Elevation, [B] (ft above datum): 230.00
Water Table Elevation, [WT] (ft above datum): 230.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 25.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 13.00
Maximum area for unsaturated infiltration, (sq ft): 30988

Groundwater mound intersects pond bottom?: Yes

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
240.000	16386.0
241.000	18568.0
242.000	20851.0
243.000	23234.0
244.000	25718.0
245.000	28303.0
246.000	30988.0

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	7.53
Time, (hrs):	59.00
Cumulative Inflow Volume, (ft ³):	107799

Stage

Peak Stage, (ft datum):	241.43
Time, (hrs):	61.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	2.9145
Time, (hrs):	61.00
Cumulative Infiltration Volume, (ft ³):	107799

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north5
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 580.00
Equivalent Pond Width, [W] (ft): 190.00

Base Of Aquifer Elevation, [B] (ft above datum): 120.00
Water Table Elevation, [WT] (ft above datum): 120.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 27.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 27.00
Maximum area for unsaturated infiltration, (sq ft): 112733

Groundwater mound intersects pond bottom?: Yes

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
125.000	55786.0
126.000	61028.0
127.000	66371.0
128.000	71814.0
129.000	77358.0
130.000	83003.0
131.000	88748.0
132.000	94593.0
133.000	100539.0
134.000	106586.0
135.000	112733.0

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII.. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	54.88
Time, (hrs):	59.00
Cumulative Inflow Volume, (ft ³):	796491

Stage

Peak Stage, (ft datum):	128.04
Time, (hrs):	61.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	22.2019
Time, (hrs):	61.00
Cumulative Infiltration Volume, (ft ³):	796491

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north6
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 390.00
Equivalent Pond Width, [W] (ft): 180.00

Base Of Aquifer Elevation, [B] (ft above datum): 228.00
Water Table Elevation, [WT] (ft above datum): 228.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 34.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 17.00
Maximum area for unsaturated infiltration, (sq ft): 75045

Groundwater mound intersects pond bottom?: Yes

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
233.000	40661.0
234.000	45826.0
235.000	51217.0
236.000	56835.0
237.000	62679.0
238.000	68748.0
239.000	75045.0

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	17.86
Time, (hrs):	59.00
Cumulative Inflow Volume, (ft ³):	258407

Stage

Peak Stage, (ft datum):	233.94
Time, (hrs):	61.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	8.9378
Time, (hrs):	61.00
Cumulative Infiltration Volume, (ft ³):	258407

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north7
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 200.00
Equivalent Pond Width, [W] (ft): 130.00

Base Of Aquifer Elevation, [B] (ft above datum): 178.00
Water Table Elevation, [WT] (ft above datum): 178.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 30.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 15.00
Maximum area for unsaturated infiltration, (sq ft): 22737

Groundwater mound intersects pond bottom?: Yes

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
183.000	5070.0
184.000	6384.0
185.000	7799.0
186.000	9314.0
187.000	10930.0
188.000	12647.0
189.000	14464.0
190.000	16381.0
191.000	18399.0
192.000	20518.0
193.000	22737.0

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	12.02
Time, (hrs):	59.00
Cumulative Inflow Volume, (ft ³):	173178

Stage

Peak Stage, (ft datum):	189.87
Time, (hrs):	61.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	2.7635
Time, (hrs):	62.00
Cumulative Infiltration Volume, (ft ³):	173178

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north9
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 185.00
Equivalent Pond Width, [W] (ft): 175.00

Base Of Aquifer Elevation, [B] (ft above datum): 140.00
Water Table Elevation, [WT] (ft above datum): 140.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 14.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 7.00
Maximum area for unsaturated infiltration, (sq ft): 27394

Groundwater mound intersects pond bottom?: Yes

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
146.000	9390.0
147.000	10988.0
148.000	12687.0
149.000	14486.0
150.000	16386.0
151.000	18387.0
152.000	20488.0
153.000	22689.0
154.000	24991.0
155.000	27394.0

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	17.91
Time, (hrs):	59.00
Cumulative Inflow Volume, (ft ³):	256423

Stage

Peak Stage, (ft datum):	153.66
Time, (hrs):	63.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	1.9578
Time, (hrs):	64.00
Cumulative Infiltration Volume, (ft ³):	234875

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north11
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 260.00
Equivalent Pond Width, [W] (ft): 145.00

Base Of Aquifer Elevation, [B] (ft above datum): 172.00
Water Table Elevation, [WT] (ft above datum): 172.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 37.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 18.00
Maximum area for unsaturated infiltration, (sq ft): 42520

Groundwater mound intersects pond bottom?: Yes

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Gasper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
176.000	14733.0
177.000	17059.0
178.000	19486.0
179.000	22013.0
180.000	24641.0
181.000	27370.0
182.000	30199.0
183.000	33128.0
184.000	36158.0
185.000	39289.0
186.000	42520.0

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Gasper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	24.81
Time, (hrs):	59.00
Cumulative Inflow Volume, (ft ³):	358147

Stage

Peak Stage, (ft datum):	182.04
Time, (hrs):	61.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	6.2287
Time, (hrs):	62.00
Cumulative Infiltration Volume, (ft ³):	345972

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north13
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 220.00
Equivalent Pond Width, [W] (ft): 130.00

Base Of Aquifer Elevation, [B] (ft above datum): 155.00
Water Table Elevation, [WT] (ft above datum): 155.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 28.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 14.00
Maximum area for unsaturated infiltration, (sq ft): 27143

Groundwater mound intersects pond bottom?: Yes

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
158.000	9878.0
159.000	44684.0
160.000	13591.0
161.000	15598.0
162.000	17706.0
163.000	19915.0
164.000	22224.0
165.000	24633.0
166.000	27143.0

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	10.95
Time, (hrs):	59.00
Cumulative Inflow Volume, (ft ³):	156793

Stage

Peak Stage, (ft datum):	159.36
Time, (hrs):	61.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	4.3982
Time, (hrs):	60.00
Cumulative Infiltration Volume, (ft ³):	115940

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north14
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 185.00
Equivalent Pond Width, [W] (ft): 145.00

Base Of Aquifer Elevation, [B] (ft above datum): 138.00
Water Table Elevation, [WT] (ft above datum): 138.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 28.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 14.00
Maximum area for unsaturated infiltration, (sq ft): 21450

Groundwater mound intersects pond bottom?: Yes

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
-----	-----
142.000	7703.0
143.000	9365.0
144.000	11128.0
145.000	12991.0
146.000	14955.0
147.000	17020.0
148.000	19185.0
149.000	21450.0

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	8.94
Time, (hrs):	59.00
Cumulative Inflow Volume, (ft ³):	128085

Stage

Peak Stage, (ft datum):	146.05
Time, (hrs):	61.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	2.3907
Time, (hrs):	62.00
Cumulative Infiltration Volume, (ft ³):	128085

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north17
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 175.00
Equivalent Pond Width, [W] (ft): 125.00

Base Of Aquifer Elevation, [B] (ft above datum): 136.00
Water Table Elevation, [WT] (ft above datum): 136.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 22.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 11.00
Maximum area for unsaturated infiltration, (sq ft): 16920

Groundwater mound intersects pond bottom?: Yes

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

<u>Stage</u> <u>(ft datum)</u>	<u>Area</u> <u>(ft²)</u>
140.000	2733.0
141.000	3699.0
142.000	4766.0
143.000	5933.0
144.000	7201.0
145.000	8570.0
146.000	10039.0
147.000	11608.0
148.000	13278.0
149.000	15049.0
150.000	16920.0

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	11.21
Time, (hrs):	59.00
Cumulative Inflow Volume, (ft ³):	163784

Stage

Peak Stage, (ft datum):	149.01
Time, (hrs):	61.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	1.9164
Time, (hrs):	62.00
Cumulative Infiltration Volume, (ft ³):	160759

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north18
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 210.00
Equivalent Pond Width, [W] (ft): 40.00

Base Of Aquifer Elevation, [B] (ft above datum): 155.00
Water Table Elevation, [WT] (ft above datum): 155.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 27.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 14.00
Maximum area for unsaturated infiltration, (sq ft): 9105

Groundwater mound intersects pond bottom?: Yes

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

<u>Stage</u> <u>(ft datum)</u>	<u>Area</u> <u>(ft^2)</u>
157.000	1348.0
158.000	2450.0
159.000	3834.0
160.000	5454.0
161.000	7222.0
162.000	9105.0

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	5.64
Time, (hrs):	59.00
Cumulative Inflow Volume, (ft ³):	80961

Stage

Peak Stage, (ft datum):	162.89
Time, (hrs):	61.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	2.1043
Time, (hrs):	64.00
Cumulative Infiltration Volume, (ft ³):	70564

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north19
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 440.00
Equivalent Pond Width, [W] (ft): 150.00

Base Of Aquifer Elevation, [B] (ft above datum): 75.00
Water Table Elevation, [WT] (ft above datum): 75.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 35.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 18.00
Maximum area for unsaturated infiltration, (sq ft): 75817

Groundwater mound intersects pond bottom?: Yes

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

<u>Stage</u> <u>(ft datum)</u>	<u>Area</u> <u>(ft²)</u>
80.000	19680.0
81.000	23030.0
82.000	26481.0
83.000	30032.0
84.000	33684.0
85.000	37436.0
86.000	41289.0
87.000	45242.0
88.000	53675.0
89.000	64712.0
90.000	75817.0

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	56.05
Time, (hrs):	59.00
Cumulative Inflow Volume, (ft ³):	811122

Stage

Peak Stage, (ft datum):	89.01
Time, (hrs):	61.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	13.1856
Time, (hrs):	62.00
Cumulative Infiltration Volume, (ft ³):	787260

**"PONDS" RECOVERY ANALYSIS
TREATMENT VOLUME**

Since every basin consists of less than 40 percent impervious, the following calculations for all basins are based on formula:

Per 40C-42 FAC

$$V_T = 1/2" (\text{area}) + 1/2 (\text{area} - \text{for volume treatment}) = 1" (\text{area})$$

$$V_T \text{ Pond 3} = 1" \times (565,848 \text{ Sq. Ft.}) = 47,154 \text{ Cu. Ft}$$

$$V_T \text{ Pond 4} = 1" \times (854,208 \text{ Sq. Ft.}) = 71,184 \text{ Cu. Ft}$$

$$V_T \text{ Pond 4B} = 1" \times (204,732 \text{ Sq. Ft.}) = 17,061 \text{ Cu. Ft}$$

$$V_T \text{ Pond 5} = 1" \times (1,910,544 \text{ Sq. Ft.}) = 159,212 \text{ Cu. Ft}$$

$$V_T \text{ Pond 6} = 1" \times (602,004 \text{ Sq. Ft.}) = 50,157 \text{ Cu. Ft}$$

$$V_T \text{ Pond 7} = 1" \times (381,588 \text{ Sq. Ft.}) = 31,799 \text{ Cu. Ft}$$

$$V_T \text{ Pond 9} = 1" \times (486,996 \text{ Sq. Ft.}) = 40,583 \text{ Cu. Ft}$$

$$V_T \text{ Pond 11} = 1" \times (811,092 \text{ Sq. Ft.}) = 67,591 \text{ Cu. Ft}$$

$$V_T \text{ Pond 13} = 1" \times (284,880 \text{ Sq. Ft.}) = 23,740 \text{ Cu. Ft}$$

$$V_T \text{ Pond 14} = 1" \times (227,820 \text{ Sq. Ft.}) = 18,985 \text{ Cu. Ft}$$

$$V_T \text{ Pond 17} = 1" \times (417,744 \text{ Sq. Ft.}) = 34,812 \text{ Cu. Ft}$$

$$V_T \text{ Pond 18} = 1" \times (165,096 \text{ Sq. Ft.}) = 13,758 \text{ Cu. Ft}$$

$$V_T \text{ Pond 19} = 1" \times (1,889,628 \text{ Sq. Ft.}) = 157,469 \text{ Cu. Ft}$$

PONDS - Version 2.26
Copyright 1993

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north3
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	340.00
Equivalent Pond Width, [W] (ft):	130.00
Pond Bottom Elevation, [PB] (ft above datum):	235.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	227.00
Water Table Elevation, [WT] (ft above datum):	227.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	32.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	16.00
Runoff Volume, [V] (cubic feet)	47154.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.0667
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	47154.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.0667
Total Recovered Volume, [V] (ft ³):	47154.00

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Gasper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north4
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	280.00
Equivalent Pond Width, [W] (ft):	190.00
Pond Bottom Elevation, [PB] (ft above datum):	220.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	210.00
Water Table Elevation, [WT] (ft above datum):	210.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	25.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	12.00
Runoff Volume, [V] (cubic feet)	71184.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.1115
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	71184.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.1115
Total Recovered Volume, [V] (ft ³):	71184.00

PONDS - Version 2.26
Copyright 1993

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north4b
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	240.00
Equivalent Pond Width, [W] (ft):	130.00
Pond Bottom Elevation, [PB] (ft above datum):	240.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	230.00
Water Table Elevation, [WT] (ft above datum):	230.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	25.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	12.00
Runoff Volume, [V] (cubic feet)	17061.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.0456
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	17061.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.0456
Total Recovered Volume, [V] (ft ³):	17061.00

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north5
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	580.00
Equivalent Pond Width, [W] (ft):	190.00
Pond Bottom Elevation, [PB] (ft above datum):	125.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	115.00
Water Table Elevation, [WT] (ft above datum):	115.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	27.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.00
Runoff Volume, [V] (cubic feet)	159212.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.1111
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	159212.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.1111
Total Recovered Volume, [V] (ft ³):	159212.00

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north6
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	390.00
Equivalent Pond Width, [W] (ft):	180.00
Pond Bottom Elevation, [PB] (ft above datum):	233.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	228.00
Water Table Elevation, [WT] (ft above datum):	228.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	34.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	17.00
Runoff Volume, [V] (cubic feet)	50167.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.0420
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	50167.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.0420
Total Recovered Volume, [V] (ft ³):	50167.00

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north7
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	200.00
Equivalent Pond Width, [W] (ft):	130.00
Pond Bottom Elevation, [PB] (ft above datum):	183.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	178.00
Water Table Elevation, [WT] (ft above datum):	178.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	30.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	15.00
Runoff Volume, [V] (cubic feet)	31799.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.0815
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	31799.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.0815
Total Recovered Volume, [V] (ft ³):	31799.00

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north9
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	185.00
Equivalent Pond Width, [W] (ft):	175.00
Pond Bottom Elevation, [PB] (ft above datum):	146.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	135.00
Water Table Elevation, [WT] (ft above datum):	135.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	14.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	7.00
Runoff Volume, [V] (cubic feet)	40583.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.1791
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	40583.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.1791
Total Recovered Volume, [V] (ft ³):	40583.00

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north11
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	260.00
Equivalent Pond Width, [W] (ft):	145.00
Pond Bottom Elevation, [PB] (ft above datum):	176.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	167.00
Water Table Elevation, [WT] (ft above datum):	167.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	37.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	18.00
Runoff Volume, [V] (cubic feet)	67591.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.0996
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	67591.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.0996
Total Recovered Volume, [V] (ft ³):	67591.00

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north13
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	220.00
Equivalent Pond Width, [W] (ft):	130.00
Pond Bottom Elevation, [PB] (ft above datum):	158.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	150.00
Water Table Elevation, [WT] (ft above datum):	150.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	28.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	14.00
Runoff Volume, [V] (cubic feet)	23740.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.0593
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	23740.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.0593
Total Recovered Volume, [V] (ft ³):	23740.00

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north14
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	185.00
Equivalent Pond Width, [W] (ft):	145.00
Pond Bottom Elevation, [PB] (ft above datum):	142.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	133.00
Water Table Elevation, [WT] (ft above datum):	133.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	28.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	14.00
Runoff Volume, [V] (cubic feet)	18985.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.0506
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	18985.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.0506
Total Recovered Volume, [V] (ft ³):	18985.00

PONDS - Version 2.26
Copyright 1993

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north17
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	175.00
Equivalent Pond Width, [W] (ft):	125.00
Pond Bottom Elevation, [PB] (ft above datum):	140.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	131.00
Water Table Elevation, [WT] (ft above datum):	131.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	22.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	11.00
Runoff Volume, [V] (cubic feet)	34812.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.1447
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	34812.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.1447
Total Recovered Volume, [V] (ft ³):	34812.00

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north18
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	210.00
Equivalent Pond Width, [W] (ft):	40.00
Pond Bottom Elevation, [PB] (ft above datum):	157.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	152.00
Water Table Elevation, [WT] (ft above datum):	152.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	27.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.00
Runoff Volume, [V] (cubic feet)	13758.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.1131
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	12347.99

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0078
Recovered Volume From Saturated Flow, [V2] (ft ³):	1410.01
Maximum Radius Of Influence, [R] (ft):	3.78
Maximum Driving Head, [Hmax] (ft):	5.068
Minimum Driving Head, [Hmin] (ft):	4.900

TOTAL

Total Recovery Time, [T] (days):	0.1209
Total Recovered Volume, [V] (ft ³):	13758.00

PONDS - Version 2.26
Copyright 1993

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north19
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	440.00
Equivalent Pond Width, [W] (ft):	150.00
Pond Bottom Elevation, [PB] (ft above datum):	80.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	70.00
Water Table Elevation, [WT] (ft above datum):	70.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	35.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	17.00
Runoff Volume, [V] (cubic feet)	157469.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.1403
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	157469.00

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0000
Recovered Volume From Saturated Flow, [V2] (ft ³):	0.00
Maximum Radius Of Influence, [R] (ft):	0.00
Maximum Driving Head, [Hmax] (ft):	0.000
Minimum Driving Head, [Hmin] (ft):	0.000

TOTAL

Total Recovery Time, [T] (days):	0.1403
Total Recovered Volume, [V] (ft ³):	157469.00

**"PONDS" RECOVERY ANALYSIS
TOTAL RUNOFF VOLUME**

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north2
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft): 580.00
Equivalent Pond Width, [W] (ft): 200.00

Base Of Aquifer Elevation, [B] (ft above datum): 247.80
Water Table Elevation, [WT] (ft above datum): 247.90
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 28.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 14.00
Maximum area for unsaturated infiltration, (sq ft): 106823

Groundwater mound intersects pond bottom?: Yes

THESE ARE CALCULATIONS FOR
SECOND 254R96HR STORM EVENT
BEGINNING STAGE 298.0 (TOP OF LINER)

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
248.000	95673.0
249.000	101198.0
250.000	106823.0

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

V. Input Data - Inflow Hydrograph

Time (hrs)	Inflow Rate (cfs)	Outside Recharge (ft/day)
0.0000	0.00000	0.00000
1.0000	0.00000	0.00000
2.0000	0.00000	0.00000
3.0000	0.00000	0.00000
4.0000	0.00000	0.00000
5.0000	0.00000	0.00000
6.0000	0.00000	0.00000
7.0000	0.00000	0.00000
8.0000	0.00000	0.00000
9.0000	0.00000	0.00000
10.0000	0.00000	0.00000
11.0000	0.00000	0.00000
12.0000	0.00000	0.00000
13.0000	0.00000	0.00000
14.0000	0.00000	0.00000
15.0000	0.00000	0.00000
16.0000	0.00000	0.00000
17.0000	0.00000	0.00000
18.0000	0.00000	0.00000
19.0000	0.00000	0.00000
20.0000	0.00000	0.00000
21.0000	0.00000	0.00000
22.0000	0.00000	0.00000
23.0000	0.00000	0.00000
24.0000	0.00000	0.00000
25.0000	0.00000	0.00000
26.0000	0.00000	0.00000
27.0000	0.00000	0.00000
28.0000	0.00000	0.00000
29.0000	0.00000	0.00000
30.0000	0.00000	0.00000
31.0000	0.00000	0.00000
32.0000	0.00000	0.00000
33.0000	0.00000	0.00000
34.0000	0.00000	0.00000
35.0000	0.00000	0.00000
36.0000	0.00000	0.00000
37.0000	0.00000	0.00000
38.0000	0.00000	0.00000
39.0000	0.00000	0.00000

Written By Devo Seereeram, Ph.D., P.E.
 And Robert D. Casper

Licensed Solely For Use By:
 Farner, Barley & Associates, Inc.

V. Input Data - Inflow Hydrograph

Time (hrs)	Inflow Rate (cfs)	Outside Recharge (ft/day)
40.0000	0.00000	0.00000
41.0000	0.00000	0.00000
42.0000	0.00000	0.00000
43.0000	0.00000	0.00000
44.0000	0.00000	0.00000
45.0000	0.00000	0.00000
46.0000	0.00000	0.00000
47.0000	0.00143	0.00000
48.0000	0.00984	0.00000
49.0000	0.02247	0.00000
50.0000	0.03894	0.00000
51.0000	0.05651	0.00000
52.0000	0.08440	0.00000
53.0000	0.11347	0.00000
54.0000	0.15873	0.00000
55.0000	0.20560	0.00000
56.0000	0.32422	0.00000
57.0000	0.44238	0.00000
58.0000	0.78189	0.00000
59.0000	8.91343	0.00000
60.0000	8.47619	0.00000
61.0000	1.42829	0.00000
62.0000	1.73105	0.00000
63.0000	1.15351	0.00000
64.0000	1.02206	0.00000
65.0000	0.73140	0.00000
66.0000	0.83680	0.00000
67.0000	0.81048	0.00000
68.0000	0.64369	0.00000
69.0000	0.52164	0.00000
70.0000	0.56582	0.00000
71.0000	0.55454	0.00000
72.0000	0.38205	0.00000
73.0000	0.26187	0.00000
74.0000	0.30294	0.00000
75.0000	0.29025	0.00000
76.0000	0.29708	0.00000
77.0000	0.29740	0.00000
78.0000	0.29829	0.00000
79.0000	0.29898	0.00000

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

V. Input Data - Inflow Hydrograph

Time (hrs)	Inflow Rate (cfs)	Outside Recharge (ft/day)
80.0000	0.29811	0.00000
81.0000	0.29775	0.00000
82.0000	0.29882	0.00000
83.0000	0.29940	0.00000
84.0000	0.30015	0.00000
85.0000	0.30083	0.00000
86.0000	0.30152	0.00000
87.0000	0.30220	0.00000
88.0000	0.30453	0.00000
89.0000	0.30631	0.00000
90.0000	0.30663	0.00000
91.0000	0.30743	0.00000
92.0000	0.30639	0.00000
93.0000	0.30595	0.00000
94.0000	0.30697	0.00000
95.0000	0.30749	0.00000
96.0000	0.10262	0.00000

Written By Devo Seereeram, Ph.D., P.E.
 And Robert D. Casper

Licensed Solely For Use By:
 Farner, Barley & Associates, Inc.

VII. Results - Summary

Elapsed Time (hrs)	Inflow Rate (cfs)	Stage Elevation (ft datum)	Infiltration Rate (cfs)	Overflow Discharge Rate (cfs)	Flow Type
0.00	0.00000	247.90	0.000000	0.000000	N.A.
1.00	0.00000	247.90	0.000000	0.000000	U
2.00	0.00000	247.90	0.000000	0.000000	U
3.00	0.00000	247.90	0.000000	0.000000	U
4.00	0.00000	247.90	0.000000	0.000000	U
5.00	0.00000	247.90	0.000000	0.000000	U
6.00	0.00000	247.90	0.000000	0.000000	U
7.00	0.00000	247.90	0.000000	0.000000	U
8.00	0.00000	247.90	0.000000	0.000000	U
9.00	0.00000	247.90	0.000000	0.000000	U
10.00	0.00000	247.90	0.000000	0.000000	U
11.00	0.00000	247.90	0.000000	0.000000	U
12.00	0.00000	247.90	0.000000	0.000000	U
13.00	0.00000	247.90	0.000000	0.000000	U
14.00	0.00000	247.90	0.000000	0.000000	U
15.00	0.00000	247.90	0.000000	0.000000	U
16.00	0.00000	247.90	0.000000	0.000000	U
17.00	0.00000	247.90	0.000000	0.000000	U
18.00	0.00000	247.90	0.000000	0.000000	U
19.00	0.00000	247.90	0.000000	0.000000	U
20.00	0.00000	247.90	0.000000	0.000000	U
21.00	0.00000	247.90	0.000000	0.000000	U
22.00	0.00000	247.90	0.000000	0.000000	U
23.00	0.00000	247.90	0.000000	0.000000	U
24.00	0.00000	247.90	0.000000	0.000000	U
25.00	0.00000	247.90	0.000000	0.000000	U
26.00	0.00000	247.90	0.000000	0.000000	U
27.00	0.00000	247.90	0.000000	0.000000	U
28.00	0.00000	247.90	0.000000	0.000000	U
29.00	0.00000	247.90	0.000000	0.000000	U
30.00	0.00000	247.90	0.000000	0.000000	U
31.00	0.00000	247.90	0.000000	0.000000	U
32.00	0.00000	247.90	0.000000	0.000000	U

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VII. Results - Summary

Elapsed Time (hrs)	Inflow Rate (cfs)	Stage Elevation (ft datum)	Infiltration Rate (cfs)	Overflow Discharge Rate (cfs)	Flow Type
33.00	0.00000	247.90	0.000000	0.000000	U
34.00	0.00000	247.90	0.000000	0.000000	U
35.00	0.00000	247.90	0.000000	0.000000	U
36.00	0.00000	247.90	0.000000	0.000000	U
37.00	0.00000	247.90	0.000000	0.000000	U
38.00	0.00000	247.90	0.000000	0.000000	U
39.00	0.00000	247.90	0.000000	0.000000	U
40.00	0.00000	247.90	0.000000	0.000000	U
41.00	0.00000	247.90	0.000000	0.000000	U
42.00	0.00000	247.90	0.000000	0.000000	U
43.00	0.00000	247.90	0.000000	0.000000	U
44.00	0.00000	247.90	0.000000	0.000000	U
45.00	0.00000	247.90	0.000000	0.000000	U
46.00	0.00000	247.90	0.000357	0.000000	U
47.00	0.00143	247.90	0.003175	0.000000	U
48.00	0.00984	247.90	0.010895	0.000000	U
49.00	0.02247	247.90	0.023430	0.000000	U
50.00	0.03894	247.90	0.039215	0.000000	U
51.00	0.05651	247.90	0.059090	0.000000	U
52.00	0.08440	247.91	0.084695	0.000000	U
53.00	0.11347	247.91	0.117518	0.000000	U
54.00	0.15873	247.91	0.159132	0.000000	U
55.00	0.20560	247.92	0.223538	0.000000	U
56.00	0.32422	247.93	0.324105	0.000000	U
57.00	0.44238	247.94	0.497717	0.000000	U
58.00	0.78189	247.96	2.423123	0.000000	U
59.00	8.91343	248.02	2.130887	0.000000	U/S
60.00	8.47619	248.35	0.038877	0.000000	S
61.00	1.42829	248.53	0.058491	0.000000	S
62.00	1.73105	248.58	0.074047	0.000000	S
63.00	1.15351	248.63	0.085966	0.000000	S
64.00	1.02206	248.67	0.091985	0.000000	S
65.00	0.73140	248.69	0.092777	0.000000	S

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VII. Results - Summary

Elapsed Time (hrs)	Inflow Rate (cfs)	Stage Elevation (ft datum)	Infiltration Rate (cfs)	Overflow Discharge Rate (cfs)	Flow Type
66.00	0.83680	248.72	0.091300	0.000000	S
67.00	0.81048	248.75	0.088909	0.000000	S
68.00	0.64369	248.77	0.085726	0.000000	S
69.00	0.52164	248.79	0.082666	0.000000	S
70.00	0.56582	248.80	0.080713	0.000000	S
71.00	0.55454	248.82	0.078697	0.000000	S
72.00	0.38205	248.84	0.076153	0.000000	S
73.00	0.26187	248.84	0.073600	0.000000	S
74.00	0.30294	248.85	0.071235	0.000000	S
75.00	0.29025	248.86	0.069323	0.000000	S
76.00	0.29708	248.87	0.067841	0.000000	S
77.00	0.29740	248.88	0.066633	0.000000	S
78.00	0.29829	248.88	0.065521	0.000000	S
79.00	0.29898	248.89	0.064910	0.000000	S
80.00	0.29811	248.90	0.064236	0.000000	S
81.00	0.29775	248.91	0.063573	0.000000	S
82.00	0.29882	248.92	0.063200	0.000000	S
83.00	0.29940	248.93	0.062769	0.000000	S
84.00	0.30015	248.93	0.062494	0.000000	S
85.00	0.30083	248.94	0.062227	0.000000	S
86.00	0.30152	248.95	0.062159	0.000000	S
87.00	0.30220	248.96	0.061859	0.000000	S
88.00	0.30453	248.97	0.061598	0.000000	S
89.00	0.30631	248.98	0.061752	0.000000	S
90.00	0.30663	248.99	0.061798	0.000000	S
91.00	0.30743	249.00	0.061685	0.000000	S
92.00	0.30639	249.00	0.061781	0.000000	S
93.00	0.30595	249.01	0.061868	0.000000	S
94.00	0.30697	249.02	0.061851	0.000000	S
95.00	0.30749	249.03	0.061317	0.000000	S
96.00	0.10262	249.04	-----	-----	N.A.

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	8.91
Time, (hrs):	59.00
Cumulative Inflow Volume, (ft ³):	133054

Stage

Peak Stage, (ft datum):	249.04
Time, (hrs):	96.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	2.4231
Time, (hrs):	58.00
Cumulative Infiltration Volume, (ft ³):	31063

PONDS - Version 2.26
Copyright 1993

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north3
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	340.00
Equivalent Pond Width, [W] (ft):	130.00
Pond Bottom Elevation, [PB] (ft above datum):	235.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	227.00
Water Table Elevation, [WT] (ft above datum):	227.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	32.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	16.00
Runoff Volume, [V] (cubic feet)	229079.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.1481
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	104753.92

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	2.3611
Recovered Volume From Saturated Flow, [V2] (ft ³):	124325.08
Maximum Radius Of Influence, [R] (ft):	92.53
Maximum Driving Head, [Hmax] (ft):	10.713
Minimum Driving Head, [Hmin] (ft):	7.900

TOTAL

Total Recovery Time, [T] (days):	2.5092
Total Recovered Volume, [V] (ft ³):	229079.00

PONDS - Version 2.26
Copyright 1993

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north4
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	280.00
Equivalent Pond Width, [W] (ft):	190.00
Pond Bottom Elevation, [PB] (ft above datum):	220.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	210.00
Water Table Elevation, [WT] (ft above datum):	210.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	25.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	12.00
Runoff Volume, [V] (cubic feet)	429560.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2475
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	158003.91

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	6.1171
Recovered Volume From Saturated Flow, [V2] (ft ³):	271556.09
Maximum Radius Of Influence, [R] (ft):	146.63
Maximum Driving Head, [Hmax] (ft):	15.004
Minimum Driving Head, [Hmin] (ft):	9.900

TOTAL

Total Recovery Time, [T] (days):	6.3646
Total Recovered Volume, [V] (ft ³):	429560.00

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north4b
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	240.00
Equivalent Pond Width, [W] (ft):	130.00
Pond Bottom Elevation, [PB] (ft above datum):	240.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	230.00
Water Table Elevation, [WT] (ft above datum):	230.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	25.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	12.00
Runoff Volume, [V] (cubic feet)	107878.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2475
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	92663.95

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.0535
Recovered Volume From Saturated Flow, [V2] (ft ³):	15214.05
Maximum Radius Of Influence, [R] (ft):	13.34
Maximum Driving Head, [Hmax] (ft):	10.388
Minimum Driving Head, [Hmin] (ft):	9.900

TOTAL

Total Recovery Time, [T] (days):	0.3010
Total Recovered Volume, [V] (ft ³):	107878.00

PONDS - Version 2.26
Copyright 1993

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north5
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	580.00
Equivalent Pond Width, [W] (ft):	190.00
Pond Bottom Elevation, [PB] (ft above datum):	125.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	115.00
Water Table Elevation, [WT] (ft above datum):	115.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	27.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.00
Runoff Volume, [V] (cubic feet)	797159.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2285
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	327294.06

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	7.0964
Recovered Volume From Saturated Flow, [V2] (ft ³):	469864.94
Maximum Radius Of Influence, [R] (ft):	167.36
Maximum Driving Head, [Hmax] (ft):	14.164
Minimum Driving Head, [Hmin] (ft):	9.900

TOTAL

Total Recovery Time, [T] (days):	7.3249
Total Recovered Volume, [V] (ft ³):	797159.00

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north6
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	390.00
Equivalent Pond Width, [W] (ft):	180.00
Pond Bottom Elevation, [PB] (ft above datum):	233.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	228.00
Water Table Elevation, [WT] (ft above datum):	228.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	34.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	17.00
Runoff Volume, [V] (cubic feet)	258621.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.0865
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	103193.88

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	8.8427
Recovered Volume From Saturated Flow, [V2] (ft ³):	155427.13
Maximum Radius Of Influence, [R] (ft):	146.22
Maximum Driving Head, [Hmax] (ft):	7.114
Minimum Driving Head, [Hmin] (ft):	4.900

TOTAL

Total Recovery Time, [T] (days):	8.9291
Total Recovered Volume, [V] (ft ³):	258621.00

PONDS - Version 2.26
Copyright 1993

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north7
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	200.00
Equivalent Pond Width, [W] (ft):	130.00
Pond Bottom Elevation, [PB] (ft above datum):	183.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	178.00
Water Table Elevation, [WT] (ft above datum):	178.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	30.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	15.00
Runoff Volume, [V] (cubic feet)	173317.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.0980
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	38219.95

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	13.5246
Recovered Volume From Saturated Flow, [V2] (ft ³):	135097.05
Maximum Radius Of Influence, [R] (ft):	177.98
Maximum Driving Head, [Hmax] (ft):	10.096
Minimum Driving Head, [Hmin] (ft):	4.900

TOTAL

Total Recovery Time, [T] (days):	13.6226
Total Recovered Volume, [V] (ft ³):	173317.00

PONDS - Version 2.26
Copyright 1993

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north9
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	185.00
Equivalent Pond Width, [W] (ft):	175.00
Pond Bottom Elevation, [PB] (ft above datum):	146.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	135.00
Water Table Elevation, [WT] (ft above datum):	135.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	14.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	7.00
Runoff Volume, [V] (cubic feet)	256613.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.4671
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	105866.20

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	4.6700
Recovered Volume From Saturated Flow, [V2] (ft ³):	150746.81
Maximum Radius Of Influence, [R] (ft):	99.35
Maximum Driving Head, [Hmax] (ft):	15.556
Minimum Driving Head, [Hmin] (ft):	10.900

TOTAL

Total Recovery Time, [T] (days):	5.1372
Total Recovered Volume, [V] (ft ³):	256613.00

PONDS - Version 2.26
Copyright 1993

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north11
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	260.00
Equivalent Pond Width, [W] (ft):	145.00
Pond Bottom Elevation, [PB] (ft above datum):	176.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	167.00
Water Table Elevation, [WT] (ft above datum):	167.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	37.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	18.00
Runoff Volume, [V] (cubic feet)	358439.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.1483
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	100658.94

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	5.5761
Recovered Volume From Saturated Flow, [V2] (ft ³):	257780.06
Maximum Radius Of Influence, [R] (ft):	166.61
Maximum Driving Head, [Hmax] (ft):	15.738
Minimum Driving Head, [Hmin] (ft):	8.900

TOTAL

Total Recovery Time, [T] (days):	5.7244
Total Recovered Volume, [V] (ft ³):	358439.00

PONDS - Version 2.26
Copyright 1993

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north13
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	220.00
Equivalent Pond Width, [W] (ft):	130.00
Pond Bottom Elevation, [PB] (ft above datum):	158.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	150.00
Water Table Elevation, [WT] (ft above datum):	150.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	28.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	14.00
Runoff Volume, [V] (cubic feet)	156906.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.1693
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	67781.95

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	2.3597
Recovered Volume From Saturated Flow, [V2] (ft ³):	89124.05
Maximum Radius Of Influence, [R] (ft):	85.55
Maximum Driving Head, [Hmax] (ft):	11.016
Minimum Driving Head, [Hmin] (ft):	7.900

TOTAL

Total Recovery Time, [T] (days):	2.5290
Total Recovered Volume, [V] (ft ³):	156906.00

PONDS - Version 2.26
Copyright 1993

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north14
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	185.00
Equivalent Pond Width, [W] (ft):	145.00
Pond Bottom Elevation, [PB] (ft above datum):	142.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	133.00
Water Table Elevation, [WT] (ft above datum):	133.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	28.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	14.00
Runoff Volume, [V] (cubic feet)	128176.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.1907
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	71622.70

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	0.8870
Recovered Volume From Saturated Flow, [V2] (ft ³):	56553.30
Maximum Radius Of Influence, [R] (ft):	54.69
Maximum Driving Head, [Hmax] (ft):	11.008
Minimum Driving Head, [Hmin] (ft):	8.900

TOTAL

Total Recovery Time, [T] (days):	1.0777
Total Recovered Volume, [V] (ft ³):	128176.00

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Gasper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north17
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	175.00
Equivalent Pond Width, [W] (ft):	125.00
Pond Bottom Elevation, [PB] (ft above datum):	140.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	131.00
Water Table Elevation, [WT] (ft above datum):	131.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	22.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	11.00
Runoff Volume, [V] (cubic feet)	163925.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.2427
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	58406.21

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	3.4501
Recovered Volume From Saturated Flow, [V2] (ft ³):	105518.79
Maximum Radius Of Influence, [R] (ft):	98.12
Maximum Driving Head, [Hmax] (ft):	13.724
Minimum Driving Head, [Hmin] (ft):	8.900

TOTAL

Total Recovery Time, [T] (days):	3.6928
Total Recovered Volume, [V] (ft ³):	163925.00

PONDS - Version 2.26
Copyright 1993

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north18
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	210.00
Equivalent Pond Width, [W] (ft):	40.00
Pond Bottom Elevation, [PB] (ft above datum):	157.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	152.00
Water Table Elevation, [WT] (ft above datum):	152.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	27.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	13.00
Runoff Volume, [V] (cubic feet)	81023.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.1131
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	12347.99

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	5.3628
Recovered Volume From Saturated Flow, [V2] (ft ³):	68675.02
Maximum Radius Of Influence, [R] (ft):	123.25
Maximum Driving Head, [Hmax] (ft):	13.076
Minimum Driving Head, [Hmin] (ft):	4.900

TOTAL

Total Recovery Time, [T] (days):	5.4759
Total Recovered Volume, [V] (ft ³):	81023.00

PONDS - Version 2.26
Copyright 1993

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis

I. Job Information

Job Name: north19
Engineer: kk
Date: 7/23/99

II. Input Data

Equivalent Pond Length, [L] (ft):	440.00
Equivalent Pond Width, [W] (ft):	150.00
Pond Bottom Elevation, [PB] (ft above datum):	80.00
Porosity Of Material Within Pond, [p] (%):	100.00
Base Of Aquifer Elevation, [B] (ft above datum):	70.00
Water Table Elevation, [WT] (ft above datum):	70.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day)	35.00
Fillable Porosity of Aquifer, [n] (%):	30.00
Vertical Unsaturated Infiltration, [Iv] (ft/day):	17.00
Runoff Volume, [V] (cubic feet)	811792.00
Percent Recovery Of Runoff Volume, [PV] (%)	100.00

III. Results

UNSATURATED FLOW

Recovery Time From Unsaturated Flow, [T1] (days):	0.1747
Recovered Volume From Unsaturated Flow, [V1] (ft ³):	196020.03

SATURATED FLOW

Recovery Time From Saturated Flow, [T2] (days):	10.4721
Recovered Volume From Saturated Flow, [V2] (ft ³):	615772.00
Maximum Radius Of Influence, [R] (ft):	244.93
Maximum Driving Head, [Hmax] (ft):	19.230
Minimum Driving Head, [Hmin] (ft):	9.900

TOTAL

Total Recovery Time, [T] (days):	10.6468
Total Recovered Volume, [V] (ft ³):	811792.00

**CITY OF CLERMONT AND
FDOT (CRITICAL EVENT AND DURATION)
50 YEAR-24 HOUR STORM EVENT
HYDROLOGY AND ROUTING ANALYSIS**

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Node-----

Name: 11 Base Flow(cfs): 0 Init Stage(ft): 176
Group: BASE Length(ft): 0 Warn Stage(ft): 186
Comment:

Stage(ft)	Area(ac)
176	0.34
177	0.39
178	0.44
179	0.51
180	0.56
181	0.63
182	0.69
183	0.76
184	0.83
185	0.9
186	0.98

-----Class: Node-----

Name: 13 Base Flow(cfs): 0 Init Stage(ft): 158
Group: BASE Length(ft): 0 Warn Stage(ft): 166
Comment:

Stage(ft)	Area(ac)
158	0.23
159	0.27
160	0.31
161	0.36
162	0.41
163	0.46
164	0.51
165	0.56
166	0.66

-----Class: Node-----

Name: 14 Base Flow(cfs): 0 Init Stage(ft): 142
Group: BASE Length(ft): 0 Warn Stage(ft): 149
Comment:

Stage(ft)	Area(ac)
142	0.18
143	0.22
144	0.26
145	0.3
146	0.34
147	0.39
148	0.44
149	0.49

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Node-----

Name: 17 Base Flow(cfs): 0 Init Stage(ft): 140
Group: BASE Length(ft): 0 Warn Stage(ft): 150
Comment:

Stage(ft)	Area(ac)
140	0.06
141	0.08
142	0.11
143	0.14
144	0.17
145	0.2
146	0.23
147	0.27
148	0.3
149	0.35
150	0.39

-----Class: Node-----

Name: 18 Base Flow(cfs): 0 Init Stage(ft): 157
Group: BASE Length(ft): 0 Warn Stage(ft): 162
Comment:

Stage(ft)	Area(ac)
157	0.031
158	0.056
159	0.088
160	0.125
161	0.166
162	0.209

-----Class: Node-----

Name: 19 Base Flow(cfs): 0 Init Stage(ft): 80
Group: BASE Length(ft): 0 Warn Stage(ft): 90
Comment:

Stage(ft)	Area(ac)
80	0.45
81	0.53
82	0.61
83	0.69
84	0.77
85	0.86
86	0.95
87	1.04
88	1.23
89	1.49
90	1.74

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Node-----

Name: 2 Base Flow(cfs): 0 Init Stage(ft): 245.24
Group: BASE Length(ft): 0 Warn Stage(ft): 250
Comment:

Stage(ft)	Area(ac)
245.24	1.859
246	1.95
247	2.072
248	2.196
249	2.323
250	2.452

-----Class: Node-----

Name: 3 Base Flow(cfs): 0 Init Stage(ft): 235
Group: BASE Length(ft): 0 Warn Stage(ft): 243
Comment:

Stage(ft)	Area(ac)
235	0.405
236	0.467
237	0.532
238	0.599
239	0.668
240	0.74
241	0.814
242	0.89
243	0.969

-----Class: Node-----

Name: 4 Base Flow(cfs): 0 Init Stage(ft): 220
Group: BASE Length(ft): 0 Warn Stage(ft): 230
Comment:

Stage(ft)	Area(ac)
220	0.419
221	0.472
222	0.528
223	0.586
224	0.647
225	0.71
226	0.775
227	0.843
228	0.913
229	0.985
230	1.059

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Node-----

Name: 4B Base Flow(cfs): 0 Init Stage(ft): 240
Group: BASE Length(ft): 0 Warn Stage(ft): 246
Comment:

Stage(ft)	Area(ac)
240	0.376
241	0.426
242	0.479
243	0.533
244	0.59
245	0.65
246	0.711

-----Class: Node-----

Name: 5 Base Flow(cfs): 0 Init Stage(ft): 125
Group: BASE Length(ft): 0 Warn Stage(ft): 135
Comment:

Stage(ft)	Area(ac)
125	1.281
126	1.401
127	1.524
128	1.649
129	1.776
130	1.906
131	2.037
132	2.172
133	2.308
134	2.447
135	2.588

-----Class: Node-----

Name: 6 Base Flow(cfs): 0 Init Stage(ft): 233
Group: BASE Length(ft): 0 Warn Stage(ft): 239
Comment:

Stage(ft)	Area(ac)
233	0.933
234	1.052
235	1.176
236	1.305
237	1.439
238	1.578
239	1.723

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Node-----

Name: 7 Base Flow(cfs): 0 Init Stage(ft): 183
Group: BASE Length(ft): 0 Warn Stage(ft): 193
Comment:

Stage(ft)	Area(ac)
183	0.116
184	0.147
185	0.179
186	0.214
187	0.251
188	0.29
189	0.332
190	0.376
191	0.422
192	0.471
193	0.522

-----Class: Node-----

Name: 9 Base Flow(cfs): 0 Init Stage(ft): 146
Group: BASE Length(ft): 0 Warn Stage(ft): 155
Comment:

Stage(ft)	Area(ac)
146	0.216
147	0.252
148	0.291
149	0.333
150	0.376
151	0.422
152	0.47
153	0.521
154	0.574
155	0.629

-----Class: Node-----

Name: 999 Base Flow(cfs): 0 Init Stage(ft): 87
Group: BASE Length(ft): 0 Warn Stage(ft): 89
Comment:

Time(hrs)	Stage(ft)
0	87
30	87.5
60	88
96	88.6

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Basin-----

Basin: 1 Node: 1 Status: On Site Type: Santa Barbara

Group: BASE

 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 11.88 DCIA(%): 0
 Curve #: 60

-----Class: Basin-----

Basin: 11 Node: 11 Status: On Site Type: Santa Barbara

Group: BASE

 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 18.62 DCIA(%): 0
 Curve #: 56

-----Class: Basin-----

Basin: 12 Node: 12 Status: On Site Type: Santa Barbara

Group: BASE

 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 0.33 DCIA(%): 0
 Curve #: 82

-----Class: Basin-----

Basin: 13 Node: 13 Status: On Site Type: Santa Barbara

Group: BASE

 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 6.54 DCIA(%): 0
 Curve #: 65

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Basin-----

Basin: 14 Node: 14 Status: On Site Type: Santa Barbara

Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
Area(ac): 5.23 DCIA(%): 0
Curve #: 66

-----Class: Basin-----

Basin: 15 Node: 15 Status: On Site Type: Santa Barbara

Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
Area(ac): 1.24 DCIA(%): 0
Curve #: 70

-----Class: Basin-----

Basin: 17 Node: 17 Status: On Site Type: Santa Barbara

Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
Area(ac): 9.59 DCIA(%): 0
Curve #: 52

-----Class: Basin-----

Basin: 18 Node: 18 Status: On Site Type: Santa Barbara

Group: BASE

Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
Area(ac): 3.79 DCIA(%): 0
Curve #: 60

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Basin-----
Basin: 19 Node: 19 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 43.38 DCIA(%): 0
 Curve #: 55

-----Class: Basin-----
Basin: 2 Node: 2 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 8.93 DCIA(%): 0
 Curve #: 48

-----Class: Basin-----
Basin: 3 Node: 3 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 12.99 DCIA(%): 0
 Curve #: 53

-----Class: Basin-----
Basin: 4 Node: 4 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 19.61 DCIA(%): 0
 Curve #: 61

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Basin-----
Basin: 4B Node: 4B Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 4.7 DCIA(%): 0
 Curve #: 63

-----Class: Basin-----
Basin: 5 Node: 5 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 43.86 DCIA(%): 0
 Curve #: 54

-----Class: Basin-----
Basin: 6 Node: 6 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 13.82 DCIA(%): 0
 Curve #: 55

-----Class: Basin-----
Basin: 7 Node: 7 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 8.76 DCIA(%): 0
 Curve #: 57

KINGS RIDGE NORTH

***** Input Report *****

-----Class: Basin-----

Basin: 9 Node: 9 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 11.18 DCIA(%): 0
 Curve #: 63

-----Class: Basin-----

Basin: 999 Node: 999 Status: On Site Type: Santa Barbara
Group: BASE
 Rainfall File: SJRWMD96 Storm Duration(hrs): 96
Rainfall Amount(in): 11.2 Lag Time(hrs): 0
Time Increment(min): 60 Concentration Time(min): 15
 Area(ac): 1 DCIA(%): 0
 Curve #: 1

-----Class: Simulation-----

C:\ICPR2\DATA\KINGSNO
Execution: Hydraulics
Header: 50YR24HR STORM EVENT
 CITY OF CLERMONT

-----HYDRAULICS-----HYDROLOGY-----

Max Delta Z (ft): 1	
Delta Z Factor: 0.05	Override Defaults: Yes
Time Step Optimizer: 10	Storm Dur(hrs): 24
Drop Structure Optimizer: 10	Rain Amount(in): 9.4
Sim Start Time(hrs): 0	Rainfall File: FLMOD
Sim End Time(hrs): 24	
Min Calc Time(sec): 15	
Max Calc Time(sec): 60	
To Hour: PInc(min):	To Hour: PInc(min):
24 60	24 60

-----GROUP SELECTIONS-----

+ BASE [07/23/99]

50YR24HR STORM EVENT
 CITY OF CLERMONT

***** Basin Summary - KINGSNO *****

 Basin Name: 999 2 3 4 4B
 Group Name: BASE BASE BASE BASE BASE
 Node Name: 999 2 3 4 4B
 Hydrograph Type: SB SB SB SB SB

Spec Time Inc (sec): 60.00 60.00 60.00 60.00 60.00
 Comp Time Inc (sec): 60.00 60.00 60.00 60.00 60.00
 Rainfall File: FLMOD FLMOD FLMOD FLMOD FLMOD
 Rainfall Amount (in): 9.40 9.40 9.40 9.40 9.40
 Storm Duration (hr): 24.00 24.00 24.00 24.00 24.00
 Status: ONSITE ONSITE ONSITE ONSITE ONSITE
 Time of Conc. (min): 15.00 15.00 15.00 15.00 15.00
 Lag Time (hr): 0.00 0.00 0.00 0.00 0.00
 Area (acres): 1.00 8.93 12.99 19.61 4.70
 Curve Number: 1.00 48.00 53.00 61.00 63.00
 DCIA (%): 0.00 0.00 0.00 0.00 0.00

Time Max (hrs): 0.00 12.00 12.00 12.00 12.00
 Flow Max (cfs): 0.00 7.54 13.68 26.92 6.81
 Runoff Volume (in): 0.00 2.90 3.53 4.55 4.80
 Runoff Volume (cf): 0 93933 166364 323621 81913

 Basin Name: 5 6 7 9 11
 Group Name: BASE BASE BASE BASE BASE
 Node Name: 5 6 7 9 11
 Hydrograph Type: SB SB SB SB SB

Spec Time Inc (sec): 60.00 60.00 60.00 60.00 60.00
 Comp Time Inc (sec): 60.00 60.00 60.00 60.00 60.00
 Rainfall File: FLMOD FLMOD FLMOD FLMOD FLMOD
 Rainfall Amount (in): 9.40 9.40 9.40 9.40 9.40
 Storm Duration (hr): 24.00 24.00 24.00 24.00 24.00
 Status: ONSITE ONSITE ONSITE ONSITE ONSITE
 Time of Conc. (min): 15.00 15.00 15.00 15.00 15.00
 Lag Time (hr): 0.00 0.00 0.00 0.00 0.00
 Area (acres): 43.86 13.82 8.76 11.18 18.62
 Curve Number: 54.00 55.00 57.00 63.00 56.00
 DCIA (%): 0.00 0.00 0.00 0.00 0.00

Time Max (hrs): 12.00 12.00 12.00 12.00 12.00
 Flow Max (cfs): 47.98 15.68 10.64 16.20 21.88
 Runoff Volume (in): 3.65 3.78 4.04 4.80 3.91
 Runoff Volume (cf): 581918 189731 128355 194848 264225

50YR24HR STORM EVENT
 CITY OF CLERMONT

***** Basin Summary - KINGSNO *****

Group Name:	BASE	BASE	BASE	BASE	BASE
Node Name:	13	14	17	18	19
Hydrograph Type:	SB	SB	SB	SB	SB
Spec Time Inc (sec):	60.00	60.00	60.00	60.00	60.00
Comp Time Inc (sec):	60.00	60.00	60.00	60.00	60.00
Rainfall File:	FLMOD	FLMOD	FLMOD	FLMOD	FLMOD
Rainfall Amount (in):	9.40	9.40	9.40	9.40	9.40
Storm Duration (hr):	24.00	24.00	24.00	24.00	24.00
Status:	ONSITE	ONSITE	ONSITE	ONSITE	ONSITE
Time of Conc. (min):	15.00	15.00	15.00	15.00	15.00
Lag Time (hr):	0.00	0.00	0.00	0.00	0.00
Area (acres):	6.54	5.23	9.59	3.79	43.38
Curve Number:	65.00	66.00	52.00	60.00	55.00
DCIA (%):	0.00	0.00	0.00	0.00	0.00
Time Max (hrs):	12.00	12.00	12.00	12.00	12.00
Flow Max (cfs):	9.97	8.16	9.70	5.05	49.22
Runoff Volume (in):	5.06	5.18	3.40	4.42	3.78
Runoff Volume (cf):	120029	98403	118411	60792	595553

Basin Name:	1	12	15
Group Name:	BASE	BASE	BASE
Node Name:	1	12	15
Hydrograph Type:	SB	SB	SB
Spec Time Inc (sec):	60.00	60.00	60.00
Comp Time Inc (sec):	60.00	60.00	60.00
Rainfall File:	FLMOD	FLMOD	FLMOD
Rainfall Amount (in):	9.40	9.40	9.40
Storm Duration (hr):	24.00	24.00	24.00
Status:	ONSITE	ONSITE	ONSITE
Time of Conc. (min):	15.00	15.00	15.00
Lag Time (hr):	0.00	0.00	0.00
Area (acres):	11.88	0.33	1.24
Curve Number:	60.00	82.00	70.00
DCIA (%):	0.00	0.00	0.00
Time Max (hrs):	12.00	12.00	12.00
Flow Max (cfs):	15.84	0.68	2.11
Runoff Volume (in):	4.42	7.20	5.69
Runoff Volume (cf):	190556	8625	25618

50YR24HR STORM EVENT
 CITY OF CLERMONT

***** Node Maximum Conditions - KINGSNO *****

(Time units - hours)

Node Name	Group Name	Max Time Conditions	Max Stage (ft)	Warning Stage (ft)	Max Delta Stage (ft)	Max Surface Area (sf)	Max Time Inflow	Max Inflow (cfs)	Max Time Outflow	Max Outflow (cfs)
11	BASE	13.54	181.47	186.00	0.0298	28682.40	11.99	17.42	0.00	0.00
13	BASE	12.79	160.99	166.00	0.0187	15651.12	11.00	5.64	0.00	0.00
14	BASE	13.17	146.31	149.00	0.0268	15481.12	12.09	9.36	0.00	0.00
17	BASE	15.04	148.29	150.00	0.0499	13691.61	11.99	8.65	0.00	0.00
18	BASE	12.09	161.76	162.00	0.0416	8652.41	11.99	3.98	12.10	3.63
19	BASE	13.77	88.34	90.00	0.0456	57482.34	11.99	41.81	0.00	0.00
2	BASE	24.01	246.36	250.00	0.0035	86838.94	11.99	7.53	0.00	0.00
3	BASE	13.22	237.79	243.00	0.0162	25467.75	11.99	9.81	0.00	0.00
4	BASE	13.96	226.33	230.00	0.0335	34746.89	11.99	22.97	0.00	0.00
4B	BASE	12.84	241.37	246.00	0.0086	19416.30	11.99	4.16	0.00	0.00
5	BASE	12.89	127.55	135.00	0.0170	69400.32	11.99	29.07	0.00	0.00
6	BASE	12.71	233.88	239.00	-0.0081	45198.27	11.99	7.41	0.00	0.00
7	BASE	13.69	189.36	193.00	0.0361	15158.63	11.99	8.86	0.00	0.00
9	BASE	16.39	153.46	155.00	0.0377	23755.84	11.99	14.88	0.00	0.00
999	BASE	24.01	87.40	89.00	0.0003	0.00	0.00	0.00	0.00	0.00

50YR24HR STORM EVENT
 CITY OF CLERMONT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
*** Group: BASE		Node: 11							
0.000	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
1.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
2.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
3.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
4.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
5.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
6.004	176.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
7.004	176.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	
8.004	176.00	0.00	0.00	0.00	-0.04	0.00	0.00	0.00	
9.004	176.00	0.00	0.00	0.16	-0.33	0.00	0.00	0.00	
10.004	175.99	0.00	0.00	1.05	-1.83	0.00	0.00	0.00	
11.003	177.46	0.41	0.00	17.37	-3.40	0.00	0.00	0.00	
12.006	180.11	0.57	0.00	21.80	-4.45	0.00	0.00	0.00	
13.006	181.41	0.65	0.00	7.49	-5.53	0.00	0.00	0.00	
14.006	181.43	0.66	0.00	4.25	-5.90	0.00	0.00	0.00	
15.006	181.19	0.64	0.00	3.71	-5.82	0.00	0.00	0.00	
16.006	180.87	0.62	0.00	2.98	-5.66	0.00	0.00	0.00	
17.006	180.50	0.59	0.00	2.61	-5.46	0.00	0.00	0.00	
18.006	180.09	0.57	0.00	2.35	-5.23	0.00	0.00	0.00	
19.006	179.67	0.54	0.00	2.21	-5.00	0.00	0.00	0.00	
20.006	179.23	0.52	0.00	1.93	-4.76	0.00	0.00	0.00	
21.006	178.78	0.49	0.00	1.78	-4.52	0.00	0.00	0.00	
22.006	178.33	0.46	0.00	1.76	-4.28	0.00	0.00	0.00	
23.006	177.86	0.43	0.00	1.51	-4.01	0.00	0.00	0.00	
24.006	177.66	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
24.014	177.66	0.42	0.00	0.00	0.00	0.00	0.00	0.00	

*** Group: BASE		Node: 13						
0.000	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
1.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
2.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
3.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
4.004	158.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
5.004	158.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
6.004	158.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00
7.004	158.00	0.00	0.00	0.03	-0.05	0.00	0.00	0.00
8.004	158.00	0.00	0.00	0.15	-0.18	0.00	0.00	0.00
9.004	158.00	0.00	0.00	0.39	-0.46	0.00	0.00	0.00
10.004	158.00	0.00	0.00	0.92	-1.13	0.00	0.00	0.00
11.003	158.91	0.27	0.00	8.64	-3.00	0.00	0.00	0.00
12.006	160.47	0.33	0.00	9.93	-4.40	0.00	0.00	0.00
13.006	160.95	0.36	0.00	2.92	-4.40	0.00	0.00	0.00
14.006	160.46	0.33	0.00	1.80	-4.40	0.00	0.00	0.00
15.006	159.80	0.30	0.00	1.49	-3.94	0.00	0.00	0.00
16.006	159.34	0.28	0.00	1.22	-2.04	0.00	0.00	0.00

17.006 159.30 0.28 0.00 1.05 -0.53 0.00 0.00 0.00



50YR24HR STORM EVENT
 CITY OF CLERMONT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar. (ac)	<-----Inflow----->					Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)	
18.006	159.45	0.29	0.00	0.94	-0.43	0.00	0.00	0.00
19.006	159.59	0.29	0.00	0.88	-0.38	0.00	0.00	0.00
20.006	159.72	0.30	0.00	0.77	-0.34	0.00	0.00	0.00
21.006	159.84	0.30	0.00	0.71	-0.32	0.00	0.00	0.00
22.006	159.94	0.31	0.00	0.70	-0.30	0.00	0.00	0.00
23.006	160.04	0.31	0.00	0.60	-0.28	0.00	0.00	0.00
24.006	160.11	0.32	0.00	0.00	0.00	0.00	0.00	0.00
24.014	160.11	0.32	0.00	0.00	0.00	0.00	0.00	0.00

*** Group: BASE Node: 14

0.000	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
1.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
2.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
3.004	142.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
4.004	142.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
5.004	142.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
6.004	142.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00
7.004	142.00	0.00	0.00	0.03	-0.06	0.00	0.00	0.00
8.004	142.00	0.00	0.00	0.15	-0.17	0.00	0.00	0.00
9.004	142.00	0.00	0.00	0.35	-0.40	0.00	0.00	0.00
10.004	142.00	0.00	0.00	0.79	-0.90	0.00	0.00	0.00
11.003	143.15	0.23	0.00	7.14	-1.40	0.00	0.00	0.00
12.006	145.04	0.30	0.00	8.13	-1.84	0.00	0.00	0.00
13.006	146.30	0.36	0.00	2.36	-2.26	0.00	0.20	0.00
14.006	146.21	0.35	0.00	1.47	-2.37	0.00	0.00	0.00
15.006	145.98	0.34	0.00	1.21	-2.31	0.00	0.00	0.00
16.006	145.69	0.33	0.00	0.99	-2.22	0.00	0.00	0.00
17.006	145.37	0.31	0.00	0.85	-2.11	0.00	0.00	0.00
18.006	145.03	0.30	0.00	0.76	-2.01	0.00	0.00	0.00
19.006	144.69	0.29	0.00	0.72	-1.89	0.00	0.00	0.00
20.006	144.35	0.27	0.00	0.63	-1.78	0.00	0.00	0.00
21.006	144.00	0.26	0.00	0.58	-1.67	0.00	0.00	0.00
22.006	143.66	0.25	0.00	0.57	-1.56	0.00	0.00	0.00
23.006	143.32	0.23	0.00	0.49	-1.44	0.00	0.00	0.00
24.006	143.17	0.23	0.00	0.00	0.00	0.00	0.00	0.00
24.014	143.17	0.23	0.00	0.00	0.00	0.00	0.00	0.00

*** Group: BASE Node: 17

0.000	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
1.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
2.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
3.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
4.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
5.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
6.004	140.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00

7.004	140.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
8.004	140.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00

50YR24HR STORM EVENT
 CITY OF CLERMONT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)	
9.004	140.00	0.00	0.00	0.00	-0.06	0.00	0.00	0.00
10.004	140.00	0.06	0.00	0.24	-0.23	0.00	0.00	0.00
11.003	142.93	0.14	0.00	7.27	-0.55	0.00	0.00	0.00
12.006	146.31	0.24	0.00	9.67	-1.05	0.00	0.00	0.00
13.006	147.93	0.30	0.00	3.61	-1.51	0.00	0.00	0.00
14.006	148.25	0.31	0.00	1.97	-1.71	0.00	0.00	0.00
15.006	148.29	0.31	0.00	1.76	-1.75	0.00	0.00	0.00
16.006	148.24	0.31	0.00	1.41	-1.75	0.00	0.00	0.00
17.006	148.13	0.31	0.00	1.24	-1.73	0.00	0.00	0.00
18.006	147.99	0.30	0.00	1.12	-1.70	0.00	0.00	0.00
19.006	147.82	0.29	0.00	1.05	-1.67	0.00	0.00	0.00
20.006	147.63	0.29	0.00	0.92	-1.63	0.00	0.00	0.00
21.006	147.42	0.28	0.00	0.85	-1.59	0.00	0.00	0.00
22.006	147.21	0.28	0.00	0.84	-1.54	0.00	0.00	0.00
23.006	146.99	0.27	0.00	0.72	-1.49	0.00	0.00	0.00
24.006	146.90	0.27	0.00	0.00	0.00	0.00	0.00	0.00
24.014	146.90	0.27	0.00	0.00	0.00	0.00	0.00	0.00

*** Group: BASE Node: 18

0.000	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
1.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
2.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
3.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
4.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
5.004	157.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
6.004	157.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
7.004	157.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
8.004	157.00	0.00	0.00	0.02	-0.03	0.00	0.00	0.00
9.004	157.00	0.00	0.00	0.10	-0.14	0.00	0.00	0.00
10.004	157.12	0.03	0.00	0.35	-0.22	0.00	0.00	0.00
11.003	159.49	0.11	0.00	4.19	-0.49	0.00	0.00	0.00
12.006	161.64	0.19	0.00	5.04	-1.07	0.00	0.00	0.00
13.006	161.75	0.20	0.00	1.61	-1.42	0.00	0.00	0.20
14.006	161.67	0.19	0.00	0.95	-1.48	0.00	0.00	0.00
15.006	161.41	0.18	0.00	0.81	-1.48	0.00	0.00	0.00
16.006	161.06	0.17	0.00	0.65	-1.45	0.00	0.00	0.00
17.006	160.65	0.15	0.00	0.57	-1.38	0.00	0.00	0.00
18.006	160.07	0.13	0.00	0.51	-1.65	0.00	0.00	0.00
19.006	159.35	0.10	0.00	0.48	-1.34	0.00	0.00	0.00
20.006	158.89	0.08	0.00	0.42	-0.61	0.00	0.00	0.00
21.006	158.76	0.08	0.00	0.39	-0.46	0.00	0.00	0.00
22.006	158.71	0.08	0.00	0.38	-0.39	0.00	0.00	0.00
23.006	158.70	0.08	0.00	0.33	-0.34	0.00	0.00	0.00
24.006	158.74	0.08	0.00	0.00	0.00	0.00	0.00	0.00
24.014	158.74	0.08	0.00	0.00	0.00	0.00	0.00	0.00

*** Group: BASE

Node: 19



50YR24HR STORM EVENT
 CITY OF CLERMONT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar. (ac)	<-----Inflow----->					Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)	
0.000	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
1.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
2.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
3.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
4.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
5.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
6.004	80.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00
7.004	80.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
8.004	80.00	0.00	0.00	0.00	-0.06	0.00	0.00	0.00
9.004	80.00	0.00	0.00	0.23	-0.60	0.00	0.00	0.00
10.004	80.00	0.00	0.00	2.08	-2.60	0.00	0.00	0.00
11.003	82.49	0.65	0.00	38.58	-4.98	0.00	0.00	0.00
12.006	86.36	0.98	0.00	49.04	-7.37	0.00	0.00	0.00
13.006	88.17	1.28	0.00	17.18	-10.22	0.00	0.00	0.00
14.006	88.33	1.32	0.00	9.66	-11.69	0.00	0.00	0.00
15.006	88.16	1.27	0.00	8.48	-11.63	0.00	0.00	0.00
16.006	87.91	1.21	0.00	6.81	-11.17	0.00	0.00	0.00
17.006	87.60	1.15	0.00	5.97	-10.64	0.00	0.00	0.00
18.006	87.25	1.09	0.00	5.37	-10.05	0.00	0.00	0.00
19.006	86.90	1.03	0.00	5.05	-9.51	0.00	0.00	0.00
20.006	86.52	1.00	0.00	4.42	-9.13	0.00	0.00	0.00
21.006	86.13	0.96	0.00	4.08	-8.81	0.00	0.00	0.00
22.006	85.73	0.93	0.00	4.03	-8.48	0.00	0.00	0.00
23.006	85.31	0.89	0.00	3.46	-8.10	0.00	0.00	0.00
24.006	85.14	0.87	0.00	0.00	0.00	0.00	0.00	0.00
24.014	85.14	0.87	0.00	0.00	0.00	0.00	0.00	0.00

*** Group: BASE Node: 2

0.000	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
1.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
2.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
3.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
4.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
5.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
6.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
7.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
8.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
9.004	245.24	1.86	0.00	0.00	0.00	0.00	0.00	0.00
10.004	245.24	1.86	0.00	0.05	0.00	0.00	0.00	0.00
11.003	245.36	1.87	0.00	5.23	0.00	0.00	0.00	0.00
12.006	245.64	1.91	0.00	7.52	0.00	0.00	0.00	0.00
13.006	245.87	1.93	0.00	3.09	0.00	0.00	0.00	0.00
14.006	245.97	1.95	0.00	1.61	0.00	0.00	0.00	0.00
15.006	246.03	1.95	0.00	1.49	0.00	0.00	0.00	0.00
16.006	246.09	1.96	0.00	1.19	0.00	0.00	0.00	0.00

17.006	246.14	1.97	0.00	1.05	0.00	0.00	0.00	0.00
18.006	246.18	1.97	0.00	0.95	0.00	0.00	0.00	0.00

50YR24HR STORM EVENT
 CITY OF CLERMONT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)	
19.006	246.22	1.98	0.00	0.89	0.00	0.00	0.00	0.00
20.006	246.25	1.98	0.00	0.79	0.00	0.00	0.00	0.00
21.006	246.28	1.98	0.00	0.73	0.00	0.00	0.00	0.00
22.006	246.31	1.99	0.00	0.72	0.00	0.00	0.00	0.00
23.006	246.34	1.99	0.00	0.62	0.00	0.00	0.00	0.00
24.006	246.36	1.99	0.00	0.00	0.00	0.00	0.00	0.00
24.014	246.36	1.99	0.00	0.00	0.00	0.00	0.00	0.00

*** Group: BASE Node: 3

0.000	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
1.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
2.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
3.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
4.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
5.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
6.004	235.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
7.004	235.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
8.004	235.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
9.004	235.00	0.00	0.00	0.01	-0.11	0.00	0.00	0.00
10.004	234.99	0.00	0.00	0.42	-1.74	0.00	0.00	0.00
11.003	235.58	0.44	0.00	10.42	-3.37	0.00	0.00	0.00
12.006	237.02	0.53	0.00	13.63	-3.86	0.00	0.00	0.00
13.006	237.78	0.58	0.00	4.97	-4.45	0.00	0.00	0.00
14.006	237.68	0.58	0.00	2.74	-4.62	0.00	0.00	0.00
15.006	237.39	0.56	0.00	2.44	-4.51	0.00	0.00	0.00
16.006	237.06	0.54	0.00	1.95	-4.34	0.00	0.00	0.00
17.006	236.68	0.51	0.00	1.72	-4.14	0.00	0.00	0.00
18.006	236.28	0.49	0.00	1.55	-3.94	0.00	0.00	0.00
19.006	235.87	0.46	0.00	1.46	-3.72	0.00	0.00	0.00
20.006	235.49	0.44	0.00	1.28	-3.10	0.00	0.00	0.00
21.006	235.25	0.42	0.00	1.18	-1.88	0.00	0.00	0.00
22.006	235.18	0.42	0.00	1.16	-1.13	0.00	0.00	0.00
23.006	235.20	0.42	0.00	1.00	-0.86	0.00	0.00	0.00
24.006	235.24	0.42	0.00	0.00	0.00	0.00	0.00	0.00
24.014	235.24	0.42	0.00	0.00	0.00	0.00	0.00	0.00

*** Group: BASE Node: 4

0.000	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00
1.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00
2.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00
3.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00
4.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00
5.004	220.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00
6.004	220.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
7.004	220.00	0.00	0.00	0.00	-0.03	0.00	0.00	0.00

8.004	220.00	0.00	0.00	0.14	-0.23	0.00	0.00	0.00
9.004	220.00	0.00	0.00	0.66	-0.85	0.00	0.00	0.00

50YR24HR STORM EVENT
 CITY OF CLERMONT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
10.004	220.00	0.00	0.00	2.02	-2.02	0.00	0.00	0.00	
11.003	221.73	0.51	0.00	22.54	-3.05	0.00	0.00	0.00	
12.006	224.67	0.69	0.00	26.81	-3.93	0.00	0.00	0.00	
13.006	226.15	0.79	0.00	8.42	-4.82	0.00	0.00	0.00	
14.006	226.33	0.80	0.00	5.01	-5.17	0.00	0.00	0.00	
15.006	226.28	0.79	0.00	4.24	-5.20	0.00	0.00	0.00	
16.006	226.13	0.78	0.00	3.44	-5.15	0.00	0.00	0.00	
17.006	225.93	0.77	0.00	2.98	-5.08	0.00	0.00	0.00	
18.006	225.69	0.76	0.00	2.68	-4.98	0.00	0.00	0.00	
19.006	225.44	0.74	0.00	2.52	-4.87	0.00	0.00	0.00	
20.006	225.16	0.72	0.00	2.20	-4.76	0.00	0.00	0.00	
21.006	224.86	0.70	0.00	2.03	-4.64	0.00	0.00	0.00	
22.006	224.55	0.68	0.00	2.00	-4.51	0.00	0.00	0.00	
23.006	224.23	0.66	0.00	1.71	-4.36	0.00	0.00	0.00	
24.006	224.10	0.65	0.00	0.00	0.00	0.00	0.00	0.00	
24.014	224.10	0.65	0.00	0.00	0.00	0.00	0.00	0.00	

*** Group: BASE Node: 4B

0.000	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
1.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
2.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
3.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
4.004	240.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00
5.004	240.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
6.004	240.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
7.004	240.00	0.00	0.00	0.00	-0.02	0.00	0.00	0.00
8.004	240.00	0.00	0.00	0.07	-0.09	0.00	0.00	0.00
9.004	240.00	0.00	0.00	0.22	-0.27	0.00	0.00	0.00
10.004	239.99	0.00	0.00	0.57	-1.43	0.00	0.00	0.00
11.003	240.29	0.39	0.00	5.81	-2.49	0.00	0.00	0.00
12.006	241.04	0.43	0.00	6.78	-2.64	0.00	0.00	0.00
13.006	241.36	0.45	0.00	2.06	-2.83	0.00	0.00	0.00
14.006	241.14	0.43	0.00	1.25	-2.84	0.00	0.00	0.00
15.006	240.82	0.42	0.00	1.04	-2.75	0.00	0.00	0.00
16.006	240.48	0.40	0.00	0.85	-2.51	0.00	0.00	0.00
17.006	240.22	0.39	0.00	0.74	-1.52	0.00	0.00	0.00
18.006	240.14	0.38	0.00	0.66	-0.67	0.00	0.00	0.00
19.006	240.14	0.38	0.00	0.62	-0.61	0.00	0.00	0.00
20.006	240.14	0.38	0.00	0.54	-0.55	0.00	0.00	0.00
21.006	240.14	0.38	0.00	0.50	-0.51	0.00	0.00	0.00
22.006	240.14	0.38	0.00	0.49	-0.48	0.00	0.00	0.00
23.006	240.14	0.38	0.00	0.42	-0.36	0.00	0.00	0.00
24.006	240.16	0.38	0.00	0.00	0.00	0.00	0.00	0.00
24.014	240.16	0.38	0.00	0.00	0.00	0.00	0.00	0.00

*** Group: BASE
0.000 125.00

Node: 5
1.28

0.00

0.00

0.00

0.00

0.00

0.00

50YR24HR STORM EVENT
 CITY OF CLERMONT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	<-----Inflow----->					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
1.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00	
2.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00	
3.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00	
4.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00	
5.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00	
6.004	125.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00	
7.004	125.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	
8.004	125.00	0.00	0.00	0.00	-0.03	0.00	0.00	-0.00	
9.004	125.00	0.00	0.00	0.12	-0.49	0.00	0.00	0.00	
10.004	124.98	0.00	0.00	1.75	-9.18	0.00	0.00	0.00	
11.003	125.45	1.33	0.00	37.09	-17.54	0.00	0.00	0.00	
12.006	126.87	1.51	0.00	47.81	-18.87	0.00	0.00	0.00	
13.006	127.54	1.59	0.00	17.09	-20.66	0.00	0.00	0.00	
14.006	127.15	1.54	0.00	9.51	-20.86	0.00	0.00	0.00	
15.006	126.52	1.46	0.00	8.41	-19.95	0.00	0.00	0.00	
16.006	125.89	1.39	0.00	6.75	-16.83	0.00	0.00	0.00	
17.006	125.46	1.34	0.00	5.92	-9.94	0.00	0.00	0.00	
18.006	125.34	1.32	0.00	5.33	-5.40	0.00	0.00	0.00	
19.006	125.34	1.32	0.00	5.01	-4.94	0.00	0.00	0.00	
20.006	125.34	1.32	0.00	4.39	-4.46	0.00	0.00	0.00	
21.006	125.33	1.32	0.00	4.06	-4.13	0.00	0.00	0.00	
22.006	125.34	1.32	0.00	4.00	-3.88	0.00	0.00	0.00	
23.006	125.35	1.32	0.00	3.44	-2.97	0.00	0.00	0.00	
24.006	125.40	1.33	0.00	0.00	0.00	0.00	0.00	0.00	
24.014	125.40	1.33	0.00	0.00	0.00	0.00	0.00	0.00	

*** Group: BASE Node: 6

0.000	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
1.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
2.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
3.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
4.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
5.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
6.004	233.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
7.004	233.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
8.004	233.00	0.00	0.00	0.00	-0.02	0.00	0.00	0.00
9.004	233.00	0.00	0.00	0.07	-0.20	0.00	0.00	0.00
10.004	232.99	0.00	0.00	0.66	-3.41	0.00	0.00	0.00
11.003	233.14	0.95	0.00	12.29	-7.23	0.00	0.00	0.00
12.006	233.67	1.01	0.00	15.62	-8.26	0.00	0.00	0.00
13.006	233.84	1.03	0.00	5.47	-8.60	0.00	0.00	0.00
14.006	233.53	1.00	0.00	3.08	-7.59	0.00	0.00	0.00
15.006	233.26	0.96	0.00	2.70	-4.47	0.00	0.00	0.00
16.006	233.19	0.96	0.00	2.17	-2.24	0.00	0.00	0.00
17.006	233.18	0.95	0.00	1.90	-1.92	0.00	0.00	0.00

18.006	233.18	0.95	0.00	1.71	-1.73	0.00	0.00	0.00
19.006	233.18	0.95	0.00	1.61	-1.59	0.00	0.00	0.00

50YR24HR STORM EVENT
 CITY OF CLERMONT

***** Node Time Series by Node - KINGSNO *****

Time (hrs)	Stage (ft)	Surface Ar.(ac)	Inflow					Link Q (cfs)	Link Outflow (cfs)
			Base Q (cfs)	Onsite (cfs)	Offsite (cfs)	Bndry Q (cfs)	Link Q (cfs)		
20.006	233.18	0.95	0.00	1.41	-1.43	0.00	0.00	0.00	
21.006	233.18	0.95	0.00	1.30	-1.32	0.00	0.00	0.00	
22.006	233.18	0.95	0.00	1.28	-1.24	0.00	0.00	0.00	
23.006	233.19	0.96	0.00	1.10	-0.95	0.00	0.00	0.00	
24.006	233.21	0.96	0.00	0.00	0.00	0.00	0.00	0.00	
24.014	233.21	0.96	0.00	0.00	0.00	0.00	0.00	0.00	

*** Group: BASE Node: 7

0.000	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
1.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
2.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
3.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
4.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
5.004	183.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
6.004	183.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
7.004	183.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
8.004	183.00	0.00	0.00	0.00	-0.03	0.00	0.00	0.00
9.004	183.00	0.00	0.00	0.11	-0.19	0.00	0.00	0.00
10.004	183.00	0.00	0.00	0.58	-0.61	0.00	0.00	0.00
11.003	185.07	0.18	0.00	8.55	-1.13	0.00	0.00	0.00
12.006	187.96	0.29	0.00	10.61	-1.78	0.00	0.00	0.00
13.006	189.27	0.34	0.00	3.57	-2.39	0.00	0.00	0.00
14.006	189.34	0.35	0.00	2.05	-2.60	0.00	0.00	0.00
15.006	189.18	0.34	0.00	1.78	-2.58	0.00	0.00	0.00
16.006	188.94	0.33	0.00	1.43	-2.52	0.00	0.00	0.00
17.006	188.65	0.32	0.00	1.25	-2.43	0.00	0.00	0.00
18.006	188.34	0.30	0.00	1.12	-2.34	0.00	0.00	0.00
19.006	188.00	0.29	0.00	1.06	-2.23	0.00	0.00	0.00
20.006	187.66	0.28	0.00	0.93	-2.13	0.00	0.00	0.00
21.006	187.29	0.26	0.00	0.85	-2.02	0.00	0.00	0.00
22.006	186.93	0.25	0.00	0.84	-1.91	0.00	0.00	0.00
23.006	186.56	0.23	0.00	0.72	-1.80	0.00	0.00	0.00
24.006	186.41	0.23	0.00	0.00	0.00	0.00	0.00	0.00
24.014	186.41	0.23	0.00	0.00	0.00	0.00	0.00	0.00

*** Group: BASE Node: 9

0.000	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
1.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
2.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
3.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
4.004	146.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
5.004	146.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
6.004	146.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00
7.004	146.00	0.00	0.00	0.01	-0.04	0.00	0.00	0.00
8.004	146.00	0.00	0.00	0.16	-0.21	0.00	0.00	0.00

9.004	146.00	0.00	0.00	0.52	-0.55	0.00	0.00	0.00
10.004	146.10	0.22	0.00	1.36	-0.77	0.00	0.00	0.00

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north3
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 340.00
Equivalent Pond Width, [W] (ft): 130.00

Base Of Aquifer Elevation, [B] (ft above datum): 232.00
Water Table Elevation, [WT] (ft above datum): 232.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 32.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 16.00
Maximum area for unsaturated infiltration, (sq ft): 42192

Groundwater mound intersects pond bottom?: Yes

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
235.000	17631.0
236.000	20349.0
237.000	23168.0
238.000	26087.0
239.000	29107.0
240.000	32228.0
241.000	35449.0
242.000	38770.0
243.000	42192.0

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	13.68
Time, (hrs):	12.00
Cumulative Inflow Volume, (ft ³):	165999

Stage

Peak Stage, (ft datum):	237.67
Time, (hrs):	13.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	4.6201
Time, (hrs):	14.00
Cumulative Infiltration Volume, (ft ³):	165999

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north4
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 280.00
Equivalent Pond Width, [W] (ft): 190.00

Base Of Aquifer Elevation, [B] (ft above datum): 215.00
Water Table Elevation, [WT] (ft above datum): 215.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 25.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 13.00
Maximum area for unsaturated infiltration, (sq ft): 46135

Groundwater mound intersects pond bottom?: Yes

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
220.000	18228.0
221.000	20566.0
222.000	23005.0
223.000	25544.0
224.000	28184.0
225.000	30925.0
226.000	33766.0
227.000	36707.0
228.000	39749.0
229.000	42892.0
230.000	46135.0

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	26.92
Time, (hrs):	12.00
Cumulative Inflow Volume, (ft ³):	322995

Stage

Peak Stage, (ft datum):	226.29
Time, (hrs):	14.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	5.1971
Time, (hrs):	15.00
Cumulative Infiltration Volume, (ft ³):	237008

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north4b
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 240.00
Equivalent Pond Width, [W] (ft): 130.00

Base Of Aquifer Elevation, [B] (ft above datum): 230.00
Water Table Elevation, [WT] (ft above datum): 230.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 25.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 13.00
Maximum area for unsaturated infiltration, (sq ft): 30988

Groundwater mound intersects pond bottom?: Yes

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
240.000	16386.0
241.000	18568.0
242.000	20851.0
243.000	23234.0
244.000	25718.0
245.000	28303.0
246.000	30988.0

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	6.81
Time, (hrs):	12.00
Cumulative Inflow Volume, (ft ³):	81759

Stage

Peak Stage, (ft datum):	241.25
Time, (hrs):	13.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	2.8402
Time, (hrs):	14.00
Cumulative Infiltration Volume, (ft ³):	81759

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north5
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 580.00
Equivalent Pond Width, [W] (ft): 190.00

Base Of Aquifer Elevation, [B] (ft above datum): 120.00
Water Table Elevation, [WT] (ft above datum): 120.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 27.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 27.00
Maximum area for unsaturated infiltration, (sq ft): 112733

Groundwater mound intersects pond bottom?: Yes

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
125.000	55786.0
126.000	61028.0
127.000	66371.0
128.000	71814.0
129.000	77358.0
130.000	83003.0
131.000	88748.0
132.000	94593.0
133.000	100539.0
134.000	106586.0
135.000	112733.0

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	47.98
Time, (hrs):	12.00
Cumulative Inflow Volume, (ft ³):	580660

Stage

Peak Stage, (ft datum):	127.29
Time, (hrs):	13.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	20.8678
Time, (hrs):	14.00
Cumulative Infiltration Volume, (ft ³):	580659

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north6
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 390.00
Equivalent Pond Width, [W] (ft): 180.00

Base Of Aquifer Elevation, [B] (ft above datum): 228.00
Water Table Elevation, [WT] (ft above datum): 228.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 34.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 17.00
Maximum area for unsaturated infiltration, (sq ft): 75045

Groundwater mound intersects pond bottom?: Yes

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
233.000	40661.0
234.000	45826.0
235.000	51217.0
236.000	56835.0
237.000	62679.0
238.000	68748.0
239.000	75045.0

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	15.68
Time, (hrs):	12.00
Cumulative Inflow Volume, (ft ³):	189328

Stage

Peak Stage, (ft datum):	233.68
Time, (hrs):	13.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	8.6076
Time, (hrs):	13.00
Cumulative Infiltration Volume, (ft ³):	189328

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north7
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 200.00
Equivalent Pond Width, [W] (ft): 130.00

Base Of Aquifer Elevation, [B] (ft above datum): 178.00
Water Table Elevation, [WT] (ft above datum): 178.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 30.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 15.00
Maximum area for unsaturated infiltration, (sq ft): 22737

Groundwater mound intersects pond bottom?: Yes

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
183.000	5070.0
184.000	6384.0
185.000	7799.0
186.000	9314.0
187.000	10930.0
188.000	12647.0
189.000	14464.0
190.000	16381.0
191.000	18399.0
192.000	20518.0
193.000	22737.0

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	10.64
Time, (hrs):	12.00
Cumulative Inflow Volume, (ft ³):	128091

Stage

Peak Stage, (ft datum):	189.31
Time, (hrs):	14.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	2.6042
Time, (hrs):	14.00
Cumulative Infiltration Volume, (ft ³):	106487

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north9
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 185.00
Equivalent Pond Width, [W] (ft): 175.00

Base Of Aquifer Elevation, [B] (ft above datum): 140.00
Water Table Elevation, [WT] (ft above datum): 140.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 14.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 7.00
Maximum area for unsaturated infiltration, (sq ft): 27394

Groundwater mound intersects pond bottom?: Yes

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
146.000	9390.0
147.000	10988.0
148.000	12687.0
149.000	14486.0
150.000	16386.0
151.000	18387.0
152.000	20488.0
153.000	22689.0
154.000	24991.0
155.000	27394.0

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	16.20
Time, (hrs):	12.00
Cumulative Inflow Volume, (ft ³):	194482

Stage

Peak Stage, (ft datum):	153.44
Time, (hrs):	16.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	1.9191
Time, (hrs):	17.00
Cumulative Infiltration Volume, (ft ³):	90947

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north11
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 260.00
Equivalent Pond Width, [W] (ft): 145.00

Base Of Aquifer Elevation, [B] (ft above datum): 172.00
Water Table Elevation, [WT] (ft above datum): 172.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 37.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 18.00
Maximum area for unsaturated infiltration, (sq ft): 42520

Groundwater mound intersects pond bottom?: Yes

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
176.000	14733.0
177.000	17059.0
178.000	19486.0
179.000	22013.0
180.000	24641.0
181.000	27370.0
182.000	30199.0
183.000	33128.0
184.000	36158.0
185.000	39289.0
186.000	42520.0

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	21.88
Time, (hrs):	12.00
Cumulative Inflow Volume, (ft ³):	263672

Stage

Peak Stage, (ft datum):	181.33
Time, (hrs):	13.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	5.8974
Time, (hrs):	14.00
Cumulative Infiltration Volume, (ft ³):	245494

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north13
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 220.00
Equivalent Pond Width, [W] (ft): 130.00

Base Of Aquifer Elevation, [B] (ft above datum): 155.00
Water Table Elevation, [WT] (ft above datum): 155.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 28.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 14.00
Maximum area for unsaturated infiltration, (sq ft): 27143

Groundwater mound intersects pond bottom?: Yes

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

<u>Stage</u> (ft datum)	<u>Area</u> (ft ²)
158.000	9878.0
159.000	44684.0
160.000	13591.0
161.000	15598.0
162.000	17706.0
163.000	19915.0
164.000	22224.0
165.000	24633.0
166.000	27143.0

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	9.97
Time, (hrs):	12.00
Cumulative Inflow Volume, (ft ³):	119810

Stage

Peak Stage, (ft datum):	159.22
Time, (hrs):	13.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	4.3982
Time, (hrs):	12.00
Cumulative Infiltration Volume, (ft ³):	96253

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north14
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 185.00
Equivalent Pond Width, [W] (ft): 145.00

Base Of Aquifer Elevation, [B] (ft above datum): 138.00
Water Table Elevation, [WT] (ft above datum): 138.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 28.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 14.00
Maximum area for unsaturated infiltration, (sq ft): 21450

Groundwater mound intersects pond bottom?: Yes

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
142.000	7703.0
143.000	9365.0
144.000	11128.0
145.000	12991.0
146.000	14955.0
147.000	17020.0
148.000	19185.0
149.000	21450.0

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	8.16
Time, (hrs):	12.00
Cumulative Inflow Volume, (ft ³):	98226

Stage

Peak Stage, (ft datum):	145.88
Time, (hrs):	13.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	2.3654
Time, (hrs):	14.00
Cumulative Infiltration Volume, (ft ³):	97565

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north17
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 175.00
Equivalent Pond Width, [W] (ft): 125.00

Base Of Aquifer Elevation, [B] (ft above datum): 136.00
Water Table Elevation, [WT] (ft above datum): 136.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 22.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 11.00
Maximum area for unsaturated infiltration, (sq ft): 16920

Groundwater mound intersects pond bottom?: Yes

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
140.000	2733.0
141.000	3699.0
142.000	4766.0
143.000	5933.0
144.000	7201.0
145.000	8570.0
146.000	10039.0
147.000	11608.0
148.000	13278.0
149.000	15049.0
150.000	16920.0

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	9.70
Time, (hrs):	12.00
Cumulative Inflow Volume, (ft ³):	118146

Stage

Peak Stage, (ft datum):	148.28
Time, (hrs):	15.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	1.7507
Time, (hrs):	15.00
Cumulative Infiltration Volume, (ft ³):	74551

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north18
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 210.00
Equivalent Pond Width, [W] (ft): 40.00

Base Of Aquifer Elevation, [B] (ft above datum): 155.00
Water Table Elevation, [WT] (ft above datum): 155.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 27.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 14.00
Maximum area for unsaturated infiltration, (sq ft): 9105

Groundwater mound intersects pond bottom?: Yes

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
157.000	1348.0
158.000	2450.0
159.000	3834.0
160.000	5454.0
161.000	7222.0
162.000	9105.0

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	5.05
Time, (hrs):	12.00
Cumulative Inflow Volume, (ft ³):	60673

Stage

Peak Stage, (ft datum):	162.45
Time, (hrs):	13.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	1.6490
Time, (hrs):	18.00
Cumulative Infiltration Volume, (ft ³):	50796

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

Retention Pond Recovery Analysis - Inflow Hydrograph

I. Job Information

Job Name: north19
Engineer: kk
Date: 7/22/99

II. Input Data

Equivalent Pond Length, [L] (ft): 440.00
Equivalent Pond Width, [W] (ft): 150.00

Base Of Aquifer Elevation, [B] (ft above datum): 75.00
Water Table Elevation, [WT] (ft above datum): 75.10
Horizontal Saturated Hydraulic Conductivity, [Kh] (ft/day) 35.00
Fillable Porosity of Aquifer, [n] (%): 100.00

Is there a ditch parallel to the pond length axis?: No

Is there a ditch parallel to the pond width axis?: No

Include unsaturated vertical infiltration?: Yes
Unsaturated vertical infiltration rate, (ft/day): 18.00
Maximum area for unsaturated infiltration, (sq ft): 75817

Groundwater mound intersects pond bottom?: Yes

PONDS - Version 2.26
Copyright 1995

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

III. Input Data - Discharge Structures

Weir (or Orifice) #1 is Inactive

Weir (or Orifice) #2 is Inactive

Weir (or Orifice) #3 is Inactive

IV. Input Data - Stage vs Area Data

Stage (ft datum)	Area (ft ²)
80.000	19680.0
81.000	23030.0
82.000	26481.0
83.000	30032.0
84.000	33684.0
85.000	37436.0
86.000	41289.0
87.000	45242.0
88.000	53675.0
89.000	64712.0
90.000	75817.0

Written By Devo Seereeram, Ph.D., P.E.
And Robert D. Casper

Licensed Solely For Use By:
Farner, Barley & Associates, Inc.

VIII. Summary - Cumulative Volumes, Peaks Rates, and Peak Stage

Inflow

Peak Inflow Rate, (cfs):	49.22
Time, (hrs):	12.00
Cumulative Inflow Volume, (ft ³):	594287

Stage

Peak Stage, (ft datum):	88.28
Time, (hrs):	14.00

Overflow Discharge

Peak Discharge Rate, (cfs):	0.00
Time, (hrs):	0.00
Cumulative weir discharge volume, (ft ³):	0

Infiltration Rate

Peak Infiltration Rate, (cfs):	11.6937
Time, (hrs):	14.00
Cumulative Infiltration Volume, (ft ³):	464574

STORM SEWER TABULATIONS

Rainfall Table

Return Periods

Durations	10 year
10 min	7.30
15 min	6.30
20 min	5.70
25 min	5.20
30 min	4.80
35 min	4.50

Rainfall Intensities are in (in/hr)

2-3



P-2

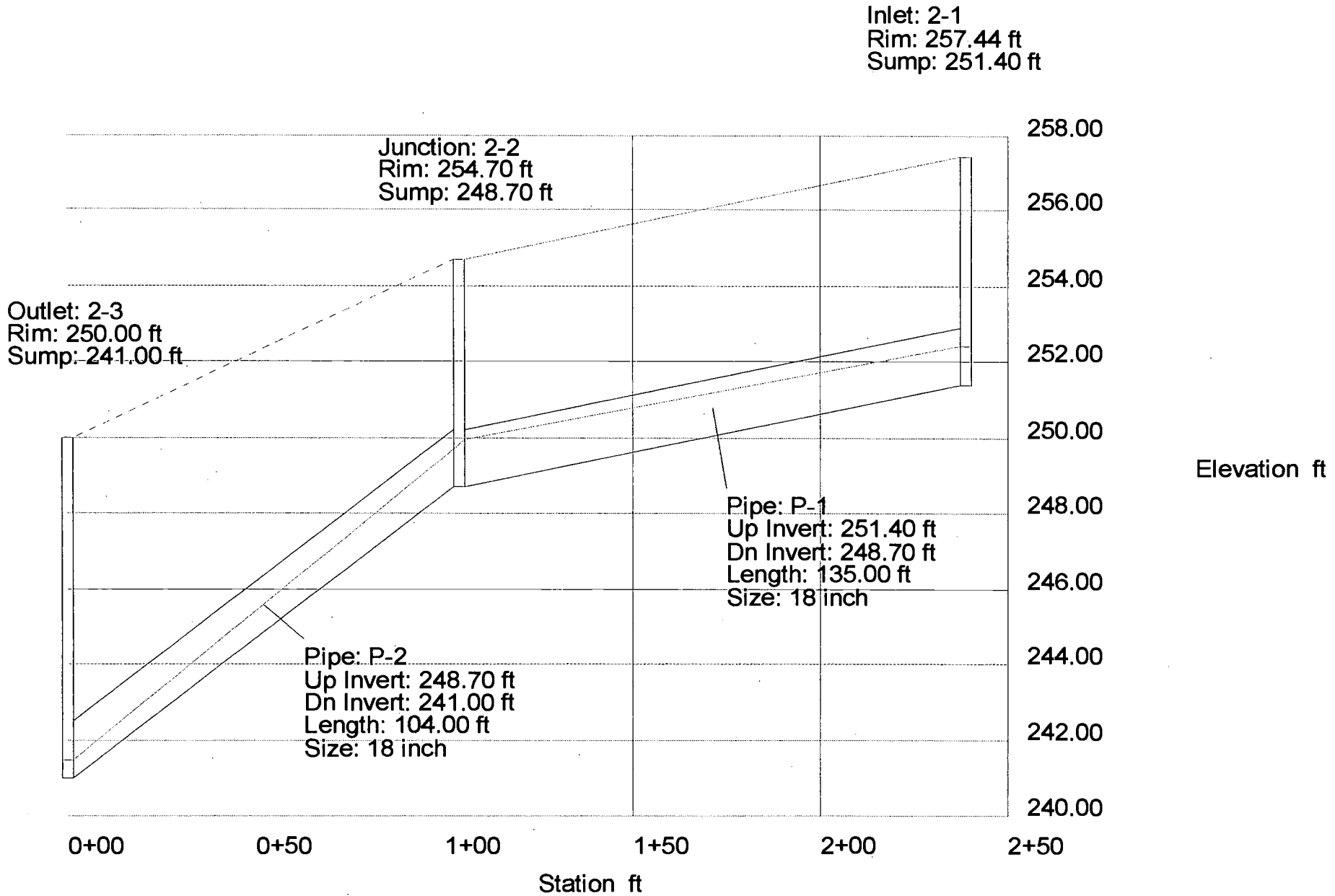
2-2



P-1

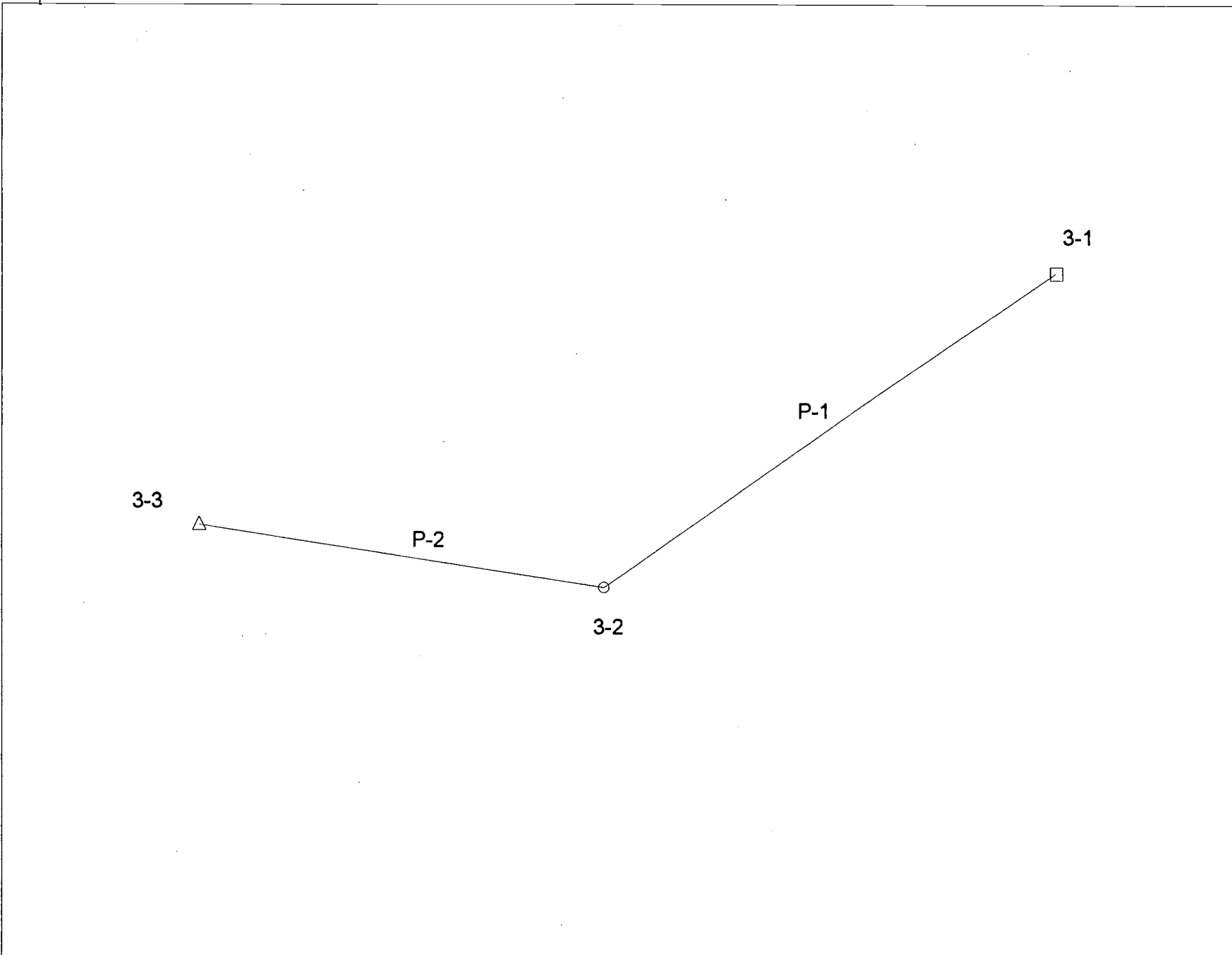
2-1

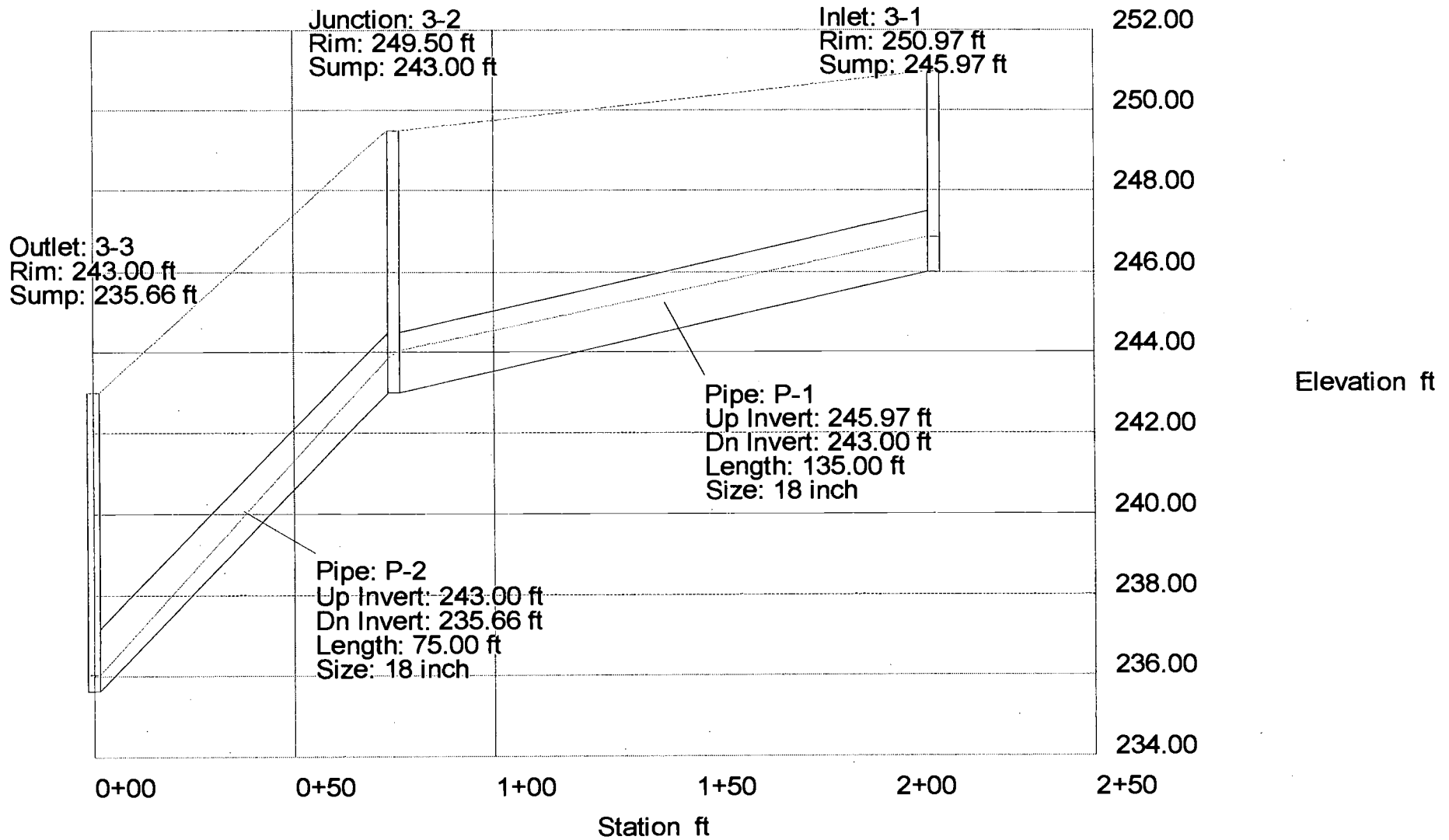




Combined Pipe/Node Report

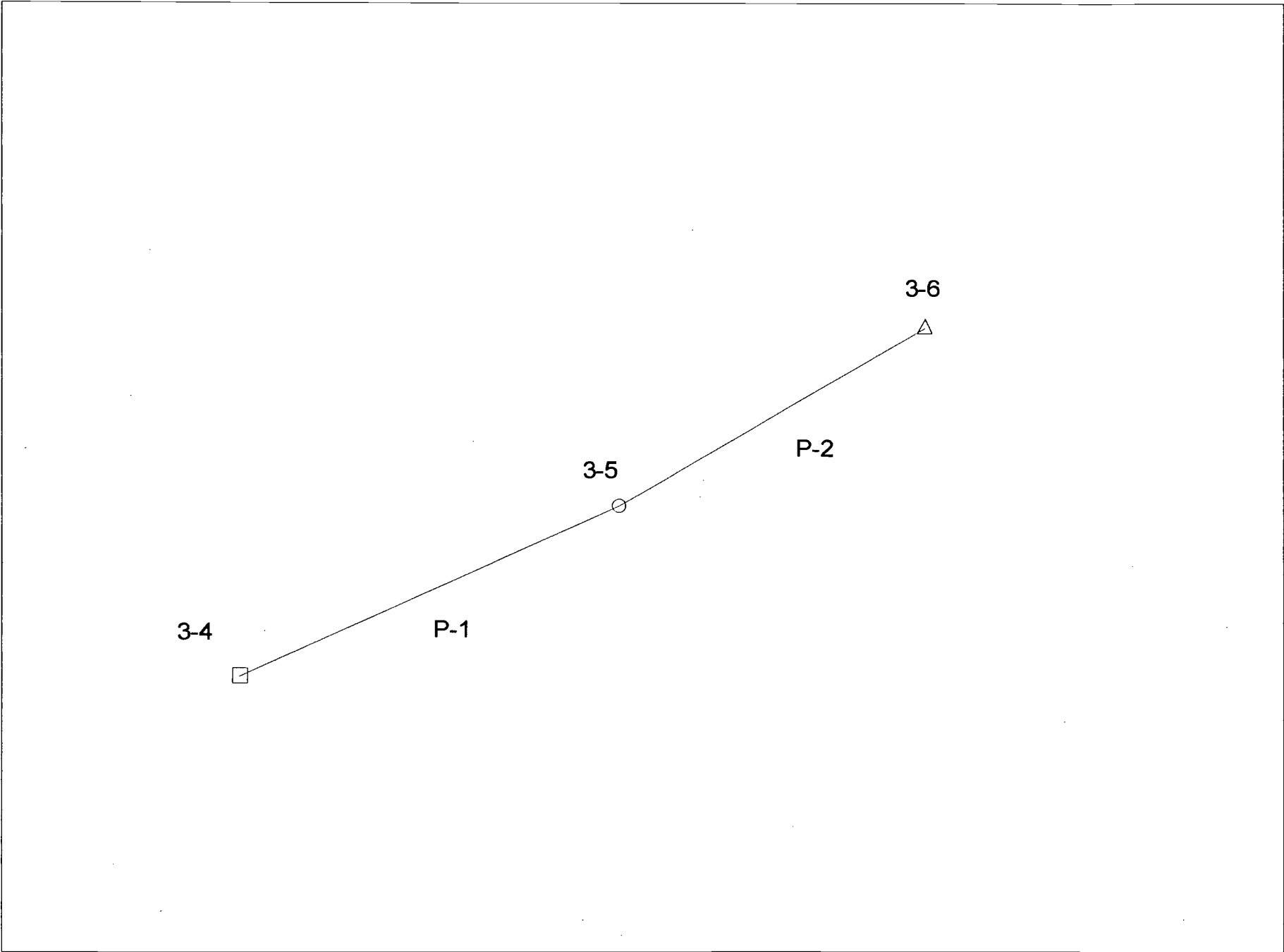
Pipe	Upstream Node	Downstream Node	Length (ft)	Inlet Area (acres)	Inlet C	Inlet CA (acres)	Total CA (acres)	Inlet Discharge (cfs)	Section Size	Capacity (cfs)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Constructed Slope (ft/ft)	Inlet TC (min)
P-1	2-1	2-2	135.00	2.08	0.44	0.92	0.92	6.73	18 inch	14.85	4.80	251.40	248.70	0.020000	10.00
P-2	2-2	2-3	104.00	N/A	N/A	N/A	0.92	N/A	18 inch	28.58	9.25	248.70	241.00	0.074038	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	0.92	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A





Combined Pipe/Node Report

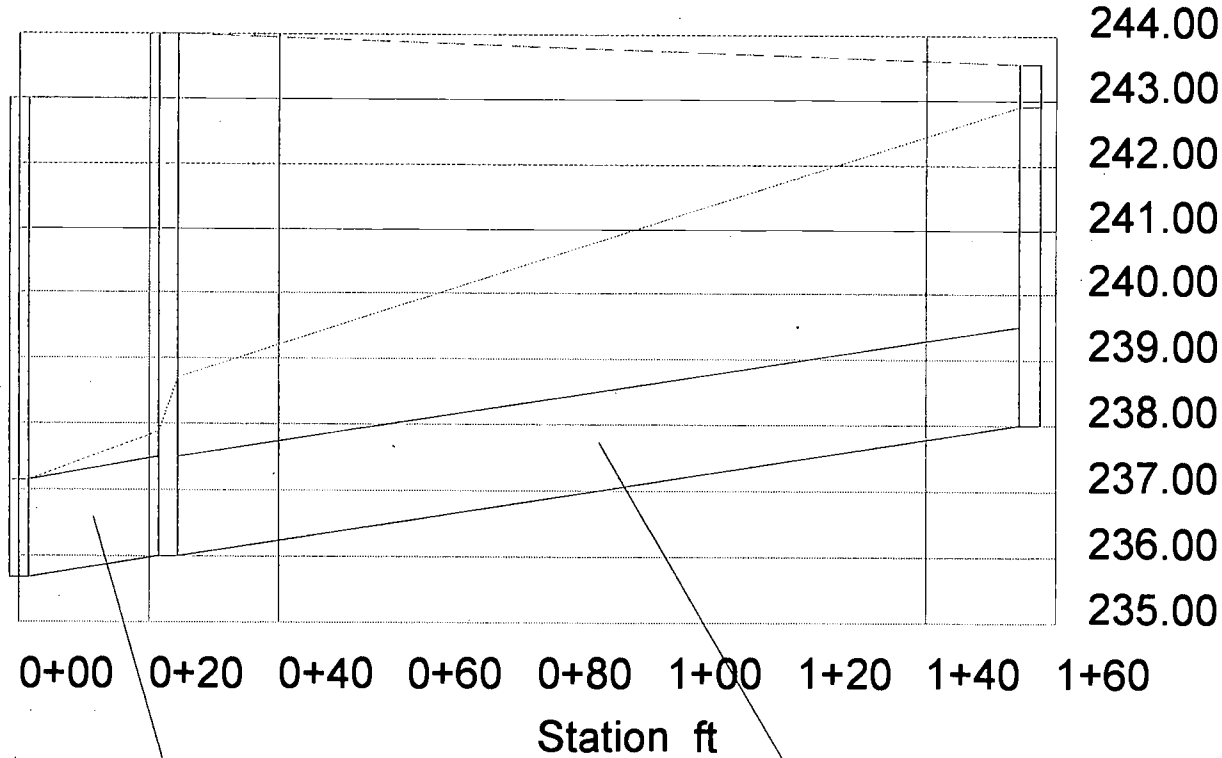
Pipe	Upstream Node	Downstream Node	Length (ft)	Inlet Area (acres)	Inlet C	Inlet CA (acres)	Total CA (acres)	Inlet Discharge (cfs)	Section Size	Capacity (cfs)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Constructed Slope (ft/ft)	Inlet TC (min)
P-1	3-1	3-2	135.00	1.15	0.58	0.67	0.67	4.91	18 inch	15.58	4.22	245.97	243.00	0.022000	10.00
P-2	3-2	3-3	75.00	N/A	N/A	N/A	0.67	N/A	18 inch	32.86	9.01	243.00	235.66	0.097867	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	0.67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



Outlet: 3-6
 Rim: 243.00 ft
 Sump: 235.66 ft

Junction: 3-5
 Rim: 244.00 ft
 Sump: 236.00 ft

Inlet: 3-4
 Rim: 243.57 ft
 Sump: 238.00 ft

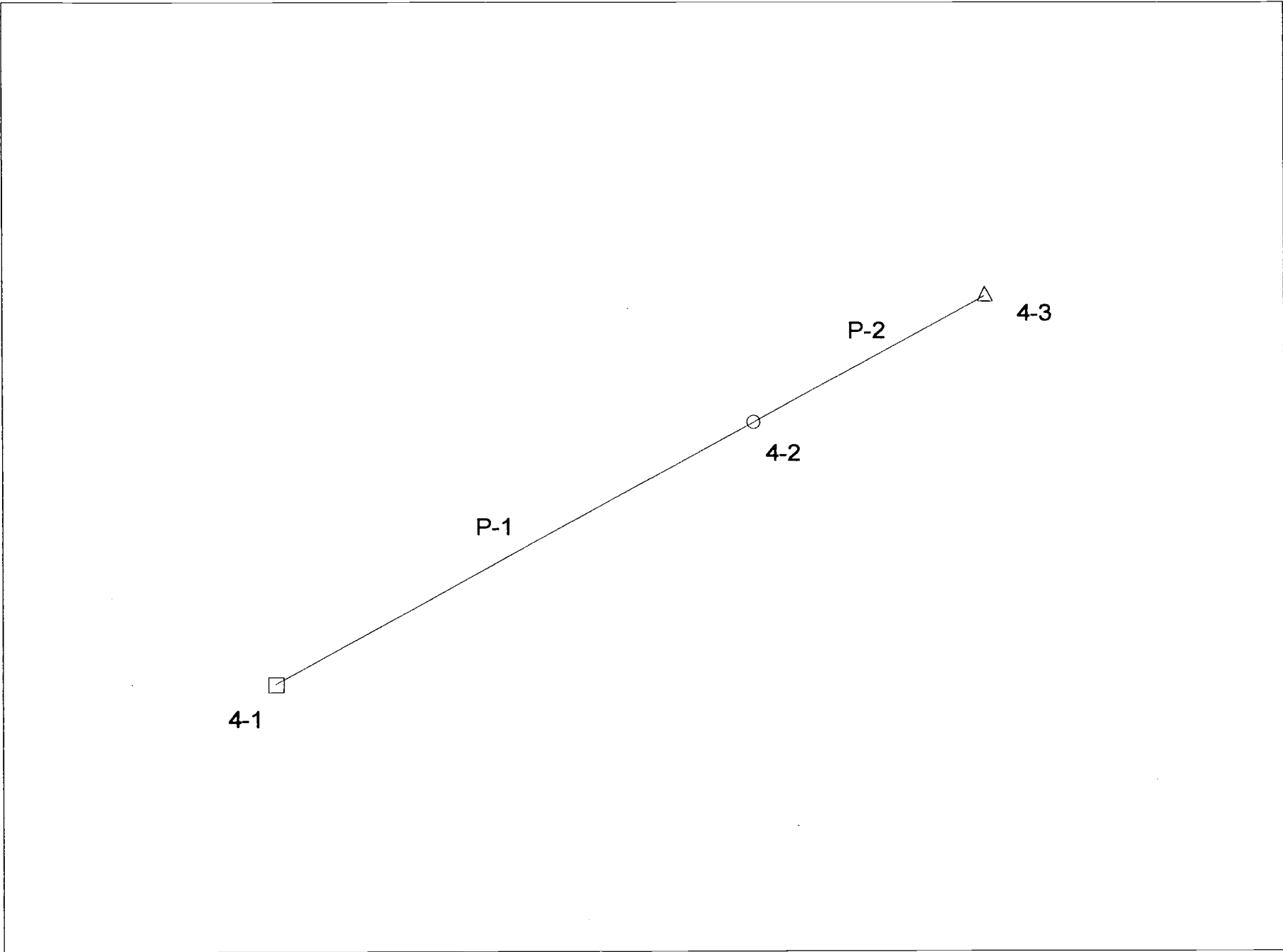


Pipe: P-2
 Up Invert: 236.00 ft
 Dn Invert: 235.66 ft
 Length: 23.00 ft
 Size: 18 inch

Pipe: P-1
 Up Invert: 238.00 ft
 Dn Invert: 236.00 ft
 Length: 133.00 ft
 Size: 18 inch

Combined Pipe/Node Report

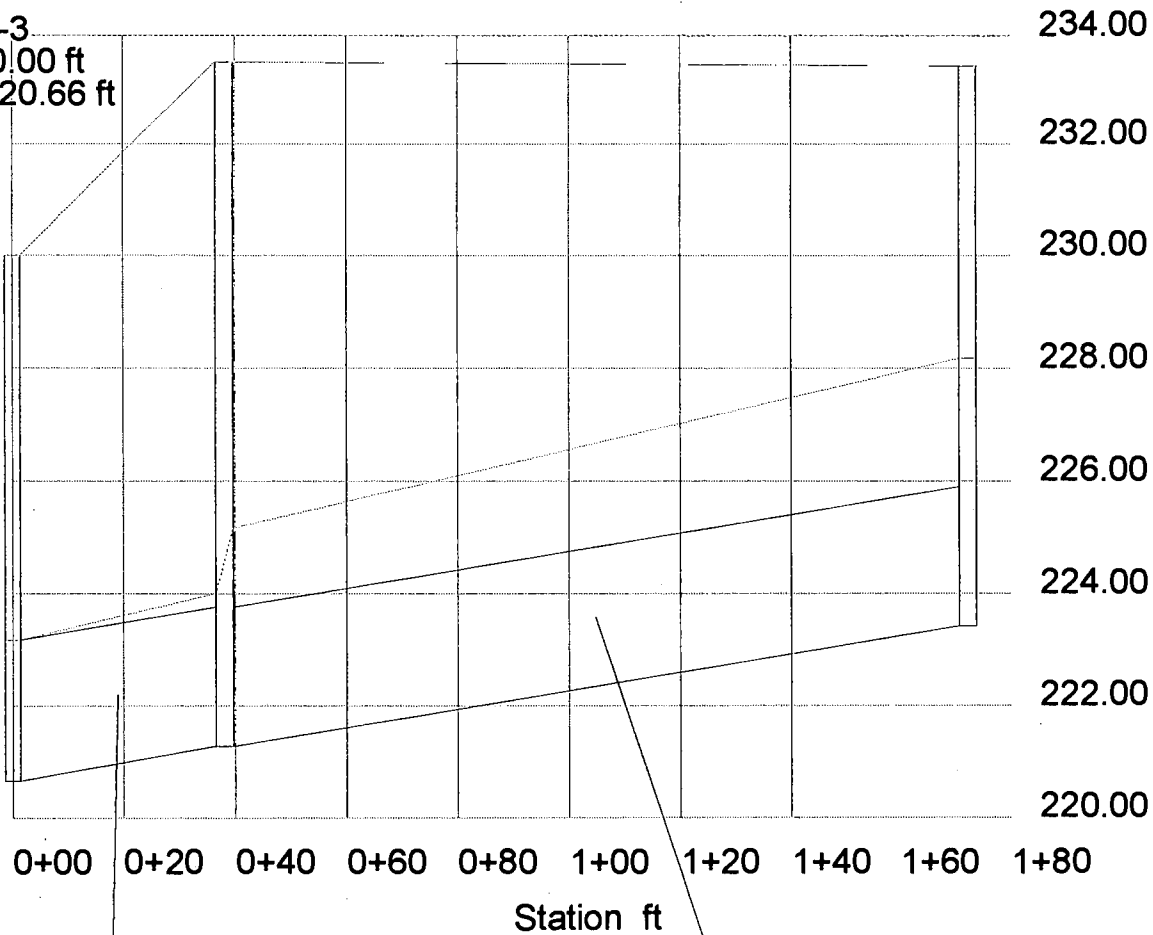
Pipe	Upstream Node	Downstream Node	Length (ft)	Inlet Area (acres)	Inlet C	Inlet CA (acres)	Total CA (acres)	Inlet Discharge (cfs)	Section Size	Capacity (cfs)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Constructed Slope (ft/ft)	Inlet TC (min)
P-1	3-4	3-5	133.00	4.60	0.55	2.53	2.53	18.62	18 inch	12.88	10.53	238.00	236.00	0.015038	10.00
P-2	3-5	3-6	23.00	N/A	N/A	N/A	2.53	N/A	18 inch	12.77	10.47	236.00	235.66	0.014783	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	2.53	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



Junction: 4-2
Rim: 233.50 ft
Sump: 221.27 ft

Inlet: 4-1
Rim: 233.42 ft
Sump: 223.41 ft

Outlet: 4-3
Rim: 230.00 ft
Sump: 220.66 ft



Elevation ft

Pipe: P-2
Up Invert: 221.27 ft
Dn Invert: 220.66 ft
Length: 38.00 ft
Size: 30 inch

Pipe: P-1
Up Invert: 223.41 ft
Dn Invert: 221.27 ft
Length: 134.00 ft
Size: 30 inch

Combined Pipe/Node Report

Pipe	Upstream Node	Downstream Node	Length (ft)	Inlet Area (acres)	Inlet C	Inlet CA (acres)	Total CA (acres)	Inlet Discharge (cfs)	Section Size	Capacity (cfs)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Constructed Slope (ft/ft)	Inlet TC (min)
P-1	4-1	4-2	134.00	16.29	0.51	8.31	8.31	61.13	30 inch	51.83	12.45	223.41	221.27	0.015970	10.00
P-2	4-2	4-3	38.00	N/A	N/A	N/A	8.31	N/A	30 inch	51.97	12.39	221.27	220.66	0.016053	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	8.31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

4b-1

P-1

4b-2

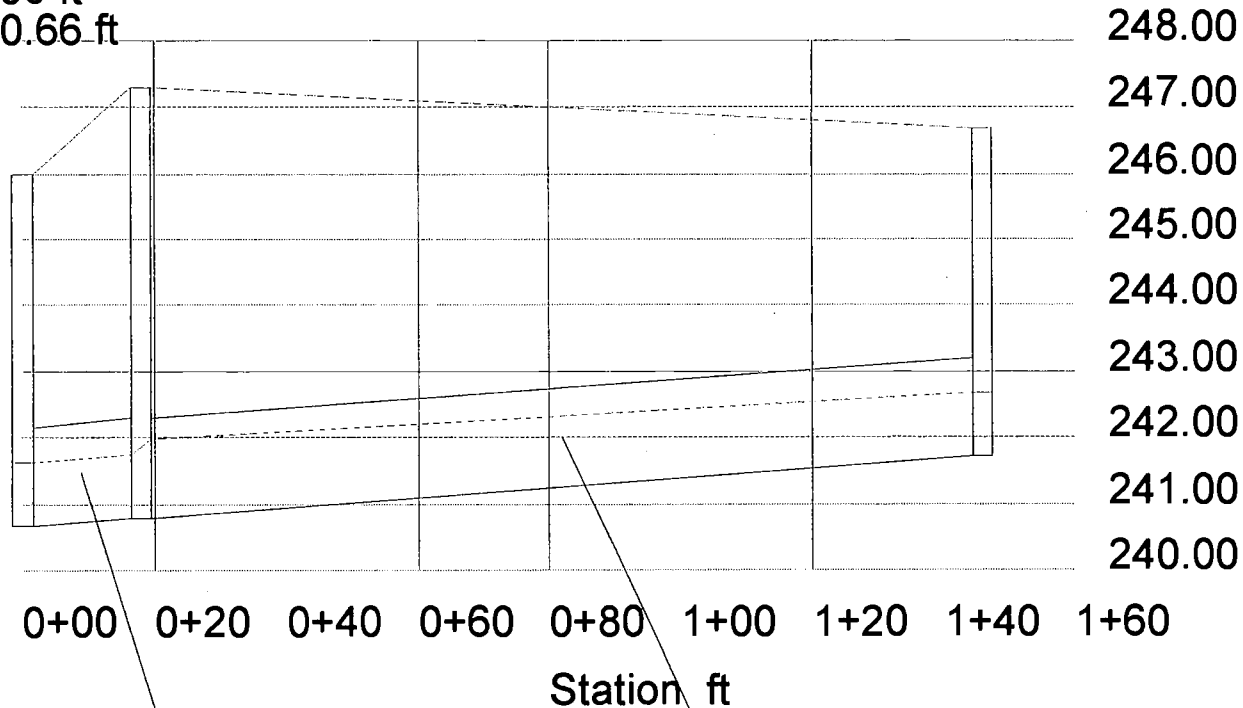
P-2

4b-3

Junction: 4b-2
 Rim: 247.30 ft
 Sump: 240.79 ft

Inlet: 4b-1
 Rim: 246.69 ft
 Sump: 241.70 ft

Outlet: 4b-3
 Rim: 246.00 ft
 Sump: 240.66 ft



Elevation ft

Pipe: P-2
 Up Invert: 240.79 ft
 Dn Invert: 240.66 ft
 Length: 18.00 ft
 Size: 18 inch

Pipe: P-1
 Up Invert: 241.70 ft
 Dn Invert: 240.79 ft
 Length: 128.00 ft
 Size: 18 inch

Combined Pipe/Node Report

Pipe	Upstream Node	Downstream Node	Length (ft)	Inlet Area (acres)	Inlet C	Inlet CA (acres)	Total CA (acres)	Inlet Discharge (cfs)	Section Size	Capacity (cfs)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Constructed Slope (ft/ft)	Inlet TC (min)
P-1	4b-1	4b-2	128.00	1.14	0.75	0.86	0.86	6.29	18 inch	8.86	4.73	241.70	240.79	0.007109	10.00
P-2	4b-2	4b-3	18.00	N/A	N/A	N/A	0.86	N/A	18 inch	8.93	5.18	240.79	240.66	0.007222	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	0.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

4b-6



P-2

4b-5

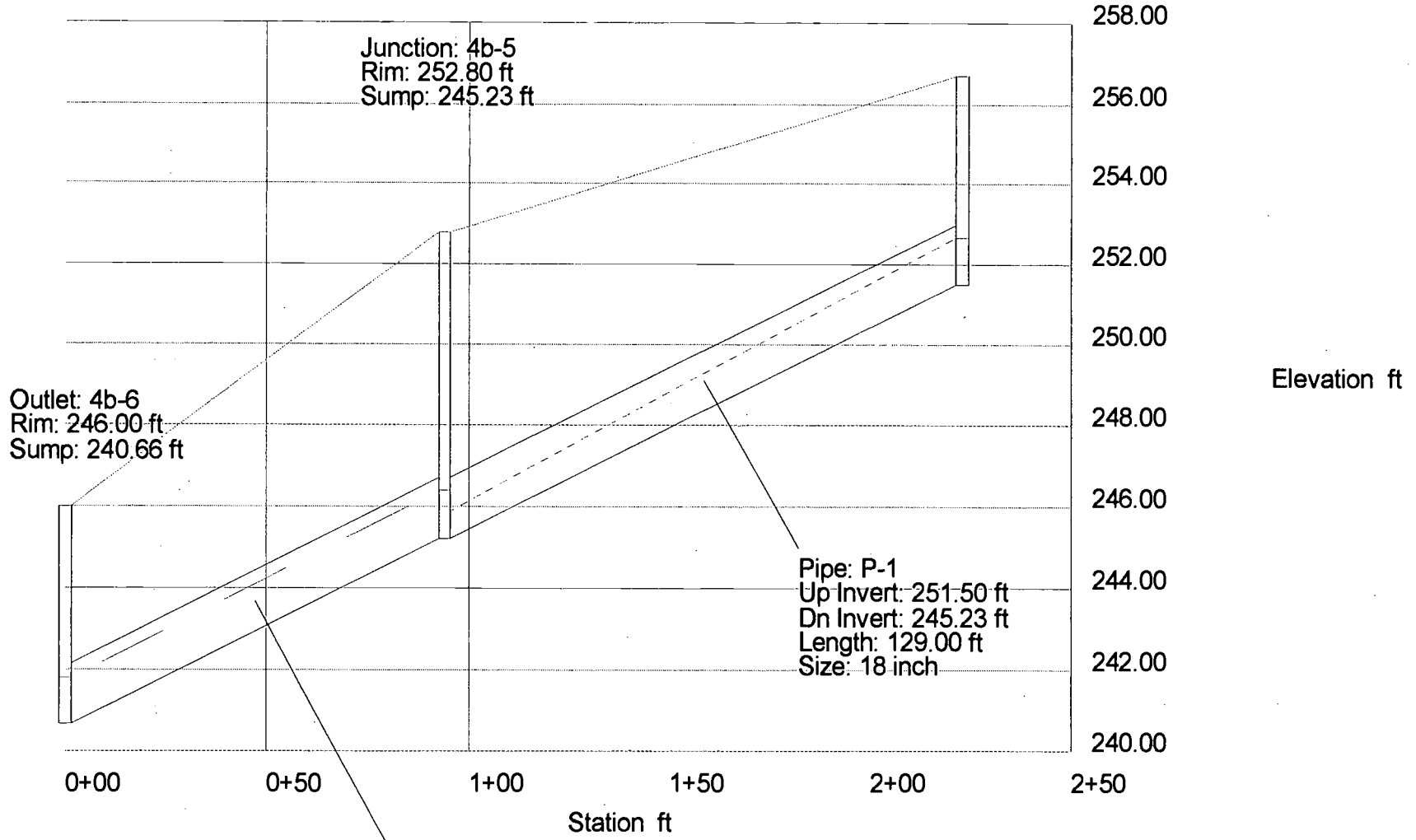


P-1



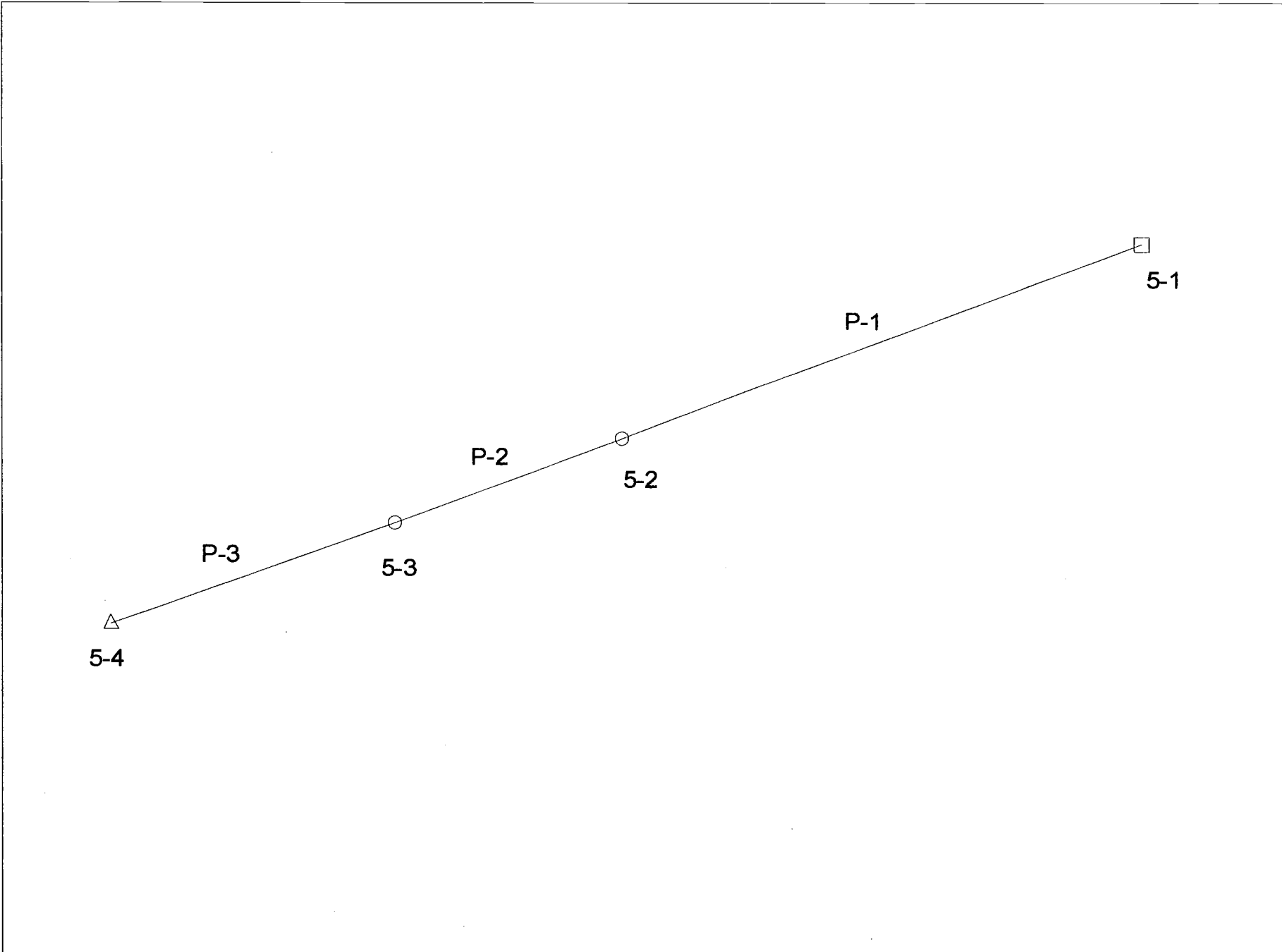
4b-4

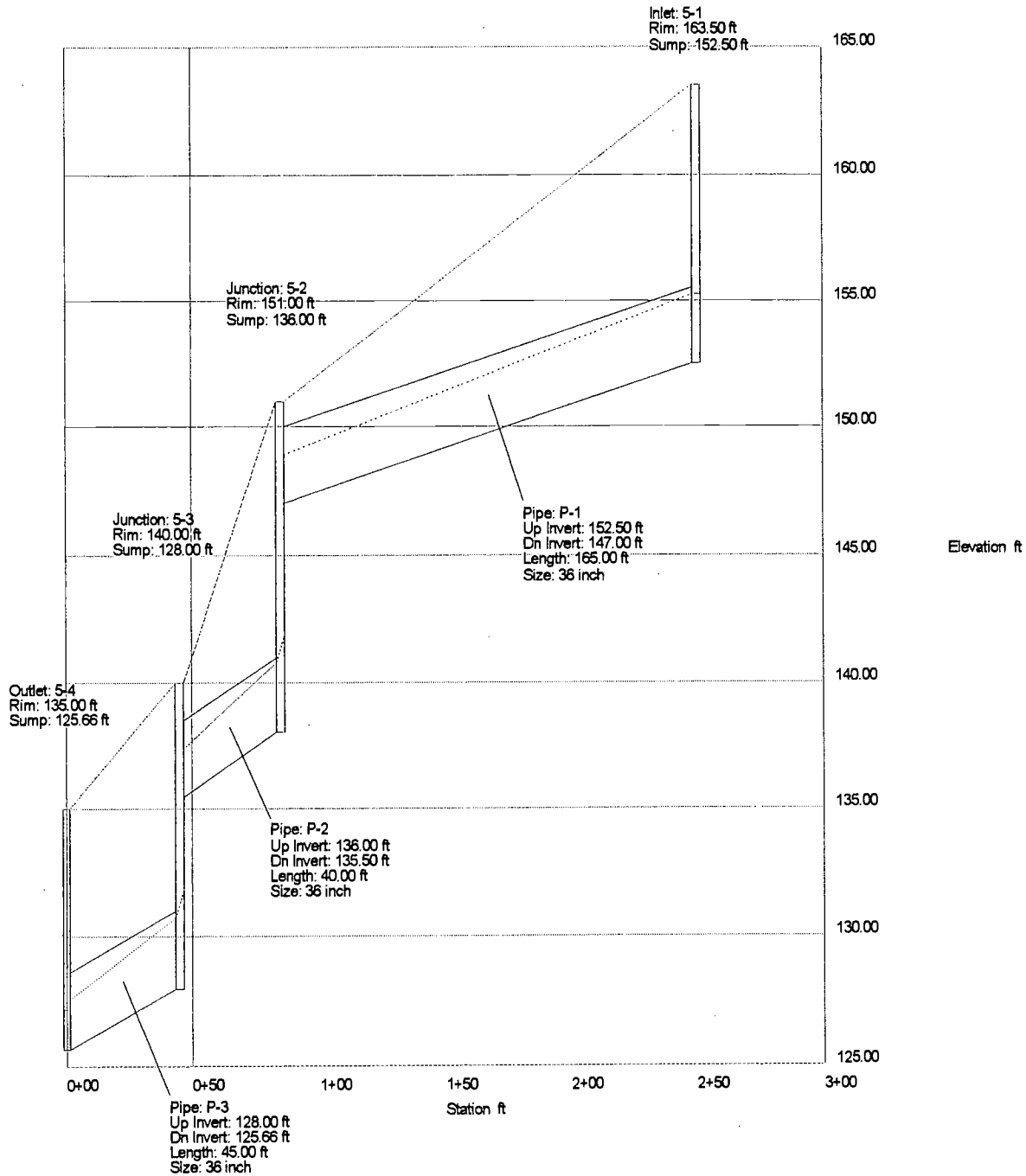
Inlet: 4b-4
Rim: 256.70 ft
Sump: 251.50 ft



Combined Pipe/Node Report

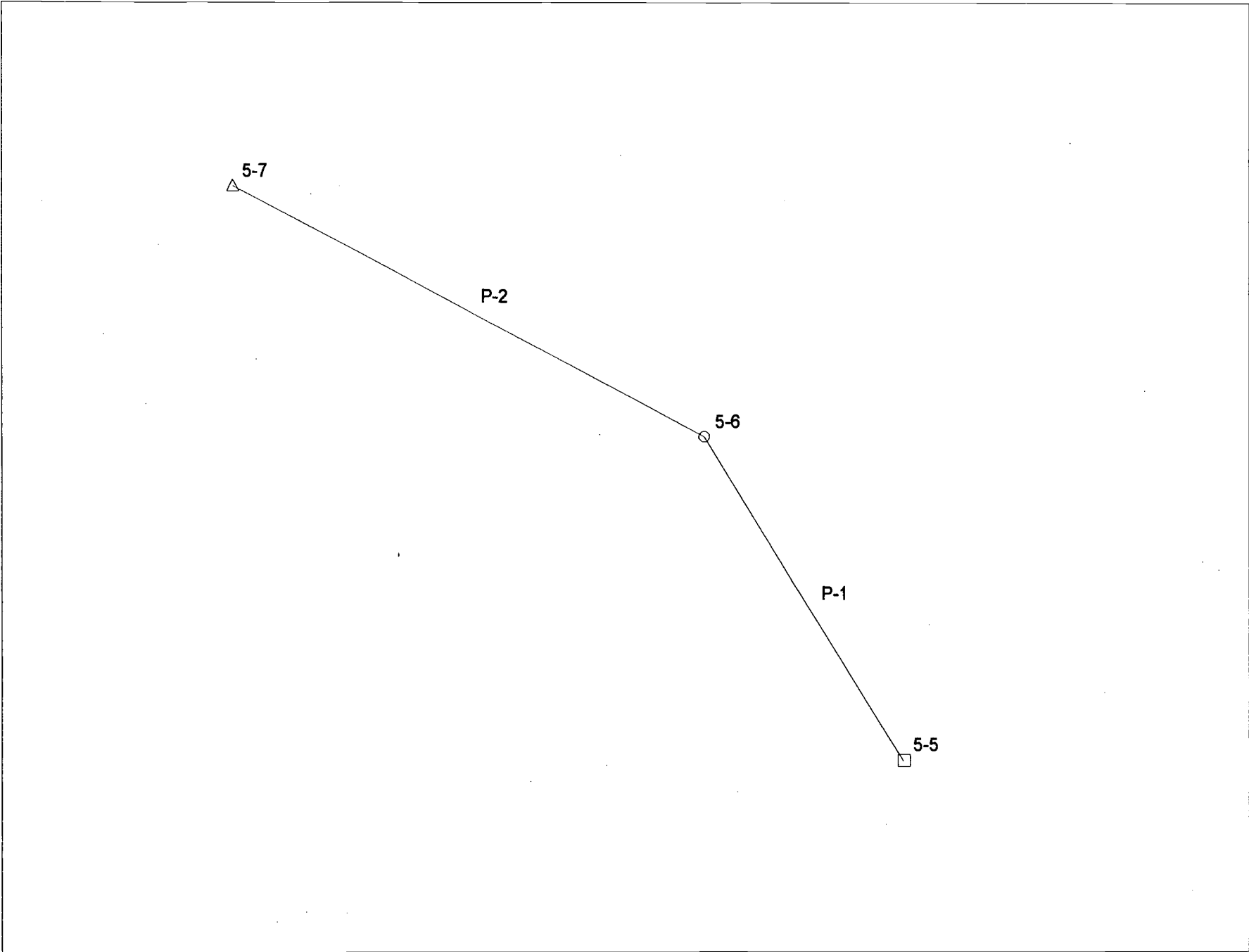
Pipe	Upstream Node	Downstream Node	Length (ft)	Inlet Area (acres)	Inlet C	Inlet CA (acres)	Total CA (acres)	Inlet Discharge (cfs)	Section Size	Capacity (cfs)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Constructed Slope (ft/ft)	Inlet TC (min)
P-1	4b-4	4b-5	129.00	1.60	0.78	1.25	1.25	9.18	18 inch	23.16	9.27	251.50	245.23	0.048605	10.00
P-2	4b-5	4b-6	94.00	N/A	N/A	N/A	1.25	N/A	18 inch	23.16	6.18	245.23	240.66	0.048617	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	1.25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

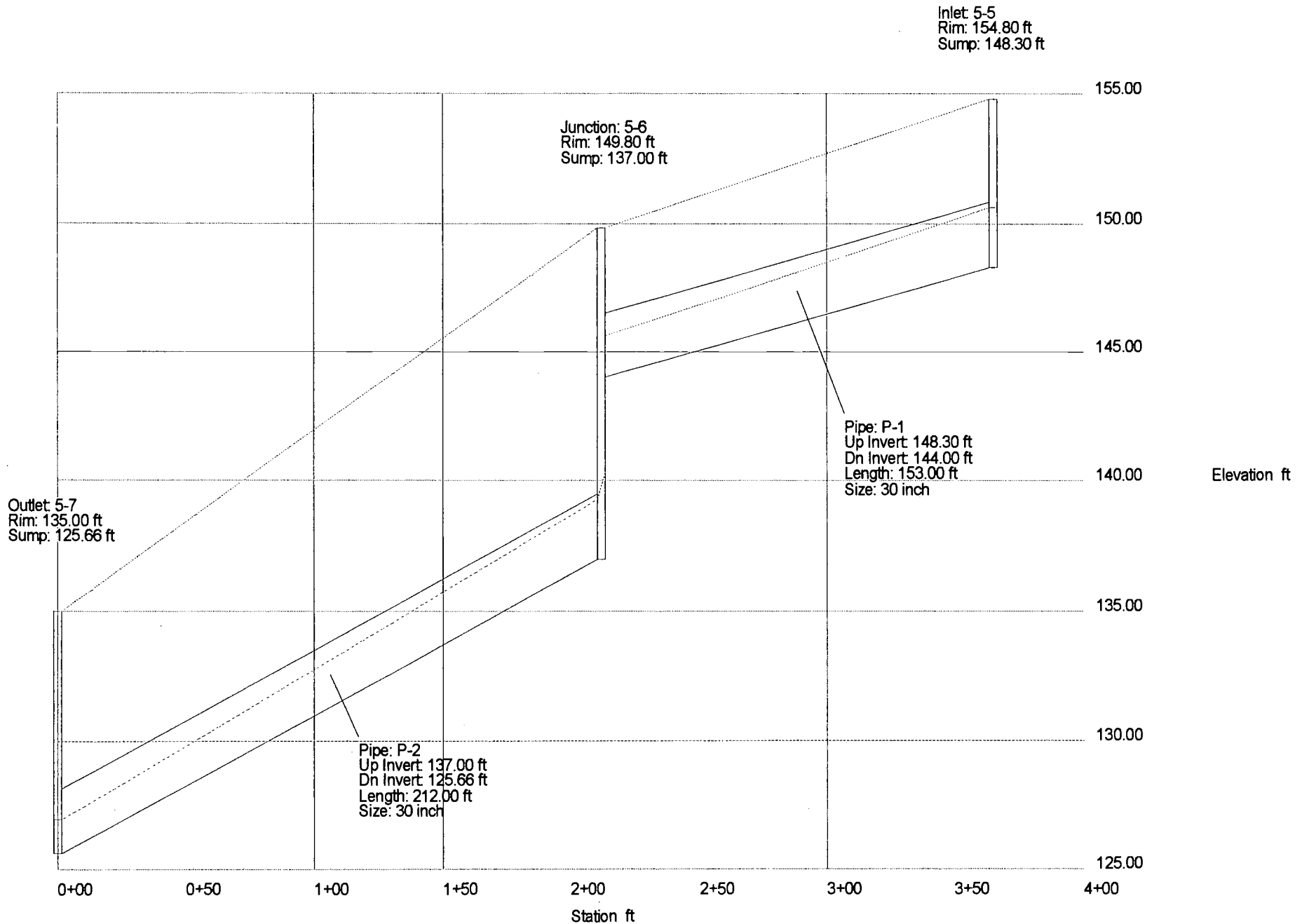




Combined Pipe/Node Report

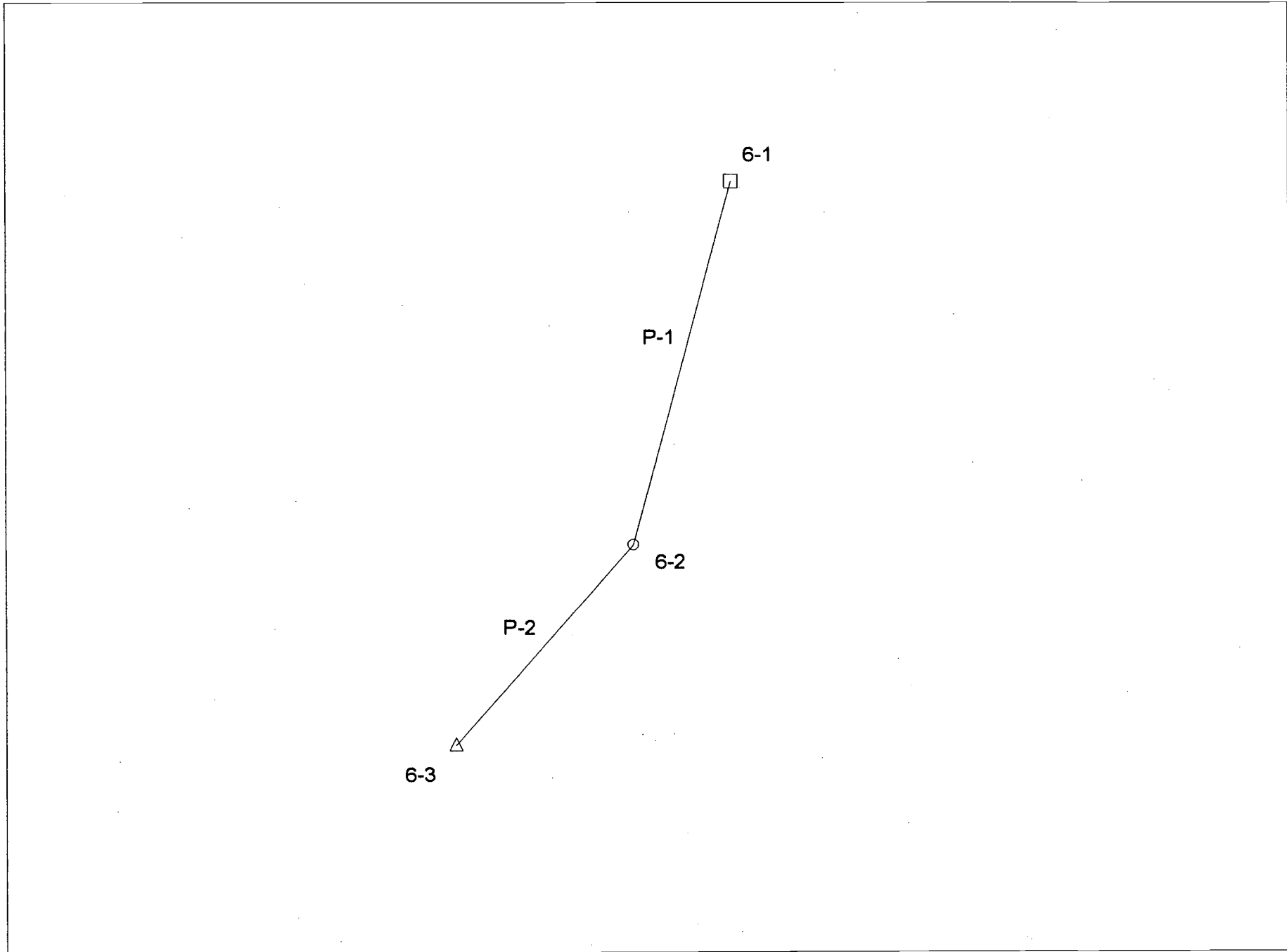
Pipe	Upstream Node	Downstream Node	Length (ft)	Inlet Area (acres)	Inlet C	Inlet CA (acres)	Total CA (acres)	Inlet Discharge (cfs)	Section Size	Capacity (cfs)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Constructed Slope (ft/ft)	Inlet TC (min)
P-1	5-1	5-2	165.00	24.79	0.45	11.16	11.16	82.09	36 inch	121.77	14.78	152.50	147.00	0.033333	10.00
P-2	5-2	5-3	40.00	N/A	N/A	N/A	11.16	N/A	36 inch	166.74	14.70	138.00	135.50	0.062500	N/A
P-3	5-3	5-4	45.00	N/A	N/A	N/A	11.16	N/A	36 inch	152.09	14.44	128.00	125.66	0.052000	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	11.16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A





Combined Pipe/Node Report

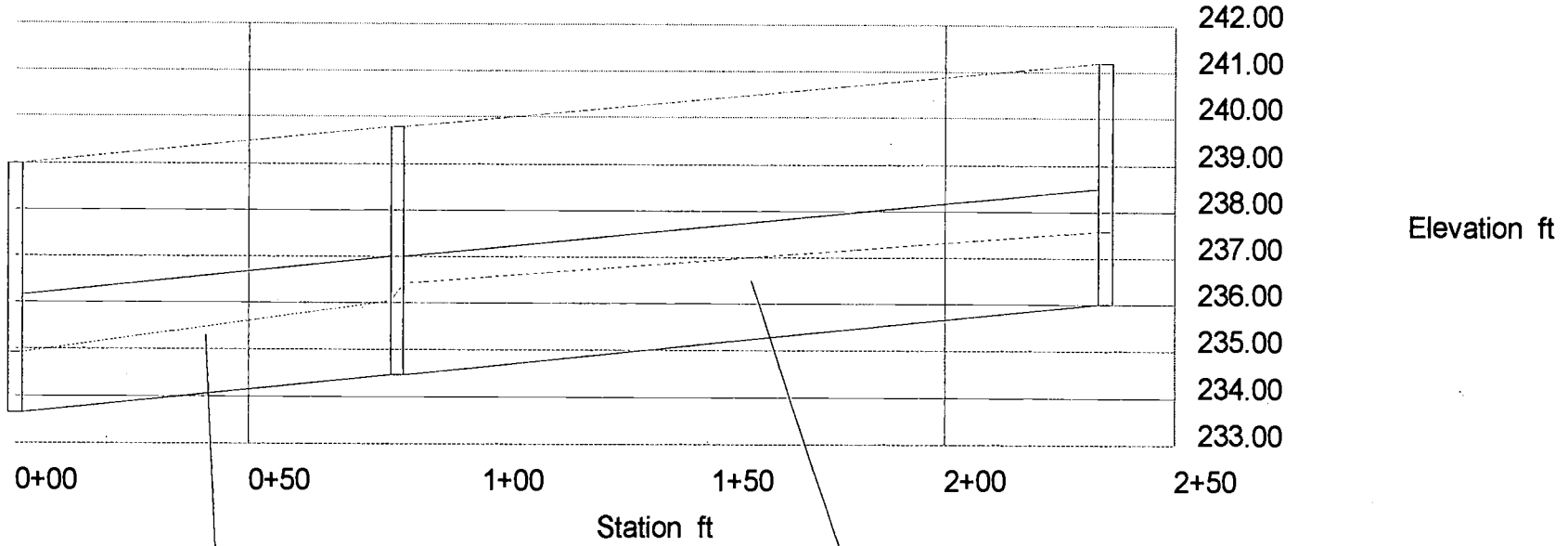
Pipe	Upstream Node	Downstream Node	Length (ft)	Inlet Area (acres)	Inlet C	Inlet CA (acres)	Total CA (acres)	Inlet Discharge (cfs)	Section Size	Capacity (cfs)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Constructed Slope (ft/ft)	Inlet TC (min)
P-1	5-5	5-6	153.00	13.22	0.51	6.74	6.74	49.61	30 inch	68.76	12.67	148.30	144.00	0.028105	10.00
P-2	5-6	5-7	212.00	N/A	N/A	N/A	6.74	N/A	30 inch	94.86	14.99	137.00	125.66	0.053491	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	6.74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



Outlet: 6-3
Rim: 239.00 ft
Sump: 233.66 ft

Junction: 6-2
Rim: 239.80 ft
Sump: 234.48 ft

Inlet: 6-1
Rim: 241.21 ft
Sump: 236.00 ft

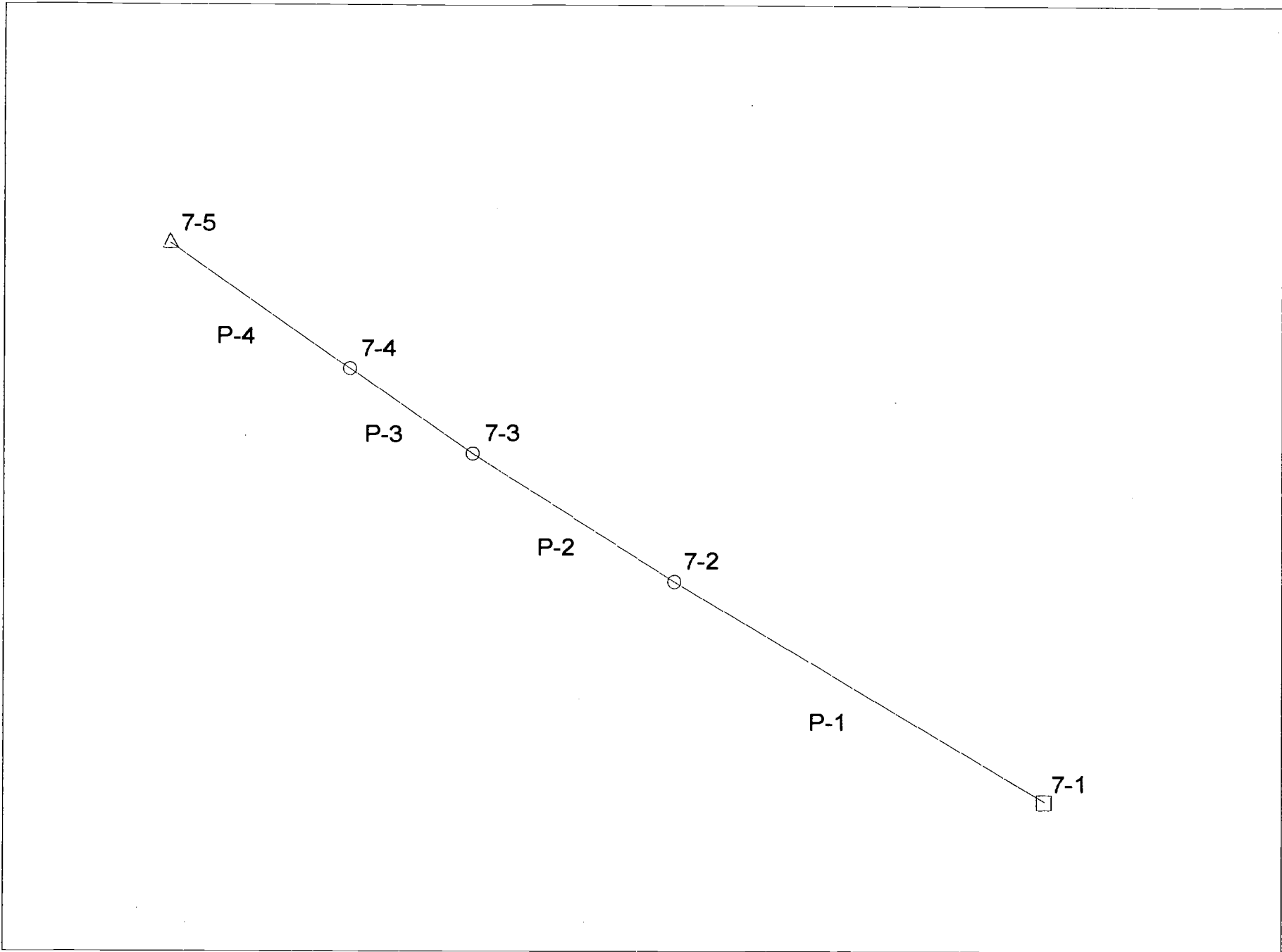


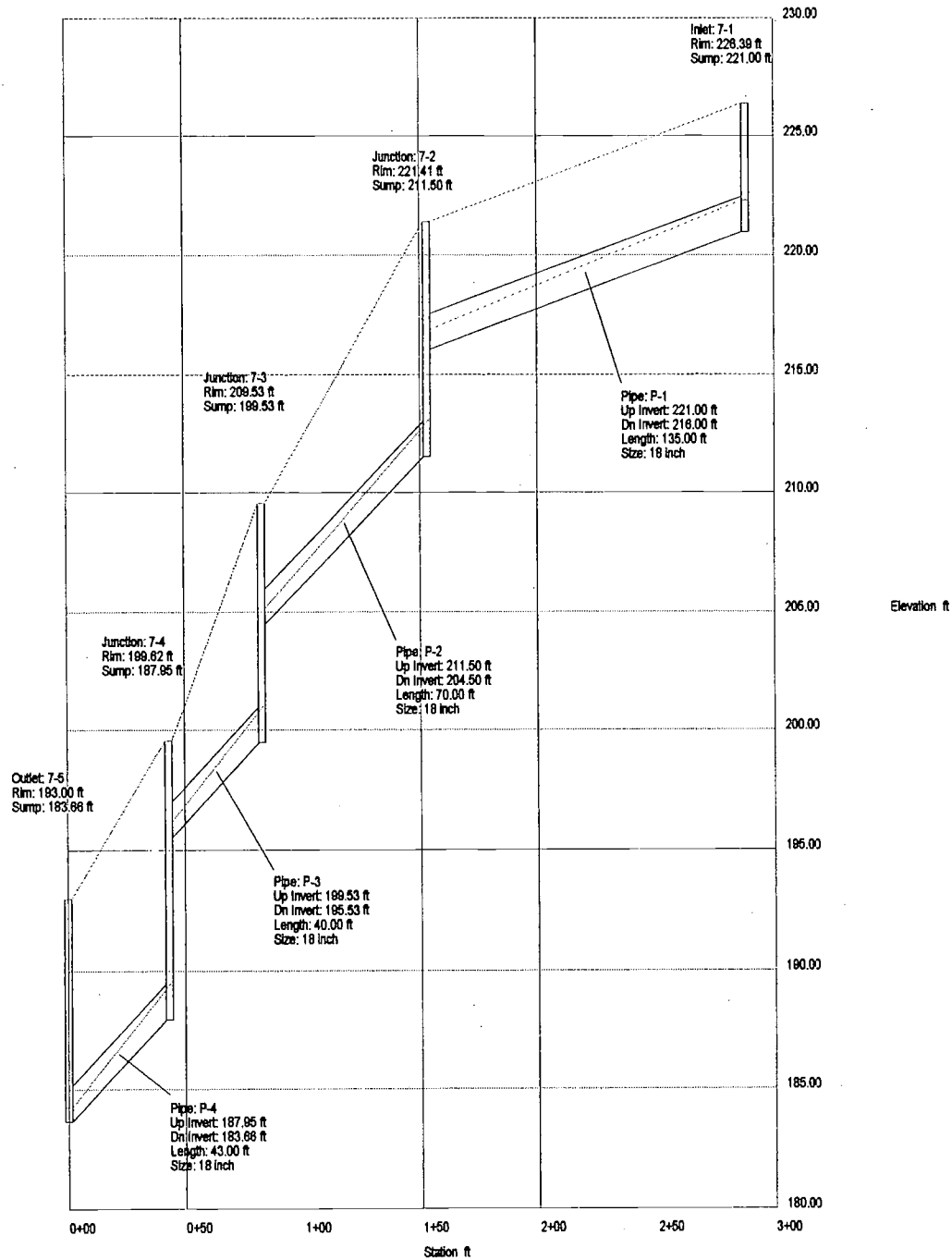
Pipe: P-2
Up Invert: 234.48 ft
Dn Invert: 233.66 ft
Length: 82.00 ft
Size: 30 inch

Pipe: P-1
Up Invert: 236.00 ft
Dn Invert: 234.48 ft
Length: 153.00 ft
Size: 30 inch

Combined Pipe/Node Report

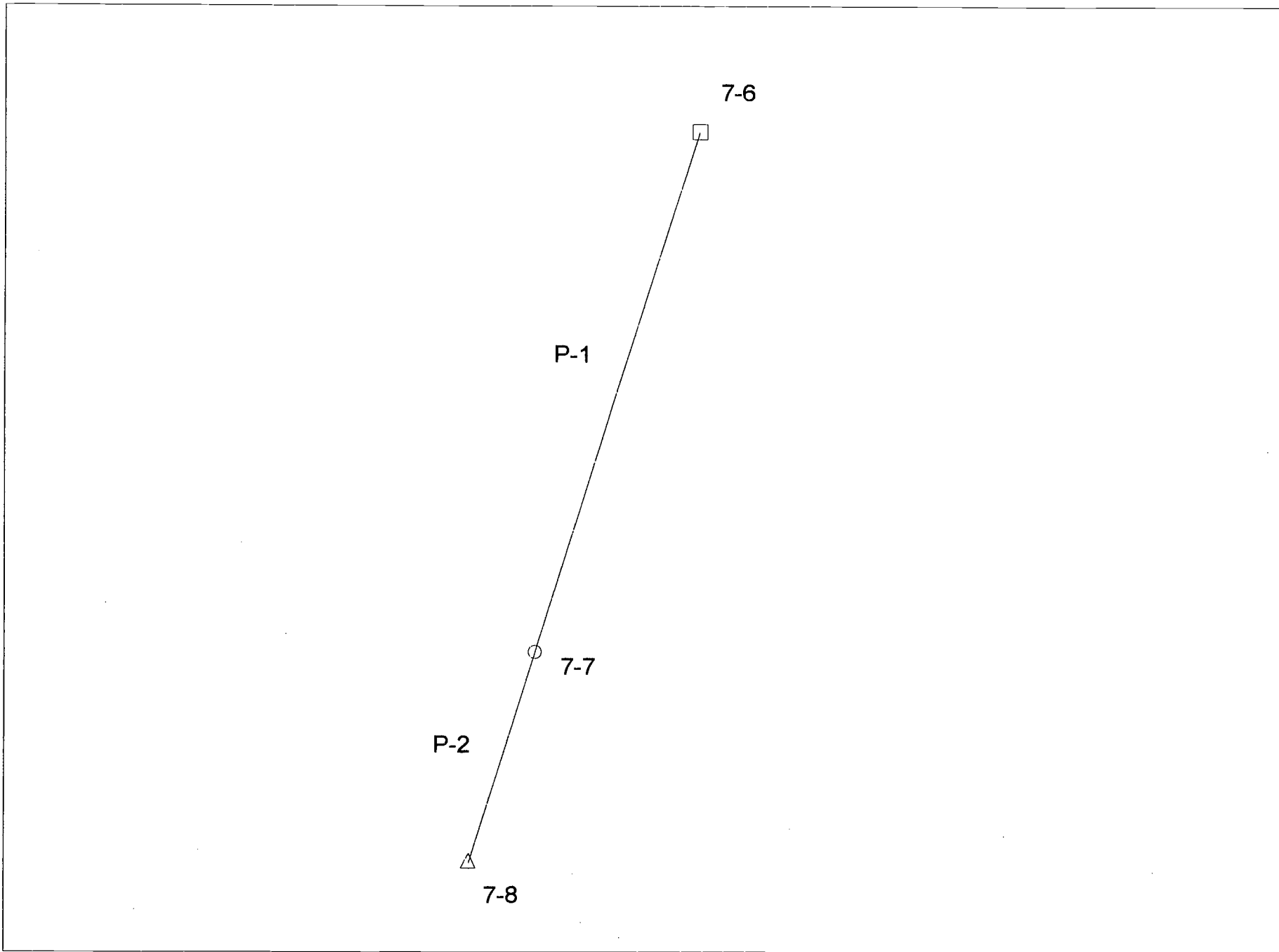
Pipe	Upstream Node	Downstream Node	Length (ft)	Inlet Area (acres)	Inlet C	Inlet CA (acres)	Total CA (acres)	Inlet Discharge (cfs)	Section Size	Capacity (cfs)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Constructed Slope (ft/ft)	Inlet TC (min)
P-1	6-1	6-2	153.00	6.20	0.46	2.85	2.85	20.99	30 inch	40.88	5.83	236.00	234.48	0.009935	10.00
P-2	6-2	6-3	82.00	N/A	N/A	N/A	2.85	N/A	30 inch	41.01	7.38	234.48	233.66	0.010000	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	2.85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



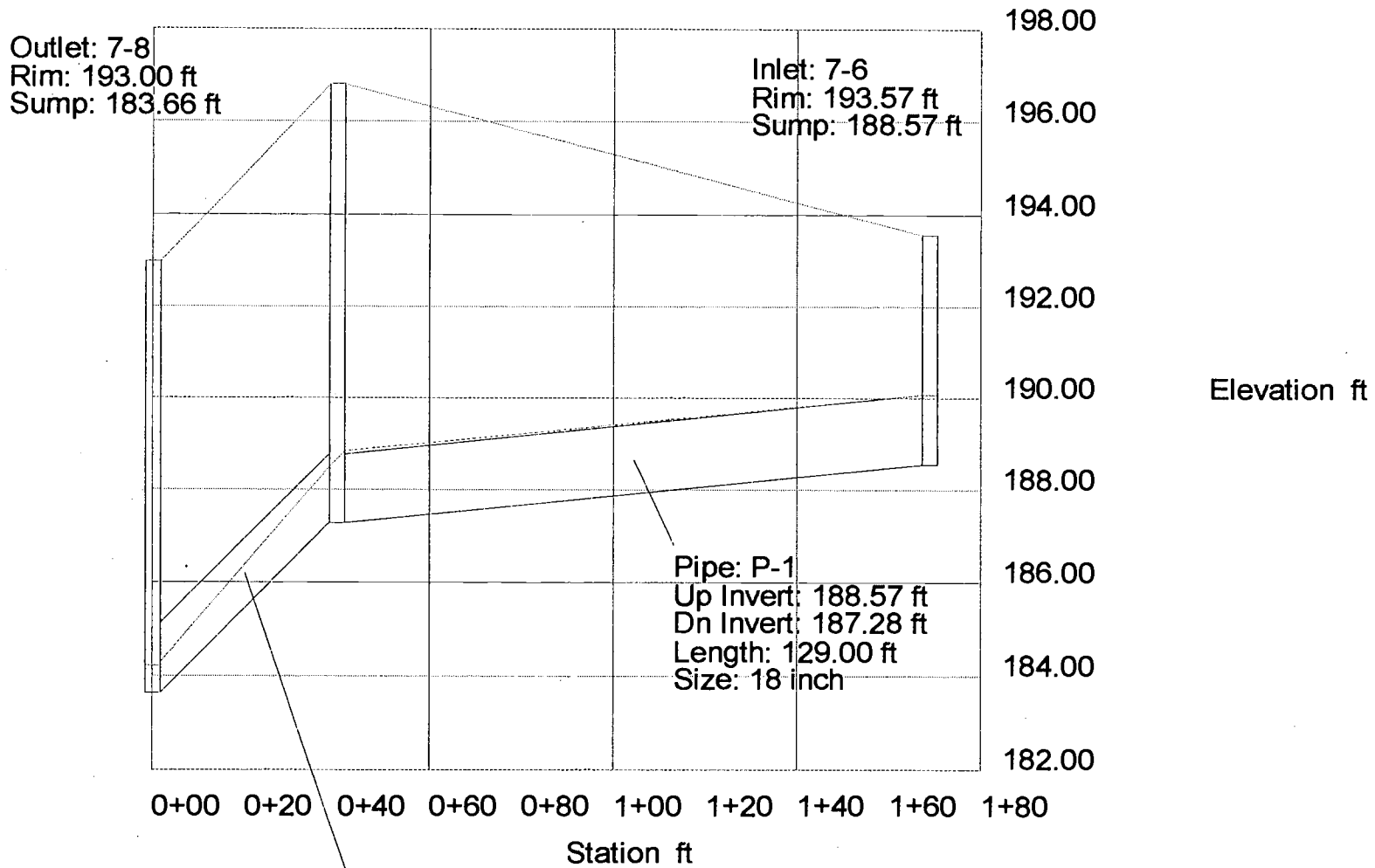


Combined Pipe/Node Report

Pipe	Upstream Node	Downstream Node	Length (ft)	Inlet Area (acres)	Inlet C	Inlet CA (acres)	Total CA (acres)	Inlet Discharge (cfs)	Section Size	Capacity (cfs)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Constructed Slope (ft/ft)	Inlet TC (min)
P-1	7-1	7-2	135.00	5.34	0.29	1.55	1.55	11.40	18 inch	20.21	9.42	221.00	216.00	0.037037	10.00
P-2	7-2	7-3	70.00	N/A	N/A	N/A	1.55	N/A	18 inch	33.22	11.78	211.50	204.50	0.100000	N/A
P-3	7-3	7-4	40.00	N/A	N/A	N/A	1.55	N/A	18 inch	33.22	11.04	199.53	195.53	0.100000	N/A
P-4	7-4	7-5	43.00	N/A	N/A	N/A	1.55	N/A	18 inch	33.18	11.13	187.95	183.66	0.099767	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	1.55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

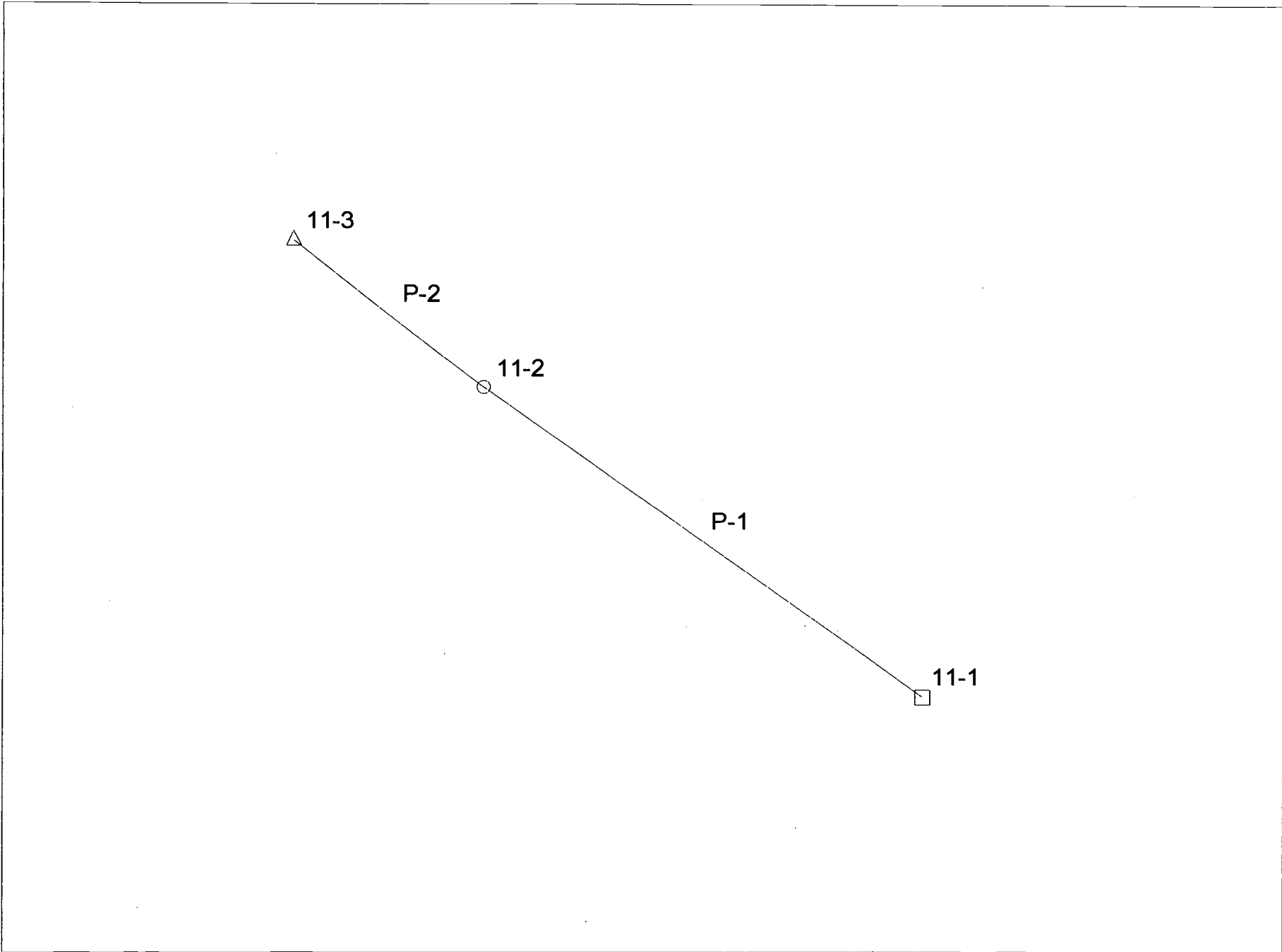


Junction: 7-7
 Rim: 196.80 ft
 Sump: 187.28 ft

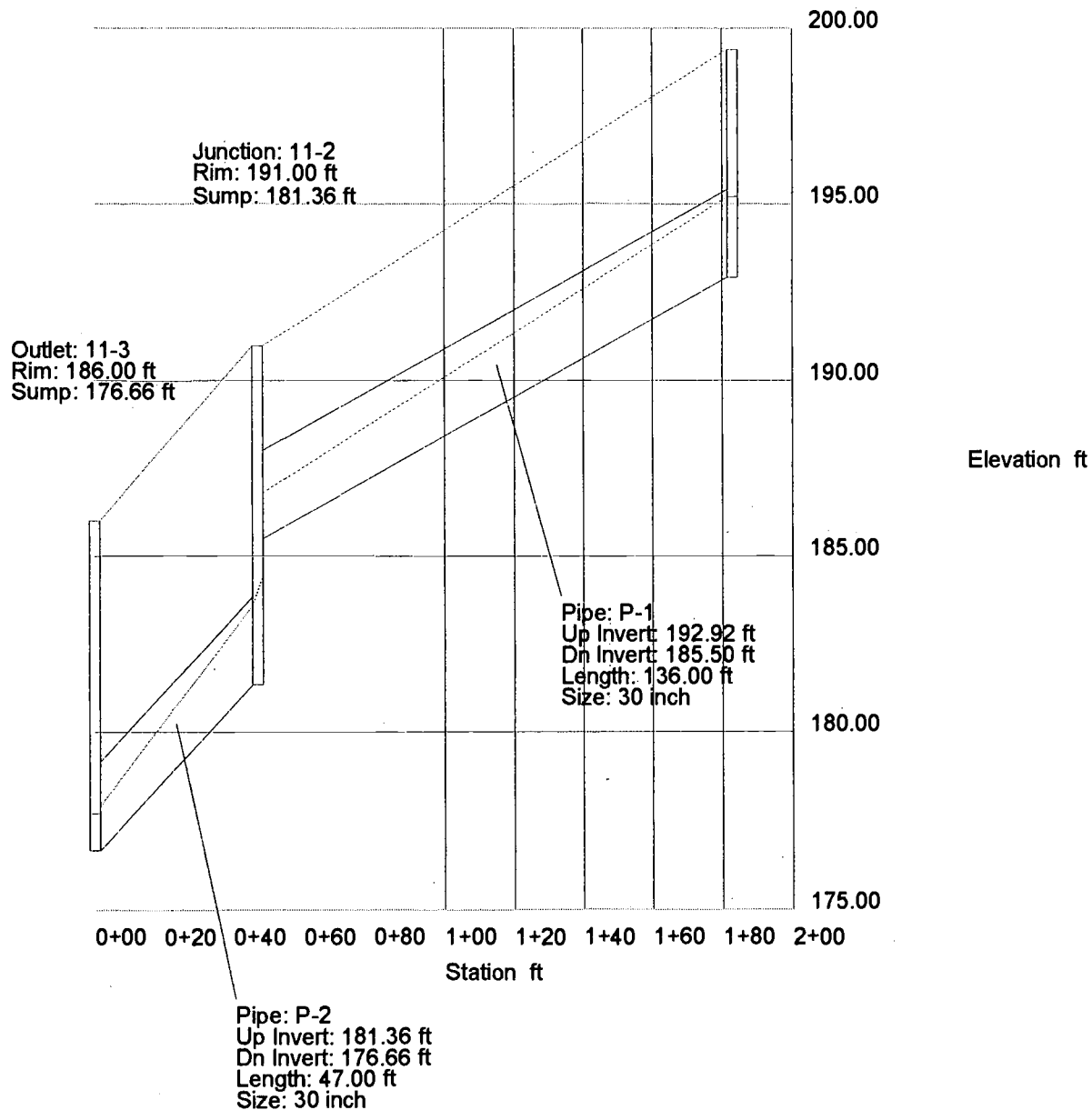


Combined Pipe/Node Report

Pipe	Upstream Node	Downstream Node	Length (ft)	Inlet Area (acres)	Inlet C	Inlet CA (acres)	Total CA (acres)	Inlet Discharge (cfs)	Section Size	Capacity (cfs)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Constructed Slope (ft/ft)	Inlet TC (min)
P-1	7-6	7-7	129.00	3.43	0.41	1.41	1.41	10.35	18 inch	10.50	5.86	188.57	187.28	0.010000	10.00
P-2	7-7	7-8	40.00	N/A	N/A	N/A	1.41	N/A	18 inch	31.60	10.43	187.28	183.66	0.090500	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	1.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

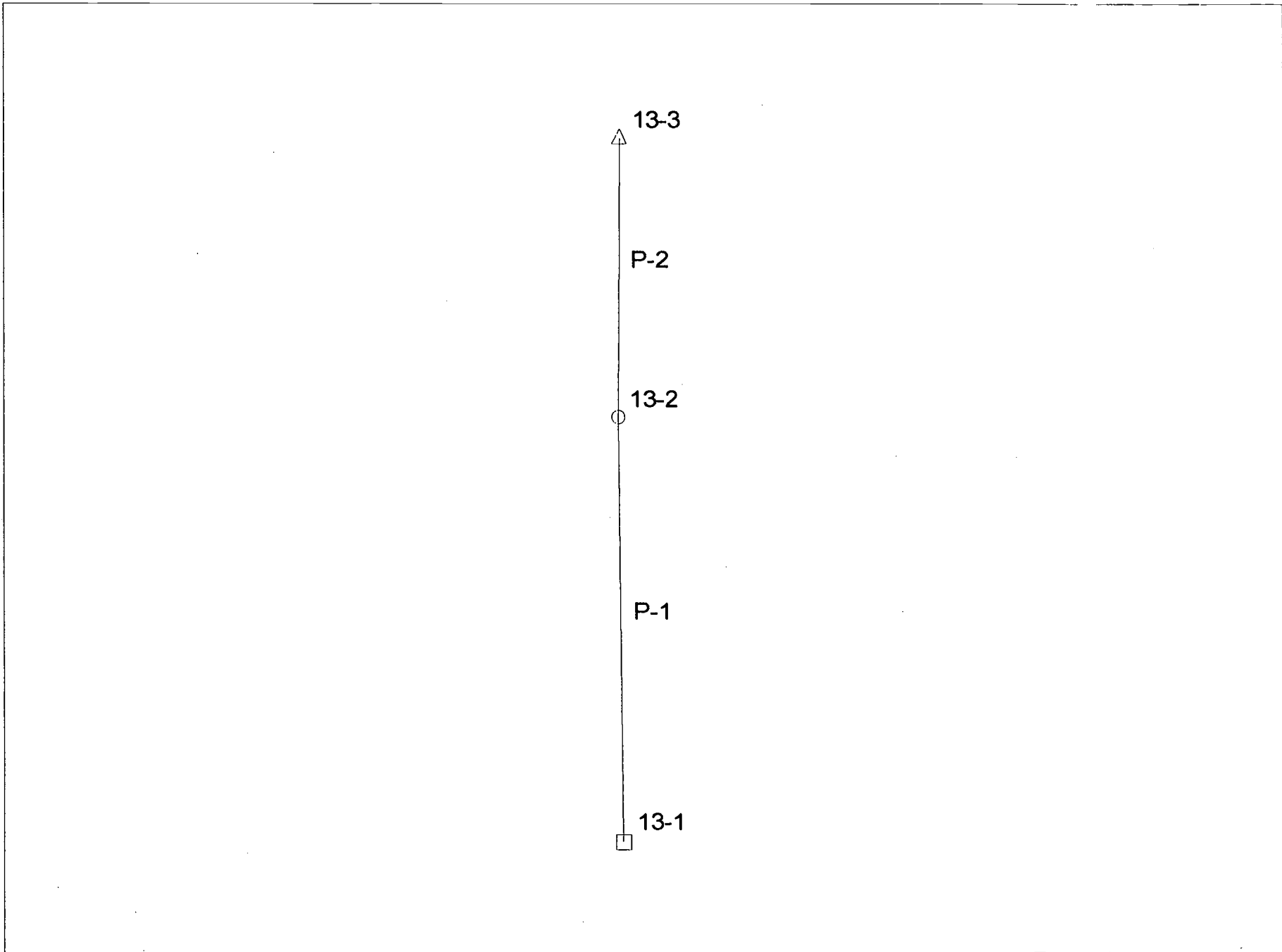


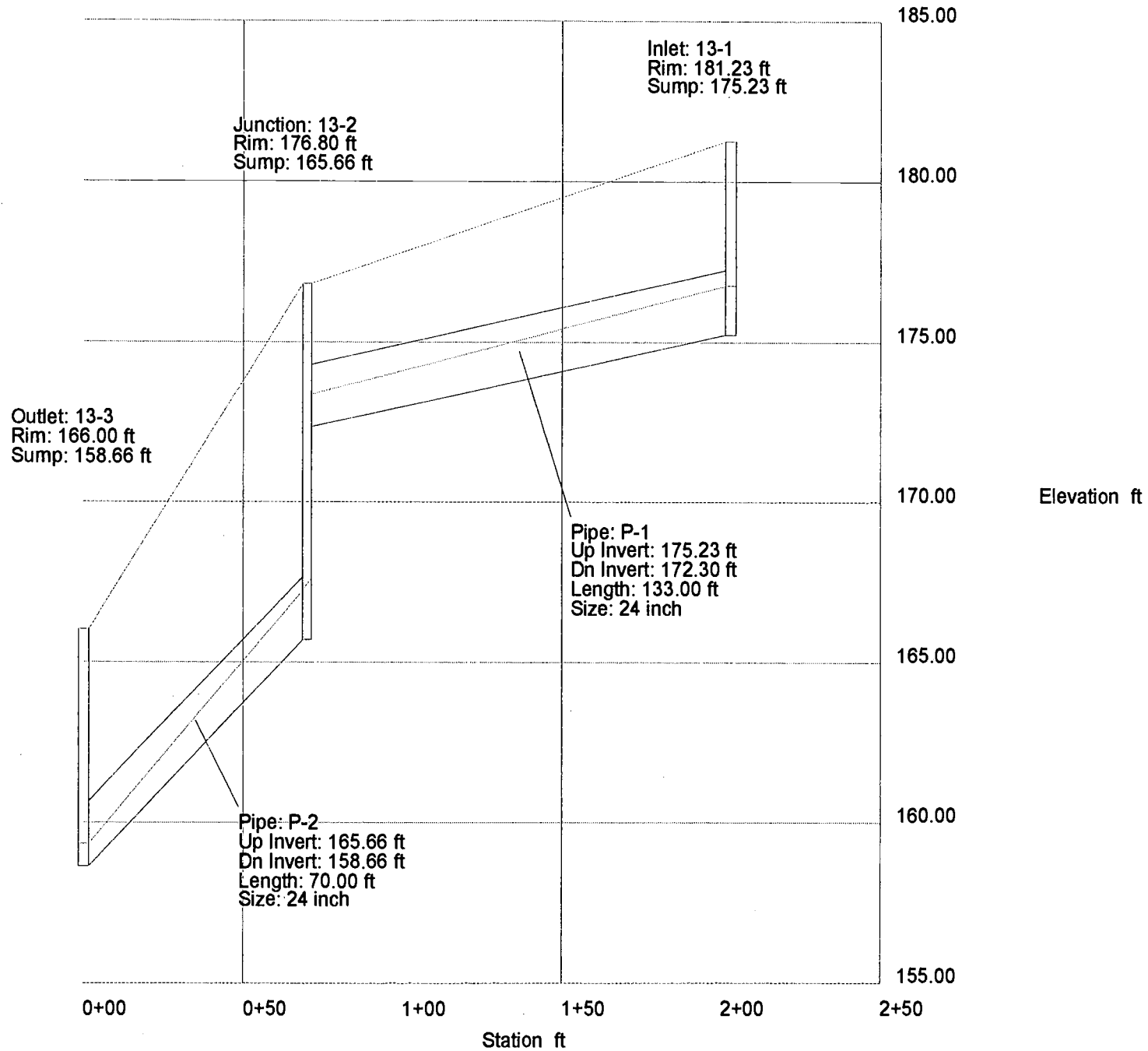
Inlet: 11-1
Rim: 199.42 ft
Sump: 192.92 ft



Combined Pipe/Node Report

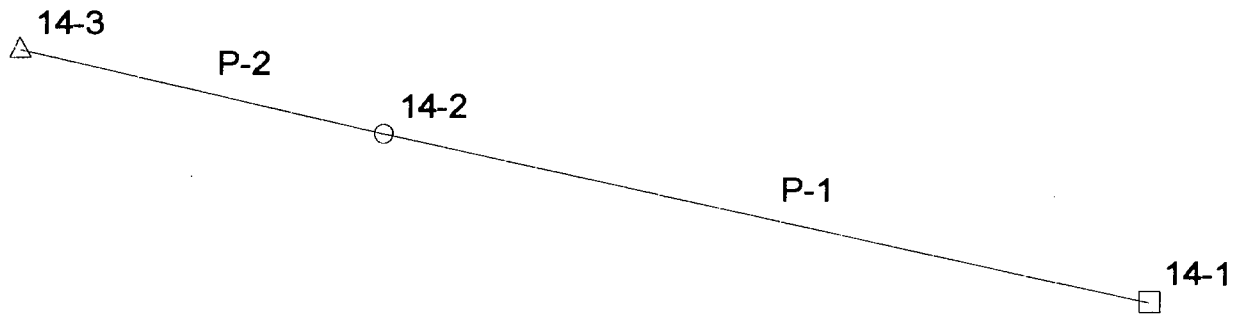
Pipe	Upstream Node	Downstream Node	Length (ft)	Inlet Area (acres)	Inlet C	Inlet CA (acres)	Total CA (acres)	Inlet Discharge (cfs)	Section Size	Capacity (cfs)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Constructed Slope (ft/ft)	Inlet TC (min)
P-1	11-1	11-2	136.00	15.29	0.43	6.57	6.57	48.38	30 Inch	95.80	14.47	192.92	185.50	0.054559	10.00
P-2	11-2	11-3	47.00	N/A	N/A	N/A	6.57	N/A	30 inch	129.70	14.75	181.36	176.66	0.100000	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	6.57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



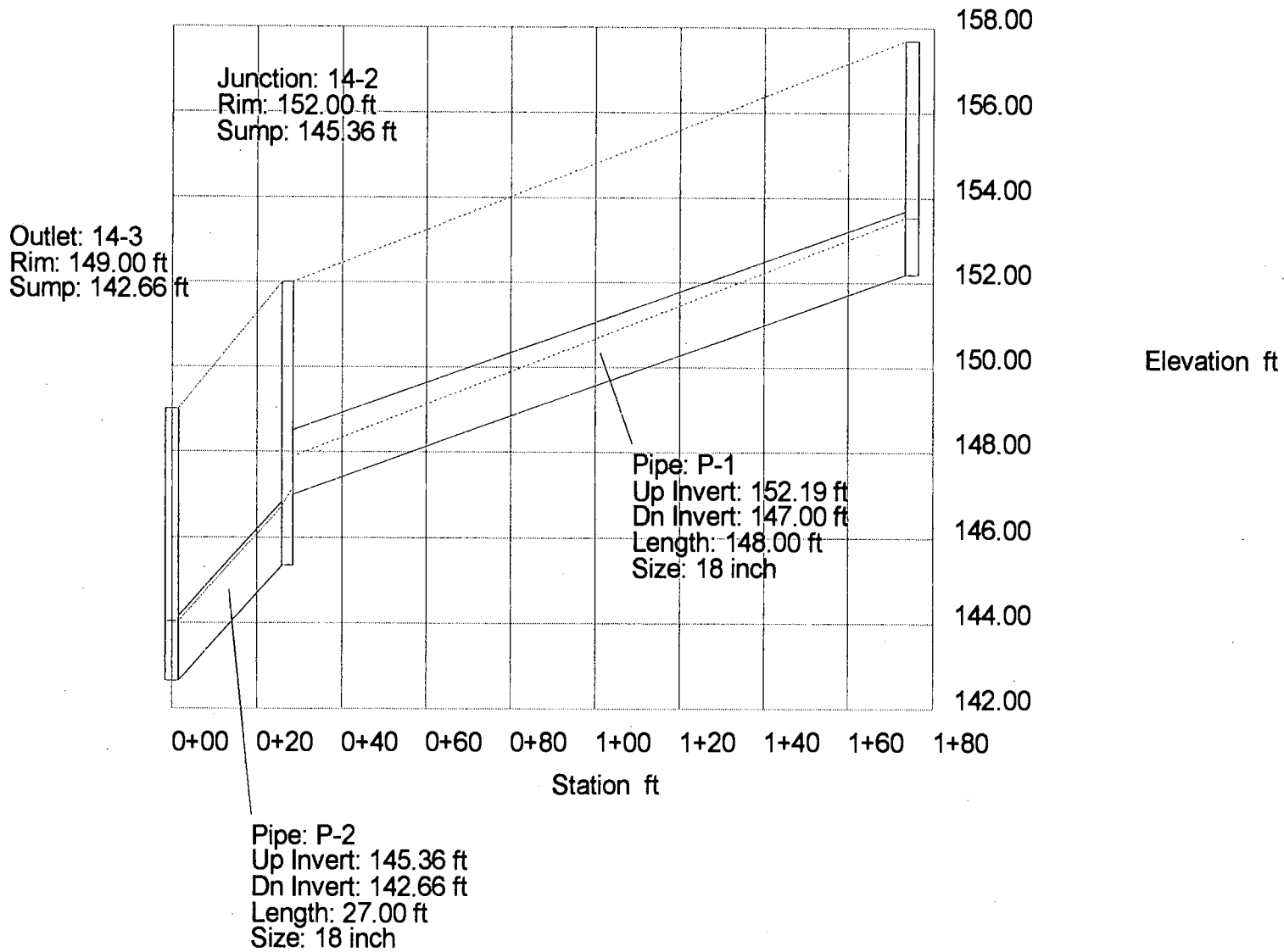


Combined Pipe/Node Report

Pipe	Upstream Node	Downstream Node	Length (ft)	Inlet Area (acres)	Inlet C	Inlet CA (acres)	Total CA (acres)	Inlet Discharge (cfs)	Section Size	Capacity (cfs)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Constructed Slope (ft/ft)	Inlet TC (min)
P-1	13-1	13-2	133.00	4.00	0.63	2.52	2.52	18.54	24 inch	33.58	9.02	175.23	172.30	0.022030	10.00
P-2	13-2	13-3	70.00	N/A	N/A	N/A	2.52	N/A	24 inch	71.53	12.47	165.66	158.66	0.100000	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	2.52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

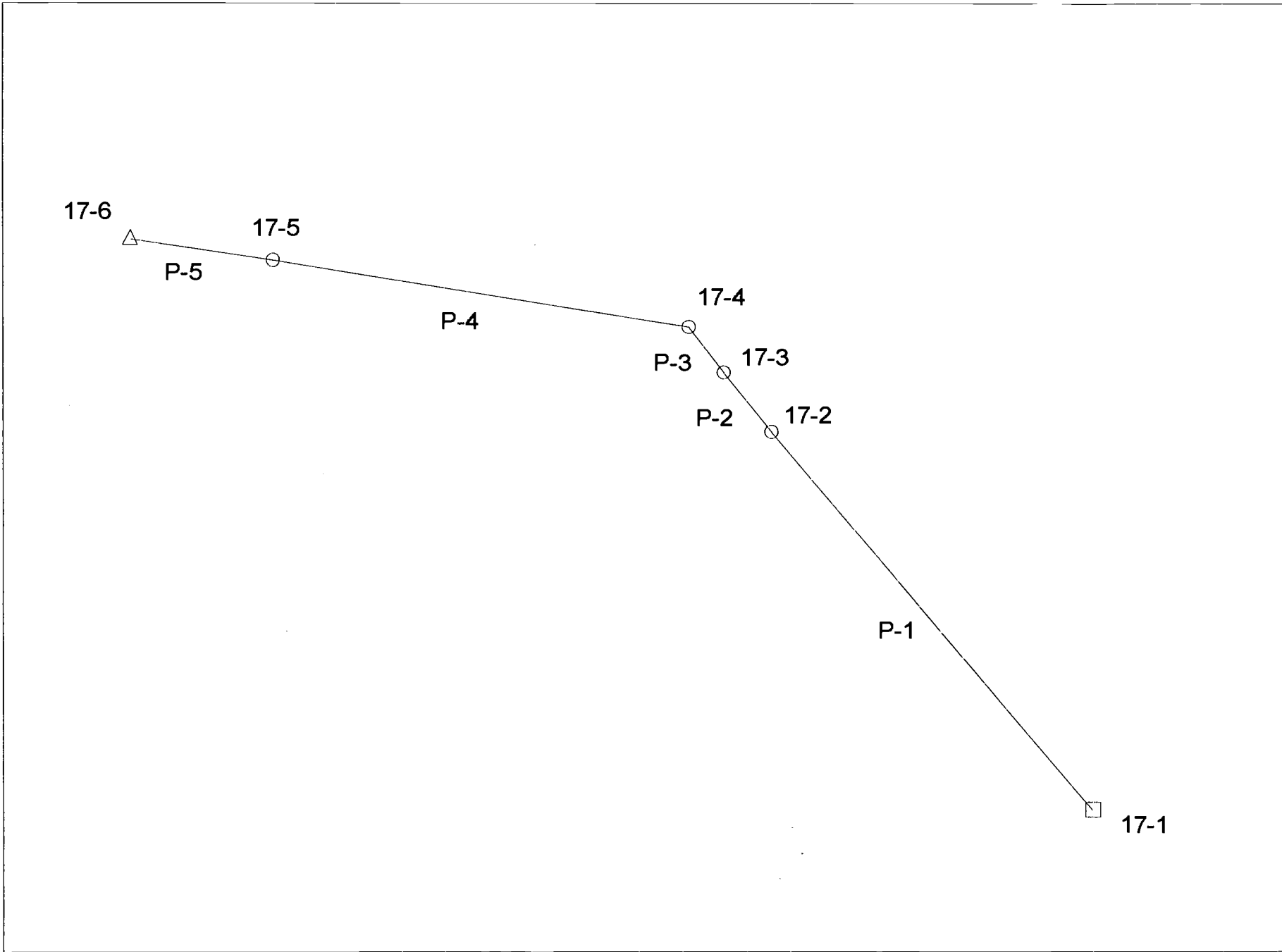


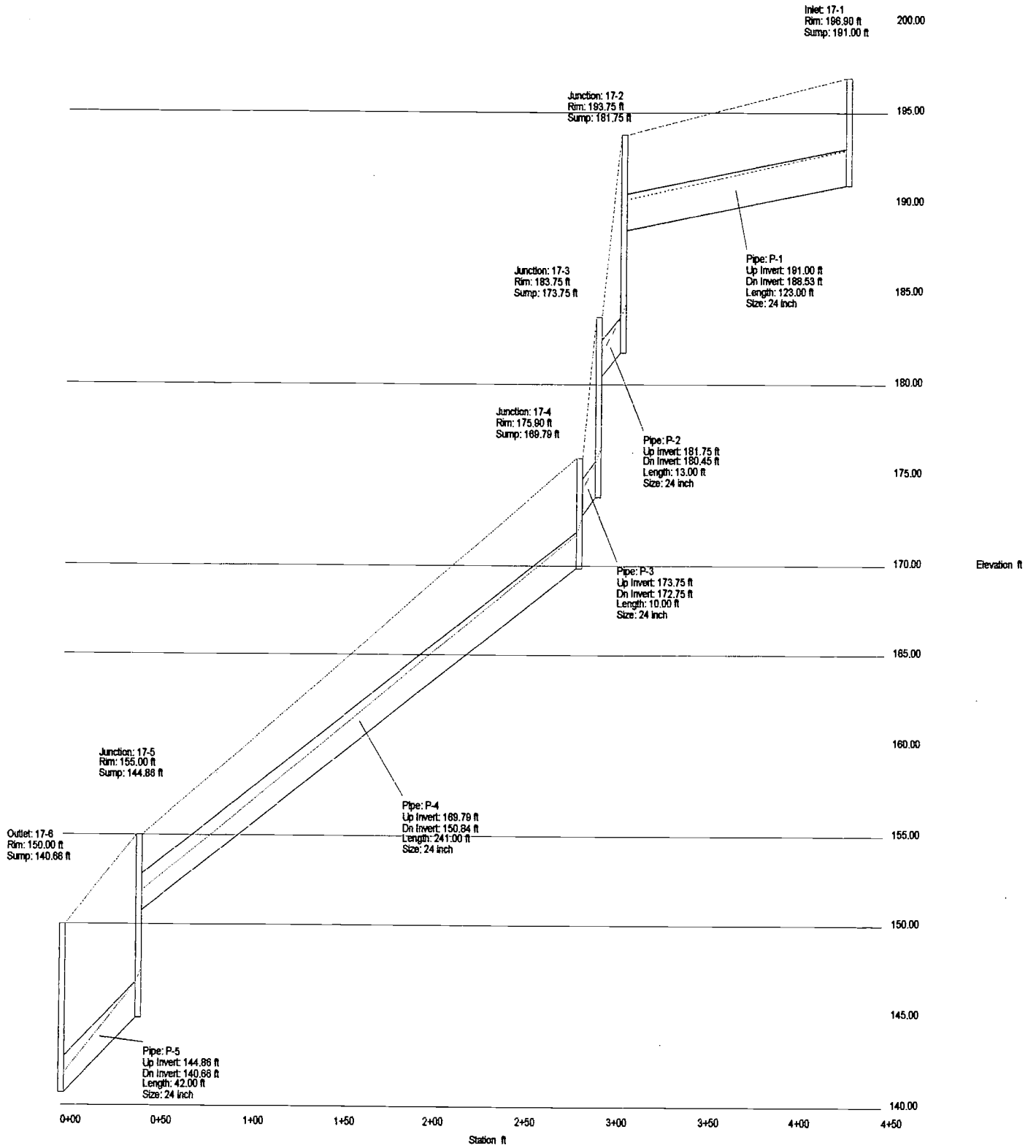
Inlet: 14-1
Rim: 157.69 ft
Sump: 152.19 ft



Combined Pipe/Node Report

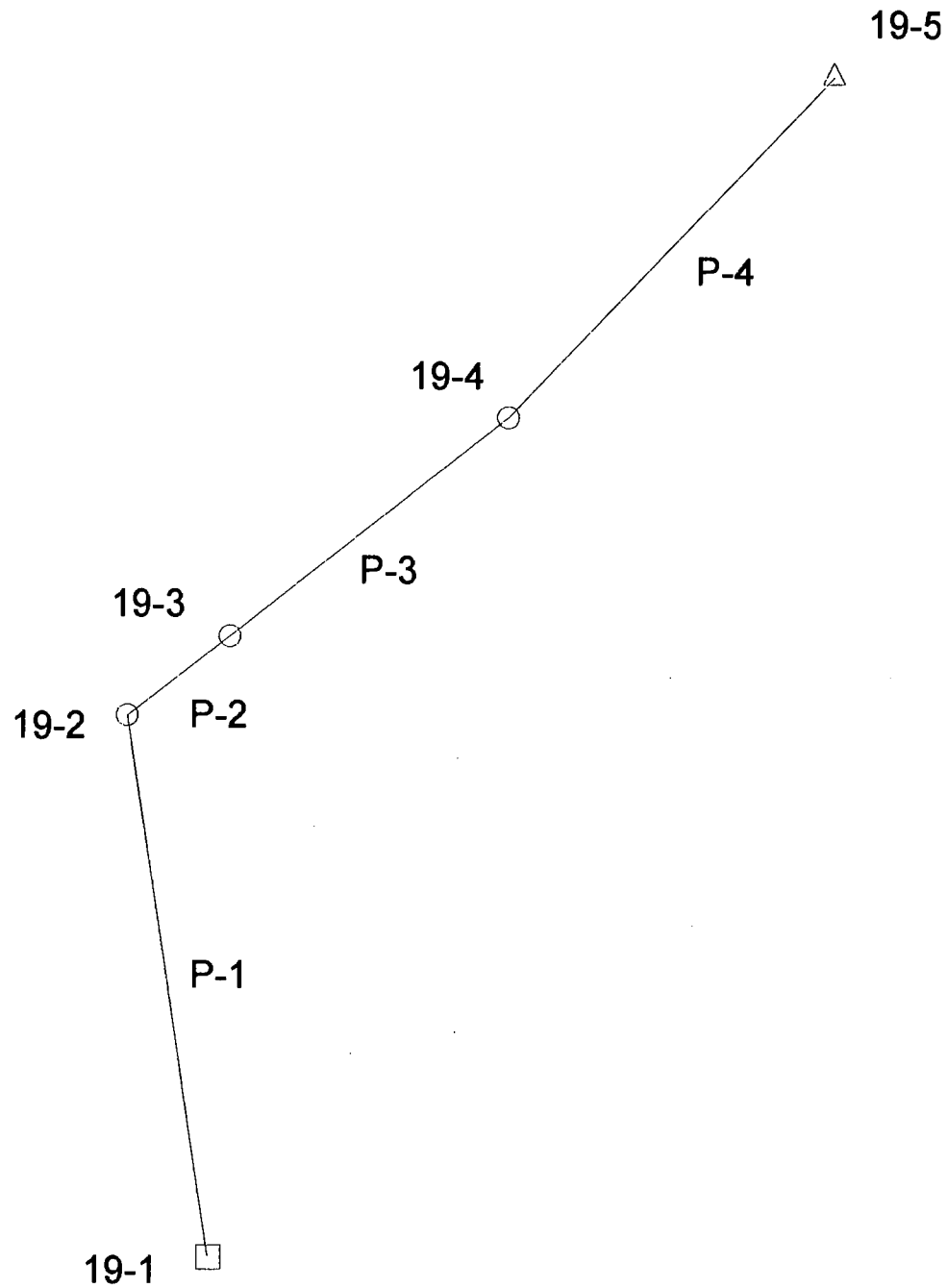
Pipe	Upstream Node	Downstream Node	Length (ft)	Inlet Area (acres)	Inlet C	Inlet CA (acres)	Total CA (acres)	Inlet Discharge (cfs)	Section Size	Capacity (cfs)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Constructed Slope (ft/ft)	Inlet TC (min)
P-1	14-1	14-2	148.00	2.94	0.61	1.79	1.79	13.20	18 inch	19.67	9.89	152.19	147.00	0.035068	10.00
P-2	14-2	14-3	27.00	N/A	N/A	N/A	1.79	N/A	18 inch	33.22	7.80	145.36	142.66	0.100000	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	1.79	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

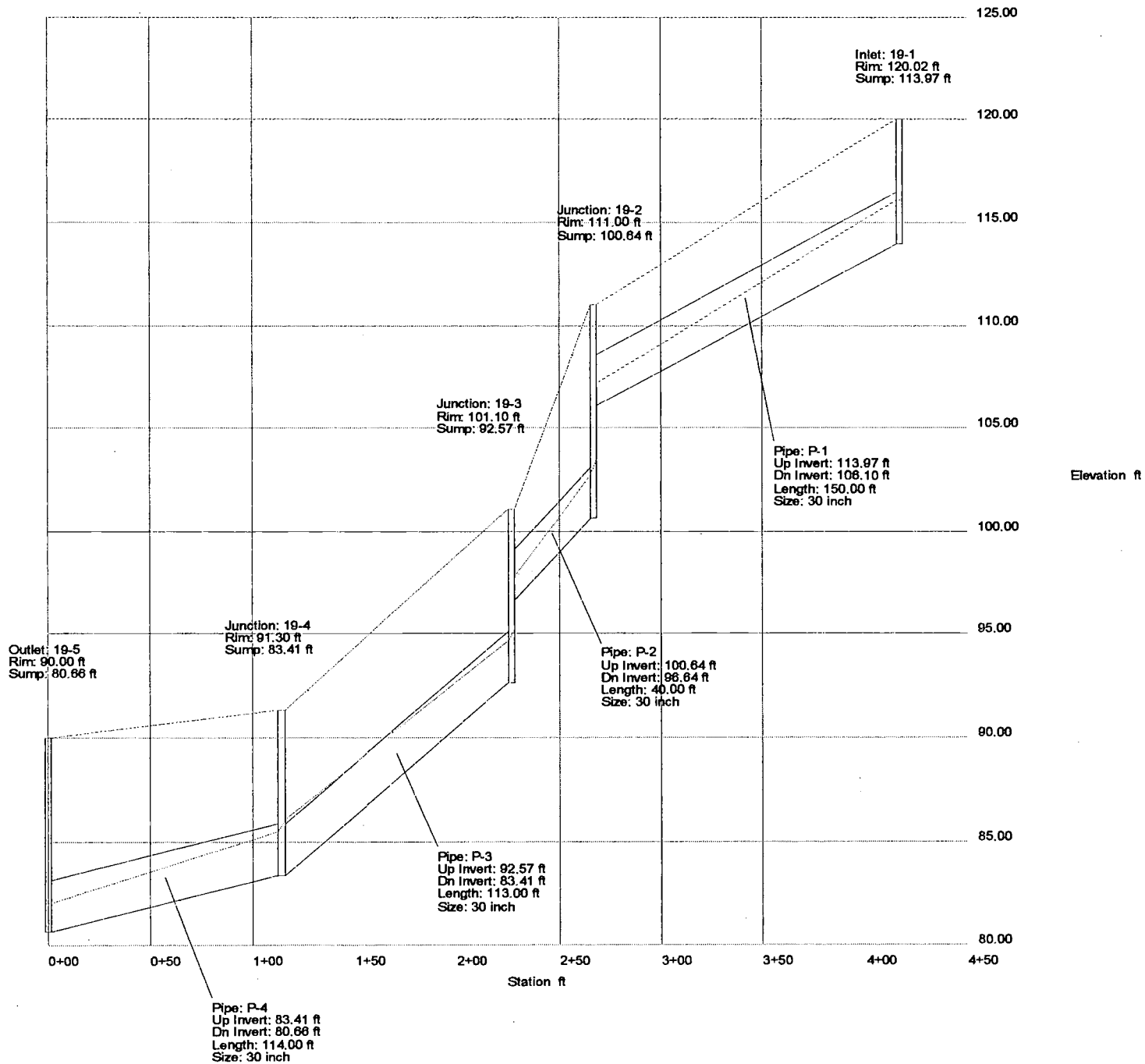




Combined Pipe/Node Report

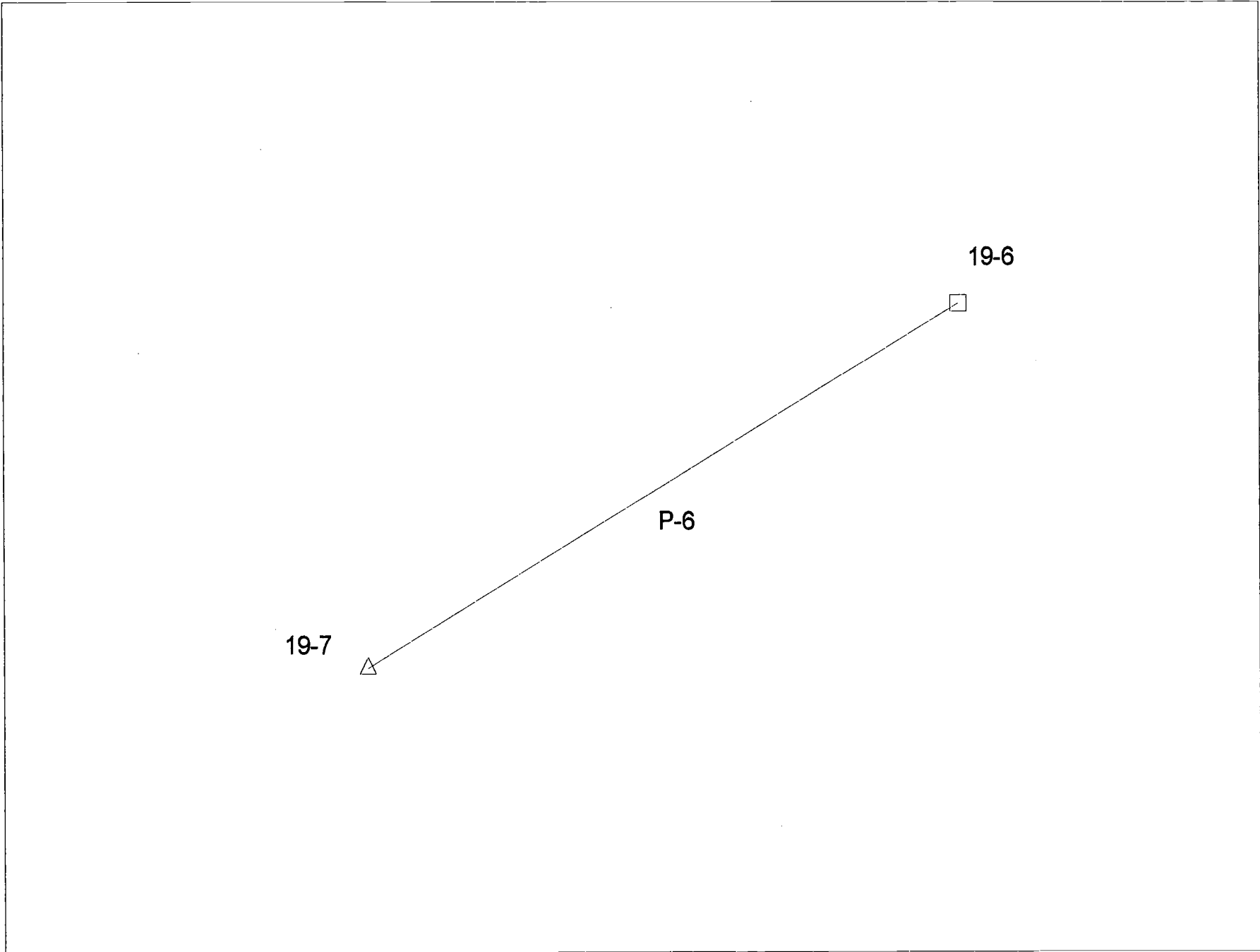
Pipe	Upstream Node	Downstream Node	Length (ft)	Inlet Area (acres)	Inlet C	Inlet CA (acres)	Total CA (acres)	Inlet Discharge (cfs)	Section Size	Capacity (cfs)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Constructed Slope (ft/ft)	Inlet TC (min)
P-1	17-1	17-2	123.00	15.20	0.29	4.41	4.41	32.44	24 inch	32.06	11.04	191.00	188.53	0.020081	10.00
P-2	17-2	17-3	13.00	N/A	N/A	N/A	4.41	N/A	24 inch	71.53	12.46	181.75	180.45	0.100000	N/A
P-3	17-3	17-4	10.00	N/A	N/A	N/A	4.41	N/A	24 inch	71.53	12.16	173.75	172.75	0.100000	N/A
P-4	17-4	17-5	241.00	N/A	N/A	N/A	4.41	N/A	24 inch	63.43	15.38	169.79	150.84	0.078631	N/A
P-5	17-5	17-6	42.00	N/A	N/A	N/A	4.41	N/A	24 inch	71.53	14.20	144.86	140.66	0.100000	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	4.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



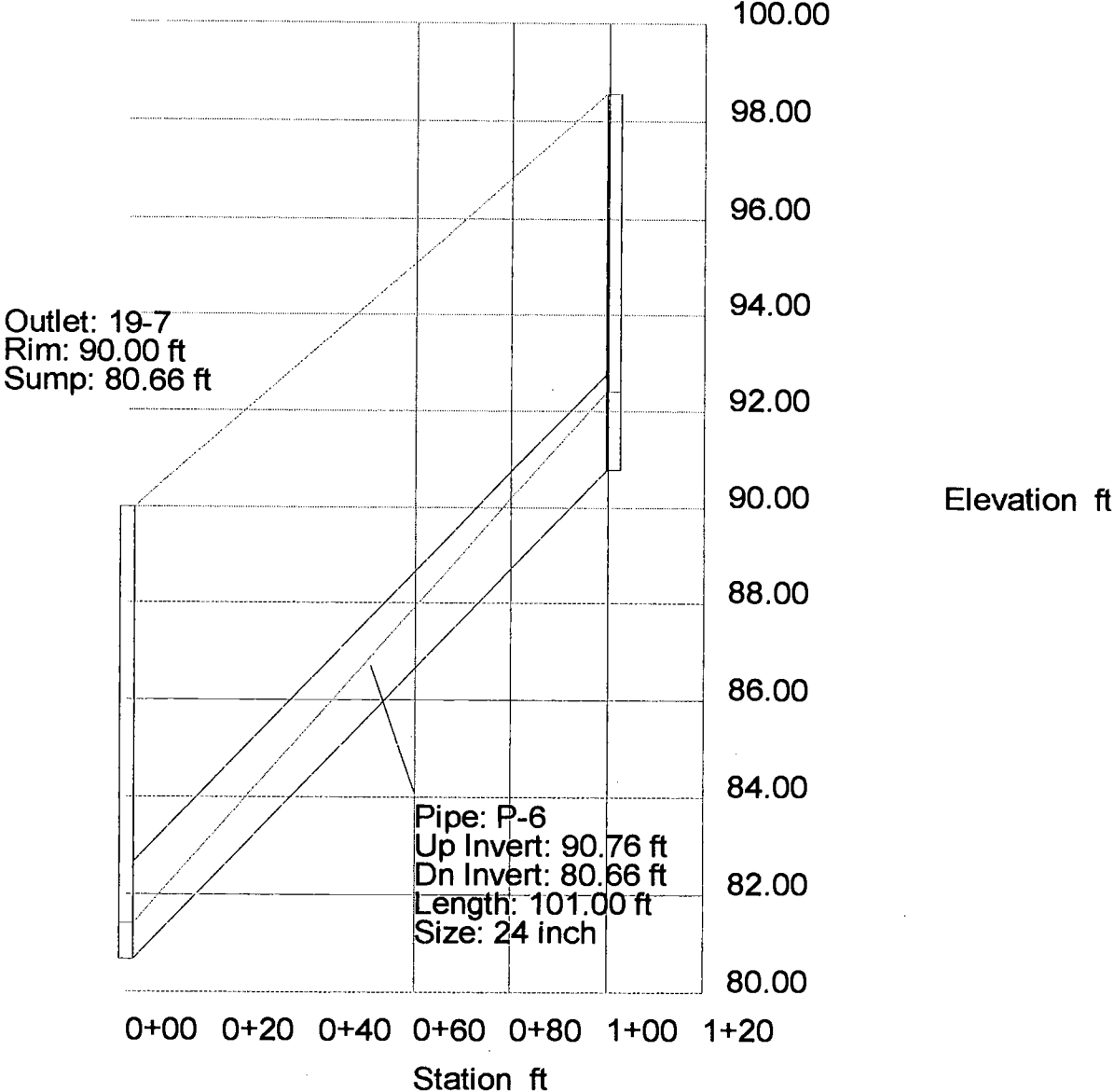


Combined Pipe/Node Report

Pipe	Upstream Node	Downstream Node	Length (ft)	Inlet Area (acres)	Inlet C	Inlet CA (acres)	Total CA (acres)	Inlet Discharge (cfs)	Section Size	Capacity (cfs)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Constructed Slope (ft/ft)	Inlet TC (min)
P-1	19-1	19-2	150.00	8.96	0.59	5.29	5.29	38.90	30 inch	93.95	13.32	113.97	106.10	0.052467	10.00
P-2	19-2	19-3	40.00	N/A	N/A	N/A	5.29	N/A	30 inch	129.70	13.29	100.64	96.64	0.100000	N/A
P-3	19-3	19-4	113.00	N/A	N/A	N/A	5.29	N/A	30 inch	116.78	8.33	92.57	83.41	0.081062	N/A
P-4	19-4	19-5	114.00	N/A	N/A	N/A	5.29	N/A	30 inch	63.70	10.87	83.41	80.66	0.024123	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	5.29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



Inlet: 19-6
Rim: 98.54 ft
Sump: 90.76 ft



Combined Pipe/Node Report

Pipe	Upstream Node	Downstream Node	Length (ft)	Inlet Area (acres)	Inlet C	Inlet CA (acres)	Total CA (acres)	Inlet Discharge (cfs)	Section Size	Capacity (cfs)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Constructed Slope (ft/ft)	Inlet TC (min)
P-6	19-6	19-7	101.00	6.56	0.44	2.89	2.89	21.24	24 inch	71.53	13.55	90.76	80.66	0.100000	10.00
	N/A	N/A	N/A	N/A	N/A	N/A	2.89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**GEOTECHNICAL INVESTIGATION
OF KINGS RIDGE NORTH
SUBDIVISION
Clermont
Lake County, Florida**

**KINGSRIDGE NORTH
STORMWATER RETENTION
SYSTEMS AND PAVEMENT
SECTIONS
CLERMONT
LAKE COUNTY FLORIDA**



Andreyev Engineering, Inc.

TAVARES OFFICE
107 W. Main St., Suite B
Tavares, Florida 32778
352-742-9622
Fax: 352-742-9623
Email: ANDENGI@AOL.COM

▼ Groundwater ▼ Environmental ▼ Geotechnical ▼ Construction Materials Testing

April 29, 1999
Project No: TPGT 99-043

TO: Lennar Homes
c/o Farner Barley & Associates, Inc.
350 North Sinclair
Tavares, Florida 32778

Attention: Duane Booth, P.E.

SUBJECT: Geotechnical Investigation of KingsRidge North, Stormwater Retention Systems and Pavement Sections, Clermont, Lake County, Florida

Dear Mr. Booth,

As requested, Andreyev Engineering, Inc. (AEI) has completed a geotechnical investigation for the subject site. The following report presents the results of our field and laboratory investigation along with evaluation and recommendations for the proposed site.

SITE LOCATION AND DESCRIPTION

The subject site property is located between Hancock Road and Lake Felter in Clermont adjacent to KingsRidge Subdivision. We understand that the property will be used for residential development. Approximately seventeen (17) stormwater retention areas and swales are associated with the proposed development. The attached site plan labeled **Figure 2** shows the site layout with the proposed lots, stormwater retention areas, and paved areas. In addition, a vicinity map is attached as **Figure 1**, showing the site on a regional scale as well as topographic features of the site.

PURPOSE AND SCOPE OF SERVICES

The purpose of this study was to explore shallow subsurface conditions at the proposed retention ponds, swales, and roadway areas to determine the suitability for stormwater retention and pavement design. The field exploration consisted of drilling twenty (20) auger borings to 10 feet in

pavement areas, and thirty-one (31) auger borings to 15 feet within the proposed retention areas. In addition, seventeen (17) field permeability tests were conducted at selected borings in order to measure the hydraulic conductivity of the soils.

Field permeability tests were conducted at selected borings within the proposed retention pond areas to measure the horizontal hydraulic conductivity of the soils. These tests were conducted by installing a screened PVC piezometer in the ground to varying depths between 10 and 15 feet below the ground surface, and conducting a constant head field permeability test, per designation E-19, Earth Manual, 1974.

Samples were recovered from the borings and returned to AEI 's laboratory for visual classification and stratification. Soil strata were classified according to the Unified Soil Classification System. Approximate boring locations are shown on **Figure 2** and results of the borings in profile form are presented on **Figures 3,4, & 5**. Also shown on **Figures 3 & 4** next to the tested depth intervals are the results of the permeability test. On the profiles, horizontal lines designating the interface between differing materials represent approximate boundaries. The actual transition between layers is typically gradual.

SUBSURFACE CONDITIONS

Three (3) soil strata were identified in the borings. Strata 1 and 2 were the predominant surficial soils extending from the ground surface to the boring termination depths. Stratum 3, slightly clayey to clayey fine sand, was found at varying depths between 6 and 15 foot below ground surface. Field permeability tests measured the shallow soil hydraulic conductivity at the proposed retention areas. In general soil conductivity measured between 14 and 37 feet per day in the Strata 1 and 2 sandy soils. Results of these tests are shown next to the tested depth intervals and borings on **Figures 3 & 4**.

The groundwater table was not encountered in any of the borings to the boring termination depths. The groundwater table at this site is estimated to be well below the termination depths of the borings.

For purposes of design and evaluation of retention area recovery, it can be assumed that the seasonal high groundwater table exists at more than 15 feet below the ground surface. However, at the locations where clayey soils of Stratum 3 are present (borings A-25 and A-26), the groundwater table should be assumed to occur at about 0.5 feet above the top of Stratum 3 soil due to expected temporary perching of groundwater above these soils.

EVALUATION AND RECOMMENDATIONS

Based on the results of borings, field permeability tests, and laboratory tests, we conclude that the site is suitable for construction and long-term performance of dry stormwater retention systems. Adequate separation between the bottom of the proposed ponds and the groundwater table should not be a problem. The well-drained and, highly permeable nature of the surficial soils, and deep groundwater table is well suited for dry stormwater retention areas. However, temporary perching is expected to occur above the Stratum 3 clayey soils in areas where these are present.

Paved Areas

In general, the compacted subsurface soils will be suitable for support of a flexible (limerock) or semi-flexible (soil-cement) type pavement base after subgrade preparation. A limerock base is generally used for these soil and groundwater conditions since it is the more economical alternative. Typical flexible and semi-flexible pavement sections are as follows:

Limerock Base

1-1/2" asphaltic concrete wearing surface

6" limerock base course, quality of limerock to be in accordance with current Florida Department of Transportation specifications and compacted to a minimum density equivalent to 95 percent of the Modified Proctor (AASHTO T-180).

6" stabilized subbase with minimum Florida Bearing Value (FBV) of 50 psi or Limerock Bearing Ratio (LBR) of 30 percent. The subbase should be compacted to a minimum density equivalent to 95 percent of the Modified Proctor Maximum Density (AASHTO T-180).

The subgrade material, below the subbase, shall be compacted to minimum density of 95% of the Modified Proctor Maximum Density of the soil, or measured to a depth of 1 foot below the subbase level.

Soil-Cement Base

1-1/2" asphaltic concrete wearing surface

6" soil-cement base designed and constructed in accordance with current Portland Cement Association recommended methods.

12" subgrade consisting of free draining natural fine sand or fine sand fill. Subgrade to be compacted to a minimum density of 95 percent of the Modified Proctor Maximum Density (AASHTO T-180).

Asphaltic wearing surface normally consists of Type S-1 or S-3, meeting current Florida Department of Transportation specifications. The wearing surface should be compacted to a minimum density of 95 percent of the Laboratory Density as determined by the Marshall Stability Test method for the approved job mix formula.

The recommendations presented above are minimum assuming normal light passenger car and pick-up truck traffic with an occasional garbage or delivery truck. Traffic should not be allowed on the subgrade prior to placement of the base to avoid rutting. The final pavement thickness design should be checked by the project civil engineer using data contained in this report and anticipated traffic conditions.

Retention Ponds

For analysis and design purposes the following aquifer characteristics should be used. These aquifer characteristics were determined from the results of the field and laboratory investigations:

<u>Boring</u>	<u>Bottom of Aquifer (ft)</u>	<u>Seasonal High GWT (ft)</u>	<u>Kh avg.(ft/day)</u>
1	15	15	25
2	15	15	-
3	15	15	-
4	15	15	28
5	15	15	29
6	15	15	-
7	15	15	14
8	15	15	-
9	15	15	27
10	15	15	-
11	15	15	29
12	15	15	22
13	15	15	-
14	15	15	30
15	15	15	32
16	15	15	-
17	15	15	28
18	15	15	-
19	15	15	-
20	15	15	37
21	15	15	-
22	15	15	35
23	15	15	-
24	15	15	28
25	9	8.5	27
26	12	11.5	-
27	15	15	31
28	15	15	28
29	15	15	-
30	15	15	34
31	15	15	-

Stormwater Swales

Placements of the stormwater swales are proposed along the eastern property boundaries nearest to Lake Felter. The soil in these areas is considered satisfactory for construction of a stormwater swales. The horizontal hydraulic conductivity at the swale locations was measured between 27 and 35 feet per day.

The highly permeable soils in the area of the proposed stormwater swales should provide adequate infiltration of stormwater. The clayey soils encountered in the areas of borings A-25 and A-26 can

be left in place so long as adequate separation exists between the swale bottom and the top of the clayey soils.

CLOSURE

AEI appreciates the opportunity to participate in this project, and we trust that the information herein is sufficient for your immediate needs. If you have any questions or comments concerning the contents of this report, please do not hesitate to contact the undersigned.

Sincerely,

ANDREYEV ENGINEERING, INC.

Ray Jones, E.I.
Project Engineer
Tavares Office

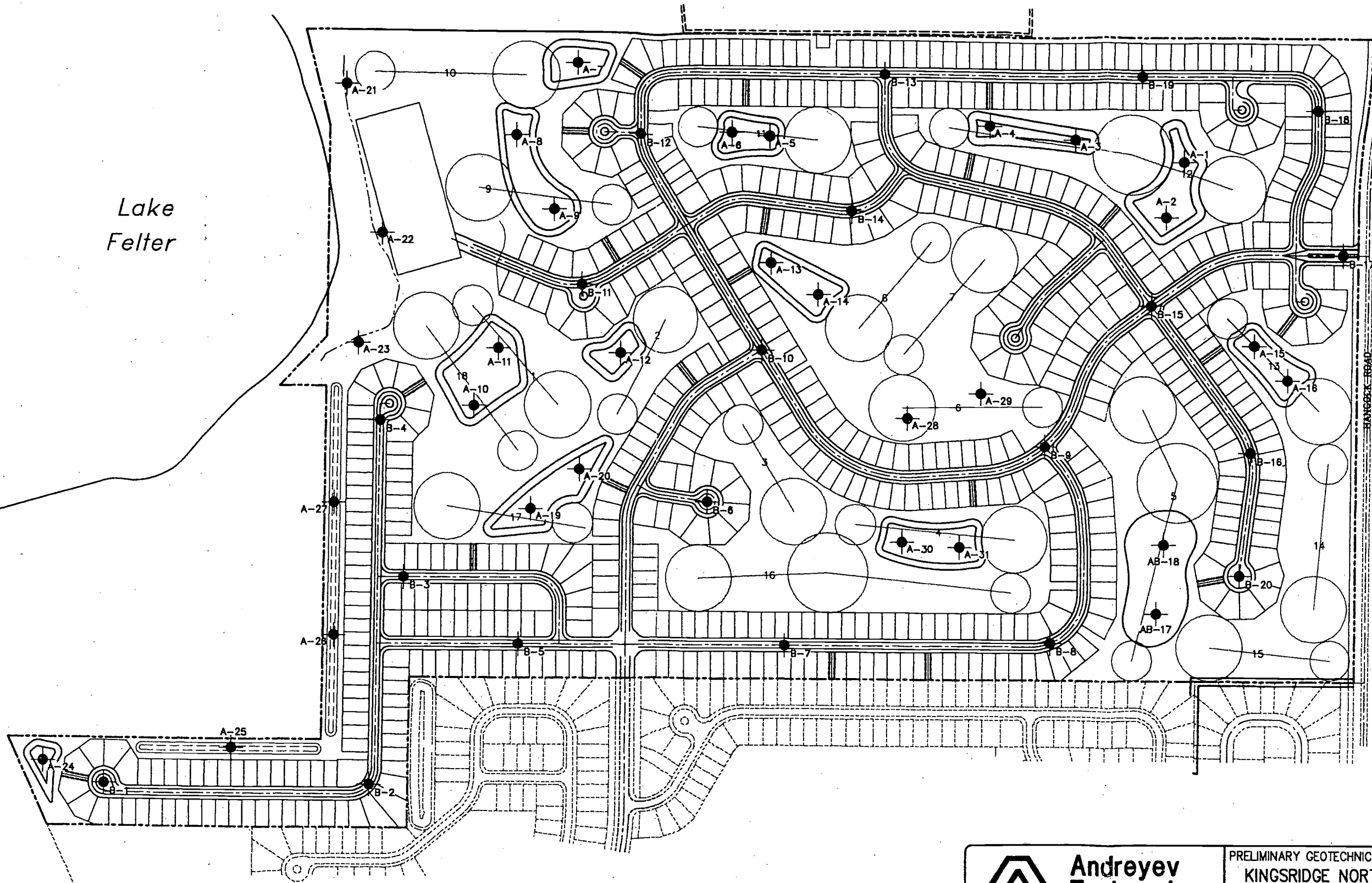


Nicolas E. Andreyev
President
Florida Registration No. 35459

FIGURES



Lake
Felter



LEGEND
● AUGER BORING LOCATION



**Andreyev
Engineering,
Inc.**

PRELIMINARY GEOTECHNICAL INVESTIGATION
KINGSRIDGE NORTH PARCEL
RETENTION & PAVEMENT AREAS
CLERMONT, LAKE COUNTY, FLORIDA

SCALE:
1" = 400'

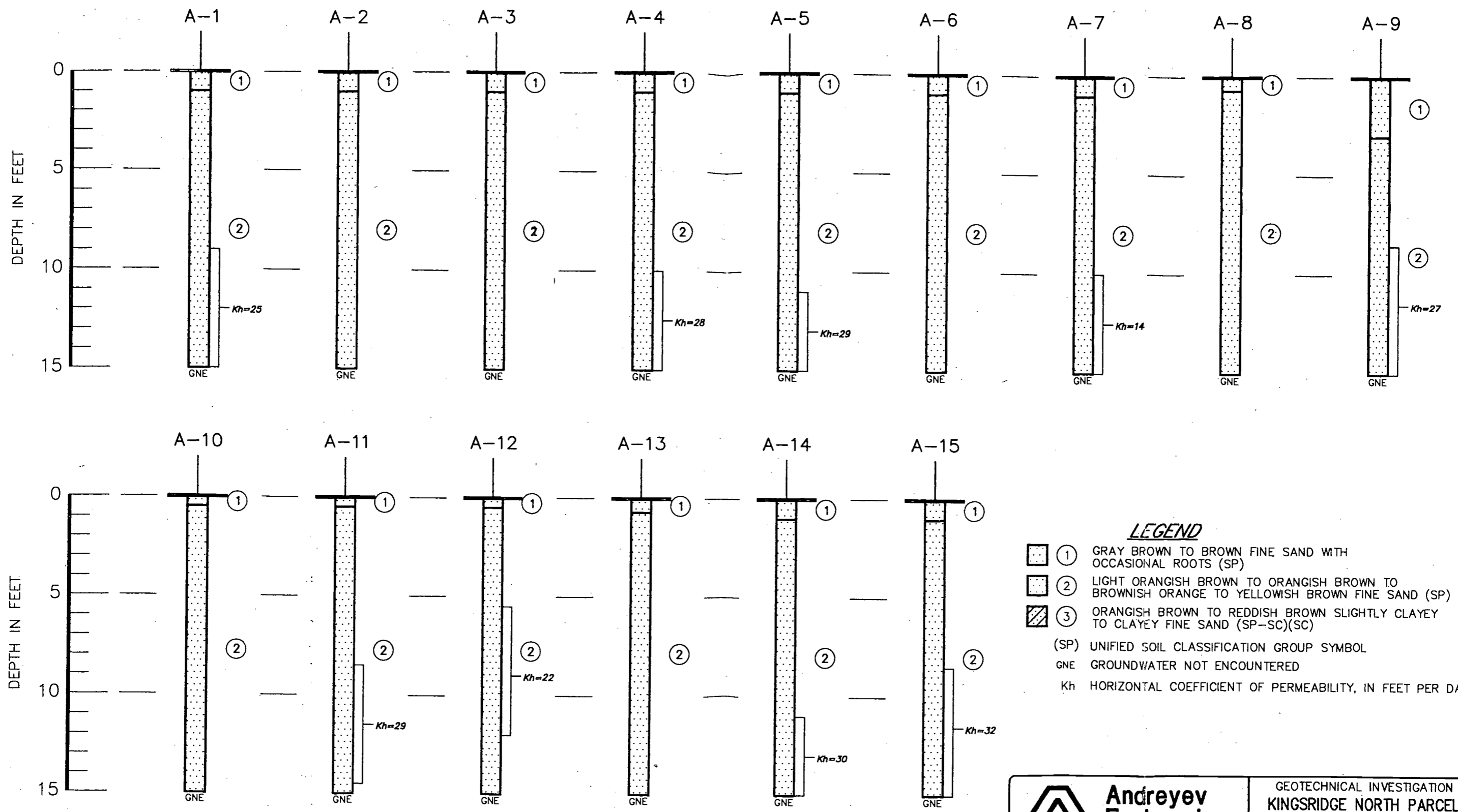
DATE: 4/21/99

ENGINEER: RJ

PN: TPGT-99-043

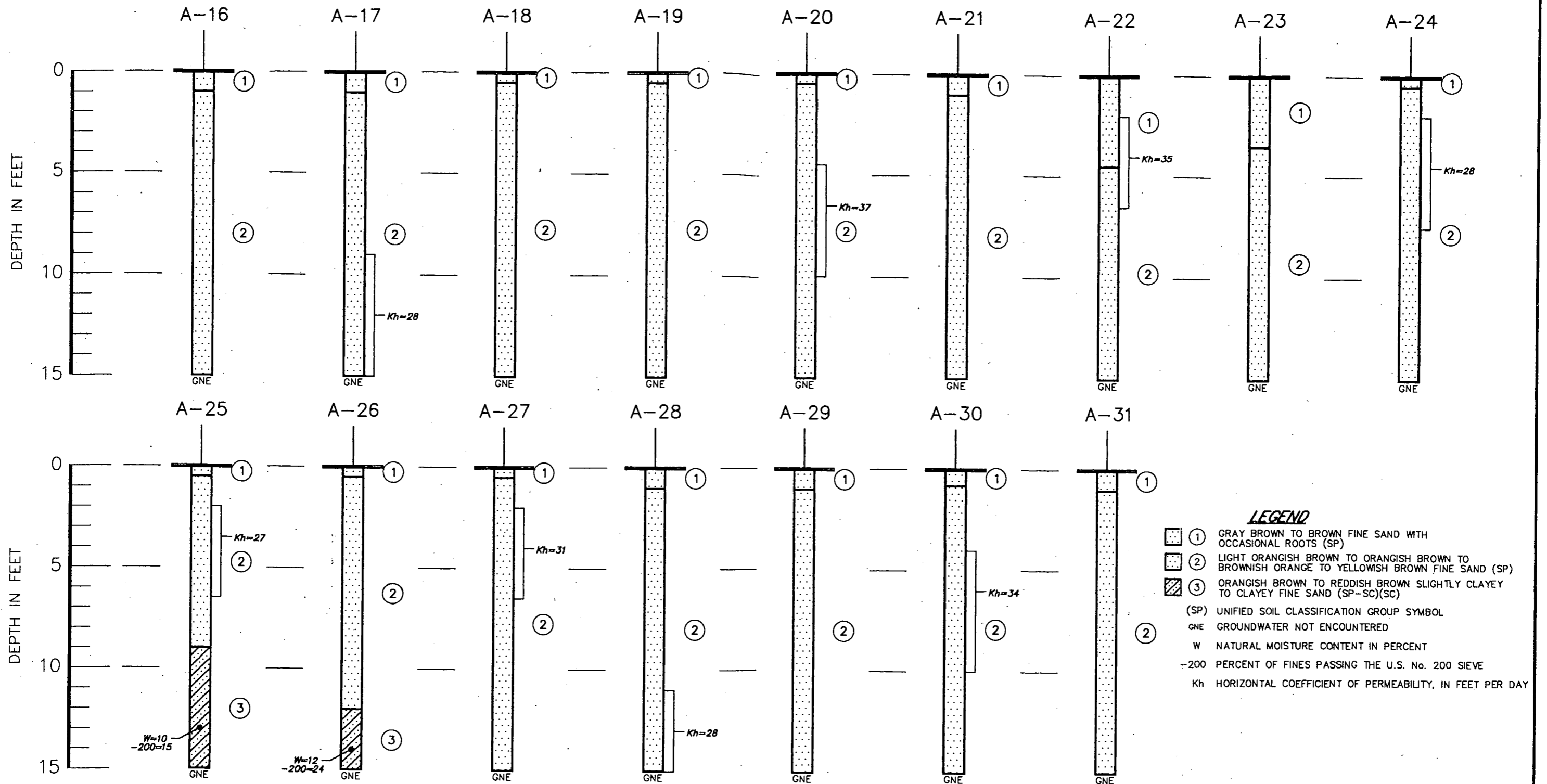
DRAWN BY: MK


SITE PLAN
FIGURE 2

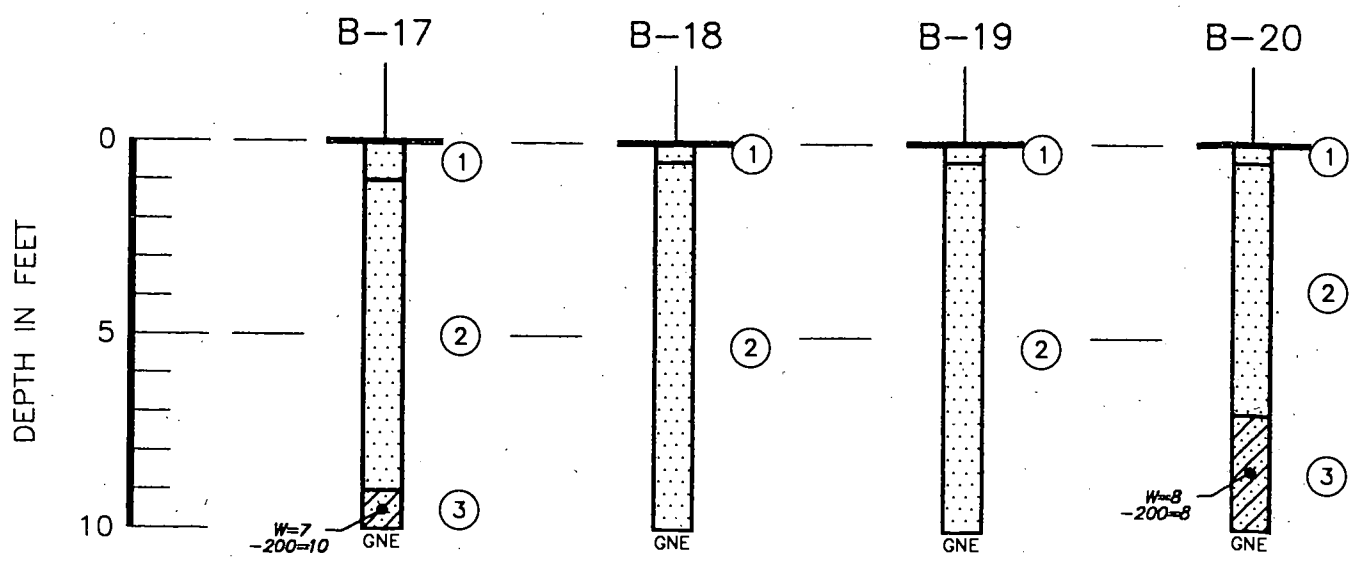
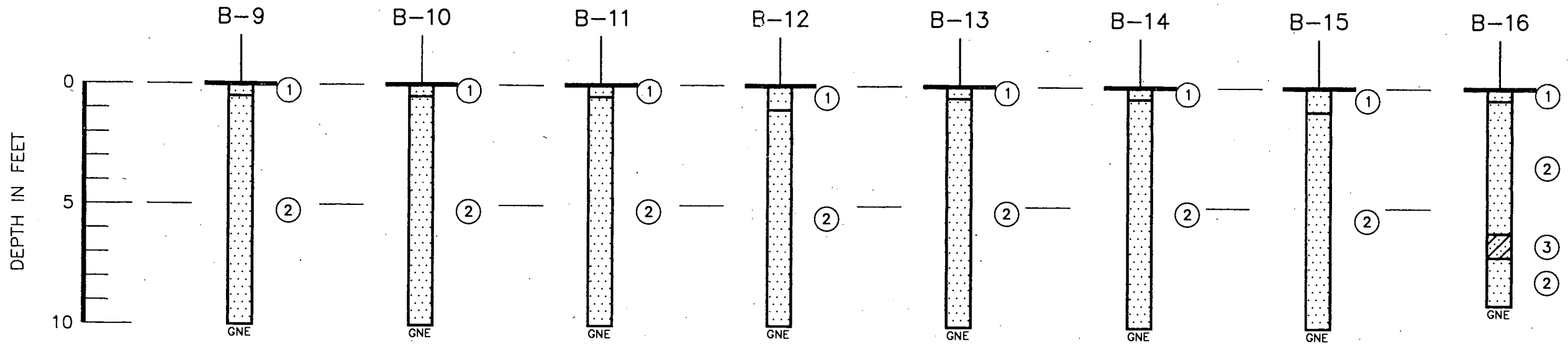
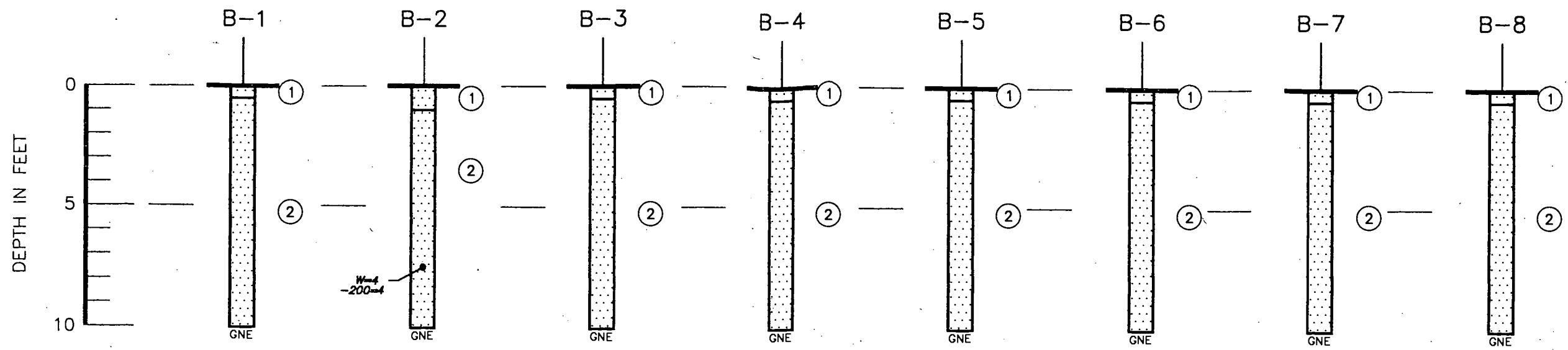


- LEGEND**
- ① GRAY BROWN TO BROWN FINE SAND WITH OCCASIONAL ROOTS (SP)
 - ② LIGHT ORANGISH BROWN TO ORANGISH BROWN TO BROWNISH ORANGE TO YELLOWISH BROWN FINE SAND (SP)
 - ③ ORANGISH BROWN TO REDDISH BROWN SLIGHTLY CLAYEY TO CLAYEY FINE SAND (SP-SC)(SC)
 - (SP) UNIFIED SOIL CLASSIFICATION GROUP SYMBOL
 - GNE GROUNDWATER NOT ENCOUNTERED
 - Kh HORIZONTAL COEFFICIENT OF PERMEABILITY, IN FEET PER DAY


	Andreyev Engineering, Inc.		GEOTECHNICAL INVESTIGATION KINGSRIDGE NORTH PARCEL RETENTION & PAVEMENT AREAS CLERMONT, LAKE COUNTY, FLORIDA
	SCALE: 1" = 5'	DATE: 4/12/99 PN: TPGT-99-043	
SOIL PROFILES			FIGURE 3



 Andreyev Engineering, Inc.	GEOTECHNICAL INVESTIGATION KINGSRIDGE NORTH PARCEL RETENTION & PAVEMENT AREAS CLERMONT, LAKE COUNTY, FLORIDA	
	SOIL PROFILES	
SCALE: 1"=5'	DATE: 4/12/99 PN: TPGT-99-043	ENGINEER: RJ DRAWN BY: MK
		FIGURE 4



- LEGEND**
- ① GRAY BROWN TO BROWN FINE SAND WITH OCCASIONAL ROOTS (SP)
 - ② LIGHT ORANGISH BROWN TO ORANGISH BROWN TO BROWNISH ORANGE TO YELLOWISH BROWN FINE SAND (SP)
 - ③ ORANGISH BROWN TO REDDISH BROWN SLIGHTLY CLAYEY TO CLAYEY FINE SAND (SP-SC)(SC)
- (SP) UNIFIED SOIL CLASSIFICATION GROUP SYMBOL
 GNE GROUNDWATER NOT ENCOUNTERED
 W NATURAL MOISTURE CONTENT IN PERCENT
 -200 PERCENT OF FINES PASSING THE U.S. No. 200 SIEVE

 Andreyev Engineering, Inc.	GEOTECHNICAL INVESTIGATION KINGSRIDGE NORTH PARCEL RETENTION & PAVEMENT AREAS CLERMONT, LAKE COUNTY, FLORIDA	
	SOIL PROFILES FIGURE 5	
SCALE: 1"=5'	DATE: 4/12/99 PN: TPCT-99-043	ENGINEER: RJ DRAWN BY: MK