



5000	1287	5126	1286	5132	1284	5137	1282	5141	1280
5145	1278	5149	1276	5153	1274	5157	1272	5163	1272
5165	1274	5167	1276	5169	1278	5176	1280	5180	1282
5186	1284	5193	1286	5400					

Manning's n Values num= 3

Station	Value	Station	Value	Station	Value
5000	.05	5126	.03	5193	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

5126	5193	100	222	300	.1	.3
------	------	-----	-----	-----	----	----

CROSS SECTION OUTPUT Profile #PF 1

E. G. Elev (ft)	1287.22	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.86	Wt. n-Val.	0.050	0.030	0.050
W. S. Elev (ft)	1286.36	Reach Len. (ft)	100.00	222.00	300.00
Crit W. S. (ft)		Flow Area (sq ft)	8.16	469.12	6.71
E. G. Slope (ft/ft)	0.001924	Area (sq ft)	8.16	469.12	6.71
Q Total (cfs)	3500.00	Flow (cfs)	3.39	3493.82	2.79
Top Width (ft)	149.62	Top Width (ft)	45.36	67.00	37.26
Vel Total (ft/s)	7.23	Avg. Vel. (ft/s)	0.42	7.45	0.42
Max Chl Dpth (ft)	14.36	Hydr. Depth (ft)	0.18	7.00	0.18
Conv. Total (cfs)	79793.5	Conv. (cfs)	77.3	79652.6	63.5
Length Wtd. (ft)	222.51	Wetted Per. (ft)	45.36	73.91	37.26
Min Ch El (ft)	1272.00	Shear (lb/sq ft)	0.02	0.76	0.02
Alpha	1.06	Stream Power (lb/ft s)	0.01	5.68	0.01
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)	0.09	9.96	0.40
C & E Loss (ft)	0.07	Cum SA (acres)	0.09	1.53	1.01

CROSS SECTION

RIVER: creek  
REACH: 55th RS: 5579

INPUT

Description:

Station Elevation Data num= 18

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
5006	1286.5	5115	1286.5	5120	1284	5146	1280	5149	1278
5152	1276	5157	1274	5159	1272	5169	1272	5171	1274
5181	1280	5183	1282	5185	1284	5200	1285.765	5202	1286
5265	1288	5292	1286	5333	1284				

Manning's n Values num= 3

Station	Value	Station	Value	Station	Value
5006	.05	5120	.03	5202	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

5120	5202	50	130	180	.1	.3
------	------	----	-----	-----	----	----

CROSS SECTION OUTPUT Profile #PF 1

E. G. Elev (ft)	1286.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.64	Wt. n-Val.	0.050	0.030	0.050
W. S. Elev (ft)	1286.13	Reach Len. (ft)	50.00	130.00	180.00
Crit W. S. (ft)		Flow Area (sq ft)	4.55	532.83	46.81
E. G. Slope (ft/ft)	0.001562	Area (sq ft)	4.55	532.83	46.81
Q Total (cfs)	3500.00	Flow (cfs)	5.17	3438.87	55.96
Top Width (ft)	133.21	Top Width (ft)	4.26	82.00	46.94
Vel Total (ft/s)	5.99	Avg. Vel. (ft/s)	1.14	6.45	1.20
Max Chl Dpth (ft)	14.13	Hydr. Depth (ft)	1.07	6.50	1.00
Conv. Total (cfs)	88564.8	Conv. (cfs)	130.9	87017.9	1416.1
Length Wtd. (ft)	129.35	Wetted Per. (ft)	4.77	89.00	49.13
Min Ch El (ft)	1272.00	Shear (lb/sq ft)	0.09	0.58	0.09
Alpha	1.14	Stream Power (lb/ft s)	0.11	3.77	0.11
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	0.07	7.41	0.22
C & E Loss (ft)	0.16	Cum SA (acres)	0.04	1.15	0.72

- Warning: Divided flow computed for this cross-section.
- Warning: The cross-section end points had to be extended vertically for the computed water surface.
- Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
- Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: creek  
REACH: 55th RS: 5449

INPUT

Description:

Station Elevation Data num= 19

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
5000	1286	5058	1286	5091	1286	5120	1285	5133	1280
5137	1278	5141	1276	5145	1274	5147	1272	5154	1272
5155	1274	5158	1276	5161	1278	5165	1280	5168	1282
5172	1284	5269	1286	5350	1286	5388	1284		

Manning's n Values num= 3

Sta n Val Sta n Val Sta n Val  
5000 .05 5133 .04 5172 .05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
5133 5172 250 204 180 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E. G. Elev (ft)	1286.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.28	Wt. n-Val.	0.050	0.040	
W. S. Elev (ft)	1283.92	Reach Len. (ft)	250.00	204.00	180.00
Crit W. S. (ft)	1283.02	Flow Area (sq ft)	19.93	278.71	
E. G. Slope (ft/ft)	0.009571	Area (sq ft)	19.93	278.71	
Q Total (cfs)	3500.00	Flow (cfs)	86.60	3413.40	
Top Width (ft)	49.01	Top Width (ft)	10.18	38.83	
Vel Total (ft/s)	11.72	Avg. Vel. (ft/s)	4.35	12.25	
Max Chl Dpth (ft)	11.92	Hydr. Depth (ft)	1.96	7.18	
Conv. Total (cfs)	35775.3	Conv. (cfs)	885.2	34890.1	
Length Wtd. (ft)	204.53	Wetted Per. (ft)	10.91	45.05	
Min Ch El (ft)	1272.00	Shear (lb/sq ft)	1.09	3.70	
Alpha	1.07	Stream Power (lb/ft s)	4.74	45.27	
Frctn Loss (ft)	0.72	Cum Volume (acre-ft)	0.06	6.20	0.12
C & E Loss (ft)	0.43	Cum SA (acres)	0.03	0.97	0.62

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: creek  
REACH: 55th RS: 5245

INPUT

Description:

Station Elevation Data num= 17

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
5077	1286	5164	1286	5177	1286	5178	1285	5182	1278
5187	1276	5192	1274	5195	1272	5206	1272	5209	1274
5216	1276	5223	1278	5229	1280	5236	1282	5242	1284
5377	1284	5440	1286						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
5077	.05	5177	.03	5242	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
5177 5242 205 205 205 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E. G. Elev (ft)	1285.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.85	Wt. n-Val.		0.030	0.050
W. S. Elev (ft)	1284.20	Reach Len. (ft)	205.00	205.00	205.00
Crit W. S. (ft)		Flow Area (sq ft)		469.84	27.31
E. G. Slope (ft/ft)	0.001795	Area (sq ft)		469.84	27.31
Q Total (cfs)	3500.00	Flow (cfs)		3488.50	11.50
Top Width (ft)	204.77	Top Width (ft)		63.54	141.23
Vel Total (ft/s)	7.04	Avg. Vel. (ft/s)		7.42	0.42
Max Chl Dpth (ft)	12.20	Hydr. Depth (ft)		7.39	0.19
Conv. Total (cfs)	82600.1	Conv. (cfs)		82328.6	271.4
Length Wtd. (ft)	205.00	Wetted Per. (ft)		70.61	141.23
Min Ch El (ft)	1272.00	Shear (lb/sq ft)		0.75	0.02
Alpha	1.11	Stream Power (lb/ft s)		5.54	0.01
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)		4.45	0.06
C & E Loss (ft)	0.03	Cum SA (acres)		0.73	0.33

CROSS SECTION

RIVER: creek  
REACH: 55th RS: 5040

INPUT

Description:

Station Elevation Data num= 18

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
5000	1288	5093	1288	5117	1286	5124	1284	5136	1282
5149	1280	5152	1278	5160	1272	5176	1272	5179	1274
5185	1276	5191	1278	5197	1280	5203	1282	5209	1284
5218	1286	5235	1286	5328	1286				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
5000	.05	5093	.03	5218	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
5093 5218 40 40 40 .1 .3

CROSS SECTION OUTPUT Profile #PF 1

E. G. Elev (ft)	1284.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.75	Wt. n-Val.		0.030	
W. S. Elev (ft)	1283.89	Reach Len. (ft)	10.00	10.00	10.00
Crit W. S. (ft)	1280.51	Flow Area (sq ft)		503.29	
E. G. Slope (ft/ft)	0.001959	Area (sq ft)		503.29	
Q Total (cfs)	3500.00	Flow (cfs)		3500.00	
Top Width (ft)	83.97	Top Width (ft)		83.97	
Vel Total (ft/s)	6.95	Avg. Vel. (ft/s)		6.95	
Max Ch Dpth (ft)	11.89	Hydr. Depth (ft)		5.99	
Conv. Total (cfs)	79070.2	Conv. (cfs)		79070.2	
Length Wtd. (ft)	10.00	Wetted Per. (ft)		89.09	
Min Ch El (ft)	1272.00	Shear (lb/sq ft)		0.69	
Alpha	1.00	Stream Power (lb/ft s)		4.81	
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)		2.16	
C & E Loss (ft)	0.01	Cum SA (acres)		0.38	

BRIDGE

RIVER: creek  
 REACH: 55th RS: 5020

INPUT

Description:  
 Distance from Upstream XS = 10  
 Deck/Roadway Width = 20  
 Weir Coefficient = 2.6

Upstream Deck/Roadway Coordinates

num=	2		
Sta Hi	Cord Lo Cord	Sta Hi	Cord Lo Cord
5000	1290 1286	5350	1290 1286

Upstream Bridge Cross Section Data

Station	Elevation	Data	num=	18					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
5000	1288	5093	1288	5117	1286	5124	1284	5136	1282
5149	1280	5152	1278	5160	1272	5176	1272	5179	1274
5185	1276	5191	1278	5197	1280	5203	1282	5209	1284
5218	1286	5235	1286	5328	1286				

Manning's n Values

num=	3				
Sta	n Val	Sta	n Val	Sta	n Val
5000	.05	5093	.03	5218	.05

Bank Sta: Left Right Coeff Contr. Expan.

5093	5218	.1	.3
------	------	----	----

Downstream Deck/Roadway Coordinates

num=	2		
Sta Hi	Cord Lo Cord	Sta Hi	Cord Lo Cord
5000	1290 1286	5350	1290 1286

Downstream Bridge Cross Section Data

Station	Elevation	Data	num=	19					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
5000	1289	5065	1288	5121	1286	5123	1284	5130	1282
5138	1280	5141	1278	5143	1276	5145	1274	5146	1272
5160	1272	5163	1274	5171	1276	5177	1278	5186	1280
5193	1282	5200	1284	5206	1286	5291	1286		

Manning's n Values

num=	3				
Sta	n Val	Sta	n Val	Sta	n Val
5000	.05	5121	.03	5206	.05

Bank Sta: Left Right Coeff Contr. Expan.

5121	5206	.1	.3
------	------	----	----

Upstream Embankment side slope = 0 horiz. to 1.0 vertical  
 Downstream Embankment side slope = 0 horiz. to 1.0 vertical  
 Maximum allowable submergence for weir flow = .95  
 Elevation at which weir flow begins =  
 Energy head used in spillway design =  
 Spillway height used in design =  
 Weir crest shape = Broad Crested

Number of Piers = 2

Pier Data

Pier Station	Upstream=	5153	Downstream=	5141
Upstream	num=	2		
Width	Elev	Width	Elev	
2	1272	2	1292	
Downstream	num=	2		
Width	Elev	Width	Elev	
2	1272	2	1292	

Pier Data

Pier Station	Upstream=	5188	Downstream=	5176
Upstream	num=	2		
Width	Elev	Width	Elev	
2	1272	2	1290	
Downstream	num=	2		

Width Elev Width Elev  
2 1272 2 1290

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data

Energy

Selected Low Flow Methods = Highest Energy Answer

High Flow Method

Energy Only

Additional Bridge Parameters

Add Friction component to Momentum

Do not add Weight component to Momentum

Class B flow critical depth computations use critical depth

inside the bridge at the upstream end

Criteria to check for pressure flow = Upstream energy grade line

BRIDGE OUTPUT Profile #PF 1

E. G. US. (ft)	1284.64	Element	Inside BR US	Inside BR DS
W. S. US. (ft)	1283.89	E. G. Elev (ft)	1284.60	1284.49
Q Total (cfs)	3500.00	W. S. Elev (ft)	1283.71	1283.33
Q Bridge (cfs)	3500.00	Crit W. S. (ft)	1280.72	1281.12
Q Weir (cfs)		Max Chl Dpth (ft)	11.71	11.33
Weir Sta Lft (ft)		Vel Total (ft/s)	7.58	8.65
Weir Sta Rgt (ft)		Flow Area (sq ft)	462.03	404.83
Weir Submerg		Froude # Chl	0.55	0.63
Weir Max Depth (ft)		Specif Force (cu ft)	2865.74	2661.46
Min El Weir Flow (ft)	1290.01	Hydr Depth (ft)	5.90	5.93
Min El Prs (ft)	1286.00	W.P. Total (ft)	109.14	95.70
Delta EG (ft)	0.22	Conv. Total (cfs)	59886.6	52447.9
Delta WS (ft)	0.49	Top Width (ft)	78.35	68.31
BR Open Area (sq ft)	606.17	Frctn Loss (ft)	0.08	0.03
BR Open Vel (ft/s)	8.65	C & E Loss (ft)	0.03	0.04
Coef of Q		Shear Total (lb/sq ft)	0.90	1.18
Br Sel Method	Energy only	Power Total (lb/ft s)	6.84	10.17

Warning: Pier drag coefficient of 2.0 assumed for Class B flow.

Warning: For the final momentum answer at the bridge, the upstream energy was computed lower than the downstream energy. This is not physically possible, the momentum answer has been disregarded.

CROSS SECTION

RIVER: creek

REACH: 55th

RS: 5000

INPUT

Description:

Station	Elevation	Data	num=	19
Sta	Elev	Sta	Elev	Sta
5000	1289	5065	1288	5121
5138	1280	5141	1278	5143
5160	1272	5163	1274	5171
5193	1282	5200	1284	5206

Manning's n Values

num= 3

Sta	n Val	Sta	n Val	Sta	n Val
5000	.05	5121	.03	5206	.05

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	5121	5206		50	50	50	.1	.3	

CROSS SECTION OUTPUT Profile #PF 1

E. G. Elev (ft)	1284.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.02	Wt. n-Val.		0.030	
W. S. Elev (ft)	1283.39	Reach Len. (ft)	50.00	50.00	50.00
Crit W. S. (ft)		Flow Area (sq ft)		431.54	
E. G. Slope (ft/ft)	0.002767	Area (sq ft)		431.54	
Q Total (cfs)	3500.00	Flow (cfs)		3500.00	
Top Width (ft)	72.75	Top Width (ft)		72.75	
Vel Total (ft/s)	8.11	Avg. Vel. (ft/s)		8.11	
Max Chl Dpth (ft)	11.39	Hydr. Depth (ft)		5.93	
Conv. Total (cfs)	66542.9	Conv. (cfs)		66542.9	
Length Wtd. (ft)	50.00	Wetted Per. (ft)		78.56	
Min Ch El (ft)	1272.00	Shear (lb/sq ft)		0.95	
Alpha	1.00	Stream Power (lb/ft s)		7.69	
Frctn Loss (ft)	0.15	Cum Volume (acre-ft)		1.75	
C & E Loss (ft)	0.01	Cum SA (acres)		0.31	

CROSS SECTION

RIVER: creek

REACH: 55th

RS: 4950

INPUT

Description:

Station	Elevation	Data	num=	19
---------	-----------	------	------	----

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
5000	1289	5065	1288	5121	1286	5123	1284	5130	1282
5138	1280	5141	1278	5143	1276	5145	1274	5146	1272
5160	1272	5163	1274	5171	1276	5177	1278	5186	1280
5193	1282	5200	1284	5206	1286	5291	1286		

Manning's n Values		num= 3	
Sta	n Val	Sta	n Val
5000	.05	5121	.03
		5206	.05

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	5121	5206		50	50		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Element	Left OB	Channel	Right OB
E. G. Elev (ft)	1284.26					
Vel Head (ft)	1.11		Wt. n-Val.		0.030	
W. S. Elev (ft)	1283.15		Reach Len. (ft)	50.00	50.00	50.00
Crit W. S. (ft)			Flow Area (sq ft)		414.10	
E. G. Slope (ft/ft)	0.003080		Area (sq ft)		414.10	
Q Total (cfs)	3500.00		Flow (cfs)		3500.00	
Top Width (ft)	71.05		Top Width (ft)		71.05	
Vel Total (ft/s)	8.45		Avg. Vel. (ft/s)		8.45	
Max Chl Dpth (ft)	11.15		Hydr. Depth (ft)		5.83	
Conv. Total (cfs)	63070.3		Conv. (cfs)		63070.3	
Length Wtd. (ft)	50.00		Wetted Per. (ft)		76.79	
Min Ch El (ft)	1272.00		Shear (lb/sq ft)		1.04	
Alpha	1.00		Stream Power (lb/ft s)		8.76	
Frctn Loss (ft)	0.16		Cum Volume (acre-ft)		1.27	
C & E Loss (ft)	0.01		Cum SA (acres)		0.23	

CROSS SECTION

RIVER: creek  
REACH: 55th RS: 4900

INPUT

Description:

Station Elevation Data		num= 19	
Sta	Elev	Sta	Elev
5000	1289	5065	1288
5138	1280	5141	1278
5160	1272	5163	1274
5193	1282	5200	1284
		5206	1286
		5291	1286

Manning's n Values		num= 3	
Sta	n Val	Sta	n Val
5000	.05	5121	.03
		5206	.05

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	5121	5206		50	50		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

			Element	Left OB	Channel	Right OB
E. G. Elev (ft)	1284.08					
Vel Head (ft)	1.23		Wt. n-Val.		0.030	
W. S. Elev (ft)	1282.85		Reach Len. (ft)	50.00	50.00	50.00
Crit W. S. (ft)			Flow Area (sq ft)		393.30	
E. G. Slope (ft/ft)	0.003520		Area (sq ft)		393.30	
Q Total (cfs)	3500.00		Flow (cfs)		3500.00	
Top Width (ft)	68.97		Top Width (ft)		68.97	
Vel Total (ft/s)	8.90		Avg. Vel. (ft/s)		8.90	
Max Chl Dpth (ft)	10.85		Hydr. Depth (ft)		5.70	
Conv. Total (cfs)	58991.8		Conv. (cfs)		58991.8	
Length Wtd. (ft)	50.00		Wetted Per. (ft)		74.63	
Min Ch El (ft)	1272.00		Shear (lb/sq ft)		1.16	
Alpha	1.00		Stream Power (lb/ft s)		10.31	
Frctn Loss (ft)	0.19		Cum Volume (acre-ft)		0.80	
C & E Loss (ft)	0.02		Cum SA (acres)		0.15	

CROSS SECTION

RIVER: creek  
REACH: 55th RS: 4850

INPUT

Description:

Station Elevation Data		num= 19	
Sta	Elev	Sta	Elev
5000	1289	5065	1288
5138	1280	5141	1278
5160	1272	5163	1274
5193	1282	5200	1284
		5206	1286
		5291	1286

Manning's n Values		num= 3	
Sta	n Val	Sta	n Val
5000	.05	5121	.03
		5206	.05

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	5121	5206		50	50		.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E. G. Elev (ft)	1283.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.42	Wt. n-Val.		0.030	
W. S. Elev (ft)	1282.45	Reach Len. (ft)	50.00	50.00	50.00
Crit W. S. (ft)	1280.94	Flow Area (sq ft)		366.27	
E. G. Slope (ft/ft)	0.004232	Area (sq ft)		366.27	
Q Total (cfs)	3500.00	Flow (cfs)		3500.00	
Top Width (ft)	66.17	Top Width (ft)		66.17	
Vel Total (ft/s)	9.56	Avg. Vel. (ft/s)		9.56	
Max Chl Dpth (ft)	10.45	Hydr. Depth (ft)		5.54	
Conv. Total (cfs)	53800.7	Conv. (cfs)		53800.7	
Length Wtd. (ft)	50.00	Wetted Per. (ft)		71.72	
Min Ch El (ft)	1272.00	Shear (lb/sq ft)		1.35	
Alpha	1.00	Stream Power (lb/ft s)		12.89	
Frctn Loss (ft)	0.29	Cum Volume (acre-ft)		0.37	
C & E Loss (ft)	0.11	Cum SA (acres)		0.07	

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.  
 Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: creek  
 REACH: 55th RS: 4800

INPUT

Description:  
 Station Elevation Data num= 19

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
5000	1289	5065	1288	5121	1286	5123	1284	5130	1282
5138	1280	5141	1278	5143	1276	5145	1274	5146	1272
5160	1272	5163	1274	5171	1276	5177	1278	5186	1280
5193	1282	5200	1284	5206	1286	5291	1286		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
5000	.05	5121	.03	5206	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

5121	5206	0	0	0	.1	.3
------	------	---	---	---	----	----

CROSS SECTION OUTPUT Profile #PF 1

E. G. Elev (ft)	1283.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.53	Wt. n-Val.		0.030	
W. S. Elev (ft)	1280.94	Reach Len. (ft)			
Crit W. S. (ft)	1280.94	Flow Area (sq ft)		274.34	
E. G. Slope (ft/ft)	0.008777	Area (sq ft)		274.34	
Q Total (cfs)	3500.00	Flow (cfs)		3500.00	
Top Width (ft)	55.04	Top Width (ft)		55.04	
Vel Total (ft/s)	12.76	Avg. Vel. (ft/s)		12.76	
Max Chl Dpth (ft)	8.94	Hydr. Depth (ft)		4.98	
Conv. Total (cfs)	37358.4	Conv. (cfs)		37358.4	
Length Wtd. (ft)		Wetted Per. (ft)		60.18	
Min Ch El (ft)	1272.00	Shear (lb/sq ft)		2.50	
Alpha	1.00	Stream Power (lb/ft s)		31.87	
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

SUMMARY OF MANNING'S N VALUES

River: creek

Reach	River Sta.	n1	n2	n3
55th	5801	.05	.03	.05
55th	5579	.05	.03	.05
55th	5449	.05	.04	.05
55th	5245	.05	.03	.05
55th	5040	.05	.03	.05
55th	5020	Bridge		
55th	5000	.05	.03	.05
55th	4950	.05	.03	.05
55th	4900	.05	.03	.05
55th	4850	.05	.03	.05
55th	4800	.05	.03	.05

SUMMARY OF REACH LENGTHS

River: creek

Reach	River Sta.	Left	Channel	Right
55th	5801	100	222	300

55th	5579	50	130	180
55th	5449	250	204	180
55th	5245	205	205	205
55th	5040	40	40	40
55th	5020	Bri dge		
55th	5000	50	50	50
55th	4950	50	50	50
55th	4900	50	50	50
55th	4850	50	50	50
55th	4800	0	0	0

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS  
River: creek

Reach	Ri ver Sta.	Contr.	Expan.
55th	5801	.1	.3
55th	5579	.1	.3
55th	5449	.1	.3
55th	5245	.1	.3
55th	5040	.1	.3
55th	5020	Bri dge	
55th	5000	.1	.3
55th	4950	.1	.3
55th	4900	.1	.3
55th	4850	.1	.3
55th	4800	.1	.3

Profile Output Table - Standard Table 1

Reach	Ri ver Sta	Profi le	Q Total (cfs)	Min Ch El (ft)	W. S. Elev (ft)	Cri t W. S. (ft)	E. G. Elev (ft)	E. G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
55th	5801	PF 1	3500.00	1272.00	1286.36		1287.22	0.001924	7.45	483.99	149.62	0.50
55th	5579	PF 1	3500.00	1272.00	1286.13		1286.77	0.001562	6.45	584.18	133.21	0.45
55th	5449	PF 1	3500.00	1272.00	1283.92	1283.02	1286.19	0.009571	12.25	298.64	49.01	0.81
55th	5245	PF 1	3500.00	1272.00	1284.20		1285.05	0.001795	7.42	497.15	204.77	0.48
55th	5040	PF 1	3500.00	1272.00	1283.89	1280.51	1284.64	0.001959	6.95	503.29	83.97	0.50
55th	5020	Bri dge										
55th	5000	PF 1	3500.00	1272.00	1283.39		1284.41	0.002767	8.11	431.54	72.75	0.59
55th	4950	PF 1	3500.00	1272.00	1283.15		1284.26	0.003080	8.45	414.10	71.05	0.62
55th	4900	PF 1	3500.00	1272.00	1282.85		1284.08	0.003520	8.90	393.30	68.97	0.66
55th	4850	PF 1	3500.00	1272.00	1282.45	1280.94	1283.87	0.004232	9.56	366.27	66.17	0.72
55th	4800	PF 1	3500.00	1272.00	1280.94	1280.94	1283.47	0.008777	12.76	274.34	55.04	1.01

Profile Output Table - Standard Table 2

Reach	Ri ver Sta	Profi le	E. G. Elev (ft)	W. S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
55th	5801	PF 1	1287.22	1286.36	0.86	0.38	0.07	3.39	3493.82	2.79	149.62
55th	5579	PF 1	1286.77	1286.13	0.64	0.41	0.16	5.17	3438.87	55.96	133.21
55th	5449	PF 1	1286.19	1283.92	2.28	0.72	0.43	86.60	3413.40		49.01
55th	5245	PF 1	1285.05	1284.20	0.85	0.38	0.03		3488.50	11.50	204.77
55th	5040	PF 1	1284.64	1283.89	0.75	0.03	0.01		3500.00		83.97
55th	5020	Bri dge									
55th	5000	PF 1	1284.41	1283.39	1.02	0.15	0.01		3500.00		72.75
55th	4950	PF 1	1284.26	1283.15	1.11	0.16	0.01		3500.00		71.05
55th	4900	PF 1	1284.08	1282.85	1.23	0.19	0.02		3500.00		68.97
55th	4850	PF 1	1283.87	1282.45	1.42	0.29	0.11		3500.00		66.17
55th	4800	PF 1	1283.47	1280.94	2.53				3500.00		55.04