



100501 Existing Conditions - Input Data.TXT

Group: NE2-4

Warn Stage(ft): 0.000

Type: Stage/Area

Stage(ft)	Area(ac)
0.000	0.0059
0.500	0.0170
1.000	0.0620
1.500	0.1666
2.000	0.2827
2.500	0.3916
3.000	0.4524
3.500	0.6326
4.000	2.1170
4.500	3.4445
5.000	4.8538
5.500	6.7362
6.000	7.6899
6.500	7.8607
6.730	7.8626

Name: NE2-6 Outfall

Base Flow(cfs): 0.000

Init Stage(ft): 0.400

Group: NE2-6

Warn Stage(ft): 0.500

Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	0.400
100.00	0.500

Name: NE2-6-1

Base Flow(cfs): 0.000

Init Stage(ft): 4.580

Group: NE2-6

Warn Stage(ft): 0.000

Type: Stage/Area

Stage(ft)	Area(ac)
4.580	0.0000
5.000	0.0020
5.500	0.1885
6.000	0.8676
6.500	2.2713
7.000	4.5263
7.500	6.3477
8.000	7.9281
8.500	8.9586
9.000	9.2206
9.500	9.2697
9.820	9.2784



100501 Existing Conditions - Input Data.TXT

7.500	4.1053
8.000	4.2374
8.500	4.3069
9.000	4.3582
9.500	4.4063
10.000	4.4456
10.500	4.4801
11.000	4.5041
11.500	4.5239
12.000	4.5296
12.500	4.5305
12.630	4.5306

Name: NE3-2

Base Flow(cfs): 0.000

Init Stage(ft): 3.230

Group: NE3-2

warn Stage(ft): 0.000

Type: Stage/Area

Stage(ft)	Area(ac)
3.230	0.0000
3.500	0.0106
4.000	0.1425
4.500	0.7694
5.000	1.9352
5.500	7.8927
6.000	13.8070
6.500	23.4902
7.000	41.4553
7.500	61.2648
8.000	80.3494
8.500	98.6861
9.000	118.5572
9.500	138.1534
10.000	156.7789
10.500	179.5737
11.000	202.8460
11.500	227.7380
12.000	251.3299
12.500	276.6879
13.000	313.5789
13.500	364.1096
14.000	425.5120
14.500	479.6891
15.000	528.0782
15.500	574.3014
16.000	614.4694
16.500	655.0051
17.000	691.6378
17.500	724.7028
18.000	754.5538
18.500	779.8635
19.000	799.0416
19.500	812.4071
20.000	818.8965
20.500	820.8880
21.000	821.7086
21.500	822.0833



100501 Existing Conditions - Input Data.TXT

Type: Stage/Area

Stage(ft)	Area(ac)
0.000	0.0038
0.500	0.0417
1.000	0.1188
1.500	0.3010
2.000	0.8864
2.500	1.4969
3.000	1.8085
3.500	1.9896
4.000	2.1167
4.500	2.4458
5.000	3.2893
5.500	4.7830
6.000	6.8011
6.500	8.8122
7.000	10.2292
7.500	10.6103
8.000	10.6512
8.500	10.6604
8.980	10.6623

Name: NE4-5-3

Base Flow(cfs): 0.000

Init Stage(ft): 0.000

Group: NE4-5

warn Stage(ft): 0.000

Type: Stage/Area

Stage(ft)	Area(ac)
0.000	0.0219
0.500	0.8468
1.000	0.9458
1.500	1.0196
2.000	1.0921
2.500	1.1781
3.000	1.2776
3.500	1.6696
4.000	2.2559
4.500	2.8867
5.000	3.8010
5.500	4.7013
6.000	4.9626
6.500	5.0020
7.000	5.0163
7.500	5.0332
8.000	5.0464
8.480	5.0503

Name: NE4-8

Base Flow(cfs): 0.000

Init Stage(ft): 5.920

Group: NE4-8

warn Stage(ft): 0.000

100501 Existing Conditions - Input Data.TXT

Type: Stage/Area

Stage(ft)	Area(ac)
5.920	0.0000
6.000	0.0001
6.500	0.1362
7.000	1.0859
7.500	2.7661
8.000	5.5806
8.500	11.3158
9.000	19.2575
9.500	28.4573
10.000	36.3969
10.500	41.8675
11.000	45.1521
11.500	50.3408
12.000	50.9039
12.500	51.1840
13.000	51.4381
13.500	51.6703
14.000	51.8835
14.500	52.0794
15.000	52.2659
15.500	52.4497
16.000	52.6311
16.500	52.8097
17.000	52.9859
17.500	53.1594
18.000	53.3305
18.500	53.4989
19.000	53.6649
19.500	53.8282
20.000	53.9890
20.500	54.1473
21.000	54.3030
21.500	54.4568
22.000	54.6097
22.500	54.7617
23.000	54.9129
23.500	55.0632
24.000	55.2126
24.500	55.3612
25.000	55.5090
25.500	55.6559
26.000	55.8019
26.500	55.9471
27.000	56.0914
27.500	56.2349
28.000	56.3775
28.500	56.5193
29.000	56.6602
29.500	56.8003
30.000	56.9395
30.500	57.0778
31.000	57.2153
31.500	57.5703
32.000	57.7268
32.500	57.9376
33.000	59.0167

100501 Existing Conditions - Input Data.TXT

33.500 60.0162  
 34.000 60.3382  
 34.500 60.3597  
 34.620 60.3597

-----  
 -----  
 Name: NW1-4                      Base Flow(cfs): 0.000                      Init Stage(ft):  
 10.090                      Group: NW1-4                      Warn Stage(ft): 0.000  
 Type: Stage/Area

Stage(ft)	Area(ac)
10.090	0.0000
10.500	0.0077
11.000	0.1787
11.500	0.7120
12.000	2.0618
12.500	3.4386
13.000	4.2553
13.500	5.2113
14.000	6.1332
14.500	6.5451
15.000	6.6791
15.500	6.8148
16.000	7.0132
16.500	7.3011
17.000	7.4083
17.250	7.4091

-----  
 -----  
 Name: NW1-5 Outfall                      Base Flow(cfs): 0.000                      Init Stage(ft): 0.400  
 Group: NW1-5                      Warn Stage(ft): 0.500  
 Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	0.400
100.00	0.500

-----  
 -----  
 Name: NW1-5-1                      Base Flow(cfs): 0.000                      Init Stage(ft): 8.820  
 Group: NW1-5                      Warn Stage(ft): 0.000  
 Type: Stage/Area

stage(ft)	Area(ac)
8.820	0.0000
9.000	0.0001





100501 Existing Conditions - Input Data.TXT

Group: NW5-1

warn Stage(ft): 0.000

Type: Stage/Area

Stage(ft)	Area(ac)
9.410	0.0000
9.500	0.0007
10.000	0.0250
10.500	0.6692
11.000	4.3678
11.500	10.0491
12.000	14.8021
12.500	17.9035
13.000	20.1829
13.500	21.5864
14.000	22.2439
14.500	22.5372
15.000	22.5511
15.240	22.5514

Name: NW5-1-4

Base Flow(cfs): 0.000

Init Stage(ft): 5.850

Group: NW5-1

warn Stage(ft): 0.000

Type: Stage/Area

Stage(ft)	Area(ac)
5.850	0.0000
6.000	0.0001
6.500	0.0007
7.000	0.0019
7.500	0.0035
8.000	0.0058
8.500	0.0087
9.000	0.0123
9.500	0.0179
10.000	0.0504
10.500	0.5434
11.000	1.7734
11.500	2.8193
12.000	3.5994
12.500	3.9422
13.000	4.0437
13.410	4.0540

Name: NW5-2 outfall

Base Flow(cfs): 0.000

Init Stage(ft): 0.400

Group: NW5-2

warn Stage(ft): 0.500

Type: Time/Stage



100501 Existing Conditions - Input Data.TXT

Group: NW5-2

warn Stage(ft): 0.000

Type: Stage/Area

Stage(ft)	Area(ac)
9.510	0.0000
10.000	0.0274
10.500	0.4490
11.000	0.9826
11.500	1.5968
12.000	2.4492
12.500	3.3284
13.000	3.4771
13.500	3.4910
14.000	3.4961
14.500	3.4978
14.630	3.4978

Name: NW5-4

Base Flow(cfs): 0.000

Init Stage(ft): 2.970

Group: NW5-4

warn Stage(ft): 0.000

Type: Stage/Area

Stage(ft)	Area(ac)
2.970	0.0000
3.000	0.0000
3.500	0.0006
4.000	0.0023
4.500	0.0050
5.000	0.0088
5.500	0.0136
6.000	0.0186
6.500	0.0236
7.000	0.0285
7.500	0.0341
8.000	0.0427
8.500	0.2540
9.000	2.6612
9.500	8.2231
10.000	15.1157
10.500	19.9131
11.000	23.3643
11.500	24.8312
12.000	25.1393
12.500	25.2337
12.980	25.2487

Name: SE2-2 outfall

Base Flow(cfs): 0.000

Init Stage(ft): 0.400

Group: SE2-2

warn Stage(ft): 0.500







100501 Existing Conditions - Input Data.TXT

Group: SW3-2

warn Stage(ft): 0.000

Type: Stage/Area

Stage(ft)	Area(ac)
5.640	0.0000
6.000	0.0002
6.500	0.0013
7.000	0.0053
7.500	0.2200
8.000	1.9197
8.500	4.3839
9.000	6.1973
9.500	8.4335
10.000	11.8921
10.500	15.5662
11.000	18.3305
11.500	20.1253
12.000	21.0467
12.500	21.4929
13.000	21.6034
13.380	21.6162

Name: SW3-2-3

Base Flow(cfs): 0.000

Init Stage(ft): 5.640

Group: SW3-2

warn Stage(ft): 0.000

Type: Stage/Area

Stage(ft)	Area(ac)
5.640	0.0000
6.000	0.0215
6.500	0.5020
7.000	1.9737
7.500	4.7484
8.000	7.9822
8.500	11.6324
9.000	14.9241
9.500	17.3443
10.000	18.3940
10.500	18.7201
11.000	18.8059
11.500	18.8402
12.000	18.8491
12.310	18.8494

Name: SW3-2-4

Base Flow(cfs): 0.000

Init Stage(ft): 4.780

Group: SW3-2

warn Stage(ft): 0.000

Type: Stage/Area





100501 Existing Conditions - Input Data.TXT

=====  
 ===== Pipes

=====

Name: CT4-3-1 Outfall      From Node: CT4-3-1      Length(ft): 1191.00  
 Group: CT4-3      To Node: CT4-3 Outfall      Count: 1

Automatic      Friction Equation:  
 Automatic      UPSTREAM      DOWNSTREAM      Solution Algorithm:  
 Geometry: Circular      Circular      Flow: Both  
 Span(in): 36.00      36.00      Entrance Loss Coef: 0.20  
 Rise(in): 36.00      36.00      Exit Loss Coef: 0.00  
 Invert(ft): -0.910      -1.280      Bend Loss Coef: 0.00  
 Manning's N: 0.013000      0.013000      Outlet Ctrl Spec: Use dc  
 or tw      Inlet Ctrl Spec: Use dc  
 Top Clip(in): 0.000      0.000      Stabilizer Option: None  
 Bot Clip(in): 0.000      0.000

Upstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

-----

Name: CT4-3-2 Outfall      From Node: CT4-3-2      Length(ft): 847.00  
 Group: CT4-3      To Node: CT4-3 Outfall      Count: 1

Automatic      Friction Equation:  
 Automatic      UPSTREAM      DOWNSTREAM      Solution Algorithm:  
 Geometry: Circular      Circular      Flow: Both  
 Span(in): 18.00      18.00      Entrance Loss Coef: 0.20  
 Rise(in): 18.00      18.00      Exit Loss Coef: 0.00  
 Invert(ft): 0.740      -0.310      Bend Loss Coef: 0.00  
 Manning's N: 0.013000      0.013000      Outlet Ctrl Spec: Use dc  
 or tw      Inlet Ctrl Spec: Use dc  
 Top Clip(in): 0.000      0.000      Stabilizer Option: None  
 Bot Clip(in): 0.000      0.000

Upstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

-----

100501 Existing Conditions - Input Data.TXT

```

-----
Name: CT4-3-3 Outfall      From Node: CT4-3-3      Length(ft): 326.00
Group: CT4-3              To Node: CT4-3 Outfall    Count: 1

Automatic
UPSTREAM      DOWNSTREAM      Friction Equation:
Automatic
Geometry: Circular      Circular      Solution Algorithm:
Span(in): 18.00          18.00          Flow: Both
Rise(in): 18.00          18.00          Entrance Loss Coef: 0.00
Invert(ft): 1.590        0.980          Exit Loss Coef: 0.00
Manning's N: 0.013000    0.013000      Bend Loss Coef: 0.00
or tw          Outlet Ctrl Spec: Use dc
Top Clip(in): 0.000      0.000          Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000      0.000          Stabilizer Option: None
    
```

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

```

-----
Name: NC3-2-2 Outfall      From Node: NC3-2-2      Length(ft): 1804.00
Group: NC3-2              To Node: NC3-2 Outfall    Count: 1

Automatic
UPSTREAM      DOWNSTREAM      Friction Equation:
Automatic
Geometry: Circular      Circular      Solution Algorithm:
Span(in): 24.00          24.00          Flow: Both
Rise(in): 24.00          24.00          Entrance Loss Coef: 0.20
Invert(ft): 4.470        -1.490         Exit Loss Coef: 0.00
Manning's N: 0.013000    0.013000      Bend Loss Coef: 0.00
or tw          Outlet Ctrl Spec: Use dc
Top Clip(in): 0.000      0.000          Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000      0.000          Stabilizer Option: None
    
```

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

```

-----
Name: NE1-1-1 Outfall      From Node: NE1-1-1      Length(ft): 341.00
Group: NE1-1              To Node: NE1-1 Outfall    Count: 1
    
```

100501 Existing Conditions - Input Data.TXT

Automatic  
 UPSTREAM                      DOWNSTREAM  
 Automatic  
 Geometry: Circular              Circular  
 Span(in): 30.00                  30.00  
 Rise(in): 30.00                  30.00  
 Invert(ft): -3.170              -1.770  
 Manning's N: 0.013000          0.013000  
 or tw  
 Top Clip(in): 0.000              0.000  
 Bot Clip(in): 0.000              0.000

Friction Equation:  
 Solution Algorithm:  
 Flow: Both  
 Entrance Loss Coef: 0.20  
 Exit Loss Coef: 0.00  
 Bend Loss Coef: 0.00  
 outlet Ctrl Spec: Use dc  
 Inlet Ctrl Spec: Use dc  
 Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

-----  
 Name: NE1-1-2                      From Node: NE1-1-2                      Length(ft): 277.00  
 Group: NE1-1                      To Node: NE1-1-3                      Count: 1

Automatic  
 UPSTREAM                      DOWNSTREAM  
 Automatic  
 Geometry: Circular              Circular  
 Span(in): 42.00                  42.00  
 Rise(in): 42.00                  42.00  
 Invert(ft): -2.150              -1.890  
 Manning's N: 0.013000          0.013000  
 or tw  
 Top Clip(in): 0.000              0.000  
 Bot Clip(in): 0.000              0.000

Friction Equation:  
 Solution Algorithm:  
 Flow: Both  
 Entrance Loss Coef: 0.20  
 Exit Loss Coef: 0.00  
 Bend Loss Coef: 0.00  
 outlet Ctrl Spec: Use dc  
 Inlet Ctrl Spec: Use dc  
 Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

-----  
 Name: NE1-1-3                      From Node: NE1-1-3                      Length(ft): 413.00  
 Group: NE1-1                      To Node: NE1-1-4                      Count: 1

Automatic  
 UPSTREAM                      DOWNSTREAM  
 Automatic  
 Geometry: Circular              Circular

Friction Equation:  
 Solution Algorithm:  
 Flow: Both

100501 Existing Conditions - Input Data.TXT

Span(in): 42.00	42.00	Entrance Loss Coef: 0.20
Rise(in): 42.00	42.00	Exit Loss Coef: 0.00
Invert(ft): -1.670	-1.840	Bend Loss Coef: 0.00
Manning's N: 0.013000	0.013000	outlet Ctrl Spec: Use dc
or tw		
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000	0.000	Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

-----

Name: NE1-1-4 Outfall	From Node: NE1-1-4	Length(ft): 573.00
Group: NE1-1	To Node: NE1-1 Outfall	Count: 1

Automatic			Friction Equation:
	UPSTREAM	DOWNSTREAM	Solution Algorithm:
Automatic	Geometry: Circular	Circular	Flow: Both
	Span(in): 42.00	42.00	Entrance Loss Coef: 0.20
	Rise(in): 42.00	42.00	Exit Loss Coef: 0.00
	Invert(ft): -1.790	-3.700	Bend Loss Coef: 0.00
	Manning's N: 0.013000	0.013000	outlet Ctrl Spec: Use dc
or tw			
	Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
	Bot Clip(in): 0.000	0.000	Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

-----

Name: NE2-4-2	From Node: NE2-4-2	Length(ft): 229.00
Group: NE2-4	To Node: NE2-4-3	Count: 1

Automatic			Friction Equation:
	UPSTREAM	DOWNSTREAM	Solution Algorithm:
Automatic	Geometry: Circular	Circular	Flow: Both
	Span(in): 12.00	12.00	Entrance Loss Coef: 0.20
	Rise(in): 12.00	12.00	Exit Loss Coef: 0.00
	Invert(ft): -0.460	1.440	Bend Loss Coef: 0.00
	Manning's N: 0.013000	0.013000	outlet Ctrl Spec: Use dc
or tw			



100501 Existing Conditions - Input Data.TXT

Upstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

```

-----
Name: NE2-6-2 Outfall          From Node: NE2-6-2          Length(ft): 1280.00
Group: NE2-6                  To Node: NE2-6 Outfall          Count: 1

Automatic
Automatic      UPSTREAM      DOWNSTREAM      Friction Equation:
Geometry: Circular      Circular      Solution Algorithm:
Span(in): 36.00          36.00          Entrance Loss Coef: 0.20
Rise(in): 36.00          36.00          Exit Loss Coef: 0.00
Invert(ft): -1.940      -2.270         Bend Loss Coef: 0.00
Manning's N: 0.013000   0.013000      outlet Ctrl Spec: Use dc
or tw
Top Clip(in): 0.000     0.000          Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000     0.000          Stabilizer Option: None
    
```

Upstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

```

-----
Name: NE2-6-3                From Node: NE2-6-3          Length(ft): 125.00
Group: NE2-6                  To Node: NE2-6-2          Count: 1

Automatic
Automatic      UPSTREAM      DOWNSTREAM      Friction Equation:
Geometry: Circular      Circular      Solution Algorithm:
Span(in): 30.00          30.00          Entrance Loss Coef: 0.20
Rise(in): 30.00          30.00          Exit Loss Coef: 0.00
Invert(ft): -1.550      -2.020         Bend Loss Coef: 0.00
Manning's N: 0.013000   0.013000      outlet Ctrl Spec: Use dc
or tw
Top Clip(in): 0.000     0.000          Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000     0.000          Stabilizer Option: None
    
```

Upstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

100501 Existing Conditions - Input Data.TXT

```

-----
Name: NE2-6-3 Outfall      From Node: NE2-6-3      Length(ft): 281.00
Group: NE2-6              To Node: NE2-6 Outfall    Count: 1

Automatic
Automatic      UPSTREAM      DOWNSTREAM      Friction Equation:
Automatic      UPSTREAM      DOWNSTREAM      Solution Algorithm:
Geometry: Circular      Circular      Flow: Both
Span(in): 18.00      18.00      Entrance Loss Coef: 0.20
Rise(in): 18.00      18.00      Exit Loss Coef: 0.00
Invert(ft): -0.790      -1.780      Bend Loss Coef: 0.00
Manning's N: 0.013000      0.013000      Outlet Ctrl Spec: Use dc
or tw
Top Clip(in): 0.000      0.000      Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000      0.000      Stabilizer Option: None

```

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

```

-----
Name: NE4-5-1 A          From Node: NE4-5-1      Length(ft): 280.00
Group: NE4-5            To Node: NE4-5 Outfall    Count: 1

Automatic
Automatic      UPSTREAM      DOWNSTREAM      Friction Equation:
Automatic      UPSTREAM      DOWNSTREAM      Solution Algorithm:
Geometry: Circular      Circular      Flow: Both
Span(in): 15.00      15.00      Entrance Loss Coef: 0.20
Rise(in): 15.00      15.00      Exit Loss Coef: 0.00
Invert(ft): 1.490      -1.490      Bend Loss Coef: 0.00
Manning's N: 0.013000      0.013000      Outlet Ctrl Spec: Use dc
or tw
Top Clip(in): 0.000      0.000      Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000      0.000      Stabilizer Option: None

```

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

100501 Existing Conditions - Input Data.TXT

Name: NE4-5-1 B                      From Node: NE4-5-1                      Length(ft): 291.00  
 Group: NE4-5                              To Node: NE4-5 Outfall                      Count: 1

Automatic                              Friction Equation:  
 Automatic                              Solution Algorithm:  
     UPSTREAM                      DOWNSTREAM                      Flow: Both  
     Geometry: Circular              Circular                      Entrance Loss Coef: 0.20  
     Span(in): 24.00                  24.00                      Exit Loss Coef: 0.00  
     Rise(in): 24.00                  24.00                      Bend Loss Coef: 0.00  
     Invert(ft): 1.200                -2.860                      Outlet Ctrl Spec: Use dc  
     Manning's N: 0.013000          0.013000  
 or tw                                      Inlet Ctrl Spec: Use dc  
     Top Clip(in): 0.000              0.000                      Stabilizer Option: None  
     Bot Clip(in): 0.000              0.000

Upstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

-----

Name: NE4-5-2                      From Node: NE4-5-2                      Length(ft): 182.00  
 Group: NE4-5                              To Node: NE4-5 Outfall                      Count: 1

Automatic                              Friction Equation:  
 Automatic                              Solution Algorithm:  
     UPSTREAM                      DOWNSTREAM                      Flow: Both  
     Geometry: Circular              Circular                      Entrance Loss Coef: 0.20  
     Span(in): 15.00                  15.00                      Exit Loss Coef: 0.00  
     Rise(in): 15.00                  15.00                      Bend Loss Coef: 0.00  
     Invert(ft): 0.620                -3.110                      Outlet Ctrl Spec: Use dc  
     Manning's N: 0.013000          0.013000  
 or tw                                      Inlet Ctrl Spec: Use dc  
     Top Clip(in): 0.000              0.000                      Stabilizer Option: None  
     Bot Clip(in): 0.000              0.000

Upstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

-----

Name: NE4-5-3                      From Node: NE4-5-3                      Length(ft): 124.00  
 Group: NE4-5                              To Node: NE4-5 Outfall                      Count: 1

Friction Equation:

100501 Existing Conditions - Input Data.TXT

Automatic	UPSTREAM	DOWNSTREAM	Solution Algorithm:
Automatic			Flow: Both
Geometry:	Circular	Circular	Entrance Loss Coef: 0.20
Span(in):	12.00	12.00	Exit Loss Coef: 0.00
Rise(in):	12.00	12.00	Bend Loss Coef: 0.00
Invert(ft):	-0.800	-3.800	Outlet Ctrl Spec: Use dc
Manning's N:	0.013000	0.013000	Inlet Ctrl Spec: Use dc
or tw			Stabilizer Option: None
Top Clip(in):	0.000	0.000	
Bot Clip(in):	0.000	0.000	

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

-----  
-----  
Name: NW1-5-1                      From Node: NW1-5-1                      Length(ft): 777.00  
Group: NW1-5                      To Node: NW1-5-2                      Count: 1

Automatic	UPSTREAM	DOWNSTREAM	Friction Equation:
Automatic			Solution Algorithm:
Geometry:	Circular	Circular	Flow: Both
Span(in):	72.00	72.00	Entrance Loss Coef: 0.20
Rise(in):	72.00	72.00	Exit Loss Coef: 0.00
Invert(ft):	2.840	3.440	Bend Loss Coef: 0.00
Manning's N:	0.013000	0.013000	Outlet Ctrl Spec: Use dc
or tw			Inlet Ctrl Spec: Use dc
Top Clip(in):	0.000	0.000	Stabilizer Option: None
Bot Clip(in):	0.000	0.000	

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

-----  
-----  
Name: NW1-5-2                      From Node: NW1-5-2                      Length(ft): 135.00  
Group: NW1-5                      To Node: NW1-5 Outfall                      Count: 1

Automatic	UPSTREAM	DOWNSTREAM	Friction Equation:
Automatic			Solution Algorithm:
Geometry:	Circular	Circular	Flow: Both
Span(in):	72.00	72.00	Entrance Loss Coef: 0.20

100501 Existing Conditions - Input Data.TXT

Rise(in): 72.00	72.00	Exit Loss Coef: 0.00
Invert(ft): 3.540	3.510	Bend Loss Coef: 0.00
Manning's N: 0.013000	0.013000	Outlet Ctrl Spec: Use dc
or tw		
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000	0.000	Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

-----  
-----  
Name: NW5-1-2 Outfall      From Node: NW5-1-2      Length(ft): 714.00  
Group: NW5-1      To Node: NW5-1 Outfall      Count: 1

Automatic			Friction Equation:
	UPSTREAM	DOWNSTREAM	Solution Algorithm:
Automatic			
Geometry:	Circular	Circular	Flow: Both
Span(in):	36.00	36.00	Entrance Loss Coef: 0.20
Rise(in):	36.00	36.00	Exit Loss Coef: 0.00
Invert(ft):	5.390	5.850	Bend Loss Coef: 0.00
Manning's N:	0.013000	0.013000	Outlet Ctrl Spec: Use dc
or tw			
Top Clip(in):	0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in):	0.000	0.000	Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

-----  
-----  
Name: NW5-1-3      From Node: NW5-1-3      Length(ft): 998.00  
Group: NW5-1      To Node: NW5-1-2      Count: 1

Automatic			Friction Equation:
	UPSTREAM	DOWNSTREAM	Solution Algorithm:
Automatic			
Geometry:	Circular	Circular	Flow: Both
Span(in):	30.00	30.00	Entrance Loss Coef: 0.20
Rise(in):	30.00	30.00	Exit Loss Coef: 0.00
Invert(ft):	5.370	5.390	Bend Loss Coef: 0.00
Manning's N:	0.013000	0.013000	Outlet Ctrl Spec: Use dc
or tw			
Top Clip(in):	0.000	0.000	Inlet Ctrl Spec: Use dc

Bot Clip(in): 0.000                      0.000                      Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

-----  
-----  
Name: NW5-2-1                      From Node: NW5-2-1                      Length(ft): 137.00  
Group: NW5-2                      To Node: NW5-2 Outfall                      Count: 1

Friction Equation:  
Automatic                      UPSTREAM                      DOWNSTREAM                      Solution Algorithm:  
Automatic                      UPSTREAM                      DOWNSTREAM                      Solution Algorithm:  
    Geometry: Circular                      Circular                      Flow: Both  
    Span(in): 12.00                      12.00                      Entrance Loss Coef: 0.20  
    Rise(in): 12.00                      12.00                      Exit Loss Coef: 0.00  
    Invert(ft): 6.590                      4.010                      Bend Loss Coef: 0.00  
    Manning's N: 0.013000                      0.013000                      outlet Ctrl Spec: Use dc  
or tw                      Inlet Ctrl Spec: Use dc  
    Top Clip(in): 0.000                      0.000                      Stabilizer Option: None  
    Bot Clip(in): 0.000                      0.000

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

-----  
-----  
Name: NW5-2-2                      From Node: NW5-2-2                      Length(ft): 133.00  
Group: NW5-2                      To Node: NW5-2 Outfall                      Count: 1

Friction Equation:  
Automatic                      UPSTREAM                      DOWNSTREAM                      Solution Algorithm:  
Automatic                      UPSTREAM                      DOWNSTREAM                      Solution Algorithm:  
    Geometry: Circular                      Circular                      Flow: Both  
    Span(in): 12.00                      12.00                      Entrance Loss Coef: 0.20  
    Rise(in): 12.00                      12.00                      Exit Loss Coef: 0.00  
    Invert(ft): 5.380                      3.140                      Bend Loss Coef: 0.00  
    Manning's N: 0.013000                      0.013000                      outlet Ctrl Spec: Use dc  
or tw                      Inlet Ctrl Spec: Use dc  
    Top Clip(in): 0.000                      0.000                      Stabilizer Option: None  
    Bot Clip(in): 0.000                      0.000

Upstream FHWA Inlet Edge Description:

100501 Existing Conditions - Input Data.TXT

Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

-----  
-----  
Name: NW5-2-3 Outfall      From Node: NW5-2-3      Length(ft): 175.00  
Group: NW5-2      To Node: NW5-2 Outfall      Count: 1

Friction Equation:  
Automatic      UPSTREAM      DOWNSTREAM      Solution Algorithm:  
Automatic      Geometry: Circular      Circular      Flow: Both  
Span(in): 12.00      12.00      Entrance Loss Coef: 0.20  
Rise(in): 12.00      12.00      Exit Loss Coef: 0.00  
Invert(ft): 6.200      6.600      Bend Loss Coef: 0.00  
Manning's N: 0.013000      0.013000      outlet Ctrl Spec: Use dc  
or tw      Top Clip(in): 0.000      0.000      Inlet Ctrl Spec: Use dc  
Bot Clip(in): 0.000      0.000      Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

-----  
-----  
Name: SE2-2-1      From Node: SE2-2-1      Length(ft): 148.00  
Group: SE2-2      To Node: SE2-2 Outfall      Count: 4

Friction Equation:  
Automatic      UPSTREAM      DOWNSTREAM      Solution Algorithm:  
Automatic      Geometry: Circular      Circular      Flow: Both  
Span(in): 12.00      12.00      Entrance Loss Coef: 0.20  
Rise(in): 12.00      12.00      Exit Loss Coef: 0.00  
Invert(ft): -0.780      0.090      Bend Loss Coef: 0.00  
Manning's N: 0.013000      0.013000      outlet Ctrl Spec: Use dc  
or tw      Top Clip(in): 0.000      0.000      Inlet Ctrl Spec: Use dc  
Bot Clip(in): 0.000      0.000      Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

100501 Existing Conditions - Input Data.TXT

```

-----
Name: SE2-2-2 Outfall      From Node: SE2-2-2      Length(ft): 142.00
Group: SE2-2              To Node: SE2-2 Outfall  Count: 6

Automatic
Automatic      UPSTREAM      DOWNSTREAM      Friction Equation:
Automatic      UPSTREAM      DOWNSTREAM      Solution Algorithm:
  Geometry: Circular      Circular      Flow: Both
  Span(in): 15.00      15.00      Entrance Loss Coef: 0.20
  Rise(in): 15.00      15.00      Exit Loss Coef: 0.00
  Invert(ft): -0.580      -2.070      Bend Loss Coef: 0.00
  Manning's N: 0.013000      0.013000      Outlet Ctrl Spec: Use dc
or tw
  Top Clip(in): 0.000      0.000      Inlet Ctrl Spec: Use dc
  Bot Clip(in): 0.000      0.000      Stabilizer Option: None

```

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

```

-----
Name: SE2-2-3 Outfall      From Node: SE2-2-3      Length(ft): 157.00
Group: SE2-2              To Node: SE2-2 Outfall  Count: 3

Automatic
Automatic      UPSTREAM      DOWNSTREAM      Friction Equation:
Automatic      UPSTREAM      DOWNSTREAM      Solution Algorithm:
  Geometry: Circular      Circular      Flow: Both
  Span(in): 15.00      15.00      Entrance Loss Coef: 0.20
  Rise(in): 15.00      15.00      Exit Loss Coef: 0.00
  Invert(ft): -1.280      -0.830      Bend Loss Coef: 0.00
  Manning's N: 0.013000      0.013000      Outlet Ctrl Spec: Use dc
or tw
  Top Clip(in): 0.000      0.000      Inlet Ctrl Spec: Use dc
  Bot Clip(in): 0.000      0.000      Stabilizer Option: None

```

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

```

-----
Name: SE2-2-4              From Node: SE2-2-4      Length(ft): 178.00

```

100501 Existing Conditions - Input Data.TXT

Group: SE2-2 To Node: SE2-2 Outfall Count: 13

Automatic Friction Equation:  
 Automatic UPSTREAM DOWNSTREAM Solution Algorithm:  
 Automatic Geometry: Circular Circular Flow: Both  
 Span(in): 12.00 12.00 Entrance Loss Coef: 0.20  
 Rise(in): 12.00 12.00 Exit Loss Coef: 0.00  
 Invert(ft): -0.470 -3.420 Bend Loss Coef: 0.00  
 Manning's N: 0.013000 0.013000 Outlet Ctrl Spec: Use dc  
 or tw Inlet Ctrl Spec: Use dc  
 Top Clip(in): 0.000 0.000 Stabilizer Option: None  
 Bot Clip(in): 0.000 0.000

Upstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

-----  
 Name: SW3-2-2 Outfall From Node: SW3-2-2 Length(ft): 910.00  
 Group: SW3-2 To Node: SW3-2 Outfall Count: 2

Automatic Friction Equation:  
 Automatic UPSTREAM DOWNSTREAM Solution Algorithm:  
 Automatic Geometry: Circular Circular Flow: Both  
 Span(in): 12.00 12.00 Entrance Loss Coef: 0.20  
 Rise(in): 12.00 12.00 Exit Loss Coef: 0.00  
 Invert(ft): 4.230 3.180 Bend Loss Coef: 0.00  
 Manning's N: 0.013000 0.013000 Outlet Ctrl Spec: Use dc  
 or tw Inlet Ctrl Spec: Use dc  
 Top Clip(in): 0.000 0.000 Stabilizer Option: None  
 Bot Clip(in): 0.000 0.000

Upstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
 Circular Concrete: Square edge w/ headwall

-----  
 Name: SW3-2-3 Outfall From Node: SW3-2-3 Length(ft): 205.00  
 Group: SW3-2 To Node: SW3-2 Outfall Count: 2

Automatic Friction Equation:

100501 Existing Conditions - Input Data.TXT

Automatic	UPSTREAM	DOWNSTREAM	Solution Algorithm:
Geometry:	Circular	Circular	Flow: Both
Span(in):	12.00	12.00	Entrance Loss Coef: 0.20
Rise(in):	12.00	12.00	Exit Loss Coef: 0.00
Invert(ft):	3.340	1.620	Bend Loss Coef: 0.00
Manning's N:	0.013000	0.013000	Outlet Ctrl Spec: Use dc
or tw			Inlet Ctrl Spec: Use dc
Top Clip(in):	0.000	0.000	Stabilizer Option: None
Bot Clip(in):	0.000	0.000	

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

-----  
-----  
Name: SW3-2-4 Outfall      From Node: SW3-2-4      Length(ft): 141.00  
Group: SW3-2      To Node: SW3-2 Outfall      Count: 1

Automatic	UPSTREAM	DOWNSTREAM	Friction Equation:
Automatic	UPSTREAM	DOWNSTREAM	Solution Algorithm:
Geometry:	Circular	Circular	Flow: Both
Span(in):	15.00	15.00	Entrance Loss Coef: 0.20
Rise(in):	15.00	15.00	Exit Loss Coef: 0.00
Invert(ft):	2.050	-1.800	Bend Loss Coef: 0.00
Manning's N:	0.013000	0.013000	Outlet Ctrl Spec: Use dc
or tw			Inlet Ctrl Spec: Use dc
Top Clip(in):	0.000	0.000	Stabilizer Option: None
Bot Clip(in):	0.000	0.000	

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

-----  
-----  
Name: SW6-1-1 Outfall      From Node: SW6-1      Length(ft): 1034.00  
Group: SW6-1      To Node: SW6-1-1 Outfall      Count: 1

Automatic	UPSTREAM	DOWNSTREAM	Friction Equation:
Automatic	UPSTREAM	DOWNSTREAM	Solution Algorithm:
Geometry:	Circular	Circular	Flow: Both
Span(in):	60.00	60.00	Entrance Loss Coef: 0.20
Rise(in):	60.00	60.00	Exit Loss Coef: 1.00

100501 Existing Conditions - Input Data.TXT

Invert(ft): 1.540                    1.540                    Bend Loss Coef: 0.00  
Manning's N: 0.013000                0.013000                    Outlet Ctrl Spec: Use dc  
or tw  
Top Clip(in): 0.000                    0.000                    Inlet Ctrl Spec: Use dc  
Bot Clip(in): 0.000                    0.000                    Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

-----  
-----  
Name: SW8-2-1 Outfall                From Node: SW8-2-1                    Length(ft): 500.00  
Group: SW8-2                            To Node: SW8-2-1 Outfall                Count: 1  
Friction Equation:  
Automatic                                UPSTREAM                    DOWNSTREAM                    Solution Algorithm:  
Automatic                                UPSTREAM                    DOWNSTREAM                    Solution Algorithm:  
Geometry: Circular                    Circular                    Flow: Both  
Span(in): 18.00                    18.00                    Entrance Loss Coef: 0.20  
Rise(in): 18.00                    18.00                    Exit Loss Coef: 1.00  
Invert(ft): 8.520                    8.520                    Bend Loss Coef: 0.00  
Manning's N: 0.013000                0.013000                    Outlet Ctrl Spec: Use dc  
or tw  
Top Clip(in): 0.000                    0.000                    Inlet Ctrl Spec: Use dc  
Bot Clip(in): 0.000                    0.000                    Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

=====  
=====  
==== Weirs  
=====  
=====  
=====

Name: CT4-3-1                    From Node: CT4-3-1  
Group: CT4-3                    To Node: CT4-3-2  
Flow: Both                    Count: 4  
Type: Vertical: Paved                Geometry: Rectangular  
Span(in): 288.00  
Rise(in): 999.00  
Invert(ft): 5.000  
Control Elevation(ft): 5.000  
Bottom Clip(in): 0.000

TABLE

100501 Existing Conditions - Input Data.TXT

Top Clip(in): 0.000  
Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

---

Name: CT4-3-3                      From Node: CT4-3-3  
Group: CT4-3                      To Node: CT4-3-2  
Flow: Both                      Count: 1  
Type: Vertical: Paved              Geometry: Rectangular

Span(in): 288.00  
Rise(in): 999.00  
Invert(ft): 5.720  
Control Elevation(ft): 5.720

TABLE

Bottom Clip(in): 0.000  
Top Clip(in): 0.000  
Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

---

Name: NC3-2-1                      From Node: NC3-2-1  
Group: NC3-2                      To Node: NC3-2-2  
Flow: Positive                      Count: 4  
Type: Vertical: Paved              Geometry: Rectangular

Span(in): 288.00  
Rise(in): 999.00  
Invert(ft): 7.520  
Control Elevation(ft): 7.520

TABLE

Bottom Clip(in): 0.000  
Top Clip(in): 0.000  
Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

---

Name: NC3-2-3                      From Node: NC3-2-3  
Group: NC3-2                      To Node: NC3-2-2  
Flow: Positive                      Count: 4  
Type: Vertical: Paved              Geometry: Rectangular

Span(in): 288.00  
Rise(in): 999.00  
Invert(ft): 8.580  
Control Elevation(ft): 8.580

TABLE

Bottom Clip(in): 0.000  
Top Clip(in): 0.000  
Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

100501 Existing Conditions - Input Data.TXT

Name: NE1-1-4                      From Node: NE1-1-4  
Group: NE1-1                      To Node: NE1-1-1  
Flow: Both                      Count: 1  
Type: Vertical: Paved              Geometry: Rectangular

Span(in): 416.00  
Rise(in): 999.00  
Invert(ft): 3.400  
Control Elevation(ft): 3.400

Bottom Clip(in): 0.000  
Top Clip(in): 0.000  
Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

TABLE

Name: NE2-4-1.2                      From Node: NE2-4-1  
Group: NE1-1                      To Node: NE2-4-2  
Flow: Both                      Count: 3  
Type: Vertical: Paved              Geometry: Rectangular

Span(in): 288.00  
Rise(in): 999.00  
Invert(ft): 5.550  
Control Elevation(ft): 5.550

Bottom Clip(in): 0.000  
Top Clip(in): 0.000  
Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

TABLE

Name: NE2-4-1.3                      From Node: NE2-4-1  
Group: NE1-1                      To Node: NE2-4-3  
Flow: Both                      Count: 1  
Type: Vertical: Paved              Geometry: Rectangular

Span(in): 288.00  
Rise(in): 999.00  
Invert(ft): 4.070  
Control Elevation(ft): 4.070

Bottom Clip(in): 0.000  
Top Clip(in): 0.000  
Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

TABLE

Name: NE4-5-1                      From Node: NE4-5-1  
Group: NE4-5                      To Node: NE4-5-2  
Flow: Both                      Count: 1  
Type: Vertical: Paved              Geometry: Rectangular

100501 Existing Conditions - Input Data.TXT

Span(in): 288.00  
Rise(in): 999.00  
Invert(ft): 5.960  
Control Elevation(ft): 5.960

TABLE

Bottom Clip(in): 0.000  
Top Clip(in): 0.000  
Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

---

Name: NE4-5-2W                      From Node: NE4-5-2  
Group: NE4-5                        To Node: NE4-5-3  
Flow: Both                            Count: 1  
Type: Vertical: Paved                Geometry: Rectangular

Span(in): 288.00  
Rise(in): 999.00  
Invert(ft): 4.440  
Control Elevation(ft): 4.440

TABLE

Bottom Clip(in): 0.000  
Top Clip(in): 0.000  
Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

---

Name: NW5-1-1                      From Node: NW5-1-1  
Group: NW5-1                        To Node: NW5-1 Outfall  
Flow: Both                            Count: 1  
Type: Vertical: Paved                Geometry: Rectangular

Span(in): 288.00  
Rise(in): 999.00  
Invert(ft): 11.410  
Control Elevation(ft): 11.410

TABLE

Bottom Clip(in): 0.000  
Top Clip(in): 0.000  
Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

---

Name: NW5-1-4                      From Node: NW5-1-4  
Group: NW5-1                        To Node: NW5-1-3  
Flow: Both                            Count: 4  
Type: Vertical: Paved                Geometry: Rectangular

Span(in): 288.00  
Rise(in): 999.00  
Invert(ft): 11.590  
Control Elevation(ft): 11.590

TABLE

100501 Existing Conditions - Input Data.TXT

Bottom Clip(in): 0.000  
Top Clip(in): 0.000  
Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

---

Name: NW5-2-2W                      From Node: NW5-2-2  
Group: NW5-2                        To Node: NW5-2-1  
Flow: Both                            Count: 1  
Type: Vertical: Paved                Geometry: Rectangular

Span(in): 288.00  
Rise(in): 999.00  
Invert(ft): 9.520  
Control Elevation(ft): 9.520

TABLE

Bottom Clip(in): 0.000  
Top Clip(in): 0.000  
Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

---

Name: NW5-2-3                      From Node: NW5-2-3  
Group: NW5-2                        To Node: NW5-2-1  
Flow: Both                            Count: 1  
Type: Vertical: Paved                Geometry: Rectangular

Span(in): 288.00  
Rise(in): 999.00  
Invert(ft): 11.000  
Control Elevation(ft): 11.000

TABLE

Bottom Clip(in): 0.000  
Top Clip(in): 0.000  
Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

---

Name: SE2-2-4W                      From Node: SE2-2-4  
Group: SE2-2                        To Node: SE2-2-1  
Flow: Both                            Count: 1  
Type: Vertical: Paved                Geometry: Rectangular

Span(in): 288.00  
Rise(in): 999.00  
Invert(ft): 3.660  
Control Elevation(ft): 3.660

TABLE

Bottom Clip(in): 0.000  
Top Clip(in): 0.000  
Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

100501 Existing Conditions - Input Data.TXT

-----  
-----  
Name: SW3-2-2                      From Node: SW3-2-2  
Group: SW3-2                        To Node: SW3-2-3  
Flow: Both                          Count: 1  
Type: Vertical: Paved                Geometry: Rectangular  
  
                                    Span(in): 288.00  
                                    Rise(in): 999.00  
                                    Invert(ft): 7.740  
Control Elevation(ft): 7.740  
  
                                    TABLE  
                                    Bottom Clip(in): 0.000  
                                    Top Clip(in): 0.000  
                                    Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

-----  
-----  
Name: SW3-2-4                      From Node: SW3-2-4  
Group: SW3-2                        To Node: SW3-2-3  
Flow: Both                          Count: 1  
Type: Vertical: Paved                Geometry: Rectangular  
  
                                    Span(in): 288.00  
                                    Rise(in): 999.00  
                                    Invert(ft): 6.990  
Control Elevation(ft): 6.990  
  
                                    TABLE  
                                    Bottom Clip(in): 0.000  
                                    Top Clip(in): 0.000  
                                    Weir Discharge Coef: 3.200  
Orifice Discharge Coef: 0.600

=====  
=====  
==== Hydrology Simulations  
=====  
=====

Name: 100y3d  
Filename: U:\sdombrowski\Projects\Pompano\SWMP\Existing Conditions  
Models\100y3d.R32

Override Defaults: Yes  
Storm Duration(hrs): 72.00  
Rainfall File: sfwmd72  
Rainfall Amount(in): 20.00

Time(hrs)	Print Inc(min)
78.000	5.00

100501 Existing Conditions - Input Data.TXT

Name: 10y1d  
Filename: U:\sdombrowski\Projects\Pompano\SWMP\Existing Conditions  
Models\10y1d.R32

Override Defaults: Yes  
Storm Duration(hrs): 24.00  
Rainfall File: Sfwmd72  
Rainfall Amount(in): 10.00

Time(hrs)	Print Inc(min)
30.000	5.00

Name: 25y3d  
Filename: U:\sdombrowski\Projects\Pompano\SWMP\Existing Conditions  
Models\25y3d.R32

Override Defaults: Yes  
Storm Duration(hrs): 72.00  
Rainfall File: Sfwmd72  
Rainfall Amount(in): 15.00

Time(hrs)	Print Inc(min)
78.000	5.00

Name: 5y1d  
Filename: U:\sdombrowski\Projects\Pompano\SWMP\Existing Conditions  
Models\5y1d.R32

Override Defaults: Yes  
Storm Duration(hrs): 24.00  
Rainfall File: Sfwmd72  
Rainfall Amount(in): 7.00

Time(hrs)	Print Inc(min)
30.000	5.00

=====  
=====  
==== Routing Simulations  
=====  
=====

Name: 100y3d Hydrology Sim: 100y3d  
Filename: U:\sdombrowski\Projects\Pompano\SWMP\Existing Conditions  
Models\100y3d.I32

Execute: Yes                      Restart: No                      Patch: No

100501 Existing Conditions - Input Data.TXT

Alternative: No

Max Delta Z(ft): 1.00  
 Time Step Optimizer: 10.000  
 Start Time(hrs): 0.000  
 Min Calc Time(sec): 0.5000  
 Boundary Stages:

Delta Z Factor: 0.00500  
 End Time(hrs): 78.00  
 Max Calc Time(sec): 60.0000  
 Boundary Flows:

Time(hrs)	Print Inc(min)
999.000	15.000

Group	Run
CT4-3	Yes
NC3-2	Yes
NC3-4	Yes
NE1-1	Yes
NE2-4	Yes
NE2-6	Yes
NE3-2	Yes
NE4-5	Yes
NE4-8	Yes
NW1-4	Yes
NW1-5	Yes
NW5-1	Yes
NW5-2	Yes
NW5-4	Yes
SE2-2	Yes
SE2-3	Yes
SW1-1	Yes
SW3-2	Yes
SW6-1	Yes
SW8-2	Yes

-----  
 Name: 10y1d Hydrology Sim: 10y1d  
 Filename: U:\sdombrowski\Projects\Pompano\SWMP\Existing Conditions  
 Models\10y1d.I32

Execute: Yes  
 Alternative: No

Restart: No

Patch: No

Max Delta Z(ft): 1.00  
 Time Step Optimizer: 10.000  
 Start Time(hrs): 0.000  
 Min Calc Time(sec): 0.5000  
 Boundary Stages:

Delta Z Factor: 0.00500  
 End Time(hrs): 30.00  
 Max Calc Time(sec): 60.0000  
 Boundary Flows:

Time(hrs)	Print Inc(min)
999.000	15.000

Group	Run
-------	-----

100501 Existing Conditions - Input Data.TXT

CT4-3 Yes  
 NC3-2 Yes  
 NC3-4 Yes  
 NE1-1 Yes  
 NE2-4 Yes  
 NE2-6 Yes  
 NE3-2 Yes  
 NE4-5 Yes  
 NE4-8 Yes  
 NW1-4 Yes  
 NW1-5 Yes  
 NW5-1 Yes  
 NW5-2 Yes  
 NW5-4 Yes  
 SE2-2 Yes  
 SE2-3 Yes  
 SW1-1 Yes  
 SW3-2 Yes  
 SW6-1 Yes  
 SW8-2 Yes

-----

Name: 25y3d Hydrology Sim: 25y3d  
 Filename: U:\sdombrowski\Projects\Pompano\SWMP\Existing Conditions  
 Models\25y3d.I32

Execute: Yes Restart: No Patch: No  
 Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500  
 Time Step Optimizer: 10.000  
 Start Time(hrs): 0.000 End Time(hrs): 78.00  
 Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000  
 Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)  
 -----  
 999.000 15.000

Group Run  
 -----  
 CT4-3 Yes  
 NC3-2 Yes  
 NC3-4 Yes  
 NE1-1 Yes  
 NE2-4 Yes  
 NE2-6 Yes  
 NE3-2 Yes  
 NE4-5 Yes  
 NE4-8 Yes  
 NW1-4 Yes  
 NW1-5 Yes  
 NW5-1 Yes  
 NW5-2 Yes  
 NW5-4 Yes  
 SE2-2 Yes  
 SE2-3 Yes

100501 Existing Conditions - Input Data.TXT

SW1-1 Yes  
 SW3-2 Yes  
 SW6-1 Yes  
 SW8-2 Yes

-----  
 Name: 5y1d Hydrology Sim: 5y1d  
 Filename: U:\sdombrowski\Projects\Pompano\SWMP\Existing Conditions  
 Models\5y1d.I32

Execute: Yes Restart: No Patch: No  
 Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500  
 Time Step Optimizer: 10.000  
 Start Time(hrs): 0.000 End Time(hrs): 30.00  
 Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000  
 Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)  
 -----  
 999.000 15.000

Group	Run
CT4-3	Yes
NC3-2	Yes
NC3-4	Yes
NE1-1	Yes
NE2-4	Yes
NE2-6	Yes
NE3-2	Yes
NE4-5	Yes
NE4-8	Yes
NW1-4	Yes
NW1-5	Yes
NW5-1	Yes
NW5-2	Yes
NW5-4	Yes
SE2-2	Yes
SE2-3	Yes
SW1-1	Yes
SW3-2	Yes
SW6-1	Yes
SW8-2	Yes

**Appendix D**  
**Summary of Peak Flood Stages**

Appendix D  
Peak Flood Stages

Basin	Sub-Basin	Indicator Elevations		Peak Stage Elevations				Level of Service Analysis	
		Finish Floor Elevation	Low Pavement Elevation	5 Year 1 Day Storm	10 Year 1 Day	25 Year 3 Day Storm	100 Year 3 Day Storm	Deviation from Low Pavement Elevation	Deviation from Finish Floor Elevation
CT4-3	1	6.38	4.25	5.333	5.691	5.759	6.07	-1.08	0.31
	2	5.73	3.58	5.334	5.692	5.76	6.071	-1.75	-0.34
	3	6.86	5.37	6.014	6.18	6.156	6.29	-0.64	0.57
NC3-2	1	7.60	6.55	7.767	8.046	8.164	8.456	-1.22	-0.86
	2	7.08	6.50	7.904	8.408	8.495	8.87	-1.40	-1.79
	3	7.36	5.60	7.221	7.614	8.153	8.602	-1.62	-1.24
NC3-4	1	-	11.65	17.063	17.774	18.661	19.299	-5.41	-
NE1-1	1	2.84	1.90	1.793	2.404	2.439	2.868	0.11	-0.03
	2	7.51	4.50	5.202	5.795	5.742	6.322	-0.70	1.19
	3	7.22	4.95	5.023	5.602	5.512	6.064	-0.07	1.16
	4	3.74	3.15	3.502	3.713	3.683	3.822	-0.35	-0.08
NE2-4	1	5.64	3.40	4.747	5.152	5.371	5.838	-1.35	-0.20
	2	6.23	3.43	4.951	5.386	5.574	5.838	-1.52	0.39
	3	5.00	3.50	4.747	5.152	5.371	5.837	-1.25	-0.84
NE2-6	1	6.94	5.31	6.497	6.846	6.881	7.168	-1.19	-0.23
	2	5.78	3.61	4.257	4.696	4.801	5.154	-0.65	0.63
	3	4.61	3.21	4.103	4.505	4.616	4.958	-0.89	-0.35
NE3-2	1	18.33	13.90	10.8	11.749	13.001	13.943	3.10	4.39
NE4-5	1	7.74	5.78	3.108	3.867	3.981	4.91	2.67	2.83
	2	6.06	4.21	2.85	3.555	3.919	4.612	1.36	1.45
	3	4.96	3.00	1.371	1.968	2.361	3.35	1.63	1.61
NE4-8	1	8.86	7.35	9.747	10.171	10.778	11.326	-2.40	-2.47
NW1-4	1	13.22	10.55	12.679	13.118	13.74	14.277	-2.13	-1.06
NW1-5	1	10.42	9.80	8.82	8.82	8.82	8.82	0.98	1.60
	2	11.89	9.50	6.503	7.112	7.028	7.607	3.00	4.28
NW5-1	1	16.29	11.90	11.622	11.68	11.614	11.657	0.28	4.63
	2	11.49	10.61	10.429	10.859	10.872	11.227	0.18	0.26
	3	11.62	9.91	11.357	11.694	11.826	12.125	-1.45	-0.51
	4	11.70	10.00	11.588	11.694	11.827	12.126	-1.59	-0.43
NW5-2	1	11.03	10.11	11.022	11.353	11.378	11.712	-0.91	-0.68
	2	11.24	9.09	11.021	11.352	11.378	11.712	-1.93	-0.47
	3	11.62	10.00	11.038	11.352	11.377	11.711	-1.04	-0.09
NW5-4	1	8.98	8.20	10.262	10.586	11.057	11.489	-2.06	-2.51
SE2-2	1	4.21	3.23	3.737	4.063	4.115	4.412	-0.51	-0.20
	2	4.53	3.11	3.737	4.063	4.115	4.412	-0.63	0.12
	3	4.11	3.08	1.972	2.944	3.111	3.433	1.11	0.68
	4	4.46	3.20	3.798	4.082	4.125	4.336	-0.60	0.12
SE2-3	1	5.39	3.51	4.185	4.631	4.642	5.481	-0.68	-0.09
	2	4.93	3.03	4.527	4.996	5.134	4.392	-1.50	0.54
	3	4.46	3.23	3.233	3.885	4.015	7.378	0.00	-2.92
SW1-1	1	5.99	3.70	6.079	6.429	6.927	7.378	-2.38	-1.39
SW3-2	2	11.09	7.25	8.437	8.667	8.694	8.905	-1.19	2.19
	3	8.70	6.46	7.812	8.303	8.436	8.823	-1.35	-0.12
	4	8.93	5.85	7.81	8.302	8.435	8.822	-1.96	0.11
SW6-1	1	5.03	4.70	5.196	5.483	5.519	5.792	-0.50	-0.76
SW8-2	1	5.98	4.90	6.007	6.3	6.752	7.184	-1.11	-1.20

\* 100 year - 3 day Storm Event Assumes Zero Offsite Discharge

\*\* Negative Elevations indicate Ponding

Please Note: All Elevations in NVAD 88

**Appendix E**  
**Summary of Peak Discharges**

Appendix E  
Peak Discharges

**Peak Outfall Discharge (CFS) for 25 Year - 3 Day Design Storm**

<b>Outfall #</b>	<b>ICPR Link Name</b>	<b>Existing Conditions</b>
1	CT4-3-1 Outfall	36.719
2	CT4-3-2 Outfall	7.232
3	CT4-3-3 Outfall	11.511
4	NC3-2-2 Outfall	15.484
5	NE1-1-1 Outfall	30.57
6	NE1-1-4 Outfall	64.802
7	NE2-4-3 Outfall	5.01
8	NE2-6-2 Outfall	39.553
9	NE2-6-3 Outfall	11.494
10	NW5-1-2 Outfall	35.26
11	NW5-2-3 Outfall	5.348
12	SE2-2-2 Outfall	53.242
13	SE2-2-3 Outfall	23.55
14	SE2-3-1 Outfall	47.119
15	SE2-3-2 Outfall	33.177
16	SE2-3-3 Outfall	38.825
17	SW3-2-2 Outfall	4.511
18	SW3-2-3 Outfall	12.252
19	SW3-2-4 Outfall	13.14
20	SW6-1-1 Outfall	48.422
21	SW8-2-1 Outfall	0
<b>Total Discharge:</b>		<b>537.221</b>

**Appendix F**  
**Budget Level Cost Estimates for Each Basin**

**BASIN NE1-1**

**PROPOSED IMPROVEMENTS - COST ESTIMATE**

**ROUTINE DRAINAGE SYSTEM MAINTENANCE**

---

Clean / Televis Drainage Pipe	3165	LF	\$5.00	\$15,825
-------------------------------	------	----	--------	----------

**TOTAL DRAINAGE SYSTEM MAINTENANCE COST:** \$15,825

**BASIN SE2-3**

**PROPOSED IMPROVEMENTS - COST ESTIMATE**

**ROUTINE DRAINAGE SYSTEM MAINTENANCE**

Clean / Televis Drainage Pipe	1885	LF	\$5.00	\$9,425
-------------------------------	------	----	--------	---------

**TOTAL DRAINAGE SYSTEM MAINTENANCE COST:** \$9,425

**SWALE PROGRAM ONLY**

	Quantity	Unit	Unit Price	Total
Re-grade Swale	15215	SY	\$25.00	\$380,375

**TOTAL COST (SWALE PROGRAM ONLY):** \$380,375

**BASIN NW1-5**

**PROPOSED IMPROVEMENTS - COST ESTIMATE**

**ROUTINE DRAINAGE SYSTEM MAINTENANCE**

---

Clean / Televis Drainage Pipe	1620	LF	\$5.00	\$8,100
-------------------------------	------	----	--------	---------

**TOTAL DRAINAGE SYSTEM MAINTENANCE COST:** \$8,100

## **BASIN NW5-1**

### **PROPOSED IMPROVEMENTS - COST ESTIMATE**

<b>DRAINAGE</b>	Quantity	Unit	Unit Price	Total
15" R.C.P. Drainage Pipe	152	LF	\$55.00	\$8,360
24" R.C.P. Drainage Pipe	46	LF	\$80.00	\$3,680
24" R.C.P. Drainage Pipe with Exfiltration Trench	1,193	LF	\$120.00	\$143,160
Catch Basins	10	EA	\$3,000.00	\$30,000
Conflict Structure	1	EA	\$5,200.00	\$5,200
Connect to Existing Drainage	2	EA	\$2,500.00	\$5,000
Utility Offset	1	EA	\$4,000.00	\$4,000
Pavement Restoration	2,906	SY	\$45.00	\$130,770
Swale, Sidewalk and Driveway Approach Restoration	1,650	SY	\$50.00	\$82,500
			Subtotal:	\$412,670
			Mobilization:	\$41,267
			Subtotal:	\$453,937
			20% Construction Contingency:	\$90,787
			15% Design and Permitting:	\$68,091
			5% Construction Administration:	\$22,697
			<b>TOTAL COST:</b>	<b>\$635,512</b>

### **ROUTINE DRAINAGE SYSTEM MAINTENANCE**

Clean / Televisе Drainage Pipe	6,001	LF	5	\$30,005
			<b>TOTAL DRAINAGE SYSTEM MAINTENANCE COST:</b>	<b>\$30,005</b>

### **SWALE PROGRAM ONLY**

Re-grade Swale	11905	SY	\$25.00	\$297,625
			<b>TOTAL COST (SWALE PROGRAM ONLY):</b>	<b>\$297,625</b>

## **BASIN NW1-4**

### **PROPOSED IMPROVEMENTS - COST ESTIMATE**

<b>DRAINAGE</b>	Quantity	Unit	Unit Price	Total
15" R.C.P. Drainage Pipe	440	LF	\$55.00	\$24,200
24" R.C.P. Drainage Pipe with Exfiltration Trench	2,751	LF	\$120.00	\$330,120
Catch Basins	23	EA	\$3,000.00	\$69,000
Conflict Structure	1	EA	\$5,200.00	\$5,200
Utility Offset	1	EA	\$4,000.00	\$4,000
Pavement Restoration	490	SY	\$45.00	\$22,050
Swale, Sidewalk and Driveway Approach Restoration	5,500	SY	\$50.00	\$275,000
			Subtotal:	\$729,570
			Mobilization:	\$72,957
			Subtotal:	\$802,527
			20% Construction Contingency:	\$160,505
			15% Design and Permitting:	\$120,379
			5% Construction Administration:	\$40,126
			<b>TOTAL COST:</b>	<b>\$1,123,538</b>

### **ROUTINE DRAINAGE SYSTEM MAINTENANCE**

Clean / Televis Drainage Pipe	3,191	LF	\$5.00	\$15,955
			<b>TOTAL DRAINAGE SYSTEM MAINTENANCE COST:</b>	<b>\$15,955</b>

## **BASIN NW5-2**

### **PROPOSED IMPROVEMENTS - COST ESTIMATE**

<b>DRAINAGE</b>	Quantity	Unit	Unit Price	Total
15" R.C.P. Drainage Pipe	290	LF	\$55.00	\$15,950
24" R.C.P. Drainage Pipe	50	LF	\$80.00	\$4,000
24" R.C.P. Drainage Pipe with Exfiltration Trench	2,195	LF	\$120.00	\$263,400
Catch Basins	14	EA	\$3,000.00	\$42,000
Drainage Manhole	1	EA	\$35,000.00	\$35,000
Control Structure	2	EA	\$7,000.00	\$14,000
Conflict Structure	1	EA	\$5,200.00	\$5,200
Connect to Existing Drainage	2	EA	\$2,500.00	\$5,000
Utility Offset	2	EA	\$4,000.00	\$8,000
Pavement Restoration	6,455	SY	\$45.00	\$290,475
Swale, Sidewalk and Driveway Approach Restoration	3,237	SY	\$50.00	\$161,850
			Subtotal:	\$844,875
			Mobilization:	\$84,488
			Subtotal:	\$929,363
			20% Construction Contingency:	\$185,873
			15% Design and Permitting:	\$139,404
			5% Construction Administration:	\$46,468
			<b>TOTAL COST:</b>	<b>\$1,301,108</b>

### **ROUTINE DRAINAGE SYSTEM MAINTENANCE**

Clean / Televis Drainage Pipe	3,540	LF	5	\$17,700
			<b>TOTAL DRAINAGE SYSTEM MAINTENANCE COST:</b>	<b>\$17,700</b>

### **SWALE PROGRAM ONLY**

Re-grade Swale	1856	SY	\$25.00	\$46,400
			<b>TOTAL OPTIONAL COST (SWALE PROGRAM ONLY):</b>	<b>\$46,400</b>

**BASIN SE2-2**

**PROPOSED IMPROVEMENTS - COST ESTIMATE**

**ROUTINE DRAINAGE SYSTEM MAINTENANCE**

Clean / Televis Drainage Pipe	3890	LF	5	\$19,450
-------------------------------	------	----	---	----------

**TOTAL DRAINAGE SYSTEM MAINTENANCE COST:** \$19,450

**SWALE PROGRAM ONLY**

	Quantity	Unit	Unit Price	Total
Re-grade Swale	70810	SY	\$25.00	\$1,770,250

**TOTAL COST (SWALE PROGRAM ONLY):** \$1,770,250

## **BASIN NE2-4**

### **PROPOSED IMPROVEMENTS - COST ESTIMATE**

<b>DRAINAGE</b>	Quantity	Unit	Unit Price	Total
15" R.C.P. Drainage Pipe	180	LF	\$55.00	\$9,900
24" R.C.P. Drainage Pipe with Exfiltration Trench	205	LF	\$120.00	\$24,600
Catch Basins	5	EA	\$3,000.00	\$15,000
Conflict Structure	1	EA	\$5,200.00	\$5,200
Utility Offset	1	EA	\$4,000.00	\$4,000
Pavement Restoration	115	SY	\$45.00	\$5,175
Swale, Sidewalk and Driveway Approach Restoration	450	SY	\$50.00	\$22,500
			Subtotal:	\$86,375
			Mobilization:	\$8,638
			Subtotal:	\$95,013
			20% Construction Contingency:	\$19,003
			15% Design and Permitting:	\$14,252
			5% Construction Administration:	\$4,751
			<b>TOTAL COST:</b>	<b>\$133,018</b>

### **ROUTINE DRAINAGE SYSTEM MAINTENANCE**

Clean / Televisе Drainage Pipe	1,915	LF	\$5.00	\$9,575
			<b>TOTAL DRAINAGE SYSTEM MAINTENANCE COST:</b>	<b>\$9,575</b>

### **SWALE PROGRAM ONLY**

Re-grade Swale	1915	SY	\$25.00	\$47,875
			<b>TOTAL COST (SWALE PROGRAM ONLY):</b>	<b>\$47,875</b>

## **BASIN SW1-1**

### **PROPOSED IMPROVEMENTS - COST ESTIMATE**

<b>DRAINAGE</b>	Quantity	Unit	Unit Price	Total
15" R.C.P. Drainage Pipe	336	LF	\$55.00	\$18,480
24" R.C.P. Drainage Pipe	105	LF	\$80.00	\$8,400
24" R.C.P. Drainage Pipe with Exfiltration Trench	2,392	LF	\$120.00	\$287,040
Catch Basins	19	EA	\$3,000.00	\$57,000
Conflict Structure	1	EA	\$5,200.00	\$5,200
Connect to Existing Drainage	1	EA	\$2,500.00	\$2,500
Utility Offset	1	EA	\$4,000.00	\$4,000
Pavement Restoration	500	SY	\$45.00	\$22,500
Swale, Sidewalk and Driveway Approach Restoration	4,785	SY	\$50.00	\$239,250
			Subtotal:	\$644,370
			Mobilization:	\$64,437
			Subtotal:	\$708,807
			20% Construction Contingency:	\$141,761
			15% Design and Permitting:	\$106,321
			5% Construction Administration:	\$35,440
			<b>TOTAL COST:</b>	<b>\$992,330</b>

### **ROUTINE DRAINAGE SYSTEM MAINTENANCE**

Clean / Televisе Drainage Pipe	3,543	LF	\$5.00	\$17,715
			<b>TOTAL DRAINAGE SYSTEM MAINTENANCE COST:</b>	<b>\$17,715</b>

### **SWALE PROGRAM ONLY**

	Quantity	Unit	Unit Price	Total
Re-grade Swale	15020	SY	\$25.00	\$375,500
			<b>TOTAL COST (SWALE PROGRAM ONLY):</b>	<b>\$375,500</b>

**BASIN SW6-1**

**PROPOSED IMPROVEMENTS - COST ESTIMATE**

**ROUTINE DRAINAGE SYSTEM MAINTENANCE**

Clean / Televis Drainage Pipe	13330	LF	\$5.00	\$66,650
-------------------------------	-------	----	--------	----------

**TOTAL DRAINAGE SYSTEM MAINTENANCE COST:** \$66,650

**SWALE PROGRAM ONLY**

	Quantity	Unit	Unit Price	Total
Re-grade Swale	12843	SY	\$25.00	\$321,075

**TOTAL COST (SWALE PROGRAM ONLY):** \$321,075

**BASIN SW3-2**

**PROPOSED IMPROVEMENTS - COST ESTIMATE**

**ROUTINE DRAINAGE SYSTEM MAINTENANCE**

Clean / Televis Drainage Pipe	3035	LF	\$5.00	\$15,175
-------------------------------	------	----	--------	----------

**TOTAL DRAINAGE SYSTEM MAINTENANCE COST: \$15,175**

**BASIN NC3-2**

**PROPOSED IMPROVEMENTS - COST ESTIMATE**

**ROUTINE DRAINAGE SYSTEM MAINTENANCE**

---

Clean / Televis Drainage Pipe	4900	LF	\$5.00	\$24,500
-------------------------------	------	----	--------	----------

<b>TOTAL DRAINAGE SYSTEM MAINTENANCE COST:</b>				\$24,500
--	--	--	--	----------

## **BASIN NE2-6**

### **PROPOSED IMPROVEMENTS - COST ESTIMATE**

<b>DRAINAGE</b>	Quantity	Unit	Unit Price	Total
15" R.C.P. Drainage Pipe	245	LF	\$55.00	\$13,475
24" R.C.P. Drainage Pipe with Exfiltration Trench	485	LF	\$120.00	\$58,200
Catch Basins	5	EA	\$3,000.00	\$15,000
Drainage Well with Control Structure	1	EA	\$50,000.00	\$50,000
Conflict Structure	1	EA	\$5,200.00	\$5,200
Connect to Existing Drainage	2	EA	\$2,500.00	\$5,000
Utility Offset	1	EA	\$4,000.00	\$4,000
Pavement Restoration	340	SY	\$45.00	\$15,300
Swale, Sidewalk and Driveway Approach Restoration	755	SY	\$50.00	\$37,750
			Subtotal:	\$203,925
			Mobilization:	\$20,393
			Subtotal:	\$224,318
			20% Construction Contingency:	\$44,864
			15% Design and Permitting:	\$33,648
			5% Construction Administration:	\$11,216
			<b>TOTAL COST:</b>	<b>\$314,045</b>
 <b><u>ROUTINE DRAINAGE SYSTEM MAINTENANCE</u></b>				
Clean / Televis Drainage Pipe	5,870	LF	\$5.00	\$29,350
			<b>TOTAL DRAINAGE SYSTEM MAINTENANCE COST:</b>	<b>\$29,350</b>

**BASIN SW8-2**

**PROPOSED IMPROVEMENTS - COST ESTIMATE**

**ROUTINE DRAINAGE SYSTEM MAINTENANCE**

Clean / Televis Drainage Pipe	3870	LF	\$5.00	\$19,350
-------------------------------	------	----	--------	----------

**TOTAL DRAINAGE SYSTEM MAINTENANCE COST:** \$19,350

**SWALE PROGRAM ONLY**

	Quantity	Unit	Unit Price	Total
Re-grade Swale	16208	SY	\$25.00	\$405,200

**TOTAL COST (SWALE PROGRAM ONLY):** \$405,200

**BASIN NE4-5**

**PROPOSED IMPROVEMENTS - COST ESTIMATE**

**ROUTINE DRAINAGE SYSTEM MAINTENANCE**

Clean / Televis Drainage Pipe	1575	LF	\$5.00	\$7,875
-------------------------------	------	----	--------	---------

**TOTAL DRAINAGE SYSTEM MAINTENANCE COST:** \$7,875

## **BASIN CT4-3**

### **PROPOSED IMPROVEMENTS - COST ESTIMATE**

<b>DRAINAGE</b>	Quantity	Unit	Unit Price	Total
15" R.C.P. Drainage Pipe	632	LF	\$55.00	\$34,760
24" R.C.P. Drainage Pipe	126	LF	\$80.00	\$10,080
24" R.C.P. Drainage Pipe with Exfiltration Trench	3,540	LF	\$120.00	\$424,800
Catch Basins	24	EA	\$3,000.00	\$72,000
Drainage Manhole	1	EA	\$35,000.00	\$35,000
Drainage Well with Control Structure	1	EA	\$50,000.00	\$50,000
Tidal Backflow Structure	3	EA	\$4,000.00	\$12,000
Conflict Structure	2	EA	\$5,200.00	\$10,400
Connect to Existing Drainage	2	EA	\$2,500.00	\$5,000
Utility Offset	2	EA	\$4,000.00	\$8,000
Pavement Restoration	12,043	SY	\$45.00	\$541,935
Swale, Sidewalk and Driveway Approach Restoration	11,103	SY	\$50.00	\$555,150
			Subtotal:	\$1,759,125
			Mobilization:	\$175,913
			Subtotal:	\$1,935,038
			20% Construction Contingency:	\$387,008
			15% Design and Permitting:	\$290,256
			5% Construction Administration:	\$96,752
			<b>TOTAL COST:</b>	<b>\$2,709,053</b>

### **ROUTINE DRAINAGE SYSTEM MAINTENANCE**

Clean / Televis Drainage Pipe	8,908	LF	\$5.00	\$44,540
			<b>TOTAL DRAINAGE SYSTEM MAINTENANCE COST:</b>	<b>\$44,540</b>