ESTATES/VILLAS AT HIGHGROVE
BASIN 2

DISK FILE: J:\DATA\9802036\BASIN2 .VOL
Planimeter scale: 1 inch = 1 ft.

Elevation (ft)	Planimeter (sq. in.)	Area (sq. ft)	A1+A2+sqr(A1*A2) (sq. ft)	Volume (cubic-ft)	Volume Sum (cubic-ft)
465.00	39,839.00	39,839	0	0	0
466.00	42,180.00	42,180	123,012	41,004	41,004
467.00	44,579.00	44,579	130,122	43,374	84,378
467.30	52,974.00	52,974	146,149	14,614	98,992
468.00	54,817.00	54,817	161,679	37,726	136,718
469.00	58,312.00	58,312	169,666	56,555	193,273
470.00	62,117.00	62,117	180,613	60,204	253,478

* Incremental volume computed by the Conic Method for Reservoir Volumes.
Volume = (1/3) * (EL2-EL1) * (Area1 + Area2 + sq.rt.(Area1*Area2))
where EL1, EL2 = Lower and upper elevations of the increment
Area1,Area2 = Areas computed for EL1, EL2, respectively
Volume = Incremental volume between EL1 and EL2

Outlet Structure File: BASIN2 .STR

ESTATES/VILLAS AT HIGHGROVE
BASIN 2

***** COMPOSITE OUTFLOW SUMMARY ****

Elevation (ft)	Q (cfs)	Contributing Structures
465.00	0.0	
465.20	1.0	1
465.40	2.9	1
465.60	5.4	1
465.80	8.3	1
466.00	11.6	1
466.20	15.2	1
466.40	19.1	1
466.60	23.4	1
466.80	27.9	1
467.00	32.7	1
467.20	37.7	1
467.40	42.9	1
467.60	48.4	1
467.80	54.1	1
468.00	60.0	1
468.10	65.0	3 +2
468.20	69.1	3 +2
468.40	81.5	3 +2
468.60	98.1	4 +2
468.80	109.6	4 +2
469.00	119.3	4 +2
469.20	128.0	4 +2
469.40	135.9	4 +2
469.60	143.3	4 +2
469.80	150.2	4 +2
470.00	156.8	4 +2

ESTATES/VILLAS AT HIGHGROVE
BASIN 2

Outlet Structure File: J:\DATA\9802036\BASIN2 .STR
Planimeter Input File: J:\DATA\9802036\BASIN2 .VOL
Rating Table Output File: J:\DATA\9802036\BASIN2 .PND

Min. Elev.(ft) = 465 Max. Elev.(ft) = 470 Incr.(ft) = .2

Additional elevations (ft) to be included in table:
* *
468.1

SYSTEM CONNECTIVITY

Structure	No.	Q Table	Q Table
ORIFICE	4	->	4
WEIR-VR	3	->	3
ORIFICE	2	->	2
WEIR-VR	1	->	1

ESTATES/VILLAS AT HIGHGROVE
BASIN 2

>>>>>> Structure No. 4 <<<<<<
(Input Data)

ORIFICE
Orifice - Based on Area and Datum Elevation

E1 elev.(ft)? 468.6
E2 elev.(ft)? 470.001
Orifice coeff.? .6
Invert elev.(ft)? 468.1
Datum elev.(ft)? 468.35
Orifice area (sq ft)? 9.67

ESTATES/VILLAS AT HIGHGROVE
BASIN 2

>>>>>> Structure No. 3 <<<<<<
(Input Data)

WEIR-VR
Weir - Vertical Rectangular

E1 elev.(ft)? 468.1
E2 elev.(ft)? 468.6
Weir coefficient? 3.3
Weir elev.(ft)? 468.1
Length (ft)? 19.34
Contracted/Suppressed (C/S)? S

ESTATES/VILLAS AT HIGHGROVE
BASIN 2

>>>>>> Structure No. 2 <<<<<<
(Input Data)

ORIFICE
Orifice - Based on Area and Datum Elevation

E1 elev.(ft)? 468.1
E2 elev.(ft)? 470.001
Orifice coeff.? .6
Invert elev.(ft)? 465
Datum elev.(ft)? 466.55
Orifice area (sq ft)? 10.85

ESTATES/VILLAS AT HIGHGROVE
BASIN 2

>>>>>> Structure No. 1 <<<<<<
(Input Data)

WEIR-VR
Weir - Vertical Rectangular

E1 elev.(ft)? 465
E2 elev.(ft)? 468.1
Weir coefficient? 3.3
Weir elev.(ft)? 465
Length (ft)? 3.5
Contracted/Suppressed (C/S)? S

----INITIAL CONDITIONS----
Elevation = 465.00 ft
Outflow = 0.00 cfs
Storage = 0 cu-ft

GIVEN POND DATA

ELEVATION (ft)	OUTFLOW (cfs)	STORAGE (cu-ft)
465.00	0.0	0
465.20	1.0	8,015
465.40	2.9	16,121
465.60	5.4	24,321
465.80	8.3	32,615
466.00	11.6	41,004
466.20	15.2	49,488
466.40	19.1	58,065
466.60	23.4	66,740
466.80	27.9	75,510
467.00	32.7	84,378
467.20	37.7	93,840
467.40	42.9	104,303
467.60	48.4	115,003
467.80	54.1	125,807
468.00	60.0	136,718
468.10	65.0	142,217
468.20	69.1	147,751
468.40	81.5	158,921
468.60	98.1	170,232
468.80	109.6	181,681
469.00	119.3	193,274
469.20	128.0	205,012
469.40	135.9	216,899
469.60	143.3	228,939
469.80	150.2	241,131
470.00	156.8	253,478

INTERMEDIATE ROUTING COMPUTATIONS

2S/t (cfs)	2S/t + O (cfs)
0.0	0.0
267.2	268.2
537.4	540.3
810.7	816.1
1087.2	1095.5
1366.8	1378.4
1649.6	1664.8
1935.5	1954.6
2224.7	2248.1
2517.0	2544.9
2812.6	2845.3
3128.0	3165.7
3476.8	3519.7
3833.4	3881.8
4193.6	4247.7
4557.3	4617.3
4740.6	4805.6
4925.0	4994.1
5297.4	5378.9
5674.4	5772.5
6056.0	6165.6
6442.4	6561.7
6833.7	6961.7
7229.9	7365.8
7631.3	7774.6
8037.7	8187.9
8449.2	8606.0

Time increment (t) = 1.0 min.

Return Freq: 2 years
* ESTATES/VILLAS AT HIGHGROVE *
* BASIN 2 *

Pond File: J:\DATA\9802036\BASIN2 .PND
Inflow Hydrograph: J:\DATA\9802036\B2-2YR .HYD
Outflow Hydrograph: J:\DATA\9802036\2YR-B2 .HYD

INFLOW HYDROGRAPH

TIME (min)	INFLOW (cfs)
1.0	58.51
2.0	58.51
3.0	58.51
4.0	58.51
5.0	58.51
6.0	58.51
7.0	58.51
8.0	58.51
9.0	58.51
10.0	58.51
11.0	58.51
12.0	58.51
13.0	58.51
14.0	58.51
15.0	58.51
16.0	58.51
17.0	58.51
18.0	58.51
19.0	58.51
20.0	58.51
21.0	0.001
22.0	0.001
23.0	0.001
24.0	0.001
25.0	0.001
26.0	0.001
27.0	0.001
28.0	0.001
29.0	0.001
30.0	0.001
31.0	0.001
32.0	0.001

ROUTING COMPUTATIONS

TIME (min)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
-----	-----	0.0	0.0	0.00	465.00
1.0	116.1	117.0	233.2	0.44	465.09
2.0	231.4	345.3	348.4	1.56	465.26
3.0	457.6	462.3	473.6	2.36	465.34
4.0	568.2	574.7	574.7	3.21	465.42
5.0	676.8	685.3	685.3	4.21	465.51
6.0	783.4	793.8	793.8	5.20	465.58
7.0	887.9	900.5	900.5	6.28	465.66
8.0	990.2	1004.9	1004.9	7.36	465.74
9.0	1090.4	1107.2	1107.2	8.44	465.81
10.0	1188.2	1207.4	1207.4	9.61	465.88
11.0	1283.7	1305.2	1305.2	10.75	465.95
12.0	1377.0	1400.7	1400.7	11.88	466.02
13.0	1467.9	1494.0	1494.0	13.05	466.08
14.0	1556.5	1584.9	1584.9	14.20	466.14
15.0	1642.9	1673.5	1673.5	15.32	466.21
16.0	1726.9	1759.9	1759.9	16.48	466.27
17.0	1808.7	1844.0	1844.0	17.61	466.32
18.0	1888.3	1925.8	1925.8	18.71	466.38
19.0	1908.9	1946.8	1946.8	19.00	466.39
20.0	1871.9	1908.9	1908.9	18.48	466.37
21.0	1835.9	1871.9	1871.9	17.99	466.34
22.0	1800.9	1835.9	1835.9	17.50	466.32
23.0	1766.8	1800.9	1800.9	17.03	466.29
24.0	1733.7	1766.8	1766.8	16.57	466.27
25.0	1701.4	1733.7	1733.7	16.13	466.25
26.0	1670.1	1701.4	1701.4	15.69	466.23
27.0	1639.5	1670.1	1670.1	15.27	466.20
28.0	1609.8	1639.5	1639.5	14.88	466.18
29.0	1580.7	1609.8	1609.8	14.51	466.16
30.0	1552.4	1580.7	1580.7	14.14	466.14

*************** SUMMARY OF ROUTING COMPUTATIONS ***************
Starting Pond W.S. Elevation = 465.00 ft

***** Summary of Peak Outflow and Peak Elevation *****
Peak Inflow = 58.51 cfs
Peak Outflow = 19.00 cfs
Peak Elevation = 466.39 ft

***** Summary of Approximate Peak Storage *****
Initial Storage = 0 cu-ft
Peak Storage From Storm = 57,836 cu-ft
Total Storage in Pond = 57,836 cu-ft

Warning: Inflow hydrograph truncated on left side.

Return Freq: 15 years
* ESTATES/VILLAS AT HIGHGROVE *
* BASIN 2 *

Pond File: J:\DATA\9802036\BASIN2 .PND
Inflow Hydrograph: J:\DATA\9802036\B2-15YR .HYD
Outflow Hydrograph: J:\DATA\9802036\15YR-B2 .HYD

INFLOW HYDROGRAPH

TIME (min)	INFLOW (cfs)
1.0	95.12
2.0	95.12
3.0	95.12
4.0	95.12
5.0	95.12
6.0	95.12
7.0	95.12
8.0	95.12
9.0	95.12
10.0	95.12
11.0	95.12
12.0	95.12
13.0	95.12
14.0	95.12
15.0	95.12
16.0	95.12
17.0	95.12
18.0	95.12
19.0	95.12
20.0	95.12
21.0	0.001
22.0	0.001
23.0	0.001
24.0	0.001
25.0	0.001
26.0	0.001
27.0	0.001
28.0	0.001
29.0	0.001
30.0	0.001
31.0	0.001
32.0	0.001

ROUTING COMPUTATIONS

TIME (min)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
-----	-----	0.0	0.0	0.00	465.00
1.0	190.2	188.8	190.2	0.71	465.14
2.0	190.2	375.5	379.1	1.77	465.28
3.0	190.2	559.5	565.8	3.13	465.42
4.0	190.2	740.1	749.7	4.80	465.55
5.0	190.2	917.2	930.4	6.59	465.68
6.0	190.2	1090.6	1107.4	8.44	465.81
7.0	190.2	1259.9	1280.8	10.46	465.93
8.0	190.2	1425.1	1450.1	12.50	466.05
9.0	190.2	1586.2	1615.4	14.58	466.17
10.0	190.2	1743.0	1776.4	16.70	466.28
11.0	190.2	1895.6	1933.3	18.81	466.39
12.0	190.2	2043.8	2085.9	21.02	466.49
13.0	190.2	2187.7	2234.1	23.19	466.59
14.0	190.2	2327.2	2377.9	25.37	466.69
15.0	190.2	2462.5	2517.4	27.48	466.78
16.0	190.2	2593.5	2652.7	29.62	466.87
17.0	190.2	2720.3	2783.7	31.72	466.96
18.0	190.2	2843.1	2910.5	33.72	467.04
19.0	190.2	2962.0	3033.31	35.63	467.12
20.0	95.1	2985.2	3057.21	36.01	467.13
21.0	0.0	2915.4	2985.21	34.88	467.09
22.0	0.0	2847.8	2915.4	33.79	467.04
23.0	0.0	2782.3	2847.8	32.74	467.00
24.0	0.0	2718.9	2782.3	31.69	466.96
25.0	0.0	2657.6	2718.9	30.68	466.92
26.0	0.0	2598.2	2657.6	29.70	466.88
27.0	0.0	2540.7	2598.2	28.75	466.84
28.0	0.0	2485.0	2540.7	27.84	466.80
29.0	0.0	2431.0	2485.0	26.99	466.76
30.0	0.0	2378.7	2431.0	26.17	466.72
31.0	0.0	2327.9	2378.7	25.38	466.69
32.0	0.0	2783.9	2849.4	32.76	467.00

*************** SUMMARY OF ROUTING COMPUTATIONS ***************
Starting Pond W.S. Elevation = 465.00 ft

***** Summary of Peak Outflow and Peak Elevation *****
Peak Inflow = 95.12 cfs
Peak Outflow = 36.01 cfs
Peak Elevation = 467.13 ft

***** Summary of Approximate Peak Storage *****
Initial Storage = 0 cu-ft
Peak Storage From Storm = 90,636 cu-ft
Total Storage in Pond = 90,636 cu-ft

Warning: Inflow hydrograph truncated on left side.

Return Freq: 25 years
* ESTATES/VILLAS AT HIGHGROVE *
* BASIN 2 *

Pond File: J:\DATA\9802036\BASIN2 .PND
Inflow Hydrograph: J:\DATA\9802036\B2-25YR .HYD
Outflow Hydrograph: J:\DATA\9802036\25YR-B2 .HYD

INFLOW HYDROGRAPH

TIME (min)	INFLOW (cfs)
1.0	117.49
2.0	117.49
3.0	117.49
4.0	117.49
5.0	117.49
6.0	117.49
7.0	117.49
8.0	117.49
9.0	117.49
10.0	117.49
11.0	117.49
12.0	117.49
13.0	117.49
14.0	117.49
15.0	117.49
16.0	117.49
17.0	117.49
18.0	117.49
19.0	117.49
20.0	117.49
21.0	0.001
22.0	0.001
23.0	0.001
24.0	0.001
25.0	0.001
26.0	0.001
27.0	0.001
28.0	0.001
29.0	0.001
30.0	0.001
31.0	0.001
32.0	0.001

ROUTING COMPUTATIONS

TIME (min)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
-----	-----	0.0	0.0	0.00	465.00
1.0	235.0	233.2	235.0	0.88	465.18
2.0	235.0	463.4	468.2	2.40	465.35
3.0	235.0	689.7	698.4	4.33	465.51
4.0	235.0	911.7	924.7	6.53	465.68
5.0	235.0	1128.8	1146.6	8.90	465.84
6.0	235.0	1341.0	1363.8	11.43	465.99
7.0	235.0	1547.8	1575.9	14.08	466.14
8.0	235.0	1749.2	1782.8	16.79	466.28
9.0	235.0	1945.1	1984.2	19.53	466.42
10.0	235.0	2135.3	2180.1	22.40	466.55
11.0	235.0	2319.7	2370.2	25.25	466.68
12.0	235.0	2498.6	2554.7	28.06	466.81
13.0	235.0	2671.8	2733.6	30.92	466.93
14.0	235.0	2839.4	2906.7	33.66	467.04
15.0	235.0	3001.8	3074.4	36.28	467.14
16.0	235.0	3159.3	3236.8	38.74	467.24
17.0	235.0	3312.2	3394.3	41.06	467.33
18.0	235.0	3460.5	3547.2	43.32	467.42
19.0	235.0	3604.4	3695.5	45.57	467.50
20.0	117.5	3629.9	3721.9	45.97	467.51
21.0	0.0	3540.8	3629.9	44.57	467.46
22.0	0.0	3454.3	3540.8	43.22	467.41
23.0	0.0	3370.5	3454.3	41.94	467.36
24.0	0.0	3289.0	3370.5	40.71	467.32
25.0	0.0	3210.0	3289.0	39.51	467.27
26.0	0.0	3133.3	3210.0	38.35	467.23
27.0	0.0	3058.9	3133.3	37.19	467.18
28.0	0.0	2986.9	3058.9	36.03	467.13
29.0	0.0	2917.0	2986.9	34.91	467.09
30.0	0.0	2849.4	2917.0	33.82	467.04
31.0	0.0	2783.9	2849.4	32.76	467.00
32.0	0.0	0.0	2448.2	43.12	467.41

*************** SUMMARY OF ROUTING COMPUTATIONS ***************
Starting Pond W.S. Elevation = 465.00 ft

***** Summary of Peak Outflow and Peak Elevation *****
Peak Inflow = 117.49 cfs
Peak Outflow = 45.97 cfs
Peak Elevation = 467.51 ft

***** Summary of Approximate Peak Storage *****
Initial Storage = 0 cu-ft
Peak Storage From Storm = 110,277 cu-ft
Total Storage in Pond = 110,277 cu-ft

Warning: Inflow hydrograph truncated on left side.

Return Freq: 100 years
* ESTATES/VILLAS AT HIGHGROVE *
* BASIN 2 *

Pond File: J:\DATA\9802036\BASIN2 .PND
Inflow Hydrograph: J:\DATA\9802036\B2-100YR.HYD
Outflow Hydrograph: J:\DATA\9802036\100YR-B2.HYD

INFLOW HYDROGRAPH

TIME (min)	INFLOW (cfs)
1.0	150.21
2.0	150.21
3.0	150.21
4.0	150.21
5.0	150.21
6.0	150.21
7.0	150.21
8.0	150.21
9.0	150.21
10.0	150.21
11.0	150.21
12.0	150.21
13.0	150.21
14.0	150.21
15.0	150.21
16.0	150.21
17.0	150.21
18.0	150.21
19.0	150.21
20.0	150.21
21.0	0.001
22.0	0.001
23.0	0.001
24.0	0.001
25.0	0.001
26.0	0.001
27.0	0.001
28.0	0.001
29.0	0.001
30.0	0.001
31.0	0.001
32.0	0.001

ROUTING COMPUTATIONS

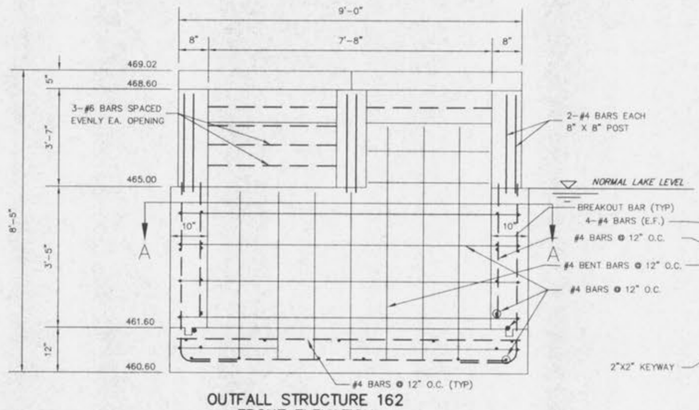
TIME (min)	I1+I2 (cfs)	2S/t - O (cfs)	2S/t + O (cfs)	OUTFLOW (cfs)	ELEVATION (ft)
-----	-----	0.0	0.0	0.00	465.00
1.0	300.4	298.0	300.4	1.23	465.22
2.0	300.4	591.5	598.4	3.43	465.44
3.0	300.4	879.6	892.0	6.19	465.65
4.0	300.4	1161.4	1180.0	9.29	465.86
5.0	300.4	1436.6	1461.8	12.65	466.06
6.0	300.4	1704.6	1737.0	16.17	466.25
7.0	300.4	1965.4	2005.0	19.84	466.43
8.0	300.4	2218.5	2265.8	23.67	466.61
9.0	300.4	2463.9	2518.9	27.51	466.78
10.0	300.4	2701.5	2764.3	31.41	466.95
11.0	300.4	2931.6	3001.9	35.14	467.10
12.0	300.4	3154.7	3232.0	38.67	467.24
13.0	300.4	3371.2	3455.1	41.95	467.36
14.0	300.4	3581.2	3671.6	45.21	467.48
15.0	300.4	3784.8	3881.6	48.40	467.60
16.0	300.4	3982.1	4085.2	51.57	467.71
17.0	300.4	4173.2	4282.5	54.66	467.82
18.0	300.4	4358.2	4473.6	57.71	467.92
19.0	300.4	4536.4	4658.6	61.10	468.02
20.0	150.2	4563.0	4686.6	61.84	468.04
21.0	0.0	4444.7	4563.0	59.13	467.97
22.0	0.0	4330.2	4444.7	57.25	467.91
23.0	0.0	4219.4	4330.2	55.42	467.84
24.0	0.0	4112.1	4219.4	53.66	467.78
25.0	0.0	4008.1	4112.1	51.99	467.73
26.0	0.0	3907.3	4008.1	50.37	467.67
27.0	0.0	3809.7	3907.3	48.80	467.61
28.0	0.0	3715.1	3809.7	47.31	467.56
29.0	0.0	3623.4	3715.1	45.87	467.51
30.0	0.0	3534.5	3623.4	44.48	467.46
31.0	0.0	3448.2	3534.5	43.12	467.41
32.0	0.0	0.0	3448.2	43.12	467.41

*************** SUMMARY OF ROUTING COMPUTATIONS ***************
Starting Pond W.S. Elevation = 465.00 ft

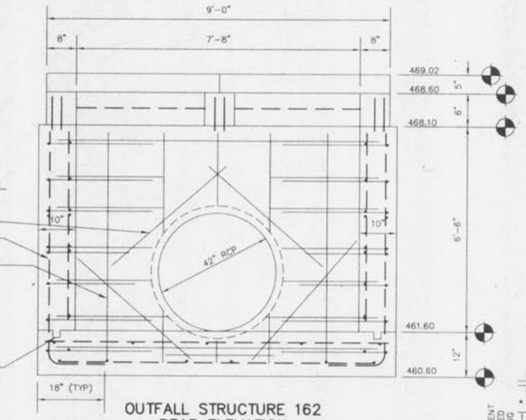
***** Summary of Peak Outflow and Peak Elevation *****
Peak Inflow = 150.21 cfs
Peak Outflow = 61.84 cfs
Peak Elevation = 468.04 ft

***** Summary of Approximate Peak Storage *****
Initial Storage = 0 cu-ft
Peak Storage From Storm = 138,745 cu-ft
Total Storage in Pond = 138,745 cu-ft

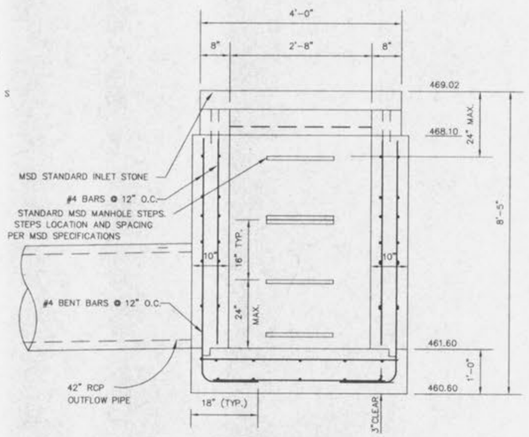
Warning: Inflow hydrograph truncated on left side.



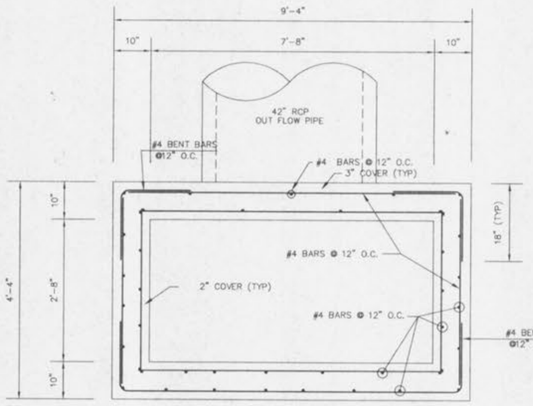
OUTFALL STRUCTURE 162
FRONT ELEVATION
(OUTSIDE FACE STEEL SHOWN)
(NOT TO SCALE)



OUTFALL STRUCTURE 162
REAR ELEVATION
(OUTSIDE FACE STEEL SHOWN)
(NOT TO SCALE)



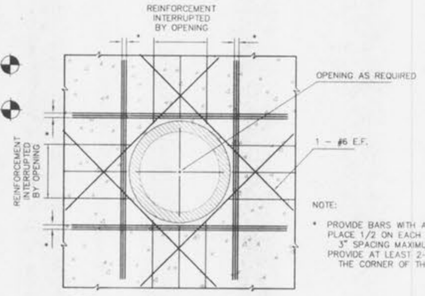
OUTFALL STRUCTURE 162
SIDE VIEW
(NOT TO SCALE)



OUTFALL STRUCTURE 162
SECTION A-A
(NOT TO SCALE)

CONSTRUCTION NOTES:

1. Concrete for the structure shall be "air entrained" and contain at least 6 sack Class "A" Portland Cement per cubic yard. The concrete shall be placed at a slump of 4 inches ±1/2 inch. The concrete shall be proportioned and transported in accordance with ASTM C-94.
2. Reinforcing steel shall conform to ASTM C-615-60 with deformations conforming to ASTM A-305 and shall have a minimum cover of 2 inches except for 3 inches where concrete is poured against earth.
3. Laps and/or splices in reinforcing steel shall be a minimum of 30 bar diameters.
4. Keyed joints shown are to be 2-inch by 2-inch keyed construction joints.
5. Fy = 60,000 psi
6. Fc = 3500 psi
7. All exposed edges to have a 3/4-inch Chamfer.
8. Contractor to provide for bypass of stormwater during construction of structure.
9. Soil density tests shall be obtained by the soils engineer at selected intervals to insure compliance with soils specifications.
10. All soil specifications shall be directed by soils engineer.
11. Note: 2" clear (typ) to closest rebar to concrete surface.



NOTE:
* PROVIDE BARS WITH AREA EQUAL TO INTERRUPTED REINFORCEMENT. PLACE 1/2 ON EACH SIDE OF OPENING (WHERE APPLICABLE) AT 3" SPACING MAXIMUM.
PROVIDE AT LEAST 2-#5 BARS EXTENDED AT LEAST 24" BEYOND THE CORNER OF THE OPENING.

DETAIL SHOWING REINFORCING AROUND OPENINGS
N.T.S.

DETENTION SUMMARY

Project Name: ESTATES/VILLAS AT HIGHGROVE
Project No.: 98-02-036
Site Acreage: 93.10 ac. = 28.45 acres tributary to predeveloped West watershed (to be detained by Basin 1)
49.05 acres tributary to predeveloped East watershed (to be detained by Basin 2)
15.60 acres tributary to predeveloped North watershed (to be detained by Basin 3)

Design Period: 20 Minutes

Return Frequency (years)	Undeveloped P. I. (5% Impervious)	Developed P. I. (Single-family)	Developed P. I. (Multi-family)	Developed P. I. (100% Impervious)
2	1.15	1.61	1.74	2.39
15	1.87	2.64	2.80	3.85
25	2.31	3.26	3.46	4.75
100	2.95	4.17	4.42	6.08

BASIN #2
Acreage to the Basin = 19.53 ac. on-site (Single-family)
14.06 ac. on-site (Multi-family)
1.09 ac. on-site (100% impervious)

Direct Runoff = 3.30 ac. on-site (Single-family)
from East 7.24 ac. on-site (Multi-family)
Watershed 1.90 ac. on-site (undisturbed)

Return Frequency (Years)	Inflow to Basin (cfs)	Allowable Outflow from E. Watershed (cfs)	Direct Runoff (cfs)	Allowable Outflow from Basin 1 (cfs)	Designed Outflow from Basin 1 (cfs)
2	58.51	56.41	20.10	36.31	19.00
15	95.12	91.72	32.54	59.19	36.01
25	117.49	113.31	40.20	73.11	45.97
100	150.21	144.70	51.37	93.33	61.84

Designed outflows and volumes shown are to be considered a model of the detention basin performance only. The actual outflows and volumes of the as-built condition may vary due to construction tolerances. In no event should the maximum as-built outflow exceed the maximum allowable outflow for the 25 year 20 minute storm for each basin. The minimum as-built volume shall store the 25 year 20 minute storm and provide 1' of freeboard. The allowable outflow calculations for the 2, 15, and 100 year, 20 minute storms are shown for informational purposes only.

BASE MAP

SSUE	REMARKS	DATE
1	12/30/98 SUBMITAL TO CITY OF O'FALLON	
2	01/21/99 DEVELOPER REV	
3	03/01/99 PER CITY OF O'FALLON COMMENTS	

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DRAWN: KK
DESIGNED: [illegible]
CHECKED: DM

PROJ