PRE-DEVELOPED

MASTER DESIGN STORM SUMMARY

Network Storm Collection: Loudoun County

Return Event	Total Depth in	Rainfall Type	RNF ID
Pre 2	3.5000	Synthetic Curve Typell	24hr
Pre 10	5.2500	Synthetic Curve Typell	24hr
Pre100	7.5000	Synthetic Curve Typell	24hr

MASTER NETWORK SUMMARY
SCS Unit Hydrograph Method

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

Node ID	Type	Return Event	HYG Vol ac-ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Pond Storage ac-ft	Max Storage
EX ONSITE DA	AREA	2	.298		12.0500	3.71			
EX ONSITE DA	AREA	10	.861		12.0000	13.49			
EX ONSITE DA	AREA	100	1.811		12.0000	30.00			
JUNC	JCT	2	.617		12.0500	7.34			
JUNC	JCT	10	1.541		12.0500	21.11			
JUNC	JCT	100	3.022		12.0000	43.36			
OFFSITE	AREA	2	.177		12.0000	2.01			
OFFSITE	AREA	10	.565		12.0000	9.14			
OFFSITE	AREA	100	1.250		11.9500	21.96			
ONSITE	IN POND	2	.298		12.0500	3.71			
ONSITE	IN POND	10	.861		12.0000	13.49			
ONSITE	IN POND	100	1.811		12.0000	30.00			
ONSITE	OUT POND	2	.298		12.0500	3.71			
ONSITE	OUT POND	10	.861		12.0000	13.49			
ONSITE	OUT POND	100	1.811		12.0000	30.00			

Node ID	Type	Return Event	HYG Vol ac-ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Pond Storage ac-ft	Max Storage
*STUDY PNT	JCT	2	.793		12.0500	9.30	TARGETED FLOWS		
*STUDY PNT	JCT	10	2.106		12.0000	29.85			
*STUDY PNT	JCT	100	4.273		12.0000	64.33			
VILLAGE SWM POND	AREA	2	.319		12.1000	3.90			
VILLAGE SWM POND	AREA	10	.680		12.1000	8.71			
VILLAGE SWM POND	AREA	100	1.211		12.1000	15.56			

Type.... Tc Calcs Page 6.01
Name.... EX ONSITE DA

File.... W:\Jobs\2599\Civil\3110 CALCS\SWM\PRE- DEVELOPMENT .PPW

TIME OF CONCENTRATION CALCULATOR

Segment #1: Tc: TR-55 Sheet

Mannings n .1500
Hydraulic Length 60.00 ft
2yr, 24hr P 3.5000 in
Slope .020000 ft/ft

Avg.Velocity .16 ft/sec

Segment #1 Time: .1038 hrs

Segment #2: Tc: TR-55 Shallow

Hydraulic Length 106.00 ft
Slope .037700 ft/ft
Unpaved

Avg.Velocity 3.13 ft/sec

Segment #2 Time: .0094 hrs

Segment #3: Tc: TR-55 Channel

Flow Area 4.6800 sq.ft
Wetted Perimeter 14.09 ft
Hydraulic Radius .33 ft
Slope .036000 ft/ft
Mannings n .0500
Hydraulic Length 360.00 ft

Avg.Velocity 2.71 ft/sec

Segment #3 Time: .0369 hrs

Total Tc: .1500 hrs

S/N:
PondPack Ver: Compute Time: Date:

Type.... Tc Calcs Page 6.04
Name.... OFFSITE

File.... W:\Jobs\2599\Civil\3110 CALCS\SWM\PRE- DEVELOPMENT .PPW

TIME OF CONCENTRATION CALCULATOR

Segment #1: Tc: User Defined

Segment #1 Time: .1000 hrs

Total Tc: .1000 hrs

Type.... Tc Calcs Page 6.06
Name.... VILLAGE SWM POND

File.... W:\Jobs\2599\Civil\3110 CALCS\SWM\PRE- DEVELOPMENT .PPW

TIME OF CONCENTRATION CALCULATOR

Segment #1: Tc: User Defined

Segment #1 Time: .3300 hrs

Total Tc: .3300 hrs

RUNOFF CURVE NUMBER DATA

Soil/Surface Description	CN	acres	Area %C	Impervious Adjustment %UC	Adjusted CN
Residential Districts - 1/4 acre	58	7.890			58.00

COMPOSITE AREA & WEIGHTED CN ---> 7.890 58.00 (58)

S/N:
PondPack Ver: Compute Time: Date:

Type.... Runoff CN-Area Page 7.02
Name.... OFFSITE

File.... W:\Jobs\2599\Civil\3110 CALCS\SWM\PRE- DEVELOPMENT .PPW

RUNOFF CURVE NUMBER DATA

Soil/Surface Description	CN	acres	Area %C	Impervious Adjustment %UC	Adjusted CN
	55	6.130			55.00

COMPOSITE AREA & WEIGHTED CN ---> 6.130 55.00 (55)

S/N:
PondPack Ver: Compute Time: Date:

Type.... Runoff CN-Area Page 7.03
Name.... VILLAGE SWM POND

File.... W:\Jobs\2599\Civil\3110 CALCS\SWM\PRE- DEVELOPMENT .PPW

RUNOFF CURVE NUMBER DATA

Soil/Surface Description	CN	acres	Area %C	Impervious Adjustment %UC	Adjusted CN
	72	3.410			72.00

COMPOSITE AREA & WEIGHTED CN ---> 3.410 72.00 (72)

HUGHES GROUP ARCHITECTS
45640 WILLOW POND PLAZA
STERLING, VIRGINIA 20164
703.437.6600

CIVIL:
ALPHA CORPORATION
21351 Ridgetop Circle, Suite 200
Dulles, Va 20166
(703) 450-0800

STRUCTURAL:
EHLERT-BRYAN
1451 Dolley Madison Blvd. Suite 220
Mclean, VA. 22101
(703) 827-9552

MECHANICAL/ELECTRICAL:
BRINJAC ENGINEERING
4000 Albermarle Street, NW
Washington, DC 20016
(202) 237-2730

PURCELLVILLE FIRE AND RESCUE
500 NORTH MAPLE AVENUE
PURCELLVILLE, VIRGINIA

SWM COMPUTATIONS PRE- DEVELOPMENT

KEY PLAN
N

REVISIONS:

ISSUES:
09-26-07 BID SET

STAMP AND SEAL:

DATE: 09-26-07
SCALE: AS NOTED
PROJECT NO. 0611
SHEET: C-122