

Pre-Development Curve Numbers

Point of Analysis	Pre-Development (CN)	Land Cover	HSG	CN	Area (SF)	Area (AC)
Point of Analysis 1	63	Impervious Surface	B	63	871	0.02
		Woods (Pine)	B	60	25,700	0.59
		TOTAL				0.61
WEIGHTED CN = 65						
Point of Analysis 2	69	Impervious Surface	B	69	654	0.15
		Woods (Pine)	B	60	35,719	0.82
		TOTAL				0.97
WEIGHTED CN = 69						
Point of Analysis 3	63	Impervious Surface	B	63	0	0.00
		Woods (Pine)	B	60	47,480	1.09
		TOTAL				1.09
WEIGHTED CN = 63						

THIS TABLE CALCULATED FOR PRE-DEVELOPMENT

PRE-DA-1	PRE-DA-2	PRE-DA-3
SHALLOW CONCENTRATED FLOW	SHALLOW CONCENTRATED FLOW	SHALLOW CONCENTRATED FLOW
Flow Length (ft) = 100	Flow Length (ft) = 100	Flow Length (ft) = 100
Watercourse Slope (%) = 5.5	Watercourse Slope (%) = 5.5	Watercourse Slope (%) = 5.5
Surface Description = Unimproved	Surface Description = Unimproved	Surface Description = Unimproved
Average Velocity (ft/s) = 4.86	Average Velocity (ft/s) = 4.86	Average Velocity (ft/s) = 4.86
Travel Time (min) = 0.34	Travel Time (min) = 0.34	Travel Time (min) = 0.34
TOTAL TRAVEL TIME - Tc = 6.23 min	TOTAL TRAVEL TIME - Tc = 11.48 min	TOTAL TRAVEL TIME - Tc = 8.70 min

Land Use Condition	1-year, 24-hr (1%)	2-year, 24-hr (2%)	10-year, 24-hr (10%)	25-year, 24-hr (25%)	100-year, 24-hr (100%)
Pre-Development	1.16	1.19	5.44	7.69	11.69
Post-Dev. After Disturbance	0.46	1.05	4.94	6.86	9.54
Increase (+)/Decrease (-)	-61.24%	-12.55%	-9.19%	-11.79%	-18.39%
Max. Elevation	1-year, 24-hr (1%)	2-year, 24-hr (2%)	10-year, 24-hr (10%)	25-year, 24-hr (25%)	100-year, 24-hr (100%)
Wet Pond	773.14	773.31	773.82	774.09	774.50

POINT OF ANALYSIS - 2
0.97 ACRES
0.15 ACRES IMPERVIOUS
CN = 69
TC = 11.5 MIN

POINT OF ANALYSIS - 3
1.09 ACRES
0.0 ACRES IMPERVIOUS
CN = 63
TC = 8.70 MIN

TC SEGMENT SHALLOW CONCENTRATED FLOW
260 LF @ 8.8%

TC SEGMENT SHALLOW CONCENTRATED FLOW
240 LF @ 9.00%

TC SEGMENT SHEET FLOW
100 LF @ 5.5%

TC SEGMENT SHEET FLOW
100 LF @ 11.5%

TC SEGMENT SHEET FLOW
100 LF @ 8.5%

TC SEGMENT SHALLOW CONCENTRATED FLOW
100 LF @ 9.0%

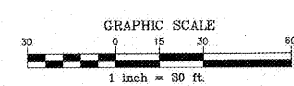
POINT OF ANALYSIS - 1
0.61 ACRES
0.02 ACRES IMPERVIOUS
CN = 65
TC = 9.23 MIN

- LEGEND**
- EXISTING IRON PIPE
 - IRON PIPE SET
 - ⊕ BORE HOLE
 - ⊙ SANITARY SEWER MANHOLE
 - ⊙ SANITARY SEWER CLEANOUT
 - ⊕ WATER VALVE
 - ⊕ WATER METER
 - ⊕ FIRE HYDRANT
 - ⊕ TELEPHONE PEDESTAL
 - ⊕ TELEPHONE MANHOLE
 - ⊕ ELECTRIC BOX
 - ⊕ LIGHT POLE
 - ⊕ POWER POLE
 - ⊕ CURB INLET
 - ⊕ STORM DRAINAGE MANHOLE
 - ⊕ YARD INLET
 - STORM DRAIN
 - OVERHEAD UTILITIES
 - UNDERGROUND ELECTRIC
 - UNDERGROUND TELEPHONE
 - WATER LINE
 - SANITARY SEWER LINE
 - GAS LINE
 - FENCE LINE

GENERAL NOTES:

- THE INFORMATION SHOWN HEREIN WAS TAKEN FROM A TOPOGRAPHIC SURVEY PREPARED BY: COMMERCIAL SITE DESIGN, 8312 CREEMOOR ROAD RALEIGH, NORTH CAROLINA 27615, TELEPHONE: (919) 848-6121, FAX: (919) 848-3741.
- THE LOCATIONS OF ALL UTILITIES SHOWN ON THESE PLANS ARE BASED ON THE AVAILABLE INFORMATION THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF UTILITIES WITH THE UTILITY OWNERS PRIOR TO COMMENCEMENT OF CONSTRUCTION.

FLOOD INFORMATION
SUBJECT PROPERTY IS LOCATED WITHIN A SPECIAL FLOOD HAZARD ZONE. IT IS LOCATED IN ZONE "AE" AS DEFINED BY HUD. F.I.R.M. COMMUNITY PANEL NUMBER 3710680500, WITH AN EFFECTIVE DATE OF JANUARY 2, 2009.



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COMMERCIAL SITE DESIGN

8312 CREEMOOR ROAD
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(919) 848-6023 FAX: (919) 848-3741
WWW.CSDESIGN.COM

RETAIL DEVELOPMENT
4809 COUNTRY CLUB ROAD
WINSTON-SALEM, NORTH CAROLINA

PRE DEVELOPMENT DRAINAGE AREA MAP

PROJECT NO: GEM-1808
FILENAME: GEM1808-DA1
DRAWN BY: RCN
SCALE: 1" = 30'
DATE: 01-17-19
SHEET NO: DA-1

CLIENT: GEMCAP DEVELOPMENT
210 WEST FOURTH STREET
SUITE 200
WINSTON-SALEM, NC 27101

REVISIONS:

JWR	RCN	JWR	NO	DATE	DESCRIPTION
1	08-14-19				
2	06-20-19				
3	06-26-19				