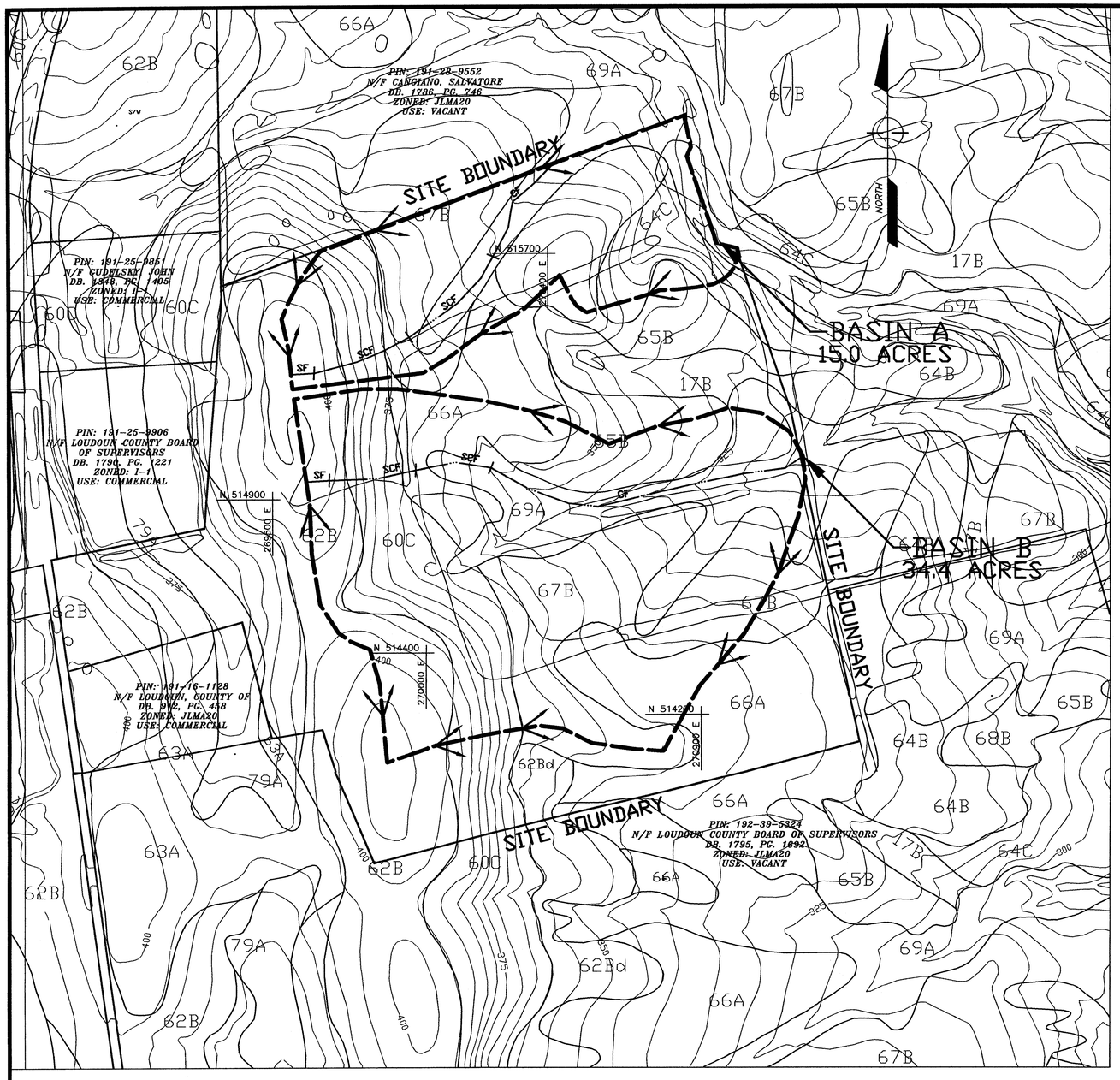

C-VALUES Pre-Development Conditions	AREA (ACRES)	C-Value	PRODUCT AREA x C-Value	Basin C-Value
Basin A				
Unimproved Area	15.00	0.30	4.50	
	15.00		4.50	0.30
Basin B				
Unimproved Area	34.40	0.30	10.32	
	34.40		10.32	0.30

TIME OF CONCENTRATION
Pre- Development Condition

Drainage Area	Sheet Flow (1)				Shallow Concentrated Flow (2)			Channel Flow								Tc	
	Length (ft)	Slope (ft/ft)	n	Tt (hr)	Length (ft)	Slope (ft/ft)	Tt (hr)	Length (ft)	Slope	Width	SS	Depth (ft)	n	Velocity (fps)	Tt (hr)	(hr)	(min)
Basin A	75	0.020	0.130	0.11	335	0.110	0.02										
					385	0.040	0.03	400	0.040	Average Velocity is assumed				3.5	0.03	0.19	12
Basin B	75	0.020	0.400	0.27	285	0.130	0.01										
					250	0.060	0.02	1065	0.030	Average Velocity is assumed				3.0	0.10	0.40	24

(1) Mannings "n "=0.13, 2-yr 24-hr Rainfall = 3.5 in
(2) All surfaces are unpaved

SYMBOL	SOIL TYPE	SLOPE	POTENTIAL FOR GENERAL DEVELOPMENT	HYDROLOGIC GROUP
17B	MIDDLEBURG SILT LOAM	1–7%	III W POOR, SHORT DURATION WATER TABLES	C
60C	SYCOLINE–CATLETT COMPLEX	7–15%	II R FAIR, SHALLOW SOILS OVER ROCK	C/D
62B	KELLY–SYCOLINE COMPLEX	3–8%	III WP POOR, HIGH SHRINK–SWELL CLAYS AND MODERATE DURATION PERCHED WATER TABLE	D/C
62Bd				
63A	KELLY SILT LOAM	0–3%	IV PW VERY POOR, HIGH SHRINK–SWELL CLAYS AND PROLONGED PERCHED WATER TABLE	D
64C	LEGONE LOAM	8–15%	II R FAIR, ROCK OUTCROPS	B
65B	MONTALTO SILTY CLAY LOAM	3–8%	I GOOD	C
66A	WAXPOOL SILT LOAM	0–3%	IV PW VERY POOR, HIGH SHRINK–SWELL CLAYS AND PROLONGED PERCHED WATER TABLE	D
67B	HAYMARKET AND JACKLAND SOILS	3–8%	IV P VERY POOR, HIGH SHRINK–SWELL CLAYS AND SEASONAL PERCHED WATER TABLE	D
69A	ELBERT SILTY CLAY LOAM	0–3%	IV PW VERY POOR, WETNESS AND HIGH SHRINK–SWELL CLAYS	D

SOURCE: LOUDOUN COUNTY SOILS MAPS

NOTE: THIS SITE DOES CONTAIN CLASS III AND IV SOILS, PER THE LATEST COUNTY SOILS MAP AND AS IDENTIFIED BY THE INTERPRETATIVE GUIDE TO SOILS MAPS, LOUDOUN COUNTY, VIRGINIA.

Soils Designation	Hydrologic Soils Group	Soils Name
17 B	B	Meadowville Loam
60 C	C	Sycoline-Catlett Complex, Gravelly
62 B	D	Kelly-Sycoline Complex, Gravelly
62Bd		
64 C	C	Legore-Oakhill Complex, Gravelly
65 B	C	Legore-Oakhill Complex, Gravelly
66 A	C	Montalto Silty Clay Loam Eroded
67 B	D	Waxpool and Kelly Soils
69 A	D	Jackland-Haymarket Complex Stony

LEGEND

PRE-DEVELOPMENT WATERSHED DRAINAGE DIVIDE

EX Tc FLOW PATH

1

UNIMPROVED AREAS

REVISIONS

SURVEY COUNTY

DESIGN SCP

DRAWN SCP

CHECKED JEM

ENGINEERS · SURVEYORS · LAND PLANNERS · LANDSCAPE ARCHITECTS
William H. Gordon Associates, Inc.
44084 Riverside Pky. Suite 100, Leesburg, Virginia 20176
(703) 729-8009 METRO (703) 478-8893 FAX (703) 478-8517

DATE 2/2004

SCALE HORZ: 1"=200'
VERT: N/A

SEAL

COMMONWEALTH OF VIRGINIA
JOHN E. MORRIS
No. 7964
PROFESSIONAL ENGINEER

PRE-DEVELOPMENT WATERSHED DIVIDES/HYDROLOGY

PROJECT
FINAL CONVERSION OF EXISTING SWM FACILITIES
LOUDOUN COUNY GOVERNMENT CENTER
CATOCTIN ELECTION DISTRICT
LOUDOUN COUNTY, VIRGINIA

JOB 2000-0501

CADD 02PIt-DA-PRE.DWG

SHEET 3 OF 10

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