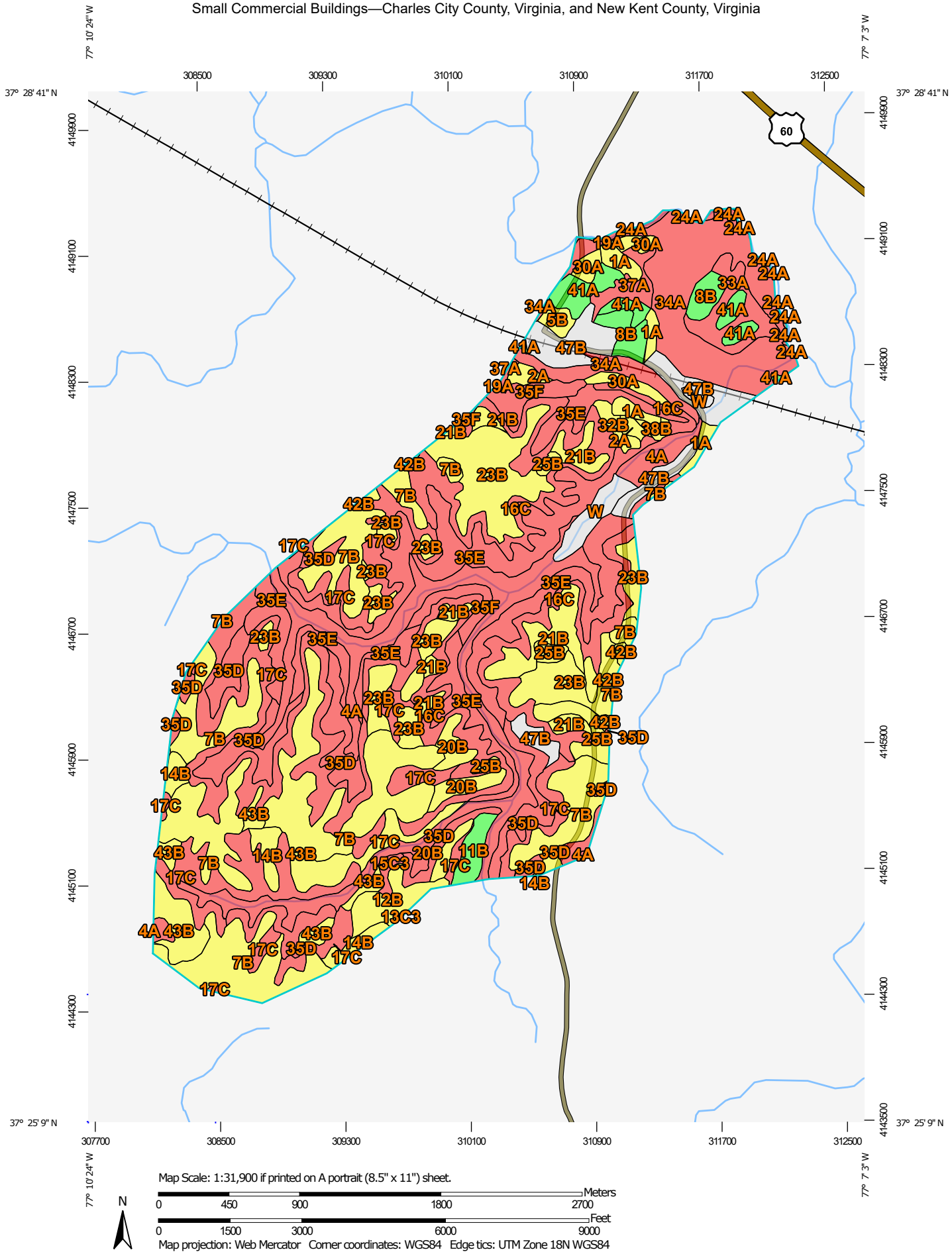
77° 10' 24" W
77° 7' 3" W
37° 28' 41" N
37° 25' 9" N
308500
309300
310100
310900
311700
312500
307700
4149900
4149100
4148300
4147500
4146700
4145900
4145100
4144300
4143500
60
24A
19A
30A
1A
37A
33A
8B
41A
34A
5B
47B
37A
2A
35F
21B
35E
16C
W
32B
38B
4A
25B
42B
7B
23B
17C
35D
14B
43B
4A
12B
13C3
15C3
11B
20B
Map Scale: 1:31,900 if printed on A portrait (8.5" x 11") sheet.
N
Meters
0
450
900
1800
2700
Feet
0
1500
3000
6000
9000
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Very limited
- Somewhat limited
- Not limited
- Not rated or not available

Soil Rating Lines

- Very limited
- Somewhat limited
- Not limited
- Not rated or not available

Soil Rating Points

- Very limited
- Somewhat limited
- Not limited
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:15,800 to 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Charles City County, Virginia
Survey Area Data: Version 19, Aug 28, 2024

Soil Survey Area: New Kent County, Virginia
Survey Area Data: Version 17, Aug 30, 2024

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Small Commercial Buildings

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
1A	Altavista fine sandy loam, 0 to 3 percent slopes	Somewhat limited	Altavista (80%)	Depth to saturated zone (0.39)	24.8	1.0%
2A	Augusta sandy loam, 0 to 2 percent slopes	Somewhat limited	Augusta (80%)	Depth to saturated zone (0.98)	10.6	0.4%
4A	Bibb fine sandy loam, 0 to 2 percent slopes, frequently flooded	Very limited	Bibb (80%)	Flooding (1.00)	199.1	8.0%
				Depth to saturated zone (1.00)		
			Mattan (4%)	Ponding (1.00)		
				Flooding (1.00)		
				Depth to saturated zone (1.00)		
				Organic matter content (1.00)		
			Tomotley (3%)	Depth to saturated zone (1.00)		
			Lawnes (3%)	Ponding (1.00)		
				Flooding (1.00)		
				Depth to saturated zone (1.00)		
5B	Bojac loamy fine sand, 2 to 6 percent slopes	Somewhat limited	Bojac (80%)	Slope (0.00)	7.9	0.3%
7B	Caroline-Emporia complex, 2 to 6 percent slopes	Somewhat limited	Caroline (50%)	Shrink-swell (0.50)	375.9	15.1%
				Slope (0.00)		
			Emporia (30%)	Slope (0.00)		
8B	Catpoint loamy sand, 0 to 4 percent slopes	Not limited	Catpoint (80%)		27.7	1.1%
11B	Conetoe loamy sand, 0 to 4 percent slopes	Not limited	Conetoe (80%)		15.3	0.6%
12B	Craven loam, 2 to 6 percent slopes	Somewhat limited	Craven (80%)	Shrink-swell (0.50)	26.5	1.1%
				Slope (0.00)		

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
13C3	Craven clay loam, 6 to 10 percent slopes, severely eroded	Very limited	Craven (80%)	Slope (1.00)	0.3	0.0%
14B	Craven-Caroline complex, 2 to 6 percent slopes	Somewhat limited	Craven (55%)	Shrink-swell (0.50)	27.2	1.1%
				Slope (0.00)		
			Caroline (25%)	Shrink-swell (0.50)		
				Slope (0.00)		
15C3	Craven-Caroline complex, 6 to 10 percent slopes, severely eroded	Very limited	Craven (55%)	Slope (1.00)	4.9	0.2%
			Caroline (25%)	Slope (1.00)		
				Shrink-swell (0.50)		
16C	Craven-Remlik complex, 6 to 10 percent slopes	Very limited	Craven (50%)	Slope (1.00)	215.6	8.7%
				Shrink-swell (0.50)		
			Remlik (30%)	Slope (1.00)		
17C	Craven-Uchee complex, 6 to 10 percent slopes	Very limited	Craven (41%)	Slope (1.00)	303.2	12.2%
				Shrink-swell (0.50)		
			Uchee (39%)	Slope (1.00)		
19A	Dragston fine sandy loam, 0 to 2 percent slopes	Somewhat limited	Dragston (80%)	Depth to saturated zone (0.81)	3.3	0.1%
20B	Emporia fine sandy loam, 2 to 6 percent slopes	Somewhat limited	Emporia (80%)	Slope (0.00)	31.4	1.3%
21B	Emporia gravelly fine sandy loam, 2 to 6 percent slopes	Somewhat limited	Emporia (80%)	Shrink-swell (0.01)	65.1	2.6%
				Slope (0.00)		
23B	Emporia-Kempsville complex, 2 to 6 percent slopes	Somewhat limited	Emporia (50%)	Slope (0.00)	179.6	7.2%
			Kempsville (30%)	Slope (0.00)		
25B	Kempsville loamy sand, 2 to 6 percent slopes	Somewhat limited	Kempsville (80%)	Slope (0.00)	30.1	1.2%
30A	Munden loamy sand, 0 to 2 percent slopes	Somewhat limited	Munden (80%)	Depth to saturated zone (0.39)	17.8	0.7%

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
32B	Nansemond loamy sand, 0 to 4 percent slopes	Somewhat limited	Nansemond (80%)	Depth to saturated zone (0.39)	8.0	0.3%
33A	Nawney silt loam, 0 to 2 percent slopes, frequently flooded	Very limited	Nawney (80%)	Flooding (1.00)	32.1	1.3%
				Depth to saturated zone (1.00)		
				Shrink-swell (0.25)		
			Bibb (7%)	Flooding (1.00)		
				Depth to saturated zone (1.00)		
			Mattan (4%)	Ponding (1.00)		
				Flooding (1.00)		
				Depth to saturated zone (1.00)		
				Organic matter content (1.00)		
34A	Nawney silt loam, 0 to 2 percent slopes, ponded	Very limited	Nawney (80%)	Ponding (1.00)	176.6	7.1%
				Flooding (1.00)		
				Depth to saturated zone (1.00)		
				Shrink-swell (0.25)		
			Bibb (7%)	Flooding (1.00)		
				Depth to saturated zone (1.00)		
			Mattan (4%)	Ponding (1.00)		
				Flooding (1.00)		
				Depth to saturated zone (1.00)		
				Organic matter content (1.00)		
35D	Nevarc-Remlik complex, 10 to 15 percent slopes	Very limited	Nevarc (45%)	Slope (1.00)	149.3	6.0%
				Shrink-swell (0.42)		
				Depth to saturated zone (0.39)		
			Remlik (35%)	Slope (1.00)		

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
35E	Nevarc-Remlik complex, 15 to 25 percent slopes	Very limited	Nevarc (45%)	Slope (1.00)	266.2	10.7%
				Shrink-swell (0.42)		
				Depth to saturated zone (0.39)		
			Remlik (35%)	Slope (1.00)		
35F	Nevarc-Remlik complex, 25 to 60 percent slopes	Very limited	Nevarc (45%)	Slope (1.00)	35.3	1.4%
				Shrink-swell (0.42)		
				Depth to saturated zone (0.39)		
			Remlik (35%)	Slope (1.00)		
37A	Nimmo sandy loam, 0 to 2 percent slopes	Very limited	Nimmo (80%)	Depth to saturated zone (1.00)	17.9	0.7%
			Tomotley (5%)	Depth to saturated zone (1.00)		
38B	Pamunkey loam, 2 to 6 percent slopes	Somewhat limited	Pamunkey (80%)	Slope (0.00)	4.1	0.2%
41A	Seabrook loamy sand, 0 to 2 percent slopes	Not limited	Seabrook (80%)		36.9	1.5%
42B	Slagle fine sandy loam, 0 to 4 percent slopes	Somewhat limited	Slagle (80%)	Shrink-swell (0.50)	9.2	0.4%
				Depth to saturated zone (0.39)		
43B	Slagle-Emporia complex, 2 to 6 percent slopes	Somewhat limited	Slagle (45%)	Shrink-swell (0.50)	78.5	3.1%
				Depth to saturated zone (0.39)		
				Slope (0.00)		
			Emporia (35%)	Slope (0.00)		
47B	Udorthents, loamy, gently sloping	Not rated	Udorthents (80%)		82.6	3.3%
W	Water	Not rated	Water (100%)		22.9	0.9%
Subtotals for Soil Survey Area					**2,485.6**	**99.8%**
Totals for Area of Interest					**2,491.2**	**100.0%**

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
24A	Nawney silt loam, 0 to 2 percent slopes, frequently flooded	Very limited	Nawney (75%)	Flooding (1.00)	5.6	0.2%
				Depth to saturated zone (1.00)		
				Shrink-swell (0.50)		
			Tomotley (4%)	Depth to saturated zone (1.00)		
			Mattan (3%)	Ponding (1.00)		
				Flooding (1.00)		
				Depth to saturated zone (1.00)		
				Organic matter content (1.00)		
			Nimmo (3%)	Depth to saturated zone (1.00)		
			Johnston (3%)	Ponding (1.00)		
				Flooding (1.00)		
				Depth to saturated zone (1.00)		
			Lanexa (2%)	Ponding (1.00)		
				Flooding (1.00)		
				Depth to saturated zone (1.00)		
				Organic matter content (1.00)		
Subtotals for Soil Survey Area					**5.6**	**0.2%**
Totals for Area of Interest					**2,491.2**	**100.0%**

Rating	Acres in AOI	Percent of AOI
Very limited	1,406.0	56.4%
Somewhat limited	899.8	36.1%
Not limited	79.8	3.2%
Null or Not Rated	105.5	4.2%
Totals for Area of Interest	**2,491.2**	**100.0%**

Description

ENG - Engineering

Small commercial buildings are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification of the soil). The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher