

## Table ENG-4. - Building Site Development

Madison County, Virginia

The information in this table indicates the dominant soil condition, but does not eliminate the need for onsite investigation. The numbers in the value column range from 0.01 to 1.00. The larger the value, the greater the potential limitation. Limiting features in this report are limited to the top 5 limitations. Additional limitations may exist.

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
<b>Ab:</b>							
Albano	85	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Depth to hard bedrock	0.61		
		Depth to saturated zone	1.00	Too clayey	0.28		
<b>Ac:</b>							
Alluvial land	85	Very limited		Not Rated		Not Rated	
		Flooding	1.00				
		Depth to saturated zone	0.75				
Wet Spots	5	Not Rated		Not Rated		Not Rated	
<b>Ad:</b>							
Alluvial land	85	Very limited		Not Rated		Not Rated	
		Flooding	1.00				
		Content of large stones	1.00				
		Depth to saturated zone	0.75				
Wet Spots	5	Not Rated		Not Rated		Not Rated	
<b>AIA:</b>							
Altavista variant	85	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Low strength	1.00	Flooding	0.60	Depth to saturated zone	0.19
		Depth to saturated zone	0.19	Cutbanks cave	0.10		
<b>AIB:</b>							
Altavista variant	85	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.19
		Depth to saturated zone	0.19	Cutbanks cave	0.10		
				Too clayey	0.02		
<b>ApB:</b>							
Appling	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.28		
				Cutbanks cave	0.10		
Wet Spots	1	Not Rated		Not Rated		Not Rated	

ApC:

**Table ENG-4. - Building Site Development - Continued**

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
ApC:							
Appling	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Slope	0.37	Too clayey	0.28		
				Cutbanks cave	0.10		
ApD2:							
Appling	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Slope	0.37	Too clayey	0.28		
				Cutbanks cave	0.10		
ArB:							
Appling	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.28		
				Cutbanks cave	0.10		
Au:							
Augusta variant	85	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Low strength	1.00	Cutbanks cave	1.00	Flooding	0.60
		Depth to saturated zone	0.75	Flooding	0.60		
Wet spots	3	Not Rated		Not Rated		Not Rated	
BaB:							
Baile	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	1.00		
		Low strength	1.00				
BcB:							
Braddock	50	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.13		
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
Thurmont	30	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	0.15		
BcC:							
Braddock	50	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Shrink-swell	0.50	Too clayey	0.13		
		Frost action	0.50	Cutbanks cave	0.10		

**Table ENG-4. - Building Site Development - Continued**

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
<b>BcC:</b>							
Thurmont	30	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Slope	0.37
		Slope	0.37	Slope	0.37		
				Depth to saturated zone	0.15		
<b>BcD2:</b>							
Braddock	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.13		
		Shrink-swell	0.50	Cutbanks cave	0.10		
Thurmont	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	1.00		
				Depth to saturated zone	0.15		
<b>BdC:</b>							
Brandywine	85	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.37	Cutbanks cave	1.00	Slope	0.37
				Slope	0.37	Gravel content	0.32
						Droughty	0.03
<b>BdD:</b>							
Brandywine	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Gravel content	0.32
						Droughty	0.03
<b>BeC:</b>							
Brandywine	85	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.16	Cutbanks cave	1.00	Slope	0.16
				Slope	0.16	Droughty	0.03
<b>BeD:</b>							
Brandywine	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	0.03
<b>BeF:</b>							
Brandywine	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	0.03
<b>BnD:</b>							
Brandywine	85	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
				Slope	1.00	Droughty	0.03

**Table ENG-4. - Building Site Development - Continued**

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
<b>BnF:</b>							
Brandywine	85	Very limited Slope	1.00	Very limited Slope Cutbanks cave	1.00 1.00	Very limited Slope Droughty	1.00 0.03
<b>BrC:</b>							
Bremo	85	Somewhat limited Depth to hard bedrock Slope	0.46 0.37	Very limited Depth to hard bedrock Cutbanks cave Slope	1.00 1.00 0.37	Somewhat limited Droughty Depth to bedrock Slope	0.61 0.46 0.37
<b>BrE:</b>							
Bremo	85	Very limited Slope Depth to hard bedrock	1.00 0.46	Very limited Depth to hard bedrock Slope Cutbanks cave	1.00 1.00 1.00	Very limited Slope Droughty Depth to bedrock	1.00 0.61 0.46
<b>BsB:</b>							
Bucks	85	Very limited Low strength Shrink-swell Frost action	1.00 0.50 0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
<b>BsC2:</b>							
Bucks	85	Very limited Low strength Shrink-swell Frost action	1.00 0.50 0.50	Somewhat limited Slope Cutbanks cave	0.37 0.10	Somewhat limited Slope	0.37
<b>Bu:</b>							
Buncombe	85	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding	1.00 0.80	Very limited Flooding Droughty	1.00 0.34
<b>CbB:</b>							
Calverton	50	Very limited Frost action Low strength Depth to saturated zone	1.00 1.00 0.75	Very limited Depth to thick cemented pan Depth to saturated zone Depth to dense layer	1.00 1.00 0.50	Somewhat limited Depth to saturated zone Depth to cemented pan	0.75 0.46
Creedmoor	50	Very limited Low strength Shrink-swell Depth to saturated zone	1.00 1.00 0.43	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.28 0.10	Somewhat limited Depth to saturated zone	0.43
<b>CcC:</b>							

**Table ENG-4. - Building Site Development - Continued**

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
<b>CcC:</b>							
Catoclin	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.46	Depth to hard bedrock	1.00	Depth to bedrock	0.46
		Slope	0.37	Slope	0.37	Slope	0.37
				Cutbanks cave	0.10	Droughty	0.29
<b>CcE:</b>							
Catoclin	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.46	Slope	1.00	Depth to bedrock	0.46
				Cutbanks cave	0.10	Droughty	0.29
<b>CeB:</b>							
Cecil	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.13		
				Cutbanks cave	0.10		
<b>CeB2:</b>							
Cecil	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.13		
				Cutbanks cave	0.10		
<b>CeC:</b>							
Cecil	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Slope	0.37	Too clayey	0.13		
				Cutbanks cave	0.10		
<b>CeC2:</b>							
Cecil	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Slope	0.37	Too clayey	0.13		
				Cutbanks cave	0.10		
<b>CeD2:</b>							
Cecil	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.13		
				Cutbanks cave	0.10		
<b>CfB:</b>							
Cecil	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.13		
				Cutbanks cave	0.10		
<b>CgC3:</b>							
Cecil	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Slope	0.37	Too clayey	0.13		
				Cutbanks cave	0.10		

**Table ENG-4. - Building Site Development - Continued**

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
ChC:							
Cecil	55	Very limited Low strength Slope	1.00 0.37	Somewhat limited Slope Too clayey Cutbanks cave	0.37 0.13 0.10	Somewhat limited Slope	0.37
Appling	40	Very limited Low strength Slope	1.00 0.37	Somewhat limited Slope Too clayey Cutbanks cave	0.37 0.28 0.10	Somewhat limited Slope	0.37
ChC2:							
Cecil	50	Very limited Low strength Slope	1.00 0.37	Somewhat limited Slope Too clayey Cutbanks cave	0.37 0.13 0.10	Somewhat limited Slope	0.37
Appling	45	Very limited Low strength Slope	1.00 0.37	Somewhat limited Slope Too clayey Cutbanks cave	0.37 0.28 0.10	Somewhat limited Slope	0.37
CkB:							
Chester	50	Somewhat limited Frost action	0.50	Somewhat limited Cutbanks cave	0.10	Somewhat limited Content of large stones	<0.01
Brandywine	30	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.03
CkC:							
Chester	50	Somewhat limited Frost action Slope	0.50 0.37	Somewhat limited Slope Cutbanks cave	0.37 0.10	Somewhat limited Slope Content of large stones	0.37 <0.01
Brandywine	30	Somewhat limited Slope	0.37	Very limited Cutbanks cave Slope	1.00 0.37	Somewhat limited Slope Droughty	0.37 0.03
CkC2:							
Chester	50	Somewhat limited Frost action Slope	0.50 0.37	Somewhat limited Slope Cutbanks cave	0.37 0.10	Somewhat limited Slope Content of large stones	0.37 <0.01
Brandywine	30	Somewhat limited Slope	0.37	Very limited Cutbanks cave Slope	1.00 0.37	Somewhat limited Slope Droughty	0.37 0.03
CkD:							

**Table ENG-4. - Building Site Development - Continued**

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
CkD:							
Chester	50	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.10	Content of large stones	<0.01
Brandywine	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	0.03
Cm:							
Chewacla	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Flooding	0.80	Depth to saturated zone	1.00
				Cutbanks cave	0.10		
Wet Spots	5	Not Rated		Not Rated		Not Rated	
Cn:							
Codorus variant	85	Very limited		Very limited		Very limited	
		Frost action	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	1.00	Flooding	0.80	Depth to saturated zone	0.75
		Depth to saturated zone	0.75	Cutbanks cave	0.10		
CoC:							
Colfax	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to thick cemented pan	1.00	Depth to saturated zone	1.00
		Depth to thick cemented pan	0.97	Depth to saturated zone	1.00	Depth to cemented pan	0.97
		Low strength	0.22	Cutbanks cave	0.10	Droughty	0.49
Cr:							
Colluvial land	85	Not Rated		Not Rated		Not Rated	
Cu:							
Colluvial land	85	Not Rated		Not Rated		Not Rated	
Cv:							
Congaree	85	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Depth to saturated zone	0.90	Flooding	1.00
		Low strength	1.00	Flooding	0.80		
				Cutbanks cave	0.10		
Cw:							

**Table ENG-4. - Building Site Development - Continued**

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
Cw:							
Congaree	85	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Depth to saturated zone	0.90	Flooding	1.00
		Low strength	1.00	Flooding	0.80		
				Cutbanks cave	0.10		
DaB2:							
Davidson	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.13		
				Cutbanks cave	0.10		
DaC2:							
Davidson	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Slope	0.37	Too clayey	0.13		
				Cutbanks cave	0.10		
DaD2:							
Davidson	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.13		
				Cutbanks cave	0.10		
DkB:							
Dyke	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.72		
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
DkC2:							
Dyke	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.72	Slope	0.37
		Shrink-swell	0.50	Slope	0.37		
		Frost action	0.50	Cutbanks cave	0.10		
DkE2:							
Dyke	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.72		
		Shrink-swell	0.50	Cutbanks cave	0.10		
Eb:							
Elbert	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Cutbanks cave	1.00		
		Shrink-swell	1.00	Too clayey	0.50		
EIB:							

**Table ENG-4. - Building Site Development - Continued**

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
EIB:							
Elioak	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Cutbanks cave	0.10	Content of large stones	<0.01
		Frost action	0.50				
EIB2:							
Elioak	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Cutbanks cave	0.10	Content of large stones	<0.01
		Frost action	0.50				
EIC:							
Elioak	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Frost action	0.50	Cutbanks cave	0.10	Content of large stones	<0.01
		Slope	0.37				
EIC2:							
Elioak	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Frost action	0.50	Cutbanks cave	0.10	Content of large stones	<0.01
		Slope	0.37				
EID2:							
Elioak	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Cutbanks cave	0.10	Content of large stones	<0.01
		Frost action	0.50				
EmB:							
Elioak	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Cutbanks cave	0.10	Content of large stones	<0.01
		Frost action	0.50				
EmB2:							
Elioak	85	Very limited		Somewhat limited		Not Rated	
		Low strength	1.00	Cutbanks cave	0.10		
		Frost action	0.50				
EmC2:							
Elioak	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Frost action	0.50	Cutbanks cave	0.10	Content of large stones	<0.01
		Slope	0.37				
EmD2:							
Elioak	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Cutbanks cave	0.10	Content of large stones	<0.01
		Frost action	0.50				
EnC3:							

**Table ENG-4. - Building Site Development - Continued**

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
EnC3:							
Elioak	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Frost action	0.50	Cutbanks cave	0.10	Droughty	<0.01
		Slope	0.37			Content of large stones	<0.01
EnD3:							
Elioak	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Cutbanks cave	0.10	Droughty	<0.01
		Frost action	0.50			Content of large stones	<0.01
EsB:							
Eubanks	85	Somewhat limited		Very limited		Somewhat limited	
		Low strength	0.78	Cutbanks cave	1.00	Gravel content	0.08
		Frost action	0.50				
EsC:							
Eubanks	85	Somewhat limited		Very limited		Somewhat limited	
		Low strength	0.78	Cutbanks cave	1.00	Slope	0.37
		Frost action	0.50	Slope	0.37	Gravel content	0.08
		Slope	0.37				
EsC2:							
Eubanks	85	Somewhat limited		Very limited		Somewhat limited	
		Low strength	0.78	Cutbanks cave	1.00	Slope	0.37
		Frost action	0.50	Slope	0.37	Gravel content	0.08
		Slope	0.37				
EtB:							
Eubanks	85	Somewhat limited		Very limited		Not limited	
		Low strength	0.78	Cutbanks cave	1.00		
		Frost action	0.50				
EtC2:							
Eubanks	85	Somewhat limited		Very limited		Somewhat limited	
		Low strength	0.78	Cutbanks cave	1.00	Slope	0.37
		Frost action	0.50	Slope	0.37		
		Slope	0.37				
EtD2:							
Eubanks	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	0.78	Cutbanks cave	1.00		
		Frost action	0.50				
EuC3:							

**Table ENG-4. - Building Site Development - Continued**

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
<b>EuC3:</b>							
Eubanks	60	Somewhat limited		Very limited		Somewhat limited	
		Low strength	0.78	Cutbanks cave	1.00	Slope	0.37
		Frost action	0.50	Slope	0.37		
		Slope	0.37				
Lloyd	35	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.72	Slope	0.37
		Shrink-swell	0.50	Slope	0.37		
		Slope	0.37	Cutbanks cave	0.10		
<b>EuD3:</b>							
Eubanks	60	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	0.78	Cutbanks cave	1.00		
		Frost action	0.50				
Lloyd	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.72		
		Shrink-swell	0.50	Cutbanks cave	0.10		
<b>EuE3:</b>							
Eubanks	60	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	0.78	Cutbanks cave	1.00		
		Frost action	0.50				
Lloyd	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.72		
		Shrink-swell	0.50	Cutbanks cave	0.10		
<b>EyB:</b>							
Eubanks	55	Somewhat limited		Very limited		Not limited	
		Low strength	0.78	Cutbanks cave	1.00		
		Frost action	0.50				
Lloyd	45	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.72		
		Shrink-swell	0.50	Cutbanks cave	0.10		
<b>EyB2:</b>							
Eubanks	55	Somewhat limited		Very limited		Not limited	
		Low strength	0.78	Cutbanks cave	1.00		
		Frost action	0.50				
Lloyd	45	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.72		
		Shrink-swell	0.50	Cutbanks cave	0.10		

## Table ENG-4. - Building Site Development - Continued

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
<b>EyC:</b>							
Eubanks	55	Somewhat limited		Very limited		Somewhat limited	
		Low strength	0.78	Cutbanks cave	1.00	Slope	0.37
		Frost action	0.50	Slope	0.37		
		Slope	0.37				
Lloyd	40	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.72	Slope	0.37
		Shrink-swell	0.50	Slope	0.37		
		Slope	0.37	Cutbanks cave	0.10		
<b>EyC2:</b>							
Eubanks	55	Somewhat limited		Very limited		Somewhat limited	
		Low strength	0.78	Cutbanks cave	1.00	Slope	0.37
		Frost action	0.50	Slope	0.37		
		Slope	0.37				
Lloyd	40	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.72	Slope	0.37
		Shrink-swell	0.50	Slope	0.37		
		Slope	0.37	Cutbanks cave	0.10		
<b>EyD2:</b>							
Eubanks	65	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	0.78	Cutbanks cave	1.00		
		Frost action	0.50				
Lloyd	30	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.72		
		Shrink-swell	0.50	Cutbanks cave	0.10		
<b>FaB:</b>							
Fauquier	85	Very limited		Very limited		Not limited	
		Low strength	1.00	Cutbanks cave	1.00		
		Shrink-swell	0.50	Too clayey	0.28		
		Frost action	0.50				
<b>FcB2:</b>							
Fauquier	85	Very limited		Very limited		Not limited	
		Low strength	1.00	Cutbanks cave	1.00		
		Shrink-swell	0.50	Too clayey	0.28		
		Frost action	0.50				
<b>FcC2:</b>							
Fauquier	85	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Cutbanks cave	1.00	Slope	0.37
		Shrink-swell	0.50	Slope	0.37		
		Frost action	0.50	Too clayey	0.28		

**Table ENG-4. - Building Site Development - Continued**

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
<b>FcD2:</b>							
Fauquier	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Cutbanks cave	1.00		
		Shrink-swell	0.50	Too clayey	0.28		
<b>GIC2:</b>							
Glenelg	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.16	Slope	0.16
		Frost action	0.50	Cutbanks cave	0.10		
		Slope	0.16				
<b>GID2:</b>							
Glenelg	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Cutbanks cave	0.10		
		Frost action	0.50				
<b>GP:</b>							
Gravel pit	100	Not Rated		Not Rated		Not Rated	
<b>HaC:</b>							
Hazel	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Depth to hard bedrock	1.00	Depth to bedrock	0.46
		Depth to hard bedrock	0.46	Slope	0.37	Slope	0.37
		Slope	0.37	Cutbanks cave	0.10	Droughty	<0.01
<b>HaD:</b>							
Hazel	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Frost action	0.50	Slope	1.00	Depth to bedrock	0.46
		Depth to hard bedrock	0.46	Cutbanks cave	0.10	Droughty	<0.01
<b>HaF:</b>							
Hazel	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Frost action	0.50	Slope	1.00	Depth to bedrock	0.46
		Depth to hard bedrock	0.46	Cutbanks cave	0.10	Droughty	<0.01
<b>HsB:</b>							
Hiwassee	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.28		
				Cutbanks cave	0.10		
<b>HsB2:</b>							
Hiwassee	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.28		
				Cutbanks cave	0.10		
<b>HsC2:</b>							

**Table ENG-4. - Building Site Development - Continued**

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
<b>HsC2:</b>							
Hiwassee	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Slope	0.37	Too clayey	0.28		
				Cutbanks cave	0.10		
<b>HsD2:</b>							
Hiwassee	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.28		
				Cutbanks cave	0.10		
<b>IrB:</b>							
Iredell	85	Very limited		Very limited		Somewhat limited	
		Shrink-swell	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.75
		Low strength	1.00	Too clayey	0.50		
		Depth to saturated zone	0.75	Cutbanks cave	0.10		
Wet spots	2	Not Rated		Not Rated		Not Rated	
<b>LeD:</b>							
Lewisberry	85	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
		Frost action	0.50	Slope	1.00	Droughty	0.12
<b>LfB:</b>							
Lloyd	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.72		
		Shrink-swell	0.50	Cutbanks cave	0.10		
<b>LfC2:</b>							
Lloyd	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.72	Slope	0.37
		Shrink-swell	0.50	Slope	0.37		
		Slope	0.37	Cutbanks cave	0.10		
<b>LfD2:</b>							
Lloyd	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.72		
		Shrink-swell	0.50	Cutbanks cave	0.10		
<b>LIB:</b>							
Lloyd	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.72		
		Shrink-swell	0.50	Cutbanks cave	0.10		
<b>LIB2:</b>							

**Table ENG-4. - Building Site Development - Continued**

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
<b>LIB2:</b>							
Lloyd	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.72		
		Shrink-swell	0.50	Cutbanks cave	0.10		
<b>LIC2:</b>							
Lloyd	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.72	Slope	0.37
		Shrink-swell	0.50	Slope	0.37		
		Slope	0.37	Cutbanks cave	0.10		
<b>LmB2:</b>							
Lloyd variant	85	Somewhat limited		Somewhat limited		Not limited	
		Shrink-swell	0.50	Cutbanks cave	0.10		
<b>LmC2:</b>							
Lloyd variant	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Slope	0.37	Slope	0.37
		Slope	0.37	Cutbanks cave	0.10		
<b>LmD2:</b>							
Lloyd variant	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Shrink-swell	0.50	Cutbanks cave	0.10		
<b>LnC3:</b>							
Lloyd	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.72	Slope	0.37
		Shrink-swell	0.50	Slope	0.37		
		Slope	0.37	Cutbanks cave	0.10		
<b>LnD3:</b>							
Lloyd	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.72		
		Shrink-swell	0.50	Cutbanks cave	0.10		
<b>LoC:</b>							
Louisburg	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.29	Depth to hard bedrock	1.00	Droughty	0.29
		Slope	0.16	Slope	0.16	Depth to bedrock	0.29
				Cutbanks cave	0.10	Slope	0.16
<b>LoD:</b>							
Louisburg	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.29	Slope	1.00	Droughty	0.29
				Cutbanks cave	0.10	Depth to bedrock	0.29
<b>LoF:</b>							

**Table ENG-4. - Building Site Development - Continued**

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
<b>LoF:</b>							
Louisburg	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.29	Slope	1.00	Droughty	0.29
				Cutbanks cave	0.10	Depth to bedrock	0.29
<b>Ma:</b>							
Madeland	100	Not Rated		Not Rated		Not Rated	
<b>MnB:</b>							
Manassas	85	Very limited		Very limited		Not limited	
		Low strength	1.00	Depth to saturated zone	1.00		
		Frost action	0.50	Cutbanks cave	0.10		
Wet spots	1	Not Rated		Not Rated		Not Rated	
<b>MoC:</b>							
Manor	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.96	Slope	0.96	Slope	0.96
		Frost action	0.50	Cutbanks cave	0.10		
<b>MuB:</b>							
Mayodan	85	Not limited		Somewhat limited		Not limited	
				Too clayey	0.28		
				Cutbanks cave	0.10		
<b>MuC2:</b>							
Mayodan	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.37	Slope	0.37	Slope	0.37
				Too clayey	0.28		
				Cutbanks cave	0.10		
<b>MvB:</b>							
Meadowville	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Depth to saturated zone	0.61		
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
Wet spots	1	Not Rated		Not Rated		Not Rated	
<b>MvC:</b>							
Meadowville	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Depth to saturated zone	0.61	Slope	0.37
		Shrink-swell	0.50	Slope	0.37		
		Frost action	0.50	Cutbanks cave	0.10		

MyC:

**Table ENG-4. - Building Site Development - Continued**

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
<b>MyC:</b>							
Myersville	65	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Content of large stones	0.46
		Frost action	0.50	Cutbanks cave	0.10	Slope	0.37
		Slope	0.37				
Catoctin	30	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.46	Depth to hard bedrock	1.00	Depth to bedrock	0.46
		Slope	0.37	Slope	0.37	Slope	0.37
				Cutbanks cave	0.10	Droughty	0.29
<b>MyD:</b>							
Myersville	65	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Cutbanks cave	0.10	Content of large stones	0.46
		Frost action	0.50				
Catoctin	30	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.46	Slope	1.00	Depth to bedrock	0.46
				Cutbanks cave	0.10	Droughty	0.29
<b>MyE:</b>							
Myersville	65	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Cutbanks cave	0.10	Content of large stones	0.46
		Frost action	0.50				
Catoctin	30	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.46	Slope	1.00	Depth to bedrock	0.46
				Cutbanks cave	0.10	Droughty	0.29
<b>PnC:</b>							
Penn	85	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Depth to hard bedrock	1.00	Depth to bedrock	0.46
		Frost action	0.50	Slope	0.16	Slope	0.16
		Depth to hard bedrock	0.46	Cutbanks cave	0.10		
<b>PnD:</b>							
Penn	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Low strength	1.00	Slope	1.00	Depth to bedrock	0.46
		Frost action	0.50	Cutbanks cave	0.10		
<b>PoC:</b>							

**Table ENG-4. - Building Site Development - Continued**

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
PoC:							
Porters	85	Somewhat limited		Very limited		Somewhat limited	
		Low strength	0.78	Cutbanks cave	1.00	Slope	0.37
		Frost action	0.50	Depth to hard bedrock	0.42	Content of large stones	0.08
		Slope	0.37	Slope	0.37	Gravel content	0.01
PoD:							
Porters	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	0.78	Cutbanks cave	1.00	Content of large stones	0.08
		Frost action	0.50	Depth to hard bedrock	0.42	Gravel content	0.01
PoF:							
Porters	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	0.78	Cutbanks cave	1.00	Content of large stones	0.08
		Frost action	0.50	Depth to hard bedrock	0.42	Gravel content	0.01
RdB:							
Rapidan	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Too clayey	0.50		
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
ReC2:							
Rapidan	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.50	Slope	0.37
		Shrink-swell	0.50	Slope	0.37		
		Frost action	0.50	Cutbanks cave	0.10		
Rh:							
Riverwash	85	Not Rated		Not Rated		Not Rated	
Rk:							
Roanoke	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Cutbanks cave	1.00		
		Shrink-swell	0.50	Too clayey	0.28		
Rn:							
Rock land	85	Not Rated		Not Rated		Not Rated	
Ro:							
Rock land	85	Not Rated		Not Rated		Not Rated	
RrD:							

## Table ENG-4. - Building Site Development - Continued

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
RrD:							
Rock land	85	Not Rated		Not Rated		Not Rated	
RrE:							
Rock land	85	Not Rated		Not Rated		Not Rated	
RtD:							
Rock land	85	Not Rated		Not Rated		Not Rated	
RtE:							
Rock land	85	Not Rated		Not Rated		Not Rated	
Ru:							
Rock outcrop	85	Not Rated		Not Rated		Not Rated	
SrC:							
Starr	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
TrC:							
Trego	85	Very limited		Very limited		Somewhat limited	
		Low strength	1.00	Cutbanks cave	1.00	Depth to cemented pan	0.98
		Shrink-swell	0.50			Droughty	0.16
		Frost action	0.50				
Wet spots	1	Not Rated		Not Rated		Not Rated	
TuB:							
Tusquitee	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Content of large stones	0.68
TuC:							
Tusquitee	85	Somewhat limited		Very limited		Somewhat limited	
		Frost action	0.50	Cutbanks cave	1.00	Content of large stones	0.68
		Slope	0.37	Slope	0.37	Slope	0.37
TuD:							
Tusquitee	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	1.00	Content of large stones	0.68
TuE:							
Tusquitee	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	1.00	Content of large stones	0.68

UnB:

**Table ENG-4. - Building Site Development - Continued**

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
<b>UnB:</b>							
Unison	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.50	Content of large stones	0.20
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
<b>UnC:</b>							
Unison	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.50	Slope	0.37
		Shrink-swell	0.50	Slope	0.37	Content of large stones	0.20
		Frost action	0.50	Cutbanks cave	0.10		
<b>UnD:</b>							
Unison	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.50	Content of large stones	0.20
		Shrink-swell	0.50	Cutbanks cave	0.10		
<b>UsC:</b>							
Unison	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Too clayey	0.50	Slope	0.37
		Shrink-swell	0.50	Slope	0.37	Content of large stones	0.20
		Frost action	0.50	Cutbanks cave	0.10		
<b>UsD:</b>							
Unison	85	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Low strength	1.00	Too clayey	0.50	Content of large stones	0.20
		Shrink-swell	0.50	Cutbanks cave	0.10		
<b>W:</b>							
Water	100	Not Rated		Not Rated		Not Rated	
<b>WaC:</b>							
Watt	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.46	Depth to hard bedrock	1.00	Droughty	0.98
		Slope	0.16	Slope	0.16	Depth to bedrock	0.46
				Cutbanks cave	0.10	Content of large stones	0.32
<b>WaE:</b>							
Watt	85	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to hard bedrock	1.00	Slope	1.00
		Depth to hard bedrock	0.46	Slope	1.00	Droughty	0.98
				Cutbanks cave	0.10	Depth to bedrock	0.46
<b>We:</b>							

**Table ENG-4. - Building Site Development - Continued**

Madison County, Virginia

Map Symbol and Soil Name	Pct of Map Unit	Local Roads and Streets		Shallow Excavations		Lawns and Landscaping	
		Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value	Rating Class and Limiting Features	Value
We:							
Wehadkee	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	1.00	Flooding	0.80	Depth to saturated zone	1.00
		Low strength	1.00	Cutbanks cave	0.10		
WhB:							
Wickham variant	85	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Cutbanks cave	0.10		
WhC2:							
Wickham variant	85	Very limited		Somewhat limited		Somewhat limited	
		Low strength	1.00	Slope	0.37	Slope	0.37
		Slope	0.37	Cutbanks cave	0.10		
WmB:							
Worsham	85	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low strength	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				
ZoB:							
Zion	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.46	Depth to hard bedrock	1.00	Depth to bedrock	0.46
				Cutbanks cave	1.00	Droughty	<0.01
				Too clayey	0.28		
ZoC:							
Zion	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to hard bedrock	0.46	Depth to hard bedrock	1.00	Depth to bedrock	0.46
		Slope	0.37	Cutbanks cave	1.00	Slope	0.37
				Slope	0.37	Droughty	<0.01