

#### United States Department of Agriculture

Natural Resources Conservation Service

Louisville Field Office

4233 Bardstown Road Suite 100-A Louisville, KY 40291 Voice 502.499.1900 Fax 502.499.1748 September 8, 2014

Kelli Jones Sabak, Wilson & Lingo 608 S. Third Street Louisville, KY 40202

RE: Woodlands Creek Extension

Dear Ms. Jones:

Enclosed you will find a copy of the requested soils report on the planned Woodlands Creek Extension development project. The project site is planned as a R4 subdivision to accommodate 18 individual single family lots on 5.3 acres. The area for the proposed conversion is partially wooded and open space used as residential space and lawns.

The soils on the tract are primarily deep well drained Crider soils underlain by limestone geology. Under the present ground cover of trees and brushy species, water runoff from the site is somewhat contained in the top layer of soil and the duff or organic layers under the tree canopies. Extended root systems provide other avenues for water infiltration along with the decaying root mass under the scrubby woodland area. This infiltration of water through porous soils reduces runoff by providing avenues for capturing and retaining stormwater. A failed pond in the southeast corner of the tract indicates the soil's inability to permanently hold water in the surface substrait, although the area indicates some water ponding within the basin. During construction activities, this natural system to deter runoff will be lost due to soil compaction and most likely the destruction of the soil's organic layer. These changes should be calculated in the before and after scenerios of stormwater runoff from the site.

Accompanied with the development plans for the project should be measures designed to address the potential soil erosion and movement of sediments downstream . The loss of the existing grass vegetation and the woodland canopies which currently hold the soil in place needs to be replaced by a system that captures and filters runoff during construction. Properties most likely to be affected by the potential sediment laden runoff are located southwest of the proposed project and are in the areas of Woodlands Creek currently under construction. As plans are developed to address the soil erosion and water runoff concerns of the site during and after the property transition, please feel free to call on us if we can provide any assistance.

Sincerely

Kurt D. Mason, CPESC District Conservationist

Enclosures



#### MAP LEGEND MAP INFORMATION The soil surveys that comprise your AOI were mapped at 1:12,000. Area of Interest (AOI) Spoil Area Area of Interest (AOI) Stony Spot Ô Warning: Soil Map may not be valid at this scale. Soils Very Stony Spot 0 Enlargement of maps beyond the scale of mapping can cause Soil Map Unit Polygons Ý Wet Spot misunderstanding of the detail of mapping and accuracy of soil line Soil Map Unit Lines placement. The maps do not show the small areas of contrasting Other Δ soils that could have been shown at a more detailed scale. Soil Map Unit Points Special Line Features Special Point Features Please rely on the bar scale on each map sheet for map Water Features (0) Blowout Streams and Canals Borrow Pit Source of Map: Natural Resources Conservation Service 100 Transportation Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Coordinate System: Web Mercator (EPSG:3857) Clay Spot × Rails +++ Closed Depression 0 Interstate Highways Maps from the Web Soil Survey are based on the Web Mercator Gravel Pit X projection, which preserves direction and shape but distorts US Routes distance and area. A projection that preserves area, such as the **Gravelly Spot** 4. Major Roads Albers equal-area conic projection, should be used if more accurate 2 Landfill calculations of distance or area are required. Local Roads This product is generated from the USDA-NRCS certified data as of 1 Lava Flow Background the version date(s) listed below. 1 Marsh or swamp 1 Aerial Photography Soil Survey Area: Jefferson County, Kentucky Version 12, Dec 16, 2013 テ Mine or Quarry 0 Miscellaneous Water Soil map units are labeled (as space allows) for map scales 1:50,000 Perennial Water or larger. 0 Date(s) aerial images were photographed: Feb 12, 2012—Feb 20 Rock Outcrop + Saline Spot The orthophoto or other base map on which the soil lines were ::: Sandy Spot compiled and digitized probably differs from the background Severely Eroded Spot imagery displayed on these maps. As a result, some minor shifting = of map unit boundaries may be evident. 0 Sinkhole b Slide or Slip Sodic Spot

# **Map Unit Legend**

Jefferson County, Kentucky (KY111)								
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI					
CrB	Crider silt loam, 2 to 6 percent slopes	3.5	69.7%					
UmC	Urban land-Alfic Udarents- Crider complex, 0 to 12 percent slopes	1.5	30.3%					
Totals for Area of Interest		5.0	100.0%					

## Map Unit Description (Brief, Generated)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

## Report—Map Unit Description (Brief, Generated)

# Jefferson County, Kentucky

Map Unit: CrB—Crider silt loam, 2 to 6 percent slopes

Component: Crider (90%)

The Crider component makes up 90 percent of the map unit. Slopes are 2 to 6 percent. This component is on ridges on uplands. The parent material consists of thin fine-silty loess over clayey residuum weathered from limestone and dolomite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Caneyville (7%)



Generated brief soil descriptions are created for major components. The Caneyville soil is a minor component.

Component: Nicholson (3%)

Generated brief soil descriptions are created for major components. The Nicholson soil is a minor component.

Map Unit: UmC—Urban land-Alfic Udarents-Crider complex, 0 to 12 percent slopes

Component: Urban land (50%)

Generated brief soil descriptions are created for major soil components. The Urban land is a miscellaneous area.

Component: Crider (25%)

The Crider component makes up 25 percent of the map unit. Slopes are 0 to 12 percent. This component is on ridges on uplands. The parent material consists of thin fine-silty loess over clayey residuum weathered from limestone and dolomite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Alfic Udarents (25%)

The Alfic Udarents component makes up 25 percent of the map unit. Slopes are 0 to 12 percent. This component is on ridges on uplands. The parent material consists of thin fine-silty loess over clayey residuum weathered from limestone and dolomite. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

#### **Data Source Information**

Soil Survey Area: Jefferson County, Kentucky Survey Area Data: Version 12, Dec 16, 2013

# **Selected Soil Interpretations**

This report allows the customer to produce a report showing the results of the soil interpretation(s) of his or her choice. It is useful when a standard report that displays the results of the selected interpretation(s) is not available.

When customers select this report, they are presented with a list of interpretations with results for the selected map units. The customer may select up to three interpretations to be presented in table format.

For a description of the particular interpretations and their criteria, use the "Selected Survey Area Interpretation Descriptions" report.

#### Report—Selected Soil Interpretations

Selected Soil Interpretations-Jefferson County, Kentucky									
Map symbol and soil name	Pct. of map unit	Eng - dwellings w/o basements		Eng - dwellings with basements		Eng - local roads and streets			
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value		
CrB—Crider silt loam, 2 to 6 percent slopes									
Crider	90	Not limited		Not limited		Very limited			
						Low strength	1.00		
UmC—Urban land- Alfic Udarents-Crider complex, 0 to 12 percent slopes									
Urban land	50	Not rated		Not rated		Not rated			
Alfic udarents	25	Not limited		Not limited		Very limited			
						Low strength	1.00		
Crider	25	Not limited		Not limited		Very limited			
						Low strength	1.00		

#### **Data Source Information**

Soil Survey Area: Jefferson County, Kentucky Survey Area Data: Version 12, Dec 16, 2013

