Transportation Land Development Environmental Services



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August 18, 2006

Vanasse Hangen Brustlin, Inc.

Ref:

40862.16

Ms. Sandy Carter Verizon Wireless 99 East River Drive East Hartford, CT 06108

Re:

Wetland Inspection Watertown West Old Baird Road

Watertown, Connecticut

Dear Ms. Carter:

Vanasse Hangen Brustlin, Inc. (VHB) has completed on-site investigations to determine if wetlands and/or watercourses are located on the above-referenced Site. VHB has relied upon the accuracy of information provided by Verizon Wireless regarding the proposed lease area, access road, and utility easement locations for identifying wetlands and watercourses within and proximate to said locations.

VHB understands that Verizon Wireless proposes to construct a wireless telecommunication facility at Old Baird Road, Watertown, Connecticut (the "Site"). The facility will include an approximate 10,409 square foot fenced compound area that will house a 150-foot monopole and associated telecommunication equipment and structures. Access to the Site will be via a proposed 12-foot gravel access drive from Old Baird Road. No wetlands or watercourses were identified (or delineated) on the Site or within 100 feet of proposed development activities. The nearest wetland area is a small, narrow drainage ditch along the toe slope of a fill embankment associated with the transfer station west of Old Baird Road approximately 110 feet southwest of the proposed Site. Soils field classified in the vicinity of the proposed development are generally consistent with published data and consist of Canton and Charlton soils, which are well-drained deep glacial till soils. Therefore, the proposed development will not directly or indirectly affect wetlands or watercourses and will not have a significant adverse effect on wetland resources of the town of Watertown.

If you have any questions concerning this matter do not hesitate to call me.

Very truly yours,

VANASSE HANGEN BRUSTLIN, INC.

Dean Gustafson

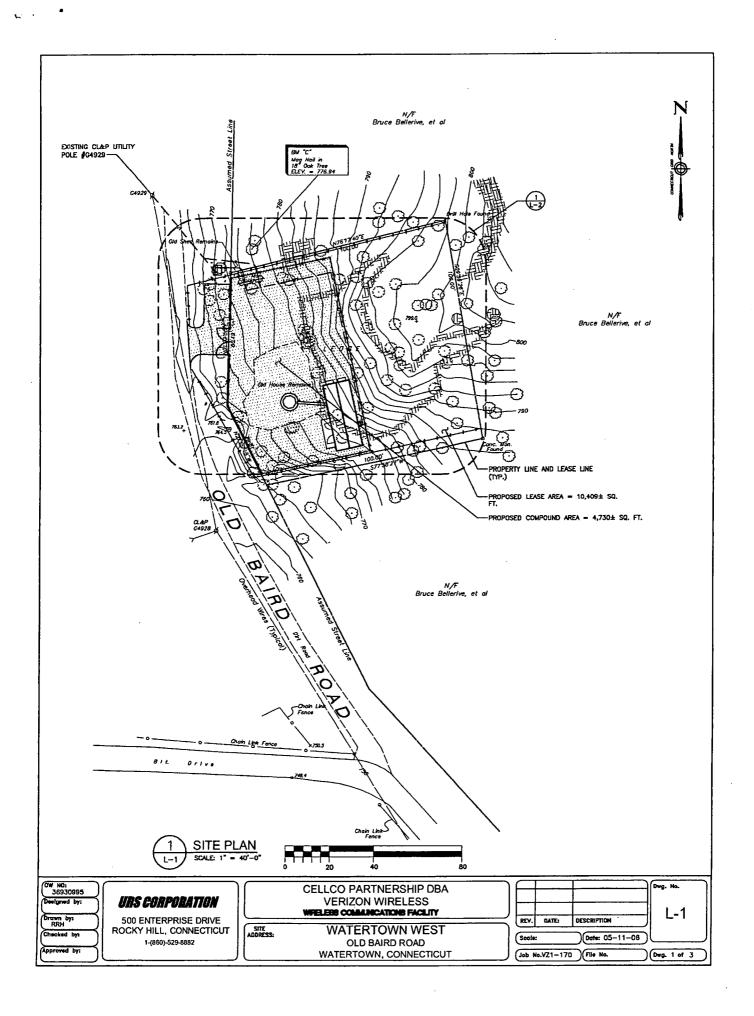
Professional Soil Scientist

cc:

Alitz Abadjian, URS

Kenneth C. Baldwin, Robinson & Cole LLP

File



Transportation Land Development Environmental Services



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WETLANDS DELINEATION REPORT

Vanasse Hangen Brustlin, Inc.

Date:

January 19, 2007

Project No.:

41240.12

Prepared For:

Ms. Alexandria Carter

Verizon Wireless 99 East River Drive

East Hartford, Connecticut 06108

Site Location:

Watertown West Alternate 'B'

Old Baird Road

Watertown, Connecticut

Site Map:

Wetland Sketch, 1/18/07, VHB

Inspection Date:

January 18, 2007

Field Conditions:

Weather: partly sunny, mid 30's

Snow Depth: 0 inches

General Soil Moisture: moist

Frost Depth: 0 inches

Type of Wetlands Identified and Delineated:

Connecticut Inland Wetlands and Watercourses

Tidal Wetlands

U.S. Army Corps of Engineers

Local Regulated Upland Review Areas: Wetlands: 50 feet Waterco

Watercourses: 50 feet

Field Numbering Sequence of Wetlands Boundary: WF1a-89 to WF1a-99/WF1-01 to WF1-12

[as depicted on attached wetland sketch map]

The classification systems of the National Cooperative Soil Survey, the U.S. Department of Agriculture, Natural Resources Conservation Service, County Soil Survey Identification Legend, Connecticut Department of Environmental Protection and United States Army Corps of Engineers New England District were used in this investigation.

All established wetlands boundary lines are subject to change until officially adopted by local, state, or federal regulatory agencies.

The wetlands delineation was conducted by:

The wetlands delineation was conducted by:

Sara'Fusco

Soil Scientist

Dean Gustafson

Professional Soil Scientist

Enclosures

54 Tuttle Place Middletown, Connecticut 06457-1847 860.632.1500 **FAX** 860.632.7879

email: info@vhb.com www.vhb.com

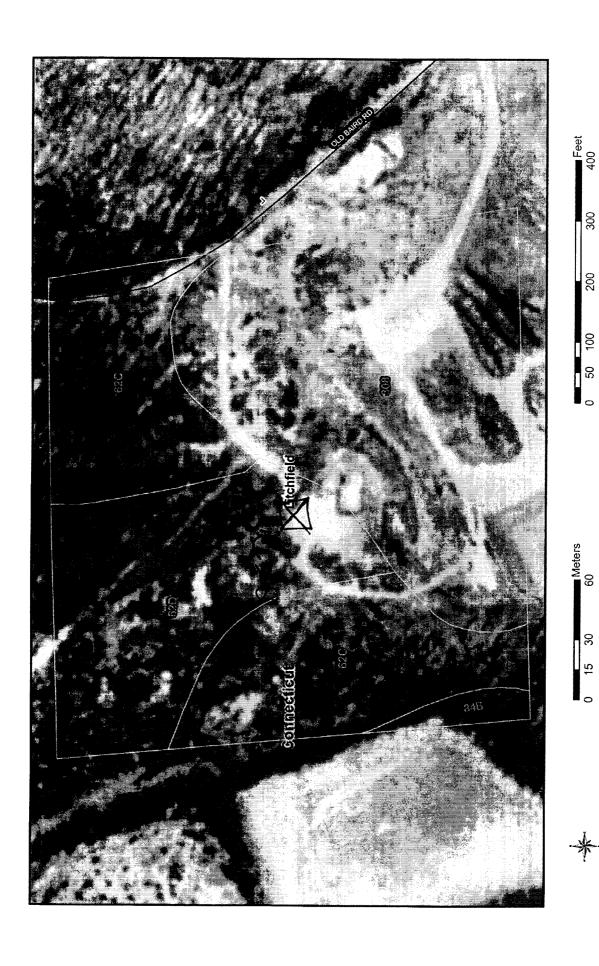
Attachments

- ➤ Wetland Delineation Field Form

- Soil Map
 Soil Report
 Wetland Delineation Sketch Map

Wetland Delineation Field Form

| Project Name: | verizan- | West-Alternate 'B' | Project Num | ber: | 41240.17 | | | |
|---|---|----------------------|-----------------|------------|--------------------------------|--|--|--|
| Inspection Date: | | WEST- HHERMOLITE B | Inspector: | | | | | |
| Wetland I.D.: | 1/18/07 | | Anopeotor. | | SF | | | |
| Wettallu I.D | 1/1a | | | | | | | |
| Pi-14 Ct., 12 | | | | | | | | |
| Field Conditions: | Weather | : overcast, mid | <u> 30'5</u> | | ow Depth: 🔊 | | | |
| Type of Wetland I | Soil Moisture: Man | | Fro | st Depth: | | | | |
| Type of Wetland I | Jenneation: | Connecticut ACOE | <u> </u> | | | | | |
| | | Tidal | H | | | | | |
| Field Numbering S | Sequence: | | LI 1510-09/ | 100 | 01 - ((01-1) | | | |
| Field Numbering Sequence: WFIA-89 to WFIA-99/WFI-01 TO WFI-12 | | | | | | | | |
| WETLAND HYDROLOGY: | | | | | | | | |
| Nontidal | | | | | | | | |
| Regularly Flooded | | Irregularly Flooded | |] | Permanently Flooded | | | |
| Semipermanently ! | | Seasonally Flooded | | - | remporarily Flooded | | | |
| Permanently Satur | ated | Seasonally Saturated | d – seepage 🗋 | D S | Seasonally Saturated - perched | | | |
| Comments: | | | ` | | | | | |
| Tidal | | | | | | | | |
| Subtidal | | Damelanka Elas I. I | | | | | | |
| Seasonally Floode | | Regularly Flooded | | <u> Ir</u> | regularly Flooded | | | |
| | AIA AIV | Temporarily Floode | аЦ | | | | | |
| Commonts. | 1 - 1 4-5 | | | | | | | |
| WETLAND TYP | E: | | | | | | | |
| System | | | | | | | | |
| Estuarine | | Riverine | | Pal | ustrine 💟 | | | |
| Lacustrine | • | Marine _ | * 1 | | 7 | | | |
| Comments: | | | | . I | | | | |
| | | | | | | | | |
| Class | | | | | | | | |
| Emergent Marsh | | Scrub-shrub | | For | ested 🗹 | | | |
| Open Water | | Disturbed | | | , | | | |
| Comments: | | | | | | | | |
| WATERCOURSE TYPE: | | | | | | | | |
| Upper Perennial | 7 I I I I I I I I I I I I I I I I I I I | Lower Perennial | П | Into | ittort 1 | | | |
| Tidal | | | Lower refermial | | Intermittent 2 | | | |
| Comments: | | | | L | | | | |
| | | | | | | | | |
| SPECIAL AQUATIC HABITAT: | | | | | | | | |
| Vernal Pool | | Other | | | | | | |
| Comments: | NA | | | | | | | |
| | | | | | | | | |
| DOMINANT PLANTS: | | | | | | | | |
| Red Maple | | | | | | | | |
| yellow birch | | | | | | | | |
| black birch | 1 | | | | | | | |
| Ash | | | | | | | | |
| Societush | | | | | | | | |
| Grape | | | | | | | | |
| Multi Gam Pose | | | | | | | | |



USDA Natural Resources
Conservation Service

Nae

Web Soil Survey 1.1 National Cooperative Soil Survey

Map Unit Legend Summary

State of Connecticut

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|-----------------|---|--------------|----------------|
| 62C | Canton and Charlton soils, 3 to 15 percent slopes, extremely stony | 4.5 | 31.3 |
| 62D | Canton and Charlton soils, 15 to 35 percent slopes, extremely stony | 3.5 | 24.4 |
| 84B | Paxton and Montauk fine sandy loams, 3 to 8 percent slopes | 0.2 | 17 |
| 308 | Udorthents, smoothed | 6.2 | 42.6 |

State of Connecticut

[Only those map units that have entries for the selected non-technical description categories are included in this report]

Map Unit: 62C - Canton and Charlton soils, 3 to 15 percent slopes, extremely stony

Description Category: SOI

Canton And Charlton Soils, 3 To 15 Percent Slopes, Extremely Stony

This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 37 to 49 inches (940 to 1244 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 45 percent Canton soils, 35 percent Charlton soils. 20 percent minor components.

Canton soils

This component occurs on upland hill landforms. The parent material consists of melt-out till derived from schist, granite, and gneiss. The slope ranges from 3 to 15 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is well drained. The slowest permeability within 60 inches is about 1.98 in/hr (moderately rapid), with about 5.6 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s

Typical Profile:

0 to 1 inches; moderately decomposed plant material

1 to 3 inches; gravelly fine sandy loam

3 to 15 inches; gravelly loam

15 to 24 inches; gravelly loam

24 to 30 inches; gravelly loam

30 to 60 inches; very gravelly loamy sand

Charlton soils

This component occurs on upland hill landforms. The parent material consists of melt-out till derived from granite, schist, and gneiss. The slope ranges from 3 to 15 percent and the runoff class is low. The depth to a restrictive feature is greater than 60 inches. The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 6.4 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s

Typical Profile:

0 to 4 inches; fine sandy loam

4 to 7 inches; fine sandy loam

7 to 19 inches; fine sandy loam

19 to 27 inches; gravelly fine sandy loam

27 to 65 inches; gravelly fine sandy loam



State of Connecticut

Map Unit: 62D - Canton and Charlton soils, 15 to 35 percent slopes, extremely stony

Description Category: SOI

Canton And Charlton Soils, 15 To 35 Percent Slopes, Extremely Stony

This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 37 to 49 inches (940 to 1244 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 45 percent Canton soils, 35 percent Charlton soils. 20 percent minor components

Canton soils

This component occurs on upland hill landforms. The parent material consists of melt-out till derived from schist, granite, and gneiss. The slope ranges from 15 to 35 percent and the runoff class is medium. The depth to a restrictive feature is greater than 60 inches. The drainage class is well drained. The slowest permeability within 60 inches is about 1.98 in/hr (moderately rapid), with about 5.6 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s

Typical Profile:

0 to 1 inches; moderately decomposed plant material

1 to 3 inches; gravelly fine sandy loam

3 to 15 inches; gravelly loam

15 to 24 inches; gravelly loam 24 to 30 inches; gravelly loam

30 to 60 inches; very gravelly loamy sand

Charlton soils

This component occurs on upland hill landforms. The parent material consists of melt-out till derived from granite, schist, and gneiss. The slope ranges from 15 to 35 percent and the runoff class is medium. The depth to a restrictive feature is greater than 60 inches. The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 6.4 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is greater than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s Typical Profile:

0 to 4 inches; fine sandy loam 4 to 7 inches; fine sandy loam 7 to 19 inches; fine sandy loam

19 to 27 inches; gravelly fine sandy loam 27 to 65 inches; gravelly fine sandy loam



State of Connecticut

Map Unit: 84B - Paxton and Montauk fine sandy loams, 3 to 8 percent slopes

Description Category: SOI

Paxton And Montauk Fine Sandy Loams, 3 To 8 Percent Slopes

This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 35 to 50 inches (889 to 1270 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 55 percent Paxton soils, 30 percent Montauk soils. 15 percent minor components.

Paxton soils

This component occurs on upland hill and drumlin landforms. The parent material consists of lodgement till derived from granite, gneiss, and schist. The slope ranges from 3 to 8 percent and the runoff class is medium. The depth to a restrictive feature is 20 to 40 inches to densic material. The drainage class is well drained. The slowest permeability within 60 inches is about 0.00 in/hr (very slow), with about 3.4 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 24 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 2e

0 to 8 inches; fine sandy loam 8 to 15 inches; fine sandy loam 15 to 26 inches; fine sandy loam 26 to 65 inches; gravelly fine sandy loam

Montauk soils

This component occurs on upland hill and drumlin landforms. The parent material consists of sandy lodgement till derived from granite and gneiss. The slope ranges from 3 to 8 percent and the runoff class is low. The depth to a restrictive feature is 20 to 38 inches to densic material. The drainage class is well drained. The slowest permeability within 60 inches is about 0.00 in/hr (very slow), with about 3.3 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 27 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 2e

Typical Profile: 0 to 4 inches; fine sandy loam 4 to 14 inches; fine sandy loam 14 to 25 inches; sandy loam

25 to 39 inches; gravelly loamy coarse sand 39 to 60 inches; gravelly sandy loam

Map Unit: 308 - Udorthents, smoothed

Description Category: SOI

Udorthents, Smoothed

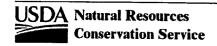
This map unit is in the New England and Eastern New York Upland, Southern Part Connecticut Valley Major Land Resource Area. The mean annual precipitation is 32 to 50 inches (813 to 1270 millimeters) and the average annual air temperature is 45 to 55 degrees F. (7 to 13 degrees C.) This map unit is 80 percent Udorthents soils. 20 percent minor components.

Udorthents soils

This component occurs on leveled land and fill landforms. The slope ranges from 0 to 35 percent and the runoff class is medium. The depth to a restrictive feature varies, but is commonly greater than 60 inches. The drainage class is typically well drained. The slowest permeability within 60 inches is about 0.00 in/hr (very slow), with about 9.0 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.4 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The maximum depth to a seasonal water table is greater than 60 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 3e Typical Profile:

0 to 5 inches; loam 5 to 21 inches; gravelly loam

21 to 80 inches; very gravelly sandy loam



State of Connecticut

[Only those map units that have entries for the selected non-technical description categories are included in this report]

Map Unit: 40B - Ludlow silt loam, 3 to 8 percent slopes

Description Category: SOI

Ludlow Silt Loam, 3 To 8 Percent Slopes

This map unit is in the Connecticut Valley Major Land Resource Area. The mean annual precipitation is 40 to 50 inches (1016 to 1270 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 80 percent Ludlow soils. 20 percent minor components.

Ludlow soils

This component occurs on upland drumlin and hill landforms. The parent material consists of lodgement till derived from sandstone, shale, and basalt. The slope ranges from 3 to 8 percent and the runoff class is medium. The depth to a restrictive feature is 20 to 40 inches to densic material. The drainage class is moderately well drained. The slowest permeability within 60 inches is about 0.00 in/hr (very slow), with about 4.8 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 24 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 2e

0 to 8 inches; silt loam 8 to 20 inches; silt loam 20 to 26 inches; silt loam 26 to 65 inches; gravelly loam

Map Unit: 287B - Wethersfield-Urban land complex, 3 to 8 percent slopes

Description Category: SOI

Wethersfield-Urban Land Complex, 3 To 8 Percent Slopes

This map unit is in the Connecticut Valley Major Land Resource Area. The mean annual precipitation is 40 to 50 inches (1016 to 1270 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees C.) This map unit is 40 percent Wethersfield soils, 35 percent Urban Land. 25 percent minor components.

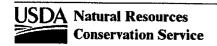
Wethersfield soils

This component occurs on upland hill and drumlin landforms. The parent material consists of lodgement till derived from basalt, sandstone, and shale. The slope ranges from 3 to 8 percent and the runoff class is medium. The depth to a restrictive feature is 20 to 40 inches to densic material. The drainage class is well drained. The slowest permeability within 60 inches is about 0.00 in/hr (very slow), with about 4.3 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 24 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 2e

Typical Profile: 0 to 3 inches; loam 3 to 13 inches; loam 13 to 27 inches; gravelly loam 27 to 65 inches; gravelly loam

Urban Land

Urban land is land mostly covered by streets, parking lots, buildings, and other structures of urban areas. The slope ranges from 3 to 8 percent and the runoff class is very high. The Nonirrigated Land Capability Class is 8



State of Connecticut

Map Unit: 306 - Udorthents-Urban land complex

Description Category: SOI

Udorthents-Urban Land Complex

This map unit is in the New England and Eastern New York Upland, Southern Part Connecticut Valley Major Land Resource Area. The mean annual precipitation is 32 to 50 inches (813 to 1270 millimeters) and the average annual air temperature is 45 to 55 degrees F. (7 to 13 degrees C.) This map unit is 50 percent. Udorthents soils, 35 percent Urban Land. 15 percent minor components.

Udorthents soils

This component occurs on cut (road, railroad, etc.), railroad bed, road bed, spoil pile, urban land, fill, and spoil pile landforms. The slope ranges from 0 to 25 percent and the runoff class is medium. The depth to a restrictive feature varies, but is commonly greater than 60 inches. The drainage class is typically well drained. The slowest permeability within 60 inches is about 0.00 in/hr (very slow), with about 9.0 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.4 LEP (low). The flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table is greater than 60 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 3e

Typical Profile: 0 to 5 inches; loam 5 to 21 inches; gravelly loam 21 to 80 inches; very gravelly sandy loam

Urban Land

Urban land is land mostly covered by streets, parking lots, buildings, and other structures of urban areas. The slope ranges from 0 to 35 percent and the runoff class is very high. The Nonirrigated Land Capability Class is 8

