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STORRS CENTER
SPECIAL DESIGN DISTRICT
MASTER STORMWATER DRAINAGE STUDY
PURSUANT TO MANSFIELD ZONING REGULATIONS
ARTICLE X, SECTION T.3.c (iv)

(ABRIDGED)

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INTRODUCTION

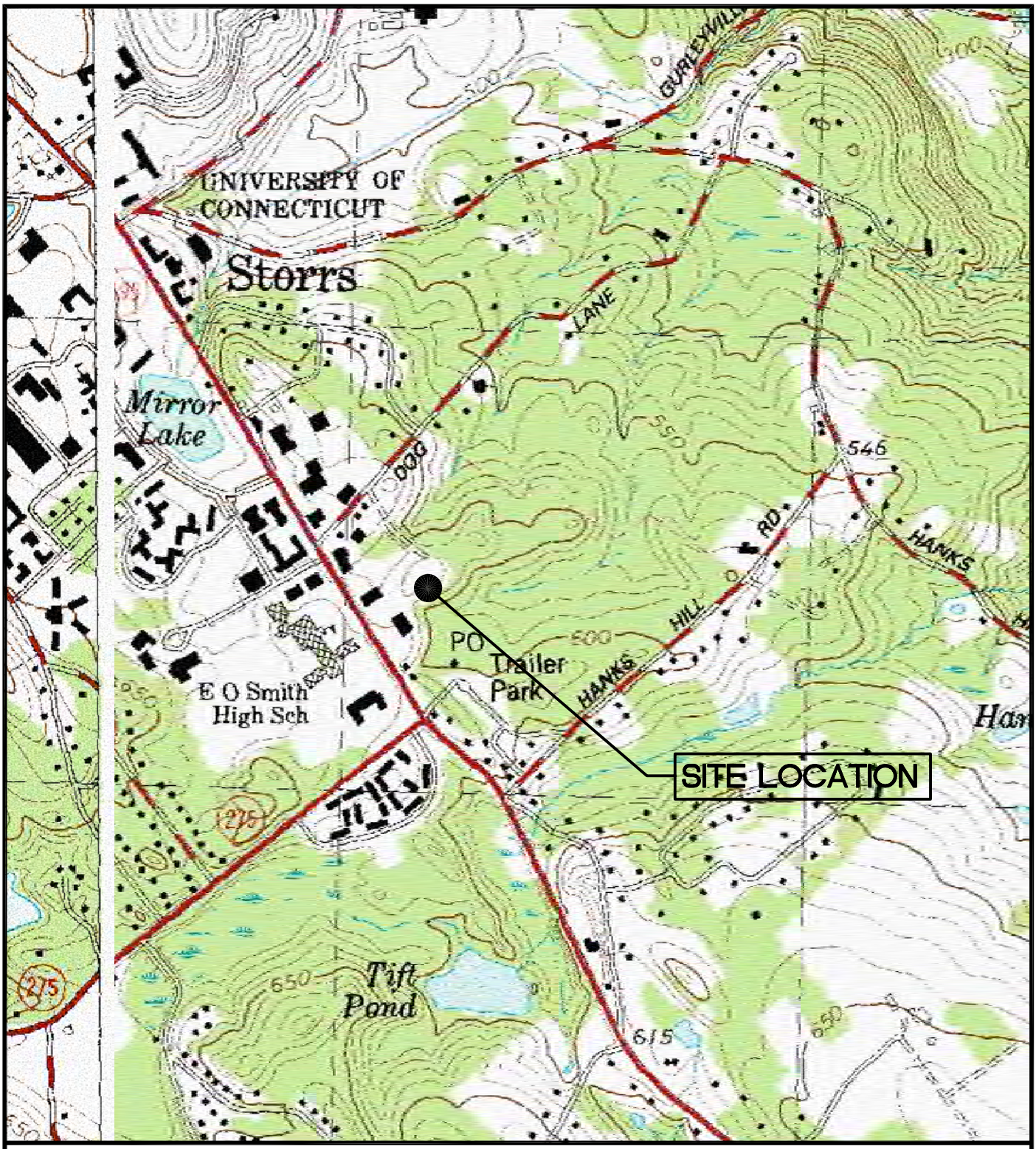
Storrs Center is a proposed commercial/retail development on approximately 47.727-acres located on Storrs Road in Mansfield, Connecticut. This Draft Master Stormwater Drainage Study was developed in conjunction with Preliminary Master Planning for the Storrs Center site. Included in this report are discussions of the existing drainage patterns and natural features on site and of conceptual postdevelopment stormwater management for the site. The goals of the drainage study were to determine how stormwater will be managed under the developed condition while minimizing disturbance and without causing undo impacts to existing natural features, such as wetlands and vernal pools. This preliminary analysis discusses the proposed water quality and water quantity treatment BMPs proposed for the site, includes an analysis of predevelopment peak flows, an analysis of estimated postdevelopment peak flows and an estimate of the amount of stormwater storage necessary to maintain peak flows.

PROJECT NARRATIVE

Storrs Center is a proposed commercial/retail and residential project to be constructed on a 47.727-acre parcel located on Storrs Road in Mansfield, CT. The project is 25.1% redevelopment (12.0-acres) of existing strip malls, office buildings, and parking lots, 16.9% proposed new development (8.06-acres) concentrated in a compact, New Urbanist village, and 58% (27.667-acres) of forests and wetlands to be dedicated as an open space conservation area. The conservation area adjoins (and is ecologically contiguous with) the protected land holdings of the Joshua Trust. The design of Storrs Center was arrived at by first studying the ecology and hydrology of the site, and then fashioning a development that is in harmony with the natural features of the site.

The site is bounded to the northwest by existing commercial development and an existing church. Southwest of the site is the existing Post Office Drive, and undeveloped land is northeast and southeast of the site. The majority of the site is undeveloped, excepting existing retail and commercial properties along Dog Lane and Storrs Road. The undeveloped portions of the property include the central and eastern portions, which are wooded with 2 watercourses, a vernal pool and an intermittent watercourse. Both watercourses flow from southwest to northeast across the site, with the headwaters for both watercourses near the existing developed corridor along Storrs Road. Figure 1 shows the site location overlaid on the Spring Hill USGS 7.5 Minute Topographic Quadrangle, while Figure 2 shows the site location overlaid on the Spring Hill USGS Digital Orthophoto Quarter Quadrangle.

Topography on the site ranges from approximately 560-feet in the northwest corner of the property to the approximately 628-feet near the intersection of Post Office Road and Storrs Road at the southern property corner. Soils, taken from the NRCS Soil Survey Geographic (SSURGO) Database for Connecticut, 2005, are shown on Figure 3. Table 1 summarizes the Map Symbols and Map Unit Names, along with each soil type's associated Hydrologic Soil Groups, from the NRCS Soil Survey. Soil reports from the NRCS Soil Survey Geographic (SSURGA) Database detailing other soil properties such as erodibility, permeability, depth, texture and soil structure can be found in Appendix A.



Base map is a reproduction of the U.S.G.S. 7.5 Minute Topographics
Quadrangle of Spring Hill, Connecticut
SCALE: 1" = 1000 FT

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FIGURE 1: SITE LOCATION MAP

STORRS CENTER
STORRS ROAD (CT ROUTE 195)
MANSFIELD, TOLLAND COUNTY, CONNECTICUT

Project No. 03C667
Date 11/03/06

Base map is a reproduction of the U.S.G.S. Digital Orthophoto Quarter Quadrangle
of Spring Hill, Northwest and Southwest Quadrangles, Connecticut
SCALE: 1" = 1000 FT

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FIGURE 2: SITE AERIAL PHOTO

STORRS CENTER
STORRS ROAD (CT ROUTE 195)
MANSFIELD, TOLLAND COUNTY, CONNECTICUT

Project No. 03C667
Date 11/03/06

Base map is a reproduction of the U.S.G.S. Digital Orthophoto Quarter Quadrangle of Spring Hill, Northwest and Southwest Quadrangles, Connecticut

Soils delineation are reproduced from the NRCS Soil Survey Geographic (SSURGO) Database for Connecticut

SCALE: 1" = 1000 FT

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FIGURE 3: NRCS SOIL SURVEY MAP

STORRS CENTER

STORRS ROAD (CT ROUTE 195)

MANSFIELD, TOLLAND COUNTY, CONNECTICUT

Project No. 03C667

Date 11/03/06

The Preliminary Master Plan for the development clusters most of the proposed development along the existing developed corridor along Storrs Road. The intersection of Dog Lane and Storrs Road is reconfigured to improve the geometry of the intersection and develop the entrance green opposite E. O. Smith High School. Various sidewalk, streetscape, and landscaped median island islands are shown along Storrs Road for traffic calming and pedestrian safety. Most of the eastern portion of the site will be undeveloped open space that encompasses both the Northern and Southern wetland corridors, the large vernal pool, and woodlands that are ecologically contiguous with the Joshua's Trust Open Space tract.

Table 1
Soils Data

Map Symbol	Hydrologic Soil Group	Map Unit Name	Slope (percent)
3	D	Ridgebury, Leicester, and Whitman soils, extremely stony	-
17	D	Timakwa and Natchaug soils	-
18	D	Catden and Freetown soils	-
45B	C	Woodbridge fine sandy loam	3-8 %
47C	C	Woodbridge fine sandy loam, extremely stony	2-15 %
51B	B	Sutton fine sandy loam, very stony	2-8 %
59C	A	Gloucester gravelly sandy loam, extremely stony	3-15 %
61C	B	Canton and Charlton soils, very stony	8-15 %
62D	B	Canton and Charlton soils, extremely stony	15-35%
73C	B	Charlton-Chatfield complex, very rocky	3-15%
84B	C	Paxton and Montauk fine sandy loams	3-8%
85C	C	Paxton and Montauk fine sandy loams, very stony	8-15%
306	C	Udorthents-Urban land complex	-

There are no floodplains on the site according to FEMA FIRM 090128 0005C and 090128 0010C for the Town of Mansfield, Tolland County, Connecticut (Appendix A). Wetlands are present on-site adjacent to the two watercourses and the vernal pool. There is a central ridge that creates a divide between the two watercourses, with the vernal pool located on the top of the ridge at the northeast portion of the property. The outlet to the vernal pool is an intermittent watercourse that flows north down the hill to the northern watercourse near the swamp and northeast property line. Along all wetlands, a minimum 50-foot buffer, which will remain undisturbed, is incorporated into the Preliminary Master Plan for the site.

The northern watercourse extends approximately 1200 linear feet (LF) in a northeasterly direction across the site. The corridor along the watercourse is wooded and the watercourse has a relatively steep slope of approximately 4-percent. This watercourse receives road sand and trash from the commercial businesses along Dog Lane and Storrs Road, which is

transported down the watercourse due to the relatively steep and narrow channel. Most of the trash and road sand is trapped in the wetland immediately behind the commercial development. This wetland consists of the upper 200-LF of the watercourse, which is bounded by an existing road under which a 24-inch reinforced concrete pipe (RCP) regulating flows from the wetland crosses. The channel meanders within a 35- to 50-foot wide wetland corridor, eventually becoming a well-defined channel near the northeast property boundary. Beyond the northeast property boundary the watercourse flows northeasterly for approximately 2900-feet before its confluence with the southern watercourse.

The southern watercourse extends approximately 1180-LF to the eastern property boundary. Its corridor is also wooded and is forked near the Post Office, with a shallower 2.3-percent slope and a wider wetland corridor typically ranging from 120- to 200-feet. Gravel from an adjacent gravel Town parking lot is eroding into adjoining offsite wetlands. Road sand and runoff from the Post Office parking lot is also being piped into the western branch of the south watercourse. Additionally, a lot of trash and debris is entering the southern watercourse from the commercial parking lots above. Beyond the property boundary, the southern watercourse flows generally easterly for approximately 2300-feet before its confluence with the northern watercourse.

The combined, unnamed watercourse flows approximately 3000-feet further east to its confluence with the Fenton River. The Fenton River is part of the Thames River Basin and the watercourses are located within CTDEP Basin Number 3207-13-1. The watercourses are also part of the Willimantic Water Department's public water supply watershed.

Ground water flow is expected to mirror the topography of the site and flow from the upland areas to the northeast, and east. The central ridge running approximately east to west through the site creates a drainage divide through the center of the site, isolating ground water flow in the two basins. According to boring information summarized in a 2003 report by Haley & Aldrich (H&A), the depth to ground water near the wetlands is approximately 2-3 feet below ground surface. H&A encountered ground water in three borings B101, B104 and B106, where the depth to water in these borings varied from 7 to 18.5 feet below ground surface. Excerpts from the 2003 Haley & Aldrich report are included in Appendix A.

The majority of the site drains to the two watercourses. There is a high point within Storrs Road that directs runoff from the remainder of the site either south or north along Storrs Road. Areas along Storrs Road closest to Dog Lane drain northwest to Mirror Lake, while areas along Storrs Road near Post Office Road drain southeast towards an off-site watercourse located south of Hanks Hill Road. Mirror Lake and its tributary areas are identified as CTDEP Basin 3207-12-1-L1. The areas draining to the off-site watercourse are identified as CTDEP Basin 3207-14-1. Both of these watersheds are located with the larger Fenton River Basin.

PROPOSED STORMWATER BMPS

The proposed stormwater management system for this site will incorporate a variety of Best Management Practices (BMPs) designed for water quality treatment, mitigation of proposed peak flows, groundwater recharge and stream channel protection. Given the presence of the vernal pool at the rear of the site, further consideration was given to the use of BMPs that would not create decoy vernal pools. The minimization of total disturbance and of impacts to the existing woodlands for the construction of the site was also considered.

Structured parking, rather than using extensive surface parking, to service the development is proposed in order to reduce impervious cover and allow greater flexibility in preserving existing woodlands. Storm runoff from roadways and adjacent walkways will be directed toward roadside filters incorporated with street trees to provide water quality treatment. During the water quality storm and similar small storms, runoff will enter the filters via curb inlets, where runoff will be treated through the filter. All roadway runoff not served by a roadside filter will be routed to a Vortechnics oil-grit separator to provide water quality treatment. The Vortechnics oil-grit separators were selected because field testing by the Connecticut Department of Environmental Protection and the University of Connecticut has found that they are one of the most effective products on the market for renovating stormwater, particularly in meeting the 80% Total Suspended Solids (TSS) removal standards required by Connecticut. In and around the existing Post Office, where there is currently no water quality treatment, retrofit facilities to help improve the water quality of the existing runoff will be incorporated where feasible. Retrofit water quality treatment facilities to handle stormwater from the existing commercial/retail properties to remain (Map 16, Block 41, Lots 14 and 15) will also be incorporated.

The clean storm runoff will then be discharged to a combination of underground detention systems beneath the proposed roadways and surface detention in the rear of the site closest to the existing wetlands to provide peak flow attenuation. The detention systems will temporarily store runoff, allowing for groundwater recharge where possible, and gradually discharge the remainder of the runoff to the two watercourses via metered outlets. This metered outflow will protect the watercourses from increased flow rates, increased velocities and associated streambank erosion. Underground detention facilities include StormTrap-type underground storage vaults, which will incorporate infiltration through the bottom of the facilities, where conditions permit. Surface detention facilities include filter basins, shallow areas of temporary detention or "wet meadows", and dry detention facilities. All BMPs will incorporate design criteria presented in the CTDEP's 2004 Water Quality Manual. Specific design criteria anticipated for each BMP are listed below, with additional information and sample construction details included in Appendix B.

<u>Filter Basin</u>

- Primarily provides detention (peak flow attenuation) during larger storms.
- Pretreatment provided upstream by roadside tree box filters and sedimentation structures.
- Drains in 24 hours.
- Underdrain collection system to ensure the system fully drains within 24 hours.
- Average depth 3 to 5 feet.

- Outlet is a riser pipe surrounded by sand/stone; discharges to small culvert with a stilling basin at downstream end.
- Stone wall may form part of down slope berm.

Wet Meadow/Dry Detention

- Primarily provides detention (peak flow attenuation) during larger storms.
- Pretreatment provided upstream by roadside tree box filters and sedimentation structures.
- Drains in 24 hours.
- Average depth 2-feet.
- "Leaky" stone berm-type outlet.

StormTrap-type Underground Detention

- Primarily provides detention (peak flow attenuation) during larger storms.
- Pretreatment provided upstream by roadside tree box filters and sedimentation structures.
- Detention times between 24 and 48 hours (underground facility).
- Where soils conditions permit, infiltration may be incorporated through bottom of facility to provide groundwater recharge.
- Conventional staged outlet; multiple orifices discharge to a culvert.
- Systems will be routed to a Filter Basin or Wet Meadow, where possible. If not possible, outlet will be routed to a stilling basin or other appropriate velocity-reducing type outlet.

Dry Swale/Filter Trench

- Provides water quality treatment during small storms; during larger storms provides conveyance of runoff to a detention facility.
- Pretreatment provided upstream by roadside tree box filters and sedimentation structures.
- Perforated pipe set in stone below bottom of swale.
- During low flows, water will be filtered by trench and during higher flow; swale will convey water to downstream facility for detention.

Roadside Tree Box Filter

- Provides water quality treatment of roadway runoff.
- Underdrain collection system to convey treated water to downstream detention facility.
- Some infiltration (and groundwater recharge) may occur through the bottom of the system.
- Underdrain collection system will ensure the system fully drains.

Green Roof-Type Treatment

- May be used at rooftop of Marketplace parking garage to provide green space amongst proposed storefronts.
- Can be designed to provide water quality treatment
- Can also be designed to provide some runoff volume reduction (depends on type of green roof chosen).
- Surplus runoff is routed to a downstream detention facility.

The utilities infrastructure, including stormwater facilities and conveyance systems, will be completed in two phases as shown in the Storrs Center Phasing Map (ZC.10 dated 10/31/06). Generally, all necessary infrastructure improvements in the northern portions of the site will be constructed as part of Phase I. All remaining infrastructure improvements in the southern portions of the site will be constructed as part of Phase II.

CALCULATIONS AND METHODOLOGY

Runoff rates are computed fro the 2-, 10-, 25-, 50- and 100-year 24-hours frequency rainfall events. Pre- and post-development flows are computed using the SCS Runoff Curve Number Method as presented in Technical Release 55 (TR-55), Urban Hydrology for Small Watersheds, USDA, SCS, 2nd Edition, June 1986, and further described in detail in Part 4 of the National Engineering Handbook (NEH-4), SCS 1985. Curve numbers are taken from Tables 2-2a and 2-2b of the TR-55 manual. A Type III storm distribution with an average antecedent moisture condition is used and the rainfall depths associated with the design storms are presented in Table 2. Times of concentrations are calculated using methods presented in Chapter 3 of the TR-55 Manual. Peak flows are calculated using the software package HydroCAD, Version 7.10. All predevelopment calculations can be found in Appendix C and all postdevelopment calculations can be found in Appendix D. Maps showing predevelopment and postdevelopment drainage areas are included in Appendix F.

Table 2
Rainfall

Return Period	24-hr Rainfall Depth
2-year	3.20 inches
10-year	4.80 inches
25-year	5.50 inches
50-year	6.20 inches
100-year	6.90 inches

Predevelopment Hydrologic Conditions

Under existing conditions, the site has four distinct discharge points: to the south along Storrs Road ('A' subwatersheds); to the existing watercourse located in the southern portion of the site ('B' subwatersheds); to the existing watercourse located in the northern part of the site ('C' subwatershed); and to the north along Storrs Road, eventually discharging to Mirror Lake ('D' subwatersheds). Characteristics for each drainage area are summarized in Table 3

and peak flows for all analyzed storms are summarized in Table 4. All calculation details may be found in Appendix C and a predevelopment drainage area map is included in Appendix F.

Table 3
Predevelopment Drainage Area Characteristics

Subwatershed ID	Area (acres)	Composite Curve Number (CN)	Time of Concentration (minutes)
A1	1.100	92	5.0
B1	8.166	76	14.0
B2	2.013	83	13.2
B3	0.367	92	5.0
B4	2.171	83	19.9
B5	9.892	64	19.2
C1	1.960	94	7.3
C2	2.881	90	5.9
C3	3.622	74	7.3
C4	6.389	65	13.3
D1	8.471	90	8.6

Table 4
Predevelopment Peak Flows

Subwatershed ID	Peak Flow (cfs)				
	2-year	10-year	25-year	50-year	100-year
A – South on Storrs Road	3.07	4.95	5.77	6.58	7.39
B – Southern Watercourse	12.65	30.43	39.35	48.70	58.20
C – Northern Watercourse	16.48	30.21	35.47	40.52	45.45
D – North on Storrs Road	19.50	32.41	38.03	43.62	49.20

Postdevelopment Hydrologic Conditions

Preliminary postdevelopment drainage areas are delineated based on the Preliminary Master Plan for the site. Curve numbers, times of concentration and peak flows are also estimated for all design storms. Generally, areas of development will be impervious and the watersheds are expected to have rapid response times. Characteristics for each drainage area are summarized in Table 5 and peak flows for all analyzed storms are summarized in Table 6. All calculation details may be found in Appendix D and a predevelopment drainage area map is included in Appendix F.

Based on the preliminary postdevelopment hydrographs, as anticipated, peak flow attenuation will be necessary for peak flows to the two existing watercourses on site. No peak flow attenuation is necessary for areas draining north along Storrs Road (Subwatershed D); however, some attenuation may be necessary for areas draining south along Storrs Road (Subwatershed A). During the comprehensive design phase of the project, additional investigation will be necessary to determine whether further runoff from Storrs Road can be captured and conveyed to the proposed storage systems in the interior of the site, or whether there is sufficient conveyance capacity downstream for the small increase in peak flows (+1.60-cfs during the 100-year storm). One of the goals of the comprehensive stormwater management plan, upon completion of the comprehensive design phase of the project, is to have zero increase in peak flows from the site.

Table 5
Estimated Postdevelopment Drainage Area Characteristics

Subwatershed ID	Area (acres)	Composite Curve Number (CN)	Time of Concentration (minutes)
PA1	1.282	98	5.0
PB1	3.471	81	19.2
PB2	1.620	98	5.0
PB3	0.572	98	5.0
PB4	2.235	87	5.0
PB5	6.044	69	18.1
PB6	3.156	84	5.0
PB7	2.285	95	5.0
PB8	0.558	86	5.0
PB9	0.625	98	5.0
PB10	2.494	98	5.0
PC1	5.747	98	5.0
PC2	2.487	98	5.0
PC3	2.319	90	5.0
PC4	4.556	68	11.2
PD1	7.577	98	8.6

Table 6
Estimated Postdevelopment Peak Flows (Without Detention)

Subwatershed ID	Peak Flow (cfs)				
	2-year	10-year	25-year	50-year	100-year
A – South on Storrs Road	4.13	6.23	7.15	8.07	8.99
B – Southern Watercourse	40.75	68.57	81.05	93.63	106.29
C – Northern Watercourse	34.21	55.28	64.71	74.24	83.84
D – North on Storrs Road	21.58	32.61	37.43	42.23	47.04

Using the estimated postdevelopment hydrographs, the necessary storage for attenuation of the postdevelopment peak flows to predevelopment levels was estimated using three methods. The first method, labeled "Method 1 – Volume Differences" (Appendix E), compares the estimated proposed runoff volume to the existing runoff volume to estimate the necessary storage. The second method, labeled "Method 2 – Flow Differences" (Appendix E), compares the estimated proposed runoff hydrograph to the existing runoff hydrograph on a time increment basis to estimate the necessary storage. The third method, labeled "Method 3 – TR-55 Estimate" (Appendix E), is based on procedures presented in Chapter 6 of the previously referenced TR-55 manual (1986). This method uses the

relationship between the peak outflow to peak inflow discharge ratio and the storage volume to runoff volume ratio to estimate the necessary storage. These methods are applied to the hydrographs for Subwatersheds B and C to estimate the necessary total storage needed to maintain predevelopment peak flow rates from the site. The average result of the three methods estimates approximately 4.85-acre-feet of storage may be necessary for peak flow attenuation as a result of development. The current Preliminary Master Plan for Storrs Center incorporates approximately 5.05 ± acre-feet of storage, which more than satisfies the amount of storage needed for the proposed development plan. Detailed calculations, including exact storage facility calculations, will be completed during the comprehensive design phase of the project. A Conceptual Stormwater BMP Plan showing BMPs and storage locations is included in Appendix F.

Typical water quality volume (WQV) calculations for a roadside tree filter and a stormwater filter trench and a typical water quality flow (WQF) calculation for a Vortechnics-type unit are presented in Appendix D.

Preliminary groundwater recharge volume (GRV) calculations indicate a minimum of approximately 0.225-acre-feet (9,801 cubic feet) of groundwater recharge will need to be mitigated as a result of this project. Infiltration, to maintain predevelopment groundwater recharge levels, will be provided through the bottom of the underground storage facilities, roadside tree box filters and dry detention facilities, where conditions permit. The GRV calculation is included in Appendix D.

SUMMARY AND CONCLUSIONS

The goals of the Draft Master Stormwater Drainage Study are to study the existing site and to determine how stormwater will be managed under the developed condition, while minimizing impacts to the existing natural features on site. Retrofit water quality treatment BMPs to treat the runoff from areas near the existing Post Office and from the existing commercial/retail properties to remain will also be incorporated. Also as a result of this development, redeveloped areas that previously had no BMPs are now incorporated into the stormwater management plan for the site. It is anticipated that the water quality of the runoff ultimately entering the adjacent wetlands will be improved over existing conditions.

Based on the preliminary analyses included in this report, an estimated storage of approximately 4.85-acre-feet may be necessary to maintain predevelopment peak flows from the site. In addition to peak flow attenuation, water quality treatment will be provided by a variety of BMPs. All BMPs will incorporate infiltration, where feasible, to maintain predevelopment groundwater recharge levels. It may be possible to infiltrate volumes for groundwater recharge in excess of the calculated minimum GRV criteria. The BMPs chosen for the site will be designed according to the CTDEP 2004 Water Quality Manual.

APPENDIX A
SUPPLEMENTAL INFORMATION

Soil Reports from NRCS Soil Survey Geographic Database (SSURGO), Connecticut, 2005
FEMA FIRM Town of Mansfield, Tolland County, Connecticut Panels 090128 0005C and 090128 0010C
Report Excerpts from "Storrs Center Development, Storrs, Connecticut," by Haley & Aldrich, dated October 2, 2003
Table 2-2, Technical Release 55 (TR-55), Urban Hydrology for Small Watersheds, USDA, SCS, 2nd Ed., June 1986

Map Unit Legend

State of Connecticut

Map symbol	Map unit name
3	Ridgebury, Leicester, and Whitman soils, extremely stony
17	Timakwa and Natchaug soils
18	Catden and Freetown soils
45B	Woodbridge fine sandy loam, 3 to 8 percent slopes
47C	Woodbridge fine sandy loam, 2 to 15 percent slopes, extremely stony
51B	Sutton fine sandy loam, 2 to 8 percent slopes, very stony
59C	Gloucester gravelly sandy loam, 3 to 15 percent slopes, extremely stony
61C	Canton and Charlton soils, 8 to 15 percent slopes, very stony
62D	Canton and Charlton soils, 15 to 35 percent slopes, extremely stony
73C	Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky
84B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes
85C	Paxton and Montauk fine sandy loams, 8 to 15 percent slopes, very stony
306	Udorthents-Urban land complex

Map Unit Text

State of Connecticut

[Only those mapunits that have entries for the selected text kinds and categories are included in this report]

Map unit: 3 - Ridgebury, Leicester, and Whitman soils, extremely stony

Text kind/Category: Nontechnical description/SOI

Ridgebury, Leicester And Whitman Soils, 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 50 inches (940 to 1270 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees
This map unit is 40 percent Ridgebury soils, 35 percent Leicester soils, 15 percent Whitman soils. 10 percent minor components.

Ridgebury soils
This component occurs on upland drainageway and depression landforms. The parent material consists of lodgement till derived from granite, schist, and gneiss. The slope ranges from 0 to 5 percent and the runoff class is very low. The depth to a restrictive feature is 20 t 30 inches to densic material. The drainage class is poorly drained. The slowest permeability within 60 inches is about 0.00 in/hr (very slc with about 2.5 inches (low) 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 3 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is ab 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s
Typical Profile:
0 to 1 inches; slightly decomposed plant material
1 to 5 inches; fine sandy loam
5 to 14 inches; fine sandy loam
14 to 21 inches; fine sandy loam
21 to 60 inches; sandy loam

Leicester soils
This component occurs on upland drainageway and depression landforms. The parent material consists of melt-out till derived from grani schist, and gneiss. The slope ranges from 0 to 5 percent and the runoff class is very low. The depth to a restrictive feature is greater than 60 inches. The drainage class is poorly drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 7.4 inches (high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The floodin frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 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 7s
Typical Profile:
0 to 1 inches; moderately decomposed plant material
1 to 7 inches; fine sandy loam
7 to 10 inches; fine sandy loam
10 to 18 inches; fine sandy loam
18 to 24 inches; fine sandy loam
24 to 43 inches; gravelly fine sandy loam
43 to 65 inches; gravelly fine sandy loam

Whitman soils
This component occurs on upland drainageway and depression landforms. The parent material consists of lodgement till derived from gneiss, schist, and granite. The slope ranges from 0 to 2 percent and the runoff class is very low. The depth to a restrictive feature is 12 t 20 inches to densic material. The drainage class is very poorly drained. The slowest permeability within 60 inches is about 0.00 in/hr (ve slow), with about 1.9 inches (very low) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1 LEP (low). The flooding frequency for this component is none. The ponding hazard is occasional. The minimum depth to a seasonal wate table, when present, is about 0 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in an layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 7s
Typical Profile:
0 to 1 inches; slightly decomposed plant material
1 to 9 inches; fine sandy loam
9 to 16 inches; fine sandy loam
16 to 22 inches; fine sandy loam
22 to 60 inches; fine sandy loam

Map Unit Text

State of Connecticut

Map unit: 17 - Timakwa and Natchaug soils

Text kind/Category: Nontechnical description/SOI

Timakwa And Natchaug Soils
This map unit is in the New England and Eastern New York Upland, Southern Part 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 45 percent Timakwa soils, 40 percent Natchaug soils. 15 percent minor components.

Timakwa soils
This component occurs on depression landforms. The parent material consists of woody organic material over sandy and gravelly glaciofluvial deposits. The slope ranges from 0 to 2 percent and the runoff class is negligible. The depth to a restrictive feature is greater than 60 inches. The drainage class is very poorly drained. The slowest permeability within 60 inches is about 5.95 in/hr (rapid), with abou 16.2 inches (very high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 3.9 LEP (moderate). The flooding frequency for this component is rare. The ponding hazard is frequent. The minimum depth to a seasonal water table, when present, is about 4 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in an layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 5w
Typical Profile:
0 to 10 inches; muck
10 to 21 inches; muck
21 to 24 inches; muck
24 to 37 inches; muck
37 to 47 inches; very gravelly loamy coarse sand
47 to 60 inches; gravelly loamy very fine sand

Natchaug soils
This component occurs on depression landforms. The parent material consists of woody organic material over loamy alluvium, loamy glaciofluvial deposits, or loamy till. The slope ranges from 0 to 2 percent and the runoff class is negligible. The depth to a restrictive featu is greater than 60 inches. The drainage class is very poorly drained. The slowest permeability within 60 inches is about 0.20 in/hr (moderately slow), with about 15.6 inches (very high) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 3.9 LEP (moderate). The flooding frequency for this component is rare. The ponding hazard is frequent. The minimum dep to a seasonal water table, when present, is about 0 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 5w
Typical Profile:
0 to 2 inches; peat
2 to 4 inches; peat
4 to 6 inches; muck
6 to 11 inches; muck
11 to 18 inches; muck
18 to 24 inches; muck
24 to 33 inches; fine sandy loam
33 to 36 inches; fine sandy loam
36 to 80 inches; loam

Map Unit Text

State of Connecticut

Map unit: 18 - Catden and Freetown soils

Text kind/Category: Nontechnical description/SOI

Catden And Freetown Soils
This map unit is in the New England and Eastern New York Upland, Southern Part Major Land Resource Area. The mean annual precipitation is 32 to 47 inches (813 to 1194 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees
This map unit is 40 percent Catden soils, 40 percent Freetown soils. 20 percent minor components.

Catden soils
This component occurs on depression landforms. The parent material consists of woody and herbaceous organic material. The slope ranges from 0 to 2 percent and the runoff class is negligible. The depth to a restrictive feature is greater than 60 inches. The drainage cl is very poorly drained. The available water capacity is about 24.4 inches (very high). The weighted average shrink-swell potential in 10 to inches is about 10.0 LEP (very high). The flooding frequency for this component is rare. The ponding hazard is frequent. The minimum depth to a seasonal water table, when present, is about 0 inches. The maximum calcium carbonate within 40 inches is none. The maxim amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 5w
Typical Profile:
0 to 2 inches; muck
2 to 18 inches; muck
18 to 47 inches; muck
47 to 49 inches; muck
49 to 61 inches; muck

Freetown soils
This component occurs on depression landforms. The parent material consists of woody and herbaceous organic material. The slope ranges from 0 to 2 percent and the runoff class is negligible. The depth to a restrictive feature is greater than 60 inches. The drainage cl is very poorly drained. The available water capacity is about 33.1 inches (very high). The weighted average shrink-swell potential in 10 to inches is about 10.0 LEP (very high). The flooding frequency for this component is rare. The ponding hazard is frequent. The minimum depth to a seasonal water table, when present, is about 0 inches. The maximum calcium carbonate within 40 inches is none. The maxim amount of salinity in any layer is about 0 mmhos/cm (nonsaline). The Nonirrigated Land Capability Class is 5w
Typical Profile:
0 to 4 inches; peat
4 to 10 inches; peat
10 to 22 inches; muck
22 to 35 inches; muck
35 to 41 inches; muck
41 to 55 inches; muck
55 to 71 inches; muck
71 to 91 inches; muck

Map Unit Text

State of Connecticut

Map unit: 45B - Woodbridge fine sandy loam, 3 to 8 percent slopes

Text kind/Category: Nontechnical description/SOI

Woodbridge Fine Sandy Loam, 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 37 to 49 inches (940 to 1244 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees
This map unit is 80 percent Woodbridge soils. 20 percent minor components.

Woodbridge soils
This component occurs on upland drumlin and hill landforms. The parent material consists of lodgement till derived from schist, granite, gneiss. 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 dens material. The drainage class is moderately well drained. The slowest permeability within 60 inches is about 0.00 in/hr (very slow), with ab 3.9 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). Th flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, 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 2w
Typical Profile:
0 to 7 inches; fine sandy loam
7 to 18 inches; fine sandy loam
18 to 26 inches; fine sandy loam
26 to 30 inches; fine sandy loam
30 to 43 inches; gravelly fine sandy loam
43 to 65 inches; gravelly fine sandy loam

Map unit: 47C - Woodbridge fine sandy loam, 2 to 15 percent slopes, extremely stony

Text kind/Category: Nontechnical description/SOI

Woodbridge Fine Sandy Loam, 2 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
This map unit is 80 percent Woodbridge soils. 20 percent minor components.

Woodbridge soils
This component occurs on upland drumlin and hill landforms. The parent material consists of lodgement till derived from schist, granite, gneiss. The slope ranges from 2 to 15 percent and the runoff class is medium. The depth to a restrictive feature is 20 to 40 inches to den material. The drainage class is moderately well drained. The slowest permeability within 60 inches is about 0.00 in/hr (very slow), with ab 3.9 inches (moderate) available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). Th flooding frequency for this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, 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 7s
Typical Profile:
0 to 7 inches; fine sandy loam
7 to 18 inches; fine sandy loam
18 to 26 inches; fine sandy loam
26 to 30 inches; fine sandy loam
30 to 43 inches; gravelly fine sandy loam
43 to 65 inches; gravelly fine sandy loam

Map Unit Text

State of Connecticut

Map unit: 51B - Sutton fine sandy loam, 2 to 8 percent slopes, very stony

Text kind/Category: Nontechnical description/SOI

Sutton Fine Sandy Loam, 2 To 8 Percent Slopes, Very 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
This map unit is 80 percent Sutton soils. 20 percent minor components.

Sutton soils
This component occurs on upland hill landforms. The parent material consists of melt-out till derived from granite, gneiss, and schist. Th slope ranges from 2 to 8 percent and the runoff class is very low. The depth to a restrictive feature is greater than 60 inches. The drainag class is moderately well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 7.3 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 fo this component is none. The ponding hazard is none. The minimum depth to a seasonal water table, when present, is about 24 inches. Tl maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cm (nonsaline). T Nonirrigated Land Capability Class is 6s
Typical Profile:
0 to 1 inches; moderately decomposed plant material
1 to 6 inches; fine sandy loam
6 to 12 inches; fine sandy loam
12 to 24 inches; fine sandy loam
24 to 28 inches; fine sandy loam
28 to 36 inches; gravelly fine sandy loam
36 to 65 inches; gravelly sandy loam

Map unit: 59C - Gloucester gravelly sandy loam, 3 to 15 percent slopes, extremely stony

Text kind/Category: Nontechnical description/SOI

Gloucester Gravelly Sandy Loam, 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 35 to 50 inches (889 to 1270 millimeters) and the average annual air temperature is 45 to 50 degrees F. (7 to 10 degrees
This map unit is 80 percent Gloucester soils. 20 percent minor components.

Gloucester soils
This component occurs on upland hill landforms. The parent material consists of sandy and gravelly melt-out till derived from schist, grar 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 somewhat excessively drained. The slowest permeability within 60 inches is about 5.95 in/hr (rapid), with about 3.(inches (low) 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 greate than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/c (nonsaline). The Nonirrigated Land Capability Class is 7s
Typical Profile:
0 to 4 inches; gravelly sandy loam
4 to 12 inches; gravelly sandy loam
12 to 25 inches; very gravelly loamy sand
25 to 35 inches; very gravelly loamy coarse sand
35 to 60 inches; very gravelly loamy coarse sand

Map Unit Text

State of Connecticut

Map unit: 61C - Canton and Charlton soils, 8 to 15 percent slopes, very stony

Text kind/Category: Nontechnical description/SOI

Canton And Charlton Soils, 8 To 15 Percent Slopes, Very 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
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. Th slope ranges from 8 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) availa 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). T
Nonirrigated Land Capability Class is 6s
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. Th slope ranges from 8 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 wat capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this componer 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 6s
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

Map Unit Text

State of Connecticut

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

Text kind/Category: Nontechnical description/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
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. Th 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 (hi available water capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency fo 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 (nonsalin
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. Th 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 fo 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 (nonsalin
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

Map Unit Text

State of Connecticut

Map unit: 73C - Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky

Text kind/Category: Nontechnical description/SOI

Charlton-Chatfield Complex, 3 To 15 Percent Slopes, Very Rocky
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 (
This map unit is 45 percent Charlton soils, 30 percent Chatfield soils. 25 percent minor components.

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 wat capacity. The weighted average shrink-swell potential in 10 to 60 inches is about 1.5 LEP (low). The flooding frequency for this componer 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 6s
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

Chatfield soils
This component occurs on upland hill and ridge landforms. The parent material consists of melt-out till derived from gneiss, granite, and schist. The slope ranges from 3 to 15 percent and the runoff class is low. The depth to a restrictive feature is 20 to 40 inches to bedrock (lithic). The drainage class is well drained. The slowest permeability within 60 inches is about 0.57 in/hr (moderate), with about 3.3 inche (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 greate than 6 feet. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/cr (nonsaline). The Nonirrigated Land Capability Class is 6s
Typical Profile:
0 to 1 inches; highly decomposed plant material
1 to 6 inches; gravelly fine sandy loam
6 to 15 inches; gravelly fine sandy loam
15 to 29 inches; gravelly fine sandy loam
29 to 36 inches; unweathered bedrock

Map Unit Text

State of Connecticut

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

Text kind/Category: Nontechnical description/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
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, 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 densi 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 incl (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 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 a 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 incl (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 Text

State of Connecticut

Map unit: 85C - Paxton and Montauk fine sandy loams, 8 to 15 percent slopes, very stony

Text kind/Category: Nontechnical description/SOI

Paxton And Montauk Fine Sandy Loams, 8 To 15 Percent Slopes, Very 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 35 to 56 inches (889 to 1422 millimeters) and the average annual air temperature is 45 to 52 degrees F. (7 to 11 degrees (
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, schist. The slope ranges from 8 to 15 percent and the runoff class is medium. The depth to a restrictive feature is 20 to 40 inches to dens 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 incl (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/cn (nonsaline). The Nonirrigated Land Capability Class is 6s
Typical Profile:
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 ai gneiss. The slope ranges from 8 to 15 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 incl (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/cn (nonsaline). The Nonirrigated Land Capability Class is 6s
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 Text

State of Connecticut

Map unit: 306 - Udorthents-Urban land complex

Text kind/Category: Nontechnical description/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 t 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 slop 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 abou 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 tha 60 inches. The maximum calcium carbonate within 40 inches is none. The maximum amount of salinity in any layer is about 0 mmhos/c (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

Physical Soil Properties

State of Connecticut

[Entries under "Erosion Factors--T" apply to the entire profile. Entries under "Wind Erodibility Group" and "Wind Erodibility Index" apply only to the surface layer. Absence of an entry indicates that data were not estimated. This report shows only the major soils in each map unit]

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors			Wind erodi-bility group	Wind erodi-bility index
										Kw	Kf	T		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
3:														
Ridgebury	0-1	0	0	0	0.33-0.55	4.00-42.00	0.08-0.45	---	55-70	---	---	3	5	56
	1-5	55-72	25-35	3-10	1.30-1.50	4.00-42.00	0.12-0.14	0.0-2.9	4.0-7.0	.15	.20			
	5-14	47-70	28-45	2-8	1.50-1.90	4.00-42.00	0.10-0.14	0.0-2.9	0.0-1.0	.28	.43			
	14-21	47-70	28-45	2-8	1.60-1.90	4.00-42.00	0.10-0.14	0.0-2.9	0.0-1.0	.28	.43			
	21-60	47-70	28-45	2-8	1.80-2.00	0.01-1.40	0.05-0.10	0.0-2.9	0.0-0.5	.28	.43			
Leicester	0-1	0	0	0	0.30-0.55	42.00-141.00	0.08-0.40	0.0-20.0	45-95	---	---	5	6	48
	1-7	55-70	27-35	3-10	1.00-1.25	4.00-42.00	0.12-0.14	0.0-2.9	3.0-8.0	.10	.24			
	7-10	45-67	30-45	3-10	1.35-1.60	4.00-42.00	0.08-0.17	0.0-2.9	0.5-2.0	.32	.49			
	10-18	45-67	30-45	3-10	1.35-1.60	4.00-42.00	0.08-0.17	0.0-2.9	0.0-1.0	.37	.55			
	18-24	45-67	30-45	3-10	1.35-1.60	4.00-42.00	0.08-0.17	0.0-2.9	0.0-0.5	.37	.55			
	24-43	53-68	30-40	2-7	1.45-1.70	4.00-141.00	0.07-0.14	0.0-2.9	0.0-0.5	.28	.43			
	43-65	53-68	30-40	2-7	1.45-1.70	4.00-141.00	0.05-0.14	0.0-2.9	0.0-0.5	.24	.43			
Whitman	0-1	0	0	0	0.30-0.55	141.00-703.00	0.08-0.40	0.0-20.0	20-95	---	---	2	8	0
	1-9	53-70	25-35	5-12	0.65-1.30	4.00-42.00	0.11-0.13	0.0-2.9	4.0-8.0	.15	.20			
	9-16	43-85	30-45	2-12	1.30-1.65	4.00-42.00	0.08-0.13	0.0-2.9	0.0-2.0	.28	.43			
	16-22	47-68	30-45	2-8	1.85-2.10	0.01-1.40	0.03-0.07	0.0-2.9	0.0-0.5	.37	.55			
	22-60	47-68	30-45	2-8	1.85-2.10	0.01-1.40	0.03-0.07	0.0-2.9	0.0-0.5	.37	.55			
17:														
Timakwa	0-10	0	0	0	0.30-0.55	4.00-703.00	0.35-0.45	0.0-20.0	55-75	---	---	2	8	0
	10-21	0	0	0	0.30-0.55	4.00-703.00	0.35-0.45	0.0-20.0	55-75	---	---			
	21-24	0	0	0	0.30-0.55	4.00-703.00	0.35-0.45	0.0-20.0	55-75	---	---			
	24-37	0	0	0	0.30-0.55	4.00-703.00	0.35-0.45	0.0-20.0	55-75	---	---			
	37-47	80-96	5-15	0-5	1.40-1.75	42.00-703.00	0.02-0.11	0.0-2.9	0.0-2.0	.15	.17			
	47-60	80-96	5-15	0-5	1.40-1.75	42.00-703.00	0.02-0.12	0.0-2.9	0.0-2.0	.15	.17			

Physical Soil Properties

State of Connecticut

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors			Wind erodi-bility group	Wind erodi-bility index
										Kw	Kf	T		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
17:														
Natchaug	0-2	0	0	0	0.30-0.55	4.00-703.00	0.35-0.45	0.0-20.0	55-75	---	---	2	8	0
	2-4	0	0	0	0.30-0.55	4.00-703.00	0.35-0.45	0.0-20.0	55-75	---	---			
	4-6	0	0	0	0.30-0.55	4.00-703.00	0.35-0.45	0.0-20.0	55-75	---	---			
	6-11	0	0	0	0.30-0.55	4.00-703.00	0.35-0.45	0.0-20.0	55-75	---	---			
	11-18	0	0	0	0.30-0.55	4.00-703.00	0.35-0.45	0.0-20.0	55-75	---	---			
	18-24	0	0	0	0.30-0.55	4.00-703.00	0.35-0.45	0.0-20.0	55-75	---	---			
	24-33	4-73	20-70	7-18	1.45-1.75	1.40-14.00	0.08-0.18	0.0-2.9	0.0-2.0	.37	.43			
	33-36	4-73	20-70	7-18	1.45-1.75	1.40-14.00	0.08-0.18	0.0-2.9	0.0-2.0	.37	.43			
	36-80	4-73	20-70	7-18	1.45-1.75	1.40-14.00	0.08-0.18	0.0-2.9	0.0-1.0	.37	.43			
18:														
Catden	0-2	0	0	0	0.30-0.55	4.00-42.00	0.35-0.45	0.0-20.0	55-75	---	---	3	8	0
	2-18	0	0	0	0.30-0.55	4.00-42.00	0.35-0.45	0.0-20.0	55-75	---	---			
	18-47	0	0	0	0.30-0.55	4.00-42.00	0.35-0.45	0.0-20.0	55-75	---	---			
	47-49	0	0	0	0.30-0.55	4.00-42.00	0.35-0.45	0.0-20.0	55-75	---	---			
	49-61	0	0	0	0.30-0.55	4.00-42.00	0.35-0.45	0.0-20.0	55-75	---	---			
Freetown	0-4	0	0	0	0.30-0.55	4.00-42.00	0.35-0.45	0.0-20.0	55-75	---	---	3	8	0
	4-10	0	0	0	0.30-0.55	4.00-42.00	0.35-0.45	0.0-20.0	55-75	---	---			
	10-22	0	0	0	0.30-0.55	4.00-42.00	0.35-0.45	0.0-20.0	55-75	---	---			
	22-35	0	0	0	0.30-0.55	4.00-42.00	0.35-0.45	0.0-20.0	55-75	---	---			
	35-41	0	0	0	0.30-0.55	4.00-42.00	0.35-0.45	0.0-20.0	55-75	---	---			
	41-55	0	0	0	0.30-0.55	4.00-42.00	0.35-0.45	0.0-20.0	55-75	---	---			
	55-71	0	0	0	0.30-0.55	4.00-42.00	0.35-0.45	0.0-20.0	55-75	---	---			
	71-91	0	0	0	0.30-0.55	4.00-42.00	0.35-0.45	0.0-20.0	55-75	---	---			
45B:														
Woodbridge	0-7	57-68	20-40	3-12	1.00-1.25	4.00-14.00	0.12-0.14	0.0-2.9	2.0-6.0	.17	.24	3	3	86
	7-18	48-70	27-40	3-12	1.35-1.60	4.00-14.00	0.08-0.17	0.0-2.9	1.0-3.0	.24	.37			
	18-26	48-70	27-40	3-12	1.35-1.60	4.00-14.00	0.08-0.17	0.0-2.9	0.5-1.0	.24	.37			
	26-30	48-70	27-40	3-12	1.35-1.60	4.00-14.00	0.08-0.17	0.0-2.9	0.0-0.5	.24	.37			
	30-43	48-70	27-40	3-12	1.70-2.00	0.01-1.40	0.05-0.10	0.0-2.9	0.0-0.5	.32	.43			
	43-65	48-70	27-40	3-12	1.70-2.00	0.01-1.40	0.05-0.10	0.0-2.9	0.0-0.5	.32	.43			

Physical Soil Properties

State of Connecticut

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors			Wind erodi-bility group	Wind erodi-bility index
										Kw	Kf	T		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
47C:														
Woodbridge	0-7	57-68	20-40	3-12	1.00-1.25	4.00-14.00	0.12-0.14	0.0-2.9	2.0-6.0	.10	.24	3	5	56
	7-18	48-70	27-40	3-12	1.35-1.60	4.00-14.00	0.08-0.17	0.0-2.9	1.0-3.0	.24	.37			
	18-26	48-70	27-40	3-12	1.35-1.60	4.00-14.00	0.08-0.17	0.0-2.9	0.5-1.0	.24	.37			
	26-30	48-70	27-40	3-12	1.35-1.60	4.00-14.00	0.08-0.17	0.0-2.9	0.0-0.5	.24	.37			
	30-43	48-70	27-40	3-12	1.70-2.00	0.01-1.40	0.05-0.10	0.0-2.9	0.0-0.5	.32	.43			
	43-65	48-70	27-40	3-12	1.70-2.00	0.01-1.40	0.05-0.10	0.0-2.9	0.0-0.5	.32	.43			
51B:														
Sutton	0-1	0	0	0	0.30-0.55	42.00-141.00	0.08-0.40	0.0-20.0	45-95	---	---	5	5	56
	1-6	56-68	20-40	4-12	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	2.0-6.0	.05	.20			
	6-12	43-68	28-45	4-12	1.35-1.55	4.00-42.00	0.07-0.17	0.0-2.9	1.0-3.0	.24	.37			
	12-24	43-68	28-45	4-12	1.35-1.60	4.00-42.00	0.07-0.17	0.0-2.9	0.5-2.0	.24	.37			
	24-28	43-68	28-45	4-12	1.35-1.60	4.00-42.00	0.07-0.17	0.0-2.9	0.0-1.0	.28	.37			
	28-36	58-70	20-40	2-10	1.45-1.65	14.00-42.00	0.07-0.14	0.0-2.9	0.0-0.5	.24	.37			
	36-65	58-70	20-40	2-10	1.45-1.65	14.00-42.00	0.07-0.14	0.0-2.9	0.0-0.5	.24	.37			
59C:														
Gloucester	0-4	54-69	30-38	1-8	1.00-1.30	42.00-141.00	0.09-0.13	0.0-2.9	2.0-5.0	.17	.24	2	6	48
	4-12	54-69	30-38	1-8	1.20-1.50	42.00-141.00	0.07-0.13	0.0-2.9	0.5-1.5	.15	.28			
	12-25	85-87	8-15	0-5	1.50-1.75	42.00-141.00	0.02-0.08	0.0-2.9	0.0-0.5	.05	.17			
	25-35	85-87	8-15	0-5	1.50-1.75	42.00-141.00	0.02-0.08	0.0-2.9	0.0-0.5	.05	.17			
	35-60	85-87	8-15	0-5	1.50-1.75	42.00-141.00	0.02-0.08	0.0-2.9	0.0-0.5	.05	.17			
61C:														
Canton	0-1	0	0	0	0.30-0.55	42.00-141.00	0.08-0.40	0.0-20.0	45-95	---	---	3	5	56
	1-3	54-70	29-38	1-8	1.25-1.45	14.00-42.00	0.10-0.13	0.0-2.9	2.0-6.0	.05	.24			
	3-15	43-70	29-45	1-8	1.25-1.45	14.00-42.00	0.10-0.15	0.0-2.9	0.5-1.0	.32	.55			
	15-24	43-70	29-45	1-8	1.25-1.50	14.00-42.00	0.10-0.15	0.0-2.9	0.5-1.0	.32	.55			
	24-30	43-70	29-45	1-8	1.30-1.50	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.32	.55			
	30-60	77-85	15-18	0-5	1.35-1.60	42.00-141.00	0.03-0.09	0.0-2.9	0.0-0.5	.17	.32			

Physical Soil Properties

State of Connecticut

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors			Wind erodi-bility group	Wind erodi-bility index
										Kw	Kf	T		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
61C:														
Charlton	0-4	57-72	20-40	3-8	1.25-1.45	4.00-42.00	0.12-0.14	0.0-2.9	2.0-6.0	.17	.24	5	5	56
	4-7	57-72	20-40	3-8	1.30-1.45	4.00-42.00	0.09-0.14	0.0-2.9	0.5-1.0	.24	.37			
	7-19	57-72	20-40	3-8	1.35-1.50	4.00-42.00	0.09-0.14	0.0-2.9	0.0-0.5	.28	.43			
	19-27	57-72	20-40	3-8	1.35-1.55	4.00-42.00	0.08-0.14	0.0-2.9	0.0-0.5	.28	.43			
	27-65	57-72	20-40	1-8	1.35-1.60	4.00-42.00	0.08-0.13	0.0-2.9	0.0-0.5	.28	.43			
62D:														
Canton	0-1	0	0	0	0.30-0.55	42.00-141.00	0.08-0.40	0.0-20.0	45-95	---	---	3	5	56
	1-3	54-70	29-38	1-8	1.25-1.45	14.00-42.00	0.10-0.13	0.0-2.9	2.0-6.0	.05	.24			
	3-15	43-70	29-45	1-8	1.25-1.45	14.00-42.00	0.10-0.15	0.0-2.9	0.5-1.0	.32	.55			
	15-24	43-70	29-45	1-8	1.25-1.50	14.00-42.00	0.10-0.15	0.0-2.9	0.5-1.0	.32	.55			
	24-30	43-70	29-45	1-8	1.30-1.50	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.32	.55			
	30-60	77-85	15-18	0-5	1.35-1.60	42.00-141.00	0.03-0.09	0.0-2.9	0.0-0.5	.17	.32			
Charlton	0-4	57-72	20-40	3-8	1.25-1.45	4.00-42.00	0.12-0.14	0.0-2.9	2.0-6.0	.17	.24	5	5	56
	4-7	57-72	20-40	3-8	1.30-1.45	4.00-42.00	0.09-0.14	0.0-2.9	0.5-1.0	.24	.37			
	7-19	57-72	20-40	3-8	1.35-1.50	4.00-42.00	0.09-0.14	0.0-2.9	0.0-0.5	.28	.43			
	19-27	57-72	20-40	3-8	1.35-1.55	4.00-42.00	0.08-0.14	0.0-2.9	0.0-0.5	.28	.43			
	27-65	57-72	20-40	1-8	1.35-1.60	4.00-42.00	0.08-0.13	0.0-2.9	0.0-0.5	.28	.43			
73C:														
Charlton	0-4	57-72	20-40	3-8	1.25-1.45	4.00-42.00	0.12-0.14	0.0-2.9	2.0-6.0	.17	.24	5	3	86
	4-7	57-72	20-40	3-8	1.30-1.45	4.00-42.00	0.09-0.14	0.0-2.9	0.5-1.0	.24	.37			
	7-19	57-72	20-40	3-8	1.35-1.50	4.00-42.00	0.09-0.14	0.0-2.9	0.0-0.5	.28	.43			
	19-27	57-72	20-40	3-8	1.35-1.55	4.00-42.00	0.08-0.14	0.0-2.9	0.0-0.5	.28	.43			
	27-65	57-72	20-40	1-8	1.35-1.60	4.00-42.00	0.08-0.13	0.0-2.9	0.0-0.5	.28	.43			
Chatfield	0-1	0	0	0	0.30-0.55	14.00-42.00	0.08-0.40	0.0-20.0	50-95	.05	.05	2	3	86
	1-6	52-83	10-30	7-18	1.25-1.45	4.00-42.00	0.09-0.13	0.0-2.9	2.0-6.0	.10	.15			
	6-15	37-83	10-45	7-18	1.30-1.45	4.00-42.00	0.08-0.17	0.0-2.9	0.5-2.0	.20	.28			
	15-29	50-83	10-28	7-18	1.35-1.50	4.00-42.00	0.08-0.13	0.0-2.9	0.0-0.5	.20	.28			
	29-36	---	---	---	---	0.07-141.00	---	---	---	---	---			

Physical Soil Properties

State of Connecticut

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors			Wind erodi-bility group	Wind erodi-bility index
										Kw	Kf	T		
	In	*Pct*	*Pct*	*Pct*	*g/cc*	*micro m/sec*	*In/In*	*Pct*	*Pct*					
84B:														
Paxton	0-8	53-70	27-35	3-12	1.00-1.25	4.00-14.00	0.11-0.14	0.0-2.9	2.0-5.0	.20	.28	3	3	86
	8-15	40-72	25-48	3-12	1.35-1.60	4.00-14.00	0.08-0.17	0.0-2.9	0.5-1.5	.28	.43			
	15-26	40-72	25-48	3-12	1.35-1.60	4.00-14.00	0.08-0.17	0.0-2.9	0.0-0.5	.28	.43			
	26-65	40-72	25-48	3-12	1.70-2.00	0.01-1.41	0.05-0.10	0.0-2.9	0.0-0.5	.37	.55			
Montauk	0-4	54-67	15-40	6-18	1.30-1.60	4.00-42.00	0.11-0.15	0.0-2.9	2.0-5.0	.20	.24	3	3	86
	4-14	42-69	30-40	1-18	1.70-1.90	4.00-42.00	0.08-0.17	0.0-2.9	0.5-1.5	.24	.37			
	14-25	42-69	30-40	1-18	1.70-1.90	4.00-42.00	0.08-0.17	0.0-2.9	0.0-0.5	.24	.37			
	25-39	50-83	16-27	1-12	1.85-2.00	0.01-1.40	0.02-0.08	0.0-2.9	0.0-0.5	.20	.32			
	39-60	50-83	16-27	1-12	1.85-2.00	0.01-1.40	0.02-0.08	0.0-2.9	0.0-0.5	.20	.32			
85C:														
Paxton	0-8	53-70	27-35	3-12	1.00-1.25	4.00-14.00	0.11-0.14	0.0-2.9	2.0-5.0	.17	.28	3	5	56
	8-15	40-72	25-48	3-12	1.35-1.60	4.00-14.00	0.08-0.17	0.0-2.9	0.5-1.5	.28	.43			
	15-26	40-72	25-48	3-12	1.35-1.60	4.00-14.00	0.08-0.17	0.0-2.9	0.0-0.5	.28	.43			
	26-65	40-72	25-48	3-12	1.70-2.00	0.01-1.41	0.05-0.10	0.0-2.9	0.0-0.5	.37	.55			
Montauk	0-4	54-67	15-40	6-18	1.30-1.60	4.00-42.00	0.11-0.15	0.0-2.9	2.0-5.0	.20	.24	3	5	56
	4-14	42-69	30-40	1-18	1.70-1.90	4.00-42.00	0.08-0.17	0.0-2.9	0.5-1.5	.24	.37			
	14-25	42-69	30-40	1-18	1.70-1.90	4.00-42.00	0.08-0.17	0.0-2.9	0.0-0.5	.24	.37			
	25-39	50-83	16-27	1-12	1.85-2.00	0.01-1.40	0.02-0.08	0.0-2.9	0.0-0.5	.20	.32			
	39-60	50-83	16-27	1-12	1.85-2.00	0.01-1.40	0.02-0.08	0.0-2.9	0.0-0.5	.20	.32			
306:														
Udorthents	0-5	35-50	43-50	7-15	1.00-1.70	4.00-14.00	0.14-0.18	0.0-2.9	2.0-6.0	.28	.37	3	5	56
	5-21	10-95	2-60	3-30	1.10-1.70	0.01-703.00	0.01-0.21	0.0-2.9	0.0-0.5	.24	.28			
	21-80	10-95	2-60	3-30	1.20-2.00	0.01-703.00	0.01-0.21	0.0-2.9	0.0-0.5	.24	.28			
Urban land	0-6	---	---	0	---	0.07-141.00	0.00	---	---	---	---	---	---	---

RUSLE2 Related Attributes

State of Connecticut

[This report shows only the major soils in each map unit]

Map symbol and soil name	Pct. of map unit	Hydrologic group	Kf	T factor	Representative value		
					% Sand	% Silt	% Clay
3:							
Ridgebury	40	D	---	3	0.0	0.0	0.0
Leicester	35	D	---	5	0.0	0.0	0.0
Whitman	15	D	---	2	0.0	0.0	0.0
17:							
Timakwa	45	D	---	2	0.0	0.0	0.0
Natchaug	40	D	---	2	0.0	0.0	0.0
18:							
Catden	40	D	---	3	0.0	0.0	0.0
Freetown	40	D	---	3	0.0	0.0	0.0
45B:							
Woodbridge	80	C	.24	3	62.5	30.0	7.5
47C:							
Woodbridge	80	C	.24	3	62.5	30.0	7.5
51B:							
Sutton	80	B	---	5	0.0	0.0	0.0
59C:							
Gloucester	80	A	.24	2	62.5	33.0	4.5
61C:							
Canton	45	B	---	3	0.0	0.0	0.0
Charlton	35	B	.24	5	64.5	30.0	5.5
62D:							
Canton	45	B	---	3	0.0	0.0	0.0
Charlton	35	B	.24	5	64.5	30.0	5.5
73C:							
Charlton	45	B	.24	5	64.5	30.0	5.5
Chatfield	30	B	.05	2	0.0	0.0	0.0
84B:							
Paxton	55	C	.28	3	62.5	30.0	7.5

RUSLE2 Related Attributes

State of Connecticut

Map symbol and soil name	Pct. of map unit	Hydrologic group	Kf	T factor	Representative value		
					% Sand	% Silt	% Clay
84B:							
Montauk	30	C	.24	3	60.0	28.0	12.0
85C:							
Paxton	55	C	.28	3	62.5	30.0	7.5
Montauk	30	C	.24	3	60.0	28.0	12.0
306:							
Udorthents	50	C	.37	3	42.0	46.0	12.0
Urban land	35	---	---	---	---	---	0.0

Soil Features

State of Connecticut

[Absence of an entry indicates that the feature is not a concern or that data were not estimated. This report shows only the major soils in each map unit]

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	*In*		*In*	*In*			
3:									
Ridgebury	Dense material	20-30	---	Very strongly cemented	0	---	High	High	Moderate
Leicester	---	---	---	---	0	---	High	High	High
Whitman	Dense material	12-20	---	Very strongly cemented	0	---	High	High	Moderate
17:									
Timakwa	---	---	---	---	6-18	29-33	High	High	High
Natchaug	---	---	---	---	4-15	25-32	High	High	High
18:									
Catden	---	---	---	---	6-18	43-54	High	High	High
Freetown	---	---	---	---	6-18	43-54	High	High	High
45B:									
Woodbridge	Dense material	20-40	---	Very strongly cemented	0	---	Moderate	Moderate	Moderate
47C:									
Woodbridge	Dense material	20-40	---	Very strongly cemented	0	---	Moderate	Moderate	Moderate
51B:									
Sutton	---	---	---	---	0	---	Moderate	Moderate	Moderate

Soil Features

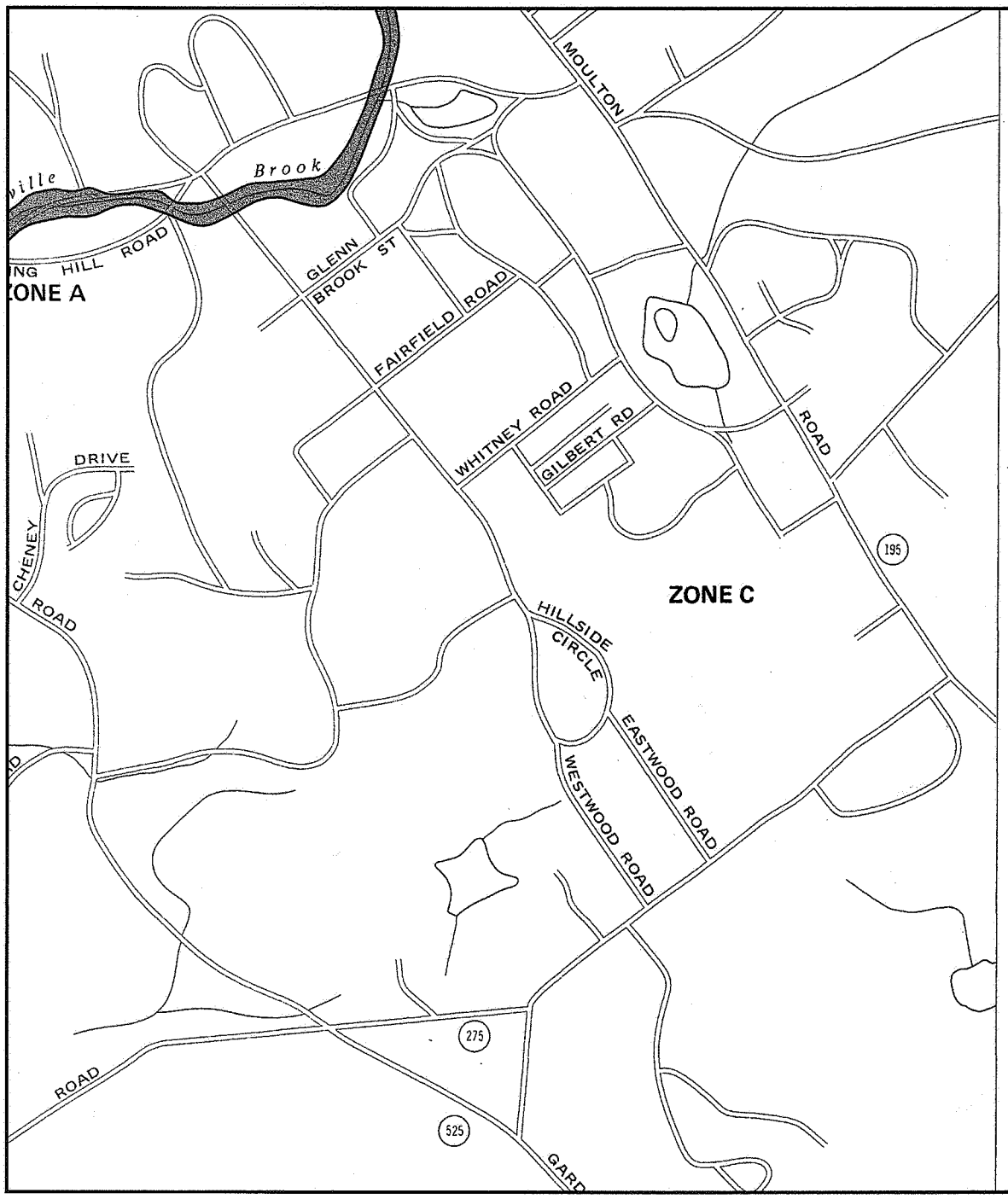
State of Connecticut

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	*In*		*In*	*In*			
59C:									
Gloucester	---	---	---	---	0	---	Low	Low	High
61C:									
Canton	---	---	---	---	0	---	Moderate	Moderate	High
Charlton	---	---	---	---	0	---	Moderate	Moderate	Moderate
62D:									
Canton	---	---	---	---	0	---	Moderate	Moderate	High
Charlton	---	---	---	---	0	---	Moderate	Moderate	Moderate
73C:									
Charlton	---	---	---	---	0	---	Moderate	Moderate	Moderate
Chatfield	Bedrock (lithic)	20-40	---	Very strongly cemented	0	---	Moderate	Moderate	Moderate
84B:									
Paxton	Dense material	20-40	---	Very strongly cemented	0	---	Moderate	Moderate	Moderate
Montauk	Dense material	20-38	---	Very strongly cemented	0	---	Moderate	Moderate	Moderate
85C:									
Paxton	Dense material	20-40	---	Very strongly cemented	0	---	Moderate	Moderate	Moderate
Montauk	Dense material	20-38	---	Very strongly cemented	0	---	Moderate	Moderate	Moderate

Soil Features

State of Connecticut

Map symbol and soil name	Restrictive layer				Subsidence		Potential for frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness	Initial	Total		Uncoated steel	Concrete
		In	*In*		*In*	*In*			
306:									
Udorthents	---	---	---	---	0	---	Moderate	Moderate	Moderate
Urban land	---	---	---	---	0	---	None	---	---



APPROXIMATE SCALE

1000 0 1000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWN OF
MANSFIELD,
CONNECTICUT
TOLLAND COUNTY

PANEL 5 OF 20

COMMUNITY-PANEL NUMBER
090128 0005 C

EFFECTIVE DATE:
JANUARY 2, 1981

federal emergency management agency
federal insurance administration

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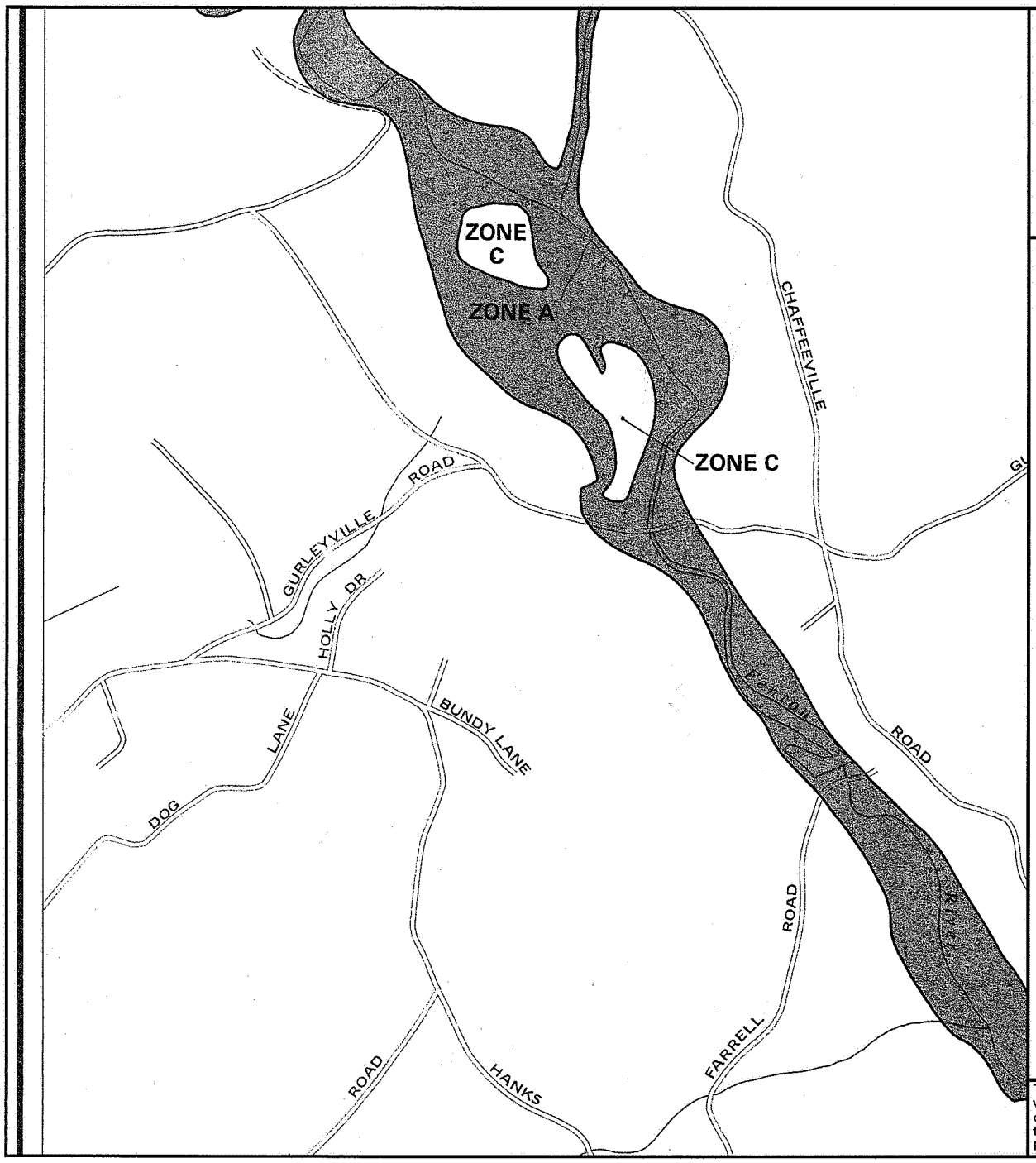

APPROXIMATE SCALE

1000 0 1000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWN OF
MANSFIELD,
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PANEL 10 OF 20

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