

CITY OF NEW HAVEN, CONNECTICUT

CITY PLAN DEPARTMENT | 165 CHURCH STREET, 5TH FLOOR, NEW HAVEN, CT 06510-2010
PHONE 203.946.6379 FAX 203.946.7815

Application for Development Permit

DATA

CHECK BOX WHERE APPROPRIATE. PRINT OR TYPE INFORMATION IN SPACE PROVIDED.

1. Project Address(es) 25 & 35 SPRINGSIDE AVENUE

A/K/A:
Tax Map-Block-Parcel(s)
Mblu 370 1161 01000
Nearest Cross Street:
BLAKE ST

	File #	Fee Paid	Date [yy-mm-dd]
<input type="checkbox"/> Check Here if Fee Exempt.			
<input type="checkbox"/> As-of Right	# _____	\$ _____	___/___/___
<input type="checkbox"/> Zoning Relief	# _____	\$ _____	___/___/___
<input type="checkbox"/> Development Permit	# _____	\$ _____	___/___/___
.....This includes <input type="checkbox"/> Site Plan Review. <input type="checkbox"/> CSPR ... <input type="checkbox"/> SESC... <input type="checkbox"/> IW			
<input type="checkbox"/> Flood Development Permit	# _____	\$ _____	___/___/___
<input type="checkbox"/> Performance Bond	# _____	\$ _____	___/___/___
<input type="checkbox"/> Building Permit	# _____	\$ _____	___/___/___

2. Property Owner Information & Consent

Name MAYANOT, LLC
Firm PO BOX 3013
Street Address NEW HAVEN, CT 06515
City State ZIP`

Daytime Phone 203-936-8770 ADAM
 Business Home Answering Service
 Fax: _____ Cell: _____
 E-Mail: _____

As OWNER OF THE PROPERTY I hereby authorize this development permit application, and:

- I consent to necessary and proper inspections of the above property by agents of the City at a reasonable time after an application is made, and
- I certify that I am familiar with all of the information provided in this application, and
- I am aware that any permit obtained through deception, inaccurate or misleading information is subject to revocation and penalties, and
- I certify that this project conforms to zoning or has applied for or been granted zoning relief.

Dated: 6-19-2019, 20

Signature of PROPERTY OWNER

3. Applicant Information & Certification

Name TWIN HILLS PROPERTIES LLC
Firm VELO PROPERTY GROUP
Street Address 129 CHURCH ST
NEW HAVEN CT 06510
City State ZIP`

Check here if SAME AS OWNER (Fill in only if **not** same as Owner.)
ADAM HASTON 203-936-8770

Daytime Phone:
 Business Home Answering Service
 Fax: _____ Cell: _____
 E-Mail: _____

As APPLICANT I am familiar with all of the information provided in this application and aware that any permit obtained through deception, inaccurate or misleading information is subject to revocation and penalties.

Dated: _____, 20

Signature of APPLICANT

4. Authorized Agent Information

Name
Firm
Street Address
City State ZIP`

Check here if SAME AS OWNER (Fill in only if **not** same as Owner.)

Daytime Phone: _____
 Business Home Answering Service
 Fax: _____ Cell: _____
 E-Mail: _____

Check One: The AUTHORIZED AGENT for the attached Development Application is:

Lessee Attorney Architect Engineer Real Estate Agent Contractor Other-Specify _____

As AUTHORIZED AGENT I am familiar with all of the information provided in this application and aware that any permit obtained through deception, inaccurate or misleading information is subject to revocation and penalties.

Dated: _____, 20

Signature of AUTHORIZED AGENT

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Application for Development Permit

WORKSHEET

1. Calculate **LOT AREA** as defined by the New Haven Zoning Ordinance excluding the following categories:

- Wetlands and Watercourses as defined in Sections 22a-38 15&16) C.G.S. and appearing on New Haven County USDA Soil Conservation Service Soil Survey.
- State-designated Tidal Wetlands defined and mapped under Sections 22a-29(a)(2) and 22a-30 C.G.S.
- Any parcel area below the Mean High Water Mark.

LOT AREA CALCULATION WORKSHEET

ZONING LOT AREA = TAX PARCEL AREA MINUS STEP 1 TOTAL

STEP 1 Add Items A. through C. below:

STEP 2: Subtract STEP 1 TOTAL from Tax Parcel

Area:

A. Tidal Wetlands ----- 0 SF	TAX PARCEL AREA: 57700 SF
B. Area below Mean High Water Mark ----- 0 SF	
C. Inland Wetlands & Watercourses ----- 8422 SF	MINUS STEP 1 TOTAL: 8422 SF
= STEP 1 TOTAL 8422 SF--	ZONING LOT AREA: 49278 SF

2. ZONING TABLE (Fill in below or include on submission drawing cover sheet.)

RESIDENTIAL PROJECTS

ZONING DISTRICT: <u>RM-1</u> Not Applicable = <input checked="" type="checkbox"/>	Standard [Permitted or Required]	Proposed [or Allowed by BZA]
1. ZONING LOT AREA [Calculate Above]	49278 Sq. Ft.	49278 Sq. Ft.
2. NUMBER OF DWELLING UNITS <input type="checkbox"/>	25 Units	41 Units
3. LOT AREA PER DWELLING UNIT <input type="checkbox"/>	3500 REGS Sq. Ft./DU 1971 EXIST	1201 Sq. Ft./DU
4. IMPERVIOUS SURFACE <input checked="" type="checkbox"/>	9053 Sq. Ft. 25 %	21500 Sq. Ft. 59.1 %
5. FRONT YARD <input type="checkbox"/>	20 REQ Feet	21.2 Feet
6. SIDE YARDS 1 AT 8 OTHER 12 <input type="checkbox"/>	8. Feet and 12+ Feet	13.1 Feet and 32.5 Feet
7. REAR YARD <input type="checkbox"/>	25 Feet	39.6 Feet
8. BUILDING HEIGHT 3 STORY 35 FT	<35 Feet	41.6 Feet per BZA
9. PARKING 1/DWELLING <input type="checkbox"/>	25 #Spaces	37 #Spaces (2 ARE HC)

COMMERCIAL OR INDUSTRIAL PROJECTS

ZONING DISTRICT: ___ Not Applicable = <input checked="" type="checkbox"/>	Standard [Permitted or Required]	Proposed [or Allowed by BZA]
1. ZONING LOT AREA [Calculate Above]	Sq. Ft.	Sq. Ft.
2. TOTAL FLOOR AREA (ALL FLOORS): <input type="checkbox"/>	Sq. Ft.	Sq. Ft.
3. FLOOR AREA RATIO (FAR = B/A) <input type="checkbox"/>	FAR	FAR
4. IMPERVIOUS SURFACE <input type="checkbox"/>	Sq. Ft. %	Sq. Ft. %
5. PARKING <input type="checkbox"/>	Spaces	Spaces
6. LOADING <input type="checkbox"/>	Spaces	Spaces

3. MATERIAL (SOIL, ROCK OR FILL) TO BE MOVED, REMOVED OR ADDED

CALCULATE MATERIAL TO BE MOVED, REMOVED OR ADDED (Calculate below - Enter sizes in feet).

Length x Width x Depth = Cubic Feet ÷ 27 = Cubic Yards
<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes MATERIAL TO BE MOVED: _____ x _____ x _____ = _____ ÷ 27 = <u>355</u>
<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes MATERIAL TO BE ADDED: _____ x _____ x _____ = _____ ÷ 27 = <u>150</u>
<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes MATERIAL TO BE REMOVED: _____ x _____ x _____ = _____ ÷ 27 = <u>150</u>
TOTAL MATERIAL TO BE MOVED, REMOVED OR ADDED = <u>655</u>

REGRADEING OF SITE

- No Yes Are more than 800 cubic yards soil, rock or fill to be **MOVED, REMOVED OR ADDED**?
- No Yes Is more than 30% of the lot area proposed to be **REGRADED** by more than 2 feet? (do following calculation).

REGRADED AREA IN SQUARE FEET _____ ÷ TOTAL LOT AREA _____ IN SQUARE FEET = _____ PERCENT
[Area to be re-graded by more than 2 feet divided by Total Lot Area equals Percentage of Lot to be re-graded]

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Application for Development Permit: Site Plan Review

SITE

A NARRATIVE IS REQUIRED

NARRATIVE: A description of the proposed project in sufficient detail to determine that it complies with the New Haven Zoning Ordinance and State of Connecticut Soil Erosion and Sediment Control Standards. (Attach NARRATIVE or include it on the submitted SITE PLAN).

1. State the purpose and intended use of the project.

UPGRADE EXISTING APARTMENT BUILDINGS AND ADD A NEW FLOOR FOR ADDITIONAL UNITS

2. Describe the structure(s) and construction activities.

EXISTING APARTMENT BUILDINGS WITH 25 UNITS TO BE RENOVATED AND EACH BUILDING WILL HAVE BASEMENT ABLE TO BE FLOODED WITHOUT DAMAGE AND EACH BUILDING WILL HAVE A NEW FLOOR ADDED ON TOP FOR ADDITIONAL UNITS.

3. State the construction Start and End Dates/Provide a Construction Staging Plan/If phased provide Time Estimates for Each Phase.

START CONSTRUCTION END 2019 FINISH CONSTRUCTION END 2021

4. List any Federal or State Permits required and their status. Furnish copy of permits issued or applications filed.

CHECK HERE IF NONE

5. Provide Board of Zoning Appeals Decision Letter(s) if zoning relief has been secured. Plan must be in compliance with the New Haven Zoning Ordinance to receive Site Plan approval.

SITE PLAN SUBMISSION REFER TO "SITE PLAN GUIDELINES" AT CITYOFNEWHAVEN.COM

SURVEY

- A-2 Survey of property boundary, right-of-way, street, building and/or setback lines, easement lines.
- A-2 Survey *not* required. Staff has determined this project is: Exempt Unregulated Minor Application.
- Show Coastal Management District Boundary, Flood Zones, wetlands, watercourses, (soil types if pertinent).

SITE PLAN DATA Please use the checklist below and SESC REGULATIONS as a guide to provide required data.

- SITE PLAN [1" = 20' or larger is preferred] with north arrow, scale, date prepared, and name of preparer.**
- General Location Map at a scale of 1 inch = 600 feet, with North Arrow.
- Buildings and improvements on abutting parcels within 50 feet of the property lines
- Names of abutting Property Owners.
- Driveways, aprons, sidewalks, curbs, walkways, parking layout, loading facilities, and utilities.
- Provide applicable standard City details.
- Existing and proposed topographical contours where slope is **LESS THAN 15%**, show at **2 FOOT** intervals.
- Existing and proposed topographical contours where slope is **15% OR MORE**, show at **5 FOOT** intervals.
- Proposed site alterations including cleared, excavated, filled or graded areas.
- Existing trees with diameters of 8 inches or greater, and changes proposed, including protection measures.
- Edge of wooded areas.
- Proposed landscaping keyed to a plant list. Include size and planting detail.
- Sanitary sewage disposal, water supply lines, other utilities on or serving the site.
- Proposed building plans and elevations.
- New property lines & improvements: signs, fences, walls, dumpsters, outdoor storage area, lighting.

ENGINEERING DATA. Please provide the following data using the checklist as a guide.

- Storm Drainage details including roof leaders.
- Existing and proposed grades and construction materials.
- Support Data and Drainage Calculations to show adequacy of pipe sizes, flow, slope, invert and top of grate connections [Not required because: Exempt Unregulated Minor Application].

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Application for Development Permit: Soil Erosion and Sediment Control Review **SESC**

Please fill out **DATA**, **WORKSHEET**, and **SITE SECTIONS** in addition to the following items:

SITE PLAN

On a Scaled Site Plan prepared by a Connecticut Registered Architect, Landscape Architect, Civil Engineer, or Licensed Soil Scientist, show the following:

- Construction details for proposed SESC measures and storm water management facilities in accord with standard city details.
- Location and design details for all proposed SESC measures and storm water management facilities over the period of construction.

SOIL EROSION AND SEDIMENT CONTROL DATA

Print or type information in space provided, or Check appropriate box below if information is not filled in on this form.

- Shown on SITE PLAN, or SEE 24X36 INCH PLANS
- Described in SEPARATE ATTACHMENT.

1. Describe proposed Soil Erosion & Sediment Control Measures.

The proposed S&E control measures include silt fence downslope of construction activities and inlet protection at all proposed drainage structures. A crushed stone construction entrance will be installed at the site entrance.

2. Schedule of Grading and Construction activities. Include start and stop dates and duration of activity.

START END 2019 FINISH END 2021

3. Describe the Sequence for Final Stabilization of the site.

After site work and building construction is complete all disturbed areas which are not covered by pavement, walks or plantings shall be seeded to establish lawn.

4. Outline the Operations and Daily Maintenance Program.

The contractor shall control fugitive dust at all times and maintain S&E control measures throughout construction. Project site shall be kept clean and paved areas shall be cleaned daily.

5. Contingency Provisions. Describe your procedures if unforeseen erosion or sedimentation problems arise.

Additional control measures will be installed on site if required during construction. An extra 100 feet of silt fence will be stored on site to be used for emergencies.

6. Individual Responsible for Monitoring SESC Control Measures

Name	ADAM HASTON	Daytime Phone:	203-936-8770
Firm	TWIN HILLS PROPERTIES LLC	<input type="checkbox"/> Business	<input type="checkbox"/> Home <input type="checkbox"/> Answering Service
Street Address	VELO PROPERTY GROUP	<input type="checkbox"/> Fax:	<input checked="" type="checkbox"/> Cell:
City	129 CHURCH ST State ZIP	<input type="checkbox"/> E-Mail:	ahaston@gmail.com
	NEW HAVEN CT 06510	Nighttime/Emergency:	203-936-8770

7. On Site Monitor of SESC Control Measure Installation and Maintenance

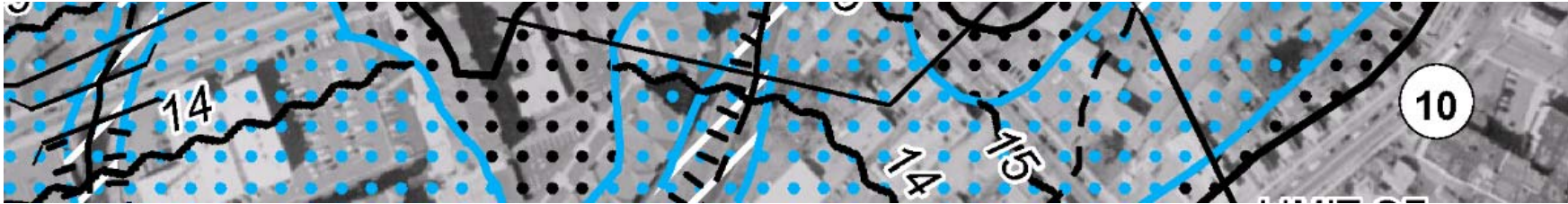
Name	ADAM HASTON	Daytime Phone:	203-936-8770
Firm	TWIN HILLS PROPERTIES LLC	<input type="checkbox"/> Business	<input type="checkbox"/> Home <input type="checkbox"/> Answering Service
Street Address	VELO PROPERTY GROUP	<input type="checkbox"/> Fax:	<input checked="" type="checkbox"/> Cell:
City	129 CHURCH ST State ZIP	<input type="checkbox"/> E-Mail:	ahaston@gmail.com
License #	NEW HAVEN CT 06510	Nighttime/Emergency:	203-936-8770



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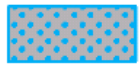






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LEGEND



SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



FLOODWAY AREAS IN ZONE AE

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**NH
FIP**

PANEL 0429J

FIRM
FLOOD INSURANCE RATE MAP
NEW HAVEN COUNTY,
CONNECTICUT
(ALL JURISDICTIONS)

PANEL 429 OF 635
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

<u>COMMUNITY</u>	<u>NUMBER</u>	<u>PANEL</u>	<u>SUFFIX</u>
HAMDEN, TOWN OF	090078	0429	J
NEW HAVEN, CITY OF	090084	0429	J

INSURANCE PROGRAM

CITY OF NEW HAVEN, CONNECTICUT

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Application for Development Permit: Inland Wetlands Review

IW

Inland Wetlands & Watercourse Data

Print or type information in space provided, or attach.
For projects within 50 feet of an Inland Wetland or Watercourse provide a Scaled Site Plan at 1" = 20' or larger scale showing existing and proposed conditions (as described in SITE section) in relation to wetlands and watercourses. Delineation of regulated wetlands, watercourses and soil types by a CERTIFIED SOIL SCIENTIST is required, along with the information below:

1. Describe what activity/alteration is proposed within the wetland and/or watercourse.

NO ACTIVITY PROPOSED WITHIN THE WETLAND AND WATERCOURSE.

2. Wetlands/Watercourse area proposed to be permanently altered: 0 Linear Feet

Wetlands: 0 acres Open Water Body: 0 acres Stream: 0 linear feet

Area of Wetlands and/or Watercourses proposed to be restored, enhanced, or created: 0 acres

3. Describe existing and proposed activities within 50 feet of an Inland Wetland or Watercourse (the upland or buffer area):

RENOVATION OF EXISTING APARMENT BUILDINGS TO UPDATE AND ADD AN ADDITIONAL FLOOR.

INSTALL LIGHT COLORED ROOFING, FLOOD PROOF BASEMENTS IN FLOOD PLAN TO PREVENT

~~DAMAGE FROM FLOODING. RENOVATE EXISTING PARKING LOT TO INCLUDE PERVIOUS~~

PAVERS HANDICAP PARKING SPACES AND FRESH PAVEMENT, UPGRADE LANDSCAPING.

.28 ACRE ALTERED

4. Upland Area proposed to be altered: _____ acres

5. List any Federal and/or State Permits issued or required and their status for work on this property.

General Permit for the Discharge of Stormwater and Dewatering Wastewaters
from Construction Activities (CT DEEP) - PENDING APPROVALS FROM CITY.

Name of Certified Soil Scientist (or other Licensed Professional) preparing this Application Section

Name JAMES N. SAKONCHICK PE LS 11302

Daytime Phone: 860-919-1779

Firm KRATZERT, JONES & ASSOC. INC.

Business Home Answering Service

Street Address 1755 RT 322 PO BOX 337

Fax: _____ Cell: _____

City MILLDALE State CT ZIP 06067-0337

E-Mail: SAKONCHICK@KRATZERTJONES.COM

License # PE LS 11302

NOTE SEE S-1 FOR SOIL SCIENTIST GEORGE LOGAN OF REMA ASSOCIATES FOR WETLANDS LOCATIONS.

INSTRUCTIONS FOR INLAND WETLANDS REVIEW

Fill out DATA, SUMMARY, NARRATIVE, SESC and SITE sections with this INLAND WETLANDS Section.

1. Consult the **City of New Haven Inland Wetlands and Watercourses Regulations** to prepare this supplement. They are available on line at cityofnewhaven.com or for purchase at the New Haven City Plan Department.
2. For **Class B Applications** the City Plan Commission may elect to schedule a Public Hearing.
3. For **Class C Applications** a Public Hearing is required.
4. **APPLICANT is required to send NOTICE** to abutters and property owners within 200 feet of the subject property for **Class B and C Applications** not less than 7 days prior to the City Plan meeting date and provide copy of notice and mailing list.

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Worksheet

SITE BOND

PROJECTS THAT REQUIRE A BOND. Site Bonds are generally required for SESC measures, performance and restoration for all projects with a site budget of \$5,000 or more as a condition of Site Plan Review [City projects do not require a bond].

BOND AMOUNT. The Site Plan Review report will state the BOND AMOUNT. At the time of project review the Site Plan Review team will recommend a draft amount. To aid staff in determining the Bond Amount, please determine the CLASS of your project, check the appropriate box and fill in the guideline below.

CLASS 1 - RESIDENTIAL PROJECT

Average Slope	Cost per Dwelling Unit	x	# DU's	= ... \$
<input checked="" type="checkbox"/> Less than 5%	\$2500	x	14	= ... \$ 35000
<input type="checkbox"/> 5-10%	\$5000	x		= ... \$

More than 10% ----- The Site Plan Review Team will individually assess sites with extraordinary conditions.

CLASS 2 - COMMERCIAL, INDUSTRIAL OR MIXED USE PROJECT

Average Slope	% Overall Project Budget	Project Cost	= ... Bond Estimate
<input type="checkbox"/> 3% or Less	2% Bond	\$	= ... \$
<input type="checkbox"/> Moderate, 3 to 8%	3% to 4% Bond	\$	= ... \$
<input type="checkbox"/> More than 10%	5% to 8% Bond	\$	= ... \$

CLASS 3 - SITE WORK ONLY PROJECT

Average Slope	Percent of Site Cost	Project Cost	= Bond Estimate
<input type="checkbox"/> Less than 5%	120%	\$	= ... \$
<input type="checkbox"/> 5-10%	120% to 150%	\$	= ... \$
<input type="checkbox"/> More than 10%	150%	\$	= ... \$

BOND ESTIMATE

The SITE PLAN REVIEW TEAM has reviewed the submitted materials and **RECOMMENDS A BOND AMOUNT OF:** \$ _____

The Site Plan Review Team will individually assess sites with extraordinary conditions.

The Site Plan Review Team may increase the Bond Estimate from 120% to 150% of your Estimate in the Table above if, in their opinion, extraordinary oversight is necessary based on past experience with a developer. Applicant may appeal that determination by asking the City Plan Commission to review the proposed amount.

BOND INFORMATION

BOND FORMAT. Bonds shall be presented on the attached form prescribed by Corporation Counsel, with the Bond Company's completed form, including Power of Attorney attached. The Bond Form shall contain a brief description of the contracted work to be performed, including the City Plan Report number.

BOND STORAGE. The City Plan Department shall maintain the Bonds by CPC file #. Cash bonds shall be forwarded to the Office of the City Treasurer for deposit in an escrow account.

BOND HOLDING PERIOD. Bonds in a form acceptable to Corporation Counsel shall be on file with the City Plan Department prior to issuance of a Building Permit or initiation of site work. Placement of Soil Erosion and Sediment Control measures is considered the first step of a Building Permit. Bonds will be held for the duration of site work and construction activity and for a period following project completion to assure that slopes are stable and that vegetation and stabilization measures are established. As a general rule site restoration and soil erosion and sediment control bonds will not be released until a growing season has passed, or a minimum of one year following issuance of a permanent Certificate of Occupancy for a building project. The Site Plan Review Team shall determine whether partial release of a Bond is warranted on a case by case basis.

BOND RELEASE PROCESS. Written request for Bond Release to the City Plan Department is required. The Site Plan Review Team will review the request, inspect the site, and concur to authorize partial or full release of a Bond, or defer release until site work has been completed in accord with approved plans. City Plan Department authorized staff must sign the Bond Release Form prior to release of a Bond.

City of New Haven, Connecticut

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SITE BOND FORM

This is an AGREEMENT for a PERFORMANCE BOND for completion of SITE WORK as required by the CITY PLAN COMMISSION [CPC] in CPC REPORT # _____-_____, dated _____, 200____, attached to this BOND FORM.

PRINCIPAL INFORMATION

Name _____
Firm _____
Street Address _____
City _____ State _____ ZIP _____

Daytime Phone: _____
 Business Home Answering Service
 Fax: _____ Cell: _____
 E-Mail: _____

BONDING COMPANY INFORMATION

Local Contact Name _____
Firm _____
Street Address _____
City _____ State _____ ZIP _____

Daytime Phone: _____
 Business Home Answering Service
 Fax: _____ Cell: _____
 E-Mail: _____

are bound to in the sum of \$ _____ (\$ _____,00)
lawful money of the United States of America for the payment of which sum of money to be made, we bind
ourselves, heirs, executors, administrators, successors and assigns, jointly and severally, by this instrument;

The Principal has entered into a written contract, dated _____ day of _____, 20____, with the
_____ for work to be performed at _____, New Haven, Connecticut, as
described in the foregoing contract and articles of agreement, as described in the application and City Plan Commission
Site Plan Review Report _____-____ with the plans and documents submitted with the application, and in response to
the conditions of approval.

Now the conditions of this obligation are that if the PRINCIPAL shall in all respects perform the contract, and shall pay
all sums of money due or to become due, for any labor, materials, apparatus, fixtures or equipment furnished for the purpose
of constructing the work provided in the contract, and shall remove and replace any defects in workmanship or materials
that may be apparent or may develop within a period of one (1) year from the date of FINAL ACCEPTANCE, then this
obligation shall be void; otherwise it shall remain in full force. For the purpose of the PERFORMANCE BOND, the
FINAL ACCEPTANCE shall be the date of issuance of the Certificate of Occupancy or Certification of Project Completion
by the City Of New Haven.

And the surety, for value received, stipulates that no change to the terms of the contract or to the work to be performed
under it or the specifications accompanying it shall in any way affect its obligation on this Bond, and it waives notice of
any such change to the terms of the contract or to the work or to the specifications.

In witness, we have set our hands and seals on _____, 20____.

_____, Principal (Type in Name of Individual: _____)

WITNESS:

_____, (If Individual or Firm) _____, (Title)

Attest:

_____, (If Corporation)

Attest:

_____, (Surety Firm) _____, (Title)

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ACKNOWLEDGMENT OF SURETY COMPANY

STATE OF _____)

CPC BOND # _____ - _____

COUNTY OF _____)

CITY OF _____)

On this ____ day of _____, 20____, before me personally came _____ to me known to be person named in the above instrument and who after being by me duly sworn, did depose and say she/he resides in _____, that she/he is the _____ of the corporation described in which is executed the above instrument; that she/he knows the seal of said corporation that the seal affixed to said instrument is such corporate seal, that it was so affixed pursuant to a resolution of the board of directors of said corporation, and that she/he signed her/his name by like order.

Notary Public

My Commission Expires: _____, 20____

[The Surety Company must append statement of its financial condition and a copy of the resolution authorizing the execution of the bonds by officers of the company, and the power-of-attorney of the surety company's attorney-in-fact, authorized to act within the State of Connecticut.]

The foregoing bond and sureties are hereby approved.

Dated New Haven, Connecticut _____, 20____.

- _____
 Corporation Counsel
 Deputy Corporation Counsel
 Assistant Corporation Counsel

- _____
 Controller
 Deputy Controller

SUBMISSION NARRATIVE
25 35 SPRINGSIDE AVENUE
NEW HAVEN, CT
6-14-2019

GENERAL INFORMATION

SUBJECT: City Plan Submission Narrative
904 SPRINGSIDE Avenue Condominiums

EXISTING APPROVAL

The parcel is located within an RM-1 zone, low-middle density residential. Multi-family residential buildings are allowed within the zone.

The site consists of two apartment buildings containing with 38 parking spaces. There are 13 apartments in #25 and 16 units in #35 Springside Avenue for a total of 29 apartments.

PROPOSED PROJECT

The existing buildings will be totally renovated inside the apartments; plus the buildings will be enlarged with a new third floor on both buildings. There will be . apartments when the project is complete. (. 41 UNITS)

The existing basement apartment will be removed and the existing basement, which is in the flood plain, will be updated to meet the code requirements for basements in floodplains so that, if necessary, the basement can flood and then be drained without damage to the structure.

The project also includes the re-construction of the driveway, parking lot, and utilities for the existing building.

Provisions are being made to encourage infiltration of stormwater on site by the use of porous pavers. Hard surfaces will be updated to meet the shading and or light color surfaces to protect against summer heat gain. Lighting will be updated to meet the lighting requirements of the City Zoning Regulations. New landscaping is included in the proposed work.

Storm water will be controlled with on site infiltration, static stormwater storage underground in voids created underground and sheet runoff from the edge of the parking areas.

Shading as well as light colored materials will control solar heat gain.

Lighting will be within requirements of the Zoning code.

The project overall will enhance the neighborhood with additional access to the waterfront and the renovation of an existing dwelling.

SUBMITTED

Signed:



JAMES SAKONCHICK PE LS 11302.



ENGINEERING DEPARTMENT

City of New Haven
200 Orange Street, Rm 503
New Haven, CT 06510
www.cityofnewhaven.com



Toni N. Harp
Mayor

Giovanni Zinn, P.E.
City Engineer

Storm Water Management Plan Cover Sheet

This form is to be completed by Applicant when compliance with Section 60 of the City's Zoning Ordinance is required and/or when compliance with GNHWPCA's stormwater regulations are triggered. This form shall be submitted with the Applicant's Storm Water Management Plan and must be updated, as needed, to reflect any changes made to the Plan as part of the Site Plan Review process.

Date: 6-11-2019

Site Address: 25 AND 35 SPRINGSIDE AVENUE

Anticipated Construction Start Date: 7-2019 End Date: 12-2021

Parcel Area (acres): 1.3

Existing Impervious Area (acres): 0.66

Proposed Impervious Area (acres): 0.59

Meets Section 60 (Y/N?) Y

Meets GNHWPCA Regulations (Y/N?) Y

Retention Volume Provided (CF): 5318 CF STATIC STORAGE PLUS INFILTRATION POTENTIAL

JAMES N. SAKONCHICK
PE LS 11302

CALCULATIONS OF REQUIRED ON SITE RAINWATER STORAGE (OUTSIDE COMBINED SEWER AREAS)							
DRY AREA OF SITE			VOLUME NEEDED TO STORE 1" RAIN				
49278 SF SITE		12	4106.5	C.F. PER INCH			
CALCULATIONS SHOWING ON SITE STATIC STORAGE OF 1" OF RAINFALL ON SITE.							
STATIC STORAGE UNDER PAVERS							
24" NO 2 STONE	24 IN		0.4	VOIDS	9.6	INCH STATIC STORAGE	
AREA PAVERS	3400 SF		9.6	INCH	2720	C.F. STORAGE	
AREA OF 24" STONE UNDER BIT PAVERS WITH DRYWELLS TO CHARGE STONE							
24" NO 2 STONE	24 IN		0.4	VOIDS	9.6	INCH STATIC STORAGE	
AREA BIT.	3000 SF		9.6	INCH	2400	C.F. STORAGE	
4 FT DRYWELLS	3	STORAGE DRYWELL					
INTERIOR DIAMETER		5	FOOT				
	AREA	16.5	SF				
	HEIGHT	4	FT				
	STORAGE	66	SF				
	UNITS	3					
		198	SF				
STATIC STORAGE AVAILABLE					CF		
	PAVERS				2720		
	AREA UNDER BIT				2400		
	DRYWELLS				198		

	TOTAL				5318	C.F. PROVIDED	
					4106.5	CF REQUIRED	
NOTE - THIS DOES NOT INCLUDE INFILTRATION INTO SOILS WHERE THE EXISTING SOILS HAVE GREAT PERMEABILITY BEING SANDS AND GRAVELS.					1211.5	EXCESS =	30%

STORMWATER MANAGEMENT PLAN

FROM ZONING CODE SECTION 60

(d) Contents of stormwater management plan.

Where a stormwater management plan is required, such plan shall provide, at a minimum, the following information:

(1) SOIL CHARACTERISTICS OF THE SITE

THE SITE SOILS WERE MAPPED IN THIS DOCUMENT:
"SOIL SURVEY OF NEW HAVEN COUNTY, CONNECTICUT"
UNITED STATES DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE.

AS SHOWN ON THE ATTACHED PORTIONS OF THIS DOCUMENT, THE SITE IS MAPPED AS URBAN DEVELOPMENT. THE ADJACENT PROPERTY SOILS ARE MAPPED AS MANCHESTER SOILS. MANCHESTER SOILS ARE RED GRAVELLY SOILS. THE A AND B HORIZONS ARE THE TOP 16" OF THE SOILS AND

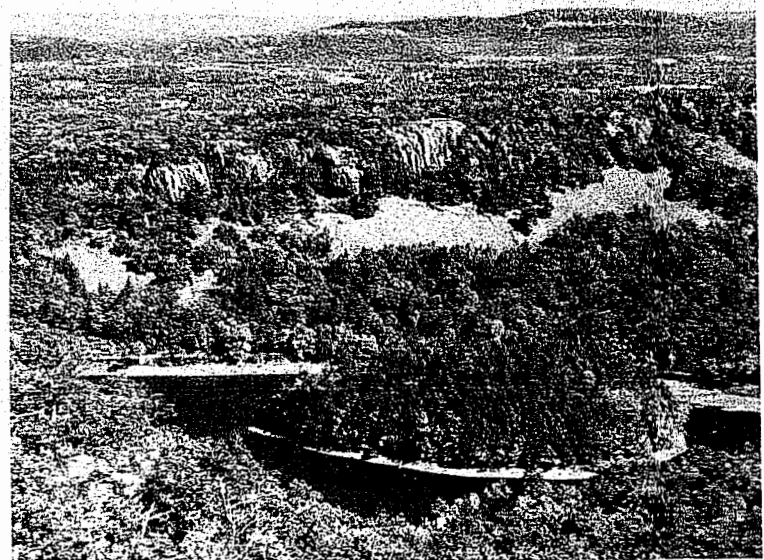
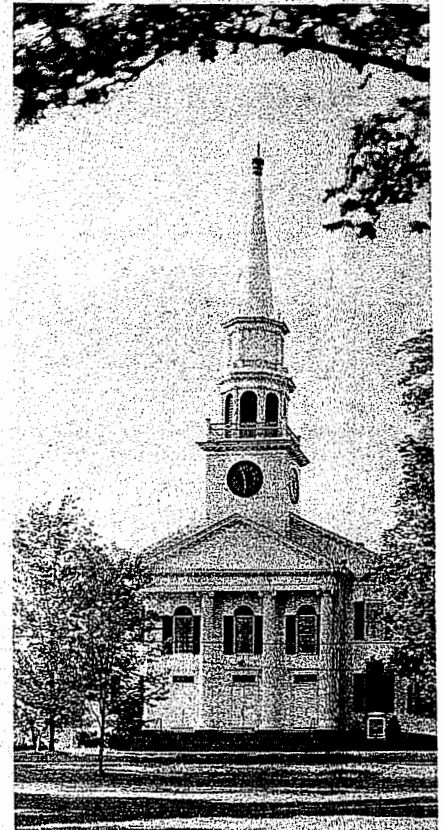
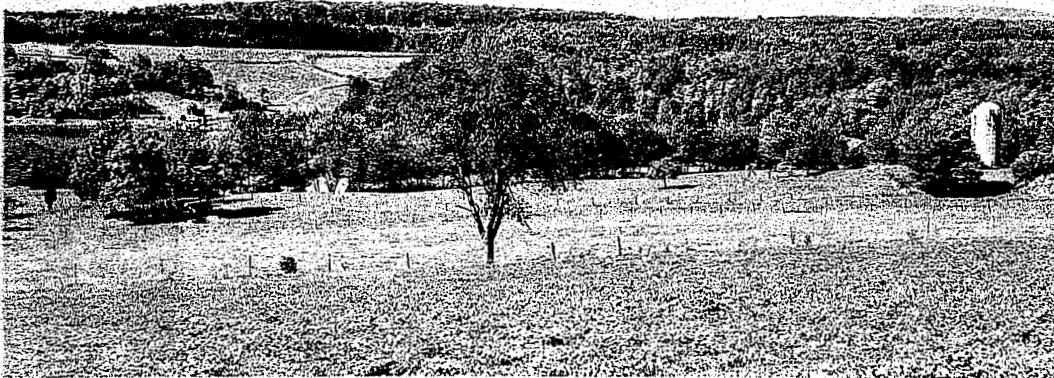
CONTAIN ORGANIC COMPONENTS. THE C HORIZON IS THE SOILS FROM 16" TO 60" DOWN AND THEY CONTAIN REDDISH BROWN STRATIFIED SAND AND GRAVEL DEPOSITS. THE C HORIZON WAS FORMED BY GLACIAL OUTWASH DEPOSITS. MANCHESTER SOILS ARE EXCESSIVELY DRAINED WHICH

MAKE THEM SUITABLE FOR INFILTRATION FROM DRYWELLS AND POROUS PAVERS. THE PERMEABILITY IS OVER 20 INCHES PER HOUR. HAND DUG SOIL TEST PITS ON THE SITE FOUND SAND AND GRAVEL SOILS.

THE SOILS ALONG THE WINTERGREEN RIVER CONSISTS OF PODUNK SERIES SOILS. THESE SOILS ARE MODERATELY WELL DRAINED AND ARE FORMED BY ALLUVIAL DEPOSITS. IT SHOULD BE NOTED THAT THE LOWER PORTIONS OF THESE SOILS IN THE RIVER ARE A POORLY DRAINED RELATED SOIL CALLED RUMNEY. RUMNEY ARE WETLANDS SOILS. THE PROPOSAL IS TO NOT DISTURB THE WETLANDS SOILS.

THE LIMITS OF THE WETLANDS SOILS WERE MAPPED BY GEORGE LOGAN SOIL SCIENTIST AND SURVEYED BY KJA.

SOIL SURVEY OF New Haven County, Connecticut

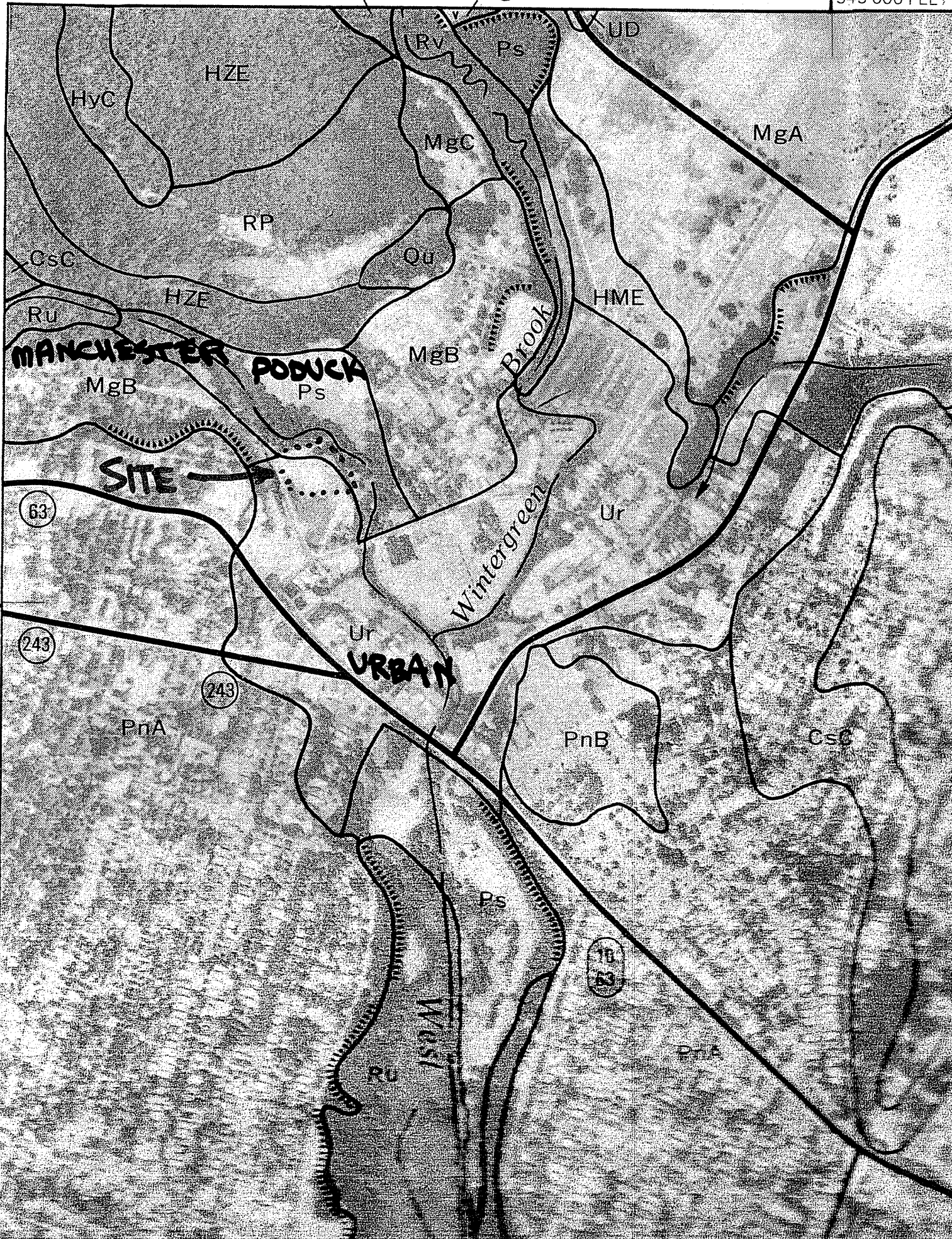


United States Department of Agriculture, Soil Conservation Service
in cooperation with
Connecticut Agricultural Experiment Station and Storrs Agricultural Experiment Station

HME

MgA

545 000 FEET



180 000 FEET

MANCHESTER
PODUCK

SITE →

URBAN

Poduck
Brook

Wintergreen
Brook

West
Brook

63

243

243

102

TABLE 9.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
HSE: Rock outcrop part.					
Holyoke: HtC-----	Severe: depth to rock.	Severe: slope, depth to rock, seepage.	Severe: depth to rock, seepage.	Severe: seepage.	Poor: thin layer, area reclaim.
HuD: Holyoke part-----	Severe: slope, depth to rock.	Severe: slope, depth to rock, seepage.	Severe: slope, depth to rock, seepage.	Severe: slope, seepage.	Poor: slope, thin layer, area reclaim.
Cheshire part-----	Severe: slope.	Severe: seepage, slope.	Severe: seepage, slope.	Severe: seepage, slope.	Poor: slope.
HuC: Holyoke part-----	Severe: depth to rock.	Severe: slope, depth to rock, seepage.	Severe: depth to rock, seepage.	Severe: seepage.	Poor: thin layer, area reclaim.
Rock outcrop part.					
HZE: Holyoke part-----	Severe: slope, depth to rock.	Severe: slope, depth to rock, seepage.	Severe: slope, depth to rock, seepage.	Severe: slope, seepage.	Poor: slope, thin layer, area reclaim.
Rock outcrop part.					
Leicester: Lc-----	Severe: wetness.	Severe: wetness, seepage.	Severe: wetness, seepage.	Severe: wetness, seepage.	Poor: wetness.
Ludlow: LpA-----	Severe: percs slowly, wetness.	Slight-----	Severe: wetness.	Severe: wetness.	Fair: area reclaim, small stones.
LpB-----	Severe: percs slowly, wetness.	Moderate: slope.	Severe: wetness.	Severe: wetness.	Fair: area reclaim, small stones.
LuB-----	Severe: percs slowly, wetness.	Moderate: slope, large stones.	Severe: wetness.	Severe: wetness.	Fair: large stones, area reclaim, small stones.
LvC-----	Severe: percs slowly, wetness, large stones.	Severe: slope.	Severe: large stones, wetness.	Severe: wetness.	Poor: large stones.
Manchester: MgA, MgB-----	Slight-----	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: thin layer, too sandy, area reclaim.

See footnote at end of table.

TABLE 15.--PHYSICAL AND CHEMICAL PROPERTIES OF SOILS--Continued

Soil name and map symbol	Depth	Permeability	Available water capacity	Soil reaction	Salinity	Shrink-swell potential	Risk of corrosion		Erosion factors	
							Uncoated steel	Concrete	K	T
	In	In/hr	In/in	pH	Mmhos/cm					
Penwood:										
PnA, PnB-----	0-8	6.0-20	0.08-0.13	4.5-6.5	<2	Low-----	Low-----	High-----	0.17	5
	8-30	6.0-20	0.02-0.13	4.5-6.5	<2	Low-----	Low-----	High-----	0.17	
	30-60	6.0-20	0.01-0.08	4.5-6.5	<2	Low-----	Low-----	High-----	0.17	
Pits:										
Pr-----										
Podunk:										
Ps-----	0-14	2.0-6.0	0.11-0.24	4.5-6.0	<2	Low-----	Moderate	Moderate	0.20	3
	14-34	2.0-6.0	0.09-0.18	4.5-6.0	<2	Low-----	Moderate	Moderate	0.43	
	34-60	2.0-20	0.01-0.13	4.5-6.0	<2	Low-----	Moderate	Moderate	0.17	
Podunk Variant:										
Pv-----	0-9	0.2-2.0	0.18-0.24	4.5-6.0	<2	Low-----	Low-----	High-----	0.43	4
	9-36	0.2-2.0	0.16-0.22	4.5-6.0	<2	Low-----	Low-----	High-----	0.43	
	36-60	6.0-20	0.03-0.08	4.5-6.0	<2	Low-----	Low-----	High-----	0.17	
Quarries:										
Qu-----										
Raynham:										
Ra-----	0-8	0.6-2.0	0.20-0.25	5.1-6.5	<2	Low-----	High-----	Moderate	0.49	3
	8-24	0.2-2.0	0.18-0.22	5.1-6.5	<2	Low-----	High-----	Moderate	0.64	
	24-60	0.06-0.2	0.18-0.22	5.6-7.3	<2	Low-----	High-----	Moderate	0.64	
Raypol:										
Rb-----	0-8	0.6-2.0	0.15-0.28	4.5-5.5	<2	Low-----	High-----	Moderate	0.49	3
	8-29	0.6-2.0	0.15-0.26	4.5-5.5	<2	Low-----	High-----	Moderate	0.49	
	29-60	>6.0	0.06-0.10	5.1-6.5	<2	Low-----	High-----	Moderate	0.17	
Ridgebury:										
Rd-----	0-6	0.6-6.0	0.11-0.24	4.5-6.0	<2	Low-----	High-----	High-----	0.24	3
	6-19	0.6-6.0	0.08-0.20	4.5-6.0	<2	Low-----	High-----	High-----	0.43	
	19-60	<0.2	---	4.5-6.0	<2	Low-----	High-----	High-----	0.17	
¹ RN:										
Ridgebury part--	0-6	0.6-6.0	0.11-0.24	4.5-6.0	<2	Low-----	High-----	High-----	0.24	3
	6-19	0.6-6.0	0.08-0.20	4.5-6.0	<2	Low-----	High-----	High-----	0.43	
	19-60	<0.2	---	4.5-6.0	<2	Low-----	High-----	High-----	0.17	
Leicester part--	0-6	0.6-6.0	0.11-0.28	4.5-6.0	<2	Low-----	Low-----	High-----	0.17	3
	6-23	0.6-6.0	0.08-0.16	4.5-6.0	<2	Low-----	Low-----	High-----	0.43	
	23-60	0.6-6.0	0.04-0.16	4.5-6.0	<2	Low-----	Low-----	High-----	0.43	
Whitman part----	0-6	0.6-6.0	0.11-0.28	4.5-6.5	<2	Low-----	High-----	High-----	0.24	3
	6-22	0.6-6.0	0.08-0.20	4.5-6.5	<2	Low-----	High-----	High-----	0.43	
	22-60	<0.2	---	4.5-6.5	<2	Low-----	High-----	High-----	0.17	
	35-60	<0.2	---	4.5-6.5	<2	Low-----	High-----	High-----	0.17	
Rock outcrop:										
¹ RP:										
Rock outcrop part.										
Hollis part-----	0-3	0.6-6.0	0.10-0.21	4.5-6.0	<2	Low-----	Low-----	High-----	0.20	2
	3-14	0.6-6.0	0.06-0.18	4.5-6.0	<2	Low-----	Low-----	High-----	0.28	
	14	---	---	---	---	---	---	---	---	
Rumney:										
Ru-----	0-6	2.0-6.0	0.10-0.30	4.5-6.0	<2	Low-----	High-----	High-----	0.24	4
	6-28	2.0-6.0	0.07-0.18	4.5-6.0	<2	Low-----	High-----	High-----	0.43	
	28-60	>6.0	0.01-0.13	4.5-6.0	<2	Low-----	High-----	High-----	0.17	
Rumney Variant:										
Rv-----	0-9	0.2-2.0	0.18-0.26	5.1-6.5	<2	Low-----	High-----	Moderate	0.43	4
	9-31	0.2-2.0	0.18-0.24	5.1-6.5	<2	Low-----	High-----	Moderate	0.43	
	31-60	>6.0	0.03-0.08	5.1-6.5	<2	Low-----	High-----	Moderate	0.17	

See footnote at end of table.

The solum is 18 to 36 inches thick. Rock fragments, including stones and cobbles, range from 5 to 30 percent in the solum and from 5 to 45 percent in the C horizon. These soils are strongly acid to slightly acid.

The Ap and A1 horizons have hue of 10YR and value and chroma of 2 through 4.

The B21 horizon has hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 through 6. The B22 horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 3 through 6. Texture of the B horizon is fine sandy loam, loam, or the gravelly analogs. Structure is weak medium subangular blocky. Consistence is friable or very friable.

The Cx horizon has hue of 2.5Y or 5Y, value of 4 through 6, and chroma of 3 or 4. Texture is fine sandy loam, sandy loam, or the gravelly analogs. This horizon has weak or moderate thick platy structure, or it is massive. Consistence is firm or very firm with brittleness. Oxide coatings are common in the Cx horizon.

Penwood series

The Penwood series consists of mixed, mesic Typic Udipsamments. These soils are deep, excessively drained and have a yellowish red loamy sand and reddish brown sand B horizon over a reddish brown sand C horizon. They formed on sandy outwash terraces in material that was derived mainly from sandstone, shale, conglomerate, and basalt. The Penwood soils are on broad outwash terraces. Slope ranges from 0 to 15 percent but is dominantly 0 to 8 percent.

Penwood soils are associated on the landscape with the moderately well drained Deerfield soils. They are on the same landscape as the Walpole soils, which are poorly drained, the Manchester soils, which are excessively drained and gravelly throughout, and the Branford soils, which are well drained and have a finer textured solum.

Typical pedon of Penwood loamy sand, 3 to 8 percent slopes, in the town of East Haven, 1 mile north of Interchange 52 of the Connecticut Turnpike, on the east side of North High Street just south of the State Rifle Range:

Ap—0 to 8 inches, dark brown (7.5YR 3/2) loamy sand; weak medium granular structure; very friable; many fine roots; strongly acid; clear smooth boundary.

B21—8 to 18 inches; yellowish red (5YR 4/6) loamy sand; single grain; loose; common fine roots; strongly acid; gradual wavy boundary.

B22—18 to 30 inches; reddish brown (5YR 4/4) sand; single grain; loose; few fine roots; strongly acid; gradual wavy boundary.

C—30 to 60 inches; reddish brown (5YR 5/3) medium sand with thin layers of fine sand; single grain; loose; strongly acid.

The solum is 20 to 36 inches thick. Coarse fragments range from 0 to 5 percent in the solum and from 0 to 10

percent in the C horizon. Reaction throughout these soils ranges from very strongly acid to slightly acid.

The Ap and A1 horizons have hue of 7.5YR or 10YR and value and chroma of 2 through 4.

The B horizon has hue of 5YR, value of 4 or 5, and chroma of 4 through 6. Texture is loamy sand or loamy fine sand in the upper part grading to medium or fine sand in the lower part.

The C horizon has hue of 5YR or 7.5YR, value of 4 or 5, and chroma of 4 through 6. Texture is sand or fine sand.

Podunk series

The Podunk series consists of coarse-loamy, mixed, mesic Fluvaquentic Dystrochrepts. These soils are moderately well drained and have a brown and dark brown fine sandy loam and sandy loam B horizon over a yellowish brown sand C horizon. They formed in recent alluvium that was derived mainly from gneiss and schist. The Podunk soils are on flood plains of the larger streams. Slope ranges from 0 to 3 percent.

Podunk soils are associated on the landscape with the poorly drained Rumney soils. They are on the same landscape as the Saco soils, which are very poorly drained and formed in finer textured alluvium, the Scarborough soils, which are very poorly drained and formed in sandy outwash, and the Agawam and Haven soils, which are well drained and formed on adjacent outwash plains and terraces.

Typical pedon of Podunk fine sandy loam, in a woodlot in the town of Southbury on the east side of the Pomperaug River about 2,500 feet south of East Flat Hill Road:

O1—2 inches to 1 inch; undecomposed deciduous leaves and twigs.

O2—1 inch to 0; decomposed organic matter with some partially decomposed leaves and twigs.

A1—0 to 5 inches; very dark grayish brown (10YR 3/2) fine sandy loam; weak medium granular structure; friable; many fine and medium roots; strongly acid; clear wavy boundary.

B21—5 to 14 inches; brown (10YR 5/3) fine sandy loam; weak fine granular structure; very friable; many fine and medium roots; strongly acid; clear wavy boundary.

B22—14 to 34 inches; dark brown (10YR 3/3) sandy loam; common fine distinct grayish brown (10YR 5/2) and yellowish brown (10YR 5/4) mottles; weak fine granular structure; very friable; few medium and fine roots; strongly acid; clear wavy boundary.

C—34 to 60 inches; yellowish brown (10YR 5/4) sand with strata of gravel 2 inches thick; single grain; loose; 10 percent coarse fragments; medium acid.

The solum is 20 to 36 inches thick. The content of rock fragments is 0 to 5 percent in the solum and 0 to

PODUNK

15 percent in the C horizon. These soils are very strongly acid to medium acid throughout.

The Ap or A1 horizon has hue of 10YR, value of 3 or 4, and chroma of 2 or 3.

The B horizon has hue of 10YR or 2.5Y and value and chroma of 3 through 6. It has mottles that have chroma of 2 or less above a depth of 24 inches. Texture is fine sandy loam or sandy loam. Structure is weak or moderate fine granular. Consistence is friable or very friable.

The C horizon has hue of 10YR or 2.5Y, value of 4 through 6, and chroma of 3 through 6. Texture is sand, loamy sand or loamy fine sand with strata of gravel up to 4 inches thick.

Podunk Variant

The Podunk Variant consists of coarse-loamy over sandy or sandy-skeletal, mixed, mesic Fluventic Dystrachrepts. These soils are moderately well drained and have a reddish brown silt loam B horizon over a reddish brown silt loam C horizon over a dark gray sand IIC horizon. They formed in recent alluvium derived mainly from sandstone, conglomerate, arkose, and shale. These soils are on flood plains of the larger streams. Slope ranges from 0 to 3 percent.

Podunk Variant soils are on the landscape in association with the poorly drained Rumney Variant soils. They are on the same landscape as the Branford and Ellington soils, which formed in a loamy mantle over sand and gravel, and the excessively drained Manchester soils, which are on outwash terraces.

Typical pedon of Podunk Variant silt loam, in the town of Branford, 1/4 mile southeast of the intersection of Connecticut Highway 139 and Valley Road:

Ap—0 to 9 inches; dark brown (7.5YR 3/2) silt loam; weak medium granular structure; friable; many roots; medium acid; clear smooth boundary.

B21—9 to 12 inches; reddish brown (5YR 4/3) silt loam; weak medium subangular blocky structure; friable; many roots; medium acid; gradual wavy boundary.

B22—12 to 19 inches; reddish brown (5YR 4/4) silt loam; weak medium subangular blocky structure; friable; few roots; medium acid; gradual wavy boundary.

B23—19 to 26 inches; reddish brown (5YR 4/4) silt loam; few fine faint yellowish red (5YR 5/6) mottles; weak medium subangular blocky structure; friable; medium acid; gradual wavy boundary.

C1—26 to 36 inches; reddish brown (5YR 4/4) silt loam; common medium distinct yellowish red (5YR 5/6) and light reddish brown (5YR 6/3) mottles; massive; friable; medium acid; clear wavy boundary.

IIC2—36 to 42 inches; dark gray (N 4/) medium sand; single grain; loose; medium acid.

The solum is 25 to 35 inches thick. The depth to sand or sand and gravel ranges from 25 to 40 inches. Rock

fragments range from 0 to 3 percent in the solum and C1 horizon and from 0 to 25 percent in the IIC horizon. Reaction throughout these soils ranges from very strongly acid to medium acid.

The Ap and A1 horizons have hue of 7.5YR or 10YR, value of 2 through 4, and chroma of 1 through 3.

The B horizon has hue of 2.5YR or 5YR, value of 3 through 5, and chroma of 3 or 4. It has mottles in the lower part. Texture is silt loam or very fine sandy loam. Structure is weak medium subangular blocky, or the horizon is massive. Consistence is friable or very friable.

The C1 horizon, where it occurs, has hue of 2.5YR or 5YR, value of 3 through 5, and chroma of 4 or 5. This horizon is mottled. Texture is silt loam or very fine sandy loam. The IIC horizon has hue of 5YR through 10YR or is neutral, value of 4 through 6, and chroma of 0 through 4. Texture is sand, loamy sand, or stratified sand and gravel.

Raynham series

The Raynham series consists of coarse-silty, mixed, nonacid, mesic Aeric Haplaquepts. These soils are poorly drained and have a light brownish gray and reddish brown, mottled silt loam and very fine sandy loam B horizon over a reddish brown and dark reddish brown, mottled silt loam and very fine sandy loam C horizon. They formed in a mantle of coarse silt and very fine sand that derived mainly from gneiss, schist, sandstone, conglomerate, and shale. In this survey area, the Raynham soils are a taxadjunct because they have redder colors and are more acid than defined for the Raynham series. The Raynham soils are in low depressions on outwash plains and terraces. Slope ranges from 0 to 3 percent.

Raynham soils are associated on the landscape with the moderately well drained Scio soils. They are on the same landscape as the well drained Branford, Haven, and Agawam soils, which are on adjacent outwash plains and terraces; the moderately well drained Ellington and Ninigret soils on adjacent outwash plains and terraces; and the Raypol and Walpole soils, which are underlain by sand or sand and gravel within a depth of 40 inches.

Typical pedon of Raynham silt loam, in the town of Wallingford, about 0.5 mile north of Scard Road and 100 feet east of Williams Road:

Ap—0 to 6 inches; very dark grayish brown (10YR 3/2) silt loam; weak medium subangular blocky structure; friable; common fine and medium roots; strong acid; clear smooth boundary.

B21g—6 to 11 inches; light brownish gray (10YR 6/2) very fine sandy loam; common fine distinct yellowish brown (10YR 5/6) mottles; weak thin platy structure; friable; common fine and medium roots; medium acid; clear wavy boundary.

subangular blocky structure; few fine roots; 10 percent coarse fragments; friable; strongly acid; clear wavy boundary.

B23—28 to 30 inches; reddish brown (2.5YR 4/4) fine sandy loam; common medium distinct strong brown (7.5YR 5/8) and pinkish gray (7.5YR 6/2) mottles; massive parting to weak thick platy structure in places; firm; 10 percent coarse fragments; strongly acid; clear wavy boundary.

Cx—30 to 60 inches; reddish brown (2.5YR 4/4) fine sandy loam; common medium distinct strong brown (7.5YR 5/8) and pinkish gray (7.5YR 6/2) mottles in the upper 14 inches; weak thick platy structure; very firm; 12 percent coarse fragments; strongly acid.

The thickness of the solum corresponds to the depth of the fragipan and ranges from 20 to 36 inches. Rock fragments, including stones and cobbles, range from 5 to 20 percent in the solum and from 10 to 35 percent in the Cx horizon. These soils range from very strongly acid to medium acid in the solum and from very strongly acid to slightly acid in the Cx horizon.

The Ap and A1 horizons have hue of 7.5YR or 10YR, value of 2 through 4, and chroma of 1 through 3.

The B horizon has hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 through 6. This horizon has mottles below a depth of 12 inches. Texture is silt loam, loam, or fine sandy loam. Structure is weak medium subangular blocky, or the horizon is massive. Consistence is friable or very friable.

The Cx horizon has hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 through 6. It is mottled in the upper part; the mottles are less abundant with depth. Texture is loam, silt loam, fine sandy loam, or the gravelly analogs. This horizon has weak thick platy structure, or it is massive. Consistence is firm or very firm and brittle.

Manchester series

The Manchester series consists of sandy-skeletal, mixed, mesic Typic Udorthents. These soils are excessively drained and have a yellowish red gravelly sandy loam and gravelly loamy sand B horizon over a reddish brown stratified sand and gravel C horizon. They formed in glacial outwash deposits of sand and gravel that were derived mainly from Triassic sandstone, conglomerate, and basalt. The Manchester soils are on outwash terraces of stream valleys. Slope ranges from 0 to 15 percent.

Manchester soils are on the same landscape as the Branford soils, which have a finer textured solum; the Penwood soils, which formed in sandy outwash and contain less gravel; and the Ellington soils, which have a finer textured solum and are moderately well drained.

Typical pedon of Manchester gravelly sandy loam, 0 to 3 percent slopes, in the town of Prospect, 0.7 mile south of Cook Road and 100 feet west of Roaring Brook Road:

O—1 inch to 0; fresh and partly decomposed leaf litter.

Ap—0 to 6 inches; reddish brown (5YR 4/3) gravelly sandy loam; weak medium granular structure; very friable; many fine and medium roots; 20 percent coarse fragments; strongly acid; clear wavy boundary.

B21—6 to 10 inches; yellowish red (5YR 4/8) gravelly sandy loam; massive; very friable; few fine and medium roots; 25 percent coarse fragments; strongly acid; clear wavy boundary.

B22—10 to 16 inches; yellowish red (5YR 4/6) gravelly loamy sand; single grain; loose; few roots; 30 percent coarse fragments; strongly acid; gradual wavy boundary.

C—16 to 60 inches; reddish brown (5YR 5/4) sand and gravel; single grain; loose; few fine roots; 50 percent coarse fragments; strongly acid.

The solum is 12 to 22 inches thick. Coarse fragments, including cobblestones, range from 15 to 35 percent in the solum and from 35 to 70 percent in the C horizon. Reaction throughout these soils ranges from very strongly acid to medium acid.

The Ap and A1 horizons have hue of 5YR through 10YR, value of 3 or 4, and chroma of 1 through 3.

The B2 horizon has hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 through 8. Texture is sandy loam or gravelly sandy loam in the upper part and gravelly loamy sand in the lower part. Structure is weak medium granular, or the horizon is massive or single grained. Consistence is very friable or loose.

The C horizon has hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 through 8. Texture is very gravelly sand or stratified sand and gravel.

Menlo series

The Menlo series consists of coarse-loamy, mixed, mesic Aeric Fragiaquepts. These soils are very poorly drained and have a gray, faintly mottled silt loam A2 horizon over a weak red mottled loam B horizon over a reddish brown mottled very firm loam and gravelly loam Cx horizon. They formed in loamy, compact glacial till that was derived mainly from sandstone, conglomerate, arkose, and shale. The Menlo soils are on concave side slopes along drainageways and in low depressions on glacial uplands. Slope ranges from 0 to 3 percent.

Menlo soils are associated on the landscape with well drained Wethersfield soils, moderately well drained Ludlow soils, and poorly drained Wilbraham soils. They are on the same landscape as the well drained Cheshire soils and the moderately well drained Watchaug soils, which have a more friable C horizon, the Yalesville soils, which have bedrock at a depth of 20 to 40 inches, and

STORMWATER MANAGEMENT PLAN

FROM ZONING CODE SECTION 60

Vegetation:

Vegetative cover immediately surrounding the proposed development area of the site is primarily lawn and some broadleaved deciduous vegetation. The vegetative cover along the eastern boundary is the invasive Japanese knotweed.

(2) Location of the closest surface water bodies

and wetlands to the site, and the depth to any groundwater or aquifer areas on or adjacent to the site. In the case of tidal waters, provide the mean high water and high tide elevations.

THE ADJACENT RIVER WINTERGREEN BROOK, THE INLAND WETLANDS AND FLOODWAY PLUS FLOODPLAIN ARE LOCATED ON THE NORTHERN AND EASTERN SIDE OF THE SITE AS DEPICTED ON THE PLANS. GROUNDWATER IS ESTIMATED TO BE NEAR THE ELEVATION OF THE WETLANDS SOILS OR ABOUT ELEVATION 10. THE RIVER IS NOT TIDAL.

(3) DEP ground and surface water quality classification of waterbodies on and adjacent to the site.

According to Connecticut DEEP and the EPA, Wintergreen Brook has elevated levels of E. coli and fecal coliform, qualifying it as impaired waterway. With the Brook having these contaminants the groundwater would also be expected to be impaired.

REFERENCE <http://commongroundct.org/2016/09/creating-an-urban-oasis-on-wintergreen-brook/>

THE REGIONAL WATER AUTHORITY SERVES WATER TO THE SITE. THEY OBTAIN THEIR WATER FROM GROUND AND SURFACE WATER BUT NONE OF THESE SITES ARE CLOSE TO THE SITE.

(4) Identification of any waterbodies on and adjacent to the site documented by DEP as not meeting water quality standards.

WINTERGREEN BROOK DOES NOT MEET WATER QUALITY STANDARDS AS INDICATED ABOVE.

(5) Location and description of all proposed stormwater control BMPs for both construction activities and post-construction, long-term stormwater control.

THIS INFORMATION IS CONTAINED ON THE PLANS

IN PARTICULAR IN THE SECTION "EROSION AND SEDIMENT CONTROL NOTES" AND "CONSTRUCTION SEQUENCE"

(6) Proposed operation and maintenance manual and a schedule for maintaining any trash hoods, catch basins, or other BMP devices used to prevent runoff, facilitate sheet flow or infiltration, or treat stormwater.

ON SHEET D-2 THERE IS THE MAINTENANCE REQUIREMENTS FOR THE POROUS PAVERS.

THE EXISTING SITE HAS BEEN DEVELOPED WITH IMPERVIOUS BUILDINGS AND PARKING AREAS OVER THE SITE. THE BEST MANAGEMENT PRACTICE USED WAS THE REDUCTION OF IMPERVIOUS AREAS WITH THE REMOVAL OF PAVED AREAS AND THE INSTALLATION OF PERVIOUS PAVERS AND RETAINING PERVIOUS AREAS. CUSTOMARY LANDSCAPING MAINTENANCE OF THESE NEW PERVIOUS AREAS WILL PROMOTE INFILTRATION.

(7) Calculations of stormwater runoff rates, suspended solids removal rates, and soil infiltration rates before and after completion of the activity proposed in the application.

STORMWATER RUNOFF VOLUME AND RUNOFF RATES CALCULATED ON SHEET U-2. NOTE THAT WE CONTAIN MORE THAN 2.1 INCHES OF RUNOFF FROM DEVELOPED AREAS WITH STATIC STORAGE.

MANCHESTER SOIL PERMEABILITY IS LISTED AS OVER 20 INCH PER HOUR. PERCOLATION IS OVER 5 MINUTES PER INCH. THESE SOILS ARE WELL DRAINED AND NON-STONY TO VERY STONY AND HAVE A REDDISH BROWN SAND AND GRAVEL TEXTURE. THIS MEANS THE SHRUB AND LAWN AREAS AS WELL AS THE POROUS PAVERS CAN ABSORB A RAINFALL FOR MODERATE STORMS. COEFFICIENT OF RUNOFF WOULD BE 0.9 FROM IMPERVIOUS AREAS AND 0.25 FROM SHRUB AND LAWN AREAS. THE COEFFICIENT OF ABSORPTION FOR THE POROUS PAVERS IS 0.9. THIS WILL BE TRUE BEFORE AND AFTER DEVELOPMENT. FOR THE SAKE OF COMPUTATIONS THIS INFILTRATION AND ABSORPTION POTENTIAL WAS NOT RELIED UPON.

ENGINEERING SUMMARY PROPORTIONALITY LOGIC:

BECAUSE THE PRIMARY CAUSE OF THE INCREASE IN PERVIOUS AREAS IS FROM POROUS PAVERS THAT ARE DESIGNED TO ABSORB ALMOST ALL RAIN FROM TYPICAL STORMS, THERE IS ABOUT A REDUCTION IN THE TOTAL RUNOFF AND IN THE PEAK RATE OF RUNOFF FROM THE SITE AS SHOWN ON SHEET S-1

(8) A hydrologic study of pre-development site conditions. Hydrology studies shall be conducted at a level of detail commensurate with the probable impact of the proposed activity and should extend downstream to the point where the proposed activity causes less than a five percent change in the peak flow rates.

THE HYDRAULIC CHARACTERISTICS OF THE SITE AREA BEING CHANGED AND REDUCED BY THE POROUS PAVERS WHICH INCREASE AMOUNT OF WATER RETAINED ON THE SITE.

AT THE POINT OF CONNECTION THE SITE IS LESS THAN FIVE PERCENT OF THE DRAINAGE AREA IN THE SYSTEM.

(e) Standards and criteria for decision. In order to approve any application for which a stormwater management plan is required, the commission shall find the stormwater management plan consistent with the following criteria:

(1) Direct channeling of untreated surface water runoff into adjacent ground and surface waters shall be prohibited.

THE POROUS INTERLOCKING CONCRETE PAVERS HAVE LEVELS OF TREATMENT DESCRIBED IN D-2

(2) No net increase in the peak rate or total volume of stormwater runoff from the site, to the maximum extent possible, shall result from the proposed activity.

THE REDUCTION IN IMPERVIOUS AREAS CREATES A REDUCTION IN PEAK RATE AND TOTAL VOLUME OF STORMWATER RUNOFF – SEE SHEET S-1.

(3) Design and planning for site development shall provide for minimal disturbance of pre-development natural hydrologic conditions, and shall reproduce such conditions after completion of the proposed activity, to the maximum extent feasible.

REUSE OF THE EXISTING BUILDINGS CAUSE MINIMAL DISTURBANCE.

THE NECESSARY SITE DISTURBANCE IS MINIMIZED BY REUSE OF REAR PARKING AREA AND THE USE OF POROUS PAVERS WHICH NEED LESS SITE DISTURBANCE TO INSTALL THAN OTHER STORMWATER OPTIONS.

(4) Pollutants shall be controlled at their source to the maximum extent feasible in order to contain and minimize contamination.

THE REDUCTION IN IMPERVIOUS AREAS AND THE POROUS INTERLOCKING CONCRETE PAVERS HAVE LEVELS OF TREATMENT RIGHT AT THE SOURCE AS DESCRIBED IN D-2

(5) Stormwater management systems shall be designed and maintained to manage site runoff in order to reduce surface and groundwater pollution, prevent flooding, and control peak discharges and provide pollution treatment.

THE REDUCTION IN TRADITIONAL PAVING IMPERVIOUS AREA AND THE POROUS INTERLOCKING CONCRETE PAVERS HAVE LEVELS OF TREATMENT RIGHT AT THE SOURCE AS DESCRIBED IN D-2

(6) Stormwater management systems shall be designed to collect, retain, and treat the first inch of rain on-site, so as to trap floating material, oil, and litter.

VOLUME OF WATER FROM TWO POINT ONE INCHES OF RAINFALL DESCRIBED AND CALCULATED.

SHEET D-2 DEPICTS THE DETAILS FOR THE POROUS PAVERS AND INCLUDES DATA ON THE ABILITY OF THE PAVERS TO TRAP MATERIAL AND OIL AND TREAT SAME.

LITTER WILL BE SURFACE CLEANED BECAUSE THERE IS NO WAY FOR LITTER TO ENTER GROUND.

(7) On-site infiltration and on-site storage of stormwater shall be employed to the maximum extent feasible.

THE REDUCTION IN TRADITIONAL PAVING IMPERVIOUS AREA AND THE POROUS INTERLOCKING CONCRETE PAVERS HAVE LEVELS OF TREATMENT RIGHT AT THE SOURCE AS DESCRIBED IN D-2

(8) Post-development runoff rates and volumes shall not exceed pre-development rates and volumes for various storm events. Stormwater runoff rates and volumes shall be controlled by infiltration and on-site detention systems designed by a professional engineer licensed in the state of Connecticut except where detaining such flow will affect upstream flow rates under various storm conditions.

THE REDUCTION IN TRADITIONAL PAVING IMPERVIOUS AREA AND THE POROUS INTERLOCKING CONCRETE PAVERS HAVE LEVELS OF TREATMENT RIGHT AT THE SOURCE AS DESCRIBED IN D-2

(9) Stormwater treatment systems shall be employed where necessary to ensure that the average annual loadings of total suspended solids (TSS) following the completion of the proposed activity at the site are no greater than such loadings prior to the proposed activity. Alternatively, stormwater treatment systems shall remove 80 percent TSS from the site on an average annual basis.

SEE STORMWATER TREATMENT DATA SEE SHEET D-2.

(10) Use of available BMPs to minimize or mitigate the volume, rate, and impact of stormwater to ground or surface waters.

THE REDUCTION IN IMPERVIOUS AREA AND THE POROUS INTERLOCKING CONCRETE PAVERS HAVE LEVELS OF TREATMENT RIGHT AT THE SOURCE AS DESCRIBED IN D-2