



## ***Ian T. Cole***

***Professional Registered Soil Scientist / Professional Wetland Scientist***

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***860-514-5642***

August 4, 2021

Town of East Lyme  
Inland Wetlands Agency  
Mr. Gary Geoschel II  
Wetlands Enforcement Officer  
108 Pennsylvania Ave  
Niantic, CT 06357

***RE: Wetland Application, Howard Hale, Construction of Two New Single-Family Homes at 99, 101 & 103 South Beechwood Road, Assessors Map 07.14, Lots 43, 42 and 41, Niantic, Connecticut.***

Dear Mr. Geoschel and Commission Members:

On behalf of the Applicant, I have completed the wetland delineation on the above referenced property and reviewed the wetland application and current subject site plans including the recent revisions since the July 2021 Inland Wetlands Agency (IWA) meeting. I coordinated efforts with Design Professionals Inc, during the design and layout of the enhancement plantings and overall design to avoid, minimize and mitigate wetland impacts. I offer the following comments relative to assessing impacts to the inland wetlands and watercourses due to the proposed regulated activities.

### **Proposed Activities**

The applicant is seeking permission from the Town of East Lyme to develop three lots of record with a total area of 14,961 SF± (0.34 acres) located at 99, 101 and 103 South Beechwood Road in East Lyme, Connecticut. The proposed work will disturb approximately 8,350 SF± (0.19 acre) of land on the combined parcels. The proposed development will include construction of two small (840 SF footprint) new single-family homes on lots 101 & 103 with associated paved driveways, subsurface utilities (municipal water and sewer connections), and landscaping. The project also includes drainage improvements, wetland mitigation and combination of two lots.

The development will require the permanent fill of 1,780 SF of a wetland that bisects the middle portion of the three lots. To mitigate this impact the proposal includes 1,792 SF of plantings and enhancements located on lot 99 which will remain undeveloped. A formal stormwater management system has been professionally engineered by Design

Professionals, Inc, to ensure stormwater leaving the site will not pose any detrimental impacts to the receiving environment. See Figure 1 and for more details; refer to the site plan drawings, entitled "99, 101 & 103 South Beechwood Road, Site Plan Application, East Lyme, Connecticut, prepared by Design Professionals, Inc, dated 7/6/2021, as amended, for information regarding the proposed property development.



Figure 1: Proposed Development Graphic

### **Existing Conditions**

The site can primarily be classified as vacant woodland adjacent to a developed residential neighborhood. I am the original soil scientist of record and completed the delineation of the inland wetlands in 2015. I returned to the site in July 2021 to re-flag the lot so the wetland boundary could be visually identified in the field and to conduct a formal wetland inventory and functional evaluation to assess the potential for adverse impacts to the wetland and to make any recommendation that may be necessary to minimize or eliminate direct and indirect impacts.

As detailed in my April 2015 wetland delineation report provided as part of this 2021 wetland application, there is a small remnant forested wetland that bisects the central portion of the three properties. This remnant wetland is embedded in a moderate to high-density single-family neighborhood. The property is relatively level and drains in a north to south direction. The wetland hydrology is exacerbated by the additional discharge from the neighboring property's 8-inch PVC drainpipe. The wetland was created in part by the construction of South Beechwood Road which raised the topographic relief point creating a low spot in the landscape where water collects. While there is no formalized channel / intermittent stream, the wetlands form a subtle low spot in the landscape that conveys overland flow south to downstream receiving wetlands.

At the time of my July 2021 site visit there was continuous flow discharging from the above mentioned 8-inch PVC drainpipe into the wetland, but interestingly there was no standing water or readily observed signs of recent surface flow within the interstitial space between the large surface stones. This observation demonstrates the wide seasonal variability of the wetland as during the dry summer months the wetland is nearly unrecognizable as such to the layperson.

The on-site wetland exhibits classic wooded swamp vegetation with red maple (*Acer rubrum*) dominating the forest overstory, a shrub stratum dominated by spicebush (*Lindera benzoin*), winterberry (*Ilex verticillata*) with patches of multiflora rose (*Rosa multiflora*) and green briar (*Smilax spp*). The wetland soils are classified as poorly drained Ridgebury and Leicester extremely stony fine sandy loam hydric soils.

As with most highly disturbed areas the upland are vegetated by a mixture of invasive and early successional wetland plants. The upland soils are classified belonging to the Sutton moderately well drained fine sandy loam soil series. Encroachments of brush, leaves, and lawn clipping debris of neighboring compost piles are intermittently encountered at the peripheral of the property. Photos of the existing conditions are attached as appendix A.

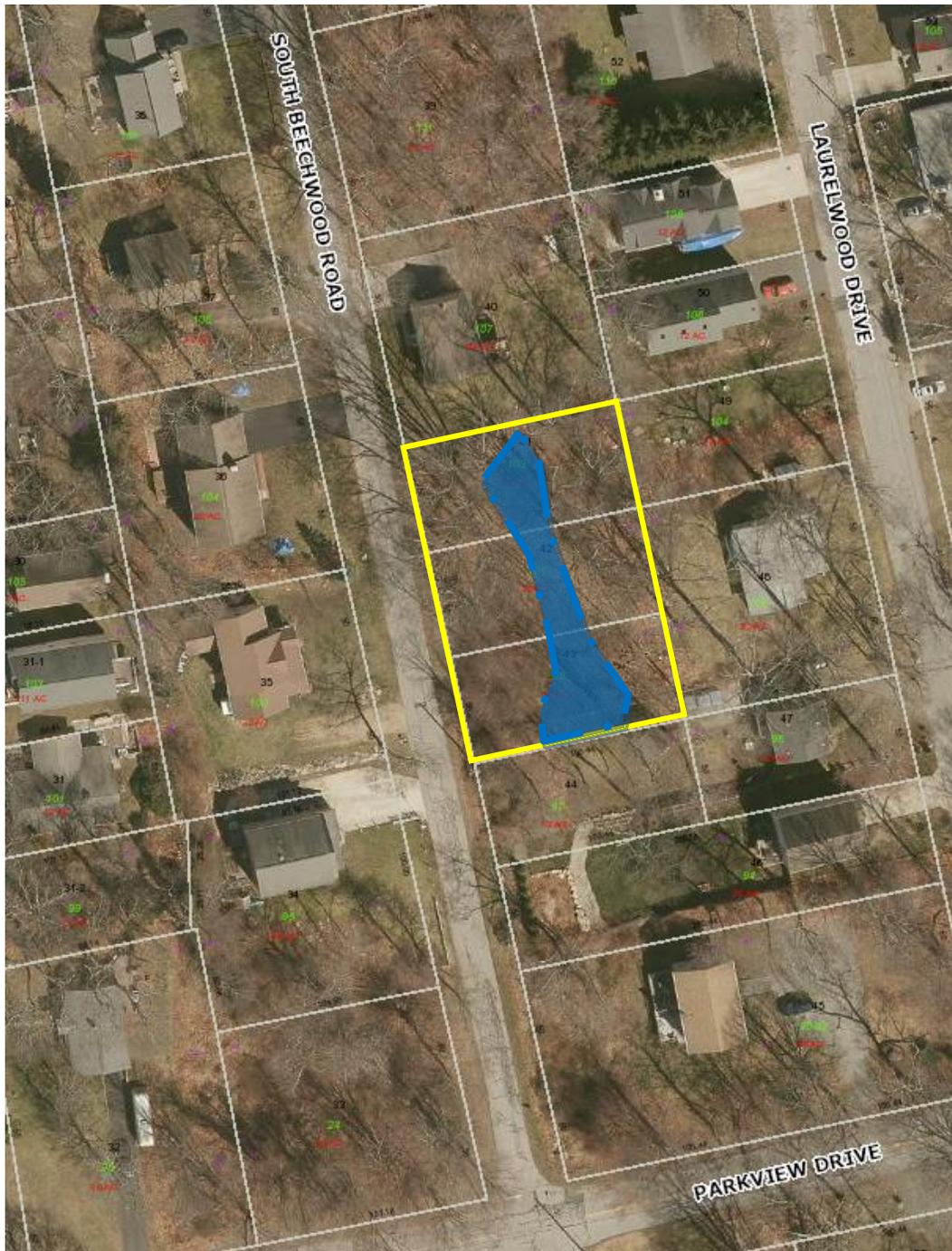


Figure 2: Existing Conditions

*Wetland Delineations*

*Wetland Evaluations*

*Soil Evaluations*

### **Wetland Function and Value**

The principal functions of this wetland remnant are groundwater interchange and flow conveyance. During the late fall, winter, and spring, ground water discharges to the wetland and local runoff is conveyed to downstream receiving wetlands. Due to the small size of this wetland, these functions are not provided at a significant level. Other wetland functions such as wildlife habitat or water quality renovation, sediment trapping and production export are not provided to any appreciable degree because of the small size of the system, lack of channelized flow path, landscape position and its low ecological integrity further degraded by existing human disturbances, refuge dumping, receiving untreated drainage from the surrounding development, and as is common along the shoreline a prolific medley of invasive vegetation in the adjacent uplands.

Due to the wetland's small size, shallow depth, dominance of neighboring invasive species, landscape position, juxtaposition to other resources and historic impacts from adjacent land uses the wetland is largely devoid of functions and values that are typically associated with unfragmented, undisturbed naturally occurring wetlands. This degraded wetland does provide some minor, although highly localized, stormwater storage and attenuation. The proposed site improvements provide an opportunity to enhance these wetland functions.

### **Impact Assessment**

There is good potential to enhance the water quality functions of this wetland. The beneficial function of the wetland is the conveyance of seasonal flow, which the project will be enhanced by renovating water as it flows through the engineered water quality features prior to leaving the site.

The development activities provide a permitting nexus to improve the water quality properties by the installation of engineered water quality bio-basins seeded with dense herbaceous vegetation via seed mixture, installing 47 new native shrubs, and eradication of targeted invasive plants (*Multiflora rose*), which collectively will enhance the function and value of the wetland.

The planned enhancements to the sites drainage and plantings will improve the wetland's function to better filter, intercept and absorb nutrients, sediment and other pollutants potentially carried in stormwater runoff that flows across the site. The constructed water quality basins herbaceous vegetation will slow the flow of runoff which both reduces erosion and allows suspended solids to settle out as water slowly drains into the underlying soil or discharges as non-erosive overland sheet flow thereby a contributing factor in reducing the volume of surface runoff.

Following a recent site visit with the Town's Engineering department, several drainage revisions per the Town's suggestion have been included in the current design. The two new homes proposed will increase the impervious coverage on the total area. To control the increase in stormwater volume due to increased impervious coverage, Town staff requested we replace the bioretention swale / depression that was originally proposed with the revised design (as of 8/2/21) that conveys water through a series of 8-inch HDPE

drainpipes that run north to south in the backyard of the proposed houses. At the inlet and mid-point between the two proposed residences are where the water quality basins will be located. The drainage will daylight just south of property line to lot 101 as non-erosive sheet-flow before reaching the wetland. As with the previous stormwater design, the basins were sized to provide a total storage volume equal to the projected increase in stormwater volume for both new homes during a 10-year storm.

To minimize potential impacts the design incorporates industry standard best management practices (BMPs) and guidelines for residential developments. A construction sequence is provided on the site plans notes. Additional construction notes include details on the proposed earthwork and grading, site stabilization, and best management practices (BMPs) for protecting the environment. All construction activities will be completed in compliance with the standards and guidelines provided by the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, the 2004 Connecticut Stormwater Quality Manual and conformance with the Inland Wetland and Watercourses regulations for the Town of East Lyme.

Short-term impacts during construction will be reduced through measures to control sedimentation and erosion and adherence to BMPs. These controls as well as compliance with permit approvals will assure that no permanent adverse effects will impact the receiving wetlands. Lastly, daily E&S control inspections will further ensure continued maintenance of the sediment controls placed at the limit of disturbance.

Long term impacts will be abated through 1792 SF of wetland creation to offset the proposed wetland fill. This 1:1 ratio provides a meaningful enhancement to the property, the wetland resources, and the surrounding environment. Given the limited functions and values of the existing wetlands, limited space available and other site constraints such as extremely stony armored ground conditions, increasing the ratio of mitigation will create a much larger temporary disturbance and would also take away from adjacent upland habitat which is important to keep as a buffer to the wetlands.

The preferred proposal has kept clearing to a reasonable limit and balances the need for construction and preserving a buffer to the neighboring properties and wetland resources. Post clearing and development of the property, the woodlands and wetlands will continue to favor wildlife generalist species tolerant of human presence and edge habitat species. The proposed mitigation and water quality swales provides adequate compensation and results in no net loss of wetlands and focuses on improves to the overall function of the otherwise limited wetland.

## Alternatives Considered

Due to the needs of the proposed development and the location and proximity of the wetland resources the location of the homes and support features will unavoidably require wetland fill. The development has been reduced to the extent practical to both provide a minimalist beach bungalow with a structure footprint of only 840 SF and maintains a vegetated buffer to the wetland resources.

The alternative concept of a full build out of all three lots of record was considered (see figure 3). A full build out would require nearly completely filling in all the of the wetlands on the project site as well as nearly using nearly all available upland making mitigation potential and water quality renovation features extremely limited. The preferred plan, developing only two of the three lots provides allowances for mitigation and water quality features while still achieving the project needs of the applicant.

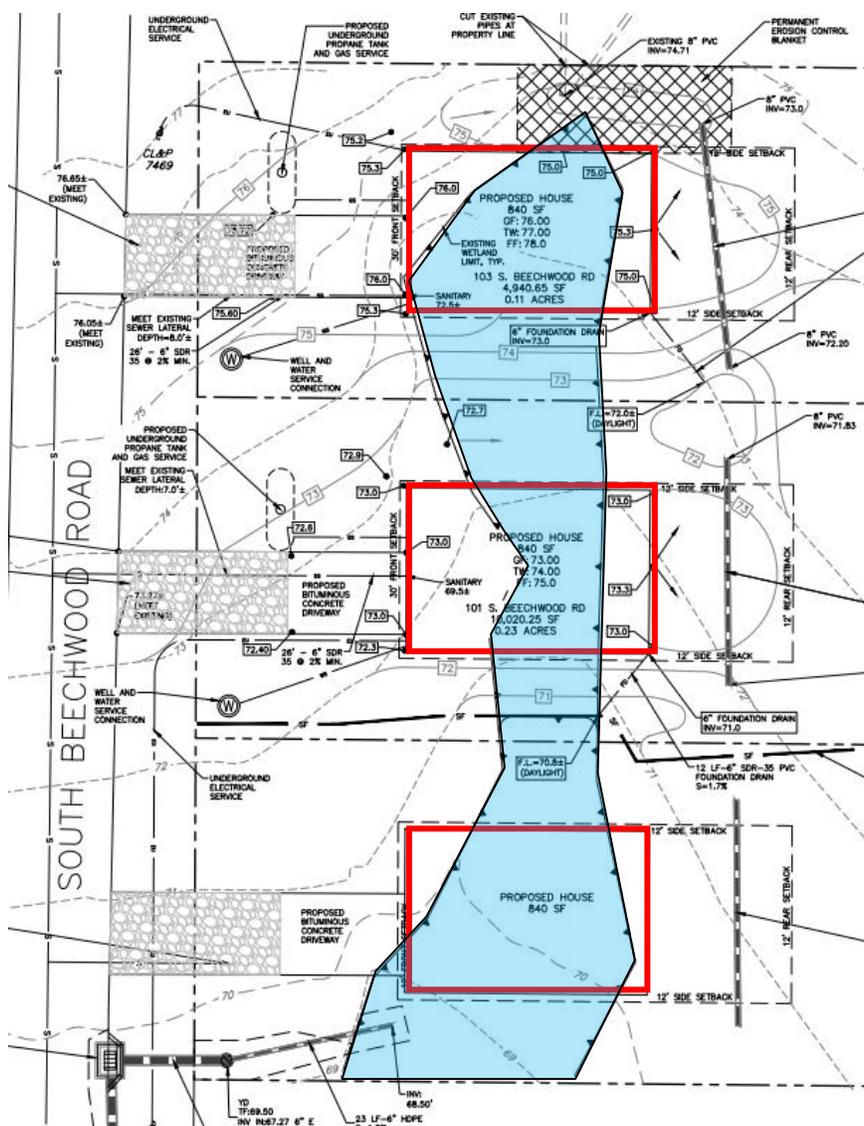


Figure 3: Alternative 3-Lot Build

**Conclusion**

The proposed development is consistent with the Giant's Neck Neighborhood. The proposed layout makes reasonable use of the buildable space on the parcels while providing design features to improve upon the function of the natural resources and provides an engineered system to renovate stormwater that leaves the site.

The activities will not result in any loss of wetland function, value, unique or significant wetland habitat. Post development the wetland will still have the same ability to perform its existing functions. As a result, long term environmental effects will be minor and highly localized. The applicant will mitigate such impacts through the proposed mitigation plantings, implementing standard construction BMPs and conforming to permit conditions.

It is my professional judgement that regulated activities and mitigation can be provide a better functioning wetland than pre-disturbance conditions and will not have a long-term negative or adverse effect on the natural capacity of the wetlands or the functions and services it provides.

Please do not hesitate to contact me at; (860) 514-5642 or itcole@gmail.com if you have any questions or need any additional information.

Respectfully Submitted.



Ian T. Cole  
Professional Registered Soil Scientist  
Professional Wetland Scientist #2006

# APPENDIX A

## SITE PHOTOS



Photo 1: Road Frontage



Photo 2: 8" Drainpipe that discharges to wetlands from neighboring property to the north.

*Wetland Delineations*

*Wetland Evaluations*

*Soil Evaluations*



Photo 3: Existing Wetland on Lot 101 & 103, note during dry summer months wetland is nearly unrecognizable as such when hydrology is lacking



Photo 4: Example of one of the leaf, lawn clippings and brush compost piles that encroach on the property



Photo 5: Example of Uplands on property in vicinity of proposed homes

# Town of East Lyme

P.O. DRAWER 519

NIANTIC, CONNECTICUT 06357



Deputy Director of Public Works  
William A. Scheer Jr.

860-691-4101  
FAX 860-739-6930

To: Gary Geoschel, Wetlands Agent

From: Bill Scheer, P.E., L.S. Deputy Director of Public Works (acting Town Engineer) *W.S.*

Date: Aug 6, 2021

Re: "99, 101, 103 South Beechwood Road" Dated July 6, 2021 Rev Thru 8/3/2021

This office has reviewed the latest set of plans and has the following comments.

1. The latest Plan revision is a result of a field meeting between the design engineer, Gary Geoschel, and Bill Scheer, the acting Town Engineer to discuss the proposed lot development. This revised plan reflects a reasonable and effective solution for a site that is extremely small with many difficult parameters and resources to consider. Town staff and the design Engineer discussed these items and possible solutions at great length during this meeting.
2. The plans shall be updated to include the stormwater pipes and inverts on the "Site layout and Grading Plan"
3. Add a note in a box in Bold with an arrow pointing to the proposed yard drain and 15" HDPE pipe going from the yard drain to the Catch Basin, stating "Yard drain and outlet pipe (even the portion located in the Town Right of Way) are privately owned structures. The Town is not responsible for, and will not, perform any maintenance, repair, or replacement of either of these structures." Place this note on both sheets C-GD1 and C-UT1. This should also be listed as part of the approval.
4. While the 4" inlet pipe at 1% will remove the increase 0.35 cu ft of stormwater under ideal conditions, 4" pipes tend to clog. Provide more detail on how this inlet structure will functioning long term. Some type of metering inlet structure with a high-level overflow grate (all in one structure) should possibly be considered. If a low flow orifice is located high enough above existing grade, or above the bottom of a structure, they tend to remain free of debris.
5. The public improvement bond should be set at \$18,000. This bond can set at \$5,000 if the public improvement work will be completed and accepted prior to building permits being issued.  
The bond amount for erosion and sedimentation controls is recommended to be \$10,000.
6. This review does not include a Bonding recommendation for the Wetlands Mitigation.



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2.	KOMAROW BRUCE E & STACY L OR CURRENT OCCUPANT 104 S BEECHWOOD RD NIANTIC, CT 06357													
3.	DUTHRIE MICHELE OR CURRENT OCCUPANT 106 S BEECHWOOD RD NIANTIC, CT 06357													
4.	MASON DANIEL & KELLY OR CURRENT OCCUPANT 110 S BEECHWOOD RD NIANTIC, CT 06357													
5.	ROBERTS GERALDINE A TR & OR CURRENT OCCUPANT 64 OLD POST RD WETHERSFIELD, CT 06109													
6.	VANCOUR ROBERT E OR CURRENT OCCUPANT 107 S BEECHWOOD DR NIANTIC, CT 06357													
7.	HABITAT FOR HUMANITY OF OR CURRENT OCCUPANT 377 BROAD ST NEW LONDON, CT 06320													
8.	SAID MARIANNA OR CURRENT OCCUPANT 96 LAURELWOOD DR NIANTIC, CT 06357													

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2.	FALONE MARINA OR CURRENT OCCUPANT 44 EIGHTH ST NEWINGTON, CT 06111													
3.	CORMIER MARIA Z & TOBY OR CURRENT OCCUPANT 113 SPRING GLEN RD NANTIC, CT 06357													
4.	ABATE DANYLE R OR CURRENT OCCUPANT 109 SPRING GLEN RD NANTIC, CT 06357													
5.	ESZTERHAI EVA M OR CURRENT OCCUPANT 105 SPRING GLEN RD NANTIC, CT 06358													
6.	COSTA JOSEPH A & ROSEMARY G OR CURRENT OCCUPANT 455 S RECKER RD GILBERT, AZ 85296													
7.	SOUTH SHORE HOLDING LLC OR CURRENT OCCUPANT 455 S RECKER RD GILBERT, AZ 85296													
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2.				MCFARLAND STEVEN L OR CURRENT OCCUPANT 94 LAURELWOOD DR NIANTIC, CT 06357													
3.				SPIGARELLI JOANNE TR OR CURRENT OCCUPANT 18 ADVENT DR WEST SPRINGFIELD, MA 01089													
4.				GREENE ANDREA F OR CURRENT OCCUPANT 37 QUAIL DR ROCKY HILL, CT 06067													
5.				SHEA MATTHEW J OR CURRENT OCCUPANT 146 PATRIDGE DR ROCKY HILL, CT 06067													
6.				GREENE ANDREA & ROBERT A OR CURRENT OCCUPANT 108 LAURELWOOD DR NIANTIC, CT 06357													
7.				PLENZIO DEAN A OR CURRENT OCCUPANT 110 LAURELWOOD DR NIANTIC, CT 06357													
8.				CALABRESE JOSEPH & JESSICA F OR CURRENT OCCUPANT 28 CANTERBURY LANE FEEDING HILLS, MA 01030													

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2.	LIAPES NORMA H OR CURRENT OCCUPANT 99 LAURELWOOD DR NIANTIC, CT 06357													
3.	GIAMBALVO VINCENZO & OR CURRENT OCCUPANT 43 FLORADALE DR EAST HARTFORD, CT 06108													
4.	MCCANN LOUISE M OR CURRENT OCCUPANT 89 LAURELWOOD DR NIANTIC, CT 06357													
5.														
6.														
7.														
8.														

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# 99, 101, & 103 SOUTH BEECHWOOD ROAD

## SITE PLAN APPLICATION

99, 101, & 103 SOUTH BEECHWOOD ROAD ~ EAST LYME ~ CT

MAP, BLOCK, LOT #07.14-41, 42, & 43

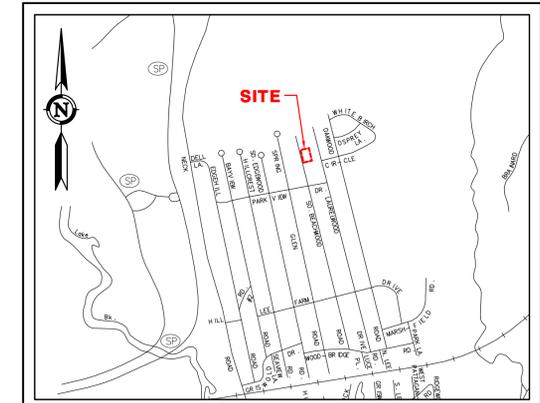
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OWNER	PARCEL ID
ABATE DANYLE R	07.14 29
ALLEN ELIZABETH	07.14 15
BAKER KEITH W	07.14 23
BARTELT MICHAEL C	07.10 11
BRADBURY SUSAN A	07.10 2
BRIASCO MICHELLE E & ADAM T	07.14 61
CALABRESE JOSEPH & JESSICA F	07.14 53
CARLONE NICOLE A ETAL	07.14 26
CHEN YA-FEN	07.14 72
CHIASSON DAVID C & AMANDA S	07.14 19
COHEN BRUCE &	07.14 108
CONCANNON PAUL E & KAREN P	07.10 10-1
CORBETT JEFFREY W &	07.14 34
CORMIER MARIA Z & TOBY	07.14 28
COSTA JOSEPH A	07.14 31
COSTA JOSEPH A & ROSEMARY G	07.14 31-1
COVINO ERNEST & PATSY J	07.14 99
DALENTA ALICE G	07.10 3
DANEAULT JANICE L	07.14 113
DEFRONZO BARBARA A & FRANK E	07.14 57
DELUCCO JOANNE TR	07.14 87
DOW WAYNE G	07.14 103
DUDEK BERNARD	07.14 32
DUDEK BERNARD	07.14 33
DUNN ELIZABETH M	07.14 59
DUTHRIE MICHELE	07.14 37
ESZTERHAI EVA M	07.14 30
FABRIZI ROSEMARIE L	07.14 81
FALONE MARINA	07.10 5
FARRELL MARGARITA R &	07.14 74
FOGARTY MICHAEL S	07.14 18
GAL DEBRA M & LAWRENCE B	07.14 14
GAUNT ROBERT R	07.14 112
GIAMBALVO VINCENZO &	07.14 85
GOFF ROBERT & KELI C	07.14 62
GOLDBLATT MATTHEW D	07.14 60
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GREENE ANDREA F	07.14 49
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HABITAT FOR HUMANITY OF	07.14 42
HABITAT FOR HUMANITY OF	07.14 43
HALE HOWARD W &	07.14 35
HOLSAPPLE JEFFREY	07.14 89
JANTY STEPHEN C & DENEEN L	07.14 12
JANTY STEPHEN C & DENEEN L	07.14 13
KEEGAN MELISSA A	07.14 98
KOMAROW BRUCE E & STACY L	07.14 36
KONERU SREERAM	07.14 88
LAFOUNTAIN NICOLE M	07.14 80
LAROSA JOSEPH & JOAN A	07.14 95
LATOURETTE ROBERT A &	07.14 96

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LAURIA DOMINICK M	07.14 111
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LIS JOSEPH S	07.10 12
LIS JOSEPH S & BARBARA J	07.10 13
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MALCOM CHRISTINE M	07.10 6
MARTENS JOHN C &	07.14 22
MASON DANIEL & KELLY	07.14 38
MCCANN LOUISE M	07.14 86
MCFARLAND STEVEN L	07.14 46
MESKERS PATRICIA	07.14 73
MONTLEON THERESA	07.10 7
OLLHOFF STEVEN D &	07.10 1
OPPERT LEE R & DENISE L	07.14 58
PALMER MARLENA &	07.14 16
PARRETTE SHELLI M & RANDIL	07.10 18
PASSACANTANDO MARIA	07.14 20
PAUL LEONARD	07.14 107
PAZDAR JOANN TRUSTEE	07.14 27
PETERSON DENNIS R &	07.14 45
PITTMAN CAROLYN G	07.14 84
PLENZIO DEAN A	07.14 52
RINALDI AMANDA	07.14 70
ROBERTS GERALDINE A TR &	07.10 4
ROBERTS GERALDINE A TR &	07.14 39
ROBINSON AMY L	07.14 83
ROBINSON CONSTANCE	07.14 54
RYBA PETER H & MICHAEL H	07.14 104
SAID MARIANNA	07.14 47
SAID MARIANNA	07.14 44
SANZ-ROVIRA DAVID N &	07.10 16
SCHNEIDER CHRISTINE C	07.10 10
SCHREIBER TANNA C	07.10 9
SHEA MATTHEW J	07.14 50
SILVA EDUARDO M &	07.14 97
SMALLMAN WILLIAM J &	07.14 98-1
SOUTH SHORE HOLDING LLC	07.14 31-2
SPIGARELLI JOANNE TR	07.14 48
TERPSTRA JUDITH	07.14 17
TKACZUK ELIZABETH	07.14 63
VANASSE DANIEL J & KATIE L	07.14 21
VANCOUR ROBERT E	07.14 40
WALTERS DAVID L &	07.14 105
WELLER DONALD B & SUZAN S	07.14 71
WHAPLES CYNTHIA D & MICHAEL P	07.14 25
WHITTAKER BENJAMIN P &	07.14 110-1
WOSCZYNA JOHN A	07.10 8
WOSCZYNA NOEL K &	07.10 14
ZAGAJA JOSEPH J & ETAL	07.14 82



KEY MAP  
SCALE: 1"=150'



LOCATION MAP  
SCALE: 1"=1,000'

### SHEET INDEX

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### ZONING TABLE

ZONE: R-10 RESIDENCE DISTRICT

ITEM	REQUIRED/ ALLOWED	PROPOSED - 101 SOUTH BEECHWOOD RD	PROPOSED - 103 SOUTH BEECHWOOD RD
LOT SIZE	10,000 SF	10,020.25 SF	4,940.65 SF*
LOT FRONTAGE	80'	100'	49.34'*
FRONT SETBACK	30'	31'	31'
SIDE SETBACK	12'	13'	13'
REAR SETBACK	12'	33.17'	33.13'
BUILDING HEIGHT	30'	<30'	<30'
LOT COVERAGE	25%	8.4%	17.0%

NOTE:  
\* EXISTING CONDITION, NON-CONFORMING

**PRELIMINARY  
NOT FOR CONSTRUCTION**  
THESE PLANS ARE FOR PLANNING PURPOSES ONLY INTENDED TO SECURE REGULATORY APPROVALS. ONLY FINAL PLANS STAMPED APPROVED BY THE TOWN SHALL BE USED FOR CONSTRUCTION PURPOSES.

### GENERAL NOTES:

- THESE PLANS ARE INVALID UNLESS THEY BEAR THE SEAL OR STAMP, AND ORIGINAL SIGNATURE OF THE PROFESSIONAL ENGINEER, LAND SURVEYOR, OR LANDSCAPE ARCHITECT.
- REPRODUCTION TECHNIQUES USED IN THE PRODUCTION OF THIS PLAN CAN STRETCH OR SHRINK THE PAPER. SCALING OF THIS DRAWING MAY BE INACCURATE. CONTACT DPI IF ADDITIONAL INFORMATION IS REQUIRED.
- THESE PLANS AND OTHER ITEMS PREPARED BY DESIGN PROFESSIONALS, INC. (DPI) ARE INSTRUMENTS OF SERVICE AND REMAIN ITS PROPERTY. THE USE OF THESE ITEMS BY DPI'S CLIENT IS SUBJECT TO THE TERMS SET FORTH IN THE AGREEMENT BETWEEN CLIENT AND DPI. REPRODUCTION AND/OR USE OF THESE ITEMS BY OTHERS IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF DPI.

CIVIL ENGINEER &  
LANDSCAPE ARCHITECT:



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**PROPERTY OWNER:**  
HABITAT FOR HUMANITY  
OF EASTERN CT INC  
377 BROAD STREET  
NEW LONDON, CT 06320

**APPLICANT:**  
MR. HOWARD HALE  
21 DAWN DRIVE  
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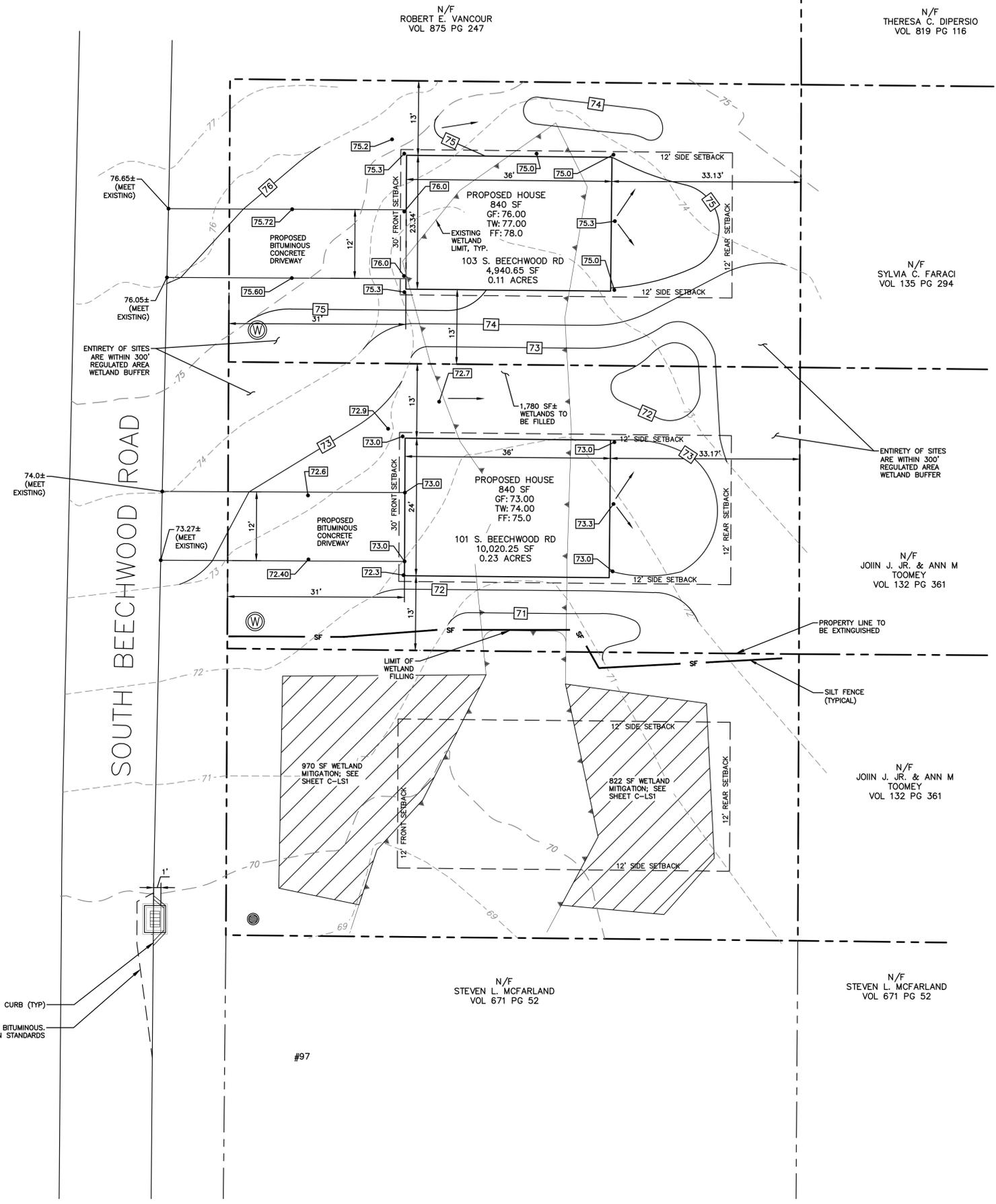
PREPARED FOR:  
Mr. Howard Hale  
21 Dawn Drive  
South Windsor, CT 06074  
T: 860-436-4481

PROJECT NO. 4469  
DATE 7/16/21  
DRAWN BY  
CHECKED BY  
SCALE

**99, 101, & 103 SOUTH BEECHWOOD ROAD SITE PLAN APPLICATION**  
99, 101, AND 103 SOUTH BEECHWOOD ROAD  
EAST LYME, CONNECTICUT  
MBLU # 07.14-41, 42, & 43

REVISIONS  
NO. DATE REVISION PER TOWN ENGINEER COMMENTS

TITLE  
C-T1  
SHEET 1 OF 6



0-6" REVEAL BIT. CURB (TYP)  
 SAWCUT BITUMINOUS REPAIR PER TOWN STANDARDS

ZONING TABLE			
ZONE: R-10 RESIDENCE DISTRICT			
ITEM	REQUIRED / ALLOWED	PROPOSED - 101 SOUTH BEECHWOOD RD	PROPOSED - 103 SOUTH BEECHWOOD RD
LOT SIZE	10,000 SF	10,020.25 SF	4,940.65 SF*
LOT FRONTAGE	80'	100'	49.34'
FRONT SETBACK	30'	31'	31'
SIDE SETBACK	12'	13'	13'
REAR SETBACK	12'	33.17'	33.13'
BUILDING HEIGHT	30'	<30'	<30'
LOT COVERAGE	25%	8.4%	17.0%

NOTE:  
 \* EXISTING CONDITION, NON-CONFORMING

**REFERENCES:**  
 THIS PLAN REFERS TO THE FOLLOWING:  
 1. PLAN ENTITLED "PROPERTY SURVEY, PROPERTY OF PRISCILLA A. TEITENBERG, 99, 101, 103 S. BEECHWOOD ROAD, NIANTIC, CONNECTICUT" DATED MAY 11, 2015 PREPARED BY J. ROBERT PFANNER & ASSOCIATES, P.C., CIVIL ENGINEERS & LAND SURVEYORS, 37 GRAND STREET, NIANTIC, CONNECTICUT, 06357

**SITE LAYOUT PLAN NOTES:**  
 1. 'CALL BEFORE YOU DIG' - CONTRACTOR SHALL NOTIFY UTILITY COMPANIES OF PENDING EXCAVATION AT OR NEAR PUBLIC UTILITIES. CALL 811 AT LEAST 72 HOURS PRIOR TO BEGINNING EXCAVATION.  
 2. THIS PLAN SHALL BE USED FOR SITE LAYOUT ONLY  
 3. REFER TO NOTES SHEET FOR SITE LAYOUT NOTES

**GRADING PLAN NOTES:**  
 1. 'CALL BEFORE YOU DIG' - CONTRACTOR SHALL NOTIFY UTILITY COMPANIES OF PENDING EXCAVATION BY CALLING 811 AT LEAST 3 WORKING DAYS PRIOR TO BEGINNING EXCAVATION.  
 2. THIS PLAN SHALL BE USED FOR GRADING & DRAINAGE PURPOSES ONLY  
 3. REFER TO NOTES SHEET FOR GRADING & DRAINAGE NOTES

**PROPERTY OWNER:**  
 HABITAT FOR HUMANITY  
 OF EASTERN CT INC  
 377 BROAD STREET  
 NEW LONDON, CT 06320

**APPLICANT:**  
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**PREPARED FOR:**  
 Mr. Howard Hale  
 21 Dawn Drive  
 South Windsor, CT 06074  
 T: 860-436-4481

**PROJECT NO.:** 4649  
**DATE:** 7/16/21  
**CHIEF:** J. ROBERT PFANNER  
**DESIGNER:** J. ROBERT PFANNER  
**CHECKED BY:** J. ROBERT PFANNER  
**SCALE:** SFC

**99, 101, & 103 SOUTH BEECHWOOD ROAD SITE PLAN APPLICATION**  
 99, 101, AND 103 SOUTH BEECHWOOD ROAD  
 EAST LYME, CONNECTICUT  
 MBLU # 07-14-41, 42, & 43

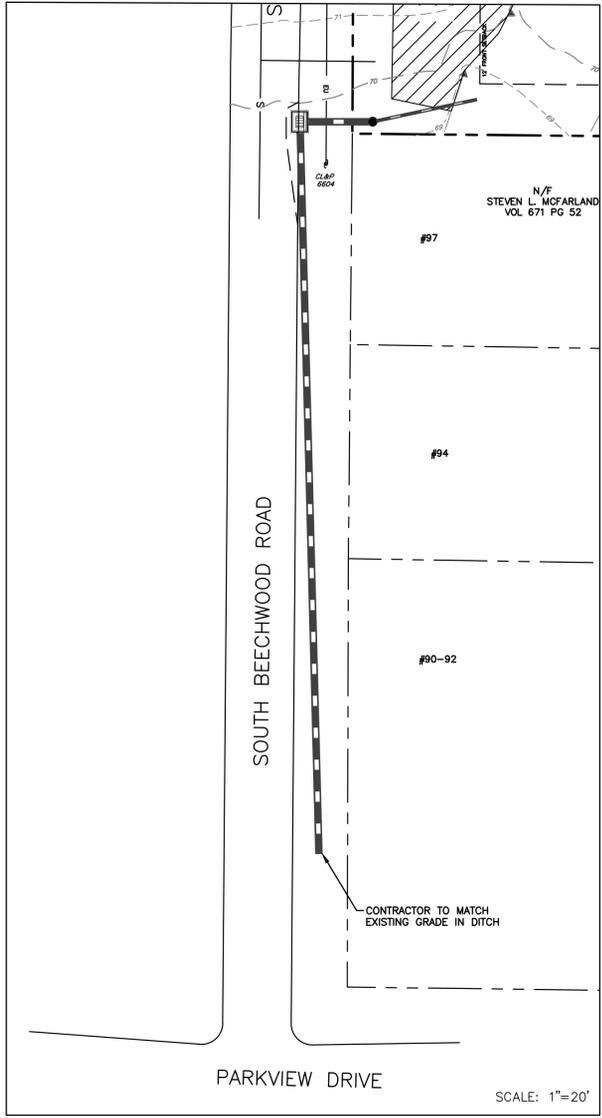
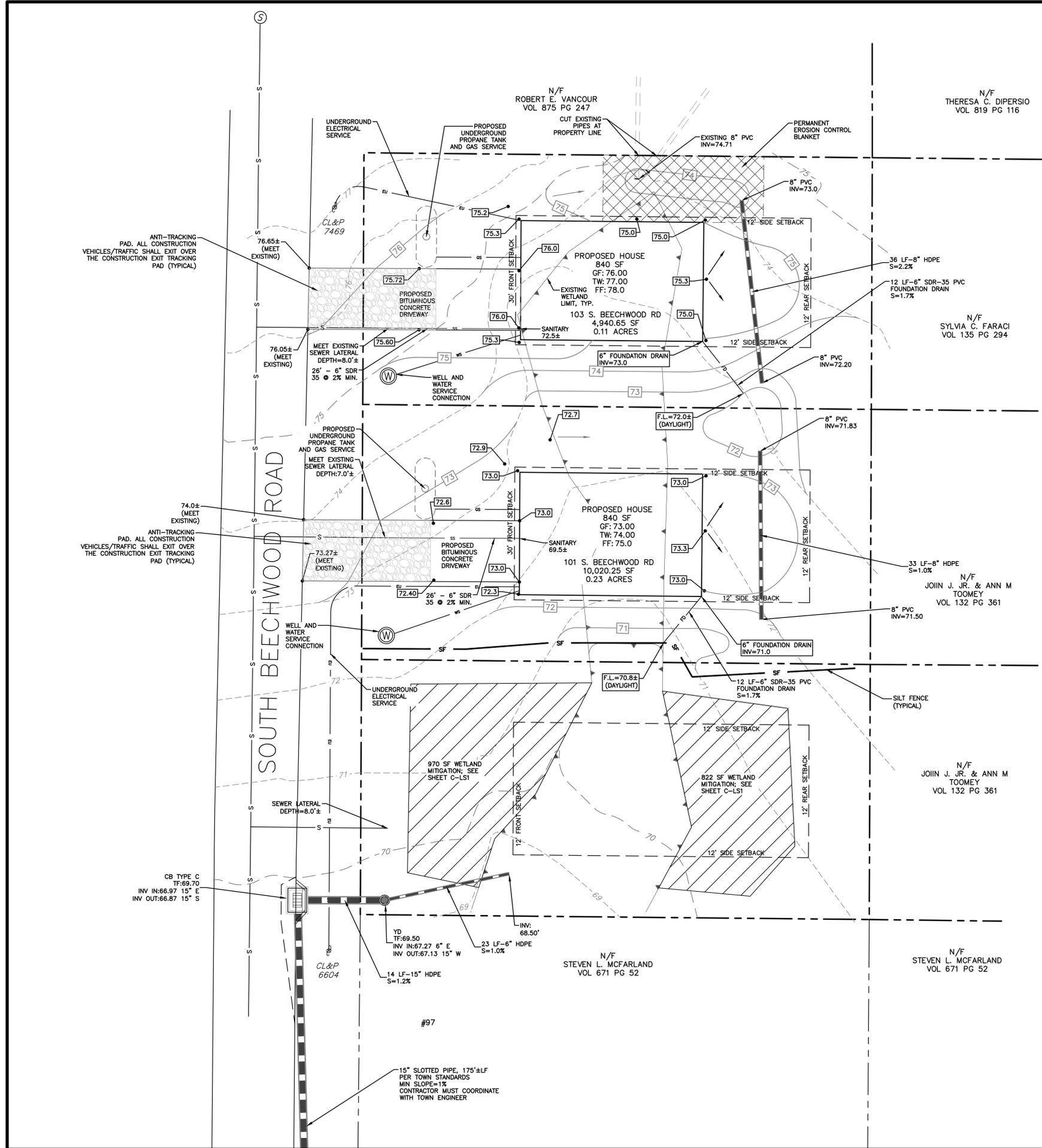
**REVISIONS**

NO.	DATE	REVISIONS	BY
1	8/3/2021	REVISE PER TOWN ENGINEER COMMENTS	GMM

**SITE LAYOUT & GRADING PLAN**

SCALE: 0' 5' 10' 20'  
 T = 10'

SHEET  
**C-GD1**  
 SHEET 2 OF 6



- NOTES:
1. THE CONTRACTOR IS RESPONSIBLE FOR INDEPENDENTLY VERIFYING OFFSITE UTILITY AND DRAINAGE DITCH LOCATION. OFFSITE PLANIMETRICS HAVE BEEN COMPILED, IN PART, FROM TOWN GIS MAPPING. THE LOCATION SHOWN MUST BE CONSIDERED AS APPROXIMATE IN NATURE.
  2. TYPE 'C' CB TO CONFORM TO CT DOT STANDARDS.

**REFERENCES:**  
 THIS PLAN REFERS TO THE FOLLOWING:  
 1. PLAN ENTITLED "PROPERTY SURVEY, PROPERTY OF PRISCILLA A. TEITENBERG, 99, 101, 103 S. BEECHWOOD ROAD, NANTIC, CONNECTICUT DATED MAY 11, 2015 PREPARED BY J. ROBERT PFANNER & ASSOCIATES, P.C. CIVIL ENGINEERS & LAND SURVEYORS, 37 GRAND STREET, NANTIC, CONNECTICUT, 06357

**UTILITY PLAN NOTES:**  
 1. "CALL BEFORE YOU DIG" - CONTRACTOR SHALL NOTIFY UTILITY COMPANIES OF PENDING EXCAVATION BY CALLING 811 AT LEAST 3 WORKING DAYS PRIOR TO BEGINNING EXCAVATION.  
 2. THIS PLAN SHALL BE USED FOR UTILITY PURPOSES ONLY  
 3. REFER TO NOTES SHEET FOR UTILITY NOTES

**DRAINAGE PLAN NOTES:**  
 1. "CALL BEFORE YOU DIG" - CONTRACTOR SHALL NOTIFY UTILITY COMPANIES OF PENDING EXCAVATION BY CALLING 811 AT LEAST 3 WORKING DAYS PRIOR TO BEGINNING EXCAVATION.  
 2. THIS PLAN SHALL BE USED FOR GRADING & DRAINAGE PURPOSES ONLY  
 3. REFER TO NOTES SHEET FOR GRADING & DRAINAGE NOTES

**PROPERTY OWNER:**  
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 OF EASTERN CT INC  
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**APPLICANT:**  
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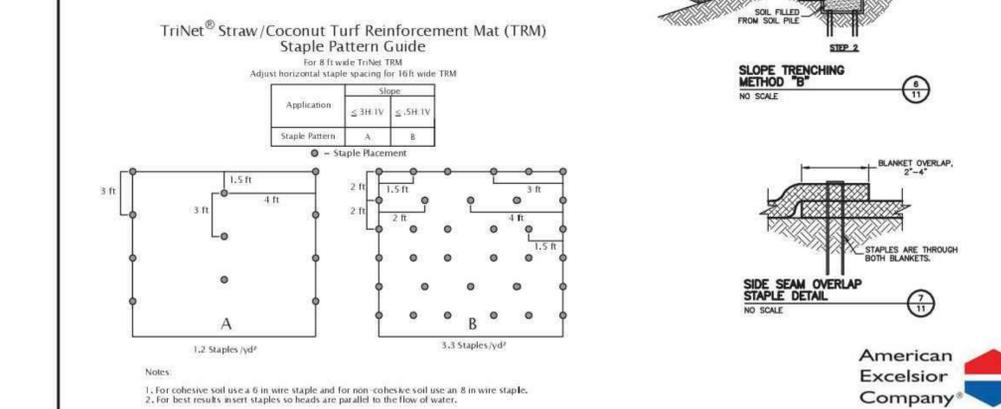
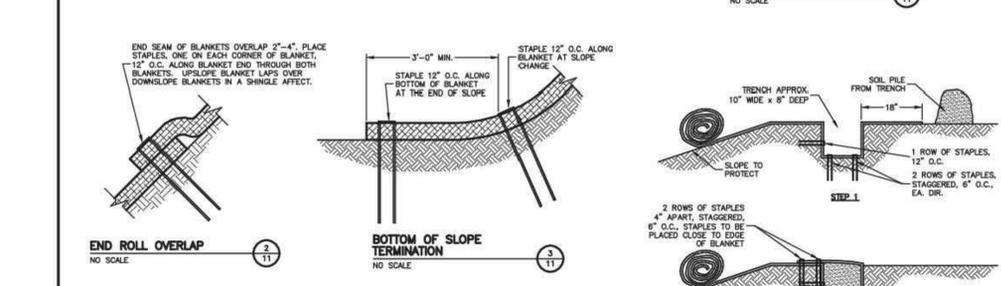
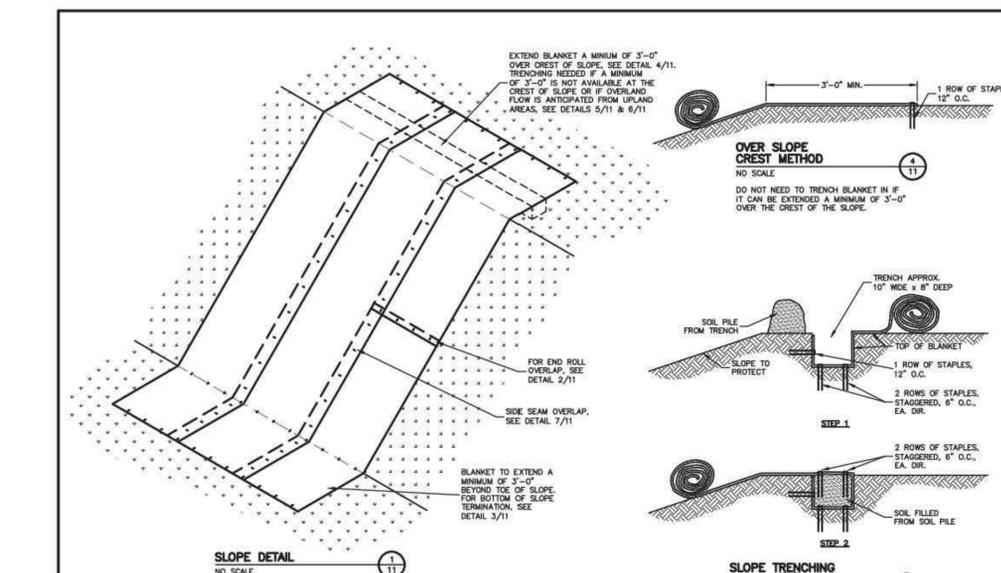
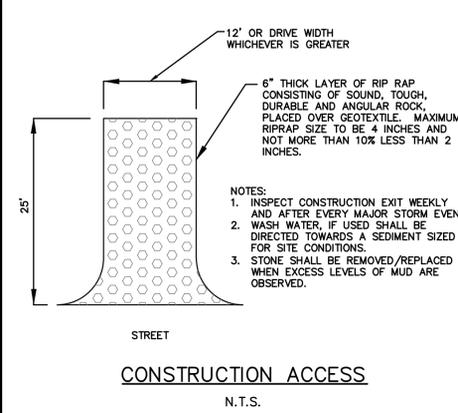
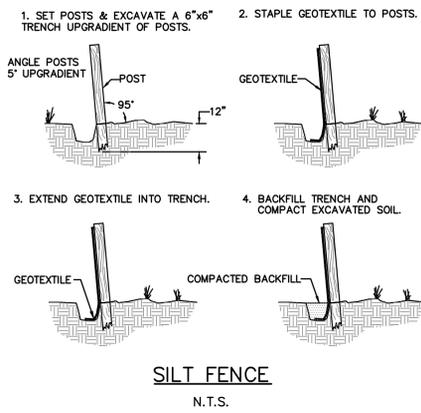
**PREPARED FOR:**  
 Mr. Howard Hale  
 21 Dawn Drive  
 South Windsor, CT 06074  
 T: 860-436-4481

**99, 101, & 103 SOUTH BEECHWOOD ROAD SITE PLAN APPLICATION**  
 ROAD SITE PLAN APPLICATION  
 99, 101, AND 103 SOUTH BEECHWOOD ROAD  
 EAST LYME, CONNECTICUT  
 MBLU # 07-14-41, 42, & 43

NO.	DATE	REVISIONS	REUSE PER TOWN ENGINEER COMMENTS
1	8/3/2021		

SCALE: 1"=20'

**C-UT1**  
 SHEET 3 OF 6



**AMERICAN EXCELSIOR COMPANY**  
ARLINGTON, TEXAS

**Earth Science Division**

SHEET DESCRIPTION: TriNet® STRAW/COCONUT SLOPE APPLICATION DETAIL

DATE: 12/06/18

SCALE: NONE

DRAWN BY: PROJECT NO. SHEET NO. 32

**CONSTRUCTION SEQUENCE:**

- INSTALL CONSTRUCTION EXIT AT DRIVEWAYS OR OTHER LOCATIONS AS SHOWN ON PLANS. MAINTAIN THE CONSTRUCTION ENTRANCE IN A CONDITION WHICH WILL PREVENT TRACKING AND WASHING OF SEDIMENT ONTO ADJUTING PAVED SURFACES. ADD STONE OR INCREASE THE LENGTH AS CONDITIONS DEMAND.
- STAKE-OUT THE LIMITS OF CLEARING AND GRUBBING. INSTALL EROSION AND SEDIMENTATION CONTROL MEASURES AT LIMITS OF CLEARING AND GRUBBING. CONTRACTOR TO CONDUCT ALL CONSTRUCTION ACTIVITIES WITHIN LIMITS SHOWN ON PLAN.
- CONSTRUCT TEMPORARY SEDIMENT BASINS AND/OR TRAPS AS SHOWN ON THE PLANS.
- REMOVE TOPSOIL FROM AREAS OF DISTURBANCE AND STOCKPILE. POSSIBLE STOCKPILE LOCATIONS ARE SHOWN ON THE SITE PLANS. HOWEVER, LOCATIONS SHALL BE DETERMINED BY CONTRACTOR WITH APPROVAL BY THE ENGINEER & LOCAL AUTHORITY HAVING JURISDICTION. RING SOIL STOCKPILES WITH A ROW OF SILT FENCE.
- ESTABLISH VEGETATION ON ALL DISTURBED SOIL THAT WILL REMAIN EXPOSED FOR LONGER THAN 30 DAYS. SEED WITHIN 7 DAYS AFTER THE SUSPENSION OF GRADING WORK WITH A TEMPORARY SEED MIXTURE PER SECTION 5-3 "VEGETATIVE SOIL COVER" OF THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL."
- CREATE TEMPORARY DIVERSION SWALES AS REQUIRED.
- ANY DEWATERING ACTIVITIES SHALL BE PUMPED TO TEMPORARY SILTATION BASINS AT THE TOP OF THE SLOPE. PUMPED DISCHARGE MUST UTILIZE SILT-SAC OR APPROVED EQUAL. MONITOR TO ENSURE DISCHARGE FROM BASIN IS NOT CAUSING EROSION DOWNSTREAM.
- INSTALL STORM DRAINAGE SYSTEM. PROTECT CATCHBASINS AND CULVERT INLETS/OUTLETS WITH INLET PROTECTION AS SHOWN IN THE DETAILS.
- INSTALL PAVEMENT, SIDEWALKS, CURBING, TOPSOIL, GRASS SEED, AND MULCH.
- AFTER STABILIZATION OF UPGRADIENT CONTRIBUTING AREAS TO THE TEMPORARY SEDIMENT BASINS AND/OR TRAPS, ALL ACCUMULATED SEDIMENT SHALL BE REMOVED AND PERMANENT STABILIZATION SHALL BE PLACED.
- MINOR ADJUSTMENTS TO THE EXCAVATION LIMITS MAY BE WARRANTED WITH APPROVAL OF LOCAL AUTHORITY HAVING JURISDICTION TO ALLOW FOR PRESERVATION OF EXISTING VEGETATION.
- ALL EROSION CONTROL DEVICES SHALL REMAIN FUNCTIONAL AND IN PLACE THROUGHOUT THE CONSTRUCTION EFFORT UNTIL THE SITE IS FULLY STABILIZED WITH VEGETATION.

**STORM DRAINAGE SYSTEM MAINTENANCE AND OPERATION:**

THE FOLLOWING MAINTENANCE SHALL BE REQUIRED TO ENSURE EFFICIENT OPERATION OF THE STORM DRAINAGE SYSTEM, DETENTION BASIN, AND UNDERGROUND BASINS. THE MAINTENANCE SCHEDULE IS INTENDED TO BE A GUIDE. AN INSPECTION OF ALL STORM DRAINAGE COMPONENTS IS REQUIRED FOLLOWING LARGE STORM EVENTS (0.5 INCHES OR GREATER) THAT COULD CAUSE THE DEPOSITION OF EXCESS DEBRIS.

PIPE OUTLET LOCATIONS: PIPE OUTLETS AND ASSOCIATED RIPRAP SHALL BE INSPECTED ANNUALLY AND CLEANED OF SILT AND/OR DEBRIS. RIPRAP SHALL BE RE-SHAPED AND REPLENISHED AS REQUIRED.

CATCHBASINS: SHALL BE INSPECTED ANNUALLY AND SUMPS CLEANED WHEN DEPTH OF MATERIAL REACHES TWELVE INCHES.

PAVEMENT SWEEPING: PAVEMENT AREAS SHALL BE SWEEPED AT LEAST TWICE PER YEAR, ONCE IN THE SPRING SHORTLY AFTER THE END OF THE SNOW SEASON, AND IN THE FALL AFTER THE LEAVES HAVE FALLEN. DURING CONSTRUCTION KEEP PAVEMENT FREE OF SEDIMENTS TO REDUCE THE TRANSFER OF SEDIMENTS OFFSITE.

OUTLET STRUCTURE: SHALL BE INSPECTED ANNUALLY AND SUMP CLEANED WHEN DEPTH OF MATERIAL REACHES TWELVE INCHES. IN THE EVENT OF A MAJOR RAINSTORM, (0.5 INCHES OF RAIN OR MORE) THE OUTLET STRUCTURE SHALL BE INSPECTED TO ENSURE PROTECTIVE SCREENS ARE CLEAR OF ANY DEBRIS OR OBSTRUCTING ITEMS.

UNDERGROUND DETENTION/INFILTRATION SYSTEM: SHALL BE INSPECTED BI-ANNUALLY. REFER TO MANUFACTURING MAINTENANCE REQUIREMENTS.

INFILTRATION BASINS, DETENTION BASINS, AND SEDIMENT FOREBAYS: SHALL BE INSPECTED BIANNUALLY. ALL LARGE WOODY NON LANDSCAPE GROWTH THAT MAY AFFECT THE FLOW OF WATER OR THE STABILITY OF THE BASIN SHALL BE REMOVED. RIPRAP SHALL BE RE-ARRANGED AND ADDED TO AS REQUIRED. ANY EROSION OR OTHER PROBLEMS THAT MAY AFFECT THE PROPER OPERATION OF THE BASIN SHALL BE REPAIRED PROMPTLY. ACCUMULATED SEDIMENT SHALL BE REMOVED.

WATER QUALITY BASIN: SHALL BE INSPECTED TWICE PER YEAR. ALL WOODY, NON LANDSCAPE GROWTH SHALL BE REMOVED. ANY EROSION/RILLS NOTED WITHIN THE BASIN SHALL BE REPAIRED TO PROVIDE STABILIZED SURFACES. ANY EROSION OR OTHER NOTED DEFICIENCIES THAT WOULD AFFECT THE OPERATION OF THE BASIN OR CAUSE RESOURCE AREA IMPACTS SHALL BE REMEDIATED IMMEDIATELY. THE BASIN SHALL BE MONITORED TO ASSURE PROPER DEWATERING/EMPTYING OF STORMWATER. BASIN SHALL COMPLETELY DEWATER/EMPTY WITH 72 HOURS AFTER A STORM EVENT. IF STANDING WATER IS OBSERVED AFTER THIS 72 HOUR PERIOD, THE BOTTOM OF BASIN SHALL BE EXCAVATED TO THE UPPER LAYER OF THE FILTER FABRIC/SUB-DRAIN, AND REPLACE WITH 4" OF LOAM AND SEED.

WATER QUALITY UNIT: UNIT SHALL BE INSPECTED POST-CONSTRUCTION, PRIOR TO BEING PUT INTO SERVICE. INSPECT EVERY SIX MONTHS FOR THE FIRST YEAR OF OPERATION TO DETERMINE THE OIL AND SEDIMENT ACCUMULATION RATE. IN SUBSEQUENT YEARS, INSPECTIONS CAN BE BASED ON FIRST-YEAR OBSERVATIONS OR LOCAL REQUIREMENTS. CLEANING IS RECOMMENDED ONCE THE SEDIMENT DEPTH REACHES 15% OF STORAGE CAPACITY, (GENERALLY TAKING ONE YEAR OR LONGER). REFER TO MANUFACTURING MAINTENANCE REQUIREMENTS.

**EROSION & SEDIMENTATION CONTROL MAINTENANCE AND INSPECTION PROGRAM (WEEKLY CONSTRUCTION REPORTS):**

PER RECOMMENDATIONS MADE IN THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL PLAN, THE CONTRACTOR SHALL MAINTAIN WEEKLY REPORTS ON THE CONDITION OF ALL EROSION CONTROL MEASURES AND MAKE THEM AVAILABLE UPON REQUEST OF OWNER, LOCAL AUTHORITY HAVING JURISDICTION, OR ENGINEER, IN THE EVENT OF A MAJOR RAINSTORM, (0.5 INCHES OR GREATER) REPORTS SHALL BE PREPARED WITHIN 24 HOURS OF SAID EVENT.

**EROSION & SEDIMENTATION CONTROL NARRATIVE**

- PRIOR TO THE START OF CONSTRUCTION, ALL EROSION CONTROL DEVICES SHALL BE INSTALLED IN CONFORMANCE WITH THESE PLANS.
- CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION OF ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHOWN ON THESE PLANS. THIS RESPONSIBILITY INCLUDES IMPLEMENTATION AS WELL AS MAINTENANCE. ANY PROPOSED CHANGES TO THIS PLAN MUST BE APPROVED BY THE ENGINEER AND/OR THE LOCAL AUTHORITY HAVING JURISDICTION.
- CONSTRUCTION ACCESS SHALL BE INSPECTED REGULARLY TO ENSURE PROPER OPERATION. STONE SHALL BE ADDED OR REPLACED AS REQUIRED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADJACENT ROADWAYS, (BOTH PUBLIC & COMPLETED PORTIONS OF THE PROJECT) FREE FROM ACCUMULATED DUST AND DIRT. STREETS SHALL BE SWEEPED CLEAN AT ALL TIMES.
- AREAS WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED OR WHEN FINAL GRADES ARE REACHED IN ANY PORTION OF THE SITE, SHALL BE STABILIZED WITH FINAL VEGETATION WITHIN 7 DAYS. AREAS TO BE LEFT BARE FOR MORE THAN 30 DAYS SHALL BE TREATED WITH AIR DRIED WOOD CHIP MULCH (6 CYDS / 1000 S.F.) OR SEEDED WITH PERENNIAL RYE-GRASS UNTIL FINAL GRADING AND STABILIZATION TAKES PLACE. WATER STABILIZATION SHALL INCLUDE MULCH/STRAW OR HAY APPLIED AT THE SAME RATE WITH A THICKER PER RECOMMENDATIONS MADE IN THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.
- ALL DISTURBED SLOPES EXCEEDING A 3:1 SLOPE SHALL IMMEDIATELY RECEIVE MULCH AND TEMPORARY SEEDING IN ACCORDANCE WITH THE FOLLOWING APPLICATION RATES:

MULCH:	RATE:
STRAW:	90# / 1000 S.F.
TEMPORARY SEEDING:	RATE:
PERENNIAL RYEGRASS:	1.0# / 1000 S.F.

**PROJECT CONTACT INFO:**

HOWARD HALE  
860-573-7641  
(CELL NO.)

**PROPERTY OWNER:**  
HABITAT FOR HUMANITY  
OF EASTERN CT INC  
377 BROAD STREET  
NEW LONDON, CT 06320

**APPLICANT:**  
MR. HOWARD HALE  
21 DAWN DRIVE  
SOUTH WINDSOR, CT 06074  
T: 860-436-4481

ESTIMATED CONSTRUCTION START DATE - FALL 2021  
ESTIMATED COMPLETION DATE - SUMMER 2022

**CONSTRUCTION DUST CONTROL NOTES**

- IDENTIFY AND ADDRESS SOURCES OF DUST GENERATED BY CONSTRUCTION ACTIVITIES. LIMIT CONSTRUCTION TRAFFIC TO PREDETERMINED ROUTES. PAVED SURFACES REQUIRE MECHANICAL SWEEPERS TO REMOVE SOIL THAT HAS BEEN DEPOSITED OR TRACKED ONTO THE PAVEMENT. ON UNPAVED TRAVELWAYS AND TEMPORARY HAUL ROADS, USE ROAD CONSTRUCTION STABILIZATION MEASURES AND/OR WATER AS NEEDED TO KEEP SURFACE DAMP. STATIONARY SOURCES OF DUST, SUCH AS ROCK CRUSHERS, USE FINE WATER SPRAYS TO CONTROL DUST. IF WATER IS EXPECTED TO BE NEEDED FOR DUST CONTROL, IDENTIFY THE SOURCE OF WATER IN ADVANCE. PUMPING FROM STREAMS, POND AND SIMILAR WATERBODIES MAY REQUIRE APPROVAL FROM THE MUNICIPAL INLAND WETLAND AGENCY.
- IDENTIFY AND ADDRESS SOURCES OF WIND GENERATED DUST. PROVIDE SPECIAL CONSIDERATION TO HILL TOPS AND LONG REACHES OF OPEN GROUND WHERE SLOPES MAY BE EXPOSED TO HIGH WINDS. CONSIDER BREAKING UP LONG REACHES WITH TEMPORARY WINDBREAKS CONSTRUCTED FROM BRUSH PILES, GEOTEXTILE SILT FENCES OR HAY BALES. PLAN ON STABILIZING SLOPES EARLY. MULCH FOR SEED WILL REQUIRE ANCHORING WHEN USED.
- CONSIDER WATER QUALITY WHEN SELECTING THE METHOD AND/OR MATERIALS USED FOR DUST CONTROL. WHEN CONSIDERING THE USE OF CALCIUM CHLORIDE, BE AWARE OF THE FOLLOWING: THE RECEIVING SOILS PERMEABILITY SO AS TO PREVENT GROUNDWATER CONTAMINATION; THE TIMING OF THE APPLICATION TO RAINFALL TO PREVENT WASHING OF SALTS INTO SENSITIVE AREAS SUCH AS WETLANDS AND WATERCOURSES; AND PROXIMITY TO SENSITIVE AREAS SUCH AS WATERCOURSES, PONDS, ESTABLISHED OR SOON TO BE ESTABLISHED AREA OF PLANTINGS, WHERE SALTS COULD IMPAIR OR DESTROY PLANT AND ANIMAL LIFE. ADDITIONALLY, SOME MATERIALS USED FOR DUST CONTROL MAY BE RENDERED INEFFECTIVE BY DEGRADED WATER QUALITY IF IT IS USED FOR MIXING.
- CONSIDER USING DUST CONTROL MEASURES ONLY AFTER IT IS DETERMINED THAT OTHER MEASURES FOR SOIL STABILIZATION CANNOT BE PRACTICALLY APPLIED.
- USE MECHANICAL SWEEPING ON PAVED AREAS WHERE DUST AND FINE MATERIALS ACCUMULATE AS A RESULT OF TRUCK TRAFFIC, PAVEMENT SAW CUTTING SPILLAGE, AND WIND OR WATER DEPOSITION FROM ADJACENT DISTURBED AREAS. SWEEP DAILY IN HEAVILY TRAFFICKED AREAS.
- PERIODICALLY MOISTEN EXPOSED SOIL SURFACES ON UNPAVED TRAVELWAYS TO KEEP THE TRAVELWAY DAMP.
- NON-ASPHALTIC SOIL TACKIFIER CONSISTS OF AN EMULSIFIED LIQUID SOIL STABILIZER OF ORGANIC, INORGANIC OR MINERAL ORIGIN, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING: MODIFIED RESINS, CALCIUM CHLORIDE, COMPLEX SURFACTANT, COPOLYMERS OR HIGH GRADE LATEX ACRYLICS. THE SOLUTIONS SHALL BE NONASPHALTIC, NONTOXIC TO HUMAN, ANIMAL AND PLANT LIFE, NONCORROSIVE AND NONFLAMMABLE. MATERIALS USED SHALL MEET LOCAL, STATE AND FEDERAL GUIDELINES FOR INTENDED USE. ALL MATERIALS ARE TO BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS AND ALL SAFETY GUIDELINES SHALL BE FOLLOWED IN STORING, HANDLING AND APPLYING MATERIALS.
- REPEAT APPLICATION OF DUST CONTROL MEASURES WHEN FUGITIVE DUST BECOMES EVIDENT.

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**PREPARED FOR:**  
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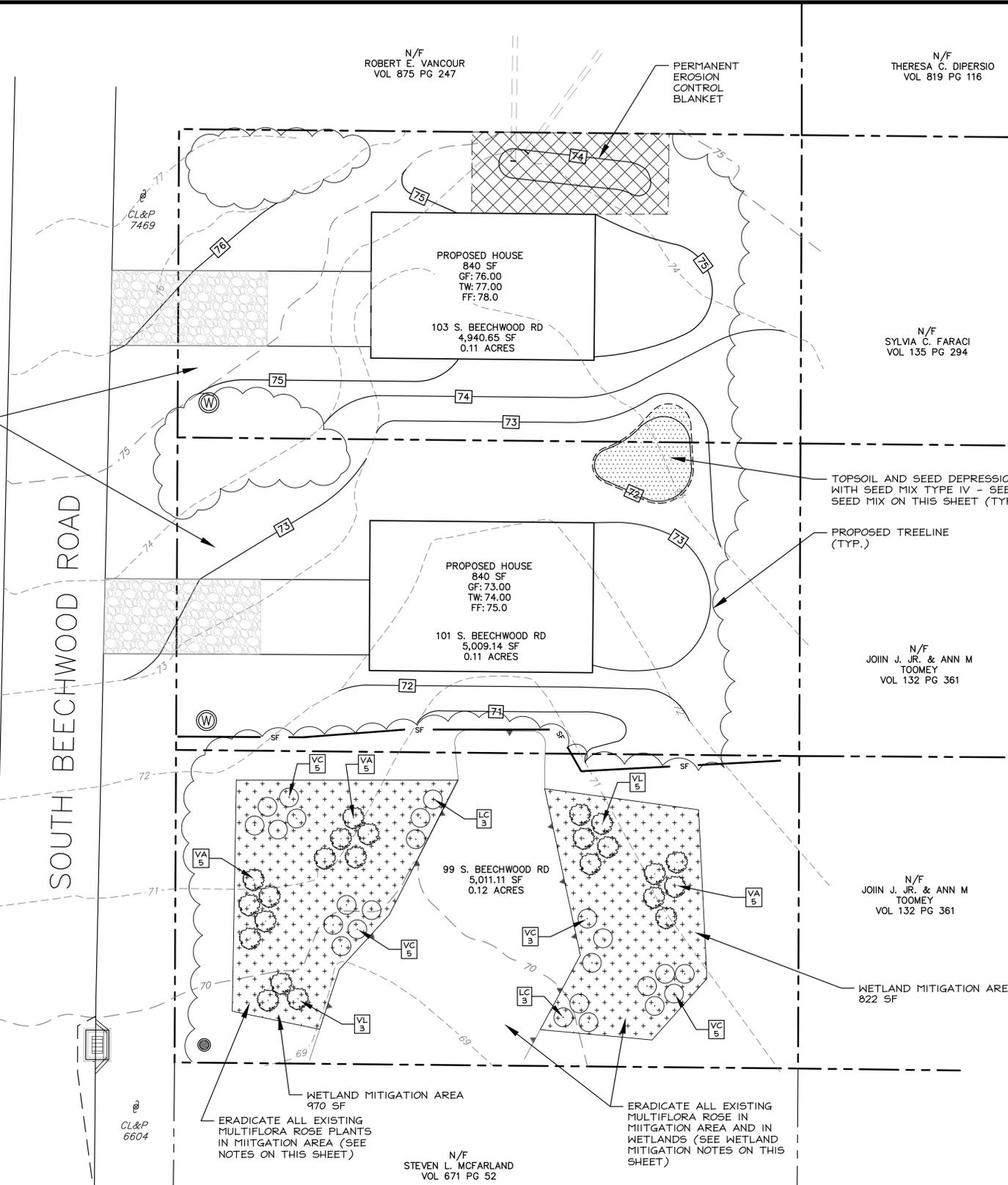
**PROJECT NO.:** 4649  
**DATE:** 7/16/21  
**SCALE:** AS SHOWN  
**DESIGNED BY:** JEH  
**CHECKED BY:** JEH  
**IN CHARGE:** JEH

**99, 101, & 103 SOUTH BEECHWOOD ROAD SITE PLAN APPLICATION**  
99, 101, AND 103 SOUTH BEECHWOOD ROAD  
EAST LYME, CONNECTICUT  
M.B.L.U. # 07-14-41, 42, & 43

**EROSION & SEDIMENTATION DETAILS & NOTES**

NO.	DATE	REVISIONS
1	8/2/2021	REVISE PER TOWN ENGINEER COMMENTS

SHEET  
**C-ES2**  
SHEET 4 OF 6



WETLAND MITIGATION PLANTING SCHEDULE					
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
LC	6	Lonicera canadensis	American Fly Honeyuckle	3 Gallon	Full and Dense
VC	18	Vaccinium corymbosum	Highbush Blueberry	3 Gallon	Full and Dense
VA	15	Viburnum acerifolium	Mapleleaf Viburnum	3 Gallon	Full and Dense
VL	8	Viburnum lantanoides	Hobblebush	3 Gallon	Full and Dense

### LANDSCAPE NOTES:

- ALL EXISTING TREES TO REMAIN SHALL BE SHAPED OR PRUNED WITHIN THE DEVELOPMENT AND ALONG THE PERIMETER OF CONSTRUCTION LIMIT UNDER THE DIRECTION OF A LICENSED ARBORIST.
- DEBRIS AND DEAD, UNHEALTHY EXISTING TREES AND INVASIVE SPECIES SHALL BE REMOVED FROM WETLANDS AND RESIDENTIAL AREAS.
- ALL AREAS DESIGNATED TO BE SEEDED SHALL RECEIVE FOUR (4) INCHES OF TOPSOIL, SOIL AMENDMENTS AND MULCH. WATER AND MAINTAIN LAWN AREAS UNTIL ALL AREAS ARE STABILIZED AND ACCEPTED BY OWNER'S REPRESENTATIVE.
- PLANTS: ALL PLANTS SHALL COMPLY WITH THE RECOMMENDATIONS AND REQUIREMENTS OF ANSI Z601 "AMERICAN STANDARD OF NURSERY STOCK." PROVIDE PLANTS TYPICAL OF THEIR SPECIES OR VARIETY WITH NORMAL, DENSELY-DEVELOPED BRANCHES AND VIGOROUS, FIBROUS ROOT SYSTEMS. PROVIDE ONLY SOUND, HEALTHY, VIGOROUS PLANTS FREE FROM INSECT PESTS, DISEASES, AND PHYSICAL INJURY. ALL PLANTS SHALL HAVE A FULLY DEVELOPED FORM WITHOUT Voids AND OPEN SPACES. BALLED AND BURLAPPED PLANTS: DIG BALLED AND BURLAPPED PLANTS WITH FIRM, NATURAL BALLS OF EARTH OF SUFFICIENT DIAMETER AND DEPTH TO ENCOMPASS THE FIBROUS AND FEEDING ROOT SYSTEM NECESSARY FOR FULL RECOVERY OF PLANT. PROVIDE BALL SIZES COMPLYING WITH THE LATEST EDITION OF THE "AMERICAN STANDARD FOR NURSERY STOCK". CRACKED OR MUSHROOMED BALLS ARE NOT ACCEPTABLE.
- BARE-ROOT PLANTS: DIG WITH ADEQUATE FIBROUS ROOTS, COVERED WITH A UNIFORM THICK COATING OF MUD BY BEING PUDDLED IMMEDIATELY AFTER THEY ARE DUG, OR PACKED IN MOIST STRAW OR PEAT MOSS.
- CONTAINER-GROWTH STOCK: GROWN IN A CONTAINER FOR SUFFICIENT LENGTH OF TIME FOR THE ROOT SYSTEM TO HAVE DEVELOPED TO HOLD ITS SOIL TOGETHER, FIRM AND WHOLE.
- CONTAINER STOCK SHALL NOT BE POT BOUND.
- ALL PLANTS SHALL BE NURSERY GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT, FOR AT LEAST ONE YEAR.
- CONTRACTOR RESPONSIBLE TO WARRANT PLANT MATERIAL TO REMAIN ALIVE AND BE HEALTHY, VIGOROUS CONDITION FOR A PERIOD OF 1 YEAR AFTER FINAL ACCEPTANCE OF ENTIRE PROJECT INCLUDING DEATH AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLIGENCE BY OWNER, ABUSE OR DAMAGE BY OTHERS, OR UNUSUAL PHENOMENA OR INCIDENTS WHICH ARE BEYOND CONTRACTOR'S CONTROL.
- CONTRACTOR TO REMOVE AND REPLACE TREES, SHRUBS, OR OTHER PLANTS FOUND TO BE DEAD OR IN UNHEALTHY CONDITION DURING WARRANTY PERIOD AT CONTRACTOR'S EXPENSE. REPLACE TREES AND SHRUBS WHICH ARE IN DOUBTFUL CONDITION AT END OF WARRANTY PERIOD, AND EXTEND WARRANTY PERIOD FOR AN ADDITIONAL GROWING SEASON FOR THE REPLACEMENT PLANTS.
- CONTRACTOR RESPONSIBLE FOR PLANTING UNDER FAVORABLE WEATHER CONDITIONS AND RECOMMENDED SEASON FOR PLANT SURVIVAL AND ESTABLISHMENT. AT OPTION OF, AND UNDER FULL RESPONSIBILITY OF CONTRACTOR, PLANTING OPERATIONS MAY BE CONDUCTED UNDER UNSEASONABLE CONDITIONS, BUT WITHOUT ADDITIONAL COMPENSATION. IF SPECIAL CONDITIONS EXIST TO REQUIRE PLANTING OUTSIDE THE ABOVE SPECIFIED DATES, THE CONTRACTOR SHALL SUBMIT IN WRITING FOR PERMISSION BY THE OWNER'S REPRESENTATIVE. ANY VARIANCE IN THE PLANTING SEASON WILL NOT AFFECT THE ONE YEAR PLANTING GUARANTEE PERIOD.
- DO NOT MAKE SUBSTITUTIONS. IF SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON-AVAILABILITY TO OWNER TOGETHER WITH PROPOSAL FOR USE OF EQUIVALENT MATERIAL. SUBSTITUTION OF PLANTS WILL NOT BE PERMITTED WITHOUT APPROVAL IN WRITING BY THE OWNER.
- ROOT TYPES MAY BE FREELY SUBSTITUTED IN THE CASE OF BALLED AND BURLAPPED, OR CONTAINER GROWN. ALL OTHER SPECIFICATIONS REMAINING UNCHANGED. BARE ROOT TYPES SHALL BE FREELY SUBSTITUTED AS SUBSTITUTES WITHOUT RECEIPT OF A CHANGE ORDER.
- PROVIDE A MINIMUM OF 12" OF PLANTING SOIL MIXTURE IN ALL PLANTING BEDS.
- PLANTING SOIL MIXTURE (BY VOLUME) SHALL BE EQUAL TO:
  - BARK MULCH/COMPOST 10%-12%
  - COARSE SAND 40%-45%
  - TOPSOIL 45%-50%
- PRIOR TO PLANTING, THE CONTRACTOR SHALL OBTAIN SOIL TEST FROM A CERTIFIED SOIL LABORATORY FOR ALL AREAS OF THE SITE WITH RECOMMENDATIONS FOR APPROPRIATE SOIL AMENDMENTS FOR THE TYPES OF PLANTS SPECIFIED.
- LIME SHALL BE PELLETIZED LIME MANUFACTURED TO MEET AGRICULTURAL STANDARDS AND CONTAIN A MAXIMUM OF 60% OXIDE, (I.E., CALCIUM OXIDE PLUS MAGNESIUM OXIDE).
- FERTILIZER SHALL BE OF A FORMULA INDICATED BY THE SOIL TESTING TO ACHIEVE A MINIMUM OF ONE POUND OF NITROGEN PER 1000 S.F. OF LAWN AREA. FERTILIZER SHALL BE A MINIMUM OF 50% ORGANIC SLOW-RELEASE COMPOSITION.
- NO SOIL AMENDMENTS OR FERTILIZER SHALL BE USED FOR AREA DISTURBED WITHIN WETLANDS OR CREATED WATER QUALITY BASINS.
- MANUFACTURER'S INSTRUCTIONS FOR FERTILIZER SHALL BE FOLLOWED. FERTILIZER SHALL BE APPLIED TO PLANTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. DELAY MIXING FERTILIZER IF PLANTING WILL NOT FOLLOW PLACING FERTILIZER SOIL WITHIN A FEW DAYS.
- PERENNIALS SHALL BE INSTALLED AT 24" O.C., UNLESS NOTED OTHERWISE. APPLY 2" OF BARK MULCH, IN AREAS OF GROUND COVER AND PERENNIALS OR OWNER SELECTED ANNUALS.
- NO PLANT, EXCEPT GROUND COVERS, GRASSES, OR VINES, SHALL BE PLANTED LESS THAN TWO FEET FROM STRUCTURES, EDGE OF PAVEMENT, OR BACK OF CURB.
- TREES IN EXCESS OF 3" CALIPER SHALL BE SUBJECT TO INSPECTION FOR CONFORMITY TO THE SPECIFICATIONS AND APPROVAL OF LANDSCAPE ARCHITECT AT THEIR PLACE OF GROWTH AND PRIOR TO DELIVERY. WRITTEN REQUEST SHALL BE SUBMITTED TO THE ARCHITECT IN WRITING BY THE OWNER.
- CONTRACTOR RESPONSIBLE TO SUBMIT CERTIFICATES OF INSPECTION AS REQUIRED BY GOVERNMENTAL AUTHORITIES. LANDSCAPE MATERIALS TO BE SHIPPED WITH CERTIFICATES OF INSPECTION REQUIRED BY GOVERNMENTAL AUTHORITIES. COMPLY WITH REGULATIONS APPLICABLE TO LANDSCAPE MATERIALS AND CONTRACTOR TO SUBMIT MANUFACTURER'S OR OWNER'S CERTIFIED ANALYSIS FOR FERTILIZER MATERIALS.
- MOVING AND STORAGE OF PLANT MATERIALS: CONTRACTOR TO TAKE ALL PRECAUTIONS CUSTOMARY IN GOOD TRADE PRACTICE IN PREPARING PLANTS FOR MOVING. WORKMANSHIP THAT FAILS TO MEET THE HIGHEST STANDARDS WILL BE REJECTED.
- SPRAY DECIDUOUS PLANTS IN FOLIAGE WITH AN APPROVED ANTITRANSPIRANT IMMEDIATELY AFTER DIGGING TO PREVENT DEHYDRATION.
- LEGIBLY TAG PLANTS WITH BOTANICAL NAME AND SIZE IN ACCORDANCE WITH THE STANDARDS OF PRACTICE OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
- DIG, PACK, TRANSPORT, AND HANDLE PLANTS WITH CARE TO ENSURE PROTECTION AGAINST INJURY. FULLY PROTECT PLANTS FROM DAMAGE BY SUN, WIND, DROUGHT, WATER AND OTHER INJURIOUS CONDITIONS DURING TRANSPORTATION TO SITE AND DURING TEMPORARY STORAGE BEFORE PLANTING.
- INSPECTION CERTIFICATES REQUIRED BY LAW SHALL ACCOMPANY EACH SHIPMENT INVOICE OR ORDER TO STOCK AND ON ARRIVAL. THE CERTIFICATE SHALL BE FILED WITH THE OWNER.
- NO PLANT SHALL BE BOUND WITH ROPE OR WIRE IN A MANNER THAT COULD DAMAGE OR BREAK THE BRANCHES.
- A COMPLETE LIST OF PLANTS, INCLUDING A SCHEDULE OF SIZES, QUANTITIES, AND OTHER REQUIREMENTS IS SHOWN ON THE DRAWINGS. IN THE EVENT THAT QUANTITY DISCREPANCIES OR MATERIAL OMISSIONS OCCUR IN THE PLANT MATERIALS LIST, THE PLANTING PLAN SHALL GOVERN.
- STOCK FURNISHED SHALL BE AT LEAST THE MINIMUM SIZE INDICATED ON THE DRAWINGS. LARGER STOCK IS ACCEPTABLE, AT NO ADDITIONAL COST AND PROVIDING THE LARGER PLANTS WILL NOT BE CUT BACK TO THE SIZE INDICATED ON THE DRAWINGS.
- THE HEIGHT OF THE TREE, MEASURED FROM THE CROWN OF THE ROOTS TO THE AVERAGE HEIGHT OF THE TOP OF THE TREE, SHALL NOT BE LESS THAN THE MINIMUM SIZE DESIGNATED IN THE PLANT LIST.
- SHRUBS AND SMALL PLANTS SHALL MEET THE REQUIREMENTS FOR SPREAD AND HEIGHT INDICATED IN THE PLANT LIST.
- NO PRUNING WOUNDS SHALL BE PRESENT WITH A DIAMETER OF MORE THAN 1/2" INCH AND SUCH WOUNDS MUST SHOW VIGOROUS BARK ON ALL EDGES.
- ANTITRANSPIRANT: PROVIDE PROTECTIVE FILM EMULSION PROVIDING A PROTECTIVE FILM OVER PLANT SURFACES; PERMEABLE TO PERMIT TRANSPIRATION. MIXED AND APPLIED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- WATER IS TO BE SUPPLIED FOR PLANTS THAT IS CLEAN, FREE FROM TOXIC AMOUNTS OF SALT, OIL, ALKALINE, ORGANIC MATTER OR OTHER SUBSTANCES HARMFUL TO PLANTS.
- CONTRACTOR TO PRUNE AND REPAIR PLANTS AS FOLLOWS:
  - REMOVE OR CUT BACK, BROKEN, DAMAGED, AND UNSYMMETRICAL GROWTH OF NEW WOOD.
  - MULTIPLE LEADER PLANTS: PRESERVE THE CENTRAL LEADER WHICH WILL BEST PROMOTE THE SYMMETRY OF THE PLANT. CUT BRANCHES FLUSH AT THE BRANCH COLLAR WITH THE TRUNK OR MAIN BRANCH.
  - PRUNE NEEDLE-LEAF EVERGREEN TREES ONLY TO REMOVE BROKEN OR DAMAGED BRANCHES.
  - ALL TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7 FEET ABOVE FINISH GRADE.
  - MULCH TO BE APPLIED AS FOLLOWS:
    - AREAS TO RECEIVE MULCH: ALL PLANT BEDS AND OTHER AREAS AS DESIGNATED ON DRAWINGS SHALL BE MULCHED.
    - PLACEMENT: PLACE MULCH TO REQUIRED UNIFORM DEPTH SOON AFTER PLANTING TO PREVENT DRYING OF PLANTING SOIL AROUND ROOTS. DO NOT PLACE MULCH WITHIN 3" OF TREE TRUNKS.
    - APPLY BARK MULCH TO A UNIFORM DEPTH OF 2 INCHES.
    - MULCH SHALL BE 6 MONTHS OLD, WELL-ROTTED, SHREDDED, NATIVE HARDWOOD BARK, NOT LARGER THAN 4" IN LENGTH AND 1/2" IN WIDTH, FREE OF WOOD CHIPS AND SAWDUST.
- CONTRACTOR RESPONSIBLE FOR MAINTENANCE OF PLANT MATERIALS:
- MAINTAIN PLANTINGS UNTIL FINAL ACCEPTANCE OF WORK.
- MAINTENANCE SHALL INCLUDE PRUNING, WEEDING, WATERING, AND APPLICATION OF APPROPRIATE INSECTICIDES AND FUNGICIDES NECESSARY TO MAINTAIN PLANTS FREE OF INSECTS AND DISEASE.
- RESET SETTLED PLANTS TO PROPER GRADE AND POSITION. RESTORE PLANTING SAUCER AND ADJACENT MATERIAL AND REMOVE DEAD MATERIAL.
- CORRECT DEFECTIVE WORK AS POSSIBLE AFTER DEFICIENCIES BECOME APPARENT AND WEATHER AND SEASON PERMIT.
- WATER PLANTINGS IN A SATISFACTORY MANNER DURING AND IMMEDIATELY FOLLOWING PLANTING, TWICE PER WEEK, OR LESS UNDER WET CONDITIONS, UNTIL ACCEPTANCE BY OWNER. PROVIDE ADDITIONAL WATERING DURING EXCESSIVE DRY PERIODS DURING THE MAINTENANCE PERIOD AS DIRECTED BY THE OWNER.
- REPLACEMENT OF PLANTS: ANY PLANTS TO BE REPLACED PRIOR TO ACCEPTANCE OF WORK, OR UNDER TERMS OF GUARANTEE SHALL BE INSTALLED FOLLOWING PROCEDURES SET FORTH ABOVE.
- LANDSCAPE CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING CONSTRUCTION.
- LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- LANDSCAPE CONTRACTOR SHALL CONTACT CALL BEFORE YOU DIG 1-800-922-4455 AT LEAST TWO FULL WORKING DAYS PRIOR TO INSTALLATION.
- LANDSCAPE CONTRACTOR TO REMOVE AND DISPOSE OF ALL CONSTRUCTION DEBRIS FROM SITE PER GOVERNING REGULATIONS.
- CONSTRUCTION SITE IS TO BE IN A CLEAN, ORDERLY CONDITION AT ALL TIMES.
- ALL REQUIRED PERMITS ARE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- LANDSCAPE CONTRACTOR SHALL PROVIDE FINE GRADING WORK FOR THE ENTIRE PROJECT. THIS WILL INCLUDE ALL AREAS TO BE GRASSED OR LANDSCAPED. GRADING MUST PROVIDE PROPER POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS AND NOT LEAVE ANY POCKETS WHERE STANDING WATER MAY COLLECT.
- TOPSOIL SHALL NOT BE SPREAD UNDER FROZEN OR MUDDY CONDITIONS.
- THE LOCATION OF ALL TREES AND SHRUBS SHALL BE STAKED FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

### WETLAND MITIGATION PLANTING NOTES:

- LOCATE ALL EXISTING MULTIFLORA ROSE (ROSA MULTIFLORA) PLANTS IN MITIGATION AREAS. CUT PLANTS DOWN TO STUMPS AND APPLY A HERBICIDE WHICH IS EFFECTIVE AT KILLING MULTIFLORA ROSE ON EACH STUMP.
- INSTALL NATIVE SHRUBS AS NOTED ON PLAN. MODIFY PLANT LOCATIONS AS NEEDED ON SITE TO AVOID TO EXISTING TREES.

### SEEDING NOTES:

- SEEDING MIXTURE TYPE I (LAWN AREAS):
  - BLUEGRASS BLEND (3 VARIETIES) 50% OF MIXTURE
  - CHEWINGS RED FESCUE 30% OF MIXTURE
  - PERENNIAL RYEGRASS 20% OF MIXTURE
  - APPLICATION RATE: 4.50 LBS. PER 1000 S.F.
- SEEDING MIXTURE TYPE IV (DEPRESSION):
  - PERENNIAL RYEGRASS 10% OF MIXTURE
  - CREeping RED FESCUE 10% OF MIXTURE
  - ALSKIE CLOVER 5% OF MIXTURE
  - RED TOP 5% OF MIXTURE
  - TURF-TYPE TALL FESCUE 70% OF MIXTURE
  - APPLICATION RATE: 5.00 LBS PER 1,000 S.F.
- CONTRACTOR RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SEEDING AREAS UNTIL SATISFACTORY GROWTH AS DETERMINED BY THE OWNER. REPLANT BARE AND REPAIR ERODED AREAS UNTIL END OF MAINTENANCE PERIOD.

**PROPERTY OWNER:**  
HABITAT FOR HUMANITY  
OF EASTERN CT INC  
377 BROAD STREET  
NEW LONDON, CT 06320

**APPLICANT:**  
MR. HOWARD HALE  
21 DAWN DRIVE  
SOUTH WINDSOR, CT 06074  
T: 860-436-4481

**REFERENCES:**

- THIS PLAN REFERS TO THE FOLLOWING:
- PLAN ENTITLED "PROPERTY SURVEY, PROPERTY OF PRISCILLA A. TEITENBERG, 99, 101, 103 S. BEECHWOOD ROAD, NANTIC, CONNECTICUT" DATED MAY 11, 2015 PREPARED BY J. ROBERT PFANNER & ASSOCIATES, P.C., CIVIL ENGINEERS & LAND SURVEYORS, 37 GRAND STREET, NANTIC, CONNECTICUT, 06357

**LANDSCAPE PLAN NOTES:**

- CALL BEFORE YOU DIG - CONTRACTOR SHALL NOTIFY UTILITY COMPANIES OF PENDING EXCAVATION AT OR NEAR PUBLIC UTILITIES. CALL 911 AT LEAST 72 HOURS PRIOR TO BEGINNING EXCAVATION.
- THIS PLAN SHALL BE USED FOR LANDSCAPING AND SEEDING NOTES

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PLANNERS / LANDSCAPE ARCHITECTS

PREPARED FOR:  
Mr. Howard Hale  
21 Dawn Drive  
South Windsor, CT 06074  
T: 860-436-4481

PROJECT NO. 4609  
DATE 7/16/21  
SCALE 1" = 20'

**99, 101, & 103 SOUTH BEECHWOOD ROAD SITE PLAN APPLICATION**  
99, 101, AND 103 SOUTH BEECHWOOD ROAD  
EAST LYME, CONNECTICUT  
MBLU # 07-14-41, 42, & 43

NO.	DATE	REVISIONS	BY	CHKD
1	8/3/2021	REVISE PER TOWN ENGINEER COMMENTS		

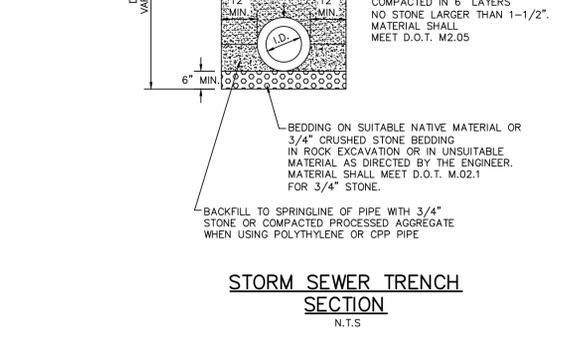
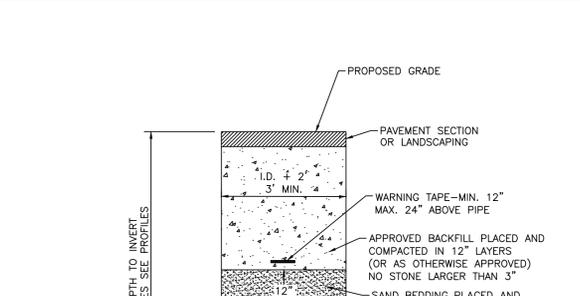
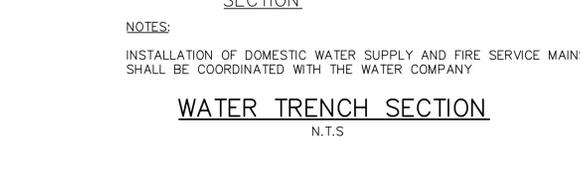
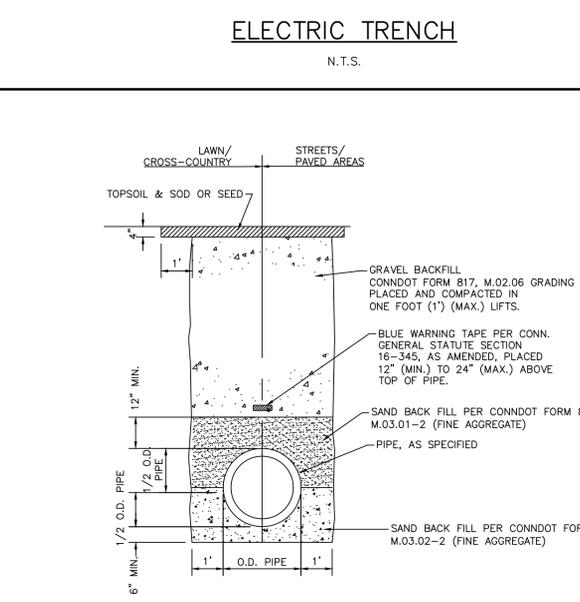
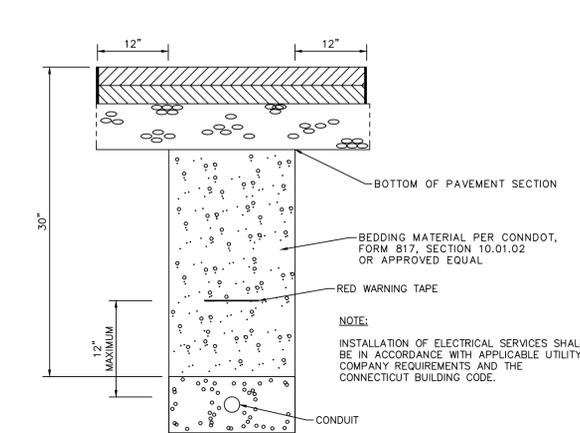
LANDSCAPE PLAN  
SHEET  
C-LS1  
SHEET 5 OF 6

**CONSTRUCTION NOTES:**

- At least two full business days prior to starting any site activity or demolition, the contractor shall contact the applicable utility location service by dialing 811 or submitting an online ticket request. The utilities shall be marked in all areas of proposed disturbance.
- It is the contractor's responsibility to review all construction contract documents associated with the project scope of work, including, but not limited to, all drawings and specifications, architectural plans, boundary and topographic survey, wetlands assessment and reports, geotechnical reports, environmental reports, and approval conditions, prior to the commencement of construction. Should the contractor find conflict and/or discrepancy between the documents relative to the plans, specifications, reports, or the relative or applicable codes, regulations, laws, rules, statutes and/or ordinances, it is the contractor's sole responsibility to notify the Engineer, in writing, of said conflict and/or discrepancy prior to the start of construction.
- The contractor shall be responsible for adhering to any conditions of approval placed on the project by the authorities having jurisdiction.
- The contractor must comply, to the fullest extent, with the latest Occupational Safety and Health (OSHA) standards and regulations, and/or any other agency with jurisdiction for construction activities. The contractor is solely responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with work on the Project. The Engineer will not be responsible for the contractor's safety, schedules, or failure to carry out its work in accordance with the contract documents. The Engineer will not have control over or charge of acts or omissions of the contractor, subcontractors, or their agents or employees, or of any persons performing portions of work on the Project.
- Contractor must notify the Engineer in writing if there are any questions concerning the accuracy or intent of these plans or related specifications. If such notification is given, no demolition or site activity may begin until such time that the Engineer provides a written response to same.
- Contractor shall adhere to and is responsible for compliance with all details, notes, plans and specifications contained herein. It is the responsibility of the contractor to ensure that all work performed by their subcontractors is in full compliance with these requirements.
- The contractor shall confirm that they are in receipt of the current version of the referenced documents prior to the commencement of any work.
- Prior to commencing work, the contractor shall review and correlate all consultants plans and specifications including the entire site plan and the latest architectural plans (including, but not limited to, structural, mechanical, electrical, plumbing, and fire suppression plans, where applicable), in particular for building utility connection locations, grease trap requirements/ details, door access, and exterior grading. Contractor must immediately notify the Architect and the Engineer, in writing, of any conflicts, discrepancies or ambiguities which exist, and receive a written resolution prior to commencing construction.
- Prior to commencing work, contractor is required to secure all necessary and/or required permits and approvals for the construction of the project, including, but not limited to, demolition work, and all off site material sources and disposal facilities. Copies of all permits and approvals shall be maintained on site throughout the duration of the project. The contractor shall thoroughly review and understand all permits and permit conditions prior to fabrication of any materials or products to be used as part of the project.
- The contractor is responsible for independently verifying all existing onsite utilities within and adjacent to the limits of the project activities. Underground utility, structure and facility locations depicted and noted on the plans have been compiled, in part, from record mapping supplied by the respective utility companies or governmental agencies, from parcel testimony, and from other sources. These locations must be considered as approximate in nature. Additionally, other such features may exist on the site, the existence of which are unknown to the Engineer.
- The contractor is responsible for ensuring the installation of all improvements comply with all requirements of utility companies with jurisdiction and/or control of the site.
- Locations of all existing and proposed services are approximate. Final utility service sizes and locations, including, but not limited to, the relocation and/or installation of utility poles, or the relocation and/or installation of transformers, are at the sole discretion of the respective utility companies.
- Prior to commencement of any work, the contractor shall independently coordinate and confirm with the appropriate utility companies to finalize all utility services and/or relocations to ensure no conflict with the design plans and that proper depths can be achieved. All discrepancies must immediately be reported to the Engineer in writing. Should a conflict arise due to the final designs of the utility company, the contractor shall notify the Engineer in writing and await a written resolution prior to proceeding with further utility installations.
- Prior to commencing construction, the contractor shall field verify all existing conditions, topographic information, utility invert elevations, and proposed layout dimensions, and must immediately notify the Engineer in writing if actual site conditions differ or are in conflict with the proposed work. No extra compensation will be paid to the contractor for work which has to be redone or repaired due to dimensions or grades shown incorrectly on these plans unless the contractor receives written permission from Owner/developer giving authorization to proceed with such additional work.
- Where utilities are proposed to cross/traverse existing underground utilities, the elevations of the existing utilities shall be verified in the field prior to construction by excavating a test pit at the proposed utility crossing point. Should the field verified existing utility be in conflict with the proposed site designs, the contractor shall notify the Engineer in writing and shall not proceed with said utility construction until further direction is given from the Engineer.
- At least 72 hours prior to starting any site activity or demolition, the contractor shall notify, at a minimum, the building official, the local fire department of public works, planning and zoning commission, the Engineer, and local inland wetland commission, as applicable. The contractor shall also attend a pre-construction meeting with the local municipality, if required, prior to commencing any site activity or demolition.
- Prior to starting any site activity or demolition, the contractor shall implement the soil erosion and sediment control measures as noted on the plans. Refer to the Erosion and Sedimentation Control Notes.
- No work, including but not limited to tree clearing, beyond the limits of disturbance shown shown on the approved plans shall be completed without approval. No trees and/or vegetation outside the limits shown on the drawings shall be removed. Any items desired to be removed outside the limits shown must be approved in writing by the engineer and the local authorities having jurisdiction. All equipment and construction activities must be confined to the property, right-of-way, and designated work space.
- The demolition plan or existing features designated to be removed are intended to provide only general information regarding items to be demolished and/or removed. The contractor shall review all site plans (and architectural drawings as applicable) to assure that all demolition activities and incidental work necessary for the construction of the new site improvements are completed.
- The contractor shall protect and maintain the operation and service of all active utilities and systems that are not being removed during all construction activities. Should a temporary interruption of utility services be required as part of the proposed construction activities, the contractor shall coordinate with

- The contractor shall arrange for and coordinate with the appropriate utility companies for all services that require temporary or permanent termination for the project, whether shown on the site plans or not. Termination of utilities shall be performed in compliance with all local, state and/or federal regulations.
- Contractor must prepare record drawings depicting the location of existing utilities that are capped, abandoned in place, or relocated and provide to the Owner and the Engineer of record.
- Should hazardous material be discovered/encountered, which was not anticipated/addressed in the project plans and specifications, cease all work immediately and notify Owner and Engineer regarding the discovery of same. Do not continue work in the area until written instructions are received from an environmental professional.
- The contractor is responsible for preventing movement, settlement, damage, or collapse of existing structures, and any other improvements that are to remain. If any existing structures that are to remain are damaged during construction, repairs shall be made using new product/materials resulting in a pre-damage condition, or better. Contractor is responsible for all repair costs. Contractor shall document all existing damage and to notify the Owner prior to the start of construction.
- The use of explosives, if required, must comply with all local, state and federal regulations. The contractor shall obtain all permits that are required by the federal, state and local governments, and shall also be responsible for all notification, inspection, monitoring or testing as may be required.
- All debris from removal operations must be removed from the site at the time of excavation. Stockpiling of demolition debris will not be permitted. Debris shall not be burned or buried on site. All demolition materials to be disposed of, including, but not limited to, stumps, limbs, and brush, shall be done in accordance with all municipal, county, state, and federal laws and applicable codes. The contractor must maintain records of all disposal activities.
- The contractor is responsible for repairing all damage to any existing utilities during construction, at its own expense.
- All property monumentation shall be protected during construction. It is the contractor's sole responsibility to protect all property monumentation. If monumentation is disturbed, it is the contractor's responsibility to have a licensed land surveyor in the State of Connecticut replace the monumentation to town or state standards.
- All new utilities/services, including electric, telephone, cable tv, etc. are to be installed underground unless noted otherwise on the plans. The Contractor shall be responsible for installing all new utilities/services in accordance with the utility/service provider's written installation specifications and standards.
- All earthwork activities must be performed in accordance with these plans and specifications and the recommendations set forth in the geotechnical report completed for this project. In the absence of a geotechnical report, all earthwork activities must comply with the standard state Department of Transportation (DOT) specifications (latest edition) and any amendments or revisions thereto. All earthwork activities must comply all applicable regulations, rules, statutes, laws, ordinances and codes for the jurisdictions where the work is being performed.
- The contractor is responsible for removing and replacing unsuitable materials with suitable materials. All excavated or filled areas must be properly compacted. Moisture content at time of placement must be submitted in a compaction report prepared by a qualified geotechnical engineer, licensed in the state where the work is performed, verifying that all filled areas and subgrade areas within the building pad area and areas to be paved have been compacted in accordance with these plans, specifications and the recommendations. Subbase material for building pads, sidewalks, curb, or asphalt must be free of organics and other unsuitable materials. Should subbase be deemed unsuitable by Owner/developer or Owner/developer's representative, subbase is to be removed and filled with suitable material and properly compacted at the contractor's expense. All fill, compaction, and backfill materials required for utility installation must be coordinated with the applicable utility company specifications. The Engineer shall have no liability or responsibility for or as related to fill, compaction, backfill, or the balancing of earthwork.
- Pavement must be saw cut into straight lines and must extend to the full depth of the existing pavement, except for edge of butt joints.
- The tops of existing manholes, inlet structures, and sanitary cleanout tops must be adjusted as necessary, to match proposed grades.
- Where retaining walls (whether or not they meet the jurisdictional definition) are indicated on plans, elevations identified herein are for the exposed portion of the wall. Wall footings/foundation elevations are not identified herein and are to be set/determined by the contractor based on final structural design shop drawings prepared by an appropriate professional licensed in the state where the construction occurs.
- Unless indicated otherwise or required by the authority having jurisdiction, all pipes shall be as follows:
  - Reinforced Concrete pipe (RCP) shall meet the requirements of AASHTO M 170 Class IV with silt tight joints.
  - High-Density Polyethylene pipe (HDPE) shall conform to AASHTO M 294, Type S (smooth interior with angular corrugations) with gaskets for silt tight joints.
  - Polyvinyl chloride (PVC) pipe for roof drain connections shall be SDR 35 gasket pipe. Polyvinyl Chloride (PVC) pipe for sanitary sewer pipe shall be SDR 35 gasket pipe.
- Storm sewer pipe lengths indicated are approximate and measured to the inside of inlet and/or manhole structure. Sanitary sewer pipe lengths indicated are approximate and measured to center of inlet and/or manhole structure to center of structure.
- Stormwater roof drain locations are approximate and are based on preliminary architectural plans. Contractor is responsible for reviewing and coordinating the final architectural plans to verify final locations and sizes of all roof drains.
- Sewers crossing streams and/or location within 10 feet of the stream embankment, or where site conditions so indicate, must be constructed of steel, reinforced concrete, ductile iron or other suitable material. Sewers conveying sanitary flow, combined sanitary and stormwater flow or industrial flow must be separated from water mains by a distance of at least 10 feet horizontally. If such lateral separations are not possible, the pipes must be in separate trenches with the sewer at least 18 inches below the bottom of the water main, or such other separation as approved by the agency with jurisdiction over same. Where appropriate separation from a water main is not possible, the sewer must be encased in concrete, or constructed of ductile iron pipe using mechanical or slip-on joints for a distance of at least 10 feet on either side of the crossing. In addition, one full length of sewer pipe should be located so both joints will be as far from the water line as possible. Where a water main crosses under a sewer, adequate structural support for the sewer must be provided.
- Contractor's price for water service must include all fees, costs and appurtenances required by the utility to provide full and complete working service.
- Contractor must contact the applicable water company to confirm the proper water meter and vault, prior to commencing construction. Water main and

- water service piping shall be installed in accordance with the requirements and specifications of the water authority having jurisdiction. In the absence of such specifications, water main piping must ductile iron (DI) minimum Class 54. All work and materials must comply with the applicable American Water Works Association (AWWA) standards in effect at the time of the service application.
- The contractor shall ensure that all work located in existing pavement be repaired in accordance with municipal, county and/or DOT details as applicable. Contractor is responsible to coordinate the permitting, inspection and approval of completed work with the agency having jurisdiction over the proposed work.
  - Where sump pumps are installed, all discharges must be connected to the storm sewer or discharged to an approved location.
  - For single and multi-family residential projects, spot elevation(s) adjacent to the buildings are schematic for non-specific building footprints. Grades must be adjusted based on final architectural plans and shall provide a minimum of six (6) inches below top of foundation/concrete and/or six (6) inches below the facade treatment, whichever is lower, and must provide positive drainage away from the structure (minimum of 2%). All areas shall be graded to preclude ponding adjacent to buildings, and on or adjacent to walks/driveways leading to the buildings. All construction, including grading, must comply with all applicable building codes, local, state and federal requirements, regulations and ordinances.
  - Contractor shall maintain and control traffic on and offsite in conformance with the current Federal Highway Administration (FHWA) "Manual on Uniform Traffic Control Devices" (MUTCD), and the federal, state, and local regulations for all aspects of demolition and site work. If a Maintenance of Traffic Plan is required for work that affects public travel either on or offsite, the contractor shall be responsible for the cost and implementation of said plan.
  - All temporary and permanent onsite and offsite signage and pavement markings shall conform to MUTCD, ADA, state DOT, and/or local approval requirements.
  - Contractor shall prevent the emission of dust, sediment, and debris from the site, and shall be responsible for corrective measures such as street sweeping, and clean-up work as deemed necessary by the Engineer or the authority having jurisdiction.
  - All concrete must be air entrained with a minimum compressive strength of 4,000 psi at 28 days unless otherwise specified on the plans, details and/or geotechnical report.
  - The Engineer will review contractor submittals which the contractor is required to submit, but only for the sole purpose of checking for general conformance with the intent of the design and contract documents. The Engineer is not responsible for any deviations from the construction documents unless contractor received explicit direction to do so, in writing, from the Engineer. The contractor remains responsible for details and accuracy, for confirming and correlating all quantities and dimensions, and for techniques of assembly and/or fabrication processes.
  - All dimensions are to face of curb, edge of pavement, or edge of building, unless noted otherwise.
  - The contractor shall install and/or construct all aspects of the project in strict compliance with and accordance with manufacturer's written installation standards, recommendations and specifications.
  - All pumped discharge must utilize silt-soc or approved equal. Monitor to ensure dewatering activities do not cause erosion downstream. Stabilize area utilizing winter stabilization if appropriate for season of construction. Dewatering activities shall be completed in accordance with the 2002 CT Guidelines for Soil Erosion and Sediment Control.
- AMERICANS WITH DISABILITY ACT NOTES TO CONTRACTOR:**
- The contractor shall review the proposed construction with the local building official prior to the start of construction. Contractors shall be precise in the construction of Americans with Disabilities Act (ADA) accessible parking, components, and accessible routes for the project. These components shall comply with all applicable state and local accessibility laws and regulations and the current ADA regulations and construction standards. These components include, but are not limited to the following:
- Parking spaces and parking aisles shall not exceed a 1:50 (nominally 2.0%) slope in any direction.
  - Accessible routes shall be a minimum of 36" wide (unobstructed). Handrails and car overhangs may not obstruct these areas. Longitudinal slopes (direction of travel) shall not exceed 1:20 (5.0%) and shall have a cross slope no greater than 1:50 (2.0%).
  - Accessible routes exceeding 1:20 (5.0%) shall be considered a "ramp". Maximum slopes of a ramp shall be 1:12 (8.3%) in the direction of travel, and a cross slope of 1:50 (2.0%). Ramps shall have maximum rise of thirty (30) inches, shall be equipped with hand rails on both sides, and landings at the top and bottom of the ramp. Landings shall not exceed 1:50 (2.0%) in any direction and have positive drainage away from the landing.
  - A landing shall be provided at the exterior of all doors and at each end of ramps. Landings shall not exceed 1:50 (2.0%) in any direction and have positive drainage away from the landing and/or building. The landing shall be no less than 60 inches long unless permitted otherwise per the ADA regulations.
  - Curb ramps - shall not exceed a 1:12 (8.3%) slope for a maximum length of six (6) feet or a maximum rise of six (6) inches.
  - The contractor shall verify all existing elevations shown on the plan in areas of existing doorways, accessible routes or other areas where re-construction is proposed. The contractor shall immediately notify the Owner and Engineer in writing if any of the proposed work intended to meet ADA requirements is incapable of doing so, or if there is any ambiguity regarding which design components are intended to meet ADA requirements. The contractor shall not commence the work in the affected area until receiving written resolution from Engineer.



LEGEND		
EXISTING	DESCRIPTION	PROPOSED
BORINGS	BORING / TEST PIT LOCATION	BP
COMMUNICATION	UNDERGROUND COMMUNICATION LINES	C
DOMESTIC WATER	WATER MAIN	W
	WATER SERVICE	WS
	FIRE SERVICE LINE	F
	NON-POTABLE WATER LINE	NPW
	WATER VALVE / FIXTURES	WV
	FIRE HYDRANT	▲
LIQUID FUEL	MAIN LIQUID FUEL LINE	LF
	LIQUID FUEL SERVICE LINE	ufs
	LIQUID FUEL LINE, ABANDONED	ufs
IRRIGATION	IRRIGATION LINES	I
LIGHTING	POLE / GROUND MOUNTED LIGHT	★ / ◀
NATURAL GAS	GAS MAIN	G
	GAS SERVICE LINE	gs
POWER	ELECTRICAL LINES, OVERHEAD	EO
	ELECTRICAL LINES, UNDERGROUND	EU
	UTILITY POLE	▲
PROPERTY	PROPERTY LINE	---
	EASEMENT LINE	---
	IRON PIPE	○
	IRON ROD	●
	MONUMENT	■
ROADS	GUARD RAIL	▲
EROSION CONTROL	SILT FENCE	SF
SITE FEATURES	4" DOUBLE SOLID YELLOW LINE	DSYL
	4" SINGLE SOLID WHITE LINE	SSWL
	BIT. CONC. LIP CURB	BCLC
	PRECAST CONCRETE CURB	PCC
SANITARY SEWER	SANITARY SEWER MAIN	S
	SANITARY SEWER SERVICE LINE	SS
	SANITARY SEWER MANHOLE	⊙
STORM SEWER	STORM DRAIN PIPE	---
	ROOF LEADER	RL
	UNDERDRAIN	UD
	STORM DRAIN MANHOLE	⊙
	CURB INLET	■
	CATCH BASIN	■
	YARD DRAIN	⊙
TOPOGRAPHY	CONTOUR	95
	SPOT ELEVATION	195
OTHER	RAMP	R
	LANDSCAPE AREA	LSA

**PROPERTY OWNER:**  
DCK LEASING COMPANY, LLC  
6 PPG PLACE, SUITE 700  
PITTSBURGH, PA 15222

**APPLICANT:**  
SCANNELL PROPERTIES #405, LLC  
8801 RIVER CROSSING BLVD.  
SUITE 300  
INDIANAPOLIS, IN 46240  
763-331-8853

**NOTES, LEGEND, & DETAILS**

REVISIONS: REVISE PER TOWN ENGINEER COMMENTS

NO. DATE BY

1 8/3/2021 GMM

99, 101, & 103 SOUTH BEECHWOOD ROAD SITE PLAN APPLICATION  
99, 101, AND 103 SOUTH BEECHWOOD ROAD  
EAST LYME, CONNECTICUT  
MBLU # 07-14-41, 42, & 43

PREPARED FOR: Mr. Howard Hale, 21 Dawn Drive, South Windsor, CT 06074, T: 860-436-4481

DESIGN PROFESSIONALS: CIVIL & TRAFFIC ENGINEERS / LAND SURVEYORS & PLANNERS / LANDSCAPE ARCHITECTS

PROJECT NO. 4649, DATE 7/16/21, DRAWN BY GMM, CHECKED BY GMM, SCALE AS SHOWN, SHEET NO. 6 OF 6

# **Storm Drainage Computations**

**99, 101 and 103 S. Beechwood Road  
East Lyme, Connecticut**

Prepared by:

**Design Professionals, Inc.  
21 Jeffrey Drive, PO Box 1167  
South Windsor, CT 06074**

**July 6, 2021  
Revised August 3, 2021**



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## **Section**

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Introduction  
Pre-Development Conditions  
Post-Development Conditions  
Analysis of Results  
Conclusion

## **Appendices**

A Watershed Computations (Pre & Post Development Conditions)  
B Drainage Area

## **1. Introduction**

Howard Hale is proposing to develop three house lots with a total of 14,961 SF± (0.34 acre). located at 99, 101 and 103 S. Beechwood Road in East Lyme, Connecticut. The proposed work will disturb approximately 8,350 SF± (0.19 acre) of the parcels. The proposed development will include construction of two new single-family homes with associated paved driveways, subsurface utilities, and landscaping. The project also includes wetland mitigation and combination of two lots. Refer to the site plan drawings, entitled “99, 101 & 103 South Beechwood Road, Site Plan Application, East Lyme, Connecticut,” prepared by Design Professionals, Inc, dated 7/6/2021, revised 8/3/2021, for information regarding the proposed property development.

## **2. Pre vs Post Development Comparisons**

The surficial characteristics of the site can primarily be classified as woodland and house lot areas that are common for residential properties. The entire site drains north to south across the parcel.

To establish a hydrologic comparison between pre- and post-development conditions, an evaluation was performed to quantify the increase in stormwater volume for the parcel during a 10-year storm event. The Rational method as outlined in the ConnDOT Drainage Manual, was followed in predicting the peak rates of runoff and volumes. Hydraflow Hydrographs (version 2020) computer modeling software was used as application. Refer to **Appendix A** for the pre-developed conditions watershed computations.

## **3. Post Development Site Conditions**

The two new homes proposed will increase the impervious coverage on the total area. To control the increase in stormwater volume due to increased impervious coverage, one plunge pool is proposed along with installation of drainage to alleviate the increase in flow and improve conditions in the right-of-way. The pipe was sized to allow the increase due to proposed conditions to flow off-site during a the 10-year storm. The drainage area map is in **Appendix B**.

## **4. Analysis of Results**

Hydraulic conditions related to storm drainage were evaluated for both proposed and existing conditions using Hydraflow Hydrographs (version 2020) computer modeling software to determine peak discharge rates of runoff leaving the developed site. Based on modeling from existing conditions, one discharge location was identified as a point of interest for assessing downstream effects. The following table contains the data generated from the Hydraflow software:

<b>TABLE 1</b>				
<b>Peak Flow of Stormwater</b>				
		<b>Runoff Volume</b>		
<b>Watershed Area</b>	<b>Storm Event (Year)</b>	<b>Pre-developed Condition (cfs)</b>	<b>Post-developed Condition (cfs)</b>	<b>Net Change (cfs)</b>
<b>DP#1 – Southern PL</b>	10	0.80	1.15	0.35

As indicated by the analysis results, the stormwater runoff volume is expected to increase because of the proposed development. Our analysis demonstrated an increase of 0.35cfs across the parcels for this storm event. The increase in flow will be alleviated with the proposed 6” pipe, which at a slope of 1% will allow 0.365 cfs to flow. The pipe leads to the proposed drainage in the right-of-way and downstream. Existing and Proposed Hydrographs are included in **Appendix A** of this report.

## **5. Conclusion**

It is our opinion that the proposed stormwater management design as presented herein and on the accompanying site plans, will not pose any significant detrimental impacts to the environment surrounding the site.

**APPENDIX A**  
**Watershed Computations**  
**(Pre & Post-Development Conditions)**

# Hydrograph Report

## Hyd. No. 1

Existing

Hydrograph type	= Rational	Peak discharge	= 0.800 cfs
Storm frequency	= 10 yrs	Time to peak	= 21 min
Time interval	= 1 min	Hyd. volume	= 1,009 cuft
Drainage area	= 0.790 ac	Runoff coeff.	= 0.29*
Intensity	= 3.494 in/hr	Tc by User	= 21.00 min
IDF Curve	= SampleFHA.idf	Asc/Rec limb fact	= 1/1

\* Composite (Area/C) = [(0.250 x 0.60) + (0.330 x 0.15) + (0.210 x 0.15)] / 0.790



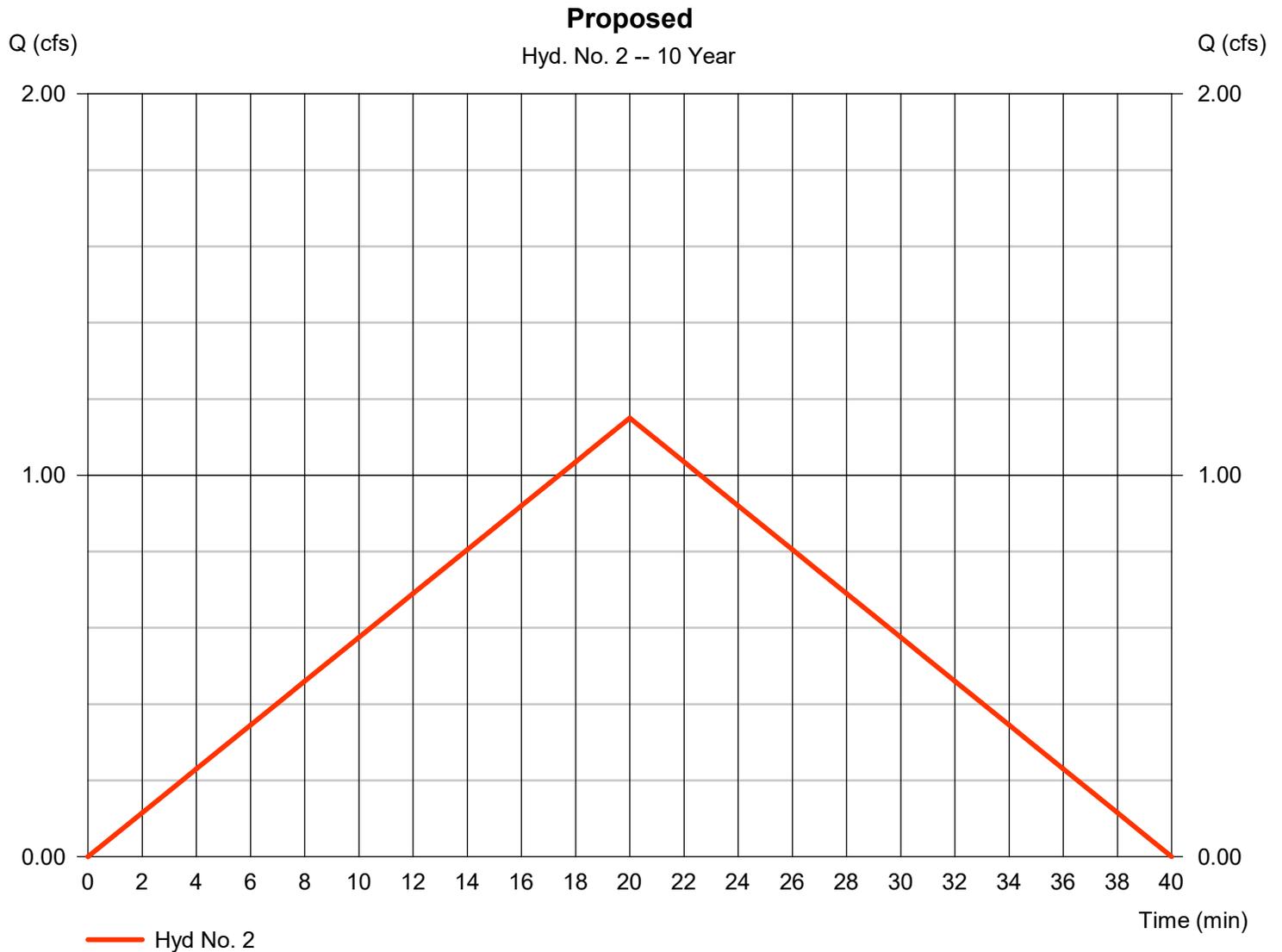
# Hydrograph Report

## Hyd. No. 2

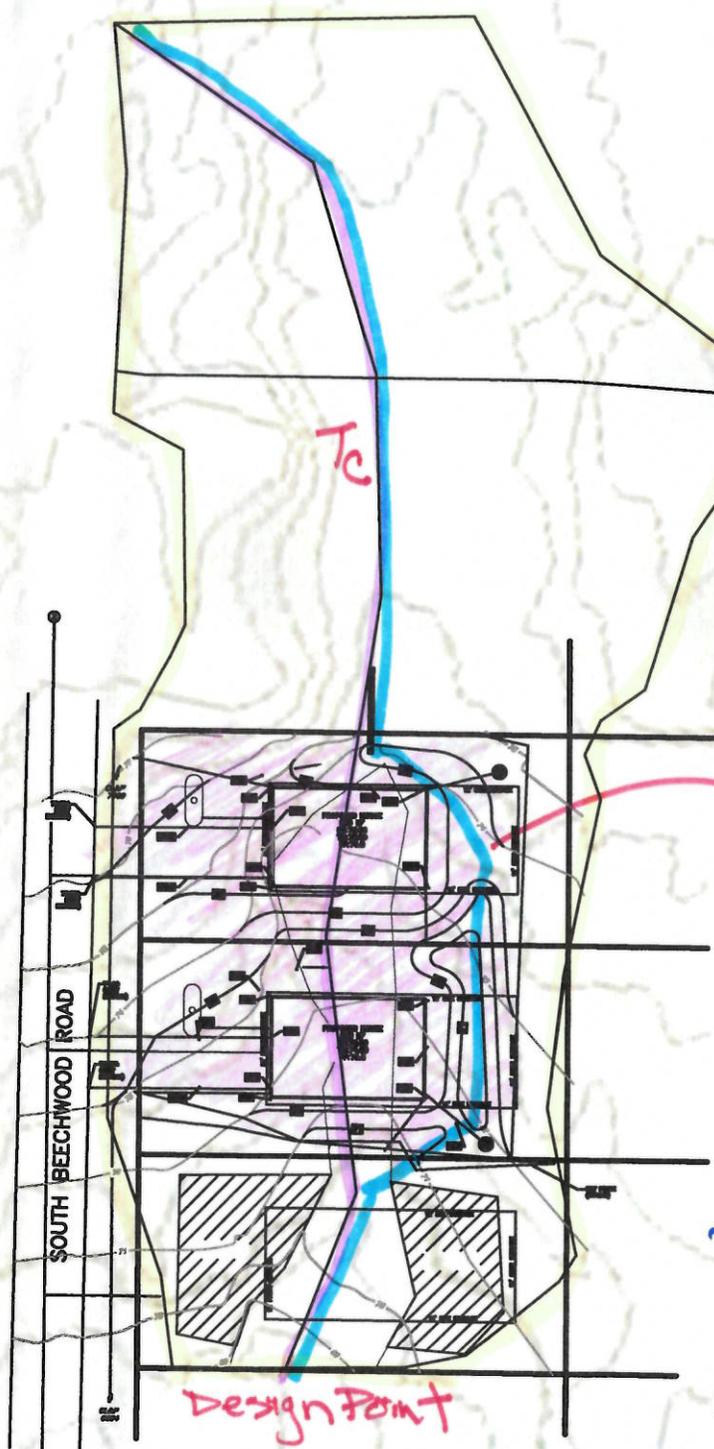
Proposed

Hydrograph type	= Rational	Peak discharge	= 1.150 cfs
Storm frequency	= 10 yrs	Time to peak	= 20 min
Time interval	= 1 min	Hyd. volume	= 1,380 cuft
Drainage area	= 0.800 ac	Runoff coeff.	= 0.4*
Intensity	= 3.595 in/hr	Tc by User	= 20.00 min
IDF Curve	= SampleFHA.idf	Asc/Rec limb fact	= 1/1

\* Composite (Area/C) = [(0.250 x 0.60) + (0.332 x 0.15) + (0.192 x 0.60) + (0.021 x 0.15)] / 0.800



**APPENDIX B**  
**Drainage Area**



Area of change in Existing verses Proposed

Drainage Area  
99, 101 & 103  
South Beechwood Rd  
East Lyme, CT  
7/16/21 JPC  
N.T.S.

**From:** [Bill Scheer](#)  
**To:** [Suzanne Choate](#)  
**Cc:** [Gary Goeschel](#); [Jennifer Lindo](#); [Glen Martin](#); [Ben Wheeler](#)  
**Subject:** RE: 99 101 and 103 S Beechwood Road Town Engineer Comments  
**Date:** Monday, August 9, 2021 2:30:59 PM

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Suzanne,

We have talked about a few alternatives for the inlet structure in comment #4 since this e-mail, and I know you are going to seek out additional thoughts from your wetland scientist. As long you provide enough detail on the function of the structure and explain how the device will not readily clog, I would think the commission could determine if your final proposal is acceptable. If my review is required, I could do it ASAP or as a condition of approval if the Commission found that acceptable.

Best regards,

Bill

Bill Scheer P.E., L.S.  
Deputy Director of Public Works (acting Town Engineer)  
Acting Town Engineer

Town of East Lyme, CT  
(860) 691-4101  
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Mailing Address  
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[Bscheer@eltownhall.com](mailto:Bscheer@eltownhall.com)

---

**From:** Suzanne Choate <SChoate@designprofessionalsinc.com>  
**Sent:** Friday, August 6, 2021 2:39 PM  
**To:** Bill Scheer <bscheer@eltownhall.com>  
**Cc:** Gary Goeschel <ggoeschel@eltownhall.com>; Jennifer Lindo <jlindo@eltownhall.com>; Glen Martin <glen.martin@designprofessionalsinc.com>; Ben Wheeler <Ben.Wheeler@designprofessionalsinc.com>  
**Subject:** FW: 99 101 and 103 S Beechwood Road Town Engineer Comments

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Hi Bill,

In response to Comment #4 from your memo, I propose a 12" NDS CB with 'overflow' grate above grade along with the pipe opening (also with a debris grate) at the elevation shown on plan. Would that solution address the comment?

Sincerely,

Suzanne P. Choate, P.E.  
*Senior Project Manager / Director*

**CELEBRATING DPI's 35<sup>th</sup> ANNIVERSARY 1986 – 2021**

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**From:** Jennifer Lindo <[jlindo@eltownhall.com](mailto:jlindo@eltownhall.com)>  
**Sent:** Friday, August 6, 2021 12:28 PM  
**To:** Suzanne Choate <[SChoate@designprofessionalsinc.com](mailto:SChoate@designprofessionalsinc.com)>  
**Cc:** Gary Goeschel <[ggoeschel@eltownhall.com](mailto:ggoeschel@eltownhall.com)>  
**Subject:** 99 101 and 103 S Beechwood Road Town Engineer Comments

Please see the attached comments from the Town Engineer.

Jenn

**Jennifer Lindo**  
**Administrative Assistant, Land Use Office**  
**Town of East Lyme**  
**PO Box 519**  
**Niantic CT 06357**  
**(860) 691-4114**  
**(860) 691-0351 Fax**