ENGLISH HARBOUR ASSET MANAGEMENT, LLC

1712 Pioneer Avenue, Suite 1939 Cheyenne, Wyoming 82001 (307) 256-7229

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October 25, 2020

Via email: vbenni@eltownhall.com Victor Benni, PE Town of East Lyme 108 Pennsylvania Avenue Niantic, CT 06357

Re: Nottingham Hills subdivision Lot Line Revisions/Re-Subdivision

Dear Mr. Benni:

As a follow up to my letter to you dated October 22, 2020, I wanted to address a few additional items I missed in the rush to respond to Mr. Goeschel's request on the evening of October 21, 2020.

9/23/2020 Plan Revisions

1. We labeled Page 3 of 6 (page 3 of 5 on the 10/19/2020 plan revision) "Subdivision and Site Plan" which I am advised by both the projects Surveyor and Legal Counsel complies with section 8-25 of the Connecticut General statutes.

10/19/2020 Plan Revisions

1. We added a rain garden near to the low elevation point in the front yard, the size of the rain garden was calculated pursuant to the publication titled "Rain Gardens In Connecticut" A Design Guide For Homeowners prepared by UCONN COOPERATIVE EXTENSION SYSTEM, Ex. 9, as follows:

House footprint 56' x 30' = 1680 ft Driveway $180' x 10' = \frac{1800 \text{ ft}}{3480 \text{ ft}/6 = 580 \text{ ft}}$ In addition to the above referenced information I wanted to provide you with the backup information in support of the Stormwater Management report waiver regarding Open Space provided by the Nottingham Hills Subdivision to date;

Open Space Provided as part of Phases 1 thru Open Space Provided from lots 19 and 21	4 =41.35 acres-Ex. 10 = <u>1.78</u> acres-Ex. 11 43.13 acres
Total Acres in Subdivision (All Phases)	107.82 acres
Total acres of Open Space Required (30%)	32.34 acres

I would also note that per the agreement with the East Lyme Planning Commission as part of the Phase 4 approval additional Open Space was provided with the understanding it could be reserved for "...use it for the open space requirement calculations on future development.." See Ex. 12. I would also note 37.99 acres (inclusive of the 1.78 acres referenced above and also identified in Ex. 11) are in the process of being transferred to the East Lyme Land Trust for Open Space. We are awaiting only the conservation easement documents from the State of Connecticut DEEP to finalize this transaction which will result in nearly 70% of this subdivision's land area being in Open Space.

Finally, in reviewing my correspondence sent to you by Attorney Geraghty on Friday the following items are re-submitted for purposes of clarity as they do not appear to have been transmitted in color.;

Cover letter had signature blurred Ex. 5 (Photo of existing Utility Structures) Ex. 6 (Overlay Map) Ex. 7 (Map of Stormwater recharge area)

Sincerely,

Knoln Clarke

Kristen T. Clarke, P.E.

cc: Paul Geraghty, via email Gary Goeschel, via email

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UCONN COOPERATIVE EXTENSION SYSTEM College of Agriculture and Natural Resources



RAIN GARDENS





A DESIGN GUIDE FOR HOMEOWNERS

in Connecticut

Helping to improve water quality in your community.

Sizing This sizing method is designed to capture the majority (more than 90%) of runoff from the roof. If a gutter downspout will run directly into the garden, the only information that you will need is the area of the roof that contributes to that gutter. Don't worry, this doesn't require a trip to the roof!

- Just measure the footprint of your house (the area taken up by your house if you were looking down from above).
- Then, estimate how much of this area actually contributes to the gutter downspout. In other words, if it were raining, what portion of the roof area would be contributing water to the garden?
- Next, divide this area by 6. This calculation sizes the garden to hold one inch of roof runoff in a garden 6 inches deep. This is the area you need for your rain garden (see example on the following page).



If you are placing the garden in an area of lawn, and the runoff from your downspouts travels over more than 30 feet before it gets to your garden, the garden may not need to be as large. Some water will sink into the grass before entering the garden. However, if there is a large area of grass that will also contribute runoff to the rain garden, consider using the size calculated above. While it won't hurt to have the garden be a bit larger than necessary, if size or cost is a constraint, the garden can be smaller and still provide some treatment. Every little bit helps!

If the percolation test shows that your soils are suitable, or if you know that the soils are loamy/sandy, then you can move on to the installation section. Even with soils that are silty or clayey, you can still have a rain garden. Remember, if the soils are poorly drained, or your test hole still had water after 24 hours, the site is not suitable for a rain garden. If there was some infiltration but it was slow, increasing the size of your garden can make up for the tight soils. With silty soils, the size can be increased about 50%. If the soils are clayey, the size can be increased up to 100%. This increase will provide the same amount of treatment as if your soils were sandy. However, if an increased size is not feasible due to cost or space constraints, don't worry. You will still be providing some treatment of the runoff, and therefore a benefit to the local waterways.

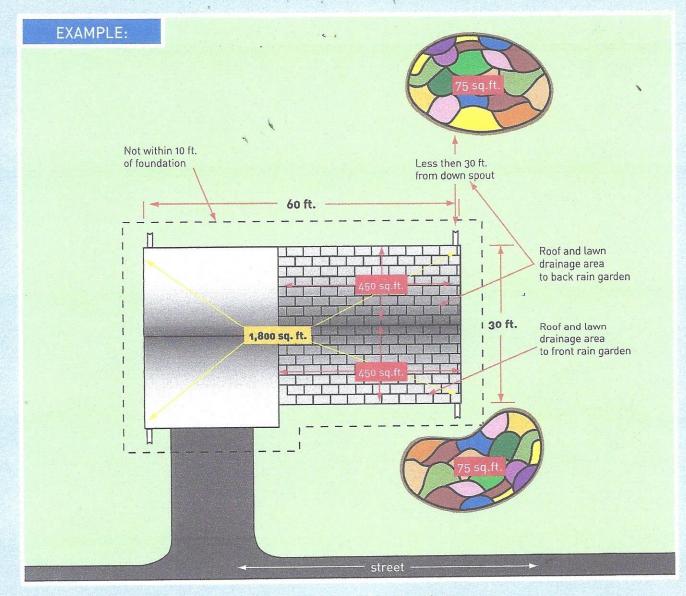
A more detailed design manual with accommodations for silty or clayey soils can be found at the following website:

http://www.dnr.state.wi.us/org/water/wm/nps/rg/#plant_lists

Calculating the size of your rain garden

Based on the amount of roof runoff from your home.

The house has a footprint of **60 feet x 30 feet, or 1800 ft**². One quarter of the roof area contributes to the gutter near where the rain garden is to be built. So the contributing area would be **1800 ft**² **x 0.25 = 450 ft**². This area is then divided by 6, so that the square footage of the rain garden would be: **450 ft**² / **6 = 75 ft**². A nicely shaped rain garden might be **10 ft x 7.5 ft**. However, you have the flexibility to make it any shape you want, as long as you approximate the size.



Diagrams above dapted from the University of Wisconsin Extension, Rain Gardens: A How-to Manual for Homeowners.

OPEN SPACE CALCULATIONS NOTTINGHAM HILLS SUBDIVISION

Phase I

<u>Lot #</u>	Acreage		
1	1.71		
2	.92		
3	1.25		
4	1.39		
5	1.23		
6	1.21		

Phase II

1.34
2.21
3.09
1.95
1.71
1.29
1.34
2.96
2.11
2.68

Phase III

1.06
1.34
1.17
1.27
1.35
1.0
.93
2.45
Phase IV
3.12
1.30
1.73
1.78
2.58
2.91

28 4.36

Phase IV

20	33.0		
29	3.05		
32	15.03		

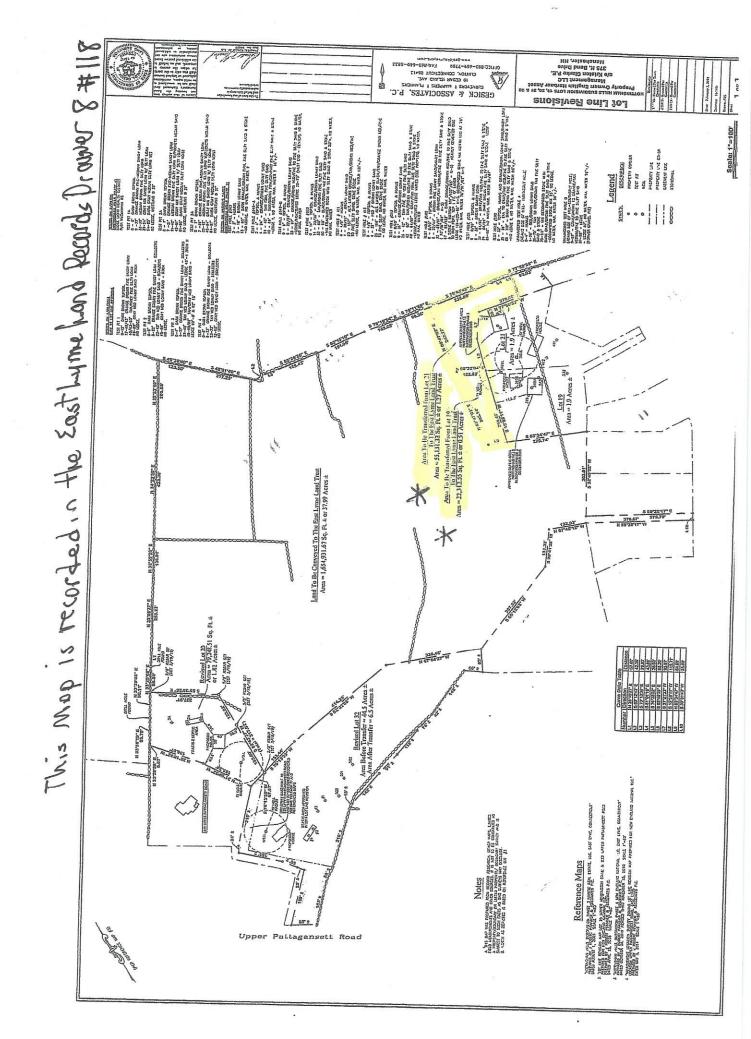
Open Space

Aunt Ruth Turnpike	23.2
Phase I	.32 (south side Kensington Drive)
Phase II	4.24 (Conservation Easement)
Phase III	N/A
Phase IV	10.63 (Conservation Easement)
	2.96 (Conservation Easement)

TOTAL ACRES

LOTS:	107.82

OPEN SPACE: 41.35



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FILED IN EAST LYME TOWN
CLERK'S OFFICE
NOV 22 20 10 at 10:00 PM
EAST LYME PLANNING COMMISSION PUBLIC HEARING IV LATH- B Williams
Tuesday, NOVEMBER 16th, 2010 MINUTES EAST LYME TOWN CLERK

The East Lyme Planning Commission held a Public Hearing on the Application of New England National LLC for a proposed 2-lot Re-Subdivision of 46.95 acres of property having frontage on and located between 241 and 233 Upper Pattagansett Rd., East Lyme, CT; Tax Assessor's Map #39.0, Lot 10-1; with a request for the substitution and re-subdivision of previously designated open space to create one additional proposed lot of record and a request for a waiver of Section 6-16-1 through 6-16-6 of the Subdivision Regulations on November 16, 2010 at Town Hall, 108 Pennsylvania Ave., Niantic, CT. Acting Chairman McPherson opened the Public Hearing and called it to order at 7:46 PM after the three previously scheduled Public Hearings.

- PRESENT: George McPherson, Acting Chairman, Francine Schwartz, Frank Balantic, Alternate, Brian Bohmbach, Alternate
- ALSO PRESENT: Jeffrey Torrance, representing the Applicant Attorney Mark Block, Town Counsel Gary Goeschel, Planning Director William Scheer, Town Engineer
- ABSENT: Mike Bowers, Chairman, Mike Mangelinkx, Chris Sandford, Brian Schuch, Joan Bengtson, Alternate

Pledge of Allegiance

The Pledge was observed.

Acting Chairman McPherson noted that he had seated Frank Balantic Alternate and Brian Bohmbach, Alternate at the table this evening.

Public Hearing I

1. Application of New England National LLC for a proposed 2-lot Re-Subdivision of 46.95 acres of property having frontage on and located between 241 and 233 Upper Pattagansett Rd., East Lyme, CT; Tax Assessor's Map #39.0, Lot 10-1; with a request for the substitution and re-subdivision of previously designated open space to create one additional proposed lot of record located at the terminus of Kensington Drive and north of Upper Kensington Drive, East Lyme, Connecticut, Tax Assessor's Map #40.0, Lot #14-1; and a request for a waiver of Section 6-16-1 through 6-16-6 of the Subdivision Regulations

Mr. McPherson called for the applicant or his representative to give a presentation on this application.

Jeffrey Torrance, representing the applicant submitted Exhibit P for the record – a letter dated 11/2/2010 from Robert A. Blatt authorizing him to act on his behalf on this application.

Mr. Goeschel read the List of Exhibits into the record and added Exhibit Q – Plans revised through 11/16/2010 and Exhibit R – Certificates of Mailing dated 11/12/2010. (List attached at end of Minutes).

Mr. Torrance noted that the sign was posted on the property on November 1, 2010. He explained that this property is approximately 48 acres that was set aside for future development. It has access from two locations – the Nottingham Hills Subdivision and Pattagansett Road. The proposal is to make two lots from the one. One lot would be approximately 15 acres and the other would be 33 acres. A third lot is a parcel of land that was preliminarily designated as open space in a previous application – but was not finalized. There is a 3.04 acre parcel and 2.2 acres of conservation easement and they are designating an additional 10.63 acres on the 48 acre parcel as open space. This is far more than they are required to set aside and they want to reserve the right to use it for the open space requirement calculations on future development. He

continued that in working with the Town Engineer, they no longer need the waiver of Section 6-16-1 through 6-16-6 and Sheet SD4 shows the stormwater detention area. An area was originally designed to keep stormwater on site adjacent to this lot however they have added more. He summed up that he feels that they have met the requirements for the subdivision of the two parcels.

Mr. McPherson asked if the Commissioners had any questions or comments -

Mr, Goeschel asked if they were clear on the open space.

Mr. Balantic asked if the ¾ acre shift was to allow for the conservation easement.

Mr. Torrance said that went to wetlands and they approved it as a lot.

* Mr. Balantic said that it looks like it is a good swap. He asked when the open space would be finalized.

Mr. Torrance said that per the opinion of Counsel, they do not have to do it until the development is finished so it could go on for quite some time. However – as per this 10 acre piece – he said they will put the conservation easement on it now but reserve the right to include it in future calculations.

William Scheer, Town Engineer explained the stormwater regulations noting that in a subdivision like this one where they are in the woods – there are basically swales and indentations in the ground. They are meant to catch the stormwater to pool and let it go into the ground. He said that he would review it out in the field when they start development but there is enough area and woods for the water to go into the ground.

Mr. Torrance said that while they requested a waiver of the stormwater regulations that it is basically a moot point and they do not need one.

Mr. McPherson called for any comments from the public – Hearing none – He called for a motion to close this Public Hearing –

**MOTION (1) Mr. Balantic moved to close this Public Hearing. Mr. Bohmbach seconded the motion. Vote: 4 – 0 – 0. Motion passed.

Mr. McPherson closed this Public Hearing at 8:05 PM.

Respectfully submitted,

Karen Zmitruk, Recording Secretary

ENGLISH HARBOUR ASSET MANAGEMENT, LLC 1712 Pioneer Avenue, Suite 1939 Cheyenne, Wyoming 82001 (307) 256-7229

October 22, 2020

Via email: vbenni@eltownhall.com Victor Benni, PE

Town of East Lyme 108 Pennsylvania Avenue Niantic, CT 06357

Re: Lot Line Revisions Re-Subdivision Nottingham Hills subdivision Lots 19 & 21

Dear Mr. Benni:

Pursuant to Gary Goeschel's email from last evening, October 21, 2020, he asked for an itemized list of the substantive changes made in both the 9/23/2020 and 10/19/2020 plan revisions.

With regard to the 9/23/2020 revisions which appear in the application record as Ex. Y, they responded to your comments dated 9/02/2020, attached as Ex. 1, as follows;

- 1. The surveyor revised Note 1 on page 1 to include the requested language requested regarding accuracy of the proposed boundary lines and vertical accuracy.
- 2. We addressed the area of the Common Driveway by shading the area which is identical to the area of the Utility Easement. This identifies an area that encompasses each of the three lots and demonstrates that access and utilities have been provided. In addition, on page 1 "Reference Maps" #3 is the Utility Easement Map recorded in the East Lyme Land Records Drawer 6 # 441, Ex. 2 herein, that identifies the legal description of the shaded area. We have also added Note 7 on Page 1 to address the Common Driveway and Utility Easement. A draft of this agreement was submitted to the record of the pending application and appears as Ex. GG.

Given all of this our Legal Counsel has advised no further easements are required. In addition, I enclose the narrative Utility Easement recorded in the East Lyme Land Records Vol. 794 Page 510 as **Ex. 3**, the construction plan prepared by the Connecticut Light and Power Company, **Ex. 4**, and a photograph of the installed utility structures for this property, **Ex. 5**. I would note that underground Electric, Cable TV and Telephone conduit and structures, all of which is already installed, benefit and are burdened by the utility easement as is identified in the narrative easement and evidenced further by the construction plans.

3. Waiver of Storm Water Management Report per Section 6-8-7 (A) 1 & 2;

I believe we are entitled to the waiver of this report based on several factors;

A) By using a common driveway and reducing the sizes of the previously approved house footprints we have actually reduced the impervious surface area that will need to be utilized per the following analysis;

	Existing Phase 3 Approved Plan		Re-Subdivision Plan	
Lot 19 (Lot 1)	Driveway 460'x15' = House Footprint 70'x30' =	6,900 s.f. 2,100 s.f.	140'x10' = 56'x30' =	1,400 s.f. <u>1,680 s.f.</u>
		9,000 s.f.		3,080 s.f.
Lot 21 (Lot 2)	Driveway 460'x15' = House Footprint 70'x30' =	6,900 s.f. <u>2,100 s.f.</u>	190'x10' = 56'x30' =	1,900 s.f. <u>1,680 s.f.</u>
		9,000 s.f.		3,580 s.f.
Lot 3	Driveway House Footprint	N/A N/A	200'x10' = 56'x30' =	2,000 s.f. <u>1,680 s.f</u> .
				3,690 s.f.
Lot 4	Driveway House Footprint	N/A N/A	N/A N/A	
Common Driveway	234'x15'	<u>N/A</u>		<u>3,510 s.f.</u>
Totals		18,000 s.f.		13850 s.f

I have attached as **Ex. 6** a map, previously supplied and part of record Ex.Y, that shows the currently approved Nottingham Hills Subdivision Phase 3 impervious surfaces in red ink overlaid on the proposed impervious surfaces from the pending applications.

Given the design of the subdivision which provides a 10+ acre stormwater discharge area immediately adjacent to this property, see Nottingham Hills Subdivision phase 4 Conservation Easement area, **Ex. 7**, the reduction in impervious surface area, the addition of more Open Space that increases the total open space to more an amount that exceeds by in excess of 33% that which is required, I would submit that these factors combine to demonstrate that the water quality of the receiving aquifer, wetland or watercourse will not be affected and that the proposed development will not cause or exacerbate downstream flooding In addition, I would note that we are entitled to consideration based upon the pending plans of additional Open Space and a reduction in impervious surface area's as is provided in Section 6-8-4(A) 1 and 2 of the East Lyme Subdivision Regulations.

In addition to the items that address Mr. Benni's 9/2/2020 comments the following were added to the 9/23/2020 Plan Revisions;

- 1) Additional Test Hole and Perc Test locations (Pages 3,4,5)
- 2) Test Hole Data provided by Ledge Light Health District (Page 6)
- 3) We added a new page 5 to demonstrate alternative locations could easily be provided to rebut the claims made by an alternate member of the planning commission. (NOTE: This has page been removed from the 10/19/2020 Plan Revisions and will be submitted as a standalone responsive exhibit as part of the so called "Bombach Response" dated October 5, 2020 which appears in the record of this application as Ex. X)

With regard to the 10/19 revised plans;

- We removed what was page 5 in the 9/23/2020 and made this document Ex. 33 to the so called Bombach Response. This Plan was prepared solely to demonstrate that alternative location exist on each of the lots subject to East Lyme Planning, Building, Zoning, Engineering and Health Department(s) approval.
- 2) We added addition Perc Test Data on Page 6.
- We slightly modified the location of the proposed primary and reserve locations for existing lot 21.
- 4) We changed the location for proposed footing drains.

I have also enclosed a copy of the letter and exhibit emailed to Danielle Holmes on October 21, 2020 as **Ex.8**.

Please let me know if you need any further information or have any questions.

Sincerely,

Kneilen Clarke

Kristen T. Clarke PE, Manager English Harbour Asset Management LLC

cc: Gary Goeschel, via email: ggoeschel@eltownhall.com Paul Geraghty, via email pgeraghty@geraghtybonnano.com



