Land Use Agency Newtown Municipal Offices 3 Primrose Street Newtown, CT 06470 Tel. (203) 270-4350 Fax (203) 270-4278



TOWN OF NEWTOWN

#### Inland Wetlands Commission AGENDA REGULAR MEETING December 9, 2020 @ 7:30 p.m.

Zoom Meeting Website link: https://zoom.us/j/98330638274 Call-in Number: 1 (646) 558-8656 Meeting ID: 983 3063 8274

#### **PUBLIC HEARING**

**Application #20-27 by Negreiro & Sons Construction LLC,** for a property located at 203 & 211 Berkshire Road, Newtown, CT, to construct 15 single family homes and a 1,550 ft. road with associated improvements.

**APPROVAL OF MINUTES** 

ACCEPTANCE OF APPLICATIONS

**SET IWC CALENDAR FOR 2021** 

**OTHER BUSINESS** 

ADJOURNMENT

# DEVELOPER:

# NEGREIRO & SONS CONSTRUCTION, LLC

# Prepared By:



J. EDWARDS & ASSOCIATES, LLC Engineering and Surveying 227 Stepney Road Easton, CT. 06612 (203)-268-4205 www.jedwardsassoc.com

\_\_\_\_\_

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON. THIS MAP IS NOT VALID UNLESS EMBOSSED WITH THE SEAL OR AFFIXED WITH THE LIVE STAMP OF THE SIGNATORY.

LARRY EDWARDS, P.E. No. 10937

# "HOLLY ESTATES" NEWTOWN CONNECTICUT 203 & 211 BERKSHIRE ROAD A SUBDIVISION PLAN



# CONTENTS:

	TITLE SHEET
EX-1	EXISTING CONDITIONS PLAN
S-1	SUBDIVISION PLAN
SC-1	SITE CONTEXT PLAN
SD-0	OVERALL SITE PLAN
SD-1 - SD-7	40 SCALE SITE PLAN
PP-1 - PP-2	PLAN AND PROFILE
EC-1 - EC-2	EROSION CONTROL PLAN
D-1	STANDARD DETAILS
D-2	EROSION CONTROL DETAILS
WP-1	WETLAND PLANTING PLAN
WP-2	WETLAND PLAN TING DETAILS

# SEPTEMBER 30, 2020

REVISIONS

#	DATE	DESCRIPTION
1	11/18/20	P&Z SUBMISSION







 $\square$  $\triangleleft$  $\circ \vdash$  $\tilde{\mathbb{A}}$  $\bigcirc$ ESTATES BERKSHIRE CONNECTIO  $\succ$  m 211 F TOWN T  $\gg \ge$ 203 Nf



DATE:	09-30-20
PROJECT #:	2759
DRAWING FILE:	SITE
DRAWN BY:	IE
SCALE:	1"=100'

TITLE

EXISTING CONDITIONS SURVEY



NOTES:

1. THIS SURVEY (OR MAP) HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THRU 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996. IT IS A IMPROVEMENT LOCATION SURVEY BASED ON A DEPENDENT RESURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS A-2.

2. REFERENCE MAP ENTITLED: "SUBDIVISION MAP PREPARE FOR SYLVESTER COCIVI BERKSHIRE & PAUGUSSET ROADS, NEWTOWN CT" PREPARED BY BRAUTIGAM LAND SURVEYORS, P.C.; DATED 02/04/99.

3. REFERENCE IS MADE TO RECORD MAPS 381, 382, 622, 2574, 2732, 2733, 2882, 2980, 3365, 3978, 4064, 4246, 4434, 4604, 4985, 5576, 5812, 5913 ON FILE IN THE NEWTOWN LAND RECORDS.

4. PLAN PREPARED FOR NEGREIRO & SONS CONSTRUCTION

5. LOT CORNER MARKERS DEPICTED HEREON WERE FOUND AND/OR SET DURING COMPLETION OF THIS SURVEY. ALL CORNER MARKERS FOR THIS LOT ARE TO BE PLACED AS PART OF SUBDIVISION IMPROVEMENTS AND HAVE BEEN BONDED TO THE TOWN.

8 HOMER CLARK LANE

N/F

JESSIE L. LEVINE

TRUST M-B-L 50-8-18

2245 8 2244

TOTAL AREA

19507 SF-2.744 AG

USEABLE AREA

11293 SF-2.555 AC

295.00.

7SM

S.

L=241.19'

∆=276°22'46/\*

L<del>=/</del>21.03'

R**⊭25.00'** 

0.0% MIN. SQ. C LEN=20.41'

8.95<sup>'</sup>

2168

LOT

15' SLOPE

EII FASEMENT

total areà

Zč

∠ **48**•11'23"

R=50.00'

/ LOT 6 C LEN=66.67'

88/791 SF-2.038 AC USEABLE AREA

88791 SF-2.038 AC

64.59.50.

'**↓**OT 5

TOTAL AREA

127154 SF-2.919 AC

USEABLE AREA

ACCESS, AREA

5852 SF-0,134 AC

12:5>.19" W

. XS

2141

290.4>.

17.43^

13:24 BSI

L=42.55

R=25.00

L=4.86'

L=103.36'

∕L=4.86'

R=846.95'

∆=0**°**19'44"

C LEN=4.86'

BRG=N 65°34'04" W

**₩ Δ=97'30'32** 

¢ LEN=37.59'

BRG=N+65 30 48% E

N 01°15'30 🔨

<sup>2</sup>93746 第一2.152 AC

76.67' N 04\*52'02" E

6 HOMER CLARK LANE

N/F

LESLIÉ A. &

DONNA L. RICHARDS M-B-L 50-8-21

N 70°48'41" \

29.62'

N 18°25'52" E

19.56'

LOT 1

VSEABLE AREA

98187 SF-2.254 AC

TOTAL AREA 149458 SF-3.431 AC<sup>2140</sup>

/ TOTAL AREA BRG=S 46'05'28"

LOT

6. BEARINGS BASED ON CT STATE PLANE COORDINATES (NAD 83)

- 7. THE PARCEL IS LOCATED IN ZONE R-2.
- 8. LOCATION OF UNDERGROUND UTILITIES DEPICTED HEREON ARE APPROXIMATE.

CERTIFICATION OF THIS MAP APPLIES TO CONDITIONS AS OF THE ORIGINAL DATE 9. OR REVISED DATE DEPICTED HEREON. EXISTING CONDITIONS ON THIS PROPERTY MAY HAVE CHANGED SINCE THAT DATE AND AN UPDATED SURVEY IS RECOMMENDED TO ACCURATELY DEPICT THE CURRENT CONDITIONS.

10. LIMIT OF WETLAND SOILS DEPICTED PER CONNSOIL 3/10/97. VERIFIED BY STEVEN DANZER PHD 09/2020.

11. TOPOGRAPHIC FEATURES DEPICTED PER TOWN OF NEWTOWN GIS DATA.

- 12. TOTAL AREA OF PROPERTY IS 73.2 ACRES.
- 13. ALL OIL TANKS ARE TO BE LOCATED INSIDE BUILDINGS
- 14. ALL SEPTIC SYSTEMS ARE TO BE DESIGNED BY A PROFESSIONAL ENGINEER.
- 15. ALL LOTS ARE TO BE SERVED BY INDIVIDUAL WELLS.
- 16. THE FOLLOWING LOTS MINIMUM SQUARES CONTAIN THE INDICATED AMOUNT OF WETLANDS. THE MAXIMUM ALLOWABLE IS 20%.
- 17. THE LIMITS OF FLOOD ZONE X AS SHOWN ARE BASED ON FEMA FIRM COMMUNITY PANELS 09001C0189F & 09001C0190F, EFFECTIVE 6/18/2010.

4 HOMER CLARK LANE N/F

JOYCE NAGEL M-B-L 50-8-20

199 BERKSHIRE ROAD

N/F

CARL F. & CECILIA DALZELL

M-B-L 50-8-23-B

DRAINAGE EASEMENTS					
LINE	B	EARING			DISTANCE
L1	S	52°29'	15"	W	138.39'
L2	S	10°43'	00"	Е	67.89 <b>'</b>
L3	S	52°29'	15"	W	119.81'
L4	Ν	10°43'	00"	W	56.40 <b>'</b>
L5	Ν	79°17'	00"	Е	255.03'
L6	Ν	40°29'	28"	W	46.08'
L7	Ν	79 <b>°</b> 17'	00"	Ε	277.92'
L8	S	10°43'	00"	Е	72.19'
L9	N	52°29'	15"	Е	90.84'
L10	N	89'16'	40"	Е	30.00'
L11	N	03 <b>°</b> 52'	49"	W	27.40'
L12	S	84 <b>°</b> 18'	49"	Ŵ	30.07'





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F	REVISIONS	
#	DATE	DESCRIPTION
1	11/18/20	P&Z SUBMISSION
		·

DATE:	09-30-20
PROJECT #:	2759
DRAWING FILE:	SITE
DRAWN BY:	IE
SCALE:	1"=100'

TITLE

RECORD **SUBDIVISION** MAP





1. CONTOURS ARE BASED ON TOWN GIS MAPPING, USING USGS DATUM. 2. BEARINGS BASED ON SUBDIVISION MAP 3. ALL OIL TANKS ARE TO BE LOCATED INSIDE BUILDINGS. 4. ALL NEW SEPTIC SYSTEMS SHOWN ARE BASED ON A 4 BEDROOM HOUSE. 5. ALL STONEWALLS WITHIN 50 FEET DOWN GRADIENT OF A SEPTIC SYSTEM ARE TO BE REMOVED PRIOR TO INSTALLATION OF THE SYSTEM. 6. ALL CUT AND FILL AREAS SHALL BE GRADED AT 2:1 MAX. UNLESS NOTED ON THE PLANS. 7. APPLICANT : NEGREIRO & SONS DEVELOPMENT, LLC 8. TOTAL ACREAGE OF SITE = 73.2 ACRES 9. PROPERTY IS LOCATED IN R2 ZONE. 10. ALL SEPTIC SYSTEMS TO BE DESIGNED BY A PROFESSIONAL ENGINEER. 11. ALL PROPOSED SEPTIC SYSTEMS ARE SHOWN AS MANTAS UNITS UNLESS OTHERWISE NOTED. 12. ALL LOTS ARE TO BE SERVED BY INDIVIDUAL WELLS.



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AREA STEEP SLOPES AND WETLANDS =29.8 AC (40.7%) OPEN SPACE REQUIRED =72.3 X 0.15 =10.8 AC USEABLE OPEN SPACE REQUIRED =10.8 X (100-40.3) =6.4 AC TOTAL OPEN SPACE PROVIDED =27.2 AC

OPEN SPACE STEEP SLOPES AND WETLANDS =20.6 AC USABLE OPEN SPACE =27.2 AC - 20.5 AC =6.6 AC

LS 52.42.32 W 42.12'



F	REVISIONS	
#	DATE	DESCRIPTION
1	11/18/20	P&Z SUBMISSION

DATE:	09-30-20
PROJECT #:	2759
DRAWING FILE:	SITE
DRAWN BY:	IE
SCALE:	1"=100'

TITLE

OVERALL SITE DEVELOPMENT PLAN

SHEET NUMBER

LEGEND

46B SOIL TYPE

EXISTING CONTOUR > PROPOSED CONTOUR P520.2 PROPOSED SPOT ELEVATION EXISTING SIGNIFICANT TREE EXISTING CATCH BASIN

PROPOSED DRAINAGE — — — WATERCOURSE PROPOSED RIP RAP - PROPOSED WATER LINE ------ PROPOSED ELECTRIC LINE PROPOSED PRIMARY SEPTIC SYSTEM PROPOSED RESERVE SEPTIC SYSTEM

EXISTING SPOT ELEVATION

WETLAND AREA

TEST HOLE

PERCOLATION TEST

<u>г</u> — ¬ PROPOSED RAIN GARDEN 

PROPOSED INFILTRATION SYSTEM

AREA OF GREATER THAN 25% SLOPE







> HOLLY ESTATES 203 & 211 BERKSHIRE ROAD NEWTOWN CONNECTICUT



DATE:	09-30-20
PROJECT #:	2759
DRAWING FILE:	SITE
DRAWN BY:	IE
SCALE:	1"=40

TITLE

DETAILED SITE DEVELOPMENT PLAN







# HOLLY ESTATES 203 & 211 BERKSHIRE ROAD NEWTOWN CONNECTICUT



DATE:	09-30-20
PROJECT #:	2759
DRAWING FILE:	SITE
DRAWN BY:	IE
SCALE:	1"=40'

# TITLE

DETAILED SITE DEVELOPMENT PLAN

SHEET NUMBER



# 46B SOIL TYPE

EXISTING SPOT ELEVATION

EXISTING SIGNIFICANT TREE

WETLAND AREA

PERCOLATION TEST

TEST HOLE

EXISTING CONTOUR ➤ PROPOSED CONTOUR  $\searrow$  $+^{520.2}$ P520.2 × PROPOSED SPOT ELEVATION







\_\_\_\_\_ WATERCOURSE PROPOSED RIP RAP \_\_\_\_\_W\_\_\_\_ EXISTING WATER LINE ------ PROPOSED WATER LINE ------ **E** ------- PROPOSED ELECTRIC LINE ------ FD/RD ------ PROPOSED FOOTING/ROOF DRAIN PROPOSED PRIMARY SEPTIC SYSTEM PROPOSED RESERVE SEPTIC SYSTEM PROPOSED RAIN GARDEN PROPOSED INFILTRATION SYSTEM

AREA OF GREATER THAN 25% SLOPE





> HOLLY ESTATES 203 & 211 BERKSHIRE ROAD NEWTOWN CONNECTICUT



DATE:	09-30-20
PROJECT #:	2759
DRAWING FILE:	SITE
DRAWN BY:	IE
SCALE:	1"=40'

TITLE

DETAILED SITE DEVELOPMENT PLAN

SHEET NUMBER







> HOLLY ESTATES 203 & 211 BERKSHIRE ROAD NEWTOWN CONNECTICUT



DATE:	09-30-20
PROJECT #:	2759
DRAWING FILE:	SITE
DRAWN BY:	IE
SCALE:	1"=40'

TITLE

DETAILED SITE DEVELOPMENT PLAN

SHEET NUMBER

# LEGEND

S

40° 29' 28'

 $\overline{\mathbf{A}}$ 

1762/02

AND -

2933

# 46B SOIL TYPE EXISTING CONTOUR PROPOSED CONTOUR

 $+^{520.2}$ P520.2 x .....  $\bullet$ 

PROPOSED SPOT ELEVATION EXISTING SIGNIFICANT TREE WETLAND AREA TEST HOLE PERCOLATION TEST EXISTING CATCH BASIN PROPOSED DRAINAGE \_\_\_\_\_ WATERCOURSE PROPOSED RIP RAP -W------ PROPOSED WATER LINE ------- **E** ------- PROPOSED ELECTRIC LINE

EXISTING SPOT ELEVATION

г — — ¬ RAIN GARDEN 

------ FD/RD ------ PROPOSED FOOTING/ROOF DRAIN PROPOSED PRIMARY SEPTIC SYSTEM PROPOSED RESERVE SEPTIC SYSTEM PROPOSED RAIN GARDEN PROPOSED INFILTRATION SYSTEM

AREA OF GREATER THAN 25% SLOPE





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HOLLY ESTATES 203 & 211 BERKSHIRE ROAD NEWTOWN CONNECTICUT



DATE:	09-30-20
PROJECT #:	2759
DRAWING FILE:	SITE
DRAWN BY:	IE
SCALE:	1"=40'

TITLE

DETAILED SITE DEVELOPMENT PLAN

SHEET NUMBER





> HOLLY ESTATES 203 & 211 BERKSHIRE ROAD NEWTOWN CONNECTICUT



DATE:	09-30-20
PROJECT #:	2759
DRAWING FILE:	SITE
DRAWN BY:	IE
SCALE:	1"=40'

TITLE

DETAILED SITE DEVELOPMENT PLAN





# LEGEND

46B	SOIL TYPE
	EXISTING CONTOUR
$\checkmark$	PROPOSED CONTOUR
+520.2	EXISTING SPOT ELEVATION
P520.2 ×	PROPOSED SPOT ELEVATION
	EXISTING SIGNIFICANT TREE
	WETLAND AREA
WSL	WETLAND SETBACK LINE
	TEST HOLE
$\overline{igoplus}$	PERCOLATION TEST
<u>=</u>	EXISTING CATCH BASIN
	PROPOSED DRAINAGE
	WATERCOURSE
	PROPOSED RIP RAP
w	EXISTING WATER LINE
W	PROPOSED WATER LINE
	PROPOSED ELECTRIC LINE PROPOSED FOOTING/ROOF DRAIN
	PROPOSED PRIMARY SEPTIC SYSTEM
	TROFOSED TRIMART SETTIC STSTEM
	PROPOSED RESERVE SEPTIC SYSTEM
RAIN GARDEN	PROPOSED RAIN GARDEN
	PROPOSED INFILTRATION SYSTEM

![](_page_13_Figure_4.jpeg)

SHEET NUMBER

STA.8+53.05 ELEV.627.99 - 350.00VC -201.13SD HOLE 18" HOPE U 100LF 15" HDPE @ 1.4% CB #5 TF =632.9 15" INVs =629.0 CB #6 TF =632.9 15" INVs =628.7 CB #7 TF =631.4 18" INVs =627.0 CB #8 TF =631.4 15" IN =627.3 18" IN =626.6 18" OUT =624.0 70LF 24" HDPE @10.0% 632.11 635.04 10 8 2 632. 633. 631. 9+00 8+00

REVISIONS # DATE DESCRIPTION 1 11/18/20 P&Z SUBMISSION

09-30-20

2759

SITE

ΙE

\_\_\_\_\_ \_\_\_\_\_

DATE:

TITLE

PROJECT #:

DRAWN BY:

DRAWING FILE:

SCALE: H= 1"=40 V=1"=4'

HOLLY LANE

PLAN & PROFILE

HOLLY ESTATES 203 & 211 BERKSHIRE ROAD NEWTOWN CONNECTICUT

AREA OF WETLAND DISTURBANCE AREA =2000sf 150cy OF CLEAN COMMON FILL \_≠333.97' R = 300.00'  $\Delta = 63^{\circ}47'00''$ C LEN=316.99' BRG=N 12'01;02'' 2 

8+00

9+00

![](_page_13_Picture_9.jpeg)

![](_page_13_Picture_10.jpeg)

STORMWATER QUALITY BASIN #1 STORMWATER QUALITY BASIN  $\frac{1}{6}$ FOREBAY BOTTOM =612.0 AREA=270sf TOP BERM =617.5 OUTLET =615.5 VOLUME =2789cf MAIN BASIN BOTTOM =606.0 AREA=3450sf TOP OF BERM =611.212" CONTROL OUTLET =607.5 4' WIDE X 1' HIGH SLOT =608.7 24" OUTLET =606.0 EMERGENCY OVERFLOW OUTLET =610.0 BASIN VOLUME =20,800cf

![](_page_14_Picture_1.jpeg)

# LEGEND

# 46B SOIL TYPE

EXISTING CONTOUR ▶ PROPOSED CONTOUR  $+^{520.2}$ P520.2 x

EXISTING SPOT ELEVATION PROPOSED SPOT ELEVATION EXISTING SIGNIFICANT TREE ..... WETLAND AREA TEST HOLE

![](_page_14_Picture_6.jpeg)

PROPOSED DRAINAGE

PERCOLATION TEST

— — WATERCOURSE

PROPOSED RIP RAP

### \_\_\_\_\_\_W\_\_\_\_\_ EXISTING WATER LINE ------ PROPOSED WATER LINE ------ PROPOSED ELECTRIC LINE ------ FD/RD ------ PROPOSED FOOTING/ROOF DRAIN PROPOSED PRIMARY SEPTIC SYSTEM

PROPOSED RESERVE SEPTIC SYSTEM PROPOSED RAIN GARDEN

PROPOSED INFILTRATION SYSTEM

![](_page_14_Figure_14.jpeg)

![](_page_14_Figure_15.jpeg)

SHEET NUMBER

# HOLLY LANE PLAN & PROFILE

TITLE	

DATE:		09-30-20
PROJECT #:		2759
DRAWING FI	LE:	SITE
DRAWN BY:		IE
SCALE:	H= 1"=4	0 V=1"=4'

REVISIONS				
DATE	DESCRIPTION			
11/18/20	P&Z SUBMISSION			
	REVISIONS DATE 11/18/20			

HOLLY ESTATES 203 & 211 BERKSHIRE ROAD NEWTOWN CONNECTICUT

![](_page_14_Picture_22.jpeg)

Phone:203.268.4205 Fax: 203.268.5604

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**\***∆**¥**276°22'46" LEN=66.67' BRG=\$ 46°05'28" W -R=35' ✓ R=35'  $\infty \infty \infty \infty \infty$  $\bigotimes$ 

![](_page_14_Picture_24.jpeg)

![](_page_14_Picture_25.jpeg)

![](_page_14_Picture_26.jpeg)

620

SEDIMENT TRAP #1 AREA TO TRAP =3.0 ACRES REQUIRED VOLUME =3.0ac X 134cy/ac = 402cy (10,854cf) WET STORAGE = 0.85 X 3200 X 2 =5440cf DRY STORAGE = (3200+4200)/2 X2 =7400 TOTAL STORAGE =12,840cf

![](_page_15_Picture_1.jpeg)

![](_page_15_Picture_2.jpeg)

# LEGEND

0 00 00 00 00 00 00 0
SF
DSF
CL
- >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
WB
-00000000-

EXISTING CONTOUR PROPOSED CONTOUR

TEMPORARY SEDIMENT TRAP

HAY BALE DAM SINGLE ROW SILT FENCE DOUBLE ROW SILT FENCE CLEARING LIMITS

TEMP. DIVERSION SWALE TEMP. WATER BREAK

TEMP. BERM

STONE CHECK DAM WOODLINE/TREELINE

![](_page_15_Picture_12.jpeg)

www.jedwardsassoc.com

ROAD HOLLY ESTATES 203 & 211 BERKSHIRE RO/ NEWTOWN CONNECTICU

![](_page_15_Figure_15.jpeg)

DATE:	09-30-20
PROJECT #:	2759
DRAWING FILE:	SITE
DRAWN BY:	IE
SCALE:	1"=50'

EROSION

CONTROL

TITLE

PLAN ROAD CONSTRUCTION SHEET NUMBER

![](_page_16_Figure_0.jpeg)

# LEGEND

	PROF
	TEMP
<u>ତ ରାଚ ରାଚ ରାଚ ରାଚ ରାଚ ରା</u> ଚ ରା	HAY
SF	SING
DSF	DOUE
CL	CLEA
- >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	TEMP
WB	TEMP
-0000000-	TEMF
	STO
·····	WO

![](_page_16_Picture_3.jpeg)

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SILT FENCE (TYP)

¢₽2n

1 1\

(10)

CLEARING LIMITS (TYP)

TEMP. DIVERSION SWALE (TYP)

-DOUBLE ROW OF SILT FENCE

2' HIGH STONE BERM

HOLLY ESTATES 203 & 211 BERKSHIRE ROAD NEWTOWN CONNECTICUT

![](_page_16_Figure_9.jpeg)

DATE:	09-30-20
PROJECT #:	2759
DRAWING FILE:	SITE
DRAWN BY:	IE
SCALE:	1"=50'

![](_page_16_Picture_11.jpeg)

SHEET NUMBER

V SEDIMENT TRAP #2 BOTTOM ELEV=617.0 AREA=4300sf BOTTOM DIKE=620.0 AREA=5800sf SPILLWAY=622.0 AREA=7200sf TOP BERM=623.0

![](_page_17_Figure_0.jpeg)

![](_page_17_Figure_1.jpeg)

![](_page_17_Figure_2.jpeg)

#### Table 2. PLANTINGS FOR RAIN GARDENS

#### Table 1a: Herbaceous Seed Mix for Rain Garden New England Erosion Control/Restoration Mix (NEWP)\* Scientific name Common Name

#### Aster novae angliae Bidens cernua Eupatoreum maculatum Joe Pye Eupatoreum perfoliatum Boneset Elymus virginicum Euthamia graminifolia Grassleaf goldenrod Festuca rubra Juncus effusus Panicum virgatum Scirpus atrovirens Verbena hastata

New England aster Nodding bur marigold Virginia wild rye Creeping red fescue Soft rush Switchgrass Green bulrush Blue vervain

#### . Prepare planting bed at a time when no standing water is present 2. Incorporate 6" of topsoil into the top 6 inches of soil and rake smooth 3. Seed after shrubs have been planted on edge of rain garden.

Seeding

- 4. Seed at a rate of 11b/1000 square feet. 5. Seed in fall or spring, not between May 15th and August 30th.
- 6. To broadcast evenly by hand, mix 1:1 by volume with sand.
- 7. Rake seeds in lightly (< 1/2 1 inch).
- 8. Cover lightly with mulch. 9. Water using a water truch, if there is no rain for more than one week.

Table 1b: Shrubs for Rain Garde <u>Scientific name</u>	en Common Name
- SHRUBS (seasonal saturation to	temporary flooding)
Aronia arbutifolia Clethra ainifolia	Red Chokeberry Sweet pepperbush
Cornus amornum	Silky dogwood
Flex verticillata Myrica pennsylvanica Sambucus canadensis Salix discolor Vaccinium corymbosusm Vibumum dentatum	Winterberry Bayberry Elderberry Pussy willow Highbush blueberry Arrowwood

\* Available from New England Wetland Plants (NEWP) in Amherst, Massachusetts

1. Store shrubs in shade and plant within 5 days of delivery.

- 2. Select four shrub species from the adjacent list.
- 3. Plant two to three of each on the perimeter of raingarden (10 total)
- 4. Use planting stock that is at least 3 feet tall, balled or in pots.
- 5. Form a two inch high moat around each shrub to hold water. 6. Mulch with bark mulch (3 foot diameter circle) after planting.

![](_page_17_Figure_20.jpeg)

![](_page_17_Figure_21.jpeg)

OPEN SPACE CALCULATIONS TOTAL AREA =73.2 AC AREA STEEP SLOPES AND WETLANDS =29.8 AC (40.7%) OPEN SPACE REQUIRED =72.3 X 0.15 =10.8 AC USEABLE OPEN SPACE REQUIRED =10.8 X (100-40.3) =6.4 AC TOTAL OPEN SPACE PROVIDED =27.2 AC

OPEN SPACE STEEP SLOPES AND WETLANDS =20.5 AC USABLE OPEN SPACE =27.2 AC - 20.5 AC =6.7 AC

![](_page_17_Picture_24.jpeg)

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PROPOS	ED CUT/	'FILL QUA	NTITIES
lot #	CUT	FILL	NET
1	0	170	170cy ADDED
2	0	55	50cy ADDED
3	75	65	10cy REMOVED
4	0	0	0
5	0	0	0
6	140	80	60cy REMOVED
7	50	35	15cy REMOVED
8	180	130	50cy REMOVED
9	90	130	40cy ADDED
10	105	35	70cy REMOVED
11	155	0	155cY REMOVED
12	40	200	160cy ADDED
13	0	20	20cy ADDED
14	0	80	80cy ADDED
15	EXISTING	HOUSE	NONE
16	60	60	0

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F	REVISIONS					
#	DATE	DESCRIPTION				
1	11/18/20	P&Z SUBMISSION				

DATE:	09-30-20
PROJECT #:	2759
DRAWING FILE:	SITE
DRAWN BY:	IE
SCALE:	NTS

TITLE

# CONSTRUCTION DETAILS

#### A. GENERAL STATEMENT

- This project consists of the development of a 73 acre parcel which is to be developed as a 16 lot residential subdivision
- 1. Work on this project is expected to commence upon approval by the Town of Newtown. Final stabilization shall be completed as soon as possible after completion of work. In all cases disturbed areas shall be stabilized by the end of the growing season so that grass cover can be established. Construction shall be completed in accordance with the attached schedule.
- 2. The Storm Pollution control program for this site shall include the following as shown on the approved map:
- a. Installation of a filter fence as shown on the plan. b. Installation of anti-tracking apron on the driveways and at entrance to the roads
- c. Installation of detention/sediment basins and traps
- 3. Prior to any construction on the site, a pre-construction meeting shall be held with the owner, contractor, design engineer, and the authorized town official to review the site and the required erosion/ sedimentation and storm pollution control program.
- 4. The approved site plans, erosion control plan, engineering report and land use applications are considered part of this plan.
- B. SCHEDULING OF GRADING AND CONSTRUCTION ACTIVITIES Prior to starting construction on the site, all erosion and sediment control measures shall be installed as directed by the design engineer, permittee and/or authorized town agent. Detailed plans have been provided. Detailed construction sequencing has been included on the sheet for each phase. Construction sequence
- A detailed construction sequence has been included on the Erosion Control Plan.
- C. MEASURES TO BE USED DURING CONSTRUCTION
- 1. SILT FENCE Silt fence consists of wooden post and filter fabric. Fences will be secured in place by wood posts set a maximum of five feet on-center. The filter fabric will be three feet in height. Fabric at the base of the fence will be buried at least six inches into the ground. Twine will be used to secure the fence on the uphill side to preven overturning. The purpose of silt fences is to intercept and detain sediment contained in overland runoff from disturbed areas of limited extent. (Envirofence by Mirafi Inc. is an acceptable alternative to the system described above.)
- Installation and Maintenance shall conform to the following: Sediment will be removed from behind silt fences when sediment has accumulated to 50% of original height of the fence. 2. ANTI-TRACKING APRON
- A ramp of crushed stone extending a minimum distance of 50 feet will be installed at the point of ingress and egress to the site. The purpose of the device is to minimize the potential of tracking mud from the site onto public right-of-way.
- Installation and Maintenance shall conform to the following: Minimum length will be 50 feet. Stone size will meet CT DOT standards for two inch crushed gravel.
- Stone will be placed upon the full width of the entrance roads. Thickness of stone will be four inches or greater. All sediment spilled, dropped, washed, or tracked onto public right-of-way will be removed immediately.
- 3. TEMPORARY WATER BREAKS This temporary device consists of a swale constructed across proposed roadways. The purpose of this device is to direct runoff away from the road surface and minimize sediment from entering the drainage system. This shortens the length of disturbed slope by intercepting runoff and diverting it away from the roadway catch
- basins. Installation and Maintenance shall conform to the following: Swales will be placed across roads, which are to be constructed in fill: Every 200 feet on slopes of 5-10% Every 300 feet on slopes less than 5% Contributory drainage areas, which are less than five acres
- Swales drain to hay bale check dams. 4. HAY BALE CHECK DAMS
- Hay bale check dams of tightly bound, steel pin anchored, hay bales embedded four inches below grade in drainage swales adjacent to roadways or at the toe of an exposed slope. The purpose of a hay bale check dam is to reduce runoff velocity, and promote deposition and filtering of sediment from runoff. Hay bale check dams will be used where the runoff velocities will be less than three feet per second.
- Installation and Maintenance shall conform to the following: Compacted backfill will be placed against the up slope side of the Hay bales to a height of 4" above the ground. Check dams will be placed in drainage swales: Every 100 feet on slopes greater than 10%
- Every 200 feet on slopes 5-10% Every 300 feet on slopes less than 5%
- Sediment shall be removed from hay bale check dams when sediment has accumulated to 50% of the original height.
- 5. TEMPORARY SEDIMENT TRAPS
- Runoff collected in roadway interceptor swales or other swales will be directed to a sediment trap. The trap consists of a small excavation and/or embankment. The purpose of the trap is to collect runoff, promote settling of sediment, and de-concentrate and distribute clean runoff overland through natural vegetation before it enters existing watercourses and wetlands. Installation and Maintenance shall conform to the following
- Contributory drainage areas that are less than or equal to five acres. Utilized as part of swales prior to discharge to natural slopes
- Traps will be placed such that runoff discharging from the trap will flow at least 30 feet overland through natural vegetation before entering stream channels or wetlands. raps will be designed before construction Trap sides shall be compacted during construction The trap outlet shall have crushed stone rip-rap hand placed for energy dissipation.
- Traps will be cleaned when sediment has accumulated to 50% of design volume. Remove sediment deposited upland and treat to reduce potential erosion.
- 6. CATCH BASIN FILTERS
- Temporary catch basin filters will be utilized to prevent the deposition of sediment into the storm sewer system prior to the stabilization of exposed areas with vegetation and/or pavement. These filters will consist of tightly bound, pin-anchored hay bales embedded four inches below grade, surrounding each catch basin inlet. Installation and Maintenance shall conform to the following:
- Placed around each catch basin inlet prior to paving or stabilization with vegetation. Sediment shall be removed from the filters when sediment has accumulated to 50% of the filter's original height.
- 7. TEMPORARY GRADE TO DRAINS
- This is a temporary raised berm of compacted soil, placed across a disturbed slope that intercepts runoff from disturbed areas and directs it to an appropriate outlet. This device will be used mostly on steep slopes above deep excavations. Installation and Maintenance shall conform to the following:
- Temporary grade to drains may be placed on cut and fill slopes exceeding 10 feet in height. Contributory drainage area should not be greater than one acre.
- Runoff will be diverted overland by the berms to sediment traps, sedimentation basins, swales, or check dams. On slopes over 5%, additional stabilization is required in the form of stone rip-rap eight inches vertically up the upslope side of the berm and seven feet upslope from
- the upslope toe of the berm. Top width of berm will be two feet. Side slopes will be 2:1 or flatter. All berms shall be machine compacted.
- 8. RIP-RAP OUTFALL PROTECTION
- As a permanent erosion control measure to protect the soil surface from the erosive forces and to slow the velocity of concentrated runoff while enhancing the potential for infiltration, velocity reducers in the form of crushed stone rip-rap will be used at the outfalls of all drainage structures that discharge to wetlands or other sensitive areas. The minimum thickness of the rip-rap layer will be 1.5 times the maximum stone diameter but not less than six inches. Sizing the stone and determining the dimensions of the rip-rap pads will be completed upon further design of the project using the methods described in the Connecticut Guidelines for Soil Erosion and Sediment Control
- 9. Names, addresses and phone numbers of all persons and organizations that will be responsible for the installation and maintenance of the erosion and sedimentation devices will be provided prior to any earth moving or any other construction activity.
- 10. Construction area to be kept clean from all litter, debris and other building materials collected and disposed of offsite in approved manner. All fuels, oils and other controlled chemicals to be stored in approved areas. Such areas to be berned as necessary to prevent spills from entering open watercourses. Fueling of equipment shall not be allowed in other than approved areas. In the event of a fuel or chemical spill, immediate measures to be taken to control damage and local and state officials are to be notified immediately
- 11. Where construction activities have permanently ceased or have temporarily been suspended for more than seven days, or when final grades are reached in any portion of the site, stabilization practices shall be implemented within three days. Areas that remain disturbed but inactive for at least thirty days shall receive temporary seeding in accordance with the guidelines

![](_page_18_Figure_41.jpeg)

- D. MAINTENANCE PROGRAM DURING CONSTRUCTION
- 3. All control measures shall be maintained in effective working condition throughout the construction period.
- 4. Control measures found to be in disrepair shall be repaired or replaced immediately
- relating to the implementation of the Stormwater Pollution Control Plan, and actions taken shall be made and retained as part of the Plan for at least three years
- E. POST-CONSTRUCTION STORM MANAGEMENT
- advised of the sedimentation control maintenance requirements for the project.

#### MAINTENANCE PROGRAM

- Seasonal Site Inspection/Maintenance remove as required
- plant species. All catchbasins to be inspected and cleaned yearly
- increased to 2 times per year F. REPORTING AND RECORD KEEPING REQUIREMENTS
- commissioner specifies another time period in writing.
- construction is initiated at the site until the date construction at the site is completed

#### ROAD CONSTRUCTION SEQUENCE

- 6. INSTALL ANTI TRACKING APRON.

- 12. COMPLETE ROUGH GRADING OF ROAD.

- 15. INSTALL SITE UTILITIES.
- 17. REMOVE TEMPORARY SEDIMENT TRAPS.

- EXISTING GRADE SLOPE EXCAVATE 4" TRENCH AND PLACE FILL UPSLOPE OF TRENCH
 STAKE HAYBALES WITH STAKE ANGLED TOWARD LAST BALE STAKE 18" MIN INTO GROUND
 PLACE EXCESS FILL ALONG UP HILL SIDE OF DAM

1. The designated site monitor will inspect disturbed areas of the construction activity that have not been finally stabilized, structural control measures, and locations where vehicles enter or exit the site at least once every seven calendar days and within 24 hours of the end of a storm that is 1 inches or greater. Where sites have been temporarily or finally stabilized, such inspection shall be conducted at least once every month for three months.

2. Additional control measures will be installed and the plan revised as appropriate as soon as practicable after such inspection. Such modifications shall provide for timely implementation of any changes to the site within 24 hours and implementation of any changes to the plan with 3 calendar days following the inspection. The plan shall be revised and the site controls updated in accordance with sound engineering practices, and applicable state and local regulations.

5. Sediment removed from control structures will be disposed of in a neat manner and disposed of in a reas designated by the authorized town official or design 6. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations

after the date of inspection. The permittee, or his authorized representative shall sign the report 7. The Owner, or his designated agent is assigned the responsibility for implementing this erosion and storm pollution control plan. This responsibility includes site inspections, preparation of reports, the installation and maintenance of control measures, informing all parties engaged on the construction site of the requirements and objectives of the plan, notifying the Planning and Zoning Commission of any transfer of this responsibility, and for conveying a copy of the Erosion and Sediment Control Plan and the Implementation Schedule for Erosion and Sedimentation Control if the title to the land is transferred.

1. After completion of site disturbance and satisfactory stabilization, all permanent control structures including detention basins, storm water ditches, and catch basins to be cleaned of all sediment and debris. At time of transfer of ownership and/or responsibility for controls, the new owner or designated agent shall be

In the spring sweep sand deposits from the driveway areas and deposit at approved site. Inspect the water quality areas for excessive sediment buildup and 2. In the fall, remove leaf debris from the site to avoid excessive loading of the water quality areas and rain gardens. Mow area, as required eliminating unwanted

4. The infiltration systems to be inspected yearly. If there is significant sediment accumulation in the systems, the cleaning schedule for the catchbasins shall be

1. The permittee shall retain copies of Stormwater Pollution Control Plans and all reports required by this general permit, and records of all data used to complete the registration to be authorized by this general permit, for a period of at least three years from the date that construction at the site is completed unless the

2. The permittee shall retain an updated copy of the Stormwater Pollution Control Plan required by this general permit at the construction site from the date

3. Upon completion of construction, for sites authorized by the General Permit for the Discharge of Stormwater Associated with Commercial Activity or the General Permit for the Discharge of Stormwater Associated with Industrial Activity, the Stormwater Pollution Control Plan shall be kept as an appendix to the Stormwater Management Plan or Stormwater Pollution Prevention Plan (as applicable) for a period of at least three years from the date of completion of construction. A notice of termination form shall be completed by the permittee and forwarded to DEP upon completion of all site construction

PRIOR TO STARTING ANY CONSTRUCTION ON THE SITE, ASSURE THAT ALL REQUIRED PERMITS HAVE BEEN OBTAINED AND ARE CURRENT.

CONTACT SITE LAND SURVEYOR AND HAVE ALL LIMITS OF CONSTRUCTION CLEARLY MARKED FOR CLEARING. CLEARLY MARK ANY TREES WHICH ARE TO BE PROTECTED. 3. CONTACT CALL BEFORE YOU DIG AT 800-922-4455 TO MARK ALL EXISTING UTILITIES ON THE SITE.

PRIOR TO STARTING ANY CONSTRUCTION ON THE SITE HOLD A PRE-CONSTRUCTION MEETING AT THE SITE. MEETING TO INCLUDE ALL CONTRACTORS, SITE ENGINEER, TOWN WETLANDS AND EROSION CONTROL OFFICER AND ANY DESIGNATED SITE MONITOR.

5. CLEAR SITE TO LIMITS MARKED BY THE SURVEYOR. REMOVE ALL CUT MATERIALS FROM SITE BEFORE STARTING ANY OTHER SITE CONSTRUCTION.

7. INSTALL SILT FENCE ALONG LIMITS OF CONSTRUCTION.

8. STUMP SITE AND REMOVE STUMPS TO APPROVED DISPOSAL OR RECYCLING SITE.

9. STRIP USABLE TOPSOIL FROM CONSTRUCTION AREA AND STOCKPILE IN DESIGNATED AREA. STABILIZE PILES AND INSTALL PERIMETER SILT FENCES. 10. CONSTRUCT TEMPORARY SEDIMENT TRAPS AND DIVERSION SWALES AS REQUIRED.

11. ROUGH GRADE ROAD UP TO BROOK CROSSING AT STATION 8+50. INSTALL CROSS CULVERT.

13. INSTALL ROAD DRAINAGE AND CONSTRUCT WATER QUALITY BASIN.DRAINAGE. INSTALL SILT SACKS IN 14. LOAM, SEED AND MULCH ALL DISTURBED AREAS AS SOON AS POSSIBLE.

16. INSTALL PAVEMENT SUBBASE. PLACE BINDER PAVEMENT AND INSTALL CURBS.

18. LOAM, SEED AND MULCH ALL REMAINING DISTURBED AREA.

19. WHEN SITE IS TOTALLY STABILIZED, REMOVE REMAINING EROSION CONTROLS.

GENERAL EROSION CONTROL NOTES:

1. A MINIMUM OF 4" OF TOPSOIL MUST BE PLACED ON ALL DISTURBED AREAS. ALL WASTE MATERIAL INCLUDING WASTEWATER, SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL LAW. LITTER SHALL BE PICKED UP AT THE END OF EACH WORKING DAY.

3. E&S CONTROLS SHALL BE INSPECTED AT LEAST ONCE PER WEEK AND WITHIN 24 HOURS AFTER A RAINFALL EVENT OF GREATER THAT 1 INCH.

4. ACCUMULATED SEDIMENT SHALL BE REMOVED AS REQUIRED TO KEEP SILT FENCES FUNCTIONAL. IN ALL CASES, DEPOSITS SHALL BE REMOVED WHEN ACCUMULATED SEDIMENT HAS REACHED ONE-HALF ABOVE THE GROUND HEIGHT OF THE FENCE.

5. ALL SOIL STABILIZATION SHALL BE COMPLETED WITH IN FIVE (5) DAYS OF CLEARING OR INACTIVITY IN CONSTRUCTION.

6. THE DEVELOPER SHALL PRACTICE EFFECTIVE DUST CONTROL PER SOIL CONSERVATION HANDBOOK DURING CONSTRUCTION AND UNTIL ALL AREAS ARE STABILIZED OR SURFACE TREATED. THE DEVELOPER SHALL BE RESPONSIBLE FOR CLEANING OF NEARBY STREETS, AS

ORDERED BY THE TOWN, OF ANY DEBRIS FROM THESE CONSTRUCTION ACTIVITIES. 7.IF SEEDING OR OTHER VEGETATIVE EROSION CONTROL METHOD IS USED, IT SHALL BECOME ESTABLISHED WITHIN TWO WEEKS OR THE TOWN MAY REQUIRE THE SITE TO BE RESEEDED OR A NONVEGETATIVE OPTION TO BE EMPLOYED.

8 SOIL STOCKPILES MUST BE STABILIZED AS PER THE LATEST EDITION OF THE CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.

9 ALL DISTURBED AREAS TO BE SEEDED WITH NEW ENGLAND CONSERVATION/WILDLIFE MIX

![](_page_18_Picture_115.jpeg)

![](_page_18_Figure_116.jpeg)

![](_page_18_Figure_117.jpeg)

![](_page_18_Figure_118.jpeg)

2 PER BALE

![](_page_18_Figure_120.jpeg)

ANTI-TRACKING APRON

![](_page_18_Figure_121.jpeg)

![](_page_18_Figure_122.jpeg)

![](_page_18_Figure_124.jpeg)

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![](_page_18_Figure_126.jpeg)

DATE:	09-30-20
PROJECT #:	2759
DRAWING FILE:	SITE
DRAWN BY:	IE
SCALE:	NTS

TITLE

EROSION CONTROL DETAIL SHEET

![](_page_19_Figure_0.jpeg)

![](_page_19_Figure_2.jpeg)

- BE FLAGGED BY LANDSCAPE ARCHITECT, REMOVED BY HAND AND DISPOSED OF

quantity <u>trees</u>	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
1	AR	Acer rubrum	Swamp Red Maple	2"-2 1/2" cal.	
2	AC	Amelanchier canadensis	Shadblow Serviceberry	8'-10' ht.	
3	BN	Betula nigra 'Heritage'	Heritage River Birch	8'-10' ht.	
<u>SHRUBS</u>					
21	CA	Clethra alnifolia	Sweet Pepperbush	3'- 3 1/2' ht.	6' O.C.
11	HV	Hamamelis vernalis	Vernal Witchhazel	3'-3 1/2' ht.	6' O.C.
14	IG	llex glabra	Inkberry	3'-3 1/2' ht.	6' O.C.
19	IV	llex verticillata	Winterberry Holly	3'-3 1/2' ht.	6' O.C.
16	LB	Lindera benzoin	Spicebush	3'-3 1/2' ht.	6' O.C.

![](_page_20_Figure_0.jpeg)

Scale and North Arrow			Drawing Title PLANTING RESTORATION	Drawing No.	
October 27, 2020			DETAILS		
SHOWN	Checked SD	Drawn TLC		SHEET 2 OF 2	

# Α'

80 - MAX. 3 : | SIDE SLOPE TO MEET ADJACENT EXISTING GRADE

-664 -662 -660 -658 -656 -654

- UNDISTURBED EXISTING GRADE OF EXISTING UPLAND

MATERIAL TO BE EXCAVATED AND DISPOSED OF IN UPLAND LOCATION

- PROPOSED NATIVE SHRUB (TYP)

PROPOSED NATIVE TREE (TYP) BEYOND

EXISTING PROFILE OF UPLAND SOIL TO BE REMOVED

BE EXCAVATED PROPOSED PROFILE OF

CREATED WETLANDS

EXISTING MATERIAL TO

KEY