N/F CHRISTOPHER P. & DIONESIA CIFRA

PEPPERELL — TOWN LINE — GROTON

N/F JOSEPH M. & KIM TRITES

RELOCATE TURTLE BARRIER (TYP.)

PROP. WATTLES

TIE 12" OVERFLOW INTO INFILTRATION AREA STONE SEE DETAIL

GRASS SWALE SEE DETAIL

INFILTRATION SYSTEM #6 TOP OF CHAMBER = 205.7 BOTTOM OF CHAMBER = 203.2

PROP. 6" PERIMETER DRAIN (SEE DETAIL)

INV.=203.5

INV.=204.5

6" PERIMETER DRAIN L=180' S=0.005

E.U.A. "B"

E.U.A. "A"

#2 TOF=216.1

EXIST. TURTLE BARRIER

STANDING WATER ON 12/19/18

TIE 4" PVC DIRECTLY INTO CHAMBER W/ NYOPLAST YARD GRATE FOR OVERFLOW

PROP. 4" PVC FOR SUMP PUMP

#10 TOF=212.3 BF=204.8±

40 MIL POLY BARRIER L=80' TOP=208.0 BOTTOM=204.0

#6 TOF=214.8

RELOCATE TURTLE BARRIER OVER DRAINAGE

12" PERF. HDPE INV.=201.8

12" PERF. HDPE INV.=203.2 L=100' S=0.005

INFILTRATION SYSTEM #8 TOP OF CHAMBER = 203.7 BOTTOM OF CHAMBER = 201.2

WATER QUALITY UNIT #5 INV. IN=201.9 INV. OUT=201.8

E.U.A. "C"

GRANITE CURBING SET LEVEL AT 203.7 WITH RIP RAP OUTLET PROTECTION

PROPOSED STONE OVERFLOW (SEE DETAIL)

CB #21 RIM=205.63 NEW RIM=206.29 INV. IN=202.10 INV. OUT=202.00 12" HDPE L=20' S=0.005

CB #18 RIM=210.65 INV=206.50 12" HDPE L=40' S=0.045

EXIST. TREE LINE

TOP OF BERM = 204.5

PROP. WATTLES

RELOCATE TURTLE BARRIER (TYP.)

E.U.A. "D"

#14 TOF=214.8

OLIVIA WAY

7+00 8+00 9+00

207.6

6" MINUS RIP-RAP OUTLET PROTECTION (TYP.)

CB #22 RIM=205.56 NEW RIM=206.63 INV.=202.30 12" HDPE L=16' S=0.0125

WATER QUALITY UNIT #7 INV. IN=204.7 INV. OUT=204.6

INFILTRATION SYSTEM #7 TOP OF CHAMBER = 206.8 BOTTOM OF CHAMBER = 204.3

MAP 220 – PARCEL 59
TOWN OF GROTON

202+5

INSTALL (2) FOUR FOOT CONRETE SIDEWALK SECTIONS WITH 24" GRATE (SEE DETAIL)

6+00

NEW 6" HDPE LAID LEVEL L=75' INV.=203.5

15" HDPE L=115' S=0.02

CONCRETE HEADWALL INV.=205.4

6" MINUS RIP-RAP PAD

INV.=203.1

CB #20 RIM=205.67 NEW RIM=206.47 INV=201.86 12" HDPE L=16' S=0.005

3+00

CB #17 RIM=209.76 INV. IN=208.26 INV. OUT=205.51 12" HDPE L=23' S=0.035

5+00 4+00

#13 TOF=214.7

CB #19 RIM=205.44 NEW RIM=206.06 INV. IN=201.78 INV. OUT=201.68 12" HDPE L=16' S=0.005

WATER QUALITY UNIT #8 INV. IN=201.6 INV. OUT=201.5

INFILTRATION SYSTEM #9 TOP OF CHAMBER = 203.5 BOTTOM OF CHAMBER = 201.0

#5 TOF=217.7

E.U.A. "E"

#9 TOF=215.4

#7 TOF=217.7

EXIST. TURTLE BARRIER

MAP 220 – PARCEL 60

E.U.A. "F"

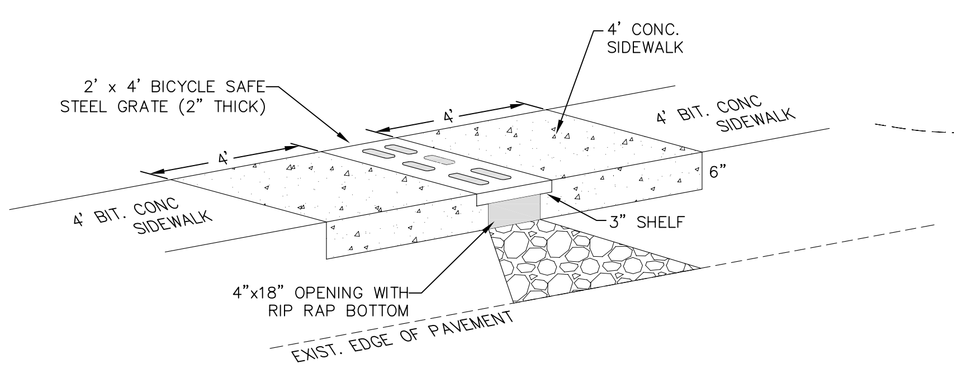
E.U.A. "G"

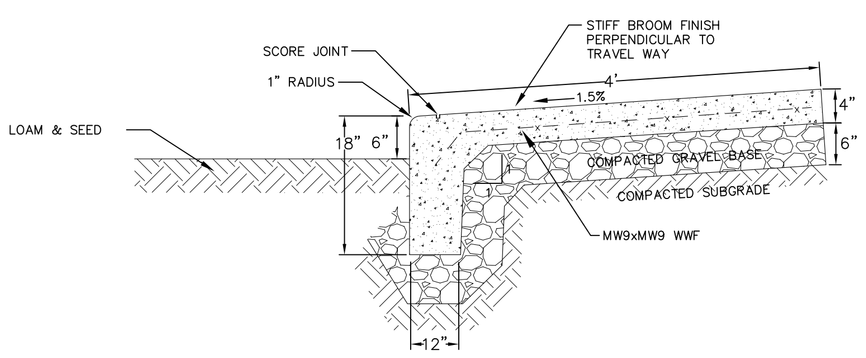
MAP 220 – PARCEL 59
TOWN OF GROTON

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 inch = 20 ft.





CONCRETE SIDEWALK DETAIL
NTS

NOTES:

1. THE LOT SHOWN IS OUTSIDE OF THE FLOOD HAZARD AREA AS SHOWN OF THE FEMA FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER #250194 0091 E, DATED JUNE 4, 2010.
2. THE LOCATION OF UNDERGROUND UTILITIES WAS TAKEN FROM AVAILABLE RECORDS AND THEIR LOCATIONS SHOULD BE CONSIDERED APPROXIMATE. PRIOR TO ANY CONSTRUCTION "DIG SAFE" SHOULD BE CONTACTED AT 1-888-344-7233.
3. EXISTING CONDITIONS FROM A GROUND SURVEY BY THIS OFFICE IN THE FALL OF 2018 AND IS ON THE 1929 NGVD DATUM.

FOR REVIEW

DATE	REVISION	BY
4/9/19	REVIEW COMMENTS	DEL

GRADING PLAN
IN
GROTON, MASSACHUSETTS

REEDY MEADOW ESTATES
"OLIVIA WAY"

SCALE: 1"=20'	DATE: MARCH 15, 2019	SHEET 1 OF 3	REV. A
JOB # 27503	REVISION: APRIL 9, 2019		

PREPARED FOR
REEDY MEADOW, LLC
TYNGSBORO, MASSACHUSETTS

PREPARED BY
Land Engineering & Environmental Services, Inc.
130 Middlesex Road, Tyngsboro, Massachusetts 01879
Telephone (978) 649-4642

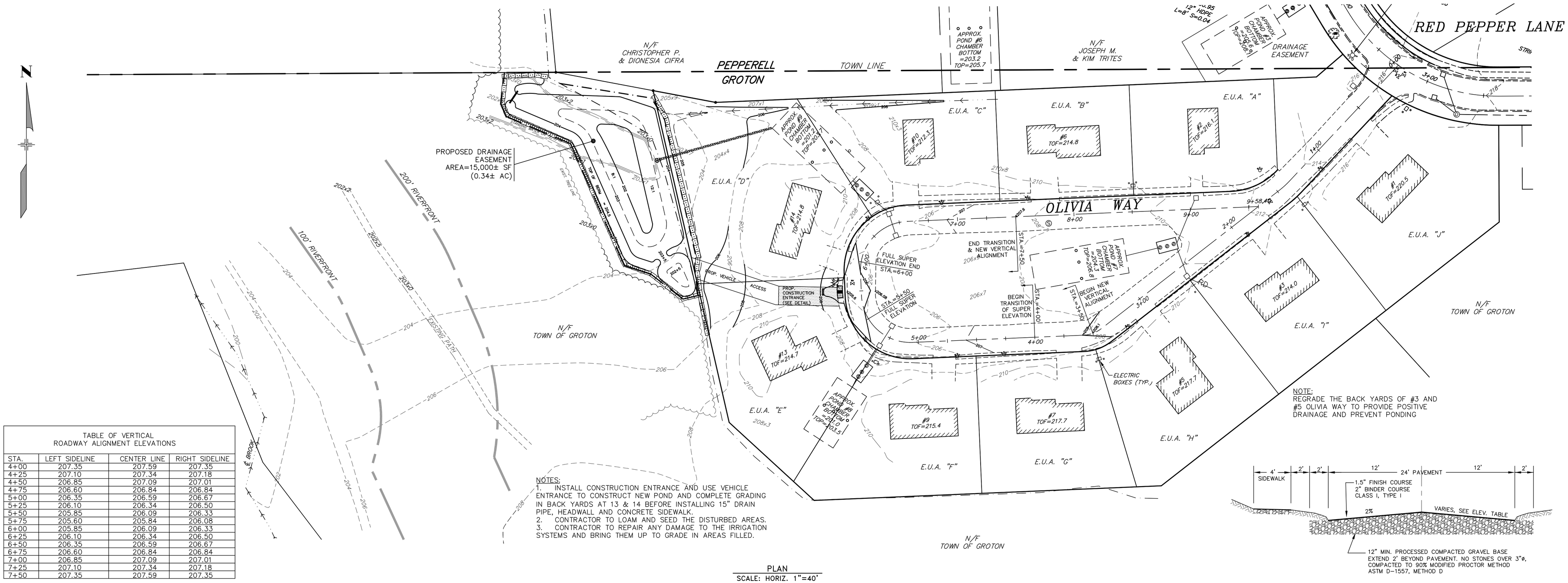


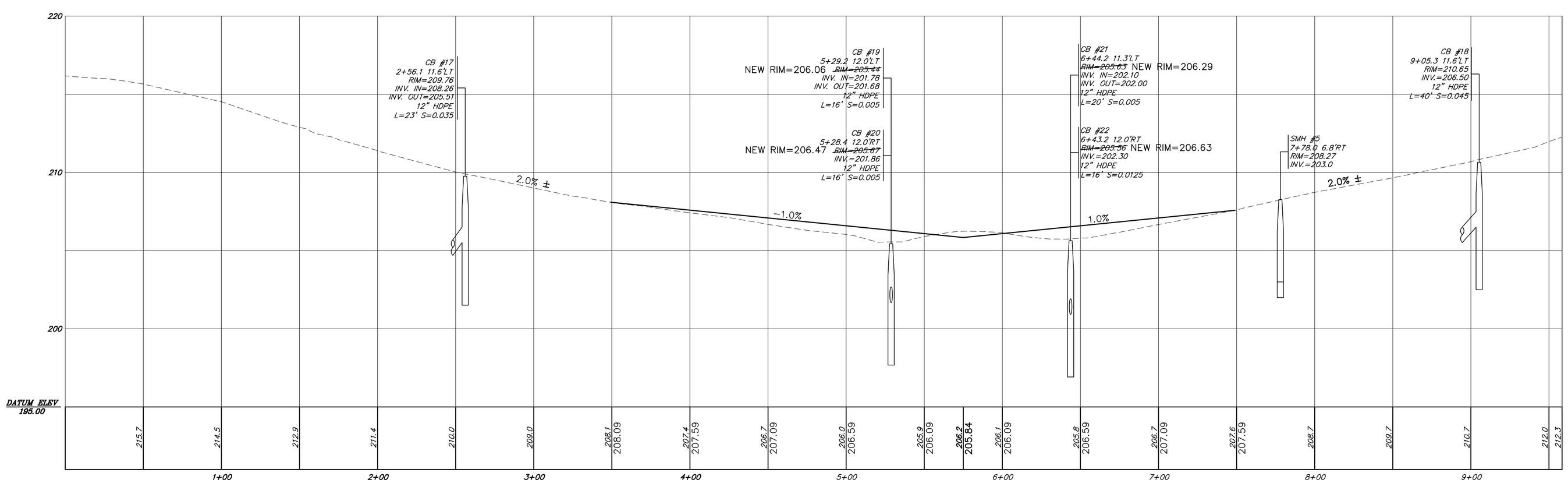
TABLE OF VERTICAL ROADWAY ALIGNMENT ELEVATIONS			
STA.	LEFT SIDELINE	CENTER LINE	RIGHT SIDELINE
4+00	207.35	207.59	207.35
4+25	207.10	207.34	207.18
4+50	206.85	207.09	207.01
4+75	206.60	206.84	206.84
5+00	206.35	206.59	206.67
5+25	206.10	206.34	206.50
5+50	205.85	206.09	206.33
5+75	205.60	205.84	206.08
6+00	205.85	206.09	206.33
6+25	206.10	206.34	206.50
6+50	206.35	206.59	206.67
6+75	206.60	206.84	206.84
7+00	206.85	207.09	207.01
7+25	207.10	207.34	207.18
7+50	207.35	207.59	207.35

NOTES:
1. INSTALL CONSTRUCTION ENTRANCE AND USE VEHICLE ENTRANCE TO CONSTRUCT NEW POND AND COMPLETE GRADING IN BACK YARDS AT 13 & 14 BEFORE INSTALLING 15" DRAIN PIPE, HEADWALL AND CONCRETE SIDEWALK.
2. CONTRACTOR TO LOAM AND SEED THE DISTURBED AREAS.
3. CONTRACTOR TO REPAIR ANY DAMAGE TO THE IRRIGATION SYSTEMS AND BRING THEM UP TO GRADE IN AREAS FILLED.

PLAN
SCALE: HORIZ. 1"=40'

NOTE:
REGRADE THE BACK YARDS OF #3 AND #5 OLIVIA WAY TO PROVIDE POSITIVE DRAINAGE AND PREVENT PONDING

OLIVIA WAY TYPICAL CROSS SECTION
NOT TO SCALE



PROFILE
SCALE: HORIZ. 1"=40'
VERT. 1"=4'

LEGEND

- HYDRANT
- VALVE
- SANITARY MANHOLE
- DRAINAGE MANHOLE
- CATCH BASIN
- UTILITY POLE
- PROPERTY LINE

FOR REVIEW

GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
1 inch = 40 ft.

DATE	REVISION	BY
4/9/19	REVIEW COMMENTS	DEL

PLAN & PROFILE
IN
GROTON, MASSACHUSETTS

REEDY MEADOW ESTATES
"OLIVIA WAY"

SCALE: 1"=40'	DATE: MARCH 15, 2019	SHEET 2 OF 3	REV. A
JOB # 27503	REVISION: APRIL 9, 2019		

PREPARED FOR
REEDY MEADOW, LLC
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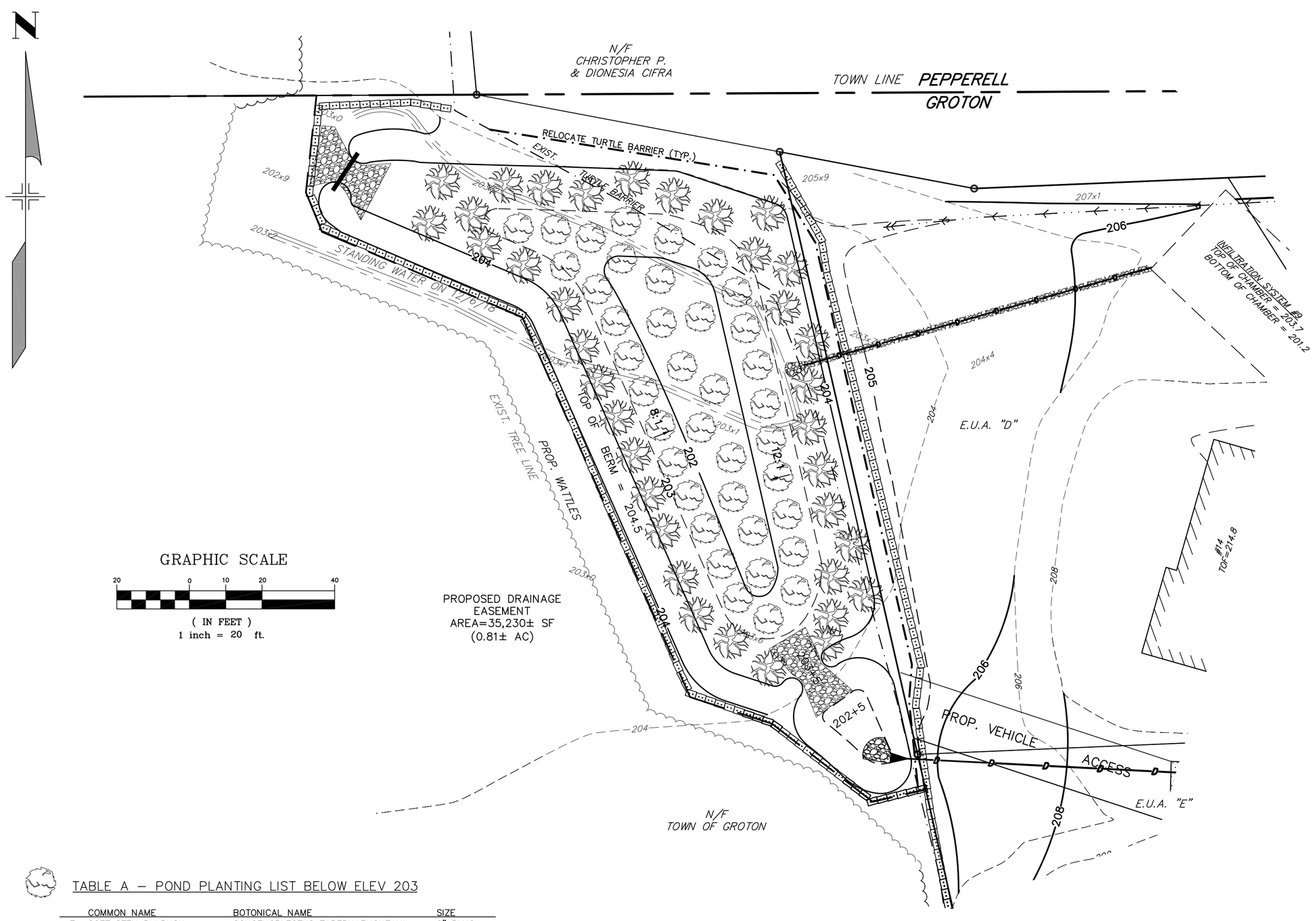
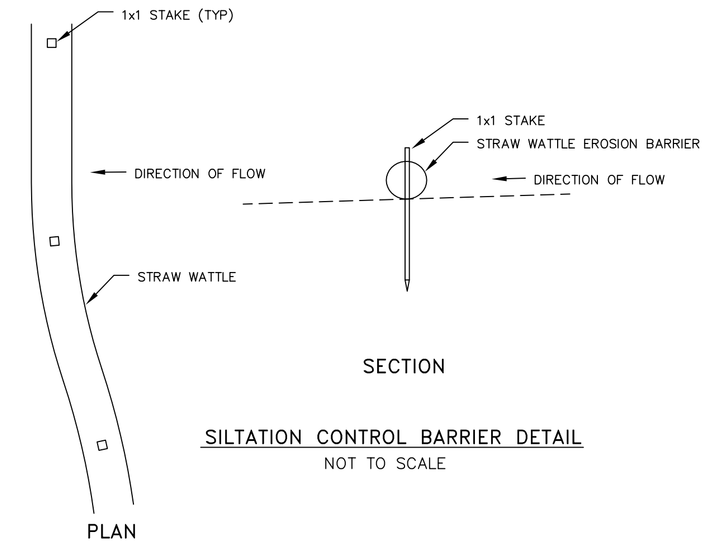
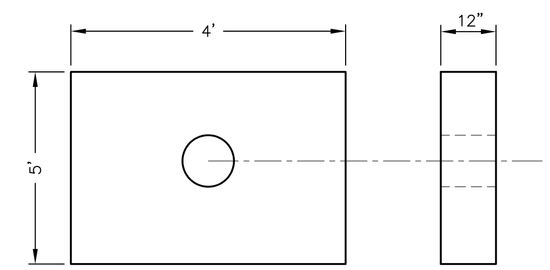
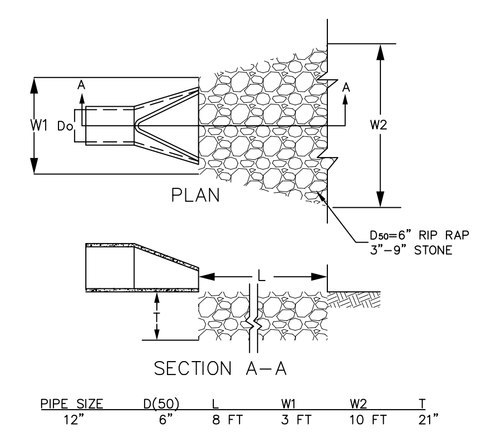




SILTATION CONTROL BARRIER DETAIL
NOT TO SCALE

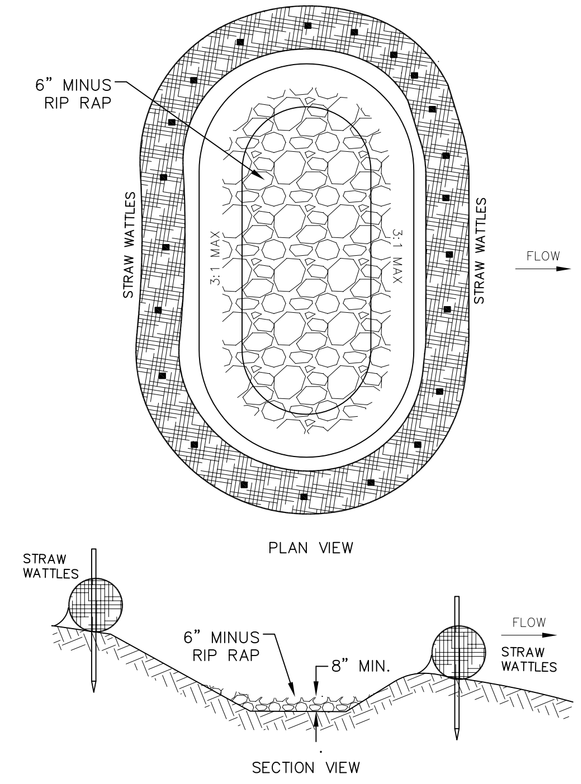


HEADWALL DETAIL
NOT TO SCALE



PIPE SIZE	D(50)	L	W1	W2	T
12"	6"	8 FT	3 FT	10 FT	21"

PIPE OUTLET RIP RAP DETAIL
NOT TO SCALE



DEWATERING DETAIL
NOT TO SCALE

TEMPORARY EROSION CONTROL MEASURES
CONSTRUCTION OPERATION & MAINTENANCE

1. EROSION CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON THESE PLANS.
2. ALL EROSION CONTROL MEASURES WILL BE INSPECTED AT LEAST ONCE A WEEK AND FOLLOWING ANY STORM EVENT OF 0.5 INCHES OR GREATER.
3. SEDIMENT BUILD UP WILL BE REMOVED FROM SILT FENCE AND/OR HAY BALE BARRIERS WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF SAID BARRIER.
4. TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH. ANY BARE SPOTS AND/OR WASHOUTS WILL BE REPAIRED AND RESEEDED IN A TIMELY MANNER.
5. ALL DISTURBED AREAS SHALL HAVE A MINIMUM OF 4 INCHES OF LOAM PLACED BEFORE BEING SEEDED AND MULCHED.
6. FILL MATERIAL SHALL BE FREE FROM STUMPS, WOOD, ROOTS, ETC.
7. THE BOTTOM OF ANY TEMPORARY SEDIMENT BASINS SHALL BE PERIODICALLY CLEANED, WITH THE SEDIMENT REMOVED TO A SECURE LOCATION SO AS TO PREVENT SILTATION OF NATURAL WATER WAYS.
8. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE TEMPORARY EROSION CONTROL MEASURES ARE TO BE REMOVED AND ACCUMULATED SEDIMENT DISPOSED IN A SECURE LOCATION.
9. EARTH STOCKPILES ARE TO HAVE A SILT FENCE INSTALLED ON THE DOWNSLOPE SIDE.
10. EROSION CONTROL MEASURES SHALL BE PERIODICALLY INSPECTED DURING THE LIFE OF THE PROJECT AND AFTER EACH STORM. ALL DAMAGED CONTROLS SHALL BE REPAIRED. SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED.
11. EROSION CONTROL MEASURES SHALL BE REMOVED WHEN THE DISTURBED AREA IS STABILIZED. DISTURBED AREA RESULTING FROM THE SILT FENCE REMOVAL OPERATION SHALL BE PERMANENTLY SEEDED. ALL ACCUMULATED SEDIMENT SHOULD BE REMOVED AND PROPERLY DISPOSED OF.
12. THE DISTURBED AREA SHALL BE KEPT TO A MINIMUM, AND THE DURATION OF EXPOSURE SHALL BE LESS THAN A MAXIMUM OF SIX WEEKS.
13. ALL GRADED AREAS SHALL BE SEEDED
14. INSPECT THE PIPE OUTLET ENDS FOR ANY EROSION AND LOSS OF VEGETATION GROWTH AND MAKE THE NECESSARY REPAIRS.

POST CONSTRUCTION OPERATION AND MAINTENANCE

FOLLOWING THE CONSTRUCTION AND SITE STABILIZATION, MAINTENANCE OF THE SITE SHALL BE THE RESPONSIBILITY OF THE HOME OWNERS ASSOIATION.

1. LANDSCAPED AND LAWN AREA SHALL BE MAINTAINED.
2. THE TURTLE BARRIER SHALL BE MAINTAINED.
3. TRASH SHALL BE REMOVED FROM THE POND AND THE FOREBAY BY HAND TWICE ANNUALLY.
4. THE RETAINING WALL AND CULVERT SHALL BE INSPECTED TWICE ANNUALLY TO INSURE STRUCTURAL INTEGRITY AND FUNCTIONALITY.

TABLE A – POND PLANTING LIST BELOW ELEV 203

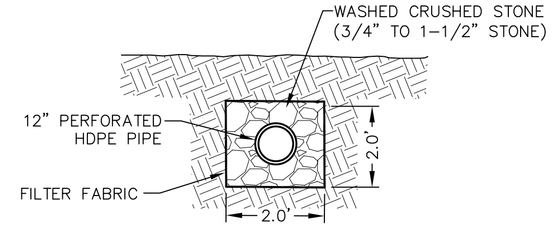
	COMMON NAME	BOTONICAL NAME	SIZE
7	SOFT STEM BULRUSH	SCHOENOPLECTUS TABERNAEMONTANI	2" PLUG
5	COMMON WINTERBERRY	ILEX VERTICILLATE	18"-24"
5	NORTHERN SPICEBUSH	LINDERA BENZOIN	18"-24"
5	HIGH BUSH BLUEBERRY	VACCINIUM CORYMBOSUM	18"-24"
8	NORTHERN ARROWHEAD	SAGITTARIA LATIFOLIA	2" PLUG
8	NEW ENGLAND ASTER	ASTER NOUZE-ANGLIAE	2" PLUG
38	TOTAL		

TABLE B – POND PLANTING LIST ABOVE ELEV 203

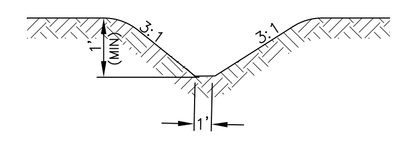
	COMMON NAME	BOTONICAL NAME	SIZE
5	HIGH BUSH BLUEBERRY	VACCINIUM CORMBOSUM	18"-24"
4	RED OSIER DOGWOOD	CORNUS STOLONIFERA	18"-24"
5	COMMON WINTERBERRY	ILEX VERTICILLATA	18"-24"
4	NORTHERN ARROWWOOD	VIBURNUM DENTATUM	18"-24"
10	NEW ENGLAND ASTER	ASTER NOUZE-ANGLIAE	2" PLUG
10	GRASS LEAVED GOLDENROD	EUTHAMIA GRAMINIFOLIA	2" PLUG
38	TOTAL		

POND CONSTRUCTION PLAN

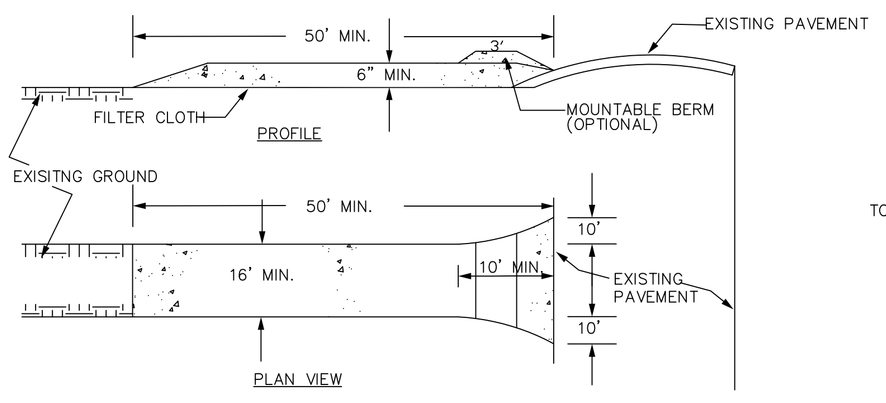
1. INSTALL EROSION CONTROL PRIOR TO ANY WORK ON THE SITE.
2. REGRADE AREA AS SHOWN ON PLANS.
4. POND AREA TO BE SEEDED WITH NEW ENGLAND WETMIX (AVAILABLE FROM NEW ENGLAND WETLANDS PLANTS, INC. (413)548-8000.
5. PLANT A MIXTURE OF SHRUBS FROM TABLE A AT AREAS TO BE PONDED (BELOW ELEVATION 203). SHRUBS SHALL BE PLANTED 10± FT ON CENTER.
6. PLANT A MIXTURE OF SHRUBS FROM TABLE B ABOVE AREAS OF PONDING (ELEVATION 203). SHRUBS SHALL BE PLANTED 10± FT ON CENTER.



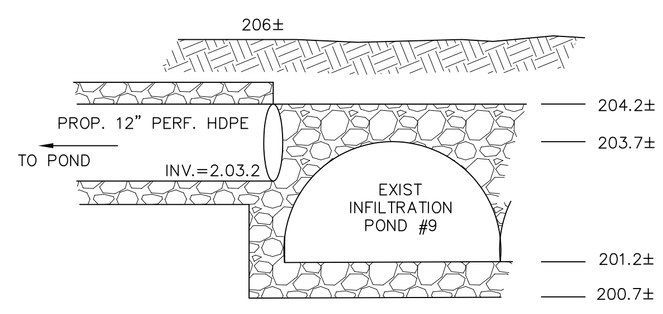
INFILTRATION POND #9 OVERFLOW DETAIL
NO SCALE



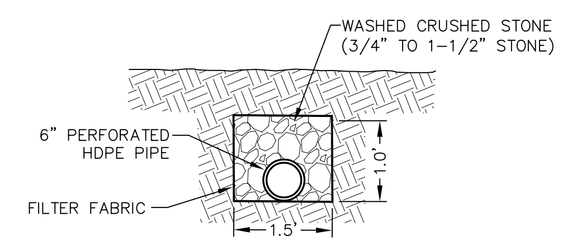
GRASS SWALE DETAIL
NOT TO SCALE



STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



POND #9 OVERFLOW TIE IN DETAIL
NO SCALE



PERIMETER DRAIN DETAIL
NO SCALE

FOR REVIEW

DATE	REVISION	BY
4/9/19	REVIEW COMMENTS	DEL

DETAIL SHEET
IN
GROTON, MASSACHUSETTS

REEDY MEADOW ESTATES
"OLIVIA WAY"

SCALE: 1"=20'	DATE: MARCH 15, 2019	SHEET 3 OF 3	REV. A
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