NOTE:

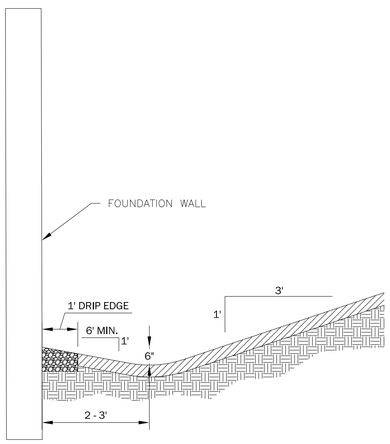
1. THE PROPOSED GRADING OF THE LOT ON WHICH THE SEPTIC SYSTEM IS LOCATED SHALL DIVERT SURFACE WATER AWAY FROM DWELLINGS SO AS TO PREVENT STANDING WATER AND SOIL SATURATION DETRIMENTAL TO THE DWELLING AND THE INDIVIDUAL SEWAGE DISPOSAL SYSTEM, AND ANY EXISTING OR PROPOSED SEPTIC SYSTEMS ON ADJACENT LOTS.
2. CONDITIONS WHICH WOULD RESULT IN PROLONGED STANDING WATER, WITHIN THE IMMEDIATE VICINITY OF THE DWELLING OR INDIVIDUAL SEWAGE DISPOSAL SYSTEM IN ANY SEASON IS NOT ACCEPTABLE.
3. THE USE OF INTERCEPTOR DRAINS/TRENCHES/DEVICES SO AS TO DIVERT SURFACE WATER RUNOFF SHALL ONLY BE CONSIDERED WHEN THEY CAN BE TIED INTO A NEW OR EXISTING DRAINAGE SYSTEM.
4. THE STORMWATER DRAINAGE CONTROL ON EVERY LOT SHALL CONFORM WITH THE REQUIREMENTS OF THE RULES AND REGULATIONS RELATIVE TO INSTALLATION AND MAINTENANCE OF STORM DRAINS ADOPTED BY THE TOWN OF TOPSFIELD AND AMENDED FROM TIME TO TIME.
5. ADDITIONS TO THE DWELLING OR IN-GROUND SWIMMING POOLS MAY NOT BE CONSTRUCTED SO AS TO PRECLUDE THE EXPANSION AREA FROM CONFORMING WITH THE MINIMUM DISTANCES ESTABLISHED IN TITLE 5 OR THE TOPSFIELD BOARD OF HEALTH SUPPLEMENTARY REGULATIONS.
6. LOT 4 IS NOT WITHIN 100' OF ANY WETLAND RESOURCE AREA OR WITHIN ANY BUFFER ZONE




NOTE: DRIVEWAY CULVERT TO HAVE 1' MINIMUM COVER.

## DRIVEWAY ENTRANCE GRADING DETAIL

1"=10'

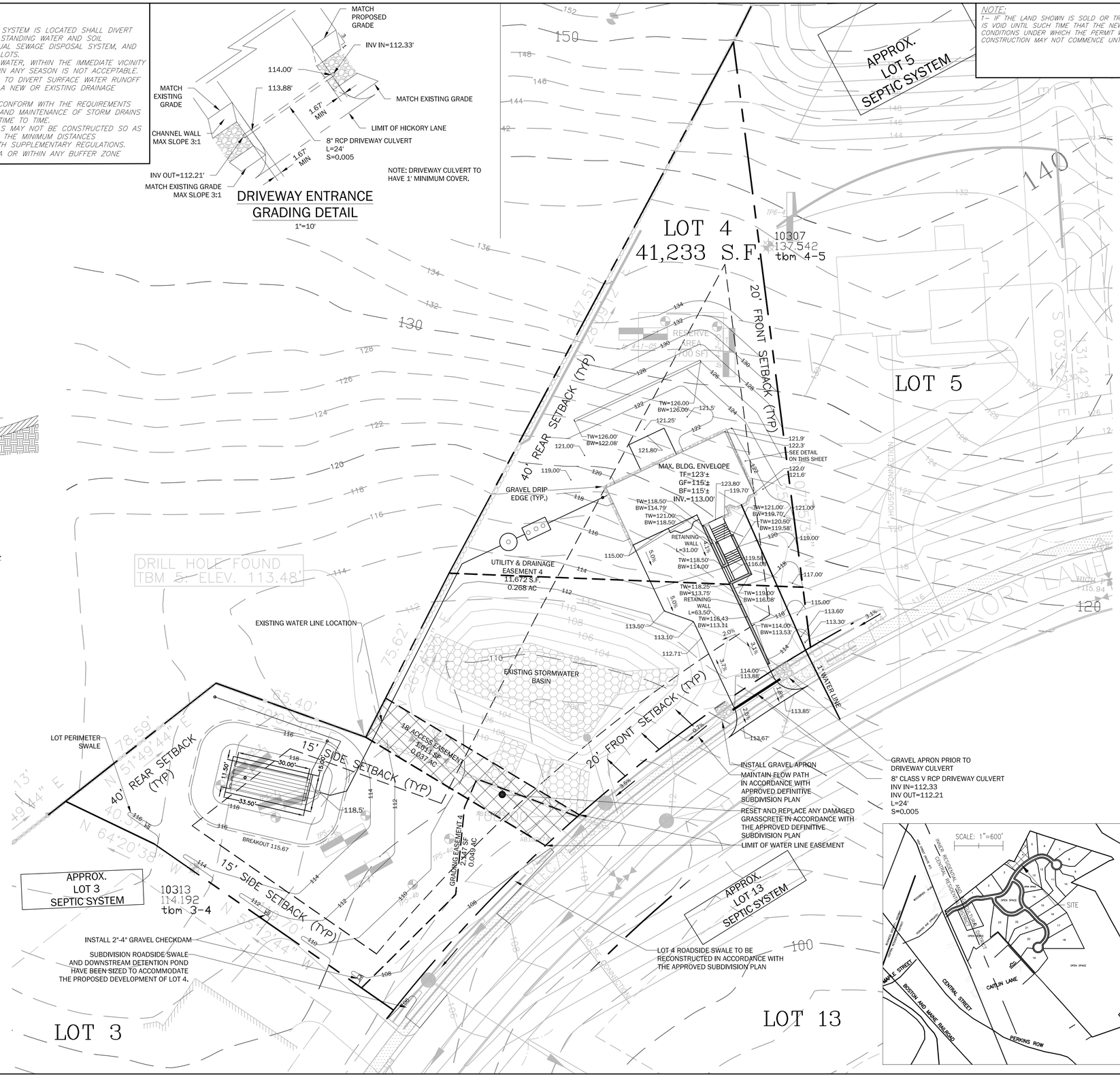



## TYPICAL GRADING NORTHWEST WALL

NTS

NOTE:

1- IF THE LAND SHOWN IS SOLD OR TRANSFERRED BEFORE WORK UNDER THE PERMIT IS COMPLETE, THE PERMIT IS VOID UNTIL SUCH TIME THAT THE NEW OWNER OF RECORD HAS FILED A STATEMENT WITH THE BOARD THAT THE CONDITIONS UNDER WHICH THE PERMIT WAS ISSUED HAVE NOT BEEN ALTERED. IN ALL CASES, ACTUAL CONSTRUCTION MAY NOT COMMENCE UNTIL THE INSTALLER HAS AN APPROVED DWCP AND PAID THE PERMIT FEE.




## GENERAL NOTES

1. Elevations refer to USGS based on GPS measurements. (See Bench Mark located on plot plan.)
2. Finish grading to be done in accordance with plot plan.
3. Tight joint piping to consist of Polyvinyl Chloride Pipe (P.V.C.), Schedule 40, unless otherwise noted.
4. In cases where ledge or boulders are present, Beals Associates, Inc. will not be responsible for assuring the amount of rock to be encountered.
5. Any alterations to the design of this plan must be approved in writing by Beals Associates, Inc.
6. Heavy machinery shall not be permitted to pass over the soil absorption system.
7. No permanent structure may be constructed over the 100% reserve leaching area.
8. Construction within 100 feet of a wetland resource area as defined in the Massachusetts Wetlands Regulations (310 CMR 10.00) shall not be performed until an Order of Conditions or Negative determination of Applicability has been obtained from the local Conservation Commission.
9. Property lines shall be determined prior to the construction or installation of any of the proposed improvements shown hereon.
10. Beals Associates, Inc. recommends that the contractor contact DIG SAFE at 1-888-DIG-SAFE prior to excavation.
11. All surface water to be diverted away from the dwelling.
12. A 1/2% min. grade shall be maintained for a distance of 10 feet away from the house.
13. For detail on easement areas please refer to the Lot 4 deed and the Hickory Beech Definitive Subdivision Easement and Layout sheets.

## LEGEND

| | |
|---|---|
| TF | TOP OF FOUNDATION |
| BF | BASEMENT FLOOR |
| INV. | SEWER MAIN INVERT |
| GF | GARAGE FLOOR |
| | SLAB ON GRADE OR EQUAL |
| | DRILL HOLE FOUND OR SET (D.H.) |
| | IRON PIN |
| | GRANITE BOUND TO BE SET |
| | PROPERTY LINE |
| | ABUTTER |
| | STONE WALL |
| | EDGE OF PAVEMENT |
| | WETLAND BOUNDARY |
| | 100 YEAR FLOOD LINE |
| | VERNAL POOL |
| | 100FT / 50FT WETLAND BUFFER |
| | WOODED AREA |
| 74 | EXISTING CONTOURS |
| 60 | PROPOSED CONTOURS |
| | HYDRANT |
| | UTILITY POLE |
| | LIGHT POLE |
| TP4-3 | TESTPITS |
| | EROSION CONTROL |
| × × × × × × × × | EASEMENT |

GRAPHIC SCALE

20 0 10 20 40 80

( IN FEET )
1" = 20'

Title:

STORMWATER MANAGEMENT PLAN
FOR A 4-BEDROOM DWELLING AT LOT 4 HICKORY LANE
TOPSFIELD, MA
ASSESSORS MAP 50-20
BK: 32331 PG: 164

**Prepared for Owner of Record:**
PATCH DEVELOPMENT, LLC
8 CHRISTIAN WAY
ANDOVER, MASSACHUSETTS

Prepared by:


BEALS · ASSOCIATES INC.
2 THIRTEENTH STREET
CHARLESTOWN, MA 02129
617 242-1120
617 242-1190


| DATE: | SCALE: |
|---|---|
| JULY 20, 2015 | AS SHOWN |
| DESIGNED BY: TRG CHECKED BY: TPM | DRAWN BY: TRG |

| REVISIONS: | DATE: |
|---|---|
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| | |
| | |

PROJECT NUMBER: C-407.10

SHEET NUMBER: 1-3

NOTE:

1. THE PROPOSED GRADING OF THE LOT ON WHICH THE SEPTIC SYSTEM IS LOCATED SHALL DIVERT SURFACE WATER AWAY FROM DWELLINGS SO AS TO PREVENT STANDING WATER AND SOIL SATURATION DETRIMENTAL TO THE DWELLING AND THE INDIVIDUAL SEWAGE DISPOSAL SYSTEM, AND ANY EXISTING OR PROPOSED SEPTIC SYSTEMS ON ADJACENT LOTS.
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6. LOT 4 IS NOT WITHIN 100' OF ANY WETLAND RESOURCE AREA OR WITHIN ANY BUFFER ZONE

NOTE:
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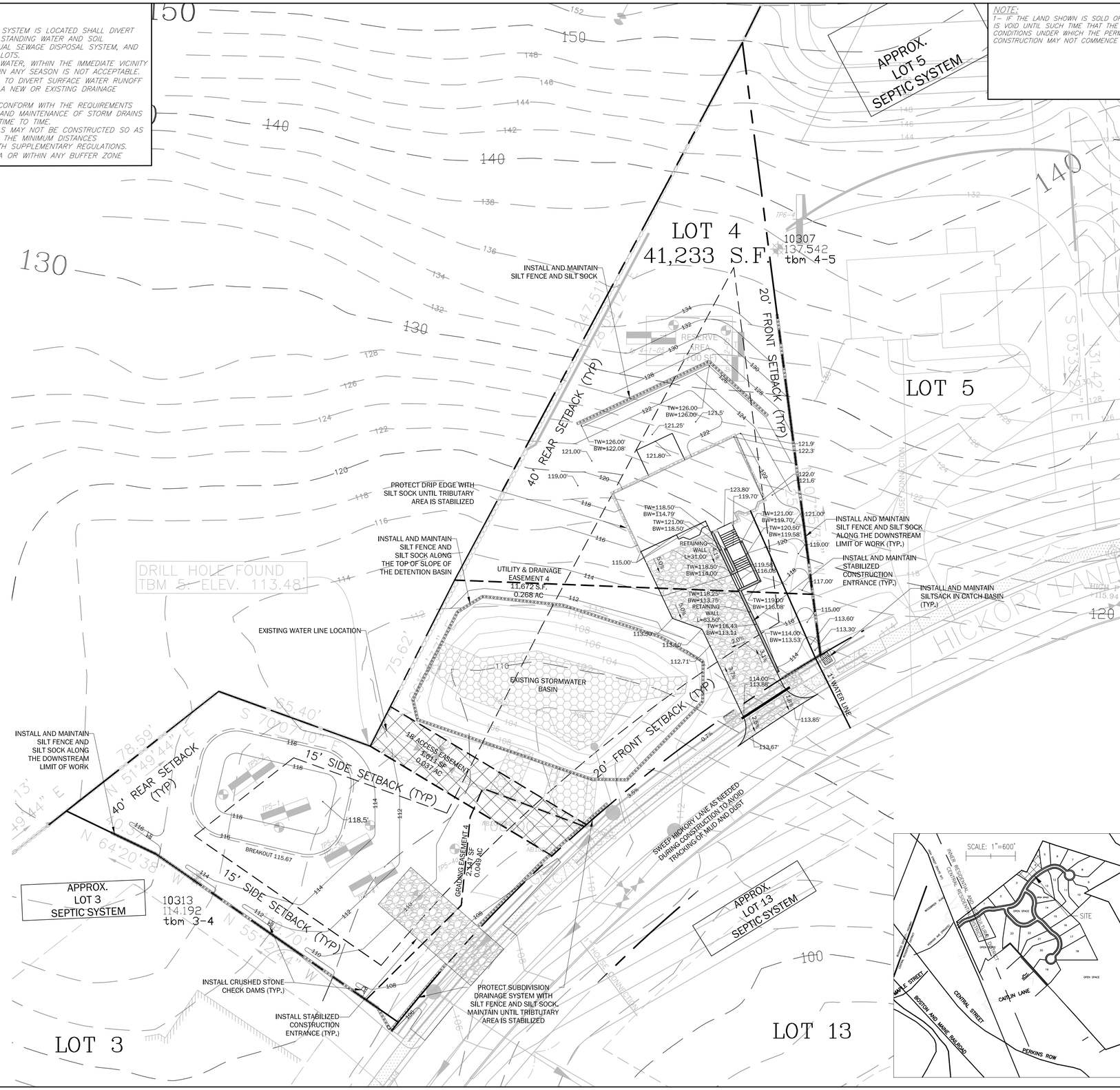


## GENERAL NOTES

1. Elevations refer to USGS based on GPS measurements. (See Bench Mark located on plot plan.)
2. Finish grading to be done in accordance with plot plan.
3. Tight joint piping to consist of Polyvinyl Chloride Pipe (P.V.C.), Schedule 40, unless otherwise noted.
4. In cases where ledge or boulders are present, Beals Associates, Inc. will not be responsible for assuring the amount of rock to be encountered.
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6. Heavy machinery shall not be permitted to pass over the soil absorption system.
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8. Construction within 100 feet of a wetland resource area as defined in the Massachusetts Wetlands Regulations (310 CMR 10.00) shall not be performed until an Order of Conditions or Negative determination of Applicability has been obtained from the local Conservation Commission.
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10. Beals Associates, Inc. recommends that the contractor contact DIG SAFE at 1–888–DIG–SAFE prior to excavation.
11. All surface water to be diverted away from the dwelling.
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13. For detail on easement areas please refer to the Lot 4 deed and the Hickory Beech Definitive Subdivision Easement and Layout sheets.

## LEGEND

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| BF | BASEMENT FLOOR |
| INV. | SEWER MAIN INVERT |
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| | SLAB ON GRADE OR EQUAL |
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GRAPHIC SCALE

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( IN FEET )
1" = 20'

Title:

STORMWATER MANAGEMENT PLAN
FOR A 4–BEDROOM DWELLING AT LOT 4 HICKORY LANE
TOPSFIELD, MA
ASSESSORS MAP 50–20
BK: 32331 PG: 164

**Prepared for Owner of Record:**
PATCH DEVELOPMENT, LLC
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2 THIRTEENTH STREET
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DATE: JULY 20, 2015
SCALE: AS SHOWN
DESIGNED BY: TRG CHECKED BY: TPM DRAWN BY: TRG

| REVISIONS: | DATE: |
|---|---|
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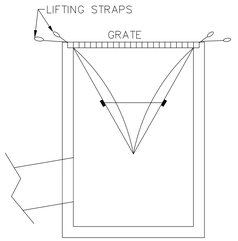
PROJECT NUMBER: C–407.10
SHEET NUMBER: 2–3

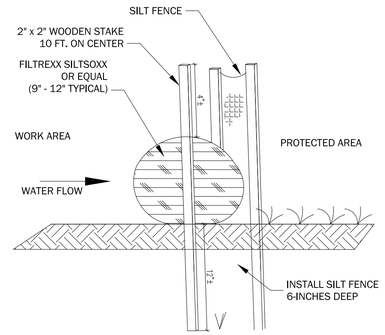



RECOMMENDED MAINTENANCE SCHEDULE

–EACH SILTSACK SHOULD BE INSPECTED WEEKLY DURING CONSTRUCTION AND AFTER EVERY MAJOR RAIN EVENT.

–THE RESTRAINT CORD SHOULD BE VISIBLE AT ALL TIMES. IF CORD IS COVERED WITH SEDIMENT, THE SILTSACK SHOULD BE EMPTIED.

## SILTSACK DETAIL
NOT TO SCALE




NOTES:

1. ALL MATERIALS TO MEET INSTALLER SPECIFICATIONS.
2. COMPOST/SOIL/ROCK/SEED FILL TO MEET APPLICATION REQUIREMENTS.
3. LARGER SILT SOXX OR EQUAL TO BE PROVIDED FOR STEEP SLOPES AND HEAVY FLOW AREAS.
4. SILTSOXX OR EQUAL TO BE REMOVED, COMPOSTED, OR DISPERSED AS PER CONSERVATION COMMISSION DIRECTION.
5. SILT FENCE TO BE INSPECTED DAILY AND REPAIRED AS NECESSARY.
6. SEDIMENT TO BE REMOVED WHEN ACCUMULATED LEVEL REACHS 1/3 THE HEIGHT OF THE BMP, OR 6 INCHES, WHICHEVER IS LESS.

## SILT FENCE(W/STRAW WATTLE AS NECESSARY)
NOT TO SCALE

EROSION CONTROL NOTE:

*AT A MINIMUM, ALL EROSION CONTROL MEASURES SHALL BE INSPECTED IN ACCORDANCE WITH THE ENVIRONMENTAL PROTECTION AGENCY'S 2012 CONSTRUCTION GENERAL PERMIT. SPECIFICALLY, SITE INSPECTIONS SHALL BE PERFORMED ONCE EVERY 7 DAYS OR ONCE EVERY 14 DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.25 INCHES OR GREATER, AT A MINIMUM.*

NOTE:

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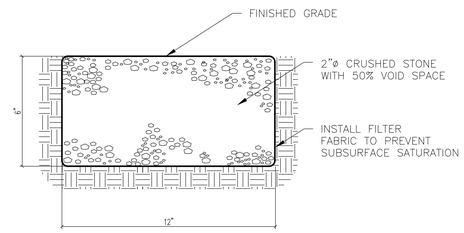


CROSS – SECTION

## TYPICAL DRIP EDGE LEACHING TRENCH
NOT TO SCALE

## GENERAL NOTES

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2. *Finish grading to be done in accordance with plot plan.*
3. *Tight joint piping to consist of Polyvinyl Chloride Pipe (P.V.C.), Schedule 40, unless otherwise noted.*
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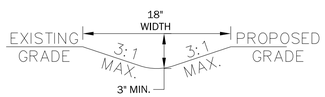
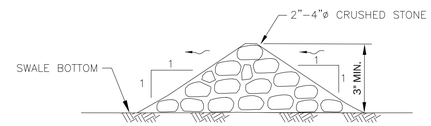
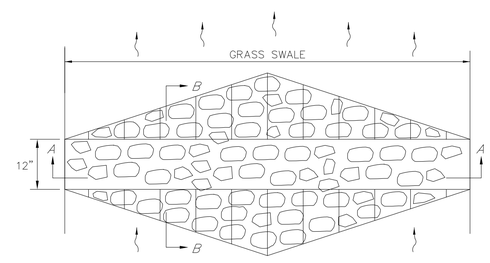


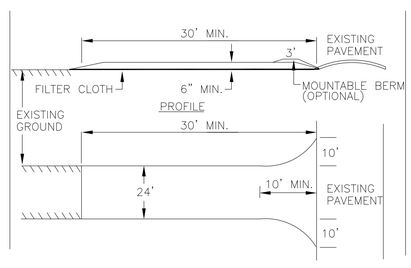

## PROPOSED PERIMETER SWALE CROSS–SECTION
NOT TO SCALE




*SECTION B–B*



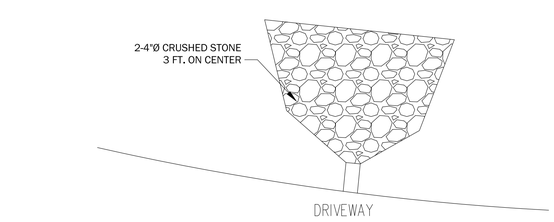

*PLAN VIEW*

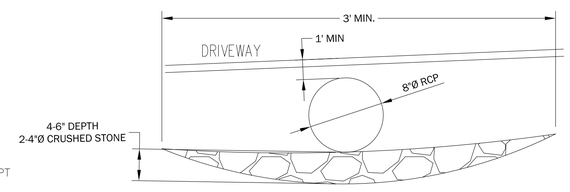



PLAN VIEW

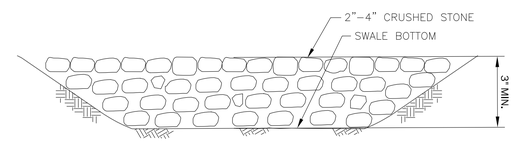
1. STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 2 TO 4 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
3. THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
4. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICH EVER IS GREATER.
5. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER CLOTH IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENCE LOT.
6. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHT–OF–WAY MUST BE REMOVED PROMPTLY.

## STABILIZED CONSTRUCTION ENTRANCE




## GRAVEL APRON
NOT TO SCALE




*SECTION A–A*

*RIPRAP CHECK DAM*

*NOT TO SCALE*

## TYPICAL GRAVEL CHECK DAM
NOT TO SCALE

Title:

STORMWATER MANAGEMENT PLAN
FOR A 4–BEDROOM DWELLING AT LOT 4 HICKORY LANE
TOPSFIELD, MA
ASSESSORS MAP 50–20
BK: 32331 PG: 164

**Prepared for Owner of Record:**
PATCH DEVELOPMENT, LLC
8 CHRISTIAN WAY
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| REVISIONS: | DATE: |
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PROJECT NUMBER: C–407.10
SHEET NUMBER: 3–3