

~ LOCUS ~
1" = 2000'

~ SITE PLAN ~
1" = 40'

CALL
TOLL FREE
1-888-DIG-SAFE
(1-888-344-7233)
72 HOURS IN ADVANCE

PRELIM. PLAN FILED: 03-18-2020
HEARING HELD: 03-04-2020, 08-25-2020
PRELIM. PLAN APPROVED: 08-25-2020
DEFINITIVE PLAN FILED: 01-20-2021
HEARING HELD: 03-02-2021
DEFINITIVE PLAN APPROVED: T.B.D.

APPROVAL UNDER THE SUBDIVISION CONTROL LAW IS REQUIRED:
TOWN OF GROVELAND PLANNING BOARD:

DATE: _____

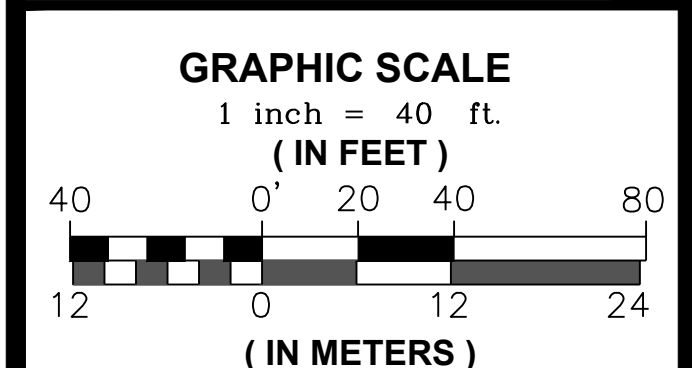
DEFINITIVE SUBDIVISION
KING MEADOW FARM
LOCATED IN
GROVELAND MASSACHUSETTS
AT 106 KING STREET
MAP 26 PARCEL 13F
PREPARED FOR
OWNER/APPLICANT:
KING MEADOW DEVELOPMENT, LLC
c/o KEVIN CUNIFF
211 SEVEN STAR ROAD
GROVELAND, MA 01834
PREPARED BY
WGH LAND SURVEY & DESIGN
83 WEST MAIN STREET
MERRIMAC, MA 01860
TEL: (978)-257-4576
E-MAIL: billgholt@aol.com

ASSESSOR DATA:
MAP: 26
PARCEL: 13F

I HEREBY CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTRY OF DEEDS.

9/16/21
Thad D Berry
No. 41268
CIVIL

WILLIAM G. HOLT
No. 39688
CIVIL
9/16/21
WILLIAM G. HOLT PLS #39688



SHEET TITLE:
NPDES PERMIT PLAN & CONSTRUCTION PHASING

DRAWN:	T.BERRY
DESIGNED:	W.HOLT
CHECKED:	T.BERRY
DATE:	9-16-21
CAD FILE:	2021-03 - NPDES PERMIT
JOB No.	#19-047 DEF

LOCUS DEED: BK 37,478 PG 210
PL BK 474 PL 24

REVISION:	BY
#0. 9-16-21 ISSUED FOR REVIEW	TDB

SHEET: NPDES 1

LOAM AND SEED NOTES

- IF REQUIRED THE CONTRACTOR SHALL FURNISH ALL TOPSOIL OR ADDITIONAL TOPSOIL NEEDED TO COMPLETE THE JOB. IF THE EXISTING TOPSOIL IS SUFFICIENT TO COMPLETE THE JOB, ANY EXCESS TOPSOIL WILL REMAIN ON SITE. AN AREA WILL BE PROVIDED ON SITE FOR FINAL STORAGE.
- THE TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED ON THE DESIGNATED AREAS AND IT SHALL BE A MINIMUM DEPTH OF SIX INCHES AFTER FIRING. SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS. TOPSOIL SHALL NOT BE PLACED WHILE IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBGRADE IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING OR PROPOSED SEEDING.
- AFTER LOAM HAS BEEN PLACED, LIME AND FERTILIZER SHALL BE UNIFORMLY MIXED INTO THE TOP FOUR INCHES OF SOIL BY DISCING, HARROWING OR USING OTHER APPROVED METHODS.
- ANY UNDULATIONS OR IRREGULARITIES IN THE SURFACE RESULTING FROM FERTILIZING, LIMING, SURFACE ROUGHENING OR OTHER CAUSES SHALL BE LEVELED PRIOR TO SEEDING. FLOODED, WASHED-OUT OR OTHERWISE DAMAGED AREAS SHALL BE RECONSTRUCTED AND ALL GRADES RE-ESTABLISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE DRAWINGS AND/OR OTHER APPLICABLE SPECIFICATIONS.
- PRIOR TO SEEDING THE SURFACE SHALL BE CLEARED OF ALL TRASH, DEBRIS AND STONES LARGER THAN ONE AND ONE-HALF INCHES IN DIAMETER, AND OF ALL ROOTS, BRUSH, WIRE, GRADE STAKES AND OTHER OBJECTS THAT WOULD INTERFERE WITH PLANTING OR MAINTENANCE OPERATIONS.
- BROADCAST SEED AND MULCH. PLACE STRAW AND ANCHOR IT TO TOPSOIL. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDLINGS WITH ADEQUATE WATER FOR PLANT GROWTH. (1/2"-1" EVERY 3-4 DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED.

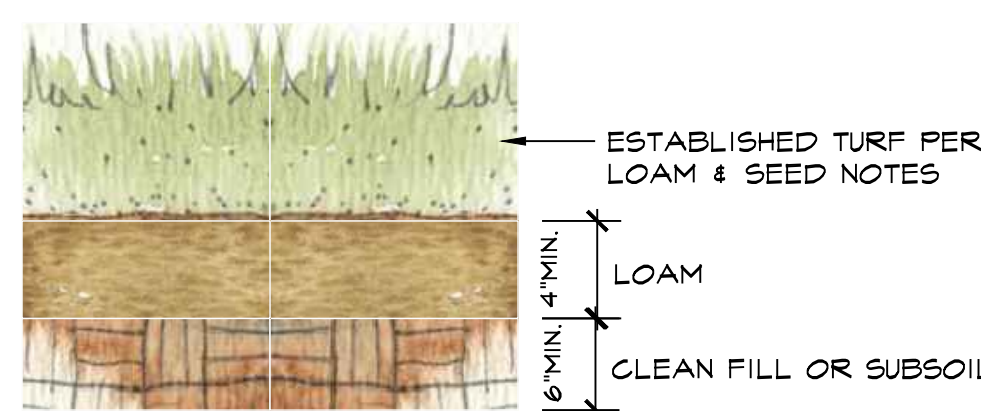
REPAIRS AND MAINTENANCE

INSPECT ALL SEEDED AREAS FOR FAILURES AND MAKE NECESSARY REPAIRS, REPLACEMENTS AND RESEEDINGS WITHIN THE PLANTING SEASON.

- ONCE THE VEGETATION IS ESTABLISHED, THE SITE SHALL HAVE 85% GROUND COVER TO BE CONSIDERED ADEQUATELY STABILIZED.
- IF THE STAND PROVIDES LESS THAN 40% GROUND COVERAGE, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER, SEEDBED PREPARATION AND SEEDING RECOMMENDATIONS.
- IF THE STAND PROVIDES BETWEEN 40% AND 44% GROUND COVER AGE OVERSEEDING AND FERTILIZING USING HALF OF THE RATES ORIGINALLY APPLIED MAY BE NECESSARY.

SURFACE PREPARATION

- STRIP AND STOCKPILE ALL EXISTING LOAM FROM PROPOSED WORK AREAS. PROTECT LOAM FROM EROSION. ALL LOAM WILL REMAIN ON SITE UNLESS THE OWNER APPROVES OFF SITE REMOVAL.
- SET FIELD GRADES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. PROVIDE PROPER SURVEY CONTROL AND MAINTAIN THROUGHOUT CONSTRUCTION. PROVIDE ENGINEER WITH COPIES OF ALL SURVEY NOTES AND LOCATIONS OF BOTH VERTICAL AND HORIZONTAL CONTROL.
- BRING BASE MATERIAL TO FINISH GRADE. PROVIDE ENGINEER WITH AS-BUILT DRAWINGS SHOWING FINISH ELEVATIONS AND CONTOURS PRIOR TO PLACEMENT OF LOAM.
- SOIL TESTS SHALL BE MADE TO DETERMINE THE EXACT REQUIREMENTS FOR BOTH LIME AND FERTILIZER. SOIL TESTS SHALL BE CONDUCTED BY A STATE LABORATORY OR RECOGNIZED COMMERCIAL LABORATORY. PROVIDE ENGINEER WITH COPY OF TEST RESULTS AND RECOMMENDATIONS FOR LIMING AND FERTILIZING.
- AFTER THE AREAS TO BE TOPSOILED HAVE BEEN APPROVED BY THE OWNER OR ENGINEER, AND IMMEDIATELY PRIOR TO DUMPING AND SPREADING THE TOPSOIL, THE SUBGRADE SHALL BE LOOSENEED BY ROUGHENING TO THE DEPTH OF AT LEAST TWO INCHES TO PERMIT BONDING OF THE TOPSOIL TO THE SUBSOIL AND TO INCORPORATE THE LIME.
- ACCEPTANCE SHALL BE GIVEN BY THE OWNER OR ENGINEER UPON SATISFACTORY COMPLETION OF EACH SECTION OR AREA AS INDICATED ON THE DRAWINGS OR AS OTHERWISE SPECIFIED BEFORE PLACEMENT OF TOPSOIL.



LOAM & SEED DETAIL

NOT TO SCALE

EROSION CONTROL NOTES

EROSION CONTROL PRINCIPLES

- THE FOLLOWING EROSION CONTROL PRINCIPLES SHALL APPLY TO THE LAND GRADING AND CONSTRUCTION PHASES:
 - STRIPPING OF VEGETATION, GRADING, OR OTHER SOIL DISTURBANCE SHALL BE DONE IN A MANNER WHICH WILL MINIMIZE SOIL EROSION.
 - WHENEVER FEASIBLE, NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED.
 - EXTENT OF AREA WHICH IS EXPOSED AND FREE OF VEGETATION AND DURATION OF ITS EXPOSURE SHALL BE KEPT WITHIN PRACTICAL LIMITS.
 - TEMPORARY SEEDING, MULCHING, OR OTHER SUITABLE STABILIZATION MEASURES SHALL BE USED TO PROTECT EXPOSED CRITICAL AREAS DURING PROLONGED CONSTRUCTION OR OTHER LAND DISTURBANCE.
 - DRAINAGE PROVISIONS SHALL ACCOMMODATE INCREASED RUNOFF RESULTING FROM MODIFICATIONS OF SOIL AND SURFACE CONDITIONS DURING AND AFTER DEVELOPMENT OR DISTURBANCE. SUCH PROVISIONS SHALL BE IN ADDITION TO EXISTING REQUIREMENTS.
 - SEDIMENT SHALL BE RETAINED ON-SITE.
 - EROSION CONTROL DEVICES SHALL BE INSTALLED AS EARLY AS POSSIBLE IN THE CONSTRUCTION SEQUENCE PRIOR TO START OF CLEARING AND GRUBBING OPERATIONS AND EXCAVATION WORK.

- CUT AND FILL SLOPES AND STOCKPILED MATERIALS SHALL BE PROTECTED TO PREVENT EROSION. SLOPES SHALL BE PROTECTED WITH PERMANENT EROSION PROTECTION WHEN EROSION EXPOSURE PERIOD IS GREATER THAN OR EQUAL TO SIX MONTHS, AND TEMPORARY EROSION PROTECTION WHEN EROSION EXPOSURE PERIOD IS EXPECTED TO BE LESS THAN SIX MONTHS (SEE NOTE 1B).

- PERMANENT EROSION PROTECTION SHALL BE ACCOMPLISHED BY SEEDING WITH GRASS AND COVERING WITH AN EROSION PROTECTION MATERIAL, AS APPROPRIATE FOR PREVAILING CONDITIONS.
- EXCEPT WHERE SPECIFIED SLOPE IS INDICATED ON DRAWINGS, FILL SLOPES SHALL BE LIMITED TO A GRADE OF 3:1 (HORIZONTAL:VERTICAL) AND CUT SLOPES SHALL BE LIMITED TO A GRADE OF 3:1.

SILTATION SOCK

INSTALL SILTATION SOCK IN ACCORDANCE WITH THE PLAN DETAIL.

MAINTENANCE AND REMOVAL OF CONTROL DEVICES

- WETLAND AREAS, WATER COURSES, AND DRAINAGE SNALES ADJACENT TO CONSTRUCTION ACTIVITIES SHALL BE MONITORED TWICE EACH MONTH FOR EVIDENCE OF SILT INTRUSION AND OTHER ADVERSE ENVIRONMENTAL IMPACTS, WHICH SHALL BE CORRECTED IMMEDIATELY UPON DISCOVERY.

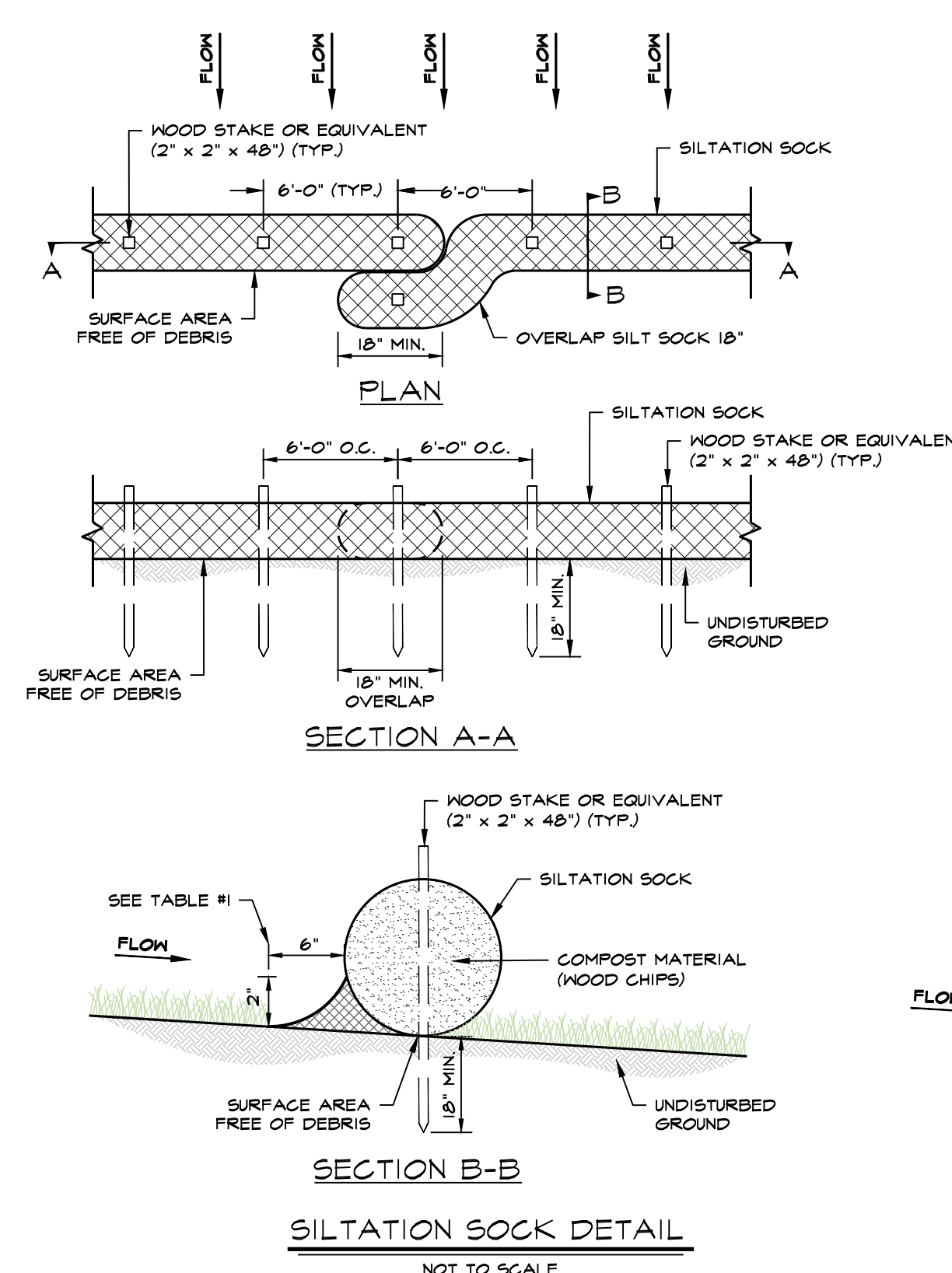
- CULVERTS AND DRAINAGE DITCHES SHALL BE KEPT CLEAN AND CLEAR OF OBSTRUCTIONS DURING CONSTRUCTION PERIOD.

EROSION CONTROL DEVICES:

- SEDIMENT BEHIND THE EROSION CONTROL DEVICE SHALL BE CHECKED EVERY TWO WEEKS AND AFTER RAIN EVENT OF 0.25 INCHES. SILT SHALL BE REMOVED IF GREATER THAN 6-INCHES DEEP.
- CONDITION OF EROSION CONTROL DEVICE SHALL BE CHECKED EVERY TWO WEEKS AS REQUIRED. DAMAGED AND/OR DETERIORATED ITEMS SHALL BE REPLACED. EROSION CONTROL DEVICES SHALL BE MAINTAINED IN-PLACE AND IN EFFECTIVE CONDITION.
- SILTATION SOCK SHALL BE INSPECTED FREQUENTLY AND MAINTAINED OR REPLACED AS REQUIRED TO MAINTAIN BOTH EFFECTIVENESS AND INSTALLED CONDITION. UNDERSIDE OF BALES SHALL BE KEPT IN CLOSE CONTACT WITH THE EARTH BELOW AT ALL TIMES, AS REQUIRED TO PREVENT WATER FROM WASHING BENEATH SILT SOCK.
- SEDIMENT SHALL BE REMOVED FROM THE RETENTION PONDS AT THE COMPLETION OF THE PROJECT AND PERIODICALLY DURING CONSTRUCTION. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN SEDIMENT HAS ACCUMULATED TO A DEPTH OF 6 INCHES, OR AS DIRECTED.
- SEDIMENT DEPOSITS SHALL BE DISPOSED OF OFF-SITE, IN A LOCATION AND MANNER WHICH WILL NOT CAUSE SEDIMENT NUISANCE ELSEWHERE.

REMOVAL OF EROSION CONTROL DEVICES:

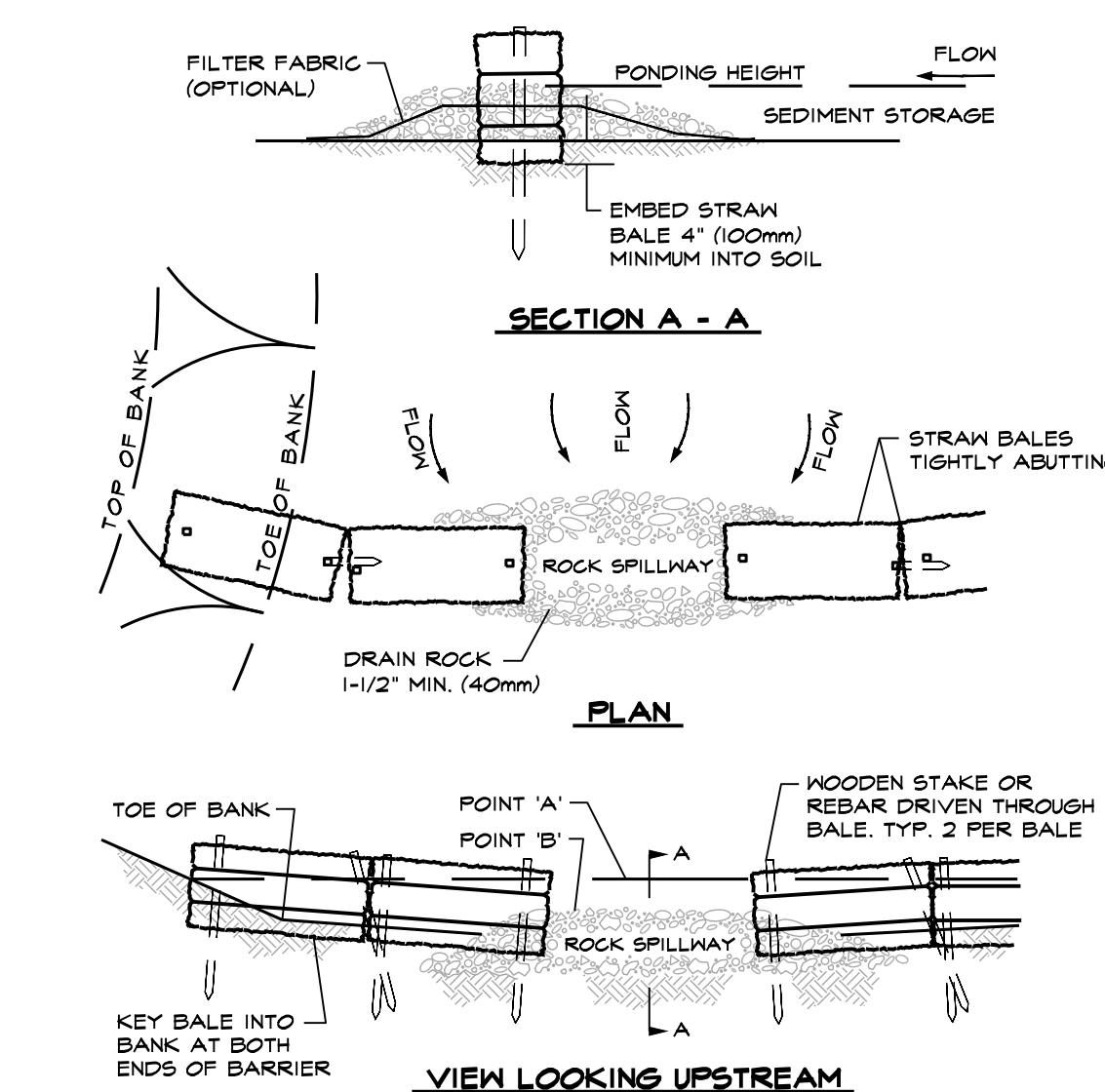
- THE CONSERVATION COMMISSION AGENT MUST INSPECT THE SITE AND APPROVE REMOVAL OF ANY EROSION CONTROL DEVICE.
- EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL ALL DISTURBED EARTH HAS BEEN PAVED OR VEGETATED, AT WHICH TIME THEY SHALL BE REMOVED. AFTER REMOVAL, AREAS DISTURBED BY THESE DEVICES SHALL BE RE-GRADED AND SEEDED.
- EROSION CONTROL NETTING SHALL BE KEPT SECURELY ANCHORED UNTIL START OF PERMANENT TURF CONSTRUCTION.
- EROSION PROTECTION MATERIAL SHALL BE KEPT SECURELY ANCHORED UNTIL ACCEPTANCE OF COMPLETED SLOPE OR ENTIRE PROJECT, WHICHEVER IS LATER.



INSTALLATION NOTES:

- INSTALL SILT SOCK ON A SURFACE CLEAR OF DEBRIS.
- OVERLAP ENDS BY A MINIMUM OF 18-INCHES.
- END OF SILT SOCK TO BE DIRECTED UP SLOPE.
- PLACE STAKES THROUGH SILT SOCK OR ON DOWNSTREAM SIDE.
- ON SLOPES GREATER THAN 2:1 (2:1) SEED COMPOST SOCK IS SLOPES.

SLOPE	SOCK DIAMETER (MIN)	STAKING	2" COMPOST BARRIER (WOOD CHIPS)
< 50:1	6"	6' O.C.	---
50:1 TO 10:1	8"	6' O.C.	RECOMMENDED
10:1 TO 5:1	12"	6' O.C.	---
5:1 TO 2:1	12"	4' O.C.	---
2:1	18"	4' O.C.	---

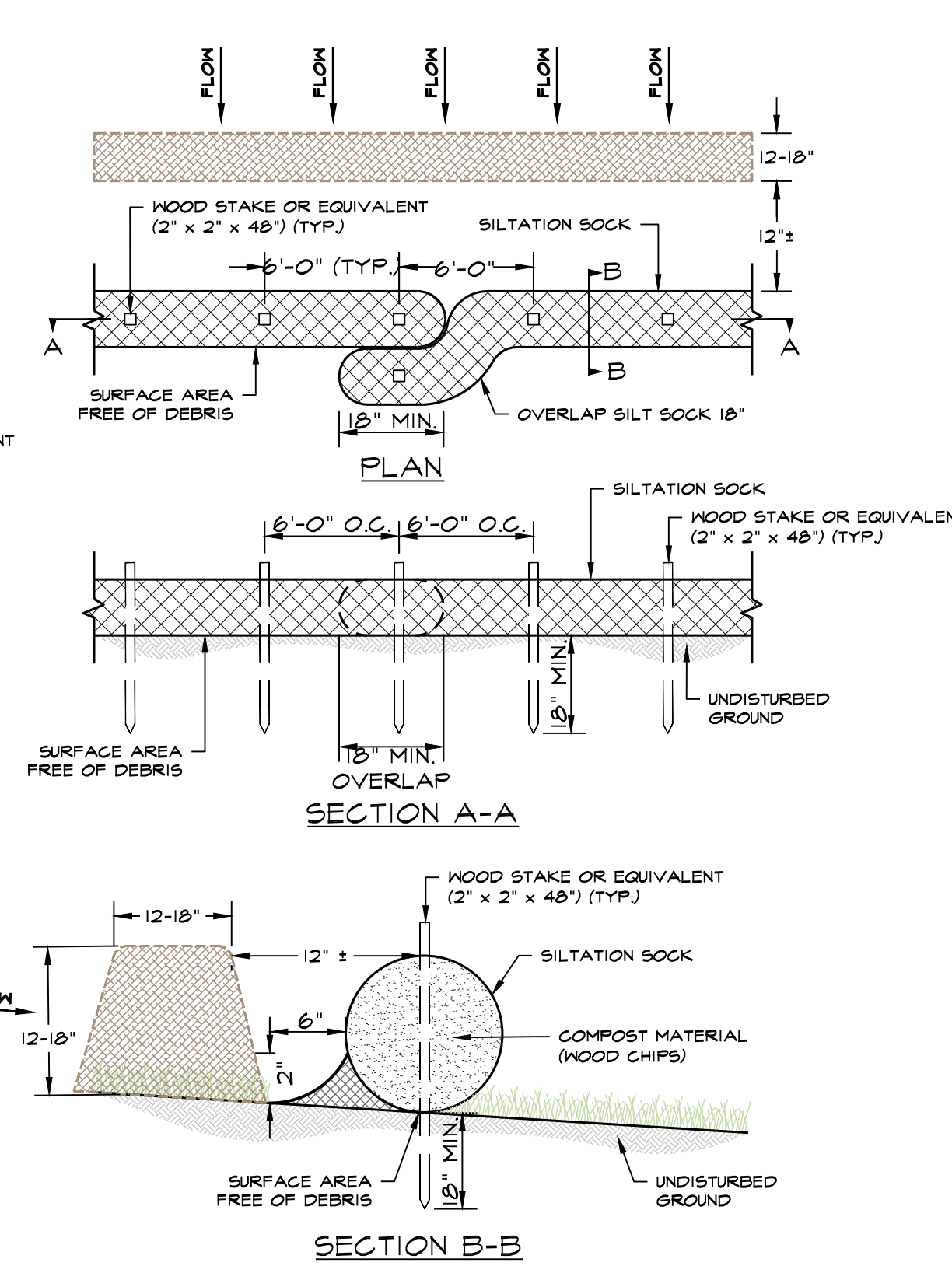


NOTES:

- PLACE BALES OR SOCK PERPENDICULAR TO FLOW.
- EMBED THE BALE 4" (100mm) INTO THE SOIL AND "KEY" THE END BALES INTO THE CHANNEL BANKS TO PREVENT FLOW AROUND THE BALES.
- BALES OR SOCK PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING.
- POINT 'A' SHALL BE HIGHER THAN POINT 'B'.
- SPILLWAY HEIGHT SHALL NOT EXCEED 24" (0.6m).

SEMI-PERMEABLE STRAW BALE/SOCK SEDIMENT BARRIER

NOT TO SCALE

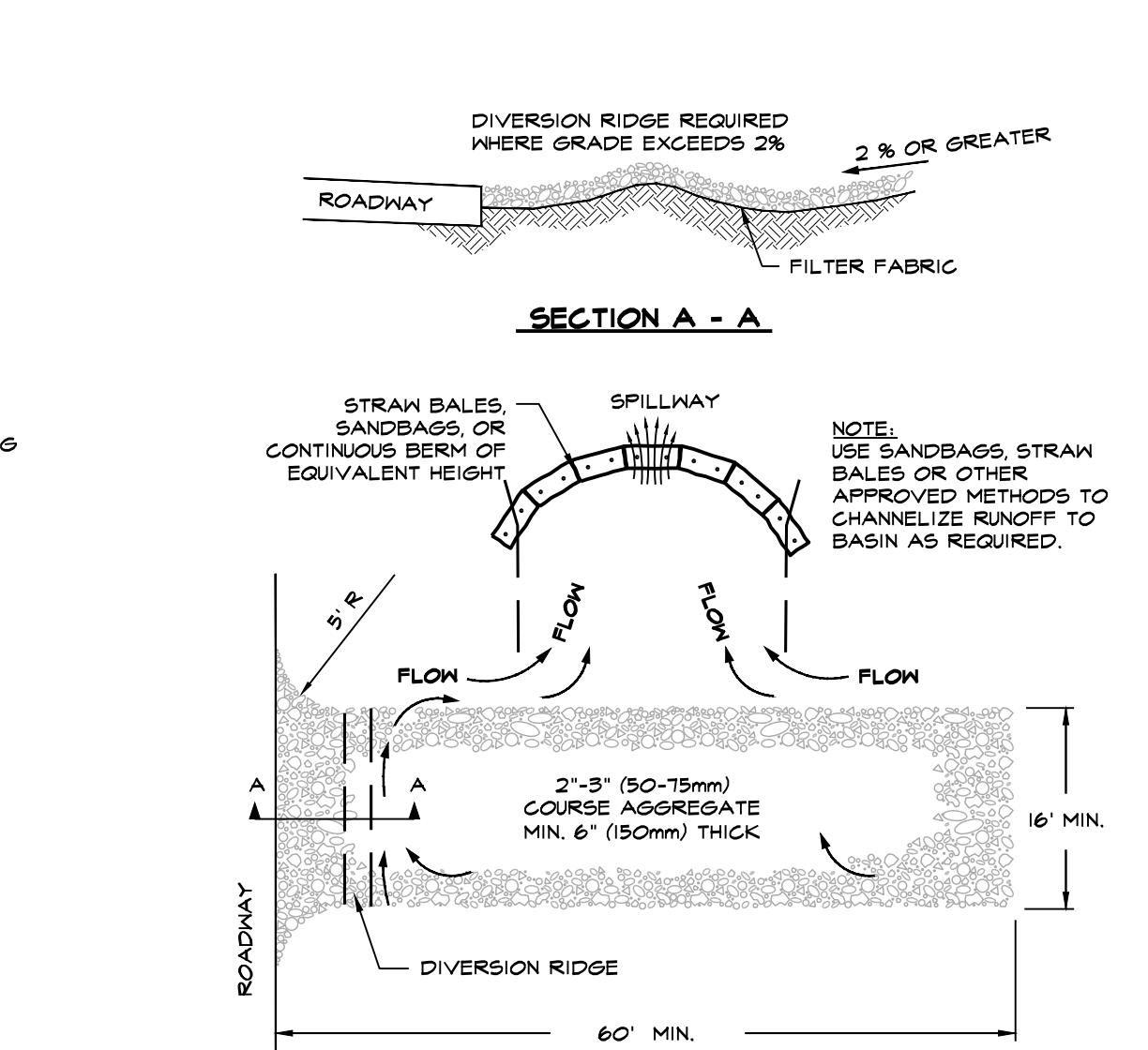


SILTATION SOCK WITH WOOD CHIP BARRIER DETAIL

NOT TO SCALE

INSTALLATION NOTES:

- SEE NPDES PLAN 1 FOR LOCATION OF WOOD CHIP BARRIER.
- REFER TO SILTATION SOCK DETAIL FOR SOCK INSTALLATION NOTES.

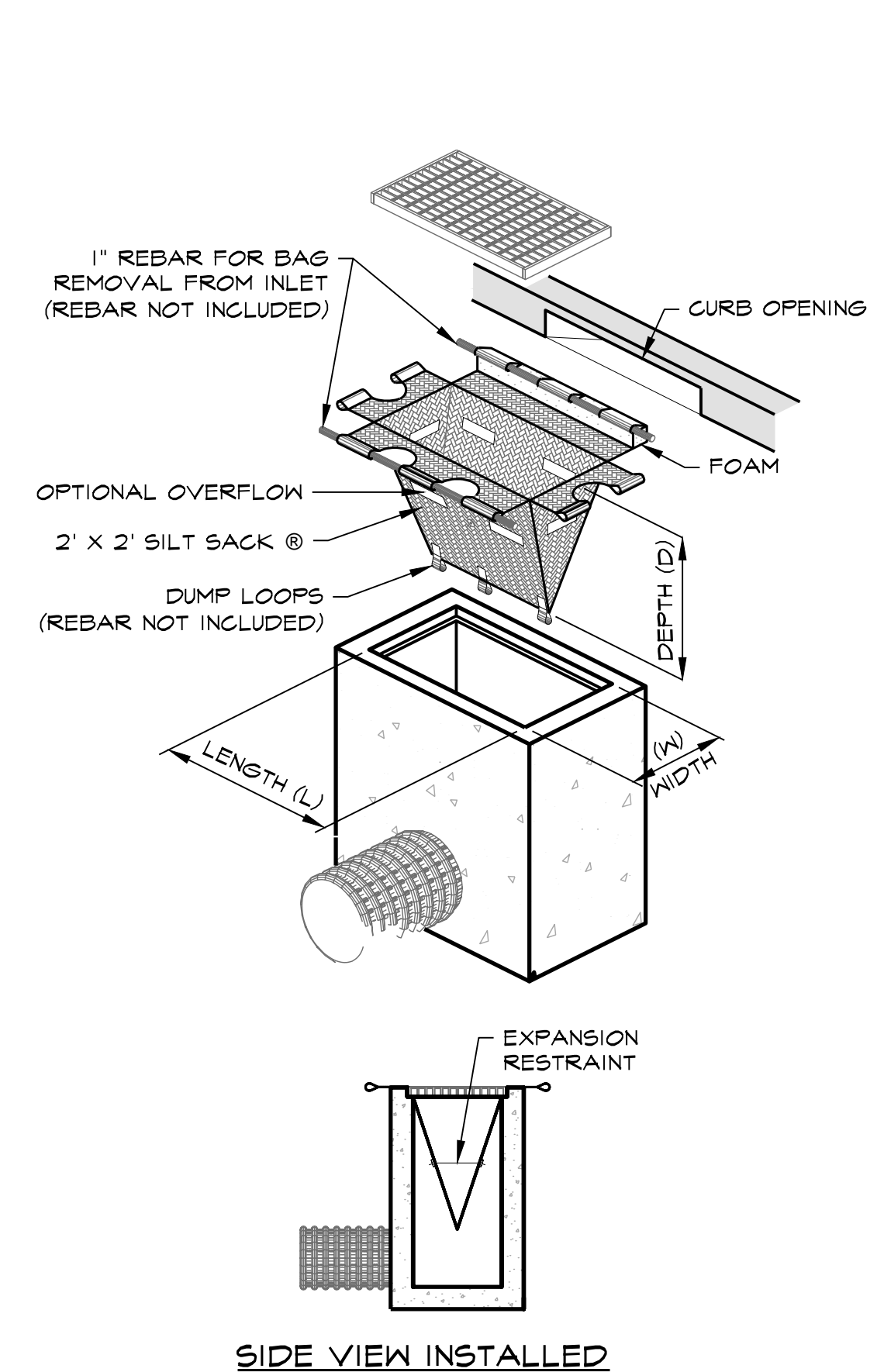


NOTES:

- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
- ADJACENT STREETS SHALL BE SWEEPED.

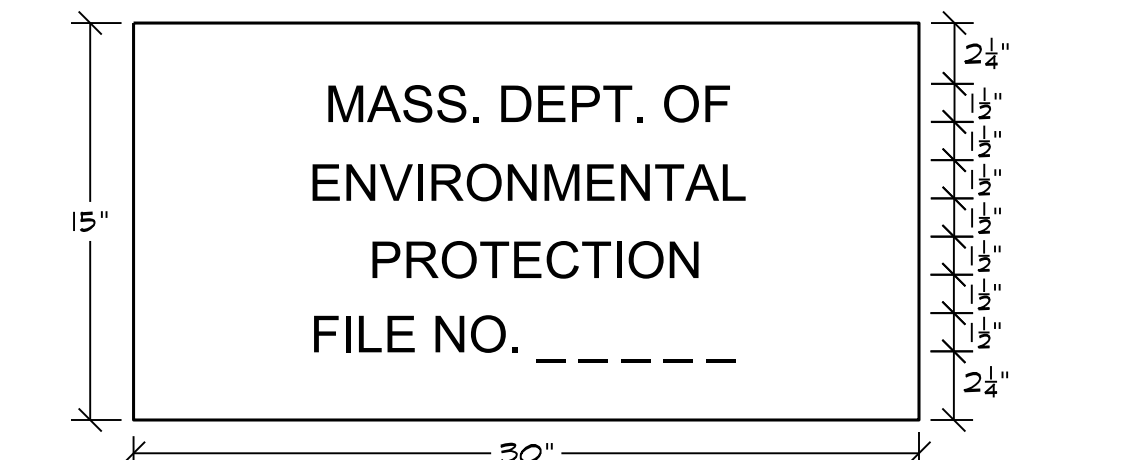
TEMPORARY CONSTRUCTION ENTRANCE

NOT TO SCALE



SILT BAG INLET PROTECTION

NOT TO SCALE



MASSDEP SIGN DETAIL

NOT TO SCALE

- NOTES:**
- COLOR: LETTERING = BLACK BACKGROUND = WHITE
 - THE SIGN IS TO BE PLACED ON ALL PROJECTS SUBJECT TO THE PROVISIONS OF THE MASSACHUSETTS WETLAND PROTECTION ACT.
 - THE LOCATION OF THE SIGN IS TO BE DETERMINED BY THE ENGINEER.

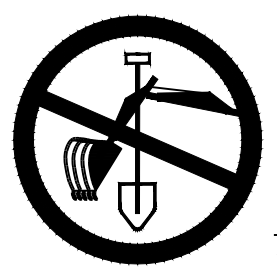
PRELIM. PLAN FILED: 03-18-2020

HEARING HELD: 03-04-2020, 08-25-2020
PRELIM. PLAN APPROVED 08-25-2020

DEFINITIVE PLAN FILED: 01-20-2021
HEARING HELD: 03-02-2021

DEFINITIVE PLAN APPROVED: T.B.D.

CALL TOLL FREE 1-888-DIG-SAFE (1-888-344-7233) 72 HOURS IN ADVANCE



APPROVAL UNDER THE SUBDIVISION CONTROL LAW IS REQUIRED:
TOWN OF GROVELAND PLANNING BOARD:

DATE: _____

DEFINITIVE SUBDIVISION KING MEADOW FARM
LOCATED IN GROVELAND MASSACHUSETTS AT 106 KING STREET MAP 26 PARCEL 13F
PREPARED FOR OWNER/APPLICANT: **KING MEADOW DEVELOPMENT, LLC** c/o KEVIN CUNIFF 211 SEVEN STAR ROAD GROVELAND, MA 01834
PREPARED BY **WGH LAND SURVEY & DESIGN** 83 WEST MAIN STREET MERRIMAC, MA 01860 TEL: (978)-257-4576 E-MAIL: bilgholt@aol.com

ASSESSOR DATA:
MAP: 26
PARCEL: 13F

I HEREBY CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTRY OF DEEDS.

WILLIAM G. HOLT
No. 39688
9/16/21
WILLIAM G. HOLT PLS #39688

GRAPHIC SCALE
1 inch = 40 ft. (IN FEET)
12 0 12 24 (IN METERS)

SHEET TITLE: NPDES PERMIT EROSION CONTROL DETAILS

DRAWN: T.BERRY
DESIGNED: W.HOLT
CHECKED: T.BERRY
DATE: 9-16-21
CAD FILE: 2021-03 - NPDES PERMIT
JOB No. #19-047 DEF

LOCUS DEED: BK 37,478 PG 210 PL BK 474 PL 24

REVISION: BY
#0. 9-16-21 ISSUED FOR REVIEW TOB

SHEET: NPDES 2

9/16/21