

**EROSION & SEDIMENTATION CONTROL NARRATIVE**

1. THE EROSION & SEDIMENTATION CONTROL PLAN AND DETAILS HAVE BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CONNECTICUT DEP.
2. THE PROPOSED LOCATIONS OF SILTATION AND EROSION CONTROL MEASURES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROVIDED SILT FENCE, STONE CHECK DAMS AND/OR OTHER EROSION CONTROL MEASURES AS NEEDED OR DIRECTED BY THE ENGINEER OR TOWN STAFF TO ADEQUATELY PREVENT SEDIMENT TRANSPORT.
3. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO SITE DISTURBANCE.
4. THE CONTRACTOR SHALL INSPECT, REPAIR AND/OR REPLACE EROSION CONTROL MEASURES EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT. SEDIMENT DEPOSITS MUST BE REMOVED WHEN WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE PERMANENTLY STABILIZED.
5. STAKED HAY BALE SILT BARRIERS OR SILT FENCE SHALL BE INSTALLED AROUND ANY TEMPORARY STOCKPILE AREAS. TEMPORARY VEGETATIVE COVER MAY BE REQUIRED (SEE NOTE).
6. INLET SEDIMENTATION CONTROL DEVICES SHALL BE INSTALLED UNDER THE GRATES OF ALL NEW CATCH BASINS AT THE TIME OF INSTALLATION, AND UNDER THE GRATES OF EXISTING CATCH BASINS IN THE CONSTRUCTION AREA.
7. CONTINUOUS DUST CONTROL USING WATER, CALCIUM CHLORIDE OR APPROVED EQUAL SHALL BE PROVIDED FOR ALL EARTH STOCKPILES, EARTH PILED ALONG EXCAVATIONS, SURFACES OF BACKFILLED TRENCHES AND GRAVELED ROADWAY SURFACES.
8. IF DEWATERING IS NECESSARY DURING ANY TIME OF CONSTRUCTION A CLEAR WATER DISCHARGE SHALL BE PROVIDED AS SHOWN IN THE HAY-BALE BARRIER DEWATERING DETAIL OR ALTERNATE METHOD PROPOSED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
9. ALL DISTURBED AREAS SHALL BE RESTORED PER THE SLOPE STABILIZATION AND PERMANENT VEGETATION DETAILS. ALL DISTURBED AREAS THAT ARE SLOPED LESS THAN THREE HORIZONTAL TO ONE VERTICAL (3:1) SLOPE SHALL BE LOAMED, SEEDED, FERTILIZED AND MULCHED PER THE PERMANENT VEGETATIVE COVER SPECIFICATIONS. EROSION CONTROL MATTING SHALL BE PROVIDED ON ALL DISTURBED AREAS THAT ARE SLOPED MORE THAN THREE HORIZONTAL TO ONE VERTICAL (3:1). IF FINAL SEEDING OF DISTURBED AREAS IS NOT TO BE COMPLETED BEFORE OCTOBER 15, THE CONTRACTOR SHALL PROVIDE TEMPORARY MULCHING (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY PERMANENT SEEDING.
11. WHEN FEASIBLE, TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINISHED GRADED SHALL BE COMPLETED PRIOR TO OCTOBER 15.
12. ANY EROSION WHICH OCCURS WITHIN THE DISTURBED AREAS SHALL BE IMMEDIATELY REPAIRED AND STABILIZED. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT SHALL BE RETURNED TO THE SITE. POST SEEDING, INTERCEPTED SEDIMENT, IF ANY, SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE TOWN AND ENGINEER.
13. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL VEGETATION IS RE-ESTABLISHED OR SLOPES ARE STABILIZED AND REMOVAL IS APPROVED BY THE TOWN.
14. UNFORESEEN PROBLEMS WHICH ARE ENCOUNTERED IN THE FIELD SHALL BE SOLVED ACCORDING TO THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION IN COOPERATION WITH THE CONNECTICUT DEP.
15. THE CONTRACTOR SHALL PROVIDE THE NAME AND EMERGENCY CONTACT INFORMATION FOR THE PROJECT PERSONNEL RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROLS PRIOR TO THE START OF CONSTRUCTION.
16. THE WETLANDS ENFORCEMENT OFFICER SHALL BE NOTIFIED AT LEAST 2 BUSINESS DAYS PRIOR TO CONSTRUCTION TO INSPECT EROSION CONTROL MEASURES.
17. THE WETLAND ENFORCEMENT OFFICER SHALL BE NOTIFIED AT THE COMPLETION OF WORK FOR FINAL INSPECTION AND SIGN OFF OF PERMIT COMPLIANCE.

NOTE: THE CONTRACTOR SHALL CONTINUALLY STORE THE FOLLOWING MATERIAL ONSITE DURING CONSTRUCTION TO MEET UNEXPECTED EROSION NEEDS

- 100 LF OF SILT FENCE
- 10 HAY BALES
- 10 CY OF WOOD CHIPS OR CRUSHED STONE

**TEMPORARY SEDIMENT TRAP TO WATER QUALITY BASIN CONVERSION**

THE WATER QUALITY BASINS ARE LOCATED AT A LOW POINTS IN THE DEVELOPED PORTION OF THE SITE TOPOGRAPHY AND WILL BE USED DURING CONSTRUCTION AS A TEMPORARY SEDIMENT TRAP. THE TRAP WILL BE EXCAVATED TO THE FULL DEPTH PRIOR TO THE COMMENCEMENT OF OTHER SITE GRADING. THE HIGH-LEVEL RIP RAP OUTLET WILL BE INSTALLED AND WILL ALLOW WATER OUTFLOW AS THE BASIN ACCUMULATES SEDIMENTS. THE TRAP WILL BE INSPECTED AT LEAST ONCE PER WEEK AND WITHIN 24 HOURS AFTER ANY RAINFALL OF 0.5 INCHES OR GREATER. THE SEDIMENT TRAP WILL BE CLEANED WHEN SEDIMENT ACCUMULATION EXCEEDS ONE HALF OF THE AVAILABLE WET STORAGE CAPACITY. SEDIMENTS REMOVED FROM THE SEDIMENT TRAP WILL BE PLACED OUTSIDE OF THE UPLAND REVIEW AREA IN THE DESIGNATED STOCKPILE AREAS. WHEN THE SURROUNDING AREAS ARE GRADED THE SEDIMENT TRAP SHALL BE EXCAVATED TO AN ELEVATION 6" BELOW THE FINISHED GRADE. 6" OF PERVIOUS TOPSOIL IS TO BE PROVIDED AND ALL AREAS PLANTED WITH SEED MIXES SPECIFIED HEREIN.

**PERVIOUS TOPSOIL MIX FOR WATER QUALITY BASINS**

THE FOLLOWING PERVIOUS TOPSOIL MIX SHALL BE USED IN THE STORMWATER TREATMENT BASINS. THE MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF ARTICLE M.13.01.1 OF DOT FORM 817 WITH THE FOLLOWING GRADATION:

SIEVE	% PASSING	DO NOT COMPACT MATERIAL DURING INSTALLATION
#10	100%	
#40	60-80%	
#80	5%	
#200	0%	

**STORMWATER MANAGEMENT & POLLUTION PREVENTION PLAN**

- DURING CONSTRUCTION**
1. **POLLUTION PREVENTION TEAM:** THE CONTRACTOR SHALL BE RESPONSIBLE FOR CARRYING OUT THE PROVISIONS OF THIS PLAN.
  2. **SWEEPING:** IMPERVIOUS SURFACES BEYOND THE WORK SITE SHALL BE SWEEPED CLEAN OF SAND, SILT AND LITTER DAILY AT THE END OF THE WORK DAY.
  3. **OUTSIDE STORAGE:** ACCESSORIES OR EQUIPMENT STORED OUTSIDE SHALL BE COVERED OR MAINTAINED TO MINIMIZE POSSIBILITY OF THESE MATERIALS OR THEIR RESIDUE PASSING TO STORM WATER.
  4. **WASHING:** NO WASHING OF VEHICLES, ACCESSORIES, EQUIPMENT, OR APPLIANCES AT THE WORK SITE.
  5. **MAINTENANCE AND INSPECTION:**
    - A. THE CONTRACTOR SHALL INSPECT, REPAIR AND/OR REPLACE EROSION CONTROL MEASURES EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT.
    - B. SEDIMENT DEPOSITS MUST BE REMOVED WHEN WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER.
    - C. REMOVE SEDIMENT DEPOSITS FROM TEMPORARY SEDIMENT TRAPS WHEN THE DEPOSITS REACH APPROXIMATELY ON HALF OF THE STORAGE VOLUME.
    - D. DAILY DUST CONTROL USING WATER, OR APPROVED EQUAL SHALL BE PROVIDED FOR ALL EARTH STOCKPILES, EARTH PILED ALONG EXCAVATIONS, SURFACES OF BACKFILLED TRENCHES AND GRAVELED SURFACES.
  6. **SPILLS OR ACCIDENTAL DISCHARGES:**
    - A. COMPLY WITH STATE AND FEDERAL REGULATIONS TO CONTAIN AND CLEAN UP ANY SPILL OR DISCHARGE AND DISPOSE OF MATERIALS AT AN APPROVED FACILITY.
    - B. CONTACT CONNECTICUT DEEP OIL AND CHEMICAL SPILL RESPONSE DIVISION (860) 424-3338
    - C. THE FOLLOWING STEPS SHOULD BE PERFORMED AS SOON AS POSSIBLE:
      - a. STOP THE SOURCE OF THE SPILL
      - b. CONTAIN THE SPILL
      - c. COVER SPILL WITH ABSORBENT MATERIAL SUCH AS KITTY LITER, SAWDUST OR OIL ABSORBENT PADS. DO NOT USE STRAW.
      - d. DISPOSE OF ABSORBER IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS.

- POST CONSTRUCTION**
1. **POLLUTION PREVENTION TEAM:** TOWN OF BROOKLYN
  2. THE PROPOSAL IS FOR THE TOWN OF BROOKLYN TO ACCEPT ALMADA DRIVE EXTENSION AS A TOWN ROAD THAT WILL BE INCORPORATED INTO THE TOWN MS4 OPERATIONS AND MAINTENANCE PROGRAM.

**TEMPORARY VEGETATIVE COVER**

A TEMPORARY SEEDING OF RYE GRASS WILL BE COMPLETED WITHIN 15 DAYS OF THE FORMATION OF STOCKPILES. IF THE SOIL IN THE STOCKPILES HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS IT SHALL BE LOOSENED TO A DEPTH OF 2 INCHES BEFORE THE FERTILIZER, LIME AND SEED IS APPLIED. 10-10-10 FERTILIZER AT A RATE OF 7.5 POUNDS PER 1000 S.F. LIMESTONE AT A RATE OF 90 LBS. PER 1000 S.F. SHALL BE USED. RYE GRASS APPLIED AT A RATE OF 1 LB. PER 1000 S.F. SHALL PROVIDE THE TEMPORARY VEGETATIVE COVER. STRAW FREE FROM WEEDS AND COARSE MATTER SHALL BE USED AT A RATE OF 70-90 LBS. PER 1000 S.F. AS A TEMPORARY MULCH. APPLY MULCH AND DRIVE TRACKED EQUIPMENT UP AND DOWN SLOPE OVER ENTIRE SURFACE SO CLEAR MARKS ARE PARALLEL TO THE CONTOURS.

**PERMANENT VEGETATIVE COVER**

TOPSOIL WILL BE REPLACED ONCE THE EXCAVATIONS HAVE BEEN COMPLETED AND THE SLOPES ARE GRADED AS SHOWN ON THE PLANS. PROVIDE SLOPE PROTECTION AS CALLED FOR ON THE PLANS AND DETAILS. TOPSOIL SHALL BE SPREAD AT A MINIMUM COMPACTED DEPTH OF 6 INCHES. ONCE THE TOPSOIL HAS BEEN SPREAD, ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION WILL BE REMOVED AS WELL AS DEBRIS.

- APPLY AGRICULTURAL GROUND LIMESTONE AT THE RATE OF TWO TONS PER ACRE OR 100 LBS. PER 1000 S.F.
- APPLY 10-10-10 FERTILIZER OR EQUIVALENT AT A RATE OF 300 LBS. PER ACRE OR 7.5 LBS. PER 1000 S.F.
- WORK LIMESTONE AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES.
- INSPECT SEEDBED BEFORE SEEDING.
- IF TRAFFIC HAS COMPACTED THE SOIL, RETILL COMPACTED AREAS.
- APPLY THE FOLLOWING GRASS SEED MIX:

**TYPICAL SEED MIXTURE**

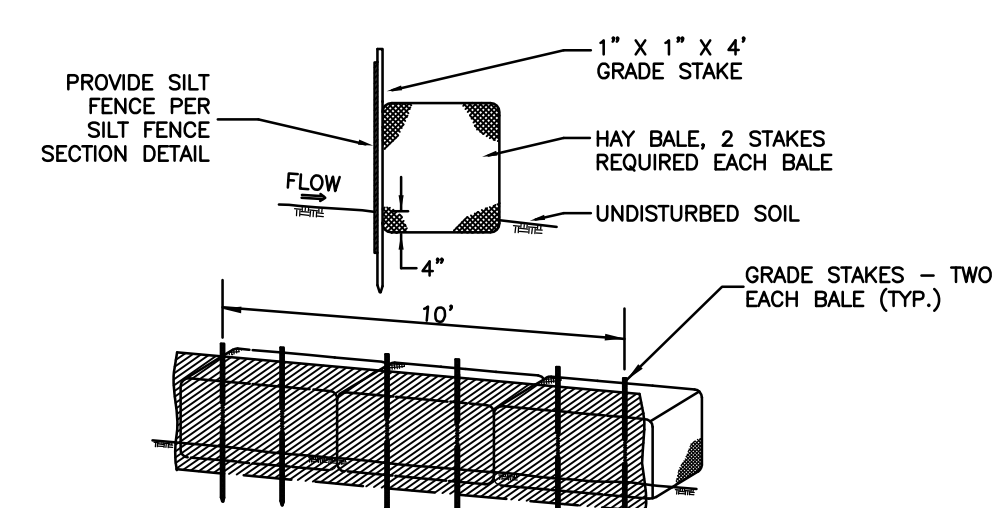
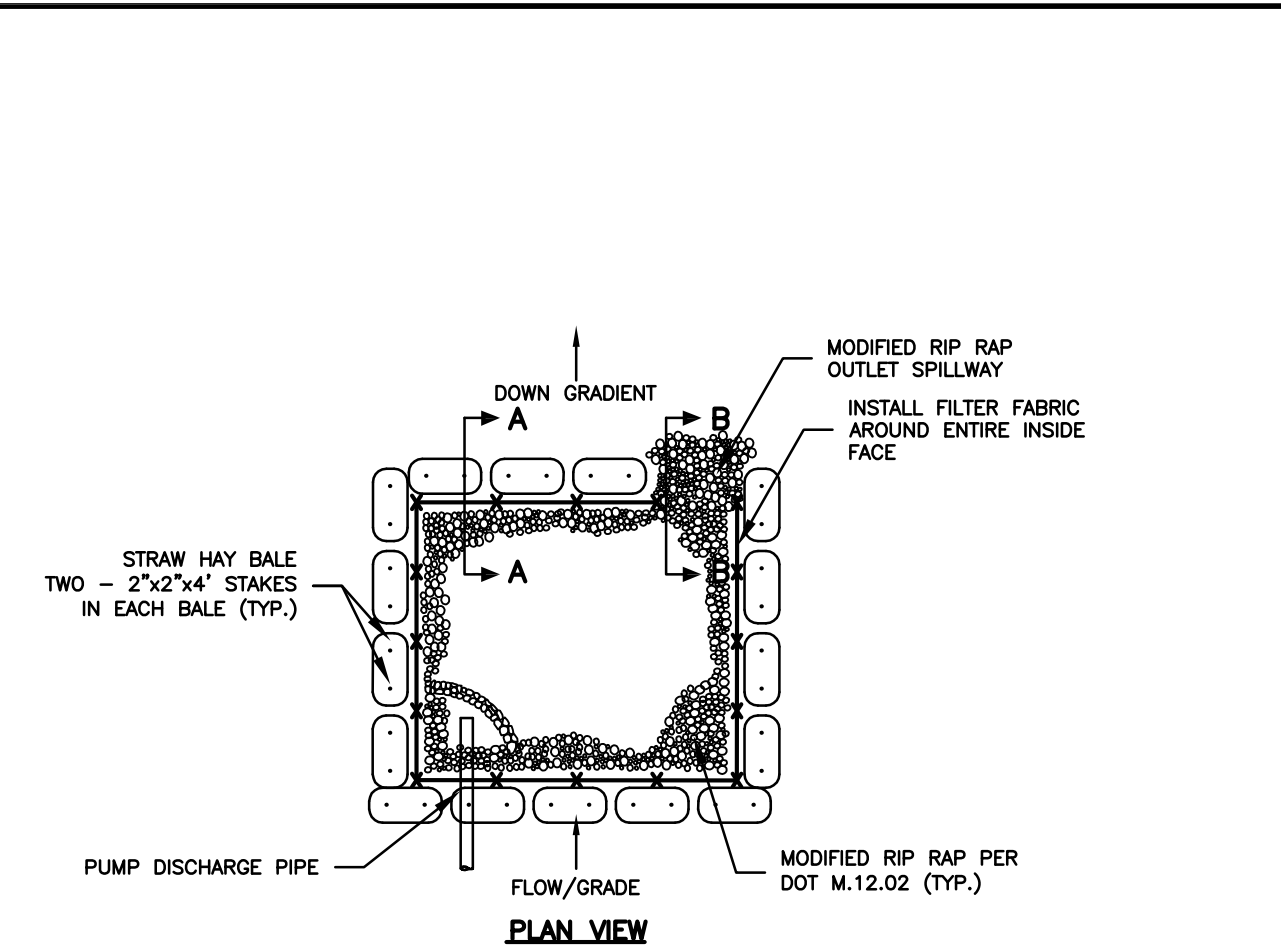
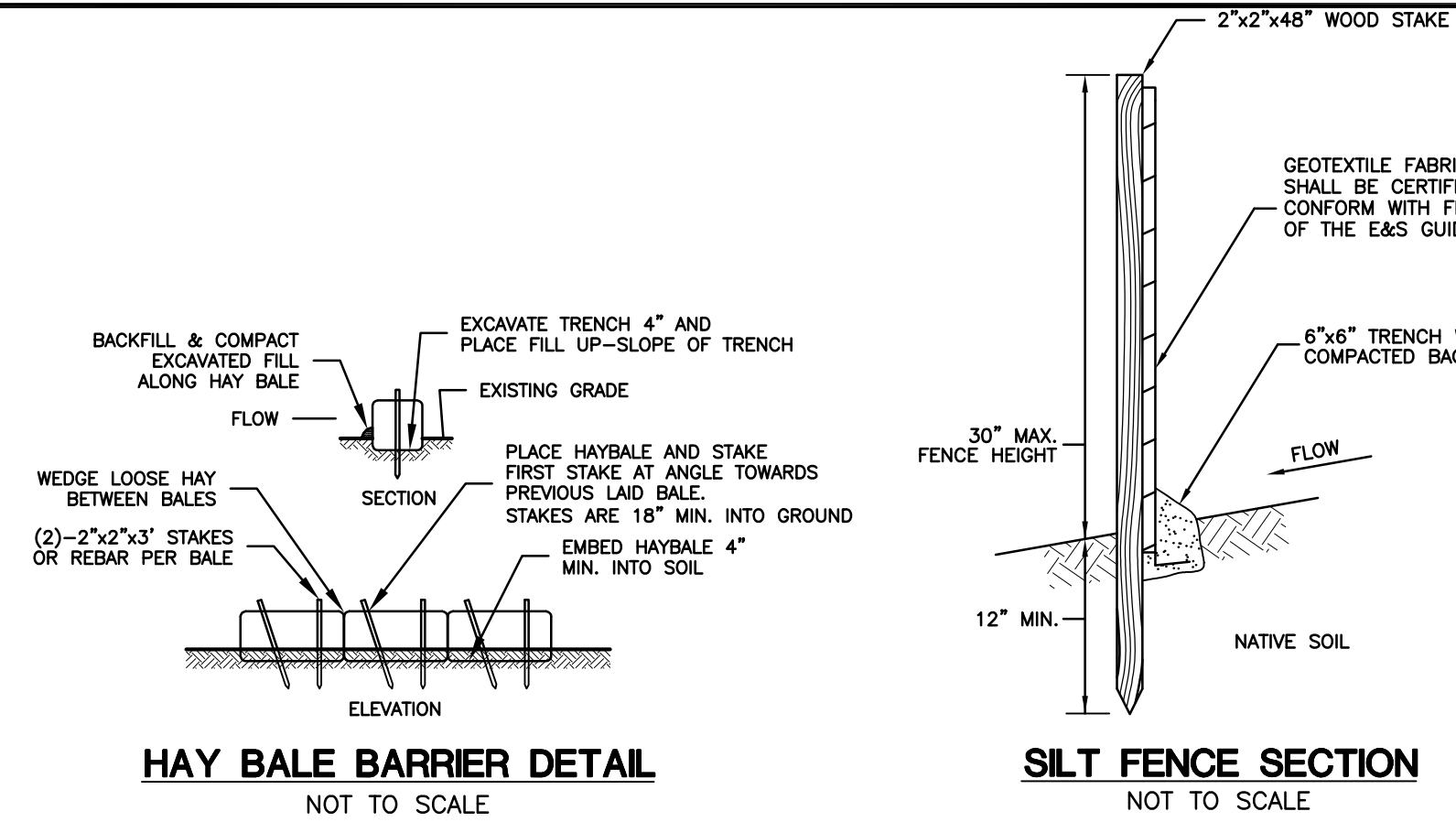
ALL DISTURBED AREAS	LBS./ACRE	LBS./1000 S.F.
KENTUCKY BLUEGRASS	20	0.45
CREeping RED FESCUE	20	0.45
PERENNIAL RYEGRASS	5	0.10
	45	1.00

**TYPICAL SEED MIXTURE FOR STEEP SLOPES (2:1 OR GREATER)**

CT DEP SEED MIX NO. 6	LBS./ACRE	LBS./1000 S.F.
CREeping RED FESCUE	20	0.50
REDTOP (STREEKER, COMMON)	2	0.05
PERENNIAL RYEGRASS	20	0.50
	42	1.05

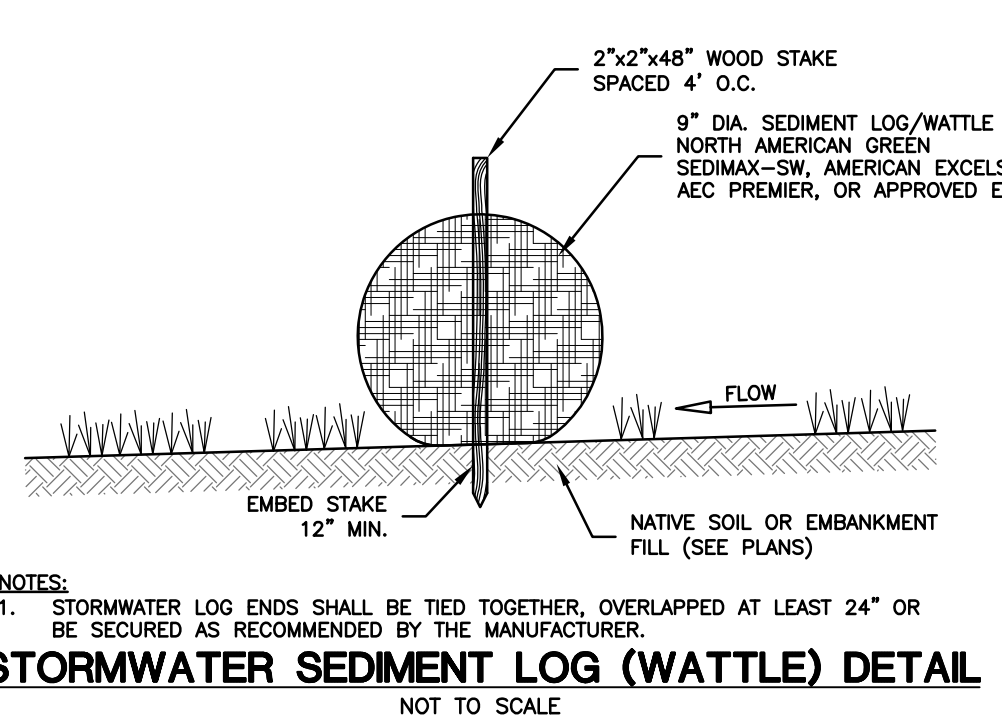
THE RECOMMENDED SEEDING DATES ARE:  
APRIL 1 - JUNE 15 AND AUGUST 15 - OCTOBER 15

IMMEDIATELY FOLLOWING SEEDING, FIRM SEED BED WITH A ROLLER AND MULCH WITH WEED FREE STRAW. IF PERMANENT VEGETATIVE COVER IS HAS NOT BEEN ESTABLISHED BY OCTOBER 15, APPLY A TEMPORARY VEGETATIVE COVER ON THE TOPSOIL.



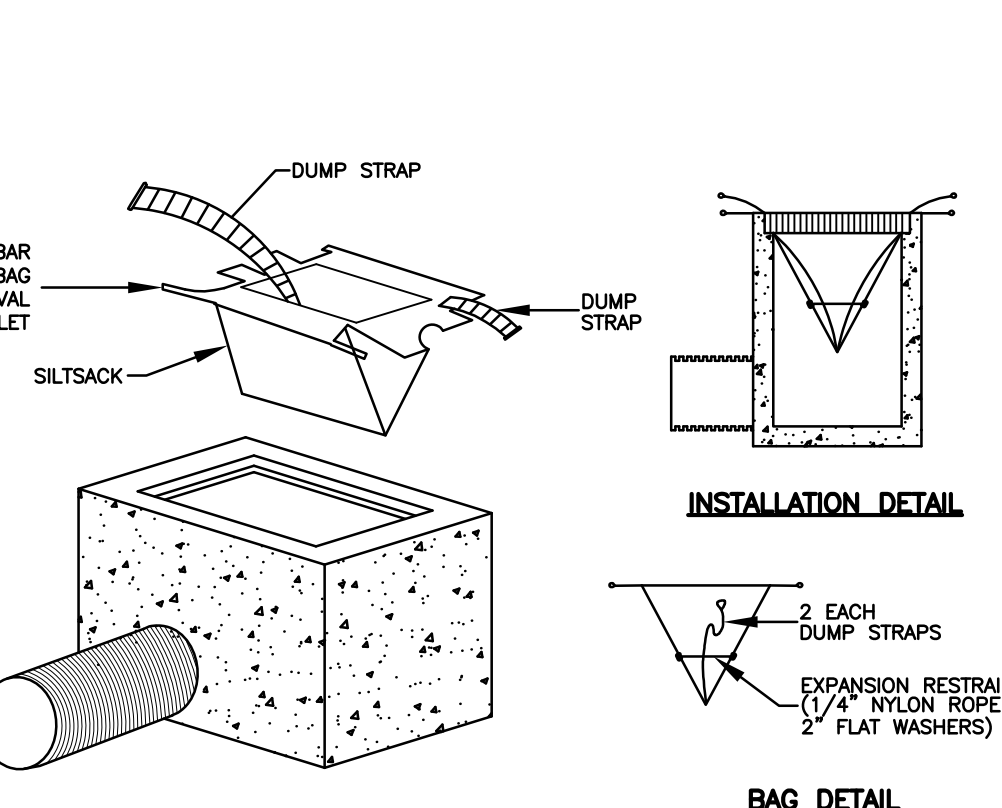
- CONSTRUCTION NOTES:**
1. SILT FENCE FILTER CLOTH TO BE SECURELY FASTENED TO GRADE STAKE WITH STAPLES, 6" ON CENTER.
  2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN ONE ANOTHER THEY SHALL OVERLAP BY 6" AND BE FOLDED.
  3. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.

**SILT FENCE BACKED BY HAY BALES DETAIL**



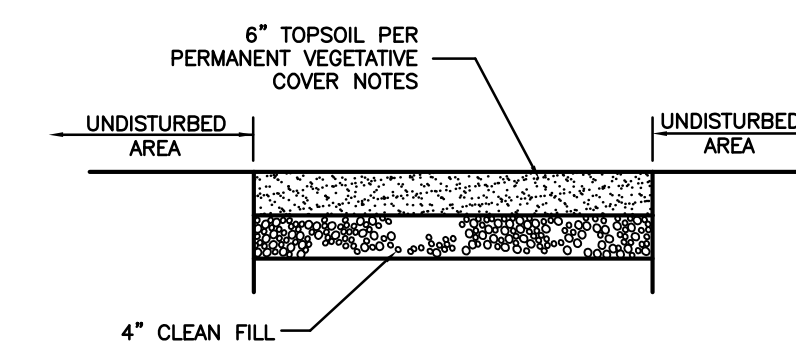
- NOTES:**
1. STORMWATER LOG ENDS SHALL BE TIED TOGETHER, OVERLAPPED AT LEAST 24" OR BE SECURED AS RECOMMENDED BY THE MANUFACTURER.

**STORMWATER SEDIMENT LOG (WATTLE) DETAIL**



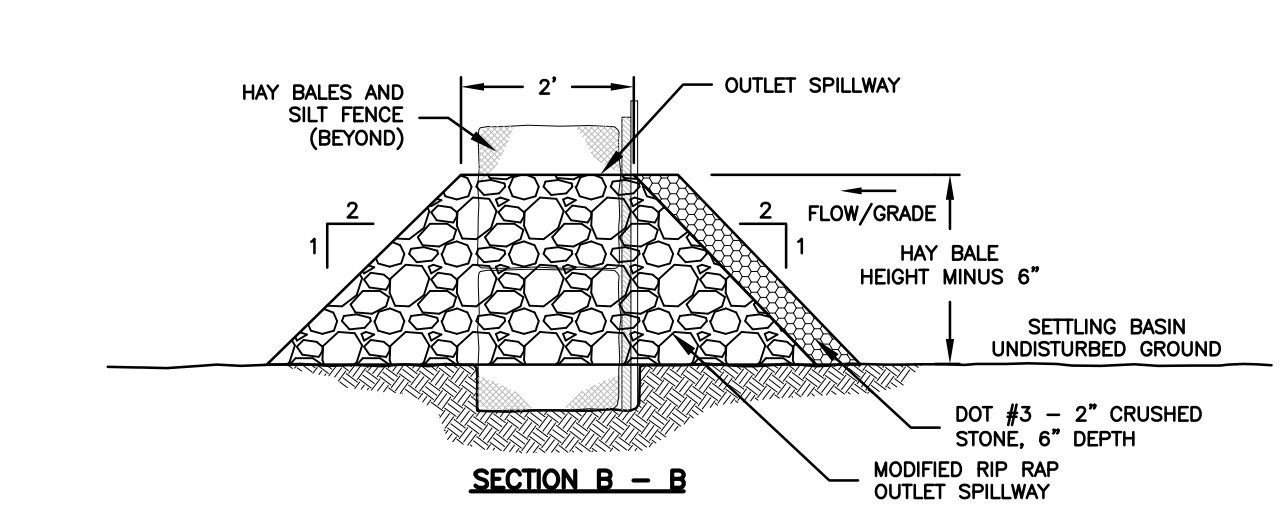
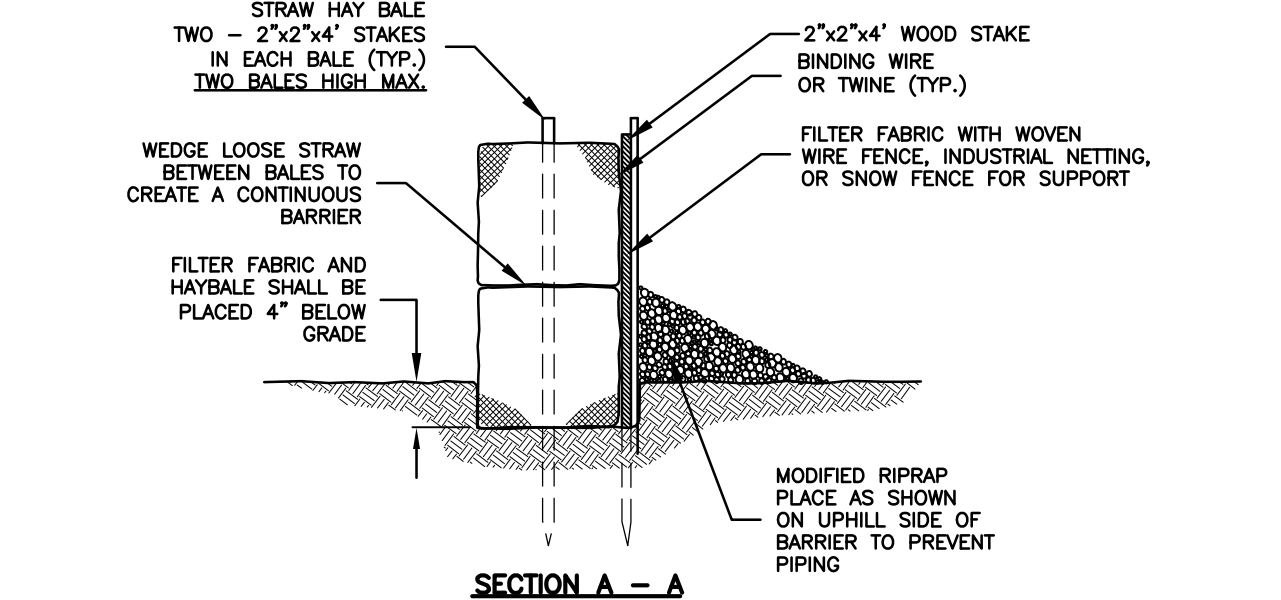
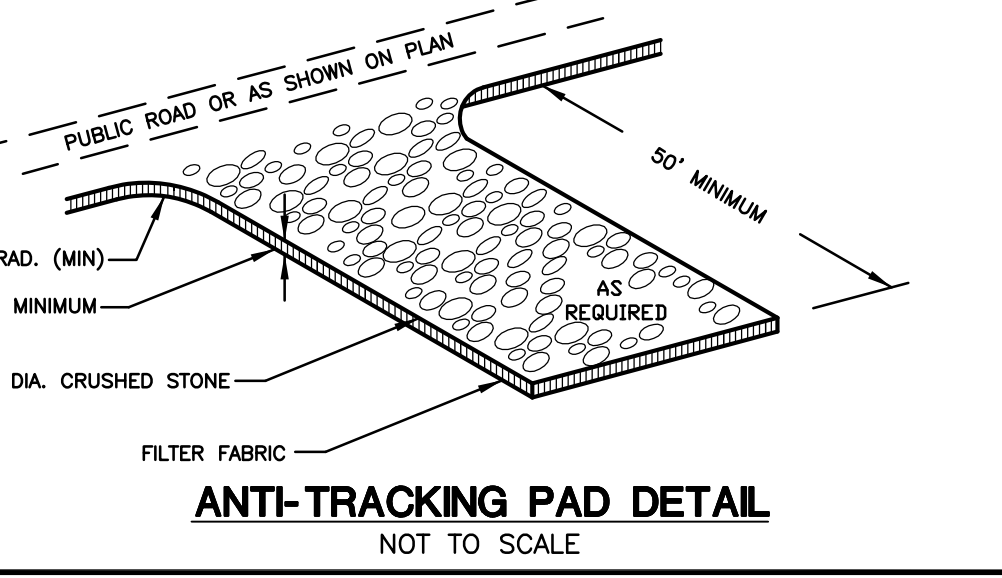
**INLET SEDIMENT CONTROL DEVICE DETAIL**

**EROSION CONTROL MATTING DETAIL (FOR 3:1 SLOPES OR GREATER)**



**TYPICAL LOAM & SEED SECTION DETAIL (FOR ALL DISTURBED AREAS)**

**SLOPE STABILIZATION DETAILS**



- CONSTRUCTION NOTES:**
1. SILT FENCE FILTER CLOTH TO BE SECURELY FASTENED TO GRADE STAKE WITH STAPLES, 6" ON CENTER.
  2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN ONE ANOTHER THEY SHALL OVERLAP BY 6" AND BE FOLDED.
  3. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.

- DEWATERING PLAN**
1. CLEAR WATER DISCHARGE SHALL BE PROVIDED AS FOLLOWS:
  1. PUMP INLET SHALL BE PROTECTED WITH FILTER FABRIC & CRUSHED STONE.
  2. PUMP SHALL BE STAGED OUTSIDE OF WETLANDS.
  3. THE WATER SHALL BE PUMPED TO A DEWATERING STRUCTURE WHICH SHALL BE LOCATED AT LEAST 50 FEET FROM ANY REGULATED WETLAND AREA OR AS SHOWN ON THE PLANS.
  4. THE DEWATERING STRUCTURE SHALL BE SIZED TO ACCOMMODATE PUMP DISCHARGE RATE. REQUIRED VOLUME (Q.F) = PUMP DISCHARGE (Q.P.M.) x 18
  5. THE DEWATERING STRUCTURE SHALL DISCHARGE TO A VEGETATED AREA.
  6. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN AND PROPERLY DISPOSED OF WHEN ACCUMULATION REACHES HALF OF THE REQUIRED STORAGE VOLUME.
  7. DEWATERING AREA SHALL BE RESTORED WITH NEW ENGLAND EROSION CONTROL SEED MIX.

**HAY BALE BARRIER DE-WATERING DETAIL**

NOT TO SCALE

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Subdivision Plan Prepared for Paul R. Lehto  
#40 Almada Drive, Brooklyn, Connecticut

**Two Lot Resubdivision**  
40 Almada Drive  
Brooklyn, Connecticut

Stormwater Management Plan and  
Erosion & Sedimentation Control Details

Project No. CLA-6383  
Proj. Engineer K.J.H.  
Date: 3/31/2021  
Sheet No. 8