

**179-B-50**

**#10-79900003**

**Brentwood Street**

**Community Garden (Evergreen Cemetery)**

**Deering Center Neighborhood Assoc.**

**EROSION CONTROL MEASURES**

**ESSECE**

THIS EROSION CONTROL PLAN HAS BEEN PREPARED TO PROVIDE DETAILED INFORMATION TO MINIMIZE AND PREVENT EROSION FROM THE BRENTWOOD FARMS COMMUNITY GARDEN SITE. SITE GRADING ACTIVITIES COMMENCED IN THE SUMMER OF 2009 WERE CEASED BY THE CITY OF PORTLAND, AND ARE NOT ALLOWED TO RESUME UNTIL A SITE PLAN APPROVAL HAS BEEN RECEIVED. THE MEASURES OUTLINED HEREIN ARE INTENDED TO BE UTILIZED TO STABILIZE ANY DENuded AREAS THAT REMAIN WITHIN THE SITE AND TO ADDRESS ANY ADDITIONAL GRADING OR LAND-DISTURBING ACTIVITIES THAT MAY NEED TO BE PERFORMED.

**PRE-CONSTRUCTION PHASE**

PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS (EROSION CONTROL MIX BERM) WILL BE STAKED/INSTALLED ACROSS THE SLOPES ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. THE PLACEMENT OF SEDIMENT BARRIERS SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED IN BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THIS EROSION CONTROL PLAN AND DETAILS IN THIS PLAN SET. THIS NETWORK IS TO BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SLOPES HAVE AT LEAST 85%-90% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED.

**CONSTRUCTION AND POST-CONSTRUCTION PHASE**

AREAS UNDERGOING ACTUAL CONSTRUCTION SHALL ONLY EXPOSE THAT AMOUNT OF MINERAL SOIL NECESSARY FOR PROGRESSIVE AND EFFICIENT CONSTRUCTION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASES ON A ROAD. OPEN AREAS SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL AS SHOWN ON THE DESIGN PLANS AND AS DESCRIBED WITHIN THIS EROSION CONTROL PLAN WITHIN 14-DAYS OF DISTURBANCE. AREAS LOCATED WITHIN 100' OF STREAMS SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL WITHIN SEVEN (7) DAYS REFER TO WINTER EROSION CONTROL NOTES FOR THE TREATMENT OF OPEN AREAS AFTER OCTOBER 1ST OF THE CONSTRUCTION YEAR.

THE CONTRACTOR MUST INSTALL ANY ADDITIONAL MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

**EROSION CONTROL APPLICATIONS & MEASURES**  
THE PLACEMENT OF EROSION CONTROL MEASURES SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED IN BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND DETAILS IN THE PLAN SET.

**1. TEMPORARY MULCHING:**

ALL DISTURBED AREAS SHALL BE MULCHED WITH MATERIALS SPECIFIED BELOW PRIOR TO ANY STORM EVENT. ALL DISTURBED AREAS NOT FINAL GRADED WITHIN 14 DAYS SHALL BE MULCHED. ALSO, AREAS WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED, SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING. EROSION CONTROL BLANKETS ARE RECOMMENDED TO BE USED ON SLOPES GREATER THAN 15%. MULCH ANCHORING SHOULD BE USED ON SLOPES GREATER THAN 8% AFTER SEPTEMBER 15TH OF THE CONSTRUCTION YEAR. (SEE WINTER EROSION CONTROL NOTES).

**TYPES OF MULCH:**

HAY OR STRAW SHALL BE APPLIED AT A RATE OF 15 LBS/1000 SF, (15 TONS PER ACRE).  
EROSION CONTROL MIX SHALL BE PLACED EVENLY AND MUST PROVIDE 100% SOIL COVERAGE. EROSION CONTROL MIX SHALL BE APPLIED SUCH THAT THE THICKNESS ON SLOPES 3% OR LESS IS 2 INCHES PLUS 1/2" INCH PER 10 FEET OF SLOPE UP TO 100 FEET. THIS SHALL NOT BE USED ON SLOPES GREATER THAN 2%.  
EROSION CONTROL BLANKETS SHALL BE INSTALLED SUCH THAT CONTINUOUS CONTACT BETWEEN THE MAT AND THE SOIL IS OBTAINED. INSTALL BLANKETS AND STAPLE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

**2. SOIL STOCKPILES:**

STOCKPILES OF SOIL, OR SUBSOIL RELATED TO EARTHWORK ACTIVITIES SHALL BE MULCHED WITH HAY OR STRAW AT A RATE OF 15 LBS/1000 SF, (15 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE. EROSION CONTROL MIX WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

TEMPORARY LOAM STOCKPILES ASSOCIATED WITH GARDENING ACTIVITIES SHALL BE EITHER PROTECTED AS DESCRIBED ABOVE OR COVERED TEMPORARILY WITH AN IMPERMEABLE MATERIAL (SUCH AS A TARP) OR PLACED WITHIN A SUITABLE ENCLOSURE TO PREVENT EROSION OF THE STOCKPILE.

**3. NATURAL RESOURCES PROTECTION:**

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 15% MATURE VEGETATION CATCH, SHALL BE MULCHED USING TEMPORARY MULCHING (AS DESCRIBED IN PART 1 OF THIS SECTION) WITHIN 7 DAYS OF EXPOSURE OR PRIOR TO ANY STORM EVENT. SEDIMENT BARRIERS (AS DESCRIBED IN PART 4, OF THIS SECTION) SHALL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA.  
PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE.

**4. SEDIMENT BARRIERS:**

PRIOR TO THE BEGINNING OF ANY CONSTRUCTION SEDIMENT BARRIERS SHALL BE STAKED ACROSS THE SLOPES/O, ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. SEDIMENT BARRIERS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SLOPES HAVE AT LEAST 85%-90% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION.

BATTERIES SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE EFFECTIVE HEIGHT OF THE FENCE SHALL NOT EXCEED 36 INCHES. IT IS RECOMMENDED THAT BATTERY BE REMOVED BY CUTTING THE FENCE MATERIALS AT GROUND LEVEL SO AS TO AVOID ADDITIONAL SOIL DISTURBANCE.

HAY BALES SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. BALES SHALL BE WIRE-BOUND OR STRAP-TIED AND THESE BINDINGS MUST REMAIN PARALLEL WITH THE GROUND SURFACE DURING INSTALLATION TO PREVENT DETRIORATION OF THE BALES. BALES SHALL BE INSTALLED WITHIN A MINIMUM 4 INCH DEEP TRENCH LINE WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.

**EROSION CONTROL MIX:** SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE MIX SHALL CONSIST PRIMARILY OF ORGANIC MATERIAL AND CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESSER THAN 4 INCHES IN DIAMETER. THE MIX COMPOSITION SHALL MEET THE STANDARDS DESCRIBED WITHIN THE MPEP BEST MANAGEMENT PRACTICES. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER.

**CONTINUOUS CONTAINED BERM:** SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THIS SEDIMENT BARRIER IS EROSION CONTROL MIX PLACED WITHIN A SYNTHETIC RIPRAP NETTING AND PERFORMS AS A STURDY SEDIMENT BARRIER THAT WORKS WELL ON HARD GROUND SUCH AS FROZEN CONDITIONS, TRAVELED AREAS OR PAVEMENT. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER.

**5. TEMPORARY CHECK DAMS:**

SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. CHECK DAMS ARE TO BE PLACED WITHIN DITCHES/ SWALES AS SPECIFIED ON THE DESIGN PLANS IMMEDIATELY AFTER FINAL GRADING. CHECK DAMS SHALL BE 2 FEET HIGH. TEMPORARY CHECK DAMS MAY BE REMOVED ONLY AFTER THE ROADWAYS ARE PAVED AND THE VEGETATED SWALE ARE ESTABLISHED WITH AT LEAST 85% VIGOROUS PERENNIAL GROWTH. THE AREA BENEATH THE CHECK DAM MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER REMOVAL OF THE CHECK DAM.

**STONE CHECK DAMS:** SHOULD BE CONSTRUCTED OF 2 TO 3 INCH STONE AND PLACED SUCH THAT COMPLETE COVERAGE OF THE SWALE IS OBTAINED AND THAT THE CENTER OF THE DAM IS 6 INCHES LOWER THAN THE OUTER EDGES.

**HAY BALE CHECK DAMS:** WE DO NOT RECOMMEND THE USE OF HAY BALES AS CHECK DAMS.

**MANUFACTURED CHECK DAMS:** MANUFACTURED CHECK DAMS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF AUTHORIZED BY THE PROPER LOCAL, STATE OR FEDERAL REGULATING AGENCIES. THESE UNITS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

**6. DUST CONTROL:**

DUST CONTROL DURING CONSTRUCTION SHALL BE ACHIEVED BY THE USE OF A WATERING TRUCK TO PERIODICALLY SPRINKLE THE EXPOSED ROADWAY AREAS AS NECESSARY TO REDUCE DUST DURING THE DRY MONTHS, APPLYING OTHER DUST CONTROL PRODUCTS SUCH AS CALCIUM CHLORIDE OR OTHER MANUFACTURED PRODUCTS ARE ALLOWED IF AUTHORIZED BY THE PROPER LOCAL, STATE AND/OR FEDERAL REGULATING AGENCIES. HOWEVER, IT IS THE CONTRACTOR'S ULTIMATE RESPONSIBILITY TO MITIGATE DUST AND SOIL LOSS FROM THE SITE.

**7. TEMPORARY VEGETATION:**

TEMPORARY VEGETATION SHALL BE APPLIED TO DISTURBED AREAS THAT WILL NOT RECEIVE FINAL GRADING FOR PERIODS UP TO 12 MONTHS. THIS PROCEDURE SHOULD BE USED EXTENSIVELY IN AREAS ADJACENT TO NATURAL RESOURCES. SEEDBED PREPARATION AND APPLICATION OF SEED SHALL BE CONDUCTED AS INDICATED IN THE PERMANENT VEGETATION SECTION OF THIS NARRATIVE. SPECIFIC SEEDS (BOTH GRASS AND SHORT LIVED) SHALL BE SELECTED FROM THE PERMANENT EROSION AND SEDIMENT CONTROL BMP MANUAL DATED 3/2003 OR LATER. ALTERNATIVE EROSION CONTROL MEASURES SHOULD BE USED IF SEEDINGS CAN NOT BE DONE BEFORE SEPTEMBER 15TH OF THE CONSTRUCTION YEAR.

**B. PERMANENT VEGETATION:**

REVEGETATION MEASURES SHALL COMMENCE IMMEDIATELY UPON COMPLETION OF FINAL GRADING OF AREAS TO BE LOANED AND SEEDED. THE APPLICATION OF SEED SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR. PLEASE REFER TO THE WINTER EROSION CONTROL NOTES FOR MORE DETAIL. REVEGETATION MEASURES SHALL CONSIST OF THE FOLLOWING:

**SEEDBED PREPARATION:**

A FOUR (4) INCHES OF LOAM SHALL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE. LOAM SHALL BE FREE OF SUBSOIL, CLAY LUMPES, STONES AND OTHER OBJECTS OVER 7 INCHES OR LARGER IN ANY DIMENSION, AND WITHOUT WEEDS, ROOTS OR OTHER OBJECTIONABLE MATERIAL.

B. SOIL TESTS SHALL BE TAKEN AT THE TIME OF SOIL STRIPPING TO DETERMINE FERTILIZATION REQUIREMENTS. SOIL TESTS SHALL BE TAKEN PROPERLY AS TO NOT INTERFERE WITH THE 14-DAY LIMIT ON SOIL EXPOSURE. BASED UPON TEST RESULTS, SOIL AMENDMENTS SHALL BE INCORPORATED INTO THE SOIL PRIOR TO FINAL SEEDINGS, IN LIEU OF SOIL TESTS, SOIL AMENDMENTS MAY BE APPLIED AS FOLLOWS:

ITEM	APPLICATION RATE
10-20-20 FERTILIZER (N-P2O5-K2O OR EQUAL)	18.4 LBS/1,000 SF.
GROUND LIMESTONE (80% CALCIUM & MAGNESIUM OXIDE)	138 LBS/1,000 SF.

C. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH PROPER EQUIPMENT. ROLL THE AREA TO FIRM THE SEEDBED EXCEPT ON CLAY OR SILTY SOILS OR COARSE SAND.

**APPLICATION OF SEED:**

A. SEEDINGS SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR. GENERALLY A SEED MIXTURE MAY BE APPLIED AS FOLLOWS (MPEP SEED MIX 2 IS DISPLAYED):

SEED TYPE	APPLICATION RATE
CRACKED RED FESCUE	0.48 LBS/1,000 SF. (2.0 LBS/ACRE)
REDTOP	0.09 LBS/1,000 SF. (2 LBS/ACRE)
TALL FESCUE	0.36 LBS/1,000 SF. (1.0 LBS/ACRE)
TOTAL:	0.93 LBS/1,000 SF. (4.0 LBS/ACRE)

NOTE: A SPECIFIC SEED MIXTURE SHOULD BE CHOSEN TO MATCH THE SOILS CONDITION OF THE SITE. VARIOUS AGENCIES CAN RECOMMEND SEED MIXTURES. MPEP RECOMMENDED SEED MIXTURES ARE IN THE EROSION AND SEDIMENT CONTROL BMP MANUAL, DATED 3/2003 OR LATER.

B. HYDROSEEDING SHALL BE CONDUCTED ON PREPARED AREAS WITH SLOPES LESSER THAN 2%. LIME AND FERTILIZER MAY BE APPLIED SEPARATELY WITH THE SEED. RECOMMENDED SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.

C. MULCHING SHALL COMMENCE IMMEDIATELY AFTER SEED IS APPLIED. REFER TO THE TEMPORARY MULCHING SECTION OF THIS NARRATIVE FOR DETAILS.

**STANDARDS FOR TIMELY STABILIZATION:**

**STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES --** THE CONTRACTOR WILL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 15. THE CONTRACTOR WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 15. THE MPEP WILL CONSIDER AN AREA HAVING A GRADE GREATER THAN 15% (FORMA) TO BE A SLOPE. IF THE CONTRACTOR FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 15, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER:

A. STABILIZE THE SLOPE WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS -- BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 10% OF THE DISTURBED SLOPE BY NOVEMBER 1, THEN THE APPLICANT WILL COVER THE SLOPE WITH A LAYER OF WOOD WASTE COMPOST AS DESCRIBED IN ITEM 2(C) OF THIS STANDARD OR WITH STONE RIPRAP AS DESCRIBED IN ITEM 2(C) OF THIS STANDARD.

B. STABILIZE THE SLOPE WITH SOIL -- THE CONTRACTOR WILL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOIL BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOIL ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOIL TO GUARANTEE CONTACT BETWEEN THE SOIL AND UNDERLYING SOIL, AND WATERING THE SOIL TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE APPLICANT WILL NOT USE LATE-SEASON SOIL INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (FORM).

C. STABILIZE THE SLOPE WITH WOOD WASTE COMPOST -- THE CONTRACTOR WILL PLACE A SIX-INCH LAYER OF WOOD WASTE COMPOST ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE WOOD WASTE COMPOST, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION FROM THE DISTURBED SLOPE. THE APPLICANT WILL NOT USE WOOD WASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (HAY) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

D. STABILIZE THE SLOPE WITH STONE RIPRAP -- THE CONTRACTOR WILL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE APPLICANT WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

**STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS --** BY SEPTEMBER 15 THE CONTRACTOR WILL SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A GRADE LESSER THAN 8%. IF THE CONTRACTOR FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER:

A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION -- BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 15 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE APPLICANT WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 10% OF THE DISTURBED SOIL, BEFORE NOVEMBER 15, THEN THE APPLICANT WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM 2(C) OF THIS STANDARD.

B. STABILIZE THE SOIL WITH SOIL -- THE APPLICANT WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOIL BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOIL ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOIL TO GUARANTEE CONTACT BETWEEN THE SOIL AND UNDERLYING SOIL, AND WATERING THE SOIL TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.

C. STABILIZE THE SOIL WITH MULCH -- BY NOVEMBER 15 THE APPLICANT WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 80 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE APPLICANT WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

**CONSTRUCTION SCHEDULE**

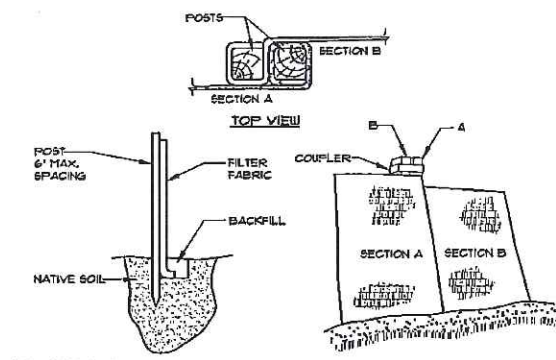
SITE IMPROVEMENTS WILL MOST LIKELY BEGIN IN SPRING 2010 DEPENDING UPON FINAL PROJECT APPROVAL. THE FOLLOWING SCHEDULE IS ANTICIPATED FOR THE CONSTRUCTION OF THE SITE IMPROVEMENTS.

SCHEDULE		
1. ESTIMATED CONSTRUCTION TIME:	2	MONTHS
2. EROSION CONTROL MEASURES PLACED:	WEEK 1	
3. SITE CLEARING AND GRUBBING:	WEEK 1	
4. SITE GRADING OF GRASSSED SWALE	WEEK 2 - WEEK 4	
5. MULCH SPREAD FOR WINTER EROSION CONTROL:	SEPT. 15 OF CONSTRUCTION YEAR	
6. START FINAL SEEDING ON PREPARED AREAS (DURING GROWING SEASON)	WEEK 4	
*1. BISEPLY MONITORING OF VEGETATIVE GROWTH:	WEEK 6	
*2. RE-SEEDING OF AREAS, IF NEEDED:	WEEK 8	
*3. REMOVAL OF EROSION CONTROL DEVICES:	UPON FINAL PROJECT COMPLETION	
** DATES ARE SUBJECT TO CHANGE AT THE DISCRETION OF THE ENGINEER DEPENDING ON CONSTRUCTION PROGRESS.		

**MAINTENANCE/MONITORING:**

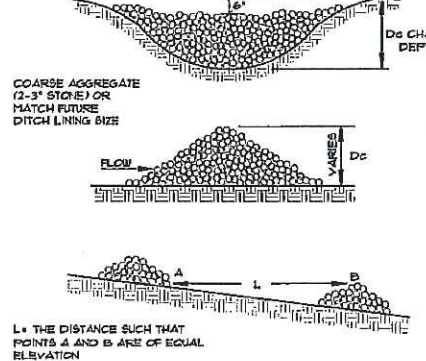
1. MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, OR AT LEAST EVERY SEVEN (7) DAYS, THE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES. THE CONTRACTOR SHALL PERFORM REPAIRS AS NEEDED TO ALLOW CONTINUED PROPER FUNCTIONING OF THE EROSION CONTROL MEASURE. THE CONTRACTOR SHALL PROVIDE THE NECESSARY REGULATING AGENCIES WITH WRITTEN DOCUMENTATION DESCRIBING DATES OF INSPECTIONS AND NECESSARY FOLLOW-UP WORK TO MAINTAIN EROSION CONTROL MEASURES MEETING THE REQUIREMENTS OF THIS PLAN.

2. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDINGS, THE CONTRACTOR SHALL INSPECT THE WORK AREA MONTHLY UNTIL THE SEEDINGS HAVE BEEN ESTABLISHED. ESTABLISHED MEANS A MINIMUM OF 85%-90% OF AREAS VEGETATED WITH VIGOROUS GROWTH. RESEEDING SHALL BE CARRIED OUT BY THE CONTRACTOR WITH FOLLOW-UP INSPECTIONS IN THE EVENT OF ANY FAILURES UNTIL VEGETATION IS ADEQUATELY ESTABLISHED.



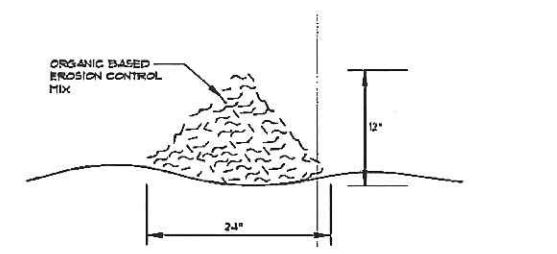
- INSTALLATION:**
1. EXCAVATE A 6" x 6" TRENCH ALONG THE LINE OF PLACEMENT FOR THE FILTER BARRIER.
  2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH.
  3. DRIVE POSTS INTO THE GROUND UNTIL APPROXIMATELY 2" OF FABRIC IS LYING ON THE TRENCH BOTTOM.
  4. LAY THE TOTE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. TOTE-IN CAN ALSO BE ACCOMPLISHED BY LAYING THE FABRIC FLAP ON UNDISTURBED GROUND AND PILING AND TAMING HILL AT THE BASE, BUT MUST BE ACCOMPANIED BY AN INTERCEPTION DITCH.
  5. JOIN SECTION AS SHOWN ABOVE.
  6. BARRIER SHALL BE MIRAP SALT FENCE OR EQUAL.

**FILTER BARRIER**  
NOT TO SCALE



**STONE CHECK DAM**  
NOT TO SCALE

**RIPRAP SWALE**  
NOT TO SCALE



**COMPOSITION**  
EROSION CONTROL MIX SHALL BE MANUFACTURED ON OR OFF THE PROJECT SITE SUCH THAT ITS COMPOSITION IS IN ACCORDANCE WITH THE MPEP MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL, LAST REVISED 3/2003 OR LATER. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF GENERATION AND MAY INCLUDE: SHREDED BARK, SHIP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.

- INSTALLATION:**
1. THE BARRIER MUST BE PLACED ACROSS THE SLOPE, ALONG THE CONTOUR.
  2. EXISTING GROUND SHALL BE PREPARED SUCH THAT THE BARRIER MAY LIE NEARLY FLAT ALONG THE GROUND TO AVOID THE CREATION OF VOIDS AND BRIDGES IN ORDER TO MINIMIZE THE POTENTIAL OF WASH CUTS UNDER THE BARRIER.
  3. THE BARRIER SHALL BE A MINIMUM OF 1 FOOT HIGH AS MEASURED ON THE UPHILL SIDE AND 2 FEET WIDE FOR SLOPES LESS THAN 8% IN GRADE AND SHALL BE WIDER TO ACCOMMODATE THE ADDITIONAL RUNOFF.
  4. EROSION CONTROL MIX CAN BE INSTALLED WHERE SALT FENCE IS ILLUSTRATED ON THE DESIGN PLANS IN AREAS EXCEPT IN, BUT NOT LIMITED TO, THE FOLLOWING AREAS: WETLAND AREAS, AT POINTS OF CONCENTRATED FLOW, BELOW OULVERT OUTLET AFFRONS, AROUND CATCH BASINS AND CLOSED STORM SYSTEMS AND AT THE BOTTOM OF STEEP SLOPES THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM.

**EROSION CONTROL MIX BERM**  
NOT TO SCALE

**GRASSSED SWALE**  
NOT TO SCALE

NO.	DATE	BY	STATUS
1	03-25-10	A	ISSUED TO CLIENT

**Sebago Technics**  
Engineering - Examinee - You Can Build On!  
One Cheson Street  
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PROJECT NO.: FIELD BOOK DESIGN CHNO  
10021 JEL NJS BRF

**DETAILS**  
OF:  
**BRENTWOOD FARMS COMMUNITY GARDEN**  
AT EVERGREEN GEMETERY, BRENTWOOD STREET  
PORTLAND, MAINE

FOR:  
**DEERING CENTER NEIGHBORHOOD ASSOC.**  
14 HILLUS STREET  
PORTLAND, ME 04103

DATE SCALE  
03-15-10 AS SHOWN

SHEET 1 OF 1

Typicals Needed (City Work)  
1) Lip @ Driveway  
2) Granite Curbing  
3) Sidewalk(?)



Brentwood Farms Community Garden looking west from Brentwood St.



Brentwood Farms Community Garden looking southwest from middle of garden site.



View of the Brentwood Street gate to Evergreen Cemetery.



View looking east from middle of garden site.



View of Brentwood St. and Evergreen Cemetery from middle of garden site.



View of the Libby field portion of Evergreen Cemetery from the garden site.



View from Libby field portion of Evergreen Cemetery looking southeast toward existing Norway Spruce border.



Portland Trails trailhead.



View Brentwood St gate into Evergreen Cemetery from Portland Trails trailhead.

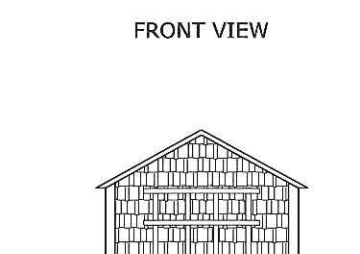
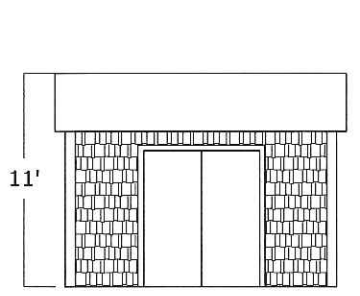
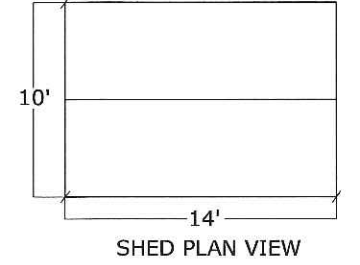
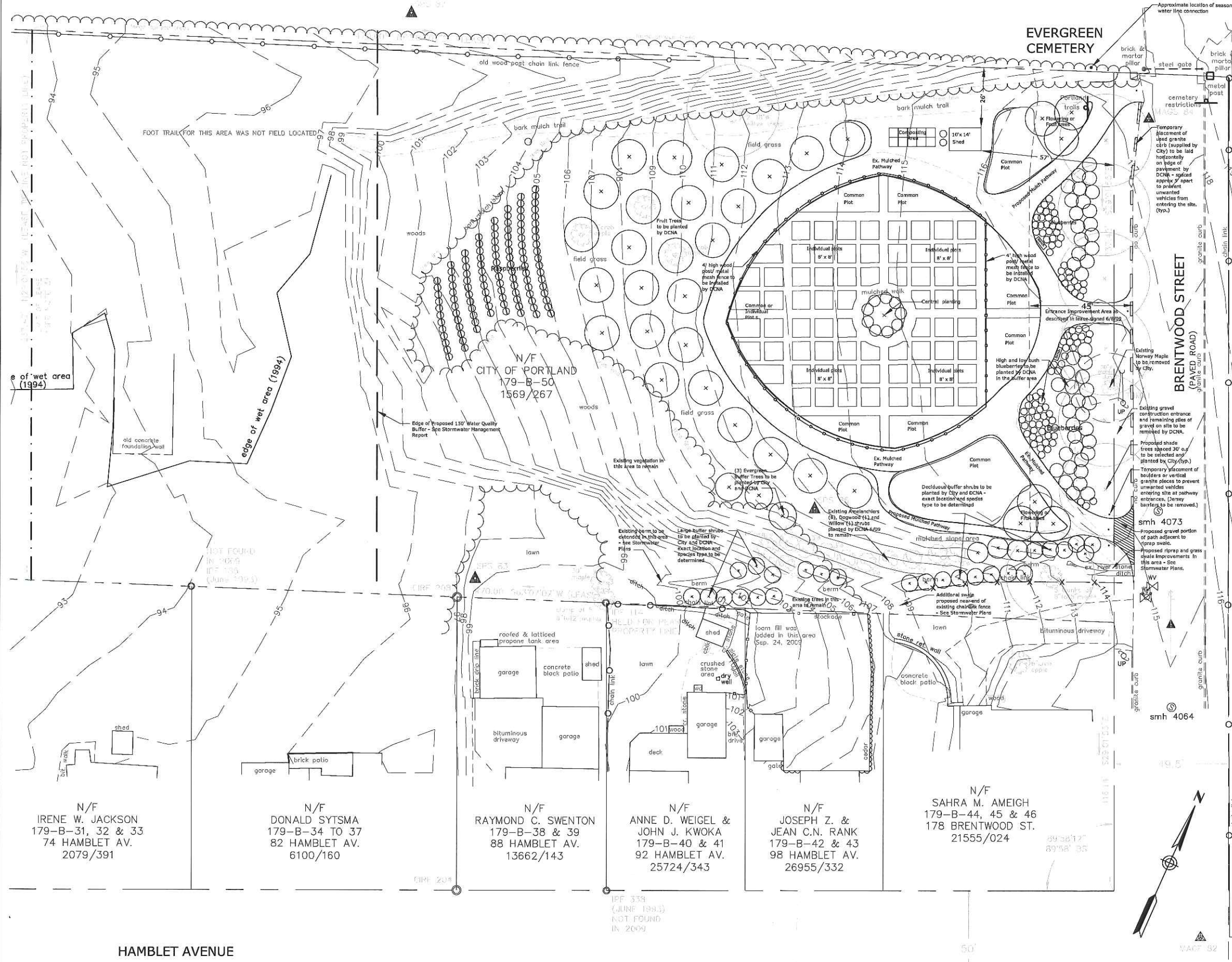


View from Libby field portion of Evergreen Cemetery looking south toward existing Norway Spruce border.

**Brentwood Farms  
Community Garden**  
Brentwood Street  
Portland, ME

Deering Center  
Neighborhood  
Association

Site photos: 2009



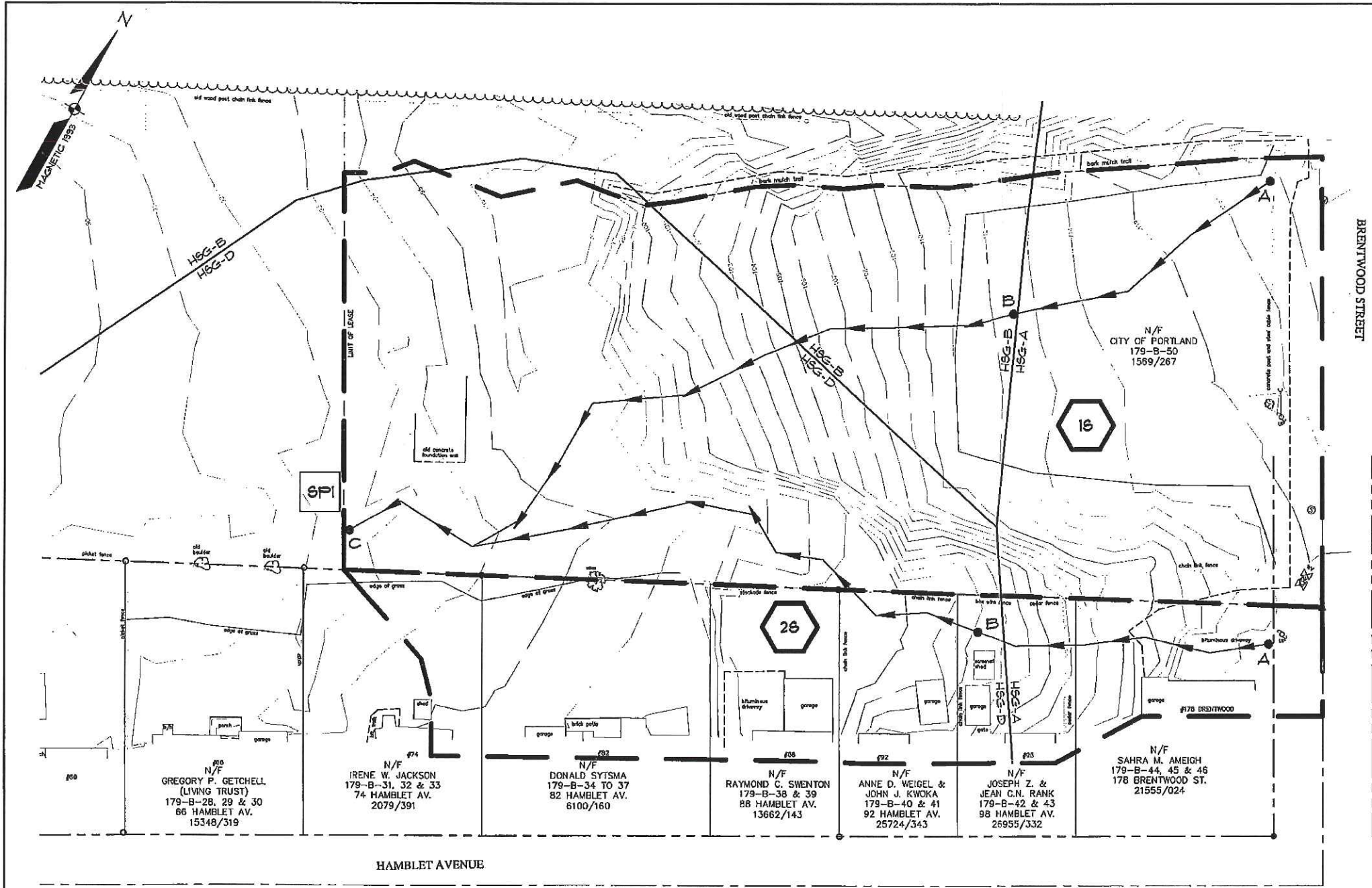
SCALE: 1" = 20'  
DATE: MARCH 22, 2010  
GRAPHICAL SCALE  
0' 10' 20' 40'

APPLICANT:  
DEERING CENTER  
NEIGHBORHOOD ASSOCIATION  
1-4 HILLIS STREET  
PORTLAND, ME 04103

PROJECT NAME:  
BRENTWOOD FARMS  
COMMUNITY GARDEN  
AT EVERGREEN CEMETERY  
ON BRENTWOOD STREET

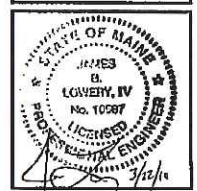
OWNER:  
CITY OF PORTLAND, MAINE  
PORTLAND CITY HALL  
389 CONGRESS STREET, PORTLAND





**GENERAL NOTES:**

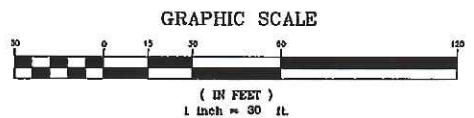
1. THE RECORD OWNER OF THE PARCEL IS THE CITY OF PORTLAND BY DEED RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 1869 PAGE 261.
2. THE PROPERTY IS SHOWN AS LOT B-50 ON THE CITY OF PORTLAND TAX MAP ITS.
3. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON A TOPOGRAPHIC SURVEY OF THE PROPERTY DONE IN NOVEMBER AND DECEMBER 1894, BY THE CITY OF PORTLAND.



REV:	A	BY:	NJS	DATE:	03-25-10	ISSUED TO CLIENT
STATUS:						
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.						

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 Tel (207) 858-2877  
 www.sebagotechnics.com

PROJECT NO.	10031
FIELD BOOK	
DESIGN	JBL
CHKD	NJS
DRAWN	BRF



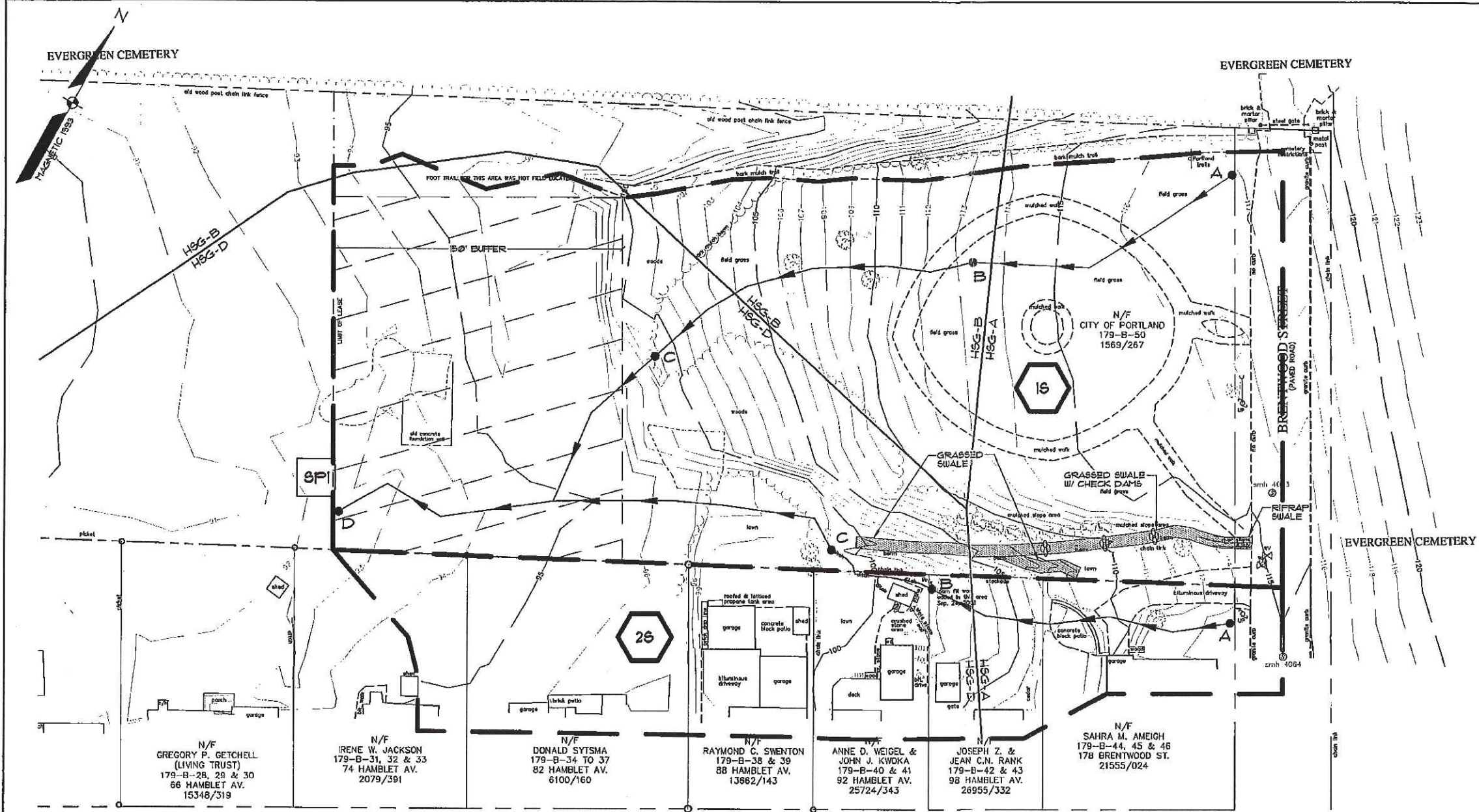
**LEGEND**

	WATERSHED BOUNDARY
	TIME OF CONCENTRATION
	REACH
	WATERSHED LABEL
	REACH
	DETENTION POND
	SOILS BOUNDARY

**PRE-DEVELOPMENT STORMWATER PLAN**  
 OF:  
**BRENTWOOD FARMS COMMUNITY GARDEN**  
 AT EVERGREEN CEMETERY, BRENTWOOD STREET  
 PORTLAND, MAINE  
 FOR:  
**DEERING CENTER NEIGHBORHOOD ASSOC.**  
 14 HILLIS STREET  
 PORTLAND, ME 04103

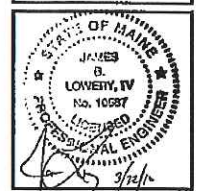
DATE	SCALE
03-10-10	1"=30'

**SHEET 1 OF 2**



**GENERAL NOTES:**

1. THE RECORD OWNER OF THE PARCEL IS THE CITY OF PORTLAND BY DEED RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 1569 PAGE 267.
2. THE PROPERTY IS SHOWN AS LOT B-50 ON THE CITY OF PORTLAND TAX MAP IT3.
3. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON A FIELD SURVEY CONDUCTED IN SEPTEMBER 2009 BY THE CITY OF PORTLAND, AS DEPICTED ON AN EXISTING SITE CONDITIONS PLAN TITLED BRENTWOOD FARMS COMMUNITY GARDEN, DATED DECEMBER, 2009.
4. WETLANDS INFORMATION SHOWN HEREON IS BASED UPON A PLAN PREPARED BY ALBERT FRICK ASSOCIATES, INC. TITLED HEALTH INTENSITY SOILS MAP AND PRELIMINARY WETLAND PLAN, DATED FEBRUARY 2, 2010.



ISSUED TO CLIENT	STATUS:
DATE:	03-25-10
BY:	A NJS
REV:	A

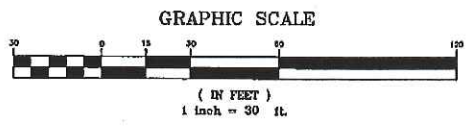
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

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 WWW.SEBAGOTECHNICS.COM

PROJECT NO.	10031
FIELD BOOK	
DESIGN	JEL
CHKD	NJS
DRAWN	BRF

HAMBLET AVENUE

ALBA STREET



**LEGEND**

- WATERSHED BOUNDARY
- TIME OF CONCENTRATION
- REACH
- WATERSHED LABEL
- REACH
- DETENTION POND
- SOILS BOUNDARY
- EDGE OF WETLAND

POST-DEVELOPMENT STORMWATER PLAN  
 OF:  
 BRENTWOOD FARMS COMMUNITY GARDEN  
 AT EVERGREEN CEMETERY, BRENTWOOD STREET  
 PORTLAND, MAINE  
 FOR:  
 DEERING CENTER NEIGHBORHOOD ASSOC.  
 14 HILLUS STREET  
 PORTLAND, ME 04103

DATE	SCALE
03-10-10	1"=30'

EROSION CONTROL MEASURES

THIS EROSION CONTROL PLAN HAS BEEN PREPARED TO PROVIDE DETAILED INFORMATION TO MINIMIZE AND PREVENT EROSION FROM THE BRENTWOOD FARMS COMMUNITY GARDEN SITE...

1. TEMPORARY MULCHING: ALL DISTURBED AREAS SHALL BE MULCHED WITH MATERIALS SPECIFIED BELOW PRIOR TO ANY STORM EVENT...

2. SOIL STOCKPILES: STOCKPILES OF SOIL OR SUBSOIL RELATED TO EARROWORK ACTIVITIES SHALL BE MULCHED WITH HAY OR STRAW...

3. NATURAL RESOURCES PROTECTION: ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION...

4. SEDIMENT BARRIERS: PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS SHALL BE STAKED ACROSS THE SLOPE(S) ON THE CONTOUR...

5. TEMPORARY CHECK DAMS: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. CHECK DAMS ARE TO BE PLACED WITHIN DITCHES/SUALES AS SPECIFIED...

6. DUST CONTROL: DUST CONTROL DURING CONSTRUCTION SHALL BE ACHIEVED BY THE USE OF A WATERING TRUCK TO PERIODICALLY SPRINKLE THE EXPOSED ROADWAY AREAS...

7. TEMPORARY VEGETATION: TEMPORARY VEGETATION SHALL BE APPLIED TO DISTURBED AREAS THAT WILL NOT RECEIVE FINAL GRADING FOR PERIODS UP TO 12 MONTHS...

B. PERMANENT VEGETATION: REVEGETATION MEASURES SHALL COMMENCE IMMEDIATELY UPON COMPLETION OF FINAL GRADING OF AREAS TO BE LOADED AND SEEDED...

SEEDING PREPARATION: A FOUR (4) INCHES OF LOAM SHALL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE. LOAM SHALL BE FREE OF SUBSOIL, CLAY LUMPS, STONES AND OTHER OBJECTS OVER 2 INCHES OR LARGER...

ITEM APPLICATION RATE
10-20-30 FERTILIZER (N-P2O5-K2O OR EQUAL) 12.4 LBS/A/1000 SF.
GROUND LIMESTONE (50% CALCIUM 4 MAGNESIUM OXIDE) 12.8 LBS/A/1000 SF.

SEED TYPE APPLICATION RATE
ORSEBORN RED FESCUE 0.46 LBS/A/1000 SF. (70 LBS/ACRE)
REDTOP 0.09 LBS/A/1000 SF. (7 LBS/ACRE)
TALL FESCUE 0.46 LBS/A/1000 SF. (70 LBS/ACRE)
TOTAL 0.81 LBS/A/1000 SF. (43 LBS/ACRE)

NOTE: A SPECIFIC SEED MIXTURE SHOULD BE CHOSEN TO MATCH THE SOILS CONDITION OF THE SITE. VARIOUS AGENCIES CAN RECOMMEND OTHER RECOMMENDED SEED MIXTURES ARE IN THE EROSION AND SEDIMENT CONTROL BMP MANUAL DATED 3/2003 OR LATER.

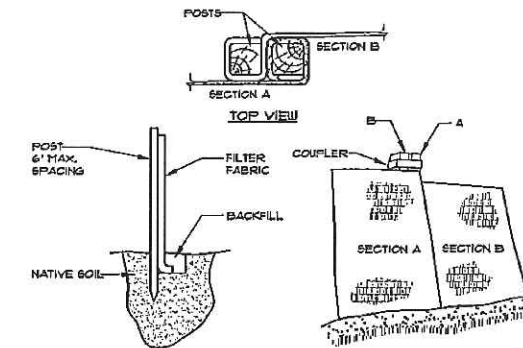
STANDARDS FOR TIMELY STABILIZATION: STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES -- THE CONTRACTOR WILL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 9...

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS -- BY SEPTEMBER 15 THE CONTRACTOR WILL SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 5%...

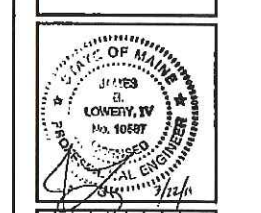
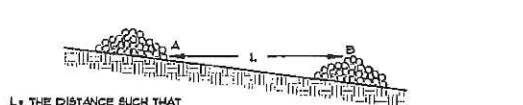
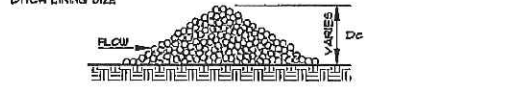
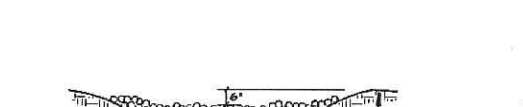
CONSTRUCTION SCHEDULE: SITE IMPROVEMENTS MOST LIKELY BEGIN IN SPRING 2010 DEPENDS UPON FINAL PROJECT APPROVAL. THE FOLLOWING SCHEDULE IS ANTICIPATED FOR THE CONSTRUCTION OF THE SITE IMPROVEMENTS.

Table with columns: SCHEDULE, ESTIMATED CONSTRUCTION TIME, EROSION CONTROL MEASURES PLACED, SITE CLEARING AND GRUBBING, etc.

INSPECTIONS/MONITORING: 1. MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. AFTER EACH RAINFALL, SNOW STOP OR PERIOD OF THAWING AND RUNOFF...



- INSTALLATION: 1. EXCAVATE A 6" x 6" TRENCH ALONG THE LINE OF PLACEMENT FOR THE FILTER BARRIER. 2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH.



Revision table with columns: NO., DATE, DESCRIPTION, BY, CHECKED, DATE.

Sebago Technics logo and contact information including address, phone, and website.

Project details and title block including: BRENTWOOD FARMS COMMUNITY GARDEN, DEERING CENTER NEIGHBORHOOD ASSOC., SHEET 1 OF 1.