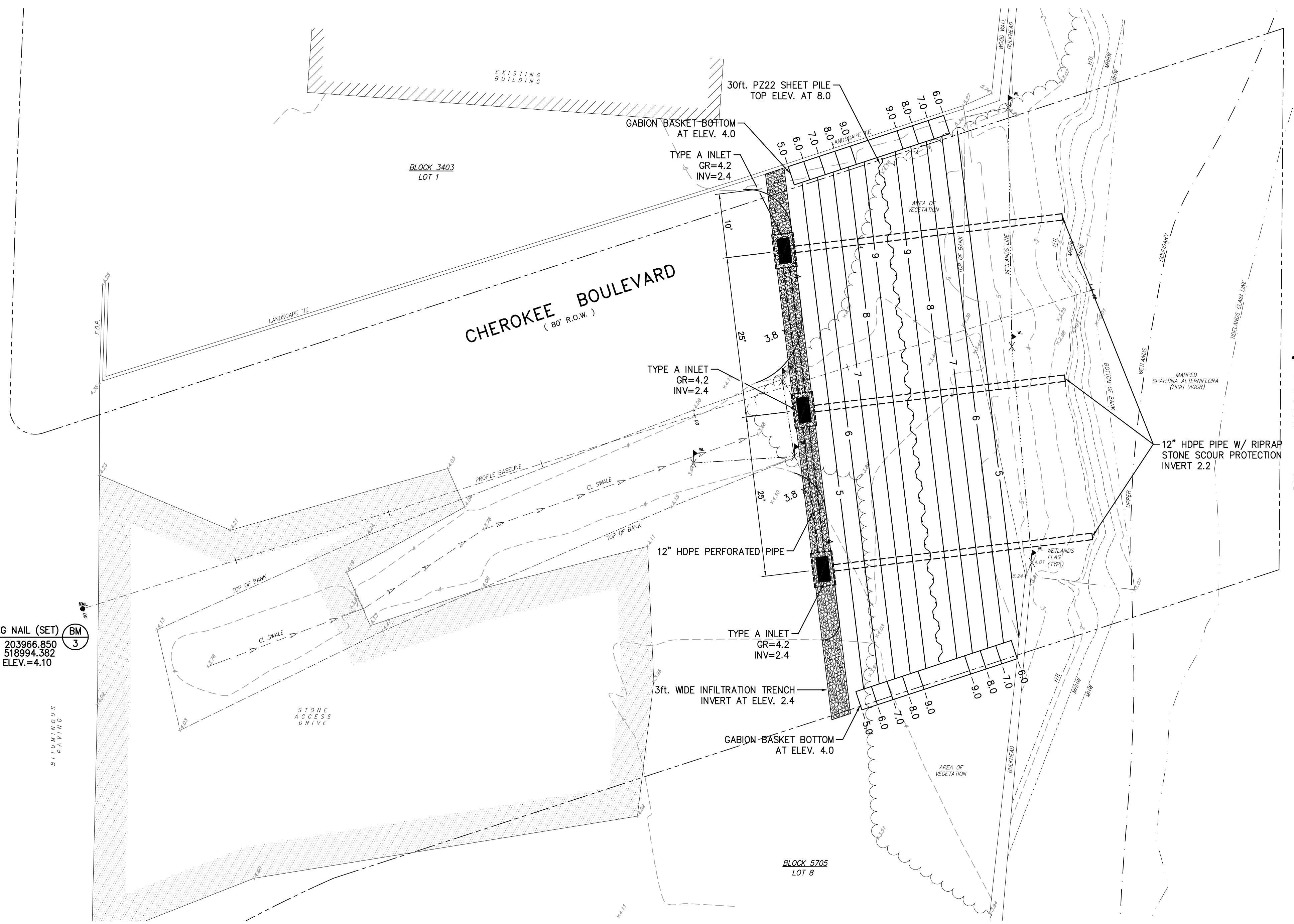


ATLANTIC - BRIGANTINE COUNTY ROUTE No. 638

CHEROKEE BOULEVARD (100' R.O.W.)

ST. GEORGE'S THOROFARE

MAG NAIL (SET) BM 3  
 N 203966.850  
 E 518994.382  
 ELEV.=4.10



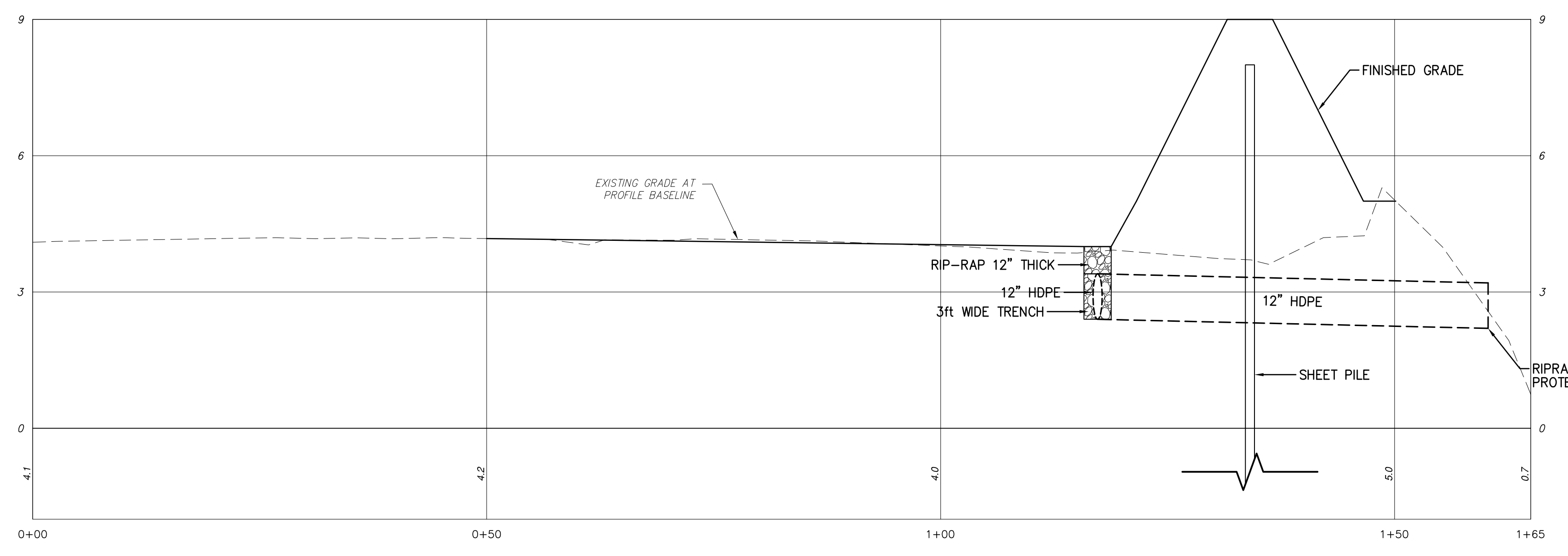
**PLAN**  
 SCALE: 1" = 10'

**TIDAL DATUM (NAVD-1988)**

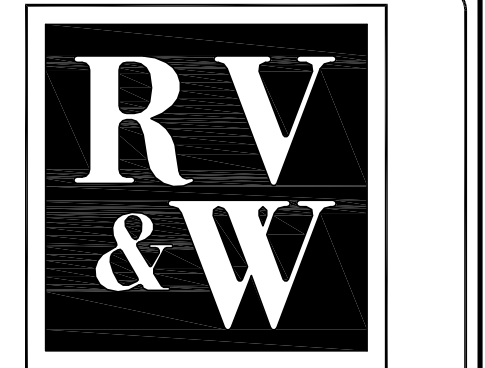
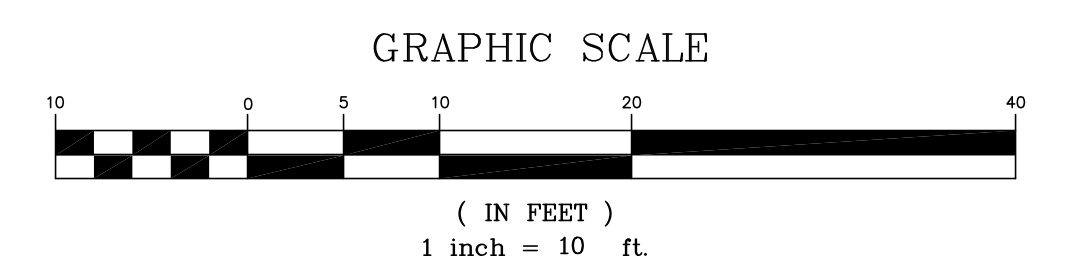
HTL	HIGH TIDE LINE	+2.14'
MHHW	MEAN HIGHER HIGH WATER	+1.72'
MHW	MEAN HIGH WATER	+1.33'
MTL	MEAN TIDAL LEVEL	-0.61'
MLW	MEAN LOW WATER	-2.55'
MLLW	MEAN LOWER LOW WATER	-2.72'

**SURVEY NOTES:**

1. THE HORIZONTAL DATUM IS BASED ON NAD-1983 (GRID COORDINATES) AND THE VERTICAL DATUM IS BASED ON NAVD-1988.
2. PROPERTY AND RIGHT-OF-WAY LINES SHOWN ON THESE PLANS ARE APPROXIMATE LOCATIONS BASED ON THE CURRENT TAX MAPS OF THE CITY OF BRIGANTINE, ATLANTIC COUNTY, NEW JERSEY. PROPERTY AND RIGHT-OF-WAY LINES ARE SHOWN FOR GRAPHICAL INFORMATION ONLY AND HAVE NOT BEEN FIELD VERIFIED.
3. EXISTING TOPOGRAPHIC CONDITIONS WERE SURVEYED BY REMINGTON, VERNICK & WALBERG ENGINEERS UNDER THE SUPERVISION OF CHARLES E. ADAMSON, N.J.P.L.S. LICENSE NO. 42627. THE SURVEY WORK WAS COMPLETED ON AUGUST 24, 2015.
4. TIDAL BENCH MARK: 853 4638, NGS PID# JU4082, NAVD 88 ELEVATION 9.26.
5. UPPER WETLANDS BOUNDARY AND MAPPED VEGETATION TAKEN FROM NJDEP 1970 COASTAL WETLANDS MAP - EAGLE BAY, SHEET No. 203-2070.
6. TIDELANDS CLAIM LINE TAKEN FROM NJDEP BUREAU OF TIDELANDS MANAGEMENT PROMULGATED TIDELANDS LINE, SHEET No. 203-2070.



**PROFILE**  
 SCALE: 1" = 2' VERT.  
 1" = 10' HORIZ.



**REMINGTON, VERNICK & WALBERG ENGINEERS**  
 845 N. MAIN STREET  
 PLEASANTVILLE, N.J. 08232  
 (609) 645-7110, FAX (609) 645-7076  
 WEB SITE ADDRESS: WWW.RVW.COM  
 24 CA 28048700  
 ~ENGINEERING EXCELLENCE SINCE 1901~

DATE:  
**EDWARD J. WALBERG**  
 NJ PROFESSIONAL ENGINEER LIC. No. 37269

PLANS WHICH DO NOT BEAR AN EMBOSSED SEAL ARE NOT VALID.  
 ALL DOCUMENTS PREPARED BY REMINGTON, VERNICK & WALBERG ENGINEERS ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNERS OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT.  
 ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY REMINGTON, VERNICK & WALBERG ENGINEERS FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO REMINGTON, VERNICK & WALBERG ENGINEERS AND OWNER SHALL INDURE AND HOLD HARMLESS REMINGTON, VERNICK & WALBERG ENGINEERS FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

NO.	REVISION	DATE	BY

**SITE PLAN - CHEROKEE BOULEVARD**  
 ATLANTIC-BRIGANTINE BOULEVARD  
 SHORELINE STABILIZATION  
 ATLANTIC COUNTY  
 CITY OF BRIGANTINE  
 NEW JERSEY

DRAWN BY: J.S.	DESIGN BY: C.W.	CHECKED BY: E.J.W.	SCALE: AS NOTED
DATE: 01-03-11-04	SHEET NO.:	6 of 11	











**SOIL EROSION AND SEDIMENT CONTROL NOTES**

- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED IN ACCORDANCE WITH THE NJ STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, AND WILL BE INSTALLED IN PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN THIRTY (30) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREA WILL BE MULCHED WITH SALT HAY OR EQUIVALENT AND BOUND IN ACCORDANCE WITH THE NJ STANDARDS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).
- IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF 2 TONS PER ACRE, ACCORDING TO THE NJ STANDARDS.
- STABILIZATION SPECIFICATIONS:**
  - TEMPORARY SEEDING AND MULCHING:
    - LIME - 90 LBS/1,000 SF GROUND LIMESTONE; FERTILIZER - 14 LBS/1,000 SF; 10-20-10 OR EQUIVALENT WORKED INTO SOIL A MINIMUM OF 4"
    - SEED - ANNUAL RYEGRASS 40 LBS/ACRE OR OTHER APPROVED SEEDS; PLANT BETWEEN MARCH 1 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTOBER 1.
    - MULCH - SALT HAY OR SMALL GRAY STRAW AT A RATE OF 70 TO 90 LBS/1,000 SF, TO BE APPLIED ACCORDING TO THE NJ STANDARDS. MULCH SHALL BE SECURED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).
  - PERMANENT SEEDING AND MULCHING:
    - LIME - 90 LBS/1,000 SF GROUND LIMESTONE; FERTILIZER - 14 LBS/1,000 SF; 10-20-10 OR EQUIVALENT WORKED INTO SOIL A MINIMUM OF 4"
    - SEED - PERENNIAL RYEGRASS 40 LBS/ACRE OR OTHER APPROVED SEEDS; PLANT BETWEEN MARCH 1 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTOBER 1.
    - MULCH - SALT HAY OR SMALL GRAY STRAW AT A RATE OF 70 TO 90 LBS/1,000 SF, TO BE APPLIED ACCORDING TO THE NJ STANDARDS. MULCH SHALL BE SECURED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).
- TEMPORARY BERMS ARE TO BE INSTALLED ON ALL CLEARED ROADWAYS AND EASEMENT AREAS IN ACCORDANCE WITH SECTION 4.21 OF THE NJ STANDARDS.
- THE SITE SHALL, AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORM-WATER RUN-OFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
- ALL SEDIMENTATION STRUCTURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS.
- STOCKPILES ARE NOT TO BE LOCATED WITHIN 50' OF A FLOODPLAIN, SLOPE, ROADWAY, OR DRAINAGE FACILITY. THE BASE OF ALL STOCKPILES SHOULD BE PROTECTED BY A HAY BALE BARRIER OR SEDIMENT FENCE.
- A CRUSHED STONE, VEHICLE WHEEL-CLEANING BLANKET WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS ROAD INTERSECTS ANY PAVED ROADWAY. SAID BLANKET WILL BE COMPOSED OF 2 1/2" CRUSHED STONE, 6" THICK, WILL BE AT LEAST 30' x 100' AND SHOULD BE UNDERLAIN WITH A SUITABLE SYNTHETIC SEDIMENT FILTER FABRIC AND MAINTAINED.
- MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT EXCEED 3:1 UNLESS OTHERWISE APPROVED BY THE DISTRICT.
- ALL DRIVEWAYS MUST BE STABILIZED WITH 2 1/2" CRUSHED STONE OR SUBBASE PRIOR TO INDIVIDUAL LOT CONSTRUCTION.
- PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
- ALL CATCH BASIN INLETS WILL BE PROTECTED WITH A CRUSHED STONE OR FABRIC FILTER (FILTER DETAILS APPEAR ON THE PLAN).
- ALL STORM DRAINAGE OUTLETS WILL BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE BEGINS TO BECOME OPERATIONAL.
- ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER AREA. THE SEDIMENT FILTER SHOULD BE COMPOSED OF A SUITABLE SEDIMENT FILTER FABRIC.

**TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION**

- SITE PREPARATION**
  - GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
  - INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

**2. SEEDBED PREPARATION**

- APPLY LIMESTONE AND FERTILIZER. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDES) AS FOLLOWS:
 

SOIL TEXTURE	TONS/ACRE	LBS./1000 SQ. FT.
CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL	3	135
SANDY LOAM, LOAM, SILT LOAM	2	90
LOAMY SAND, SAND	1	45

- PULVERIZED DOLOMITIC LIMESTONE IS PREFERRED FOR MOST SOILS SOUTH OF THE NEW BRUNSWICK-TRENTON LINE.
- WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM SEEDBED IS PREPARED.
- INSPECT SEEDBED, JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND TILLED AS ABOVE.
- SOILS HIGH ON SULFIDES OR HAVING A pH OF 4 OR LESS SHOULD BE MULCHED ONLY.

- SEE TEMPORARY SEED MIXTURE FOR SPECIES AND APPLICATION RATES.
- APPLY SEED UNIFORMLY BY HAND, CYCLONE(CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. MULCH SHALL NOT BE INCLUDED IN A HYDRO-SEEDER TANK WITH SEED EXCEPT FOR DRILLED, HYDROSEEDER OR CULTIPACKED SEEDING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COURSE TEXTURED SOIL.

- AFTER SEEDING, FIRING THE SOIL SHALL BE PERFORMED WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDING EMERGENCE.

- MULCHING IS REQUIRED ON ALL SEEDING.

- MULCH MATERIALS SHOULD BE UNROTTED SMALL GRAY STRAW, HAY FREE OF SEEDS, OR SALT HAY TO BE APPLIED AT THE RATE OF 1 1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET). EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION MUST BE DOUBLE THE LOWER RATE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MATERIAL.
- SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 75% TO 95% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.

- MULCH ANCHORING SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS.
  - PEG AND TWINE- DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISSCROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
  - MULCH NETTING- STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTING TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
  - CRIMPER(MULCH ANCHORING TOOL)- A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.
- WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE MAY BE APPLIED BY A HYDROSEEDER. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

**TEMPORARY SEEDING MIXTURE**

THIS SEEDING MIXTURE IS COMPOSED OF A SINGLE SPECIES WHICH GERMINATES QUICKLY IN ORDER TO REDUCE SOIL EROSION UNTIL A PERMANENT VEGETATIVE COVER CAN BE COVER ESTABLISHED. A MIXTURE OF EQUAL QUALITY MAY BE SUBSTITUTED IF APPROVED BY OUR OFFICE.

%	COMMON NAME	BOTANICAL NAME
100%	PERENNIAL RYE GRASS	LOLIUM PERENNE "LINN"

THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE FOUR (5) POUNDS/1000 SQUARE FEET OR 225 POUNDS/ACRE.  
RECOMMENDED SEEDING PERIODS ARE APRIL 1-MAY 31 AND AUGUST 16-OCTOBER 15.  
SUMMER SEEDING SHALL BE PERFORMED ONLY IF ADEQUATE IRRIGATION IS PROVIDED TO ENSURE SUCCESSFUL GERMINATION.

**PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION**

- SITE PREPARATION**
  - GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MAINTENANCE.
  - INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

**2. SEEDBED PREPARATION**

- APPLY LIMESTONE AND FERTILIZER. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDES) AS FOLLOWS:
 

SOIL TEXTURE	TONS/ACRE	LBS./1000 SQ. FT.
CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL	4	180
SANDY LOAM, LOAM, SILT LOAM	3	135
LOAMY SAND, SAND	2	90

- PULVERIZED DOLOMITIC LIMESTONE IS PREFERRED FOR MOST SOILS SOUTH OF THE NEW BRUNSWICK-TRENTON LINE.
- WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COURSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.
- REMOVE FROM THE SURFACE ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, LIME, TREE ROOTS, PIECES OF CONCRETE, CLOS, LUMPS, OR OTHER UNSUITABLE MATERIAL.
- INSPECT SEEDBED, JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND TILLED AS ABOVE.
- SEE PERMANENT SEED MIXTURE FOR SPECIES AND APPLICATION RATES.
- APPLY SEED UNIFORMLY BY HAND, CYCLONE(CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. MULCH SHALL NOT BE INCLUDED IN A HYDRO-SEEDER TANK WITH SEED EXCEPT FOR DRILLED, HYDROSEEDER OR CULTIPACKED SEEDING. SHALL BE INCORPORATED INTO THE SOIL TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COURSE TEXTURED SOIL.
- AFTER SEEDING, FIRING THE SOIL SHALL BE PERFORMED WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDING EMERGENCE.

- MULCHING IS REQUIRED ON ALL SEEDING.
  - MULCH MATERIALS SHOULD BE UNROTTED SMALL GRAY STRAW, HAY FREE OF SEEDS, OR SALT HAY TO BE APPLIED AT THE RATE OF 1 1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET). EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION MUST BE DOUBLE THE LOWER RATE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MATERIAL.
  - SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 75% TO 95% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.

- MULCH ANCHORING SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS.
  - PEG AND TWINE- DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISSCROSS AND SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
  - MULCH NETTING- STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTING TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
  - CRIMPER(MULCH ANCHORING TOOL)- A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.

- WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE MAY BE APPLIED BY A HYDROSEEDER. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

- IRRIGATION**
  - IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER (A MINIMUM OF 1/4 INCH TWICE A DAY) UNTIL VEGETATION IS WELL ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE PERFORMED IN ABNORMALLY DRY OR HOT WEATHER OR ON DROUGHTY SOILS.
- TOP DRESSING \***
  - SPRING SEEDING WILL REQUIRE AN APPLICATION OF FERTILIZER SUCH AS 10-10-10 OR EQUIVALENT AT 400 POUNDS PER ACRE OR 10 POUNDS PER 1,000 SQUARE FEET BETWEEN SEPTEMBER 1 AND OCTOBER 15.
  - FALL SEEDING WILL REQUIRE THE ABOVE BETWEEN MARCH 15 AND MAY 1.

- MIXTURES DOMINATED BY WEEPING LOVEGRASS OR LEGUMES MAY NOT NEED TOPDRESSING.
  - \* IF SLOW RELEASE NITROGEN (300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT) IS USED IN ADDITION TO SUGGESTED FERTILIZER, THIS FOLLOW-UP OF TOP DRESSING IS NOT MANDATORY.

**PERMANENT SEEDING MIXTURE (DRY)**

THIS SEEDING MIXTURE IS COMPOSED OF DROUGHT-TOLERANT SPECIES WHICH CAN THRIVE WITH LOW MAINTENANCE. THE PROPRIETARY NAME OF THE MIXTURE IS RECALM CONSERVATION MIX-DRY FORMULA AS MANUFACTURED BY LOETS, INC., BOUND BROOK, N.J. 08805, (800)526-3890. A MIXTURE OF EQUAL QUALITY MAY BE SUBSTITUTED IF APPROVED BY OUR OFFICE.

%	COMMON NAME	BOTANICAL NAME
40	CLEMFINE TALL FESCUE	FESTUCA ARUNDINACEA "CLEMFINE"
20	WEEPING LOVEGRASS	EROPASTIS CURVULA
15	RELIANT HARD FESCUE	FESTUCA LONGIFOLIA "RELIANT"
10	JAMESTOWN CHEWINGS FESCUE	FESTUCA RUBRA VAR. COMMUTATA "JAMESTOWN"
10	PALMER PERENNIAL RYE	LOLIUM PERENNE "PALMER"
3	WHITE CLOVER	TRIFOLIUM REPENS "BLACKWELL"
5	BLACKWELL SWITCHGRASS	PANICUM VIRGATUM "BLACKWELL"

THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE FOUR (4) POUNDS/1000 SQUARE FEET OR 175 POUNDS/ACRE.  
RECOMMENDED SEEDING PERIODS ARE APRIL 1-MAY 31 AND AUGUST 16-OCTOBER 15.  
SUMMER SEEDING SHALL BE PERFORMED ONLY IF ADEQUATE IRRIGATION IS PROVIDED TO ENSURE SUCCESSFUL GERMINATION.

**PERMANENT SEEDING MIXTURE (MOIST)**

THIS SEEDING MIXTURE IS COMPOSED OF MOISTURE-TOLERANT SPECIES WHICH CAN THRIVE WITH LOW MAINTENANCE. THE PROPRIETARY NAME OF THE MIXTURE IS RECALM CONSERVATION MIX-MOIST FORMULA AS MANUFACTURED BY LOETS, INC., BOUND BROOK, N.J. 08805, (800)526-3890. A MIXTURE OF EQUAL QUALITY MAY BE SUBSTITUTED IF APPROVED BY OUR OFFICE.

%	COMMON NAME	BOTANICAL NAME
55	CLEMFINE TALL FESCUE	FESTUCA ARUNDINACEA "CLEMFINE"
15	NASSAU KENTUCKY BLUEGRASS	POA PRATENSIS "NASSAU"
10	PALMER PERENNIAL RYE	LOLIUM PERENNE "PALMER"
5	LASER POA TRIVIALIS	POA TRIVIALIS "LASER"
3	STREAKER REDTOP	AGROSTIS ALBA "STREAKER"
5	REED CANARY GRASS	PHALARIS ARUNDINACEA

THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE FIVE (5) POUNDS/1000 SQUARE FEET OR 220 POUNDS/ACRE.  
RECOMMENDED SEEDING PERIODS ARE APRIL 1-MAY 31 AND AUGUST 16-OCTOBER 15.  
SUMMER SEEDING SHALL BE PERFORMED ONLY IF ADEQUATE IRRIGATION IS PROVIDED TO ENSURE SUCCESSFUL GERMINATION.

**PINELANDS SEEDING MIXTURE (DRY)**

THIS SEEDING MIXTURE IS COMPOSED OF DROUGHT-TOLERANT SPECIES WHICH CAN THRIVE IN THE ARIDIC SOIL CONDITIONS COMMONLY FOUND IN THE PINELANDS. A MIXTURE OF EQUAL QUALITY MAY BE SUBSTITUTED IF APPROVED BY OUR OFFICE.

%	COMMON NAME	BOTANICAL NAME
60	ARID TALL FESCUE	FESTUCA ARUNDINACEA "ARID"
15	RELIANT HARD FESCUE	FESTUCA LONGIFOLIA "RELIANT"
10	JAMESTOWN CHEWINGS FESCUE	FESTUCA RUBRA VAR. COMMUTATA "JAMESTOWN"
5	STREAKER REDTOP	AGROSTIS ALBA "STREAKER"
5	SWITCHGRASS	PANICUM VIRGATUM "BLACKWELL"

THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE FIVE (5) POUNDS/1000 SQUARE FEET OR 220 POUNDS/ACRE.  
RECOMMENDED SEEDING PERIODS ARE APRIL 1-MAY 31 AND AUGUST 16-OCTOBER 15.  
SUMMER SEEDING SHALL BE PERFORMED ONLY IF ADEQUATE IRRIGATION IS PROVIDED TO ENSURE SUCCESSFUL GERMINATION.

**PINELANDS SEEDING MIXTURE (MOIST)**

THIS SEEDING MIXTURE IS COMPOSED OF SPECIES WITH A HIGH DEGREE OF MOISTURE TOLERANCE WHICH CAN THRIVE IN THE ARIDIC SOIL CONDITIONS COMMONLY FOUND IN THE PINELANDS. A MIXTURE OF EQUAL QUALITY MAY BE SUBSTITUTED IF APPROVED BY OUR OFFICE.

%	COMMON NAME	BOTANICAL NAME
55	REBEL 2 TALL FESCUE	FESTUCA ARUNDINACEA "REBEL 2"
25	STREAKER REDTOP	AGROSTIS ALBA "STREAKER"
5	SWITCHGRASS	FESTUCA RUBRA "BLACKWELL"
5	SWITCHGRASS	PANICUM VIRGATUM "BLACKWELL"

THE MINIMUM APPLICATION RATE FOR THIS SEEDING MIXTURE SHALL BE FIVE (5) POUNDS/1000 SQUARE FEET OR 220 POUNDS/ACRE.  
RECOMMENDED SEEDING PERIODS ARE APRIL 1-MAY 31 AND AUGUST 16-OCTOBER 15.  
SUMMER SEEDING SHALL BE PERFORMED ONLY IF ADEQUATE IRRIGATION IS PROVIDED TO ENSURE SUCCESSFUL GERMINATION.

**TOP SOILS**

TOPSOIL SHOULD BE USED WHERE SOILS ARE: SANDS, GRAVELY SOILS, CLAYS, SILTY CLAYS, VERY SHALLOW, OR WHERE THEY ARE EXTREMELY ACID (LESS THAN pH4.0) OR SALTY (COND- ACTIVITY GREATER THAN 1.0 MILLIMOLS PER CENTIMETER), OR WHERE TOPSOIL IS AVAILABLE ON SITE AND ASSURANCE OF IMPROVED VEGETATIVE GROWTH IS DESIRED.

- MATERIALS**
  - TOPSOIL SHOULD BE FRIABLE AND LOAMY, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE THAT MAY BE HARMFUL TO PLANT GROWTH. A pH RANGE OF 5.0-7.5 IS ACCEPTABLE. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE (CONDUCTIVITY LESS THAN 0.5 MILLIMOLS PER CENTIMETER). TOPSOIL HAULED IN FROM OFF SITE SHOULD HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC MATTER CONTENT MAY BE RAISED BY ADDITIVES.
- STRIPPING AND STOCKPILING**
  - FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER QUANTITY AND/OR QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.
  - STRIPPING SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA.
  - WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TESTS TO BRING THE SOIL pH TO 6.5 IN LIEU OF SOIL TESTS. SEE LIME RATE GUIDE IN SEEDBED PREPARATION FOR PERMANENT VEGETATIVE COVER.
  - A 4-6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL.
  - STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF-SITE ENVIRONMENTAL DAMAGE.
  - STOCKPILES SHOULD BE VEGETATED IN ACCORDANCE WITH TEMPORARY SEEDING STANDARDS PREVIOUSLY DESCRIBED HEREIN.

- SITE PREPARATION**
  - GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE.
  - SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT AND LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL pH TO 6.5 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.
  - IMMEDIATELY PRIOR TO TOPSOIL DISTRIBUTION, THE SURFACE SHOULD BE SCARIFIED TO PROVIDE A GOOD BOND WITH THE TOPSOIL.
  - EMPLOY NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENTATION BASINS, AND WATERWAYS.

- APPLYING TOPSOIL**
  - TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE, I.E., LESS THAN FIELD CAPACITY.
  - A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS RECOMMENDED. SOILS WITH A pH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 10 INCHES OF SOIL HAVING A pH OF 5.0 OR MORE.

**DUST CONTROL**

- THE PURPOSE OF DUST CONTROL MEASURES IS TO PREVENT THE BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON-SITE AND OFF-SITE DAMAGE & HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.
  - MULCHES - REVIEW MULCHING NOTES ABOVE.
  - VEGETATIVE COVER - REVIEW NOTES ON TEMPORARY COVER.
  - SPRAY-ON ADHESIVES -

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLON/ACRE
ANIONIC ASPHALT EMULSION	7-1	COARSE SPRAY	1200
LATEX EMULSION	12.5-1	FINE SPRAY	235
RESIN IN WATER	4-1	FINE SPRAY	300

POLYACRYLAMIDE (PAM) - SPRAY ON APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD, PAGE 26-1.

ADJULATED SOY BEAN SOAP STICK NONE COARSE SPRAY 1200

- TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
- SPRINKLING - SITE IS SPRINKLED UNTIL THE SURFACE IS WET.
- BARRIERS - SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.

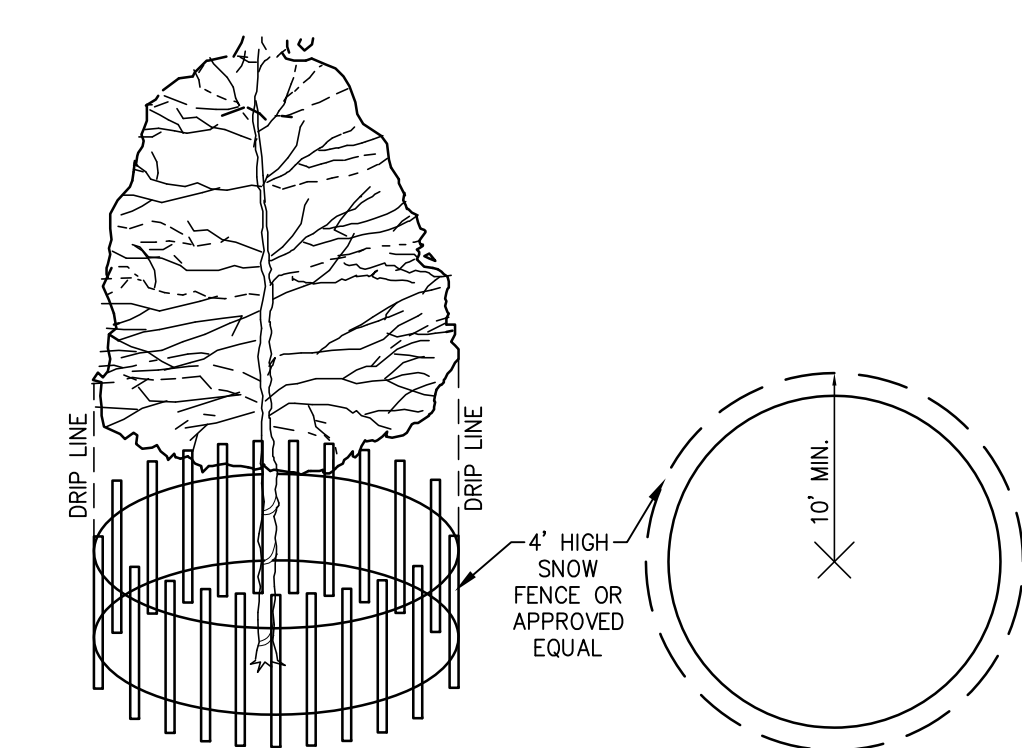
- CALCIUM CHLORIDE - SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEP SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS, OR ACCUMULATION AROUND PRACTICES.
- STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

**LEGEND**

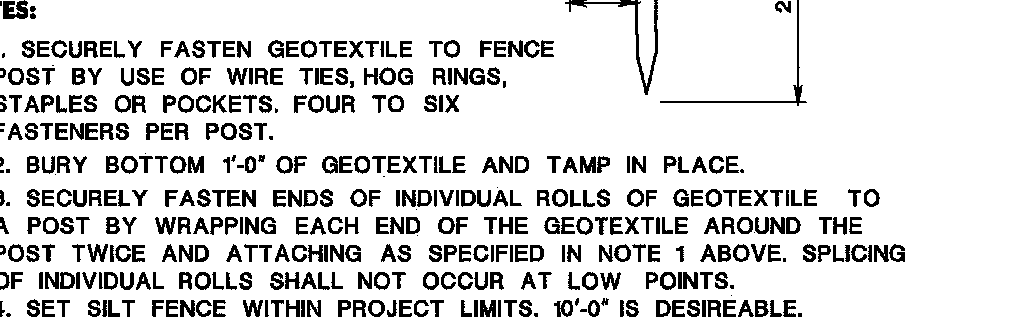
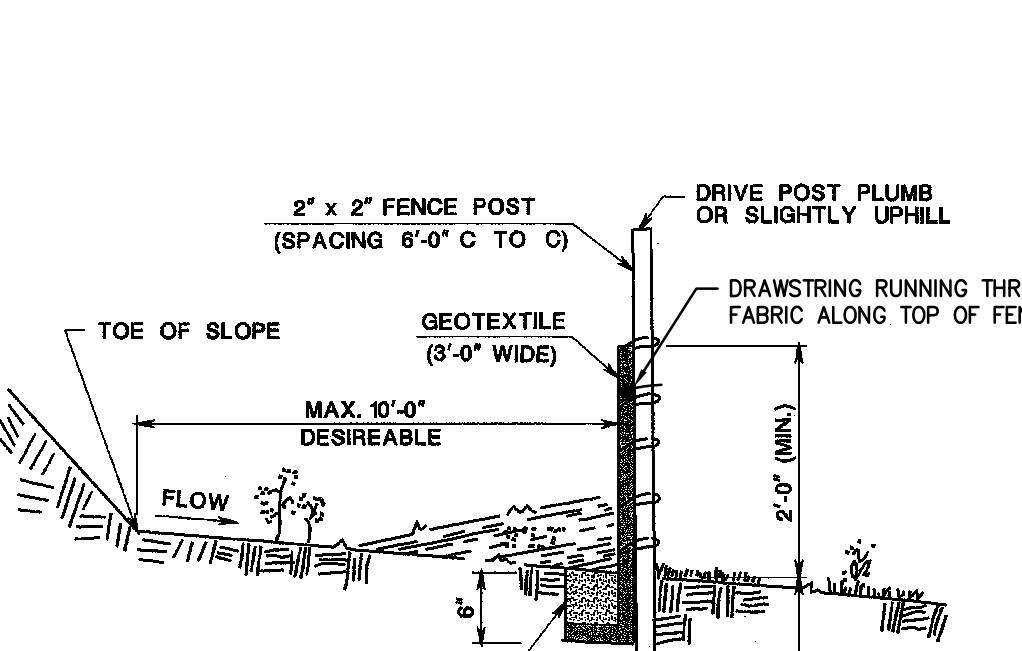
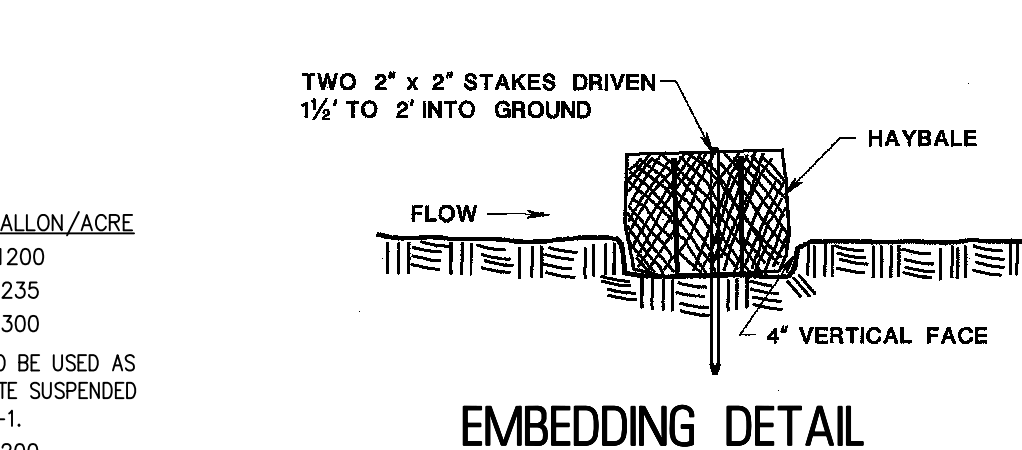
HAYBALES (TYPICAL)	
INLET PROTECTION (TYPICAL)	
SILT FENCE (TYPICAL)	
LIMIT OF DISTURBANCE (TYPICAL)	

**SPECIAL NOTES**

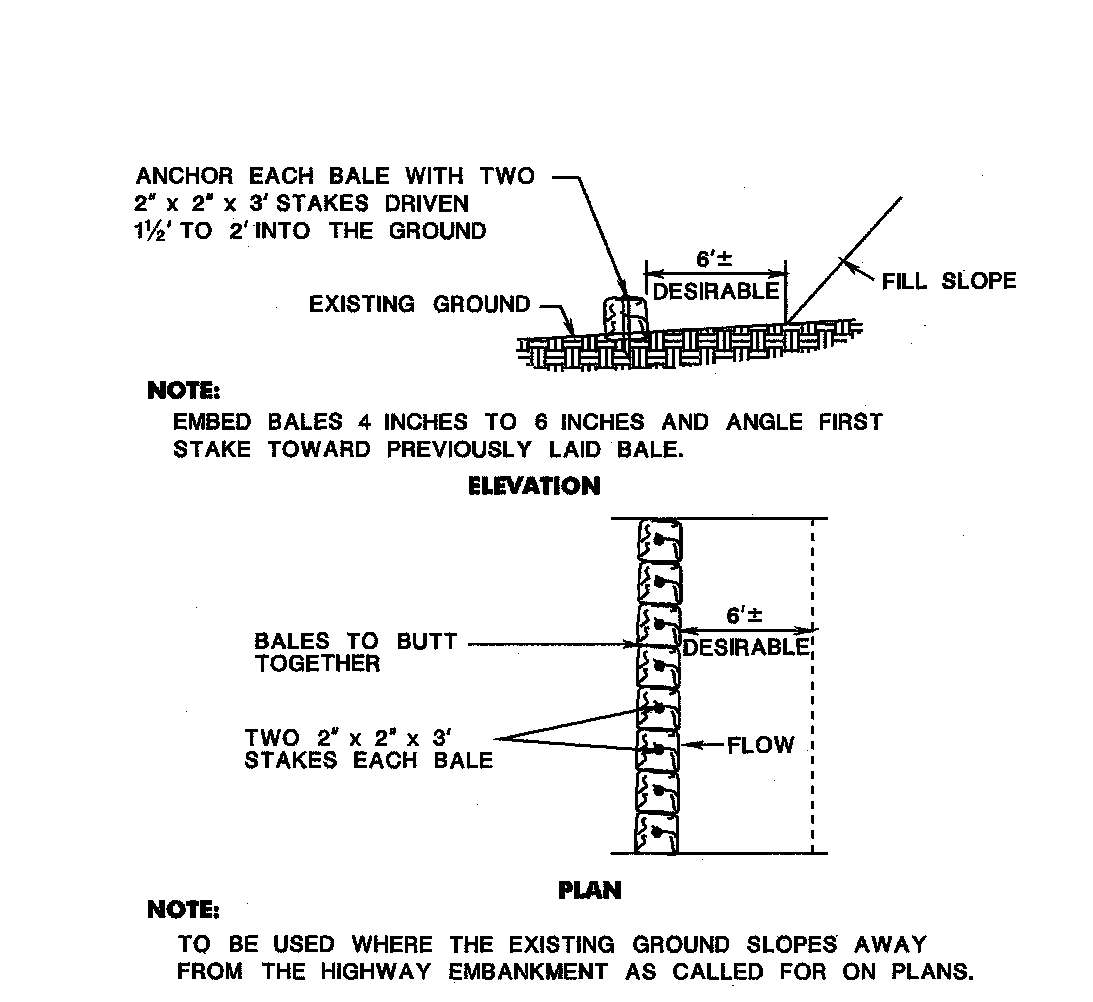
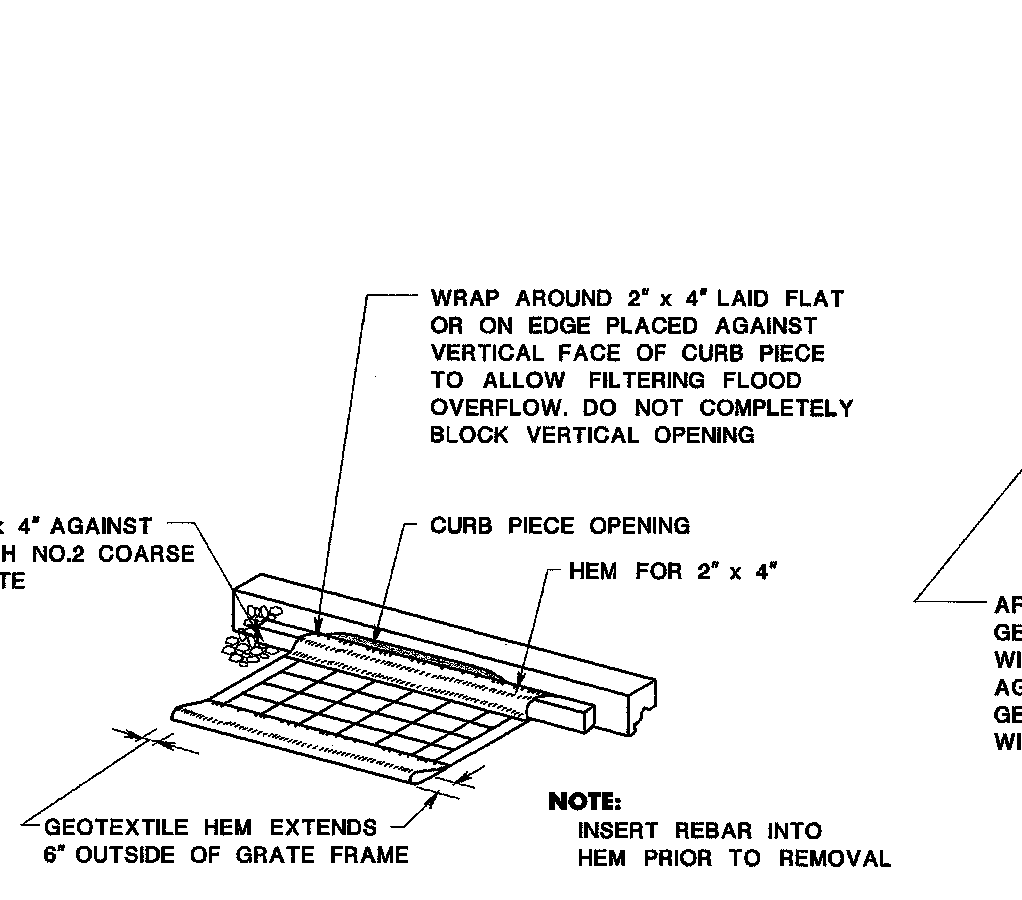
- TEMPORARY STABILIZATION - ALL EXPOSED AREAS NOT TO BE CONSTRUCTED UPON WITHIN 30 DAYS SHOULD RECEIVE TEMPORARY STABILIZATION. THE TEMPORARY SEEDING MIXTURES SHALL BE ANNUAL RYE GRASS AT A RATE OF 4 POUND PER 1000 SQ. FT. AND LIMED AT A RATE OF 45 LBS. PER 1000 SQ. FT.
- PERMANENT STABILIZATION - ALL EXPOSED AREAS WHICH ARE TO BE PERMANENTLY VEGETATED SHOULD BE SEEDED WITHIN 10 DAYS OF FINAL GRADING, ACCORDING TO THE PERMANENT SEEDING SPECIFICATIONS.



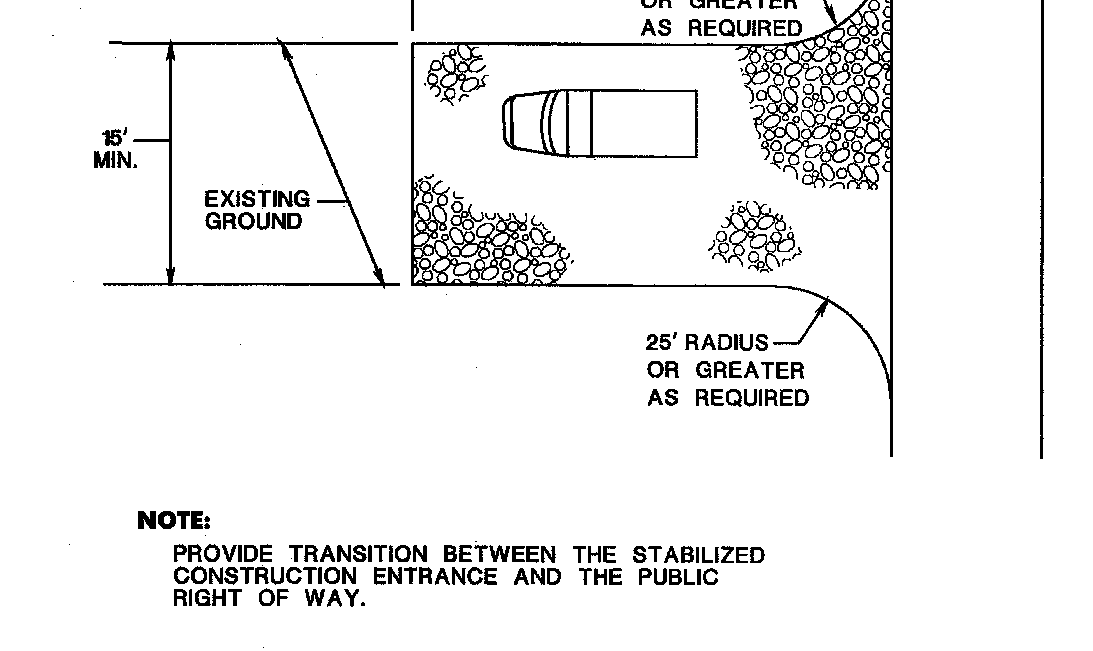
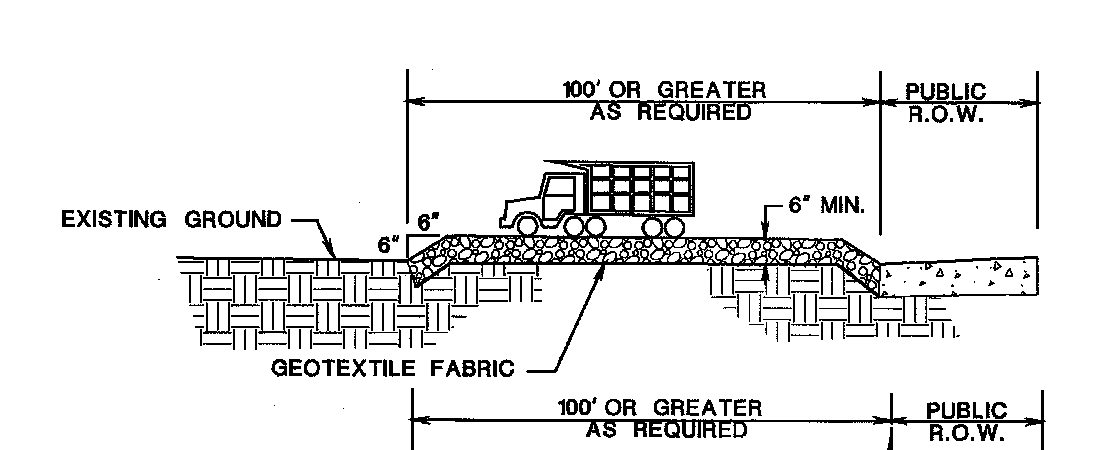
**HAYBALES DETAIL**  
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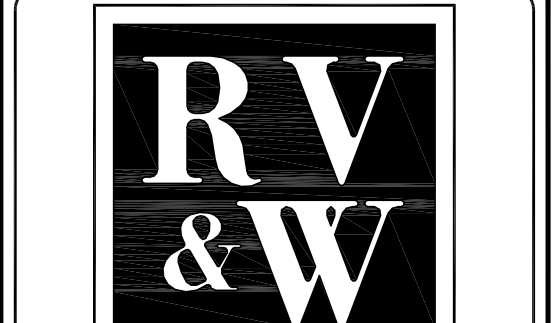
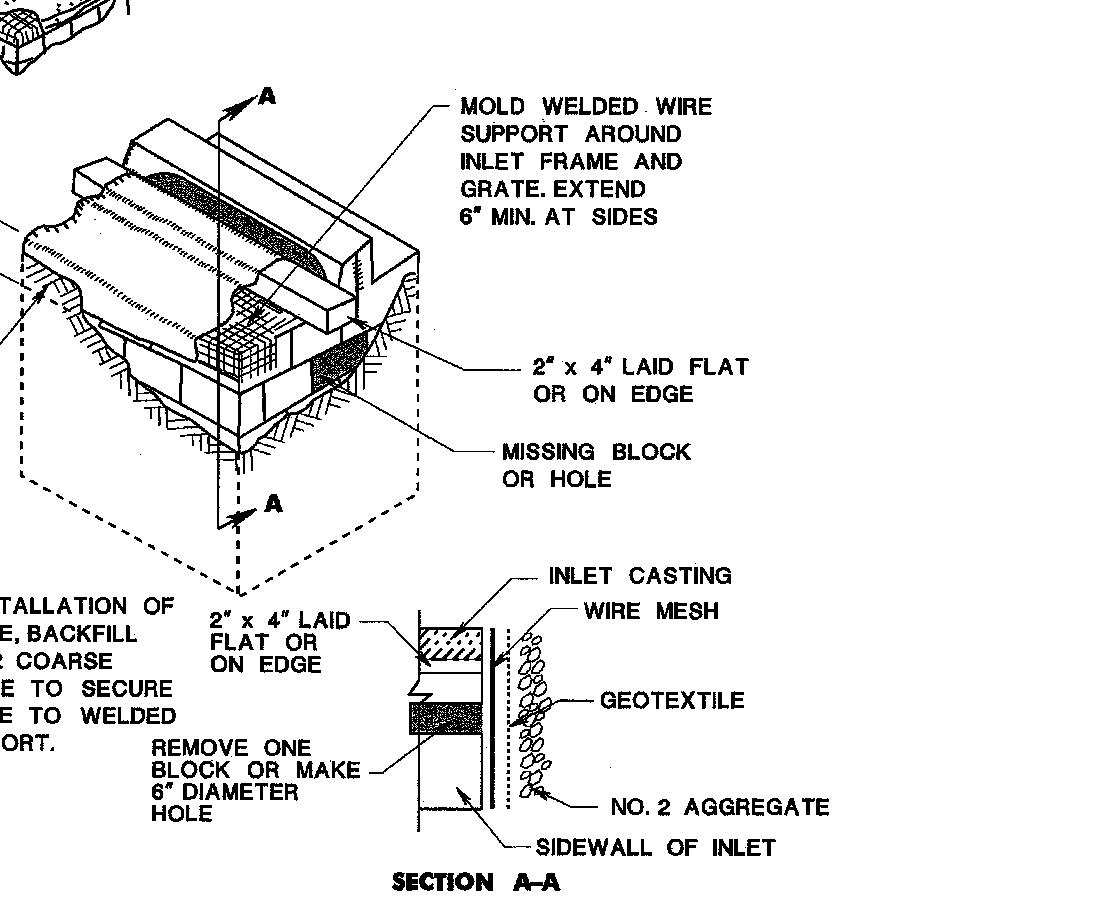
**INLET FILTERS DETAIL**  
N.T.S.



**EMBEDDING DETAIL**  
N.T.S.



**INLET FILTERS DETAIL**  
N.T.S.



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