

EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENTATION CONTROL MEASURES AND DEVICES NECESSARY TO COMPLY WITH THE STANDARDS AND SPECIFICATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY AND APPLICABLE STATE AND LOCAL LAWS AND ORDINANCES, AND PREVENT STANDING WATER WITHIN PROJECT LIMITS.
2. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. MAINTENANCE OF SEDIMENT AND EROSION CONTROL MEASURES SHALL BE PER NCDOT STANDARD PURPOSES OF EACH SEDIMENT AND EROSION CONTROL MEASURE SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
3. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE ON THE PROJECT FOR THE COMPLETE DURATION OF THE PROJECT.
4. INSTALL CONSTRUCTION ENTRANCES IN LOCATIONS SHOWN, IN ACCORDANCE WITH STATE STANDARDS AND WITH MINIMUM DISTURBANCE TO SURROUNDING VEGETATION AND TREES. AFTER CONSTRUCTION, CONTRACTOR SHALL REMOVE ALL REMNANTS OF THE CONSTRUCTION ENTRANCES AND RETURN AREA TO AS GOOD AS OR BETTER CONDITION.
5. ALL DITCH LINES DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED BY THE CONTRACTOR, ON ALL NEW OR EXISTING DITCHES WITH A GRADE GREATER THAN 2% INSTALL A TEMPORARY DITCH LINER OF EXCELSON MATTING ON THE DITCH BOTTOM AND SIDE SLOPES.
6. INLET PROTECTION IS REQUIRED FOR ALL INLETS LOCATED IN THE WORKING AREA AND RETURN AREA UNTIL THE SITE IS FULLY STABILIZED. INLET PROTECTION SHALL BE INSTALLED ONCE GRADING IS COMPLETE. UNTIL THEN, INLET STRUCTURES WILL BE KEPT AT LEAST 2 FEET HIGHER THAN SURROUNDING GROUND. INLET PROTECTION MAY BE REQUIRED AT EXISTING INLETS. IF EXISTING SEDIMENT WILL RUN DOWNSTREAM TO AN EXISTING INLET, INLET PROTECTION SHALL CONSIST OF BLOCK AND GRAVEL INLET PROTECTION AND/OR SILT SACK INLET PROTECTION IN ACCORDANCE WITH THE DRAWING DETAILS.
7. PROVIDE TEMPORARY CHECK DAMS AT EACH STORM OUTFALL DITCH, AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
8. PERIODICALLY INSPECT AND REPAIR ALL PROPOSED SEDIMENT CONTROL DEVICES. PERIODIC INSPECTION SHALL BE DEFINED AS AT LEAST ONCE EVERY SEVEN CALENDAR DAYS. INSPECTION SHALL ALSO BE MADE WITHIN 24 HOURS OF ANY STORM EVENT OF ONE (1) INCH OR GREATER OF RAINFALL PER 24 HOUR PERIOD.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER REMOVAL AND DISPOSAL OF ANY UNSUITABLE MATERIALS TO BE REMOVED TO COMPLETE THE PROJECT, UNLESS OTHERWISE DIRECTED. THE CONTRACTOR SHALL OBTAIN AN APPROPRIATE LOCAL PERMIT FOR THE TRANSPORTING OF UNSUITABLE MATERIALS ALONG PUBLIC ROADS TO THE DESIGNATED AREA AND PROVIDE COPIES TO THE OWNER FOR THEIR RECORD.
10. REMOVE ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL DEVICES AND MEASURES UPON ESTABLISHMENT OF VEGETATION OR COMPLETION OF PROJECT, UNLESS OTHERWISE DIRECTED. SILT FENCE AND TEMPORARY SLOTTED DITCHES MAY BE REMOVED AND REUSED UPON APPROVAL OF INSPECTOR.
11. MAINTAIN RECORDS OF ALL ACTIVITIES ASSOCIATED WITH SEDIMENT AND EROSION CONTROL MAINTENANCE AND INSPECTION. SUBMIT WEEKLY INSPECTION REPORT, DAILY INSPECTION REPORT, AND REPORT OF INSPECTION IMMEDIATELY AFTER ANY RAINFALL EVENT WITH 0.50 INCH OR MORE OF PRECIPITATION.
12. WATERING OF STRUCTURES WITH SEDIMENT LADEN WATER IS PROHIBITED.

GROUND STABILIZATION

1. IN ACCORDANCE WITH NCDOT'S GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES (NGC01), ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3' HORIZONTAL TO 1' VERTICAL (3:1), SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION AS SOON AS PRACTICABLE, BUT IN ANY EVENT WITHIN SEVEN (7) CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
2. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE, BUT IN ANY EVENT WITHIN FOURTEEN (14) CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
3. ALL TEMPORARY SEDIMENT BASH SLOPES SHALL BE SEEDED AND STABILIZED IMMEDIATELY FOLLOWING CONSTRUCTION OF THE BASH.

IN MEETING THE STABILIZATION REQUIREMENTS ABOVE, THE FOLLOWING CONDITIONS OR EXEMPTIONS SHALL APPLY:

1. EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE.
2. ALL SLOPES 50' IN LENGTH OR GREATER SHALL APPLY GROUND COVER WITHIN 7 DAYS EXCEPT WHEN THE SLOPE IS FLATTER THAN 4:1. SLOPES LESS THAN 50' SHALL APPLY GROUND COVER WITHIN 14 DAYS EXCEPT WHEN SLOPES ARE STEEPER THAN 3:1, THE 7 DAY REQUIREMENT APPLIES.
3. ANY SLOPED AREA FLATTER THAN 4:1 SHALL BE EXEMPT FROM THE 7 DAY REQUIREMENT.
4. SLOPES 10' OR LESS IN LENGTH SHALL BE EXEMPT FROM THE 7 DAY GROUND COVER REQUIREMENT EXCEPT WHEN THE SLOPE IS STEEPER THAN 2:1.

EROSION CONTROL CONSTRUCTION SEQUENCE

1. INSTALL ALL PERIMETER EROSION CONTROL DEVICES TO PREVENT SEDIMENT RUNOFF DURING CONSTRUCTION OPERATIONS.
2. THE CONTRACTOR SHALL INSTALL ALL INLET PROTECTION IN ALL DRAINAGE STRUCTURES WITHIN THE PROJECT LIMITS. INLET PROTECTION SHALL BE MAINTAINED UNTIL THE SITE HAS BEEN STABILIZED.
3. BEGIN DEMOLITION OF EXISTING BUILDINGS, STORM SYSTEM, UTILITIES, AND PAVEMENT, PER PLANS.
4. IN AREAS THAT DO NOT PASSIVELY DRAIN, THE CONTRACTOR SHALL PUMP OUT THE SEDIMENT-LADEN WATER AFTER RAINFALL EVENTS. SEE SILT FILTER BAG DETAIL. AFTER BUILDING CONSTRUCTION AND UTILITIES INSTALLATION ARE COMPLETE, CONTRACTOR SHALL RE-FRAME ALL CONCRETE SLABS.
5. ONCE ALL DISTURBED AREAS HAVE BEEN RESTORED AND FULLY STABILIZED, THE EROSION CONTROL MEASURES CAN BE REMOVED.
6. CONTRACTOR SHALL ANTICIPATE MAINTENANCE OF EROSION CONTROL MEASURES IN ACCORDANCE WITH THE MANUFACTURERS AND NCDOT REQUIREMENTS FOR THE DURATION OF THE PROJECT. ALL COSTS FOR SUCH MAINTENANCE SHALL BE INCIDENTAL TO THE PROJECT. SEE DETAILS ON THIS SHEET FOR ADDITIONAL MAINTENANCE INFORMATION/REQUIREMENTS.

FERTILIZING, SEEDING, AND MULCHING

FERTILIZE, SEED, AND MULCH ALL AREAS DAMAGED BY CONSTRUCTION, REGARDLESS OF PREVIOUS CONDITIONS, OUTLINED IN TURFS AND GRASSES SPECIFICATION.

SOIL TESTS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING SOIL TESTS OF THE AREAS TO BE SEEDED AND MULCHED IN ADVANCE OF PERFORMING SEEDING AND MULCHING WORK IN ORDER TO DETERMINE FERTILIZER TYPE AND APPLICATION RATE AND LIME APPLICATION RATE. THE COSTS ASSOCIATED WITH OBTAINING THE SOIL TESTS SHALL BE INCIDENTAL TO THE PROJECT. THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER A COPY OF THE SOIL TESTS CONFIRMING THE DATE OF THE TESTS, THE TEST RESULTS AND THE FERTILIZER AND LIME RECOMMENDATIONS AT LEAST 48 HOURS PRIOR TO COMMENCING SEEDING AND MULCHING.

SEEDING: HYDRAULIC SEEDING SHALL BE UTILIZED UNLESS OTHERWISE SPECIFICALLY APPROVED BY THE ENGINEER. SEED SHALL CONFORM TO THE REQUIREMENTS OF FEDERAL SPECIFICATION JAW-5-181, FEDERAL SPECIFICATION, SEEDS, AGRICULTURAL.

MULCHING: MANUFACTURED MULCH SHALL BE UTILIZED UNLESS OTHERWISE SPECIFICALLY APPROVED BY THE ENGINEER.

SEED TYPES AND SEEDING RATES

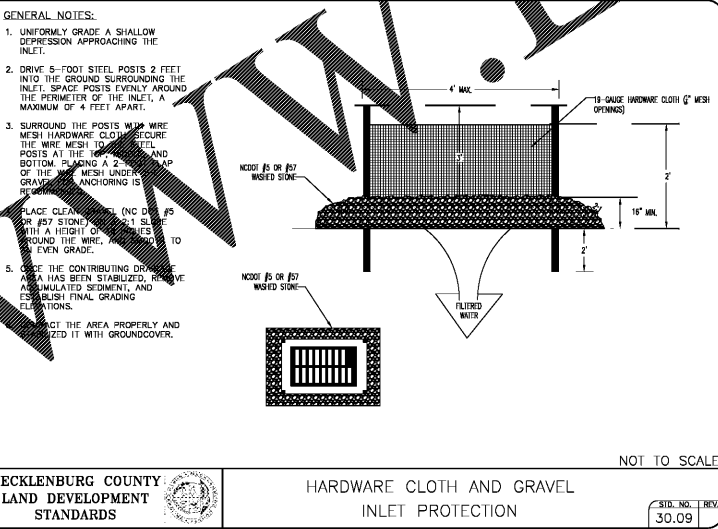
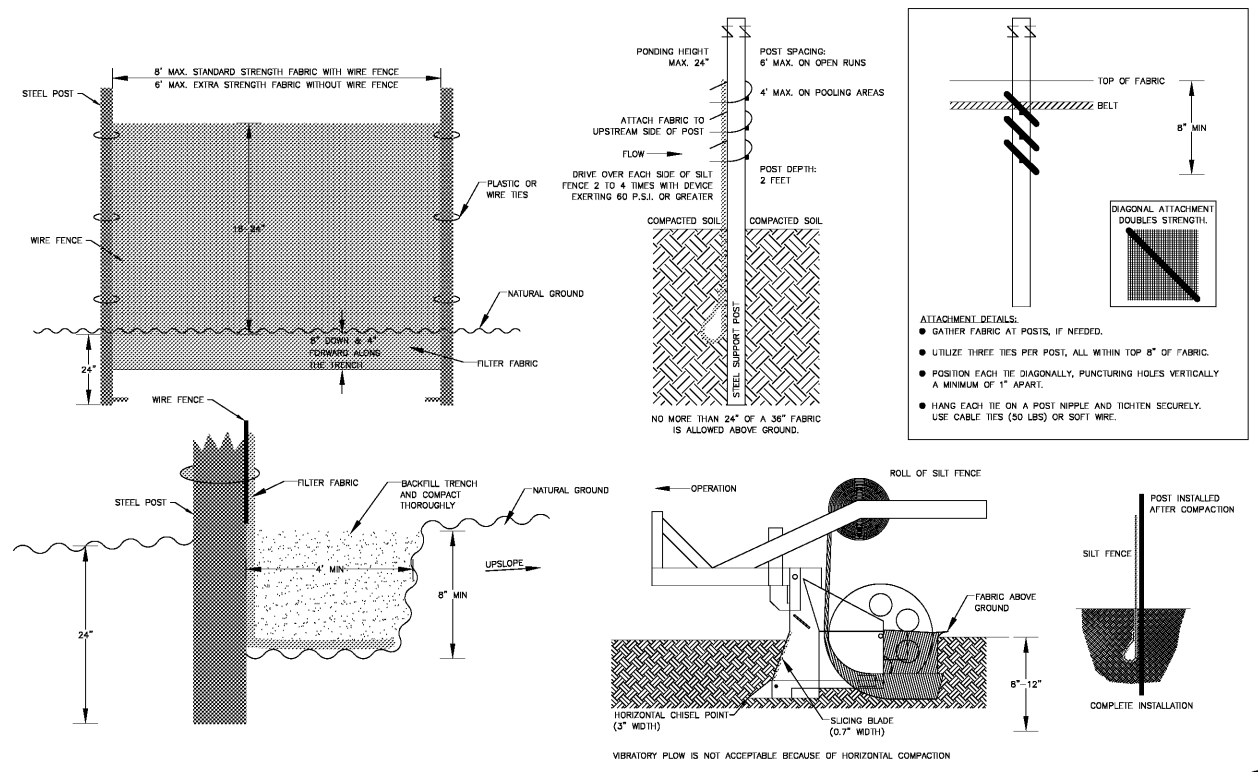
TEMPORARY SEEDING: (JANUARY 1 - MARCH 31) (SEPTEMBER 1 - DECEMBER 31)	RYE (GRAIN)	120 LB/AC
	KOBE LESPEDEZA	50 LB/AC
TEMPORARY SEEDING: (APRIL 1 - AUGUST 31)	BAHAGRASS	200 LB/AC
	KOBE LESPEDEZA	15 LB/AC

LIMING AND FERTILIZER RATES

FOLLOW RECOMMENDATIONS OF SOIL TESTS FOR RATES. SEE SPECIFICATION SECTION T-901 FOR MATERIALS REQUIREMENTS AND APPROVED CONSTRUCTION METHODS.

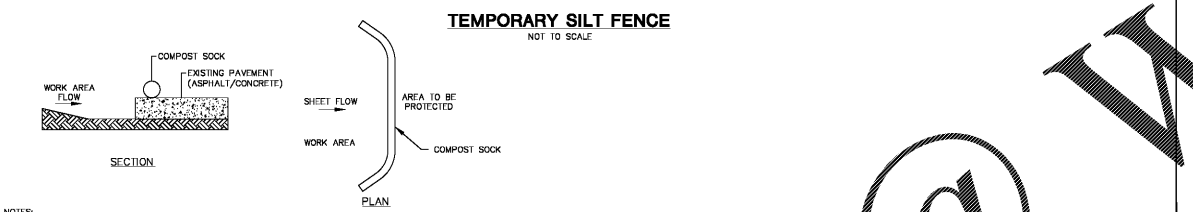
MULCH RATE

APPLY 2,000 LB/AC MULCH. SEE SPECIFICATION SECTION T-908 FOR MATERIALS REQUIREMENTS AND APPROVED CONSTRUCTION METHODS.

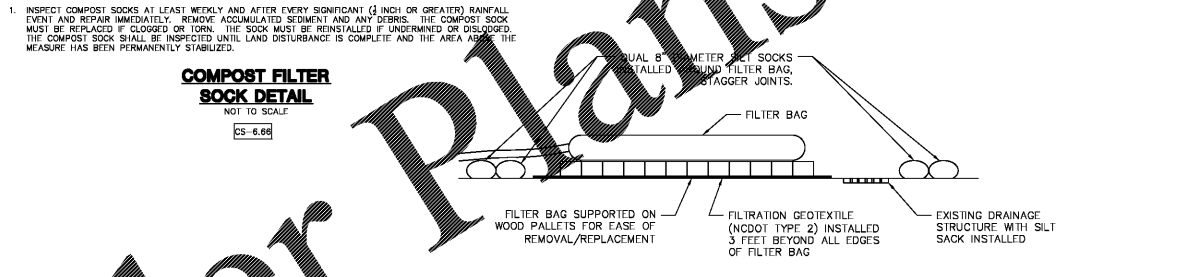


MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

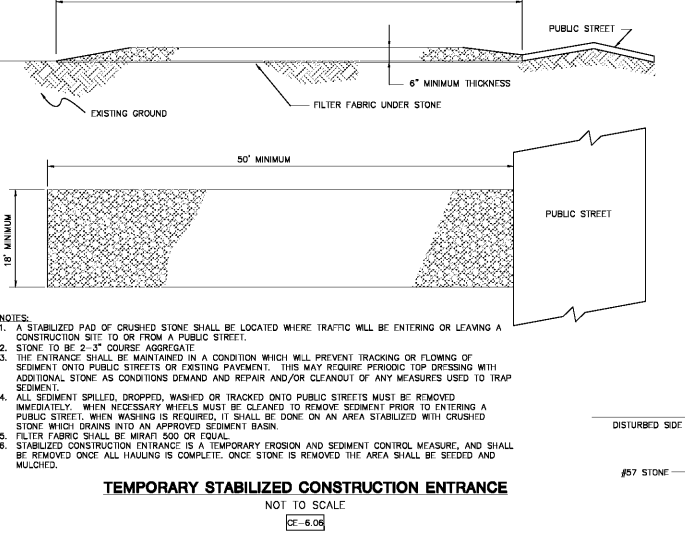
- NOTES:**
1. WIRE SHALL BE A MINIMUM OF 32 INCHES AND SHALL BE A MINIMUM OF 14 GAUGE WITH 6"x6" MESH SPACING.
  2. FILTER FABRIC SHALL BE A MINIMUM OF 36" IN WIDTH AND SHALL BE FASTENED ADEQUATELY TO THE WIRE AND/OR POST IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.
  3. STEEL POSTS SHALL BE 4'-0" IN HEIGHT AND BE OF THE SELF FASTENER ANGLE STEEL TYPE.
  4. SILT FENCE TO BE UTILIZED ON AS NEEDED BASIS, BASED ON CONSTRUCTION OPERATIONS AND GROUND CONDITIONS. EXACT LOCATIONS TO BE DETERMINED IN FIELD DURING CONSTRUCTION.
  5. CONTRACTOR SHALL INSTALL ROCK OVERFLOW OUTLETS IN THE SILT FENCE IN THE LOW AREAS AS SHOWN ON THE PLANS.
  6. SILT FENCE SHALL BE PROVIDED ADJACENT TO DITCHES AND AT THE TOP OF FILLSLOPES, UNLESS OTHERWISE SHOWN ON THE DRAWINGS. SILT FENCE SHALL BE INSTALLED 10' OUT THE TOP OF SLOPES, IN ORDER TO PROVIDE SPACE FOR SEDIMENT STORAGE AND MAINTENANCE.
- MAINTENANCE:**
1. INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
  2. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DISCONNECT OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
  3. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.
  4. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.



- NOTES:**
1. RANGE OF PH IS 5.0-8.0 IN ACCORDANCE WITH IMCC 04.11-A, ELECTROMETRIC PH DETERMINATIONS FOR COMPOST.
  2. PARTICLE SIZE 99% PASSING A 2-INCH (50MM) SIEVE WITH A RANGE OF 30%-50% PASSING A 3/8-INCH (9.5MM) SIEVE, IN ACCORDANCE WITH IMCC 02.02-B, "SAMPLE SIEVING FOR AGGREGATE SIZE CLASSIFICATION". (NOTE: IN THE FIELD, PRODUCT COMMONLY IS BETWEEN 1/2 INCH AND 2-INCH PARTICLE SIZE.)
  3. MESH OPENING SIZE SHALL BE BETWEEN 1" AND 2".
  4. MOISTURE CONTENT OF LESS THAN 50% IN ACCORDANCE WITH STANDARDIZED TEST METHODS FOR MOISTURE DETERMINATION.
  5. MATERIAL SHALL BE RELATIVELY FREE (4% BY DRY WEIGHT) OF INERT OR FOREIGN MAN MADE MATERIALS.
  6. A SAMPLE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL, PRIOR TO ORDERING AND MUST COMPLY WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
  7. EXAMPLES OF MEDIA THAT MAY BE USED INCLUDE UNPAINTED AND NON-PAINTED WOOD PALETS, AND CLEAN LAND CLEARING DEBRIS OR TREE CHIPS PROVIDED THEY MEET THE CRITERIA SHOWN ABOVE.
- MAINTENANCE:**
1. INSPECT COMPOST SOCKS AT LEAST WEEKLY AND AFTER EVERY SIGNIFICANT (1/4 INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE ACCUMULATED SEDIMENT AND ANY DEBRIS. THE COMPOST SOCK MUST BE REPLACED IF CLOGGED OR TORN. THE SOCK MUST BE REINSTALLED IF UNDERMINED OR DISPOSED. THE COMPOST SOCK SHALL BE INSPECTED UNTIL LAND DISTURBANCE IS COMPLETE AND THE AREA ABOVE THE MEASURE HAS BEEN PERMANENTLY STABILIZED.



- NOTES:**
1. THE SEEDING AND SILT SOCK CONTAINMENT AREA SHALL BE CONSTRUCTED ADJACENT TO AN EXISTING DRAINAGE STRUCTURE WITH A SILT SACK INSTALLED WHEREVER POSSIBLE WITHIN THE WORK AREAS. THE CONTRACTOR SHALL MAINTAIN LOW POINT SUMPS WITHIN THE EXCAVATION TO ALLOW FOR DE-WATERING OF THE SITE.
  2. THE CONTRACTOR SHALL MAINTAIN EXTRA FILTER BAGS ON SITE AT ALL TIMES.
  3. FILTER BAG TO BE MANUFACTURED WITH NONWOVEN FABRIC FILTER MATERIAL WITH A MINIMUM PERMEABILITY OF AT LEAST 0.2 CM/SEC PER ASTM D 4491 AND A TENSILE BURST STRENGTH OF AT LEAST 375 PSI PER ASTM D 3786. KNOWN MANUFACTURER DANDY PRODUCTS INC.
  4. SILT SOCKS MUST BE CAPABLE OF REMOVING AT LEAST 75% OF TOTAL SUSPENDED SOLIDS WITH A HYDRAULIC FLOW THROUGH RATE OF AT LEAST 2.5 GPM/FT. KNOWN MANUFACTURER FILTREX INTERNATIONAL, INC.
- MAINTENANCE:**
1. THE CONTRACTOR SHALL PUMP WATER TO THE FILTER BAG AT A RATE NOT EXCEEDING THE FILTER BAG MANUFACTURER'S RECOMMENDATIONS, BECAUSE THE WATER FLOW CAPACITY OF THE FILTER BAG WILL DECREASE AS IT FILLS WITH SEDIMENT/SILT. IT MUST BE CONTINUOUSLY MONITORED DURING DE-WATERING OPERATIONS TO PREVENT ANY SWELLAGE.
  2. ONCE FULL, THE CONTRACTOR SHALL DISPOSE OF THE FILTER BAG AS REQUIRED BY LOCAL REGULATIONS. FILTER BAGS ARE INTENDED FOR A SINGLE USE, AND SHALL BE DISPOSED WITH ALL SILT/SEDIMENT INCLUDED AND SHALL NOT BE REUSED. THE FILTER BAG MAY BE PLACED ON PALLETS FOR EASIER REMOVAL/REPLACEMENT ONCE FULL.
  3. REMOVE FILTER BAG AND CONTAINMENT SILT SOCKS ONCE THE AREA HAS BEEN STABILIZED/PAVED.



MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

Order Plans @