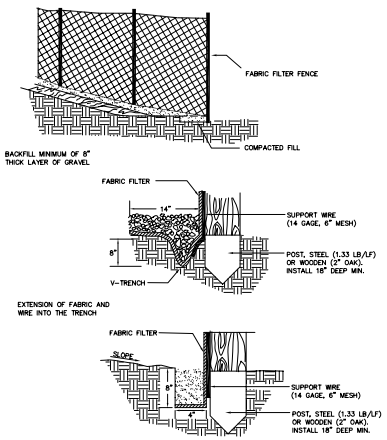


SILT FENCE

CONSTRUCTION SPECIFICATIONS:

1.) CONSTRUCT THE SEDIMENT BARRIER OF STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRICS.

2.) ENSURE THAT THE HEIGHT OF THE SEDIMENT FENCE DOES NOT EXCEED 18 INCHES ABOVE THE GROUND SURFACE.

3.) CONSTRUCT THE FILTER FABRIC FROM A CONTINUOUS ROLL CUT THE LENGTH OF THE BARRIER TO AVOID JOINTS. WHEN JOINTS ARE NECESSARY, SECURELY FASTEN THE FILTER CLOTH ONLY AT A SUPPORT POST WITH OVERLAP TO THE NEXT POST.

4.) SUPPORT STANDARD STRENGTH FILTER FABRIC BY WIRE MESH FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY WIRE STAPLES AT LEAST 1 INCH LONG, OR WIRES. EXTEND THE MESH SUPPORT TO THE BOTTOM OF THE TRENCH.

5.) WHEN A WIRE MESH SUPPORT FENCE IS USED, SPACE POSTS A MAXIMUM OF 8 FEET APART. SUPPORT POSTS SHOULD BE DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 18 INCHES.

6.) EXTRA STRENGTH FILTER FABRIC WITH 6 FT POST SPACING DOES NOT REQUIRE WIRE MESH SUPPORT FENCE. STAPLE OR WIRE THE FILTER FABRIC DIRECTLY TO THE POSTS.

7.) EXCAVATE A TRENCH APPROXIMATELY 4 INCHES WIDE AND 8 INCHES DEEP ALONG THE PROPOSED LINE OF POSTS AND UPSLOPE FROM THE BARRIER.

8.) BACKFILL THE TRENCH WITH COMPACTED SOIL OR GRAVEL PLACED OVER THE FILTER FABRIC.

9.) DO NOT ATTACH FILTER FABRIC TO EXISTING TREES.

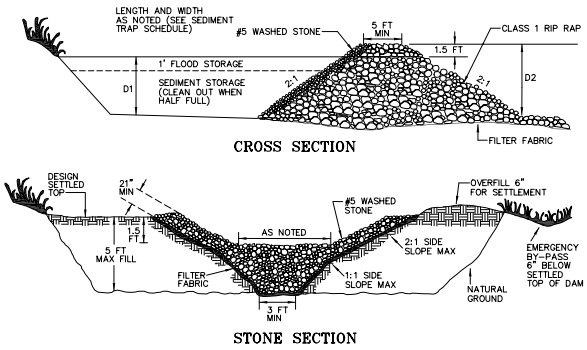
MAINTENANCE:

INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.

SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT IMMEDIATELY.

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.

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.



TEMPORARY SEDIMENT TRAP

NTS

CONSTRUCTION SPECIFICATIONS

1. CLEAR, GRUB, AND STRIP THE AREA UNDER THE EMBANKMENT OF ALL VEGETATION AND ROOT MAT. REMOVE ALL SURFACE SOIL CONTAINING HIGH AMOUNTS OF ORGANIC MATTER AND STOCKPILE OR DISPOSE OF IT PROPERLY. HAUL ALL OBJECTIONABLE MATERIAL TO THE DESIGNATED DISPOSAL AREA.

2. ENSURE THAT FILL MATERIAL FOR THE EMBANKMENT IS FREE OF ROOTS, WOODY VEGETATION, ORGANIC MATTER, AND OTHER OBJECTIONABLE MATERIAL. PLACE THE FILL IN LIFTS NOT TO EXCEED 9 INCHES AND MACHINE COMPACT IT. OVER FILL THE EMBANKMENT 6 INCHES TO ALLOW FOR SETTLEMENT.

3. CONSTRUCT THE OUTLET SECTION IN THE EMBANKMENT. PROTECT THE CONNECTION BETWEEN THE RIPRAP AND THE SOIL FROM PIPING BY USING FILTER FABRIC OR A KEYWAY CUTOFF TRENCH BETWEEN THE RIPRAP STRUCTURE AND THE SOIL.

–PLACE THE FILTER FABRIC BETWEEN THE RIPRAP AND SOIL. EXTEND THE FABRIC ACROSS THE SPILLWAY FOUNDATION AND SIDES TO THE TOP OF THE DAM; OR

–EXCAVATE A KEYWAY TRENCH ALONG THE CENTERLINE OF THE SPILLWAY FOUNDATION EXTENDING UP THE SIDES TO THE HEIGHT OF THE DAM. THE TRENCH SHOULD BE AT LEAST 2 FT DEEP AND 2 FT WIDE WITH 1:1 SIDE SLOPES.

4. CLEAR THE POND AREA BELOW THE ELEVATION OF THE CREST OF THE SPILLWAY TO FACILITATE SEDIMENT CLEANOUT.

5. ALL CUT AND FILL SLOPES SHOULD BE 2:1 OR FLATTER.

6. ENSURE THAT THE STONE (DRAINAGE) SECTION OF THE EMBANKMENT HAS A MINIMUM BOTTOM WIDTH OF 3 FT AND MAXIMUM SIDE SLOPES OF 1:1 THAT EXTEND TO THE BOTTOM OF THE SPILLWAY SECTION.

7. CONSTRUCT THE MINIMUM FINISHED STONE SPILLWAY BOTTOM WIDTH, AS SHOWN ON THE PLANS, WITH 2:1 SIDE SLOPES EXTENDING TO THE TOP OF THE OVER FILLED EMBANKMENT. KEEP THE THICKNESS OF THE SIDES OF THE SPILLWAY OUTLET STRUCTURE AT A MINIMUM OF 21 INCHES. THE WEIR MUST BE LEVEL AND CONSTRUCTED TO GRADE TO ASSURE DESIGN CAPACITY.

8. MATERIAL USED IN THE STONE SECTION SHOULD BE A WELL–GRADED MIXTURE OF STONE WITH A D... SIZE OF 9 INCHES (CLASS B EROSION CONTROL STONE IS RECOMMENDED) AND A MAXIMUM STONE SIZE OF 14 INCHES. THE STONE MAY BE MACHINE PLACED AND THE SMALLER STONES WORKED INTO THE VOIDS OF THE LARGER STONES. THE STONE SHOULD BE HARD, ANGULAR, AND HIGHLY WEATHER–RESISTANT.

9. ENSURE THAT THE STONE SPILLWAY OUTLET SECTION EXTENDS DOWNSTREAM PAST THE TOE OF THE EMBANKMENT UNTIL STABLE CONDITIONS ARE REACHED AND OUTLET VELOCITY IS ACCEPTABLE FOR THE RECEIVING STREAM. KEEP THE EDGES OF THE STONE OUTLET SECTION FLUSH WITH THE SURROUNDING GROUND AND SHAPE THE CENTER TO CONFINE THE OUTFLOW STREAM.

10. DIRECT EMERGENCY BYPASS TO NATURAL, STABLE AREAS. LOCATE BYPASS OUTLETS SO THAT FLOW WILL NOT DAMAGE THE EMBANKMENT.

11. STABILIZE THE EMBANKMENT AND ALL DISTURBED AREAS ABOVE THE SEDIMENT POOL AND DOWNSTREAM FROM THE TRAP IMMEDIATELY AFTER CONSTRUCTION.

12. SHOW THE DISTANCE FROM THE TOP OF THE SPILLWAY TO THE SEDIMENT CLEANOUT LEVEL (ONE–HALF THE DESIGN DEPTH) ON THE PLANS AND MARK IT IN THE FIELD.

MAINTENANCE

INSPECT TEMPORARY SEDIMENT TRAPS AFTER EACH PERIOD OF SIGNIFICANT RAINFALL. REMOVE SEDIMENT AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE–HALF THE DESIGN DEPTH OF THE TRAP. PLACE THE SEDIMENT THAT IS REMOVED IN THE DESIGNATED DISPOSAL AREA AND REPLACE THE CONTAMINATED PART OF THE GRAVEL FACING.

CHECK THE STRUCTURE FOR DAMAGE FROM EROSION OR PIPING. PERIODICALLY CHECK THE DEPTH OF THE SPILLWAY TO ENSURE IT IS A MINIMUM OF 1.5 FT BELOW THE LOW POINT OF THE EMBANKMENT. IMMEDIATELY FILL ANY SETTLEMENT OF THE EMBANKMENT TO SLIGHTLY ABOVE DESIGN GRADBNY RIPRAP DISPLACED FROM THE SPILLWAY MUST BE REPLACED IMMEDIATELY.

AFTER ALL SEDIMENT–PRODUCING AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE THE STRUCTURE AND ALL UNSTABLE SEDIMENT. SMOOTH THE AREA TO BLEND WITH THE ADJOINING AREAS AND STABILIZE PROPERLY.

PROJECT INFORMATION

PROJECT DESCRIPTION

THE PURPOSE OF THE PROJECT IS TO CONSTRUCT A BOAT/RV STORAGE FACILITY. APPROXIMATELY 5.990 ACRES WILL BE DISTURBED DURING CONSTRUCTION OF THE PROJECT. THE SITE IS LOCATED IN CHATHAM COUNTY ON THE CORNER OF MT. GILEAD CHURCH ROAD AND HADLEY ROAD (SEE VICINITY MAP).

SITE DESCRIPTION

THE SITE GENERALLY HAS ROLLING TOPOGRAPHY WITH SLOPES GENERALLY 5 TO 10% DRAINING TO A STREAM ON THE SOUTHERN PORTION OF THE SITE. THE PROPERTY IS WOODED WITH HEAVY GROUND LITTER (PINE NEEDLES, ETC.) TWO SMALL DRAINAGE DITCHES DIRECT OFFSITE DRAINAGE FROM ACROSS HADLEY ROAD TO THE STREAM PREVIOUSLY MENTIONED. ALTHOUGH A SECOND STREAM IS NOTED ON USGS MAPS, NO INDICATION OF THIS STREAM IS LOCATED IN THE FIELD AND THE OWNER IS WORKING WITH USACOE TO REMOVE THIS DESIGNATION.

ADJACENT PROPERTY

LAND USE IN THE VICINITY: SOME RESIDENTIAL DEVELOPMENT ON LARGE, WOODED LOTS.

NARRATIVE

PLANNED EROSION AND SEDIMENTATION CONTROL PRACTICES

1. CONSTRUCTION ENTRANCE/EXIT
THE EXISTING GRAVEL DRIVE ENTERING THE SITE WILL BE IMPROVED AS NECESSARY FOR USE AS A CONSTRUCTION ENTRANCE.

2. ROAD STABILIZATION
WITHIN 15 DAYS AFTER FINAL GRADE IS REACHED ON THE NEW STREET, THE SUBGRADE WILL BE STABILIZED WITH ABC STONE

3. SILT FENCE/TEMPORARY DIVERSIONS/CHECK DAMS
SILT FENCE, DIVERSIONS AND BERMS SHALL BE CONSTRUCTED AS NOTED ALONG THE RIGHT–OF–WAY TO DIRECT SEDIMENT–LADEN RUNOFF TO SEDIMENT TRAPS AND SEGREGATE CLEAN RUNOFF FROM SEDIMENT–LADEN RUNOFF. CHECK DAMS WILL BE ADDED AS NECESSARY TO REDUCE VELOCITIES IN DITCHES.

4. SEDIMENT TRAPS
SEDIMENT TRAPS WILL BE PROVIDED AT VARIOUS POINTS ALONG THE PERIMETER OF THE DISTURBED AREA TO PROVIDE FILTRATION OF SEDIMENT–LADEN RUNOFF PRIOR TO LEAVING THE SITE.

CONSTRUCTION SCHEDULE

1. OBTAIN PLAN APPROVAL AND OTHER APPLICABLE PERMITS.
2. HOLD PRECONSTRUCTION CONFERENCE AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION.
3. INSTALL CONSTRUCTION ENTRANCE.
4. INSTALL PERIMETER DITCHES AND STABILIZE IMMEDIATELY.
5. CLEAR AS REQUIRED FOR CONSTRUCTION OF PERIMETER MEASURES (SEDIMENT TRAPS AND DIVERSIONS).
6. INSTALL PERIMETER MEASURES.
7. COMPLETE SITE CLEARING AND STRIPPING.
8. INSTALL CULVERTS AND APRONS.
9. GRADE AND STABILIZE DRIVES.
10. COMPLETE GRADING FOR PADS.
11. INSTALL ABC STONE AND COMPACT.
12. INSTALL BUILDINGS.
13. DISK, SEED AND MULCH ROAD SHOULDERS, DITCHES AND SLOPES. INSTALL LINERS AS NOTED.
14. INSPECT ALL EROSION AND SEDIMENT CONTROL PRACTICES WEEKLY AND AFTER RAINFALL EVENTS. MAKE NEEDED REPAIRS IMMEDIATELY.
15. AFTER SITE IS STABILIZED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND INSTALL PERMANENT VEGETATION ON THE DISTURBED AREAS.
16. ESTIMATED TIME BEFORE FINAL STABILIZATION – 3 MONTHS.

MAINTENANCE PLAN

1. CHECK ALL EROSION AND SEDIMENT CONTROL PRACTICES FOR STABILITY AND OPERATION FOLLOWING EVERY RAINFALL PRODUCING RUNOFF BUT IN NO CASE LESS THAN ONCE EVERY WEEK. MAKE ANY NEEDED REPAIRS IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED. FOLLOW ALL REQUIREMENTS OF NPDES PHASE II PERMIT.
2. REMOVE SEDIMENT FROM BEHIND SILT FENCE OUTLETS AND STONE FILTERS WHEN STORAGE CAPACITY HAS BEEN APPROXIMATELY 50% FILLED. CLEAN OR REPLACE GRAVEL ON OUTLETS WHEN THE WATER POOLS AND IS NO LONGER DRAINING PROPERLY.
3. CLEAN TRAPS WHEN SEDIMENT ACCUMULATES TO WITHIN ONE FOOT OF THE WEIR CREST ELEVATION. CHECK TRAPS FOR EVIDENCE OF BYPASS OR BREACH AFTER EACH RAINFALL AND REPAIR IMMEDIATELY.
4. SEED AND STABILIZE ALL DISTURBED AREAS WITHIN 15 DAYS OF THE COMPLETION OF ANY PHASE OF GRADING. FERTILIZE ALL SEEDED AREAS, RESEED AS NECESSARY, AND MULCH ACCORDING TO THE SEEDING SCHEDULE TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.

S. TIMOTHY BARBER REGISTERED ARCHITECT 4531 NORTH CAROLINA DURHAM, N.C.

BLAIR COMPANY
Self Storage
Mount Gilead Church Road
Chatham County, North Carolina

REVISIONS	
NO.	

Barber Architects
BA
Post Office Box 51712
Durham, North Carolina 27717
(919) 383-8978
(919) 383-8978 – Fax
tbarber@mindspring.com

DATE	02/19/06
DRAWN BY	TB
JOB NO.	0552
SHEET NO.	C-5

PLOT SCALE: 1" = 30'-0"