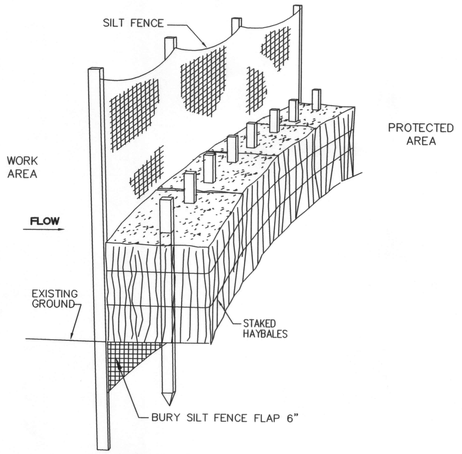
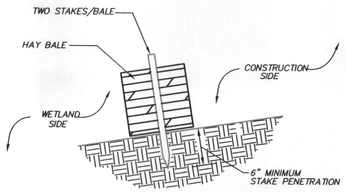


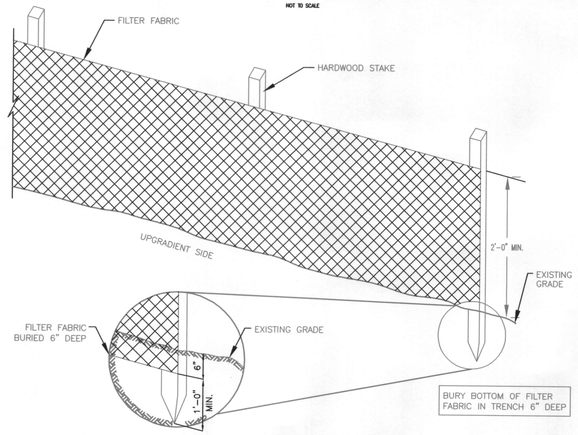

## SILT FENCE/HAYBALE BARRIER DETAIL

NOT TO SCALE



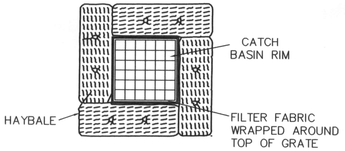

## HAYBALE DETAIL

NOT TO SCALE




## SILTATION FENCE

NOT TO SCALE




NOTES:
1. INSTALL HAY BALES PRIOR TO CONSTRUCTION.
2. PERFORM SITE WORK, AVOIDING DISTURBANCE OF EROSION CONTROL.
3. CLEAN OUT FILTER FABRIC AS NEEDED.
4. CLEAN PAVED AREA AT COMPLETION OF WORK.
5. REMOVE TEMPORARY EROSION CONTROL.

## TEMPORARY ROADWAY SEDIMENT CONTROL

NO SCALE

## MATERIAL SPECIFICATIONS

**BLAST ROCK**

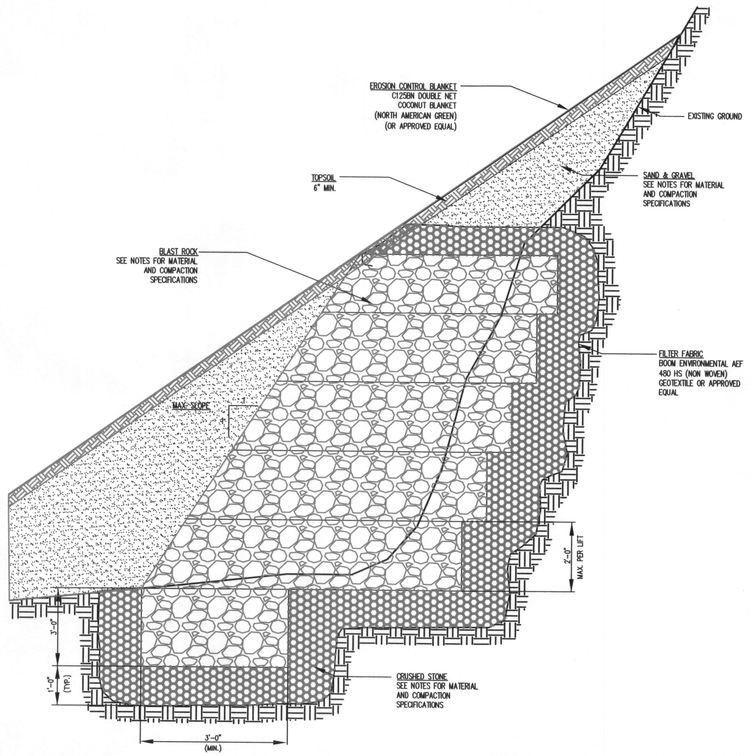
| SIZE | PERCENT FINER |
|---|---|
| 18 INCHES | 100 |
| 6 INCHES | 50–85 |
| 2 INCHES | 30–60 |
| NO. 4 | 10–30 |
| NO. 20 | 0–10 |
| NO. 40 | 0 |

**CRUSHED STONE**
(MHD SPEC. M2.01.1)

| SIZE | PERCENT FINER |
|---|---|
| 2 INCHES | 100 |
| 1.5 INCHES | 95–100 |
| 1 INCH | 35–70 |
| ¾ INCH | 0–25 |

**SAND & GRAVEL**

| SIZE | PERCENT FINER |
|---|---|
| 3 INCHES | 100 |
| 1/2 INCH | 50–85 |
| NO. 4 | 40–75 |
| NO. 10 | 30–60 |
| NO. 40 | 10–35 |
| NO. 100 | 5–20 |
| NO. 200 | 2–8 |




## BLAST ROCK PLACEMENT DETAIL

NOT TO SCALE

## CONSTRUCTION SEQUENCE

1. PLACE EROSION CONTROL DEVICES, AS SHOWN ON THE SITE PLAN. COORDINATE WITH TOWNS OF CONCORD/ACTON NATURAL RESOURCES COMMISSION, AS NEEDED AND/OR REQUIRED UNDER THE ORDER OF CONDITIONS FOR THE PROJECT. SPECIAL CARE SHOULD BE TAKEN TO PROTECT THE EXISTING DRAINAGE SYSTEM WITHIN THE EXISTING PAVEMENT AREA. EXISITNG CATCHBASINS SHALL BE KEPT FUNCTIONAL THROUGHOUT THE PROJECT TO ENSURE THAT NO STORMWATER CAN FLOW FROM THE PAVEMENT ONTO THE EXISITNG SLOPE. SEE UTILITY NOTE FOR ADDITIONAL REQUIREMENTS.

2. CLEAR AND GRUB WORK SITE, REMOVING ALL TREES AND WOODY GROWTH FROM WORK AREA. STOCKPILE TOPSOIL, AS SHOWN ON THE SITE PLAN.

3. CONSTRUCT TEMPORARY ACCESS ROAD TO BASE OF SLOPE.

4. REMOVE 55 GALLON DRUM LOCATED AT STATION 1+50 ALONG PROFILE 1, PER APPROVED MANAGEMENT PROCEDURES OUTLINED BY DEP. HANDLING AND TREATMENT OF POTENTIAL CONTAINERIZED WASTES ARE DETERMINED ON A CASE BY CASE BASIS AND ARE PART OF DEP'S OVERSIGHT OF THE REQUIRED IMMEDIATE RESPONSE ACTION. THE LOCAL FIRE DEPARTMENT WILL BE THE AGENT TO PROVIDE GUIDANCE AND PROTOCOL. PROCEDURES WILL BE PROVIDED TO THE CONTRACTOR, ENGINEER AND APPROPRIATE MUNICIPAL OFFICIALS UNDER SEPARATE COVER.

5. PREPARE BASE FOR ROCK FILL SLOPE. EXCAVATE A TRENCH A MINIMUM OF 4 FEET IN DEPTH, 5 FEET WIDE, AND 45 FEET LONG AT THE NORTHERLY END OF THE PROPOSED ROCK FILL SLOPE.

6. PREPARE TRENCH FOR PLACEMENT OF ANGULAR BLAST ROCK. PLACE FILTER FABRIC, PER MANUFACTURER'S SPECIFICATIONS INTO TRENCH. PLACE CRUSHED STONE ON TRENCH BOTTOM.

7. PLACE AND COMPACT ANGULAR BLAST ROCK USING A DOUBLE BARREL, WALK BEHIND VIBRATORY ROLLER (MULTIQUIP MRH800GS OR APPROVED EQUAL). COMPACT ROCK IN LIFTS OF 24" OR LESS. MAKE A MINIMUM OF 4 FULL PASSES WITH THE VIBRATORY ROLLER. THE EFFECTIVENESS OF COMPACTION METHOD SHALL BE CONFIRMED, IN THE FIELD, BY THE GEOTECHNICAL ENGINEER.

8. CHINK 12" LAYER OF CRUSHED STONE INTO THE SURFACE VOIDS OF THE BLAST ROCK MATERIAL,BETWEEN THE BLAST ROCK AND THE FILTER FABRIC.

9. CONTINUE PLACEMENT OF BLAST ROCK, IN 2 FOOT LIFTS. THE EXPOSED ROCK FACE SHALL BE SET AT A 1 FOOT HORIZONTAL TO 1 FOOT VERTICAL SLOPE.

10. PLACE ANGULAR ROCK TO LIMITS SHOWN ON SITE PLAN. PROVIDE 1' OF CRUSHED STONE TOPPED BY FILTER FABRIC ON TOP OF FINAL BLAST ROCK LIFT IN PREPARATION FOR PLACEMENT OF SAND AND GRAVEL.

11. PREPARE WETLAND REPLICATION AREAS, AS SPECIFIED. EXCAVATE DEPOSITED SAND AND GRAVEL FROM THE RESOURCE AREA IN ACTON. CONTRACTOR SHALL WORK EXCAVATION FROM NORTH TO SOUTH. THE LIMIT OF EXCAVATION IS INTENDED TO BE 2 FEET FROM THE CURRENT EDGE OF STANDING WATER. SAND AND GRAVEL SHALL BE REMOVED TO THE GREATEST EXTENT PRACTIBLE. OVER EXCAVATION WITHIN THE CENTER PORTION OF THE REPLICATION AREA IS INTENDED TO CREATE ADDITIONAL FLOOD STORAGE VOLUME. SAND AND GRAVEL REMOVED FROM THE REPLICATION AREA SHALL BE PLACED UPGRADIENT, BETWEEN THE EXISTING FILED STONE WALLS LOCATED AT THE BASE OF THE SLOPE. FILL BETWEEN THE TWO WALLS SHALL BE SHAPED SUCH THAT WATER DRAINS FREELY BETWEEN THE WALLS FROM WEST TO EAST. REMOVAL OF LARGE TREES SHOULD BE AVOIDED. CLEAN ROOT COLLARS OF LARGE TREES TO RESTORE ORIGINAL ROOT COVER. EXCAVATION OF MATERIAL WILL ALLEVIATE FLOODING POTENTIAL THAT MAY HAVE BEEN CREATED BY THE DEPOSITION OF THE GRANULAR FILL. OVER EXCAVATION OF THE POND WILL ENSURE REPLICATION OF TEMPORARILY LOST FLOOD STORAGE VOLUME AND IS INTENDED TO CREATE A DIVERSITY OF HABITAT FOR WETLAND FLORA AND FAUNA. CREATION OF POOLS AND MICROTOPOGRAPHY SHALL BE COORDINATED BY THE ENVIRONMENTAL MONITOR.

12. BEGIN TO SHAPE REMAINDER OF SLOPE, WORKING FROM THE TOE OF SLOPE UPHILL. CHOKE BLAST ROCK SLOPE WITH CRUSHED STONE TO PREVENT INTRUSION OF SAND AND GRAVEL INTO THE BLAST ROCK VOIDS.

SEQUENCE ITEMS 13 THROUGH 17 WILL BE REPEATED AS THE SLOPE IS CONSTRUCTED. EFFICIENCY OF CONSTRUCTION AND WEATHER CONDITIONS AT THE TIME OF CONSTRUCTION WILL DICTATE THE NUMBER OF REPETITIONS REQUIRED. CONTRACTOR SHALL CONSTRUCT SLOPE IN SUCH A MANNER AS TO MINIMIZE THE AMOUNT OF UNSTABILIZED SLOPE AT THE END OF EACH WORK DAY.

13. PLACE SAND & GRAVEL MATERIAL IN 12" TO 18" LIFTS AND COMPACT TO A MINIMUM OF 90% MODIFIED DENSITY. SATISFACTORY COMPACTION WILL BE ACHIEVED WITH A MINIMUM OF 4 FULL PASSES OF THE SPECIFIED DOUBLE BARREL VIBRATORY ROLLER. COMPACTION SHALL BE CONFIRMED, IN THE FIELD, BY THE GEOTECHNICAL ENGINEER.

14. PLACE TOPSOIL ONTO PREPARED SAND & GRAVEL SUBGRADE TO ACHIEVE PROPOSED FINISH GRADE ELEVATIONS.

15. SEED SLOPE USING THE SPECIFIED NEW ENGLAND EROSION CONTROL RESTORATION MIX. APPLY SEED AT A RATE OF 60 LBS, PER ACRE TO ENSURE PROPER COVERAGE.

16. PLACE EROSION CONTROL BLANKET, AS SPECIFIED.

17. PLANT PROPOSED TREES AND SHRUBS, AS SHOWN ON SITE PLAN, AND PER PLANTING DETAILS. PROVIDE ADEQUATE MOISTURE TO SLOPE AND TO NEWLY PLANTED TREES AND SHRUBS TO ACHIEVE SUCCESSFUL GERMINATION AND ROOT GROWTH. CARE SHOULD BE TAKEN WHEN WATERING TO AVOID TRANSPORT OF SEED DOWN SLOPE.

PREPARED FOR:

**FTN LIMITED PARTNERSHIP**
**#48 OLD POWDER MILL RD.**
**CONCORD, MASSACHUSETTS**

BEALS·ASSOCIATES INC.
2 THIRTEENTH STREET CHARLESTOWN, MA 02129
PHONE: 617-242-1120 FAX: 617-242-1190

REFERENCES:

PROPERTY LINE INFORMATION TAKEN FROM THE 'ALTA/ACSM LAND TITLE SURVEY' PLAN PREPARED BY PRECISION LAND SURVEYING, INC., DATED JULY 2007.

TOPOGRAPHICAL INFORMATION TAKEN FROM AERIAL PHOTOGRAPHS BY COL–EAST, INC. DATED NOVEMBER 1, 2006.

TOPOGRAPHICAL INFORMATION NEAR ASSABET RIVER TAKEN FROM CONCORD GIS DEPARTMENT MAY 2008 (NAD83 NAVD88).

DETAILED TOPOGRAPHIC INFORMATION OF SLOPE FAILURE AREA IS THE RESULT OF AN ON–THE GROUND SURVEY PERFORMED BY PRECISION LAND SURVEY IN NOVEMBER OF 2008.

## DIG SAFE NOTE

IN ACCORDANCE WITH MGL CH 82, SECTION 40, INCLUDING AMENDMENTS, ALL CONTRACTORS SHALL NOTIFY UTILITY COMPANIES AND GOVERNMENT AGENCIES, IN WRITING, OF THE INTENT TO EXCAVATE, NO LESS THAN THAN 72 HOURS PRIOR TO SUCH EXCAVATION (EXCLUSIVE OF SATURDAYS, SUNDAYS & HOLIDAYS) OR CALL "DIG SAFE" AT 1–800–322–4844.

UTILITY NOTE:
ALL UTILITY LOCATIONS SHOWN ARE EITHER THE RESULT OF ON–THE GROUND SURVEY OR EXISTING RECORD PLANS AVAILABLE. THE DRAIN MANHOLE DEPICTED ON THE EAST SIDE OF THE WORK AREA, AT THE TOP OF THE SLOPE, IS SHOWN AS APPROXIMATE. THE CONTRACTOR SHALL LOCATE THIS STRUCTURE IN THE FIELD. THE DESIGN ENGINEER SHALL CONFIRM THAT THE DRAINAGE SYSTEM IS FUNCTIONING, AS SHOWN.


6/17/09

| NO. | REVISION/ISSUE | DATE |
|---|---|---|
| 5 | PER DEP SITE WALK | 06/16/2009 |
| 4 | PER DEP SITE WALK | 06/12/2009 |
| 3 | PER CMA AND NRC COMMENTS | 04/30/2009 |
| 2 | PER CMA AND NRC COMMENTS | 04/15/2009 |
| 1 | MODIFY STABILIZATION DESIGN | 04/10/2009 |

## SITE DETAILS

PLAN TO ACCOMPANY NOTICE OF INTENT
FOR #48 OLD POWDER MILL ROAD
CONCORD, MASSACHUSETTS
AND
40 SUDBURY ROAD
ACTON, MASSACHUSETTS

| | | |
|---|---|---|
| PROJECT C-472.07 | DESIGN TML | SHEET 4 OF 5 |
| DATE DECEMBER 19, 2008 | CHECKED TML | |
| SCALE NONE | REVISED TJM | |