

NOTES FOR GEOBAG (POLYPROPYLENE):

1. EACH BAG DELIVERED AT SITE SHALL BE MARKED WITH LABELS THAT IDENTIFY BRAND NAME, CONTRACT PACKAGE NO, SIZE OF BAG, DATE OF PRODUCTION OF GEOTEXTILE, NAME OF CONTRACTOR ETC.
2. SEWING SHALL BE DONE BY MACHINE WITH LOCK STITCH (TYPE 301 UNDER ISO 4915/DIN61400) OR DOUBLE CHAIN STITCH (TYPE 401 UNDER ISO 4915/DIN61400) AS PER BWDB TECHNICAL SPECIFICATION AND TENDER DOCUMENT. THREAD FOR STITCHING SHOULD BE 100% POLYPROPYLENE OR NYLON.
3. FILLING MATERIAL OF GEOBAG SHOULD BE SAND AND 80% SHOULD RETAIN ON #100 SIEVE. SAND SHOULD BE FREE FROM CLAY & ORGANIC MATTER.
4. IN GEOTEXTILE FABRIC, POLYPROPYLENE SHALL BE 97% AND ADDITIVES SHALL BE 3%. CARBON BLACK (2%) AND ANTIOXIDANTS (1%) MAY BE MIXED AS ADDITIVES.
5. EN 11924:2000 IS FOR ALLOWABLE MAXIMUM EXPOSURE TIME DURING INSTALLATION OF GEOTEXTILE FILTER AND GEOBAG.
6. THE GEO-TEXTILE PRODUCT MANUFACTURER SHALL CERTIFY THE PERFORMANCE (VALUE) OF THEIR PRODUCT DESCRIBING DIFFERENT PROPERTIES SUCH AS EFFECTIVE OPENING SIZE 090, MASS, THICKNESS, STRENGTH ELONGATION, MAXIMUM EXPOSURE TIME, DURABILITY (OR VALUE TIME) ETC.
7. SIEVE ANALYSIS FOR CHECKING 80% RETAINED ON #100 SIEVE AND TEST FOR CLAY & ORGANIC MATTER CONTENT SHOULD BE DONE (AS PER ACTUAL NEED). SPECIFICATIONS OF GEOTEXTILE SHALL BE AS PER SCHEDULE.

NOTES FOR C.C BLOCKS:

1. CONCRETE FOR C.C BLOCK SHALL HAVE MINIMUM CYLINDER STRENGTH OF 12.00N/mm² FOR PITCHING BLOCK & 10.50N/mm² FOR DUMPING BLOCK AT 28 DAYS (STONE CHIPS USE AS COARSE AGGREGATE).
2. CURING OF C.C BLOCKS SHALL BE CONTINUED FOR 21 DAYS.
3. THE PITCHING WORK SHALL BE PLACED ON PROPERLY COMPACTED SLOPE.

NOTES FOR DUMPING:

1. WORK SHALL BE EXECUTED ONLY WHEN WL IS AT OR NEAR WORKING LOW W.L AS SHOWN IN THE DRAWING.
2. SURVEY BOAT EQUIPPED WITH NECESSARY DUMPING EQUIPMENT, SURVEY EQUIPMENT & SURVEY TEAM SHOULD BE ENSURED AT SITE BEFORE START OF DUMPING.
3. DUMPING MATERIALS SHALL BE DUMPED FROM BARGE EQUIPPED WITH GUIDED FENCE SO THAT DUMPING MATERIALS CAN BE DUMPED INTO PROPER POSITION.
4. THE FOLLOWING EQUIPMENT SHALL BE USED FOR DUMPING.
 - a. FLAT TOP BARGE /PONTOONS/DUMPING BOAT SHALL BE USED FOR DUMPING.
 - b. ENGINE BOAT - FOR TRANSPORTING THE DUMPING MATERIAL TO THE BARGE.
 - c. TOPOGRAPHIC & BATHYMETRIC SURVEY TEAM EQUIPPED WITH TOTAL STATION.
 - d. NO DUMPING SHALL ALLOWED WITHOUT PROPERLY POSITIONED & ANCHORED DUMPING BOAT.
5. SPECIAL CARE SHALL BE TAKEN FOR ANCHORING OF DUMPING PONTOON/BOAT.
6. WORK SHALL BE STARTED FROM U/S END AND FROM DUMPING END TO BANK.
7. FOLLOWING CONSTRUCTION SEQUENCE SHALL BE FOLLOWED DURING EXECUTION OF THIS PROTECTIVE WORK:

- a. EXECUTION OF WORK SHALL BE DONE FROM THE EXTREME END OF DUMPING TO TOWARDS THE BANK.
 - b. DUMPING OF GEOBAG BELOW WORKING LOW W.L.
 - c. DUMPING OF C.C BLOCKS BELOW WORKING LOW W.L. OVER GEOBAG.
 - d. SLOPE PREPARATION & PITCHING WORK ABOVE WORKING LOW W.L.
8. A 'NEED BASED DUMPING' APPROACH SHALL BE TAKEN WHERE THE SCOUR HOLES ARE IDENTIFIED AT FIRST AND ADDRESSED ACCORDINGLY.

- 9. A BASELINE SURVEY SHALL BE DONE FOR ACTUAL DISTRIBUTION OF GEO-BAGS ACCORDING TO PREVAILING RIVER CONDITIONS BEFORE START OF THE WORK. A SECOND SURVEY SHALL BE UNDER TAKEN WITHIN 12 HOURS BEFORE DUMPING IN A DESIGNATED NEXT AREA AND AT NOT MORE THAN 10.00 METRES IN INTERVAL BETWEEN ADJACENT CROSS SECTIONS. IF ANY ADVERSE SITUATION ARISED, IT SHOULD BE REPORTED TO THE COMPETENT AUTHORITY FOR NECESSARY ACTION.**

BANGLADESH WATER DEVELOPMENT BOARD
DESIGN ENGINEER
DESIGN CIRCLE-5

- 11. GEO-BAGS SHALL BE FILLED FULL WITH SAND AND GRAVEL MINIMUM OF A CENTIMETER UPON THE SPECIFIED WEIGHT AND OTHER SPECIFICATIONS AS PER BMDR Schedule.**

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