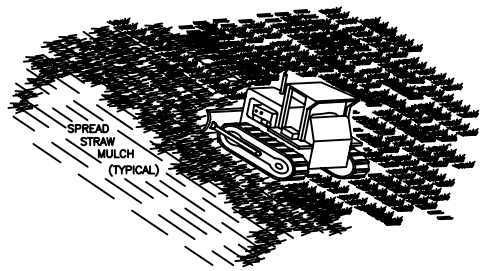


'TRACKING' WITH MACHINERY ON SANDY SOIL PROVIDES ROUGHENING WITHOUT UNDUE COMPACTION.

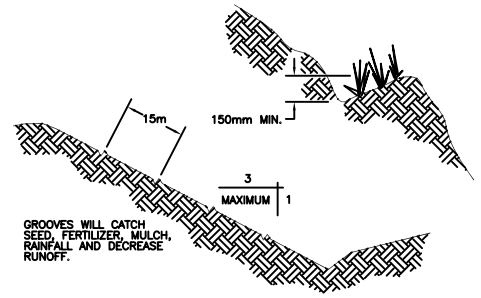
NOTES:

1. ROUGHEN SLOPE WITH BULLDOZER
2. BROADCAST SEED AND FERTILIZER.
3. SPREAD STRAW MULCH AS FOLLOWS:
   - UNPROCESSED HAY OR STRAW MULCH AT A RATE OF 4500 KG/HA.
   - MULCH AT A RATE OF 2200 KG/HA (STEEP SLOPES WILL REQUIRE GREATER QUANTITIES AS DETERMINED BY THE PROJECT ENGINEER).
4. PUNCH STRAW MULCH INTO SLOPE BY RUNNING BULLDOZER UP AND DOWN SLOPE.

TYPICAL STRAW ANCHORING
NTS

'TRACKING' WITH MACHINERY UP AND DOWN THE SLOPE PROVIDES GROOVES THAT WILL CATCH SEED, RAINFALL AND REDUCE RUNOFF.

TRACKING



CONTOUR FURROWS

TYPICAL SURFACE ROUGHENING
NTS

DETAILED CONSTRUCTION SEQUENCE – TEMPORARY BRIDGES

IN GENERAL TERMS, THE FOLLOWING SEQUENCE OF CONSTRUCTION AND MITIGATION MEASURES WILL BE FOLLOWED AT ALL TEMPORARY BRIDGES:

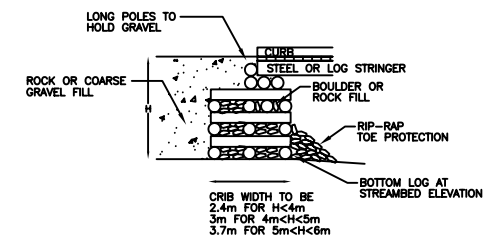
1. INSTALL THE BRIDGE IN A MANNER THAT WILL MINIMIZE SEDIMENT ENTERING THE WATER. BRIDGE MUST BE ENGINEERED TO SUPPORT THE LOADS EXPECTED. CURBS AT LEAST 150 mm HIGH MUST BE INSTALLED ALONG THE EDGE OF THE DECK TO CONTAIN MUD ON THE BRIDGE. FASTENERS CONNECTING COMPONENTS MUST BE STRONG ENOUGH TO HOLD THEM IN POSITION DURING THE LIFE OF THE BRIDGE. CRIBS ARE TO BE FILLED WITH ROCK OR COBBLE. RIP RAP EROSION PROTECTION IS TO BE PLACED AROUND THE CRIBS AND ON FILL SLOPES PROJECTING INTO THE WATER.

2. ROAD APPROACHES LEADING TO BRIDGE CROSSINGS MUST BE RAISED AND STABLE SO THAT EQUIPMENT LOADS ARE SUPPORTED AT A SUFFICIENT DISTANCE BACK FROM THE WATER AS TO REDUCE MUD ENTERING THE STREAM FROM EQUIPMENT TRACKS. THIS MAY REQUIRE USING MATERIALS SUCH AS GRAVEL, ROCK OR CORDUROY. IF CUTS ARE NEEDED TO OBTAIN A SATISFACTORY GRADE, THEY ARE TO BE DUG WITH SIDE DITCHES AND STABLE SLOPES. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED TO KEEP SEDIMENT ON LAND (E.G., FLOW CHECKS, FILTER CLOTH, RIP RAP, SEED AND MULCH, SEDIMENT TRAPS, ETC.).

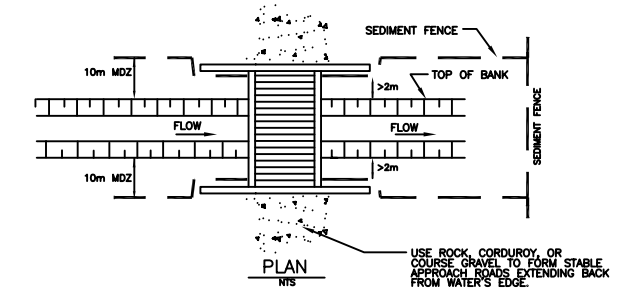
3. ANY BUILDUP OF MUD ON THE TEMPORARY BRIDGE SHOULD BE REMOVED SUCH THAT THERE IS NO IMPACT ON THE WATER QUALITY OF THE WATERCOURSE.

4. TEMPORARY CROSSINGS SHALL BE REMOVED AS QUICKLY AS POSSIBLE WHEN NO LONGER REQUIRED. REMOVAL SHALL NOT OCCUR OUTSIDE THE JUNE 1–SEPTEMBER 30 CONSTRUCTION WINDOW WITHOUT PRIOR WRITTEN APPROVAL FROM DFO AND DEL. SURPLUS GRAVEL AND BRIDGE MATERIALS ARE TO BE REMOVED FROM THE CROSSING AREA AND DISPOSED OF IN AN APPROVED LOCATION. THE CREEK BED AND BANKS ARE TO BE RESTORED TO A STABLE ANGLE AND PROTECTED WITH EROSION RESISTANT MATERIAL COMPATIBLE WITH FLOW VELOCITY (E.G., COARSE GRAVEL OR RIP RAP).

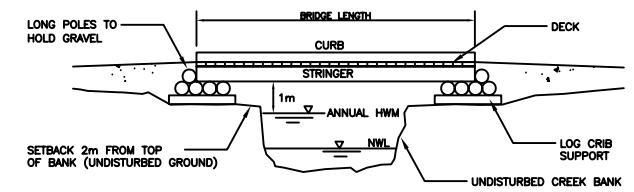
5. WATER CONTROL DURING CONSTRUCTION OF THE TEMPORARY STRUCTURE SHOULD BE IN COMPLIANCE WITH 3.2.1, PROTECTION OF WATERCOURSES & WETLANDS, FOUND IN APPENDIX 'A' OF THIS DOCUMENT.



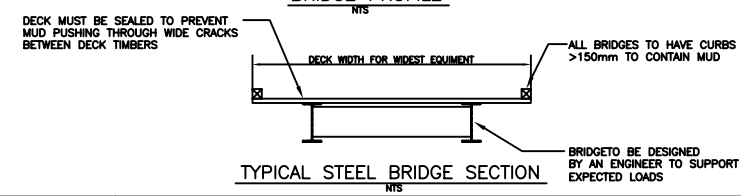
TYPICAL TEMPORARY CRIB ABUTMENT
NTS



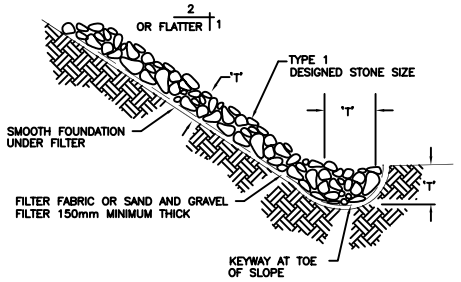
PLAN
NTS



BRIDGE PROFILE
NTS



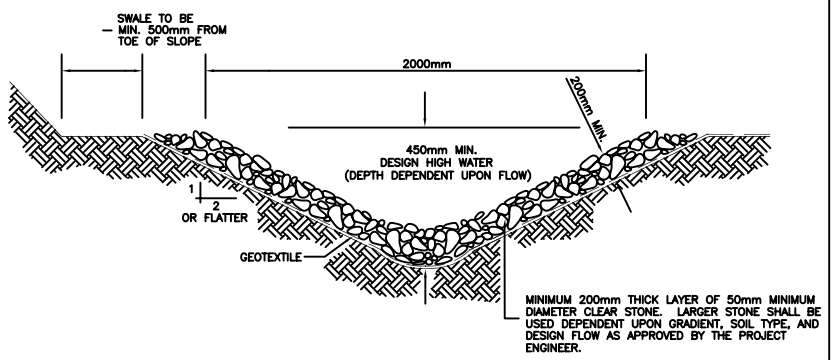
TYPICAL STEEL BRIDGE SECTION
NTS



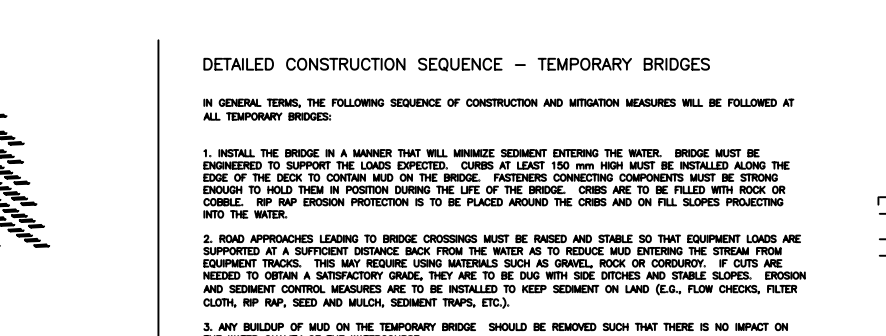
NOTE:
'T' = MIN. THICKNESS OF 675mm OR AS APROVED BY PROJECT ENGINEER

MINIMUM THICKNESS SHALL BE 1.5x THE MAXIMUM STONE DIAMETER, NEVER LESS THAN 150mm.

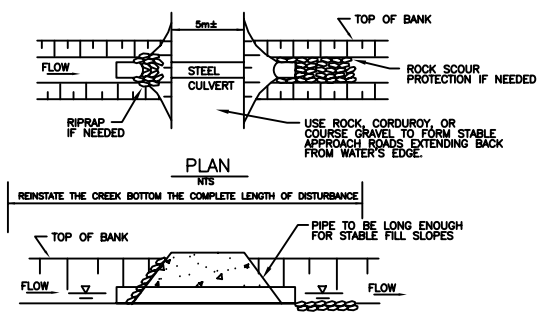
TYPICAL RIPRAP PROTECTION
NTS



CLEAR STONE LINED SWALE
NTS



ROCK LINED DRAINAGE DITCH
NTS



PLAN
NTS

DETAILED CONSTRUCTION SEQUENCE – TEMPORARY CULVERTS

IN GENERAL TERMS, THE FOLLOWING SEQUENCE OF CONSTRUCTION AND MITIGATION MEASURES WILL BE FOLLOWED AT ALL TEMPORARY CULVERTS:

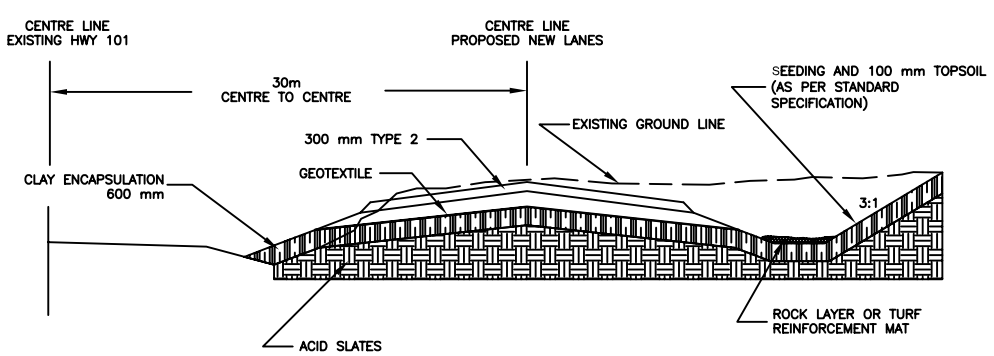
1. INSTALL CULVERT PIPE OF DIAMETER AND LENGTH AS PER APPROVAL CONDITIONS. CULVERT WILL BE INSTALLED TO ENSURE FISH PASSAGE (i.e. SLOPE MUST NOT EXCEED 0.5%). IF STREAMBED SOILS ARE SOFT, INSTALL COARSE GRAVEL OR ROCKFILL PAD UNDER THE PIPE. CULVERT BACKFILL AND FILL FOR THE ROAD IS TO BE COARSE GRANULAR OR ROCK FILL MATERIAL. NO STREAMBED MATERIAL IS TO BE USED IN THE CONSTRUCTION OF THE DAMS. EROSION PROTECTION MAY BE NEEDED ON THE UPSTREAM ROAD FILL SLOPE, AND IF SCOUR IS POSSIBLE, RIP RAP IS TO BE PLACED IN THE STREAMBED DOWNSTREAM OF THE PIPE OUTLET.

2. THE ROAD APPROACH LEADING TO THE CULVERT CROSSING MUST BE RAISED AND STABLE SO THAT EQUIPMENT LOADS ARE SUPPORTED AT A SUFFICIENT DISTANCE BACK FROM THE WATER AS TO REDUCE MUD ENTERING THE WATER FROM EQUIPMENT TRACKS. THIS MAY REQUIRE USING MATERIALS SUCH AS GRAVEL, ROCK OR CORDUROY. IF CUTS ARE NEEDED TO OBTAIN A SATISFACTORY GRADE, THEY ARE TO BE DUG WITH SIDE DITCHES AND STABLE SLOPES. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED TO KEEP SEDIMENT ON LAND (E.G., FLOW CHECKS, FILTER CLOTH, RIP RAP, SEED AND MULCH, SEDIMENT TRAPS, ETC.).

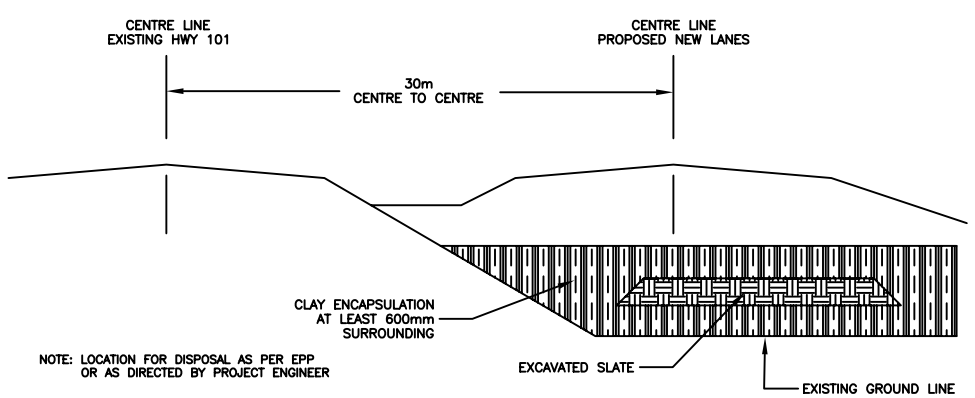
3. WHILE THE CULVERT IS IN USE, ANY BUILDUP OF MATERIAL ON THE ROAD SURFACE OR APPROACHES THAT IS AFFECTING WATER QUALITY IS TO BE SCRAPED OFF AND DISPOSED OF BEHIND THE SEDIMENT FENCE.

4. WHEN THE TEMPORARY CROSSING IS NO LONGER REQUIRED, IT IS TO BE REMOVED AS QUICKLY AS POSSIBLE. REMOVAL SHALL NOT OCCUR OUTSIDE THE CONSTRUCTION WINDOWS WITHOUT PRIOR WRITTEN APPROVAL FROM DFO SURPLUS GRAVEL IS TO BE REMOVED FROM THE CROSSING AREA AND DISPOSED OF IN A LOCATION APPROVED BY THE APPLICABLE REGULATORY AGENCY. THE CREEK BED AND BANKS ARE TO BE RESTORED TO A STABLE ANGLE AND PROTECTED WITH EROSION RESISTANT MATERIAL COMPATIBLE WITH FLOW VELOCITY (E.G., COARSE GRAVEL OR RIP RAP). MEASURES SUCH AS BERMS OR TRANSVERSE LOGS MAY BE NEEDED TO PREVENT SEDIMENT–LADEN WATER FROM RUNNING DOWN THE ROAD.

STREAM PROFILE
NTS



ACID ROCK MITIGATION – GRADE CUT EXPOSURE
NTS



NOTE: LOCATION FOR DISPOSAL AS PER EPP OR AS DIRECTED BY PROJECT ENGINEER

ACID ROCK MITIGATION – TYPICAL DISPOSAL DETAIL
NTS

REV	DATE	DESCRIPTION	MADE	CHKD	PROC	CIVIL	ELEC	MECH	I&C	CONS		APPR
		REVISION	APPROVALS									

SCALE AS NOTED	CLIENT NAME: NOVA SCOTIA DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
DATE MARCH 2001	PROJECT NAME: ENVIRONMENTAL PROTECTION PLAN
DESIGN VARIOUS	DRAWING TITLE: TYPICAL DETAILS
DRAWN VARIOUS	
CHECKED RY DATE MARCH 2001	PROJECT NUMBER: TV20007 Task 0003 — DWG. NO.: TV20007–001 — REV: 0
APPROVED (PROJECT) DATE	REGISTRY NUMBER: REGISTRY
APPROVED (DIVISION) DATE	AMEC Earth & Environmental Ltd.

36" x 24"