PROJECT DESCRIPTION

THE PROJECT IS LOCATED APPROXIMATELY 0.25 MILES SOUTH OF THE INTERSECTION OF MAIN ROAD (T.H. 1) AND EAST STREET (T.H. 4) IN HUNTINGTON, VT AND PROCEEDS SOUTHERLY APPROXIMATELY 0.10 MILES ALONG EAST STREET (T.H. 4).

WORK TO BE PERFORMED FOR THIS PROJECT IS THE CONSTRUCTION OF A TEMPORARY ROADWAY AND BRIDGE TO THE EAST (DOWNSTREAM) SIDE OF THE EXISTING STRUCTURE. THE COMPLETE REMOVAL OF THE EXISTING SUPERSTRUCTURE AND SUBSTRUCTURE. THE CONSTRUCTION OF A NEW SUBSTRUCTURE (PIER AND ABUTMENTS) AND SUPERSTRUCTURE, ARMORING OF THE RIVER BANKS WITH STONE FILL AND RECONSTRUCTION OF THE APPROACHES. THE NEW BRIDGE, WHICH WILL BE CONSTRUCTED ALONG THE EXISTING ALIGNMENT, WILL BE WIDER THAN THE EXISTING STRUCTURE AND WILL HAVE A SIDEWALK ON THE EAST (DOWNSTREAM) SIDE. THE TOTAL DISTURBED AREA WILL BE LESS THAN 1.25 ACRES OVER THE ENTIRE PROJECT.

SITE INVENTORY AND ANALYSIS

THE AREA NORTH OF THE SITE IS A VILLAGE SETTING (HUNTINGTON VILLAGE). THERE ARE HOUSES WITH GRASS LAWNS AND SOME TREES FOR LANDSCAPING. ALONG THE EDGE OF THE RIVER ON THE NORTHEAST SIDE THERE IS A FORESTED AREA. ON THE NORTHWEST SIDE THERE IS A BUILDING WITH A GRAVEL PARKING LOT LOCATED AT THE TOP OF THE RIVER BANK. THE AREA SOUTH OF THE SITE IS ALSO A VILLAGE SETTING WITH NEWER HOUSES, LARGER GRASS LAWNS, AND SOME TREES FOR LANDSCAPING. ON THE SOUTH SIDE THE LAWNS EXTEND TO THE TOP OF THE RIVER BANK. ALL HOMES ALONG THE SITE HAVE SEPTIC SYSTEMS AND WELLS ON THEIR PROPERTIES. THE UNIVERSITY OF VERMONT CONSULTING ARCHAEOLOGY PROGRAM CONDUCTED A PHASE I ARCHAEOLOGICAL SITE IDENTIFICATION SURVEY IN THE PROJECT AREA AND MADE A DETERMINATION OF NO EFFECT FOR THE PURPOSED PROJECT.

AERIAL ELECTRICAL AND TELEPHONE LINES ARE LOCATED ON THE WESTERN SIDE OF THE ROADWAY ON THE NORTH SIDE OF THE BRIDGE THEN SWITCH TO THE EASTERN SIDE OF THE ROADWAY BEFORE CROSSING THE HUNTINGTON RIVER. ONCE ON THE SOUTH SIDE OF THE BRIDGE THEY SWITCH BACK TO THE WESTERN SIDE OF THE ROADWAY. UNDERGROUND ELECTRICAL AND TELEPHONE LINES RUN FROM THE POLE ON THE SOUTHEASTERN SIDE (GMP #7) OF THE BRIDGE TO THE HOME ON THE SAME SIDE. AN UNDERGROUND ELECTRICAL LINE RUNS FROM THE POLE ON THE SOUTHWESTERN SIDE (GMP #8) OF THE BRIDGE TO THE HOME ON THE SAME SIDE. THE ROADWAY IS PAVED, WITH THE LAWNS EXTENDING TO THE EDGE OF THE ROADWAY. THE ROADWAY HAS A RELATIVELY FLAT PROFILE WITH A TYPICAL CROWN. STORMWATER RUNS EAST AND WEST FROM THE ROADWAY, AND CASCADES OVER THE LAWNS. STORMWATER ON THE NORTHWEST GRAVEL PARKING LOT DRAINS TO THE SOUTHWEST AND INTO THE HUNTINGTON RIVER. ON THE NORTHEAST SIDE THE LAWNS SLOPE EASTWARD TOWARD THE HUNTINGTON RIVER. ON THE NORTHWEST SIDE THE LAWNS ARE FLAT. ON THE SOUTH SIDE BOTH LAWNS SLOPE NORTHWARD TO THE HUNTINGTON RIVER.

THE HUNTINGTON RIVER GOES DIRECTLY THROUGH THE SITE. THE RIVER HAS A GRAVEL AND STONE BOTTOM WITH STEEP FORESTED BANKS ON ITS NORTH SIDE AND SHALLOWER BANKS WITH TALL GRASS AND SHRUBS AND SMALL CLUMPS OF TREES ON ITS SOUTH SIDE. THE SOUTHERN BANK BECOMES STEEPER AT THE BRIDGE ABUTMENT. THE NORTH ABUTMENT IS LOCATED AT THE TOP OF THE BANK WITH A PIER LOCATED AT THE RIVER'S EDGE. THE SOUTHERN ABUTMENT IS LOCATED BEYOND THE RIVER'S EDGE, BUT HAS SIDE SLOPES BECAUSE THE ROADWAY IS BUILT UP FROM THE NATURAL GRADE. THERE IS ALSO A PIER LOCATED AT THE RIVER'S EDGE ON THE SOUTH SIDE. THERE IS A DITCH ALONG THE ROADWAY'S TOE OF SLOPE ON THE SOUTHWEST SIDE. THERE IS A SWALE FROM THE GRAVEL DRIVEWAY TO THE RIVER ON THE NORTHWEST SIDE. THERE ARE NO WETLANDS ON OR NEAR THE SITE.

THE NATIVE SOIL THROUGHOUT MOST OF THIS PROJECT IS AGAWAM FINE SANDY LOAM (Kw = 0.28) WHICH IS MODERATELY ERODIBLE. THERE IS ALSO SOME WINOOSKI VERY FINE SANDY LOAM (Kw=0.49) WHICH IS HIGHLY ERODIBLE ON THE SOUTHWEST SIDE OF THE PROJECT. HOWEVER, SINCE MOST OF THE WORK WILL OCCUR IN AREAS PREVIOUSLY DISTURBED FOR THE CONSTRUCTION OF THE EXISTING BRIDGE AND ROADWAY MOST OF THE DISTURBED SOILS WILL BE SAND AND GRAVEL (Kw < 0.23) WHICH HAS A LOW ERODIBILITY.

TEMPORARY EROSION AND SEDIMENT CONTROL

THE FOLLOWING EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE USED AT THIS SITE:

SNOW FENCE (MOD. - PDF)
FENCING WILL BE USED TO DEMARCATE LIMITS OF CONSTRUCTION AS DIRECTED BY THE ENGINEER. FENCING SHALL BE PAID FOR UNDER ITEM 620.70, SNOW FENCE (MOD. - PDF)

SILT FENCE:
SILT FENCE IS TO BE CONSTRUCTED AS SHOWN ON THE PLANS, WITH PROPER EMBEDMENT AND ANCHORING, AS WELL AS ENDS THAT ARE "CURLED" UPHILL TO PROMOTE PONDING AND SETTLING OF SEDIMENT. SEE DETAILS ON SHEET 16.

TEMPORARY SEED AND MULCH:
ALL EXPOSED SOILS SHALL BE MULCHED WITHIN 48 HOURS IF NOT WORKED WITHIN 7 DAYS AND SEEDED AND MULCHED AND/OR MATTED WITHIN 48 HOURS IF NOT WORKED WITHIN 30 DAYS.

EROSION MATTING:
EROSION MATTING SHALL BE USED ON ANY SLOPE GREATER THAN 3H:1V, ON ALL DISTURBED DRAINAGE SWALES AND AS SHOWN ON THE PLANS. EROSION MATTING SHALL BE INSTALL IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

VEHICLE TRACKING PAD:
VEHICLE TRACKING PAD SHALL BE USED TO PROVIDE A STABILIZED ENTRANCE TO ALL CONSTRUCTION STAGING AREAS AND TO ASSIST WITH THE REMOVAL OF SEDIMENT CAPTURED ON THE TIRES OF CONSTRUCTION VEHICLES ENTERING AND EXITING THESE STAGING AREAS. SEE DETAILS ON SHEET 17.

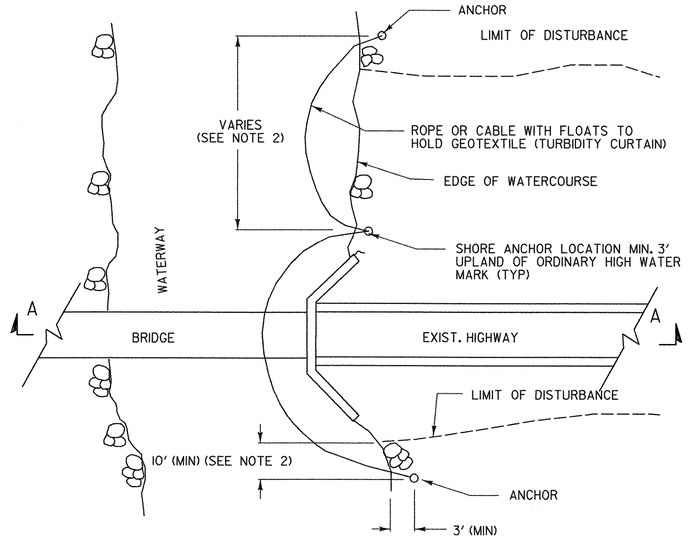
TURBIDITY CURTAIN:
TURBIDITY CURTAIN SHALL BE USED TO PREVENT SILT LADEN WATER FROM ENTERING THE RIVER DURING THE REMOVAL OF THE EXISTING PIERS AND THE ARMOURING OF THE BANKS OF THE RIVER. THE TURBIDITY CURTAIN IS TO BE CONSTRUCTED AS SHOWN ON THE PLANS. SEE DETAILS ON THIS SHEET.

ROCK BARRIER INLET PROTECTION:
ROCK BARRIER INLET PROTECTION SHALL BE USED TO FILTER RUNOFF AND CREATE PONDING TO ALLOW SETTLING OF SEDIMENT. IT IS NOT TO BE USED IF THE INLET IS ON A SLOPE, AS THIS COULD CAUSE WATER TO BYPASS THE INLET AND POTENTIALLY CREATE PROBLEMS WITH FLOODING DOWNSTREAM. THE ROCK BARRIER INLET PROTECTION SHOULD ONLY BE USED IN A SUMP SITUATION, WHERE WATER WILL POND UP, FLOW OVER OR FILTER THROUGH THE ROCK, AND ENTER THE INLET. SEE THE DETAIL ON SHEET 18.

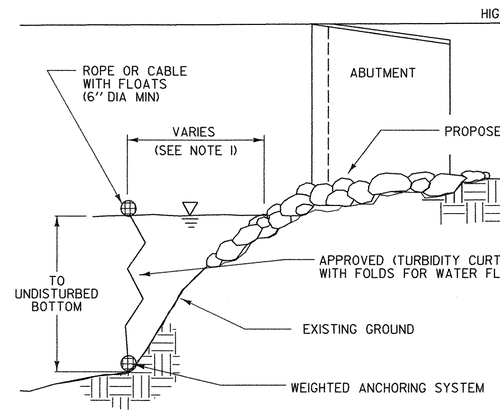
SINGLE CHAMBER TEMPORARY SEDIMENT TRAP:
SEDIMENTATION TRAP SHALL BE USED TO SETTLE SEDIMENT LADEN WATER FROM THE PUMP DOWN OF THE PIER COFFERDAM. SEE THE DETAIL ON SHEET 17.

FINAL EROSION CONTROL MEASURES

THE FINAL EROSION CONTROL MEASURES CONSIST OF STONE FILL, TYPE IV PLACED IN FRONT OF THE NEW ABUTMENTS AND AROUND THE NEW PIER. A NEW CULVERT WITH A DI AND STONE OUTLET PROTECTION AT THE SOUTHEAST END OF THE BRIDGE TO COLLECT ALL THE STORMWATER FROM THE BRIDGE. A NEW CULVERT WITH A DI AND STONE OUTLET PROTECTION JUST SOUTH OF THE FIRST DRIVEWAY ON THE SOUTHEAST SIDE TO COLLECT STORMWATER FROM LAWN AREAS SOUTH OF THE SITE. THE RESEEDING OF ALL DISTURBED AND NEW SIDE SLOPES AND EXPOSED SOILS.



PLAN



SECTION A-A

TURBIDITY CURTAIN - TEMPORARY

APPLICATION NOTES:

A. THE PURPOSE OF A TURBIDITY CURTAIN IS TO SEPARATE WORK AREAS IN OR ADJACENT TO WATERS, TO PREVENT SEDIMENT FROM ENTERING THE WATERS.

B. TURBIDITY CURTAIN SHALL NOT BE PLACED ACROSS A FLOWING WATERWAY. THE TURBIDITY CURTAIN SHALL BE A TYPE III (HEAVY DUTY) CURTAIN CAPABLE OF RESISTING STREAM VELOCITIES UP TO 5 FT/SEC.

GENERAL NOTES:

1. THE TURBIDITY CURTAIN SHALL BE PLACED AS CLOSE TO THE WORK AS POSSIBLE WITHOUT INTERFERING WITH CONSTRUCTION OPERATIONS.
2. THE TURBIDITY CURTAIN SHALL BE A MAXIMUM OF 100 FEET LONG BETWEEN ANCHORS. LAST SECTION SHALL TERMINATE A MINIMUM OF 10 FEET BEYOND THE LIMIT OF DISTURBANCE.
3. THE CONTRACTOR SHALL MONITOR THE TURBIDITY CURTAIN, TAKING INTO ACCOUNT WEATHER PATTERNS AND PREVAILING WIND DIRECTIONS THAT MAY AFFECT WATER LEVELS, VELOCITY AND MOVEMENT OF THE TURBIDITY CURTAIN.
4. THE TURBIDITY CURTAIN SHALL BE REMOVED BY SLOWLY PULLING TOWARD THE SHORE TO MINIMIZE ESCAPE OF SEDIMENTS INTO THE WATERWAY.
5. THE WEIGHTED ANCHOR SYSTEM SHALL BE A TYPE THAT ALLOWS THE CURTAIN TO CONFORM TO THE CONTOUR ON THE BOTTOM OF THE WATERWAY.
6. PAYMENT FOR INSTALLATION AND REMOVAL OF THE TURBIDITY CURTAIN SHALL BE MADE UNDER THE GEOTEXTILE FOR FILTER CURTAIN ITEM.
7. PAYMENT FOR MONITORING TURBIDITY CURTAIN SHALL BE MADE UNDER THE MONITORING EROSION PREVENTION & SEDIMENT CONTROL PLAN ITEM.
8. PAYMENT FOR MAINTAINING TURBIDITY CURTAIN SHALL BE MADE UNDER THE MAINTENANCE OF EROSION PREVENTION & SEDIMENT CONTROL PLAN ITEM, UNLESS MINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.

Dufresne-Henry

PROJECT NAME: HUNTINGTON
PROJECT NUMBER: BRO 1445 (29)

FILE NAME: ...\Cadd\Trans\z01j302frm2.dgn PLOT DATE: 1/12/2006
PROJECT LEADER: M. CHENETTE DRAWN BY: S. BURBANK
DESIGNED BY: S. BURBANK CHECKED BY: M. CHENETTE
NARRATIVE & EROS. CONTROL DETAILS SHEET 15 OF 63