

EROSION PREVENTION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION:

THE HUBBARDTON VT 30 PROJECT BEGINS AT A POINT APPROXIMATELY 1.6806 MILES NORTH OF THE CASTLETON/HUBBARDTON TOWN LINE AT MILE MARKER 1.6806 AND EXTENDING NORTHERLY .2367 MILES TO MILE MARKER 1.9173.

THE PROJECT SHALL CONSIST OF COLD PLANING, A SHIM/LEVELING COURSE OF CRUSHED GRAVEL (FINE GRADED), RECLAIMING OF BOTH THE CRUSHED GRAVEL AND EXISTING SUBBASE MATERIAL, FINE GRADING OF THE SUBGRADE, PAVING, AND NEW GUARDRAIL. ALL EDGES OF PAVEMENT SHALL BE BACKED UP TO FULL HEIGHT WITH AGGREGATE SHOULDER MATERIAL. TOPSOIL, SEED, AND MULCH SHALL BE APPLIED TO ALL SIDE SLOPES.

THE PROJECT SHALL RAISE THE GRADE OF THE ROADWAY APPROXIMATELY 8" FROM THE EXISTING ROAD'S LOWEST ELEVATION. A UNIFORM CROSS-SECTION SHALL BE CREATED AND MAINTAINED ALONG THE LENGTH OF THE PROJECT. THE CROSS-SECTIONAL WIDTH (EDGE-OF-PAVEMENT TO EDGE-OF-PAVEMENT) WILL BE INCREASED APPROXIMATELY 2' +/- FROM EXISTING CONDITIONS. THE TOTAL AREA OF DISTURBANCE IS APPROXIMATELY .94 ACRES.

SITE INVENTORY AND ANALYSIS:

BODIES OF WATER & ON-SITE/OFF-SITE DRAINAGE CHARACTERISTICS:

THE HUBBARDTON VT 30 PROJECT IS LOCATED WITHIN THE NORTHERN END OF THE LAKE BOMOSEEN WETLAND COMPLEX. THE PROJECT LIMITS ARE IMMEDIATELY BORDERED BY THE CLASS I WETLAND COMPLEX ON THE EAST AND WEST. AN 18" CGMP CURRENTLY PROVIDES HYDRAULIC CONNECTIVITY ACROSS THE ROADWAY WIDTH. THERE ARE NO RIVERS OR STREAMS THAT INTERSECT THE ROADWAY.

THE PROJECT IS LOCATED IN A RURAL AREA. OFF-SITE RUNOFF IS COMPRISED OF SMALL PORTIONS OF THE EXSISTING ROADWAY, PRIOR TO BOTH THE BEGIN AND END PROJECT STATIONS. THE WOODED HIGHER ELEVATIONS TO THE WEST AND EAST DRAIN TO LAKE BOMOSSEN AND THE WETLAND, RESPECTIVELY.

THE ON-SITE RUNOFF WILL CONSIST OF RUNOFF PRODUCED BY THE PAVEMENT STRUCTURE. THIS RUNOFF WILL BE ALLOWED TO SHEET-FLOW OVER THE SIDE SLOPES AND WILL BE COLLECTED IN THE WETLAND. THERE ARE NO EXISTING OR PROPOSED DRAINAGE CHANNELS LOCATED WITHIN THE PROJECT LIMITS.

VEGETATION:

THIS PROJECT WILL RESULT IN MINIMAL VEGETATION IMPACTS. THE PROPOSED EDGES OF PAVEMENT SHALL BE BACKED UP TO FULL HEIGHT WITH AGGREGATE SHOULDER MATERIAL. THIS WORK WILL IMPACT THE VEGETATION LOCATED BETWEEN THE SHOULDER BREAKPOINT AND WETLAND BOUNDARIES. THIS AREA INCLUDES GRASSES, PURPLE VETCH, WILD PARSNIPS, HONEYSUCKLE, VIRGINIA CREEPER, AND GRAPE VINES. THE DISTURBED AREA WILL RECEIVE TOPSOIL, A RURAL SEED MIXTURE, AND MULCH.

SOIL:

THERE ARE A WIDE RANGE OF SOILS LOCATED WITHIN THE SITE LIMITS. MUCH OF THE EMBANKMENT AND DIRECTLY BELOW THE PAVEMENT STRUCTURE IS GRAVELLY MATERIAL FROM PREVIOUS CONSTRUCTION PROJECTS. WET ORGANIC AND CLAY SOILS ARE ALSO FOUND WITHIN THE SITE LIMITS.

SENSITIVE RESOURCE AREAS:

THIS PROJECT IS LOCATED WITHIN A CLASS I WETLAND COMPLEX. EXTREME CARE SHOULD BE EXERCISED IN ORDER TO PREVENT THE DISCHARGE OF SEDIMENT AND OTHER CONSTRUCTION RELATED POLLUTANTS TO THESE WATERS.

TEMPORARY EROSION PREVENTION & SEDIMENT CONTROL:

TEMPORARY EROSION PREVENTION MEASURES TO BE UTILIZED INCLUDE:

"PROJECT DEMARCATION FENCING," DENOTED -PDF- ON THE PLANS, TO DELINEATE THE LIMITS THE CONTRACTOR CAN ACCESS WITH CONSTRUCTION EQUIPMENT. THIS MEASURE LIMITS THE AREA THAT CAN BE DISTURBED AND EXPOSED TO EROSION, AND IS LOCATED NEAR THE TOE OF SLOPES (PROJECT LIMITS).

SEEDING AND MULCHING WILL BE THE PRIMARY METHOD OF SLOPE STABILIZATION ON THIS PROJECT. ALL SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE OR DURING INTERMITTENT PHASES OF CONSTRUCTION ACTIVITY.

TEMPORARY MEASURES TO CONTROL SEDIMENT TRANSPORT INCLUDE:

SEDIMENT LOGS WILL BE INSTALLED NEAR THE TOE OF SLOPES TO PREVENT SEDIMENT TRANSPORT INTO THE WETLAND. EACH LINE OF SEDIMENT LOGS WILL BE PLACED ALONG THE CONTOUR WITH EACH END TURNED SLIGHTLY UPHILL TO CREATE A PONDING EFFECT SHOULD WATER RUN ALONG THE CONTROL MEASURE. MULTIPLE SEDIMENT LOGS SHALL BE OVERLAPPED RATHER THAN ABUTTING END TO END. SEDIMENT LOGS SHALL BE INSTALLED PRIOR TO ANY UPSLOPE EARTHWORK. SEDIMENT LOGS SHALL BE CHECKED REGULARLY FOR ACCUMULATION OF SEDIMENT. SEDIMENT BUILD-UP SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT REACHES ONE-HALF THE HEIGHT OF THE CONTROL MEASURE. SEDIMENT SHALL BE DISPOSED OF IN AN AREA SUCH THAT THEY WILL NOT BE SUBJECT TO EROSION.

PERMANENT EROSION CONTROL MEASURES:

THE FOLLOWING PERMANENT EROSION CONTROL MEASURES WILL BE UTILIZED:

PERMANENT STABILIZATION AND FINAL LAND TREATMENT WILL CONSIST OF PAVEMENT ON THE ROADWAY AND ESTABLISHED VEGETATION ON THE SIDE SLOPES.

GENERAL EROSION & SEDIMENT CONTROL GUIDELINES:

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE WORK OUTLINED IN THIS NARRATIVE CONSISTS OF APPLYING MEASURES THROUGHOUT THE LIFE OF THE PROJECT TO CONTROL EROSION AND MINIMIZE THE SEDIMENT TO RECEIVING BODIES OF WATER. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION CONTROLS.

COORDINATE THE INSTALLATION, USE, AND REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES WITH CONSTRUCTION ACTIVITIES TO ENSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS EROSION AND SEDIMENT CONTROL. EMPLOY TEMPORARY STABILIZATION PRACTICES IN INCREMENTAL STAGES AS CONSTRUCTION PROCEEDS. THE CONTRACTOR WILL USE ADDITIONAL EROSION CONTROL MEASURES AS NECESSITATED BY THE SEQUENCE OF CONSTRUCTION AND AS DIRECTED BY THE RESIDENT ENGINEER. SEE SECTION 105.23 OF THE VERMONT AOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2001.

ANY CHANGES TO EROSION CONTROL MEASURES SHALL BE NOTED ON THE PLANS, IN THE WEEKLY INSPECTION REPORT, AND REPORTED TO THE APPROPRIATE AUTHORITY IN A TIMELY MANNER. ALL CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND FOLLOWING EACH RAINFALL EVENT. REPAIR MEASURES SHALL BE APPLIED AS NECESSARY.

PREVENTING INITIAL SOIL EROSION IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. THEREFORE, STABILIZE ALL DISTURBED AREAS PROMPTLY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY VEGETATION SHALL BE ESTABLISHED IF THE AREA IS TO BE WITHOUT CONSTRUCTION ACTIVITY FOR A PERIOD OF FOURTEEN DAYS. PERIMETER CONTROL MEASURES SHALL BE INSTALLED FOLLOWING CLEARING, BUT PRIOR TO THE START OF ANY GRUBBING OR GRADING ACTIVITY. TEMPORARY CONTROLS SHALL BE INSTALLED IN INCREMENTAL STAGES AS CONSTRUCTION PROCEEDS.

MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE ESTABLISHED WHEREVER POSSIBLE.

DO NOT ALLOW CONSTRUCTION EQUIPMENT TO OPERATE ON THE DOWN SLOPE SIDE OF PERIMETER CONTROL MEASURES.

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