



1.1 PROJECT DESCRIPTION

BEGINNING ON U.S. ROUTE 2 AT A POINT 1.835 KILOMETERS EASTERLY OF THE INTERSECTION OF VT. ROUTE 14 N. AND U.S. ROUTE 2 AND EXTENDING EASTERLY ALONG U.S. ROUTE 2 0.125 KILOMETERS.

WORK TO BE PERFORMED UNDER THIS CONTRACT INCLUDES INSTALLATION OF A TEMPORARY BRIDGE, REPLACEMENT OF BRIDGE #74 ON EXISTING ALIGNMENT, NEW GUARDRAIL, PAVEMENT AND ASSOCIATED ROADWAY ITEMS.

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST TWO CONSTRUCTION SEASONS.

TOTAL DISTURBED AREA (EXCLUDING WASTE, BORROW AND STAGING AREAS): 0.72 ha (1.8 acres).

1.2 SITE INVENTORY

1.2.1 OFF SITE DRAINAGE CHARACTERISTICS (UP AND DOWN-GRADIENT)

THE PROPERTY SURROUNDING THE PROJECT SITE CONSISTS OF WELL ESTABLISHED VEGETATION, WITH MODERATE TO STEEP SLOPES OF VARIOUS GRASSES, SHRUBS AND WILD FLOWERS. THE DRAINAGE WAYS ARE WELL DEFINED AND RUNOFF WATER ENTERING THE PROJECT SITE WILL BE PRIMARILY LIMITED TO THAT WHICH IS CONVEYED ALONG ROADWAY DITCHES, AND THAT WHICH FOLLOWS ROUTE 2 ALONG THE 2.8% GRADE AT THE BEGINNING OF THE PROJECT LIMITS AND A 1.6% GRADE AT THE END OF THE PROJECT LIMITS. THE CURRENT ROADWAY DITCHES ARE WELL DEFINED.

1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER, AND PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES

WINOOSKI RIVER IS LOCATED IN THE PROJECT AREA. THE WINOOSKI RIVER IS AN INCISED, ALLUVIAL AND SINUOUS CHANNEL WITH STEEP ERODING BANKS AND MOSTLY SAND AND SILT MAKE UP THE NATURE OF THE STREAMBED. UPSTREAM PONDS AND RESERVOIRS PROVIDE STORAGE AND REDUCE PEAK FLOOD FLOWS. THE WINOOSKI RIVER HAS A DRAINAGE AREA OF 432 SQUARE KILOMETERS (166 SQUARE MILES).

1.2.3 TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES

THE PROPOSED SLOPES ARE RELATIVELY FLAT UNTIL STA. 1+210, WHERE THE SOUTHERN SLOPE IS 1:-1.5 AND PROTECTED BY STONE FILL. THE NORTHERN SLOPE BECOMES 1:-1.5 AT STA. 1+230, AND IS PROTECTED BY STONE FILL. AFTER THE BRIDGE BOTH SLOPES ARE 1:-1.5 AND ARE PROTECTED BY STONE FILL UNTIL STA. 1+340, AFTER WHICH THE SLOPES ARE 1:-2 OR FLATTER AND WILL BE VEGETATED.

THE SLOPES ALONG CHANNEL BANKS ARE LINED WITH HEAVY STONE AND ARE AT 1:-1.5 (67%).

FOR FINAL CONTOURS AND SLOPES SEE THE CROSS SECTIONS INSTEAD OF FINAL CONDITIONS SITE PLAN.

SEE PROJECT SPECIAL PROVISIONS FOR REQUIREMENTS REGARDING THE EXISTING UTILITIES.

1.2.4 VEGETATION

THE VEGETATION SURROUNDING THE PROJECT SITE CONSISTS OF OPEN AREAS OF VARIOUS GRASSES, SHRUBS AND WILD FLOWERS. THERE ARE AGRICULTURAL FIELDS NEAR THE PROJECT LIMITS. IMPACTS TO VEGETATION WILL BE LIMITED TO THAT WHICH ARE AFFECTED BY THE CONSTRUCTION OF THE NEW BRIDGE ON THE EXISTING ALIGNMENT AND THE TEMPORARY DETOUR.

FOLLOWING THE CONSTRUCTION OF THE NEW BRIDGE, THE SLOPES WILL BE STABILIZED WITH STONE FILL AND VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES

1.2.5 SOILS

A DESCRIPTION OF THE SOIL TYPES EXPECTED TO BE ENCOUNTERED IN THE PROJECT AREA IS INCLUDED IN THE PROJECT PLAN SHEET TITLED "EPSC EXISTING CONDITIONS."

SOILS NAME	DEPTH	EROSION FACOTR (K)
ADAMS LOAMY FINE SAND	0"-65"	0.17
SALMON VERY FINE SANDY LOAM	0"-68"	0.49

THE MAJORITY OF THIS PROJECT IS CONSIDERED TO BE "IN A FILL TYPICAL", MEANING THE ROADWAY IS HIGHER THAN THE SURROUNDING MEAN GROUND ELEVATION. DUE TO ENGINEERING REQUIREMENTS FOR SELECTIVE FILL MATERIAL DEPTHS, MUCH OF THIS FILL MATERIAL WILL NEED TO BE BROUGHT IN FROM AN OUTSIDE SOURCE. SINCE WE DO NOT KNOW WHERE THIS SOURCE PIT WILL BE, WE CAN NOT PROVIDE ITS ERODABILITY PROPERTIES.

1.2.6 SENSITIVE RESOURCE AREAS

NO "THREATENED & ENDANGERED SPECIES" HAVE BEEN IDENTIFIED WITHIN THE PROJECT LIMITS AND THERE WILL BE NO ADVERSE EFFECT TO HISTORIC OR ARCHAEOLOGICAL FEATURES. THE IDENTIFIED RESOURCES ARE THE WINOOSKI RIVER, THE FLOOD PLAIN, AGRICULTURAL LANDS, AND STRIP WETLANDS ALONG THE RIVER BANKS

1.3 RISK EVALUATION

RISK DETERMINATION

THIS PROJECT HAS BEEN DETERMINED TO BE LOW RISK. BASIC RISK EVALUATION RESULTED IN A MORE DETAILED ANALYSIS TO DETERMINE RISK, AND RESULTED IN THE FOLLOWING REQUIREMENTS:

1.IMPLEMENT THE EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) FIELD GUIDE AND FOLLOW THIS EPSC PLAN PREPARED FOR THIS PROJECT.

2.ALL AREAS MUST HAVE TEMPORARY OR FINAL STABILIZATION WITHIN 21 DAYS OF THE INITIAL DISTURBANCE AND STABILIZED THEREAFTER ON A DAILY BASIS. THE FOLLOWING EXCEPTIONS APPLY:

A. STABILIZATION IS NOT REQUIRED IF WORK IS TO CONTINUE IN THE AREA WITHIN 24 HOURS AND NO PRECIPITATION IS FORECASTED FOR THE NEXT 24 HOURS.

B. STABILIZATION IS NOT REQUIRED IF THE WORK IS OCCURRING IN A SELF-CONTAINED EXCAVATION WITH A DEPTH OF 2 FEET OR GREATER.

3.INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT RESULTING IN THE DISCHARGE OF STORMWATER FROM THE CONSTRUCTION SITE.

4.IF THERE IS A DISCHARGE OF VISIBLY DISCOLORED STORMWATER FROM THE CONSTRUCTION SITE OR FROM THE CONSTRUCTION SITE TO WATERS OF THE STATE, THE PERMITTEE SHALL TAKE IMMEDIATE CORRECTIVE ACTION.

5.IF THERE IS A DISCHARGE OF VISIBLY DISCOLORED STORMWATER FROM THE CONSTRUCTION SITE TO WATERS OF THE STATE, THE ON-SITE PLAN COORDINATOR SHALL, WITHIN 72 HOURS OF FIRST DISCOVERING THE DISCHARGE, SUBMIT A WRITTEN REPORT ABOUT THE DISCHARGE AND THE RESULTING CORRECTIVE ACTION TO THE VERMONT AGENCY OF NATURAL RESOURCES, DEPARTMENT OF ENVIRONMENTAL CONSERVATION DEC).

RISK RE-EVALUATION

SHOULD CHANGES PRIOR TO OR DURING CONSTRUCTION RESULT IN A POTENTIAL CHANGE IN THE RISK OR SHOULD THE PROJECT BECOME PART OF A COMMON DEVELOPMENT PLAN, THEN THE SELECTED CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL PERMITTING WITH THE DEC VIA FILING OF THE APPROPRIATE NOTICE OF INTENT UNDER THE CONSTRUCTION PERMIT PROCESS.

1.4 EROSION PREVENTION AND SEDIMENT CONTROL

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 MINIMIZING SEDIMENT TRANSPORT TO THE RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION CONTROLS.

PREVENTING INITIAL SOIL EROSION IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. 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.

ALL MEASURES SHALL BE REGULARLY MAINTAINED AND SHALL BE CHECKED FOR SEDIMENT BUILD-UP. SEDIMENT SHALL BE DISPOSED AT AN APPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION.

(REFER TO THE LOW RISK SITE HANDBOOK AND APPROPRIATE DETAIL SHEETS FOR EACH PRACTICE REQUIRED ON THE PROJECT TO INCLUDE BUT NOT LIMITED TO THE FOLLOWING.)

1.4.1 MARK SITE BOUNDARIES

PROJECT DEMARCATION FENCING, DENOTED -PDF- ON THE PLANS, IS USED TO DELINEATE THE LIMITS THE CONTRACTOR CAN ACCESS WITH CONSTRUCTION EQUIPMENT. THIS MEASURE LIMITS THE AREA THAT CAN BE DISTURBED AND EXPOSED TO EROSION.

1.4.2 LIMIT DISTURBANCE AREA

EMPLOY TEMPORARY STABILIZATION PRACTICES IN INCREMENTAL STAGES (PHASING) AS CONSTRUCTION PROCEEDS. ADDITIONAL MEASURES MAY BE NEEDED DUE TO THE PHASING OF THE PROJECT AND AS DIRECTED BY THE ENGINEER.

1.4.3 STABILIZE CONSTRUCTION EXIT
STABILIZED CONSTRUCTION ENTRANCE SHALL BE UTILIZED AS NECESSARY.

1.4.4 INSTALL SILT FENCE
SILT FENCE SHALL BE INSTALLED PRIOR TO ANY UP SLOPE WORK AS SHOWN ON THE PLANS OR AS NECESSARY.

1.4.5 DIVERT UPLAND RUNOFF
SWALE (STORM WATER FROM STREET COLLECTIONS DRAINAGE SYSTEM)

1.4.6 SLOW DOWN CHANNELIZED RUNOFF
CHECK DAMS SHALL BE UTILIZED AS NECESSARY.
USE TEMPORARY INLET PROTECTION AT CULVERT ENTRANCES.

1.4.7 CONSTRUCT PERMANENT CONTROLS
USE STONE AS SPECIFIED IN THE EPSC PLAN FOR SLOPE LINING AND CHANNEL PROTECTION SEED AND MULCH
DRAINAGE INLETS AND PIPING

STREAM BANK VEGETATION WILL BE INTRODUCED IN THE GRUBBING MATERIAL THAT IS TO BE PLACED OVER THE STREAM BANK STONE FILL.

1.4.8 STABILIZE EXPOSED SOILS
SEED AND MULCH
EROSION MATTING

TRACKING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY MULCHING, WILL BE UTILIZED ON A REGULAR BASIS. SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF FORECASTED RAIN.
SEEDING, MULCHING AND BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3. THESE SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF REACHING INTERMITTENT PHASES OF CONSTRUCTION.

1.4.9 WINTER STABILIZATION
VARIOUS MEASURES SPECIFIC TO WINTER (SEE LOW RISK HANDBOOK)

1.4.10 STABILIZE SOIL AT FINAL GRADE
SEED AND MULCH
EROSION MATTTING

SEEDING, MULCHING AND BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3. THESE SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

1.4.11 DE-WATERING ACTIVITIES
N/A

1.4.12 INSPECT YOUR SITE
INSPECT SITE BASED ON PERMIT AUTHORIZATION OR SPECIAL PROVISION REQUIREMENTS.

PROJECT: EAST MONTPELIER	PROJECT NO. : BRF 028-3(36)
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IPARM FILE NAME: sb254ero nar.f	DRAWN BY: J. SALVATORI
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SQUAD LEADER: K. HIGGINS	SHEET: 42 OF 68
EPSC NARRATIVE	