

**EROSION CONTROL NARRATIVE**

**1.1 PROJECT DESCRIPTION**

THIS PROJECT IS LOCATED ON I-89 IN RICHMOND AND WILLISTON, VERMONT BETWEEN MILE MARKERS 79.00 AND 81.80. THE SCOPE OF THE PROJECT INCLUDES THE RECONSTRUCTION OF APPROXIMATELY 350' ROADWAY AND SUB-BASE AND APPROXIMATELY 450' OF MEDIAN DITCH LINE ON THE NORTHBOUND BARREL AT MILE MARKER 80.00. TWO TEMPORARY CROSSOVER DETOURS WILL BE CONSTRUCTED NORTH (MM 81.80) AND SOUTH (MM 79.00) OF THE ROADWAY RECONSTRUCTION AREA TO SHIFT TRAFFIC FROM THE NORTHBOUND BARREL ONTO THE SOUTHBOUND BARREL DURING THE ROADWAY RECONSTRUCTION EFFORTS. THE LOCATIONS OF THESE CROSSOVERS ARE WELL REMOVED FROM THE ROADWAY RECONSTRUCTION SITE AND FROM EACH OTHER; THEREFORE THE PROJECT WILL INCLUDE THREE SEPARATE AREAS OF DISTURBANCE.

NOTE: AREA OF DISTURBANCE SHALL INCLUDE LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA, INCLUDING ANY WASTE, STAGING AND BORROW AREAS WITHIN OR DIRECTLY ADJACENT TO THE PROJECT LIMITS.

TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 1.70 ACRES.

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST APPROXIMATELY ONE MONTH.

**1.2 SITE INVENTORY**

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

ALL PROPOSED WORK IS WITHIN THE EXISTING I-89 ROADWAY AND MEDIAN, THEREFORE SURROUNDING PROPERTY CONSISTS OF PAVED ROADWAY, GRASS MEDIAN, AND LEDGE CUT. AREAS OUTSIDE OF THE ROADWAY CORRIDOR ARE PRIMARILY WELL ESTABLISHED FOREST WITH MODERATE TO STEEP SLOPES. RUNOFF ENTERS THE CORRIDOR FROM THE WEST VIA SMALL STREAMS AND SHEET FLOW AND IS COLLECTED AND CONVEYED ACROSS THE CORRIDOR TO THE EAST VIA CLOSED DRAINAGE SYSTEMS AND CULVERTS.

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

THERE ARE NO WATERWAYS IN CLOSE PROXIMITY TO THE THREE AREAS OF PROPOSED DISTURBANCE. THE WINOOSKI RIVER IS LOCATED APPROXIMATELY 1,400' TO THE SOUTH OF THE SOUTHERN CROSSOVER. ALLEN BROOK, A STORMWATER-IMPAIRED WATERSHED ON THE 303(d) LIST, IS LOCATED APPROXIMATELY 400' SOUTH OF THE NORTHERN CROSSOVER.

**1.2.3 TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES**

THE TOPOGRAPHY OF THE AREA IS RELATIVELY FLAT IN THE CROSSOVER AREAS AND ON A HILL IN THE

RECONSTRUCTION AREA. THE TOPOGRAPHY IS TYPICAL OF INTERSTATE HIGHWAYS WITH PAVED ROADWAYS, MOWED GRASS MEDIANS, LEDGE CUTS, ROCK FILLS, AND DRAINAGE STRUCTURES AND SYSTEMS. THERE ARE NO BUILDINGS OR UTILITIES WITHIN THE PROJECT AREA.

**1.2.4 VEGETATION**

VEGETATION IN THE PROJECT AREA CONSISTS OF MOWED GRASS IN THE MEDIANS AND HARDWOOD TREES AND UNDERGROWTH OUTSIDE OF THE ROADWAY CORRIDOR. THE IMPACT TO VEGETATION WILL BE LIMITED TO THAT WHICH IS DIRECTLY AFFECTED BY THE MEDIAN RECONSTRUCTION AND CONSTRUCTION OF THE CROSSOVERS. AS PROPOSED SLOPE ARE RELATIVELY FLAT (4:1 TYPICAL) VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES. SILT FENCE AND STONE CHECK DAMS WILL BE USED TO CONTAIN SEDIMENT PRIOR TO REVEGETATION.

**1.2.5 SOILS**

SOIL DATA FROM THE NATIONAL RESOURCES CONSERVATION SERVICE (NRCS) INDICATES THAT THE AREAS OF PROPOSED DISTURBANCE CONTAIN THE FOLLOWING SOILS:

NORTHERN CROSSOVER: COLTON GRAVELLY LOAMY SAND (CoA, 5% SLOPES, K-FACTOR=0.15), MUNSON AND RAYNHAM SILT LOAMS (MyC, 6% TO 12%, K FACTOR=0.49), AND SCANTIC SILT LOAM (ScB, 2% TO 6%, K-FACTOR=0.32)

RECONSTRUCTION AREA: ADAMS AND WINDSOR LOAMY SANDS (AdE, 30% TO 60% SLOPES, K-FACTOR=0.17), AGAWAM FINE SANDY LOAM (AgD, 12% TO 30% SLOPES, K-FACTOR=0.28), AND TERRACE ESCARPMENTS SILTY AND CLAYEY (TeE, SLOPE=NA, K-FACTOR=NA).

SOUTHERN CROSSOVER: HARTLAND VERY FINE SANDY LOAM (HIE, 25% TO 60% SLOPES, K-FACTOR=0.49), MUNSON AND BELGRADE SILT LOAMS (MuD, 12% TO 25% SLOPES, K-FACTOR=0.49), AND MUNSON AND RAYNHAM SILT LOAMS (MyB, 2% TO 6% SLOPES, K-FACTOR=0.49).

HOWEVER, IT IS IMPORTANT TO NOTE THAT ALL AREAS OF PROPOSED DISTURBANCE HAVE BEEN PREVIOUSLY DISTURBED AS PART OF THE ORIGINAL I-89 CONSTRUCTION. THEREFORE, THE ABOVE NRCS SOIL DATA MAY NOT BE INDICATIVE OF EXISTING CONDITIONS. EXISTING SOILS ARE LIKELY ROCK, GRAVEL, SAND, AND LOAM PLACED AS PART OF THE ORIGINAL CONSTRUCTION.

NOTE: K-VALUES GENERALLY INDICATE THE FOLLOWING: 0.0-0.23 = LOW EROSION POTENTIAL; 0.24-0.36 = MODERATE EROSION POTENTIAL; 0.37 AND HIGHER = HIGH EROSION POTENTIAL.

**1.2.6 SENSITIVE RESOURCE AREAS**

THERE IS NO SIGNIFICANT IMPACT TO ANY "THREATENED & ENDANGERED SPECIES", PRIME AGRICULTURAL LANDS, JURISDICTIONAL WETLANDS, OR CRITICAL HABITATS WITHIN THE PROPOSED AREAS OF DISTURBANCE.

**1.3 RISK EVALUATION**

A DETAILED RISK EVALUATION HAS LED TO THE DETERMINATION THAT THIS PROJECT IS LOW RISK. THEREFORE, THE LOW RISK HANDBOOK MUST BE ON SITE AND COMPLIED WITH DURING CONSTRUCTION.

SHOULD CHANGES PRIOR TO OR DURING CONSTRUCTION RESULT IN A POTENTIAL CHANGE IN THE RISK THEN THE SELECTED CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL PERMITTING WITH VANR VIA FILING OF THE APPROPRIATE NOTICE OF INTENT UNDER THE CONSTRUCTION PERMIT PROCESS.

NOTE: THIS NARRATIVE AND THE EPSC PLANS AND DETAILS INCLUDED IN THESE PLANS HAVE BEEN DEVELOPED FOR THE CROSSOVER TRAFFIC CONTROL ALTERNATE. SHOULD THE CONTRACTOR CONSTRUCT THE PROJECT UNDER ONE OF THE OTHER TRAFFIC CONTROL ALTERNATES, THEN THE CONTRACTOR WILL BE RESPONSIBLE FOR WORKING WITH ANR IN DETERMINING THE PERMITTING REQUIREMENTS UNDER CONSTRUCTION GENERAL PERMIT 3-9020 (2006).

**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 THOSE NOTED BELOW.

**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**

CONSTRUCTION WILL BE PRIMARILY FROM THE ROADWAY THEREFORE NO CONSTRUCTION ENTRANCE WILL BE UTILIZED.

**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**

NOT REQUIRED

**1.4.6 SLOW DOWN CHANNELIZED RUNOFF**

CHECK DAMS IN DITCHES

**1.4.7 CONSTRUCT PERMANENT CONTROLS**

DRAINAGE INLETS AND PIPES  
SEED AND MULCH

**1.4.8 STABILIZE EXPOSED SOILS**

SEED AND MULCH

**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

**1.4.11 DE-WATERING ACTIVITIES**

NONE

**1.4.12 INSPECT YOUR SITE**

INSPECT SITE BASED ON PERMIT AUTHORIZATION REQUIREMENTS.

**EROSION CONTROL NARRATIVE**

PROJECT NAME: RICHMOND-SOUTH BURLINGTON  
PROJECT NUMBER: IM 089-2(39)

FILE NAME: p05a012.dgn PLOT DATE: \$\$\$\$\$\$DATE\$\$\$\$\$  
PROJECT LEADER: CRB DRAWN BY: JJB/MRS  
DESIGNED BY: JJB CHECKED BY: DH  
CLD 07-0313 SHEET 76 OF 91