

## EROSION CONTROL NARRATIVE

### 1.1 PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE REPAIR OF A SLIDE AREA AND REPLACEMENT OF DRAINAGE STRUCTURES AND REPLACEMENT OF RAILROAD TIES AND BALLAST, LOCATED ON THE SOUTH SIDE OF THE NEW ENGLAND CENTRAL RAILROAD WITHIN THE HIGHWAY AND RAILROAD RIGHT-OF-WAY.

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 0.58 ACRES.

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST ONE CONSTRUCTION SEASON.

### 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 FOREST WITH STEEP SLOPES AT THE PROJECT SITE. RAILROAD TRACKS ARE LOCATED BELOW THE ROADWAY SURFACE. THERE ARE NO HOUSES OR COMMERCIAL STRUCTURES ON THE CONSTRUCTION SIDE OF THE ROAD AND RAILROAD. DUE TO THE NATURE OF THE SURROUNDING TERRAIN THE PROJECT SITE COULD RECEIVE RUNOFF WATER FROM THE ROADWAY AND NEARBY SLOPES. IF THIS IS THE CASE, IT SHOULD BE MINIMAL.

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

THERE IS A WETLAND, CURRENTLY UNDELINEATED, TOWARD THE BOTTOM OF THE SLOPE. THERE IS A DROP INLET ON SITE DRAINING FROM THE ROADWAY TO THE SLOPE.

#### 1.2.3 TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES

THE TOPOGRAPHY OF THE AREA IS MAINLY SLOPED FROM THE ROADWAY THAT IS MOSTLY WOODED WITH OCCASIONAL OPEN AREAS. VT ROUTE 15, THE NEW ENGLAND CENTRAL RAILROAD AND A WINDOOSKI VALLEY PARK DISTRICT FOOTPATH ARE WITHIN THE PROJECT SITE. THERE ARE COMMERCIAL BUSINESSES IN FORT ETHAN ALLEN ON THE OPPOSITE SIDE OF THE HIGHWAY, BUT ARE OUT OF THE PROJECT LIMITS. THERE ARE UNDERGROUND FIBER OPTIC LINES ADJACENT TO THE RAILROAD.

#### 1.2.4 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF HARDWOOD TREES AND UNDERGROWTH. THE IMPACT TO VEGETATION WILL BE LIMITED TO THAT WHICH IS DIRECTLY AFFECTED BY INSTALLATION OF THE STONE LINED DITCH AND TEMPORARY HAUL ROAD. UPON PROJECT COMPLETION, THE SLOPE WILL BE ARMORED WITH STONE FILL TYPE II AND TYPE III AS SPECIFIED ON THE PLANS. DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES OUTSIDE THE LIMITS OF THE NEW DRAINAGE SLOPE AND SWALE.

#### 1.2.5 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE FOR THE COUNTY OF CHITTENDEN, VERMONT. SOILS ON THE PROJECT SITE ARE HARTLAND VERY FINE SANDY LOAM, 25% TO 60% SLOPES, "K FACTOR" = 0.49; MUNSON AND RAYNHAM SILT LOAMS, 6% TO 12% SLOPES, "K FACTOR" = 0.49; SCANTIC SILT LOAM, 2% TO 6% SLOPES, "K FACTOR" = 0.32. THE SOILS ARE CONSIDERED HIGHLY ERODIBLE DUE TO SIGNIFICANT SLOPES.

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

CRITICAL HABITATS: NO  
HISTORICAL OR ARCHEOLOGICAL AREAS: NO  
PRIME AGRICULTURAL LAND: NO  
THREATENED AND ENDANGERED SPECIES: NO  
WATER RESOURCE: NONE  
WETLANDS: NONE IMPACTED

### 1.3 RISK EVALUATION

THIS PROJECT DOES NOT FALL UNDER THE JURISDICTION OF CONSTRUCTION GENERAL PERMIT 3-9020 BASED ON THE PROJECT IMPACT AREA. SHOULD CHANGES PRIOR TO OR DURING CONSTRUCTION RESULT IN ONE OR MORE ACRES OF EARTH DISTURBANCE OR SHOULD THE PROJECT BECOME PART OF A LARGER PLAN OF DEVELOPMENT, THEN THE SELECTED CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL PERMITTING WITH VANR VIA FILING OF THE APPROPRIATE NOTICE OF INTENT UNDER THE CONSTRUCTION GENERAL 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, PAID FOR UNDER ITEM NO. 653.35 - VEHICLE TRACKING PAD.

#### 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.

#### 1.4.7 CONSTRUCT PERMANENT CONTROLS

TYPES II & III STONE FOR SLOPE LINING AND CHANNEL PROTECTION  
SEED AND MULCH  
DRAINAGE INLETS AND PIPING

#### 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

NOT APPLICABLE AS THIS PROJECT WILL LAST ONE CONSTRUCTION SEASON.

#### 1.4.10 STABILIZE SOIL AT FINAL GRADE

SEED AND MULCH  
EROSION MATTING

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

AS NECESSARY.

#### 1.4.12 INSPECT YOUR SITE

INSPECT SITE BASED ON PERMIT AUTHORIZATION OR SPECIAL PROVISION REQUIREMENTS.

PROJECT NAME: ESSEX  
PROJECT NUMBER: STP 030-(20)

FILE NAME: d07b096frm.dgn PLOT DATE: 11-MAY-2009  
PROJECT LEADER: JLS DRAWN BY: MBL  
DESIGNED BY: CAA/MBL CHECKED BY: SDM  
**EROSION CONTROL NARRATIVE** SHEET 10 OF 27