

EROSION CONTROL NARRATIVE

1.1 PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE CONSTRUCTION OF A NEW BRIDGE DOWNSTREAM OF AN EXISTING COVERED BRIDGE. THE COVERED BRIDGE WILL REMAIN AS A PEDESTRIAN BRIDGE. ASSOCIATED CHANNEL AND ROADWAY APPROACH WORK WILL BE COMPLETED. A PORTION OF THE EXISTING ROADWAY OVER THE COVERED BRIDGE WILL BE REMOVED, WITH THE SIDEWALK AND APPROXIMATELY 1600MM PAVEMENT LEFT IN PLACE FOR PEDESTRIAN ACCESS. THE NORTHERN APPROACH OF GUILFORD ROAD WILL BE NARROWED AND THE INTERSECTION WITH SEVERAL DRIVEWAYS WILL BE REALIGNED.

A STONE-LINED DITCH WILL BE CONSTRUCTED ALONG THE WESTERN SIDE OF GUILFORD ROAD AND THE NEW PARKING LOT ACCESS DRIVE. A STORM DRAIN SYSTEM OF 450MM PIPE AND FIVE (5) DROP INLETS WILL BE CONSTRUCTED AT THE NORTH END OF GUILFORD STREET.

TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 1.48 ACRES EXCLUDING ANY WASTE, BORROW, OR STAGING AREA TO BE IDENTIFIED BY THE CONTRACTOR.

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

1.2 SITE INVENTORY

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

THE AREA SURROUNDING THE PROJECT SITE CONSISTS OF WELL ESTABLISHED FOREST WITH ROLLING TO HILLY SLOPES AT THE PROJECT SITE. THE PROJECT IS LOCATED IN A LOW DENSITY MIXED-USE AREA WEST OF I-91 IN THE TOWN OF BRATTLEBORO. THE PROJECT INCLUDES THE AREA OF THE EXISTING BRIDGE AND INTERSECTION, AND VEGETATED AREAS ADJACENT TO THE EXISTING INTERSECTION. PORTIONS OF PARKING LOTS ON THE NORTH AND SOUTH SIDE OF WHETSTONE BROOK WILL BE REDESIGNED AS PART OF THE NEW BRIDGE APPROACHES. THERE ARE A FEW HOUSES UP SLOPE WITH GRASS AND TREE BUFFERS.

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

THE WHETSTONE BROOK RUNS THROUGH THE PROJECT SITE. THE BROOK IS STRAIGHT WITH SOME MEANDERING AND A STREAMBED CONSISTING OF GRAVEL, COBBLES, BOULDERS AND SOME LEDGE.

THERE ARE FIVE (5) PROPOSED DROP INLETS ON SITE DRAINING FROM BOTH SIDES OF GUILFORD ST. TO THE WHETSTONE BROOK.

1.2.3 TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES

THE AREA SURROUNDING THE PROJECT SITE CONSISTS OF ROLLING TO HILLY SLOPES. THE PROJECT IS LOCATED IN A LOW DENSITY MIXED-USE AREA WEST OF I-91 IN THE TOWN OF BRATTLEBORO. THE PROJECT INCLUDES THE AREA OF THE EXISTING BRIDGE AND INTERSECTION, AND VEGETATED AREAS ADJACENT TO THE EXISTING INTERSECTION. THERE ARE A FEW HOUSES UP SLOPE WITH GRASS AND TREE BUFFERS.

1.2.4 VEGETATION

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 CONSTRUCTION OF THE NEW BRIDGE AND ASSOCIATED INTERSECTION REALIGNMENT. 1,360 M² OF EXISTING PAVED ROAD ASSOCIATED WITH THE COVERED BRIDGE WILL BE REMOVED AND RESTORED TO PVIOUS AREA. UPON PROJECT COMPLETION, THE CHANNEL WILL BE ARMORED WITH STONE FILL TYPE IV AS SPECIFIED ON THE PLANS. DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES.

1.2.5 SOILS

SOIL DATA FROM THE U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE FOR THE COUNTY OF WINDHAM, VERMONT. SOILS ON THE PROJECT SITE ARE QUONSET AND WARWICK SOILS, 2 TO 8 PERCENT SLOPES, K FACTOR = 0.10 TO 0.32; ONDAWA FINE SANDY LOAM, K FACTOR = 0.20 TO 0.37; AND BERKSHIRE-TUNBRIDGE FINE SANDY LOAM, 15% TO 25% SLOPES, "K FACTOR" = 0.20 TO 0.37. 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: YES, SEE ATTACHED EPSC PLAN SHEETS
PRIME AGRICULTURAL LAND: NO
THREATENED AND ENDANGERED SPECIES: NO
WATER RESOURCE: WHETSTONE BROOK
WETLANDS: NO

1.3 RISK EVALUATION

RISK DETERMINATION/RE-EVALUATION

THIS PROJECT HAS BEEN DETERMINED TO BE LOW RISK. 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 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, STORMWATER 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 REMOVED FROM THE UPHILL SIDE OF SILT FENCE PRIOR TO REACHING 50% OF THE HEIGHT OF THE SILT FENCE. 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. PDF FENCE WITHIN 30M OF THE WHETSTONE BROOK SHALL BE CONSTRUCTION BARRIER FENCE. PROJECT DEMARCATION FENCING SHALL BE UTILIZED IN OTHER AREAS TO DELINEATE PROJECT BOUNDARIES.

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 OR AS DIRECTED BY THE RESIDENT ENGINEER. LIMIT DISTURBANCE TO EXISTING VEGETATION, SHRUBS AND TREES WHEREVER POSSIBLE.

1.4.3 STABILIZE CONSTRUCTION EXIT

STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED TO PREVENT TRACKING OF SOIL OUTSIDE OF THE PROJECT AREA AS SHOWN ON THE ATTACHED PLANS.

1.4.4 INSTALL SILT FENCE

SILT FENCE SHALL BE INSTALLED PRIOR TO ANY UP SLOPE WORK AS SHOWN ON THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER. SILT FENCE PLACED WITHIN 30M OF THE WHETSTONE BROOK SHALL BE WOVEN WIRE-REINFORCED.

1.4.5 DIVERT UPLAND RUNOFF

CLEAN RUNOFF FROM OUTSIDE THE PROJECT SITE SHALL BE ROUTED AROUND THE PROJECT SITE USING UPSLOPE DIVERSION BERMS, DIVERSION CHANNELS AND TEMPORARY OR PERMANENT CULVERTS WHERE PRACTICAL.

1.4.6 SLOW DOWN CHANNELIZED RUNOFF

CHECK DAMS SHALL BE UTILIZED AS SHOWN ON THE PLANS. CONSTRUCT ROCK OUTLET PROTECTION AS SHOWN ON THE PLANS.

1.4.7 CONSTRUCT PERMANENT CONTROLS

TYPE I STONE FOR LINING THE DITCH ON THE WEST SIDE OF GUILFORD ST.
Type IV STONE FOR CHANNEL PROTECTION
SEED AND MULCH - UTILIZE URBAN SEEDING FORMULA
DRAINAGE INLETS AND PIPING
SOIL RETENTION WALLS

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

THE CONTRACTOR SHALL PREPARE, AND SUBMIT FOR REVIEW, A WINTER EPSC PLAN IF SOILS ARE NOT TO BE STABILIZED PRIOR TO OCTOBER 15TH AND BEFORE APRIL 15TH.

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 1H:3V AND LESS THAN 2H:3V. 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.

ADDITIONAL NOTES

A TEMPORARY EROSION CONTROL PLAN MUST BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL BY THE RESIDENT ENGINEER.

THE CONTRACTOR WILL USE OTHER TEMPORARY OR PERMANENT EROSION CONTROL MEASURES AS NECESSITATED BY THE SEQUENCE OF CONSTRUCTION AND AS DIRECTED BY THE RESIDENT ENGINEER. SEE SUBSECTION 105.23 OF THE VERMONT AOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2006.

CONTRACTOR TO DESIGN AND CONSTRUCT FILTER CURTAIN IN ACCORDANCE WITH SUBSECTION 649.04 OF THE VERMONT AOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2006.

USE THE EROSION CONTROL PLANS (SHEETS 66 - 71) IN CONJUNCTION WITH THE EROSION CONTROL DETAILS (SHEETS 72 - 74).

EPSC NARRATIVE

PROJECT NAME: BRATTLEBORO
PROJECT NUMBER: BRF 2000(2)S

FILE NAME: 96J228\SJ228ern.dgn PLOT DATE: 29-APR-2009
PROJECT MANAGER: R. WHITCOMB DRAWN BY: W. LAMMER
DESIGNED BY: W. LAMMER CHECKED BY: C. CARLSON
SHEET 65 OF 77