

1.1 PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF REPLACEMENT OF THE EXISTING SUPERSTRUCTURE WITH A NEW CAST-IN-PLACE CONCRETE/STEEL BEAM COMPOSITE SUPERSTRUCTURE, WITH CAST-IN-PLACE ABUTMENT CAPS, AND CAST-IN-PLACE SIDEWALKS. ASSOCIATED APPROACH WORK, NEW SIDEWALKS, CULVERTS AND DRAINAGE D/S. THE REMOVAL AND REPLACEMENT OF THE EXISTING GUARDRAIL AND RECONSTRUCTION OF THE SIDESLOPES ALONG THE IMPACTED ROADWAY.

THE PROJECT IS LOCATED ON PROSPECT STREET (T.H. NO. 7), APPROXIMATELY 603 FEET WEST OF THE INTERSECTION OF MAIN STREET (VT 14) AND SPANS THE STEVENS BRANCH OF THE WINOOSKI RIVER. PROSPECT STREET IS A PAVED STREET IN THE CITY OF BARRE. PRIOR TO CONSTRUCTION, A TEMPORARY PEDESTRIAN BRIDGE WILL BE INSTALLED UPSTREAM OF THE EXISTING BRIDGE AND WILL BE USED TO MAINTAIN PEDESTRIAN TRAFFIC DURING CONSTRUCTION. THE TEMPORARY PEDESTRIAN BRIDGE WILL HAVE A TOTAL LENGTH OF APPROXIMATELY 60 FEET AND WILL BE REMOVED UPON COMPLETION OF CONSTRUCTION. THIS PROJECT IS EXPECTED TO LAST ONE CONSTRUCTION SEASON.

THE MATERIAL TO BE EXCAVATED FROM THE SITE WILL INCLUDE EXISTING BITUMINOUS CONCRETE SURFACE AND SUBBASE WITHIN THE EXISTING ROADWAY AS WELL AS EXCAVATION FOR THE PLACEMENT OF THE NEW ABUTMENT CAPS. ADDITIONAL EXCAVATION WILL BE NEEDED FOR THE TEMPORARY ABUTMENTS USED TO SUPPORT THE TEMPORARY PEDESTRIAN BRIDGE. STOCKPILING OF ANY EXCAVATED MATERIAL TO BE REUSED IS EXPECTED TO TAKE PLACE WITHIN THE PROJECT LIMITS. LIKEWISE, STOCKPILING OF ANY NEW MATERIAL TO BE USED IS EXPECTED TO TAKE PLACE WITHIN THE PROJECT LIMITS. THE LIMIT OF CONSTRUCTION AND ASSOCIATED MAXIMUM SOIL DISTURBANCE AREA FOR THE ROADWAY AND BRIDGE CONSTRUCTION IS APPROXIMATELY 0.33 ACRES. ADDITIONALLY THERE WILL BE APPROXIMATELY 0.01 ACRES OF DISTURBED SOIL ASSOCIATED WITH THE CONSTRUCTION, USE, AND REMOVAL OF THE TEMPORARY PEDESTRIAN BRIDGE. THE TOTAL FOOTPRINT AREA OF DISTURBED SOILS IS CALCULATED TO BE 0.34 ACRES.

THE ONLY EXISTING ENVIRONMENTAL RESOURCE ELEMENT IN THE VICINITY OF THE PROJECT IS THE STEVENS BRANCH. THERE ARE NO KNOWN SENSITIVE ENVIRONMENTAL AREAS IN CLOSE PROXIMITY TO THIS PROJECT. THERE ARE NO CRITICAL HABITATS, OTHER THAN THE STEVENS BRANCH, WHICH NEED SPECIAL ATTENTION AND PROTECTION DURING OR AFTER CONSTRUCTION. THE BANKS OF THE STEVENS BRANCH WITHIN THE PROJECT LIMITS ARE A GRANITE BLOCK WALL EXTENDING FROM THE EXISTING GRADES OR ABUTMENTS TO THE ELEVATION OF THE WATER WITHIN THE RIVER.

1.2 SITE INVENTORY

1.2.1 OFFSITE DRAINAGE CHARACTERISTICS

THIS PROJECT SITE IS LOCATED IN AN URBAN, HIGHLY TRAVELED AREA OF THE CITY OF BARRE. THE AREA SURROUNDING THE PROJECT IS MODERATELY SLOPED WITH ESTABLISHED, GRASS LAWNS, AND PAVED AND GRAVEL PARKING LOTS. MUCH OF THE RUNOFF FROM THE SURROUNDING TERRAIN DRAINS INTO CATCH BASINS LOCATED THROUGHOUT THE PROJECT, OR DIRECTLY INTO THE STEVENS BRANCH. THE CATCH BASINS ARE SITUATED ALONG THE ROADWAYS TYPICALLY AT LOW POINTS OR CURB CUTS. THE CATCH BASINS DRAIN DIRECTLY INTO THE STEVENS BRANCH OR INTO OTHER DRAINAGE STRUCTURES.

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

THE PROJECT SPANS THE STEVENS BRANCH WITH MAJOR CONSTRUCTION TAKING PLACE ON BOTH SIDES OF THE RIVER. THERE ARE NO OTHER WETLANDS WITHIN THE PROJECT LIMITS OR SURROUNDING AREA. THE PRIMARY OBJECTIVE FOR THIS EROSION PROTECTION AND SEDIMENT CONTROL PLAN WILL BE TO PREVENT THE MOBILIZATION AND TRANSPORT OF SEDIMENT INTO THE STEVENS BRANCH.

1.2.3 TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES

THE TOPOGRAPHY OF THE PROJECT AREA CONSISTS OF MODERATE SLOPES AND ROLLING HILLS. SEVERAL PERMANENT RESIDENTS AND BUSINESSES ARE LOCATED WITHIN THE PROJECT LIMITS AND NEAR THE BRIDGE. OVERHEAD AND UNDERGROUND UTILITIES ARE LOCATED ALONG PROSPECT STREET WITH THE NECESSARY RELOCATIONS BEING PERFORMED AS PART OF THIS PROJECT.

1.2.4 VEGETATION

THE PROJECT AREA CONSISTS OF GRASSY LAWNS. IMPACTS TO VEGETATED AREAS WILL BE LIMITED TO THE SIDE SLOPES OF THE ROAD, LOCATION OF NEW SIDEWALK AREAS ADJACENT TO THE BRIDGE AND THE AREA OF THE TEMPORARY PEDESTRIAN BRIDGE. FOLLOWING THE COMPLETION OF CONSTRUCTION, THE TEMPORARY PEDESTRIAN BRIDGE AND ASSOCIATED FILL WILL BE REMOVED AND THE VEGETATION WILL BE REESTABLISHED USING STANDARD SEED AND MULCH PRACTICES.

1.2.5 SOILS

THE SOIL CONSERVATION SERVICE HAS MAPPED THE SOILS THROUGHOUT WASHINGTON COUNTY. THE SOIL TYPE IDENTIFIED FOR THIS PROJECT IS URBAN LAND - UPLANDS/MOUNTAINS COMPLEX, OCCASIONALLY FLOODED WITH A PARENT GROUP BEING DESCRIBED AS MISCELLANEOUS UNITS. THIS SITE IS LISTED AS NOT HIGHLY ERODIBLE. NO SUBSURFACE INVESTIGATIONS WERE PERFORMED FOR THE PROJECT.

1.2.6 SENSITIVE RESOURCE AREAS

THERE ARE NO KNOWN SENSITIVE AREAS THAT NEED TO BE PROTECTED, OTHER THAN THE STEVENS BRANCH. NO THREATENED AND ENDANGERED SPECIES, PRIME AGRICULTURAL SOILS, HISTORICAL OR ARCHEOLOGICAL SITES, WETLANDS OR OTHER CRITICAL HABITATS EXIST WITHIN THE PROJECT AREA.

1.3 RISK EVALUATION

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

TO MINIMIZE THE POTENTIAL FOR STORM WATER RUNOFF TO TRANSPORT SEDIMENT INTO THE RIVER, SEVERAL KEY EROSION CONTROL DEVICES AND GENERAL PRACTICES WILL BE USED. DETAILS OF THE DEVICES AND THE LOCATION OF THEIR PLACEMENT CAN BE FOUND IN THE EROSION CONTROL PLANS AND DETAILS. ALL EROSION CONTROL MEASURES SHALL BE PLACED IN ACCORDANCE WITH THE EROSION CONTROL DETAILS IN THESE PLANS.

1.4.1 MARK SITE BOUNDARIES

MARKING THE SITE BOUNDARIES WILL HELP TO LIMIT THE AREA OF SOIL DISTURBANCE. THE SITE BOUNDARY SHALL BE MARKED WITH PROJECT DEMARCATION FENCE.

1.4.2 LIMIT DISTURBANCE AREA

LIMITING THE DISTURBANCE AREA WILL HELP TO REDUCE THE POTENTIAL FOR SEDIMENT TRANSPORT FROM THE SITE. THE AREA OF DISTURBANCE SHALL BE LIMITED BY PHASING THE CONSTRUCTION WHEN APPROPRIATE, BY ESTABLISHING VEGETATION IN AREAS IMMEDIATELY FOLLOWING GRADING AND BY MULCHING STOCKPILED EARTHEN MATERIALS. THE EXISTING MAINLINE WILL BE CLOSED DURING CONSTRUCTION; THEREFORE IT CAN BE USED AS A STAGING AND STOCKPILE AREA. THESE AREAS WILL BE COMPLETELY WITHIN THE PROJECT LIMITS AND WILL UTILIZE THE TEMPORARY EROSION CONTROL MEASURES CALLED FOR.

1.4.3 STABILIZE CONSTRUCTION EXIT

A STABILIZED CONSTRUCTION EXIT WILL HELP TO REMOVE EARTHEN MATERIALS FROM CONSTRUCTION EQUIPMENT EXITING THE SITE. A VEHICLE TRACKING PAD SHALL BE CONSTRUCTED AT THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

1.4.4 INSTALL SILT FENCE

SILT FENCE WILL REDUCE THE AMOUNT OF SEDIMENT TRANSFERED FROM THE SITE THROUGH STORMWATER RUNOFF. SILT FENCE SHALL BE LOCATED ALONG THE TOP OF THE GRANITE WALLS ALONG THE RIVER OR 5 FEET TO 10 FEET DOWN GRADIENT FROM THE TOES OF SLOPE. THE SILT FENCE SHALL BE PLACED PARALLEL TO, OR ALONG, THE CONTOUR, SO THE STORM WATER WILL RUN PERPENDICULAR TO THE SILT FENCE. THE ENDS SHALL BE 'J' HOOKED UP GRADIENT TO CREATE A PONDING EFFECT FOR WATER TRYING TO RUN ALONG THE FENCE AND AROUND THE ENDS.

1.4.5 DIVERT UPLAND RUNOFF

DIVERSION OF UPLAND RUNOFF WILL REDUCE THE AMOUNT OF STORMWATER ENTERING THE SITE AND WILL HELP TO REDUCE THE POTENTIAL FOR STORMWATER TO TRANSPORT SEDIMENT FROM THE SITE. UPLAND RUNOFF SHALL BE DIVERTED USING SILT FENCE WHERE APPROPRIATE.

1.4.6 SLOW DOWN CHANNELIZED RUNOFF

SLOWING DOWN CHANNELIZED RUNOFF WILL HELP TO ALLOW SEDIMENT TO FALL OUT OF STORMWATER THEREFORE REDUCING THE AMOUNT OF SEDIMENT TRANSPORTED FROM THE SITE. EACH DROP INLET OR CATCH BASIN SHALL RECEIVE TEMPORARY ROCK BARRIER PROTECTION IN PAVED AREAS AND TEMPORARY SILT FENCE PROTECTION IN UNPAVED AREAS. THESE TEMPORARY MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS IN THESE PLANS.

1.4.7 CONSTRUCT PERMANENT CONTROLS

NOT APPLICABLE

1.4.8 STABILIZE EXPOSED SOILS

STABILIZING THE EXPOSED SOILS WILL HELP TO REDUCE THE POTENTIAL FOR STORMWATER TRANSPORTING SEDIMENT FROM THE SITE. ALL TEMPORARY STOCKPILES SHALL BE MULCHED AND SEEDED AND SHALL HAVE SILT FENCE INSTALLED AT THE TOE OF SLOPE.

1.4.9 WINTER STABILIZATION

SPECIALIZED WINTER EPSC PROCEDURES SHALL BE FOLLOWED DURING WINTER CONSTRUCTION AND DURING ANY WINTER SHUT DOWN.

1.4.10 STABILIZE SOIL AT FINAL GRADE

STABILIZING SOIL AT FINAL GRADE WILL HELP TO REDUCE THE AREA OF DISTURBANCE AND WILL THEREFORE REDUCE THE POTENTIAL FOR SEDIMENT TRANSPORT FROM THE SITE. FOLLOWING FINAL GRADING ALL DISTURBED AREAS OUTSIDE OF THE ROADWAY, SIDEWALK AND PARKING AREAS SHALL RECEIVE TOPSOIL, SEED AND MULCH TO REESTABLISH GRASS AND VEGETATION. TOPSOILING, SEEDING AND MULCHING SHALL BE IN ACCORDANCE WITH THE SEEDING FORMULA FOR URBAN AREAS AND ASSOCIATED NOTES AS SHOWN ON THIS SHEET.

1.4.11 DEWATERING ACTIVITIES

NOT APPLICABLE

1.4.12 INSPECT YOUR SITE

THE EROSION CONTROL MEASURES SHALL BE PERIODICALLY INSPECTED AND MAINTAINED ON A REGULAR BASIS. INSPECTION OF THE EROSION CONTROL MEASURES SHALL TAKE PLACE BEFORE AND AFTER MAJOR STORM EVENTS TO INSURE THEY ARE IN GOOD CONDITION AND TO REMOVE EXCESSIVE BUILDUP OF SILT AND DEBRIS AFTER THE STORM EVENTS. A REPORT ON THE EFFECTIVENESS OF THE EROSION CONTROL MEASURES SHALL BE PRESENTED TO THE RESIDENT ENGINEER AND ONSITE COORDINATOR UPON THE COMPLETION OF EACH INSPECTION, MODIFICATIONS OR IMPROVEMENTS TO THE EROSION CONTROL PLAN SHOULD BE COORDINATED WITH THE RESIDENT ENGINEER AND ONSITE COORDINATOR.

**SEEDING FORMULA
URBAN AREAS**

% WT.	LBS./A.	NAME	PUR %	GERM %
42.5	34.0	CREeping RED FESCUE	98	85
10.0	8.0	PERENNIAL RYE GRASS	95	90
42.5	34.0	KENTUCKY BLUE GRASS	85	85
5.0	4.0	ANNUAL RYE GRASS	95	85
100.00	80.0			

GENERAL NOTES

SEED MIXTURE: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.

SEED: TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE ENGINEER.

FERTILIZER: FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 500 LBS./ACRE. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA).

AGRICULTURAL LIMESTONE: TO BE APPLIED AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.

HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.

TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of	BARRE CITY	Bridge No.	7
Highway No.	PROSPECT ST.	Log Sta.	
		Surv. Sta.	

PROSPECT ST. OVER STEVENS BRANCH

EPSC NARRATIVE

Designed By	A. P. GUYETTE	Drawn By	S. J. BIJOLLE
Checked By	E. P. DETRICK	Bridge Design Supervisor	J. W. TUCKER
Date	1/09	Date	1/09
PROJECT	BARRE CITY	PROJECT NO.	BHF 6000 (15) S
I.G.C. info.			
Bridge Sheet No.		Sheet	17 of 56

