

EROSION CONTROL NARRATIVE

1.1 PROJECT DESCRIPTION

BARRE CITY / BARRE TOWN - MEGC M 6000(11) / P1, INVOLVES RECONSTRUCTION / REGRADING OF THE SLOPES ON THE SOUTHERN SIDE OF QUARRY STREET (TH #6) FROM THE S. MAIN STREET (VT 14) INTERSECTION TO THE RAILROAD CROSSING, APPROXIMATELY 500 EAST OF THE S. MAIN STREET INTERSECTION. THE SLOPES WILL BE STONE REINFORCED AND WILL BE COVERED WITH A GRUBBING MATERIAL AND/OR CLEAN FILL, WHICH WILL BE STABILIZED. THE PROJECT ALSO INCLUDES A MODULAR BLOCK RETAINING WALL NEAR THE RAILROAD CROSSING TO MINIMIZE IMPACTS TO ADJACENT PROPERTIES.

THE TOTAL LENGTH OF THE PROJECT IS APPROXIMATELY 900 FEET. THE SITE IS LOCATED AT 44° 11'06"N / 72° 29'63"W. THE TOTAL DISTURBED AREA (EXCLUDING WASTE, BORROW AND/OR STAGING AREAS) IS APPROXIMATELY 31,487 SQUARE FEET (0.72 ACRES)

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

1.2 SITE INVENTORY

THE TOPOGRAPHY OF THE SITE IS FORMER RESIDENTIAL WITH SOME ESTABLISHED VEGETATION ALONG QUARRY STREET AND ON TOP OF THE EXISTING SLOPE. OVERHEAD UTILITIES ARE LOCATED ALONG THE SOUTHERN SIDE OF QUARRY STREET, AND WILL BE RELOCATED UPON COMPLETION OF THIS PROJECT.

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

THE QUARRY STREET / S. MAIN STREET INTERSECTION, DOWN-GRADIENT FROM THE SITE, CONTAINS A COMPREHENSIVE CLOSED DRAINAGE SYSTEM WHICH DIRECTS STORMWATER TO THE STEVENS BRANCH RIVER. THE CLOSED SYSTEM AT THE INTERSECTION RECEIVES RUNOFF FROM THE SITE, AS WELL AS SOME FROM THE SURROUNDING AREA. COLLECTED STORMWATER, BOTH UPSTREAM AND THROUGHOUT THE PROJECT SITE, DISCHARGES INTO THE STEVENS BRANCH AT MULTIPLE LOCATIONS.

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

THE STEVENS BRANCH IS THE PRIMARY WATER SOURCE NEAR THE PROJECT SITE. THE TRIBUTARY AREA FOR THE STEVENS BRANCH AT THE MOST DOWNSTREAM END OF THE PROJECT SITE IS APPROXIMATELY 34.8 SQUARE MILES.

1.2.3 VEGETATION

THE VEGETATION ALONG THE SOUTHERN SIDE CONSISTS OF SOME TREES, SHRUB BRUSH AND FORMER HOUSE LAWNS. ALL THE VEGETATION WITHIN THE PROJECT LIMITS WILL BE CLEARED TO ACCOMMODATE THE NEW SLOPES. SLOPES WILL BE STABILIZED WITH STONE AND APPROPRIATE EROSION CONTROL MEASURES, INCLUDING MATTING, SEEDING, MULCHING, ETC.

1.2.4 SOILS

SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE FOR THE COUNTY OF WASHINGTON, VERMONT. THE SOIL ON THE PROJECT SITE HAS BEEN CLASSIFIED AS "URBAN LAND-UDIPSAMMENTS, OCCASIONALLY FLOODED". THIS SOIL TYPE IS GENERALLY LOCATED IN BARRE AND MONTPELIER, AND CAN GENERALLY BE FOUND WITHIN FLOOD PLAINS AND TERRACES. IT IS MADE UP OF 50% URBAN LAND, 25% UDIPSAMMENTS, 15% DUMPS, AND 10% OTHER SOILS. ONSITE INVESTIGATION IS REQUIRED TO DETERMINE THE EXACT NATURE OF THE SOIL MAKEUP.

1.2.5 SENSITIVE RESOURCE AREAS

CRITICAL HABITATS: NO
HISTORICAL OR ARCHEOLOGICAL AREAS: NO
PRIME AGRICULTURAL LAND: NO
THREATENED AND ENDANGERED SPECIES: NO

1.3 RISK EVALUATION

THIS PROJECT DOES NOT FALL UNDER THE JURISDICTION OF GENERAL PERMIT 3-9020 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES. 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, THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PERMITTING.

1.4 EROSION PREVENTION AND SEDIMENT CONTROL

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE PRINCIPLES OUTLINED IN THIS NARRATIVE CONSIST OF APPLYING MEASURES THROUGHOUT CONSTRUCTION OF THE PROJECT IN ORDER TO MINIMIZE SEDIMENT TRANSPORT TO THE RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION PRACTICES. THEY HAVE BEEN PROPOSED BY THE DESIGNER AS A BASIS FOR PROTECTING RESOURCES AND WILL NEED TO BE BUILT UPON BASED ON THE SPECIFIC MEANS AND METHODS OF THE CONTRACTOR. REFER TO THE LOW RISK SITE HANDBOOK AND APPROPRIATE DETAIL SHEETS FOR SPECIFIC GUIDANCE AND CONSTRUCTION DETAILING.

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

1.4.1 MARK SITE BOUNDARIES

SITE BOUNDARIES AND AREAS CONSTRUCTION EQUIPMENT CAN ACCESS SHALL BE DELINEATED. PROJECT DEMARCATION FENCING (PDF) SHALL BE USED TO PHYSICALLY MARK SITE BOUNDARIES.

1.4.2 LIMIT DISTURBANCE AREA

PREVENTING INITIAL SOIL EROSION BY MINIMIZING THE EXPOSED AREA IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. EARTH DISTURBANCE CAN BE MINIMIZED THROUGH CONSTRUCTION PHASING BY ONLY OPENING UP EARTH AS NECESSARY. THIS CAN LIMIT THE AREA THAT WILL BE DISTURBED AND EXPOSED TO EROSION. EMPLOY TEMPORARY CONSTRUCTION STABILIZATION PRACTICES IN INCREMENTAL STAGES AS PHASES CHANGE. FOR PROJECTS WHICH FALL UNDER THE CONSTRUCTION GENERAL PERMIT, ONLY THE ACREAGE LISTED ON THE PERMIT AUTHORIZATION MAY BE EXPOSED AT ANY GIVEN TIME. 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.

1.4.3 SITE ENTRANCE/EXIT STABILIZATION

TRACKING OF SEDIMENT ONTO PUBLIC HIGHWAYS SHALL BE MINIMIZED TO REDUCE THE POTENTIAL FOR RUNOFF ENTERING RECEIVING WATERS. INSTALLATION SHALL COINCIDE WITH THE CONTRACTORS PROGRESS SCHEDULE. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS PROPOSED ON THE EPSC PLAN AND ANYWHERE EQUIPMENT WILL BE GOING FROM AREAS OF EXPOSED SOILS TO PAVED SURFACES.

1.4.4 INSTALL SEDIMENT BARRIERS

SEDIMENT BARRIERS SHALL BE UTILIZED TO INTERCEPT RUNOFF AND ALLOW SUSPENDED SEDIMENT TO SETTLE OUT. THEY SHALL BE INSTALLED PRIOR TO ANY UP SLOPE WORK.

SILT FENCE WILL BE INSTALLED AS PROPOSED ON THE EPSC PLAN. INLET PROTECTION DEVICES WILL BE INSTALLED AT DROP INLETS AT THE QUARRY STREET / S. MAIN STREET INTERSECTION.

1.4.5 DIVERT UPLAND RUNOFF

DIVERSIONARY MEASURES SHALL BE USED TO INTERCEPT RUNOFF FROM ABOVE THE CONSTRUCTION AND DIRECT IT AROUND THE DISTURBED AREA SO THAT CLEAN WATER DOES NOT BECOME MUDDIED WHILE TRAVELING OVER EXPOSED SOILS ON THE CONSTRUCTION SITE.

IT IS NOT ANTICIPATED THAT DIVERSION MEASURES WILL BE NECESSARY DUE TO THE TOPOGRAPHY OF THE SURROUNDING AREA

1.4.6 SLOW DOWN CHANNELIZED RUNOFF

CHECK STRUCTURES SHALL BE UTILIZED TO REDUCE THE VELOCITY, AND THUS THE EROSION POTENTIAL, OF CONCENTRATED FLOW IN CHANNELS.

CHECK DAMS WILL BE INSTALLED AS PROPOSED ON THE EPSC PLAN ALONG THE PROPOSED DRAINAGE DITCH.

1.4.7 CONSTRUCT PERMANENT CONTROLS

PERMANENT STORMWATER TREATMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH PERMIT CONDITIONS.

A SHALLOW ROADSIDE DITCH SHALL BE RE-ESTABLISHED ALONG THE SOUTHERN SIDE OF QUARRY STREET.

1.4.8 STABILIZE EXPOSED SOILS DURING CONSTRUCTION

ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY STABILIZATION IN PLACE WITHIN 48 HOURS OF DISTURBANCE OR IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT 3-9020 AUTHORIZATION.

COVER MATERIAL ON TOP OF TYPE II STONE FILL SHALL BE USED TO REINFORCE THE CONSTRUCTED SLOPE. SURFACE ROUGHENING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY MULCHING, SHALL BE UTILIZED ON A REGULAR BASIS. BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3.

THE FORECAST OF RAINFALL EVENTS SHALL TRIGGER IMMEDIATE PROTECTION OF EXPOSED SOILS.

1.4.9 WINTER STABILIZATION

VARIOUS MEASURES SPECIFIC TO WINTER MAY BE NECESSARY SHOULD THE PROJECT EXTEND INTO WINTER (OCTOBER 15 THROUGH APRIL 15). REFER TO THE LOW RISK SITE HANDBOOK FOR GUIDANCE.

WINTER STABILIZATION IS NOT ANTICIPATED FOR THIS PROJECT.

1.4.10 STABILIZE SOIL AT FINAL GRADE

EXPOSED SOIL MUST BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE. STONE FILL SHALL BE USED TO STABILIZE THE SLOPE. SEED, MULCH, FERTILIZER AND LIME SHALL BE USED TO ESTABLISH PERMANENT VEGETATION. FOR SLOPES STEEPER THAN 1:3, BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED INSTEAD OF MULCH.

1.4.11 DE-WATERING ACTIVITIES

DISCHARGE FROM DEWATERING ACTIVITIES THAT FLOWS OFF OF THE CONSTRUCTION SITE MUST NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF THE VERMONT WATER QUALITY STANDARDS.

DE-WATERING ACTIVITIES IS NOT ANTICIPATED FOR THIS PROJECT

1.4.12 INSPECT YOUR SITE

INSPECT THE PROJECT SITE BASED ON SPECIAL PROVISION REQUIREMENTS OR CONSTRUCTION GENERAL PERMIT AUTHORIZATION STIPULATIONS.

1.5 SEQUENCE AND STAGING

THIS SECTION WILL BE DEVELOPED BY THE CONTRACTOR USING THE GUIDANCE OUTLINED IN THE VTRANS EPSC PLAN CONTRACTOR CHECKLIST.

1.5.1 CONSTRUCTION SEQUENCE

1.5.2 OFF-SITE ACTIVITIES

IN ADDITION TO THE CONTRACTOR CHECKLIST ANY ACTIVITIES OUTSIDE THE CONSTRUCTION LIMITS SHALL FOLLOW SPECIFICATION 105.25- 105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

1.5.3 UPDATES

EPSC LEGEND	
	CHECK DAM
	INLET PROTECTION DEVICE
	STABILIZED CONSTRUCTION ENTRANCE
	SILT FENCE
	LIMITS OF SOIL DISTURBANCE
	EROSION MATTING
	DISTURBED AREAS REQUIRING REVEGETATION
	PROJECT DEMARCATION FENCE
	RIPARIAN BUFFER ZONE

PROJECT NAME:	BARRE CITY - BARRE TOWN
PROJECT NUMBER:	MEGC M 6000(11)C/1
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