

EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE REPLACEMENT OF A BRIDGE OVER THE WINOOSKIRIVER. THE PROJECT IS ON US ROUTE 2 BETWEEN THE TOWNS OF MORETOWN AND MIDDLESEX. THIS PROJECT INVOLVES THE REMOVAL AND REPLACEMENT OF BRIDGE NO. 50 AND ITS ABUTMENTS, AND SOME APPROACH WORK. A NEW DOUBLE LANE, DOUBLE SPAN, STEEL GIRDER BRIDGE WILL BE CONSTRUCTED DOWNSTREAM OF THE EXISTING BRIDGE. TRAFFIC WILL BE MAINTAINED ON THE EXISTING BRIDGE DURING CONSTRUCTION. FOLLOWING COMPLETION OF THE NEW BRIDGE, THE EXISTING BRIDGE, ABUTMENTS AND PIER WILL BE REMOVED. TOTAL LENGTH OF PROJECT IS 1600 FEET. THE LIMITS OF CONSTRUCTION DO NOT APPROACH ANY BUILDING OR OTHER STRUCTURES BUT DO ENCR OACH UPON THE DISTRICT 6 MAINTENANCE FACILITY. NO THREATENED AND ENDANGERED SPECIES HAVE BEEN IDENTIFIED IN THE PROJECT AREA. THE EXISTING BRIDGE STRUCTURE HAS BEEN CLEARED FOR REMOVAL AS IT HAS BEEN PHOTO-DOCUMENTED FOR HISTORICAL PURPOSES.

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

TOTAL DISTURBED AREA (EXCLUDING WASTE, BORROW AND STAGING AREAS)= 4.53 ACRES

SITE INVENTORY AND ANALYSIS

OFF SITE DRAINAGE CHARACTERISTICS

THE PROPERTY SURROUNDING THE PROJECT SITE CONSISTS OF WELL ESTABLISHED VEGETATION WITH MODERATE SLOPES AT THE PROJECT SITE AND MIXED SOFTWOOD AND HARDWOOD FOREST. THE PROPERTY SURROUNDING THE PROJECT SITE IS MOSTLY GRASSLAND WITH WOODS AND HILLY TO MOUNTAINOUS TERRAIN IN THE DISTANCE. DUE TO THE NATURE OF THE SURROUNDING TERRAIN THE PROJECT SITE COULD RECEIVE RUNOFF WATER ON THE PROJECT SITE FROM NEARBY SLOPES.

DRAINAGE, WATERWAYS, BODIES OF WATER

THE WINOOSKIRIVER IS LOCATED IN THE PROJECT AREA. THERE ARE NO OTHER BODIES OF WATER WITHIN THE PROJECT AREA. THE RIVER IS CLASSIFIED AS SINUOUS, ALLUVIAL, AND PROBABLY INCISED. THE CONTRIBUTING AREA AT THE BRIDGE CROSSING IS 670 SQUARE MILES.

TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES

THE TOPOGRAPHY OF THE PROJECT SITE IS MOSTLY OPEN FIELDS WITH PATCHES OF WOODED AREA. THE LAND AT THE PROJECT SITE IS MOSTLY FLAT BUT THE LAND TO THE SOUTH EAST IS STEEP IN SPOTS. THERE IS ONE HOUSE JUST OUTSIDE THE PROJECT LIMITS TO THE SOUTH AND THE DISTRICT 6 MAINTENANCE FACILITY EXISTS PARTIALLY WITHIN THE PROJECT LIMITS TO THE EAST. THE OVERHEAD POWER AND TELEPHONE LINES THAT SERVE THE MAINTENANCE FACILITY WILL BE RELOCATED.

VEGETATION

THE PROJECT SITE CONTAINS A MIXTURE OF GRASS, BRUSH, HARDWOOD AND SOFTWOOD TREES. NO FIELDS WITH AGRICULTURAL CROPS EXIST NEAR THE PROJECT. THE IMPACT TO THE VEGETATION WILL BE LIMITED TO THAT WHICH IS AFFECTED BY CONSTRUCTION OF THE NEW BRIDGE ALONG THE NEW ALIGNMENT, THE RECONSTRUCTION OF TOWN HIGHWAY 9 AND THE DRIVE. SOME MATURE TREES, MOSTLY HARDWOOD, WILL BE REMOVED FOR THE NEW ALIGNMENT.

FOLLOWING CONSTRUCTION OF THE NEW BRIDGE, THE EXISTING BRIDGE AND ROADWAY APPROACHES WILL BE REMOVED, THE SLOPES STABILIZED WITH STONE FILL AND VEGETATION REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES.

SOILS

THE SOIL CONSERVATION SERVICE HAS MAPPED THE SOILS THROUGHOUT WASHINGTON COUNTY. THE SOIL TYPES IDENTIFIED FOR THIS PROJECT SITE ARE:

1. RUMNEY FINE SANDY LOAM, WITH 0-2% SLOPES, A LOW ERODIBILITY K-VALUE OF 0.24 AND POOR DRAINING
2. ONDAWA FINE SANDY LOAM, WITH 0-3% SLOPES, A LOW ERODIBILITY K-VALUE OF 0.24 AND WELL-MODERATELY WELL DRAINING
3. TUNDBRIDGE-LYMAN COMPLEX, WITH 35-60% SLOPES, A LOW ERODIBILITY K-VALUE OF 0.22 AND WELL DRAINING
4. COLTON GRAVELLY LOAMY SAND, 8-15% SLOPES, A LOW ERODIBILITY K-VALUE OF 0.15 AND WELL-EXCESSIVELY DRAINING
5. PITS, SAND AND PITS, GRAVEL, MOSTLY UNCLASSIFIED, LOCATED AROUND THE MAINTENANCE FACILITY

SENSITIVE RESOURCE AREAS

CLASS III WETLANDS WERE IDENTIFIED IN THE PROJECT AREA. THERE WILL BE SOME IMPACT TO THE WETLANDS ALTHOUGH EVERY ATTEMPT SHOULD BE MADE TO MINIMIZE OR ELIMINATE ANY IMPACT WITHIN THIS SITE.

NO THREATENED AND ENDANGERED SPECIES, PRIME AGRICULTURAL LAND, OR CRITICAL HABITATS HAVE BEEN IDENTIFIED WITHIN THE PROJECT AREA.

THE PROJECT IS CLEAR OF ARCHEOLOGICAL RECOURSES.

PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES

DISTURBANCE OF SOILS NEAR NATURAL OR MAN-MADE WATERS CONSISTS OF THAT WHICH IS NECESSARY TO CONSTRUCT THE TWO NEW CONCRETE BRIDGE ABUTMENTS, CENTER PIER, AND APPLICABLE ROADWAY APPROACHES AS WELL AS THE REMOVAL OF THE EXISTING CROSSING. STABILIZATION OF DISTURBANCE TO THE RIVER BANKS WILL BE ACCOMPLISHED WITH STONE FILL, TYPE IV AND UNDERLAIN WITH GEOTEXTILE FABRIC.

RISK EVALUATION

LOW RISK PROJECT

THE PROJECT HAS BEEN DETERMINED TO BE LOW RISK AND AS SUCH THE LOW RISK SITE HANDBOOK MUST BE ON SITE AND COMPLIED WITH.

NO CHANGES TO PROJECT LIMITS OR SOIL STABILIZATION TECHNIQUES THAT MAY AFFECT THE RISK LEVEL AT THIS POINT

ANY MODIFICATIONS TO THE PROJECT SHALL RESULT IN A RE-EVALUATION OF THE RISK AND THE CONTRACTOR IS RESPONSIBLE FOR RE-FILING SHOULD THE RISK CHANGE.

TEMPORARY EROSION AND SEDIMENT CONTROL

PERIMETER EROSION CONTROLS

PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE PROJECT DEMARCATION FENCING (PDF) SHALL BE PLACED ALONG THE PERIMETER OF THE PROJECT AS SHOWN ON THE EROSION CONTROL PLANS. THE INSTALLATION OF THE PDF WILL BE PERFORMED SUCH THAT NO VEGETATION ON THE OUTSIDE OF THE FENCING IS DISTURBED.

PRIOR TO ANY CONSTRUCTION OR STAGING, THE CONTRACTOR WILL INSTALL STABILIZED CONSTRUCTION ENTRANCES LEADING TO STAGING AREAS AND THE PROJECT SITE TO PREVENT THE TRACKING OF SILTS AND SEDIMENTS OFFSITE. STABILIZED CONSTRUCTION ENTRANCES SHALL ALSO BE ESTABLISHED AND MAINTAINED AT ALL OFFSITE WASTE AND BORROW AREAS. (SEE DETAIL)

CONSTRUCT PERIMETER CONTROLS TO ENSURE THAT ANY DISTURBED SEDIMENT DOES NOT LEAVE THE SITE AFTER THE CLEARING OF TREES AND SHRUBS, BUT PRIOR TO ANY GRUBBING AND EXCAVATION. SEDIMENT TRAPS/BASINS, WHERE WATER HAS BEEN ADEQUATELY TREATED, MAY BE DIRECTED TO NEARBY UNDISTURBED STREAMS OR SWALES.

INSTALL PERIMETER SILT FENCE IN AREAS OF PROPOSED WORK AS SHOWN ON THE PLANS PRIOR TO GRUBBING AND ADDITIONAL SILT FENCING. IN AREAS OF EXPOSED LEDGE, STONE CHECK DAMS WILL BE UTILIZED.

AFTER GRUBBING OPERATIONS, ALL AREAS OF EXPOSED SOILS SHALL BE TEMPORARILY STABILIZED WITH SEEDING AND MULCHING, EROSION MATTING, OR STRAW MATTING AS SOON AS PRACTICABLE AND BEFORE ANY PREDICTED RAINFALL EVENT. THESE TEMPORARY EROSION CONTROL MEASURES CAN BE PLACED IN ANY COMBINATION IN AREAS OF POTENTIAL EROSION AS DEEMED NECESSARY BY THE RESIDENT ENGINEER.

AFTER PERIMETER CONTROLS ARE IN PLACE, AND PRIOR TO GRADING OPERATIONS, CONSTRUCT TEMPORARY ONSITE SEDIMENT TRAPS WHERE NECESSARY. GRADE DISTURBED AREAS TO DRAIN TOWARDS THE SEDIMENT TRAPS WHERE POSSIBLE.

ANY MATERIAL STOCKPILES, INCLUDING BUT NOT LIMITED TO, GRUBBING MATERIAL, SAND BORROW, EARTH BORROW, GRANULAR BORROW, TOPSOIL, AND ANY EXCAVATED WASTE PILES SHALL BE MULCHED AND SHALL ALSO HAVE SILT FENCE INSTALLED AROUND THE BASE OF THE STOCKPILE.

ANY OFF-SITE AREAS WHERE BORROW OR EXCAVATED MATERIALS WILL BE STOCKPILED AND ANY WASTE DISPOSAL AREAS WILL HAVE TWO INSTALLATIONS OF SILT FENCE, 2 FEET APART AROUND THE BASE OF EACH STOCKPILE. SEEDING AND MULCHING SHALL BE PERFORMED IMMEDIATELY AFTER FINAL GRADING. REMOVAL OF THE SILT FENCES AROUND THE WASTE AREAS SHALL BE PERFORMED ONLY AFTER APPROVAL FROM THE RESIDENT ENGINEER IS OBTAINED.

ON PARTIALLY COMPLETED FILL AND CUT SLOPES, ALL EXPOSED SLOPES WILL BE STABILIZED AT THE END OF EACH WORKING DAY.

SEEDING, MULCHING, AND BIOGRADABLE EROSION CONTROL MATTING OR EQUIVALENT PRODUCT WILL BE UTILIZED ON ALL SLOPES GREATER THAN 3:1 THAT ARE NOT LINED WITH STONE FILL. IN AREAS WITH LARGE SLOPES, STONE FILL UNDERLAIN WITH GEOTEXTILE FABRIC IS REQUIRED. ALL SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE OR DURING INTERMITTENT PHASES OF CONSTRUCTION ACTIVITY. MULCH AND SURFACE ROUGHEN ALL DISTURBED AREAS WHICH WILL NOT RECEIVE FURTHER DISTURBANCE FOR A PERIOD OF 7 DAYS OR MORE. SEED AND MULCH ALL DISTURBED AREAS WHICH WILL NOT RECEIVE FURTHER DISTURBANCE FOR A PERIOD OF 14 DAYS OR MORE.

EROSION CONTROL NARRATIVE #1

PROJECT NAME: MORETOWN-MIDDLESEX
PROJECT NUMBER: BRS 0284(14)

FILE NAME: 78f29/str/s78f29erobdr.dgn PLOT DATE: 03-JUN-2008
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ROW SHEET 12 OF 20