

EROSION PREVENTION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO PROVIDE SEWER SERVICE TO THE I-91 NORTHBOUND AND SOUTHBOUND HARTFORD REST AREAS AND INVOLVES THE INSTALLATION OF PUMP STATIONS, FORCE MAINS AND GRAVITY SEWERS FROM THE REST AREAS TO THE HARTFORD WASTEWATER COLLECTION SYSTEM. WASTEWATER WILL FIRST BE PUMPED FROM THE I-91 NORTHBOUND REST AREA TO THE SOUTHBOUND REST AREA. A SMALL BELOW GRADE PUMP STATION WILL BE INSTALLED AT THE NORTHBOUND REST AREA AND A FORCE MAIN WILL BE INSTALLED BENEATH THE INTERSTATE VIA DIRECTIONAL BORING, A TRENCHLESS PIPE INSTALLATION TECHNIQUE. ANOTHER SMALL BELOW GRADE PUMP STATION WILL BE INSTALLED AT THE SOUTHBOUND REST AREA AND FLOWS FROM THE TWO PUMP STATIONS WILL COMBINE IN A MANHOLE LOCATED ON THE TOWN OF HARTFORD'S PROPERTY ADJACENT TO THE SOUTHBOUND REST AREA. VARIOUS RECREATION FACILITIES ARE PROPOSED ON THIS PROPERTY SO THE ROUTE OF THE PROPOSED SEWER WAS CHOSEN TO ACCOMMODATE THESE FACILITIES. WASTEWATER WILL FLOW ACROSS THIS PROPERTY VIA A NEW GRAVITY SEWER TO A PROPOSED PUMP STATION WHICH WILL BE LOCATED ON THE TOWN'S PROPERTY ADJACENT TO ROUTE 5. A NEW FORCE MAIN WILL BE INSTALLED ALONG THE ROUTE 5 RIGHT OF WAY TO A HIGH POINT NEAR MELISI ROAD. A NEW GRAVITY SEWER WILL BE INSTALLED ALONG MELISI ROAD TO THE GRAVEL 'EMERGENCY ENTRANCE' AT THE SOUTH SIDE OF THE SPORTSPARK FACILITY (A PROPOSED INDUSTRIAL PARK WHICH IS IN THE PROCESS OF BEING CONSTRUCTED). THE NEW SEWER WILL BE INSTALLED ALONG THE 'EMERGENCY ENTRANCE' AND CONNECT TO THE EXISTING SPORTS PARK GRAVITY SEWER SYSTEM.

IN ADDITION, A NEW FORCE MAIN WILL BE INSTALLED FROM THE END OF THE SPORTS PARK FORCE MAIN, AT THE NORTH SIDE OF THE SPORTS PARK FACILITY, ALONG ROUTE 5 BENEATH THE I-89 OVERPASS TO A HIGH POINT ALONG ROUTE 5. FROM HERE, GRAVITY SEWER WILL BE INSTALLED TO THE HARTFORD WASTEWATER COLLECTION SYSTEM.

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.

THE TOTAL DISTURBED AREA OF THIS PROJECT WILL BE APPROXIMATELY 1.93 ACRES.

SITE INVENTORY

OFF-SITE DRAINAGE CHARACTERISTICS

AS THIS PROJECT IS A LINEAR PROJECT, MANY DIFFERENT CHARACTERISTICS ARE PRESENT ALONG THE PROJECT ROUTE. THE REST AREAS ARE LOCATED ALONG I-91 WHICH DRAINS VIA A COMBINATION OF CULVERTS AND DRAINAGE SWALES. THE TOWN OF HARTFORD'S PROPERTY ADJACENT TO THE SOUTHBOUND REST AREA IS A RELATIVELY FLAT OVERGROWN FIELD. ROUTE 5 BETWEEN THE TOWN'S PROPERTY AND MELISI ROAD IS EXTREMELY HILLY AND DRAINS OVER LAND TO A SERIES OF SMALL STREAMS WHICH THE ROADWAY CROSSES. ROUTE 5 BETWEEN THE SPORTS PARK AND THE CONNECTION TO THE HARTFORD WASTEWATER CONNECTION SYSTEM PROCEEDS UPHILL AS IT CROSSES BENEATH I-89, THEN LEVELS OFF TO A RELATIVELY FLAT GRADE. DRAINAGE IS CONVEYED FROM THIS AREA VIA DRAINAGE DITCHES TO A SMALL STREAM THAT THE ROADWAY CROSSES.

DRAINAGE, WATERWAYS, BODIES OF WATER

THIS PROJECT INVOLVES THE CROSSING OF THE KILBURN BROOK AND SEVERAL UNNAMED TRIBUTARIES ALONG ROUTE 5. THE STREAM CROSSINGS ALL OCCUR AT EXISTING CULVERTS WITH THE EXCEPTION OF A NEW CULVERT WHICH WILL BE INSTALLED AT THE ROUTE 5 PUMP STATION.

TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES

MANY DIFFERENT TOPOGRAPHIC CONDITIONS ARE ENCOUNTERED ALONG THE PROJECT ROUTE. AT THE REST AREAS, EXISTING BUILDINGS ARE PRESENT WHICH WILL BE EXPANDED IN THE FUTURE. THE TOWN OF HARTFORD'S PROPERTY ADJACENT TO THE SOUTHBOUND REST AREA IS AN OVERGROWN GRASSY FIELD BUT RECREATION FACILITIES ARE PLANNED HERE IN THE FUTURE. ROUTE 5 IS AN EXISTING PAVED ROADWAY THAT IS EXTREMELY HILLY IN SECTIONS. ALONG THE PROJECT ROUTE, PROPERTIES ADJACENT TO THE ROADWAY RANGE FROM SMALL FARMS, TO RESIDENTIAL AREAS, TO A COMMERCIAL AREA WHERE THE CONNECTION TO THE HARTFORD WASTEWATER COLLECTION SYSTEM IS MADE.

VEGETATION

THE MAJORITY OF THIS PROJECT IS LOCATED WITHIN EXISTING ROADWAY SURFACES AND RIGHT OF WAYS SO LITTLE EXISTING VEGETATION WILL BE IMPACTED. THE TOWN OF HARTFORD'S PROPERTY ADJACENT TO THE SOUTHBOUND REST AREA IS PRIMARILY AN OVERGROWN GRASSY FIELD.

SOILS

AS THIS IS A LINEAR PROJECT, MANY DIFFERENT SOIL TYPES WILL BE ENCOUNTERED. SOILS RANGE FROM THE RAYNHAM SILT LOAM LOCATED ON THE TOWN OF HARTFORD'S PROPERTY TO THE EXTREMELY ROCKY GLOVER-VERSHIRE COMPLEX SOILS LOCATED ALONG PORTIONS OF ROUTE 5.

SENSITIVE RESOURCE AREAS

THERE ARE SEVERAL CLASS II AND CLASS III WETLANDS LOCATED ADJACENT TO THE PROJECT BUT THESE WETLANDS ARE EITHER FAR ENOUGH FROM THE PROJECT THAT THEY WON'T BE IMPACTED OR THEY WILL BE PROTECTED BY APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES.

RISK EVALUATION

RISK DETERMINATION

THIS PROJECT HAS BEEN DETERMINED TO BE LOW RISK BASED ON THE FOLLOWING CONCLUSIONS. BASIC RISK EVALUATION RESULTED IN THE REQUIREMENT FOR A MORE DETAILED ANALYSIS TO DETERMINE RISK AND RESULTED IN THE FOLLOWING REQUIREMENTS:

1. IMPLEMENT THE LOW RISK SITE HANDBOOK FOR EROSION AND SEDIMENT CONTROL. THE HANDBOOK MUST BE KEPT ON SITE AT ALL TIMES.
2. ALL AREAS MUST HAVE TEMPORARY OR FINAL STABILIZATION WITHIN 7 DAYS OF INITIAL DISTURBANCE AND BE STABILIZED THEREAFTER ON A DAILY BASIS. THE FOLLOWING EXCEPTIONS APPLY:
 - a. STABILIZATION IS NOT REQUIRED IF WORK IS TO CONTINUE IN THE AREA WITHIN 24 HOURS AND NO PRECIPITATION IS FORECAST FOR THE NEXT 24 HOURS.
 - b. STABILIZATION IS NOT REQUIRED IF THE WORK IS OCCURRING IN A SELF-CONTAINED EXCAVATION WITH A DEPTH OF 2 FEET OR GREATER.
3. NO MORE THAN 2 ACRES OF LAND SHALL BE DISTURBED AT ONE TIME.
4. INSPECTION SHALL BE PERFORMED AT LEAST ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS OF A PRECIPITATION EVENT RESULTING IN THE DISCHARGE OF STORMWATER FROM THE CONSTRUCTION SITE.
5. IF THERE IS A DISCHARGE OF VISIBLY DISCOLORED STORMWATER FROM THE CONSTRUCTION SITE OR FROM THE CONSTRUCTION SITE TO WATERS OF THE STATE, THE PERMITTEE SHALL TAKE IMMEDIATE CORRECTIVE ACTION.
6. IF, AFTER COMPLETING CORRECTIVE ACTION, THERE CONTINUES TO BE A DISCHARGE OF SEDIMENT FROM THE CONSTRUCTION SITE TO WATERS OF THE STATE, THE PERMITTEE SHALL NOTIFY D.E.C. BY SUBMITTING A REPORT WITHIN 72 HOURS OF THE DISCHARGE.

RISK RE-EVALUATION

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 VANR VIA RE-FILING OF THE REQUIRED MATERIALS UNDER THE CONSTRUCTION GENERAL PERMIT PROCESS.

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 AND OTHER POLLUTION PREVENTION CONTROLS.

EMPLOY TEMPORARY STABILIZATION PRACTICES IN INCREMENTAL STAGES AS CONSTRUCTION PROCEEDS. ADDITIONAL MEASURES MAY BE NEEDED DUE TO THE PHASING OF THE PROJECT AND AS DIRECTED BY THE ENGINEER. PREVENTING INITIAL SOIL EROSION IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. THEREFORE, STABILIZE ALL DISTURBED AREAS PROMPTLY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED. MAINTAINING VEGETATIVE BUFFERS ALONG STREAM BANKS, WETLANDS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE ESTABLISHED WHEREVER POSSIBLE. (REFER TO THE LOW RISK SITE HANDBOOK, PERMIT REQUIREMENTS AND APPROPRIATE EROSION CONTROL PLAN AND DETAIL SHEETS FOR EACH PRACTICE REQUIRED ON THE PROJECT TO INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING)

MARK SITE BOUNDARIES

BOUNDARIES ARE TO BE MARKED WITH PROJECT DEMARCATION FENCE PRIOR TO CONSTRUCTION

STABILIZE CONSTRUCTION EXIT

STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION COMMENCING IN THAT AREA

DIVERT UPLAND RUNOFF

NOT APPLICABLE

CONSTRUCT PERMANENT CONTROLS

SEED AND MULCH DISTURBED SOILS, PAVE DISTURBED AREAS WITHIN ROADWAY

WINTER STABILIZATION

SEE LOW RISK HANDBOOK AND FOLLOW VARIOUS WINTER SPECIFIC EROSION CONTROL MEASURES

DEWATERING ACTIVITIES

USE FILTER BAG FOR DEWATERING

LIMIT DISTURBANCE AREA

CONSTRUCTION SHALL FOLLOW THE PHASING PLAN AND DISTURBED AREAS SHALL BE LIMITED AS MUCH AS POSSIBLE

INSTALL SILT FENCE AND DROP INLET PROTECTION

SILT FENCE SHALL BE INSTALLED PRIOR TO CONSTRUCTION COMMENCING IN THAT AREA
DROP INLET PROTECTION SHALL BE INSTALLED PRIOR TO CONSTRUCTION COMMENCING IN THAT AREA

SLOW DOWN CHANNELIZED RUNOFF

INSTALL CHECK DAMS WHERE INDICATED

STABILIZE EXPOSED SOILS

SEED AND MULCH DISTURBED SOILS, PAVE DISTURBED AREAS WITHIN ROADWAY

STABILIZE SOIL AT FINAL GRADE

SEED AND MULCH DISTURBED SOILS, PAVE DISTURBED AREAS WITHIN ROADWAY

INSPECT YOUR SITE

INSPECT SITE IN ACCORDANCE WITH PERMIT AUTHORIZATION REQUIREMENTS

PROJECT PHASING PLAN

AS THIS IS A LINEAR PROJECT WITH PRIMARILY BOX TRENCH EXCAVATION, CONSTRUCTION SHALL OCCUR ALONG THE PROJECT ROUTE. EROSION CONTROL MEASURES MUST BE INSTALLED PRIOR TO ANY EXCAVATION TAKING PLACE IN ANY GIVEN AREA AND SHALL REMAIN IN PLACE UNTIL PERMANENT SITE STABILIZATION HAS OCCURRED. ALL TRENCHES SHALL BE BACKFILLED AND COMPACTED AT THE END OF EACH CONSTRUCTION DAY. TEMPORARY PAVEMENT SHALL BE INSTALLED ON ALL EXCAVATIONS WITHIN THE ROADWAY AND EXCAVATIONS OUTSIDE OF THE ROADWAY SHALL BE SEEDED AND MULCHED WITHIN 7 DAYS OF INITIAL SOIL DISTURBANCE.



PROJECT NAME: HARTFORD REST AREAS

PROJECT NUMBER: IM BLDG(10)

FILE NAME: ...u04c026pit-ero_Details.dgn PLOT DATE: 5/19/2008

PROJECT LEADER: JTM DRAWN BY: VTRANS

DESIGNED BY: VTRANS CHECKED BY: VTRANS

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