

1. PROJECT DESCRIPTION

THE BRAINTREE ER-STP 0187(12) PROJECT IS LOCATED AT THE INTERSECTION OF ROUTE 12A AND FOWLER ROAD IN BRAINTREE. IT INVOLVES THE REPLACEMENT OF THE EAST APPROACH SLAB TO BRIDGE 6 (MM 3.879), NEW MEMBRANE ON BRIDGE 6, REINFORCING THE BANK OF THE THIRD BRANCH OF THE WHITE RIVER ALONG ROUTE 12A WITH STONE FILL FOR A DISTANCE OF ABOUT 1600' AND REPLACING BRIDGE 7 (MM 4.098) CARRYING CAHEE BROOK WITH A CONCRETE BOX CULVERT.

2. AREA OF DISTURBANCE

THE TOTAL DISTURBANCE ASSOCIATED WITH CONSTRUCTION OF THIS PROJECT IS APPROX. 2.8 ACRES. SEE BREAKDOWN OF DISTURBANCE PER AREA IN # 5 BELOW AS WELL AS THE INCLUDED PLANS.

3. CONSTRUCTION SEQUENCE

THE CONTRACTOR SHALL SEQUENCE CONSTRUCTION ACTIVITIES TO MINIMIZE THE EXTENT OF DISTURBED SOILS LEFT OPEN TO EROSION AT ANY GIVEN TIME. A PROPOSED GENERAL SEQUENCE FOR EACH OF THE MAJOR CONSTRUCTION ACTIVITIES IS AS FOLLOWS:

- **BRIDGE 6 APPROACH SLAB AND MEMBRANE AND RIVER STABILIZATION ON THE EAST BANK OF THE THIRD BRANCH OF THE WHITE RIVER.**
 - 1) ESTABLISH PERIMETER CONTROLS AND MARK BOUNDARIES FOR SENSITIVE RESOURCE AREAS, SUCH AS WETLANDS AND RIPARIAN BUFFER ZONES.
 - 2) INSTALL SEDIMENT CONTROL MEASURES.
 - 3) CLEARING.
 - 4) BEGIN CUT & FILL OPERATIONS, LIMIT AREA OF DISTURBANCE TO < 1 ACRE.
 - 5) CONCURRENTLY INSTALL TEMPORARY AND PERMANENT STABILIZATION AND EPSC MEASURES AND AS WORK PROGRESSES SO THAT EMBANKMENT IS STABILIZED PRIOR TO ALLOWING RUNOFF TO DISCHARGE TO IT.
 - 6) INSTALL CULVERT EXTENSION FOR CULVERT UNDER GRANTSWORTH ROAD.
 - 7) PLACE STONE FILL ON SLOPES AS WORK PROGRESSES.
 - 8) PLACE SUBBASE MATERIAL FOR ROADWAY AND FINAL GRADE AND STABILIZE ALL EARTH DISTURBANCE AS WORK PROGRESSES.
 - 9) PAVE ROADWAY.
- **BRIDGE 7 REPLACEMENT.**
 - 1) ESTABLISH PERIMETER CONTROLS AND MARK BOUNDARIES FOR SENSITIVE RESOURCE AREAS, SUCH AS WETLANDS AND RIPARIAN BUFFER ZONES.
 - 2) INSTALL SEDIMENT CONTROL MEASURES.
 - 3) CLEARING.
 - 4) CONSTRUCT TEMPORARY RELOCATION OF FOWLER ROAD.
 - 5) CONSTRUCT BRIDGE 7 WHILE MAINTAINING CAHEE BROOK FLOW THROUGH EXISTING CULVERT.
 - 6) DIVERT CAHEE BROOK TO THE NEW CULVERT, REMOVE OLD CULVERT.
 - 7) CONCURRENTLY INSTALL TEMPORARY STABILIZATION AND EPSC MEASURES AS WORK PROGRESSES.
 - 8) PLACE SUBBASE MATERIAL FOR ROADWAY.
 - 9) PAVE ROADWAY
- **STREAM STABILIZATION ALONG THE WEST BANK OF THE THIRD BRANCH OF THE WHITE RIVER.**
 - 1) ESTABLISH PERIMETER CONTROLS AND MARK BOUNDARIES FOR SENSITIVE RESOURCE AREAS, SUCH AS WETLANDS AND RIPARIAN BUFFER ZONES.
 - 2) INSTALL SEDIMENT CONTROL MEASURES.
 - 3) CLEARING.
 - 4) BEGIN CUT & FILL OPERATIONS, LIMIT AREA OF DISTURBANCE TO < 1 ACRE.
 - 5) STABILIZE SLOPES BY PLACING STONE FILL ON SLOPES AS WORK PROGRESSES.
 - 6) CONCURRENTLY INSTALL TEMPORARY AND PERMANENT STABILIZATION AND EPSC MEASURES AND AS WORK PROGRESSES SO THAT EMBANKMENT IS STABILIZED PRIOR TO ALLOWING RUNOFF TO DISCHARGE TO IT. SLOPES ARE TO NOT TO BE LEFT EXPOSED IF A RAIN EVENT IS ANTICIPATED.
 - 7) FINAL GRADE SIDE SLOPES.
 - 8) APPLY PERMANENT STABILIZATION MEASURES TO ALL REMAINING EXPOSED SOIL AREAS.

4. STABILIZATION OF EXPOSED SOILS

- SEED AND MULCH WILL BE USED FOR BOTH PERMANENT AND TEMPORARY STABILIZATION MEASURES. ROLLED EROSION CONTROL PRODUCT (RECP) WILL BE USED IN PLACE OF MULCH FOR SLOPES GREATER THAN 1V:3H.
- DISTURBED AREAS AND SOIL STOCKPILES THAT WILL NOT BE WORKED FOR MORE THAN 7 DAYS SHALL BE TEMPORARILY STABILIZED WITH MULCH/RECP WITHIN 48 HOURS.
- DISTURBED AREAS AND SOIL STOCKPILES THAT WILL NOT BE WORKED FOR MORE THAN 30 DAYS SHALL BE TEMPORARILY STABILIZED WITH SEED AND MULCH/RECP WITHIN 48 HOURS.
- EXPOSED AREAS THAT HAVE ACHIEVED FINAL GRADE SHALL BE PERMANENTLY STABILIZED WITHIN 48 HOURS.
- IN AREAS WHERE VEGETATIVE COVER WILL PROVIDE PERMANENT STABILIZATION, SEEDING TO BE COMPLETED BETWEEN APRIL 15 AND SEPTEMBER 15.

5. DRAINAGE AREAS AND DISCHARGE POINTS

THIS PROJECT IS BEING CONSTRUCTED ALONG AN EXISTING ROADWAY CORRIDOR WHICH WAS DISTURBED BY TROPICAL STORM IRENE. THE EXISTING GRADE IS RELATIVELY FLAT.

THE PROJECT HAS THREE NON-DISCRETE DISCHARGE POINTS TO THE RECEIVING WATER, THE THIRD BRANCH OF THE WHITE RIVER AND CAHEE BROOK. EACH DISCHARGE CORRESPONDS TO A DRAINAGE AREA IN WHICH THE PROJECT HAS BEEN DIVIDED.

- **DRAINAGE AREA 1**
LOCATED DIRECTLY EAST OF THE THIRD BRANCH OF THE WHITE RIVER AND INCLUDES DISTURBANCE OF 0.417 ACRES. RUNOFF WILL FLOW FROM EAST TO WEST OVER THE PROPOSED STONE STABILIZATION AND INTO THE ROARING BRANCH.
- **DRAINAGE AREA 2**
LOCATED ON CAHEE BROOK AND INCLUDES DISTURBANCE OF 0.462 ACRES. RUNOFF WILL FLOW OVER THE STONE STABILIZED BANKS INTO CAHEE BROOK.
- **DRAINAGE AREA 3**
CONSISTS OF THE STABILIZATION ALONG THE WEST BANK OF THE THIRD BRANCH OF THE WHITE RIVER AND INCLUDES A DISTURBANCE OF 1.884 ACRES. RUNOFF WILL FLOW FROM ROUTE 12A EAST OVER THE STABILIZED RIVER BANK INTO THE THIRD BRANCH OF THE WHITE RIVER.

DRAINAGE AREA SUMMARY

DRAINAGE AREA	TOTAL DISTURB. (ACRES)	LIMIT OF CONCURRENT DISTURBANCE (ACRES)	RECEIVING WATER
1	0.417	0.417 ACRE	THIRD BRANCH
2	0.462	0.462 ACRE	CAHEE BROOK
3	1.884	1 ACRES	THIRD BRANCH

SEE THE EPSC PLAN SHEETS FOR FURTHER DETAIL REGARDING DRAINAGE AREAS AND RELATED SLOPE AND SOIL ERODIBILITY.

6. WASTE, BORROW, AND STAGING AREAS

- OFF-SITE WASTE AND BORROW AREAS HAVE NOT BEEN IDENTIFIED FOR THIS PROJECT. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY AND PERMIT, AS NECESSARY, ANY OFF-SITE WASTE AND BORROW AREAS THAT ARE NEEDED. ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES NECESSARY FOR WASTE, BORROW, AND STAGING AREAS OUTSIDE THE PROJECT LIMITS SHALL BE PAID FOR PER SUBSECTION 105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- LOCATE ADDITIONAL AREAS FOR DISPOSAL OF STUMPS, EXCESS SOILS AND COLLECTED SEDIMENT, IF NECESSARY. DISPOSE OF THESE MATERIALS IN A MANNER THAT WILL NOT RESULT IN SEDIMENTS ENTERING WATERS OF THE STATE.
- DISPOSAL SITES REQUIRE RELATIVELY LEVEL TERRAIN WITH AN ISOLATION DISTANCE OF AT LEAST 100 FT FROM ANY SURFACE WATERS, INCLUDING WETLANDS.
- VEHICLE AND EQUIPMENT STORAGE AREAS OR AREAS ADJACENT TO CONSTRUCTION TRAILERS OR OTHER HIGH TRAFFIC AREAS SHALL BE COVERED WITH GEOTEXTILE FABRIC AND 12" OF GRAVEL. FOLLOWING COMPLETION OF CONSTRUCTION, ALL NON-NATIVE MATERIALS SHALL BE REMOVED FROM THE STAGING AREA. COMPACTED, RUTTED, OR OTHERWISE DISTURBED SOILS SHALL BE TILLED, RAKED, SEEDED AND MULCHED.
- ERODIBLE MATERIALS STOCKPILED WITHIN THE MATERIAL STORAGE AREAS SHALL BE ISOLATED WITH SILT FENCE OR OTHER ACCEPTABLE SEDIMENT BARRIER. SOIL STOCKPILED ON THE SITE SHALL BE SEEDED AND MULCHED.

7. WINTER CONSTRUCTION REQUIREMENTS

IT IS NOT ANTICIPATED THAT CONSTRUCTION ACTIVITIES WILL CONTINUE INTO THE WINTER CONSTRUCTION SEASON, DEPENDING ON ACTUAL FIELD AND WEATHER CONDITIONS. IF ACTIVITIES ARE ON-GOING BETWEEN OCTOBER 15 AND APRIL 15, THE CONTRACTOR SHALL FOLLOW REQUIREMENTS FOR WINTER CONSTRUCTION, AS DEFINED IN SPECIFIC PERMIT CONDITIONS AND AS FOLLOWS:

CONTRACTOR RESPONSIBILITIES, LIMITATIONS & PROHIBITIONS

1. GENERAL NOTES

- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO AMEND/UPDATE ALL PLANS AND EXISTING PERMITS WHEN ADDING DETAILED CONSTRUCTION PHASING OR ANYTHING ELSE THAT MAY DEVIATE FROM THE APPROVED PLANS AS DIRECTED BY THE RESIDENT ENGINEER.
- OTHER THAN THOSE SHOWN ON THE PLANS ALL LAND DISTURBANCES WITHIN 50 FT OF ALL WATER BODIES, MEASURED FROM THE TOP OF BANK, AND WETLANDS, ARE PROHIBITED WITHOUT FURTHER REGULATORY REVIEW.
- CONTRACTOR TO MAINTAIN ALL EXISTING STREAMS AND RIPARIAN BUFFER ZONES IN THEIR NATURAL CONDITION.
- OFF-SITE DISCHARGES OF ANY MATERIAL OTHER THAN STORMWATER, SUCH AS VEHICLE AND EQUIPMENT MAINTENANCE SPILLS, FUELS, WASH WATER, CONSTRUCTION DEBRIS, OIL, WET CONCRETE (INCLUDING WASHOUT WATER FROM CONCRETE BATCH TRUCKS OR EQUIPMENT USED TO MIX CONCRETE), AND OTHER SUBSTANCES, ARE PROHIBITED.
- THE FAILURE TO PROMPTLY ABATE THE DISCHARGE OF SEDIMENT OR ANY OTHER WASTE WHICH CAUSES A VISIBLE DISCOLORATION OF SURFACE WATERS (INCLUDING WETLANDS), OR IS FOUND TO BE VIOLATING WATER QUALITY STANDARDS BASED ON MONITORING, IS PROHIBITED. ANY CORRECTIVE ACTION UNDERTAKEN TO REMOVE SEDIMENT FROM A WETLAND IS ALSO PROHIBITED.
- WEATHER CONDITIONS WILL BE MONITORED DURING THE CONSTRUCTION SEASON. IF AN EXTENDED RAIN PERIOD OR HEAVY RAIN IS PREDICTED, EXPOSED SOIL AREAS WILL BE MULCHED PRIOR TO AND DAILY DURING THE RAIN EVENT. IF DETERMINED NECESSARY BY THE RESIDENT ENGINEER, WORK MAY BE SUSPENDED OR LIMITED DURING THE STORM.

2. EPSC PLAN

THE CONTRACTOR SHALL SUBMIT AN EPSC PLAN IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE PLAN AT A MINIMUM SHALL TAKE INTO CONSIDERATION THE FOLLOWING:

- **DRAINAGE AREA 1**
 - THE DISTURBANCE AT ANY ONE TIME IN THIS AREA SHALL BE LIMITED TO 0.5 ACRES.
 - ACCESS TO THE AREA, INCLUDING TEMPORARY AND PERMANENT STABILIZATION OF THE PROPOSED ACCESS DURING AND THEN FOLLOWING CONSTRUCTION OF THE PROJECT
 - STORMWATER RUNOFF TO BE CONTROLLED PRIOR TO, DURING, AND THEN FOLLOWING THE FULL COMPLETION OF STONE-FACING THE RIVER EMBANKMENT ON THE EAST BANK OF THE RIVER.
- **DRAINAGE AREA 2**
 - THE DISTURBANCE AT ANY ONE TIME IN THIS AREA SHALL BE LIMITED TO 0.5 ACRE.
 - DIVERSION OF CAHEE BROOK.
 - ACCESS TO THE AREA, INCLUDING TEMPORARY AND PERMANENT STABILIZATION OF THE PROPOSED ACCESS DURING AND THEN FOLLOWING CONSTRUCTION OF THE PROJECT
 - STORMWATER RUNOFF TO BE CONTROLLED PRIOR TO, DURING, AND THEN FOLLOWING THE FULL COMPLETION OF STONE-FACING THE BROOK EMBANKMENT.
- **DRAINAGE AREA 3**
 - THE DISTURBANCE AT ANY ONE TIME IN THIS AREA SHALL BE LIMITED TO 1 ACRE.
 - ACCESS TO THE AREA, INCLUDING TEMPORARY AND PERMANENT STABILIZATION OF THE PROPOSED ACCESS DURING AND THEN FOLLOWING CONSTRUCTION OF THE PROJECT
 - STORMWATER RUNOFF TO BE CONTROLLED PRIOR TO, DURING, AND THEN FOLLOWING THE FULL COMPLETION OF STONE-FACING THE RIVER EMBANKMENT ON THE WEST BANK OF THE RIVER.

THE EPSC PLAN SHALL ALSO INCLUDE INFORMATION REGARDING:

- STREAM DIVERSION PLANS
- METHOD FOR TREATMENT OF DISCHARGE FROM DEWATERING.
- CONSTRUCTION OF HAUL ROADS.

3. INSPECTION & MONITORING NOTES

- CONTRACTOR TO CONDUCT INSPECTIONS AND MONITORING IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND PERMIT SPECIFIC REQUIREMENTS.
- THE CONTRACTOR SHALL KEEP TWO (2) TURBIDITY MONITORS ONSITE AND HAVE PERSONNEL ON HAND THAT ARE TRAINED IN THEIR OPERATION.

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FILE NAME: z12c526frm.dgn	PLOT DATE: 1/10/2014
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