

IN-STREAM SEDIMENT AND EROSION CONTROL

THE CONTRACTOR SHALL CONTACT THE U.S. ARMY CORPS OF ENGINEERS, CHICAGO DISTRICT, WITH A PROPOSED COFFERDAM PLAN MEETING THE STANDARDS LISTED BELOW. MEANS AND METHODS FOR COMPLETING WORK WITHIN A WATERWAY MUST BE APPROVED BY THE CORPS PRIOR TO THE COMMENCEMENT OF WORK. THE CORPS WILL APPROVE THE COFFERDAM PLAN TO ENSURE IT MEETS EROSION AND SEDIMENT CONTROL STANDARDS. HOWEVER, IT IS INCUMBENT UPON THE CONTRACTOR TO ENSURE THAT ALL COFFERDAMS ARE CONSTRUCTED TO WITHSTAND EXPECTED FLOWS. ALL WORK NEEDED TO SATISFY ACOE REQUIREMENTS SHALL BE INCLUDED IN THE COST FOR REMOVAL OF EXISTING STRUCTURES.

WORK WITHIN A WATERWAY MUST MEET THE FOLLOWING STANDARDS:

1. WORK IN THE WATERWAY SHALL BE TIMED TO TAKE PLACE DURING LOW OR NO-FLOW CONDITIONS.
2. WATER SHALL BE ISOLATED FROM THE IN-STREAM WORK AREA USING A NON-ERODIBLE PROPOSED COFFERDAM (STEEL SHEETS, AQUA BARRIERS, ETC.). EARTHEN COFFERDAMS ARE NOT PERMISSIBLE.
3. WORK MAY NOT BE PERFORMED IN THE WATER, EXCEPT FOR THE PLACEMENT OF THE MATERIALS NECESSARY FOR THE CONSTRUCTION OF THE COFFERDAM. THE COFFERDAM MUST BE CONSTRUCTED FROM THE UPLAND AREA AND NO EQUIPMENT MAY ENTER THE WATER AT ANY TIME. ONCE THE COFFERDAM IS IN PLACE AND THE ISOLATED AREA IS DEWATERED, EQUIPMENT MAY ENTER THE COFFERED AREA TO PERFORM THE REQUIRED WORK.
4. IF BYPASS PUMPING IS NECESSARY, THE PUMP SHALL BE PLACED ON A STABLE SURFACE OR FLOATED TO PREVENT SEDIMENT FROM BEING SUCKED INTO THE HOSE. THE BYPASS DISCHARGE SHALL BE PLACED ON A NON-ERODIBLE, ENERGY DISSIPATING SURFACE PRIOR TO REJOINING THE STREAM FLOW AND SHALL NOT CAUSE EROSION OF DOWNSTREAM AREAS. BYPASS WATER WILL BE FILTERED USING BMP TO MINIMIZE SEDIMENT TO DOWNSTREAM AREAS UNLESS OTHERWISE APPROVED BY ENGINEER.
5. DURING DEWATERING OF THE COFFERED AREA, ALL WATER MUST BE FILTERED TO REMOVE SEDIMENT. POSSIBLE OPTIONS FOR SEDIMENT REMOVAL INCLUDING BAFFLE SYSTEMS, ANIONIC POLYMERS, DEWATERING BAGS OR OTHER APPROPRIATE METHODS. WATER SHALL HAVE SEDIMENT REMOVED PRIOR TO BEING REINTRODUCED TO THE DOWNSTREAM WATERWAY. DISCHARGE WATER IS CONSIDERED CLEAN IF IT DOES NOT RESULT IN A VISUALLY IDENTIFIABLE DEGRADATION OF WATER CLARITY. THIS WORK SHALL BE PAID FOR IN ACCORDANCE WITH ARTICLE 502.13.
6. THE SIDE SLOPES SHALL BE RESEEDED AND STABILIZED WITH AN APPROPRIATE EROSION CONTROL BLANKET PRIOR TO ACCEPTING FLOWS. THE SUBSTRATE SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS AND STABLE ENOUGH TO ACCEPT FLOWS.
7. WHERE STREAM DISTURBANCE IS NECESSARY, THE STREAM BED AND BANKS SHALL BE STABILIZED WITHIN FORTY-EIGHT (48) HOURS AFTER DISTURBANCE IS COMPLETED OR INTERRUPTED.

EROSION AND SEDIMENT CONTROL

1. ALL AREAS OF BARE GROUND WILL BE TEMPORARILY SEEDED EVERY SEVEN (7) DAYS UNTIL PERMANENT EROSION CONTROL IS IN PLACE.
2. ALL AREAS WITHIN RIGHT OF WAY WILL BE RESTORED WITH 6" TOPSOIL, EROSION CONTROL BLANKET AND SEEDING, CLASS 2A OR CLASS 4.
3. DITCH CHECKS SHALL BE EITHER ROLLED EXCELSIOR OR TRIANGULAR SILT DIKES.
4. ENGINEER TO STAKE LOCATIONS FOR PROPOSED TREES AS SHOWN IN LANDSCAPING PLANS AND SHALL BE APPROVED BY MCHENRY COUNTY PRIOR TO INSTALLATION.
5. NO WORK SHALL BE PERFORMED IN FLOWING WATER. WORK IN OR NEAR THE CRITICAL AREAS SHOULD BE ISOLATED FROM CONCENTRATED FLOWS OR STREAM FLOW, ONCE WORK IN THIS AREA BEGINS, PRIORITY SHALL BE GIVEN TO THE COMPLETION OF THE WORK AND FINAL STABILIZATION OF ALL DISTURBED AREAS.
6. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. AREAS OF THE PROJECT SITE THAT ARE NOT TO BE GRADED SHALL BE PROTECTED FROM CONSTRUCTION TRAFFIC OR OTHER DISTURBANCE UNTIL FINAL SEEDING IS PERFORMED.
7. PROPERTIES AND CHANNELS ADJOINING THE PROJECT SITE SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION.
8. SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF HYDROLOGIC DISTURBANCE OF UPLAND AREAS.
9. PLACEMENT OF TOPSOIL SHALL BE COMPLETED WITHIN 10-15 DAYS AFTER THE COMPLETION OF PAVING UNLESS OTHERWISE DIRECTED BY THE ENGINEER. SEEDING SHALL BE PLACED EITHER PRIOR TO JUNE 15 OR AFTER SEPTEMBER 15.
10. DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) CALENDAR DAYS FOLLOWING THE END OF ACTIVE HYDROLOGIC DISTURBANCE.
11. ALL STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY AN APPROPRIATE SEDIMENT CONTROL MEASURE.
12. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. DISCHARGES SHALL BE ROUTED THROUGH AN EFFECTIVE SEDIMENT CONTROL MEASURE (E.G., SEDIMENT TRAP, SEDIMENT BASIN, OR OTHER APPROPRIATE MEASURES). THIS WORK SHALL BE PAID FOR IN ACCORDANCE WITH ARTICLE 502.13.
13. ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS SHALL BE PERMANENTLY STABILIZED.
14. SOIL STOCKPILES SHALL NOT BE LOCATED IN A FLOOD-PRONE AREA OR A DESIGNATED BUFFER PROTECTING WATERS OF THE UNITED STATES OR ISOLATED WATERS OF MCHENRY COUNTY.
15. THE CONTRACTOR SHALL PROVIDE ADEQUATE RECEPTACLES FOR THE DISPOSAL OF ALL CONSTRUCTION MATERIAL DEBRIS GENERATED DURING THE DEVELOPMENT PROCESS. THE CONTRACTOR SHALL NOT CAUSE OR PERMIT THE DUMPING, DEPOSITING, DROPPING, THROWING, DISCARDING OR LEAVING OF CONSTRUCTION MATERIALS DEBRIS UPON OR INTO ANY DEVELOPMENT SITE, CHANNEL, WATERS OF THE U.S. OR ISOLATED WATERS OF MCHENRY COUNTY. THE CONTRACTOR SHALL MAINTAIN THE DEVELOPMENT SITE FREE OF CONSTRUCTION MATERIAL DEBRIS.
16. ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN AN EFFECTIVE WORKING CONDITION.
17. HEAVY DUTY EROSION CONTROL BLANKET SHALL BE USED ON ALL AREAS OF PERMANENT SEEDING AND SHALL BE IN ACCORDANCE WITH THE "ILLINOIS URBAN MANUAL", LATEST EDITION AND "IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" SECTIONS. LATEST EDITION SECTION 251.04.
18. WHERE STREAM BED DISTURBANCE IS NECESSARY, THE STREAM INCLUDING BED AND BANKS SHALL BE RESTABILIZED WITHIN FORTY-EIGHT (48) HOURS AFTER DISTURBANCE IS COMPLETE OR INTERRUPTED.
19. STRAW AND SILT FENCE BARRIERS SHALL NOT BE USED IN ACCORDANCE WITH THE "ILLINOIS URBAN MANUAL" FOR INLET AND PIPE PROTECTION.

EROSION AND SEDIMENT CONTROL MAINTENANCE


1. TEMPORARY EROSION BARRIER: AT A MINIMUM, THE CONTRACTOR SHALL INSPECT ALL SILT FENCE WEEKLY OR AFTER EACH ONE-HALF INCH OR GREATER RAINFALL EVENT. ANY REQUIRED REPAIRS SHALL BE MADE BY THE CONTRACTOR TO KEEP THE SILT FENCE FUNCTIONAL AS DESIGNED.
2. HEAVY DUTY EROSION CONTROL BLANKET: AT A MINIMUM, THE CONTRACTOR SHALL INSPECT ALL HEAVY DUTY EROSION CONTROL BLANKETS WEEKLY OR AFTER EACH ONE-HALF INCH OR GREATER RAINFALL EVENT. ANY REQUIRED REPAIRS SHALL BE MADE BY THE CONTRACTOR TO KEEP THE EROSION CONTROL BLANKET FUNCTIONAL AS DESIGNED.
3. INLET AND PIPE PROTECTION: AT A MINIMUM, THE CONTRACTOR SHALL INSPECT ALL INLET AND PIPE PROTECTION WEEKLY OR AFTER EACH ONE-HALF INCH OR GREATER RAINFALL EVENT. ANY REQUIRED REPAIRS SHALL BE MADE BY THE CONTRACTOR TO KEEP THE INLET AND PIPE PROTECTION FUNCTIONAL AS DESIGNED.
4. PER ARTICLE 280.08 EARTH EXCAVATION FOR SEDIMENT BASINS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION FOR EROSION CONTROL.

AGGREGATE USED FOR SEDIMENT BASINS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR AGGREGATE (EROSION CONTROL).

CONSTRUCTION SEQUENCE

1. INSTALL SEDIMENT AND EROSION CONTROL SYSTEMS
2. COMPLETE TREE REMOVAL, CLEARING, AND GRUBBING
3. STRIP AND STOCKPILE TOPSOIL AND BEGIN MASS GRADING. TEMPORARY SEED AS REQUIRED.
4. DEMOLISH EXISTING STRUCTURE WITHOUT IMPACT OR DEBRIS ENTERING THE EXISTING WATERWAY.
5. CONSTRUCT UNDERWATER STRUCTURE EXCAVATION PROTECTION AND INSTALL PILES AND STRUCTURE.
6. COMPLETE ROADWAY REPLACEMENT INCLUDING BINDER AND GRADING.
7. COMPLETE FINAL SURFACE, PAVEMENT MARKINGS, AND RESTORATION.
8. REMOVE EROSION CONTROL MEASURES AND RESTORE.

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 STRAND ASSOCIATES 1170 SOUTH HOBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200	USER NAME = demisw	DESIGNED - VLM	REVISED -	MCHENRY COUNTY DIVISION OF TRANSPORTATION HILL ROAD BRIDGE OVER NORTH BRANCH NIPPERSINK CREEK	EROSION CONTROL PLAN			TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 20,0000' / IN.	DRAWN - DJW	REVISED -					21	08-00356-00-BR	MCHENRY	77	16
	PLOT DATE = 8/23/2012	CHECKED - AJS	REVISED -					CONTRACT NO. 63666				
	DATE - 4-23-12	REVISER -	REVISED -					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
SCALE: AS SHOWN				SHEET NO.	OF	SHEETS	STA.	TO	STA.			