

STORM WATER POLLUTION PREVENTION PLAN (SWPPP):

MAIN CONTRACT RED GATE ROAD

THIS PLAN HAS BEEN PREPARED TO COMPLY WITH THE PROVISIONS OF THE NPDES PERMIT NUMBER ILR10 ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES.

1. SITE DESCRIPTION:

A. THE WORK UNDER THIS CONTRACT WILL BE COMPLETED ON PROPERTY LOCATED IN THE CITY OF ST. CHARLES, KANE COUNTY, ILLINOIS ALONG THE PROPOSED EXTENSION OF RED GATE ROAD FROM IL 31 TO IL 25, EMBANKMENT FOR THE NEW BRIDGE PIERS AND DECK ACROSS THE FOX RIVER ARE INCLUDED IN THE WORK

B. THE FOLLOWING IS A DESCRIPTION OF THE INTENDED SEQUENCE OF THE MAJOR ACTIVITIES WHICH WILL DISTURB SOIL FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE; SUCH AS EXCAVATION AND GRADING SEQUENCE OF THE CONSTRUCTION ACTIVITIES MAY BE AS FOLLOWS:

- i) INSTALLATION OF CONSTRUCTION FENCING, PERIMETER EROSION BARRIER.
- ii) CLEARING OF THE PROJECT SITE AS SHOWN IN THE REMOVAL PLAN.
- iii) GRADING OF DETENTION PONDS AND COMPENSATORY STORAGE AREAS; THIS WORK IS TO BE COMPLETED CONCURRENTLY WITH THE CONSTRUCTION OF SUMP PITS, PUMPING BASINS, AND TEMPORARY AGGREGATE BERMS
- iv) BRIDGE CONSTRUCTION WITH CAUSEWAY, TEMPORARY BRIDGES AND COFFERDAMS
- v) ROUGH GRADING OF SUBGRADE FOR PROPOSED ROADWAYS AND UTILITIES
- vi) INSTALLATION OF STORM SEWERS WATERMAIN AND CONSTRUCTION OF NEW ROADWAYS
- vii) TOPSOIL SPREADING WITH TEMPORARY OR PERMANENT SOIL STABILIZATION MEASURES AND THE CONSTRUCTION OF PERMANENT SOIL EROSION AND SEDIMENT CONTROL MEASURES
- viii) REMOVAL OF TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES

C. THE TOTAL AREA OF THE CONSTRUCTION SITE IS ESTIMATED TO BE 18.0 ACRES. THE TOTAL AREA OF THE SITE THAT IS ESTIMATED TO BE DISTURBED BY EXCAVATION, GRADING OR OTHER ACTIVITIES IS 4.3 ACRES WEST OF RIVER AND 8.9 ACRES EAST OF RIVER.

D. THE ESTIMATED RUNOFF COEFFICIENT FOR THE PROJECT IS 0.45 FOR EXISTING CONDITIONS AND 0.60 FOR THE PROPOSED PROJECT. INFORMATION DESCRIBING THE SOILS AT THE SITE IS CONTAINED IN THE SOILS REPORTS FOR THE PROJECT, WHICH IS HEREBY INCORPORATED BY REFERENCE.

E. WATERS OF THE U.S. INCLUDED WITHIN OR ADJACENT TO THE PROJECT SITE ARE THE FOX RIVER, THE FOX RIVER RUNS THROUGH THE PROJECT SITE.

F. THERE ARE WETLANDS WITHIN THE LIMITS OF CONSTRUCTION ON THE EAST SIDE OF THE RIVER.

2. CONTROLS:

THIS SECTION OF THE PLAN ADDRESSES THE VARIOUS CONTROLS THAT WILL BE IMPLEMENTED FOR EACH OF THE MAJOR CONSTRUCTION ACTIVITIES DESCRIBED IN 1.B ABOVE. FOR EACH MEASURE DISCUSSED, THE CONTRACTOR WILL BE RESPONSIBLE FOR ITS IMPLEMENTATION AS INDICATED.

EACH CONTRACTOR HAS SIGNED THE REQUIRED CERTIFICATION ON FORMS WHICH ARE ATTACHED TO AND ARE A PART OF THIS PLAN.

THE SOIL EROSION AND SEDIMENT CONTROL PLAN DRAWINGS INCLUDED DEFINE THE SIZE AND LOCATION OF THE MEASURES TO BE INSTALLED DURING THE CONSTRUCTION OF THIS PROJECT.

A. SOIL EROSION AND SEDIMENT CONTROLS:

- i) STABILIZATION PRACTICES: PROVIDED BELOW IS A DESCRIPTION OF INTERIM AND PERMANENT STABILIZATION PRACTICES INCLUDING SITE-SPECIFIC SCHEDULING OF THE IMPLEMENTATION OF THE PRACTICES. SITE PLANS WILL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE AND DISTURBED PORTIONS OF THE SITE WILL BE STABILIZED.

EXCEPT AS NOTED HERE IN, STABILIZATION MEASURES SHALL BE INITIATED ON A DAILY BASIS WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED, OR ON ALL DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL NOT OCCUR FOR A PERIOD OF 14 OR MORE CALENDAR DAYS.

WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 7TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES IS PRECLUDED BY SNOW COVER, STABILIZATION SHALL BE INITIATED AS SOON AS PRACTICABLE THEREAFTER.

DESCRIPTION OF STABILIZATION PRACTICES:

1. DUST CONTROL WILL BE ACCOMPLISHED USING WATERING TRUCKS AS DIRECTED BY THE ENGINEER.
2. TEMPORARY STABILIZATION WITH STRAW MULCH WILL BE USED TO STABILIZE CONSTRUCTION AREAS WHERE CONSTRUCTION ACTIVITY IS HALTED FOR MORE THAN 14 DAYS. OR AREAS WHERE THE FINAL GRADE HAS BEEN REACHED BUT CANNOT BE PERMANENTLY STABILIZED DUE TO THE PLANTING SEASON RESTRICTIONS OF THE PERMANENT STABILIZATION.
3. EROSION CONTROL BLANKET WILL BE USED TO STABILIZE THE CONSTRUCTION AREAS WHERE THE FINAL GRADE HAS BEEN REACHED BUT CANNOT BE PERMANENTLY STABILIZED OR TREATED WITH TEMPORARY STABILIZATION WITH STRAW MULCH DUE TO THE PLANTING SEASON RESTRICTIONS.
4. TEMPORARY FENCING AND PERIMETER EROSION BARRIER, ROLLED EXCELSIOR WILL BE PLACED ALONG TREE STANDS TO BE PRESERVED AND TO PREVENT THE BUILD UP OF SEDIMENT ON TOP OF THE TREE ROOTS.
5. WATERS OF THE U.S. AND WETLANDS WITHIN OR ADJACENT TO THE PROJECT WILL BE PROTECTED WITH CONSTRUCTION FENCE AND PERIMETER EROSION BARRIER, ROLLED EXCELSIOR, AND TURBIDITY CURTAIN
6. SHEET FLOWS EXITING THE SITE WILL ENCOUNTER PERIMETER EROSION BARRIER.
7. PUMPING BASINS AND SUMP PITS WILL BE CONSTRUCTED AT ALL LOCATIONS WHERE THE WATER IS PUMPED. RIPRAP WILL BE CONSTRUCTED AT THE INTAKE HOSE AND DISCHARGE HOSE. PUMPING WILL ONLY BE PERMITTED AT THESE LOCATIONS.
8. TEMPORARY AGGREGATE BERMS WILL BE USED TO SLOW SHEET FLOWS AND CONTROL SOIL EROSION.
9. STABILIZED CONSTRUCTION ENTRANCES WILL BE CONSTRUCTED AT ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC ENTERS OR EXITS THE SITE.
10. STOCKPILES THAT ARE TO REMAIN IN PLACE FOR MORE THAN THREE DAYS SHALL HAVE SOIL EROSION AND SEDIMENT CONTROL PROVIDED. AT A MINIMUM, PERIMETER EROSION BARRIER WILL BE PLACED AROUND THE BOTTOM OF THE STOCKPILE.
11. FOX RIVER WORK SHALL BE LIMITED TO 0.25 ACRES OF ENCRoACHMENT WITHIN WATERS OF THE U.S. AT ANY ONE TIME. TURBIDITY CURTAIN SHALL BE USED TO FILTER SEDIMENT PUT INTO SUSPENSION DURING INSTALLATION AND REMOVAL OF CAUSEWAY, TEMPORARY BRIDGES AND COFFERDAMS.

ii) STRUCTURAL PRACTICES:

PROVIDED BELOW IS A DESCRIPTION OF STRUCTURAL PRACTICES THAT WILL BE IMPLEMENTED, TO THE DEGREE ATTAINABLE, TO DIVERT FLOWS FROM EXPOSED SOILS, STORE FLOWS, LIMIT RUNOFF AND THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. THE INSTALLATION OF THESE DEVICES MAY BE SUBJECT TO SECTION 404 OF THE CLEAN WATER ACT.

1. INITIAL CONSTRUCTION:

- * INSTALLATION OF TEMPORARY FENCE AND PERIMETER EROSION BARRIER, ROLLED EXCELSIOR ALONG TREE STANDS TO BE PRESERVED, WATERS OF THE U.S. AND WETLANDS
- * REMOVE TREES, BUILDINGS AND OTHER STRUCTURES

2. DURING CONSTRUCTION (STAGE I TO II)

- * CLEAR SITE
- * CONSTRUCT PUMPING BASINS
- * COMPLETE EARTHWORK AND STORM SEWER INSTALLATION; CONSTRUCTION OF THE PERMANENT SOIL EROSION AND SEDIMENT CONTROL ITEMS
- * CONCRETE TRUCK WASH-OUT FACILITIES SHALL BE USED AS DIRECTED BY THE ENGINEER
- * COMPLETE PERMANENT OR TEMPORARY SOIL STABILIZATION
- * REMOVE TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES

3. POST CONSTRUCTION

- * MAINTENANCE OF VEGETATION AND PLANTINGS

B. STORM WATER MANAGEMENT

PROVIDED BELOW IS A DESCRIPTION OF MEASURES THAT WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS TO CONTROL THE POLLUTANTS IN STORM WATER DISCHARGES THAT WILL OCCUR AFTER THE CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED. THE INSTALLATION OF THESE DEVICES MAY BE SUBJECT TO SECTION 404 OF THE CLEAN WATER ACT.

- i) THE PRACTICES SELECTED FOR IMPLEMENTATION WERE DETERMINED ON THE BASIS OF TECHNICAL GUIDANCE CONTAINED IN THE IEPA'S ILLINOIS URBAN MANUAL AND OTHER ORDINANCES LISTED IN THE SPECIFICATIONS. THE STORM WATER POLLUTANT CONTROL MEASURES SHALL INCLUDE:

1. RIPRAP APRONS AT FLARED END SECTIONS
2. PIPE RESTRICTORS AND WEIRS IN DETENTION POND OUTFALLS
3. PERMANENT VEGETATION AND PLANTINGS

- ii) VELOCITY DISSIPATION DEVICES WILL BE PLACED AT DISCHARGE LOCATIONS AND ALONG THE LENGTH OF ANY OUTFALL CHANNEL AS NECESSARY TO PROVIDE A NON-EROSIVE VELOCITY FLOW FROM THE STRUCTURE TO A WATER COURSE SO THAT THE NATURAL, PHYSICAL, AND BIOLOGICAL CHARACTERISTICS AND FUNCTIONS ARE MAINTAINED AND PROTECTED (I.E., MAINTENANCE OF HYDROLOGIC CONDITIONS, SUCH AS THE HYDROPERIOD AND HYDRODYNAMICS PRESENT PRIOR TO THE INITIATION OF CONSTRUCTION ACTIVITIES). STORM WATER MANAGEMENT CONTROL INCLUDES:

1. RIPRAP APRONS AT FLARED END SECTIONS
2. AGGREGATE DITCH CHECKS
3. PERMANENT VEGETATION

C. OTHER CONTROLS:

- i) NON HAZARDOUS WASTE DISPOSAL: THE SOLID WASTE MATERIALS INCLUDING TRASH, CONSTRUCTION DEBRIS, EXCESS CONSTRUCTION MATERIALS, MACHINERY, TOOLS AND OTHER ITEMS WILL BE COLLECTED AND DISPOSED OF OFF-SITE BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE TO ACQUIRE ANY PERMIT REQUIRED FOR SUCH DISPOSAL. BURNING ON-SITE WILL NOT BE PERMITTED. NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED INTO WATERS OF THE U.S., EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

- ii) HAZARDOUS WASTE DISPOSAL: SHALL CONFORM TO THE IDOT SPECIAL PROVISION.

- iii) SANITARY WASTE DISPOSAL: THE PROVISIONS OF THIS PLAN SHALL ENSURE AND DEMONSTRATE COMPLIANCE WITH THE APPLICABLE STATE AND/OR LOCAL WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC SYSTEM REGULATIONS. THE CONTRACTOR SHALL NOT CREATE OR ALLOW UNSANITARY CONDITIONS.

- iv) OFF-SITE VEHICLE TRACKING: EACH SITE SHALL HAVE ONE OR MORE STABILIZED CONSTRUCTION ENTRANCES IN CONFORMANCE WITH THE PLAN DETAILS. WHERE THE CONTRACTOR'S EQUIPMENT IS OPERATED ON ANY PORTION OF THE TRAVELED SURFACE OR STRUCTURES USED BY TRAFFIC ON OR ADJACENT TO THE PROJECT, THE CONTRACTOR SHALL CLEAN (NOT FLUSHING OF) THE TRAVELED SURFACE OF ALL DIRT AND DEBRIS AT THE END OF EACH DAY'S OPERATIONS OR MORE FREQUENTLY IF DIRECTED BY THE ENGINEER.

- v) CONCRETE TRUCK WASH-OUT FACILITIES SHALL BE USED AS DIRECTED BY THE ENGINEER

- vi) DEWATERING DEVICES: IF DEWATERING DEVICES ARE USED, DISCHARGE LOCATIONS SHALL BE PROTECTED FROM SOIL EROSION. ALL PUMPED DISCHARGES SHALL BE ROUTED THROUGH A SUMP PIT INTO A PUMPING BASIN.

- vii) SITE CLEANUP: TRAPPED SEDIMENT AND OTHER DISTURBED SOILS RESULTING FROM THE DISPOSITION OF TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER SOIL EROSION AND SEDIMENTATION.

D. APPROVED COUNTY, STATE, OR LOCAL PLANS:

THE MANAGEMENT PRACTICES, CONTROLS, AND OTHER PROVISIONS CONTAINED IN THIS PLAN ARE AT LEAST AS PROTECTIVE AS THE REQUIREMENTS CONTAINED IN THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S ILLINOIS URBAN MANUAL STANDARDS AND SPECIFICATIONS. PROCEDURES AND REQUIREMENTS SPECIFIED IN APPLICABLE SOIL EROSION AND SEDIMENT CONTROL PLANS OR STORM WATER MANAGEMENT PLANS APPROVED BY LOCAL OFFICIALS SHALL BE DESCRIBED OR INCORPORATED BY REFERENCE BELOW. REQUIREMENTS SPECIFIED IN SOIL EROSION AND SEDIMENT CONTROL PLANS,

SITE PERMITS, STORM WATER MANAGEMENT SITE PLANS, OR SITE PERMITS APPROVED BY COUNTY, STATE, OR LOCAL OFFICIALS THAT ARE APPLICABLE TO PROTECTING SURFACE WATER RESOURCES ARE, UPON SUBMITTAL OF A NOTICE OF INTENT (NOI), INCORPORATED AND ENFORCEABLE UNDER THIS PERMIT EVEN IF THEY ARE NOT SPECIFICALLY INCLUDED IN THE PLAN.

THE SOIL EROSION AND SEDIMENT CONTROL FOR THIS SITE MUST MEET THE REQUIREMENTS OF THE FOLLOWING AGENCIES:

- KANE-DUPAGE SOIL AND WATER CONSERVATION DISTRICT
- KANE COUNTY FOREST PRESERVE DISTRICT
- ILLINOIS DEPARTMENT OF TRANSPORTATION
- ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
- U.S. ARMY CORP OF ENGINEERS

3. MAINTENANCE:

THE FOLLOWING IS A DESCRIPTION OF PROCEDURES THAT WILL BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATING CONDITIONS, VEGETATION, SOIL EROSION AND SEDIMENT CONTROL MEASURES, AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN AND STANDARD SPECIFICATIONS:

THE CONTRACTOR WILL ASSIGN A SOIL EROSION AND SEDIMENT CONTROL MANAGER (SESCM) TO THE PROJECT. HIS DUTIES WILL BE TO SUPERVISE THE MAINTENANCE OF THE SOIL EROSION AND SEDIMENT CONTROL MEASURES AND IMPLEMENTATION OF THIS PLAN.

THE FOLLOWING SHALL BE THE MINIMUM MAINTENANCE REQUIRED:

A. VEGETATIVE SOIL EROSION MEASURES - THE VEGETATIVE GROWTH OF TEMPORARY AND PERMANENT SEEDING, VEGETATIVE FILTERS, ETC., SHALL BE MAINTAINED PERIODICALLY AND SUPPLIED ADEQUATE WATERING AND FERTILIZER. THE VEGETATIVE COVER SHALL BE REMOVED AND RESEEDED AS NECESSARY.

B. SEDIMENT TRAPS AND PUMPING BASINS SHALL BE CLEANED OF SEDIMENT WHEN THE SEDIMENT HAS REACHED A DEPTH OF 50% OF THE HEIGHT OF THE AGGREGATE BERM

C. PERIMETER EROSION BARRIER WILL BE EXAMINED REGULARLY AND REPAIRED AS NECESSARY. SEDIMENT SHALL BE REMOVED WHEN IT REACHES A HEIGHT EQUAL TO 50% OF THE HEIGHT OF THE BARRIER.

D. TEMPORARY SEEDING FOR EROSION CONTROL WILL BE REPAIRED WHEN BARE SPOTS AND WASHOUT OCCUR.

E. STABILIZED CONSTRUCTION ENTRANCES SHALL HAVE SEDIMENT BUILD UP REMOVED AS NECESSARY.

F. DETENTION AND RETENTION FACILITIES SHALL HAVE SEDIMENT REMOVED TO DESIGNED FINISH GRADES

4. INSPECTIONS:

THE ENGINEER WILL BE RESPONSIBLE FOR CONDUCTING SOIL EROSION AND SEDIMENT CONTROL INSPECTIONS. THE CONTRACTOR'S SESCO SHALL BE NOTIFIED WHEN THE INSPECTIONS ARE TO TAKE PLACE AND IS EXPECTED TO BE PRESENT DURING THE INSPECTIONS. A MAINTENANCE INSPECTION REPORT WILL BE COMPLETED AFTER EACH INSPECTION. A COPY OF THE REPORT IS TO BE COMPLETED BY THE INSPECTOR AND STORED ON-SITE WITH A COPY GIVEN TO THE CONTRACTOR.

THE INSPECTION SHALL INCLUDE ALL DISTURBED AREAS OF THE CONSTRUCTION SITE WHICH HAVE NOT BEEN FINALLY STABILIZED, THE STRUCTURAL CONTROL MEASURES, LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AND ALL MAJOR OUTFALLS. SUCH INSPECTION SHALL BE CONDUCTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A RAIN STORM (OR EQUIVALENT SNOWFALL) THAT IS 0.5 INCHES OR GREATER. DEPTH OF RAIN FALL WILL BE DETERMINED BY AN ON-SITE RAIN GAUGE. THE ENGINEER SHALL READ THE RAIN GAUGE DAILY AND AFTER EACH RAIN STORM.

A. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM AND WATERWAYS. SOIL EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. IF REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF THE COMPLETION OF THE INSPECTION REPORT. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER THE MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE TRACKING.

PLOT SCALE: 1"=40' (SEE PLAN) FULL SIZE: 11" X 17" (SEE PLAN) ...\p\In-ABC-sh-RedGate-SWPP-1.dgn ...\p\In-ABC-sh-RedGate-SWPP-1.dgn USER NAME = tblank PLOT DATE = 11/9/2011

FILE NAME =	DESIGNED - MAC	REVISED -
...p\In-ABC-sh-RedGate-SWPP-1.dgn	DRAWN - TMB	REVISED -
USER NAME = tblank	CHECKED - RMT	REVISED -
PLOT DATE = 11/9/2011	DATE - 10/23/2011	REVISED -



CITY OF ST. CHARLES

STORM WATER POLLUTION PREVENTION PLAN

SCALE: NTS SHEET NO. 2 OF 23 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	04-00092-00-BR	KANE	440	103
CONTRACT NO. 63650				
ILLINOIS FED. AID PROJECT				