## FINAL ENGINEERING PLANS

FOR

# SKOKIE RIVER CHANNEL IMPROVEMENT PROJECT PHASE 3 HIGHLAND PARK

HIGHLAND PARK, ILLINOIS

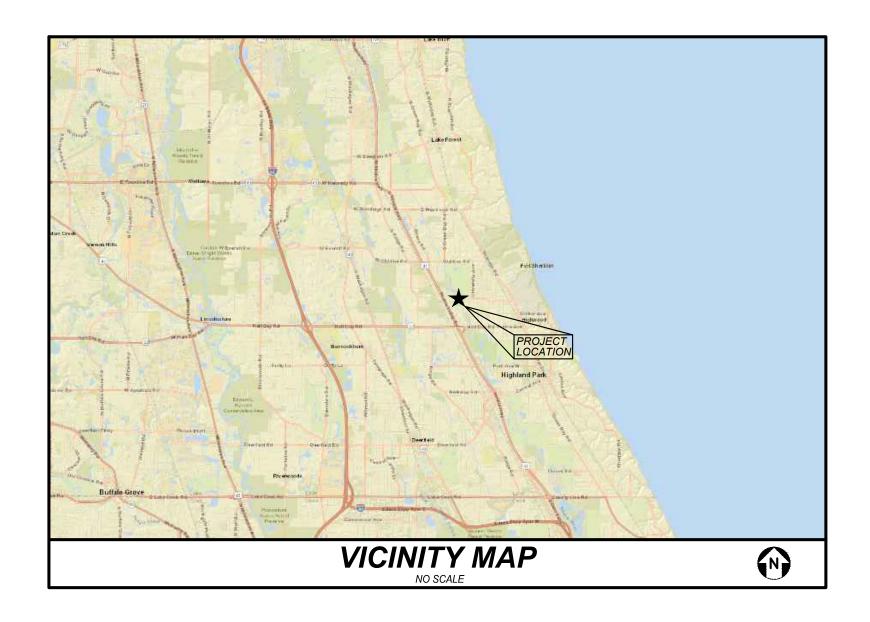
## **PROJECT TEAM**

## OWNER/DEVELOPER

Skokie Consolidated Drainage District Fuqua Winter, LTD. 9 N. County Street, Suite 200 Waukegan, IL 60085 Contact: Bryan Winter (847) 244-0770 Contact: Patty Werner (847) 903-2052

## **ENGINEER**

V3 Companies, Ltd. 7325 Janes Avenue Woodridge, Illinois 60517 630 724 9200 Project Manager: Christopher Hanchett, PE, CFM chanchett@v3co.com



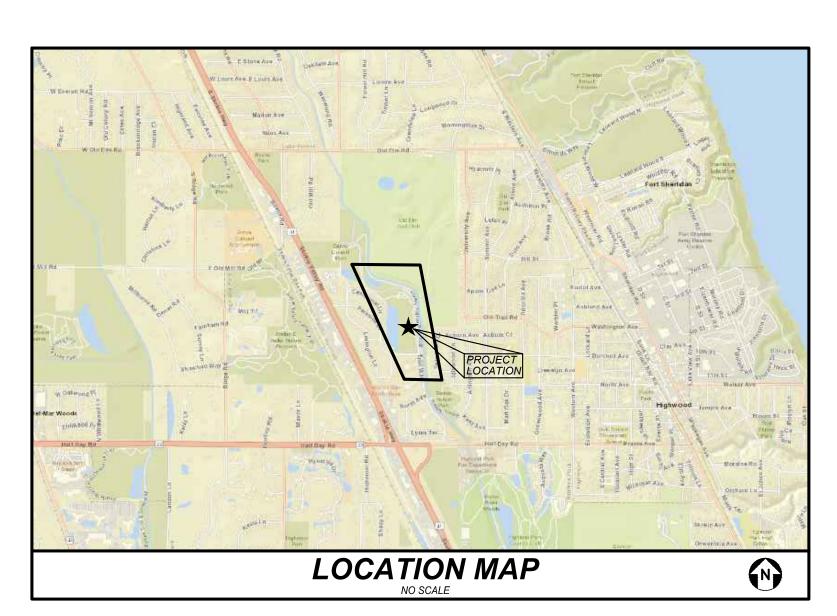


EXHIBIT "C"

#### INDEX CIVIL ENGINEERING PLANS TITLE SHEET C0.0 GENERAL NOTES , LEGEND, AND ABBREVIATIONS OVERALL LAYOUT PLAN C1.1 C2.1 **EXISTING CONDITIONS EXISTING CONDITIONS** C2.3 **EXISTING CONDITIONS** C3.1 PROPOSED STABILIZATION AND GRADING C3.2 PROPOSED STABILIZATION AND GRADING C3.3 PROPOSED STABILIZATION AND GRADING C3.4 **EROSION CONTROL NOTES** C3.5 **EROSION CONTROL DETAILS** C4.1 CROSS SECTIONS CROSS SECTIONS C4.3 CROSS SECTIONS C5.1 CONSTRUCTION DETAILS CONSTRUCTION DETAILS C5.2 CONSTRUCTION DETAILS

## **BENCHMARKS**

ATITUDE: 42-12-41.45870 N LONGITUDE: 87-50-08.17737 W

STATION DESIGNATION: SBM#1 ESTABLISHED BY: V3 COMPANIES DATE: 06-14-23

ELLIPSOIDAL HEIGHT: 532.769 SFT GROUND SCALE FACTOR: 1.0000296459

ELEVATION: 643.17 (MEASURED) DESCRIPTION: SE ARROW BOLT ON FIRE HYDRANT AT SOUTHEAST CORNER OF TRAILWAY STREET & CAMBRIDGE COURT INTERSECTION.

STATION DESIGNATION: SBM#2 ESTABLISHED BY: V3 COMPANIES DATE: 07-19-23

ELEVATION: 647.22 (MEASURED)

DESCRIPTION: CUT CROSS ON LIGHT STANDARD AT THE EAST SIDE OF THE PARKING LOT OF DANNY CUNNIFF PARK'S CENTENNIAL ICE ARENA AT THE NORTHERLY END OF TRAILWAY STREET.



Locating Information

**Excavators** 

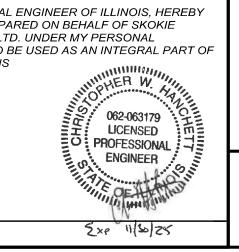
48 hours before you dig

## PROFESSIONAL ENGINEER'S CERTIFICATION

CHRISTOPHER W. HANCHETT, A LICENSED PROFESSIONAL ENGINEER OF ILLINOIS, HEREBY CERTIFY THAT THE CIVIL ENGINEERING PLANS WERE PREPARED ON BEHALF OF SKOKIE CONSOLIDATED DRAINAGE DISTRICT BY V3 COMPANIES, LTD. UNDER MY PERSONAL DIRECTION. THIS TECHNICAL SUBMISSION IS INTENDED TO BE USED AS AN INTEGRAL PART OF AND IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS 062-063179 LICENSED PROFESSIONAL :

MY LICENSE EXPIRES ON NOVEMBER 30, 2025 ILLINOIS LICENSED DESIGN FIRM NO. 184-000902

ILLINOIS LICENSED PROFESSIONAL ENGINEER



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SHEE.

DRAWING NO.

- 1. ALL EXISTING TOPOGRAPHY, UNDERGROUND UTILITIES, STRUCTURES AND ASSOCIATED FACILITIES SHOWN ON THESE DRAWINGS HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS. THEREFORE, THEIR LOCATIONS AND ELEVATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHER FACILITIES, THE EXISTENCE OF WHICH ARE NOT PRESENTLY KNOWN.
- 2. CONTRACTOR IS TO VERIFY ALL EXISTING STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL AND STARTING WORK.
- ALL APPLICABLE PROVISIONS OF THE CURRENT OCCUPATIONAL SAFETY AND HEALTH ACT ARE HEREIN INCORPORATED BY REFERENCE.
- 4. THE CONTRACTOR SHALL SUBSCRIBE TO ALL GOVERNING REGULATIONS AND SHALL OBTAIN ALL NECESSARY PUBLIC AGENCY PERMITS PRIOR TO STARTING WORK. THE CONTRACTOR, BY USING THESE PLANS FOR THEIR WORK, AGREE TO HOLD HARMLESS V3 COMPANIES OF ILLINOIS LTD., THE MUNICIPALITY, THEIR EMPLOYEES AND AGENTS AND THE OWNER WHILE ACTING WITHIN THE SCOPE OF THEIR DUTIES FROM AND AGAINST ANY AND ALL LIABILITY, CLAIMS, DAMAGES, AND THE COST OF DEFENSE ARISING OUT OF CONTRACTOR(S) PERFORMANCE OF THE WORK DESCRIBED HEREIN, BUT NOT INCLUDING THE SOLE NEGLIGENCE OF THE OWNER, HIS AGENTS, THE ENGINEER, HIS EMPLOYEES AND AGENTS.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS FOR CONSTRUCTION ALONG OR ACROSS EXISTING STREETS OR HIGHWAYS. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE PROPER BRACING, SHORING AND OTHER REQUIRED PROTECTION OF ALL ROADWAYS BEFORE CONSTRUCTION BEGINS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE STREETS OR ROADWAYS AND ASSOCIATED STRUCTURES AND SHALL MAKE REPAIRS AS NECESSARY TO THE SATISFACTION OF THE OWNER OF THE ROADWAY.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS, TRAFFIC CONTROL DEVICES AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC DURING ALL PHASES OF CONSTRUCTION.

  BARRICADES AND WARNING SIGNS SHALL BE PROVIDED IN ACCORDANCE WITH THE IDOT STANDARD SPECIFICATIONS. ALL TRAFFIC CONTROL WORK SHALL BE DONE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
- 7. EXCEPT WHERE MODIFIED BY THE CONTRACT DOCUMENTS, ALL WORK PROPOSED HEREON SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS WHICH ARE HEREBY MADE A PART HEREOF:
- a. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS," AS PREPARED BY IDOT, LATEST EDITION.
- b. "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS," LATEST EDITION.
- c. "ILLINOIS RECOMMENDED STANDARDS FOR SEWAGE WORKS," AS PUBLISHED BY THE IEPA. LATEST EDITION.
- d. THE LATEST EDITIONS OF THE MUNICIPAL CODE AND STANDARDS OF LAKE FOREST.
- e. ILLINOIS URBAN MANUAL.
- f. THE ILLINOIS ACCESSIBILITY CODE.
- g. CLEAN CONSTRUCTION OR DEMOLITION DEBRIS (CCDD) REQUIREMENTS AS PUBLISHED BY THE IEPA. TESTING OF SOILS BEING EXPORTED FROM THE SITE AND APPROPRIATE DISPOSAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- IN THE EVENT OF CONFLICTING SPECIFICATIONS WITH REGARD TO SITEWORK ISSUES DESIGNED BY THE ENGINEER, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.
- 9. THE CONTRACTOR SHALL NOTIFY THE AUTHORITY HAVING JURISDICTION AT LEAST 48 HOURS PRIOR TO COMMENCING ANY WORK AND FOR ANY NEW CONSTRUCTION REQUIRING INSPECTION.
- 10. ALL TREES TO BE SAVED SHALL BE IDENTIFIED PRIOR TO CONSTRUCTION AND SHALL BE PROTECTED PER IDOT STANDARDS. THE RIGHT-OF-WAY LINE AND LIMITS OF THE CONTRACTOR'S OPERATIONS SHALL BE CLEARLY DEFINED THROUGHOUT THE CONSTRUCTION PERIOD. ALL TREES IDENTIFIED TO REMAIN SHALL BE PROTECTED FROM DAMAGE INCLUDING TRUNKS BRANCHES AND ROOTS. NO EXCAVATING, FILLING OR GRADING IS TO BE DONE INSIDE THE DRIP LINE OF TREES UNLESS OTHERWISE INDICATED.
- 11. CONSTRUCTION ACCESS POINTS TO THE SITE SHALL BE PROTECTED IN SUCH A WAY AS TO PREVENT ACCUMULATION OF MUD OR SOIL ON PUBLIC THOROUGHFARES. AT THE END OF EACH DAY AND AS OFTEN AS OTHERWISE NECESSARY THE CONTRACTOR SHALL CLEAN UP ALL MUD OR SOIL WHICH HAS BEEN TRACKED ONTO PUBLIC STREETS AS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION AND AS DETAILED IN THE STORM WATER POLLUTION PREVENTION PLAN.

- 12. THE CONTRACTOR SHALL PROVIDE FOR THE SAFE AND ORDERLY PASSAGE OF TRAFFIC AND PEDESTRIANS WHERE HIS/HER OPERATIONS ABUT PUBLIC THOROUGHFARES AND ADJACENT PROPERTY IN ACCORDANCE WITH THE LAKE FOREST MUNICIPAL CODE AND IDOT REQUIREMENTS.
- 13. NO HOLES ARE TO BE LEFT OPEN IN THE PAVEMENT OR PARKWAY OVER A HOLIDAY, WEEKEND OR AFTER 3:00 P.M. ON THE DAY PRECEDING A HOLIDAY OR A WEEKEND.
- 14. ALL EXISTING PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAWCUT ALONG LIMITS OF PROPOSED REMOVAL BEFORE COMMENCEMENT OF PAVEMENT REMOVAL.
- 15. REMOVED PAVEMENT, SIDEWALK, CURB AND GUTTER, ETC. SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR AS PART OF THE BASE CONTRACT.
- 16. NO BURNING OR INCINERATION OF RUBBISH WILL BE PERMITTED ON SITE.
- 17. FOR REGULATED UTILITY LOCATIONS, THE CONTRACTOR SHALL CONTACT THE JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS, "J.U.L.I.E." AT 1-800-892-0123. LOCAL GOVERNMENT AGENCIES SHOULD BE CONTACTED BY THE CONTRACTOR FOR LOCATION OF ALL NONREGULATED UTILITY LOCATIONS. CALL FOR LOCATES AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION.
- 18. BEFORE EXCAVATING OVER OR ADJACENT TO ANY EXISTING UTILITIES, CONTRACTOR SHALL NOTIFY THE OWNER OF SUCH UTILITIES TO ENSURE THAT PROTECTIVE WORK WILL BE COORDINATED AND PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER OF THE UTILITY INVOLVED. IF ANY EXISTING SERVICE LINES, UTILITIES AND UTILITY STRUCTURES WHICH ARE TO REMAIN IN SERVICE ARE UNCOVERED OR ENCOUNTERED DURING THIS OPERATION, THEY SHALL BE SAFEGUARDED, PROTECTED FROM DAMAGE AND SUPPORTED IF NECESSARY.
- 19. THE CONTRACTOR IS RESPONSIBLE FOR HAVING A SET OF "APPROVED" ENGINEERING PLANS WITH THE LATEST REVISION DATE ON THE JOB SITE PRIOR TO THE START OF CONSTRUCTION.
- 20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROL AS DETAILED IN THE STORM WATER POLLUTION PREVENTION PLAN.
- 21. ANY AREAS THAT ARE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED IN CONFORMANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND SHALL BE INCIDENTAL TO THE CONTRACT.
- 22. STREET PAVING AND CURBS TO REMAIN SHALL BE PROTECTED FROM DAMAGE AND IF DAMAGED, SHALL BE REPLACED PROMPTLY IN CONFORMANCE WITH THE MUNICIPALITY OR IDOT STANDARD SPECIFICATIONS IN MATERIALS AND WORKMANSHIP.
- 23. PROPOSED ELEVATIONS INDICATE FINISHED CONDITIONS. FOR ROUGH GRADING ELEVATIONS ALLOW FOR THICKNESS OF PROPOSED PAVING (ROADS, WALKS, DRIVES, ETC.) OR TOPSOIL AS INDICATED ON DRAWINGS.
- 24. CAD FILES ARE AVAILABLE FOR CONSTRUCTION LAYOUT UPON REQUEST.
- 25. BACKFILL SHALL BE PLACED NEXT TO THE CURB AS SOON AS PERMISSIBLE AFTER CONSTRUCTION TO PREVENT SCOURING AND UNDERCUTTING BY STORM WATER RUNOFF.
- 26. WHEN AN EXISTING DRAINAGE ROUTE, EITHER A STORM SEWER OR WATERWAY, IS INTERRUPTED DUE TO CONSTRUCTION, THE DRAINAGE ROUTE SHALL BE REESTABLISHED TO ORIGINAL CONDITIONS BY THE END OF THE SAME WORK DAY. POSITIVE DRAINAGE MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
- 27. PROVIDE SMOOTH VERTICAL CURVES THROUGH HIGH AND LOW POINTS INDICATED BY SPOT ELEVATIONS. PROVIDE UNIFORM SLOPES BETWEEN NEW AND EXISTING GRADES. AVOID RIDGES AND DEPRESSIONS.
- 28. ANY EXISTING UTILITY STRUCTURES REQUIRING ADJUSTMENT ARE TO BE ADJUSTED OR RECONSTRUCTED BY THE CONTRACTOR TO THE UTILITY OWNER'S SATISFACTION. ADJUSTMENTS OR RECONSTRUCTIONS NOT CALLED FOR ON THE PLANS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- 29. ALL UTILITY CONNECTIONS TO EXISTING LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REGULATIONS AND TO THE SATISFACTION OF THE UTILITY OWNER.
- 30. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 31. PRIOR TO DEMOBILIZATION, ALL WORK SHALL BE CLEANED AND INSPECTED TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION. THE COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- 32. THE GENERAL CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO PROVIDE CABLE TV, PHONE, ELECTRIC, GAS AND IRRIGATION SERVICES. GENERAL CONTRACTOR SHALL BE RESPONSIBLE

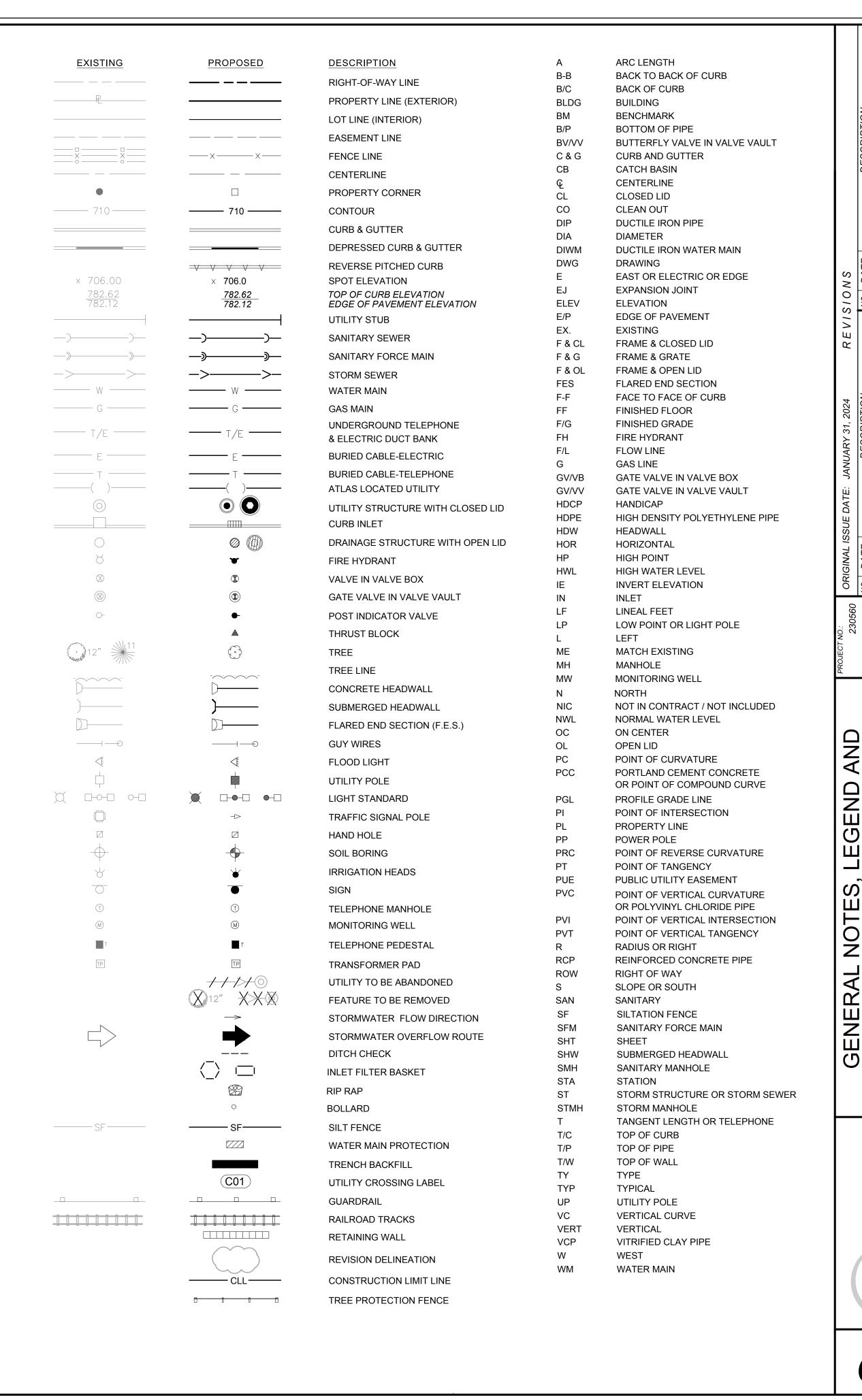
- FOR SECURING SITE LAYOUTS FOR THESE UTILITIES AND SHALL COORDINATE AND PROVIDE CONDUIT CROSSINGS AS REQUIRED. THIS COORDINATION SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. ANY CONFLICTS IN UTILITIES SHALL BE CORRECTED BY THE GENERAL CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- 33. BAND-SEAL CONNECTORS OR EQUIVALENT SHALL BE USED TO JOIN PIPES OF DISSIMILAR MATERIAL.
- 34. CONTRACTOR SHALL MAINTAIN ACCURATE RECORDS OF ALL CONSTRUCTION IN CONFORMANCE WITH ALL MUNICIPAL AND CLIENT REQUIREMENTS FOR USE IN PREPARING RECORD DRAWINGS.
- 35. THE SUBCONTRACTOR SHALL INSTALL A 2"x4"x6' POST ADJACENT TO THE TERMINUS OF UTILITY MAINS AND SERVICE LINES. POSTS SHALL BE MARKED IN ACCORDANCE WITH THE CITY STANDARDS.
- 36. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING ANY EXCAVATION. ANY DEWATERING REQUIRED SHALL BE INCIDENTAL TO THE CONTRACT.
- 37. ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION OPERATIONS SHALL BE CONNECTED TO THE PROPOSED STORM SEWER OR EXTENDED TO OUTLET INTO A PROPOSED DRAINAGE WAY AS DETERMINED BY THE ENGINEER. IF THIS CANNOT BE ACCOMPLISHED, THEN IT SHALL BE REPAIRED WITH NEW PIPE OF SIMILAR SIZE AND MATERIAL TO THE ORIGINAL LINE AND PUT IN ACCEPTABLE PERATIONAL CONDITION. A RECORD OF THE LOCATION OF ALL FIELD TILE FOR ON-SITE DRAIN PIPE ENCOUNTERED SHALL BE KEPT BY THE SUBCONTRACTOR AND SUBMITTED TO THE ENGINEER UPON COMPLETION OF THE PROJECT. ALL FIELD TILE REPAIRS SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE PROVIDED.
- 38. THE ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, TIME OF PERFORMANCE, PROGRAMS OR FOR ANY SAFETY PRECAUTIONS USED BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXECUTION OF HIS/HER WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS.

#### TRAFFIC CONTROL

- 1. IF ROAD OR LANE CLOSURES ARE REQUIRED TO PERFORM THE PROPOSED WORK, CONTRACTOR SHALL PROVIDE SIGNAGE AND FLAGMEN AS NECESSARY.
- 2. CONTRACTOR SHALL NOTIFY THE CITY AND EMERGENCY DISPATCHER OF ANY ROAD CLOSURE A MINIMUM OF 48 HOURS IN ADVANCE OF CLOSURE.
- 3. SPECIAL SIGNAGE AS PROVIDED BY THE CITY SHALL BE MAINTAINED BY THE CONTRACTOR.

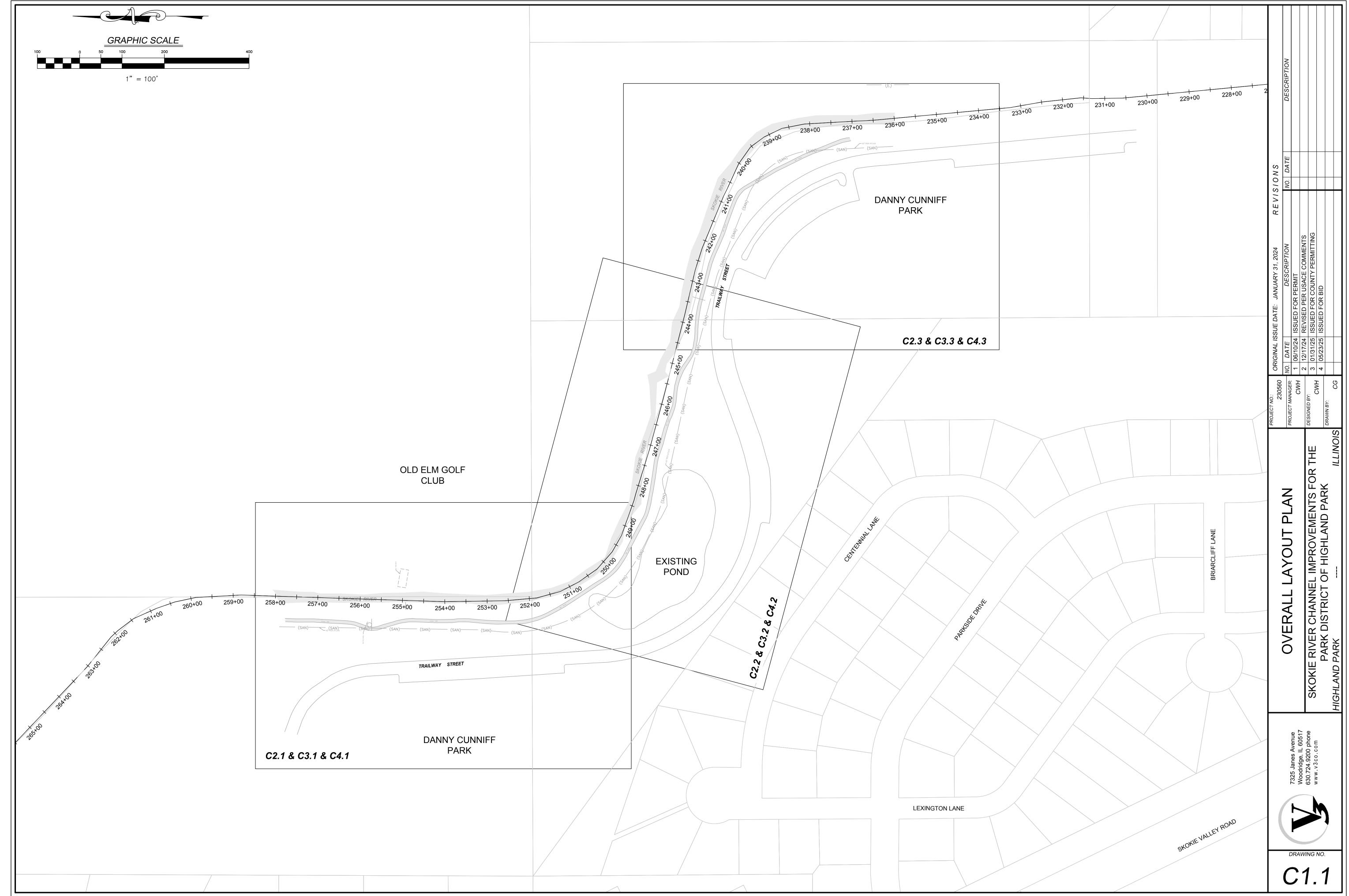
## INSTREAM WORK PLAN

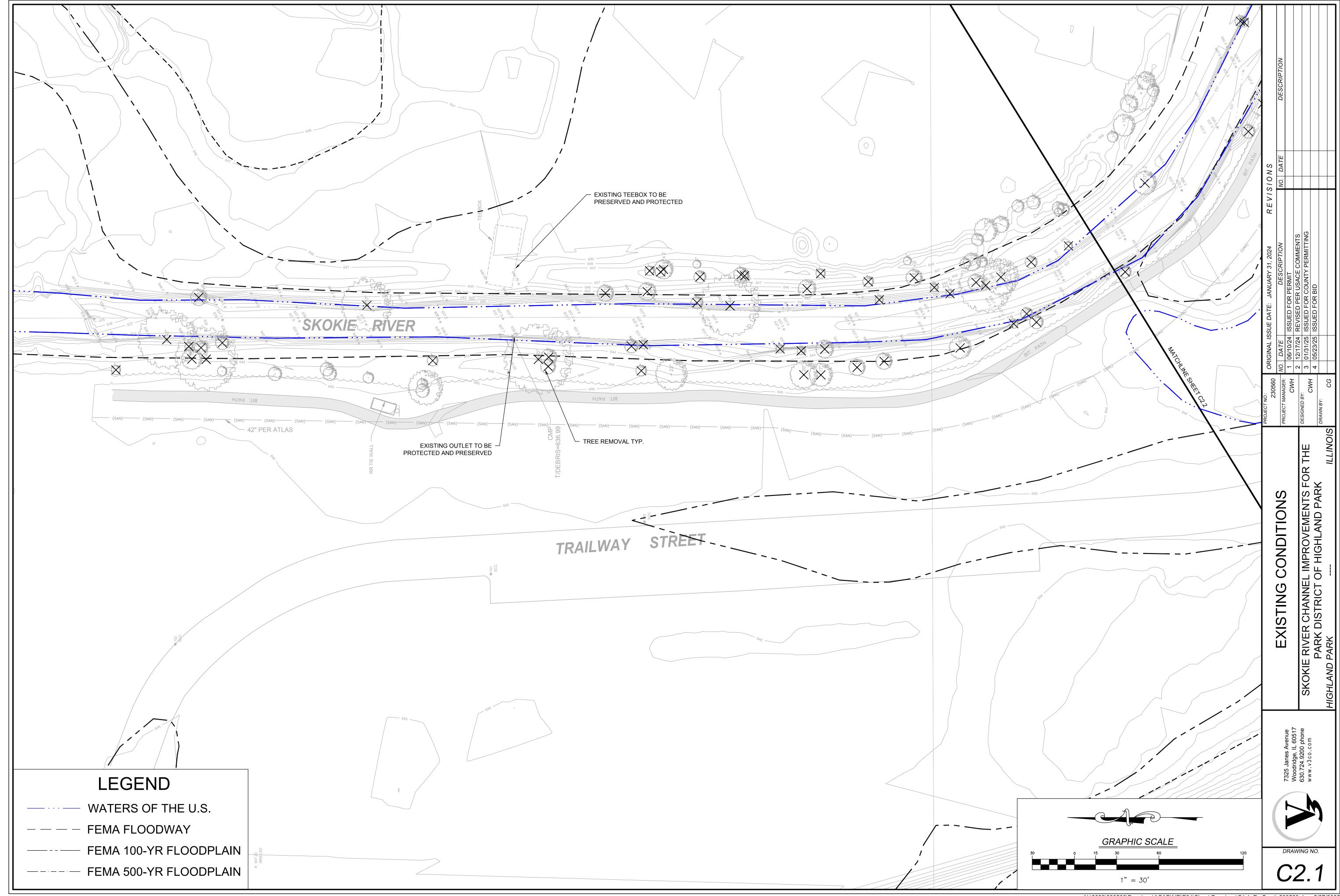
CONTRACTOR SHALL SUBMIT INSTREAM WORK
PLAN TO THE LAKE COUNTY STORMWATER
MANAGEMENT COMMISSION FOR APPROVAL PRIOR
TO BEGINNING CONSTRUCTION

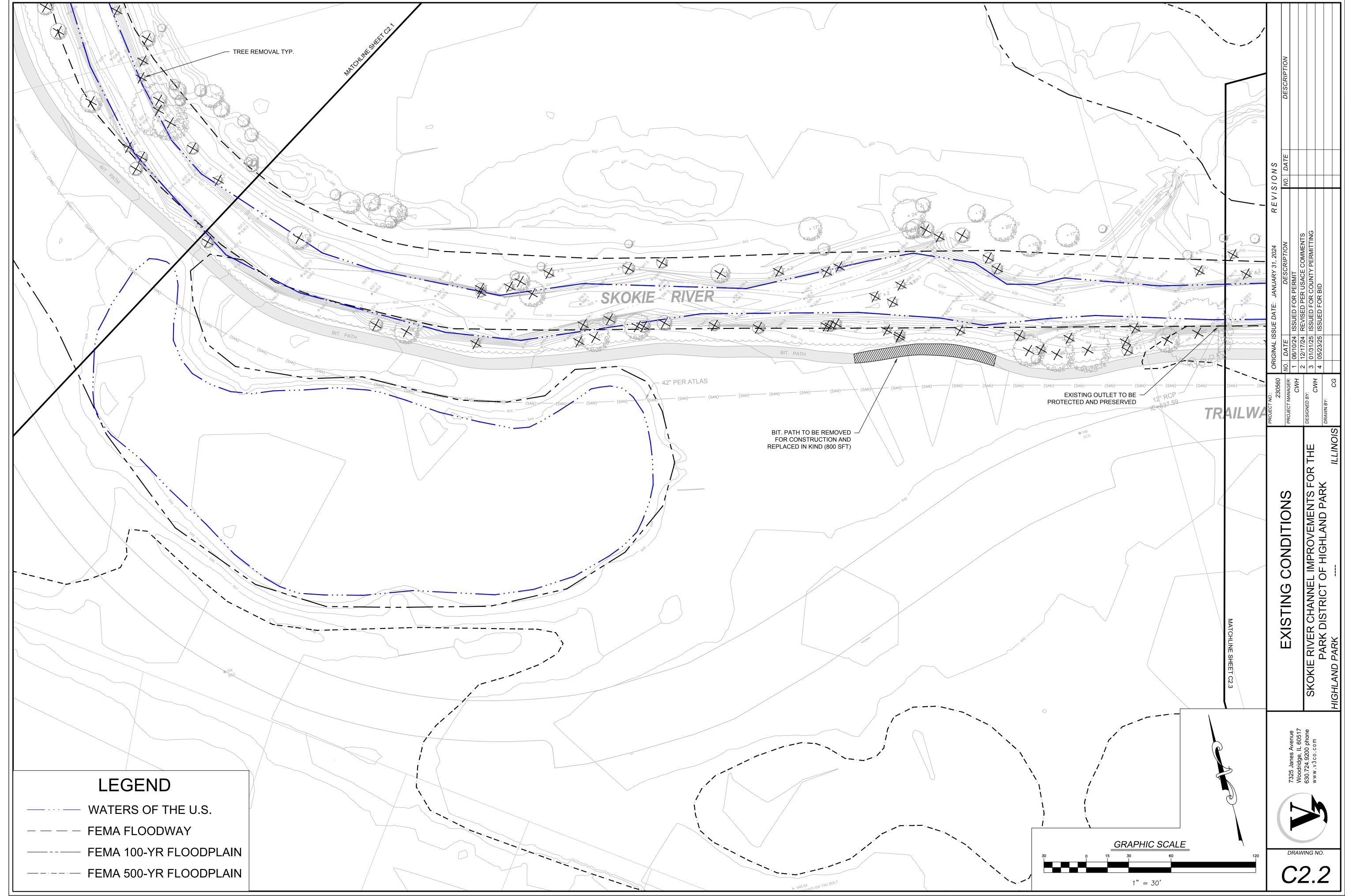


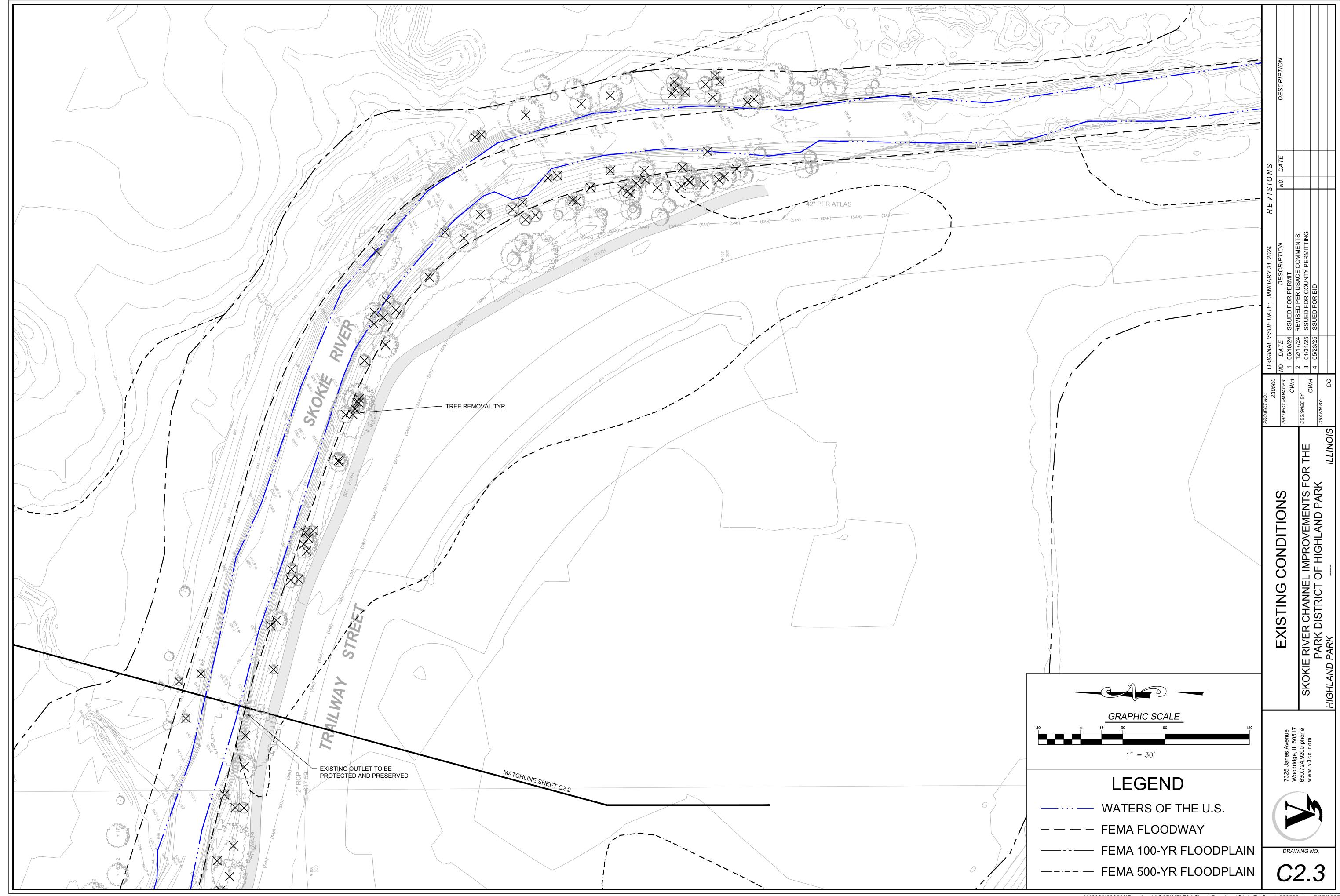
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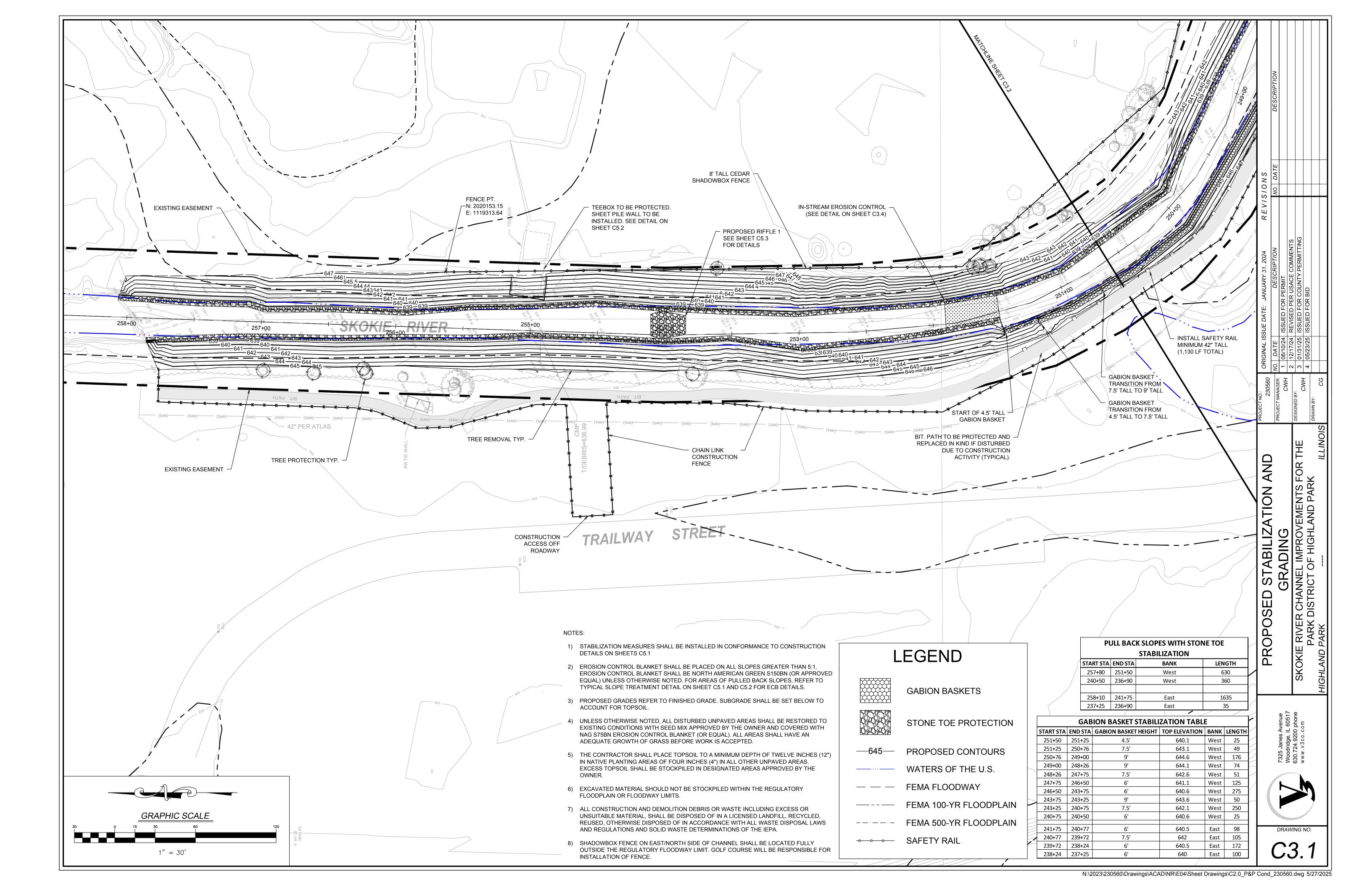
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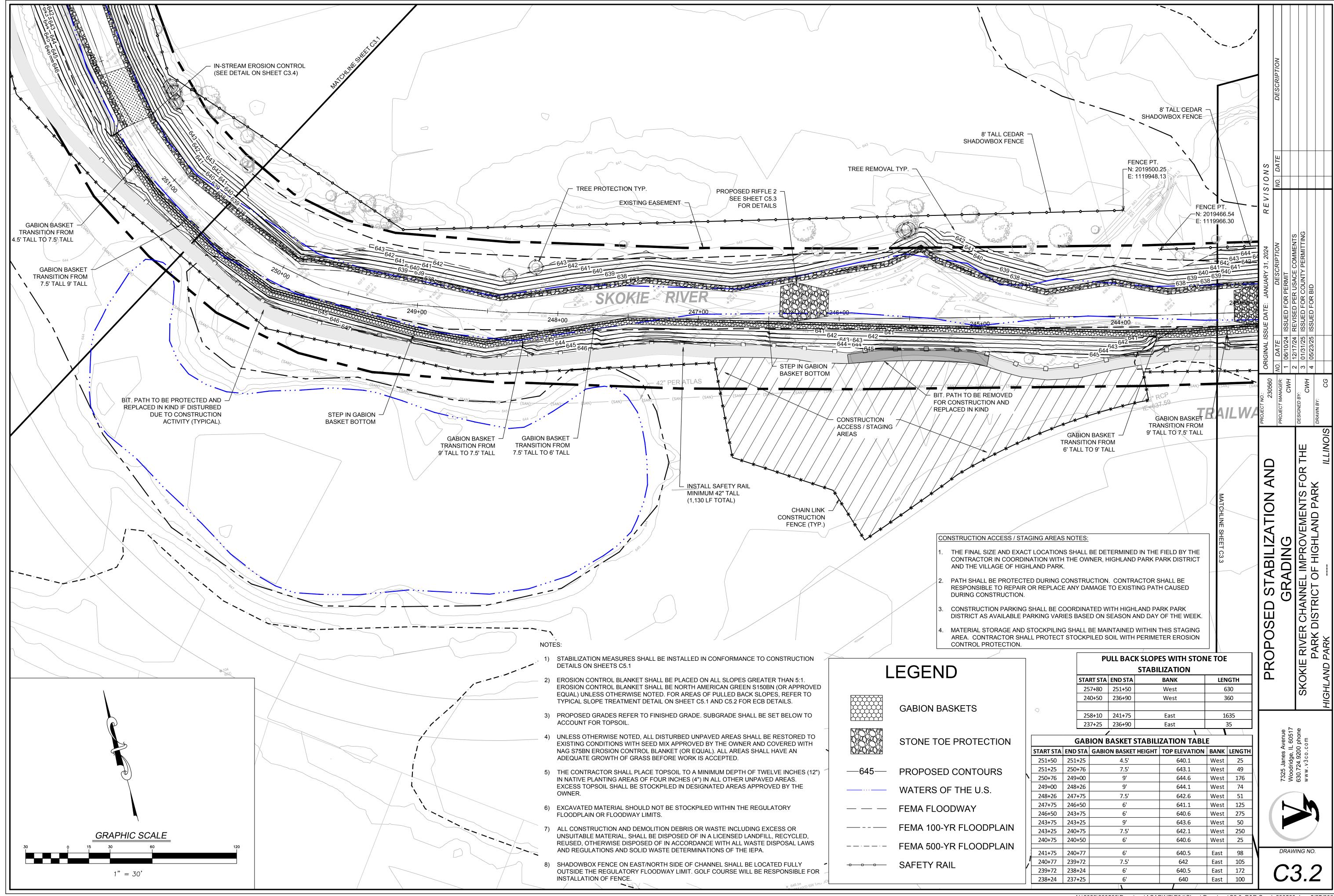


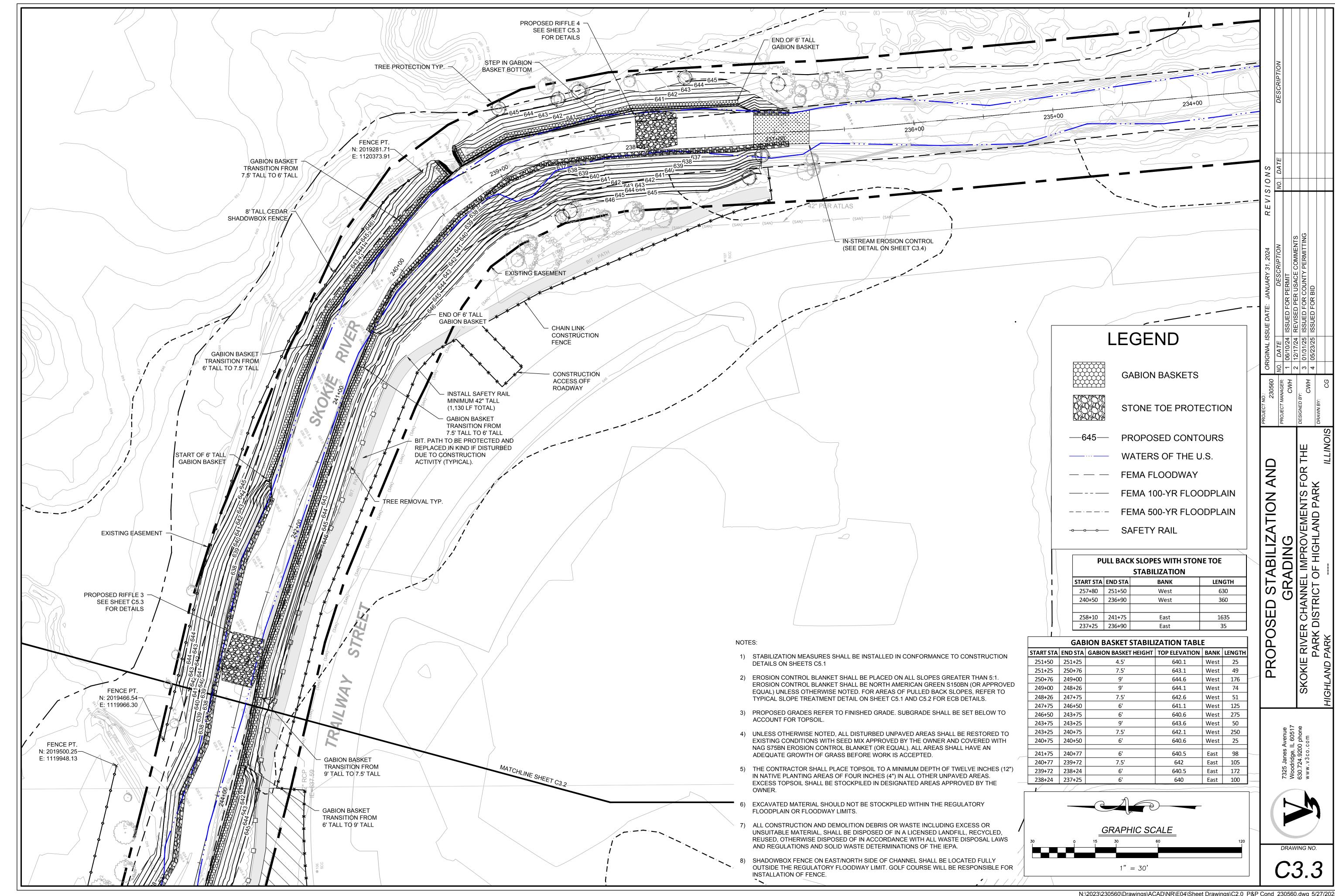












THIS PLAN HAS BEEN PREPARED TO COMPLY WITH THE NPDES PERMIT NUMBER ILR10, ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA) FOR STORMWATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES. THE PERMITTEE MUST COMPLY WITH ALL CONDITIONS OF THE GENERAL PERMIT. ANY NON-COMPLIANCE CONSTITUTES A VIOLATION OF THE IEPA ACT AND THE CLEAN WATER ACT AND CAN BE GROUNDS FOR ENFORCEMENT ACTION, PERMIT REVOCATION, MODIFICATION, RE-ISSUANCE, FERMINATION, OR DENIAL OF A PERMIT RENEWAL

#### ) PROJECT DESCRIPTION

- a) THE PROJECT WILL INCLUDE STREAMBANK STABILIZATION OF ERODING STREAMBANKS ALONG THE EAST BRANCH SKOKIE RIVER IN HIGHLAND PARK, IL. THE STABILIZATION WILL BE ACHIEVED THROUGH A COMBINATION OF GABION BASKETS, RR-4 RIP RAP, AND BANK RE-SHAPING. THE STABILIZATION INCLUDES BOTH THE WEST AND EAST SIDE OF THE STREAM WITHIN THE PROJECT LIMITS.
- b) THIS PLAN INDICATES AREAS WHERE STABILIZATION PRACTICES ARE EXPECTED TO OCCUR, SURFACE WATERS, AND LOCATIONS WHERE STORMWATER IS DISCHARGED TO SURFACE WATERS.
- c) THE RECEIVING WATER IS THE EAST BRANCH SKOKIE RIVER.

#### ) CONSTRUCTION SEQUENCE.

a) PRIOR TO THE START OF THE WORK, THE CONTRACTOR SHALL FOLLOW THE IN-STREAM WORK PLAN AND SHALL COORDINATE WITH THE ENGINEER TO REVIEW SUCH IN-STREAM WORK PLAN PRIOR TO THE START OF THE WORK. THIS PLAN SHALL INDICATE THE SEQUENCING OF IN-STREAM WORK WITH ONLY ONE STREAM SEGMENT DISTURBED AT A SINGLE TIME.

b) FOR EACH STREAM SEGMENT, THE INTENDED SEQUENCE OF MAJOR ACTIVITIES, WHICH DISTURB SOILS

i) DIVERT FLOW AND CONSTRUCT ROCK DAM TO ENSURE CONSTRUCTION AREA IS DRY

#### ii) RE-GRADE ALLOWABLE AREAS

iv) INSTALL GEOTEXTILE FABRIC, BEDDING MATERIAL AND PRESCRIBED TREATMENT

#### vi) REMOVE ROCK DAM

) CONTROLS. ALL DISTURBED AREAS AND WORK AREAS MUST BE ISOLATED FROM STREAM FLOW AT ALL TIMES. THE DIVERSION/ISOLATION OF THE STREAM FLOWS MUST BE CONSTRUCTED FROM NON-ERODIBLE

a) EROSION AND SEDIMENT CONTROLS.

#### i) STABILIZATION PRACTICES

\*PRIOR TO ANY PLACEMENT OF LAND DISTURBING ACTIVITIES ALONG THE STREAM, ROCK COFFERDAM(S) SHALL BE INSTALLED AS INDICATED ON THE PLAN OR AS DIRECTED BY THE ENGINEER. \*ANY DISTURBED AREAS OUTSIDE THE PROJECT LIMITS SHALL BE RESTORED WITH PERMANENT VEGETATION AS SOON AS PRACTICABLE.

\*THESE CONTROLS SHALL BE ACTIVELY MAINTAINED UNTIL FINAL STABILIZATION OF THOSE PORTIONS OF THE SITE. EXCEPT AS PROVIDED IN PARAGRAPHS (A) AND (B) BELOW, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 1 DAY AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY

- I. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 1ST DAY AFTER CONSTRUCTION ACTIVITY TEMPORARY OR PERMANENTLY CEASES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.
- II. WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 14 DAYS FROM WHEN ACTIVITIES CEASED, (E.G. THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN 14 DAYS) THEN STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF SITE BY THE 1ST DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY CEASED.

\*WINTER SHUTDOWN SHALL BE ADDRESSED EARLY IN THE FALL GROWING SEASON SO THAT SLOPES AND OTHER BARE EARTH AREAS MAY BE STABILIZED WITH TEMPORARY AND/OR PERMANENT VEGETATIVE COVER FOR PROPER EROSION AND SEDIMENT CONTROL.

#### b) STORM WATER MANAGEMENT.

i) DETENTION REQUIREMENTS. THE PROJECT DOES NOT REQUIRE STORMWATER DETENTION. c) OTHER CONTROLS.

- i) WASTE DISPOSAL. NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.
- ii) THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH APPLICABLE STATE AND/OR LOCAL WASTE DISPOSAL AND SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS.

## d) APPROVED STATE OR LOCAL PLANS.

EXCEPT WHERE MODIFIED ON THIS PLAN, ALL WORK PROPOSED HEREIN SHALL BE IN ACCORDANCE WITH LAKE COUNTY FLOOD PLAIN AND STORMWATER ORDINANCES AND THE REQUIREMENTS CONTAINED IN THE ILLINOIS URBAN MANUAL, LATEST EDITION. IN THE EVENT OF CONFLICTING SPECIFICATIONS WITH REGARD TO SITE WORK ISSUES DESIGNED BY THE ENGINEER, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.

## 1) MAINTENANCE.

a) THE CONTRACTOR SHALL MAINTAIN THE SEDIMENT AND EROSION CONTROL MEASURES IDENTIFIED ON THIS PLAN UNTIL THE SITE IS STABILIZED. ITEMS IN NEED OF REPAIR SHALL BE ADDRESSED AS SOON AS PRACTICABLE. MAINTENANCE ITEMS INCLUDE CONSTRUCTION ENTRANCES, SHORE LINES AND VEGETATION THROUGHOUT THE SITE.

## ) EROSION AND SEDIMENT CONTROL REQUIREMENTS:

- a) UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL REVISED FEBRUARY 2002.
- b) A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- c) PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED TO THE OWNER FOR REVIEW BY THE MCHENRY-LAKE COUNTY SOIL AND WATER CONSERVATION DISTRICT
- d) THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE M-LSWCD.
- e) DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO SEDIMENT BASINS OR SILT TRAPS. DEWATERING DIRECTLY INTO FIELD TILES OR STORMWATER STRUCTURES IS PROHIBITED.
- f) IT IS THE RESPONSIBILITY OF THE LANDOWNER AND/OR GENERAL CONTRACTOR TO INFORM ANY SUB-CONTRACTOR(S) WHO MAY PERFORM WORK ON THIS PROJECT, OF THE REQUIREMENTS IN IMPLEMENTING AND MAINTAINING THESE EROSION CONTROL PLANS AND THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS SET FORTH BY THE ILLINOIS EPA."
- ) ADDITIONAL EROSION AND SEDIMENT CONTROL REQUIREMENTS:
- a) TEMPORARY STREAM CROSSINGS SHALL BE CONSTRUCTED OF NON-EROSIVE MATERIAL
- b) THE TIME AND AREA OF DISTURBANCE OF A STREAM SHALL BE KEPT TO A MINIMUM. THE STREAM, INCLUDING BED AND BANKS, SHALL BE RE-STABILIZED WITHIN 48 HOURS AFTER CHANNEL DISTURBANCE IS COMPLETED.
- c) ALL UNDISTURBED WETLAND, FLOODPLAIN, WATERS, AND BUFFER AREAS SHALL, AT A MINIMUM, HAVE A BARRIER OF PROTECTION. THE BARRIER SHALL BE PLACED AT THE LIMITS OF SOIL DISTURBANCE AND
- i) A DUAL ROW OF SILT FENCE, AND A ROW OF ORANGE CONSTRUCTION FENCE; OR
- ii) A DUAL SILT FENCE BARRIER, WITH ONE OF THE FENCES BEING OF HIGH VISIBILITY MATERIAL.
- k) ANY SOIL REACHING A PUBLIC OR PRIVATE ROADWAY SHALL BE REMOVED IMMEDIATELY, OR AS WARRANTED, AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
- I) SOIL STOCKPILES SHALL NOT BE LOCATED IN A DRAINAGE WAY, FLOODPLAIN AREA OR A DESIGNATED BUFFER, UNLESS OTHERWISE APPROVED, UNDER SPECIFIC CONDITIONS TO BE ESTABLISHED BY THE FNGINFFR.
- m)STOCKPILES TO REMAIN IN PLACE MORE THAN THREE (3) DAYS SHALL BE PROVIDED WITH SOIL EROSION AND SEDIMENT CONTROL MEASURES.

- n) ADEQUATE RECEPTACLES FOR THE DEPOSITION OF ALL CONSTRUCTION DEBRIS GENERATED DURING THE DEVELOPMENT PROCESS SHALL BE PROVIDED.
- o) WORK IN THE WATERWAY SHOULD BE LIMITED TO TAKE PLACE DURING LOW OR NO-FLOW CONDITIONS. LOW FLOW CONDITIONS ARE FLOW AT OR BELOW THE NORMAL WATER ELEVATION.
- p) WATER SHALL BE ISOLATED FROM THE IN-STREAM WORK AREA USING A COFFERDAM CONSTRUCTED OF NON-ERODIBLE MATERIALS (STEEL SHEETS, AQUA BARRIERS, RIP RAP AND GEOTEXTILE LINER, ETC.). EARTHEN COFFERDAMS ARE NOT PERMISSIBLE.
- q) THE PLAN WILL BE DESIGNED TO ALLOW FOR THE CONVEYANCE OF THE 2-YEAR PEAK FLOW PAST THE WORK AREA WITHOUT OVERTOPPING THE COFFERDAM. THE CORPS HAS THE DISCRETION TO REDUCE THIS REQUIREMENT IF DOCUMENTED BY THE APPLICANT TO BE INFEASIBLE OR UNNECESSARY.
- r) THE COFFERDAM MUST BE CONSTRUCTED FROM THE UPLAND AREA AND NO EQUIPMENT MAY ENTER FLOWING WATER AT ANY TIME. IF THE INSTALLATION OF THE COFFERDAM CANNOT BE COMPLETED FROM SHORE AND ACCESS IS NEEDED TO REACH THE AREA TO BE COFFERED, OTHER MEASURES, SUCH AS THE CONSTRUCTION OF A CAUSEWAY, WILL BE NECESSARY TO ENSURE THAT EQUIPMENT DOES NOT ENTER THE WATER. ONCE THE COFFERDAM IS IN PLACE AND THE ISOLATED AREA IS DEWATERED, EQUIPMENT MAY ENTER THE COFFERED AREA TO PERFORM THE REQUIRED WORK.
- s) IF BYPASS PUMPING IS NECESSARY, THE INTAKE HOSE SHALL BE PLACED ON A STABLE SURFACE OR FLOATED TO PREVENT SEDIMENT FROM ENTERING 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. FILTERING OF BYPASS WATER IS REQUIRED. CONTRACTOR SHALL SUBMIT BYPASS PUMPING PLAN TO OWNER FOR APPROVAL
- t) DURING DEWATERING OF THE COFFERED WORK AREA, ALL SEDIMENT-LADEN WATER MUST BE FILTERED TO REMOVE SEDIMENT. POSSIBLE OPTIONS FOR SEDIMENT REMOVAL INCLUDE BAFFLE SYSTEMS, ANIONIC POLYMERS SYSTEMS, DEWATERING BAGS, OR OTHER APPROPRIATE METHODS. WATER SHALL HAVE SEDIMENT REMOVED PRIOR TO BEING RE-INTRODUCED TO THE DOWNSTREAM WATERWAY. A STABILIZED CONVEYANCE FROM THE DEWATERING DEVICE TO THE WATERWAY MUST BE IDENTIFIED IN THE PLAN. DISCHARGE WATER IS CONSIDERED CLEAN IF IT DOES NOT RESULT IN A VISUALLY IDENTIFIABLE DEGRADATION OF WATER CLARITY.
- u) THE AREA FROM THE TOE TO THE TOP OF THE SIDE SLOPE SHALL BE TEMPORARILY STABILIZED DURING CONSTRUCTION TO REDUCE THE POTENTIAL FOR EROSION. ALL AREAS DISTURBED DUE TO CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO PROPOSED CONDITIONS AND FULLY STABILIZED PRIOR TO ACCEPTING FLOWS.

#### 7) MAINTENANCE

a) THE CONTRACTOR SHALL MAINTAIN THE SEDIMENT AND EROSION CONTROL MEASURES IDENTIFIED ON THIS PLAN UNTIL THE SITE IS STABILIZED. ITEMS IN NEED OF REPAIR SHALL BE ADDRESSED AS SOON AS PRACTICABLE. MAINTENANCE ITEMS INCLUDE CONSTRUCTION ENTRANCES, SHORELINES AND VEGETATION THROUGHOUT THE SITE.

#### 8) INSPECTIONS

- a) QUALIFIED PERSONNEL (PROVIDED BY THE PERMITTEE) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER OR EQUIVALENT SNOWFALL. QUALIFIED PERSONNEL MEANS A PERSON KNOWLEDGEABLE IN THE PRINCIPLES AND PRACTICE OF EROSION AND SEDIMENT CONTROLS, SUCH AS A LICENSED PROFESSIONAL ENGINEER OR OTHER KNOWLEDGEABLE PERSON WHO POSSESSES THE SKILLS TO ASSESS CONDITIONS AT THE CONSTRUCTION SITE THAT COULD IMPACT STORM WATER QUALITY AND TO ASSESS THE EFFECTIVENESS OF ANY SEDIMENT AND EROSION CONTROL MEASURES SELECTED TO CONTROL THE QUALITY OF STORM WATER DISCHARGES FROM THE CONSTRUCTION ACTIVITIES.
- b) 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. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING.
- c) BASED ON THE RESULTS OF THE INSPECTION, THE DESCRIPTION OF POTENTIAL POLLUTANT SOURCES IDENTIFIED IN THE PLAN IN ACCORDANCE WITH PARAGRAPH 1 (SITE DESCRIPTION) OF THESE NOTES AND POLLUTION PREVENTION MEASURES IDENTIFIED IN THE PLAN IN ACCORDANCE WITH PARAGRAPH 3 (CONTROLS) OF THESE NOTES SHALL BE REVISED AS APPROPRIATE AS SOON AS PRACTICABLE AFTER SUCH INSPECTION. SUCH MODIFICATIONS SHALL PROVIDE FOR TIMELY IMPLEMENTATION OF ANY CHANGES TO THE PLAN WITHIN 7 CALENDAR DAYS FOLLOWING THE INSPECTION.
- d) A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PARAGRAPH B ABOVE SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE PERMIT COVERAGE EXPIRES OR IS TERMINATED. THE REPORT SHALL BE SIGNED BY THE
- e) THE PERMITTEE SHALL COMPLETE AND SUBMIT WITHIN 5 DAYS AN "INCIDENCE OF NONCOMPLIANCE" (ION) REPORT FOR ANY VIOLATION OF THE STORM WATER POLLUTION PREVENTION PLAN OBSERVED DURING AN INSPECTION CONDUCTED. INCLUDING THOSE NOT REQUIRED BY THE PLAN. SUBMISSION SHALL BE ON FORMS PROVIDED BY THE AGENCY AND INCLUDE SPECIFIC INFORMATION ON THE CAUSE OF NONCOMPLIANCE, ACTIONS WHICH WERE TAKEN TO PREVENT ANY FURTHER CAUSES OF NONCOMPLIANCE, AND A STATEMENT DETAILING ANY ENVIRONMENTAL IMPACT WHICH MAY HAVE RESULTED FROM THE NONCOMPLIANCE.
- f) ALL REPORTS OF NONCOMPLIANCE SHALL BE SIGNED BY THE PERMITTEE.
- g) REPORTS OF NONCOMPLIANCE SHALL BE MAILED TO THE AGENCY AT THE FOLLOWING ADDRESS:
- ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
- DIVISION OF WATER POLLUTION CONTROL COMPLIANCE ASSURANCE SECTION1021
- NORTH GRAND AVENUE EAST POST OFFICE BOX
- 19276 SPRINGFIELD, ILLINOIS 62794-9276

## 9) NON-STORMWATER DISCHARGES

- a) THE FOLLOWING SOURCES OF NON-STORMWATER MAY BE COMBINED WITH STORMWATER DISCHARGES ASSOCIATED WITH THE INDUSTRIAL ACTIVITY ADDRESSED IN THIS PLAN.
- FIREFIGHTING ACTIVITIES, WATER MAIN/ HYDRANT FLUSHING, WATERING FOR DUST CONTROL, IRRIGATION, DRAINAGE FOR VEGETATIVE GROWTH, WASH WATER WHERE DETERGENTS ARE NOT USED.UNCONTAMINATED GROUND WATER
- b) NON-FIREFIGHTING DISCHARGES FROM WATER MAINS AND PUMPS SHALL NOT BE PERMITTED TO FLOW DIRECTLY ONTO THE SOIL WITHOUT ENERGY DISSIPATERS SUFFICIENT TO REDUCE VELOCITIES TO A NON-EROSIVE RATE. ALL SITE DE-WATERING, INCLUDING PUMP DISCHARGE SHALL PASS THROUGH SEDIMENT CONTROL DEVICES PRIOR TO LEAVING THE SITE.

## 10) RETENTION OF RECORDS

- a) THE PERMITTEE SHALL RETAIN COPIES OF STORM WATER POLLUTION PREVENTION PLANS AND ALL REPORTS AND NOTICES REQUIRED BY THIS PERMIT, AND RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT, FOR A PERIODS OF AT LEAST THREE YEARS FROM THE DATE THAT THE PERMIT COVERAGE EXPIRES OR IS TERMINATED. THIS PERIOD MAY BE EXTENDED BY REQUEST OF THE AGENCY AT ANY TIME.
- b) THE PERMITTEE SHALL RETAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN REQUIRED BY THIS PERMIT AT THE CONSTRUCTION SITE FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL STABILIZATION.

## 11) NOTICE OF TERMINATION

UPON FINAL STABILIZATION OF THE SITE THE PERMITTEE SHALL SUBMIT A COMPLETED NOTICE OF TERMINATION IN ACCORDANCE WITH NPDES PERMIT NO.

## 12) CERTIFICATION STATEMENT.

DATED THIS

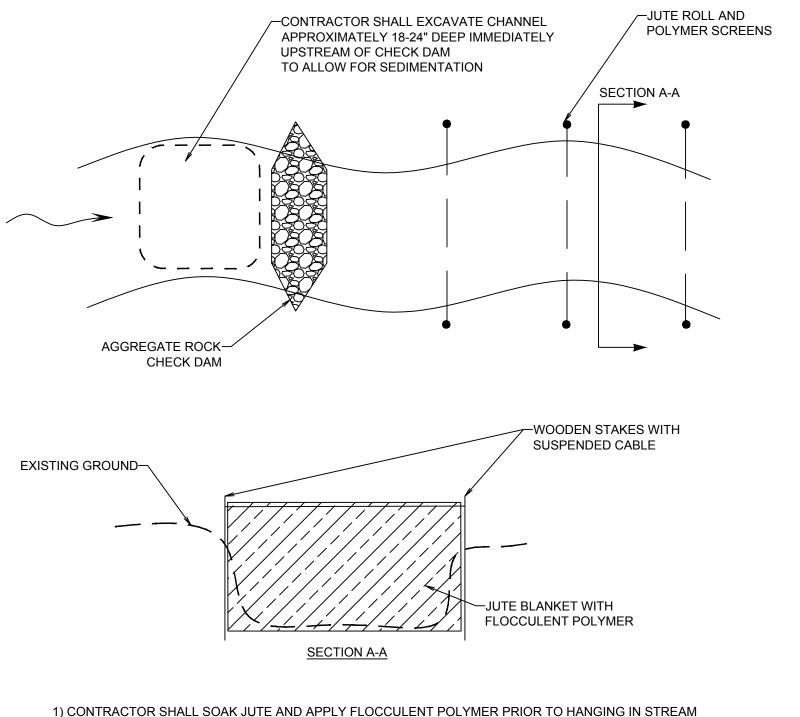
**ADDRESS** 

THE FOLLOWING STATEMENT SHALL BE SIGNED PRIOR TO ANY WORK AUTHORIZED BY NPDES PERMIT NO. ILR10 IS PERFORMED AT THE SITE. THE UNDERSIGNED IS RESPONSIBLE FOR IMPLEMENTATION OF ALL MEASURES IDENTIFIED ON THIS PLAN.

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT (ILR10) THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

#### LAKE COUNTY STORMWATER MANAGEMENT COMMISSION

- SOIL EROSION AND SEDIMENT CONTROL CONSTRUCTION NOTES
- A. SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF HYDROLOGIC DISTURBANCE OF UPLAND AREAS.
- B.FOR THOSE DEVELOPMENTS THAT REQUIRE A DESIGNATED EROSION CONTROL INSPECTOR (DECI), INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:
- UPON COMPLETION OF SEDIMENT AND RUNOFF CONTROL MEASURES (INCLUDING PERIMETER CONTROLS AND DIVERSIONS), PRIOR TO PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR
- AFTER EVERY SEVEN (7) CALENDAR DAYS OR STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID **EQUIVALENT PRECIPITATION.**
- C.SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.
- D. A STABILIZED MAT OF CRUSHED STONE MEETING IDOT GRADATION CA-1 UNDERLAIN WITH FILTER FABRIC AND IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL, OR OTHER APPROPRIATE MEASURE(S) AS APPROVED BY THE ENFORCEMENT OFFICER, SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL
- E. TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN.
- F. DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) CALENDAR DAYS FOLLOWING THE END OF ACTIVE HYDROLOGIC DISTURBANCE OR REDISTURBANCE.
- G.ALL STOCKPILES SHALL HAVE APPROPRIATE MEASURES TO PREVENT EROSION. STOCKPILES SHALL NOT BE PLACED IN FLOOD PRONE AREAS OR WETLANDS AND DESIGNATED BUFFERS.
- H. SLOPES STEEPER THAN 3H:1V SHALL BE STABILIZED WITH APPROPRIATE MEASURES AS APPROVED BY THE ENFORCEMENT OFFICER.
- I. APPROPRIATE EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL INTERIOR DETENTION BASIN SIDE SLOPES BETWEEN THE NORMAL WATER LEVEL AND HIGH WATER LEVEL.
- J. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY AN APPROPRIATE SEDIMENT CONTROL MEASURE.
- K. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DISCHARGES SHALL BE ROUTED THROUGH AN APPROVED ANIONIC POLYMER DEWATERING SYSTEM OR A SIMILAR MEASURE AS APPROVED BY THE ENFORCEMENT OFFICER. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE ENFORCEMENT OFFICER, OR APPROVED REPRESENTATIVE, MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.
- L. INSTALLED SOIL EROSION AND SEDIMENT CONTROL MEASURES DO NOT MINIMIZE SEDIMENT LEAVING THE DEVELOPMENT SITE, ADDITIONAL MEASURES SUCH AS ANIONIC POLYMERS OR FILTRATION SYSTEMS MAY BE REQUIRED BY THE ENFORCEMENT OFFICER.
- M. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE PROPERTY OWNER SHALL BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE AND REPAIR.
- N. ALL TEMPORARY SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
- O. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, ENFORCEMENT OFFICER, OR OTHER GOVERNING AGENCY.



2) CONTRACTOR SHALL HAVE A WATER AND SEDIMENT SAMPLE FROM THE STREAM TESTED TO DETERMINE THE APPROPRIATE POLYMENT FLOCCULENT TO USE.

3) CONTRACTOR SHALL INSPECT EACH JUTE BLANKET WEEKLY AND REPLACE WHEN NECESSARY

## IN-STREAM EROSION CONTROL

## INSTREAM WORK PLAN

CONTRACTOR SHALL SUBMIT INSTREAM WORK PLAN TO THE LAKE COUNTY STORMWATER MANAGEMENT COMMISSION FOR APPROVAL PRIOR TO BEGINNING CONSTRUCTION

OCT STABILIZATION TYPE FEB MAR APR MAY JUL AUG SEP NOV JAN PERMANENT SEEDING DORMANT SEEDING TEMPORARY SEEDING SODDING MULCHING C SPRING OATS 100 LBS/ACRE A KENTUCKY BLUEGRASS 90 LBS/ACRE IRRIGATION NEEDED DURING

MIXED WITH PERENNIAL RYEGRASS 30 LBS/ACRE

A\* NATIVE SEEDING

B KENTUCKY BLUEGRASS 135 LBS/ACRE MIXED WITH PERENNIAL RYGRASS 45 LBS/ACRE + 2 TONS STRAW MULCH/ACRE

D WHEAT OR CEREAL RYE 150 LBS/ACRE

E SOD F STRAW MULCH 2 TONS/ACRE

JUNE AND JULY

APPLYING SOD

\*\* IRRIGATION NEEDED FOR

2 TO 3 WEEKS AFTER

SOIL STABILIZATION CHART

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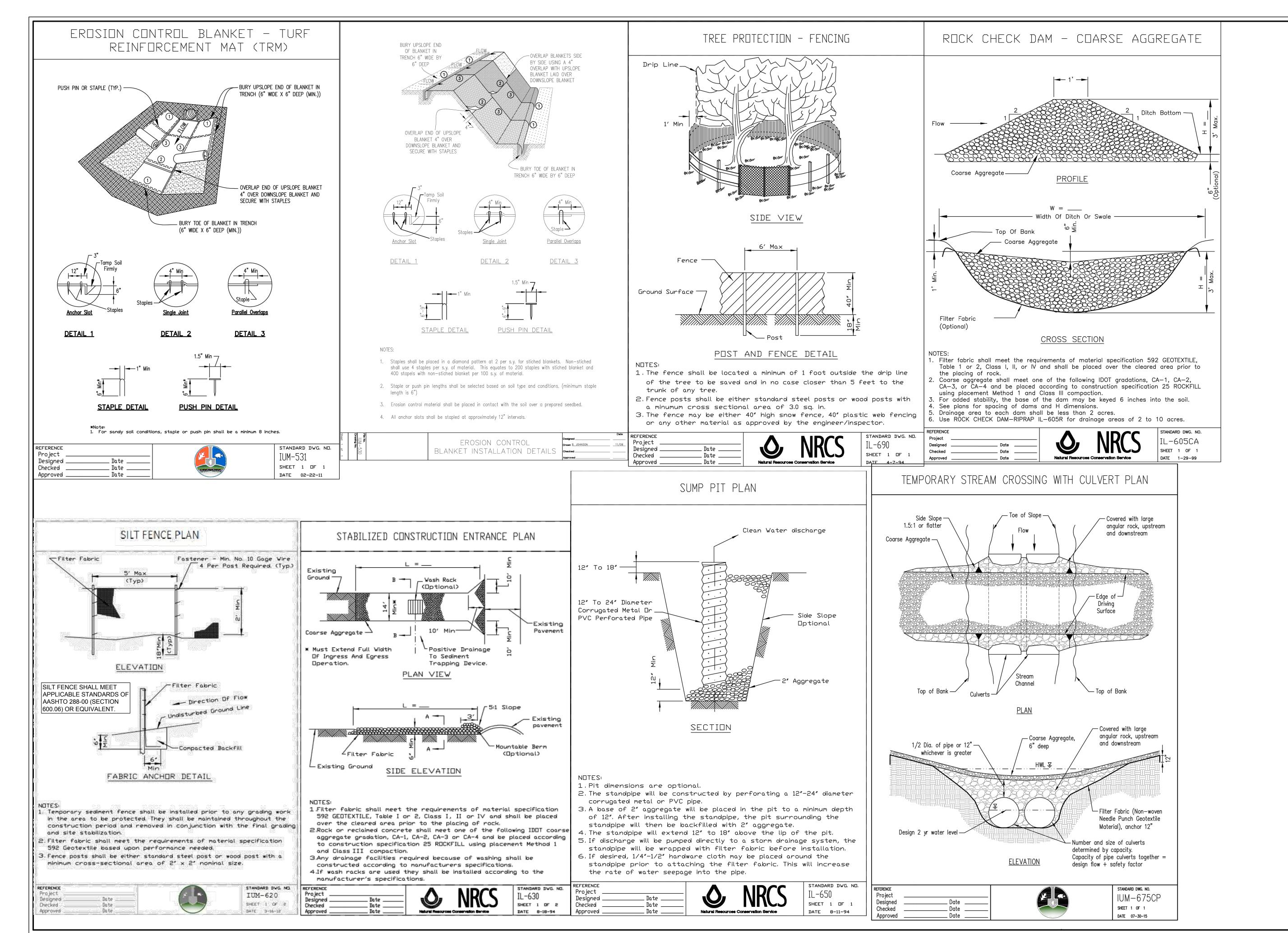
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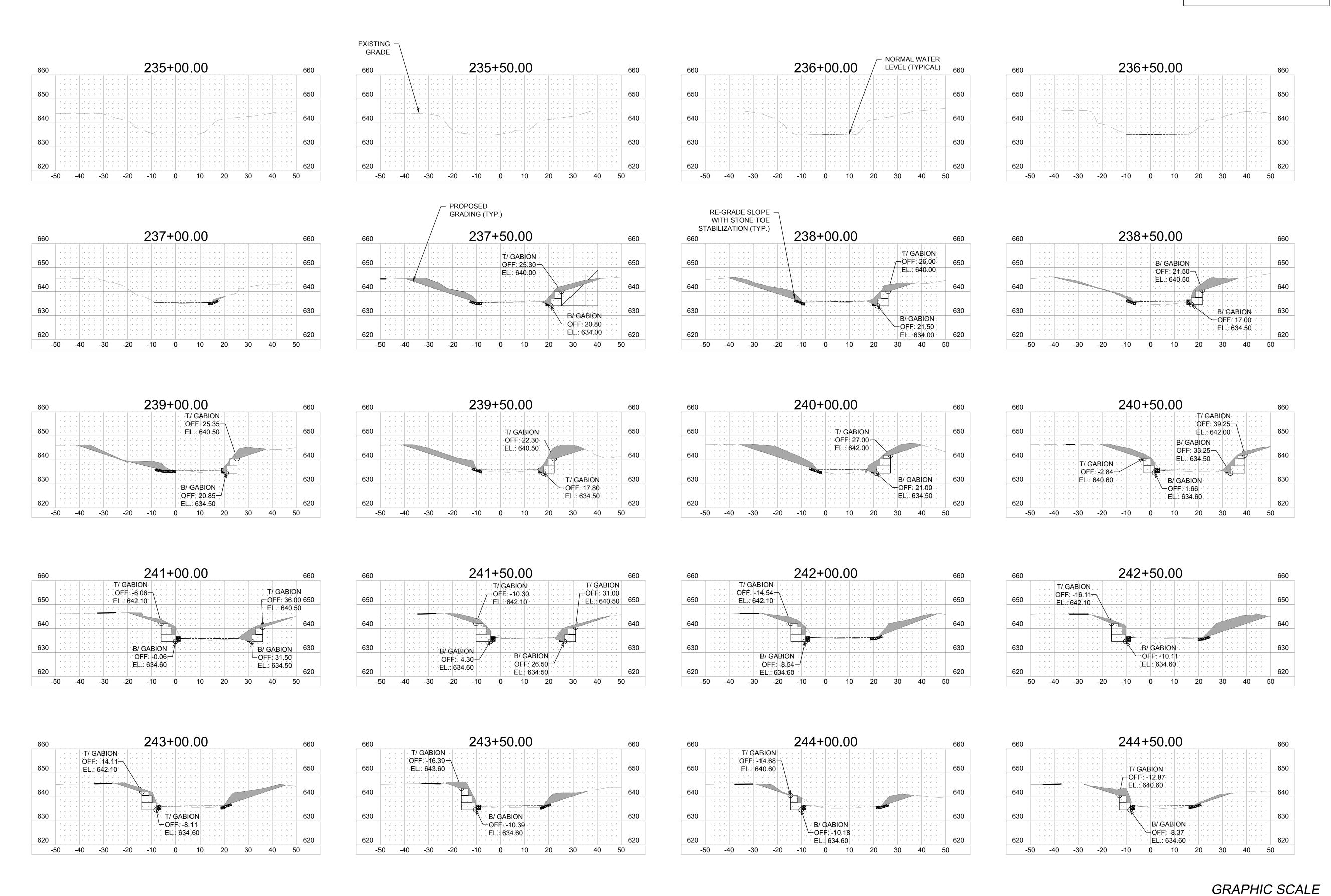
**EROSION** 

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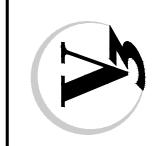
WORK IS PROPOSED WITHIN THE REGULATORY FLOODWAY AND FLOODPLAIN. NO FILL SHALL BE PLACED THAT EXTENDS ABOVE EXISTING GRADE.



CROSS SECTIONS

E RIVER CHANNEL IMPROVEMENTS FOR TH
PARK DISTRICT OF HIGHLAND PARK
PARK

7325 Janes Avenue Woodridge, IL 60517 630.724.9200 phone www.v3co.com



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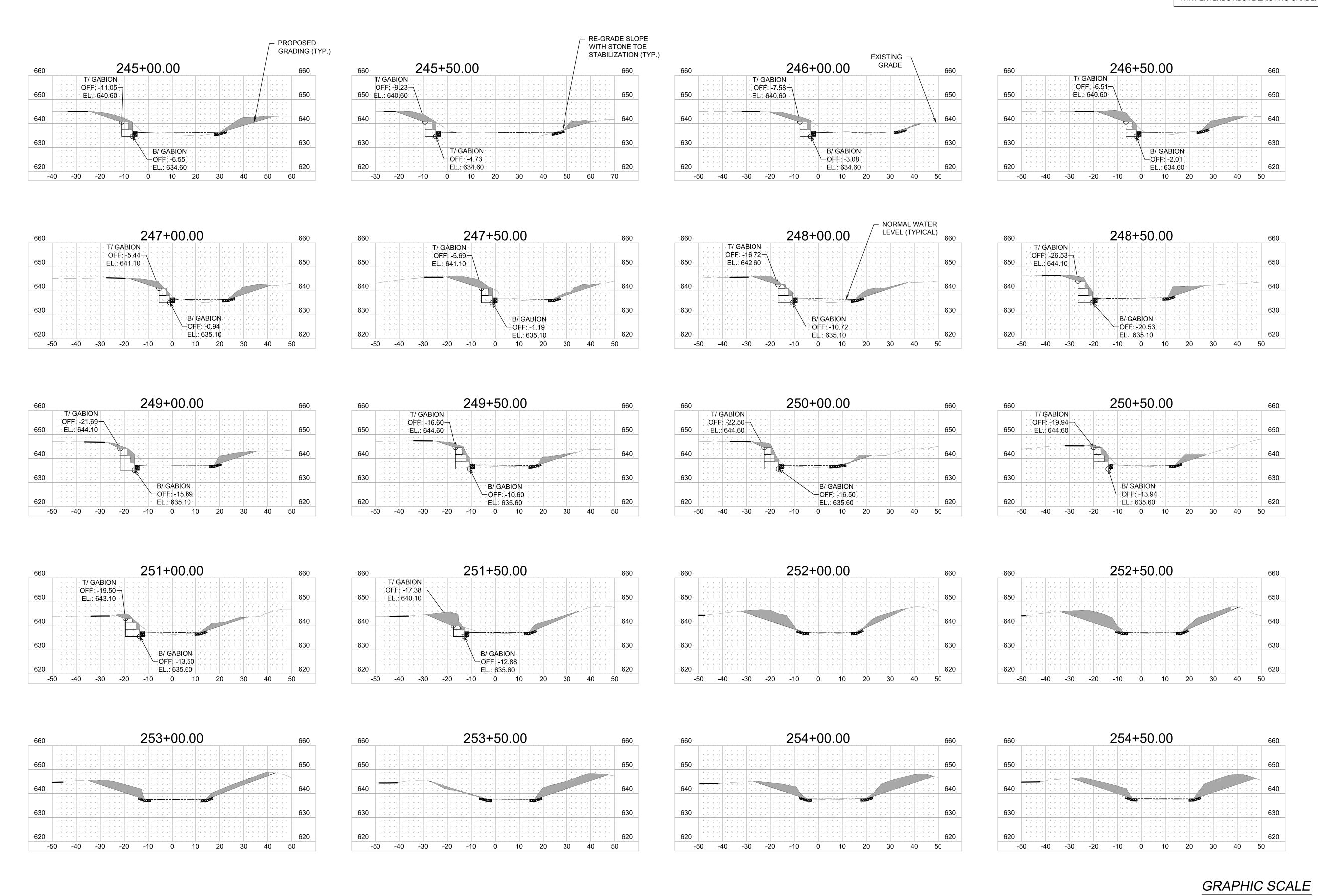
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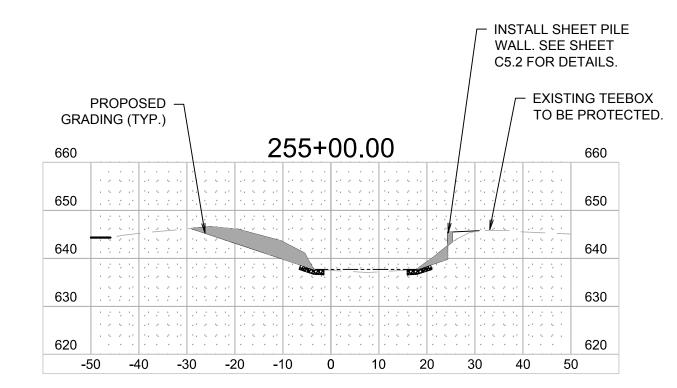
SECTIONS RIVER CHANNEL IMPROVEME PARK DISTRICT OF HIGHLAND CROSS

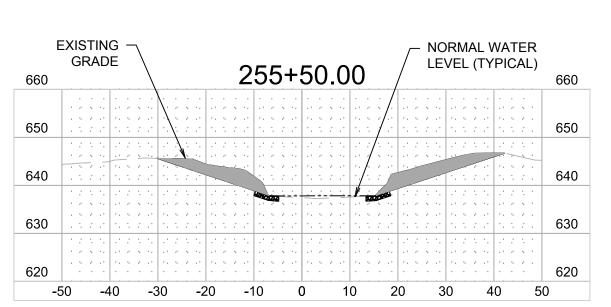
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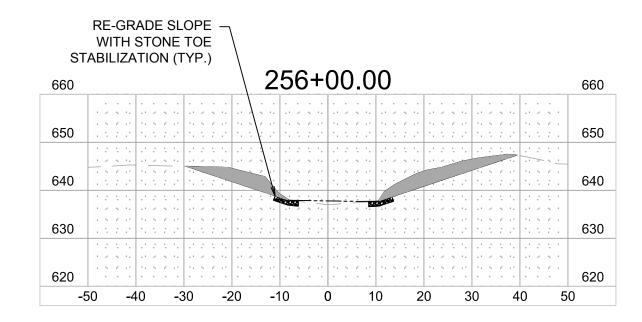
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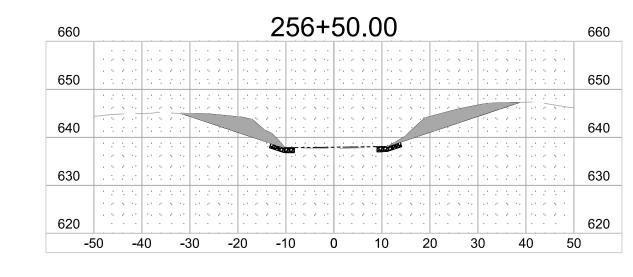
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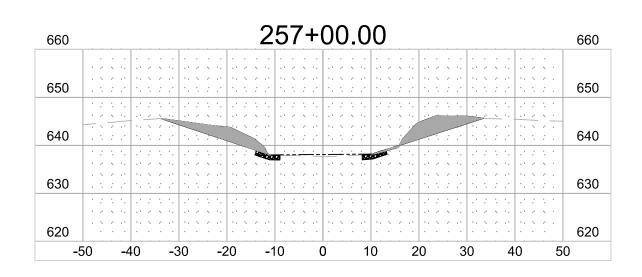
WORK IS PROPOSED WITHIN THE REGULATORY FLOODWAY AND FLOODPLAIN. NO FILL SHALL BE PLACED THAT EXTENDS ABOVE EXISTING GRADE.

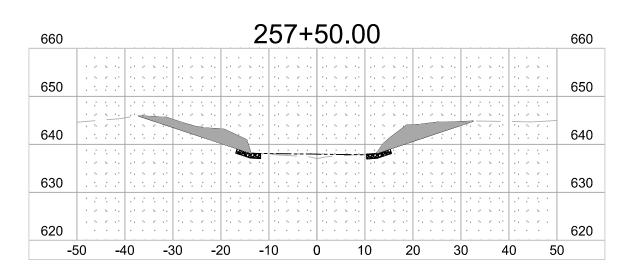


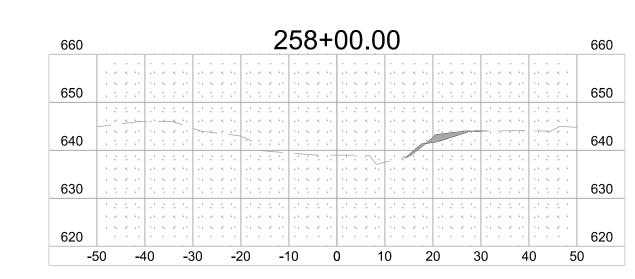












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GRAPHIC SCALE

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 OR IGINAL ISSUE DATE:
 JANUARY 31, 2024
 RE VISIONS

 PROJECT MANAGER:
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 DESCRIPTION
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 DESCRIPTION

 FOR THE
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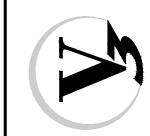
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7325 Janes Avenue Woodridge, IL 60517 630.724.9200 phone

CROSS SECTIONS

SKOKIE RIVER CHANNEL IMPROVEME PARK DISTRICT OF HIGHLAND



C4.3

## SEED LISTS

#### Skokie River Bank Stabilization

**Broad Spectrum Prairie Seed Mix** 

Scientific Name	Common Name	Lbs/Ac				
COVER CROP						
Avena sativa	oats	25.000				
GRASSES & SEDGES	outs	23.000				
Andropogon gerardii	big bluestem	1.500				
Andropogon scoparius	little bluestem	7.000				
Bouteloua curtipendula	side-oats grama	4.000				
Carex bicknellii	Bicknells oval sedge	0.250				
Carex crinita	fringed sedge	0.250				
Carex molesta	troublesome sedge	0.250				
Carex vulpinoidea	brown fox sedge	0.250				
Elymus canadensis	Canada wild rye	2.000				
Elymus virginicus	Virginia wild rye	2.000				
Hystrix patula	bottlebrush grass	1.000				
Juncus dudleyi	Dudley's rush	0.031				
Panicum virgatum	switch grass	0.250				
Sorghastrum nutans	Indian grass	1.500				
FORBS	indian grass	1.500				
Asclepias incarnata	swamp milkweed	0.063				
Asclepias syriaca	common milkweed	0.063				
Asclepias tuberosa	butterfly weed	0.250				
Aster novae-angliae	New England aster	0.125				
Aster laevis	smooth aster	0.063				
Aquilegia canadensis	columbine	0.063				
Coreopsis lanceolata	sand coreopsis	0.125				
Dalea purpurea	purple prairie clover	0.250				
Echinacea pallida	pale purple coneflower	0.125				
Echinacea purpurea	purple conflower	0.375				
Eryngium yuccifolium	rattlesnake master	0.375				
Helenium autumnale	sneezeweed	0.125				
Heliopsis helianthoides	early sunflower	0.125				
Lupinus perennis	wild lupine	0.125				
Monarda fistulosa	wild bergamont	0.063				
Penstemon digitalis	foxglove beard tongue	0.250				
Pycnanthemum virginianum		0.031				
Ratibida pinnata	yellow coneflower	0.375				
Rudbeckia hirta	black-eyded Susan	0.125				
Rudbeckia subtomentosa	sweet black-eyed Susar					
Rudbeckia triloba	brown-eyed Susan	0.125				
Silphium integrifolium	rosin weed	0.123				
Solidago rigida	stiff goldenrod	0.375				
Solidago rigida Solidago speciosa	showy goldenrod	0.373				
Verbena stricta	Hoary Vervain	0.125				
verbena stricta	Indary vervain	0.123				

Total Native: 24.877

0.250

golden Alexanders

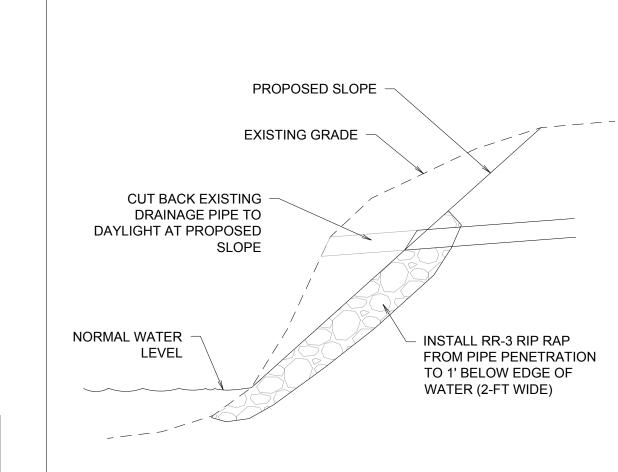
#### PROPOSED GRADE 3:1 SLOPE (TYP.). PLANT WITH BROAD LENGTH HEIGHT SPECTRUM PRAIRIE SEED MIX (USE NAG S75BN ECB ABOVE SOIL LIFT) 4.5 FEET 25 LF PROPOSED SOIL LIFT OVER TOP 6.0 FEET 795 LF OF GABION. WRAP WITH NAG 7.5 FEET 455 LF SC150 (OR APPROVED EQUAL) 9.0 FEET 300 LF PLACE STAKES EVERY 18-INCHES O..C. **EXISTING GRADE** \*HEIGHT IS MEASURED FROM **BOTTOM OF LOWEST BASKET** (MINIMUM 15-INCHES BELOW NORMABION BASKET WATER LEVEL) COARSE **AGGREGATE** AT EXISTING PIPE DISCHARGE **BACKFILL** LOCATIONS, CUT GABION BASKET (CA-1) TO ALLOW FOR PASSAGE OF **OUTLET PIPE** (PAID FOR AS STORM DRAIN OUTLET MODIFICATION) NORMAL WATER LEVEL FILTER FABRIC STREAM CHANNEL 2' STONE TOE SECOND BASKET FOR GABIONIS WITH 3 BASKETS PROTECTION HIGH PER NRCS DETAIL (NOT REQUIRED FOR RR-3 RIP RAP (16-INCHES THICK) SHORTER SECTIONS) FIRST GABION SHALL BE BURIED A MINIMUM OF 12-INCHES **BELOW NORMAL WATER LINE**

### **GABION DETAIL**

IL-646 DEPENDING ON THE HEIGHT OF THE GABIONS.

GABIONS SHALL BE CONSTRUCTED IN VARYING HEIGHTS TO MATCH TOP OF EXISTING BANK (SEE CROSS

SECTIONS) AND SHALL BE STEPPED BY 18-INCH INCREMENTS. FOLLOW DETAILS IL-641, IL-643, IL-645, AND



STORM DRAIN OUTLET PROTECTION (NON-GABION)

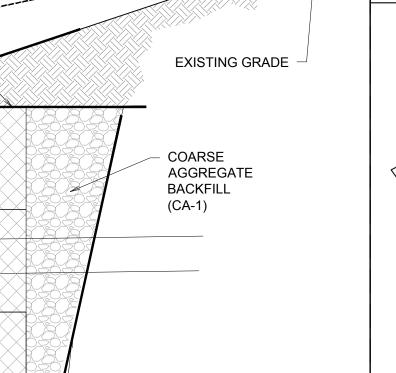
Highland Park Streambank Stabilization						
Native Tree and Shrub List						
Type	Species	Common Name				
	Celtis occidnetalis	Hackberry				
e	Quercus bicolor	Swamp White Oak and White Oak				
Fre	Tilia americana	American Linden				
ge	Platanus occidentalis	Sycamore				
Large Tree	Quercus palustris	Pin Oak				
_	Acer saccharum	Sugar Maple				
	Betula nigra	River Birch				
	Thuja occidentalis	Arborvitae				
ee	Cercis canadensis	Red Bud				
Multistem Tree	Carpinus caroliniana	Blue Beech				
em	Malus ioensis	Iowa Crab				
tist	Ostrya virginiana	Ironwood				
Tu l	Staphylea trifolia	Bladdernut				
	Viburnum prunifolium	Blackhaw				
	Cormus sericea	Red-Twig Dogwood				
Shrub	Physocarpus opulifolius	Ninebark				
Sh	Viburnum lentago	Nannyberry				
	Aronia melanocarpa	Black Chokeberry				
		Buttonbush				

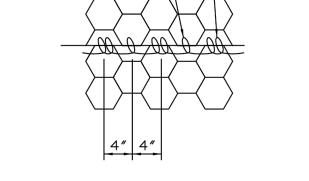
EXACT LOCATION OF TREE AND SHRUB PLACEMENT SHALL BE DONE IN COORDINATION WITH OWNER AND CITY REPRESENTATIVES.

Zizia aurea

CONTRACTOR SHALL BE RESPONSIBLE FOR AT LEAST: 230 TREES 99 SHRUBS

REFER TO CONTRACT DOCUMENTS AND SPECIAL PROVISIONS FOR TREE AND SHRUB REQUIREMENTS.





LACING DETAIL

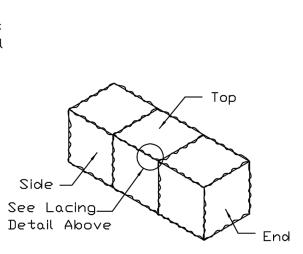
One Loop-

\_\_Two Loops

ASSEMBLY DETAIL Wrap Inner Tie End 3 Times Around Twist Of Gabion Mesh Panel

Fold Ends And

Sides Up



INNER TIE WIRE DETAILS

WIRE LACING DETAIL

## NOTES

- 1. The ends of a lacing wire will be secured by looping it thru the mesh and twisting. Proceed to lace with alternate two loops and one loop at approximately 4 inch intervals.
- 2. Other lacing methods may be used if recommended by the manfuacturer and approved by the engineer/inspector.

STRUCTURAL STREAMBANK STABILIZATION - GABIONS

ASSEMBLEY AND LACING DETAILS

3. The "X" shaped inner tie may be twisted at the "X" to tighten, if placed too loosely.

REFERENCE Project Date . Designed . Checked . Date Approved \_ . Date



STANDARD DWG. NO. \_-645 SHEET 1 OF 1 DATE 5-18-94

REFERENCE Project \_Date . Designed . Checked \_ Date \_ Date Approved .

64 WIRE MESH GABIONS

NOTE: NO GABION

MAT IS PROPOSED

BEHIND 1 BASKET HIGH GABION WALL

TYPICAL NRCS DETAIL

Coarse aggregate

Backfill—

AS SHOWN ON

STRUCTURAL STREAMBANK STABILIZATION - GABIONS

1 BASKET HIGH WITH SLOPE MAT

**EXISTING GRADE** 

TIE INTO EXISTING SLOPE

<sup>—</sup>Lacing

┌─Gabion Basket

.Bury End □f

Fabric 12" Min

┌ Stream Channel

(MAX SLOPE 3:1)

SECTION

1. The filter fabric shall meet the requirements in material specification

2. The coarse aggregate backfill shall meet the IDOT requirement for the

STRUCTURAL STREAMBANK STABILIZATION - GABIONS

3 BASKETS HIGH W/O MAT

4. The gabion mat will be placed on a side slope of 2:1 or flatter.

3. The Gabions shall be installed according to construction specification

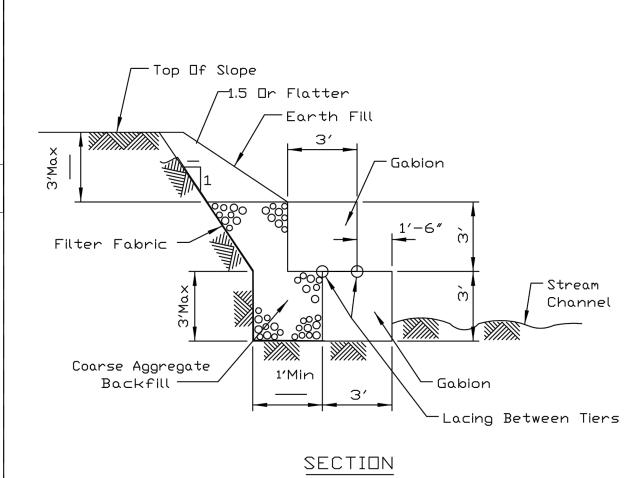
592 GEOTEXTILE Table 1 or 2, Class I, II or III.

following gradations CA-1, CA-3 or RR-1.

STANDARD DWG, NO. L-646 SHEET 1 OF 1 DATE 8-18-94

STRUCTURAL STREAMBANK STABILIZATION - GABIONS

## 2 BASKETS HIGH W/O MAT



BURY BOTTOM SECTION OF GABION WALL A MINIMUM OF 15-INCHES BELOW CHANNEL ELEVATION.

## NOTES:

Project

Checked

- 1. The filter fabric shall meet the requirements in material specification 592 GEDTEXTILE Table 1 or 2, Class I , II or III .
- 2. The coarse aggregate backfill shall meet the IDOT requirement for the following gradations CA-1, CA-3 or RR-1.
- 64 WIRE MESH GABIONS for each row and tier.
- 5. The coarse aggreate backfill shall be placed level with the top of the lower basket before the upper basket is installed.

REFERENCE \_Date \_ Designed Date . \_ Date

STANDARD DWG. NO. L-641 SHEET 1 OF 1 DATE 5-16-94

REFERENCE Project Designed . Checked .Date . Approved .

STANDARD DWG. NO. L-643 SHEET 1 OF 1 Date 5-16-94

WALL A MINIMUM OF 15-INCHES

BELOW CHANNEL ELEVATION.

 $\frac{1}{2} \left| \frac{8}{6} \right| - \left| \frac{1}{2} \right| \left| \frac{1}{2} \right|$ **AILS** CONSTRUCTION EL IMPRO OF HIGH

DRAWING NO.

N:\2023\230560\Drawings\ACAD\NR\E04\Sheet Drawings\C5.0\_Construction Details\_230560.dwg 5/27/2025

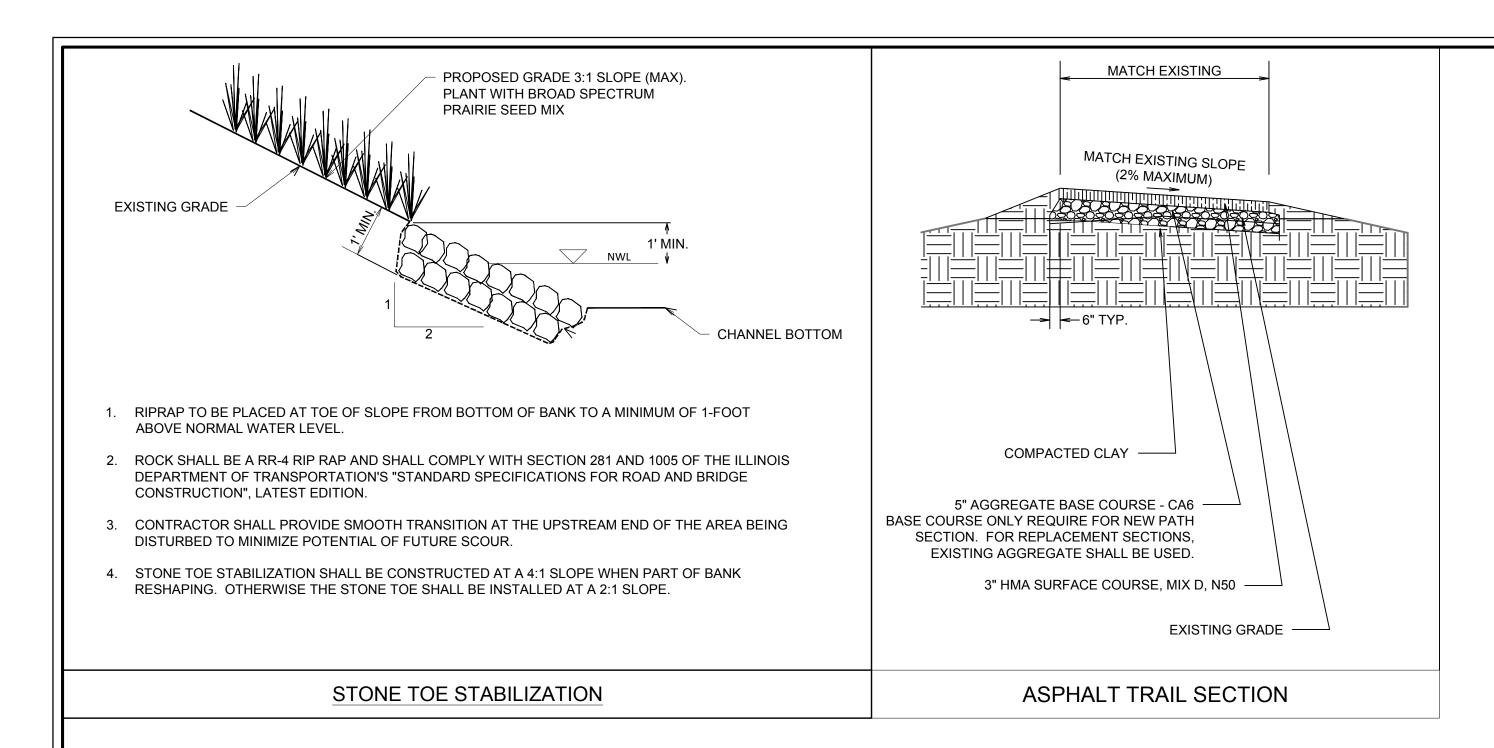
┌ 1.5 □r Flatter Top Of Slope \_\_\_ -Earth Fill Coarse Aggregate Backfill -Filter Fabric — Gabion Stream Channel Filter Fabric — — Gabions 1'Min 3'Min Lacing Between Tiers

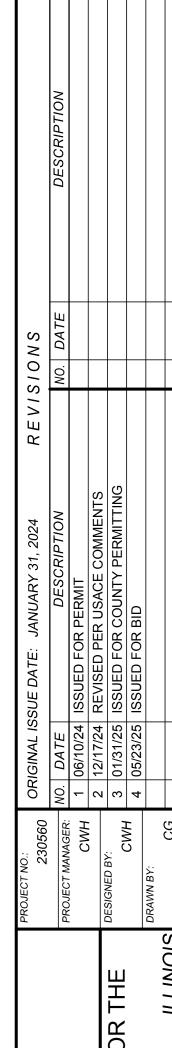
> SECTION **BURY BOTTOM SECTION OF GABION**

## NOTES:

- 1. The filter fabric shall meet the requirements in material
- 3. The Gabions shall be installed according to construction specification 2. The coarse aggregate backfill shall meet the IDOT requirement for the following gradations CA-1, CA-3 or RR-1.
- 4. Baskets which are stacked in tiers shall have vertical seams staggered 3. The Gabions shall be installed according to construction specification 64 WIRE MESH GABIONS
  - 4. Baskets which are stacked in tiers shall have vertical seams staggered for each row and tier.

specification 592 GEOTEXTILE Table 1 or 2, Class I , II or III .





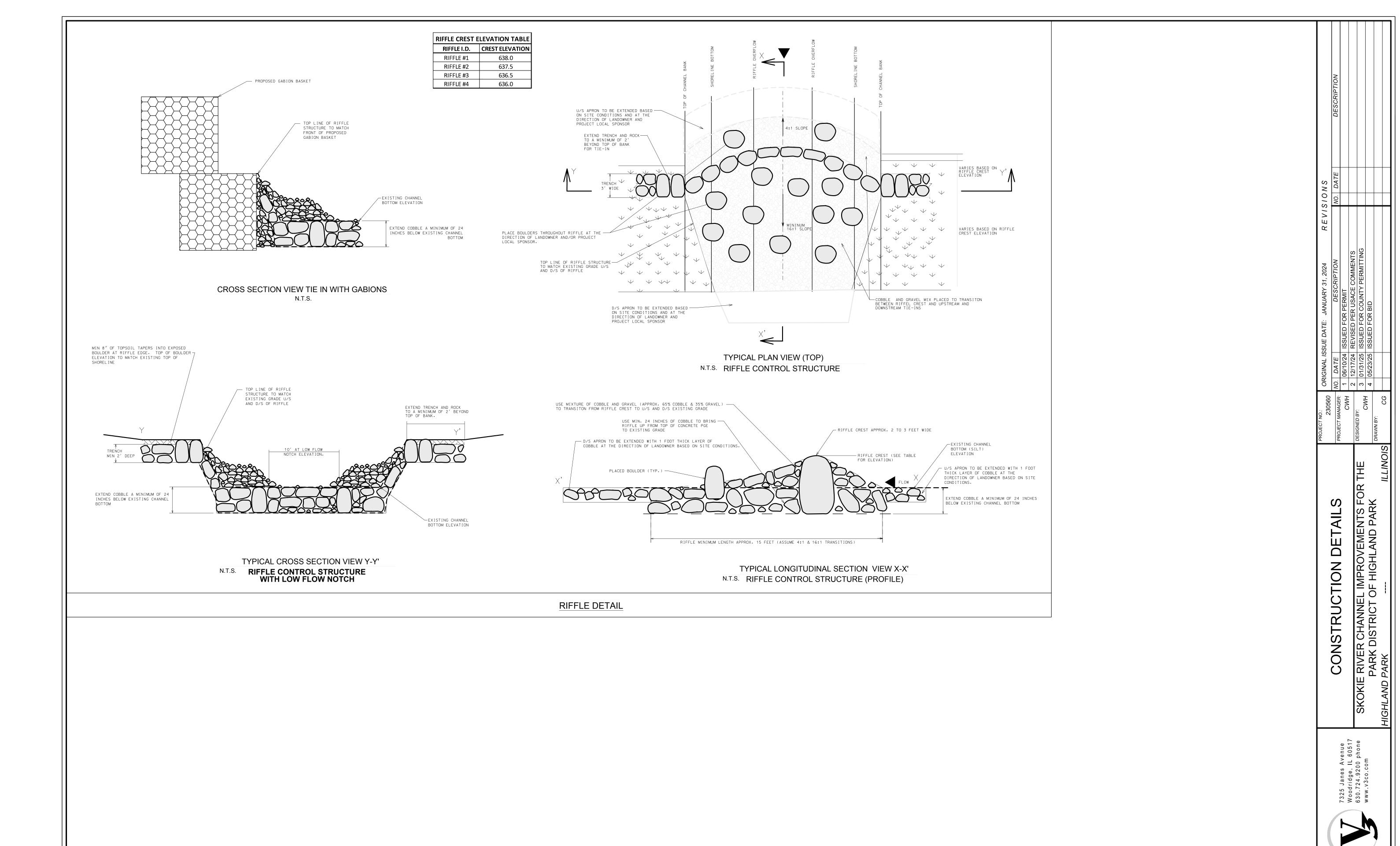
CONSTRUCTION DETAILS

RIVER CHANNEL IMPROVEME PARK DISTRICT OF HIGHLAND PARK

7325 Janes Avenue Woodridge, IL 60517 630.724.9200 phone



C5.2



DRAWING NO.