

**Agreement for the Restoration of Brown's Creek,  
Dedicating an Irrevocable Term License, and  
Committing to Convey a Maintenance Easement**

**Between the Beltram H. Van Tassel, an individual, and Barbara Van Tassel, an  
individual, and Beltram H. Van Tassel and Barbara Van Tassel as trustees  
for the Beltram H. Van Tassel Revocable Trust and  
Brown's Creek Watershed District**

**This agreement** is made by and between Beltram H. Van Tassel, an individual, and Barbara Van Tassel, an individual, and Beltram H. Van Tassel and Barbara Van Tassel as trustees for the Beltram H. Van Tassel Revocable Trust (collectively, Van Tassels) and Brown's Creek Watershed District, a special purposes governmental entity of the State of Minnesota with purposes and powers set forth at Minnesota Statutes chapters 103B and 103D (BCWD), for purposes of conveyance by Van Tassel to BCWD of temporary and ongoing property rights necessary for construction and maintenance of a creek-improvement project.

**RECITALS**

A. Van Tassels are the owners in fee simple of 4.6 acres of certain real property at 13093 McKusick Rd North in the City of Stillwater, Washington County, legally described as:

That part of the east 335 feet of the west 650 feet of the northwest quarter of the southwest quarter of section 20, township 30 north, range 20 west, Washington County, Minnesota, lying southerly of the southerly line of Washington County Highwater Right of Way No. 85 - County Road 64, recorded as Document No. 714569 in the office of the County Recorder, Washington County, Minnesota, and lying northerly of the northerly line of the Minnesota Transportation Museum property, formerly the Stillwater St. Paul Railroad Company property, as describe Book "U" of Deeds, page 499, on file and of record in said office of the County Recorder, Washington County, Minnesota.

(the Van Tassel Property).

B. Whereas Brown's Creek Watershed District has an approved and adopted watershed resources management plan in fulfillment of Minnesota Statutes section 103B.231 including policies committing BCWD to the improvement of the water quality and ecological integrity of Brown's Creek and its tributaries, including maintaining a viable cold-water fishery and maintaining the hydrology and geomorphology of Brown's Creek and its tributaries required for stream equilibrium and health, and the capital improvements program in the plan includes creek-restoration projects addressing impairments of Brown's Creek for turbidity and fish-bioassessments identified in the Brown's Creek Total Maximum Daily Load Plan (2012) and the Brown's Creek Thermal Study (2016), including improvement of reaches categorized as having degraded stream

channel geomorphology by addressing lack of buffer, stream width, overhanging banks, and profile and alignment;

C. Whereas at the direction of the BCWD Board of Managers to address the impairments and improve the ecological health of Brown's Creek, the BCWD staff and engineer developed a conceptual design for restoration of roughly 2,000 feet of the creek from McKusick Road just upstream of Brown's Creek Park to just downstream of the Brown's Creek State Trail in Stillwater, and the design includes:

- reconnection of cutoff meanders, pattern adjustments to increase stream sinuosity, and grade control to reconnect the floodplain adjacent to the creek;
- reconnect the floodplain and remove invasive species from the bank and upstream areas along the reach;
- bank shaping and selective tree thinning to promote herbaceous understory growth;
- restoration of fish habitat with rock riffles and pools to increase spawning opportunities and provide stable refuge for macroinvertebrates;
- establishment and maintenance of vegetation; and
- improved access to the creek from Brown's Creek State Trail.

(Altogether, the elements listed here constitute and are referred to as "the Project" for purposes of this agreement.) The Project will also include the development and implementation of a plan for post-construction maintenance and repair of the Project (the Maintenance Plan).

D. Whereas the Project includes work on the Van Tassel Property, among others, and the Van Tassels have agreed to provide rights to access and use the Van Tassel Property to facilitate implementation and maintenance of the Project;

E. Whereas after presentation by staff and the engineer of the concept for and assessment of the feasibility of the Project at its July 2023 regular meeting and a duly noticed public hearing pursuant to Minnesota Statutes section 103B.251, subdivision 3, at its September 2023 regular meeting, the managers adopted BCWD Resolution 23-04, ordering the Project; and

F. Construction of the Project will benefit Van Tassels by stabilizing and improving the Van Tassel Property, securing it against loss from erosion, and benefitting the public generally by mitigating risk of flooding and improving the ecological health of the creek and wildlife habitat. The parties acknowledge in executing this agreement that sufficient mutual consideration is exchanged under the terms hereof, and that this agreement sets forth obligations that are duly binding on the parties.

NOW, THEREFORE, in consideration of the foregoing recitals, which are incorporated into and made a part of this agreement, and other good and valuable consideration, and to facilitate the Project for the benefit of the public, the parties agree as follows:

**1. Approval of design and plans.** BCWD has contracted with the BCWD engineer, Emmons & Olivier Resources Inc., for the preparation of a design and plans for the Project, attached hereto and incorporated herein as Exhibit A. By their signature hereunder, Van Tassels approve the plans and design in Exhibit A. BCWD makes no warranty to the Van Tassels regarding the BCWD engineer's or another third party's performance in design, construction or construction management for the Project.

**2. License**

- a. **Grant of license.** Van Tassels hereby grant and convey to BCWD, its contractors, agents, successors and assigns, an irrevocable term license over, under, upon and across that portion of the Van Tassel Property shown and labeled "Construction Area" on Exhibit B, attached hereto and incorporated herein, for purposes of access to and construction on the Van Tassel Property to construct the Project (the License). The License includes the right of ingress and egress and to pass over and through the Construction Area on foot and using motorized equipment for staging of construction, construction and implementation of the Project and the right to plant, install stabilization techniques, alter existing grades and perform grading and filling within the Construction Area necessary to achieve the intended purposes of the Project. The rights granted hereby include the right to lay and maintain temporary utilities across or above the surface of the Construction Area for purposes of implementation and construction of the Project.
- b. **Restrictions on Van Tassels' use of the Construction Area.** During the term of the License, Van Tassels will not use the Construction Area in any manner that would damage or interfere with the Project. Specifically, any grading, filling or alteration of the surface of the Construction Area by any party other than BCWD, its contractors, agents, successors or assigns, or the construction of any hard-surfaced areas, fences, sheds, structures or similar improvements within the Construction Area is prohibited. Van Tassels may use and enjoy the Van Tassel Property and the Construction Area for all purposes, but such use and enjoyment is subject to the restrictions stated herein and the temporary right of BCWD to use the same for the purposes herein expressed.
- c. **No public access or use.** No right of access or use of the Van Tassel Property is granted to the general public by this License.

**3. Property Condition.** On completion of construction of the Project, BCWD will restore the Van Tassel Property to materially the same condition as existed prior to the commencement of construction, except to the degree that the Van Tassel Property is improved by the Project. In the event the Van Tassel Property is damaged by the activities of BCWD or its contractors, agents or assigns pursuant to the exercise of any of BCWD's rights under this agreement, BCWD will promptly repair or restore the Van Tassel Property to the extent reasonably practicable or to a condition agreed to by BCWD and

Van Tassels. BCWD will repair, seed or plant disturbed or damaged areas with vegetation suitable for Van Tassels' intended uses of the Van Tassel Property. Van Tassels agree and acknowledge that BCWD will not be responsible for any preexisting conditions on the Van Tassel Property, environmental or otherwise, or for any damage to the Van Tassel Property or liability arising out of or related to such preexisting conditions.

**4. BCWD's ongoing specific rights and duties.** In addition to its rights and responsibilities for fulfillment of the terms of this agreement as provided herein, BCWD has rights and duties as follows:

- a. BCWD will contract with the BCWD engineer for construction oversight and otherwise manage the implementation of the Project in accordance with the design and plans in Exhibit A.
- b. In contracting for the construction of the Project, BCWD will require that:
  - i. The contractor restrict all of its activities to the Construction Area of the Van Tassel Property as specified in section 2 herein.
  - ii. The contractor name the Van Tassels as an additional insured for general liability with primary and noncontributory coverage and provide a certificate showing same prior to start of construction.
  - iii. The contractor indemnify, defend and hold harmless the Van Tassels from any and all actions, costs, damages and liabilities of any nature arising from the contractor's negligent or otherwise wrongful act or omission, or breach of a specific contractual duty, or a subcontractor's negligent or otherwise wrongful act or omission, or breach of a specific contractual duty owed by the contractor to BCWD.
  - iv. The contractor extend all warranties applicable to the Van Tassel Property to the Van Tassels.
  - v. The contractor assess the need for and obtain all permits and other regulatory approvals applicable to the Project on behalf of BCWD and the Van Tassels.
- c. BCWD will notify Van Tassels at least 10 calendar days prior to commencement of construction of the Project, and within 10 days of substantial completion of construction. (For purposes of this agreement and the Project generally, "substantial completion" is defined as completion of all elements of the Project as described herein for the intended purposes of the Project, except establishment and maintenance of vegetation, and implementation of the Maintenance Plan, as specified and defined in paragraph 6c herein, all of which will continue after substantial completion.)
- d. BCWD will consult with Van Tassels in advance of making any material change in the design and plans in Exhibit A.

- e. BCWD will provide Van Tassels with as-built drawings of the portion of the Project on the Van Tassel Property and a draft Maintenance Plan within 60 days of substantial completion of construction.
  - f. BCWD will commence performance or contract for the performance of maintenance of the Project on receipt of the executed Maintenance Easement and approval of a draft of the Maintenance Plan, both as specified and defined in paragraphs 6b and 6c herein. As between BCWD and Van Tassels, BCWD will retain responsibility for establishment of vegetation and implementation of the Maintenance Plan.
  - g. Until substantial completion of the Project, if BCWD, in its judgment, should decide that the Project is infeasible, BCWD, at its option, may declare the agreement rescinded and annulled. If BCWD so declares, all obligations herein, performed or not, will be void and, if land-disturbing activities for the Project have commenced, BCWD will return the Van Tassel Property materially to its prior condition or to a condition agreed to in writing by Van Tassels and BCWD.
5. **Van Tassels' ongoing specific rights and duties.** In addition to its rights and responsibilities for fulfillment of the terms of this agreement as provided herein, Van Tassels have rights and duties as follows:
- a. Van Tassels will cooperate with efforts undertaken by BCWD and its contractors to obtain permits and approvals needed for the Project, and by their execution below Van Tassels authorize BCWD to apply for such permits and approvals on their behalf.
  - b. *Commitment to execute maintenance easement.* When BCWD notifies the Van Tassels of substantial completion of construction of the Project and provides Van Tassels with final construction drawing(s) of the portions of the Project on the Van Tassel Property, Van Tassels will attach the final construction drawing(s) provided by BCWD and execute a maintenance easement substantially in the form attached to and incorporated herein as Exhibit C (the Maintenance Easement). The Maintenance Area, as defined in the Maintenance Easement, will not extend outside of the Construction Area as shown in Exhibit B, and the Maintenance Area defined in the Maintenance Easement will encompass no greater area than that described as the Construction Area in this license, as shown in Exhibit B.
  - c. *Review and approval of the Maintenance Plan.* In accordance with paragraphs 4e and 4f, BCWD will timely provide a draft of the Maintenance Plan to Van Tassels for their cooperation in the development of the Maintenance Plan. In addition, Van Tassels will have 60 days from receipt to review and approve the final draft Maintenance Plan submitted in accordance with paragraph 4f herein. Failure to act within the specified time will constitute approval. Van Tassels' approval will not be unreasonably withheld.

6. **Costs.** As between the parties, BCWD will be responsible for all costs of design, specification, construction, construction oversight and management for the Project, and development and implementation of the Maintenance Plan. Van Tassels will dedicate the License and the Maintenance Easement pursuant to the terms of this agreement at no cost to BCWD. In addition, the parties each will bear their own incidental costs of determination and completion of their responsibilities and exercise of their rights hereunder.

7. **Insurance.** BCWD will require its contractors, agents, successors and assigns to carry commercial general liability coverage for injury to or death of a person or persons and for damage to property caused by the performance of the Project. Van Tassels will remain solely responsible for maintaining liability and other insurance for their own use of and authority over the Van Tassel Property.

8. **Term.** The License granted hereunder will expire two years from the date of execution of this agreement or on recordation in the office of the Washington County Recorder by BCWD of the Maintenance Easement, whichever occurs sooner. Van Tassels may revoke the License prior to its expiration only on written concurrence of BCWD. All other rights, obligations and duties hereunder will survive termination of the License, including but not limited to Van Tassels' obligation under paragraph 6b hereunder.

9. **Delivery of Notices.** All notices required or permitted under this agreement will be in writing and will be deemed delivered when personally delivered, delivered by documented courier delivery or mailed by United States registered or certified mail, return receipt requested, at the address below or to such other address as a party may designate by a written notice to the other.

If to Van Tassels: Beltram H. and Barbara Van Tassel  
13093 McKusick Road North  
Stillwater, MN

If to BCWD: Brown's Creek Watershed District  
Attn: Administrator  
455 Hayward Ave North  
Oakdale, MN 55128  
KKill@mnwcd.org  
651-330-8220

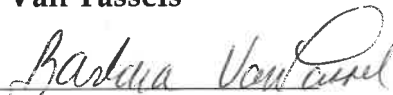
10. **Severability.** If any one or more of the provisions of this agreement, or the applicability of any such provision to a specific situation, is held invalid or unenforceable, such provision will be modified to the extent necessary to make it or its application valid and enforceable, and the validity and enforceability of all other provisions of this agreement and all other applications of any such provision will not be affected thereby.


11. **Venue; governing law.** Venue for any adjudication arising from this agreement will be in the district court of Washington County, Minnesota, and the agreement will be construed and governed by the laws of the State of Minnesota.

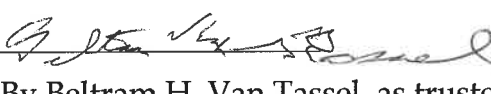
12. **No waiver of immunity.** No provision of this agreement will be interpreted as a waiver of any statutory or common-law immunity by or limitation of liability available to BCWD, all such immunities and limitations being expressly reserved by BCWD.

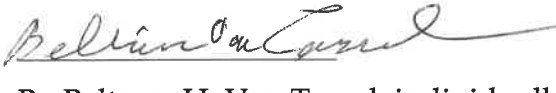
IN WITNESS WHEREOF, the undersigned have executed this agreement with the intent to be legally bound by its terms as of the date this agreement is fully executed by both parties.

**Van Tassels**

 Date: 2/22/24  
By Barbara Van Tassel, as trustee of the Beltram H. Van Tassel Revocable Trust

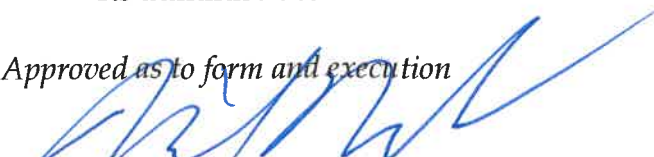
 Date: 2/22/24  
By Barbara Van Tassel, individually

 Date: 2/22/24  
By Beltram H. Van Tassel, as trustee of the Beltram H. Van Tassel Revocable Trust

 Date: 2/22/24  
By Beltram H. Van Tassel, individually

**Brown's Creek Watershed District**

 Date: 3/19/24  
By Karen Kill  
Its administrator

Approved as to form and execution  
  
BCWD counsel

**EXHIBIT A**

**Project Design & Plans**



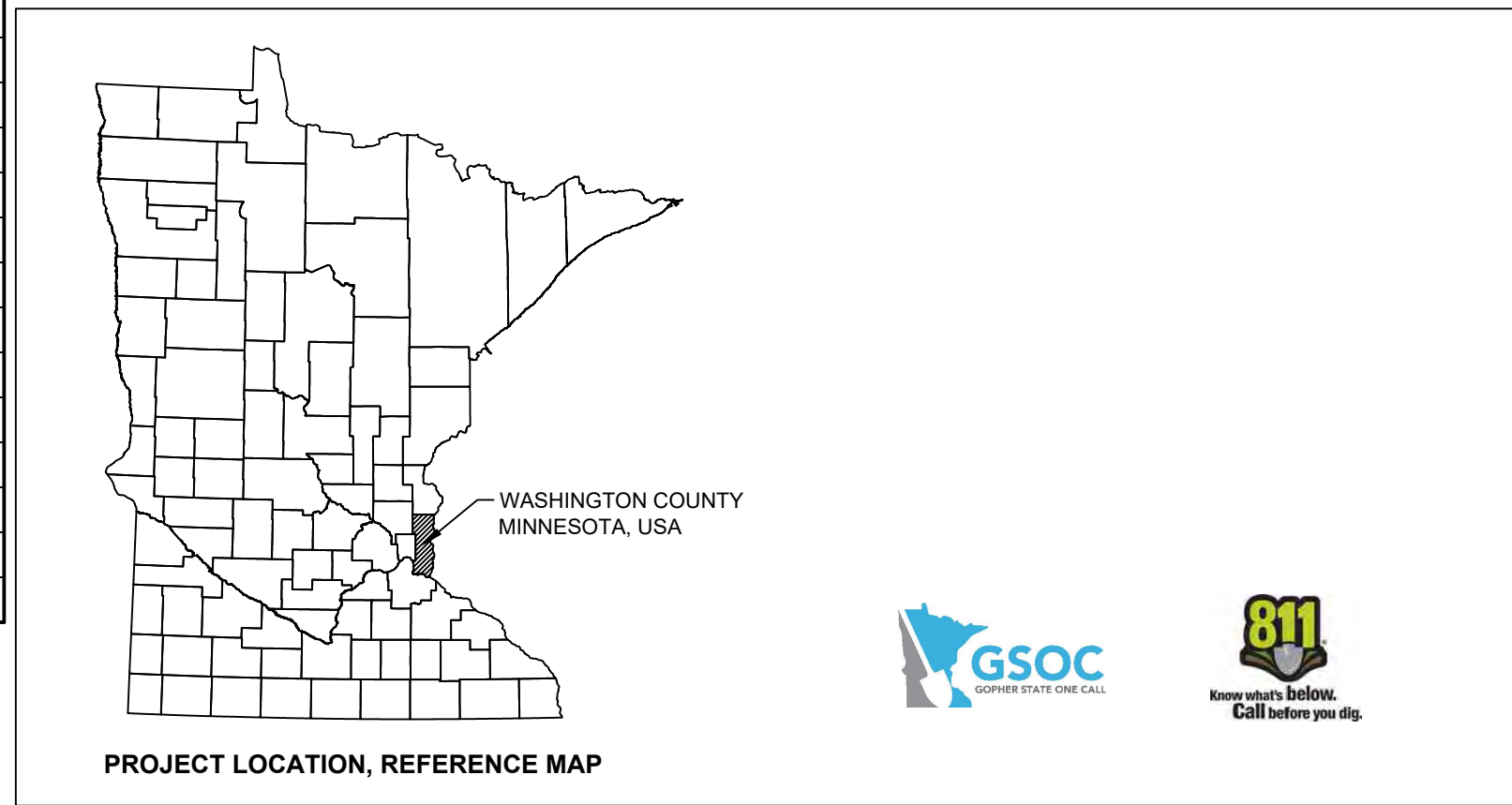
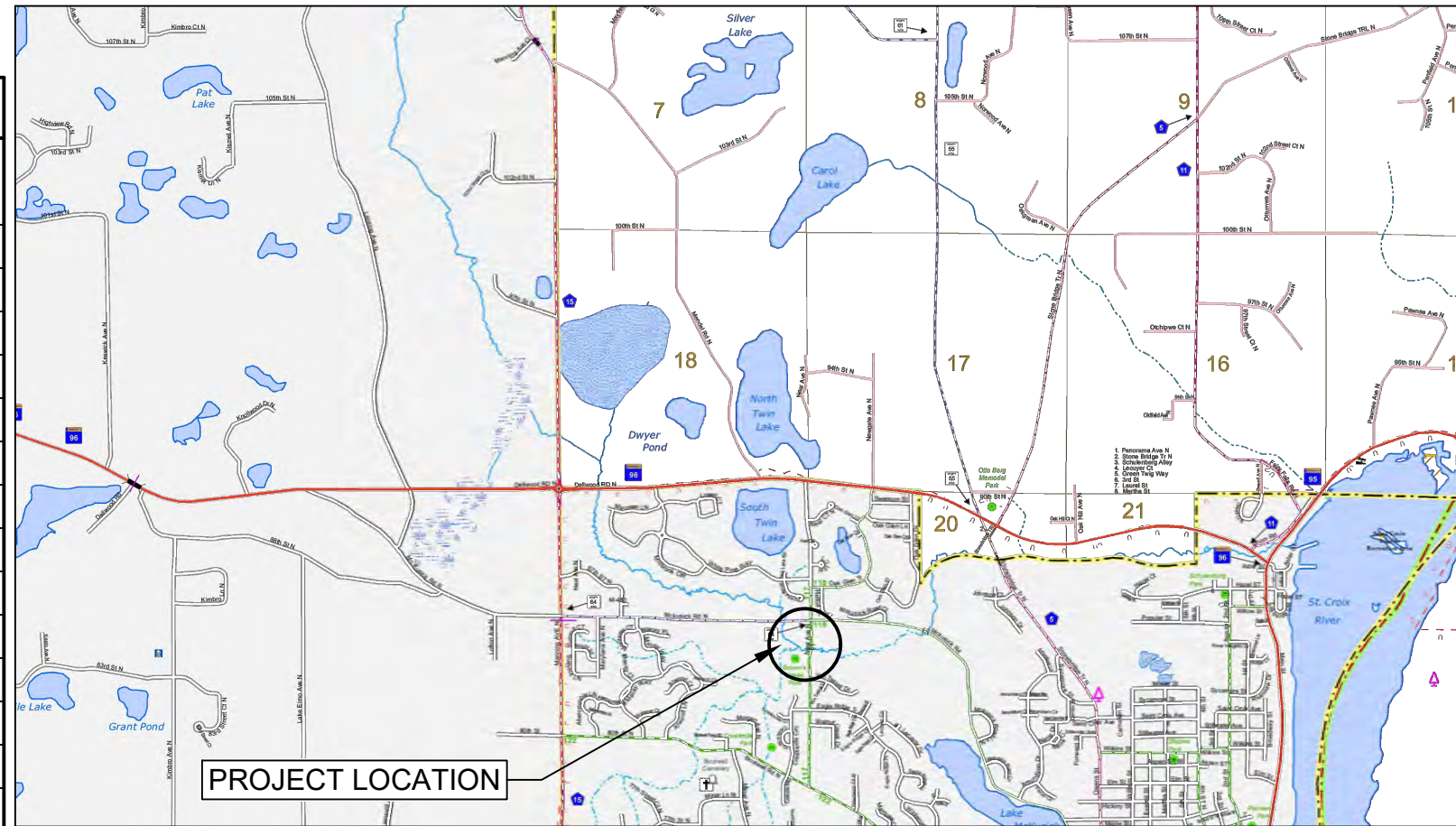
# BROWN'S CREEK WATERSHED DISTRICT BROWN'S CREEK PARK STREAM RESTORATION

WASHINGTON COUNTY, STILLWATER, MN

95% DESIGN PLAN SET

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### GENERAL NOTES

#### EXISTING UTILITIES

THE LOCATION OF UNDERGROUND FACILITIES AND/OR STRUCTURES AS SHOWN ON THE PLANS ARE BASED ON AVAILABLE RECORDS AT THE TIME THE PLANS WERE PREPARED AND ARE NOT GUARANTEED TO BE COMPLETE OR CORRECT.

THE SUBSURFACE UTILITY INFORMATION SHOWN IS UTILITY QUALITY LEVEL D, AS DETERMINED USING THE GUIDELINES OF "C/ASCE 38-02 STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITIES 72 HOURS PRIOR TO CONSTRUCTION TO DETERMINE THE EXACT LOCATION OF ALL FACILITIES AND TO PROVIDE ADEQUATE PROTECTION OF SAID UTILITIES DURING THE COURSE OF WORK.

#### CONSTRUCTION NOTE

CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO MAINTAIN OPERATION OF EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT. IN THE EVENT THAT AN INTERRUPTION OF SERVICE IS UNAVOIDABLE IN ORDER TO COMPLETE THE WORK, CONTRACTOR SHALL PROVIDE ADEQUATE NOTIFICATION TO ALL AFFECTED ENTITIES A MINIMUM OF 3 WORKING DAYS IN ADVANCE OF ANY INTERRUPTION.

#### GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING FIELD MANUAL FOR TEMPORARY CONTROL ZONE LAYOUTS.

#### GOPHER STATE ONE-CALL

IT IS THE LAW THAT ANYONE EXCAVATING AT ANY SITE MUST NOTIFY GOPHER STATE ONE CALL (GSOC) SO THAT UNDERGROUND ELECTRIC, NATURAL GAS, TELEPHONE OR OTHER UTILITY LINES CAN BE MARKED ON OR NEAR YOUR PROPERTY BEFORE ANY DIGGING BEGINS. A 48-HOUR NOTICE, NOT INCLUDING WEEKENDS, IS REQUIRED. CALLS CAN BE MADE TO GSOC AT 1-800-252-1166 OR (651) 454-0002, MONDAY THROUGH FRIDAY (EXCEPT HOLIDAYS) FROM 7 A.M. TO 5 P.M.

PROJECT LOCATION, REFERENCE MAP

**NOT FOR CONSTRUCTION**



| DATE       | NO. | DESCRIPTION         |
|------------|-----|---------------------|
| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
|            | 2   |                     |
|            | 3   |                     |
|            | 4   |                     |
|            | 5   |                     |
|            | 6   |                     |

DESIGNED BY: EOR  
DRAWN BY: DEM  
CHECKED BY: MJM



EOR JOB #0041-0418 CLIENT PROJECT #XXX-XXXX

### BROWN'S CREEK PARK STREAM RESTORATION

WASHINGTON COUNTY, STILLWATER, MN

BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

TITLE SHEET

SHEET 01 OF 28

Plot Date: 12/04/2023  
Drawing Name: \\s01\041\_BCM\0418\_Brown's\_Ck\_Pk\_Restoration\_GNIS\041\_0418-CD.dwg  
User: jmorris  
Title: SURFACE  
40041\_0418-XBASE  
40041\_0418-FBASE  
40041\_0418-LBASE  
Sheet Border: images...images\811...images\BCVD\_bgp\_x\_clients\_wd041\_browns\_ck\_pk\_restoration\_gnis\0418\_2019

GENERAL SITE WORK NOTES

- 1. TOPOGRAPHIC SURVEY CONDUCTED DECEMBER 12, 2022 BY EOR, INC. SURVEY CONDUCTED USING THE WASHINGTON COUNTY COORDINATES SYSTEM, US SURVEY FEET, ELEVATIONS IN NAVD88 VERTICAL DATUM.
2. VERIFY HORIZONTAL LOCATION AND ELEVATION WHERE A CONNECTION TO EXISTING SITE FEATURE IS TO BE MADE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR VARIATIONS FROM THE PLANS.
3. REFERENCE TO MNDOT SPECIFICATIONS SHALL MEAN DIVISIONS II AND III OF THE 2020 SPECIFICATIONS FOR CONSTRUCTION.
4. A CONSTRUCTION STAGING PLAN SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR FOR REVIEW BY THE PROJECT ENGINEER FOR ANY DELIVERY & TEMPORARY STORAGE OF MATERIALS. CONTRACTOR SHALL ALSO SUBMIT FOR APPROVAL A CONSTRUCTION PHASING AND SCHEDULE OUTLINE.
5. ALL CONSTRUCTION WORK SHALL BE COMPLETED WITHIN CITY APPROVED WORKING HOURS.
6. PROPOSED WORK MUST BE IN COMPLIANCE WITH ANY AND ALL CITY, COUNTY AND STATE RULES. CONTRACTOR IS EXPECTED TO OBTAIN ANY REQUIRED PERMITS BEYOND DNR PUBLIC WATERS, WATERSHED DISTRICT AND U.S. ARMY CORPS PERMITS.
7. A PRE-CONSTRUCTION MEETING WILL BE REQUIRED WITH ENGINEER PRIOR TO ANY MOBILIZATION OF CONSTRUCTION EQUIPMENT OR MATERIAL.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY AND STAKING, AS NECESSARY, TO MATCH THE GRADES AND ELEVATIONS DETAILED IN THESE PLANS AND SPECIFICATIONS.
9. CONTRACTOR SHALL ASSURE COMPLIANCE WITH APPLICABLE CODES AND REGULATIONS GOVERNING THE WORK AND MATERIALS SUPPLIED.
10. CONTRACTOR IS RESPONSIBLE FOR ONGOING MAINTENANCE OF NEWLY INSTALLED MATERIALS UNTIL TIME OF SUBSTANTIAL COMPLETION. REPAIR OF ACTS OF VANDALISM OR DAMAGE THAT MAY OCCUR PRIOR TO SUBSTANTIAL COMPLETION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
11. SCHEDULES TAKE PRECEDENCE OVER GRAPHICAL ELEMENTS IF DISCREPANCIES IN QUANTITIES EXIST. SPECIFICATIONS DETAILS TAKE PRECEDENCE OVER NOTES AND DETAILS.
12. EQUIPMENT SHALL HAVE A THUMB ATTACHMENT FOR INSTALLATION OF INSTREAM STRUCTURES.

SITE DEMOLITION & REMOVAL NOTES

- 1. ALL VEGETATION REMOVAL INCLUDING SOD, WINDFALL/DEADFALL, TREES < 6 INCH DBH, AND BRUSH REMOVAL SHALL BE CONSIDERED INCIDENTAL TO SITE CLEARING. ALL WOOD MATERIAL NOT USED FOR THE PROJECT MAY BE CHIPPED ONSITE.

GENERAL UTILITY NOTES

- 1. CONTRACTOR SHALL CONTACT 'GOPHER STATE ONE CALL' WITHIN TWO WORKING DAYS PRIOR TO EXCAVATION/CONSTRUCTION FOR UTILITY LOCATIONS.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND INVERTS, SHOWN OR NOT SHOWN. ANY DISCREPANCY BETWEEN PLANS AND FIELD CONDITIONS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL PUBLIC AND PRIVATE UTILITIES FOR LOCATIONS OF UNDERGROUND WIRES, CABLES, CONDUITS, PIPES, MANHOLES, VALVES, OR OTHER BURIED STRUCTURES BEFORE COMMENCING CONSTRUCTION ACTIVITIES.
4. CONTRACTOR SHALL IMMEDIATELY CONTACT AFFECTED UTILITY COMPANIES TO REPORT ANY DAMAGE OF UTILITIES. CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE WHEN DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.

CONSTRUCTION LIMITS AND ACCESS

- 1. CONSTRUCTION SHALL BE LIMITED TO THE LIMITS OF DISTURBANCE NOTED ON PLAN SHEETS, EXCEPT AS APPROVED BY THE PROJECT ENGINEER AND OWNER. DISTURBANCE WITHIN THE CONSTRUCTION LIMITS SHALL BE FURTHER LIMITED TO THE GREATEST EXTENT PRACTICABLE TO MINIMIZE IMPACTS TO THE RIPARIAN CORRIDOR.
2. DISTURBANCE WITHIN THE CONSTRUCTION LIMITS AS WELL AS ACCESS ROUTES TO THE CONSTRUCTION LIMITS, MATERIAL STOCKPILE LOCATIONS, AND OTHER ACTIVITIES OUTSIDE OF THE CONSTRUCTION LIMITS SHALL BE PROPOSED BY THE CONTRACTOR IN WRITING (PLAN AND SKETCH), AND APPROVED BY THE PROJECT ENGINEER AND OWNER.
3. ANY DISTURBANCE OUTSIDE OF AREAS APPROVED FOR DISTURBANCE WITHIN THE CONSTRUCTION LIMITS AND APPROVED ACCESS ROUTES AND STOCKPILE LOCATIONS ARE TO BE REPAIRED BY THE CONTRACTOR, PER THE DISCRETION OF THE PROJECT ENGINEER OR OWNER AT THE COST OF THE CONTRACTOR.
4. PUBLIC INFRASTRUCTURE AND PRIVATE IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING: ROADWAY SURFACES, BRIDGES AND ABUTMENTS, DRIVEWAYS, FENCES, AND STRUCTURES ARE TO BE PROTECTED BY THE CONTRACTOR AT THE COST OF THE CONTRACTOR. ANY DAMAGES SHALL BE REPAIRED PER THE DISCRETION OF THE PROJECT ENGINEER OR OWNER AT THE COST OF THE CONTRACTOR.
5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR OBTAINING ANY REQUIRED TRAFFIC CONTROL, RIGHT OF WAY, AND/OR ACCESS PERMITS.

CONSTRUCTION SEQUENCING

- 1. CONSTRUCTION WORK SHALL COMMENCE UPSTREAM AND PROGRESS DOWNSTREAM TO LIMIT TEMPORARY SEDIMENT IMPACTS TO THE PROJECT DESIGN. HOWEVER, ANY CHANNEL BED MODIFICATIONS (I.E. GRADE ADJUSTMENTS) MUST BE COMPLETED PRIOR TO BANK GRADING AND HABITAT INPUTS.
2. SUBSTANTIAL COMPLETION OF ALL INSTREAM WORK SHALL BE COMPLETED PER MNDNR REQUIREMENTS, WITH NO INSTREAM WORK CONDUCTED BETWEEN SEPTEMBER 1 - APRIL 1.
3. HYDROMULCH SHALL BE INSTALLED WITHIN 24 HOURS OF FINAL GRADING.

TREE PROTECTION AND HARVEST

- 1. SITE CLEARING FOR ACCESS ROUTES AND RESHAPING OF STREAMBANKS TO INCLUDE HARVEST OF TREES FOR TOEWOOD, BRUSH/LOG TOE, ROOTWADS, AND TREE TRUNKS. TREES HARVESTED IN THESE AREAS SHALL BE REMOVED WHOLE WITH THE ROOT BOLE ATTACHED. TREES TO REMAIN WITHIN THESE AREAS WILL BE IDENTIFIED IN THE PLANS OR WILL BE MARKED IN THE FIELD BY THE PROJECT ENGINEER AND SHALL BE PROTECTED.
2. TREE HARVEST OUTSIDE OF ACCESS ROUTES AND STREAMBANK RESHAPING AREAS WILL BE DIRECTED BY THE PROJECT ENGINEER AND OWNER. ALL TREES TO BE HARVESTED OUTSIDE OF CONSTRUCTION LIMITS AND ACCESS ROUTES SHALL BE CLEARLY MARKED BY THE PROJECT ENGINEER AND OWNER. EXISTING TREES OUTSIDE OF CONSTRUCTION LIMITS AND ACCESS ROUTES SHALL BE PROTECTED UNLESS MARKED TO BE HARVESTED. ALL TREES NOT MARKED FOR REMOVAL SHALL BE LEFT STANDING UNDISTURBED.
3. TREE HARVEST SHALL NOT DEBARK OR DAMAGE TREES TO REMAIN. KEEP CONSTRUCTION EQUIPMENT OUT OF DRIP LINE OF EXISTING TREES TO LIMIT SOIL COMPACTION AROUND THE ROOT SYSTEM.
4. QUESTIONS REGARDING EXISTING TREES, SHRUBS, OR OTHER VEGETATION SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER PRIOR TO REMOVAL.
5. CONTRACTOR SHALL CHIP OR BURY UNUSED SMALLER TREE AND BRUSH DEBRIS AT THE COMPLETION OF THE PROJECT UNLESS OTHERWISE DIRECTED.

ROCK SIZE / TYPE SPECIFICATIONS

- 1. ALL ROCK, RIPRAP, AND BOULDERS SHALL BE CRUSHED / ANGULAR GRANITE MEETING MNDOT 3601.2 SPECIFICATIONS.
2. RIPRAP BOULDER TOE APPLICATIONS SHALL BE CLASS III (GRADATION SHOWN IN THE FOLLOWING TABLE):

Table with 2 columns: SIZE INCH (A), APPROX. % OF TOTAL MASS SMALLER THAN GIVEN MASS. Rows include sizes 18, 12, 9, 3 and their corresponding percentages (100, 75, 50, 10). Includes a note: (A) MASS TO APPROXIMATE SIZE CONVERSION BASED ON A SPECIFIC GRAVITY OF 2.60 AND VOLUME AVERAGE BETWEEN A SPHERE AND A CUBE.

GRADING & EROSION CONTROL NOTES

- 1. ACCEPTANCE OF INSTALLED PERIMETER EROSION CONTROL AND CONSTRUCTION ENTRANCE MUST BE MADE BEFORE BEGINNING SITE GRADING ACTIVITIES. SOME TEMPORARY EROSION CONTROL MEASURES MAY BE INSTALLED AS GRADING OCCURS IN THE SPECIFIC AREA. MAINTAIN EROSION CONTROLS THROUGHOUT THE GRADING PROCESS AND REMOVE UPON APPROVAL OF ENGINEER.
2. ALL EXPOSED SOIL AREAS WITHIN 100 FEET OF A WATER OF THE STATE OR ANY STORMWATER CONVEYANCE SYSTEM WHICH IS CONNECTED TO A WATER OF THE STATE MUST BE STABILIZED WITHIN 7 DAYS (STEEPER THAN 3:1 SLOPES), 14 DAYS (FLATTER THAN 3:1 SLOPES). STABILIZE THE LAST 200 LINEAL FEET OF DRAINAGE DITCH OR SWALES WITHIN 24 HOURS OF CONNECTION TO SURFACE WATER OR PROPERTY EDGE. PROVIDE A 50 FOOT NATURAL BUFFER OR, IF BUFFER IS INFEASIBLE, PROVIDE A DOUBLE ROW OF SEDIMENT CONTROLS SPACED AT LEAST 5 FEET APART WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF LAND DISTURBANCE AND STORMWATER FLOWS TO THE SURFACE WATER.
3. ALL CONSTRUCTION ENTRANCES SHALL BE SURFACED WITH CRUSHED ROCK (OR APPROVED EQUAL) ACROSS FULL WIDTH FROM ENTRANCE POINT TO 50 FEET INTO THE CONSTRUCTION ZONE. SEE DETAIL.
4. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH NPDES AND STATE PERMITS.
5. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES, INCLUDING THE REMOVAL OF ACCUMULATED SILT IN FRONT OF TEMPORARY EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL RE-ESTABLISH ANY EXISTING EROSION CONTROL DISTURBED BY CONSTRUCTION.
6. CONTRACTOR SHALL PROVIDE ADDITIONAL TEMPORARY EROSION CONTROL MEASURES AS REQUIRED FOR CONSTRUCTION OR AS REQUIRED BY ENGINEER AND SHALL BE INCIDENTAL TO THE CONTRACT.
7. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES UPON APPROVAL OF ENGINEER.
8. THE CONTRACTOR SHALL REMOVE ALL SOILS AND SEDIMENT TRACKED ONTO EXISTING ROADS WITHIN 24 HOURS OF DISCOVERY OR REQUESTED BY ENGINEER AND SHALL BE INCIDENTAL TO THE CONTRACT.
9. INSPECT EROSION CONTROL DEVICES AFTER EACH RAINFALL PER MNDOT SPECIFICATION AND SPECIAL PROVISIONS. IMMEDIATELY REPAIR FAILED OR FAILING EROSION CONTROL DEVICES.
10. INSPECT THE ENTIRE CONSTRUCTION SITE A MINIMUM OF ONCE EVERY 7 DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.
11. MINIMIZE DISTURBANCE TO THE EXTENT FEASIBLE. DISTURBANCE OUTSIDE OF CONSTRUCTION LIMITS SHALL BE RESTORED TO PRE CONSTRUCTION CONDITIONS AT THE COST OF THE CONTRACTOR.
12. SEE MNDOT SPEC 2112, EARTHWORK, SUBGRADE, AND SUBBASE FOR ALL EXCAVATION RELATED WORK AND QUALITY CONTROL.
13. REVIEW SPECIAL PROVISIONS FOR MODIFICATIONS TO MNDOT SPECIFICATIONS.
14. EARTHWORK ASSUMPTIONS
A. SEE CONTRACT DOCUMENTS FOR INCLUSIONS, INCLUDING BUT NOT LIMITED TO MEASUREMENT & PAYMENT.
B. ALL QUANTITIES ARE PLAN (P) QUANTITIES.
15. LIST OF BMP'S FOR THE PROJECT INCLUDE THE FOLLOWING:
15.1. INSTREAM FLOATING SILT CURTAIN AT DOWNSTREAM END OF PROJECT
15.2. RAPID STABILIZATION (72 HOURS FROM INITIAL GRADING DISTURBANCE TO FINAL GRADING AND SOIL STABILIZATION)
15.3. FLAT BANKFULL BENCH WITH HYDROMULCH TO CAPTURE BOTH UPGRADIENT SEDIMENT & OVERBANK FLOOD SEDIMENT DEPOSITION (GEOMORPHIC SLOPE SEDIMENT BMP)
15.4. CRIMPED STRAW MULCH OR VERTICAL CAT TRACKING ON SLOPES ABOVE FLAT BANKFULL BENCH (2) ROWS OF STRAW MATS SPACED 5 FEET APART ON STEEP SLOPES IF VERTICAL CAT TRACKING AND FLAT BENCH IS NOT FEASIBLE
15.6. PRESERVATION OF DOWNGRADIENT PERENNIAL VEGETATION ON EXISTING STEEP SLOPES WHERE GRADING IS NOT PROPOSED

GENERAL LANDSCAPE NOTES

- 1. CONTRACTOR SHALL INSPECT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS RELATING TO THE NATURE AND SCOPE OF WORK.
2. CONTRACTOR SHALL VERIFY PLAN LAYOUT AND BRING TO THE ATTENTION OF THE ENGINEER DISCREPANCIES WHICH MAY COMPROMISE THE DESIGN OR INTENT OF THE LAYOUT.
3. CONTRACTOR SHALL ASSURE COMPLIANCE WITH APPLICABLE CODES AND REGULATIONS GOVERNING THE WORK AND MATERIALS SUPPLIED.
4. CONTRACTOR SHALL PROTECT EXISTING ROADS, TRAILS, TREES, AND SITE ELEMENTS DURING CONSTRUCTION OPERATIONS. DAMAGE TO SAME SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER.
5. CONTRACTOR IS RESPONSIBLE FOR ONGOING MAINTENANCE OF NEWLY INSTALLED MATERIALS THROUGHOUT THE LENGTH OF THE PROJECT. REPAIR OF ACTS OF VANDALISM OR DAMAGE WHICH MAY OCCUR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. EXISTING TREES OR SIGNIFICANT SHRUB MASSINGS FOUND ON SITE SHALL BE PROTECTED AND SAVED UNLESS NOTED TO BE REMOVED OR ARE LOCATED IN AN AREA TO BE GRADED. QUESTIONS REGARDING EXISTING PLANT MATERIAL SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO REMOVAL. CONTRACTOR SHALL WALK THE SITE WITH THE ENGINEER PRIOR TO SITE REMOVALS AND GRADING TO DETERMINE EXACT CONSTRUCTION LIMITS.
7. ALL WOODY INVASIVE PLANTS THAT OCCUR WITHIN THE CONSTRUCTION LIMITS, INCLUDING BUT NOT LIMITED TO, COMMON BUCKTHORN (RHAMNUS CATHARTICA), GLOSSY BUCKTHORN (FRANGULA ALNUS), SIBERIAN ELM (ULMUS PUMILA), AMUR MAPLE (ACER GINNALA), TATARIAN HONEYSUCKLE (LONICERA TATARICA), MORROW'S HONEYSUCKLE (LONICERA MORROWII), AND BLACK LOCUST (ROBINIA PSEUDOACACIA) SHALL BE CUT, REMOVED, AND THE CUT STUMPS SHALL BE TREATED WITH TRICLOPYR HERBICIDE OR AN APPROVED EQUAL FOR USE IN AQUATIC ENVIRONMENTS. ALTERNATIVELY, THE PLANTS MAY BE UPROOTED USING HEAVY MACHINES (I.E. EXCAVATOR OR DOZER).

VEGETATION ESTABLISHMENT AND IRRIGATION

- 1. LOWER STREAM BANKS, BANKFULL BENCHES AND FLOODPLAIN AREAS SHALL BE SEEDED WITH SPECIFIED SEED MIX (SEE RESTORATION PLAN) AND COVERED WITH HYDROMULCH AT A RATE OF 3,000 LBS PER ACRE. HYDROMULCH SHALL BE MAT INC. SOIL GUARD BONDED FIBER MATRIX OR APPROVED EQUIVALENT. HYDROMULCH SHALL COVER AT A MINIMUM 20' FROM EDGE OF WATER.
2. ALL DISTURBED AREAS OUTSIDE OF BANK SHAPING AREAS AND FLOODPLAINS ARE TO BE SEEDED WITH SPECIFIED SEED MIX (SEE RESTORATION PLAN) AND COVERED WITH WEED-FREE STRAW AT A RATE OF 2 TONS PER ACRE. STRAW MULCH SHALL BE CRIMPED IN IMMEDIATELY AFTER APPLICATION.
3. HYDROMULCH PRODUCTS MAY CONTAIN SMALL PLASTIC FIBERS TO AID IN ITS MATRIX STRENGTH. THESE LOOSE FIBERS COULD POTENTIALLY RE-SUSPEND AND MAKE THEIR WAY INTO PUBLIC WATERS. AS SUCH, PLEASE REVIEW MULCH PRODUCTS AND NOT ALLOW ANY MATERIALS WITH PLASTIC FIBER ADDITIVES.
4. UP TO 9.9 ACRES OF SEED AND SEEDING WILL BE PAID; ADDITIONAL REQUIRED APPLICATION IS INCIDENTAL TO MOBILIZATION AND SITE CLEARING.
5. SEEDING SHALL FOLLOW MNDOT SEEDING MANUAL 2023 EDITION.
6. SEED SHALL BE FROM LOCAL ORIGIN AND WILD ECOTYPE. SEED ORIGIN SHALL BE CERTIFIED BY THE MN CROP IMPROVEMENT ASSOCIATION. LOCAL ORIGIN SHALL MEAN WITHIN 150 MILES OF PROJECT SITE. PROVIDE MCIA DOCUMENTATION TO ENGINEER PRIOR TO SEEDING. ONLY NATIVE SEED WILL BE INSTALLED WITHIN THE PROJECT SITE, EXCEPT FOR COVER CROP.
7. COVER CROP SHALL CONSIST OF REGREEN OR APPROVED EQUAL.
8. SOW SEED MIXES ON DISTURBED AREAS AFTER ALL GRADING AND CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED. SEED SHALL BE WORKED INTO THE SOIL USING A DRAG OR OTHER MECHANICAL DEVICE.
9. IF AREAS OF BARE GROUND PERSIST AFTER FIRST GROWING SEASON, RESEED PER PLAN.

PERMITS

- 1. MINNESOTA DEPARTMENT OF NATURAL RESOURCES, PUBLIC WATERS WORK PERMIT
A. CONTRACTOR SHALL ADHERE TO ALL PERMIT REQUIREMENTS AND WILL BE SUBJECT TO ALL PENALTIES AND FINES FOR NOT ABIDING BY THE PERMIT REQUIREMENTS.
2. UNITED STATES ARMY CORPS OF ENGINEERS PERMIT
A. CONTRACTOR SHALL ADHERE TO ALL PERMIT REQUIREMENTS AND WILL BE SUBJECT TO ALL PENALTIES AND FINES FOR NOT ABIDING BY THE PERMIT REQUIREMENTS.
3. MINNESOTA POLLUTION CONTROL AGENCY, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
A. CONTRACTOR IS RESPONSIBLE FOR SECURING NPDES PERMIT.
B. CONTRACTOR IS RESPONSIBLE FOR ALL SWPPP INSPECTIONS UNTIL SITE IS ESTABLISHED AND THE PERMIT IS CLOSED.
C. CONTRACTOR SHALL ADHERE TO ALL PERMIT REQUIREMENTS AND WILL BE SUBJECT TO ALL PENALTIES AND FINES FOR NOT ABIDING BY THE PERMIT REQUIREMENTS.
4. BROWN'S CREEK WATERSHED PERMITS
A. CONTRACTOR SHALL ADHERE TO ALL PERMIT REQUIREMENTS AND WILL BE SUBJECT TO ALL PENALTIES AND FINES FOR NOT ABIDING BY THE PERMIT REQUIREMENTS.

BASE BID SCHEDULE OF ESTIMATED QUANTITIES

Table with columns: ITEM #, MNDOT Ref #, BASE BID ITEM, UNIT, QUANTITY. Lists 33 items including Mobilization, Traffic Control, Site Clearing, Common Excavation, Riprap, and various seeding and mulching materials.

ADD ALTERNATE - ADA ACCESS TRAIL SCHEDULE OF ESTIMATED QUANTITIES

Table with columns: ITEM #, MNDOT Ref #, BASE BID ITEM, UNIT, QUANTITY. Lists 5 items for ADA Access Trail including Common Excavation, Seat Boulders, Aggregate Base, and Wearing Course Mixture.

Table titled 'BROWN'S CREEK PARK PROPOSED CHANNEL DIMENSIONS' with columns for Bankfull Height, Min. Pool Depth, Min. Riffle Width, Min. Pool Width, Min. Bankfull Bench Width, Streambank/Bankfull Bench Slope, and Upper Bank Slope. Values are 1.8, 2, 9, 9, 10, 3:1, and 3:1.

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Table with columns: DATE, NO., DESCRIPTION. Shows 6 rows of revision history for the design plan set.

DESIGNED BY: EOR
DRAWN BY: DEM
CHECKED BY: MJM
BROWN'S CREEK WATERSHED DISTRICT logo

BROWN'S CREEK PARK STREAM RESTORATION
WASHINGTON COUNTY, STILLWATER, MN
BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

NOTES & SEQ
SHEET 02 OF 28



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 TEL: 651.770.8448 WWW.EORINC.COM

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| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
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 DRAWN BY: DEM  
 CHECKED BY: MJM  
 EOR JOB #0041-0418

**BROWN'S CREEK WATERSHED DISTRICT**  
 CLIENT PROJECT #XXX-XXXX

**BROWN'S CREEK PARK STREAM RESTORATION**  
 WASHINGTON COUNTY, STILLWATER, MN  
 BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

PROJECT OVERVIEW  
 SHEET 03 OF 28

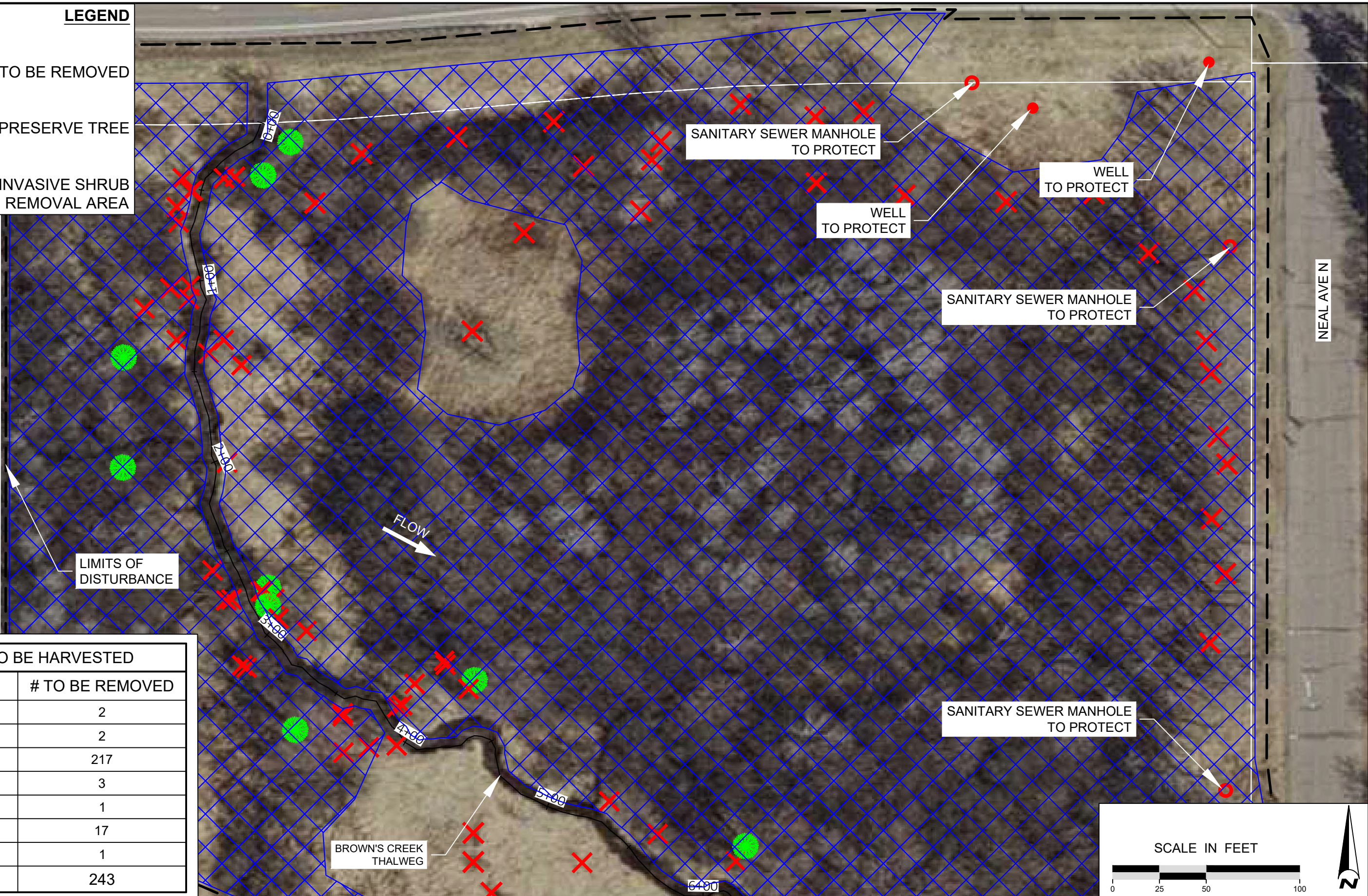
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**LEGEND**

✗ TREE TO BE REMOVED

● PRESERVE TREE

▨ INVASIVE SHRUB REMOVAL AREA



NEAL AVEN

LIMITS OF DISTURBANCE

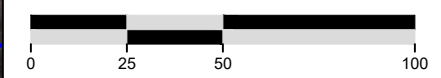
FLOW

BROWN'S CREEK THALWEG

**TREES TO BE HARVESTED**

| TREE TYPE    | # TO BE REMOVED |
|--------------|-----------------|
| AMERICAN ELM | 2               |
| BLACK WILLOW | 2               |
| BOX ELDER    | 217             |
| CRAB APPLE   | 3               |
| COTTONWOOD   | 1               |
| SILVER MAPLE | 17              |
| SPRUCE       | 1               |
| <b>TOTAL</b> | <b>243</b>      |

SCALE IN FEET



**NOT FOR CONSTRUCTION**

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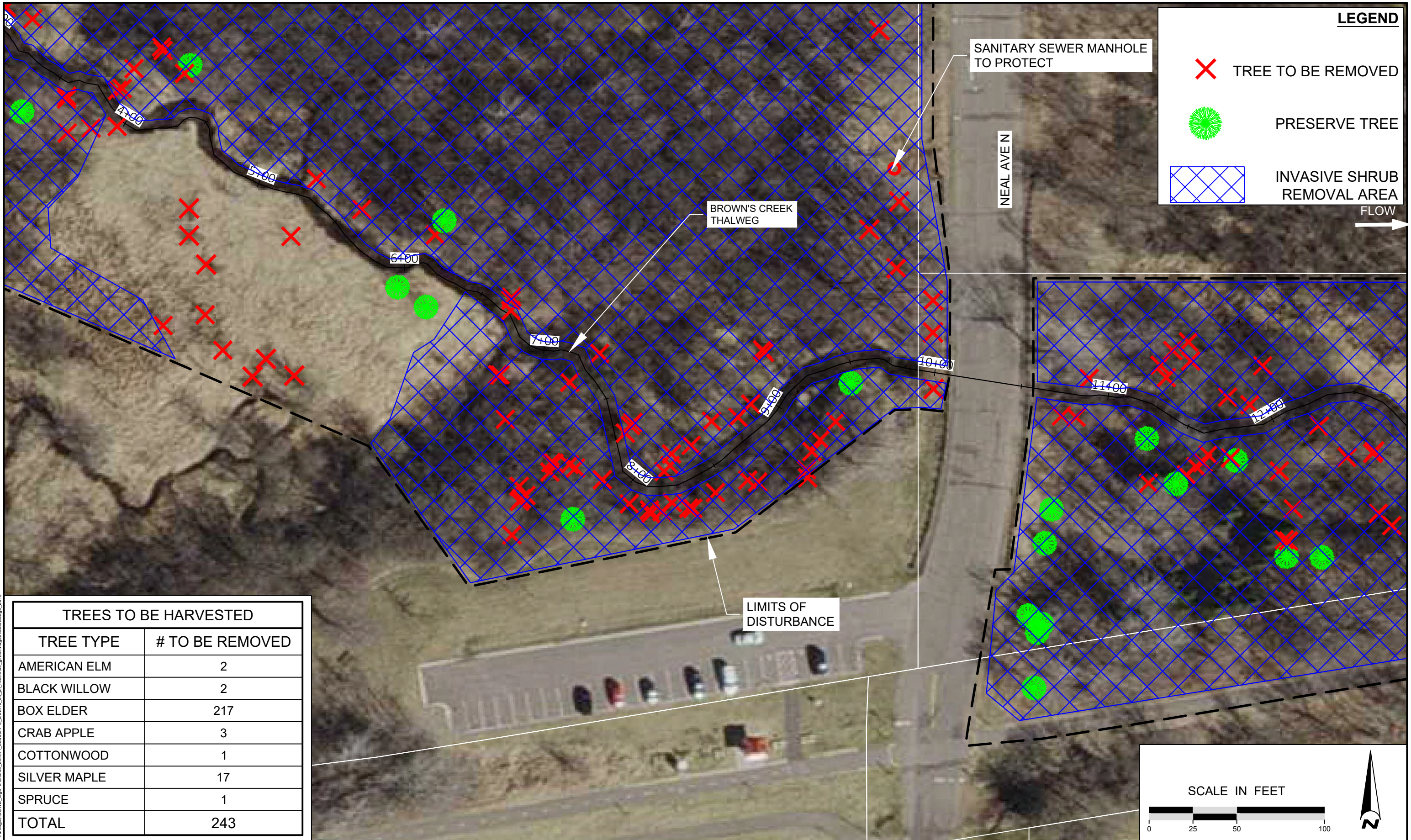
**BROWN'S CREEK PARK  
 STREAM RESTORATION**  
 WASHINGTON COUNTY, STILLWATER, MN  
 BROWN'S CREEK WATERSHED DISTRICT  
 OAKDALE, MN 55128

TREE HARVEST PLAN 1  
 SHEET 04 OF 28

**LEGEND**

-  TREE TO BE REMOVED
-  PRESERVE TREE
-  INVASIVE SHRUB REMOVAL AREA

FLOW 



| TREES TO BE HARVESTED |                 |
|-----------------------|-----------------|
| TREE TYPE             | # TO BE REMOVED |
| AMERICAN ELM          | 2               |
| BLACK WILLOW          | 2               |
| BOX ELDER             | 217             |
| CRAB APPLE            | 3               |
| COTTONWOOD            | 1               |
| SILVER MAPLE          | 17              |
| SPRUCE                | 1               |
| <b>TOTAL</b>          | <b>243</b>      |

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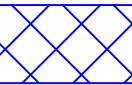
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 STREAM RESTORATION**  
 WASHINGTON COUNTY, STILLWATER, MN  
 BROWN'S CREEK WATERSHED DISTRICT      OAKDALE, MN 55128

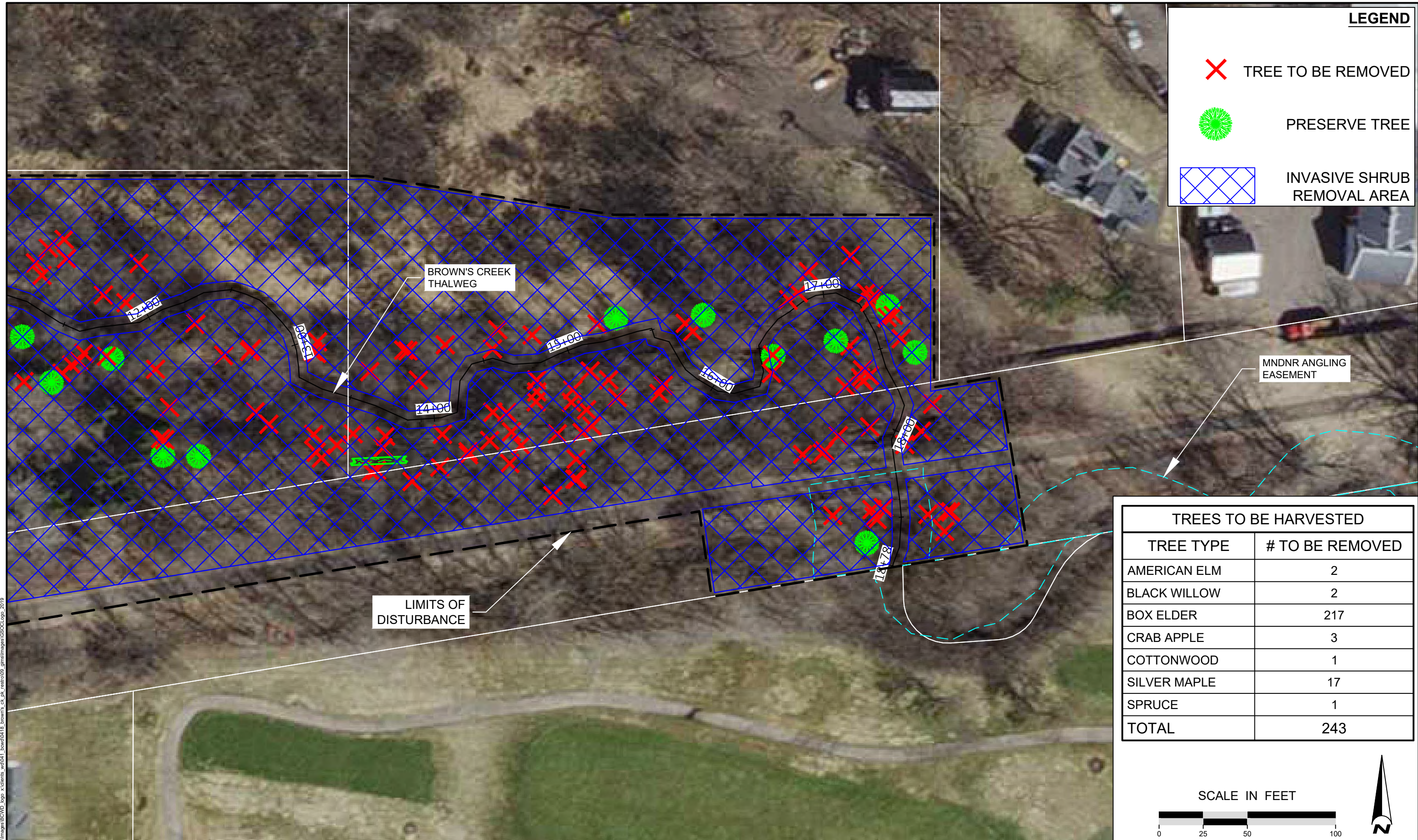
TREE HARVEST PLAN 2  
 SHEET 05 OF 28

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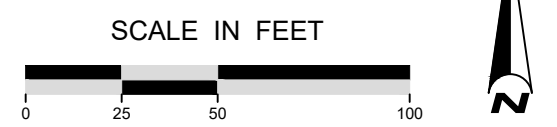
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**LEGEND**

-  TREE TO BE REMOVED
-  PRESERVE TREE
-  INVASIVE SHRUB REMOVAL AREA



| TREES TO BE HARVESTED |                 |
|-----------------------|-----------------|
| TREE TYPE             | # TO BE REMOVED |
| AMERICAN ELM          | 2               |
| BLACK WILLOW          | 2               |
| BOX ELDER             | 217             |
| CRAB APPLE            | 3               |
| COTTONWOOD            | 1               |
| SILVER MAPLE          | 17              |
| SPRUCE                | 1               |
| <b>TOTAL</b>          | <b>243</b>      |



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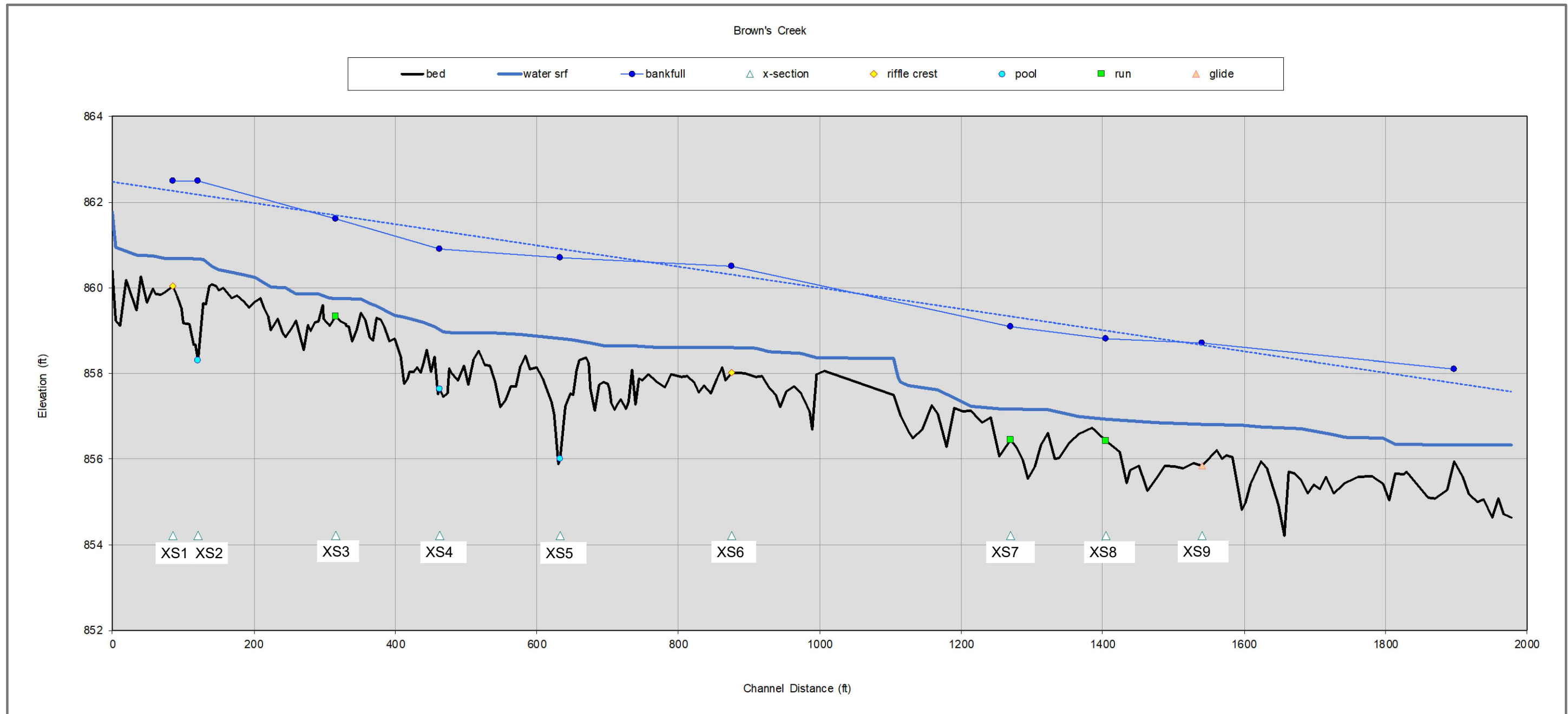
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 CHECKED BY: MJM  
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**BROWN'S CREEK WATERSHED DISTRICT**

**BROWN'S CREEK PARK STREAM RESTORATION**  
 WASHINGTON COUNTY, STILLWATER, MN  
 BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

TREE HARVEST PLAN 3  
 SHEET 06 OF 28



NOTE:  
STREAM AND WATER PROFILE SURVEYED ON DECEMBER 2, 2022

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**BROWN'S CREEK PARK  
 STREAM RESTORATION**  
 WASHINGTON COUNTY, STILLWATER, MN

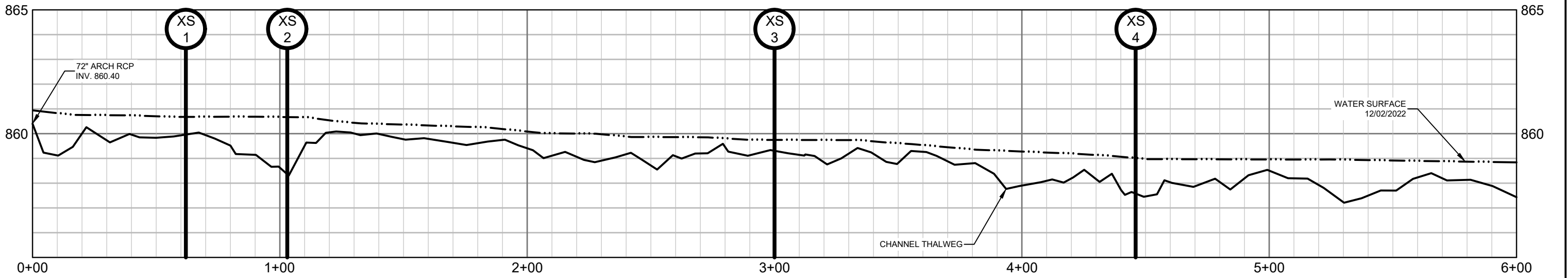
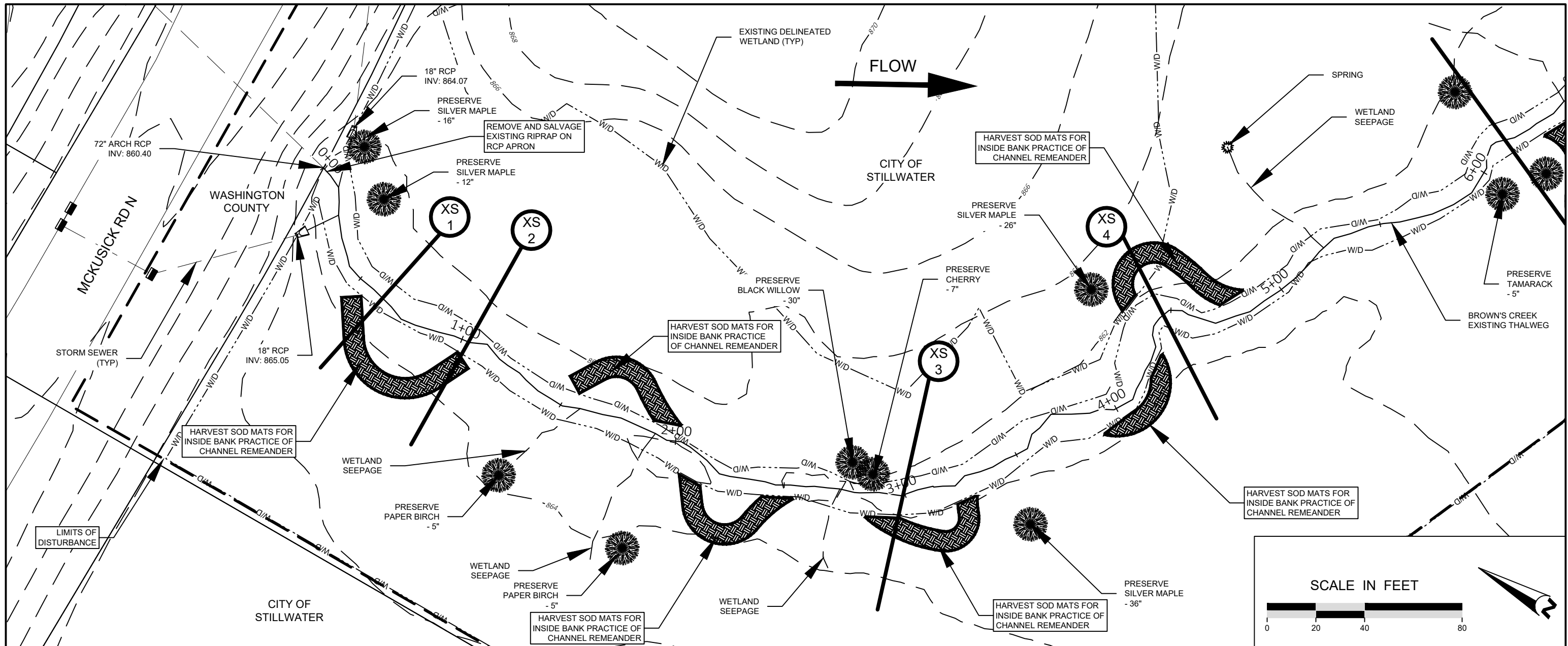
EXISTING STREAM  
 PROFILE

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CLIENT PROJECT #XXX-XXXX

BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

SHEET 07 OF 28



**NOT FOR CONSTRUCTION**



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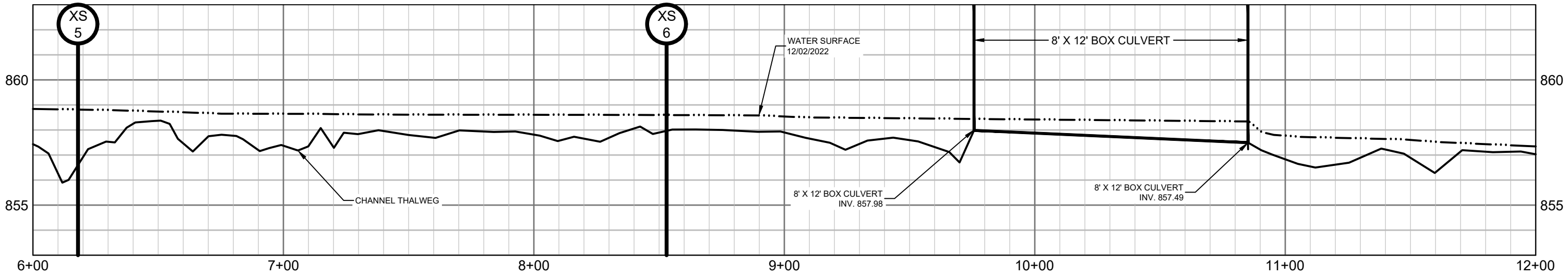
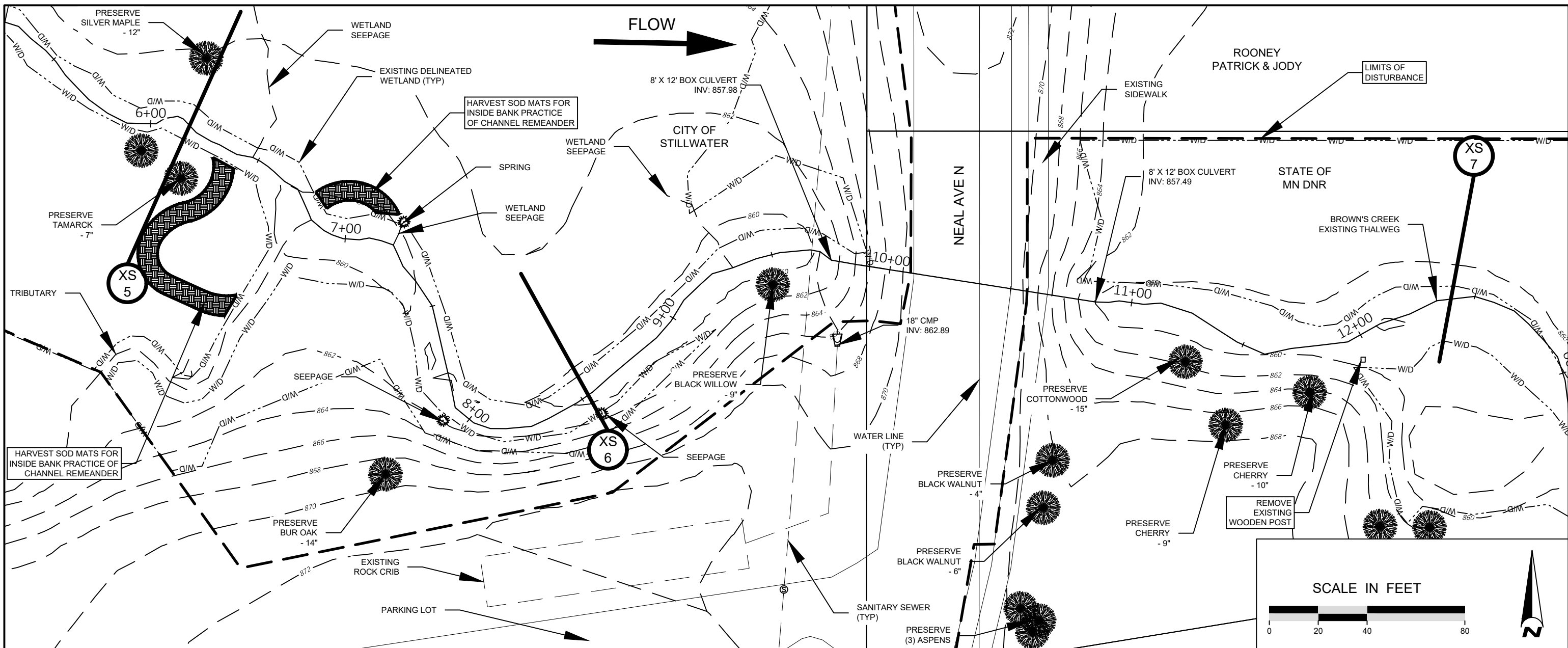


**BROWN'S CREEK PARK  
 STREAM RESTORATION**  
 WASHINGTON COUNTY, STILLWATER, MN  
 BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

EXISTING CONDITIONS  
 PLAN & PROFILE - 1  
 SHEET 08 OF 28

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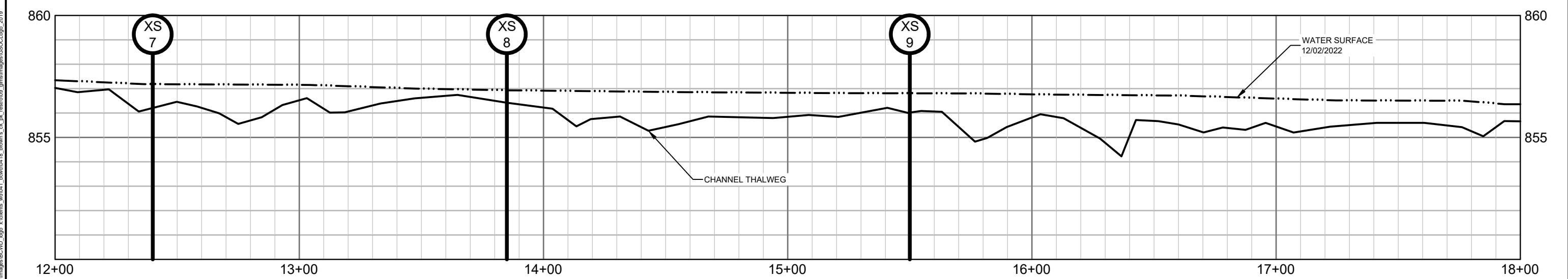
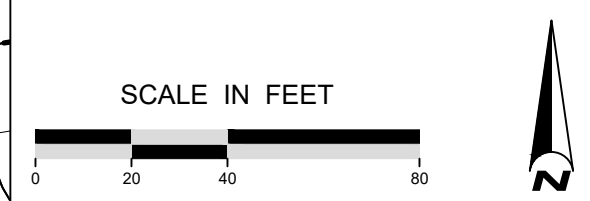
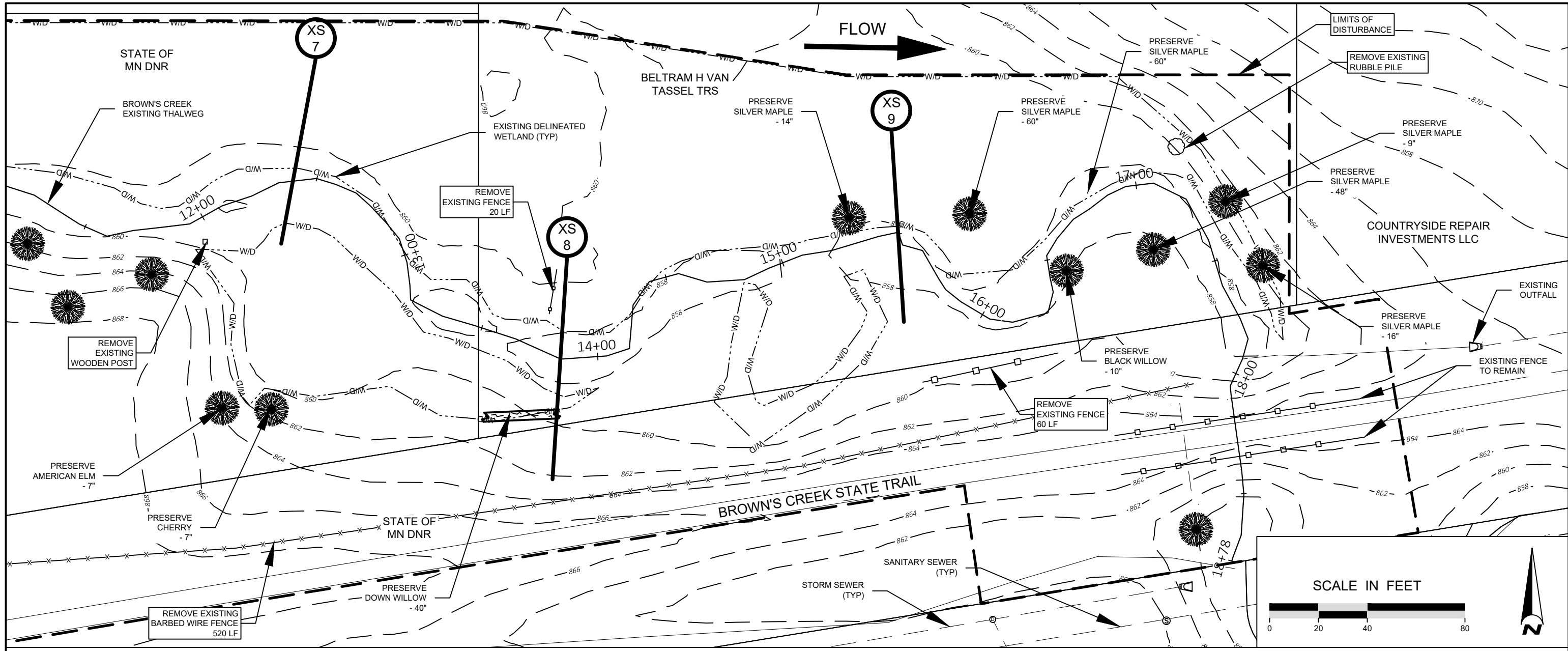
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**BROWN'S CREEK WATERSHED DISTRICT**  
 CLIENT PROJECT #XXX-XXXX

**BROWN'S CREEK PARK STREAM RESTORATION**  
 WASHINGTON COUNTY, STILLWATER, MN  
 BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

**EXISTING CONDITIONS PLAN & PROFILE - 2**  
 SHEET 09 OF 28



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|            | 6   |                     |

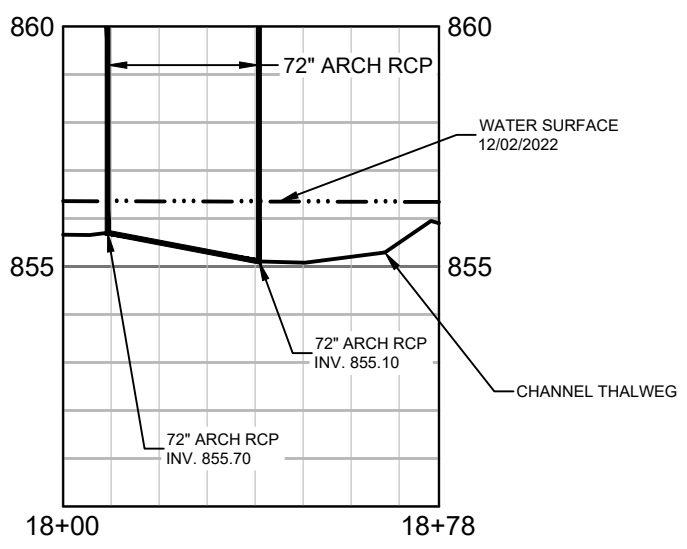
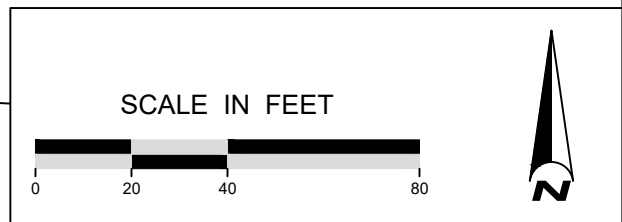
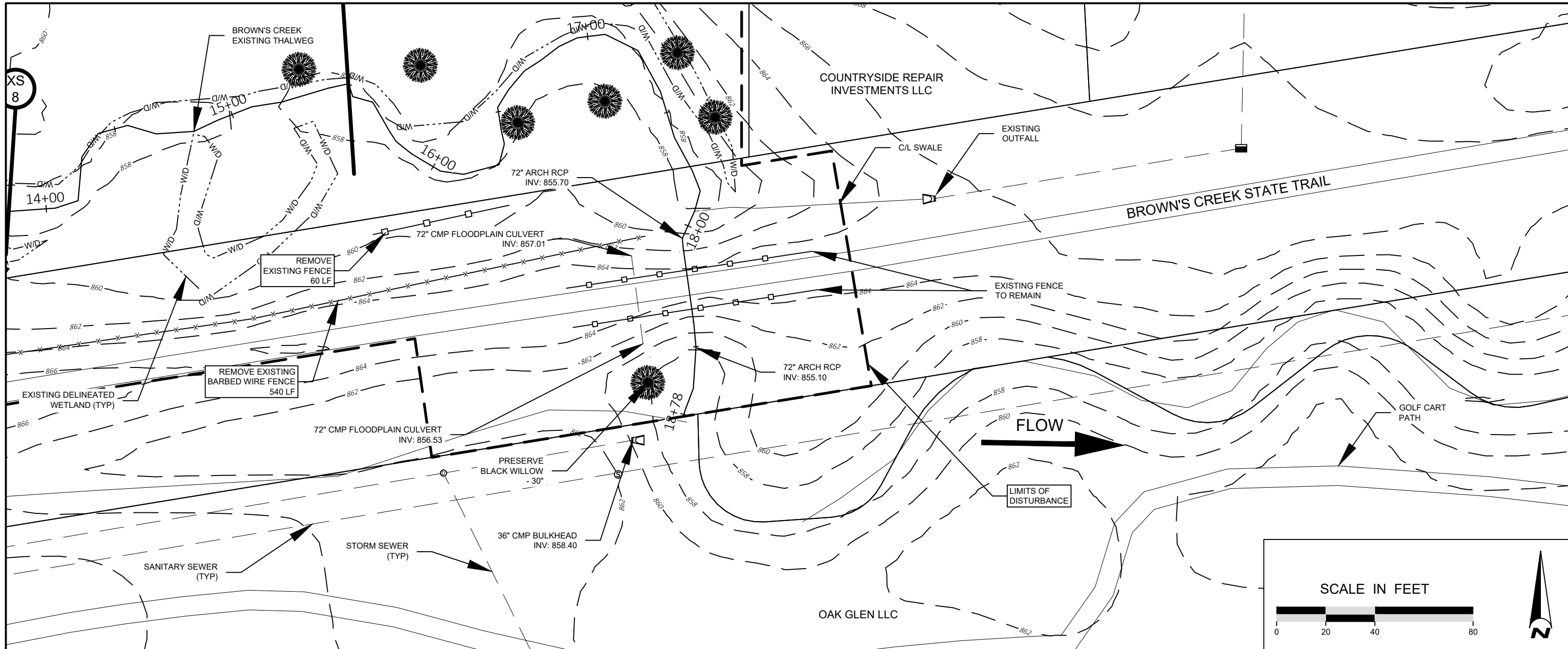
DESIGNED BY: EOR  
DRAWN BY: DEM  
CHECKED BY: MJM  
EOR JOB #0041-0418



**BROWN'S CREEK PARK  
STREAM RESTORATION**  
WASHINGTON COUNTY, STILLWATER, MN  
BROWN'S CREEK WATERSHED DISTRICT    OAKDALE, MN 55128

EXISTING CONDITIONS  
PLAN & PROFILE - 3  
SHEET 10 OF 28

Plot Date: 12/04/2023  
 Drawing: emmons\_olivier\_water\_ecology\_community  
 40041\_0418-XBASE  
 40041\_0418-XBASE  
 40041\_0418-LEASE  
 40041\_0418-LEASE  
 \s\server\project\images\11\_...images\11...images\11...



**NOT FOR CONSTRUCTION**



| DATE       | NO. | DESCRIPTION         |
|------------|-----|---------------------|
| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
|            | 2   |                     |
|            | 3   |                     |
|            | 4   |                     |
|            | 5   |                     |
|            | 6   |                     |

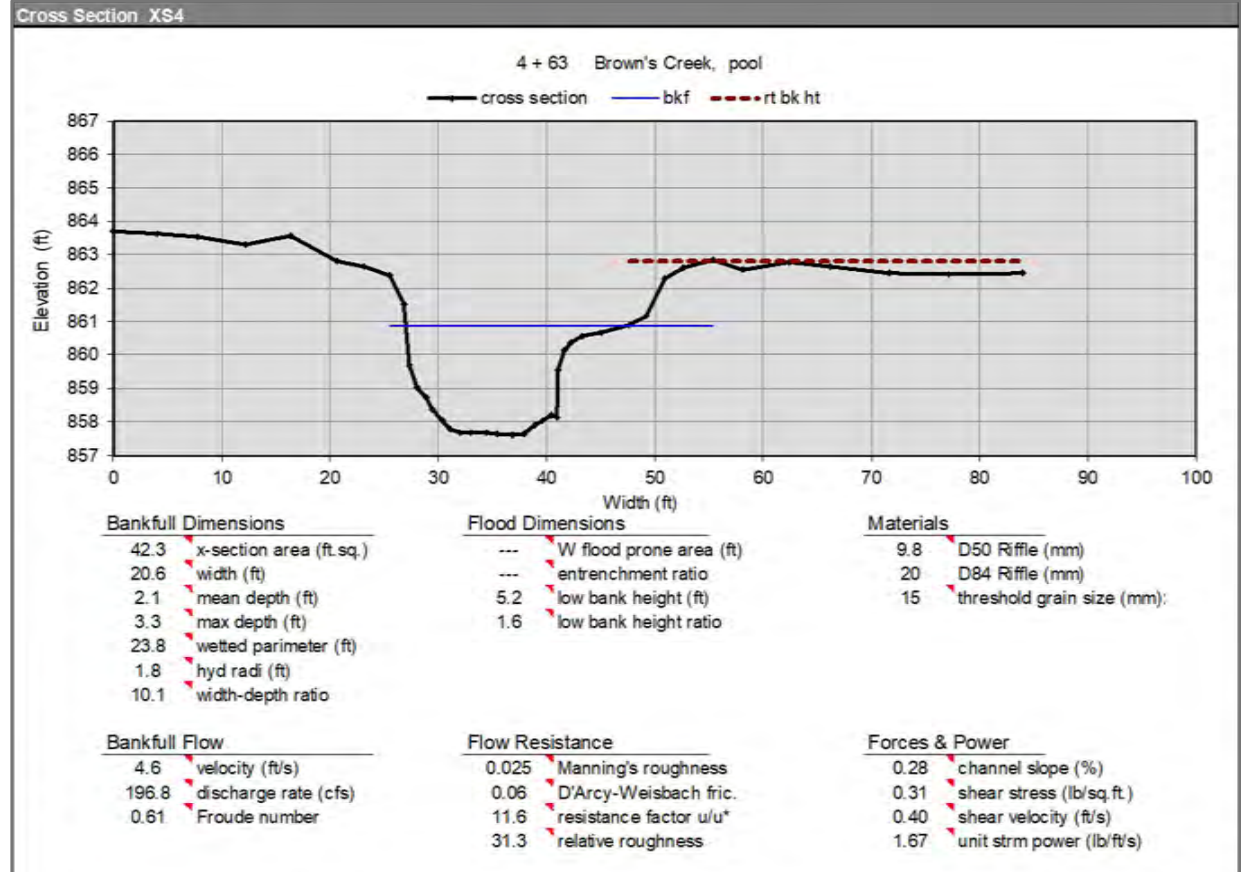
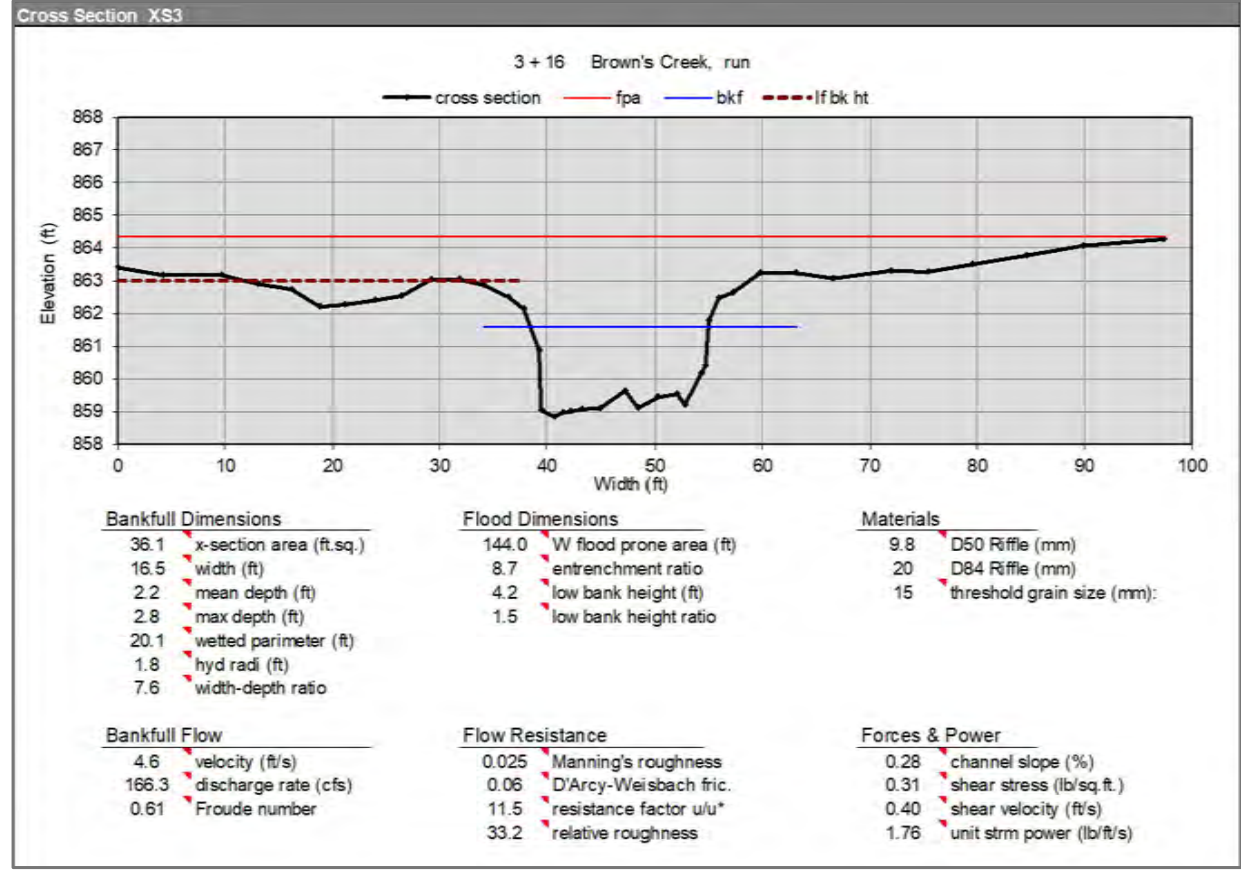
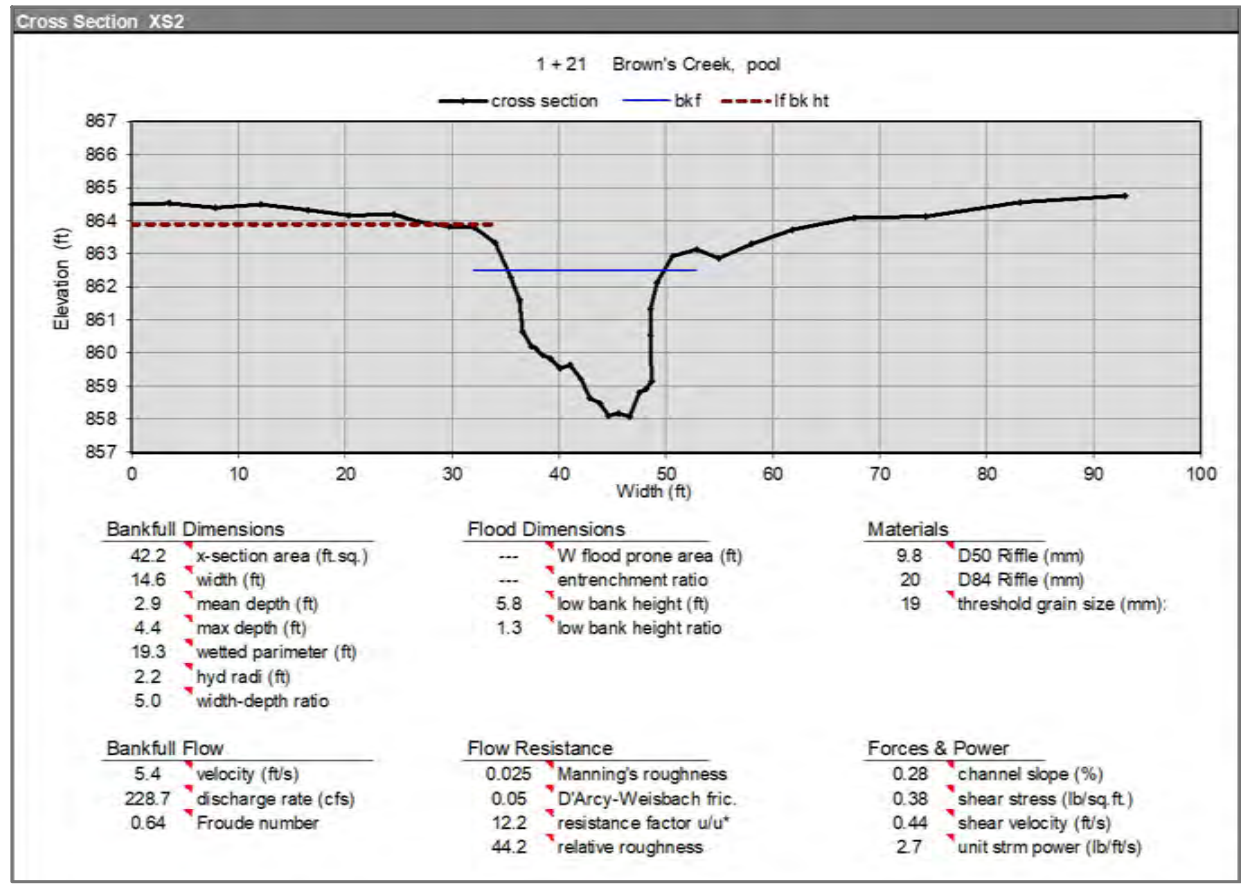
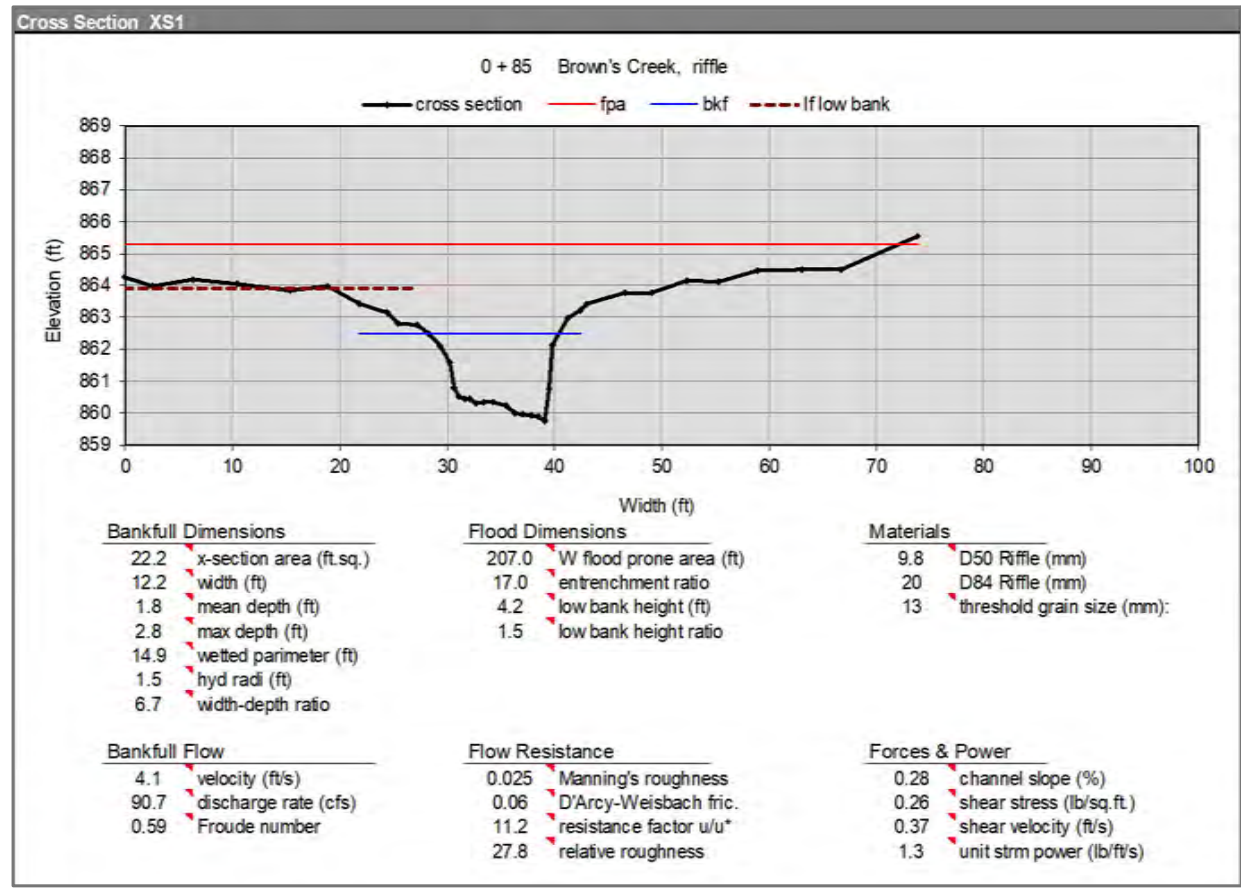
DESIGNED BY: EOR  
DRAWN BY: DEM  
CHECKED BY: MJM  
EOR JOB #0041-0418



**BROWN'S CREEK PARK STREAM RESTORATION**  
WASHINGTON COUNTY, STILLWATER, MN  
BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

EXISTING CONDITIONS PLAN & PROFILE - 4  
SHEET 11 OF 28

Plot Date: 12/04/2023  
 Drawing Name: XS\_041\_BCMW0418\_Brown's\_Ck\_Pk\_Restor09\_GNIS.dwg  
 Drawing Path: \\s01\work\418\BASE\40041\_0418-PRASE\40041\_0418-PRASE.dwg  
 Sheet Border: images\11...images\BCWD\_bgp\_x\_clients\_wd041\_bow0418\_brown's\_ck\_pk\_restor09\_gnis\images\SSOCLogo\_2019



NOTE:  
ALL CROSS SECTIONS ARE ORIENTED DOWNSTREAM W/ RIVER LEFT ON THE LEFT AND RIVER RIGHT ON THE RIGHT.

Plot Date: 12/04/2023  
 Drawing Name: E:\Projects\0418-FRASE\Drawings\0418-CD.dwg  
 User: JMM  
 Title Block: SURFACE  
 40041\_0418-FRASE  
 40041\_0418-LRASE  
 40041\_0418-LRASE  
 Sheet Border: images...images\B11...images\BCHD\_bsp...clients\_wd041\_bow0413\_bow0413\_brown's\_creek\_rest009\_gmimages\SSC\Logo\_2019



**NOT FOR CONSTRUCTION**

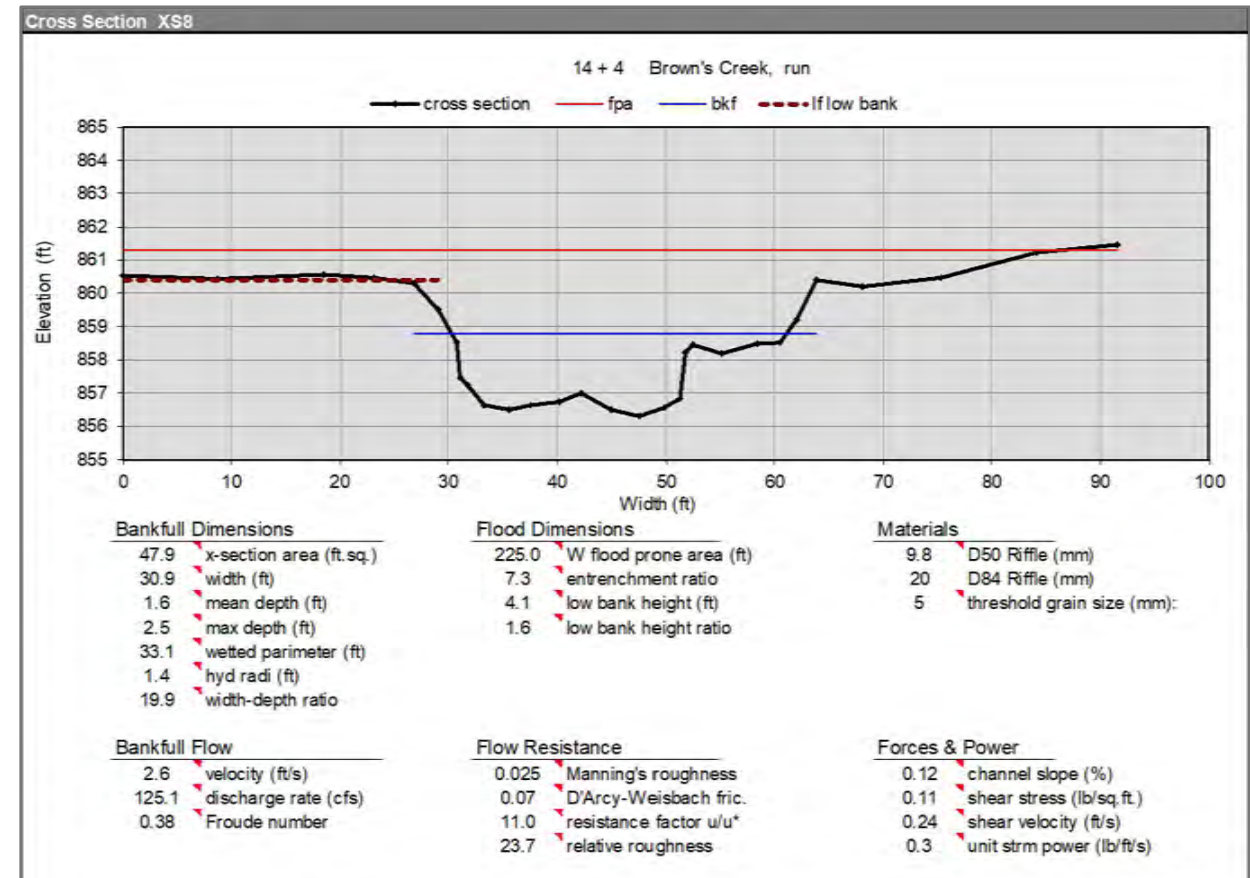
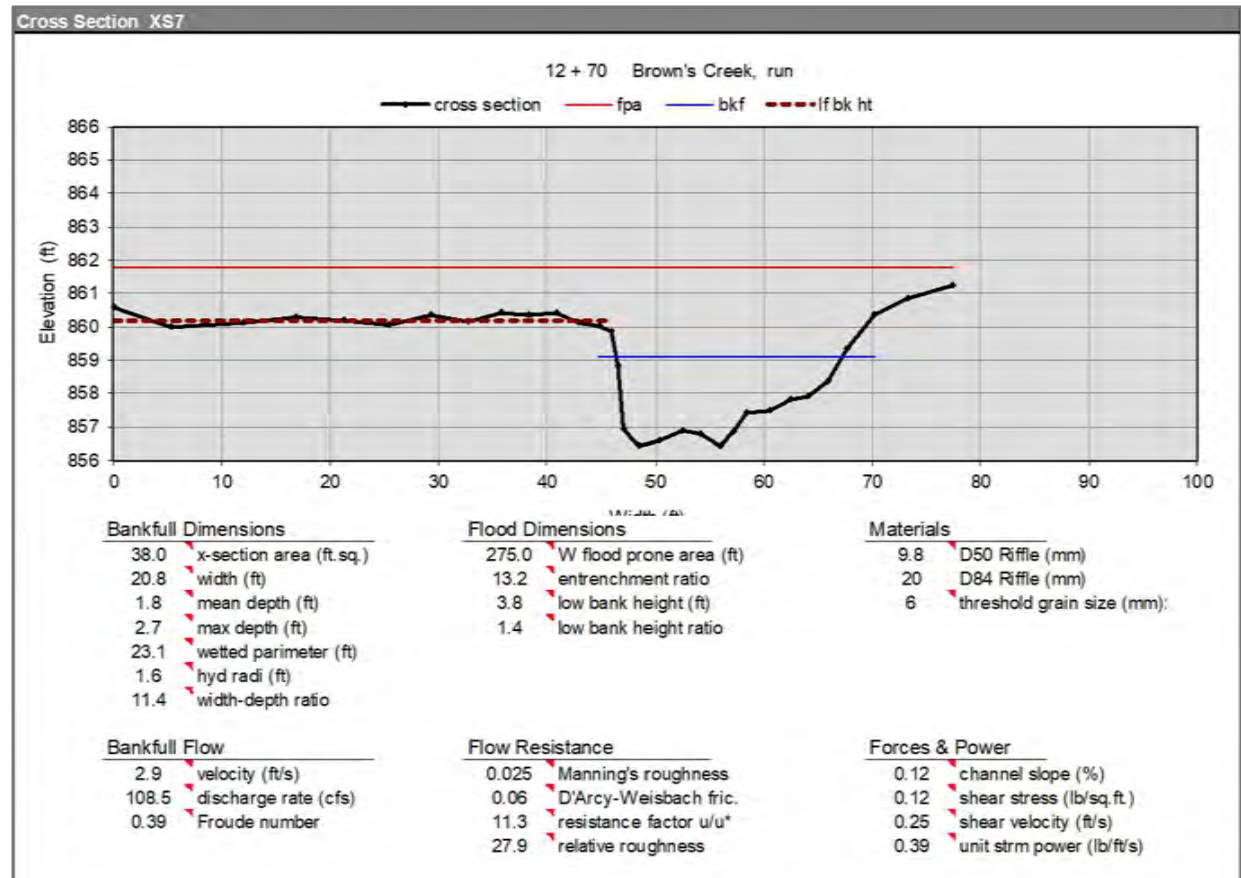
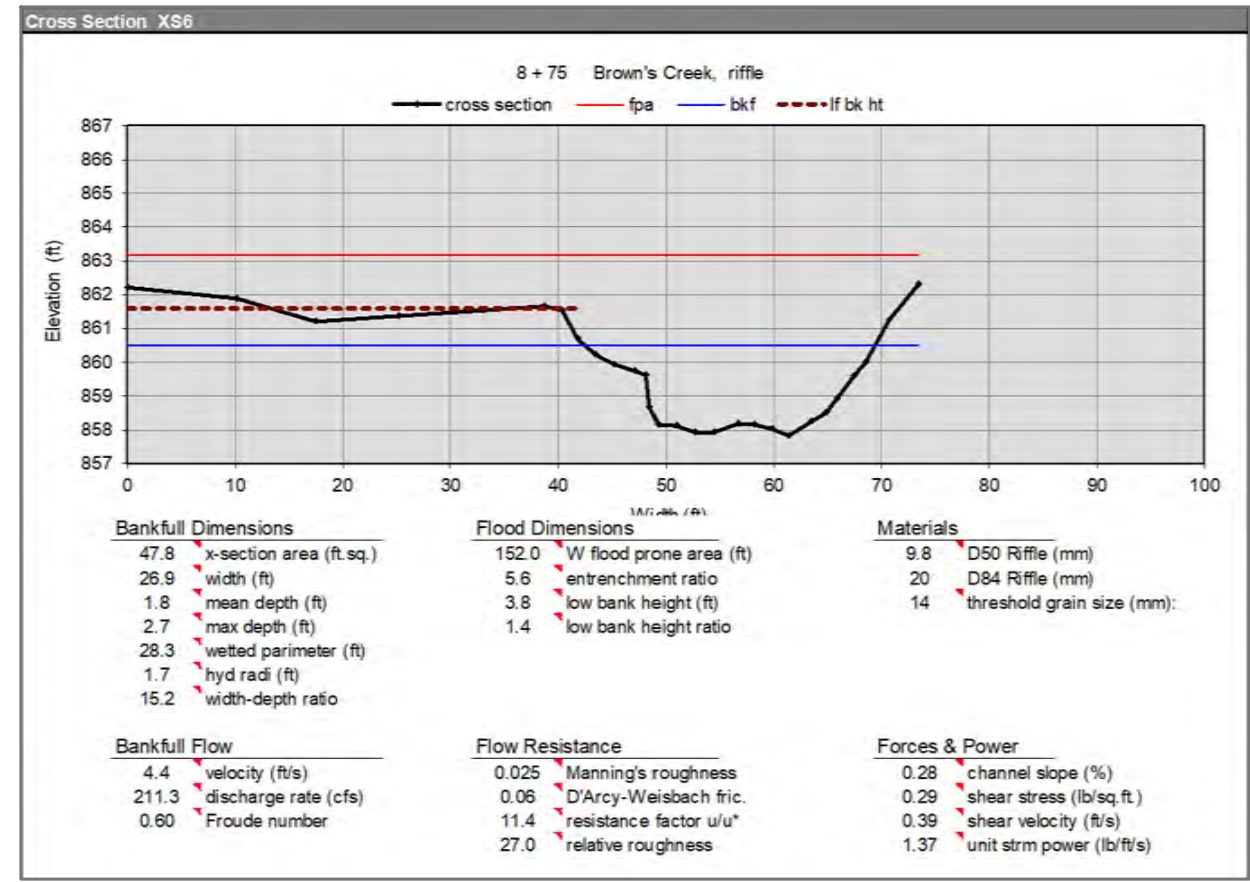
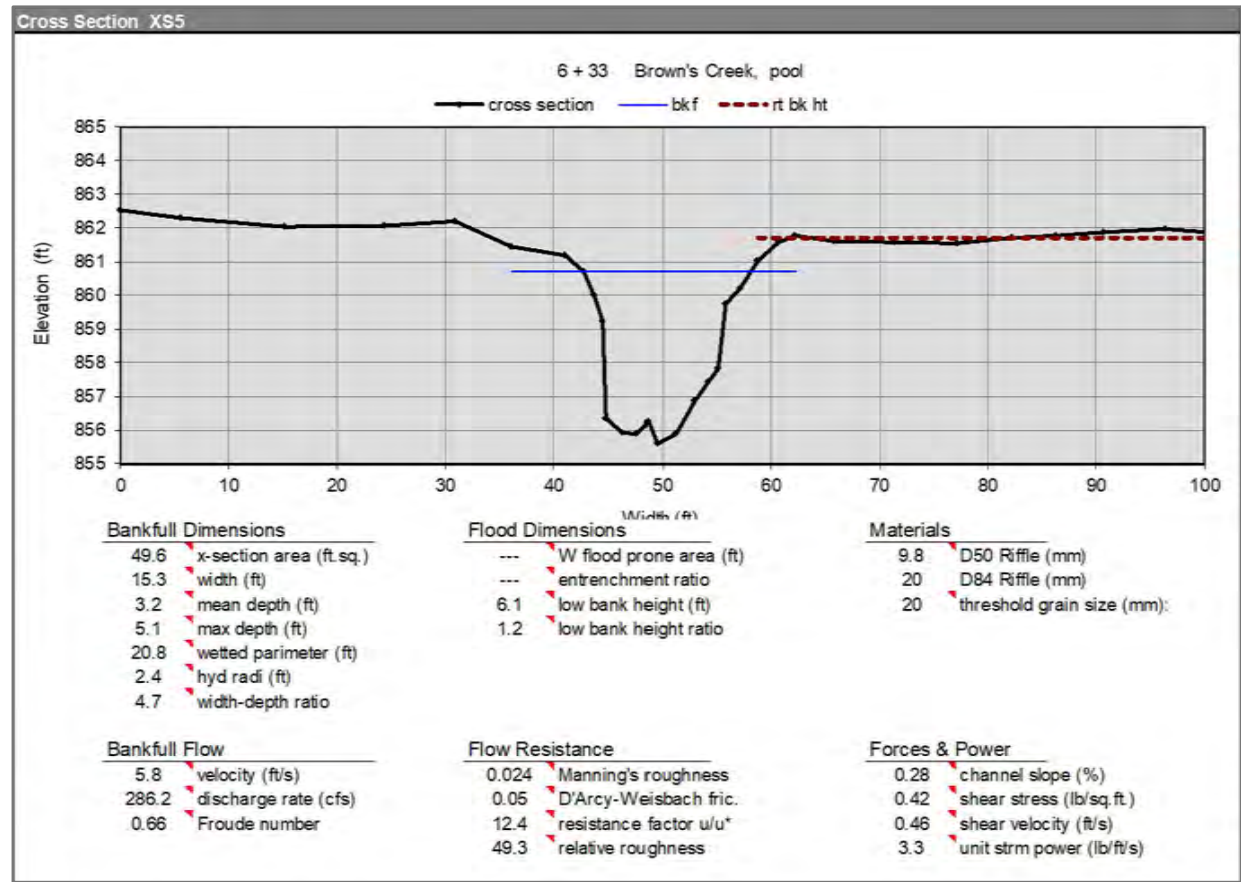
| DATE       | NO. | DESCRIPTION         |
|------------|-----|---------------------|
| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
|            | 2   |                     |
|            | 3   |                     |
|            | 4   |                     |
|            | 5   |                     |
|            | 6   |                     |

DESIGNED BY: EOR  
DRAWN BY: DEM  
CHECKED BY: MJM  
EOR JOB #0041-0418



**BROWN'S CREEK PARK STREAM RESTORATION**  
WASHINGTON COUNTY, STILLWATER, MN  
BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

EXISTING CROSS SECTIONS - 1  
SHEET 12 OF 28



NOTE:  
ALL CROSS SECTIONS ARE ORIENTED DOWNSTREAM W/ RIVER LEFT ON THE LEFT AND RIVER RIGHT ON THE RIGHT.

Plot Date: 12/04/2023  
 Drawing Name: XS5-XS8 SURFACE  
 40041\_0418-PRASE  
 40041\_0418-LBASE  
 40041\_0418-LBASE  
 Sheet Border: images...images\BCHD\_bsp\_x\clients\_wd0418\_brown's\_creek\_restoration\SSC\logs\_2019



**NOT FOR CONSTRUCTION**

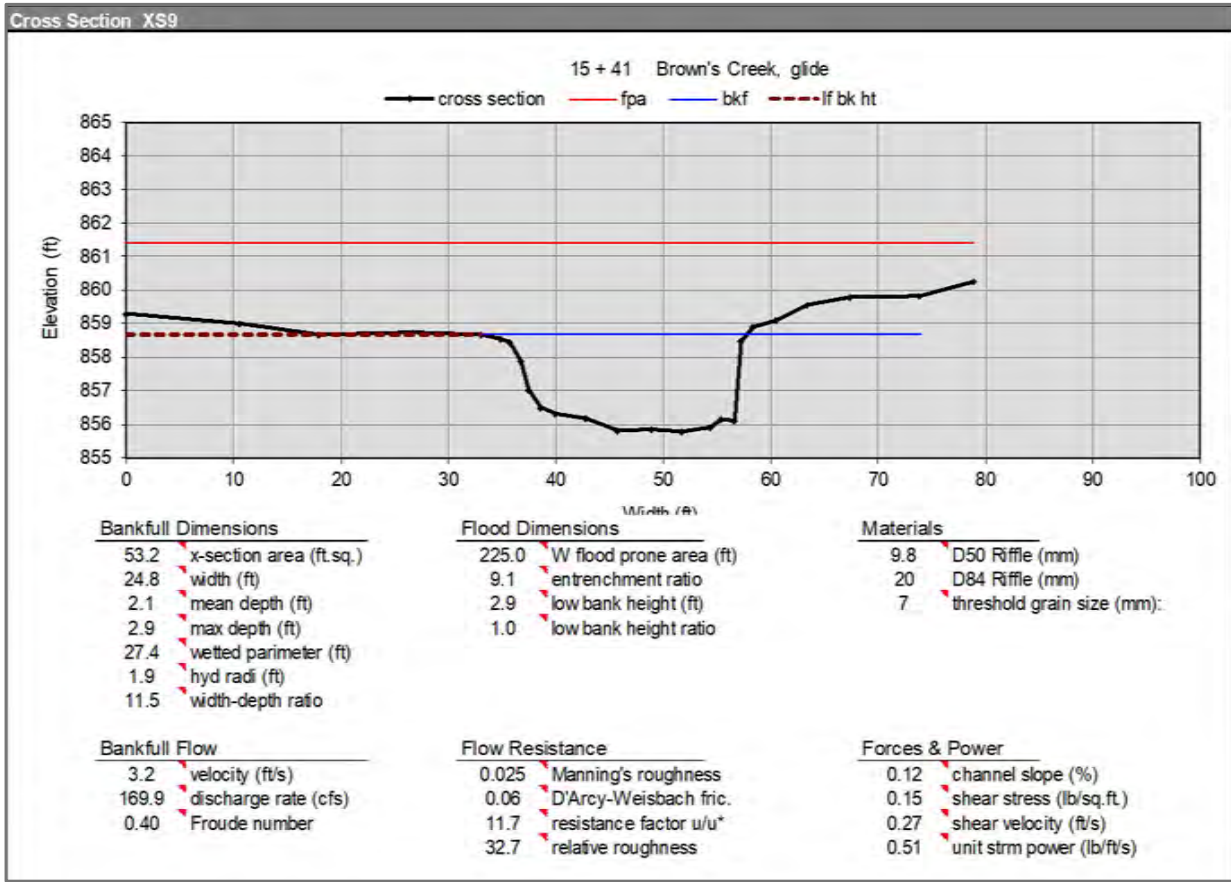
| DATE       | NO. | DESCRIPTION         |
|------------|-----|---------------------|
| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
|            | 2   |                     |
|            | 3   |                     |
|            | 4   |                     |
|            | 5   |                     |
|            | 6   |                     |

DESIGNED BY: EOR  
DRAWN BY: DEM  
CHECKED BY: MJM  
EOR JOB #0041-0418



**BROWN'S CREEK PARK  
STREAM RESTORATION**  
WASHINGTON COUNTY, STILLWATER, MN  
BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

EXISTING CROSS SECTIONS - 2  
SHEET 13 OF 28



NOTE:  
ALL CROSS SECTIONS ARE ORIENTED DOWNSTREAM W/ RIVER LEFT ON THE LEFT AND RIVER RIGHT ON THE RIGHT.

**NOT FOR CONSTRUCTION**



| DATE       | NO. | DESCRIPTION         |
|------------|-----|---------------------|
| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
|            | 2   |                     |
|            | 3   |                     |
|            | 4   |                     |
|            | 5   |                     |
|            | 6   |                     |

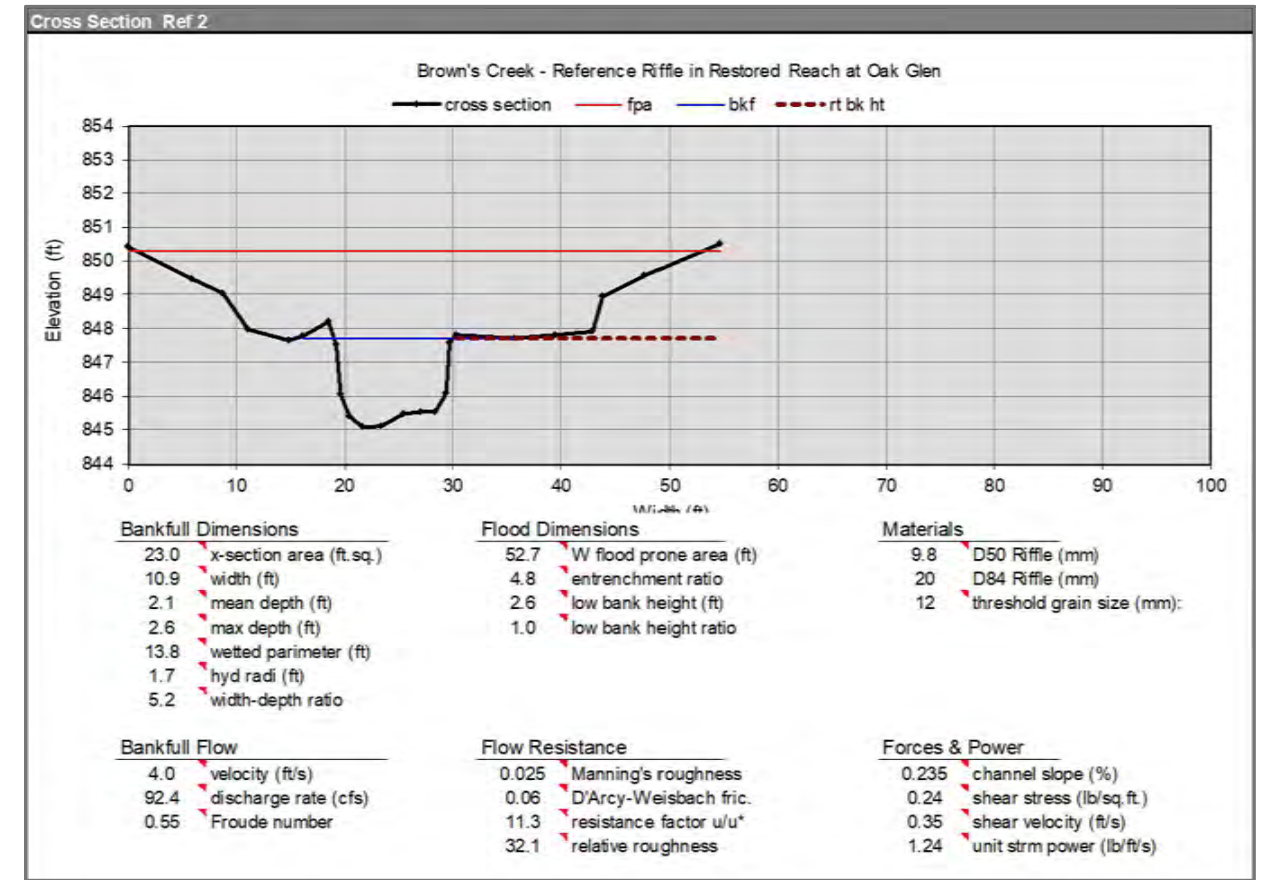
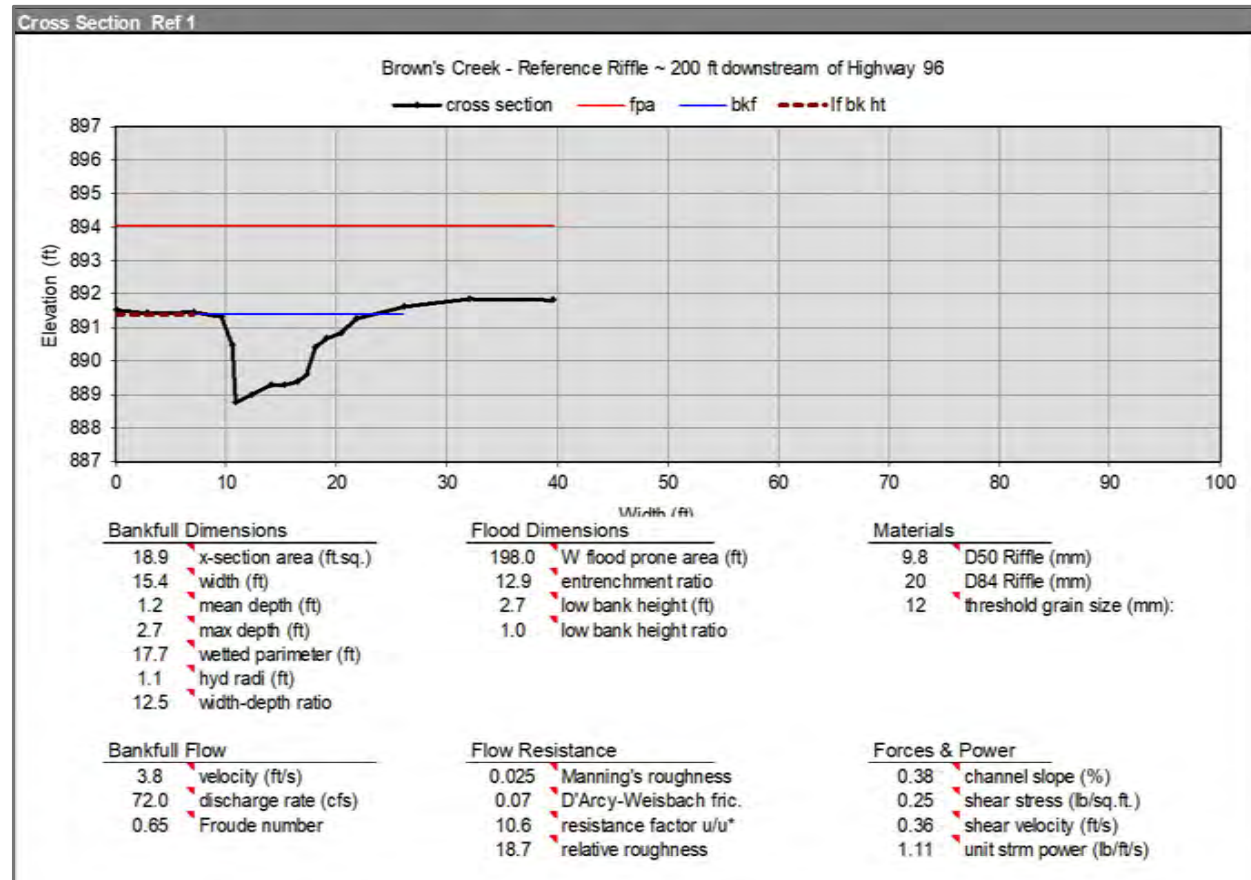
DESIGNED BY: EOR  
DRAWN BY: DEM  
CHECKED BY: MJM  
EOR JOB #0041-0418



**BROWN'S CREEK PARK  
STREAM RESTORATION**  
WASHINGTON COUNTY, STILLWATER, MN  
BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

EXISTING CROSS SECTIONS - 3  
SHEET 14 OF 28

Plot Date: 12/04/2023  
 Drawing: emmons\_olivier\projects\418\_Brown's\_Ck\_Pk\_Restor\09\_GIS\Map\0041\_0418-CD.dwg  
 User: mjm  
 Title: XS9 SURFACE  
 40041\_0418-XBASE  
 40041\_0418-FBASE  
 40041\_0418-LBASE  
 Sheet Border: images...images\11...images\BCWD\_bgp\_x\_clients\_wd\041\_bow\0418\_brown's\_ck\_pk\_restor\09\_gis\Map\0041\_0418-CD.dwg



NOTE:

ALL CROSS SECTIONS ARE ORIENTED DOWNSTREAM W/ RIVER LEFT ON THE LEFT AND RIVER RIGHT ON THE RIGHT.

**NOT FOR CONSTRUCTION**

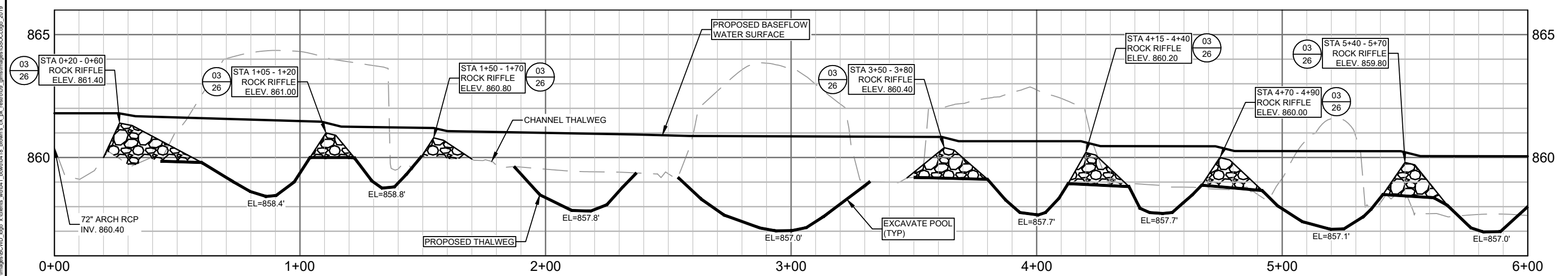
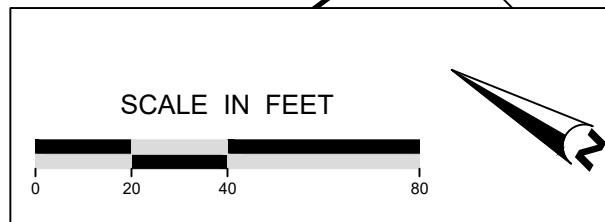
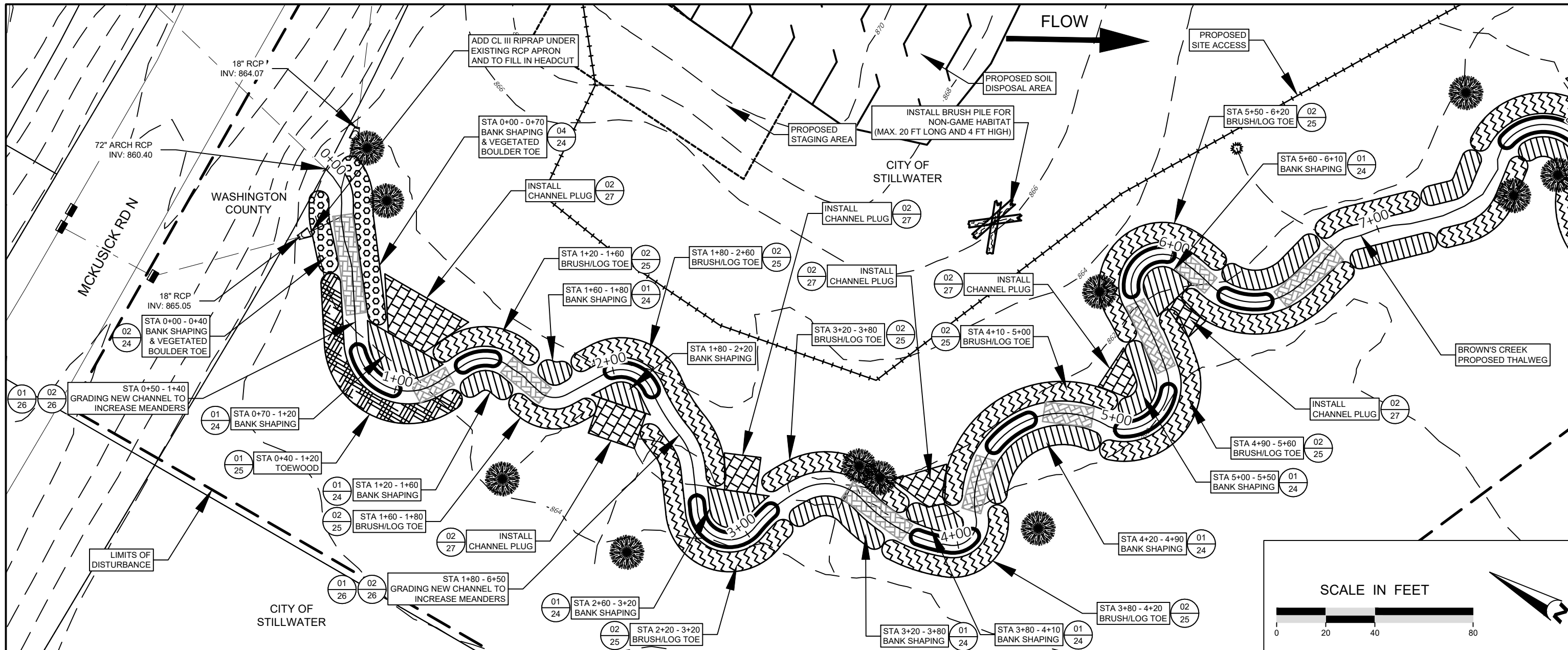
| DATE       | NO. | DESCRIPTION         |
|------------|-----|---------------------|
| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
|            | 2   |                     |
|            | 3   |                     |
|            | 4   |                     |
|            | 5   |                     |
|            | 6   |                     |

DESIGNED BY: EOR  
 DRAWN BY: DEM  
 CHECKED BY: MJM  
 EOR JOB #0041-0418



**BROWN'S CREEK PARK  
 STREAM RESTORATION**  
 WASHINGTON COUNTY, STILLWATER, MN

REFERENCE  
 CROSS SECTIONS



**NOT FOR CONSTRUCTION**



| DATE       | NO. | DESCRIPTION         |
|------------|-----|---------------------|
| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
|            | 2   |                     |
|            | 3   |                     |
|            | 4   |                     |
|            | 5   |                     |
|            | 6   |                     |

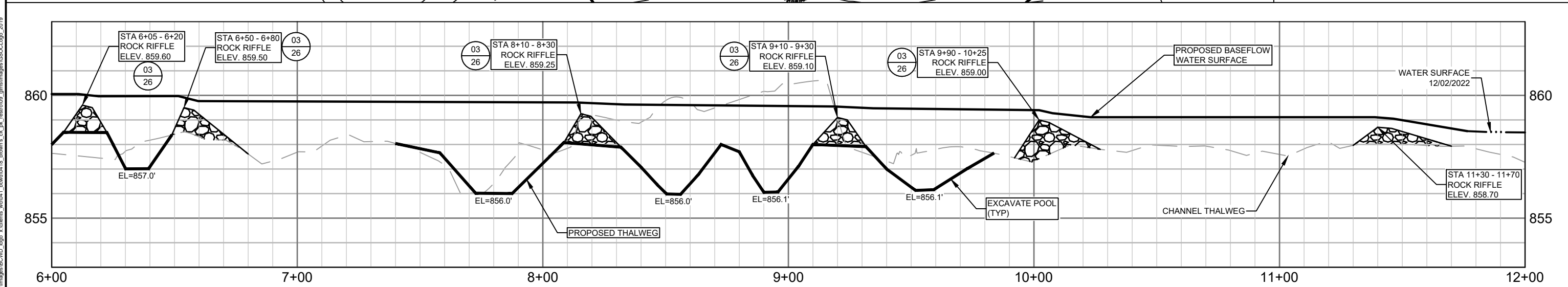
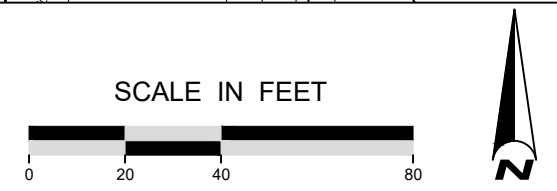
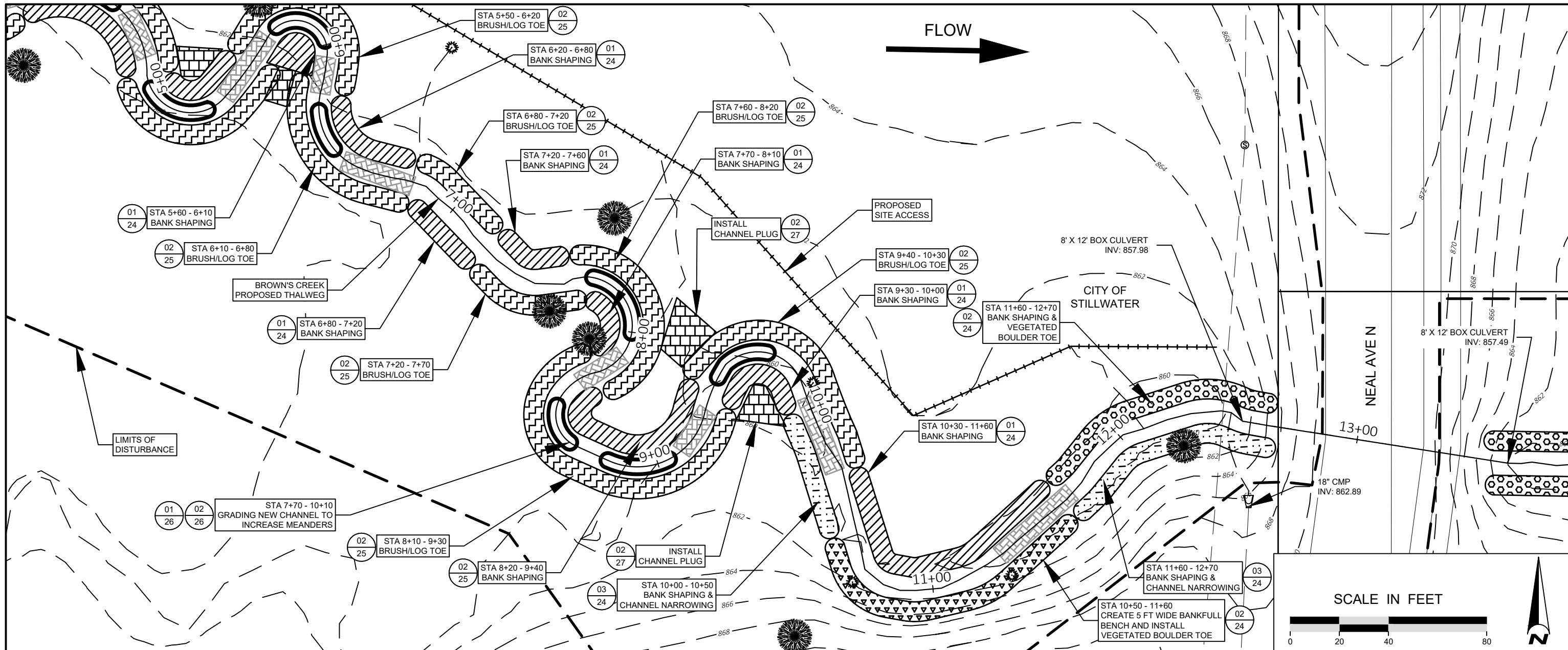
|                          |  |
|--------------------------|--|
| DESIGNED BY: EOR         |  |
| DRAWN BY: DEM            |  |
| CHECKED BY: MJM          |  |
| EOR JOB #0041-0418       |  |
| CLIENT PROJECT #XXX-XXXX |  |

**BROWN'S CREEK PARK  
STREAM RESTORATION**  
WASHINGTON COUNTY, STILLWATER, MN  
BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

PROPOSED PLAN & PROFILE - 1  
SHEET 16 OF 28

Plot Date: 12/04/2023  
 Drawing Name: BROWN'S CREEK SURFACE  
 40041\_0418-XBASE  
 40041\_0418-FBASE  
 40041\_0418-LBASE  
 Sheet Border: images...images\BCHD\_bgp\_x\clients\w0041\_brown\0418\_brown\ck\_pk\_restor09\_gm\images\SSC\Logo\_2019





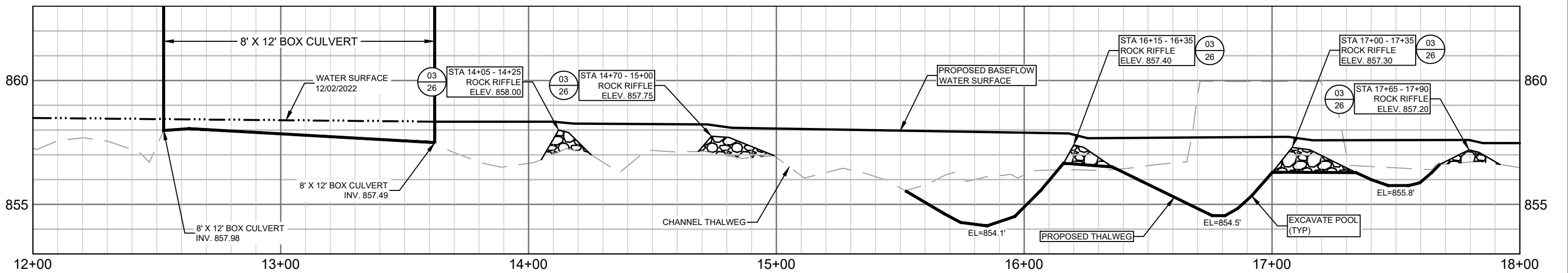
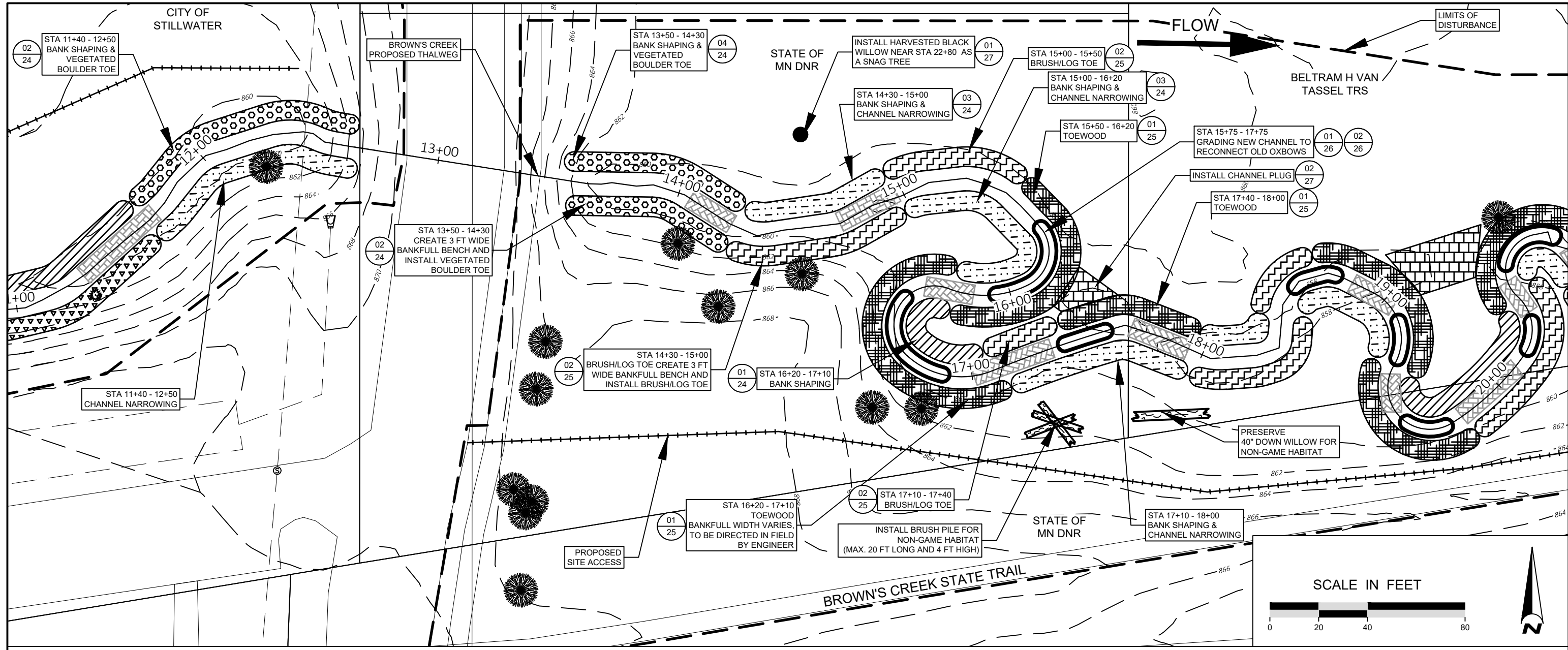
**NOT FOR CONSTRUCTION**

| DATE       | NO. | DESCRIPTION         |
|------------|-----|---------------------|
| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
|            | 2   |                     |
|            | 3   |                     |
|            | 4   |                     |
|            | 5   |                     |
|            | 6   |                     |

|                    |                          |
|--------------------|--------------------------|
| DESIGNED BY: EOR   |                          |
| DRAWN BY: DEM      |                          |
| CHECKED BY: MJM    |                          |
| EOR JOB #0041-0418 | CLIENT PROJECT #XXX-XXXX |

|  |
|--|
| <b>BROWN'S CREEK PARK<br/>STREAM RESTORATION</b> |
| WASHINGTON COUNTY, STILLWATER, MN                |
| BROWN'S CREEK WATERSHED DISTRICT                 |
| OAKDALE, MN 55128                                |

|                             |
|-----------------------------|
| PROPOSED PLAN & PROFILE - 2 |
| SHEET 17 OF 28              |



**NOT FOR CONSTRUCTION**



| DATE       | NO. | DESCRIPTION         |
|------------|-----|---------------------|
| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
|            | 2   |                     |
|            | 3   |                     |
|            | 4   |                     |
|            | 5   |                     |
|            | 6   |                     |

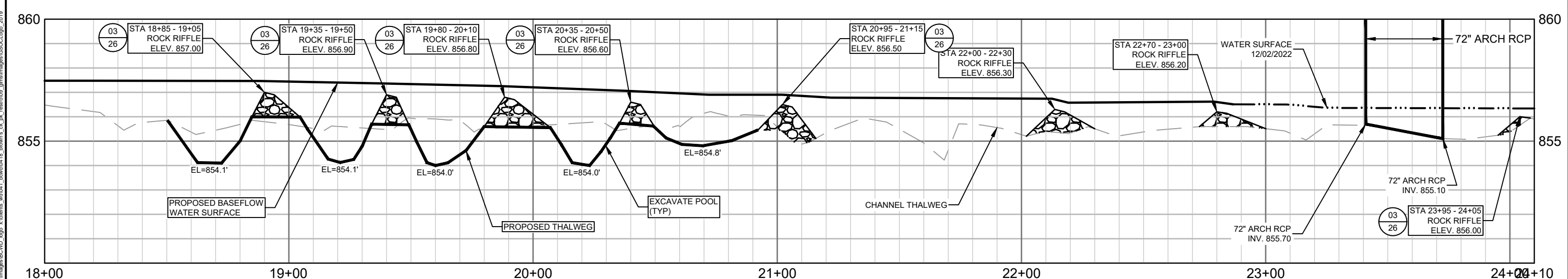
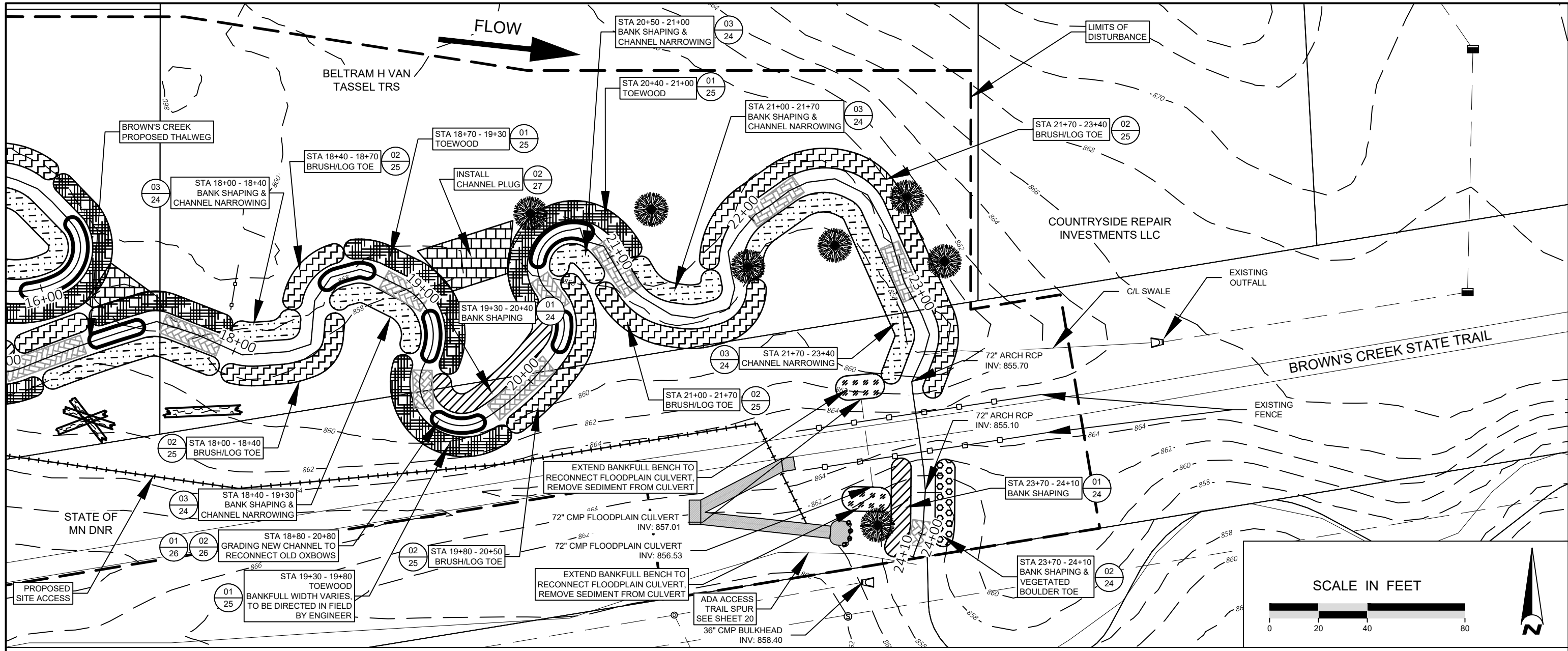
DESIGNED BY: EOR  
DRAWN BY: DEM  
CHECKED BY: MJM  
EOR JOB #0041-0418



**BROWN'S CREEK PARK STREAM RESTORATION**  
WASHINGTON COUNTY, STILLWATER, MN  
BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

PROPOSED PLAN & PROFILE - 3  
SHEET 18 OF 28

Plot Date: 12/04/2023  
 Drawing: 0041-0418-03 SURFACE  
 40041\_0418-XBASE  
 40041\_0418-LBASE  
 40041\_0418-LBASE  
 Sheet Border: images...images\BCHD\_bgp\_x\clients\_wd041\_browns\_creek\_restoration\_gm\images\SSC\logs\_2019



**NOT FOR CONSTRUCTION**

**EOR** water ecology community  
 EMMONS & OLIVIER RESOURCES, INC.  
 1919 UNIV. AVE. W. #300 ST. PAUL, MN  
 TEL: 651.770.8448 WWW.EORINC.COM

| DATE       | NO. | DESCRIPTION         |
|------------|-----|---------------------|
| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
|            | 2   |                     |
|            | 3   |                     |
|            | 4   |                     |
|            | 5   |                     |
|            | 6   |                     |

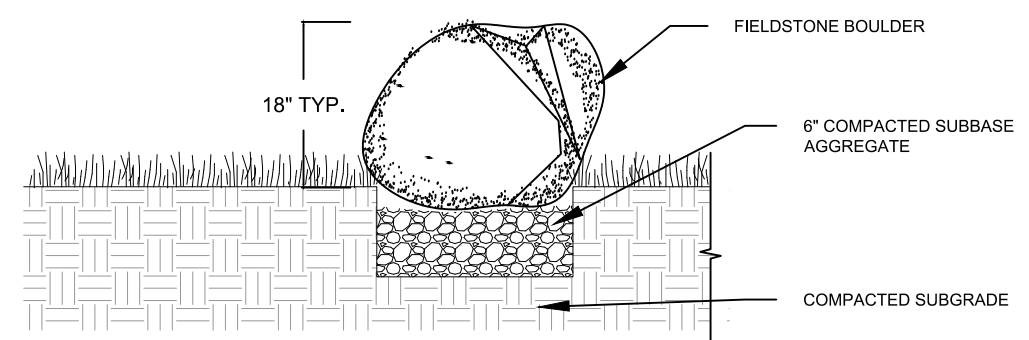
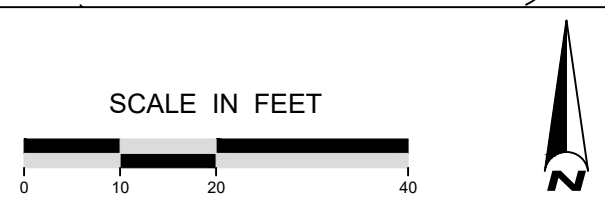
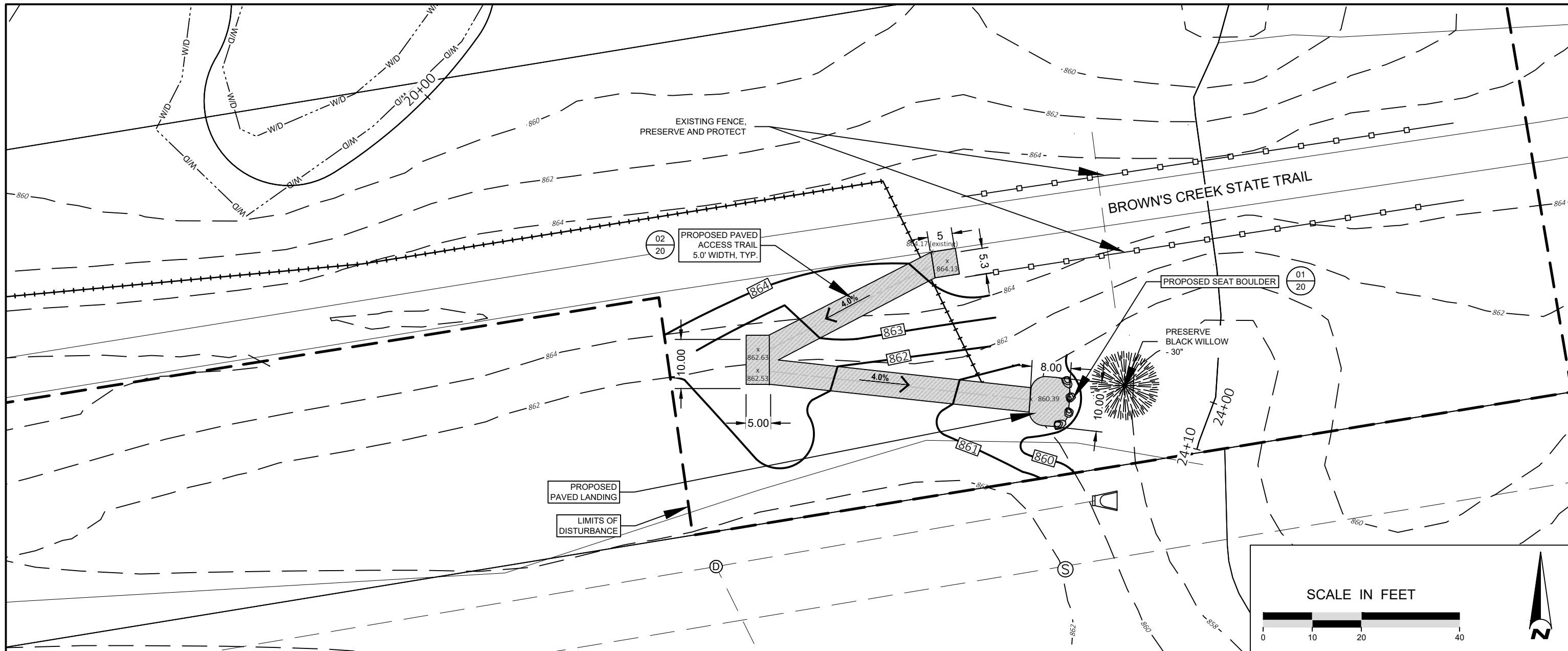
DESIGNED BY: EOR  
 DRAWN BY: DEM  
 CHECKED BY: MJM  
 EOR JOB #0041-0418

**BROWN'S CREEK WATERSHED DISTRICT**

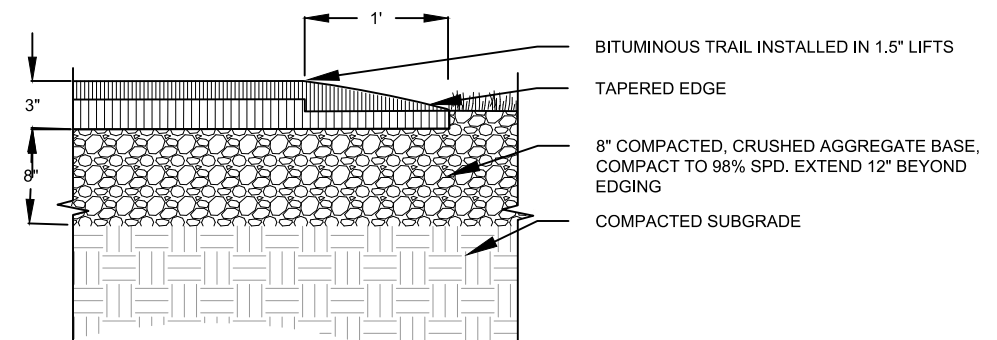
**BROWN'S CREEK PARK STREAM RESTORATION**  
 WASHINGTON COUNTY, STILLWATER, MN  
 BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

PROPOSED PLAN & PROFILE - 4  
 SHEET 19 OF 28

Plot Date: 12/04/2023  
 Drawing: emmons\_olivier\_resources\0418\_Brown's\_Ck\_Pk\_Restoration\_GNIS\wp0418\_0418-CD.dwg  
 User: dem  
 Title: BROWN'S CREEK STATE TRAIL SURFACE  
 40041\_0418-XBASE  
 40041\_0418-FBASE  
 40041\_0418-LBASE  
 Sheet Border: images\border.dwg  
 images\BCVD\_bgp\_x\_clients\_wd0418\_brown's\_ck\_pk\_restoration\SSCCL.jpg\_2019



**01**  
**20** SEAT BOULDER DETAIL  
NOT TO SCALE



**02**  
**20** BITUMINOUS TRAIL DETAIL  
NOT TO SCALE

**NOT FOR CONSTRUCTION**

Plot Date: 12/04/2023  
 Drawing: EOR\_004118\_Browns\_Ck\_Pk\_Restore09\_GNIS.dwg  
 User: EOR\dem  
 Title: ADA SURFACE  
 40041\_0418-XBASE  
 40041\_0418-FBASE  
 40041\_0418-LBASE  
 Seat Boulder - images - images\11 - images\BCWD\_bgp - clients\_wd\041\_browns\_ck\_pk\_restore09\_gnis\images\SSOCLogs\_2019

**EOR** water ecology community  
 EMMONS & OLIVIER RESOURCES, INC.  
 1919 UNIV. AVE. W. #300 ST. PAUL, MN  
 TEL: 651.770.8448 WWW.EORINC.COM

| DATE       | NO. | DESCRIPTION         |
|------------|-----|---------------------|
| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
|            | 2   |                     |
|            | 3   |                     |
|            | 4   |                     |
|            | 5   |                     |
|            | 6   |                     |

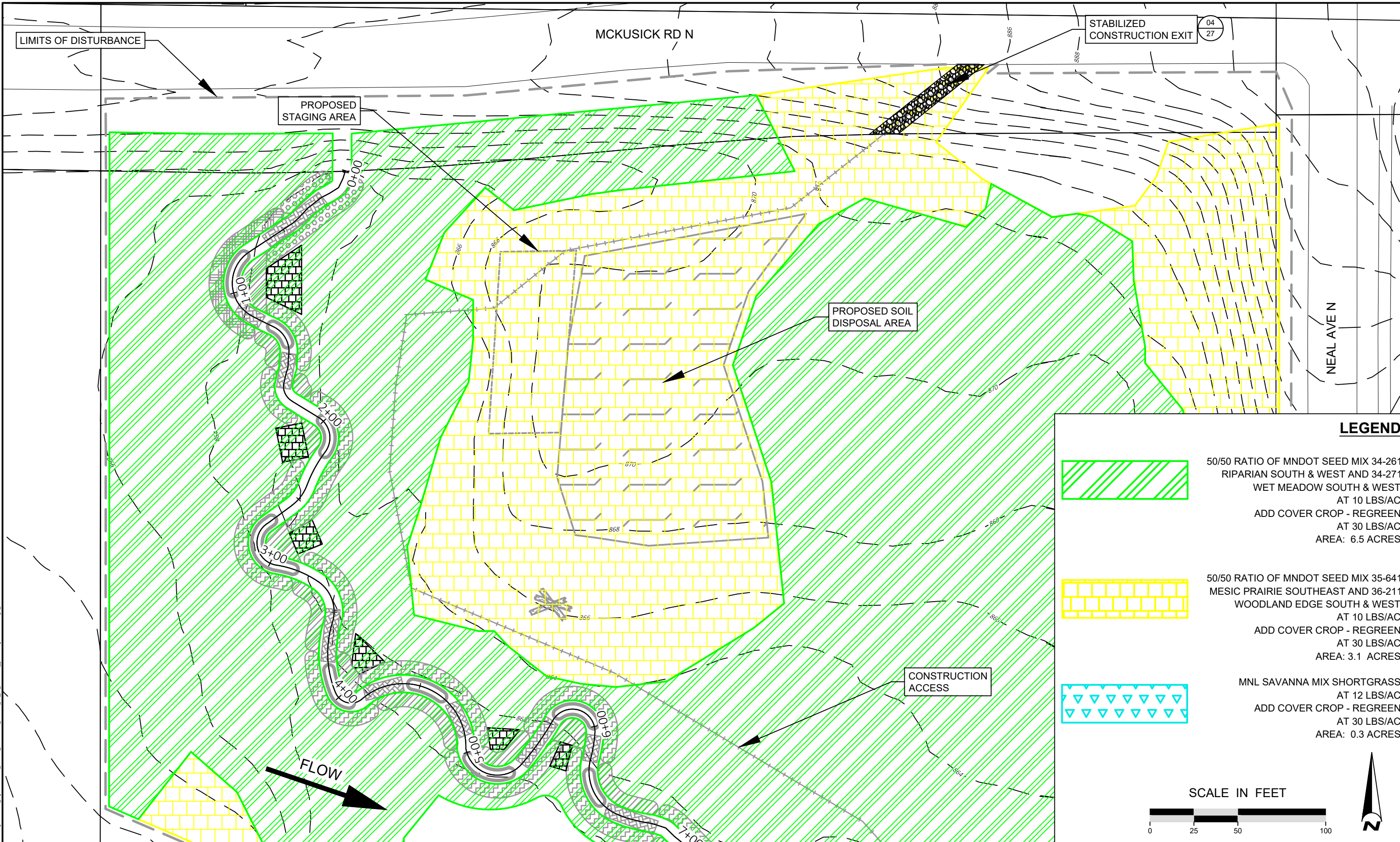
DESIGNED BY: EOR  
 DRAWN BY: DEM  
 CHECKED BY: MJM  
 EOR JOB #0041-0418



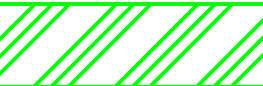
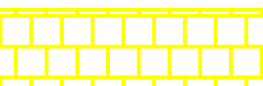

CLIENT PROJECT #XXX-XXXX

**BROWN'S CREEK PARK  
 STREAM RESTORATION**  
 WASHINGTON COUNTY, STILLWATER, MN  
 BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

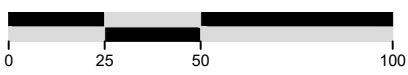

PROPOSED ADA  
 ACCESS TRAIL  
 SHEET 20 OF 28



**LEGEND**

- 
 50/50 RATIO OF MNDOT SEED MIX 34-261  
 RIPARIAN SOUTH & WEST AND 34-271  
 WET MEADOW SOUTH & WEST  
 AT 10 LBS/AC  
 ADD COVER CROP - REGREEN  
 AT 30 LBS/AC  
 AREA: 6.5 ACRES
- 
 50/50 RATIO OF MNDOT SEED MIX 35-641  
 MESIC PRAIRIE SOUTHEAST AND 36-211  
 WOODLAND EDGE SOUTH & WEST  
 AT 10 LBS/AC  
 ADD COVER CROP - REGREEN  
 AT 30 LBS/AC  
 AREA: 3.1 ACRES
- 
 MNL SAVANNA MIX SHORTGRASS  
 AT 12 LBS/AC  
 ADD COVER CROP - REGREEN  
 AT 30 LBS/AC  
 AREA: 0.3 ACRES

SCALE IN FEET

**NOT FOR CONSTRUCTION**

**EOR** water ecology community  
 EMMONS & OLIVIER RESOURCES, INC.  
 1919 UNIV. AVE. W. #300 ST. PAUL, MN  
 TEL: 651.770.8448 WWW.EORINC.COM

| DATE       | NO. | DESCRIPTION         |
|------------|-----|---------------------|
| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
|            | 2   |                     |
|            | 3   |                     |
|            | 4   |                     |
|            | 5   |                     |
|            | 6   |                     |

DESIGNED BY: EOR  
 DRAWN BY: DEM  
 CHECKED BY: MJM  
 EOR JOB #0041-0418

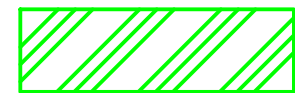
**BROWN'S CREEK WATERSHED DISTRICT**  
 CLIENT PROJECT #XXX-XXXX

**BROWN'S CREEK PARK STREAM RESTORATION**  
 WASHINGTON COUNTY, STILLWATER, MN  
 BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

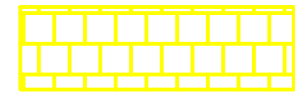
ESC & RESTORATION PLAN 1  
 SHEET 21 OF 28

Plot Date: 12/04/2023  
 Drawing: EOR\0041-0418\BROWNS\_CREEK\_PARK\_RESTORATION\_GIS\Map0041\_0418-CD.dwg  
 User: emmons  
 Title: ESC & RESTORATION PLAN 1  
 40041\_0418-XBASE  
 40041\_0418-FBASE  
 40041\_0418-LBASE  
 Sheet Border: images...images\11...images\BC\CD\_bgp\_x\clients\_wd\041\_browns\_ck\_restor09\_gis\images\SC\Logo\_2019

**LEGEND**



50/50 RATIO OF MNDOT SEED MIX 34-261  
RIPARIAN SOUTH & WEST AND 34-271  
WET MEADOW SOUTH & WEST  
AT 10 LBS/AC  
ADD COVER CROP - REGREEN  
AT 30 LBS/AC  
AREA: 6.5 ACRES

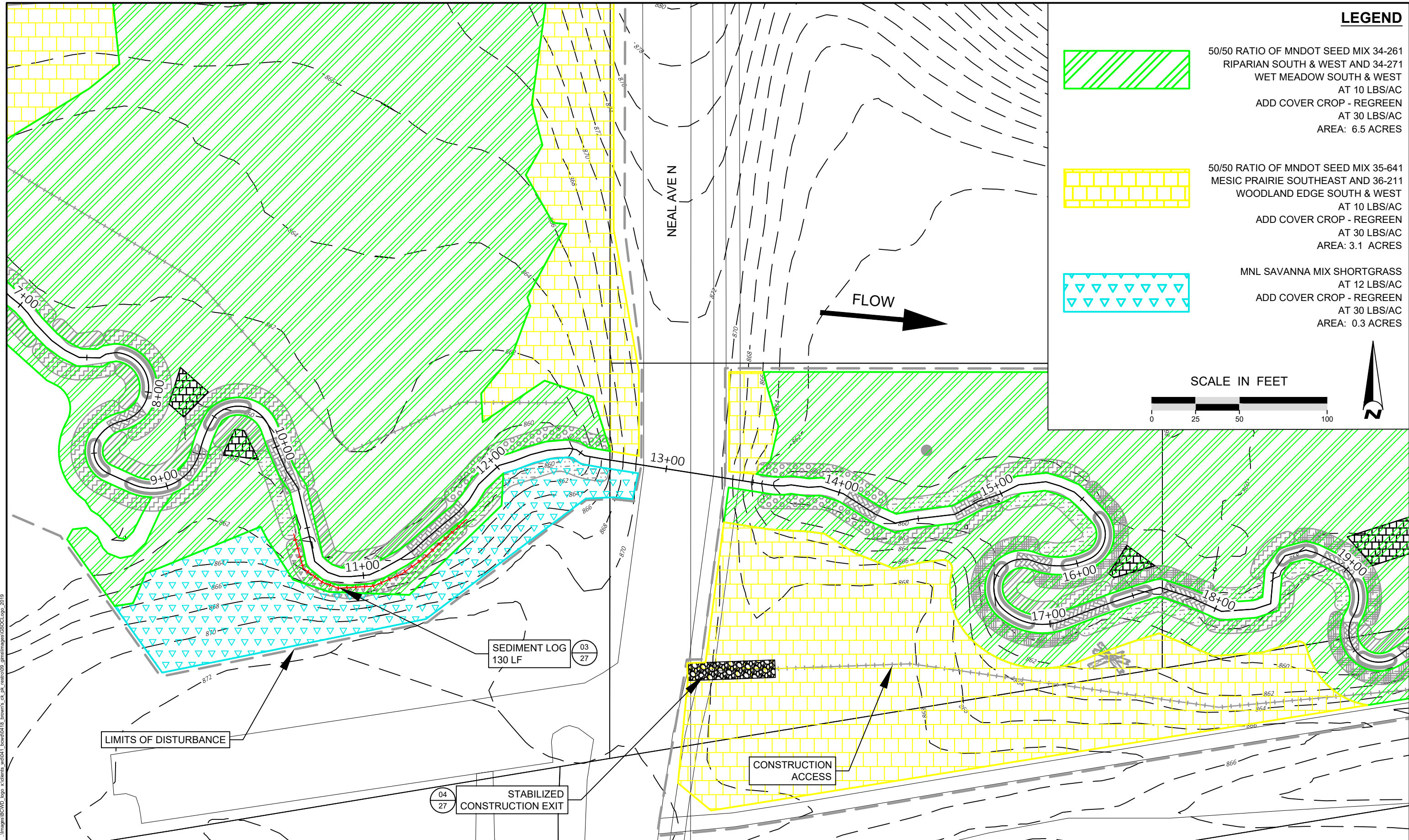
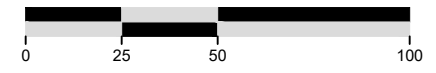


50/50 RATIO OF MNDOT SEED MIX 35-641  
MESIC PRAIRIE SOUTHEAST AND 36-211  
WOODLAND EDGE SOUTH & WEST  
AT 10 LBS/AC  
ADD COVER CROP - REGREEN  
AT 30 LBS/AC  
AREA: 3.1 ACRES



MNL SAVANNA MIX SHORTGRASS  
AT 12 LBS/AC  
ADD COVER CROP - REGREEN  
AT 30 LBS/AC  
AREA: 0.3 ACRES

SCALE IN FEET



NEAL AVENUE

FLOW

LIMITS OF DISTURBANCE

SEDIMENT LOG  
130 LF  
03  
27

CONSTRUCTION ACCESS

04  
27  
STABILIZED  
CONSTRUCTION EXIT

Plot Date: 12/04/2023  
 Drawing: emms\_000\_1418\_SURFACE  
 40041\_0418-XBASE  
 40041\_0418-LBASE  
 40041\_0418-LBASE  
 Asset Border: images...images\BCVD\_bgp\_x\clients\w0041\_browns\_creek\_restoration\_gm\images\SSCCLogs\_2019

**EOOR** water ecology community  
 EMMONS & OLIVIER RESOURCES, INC.  
 1919 UNIV. AVE. W. #300 ST. PAUL, MN  
 TEL: 651.770.8448 WWW.EORINC.COM

**NOT FOR CONSTRUCTION**

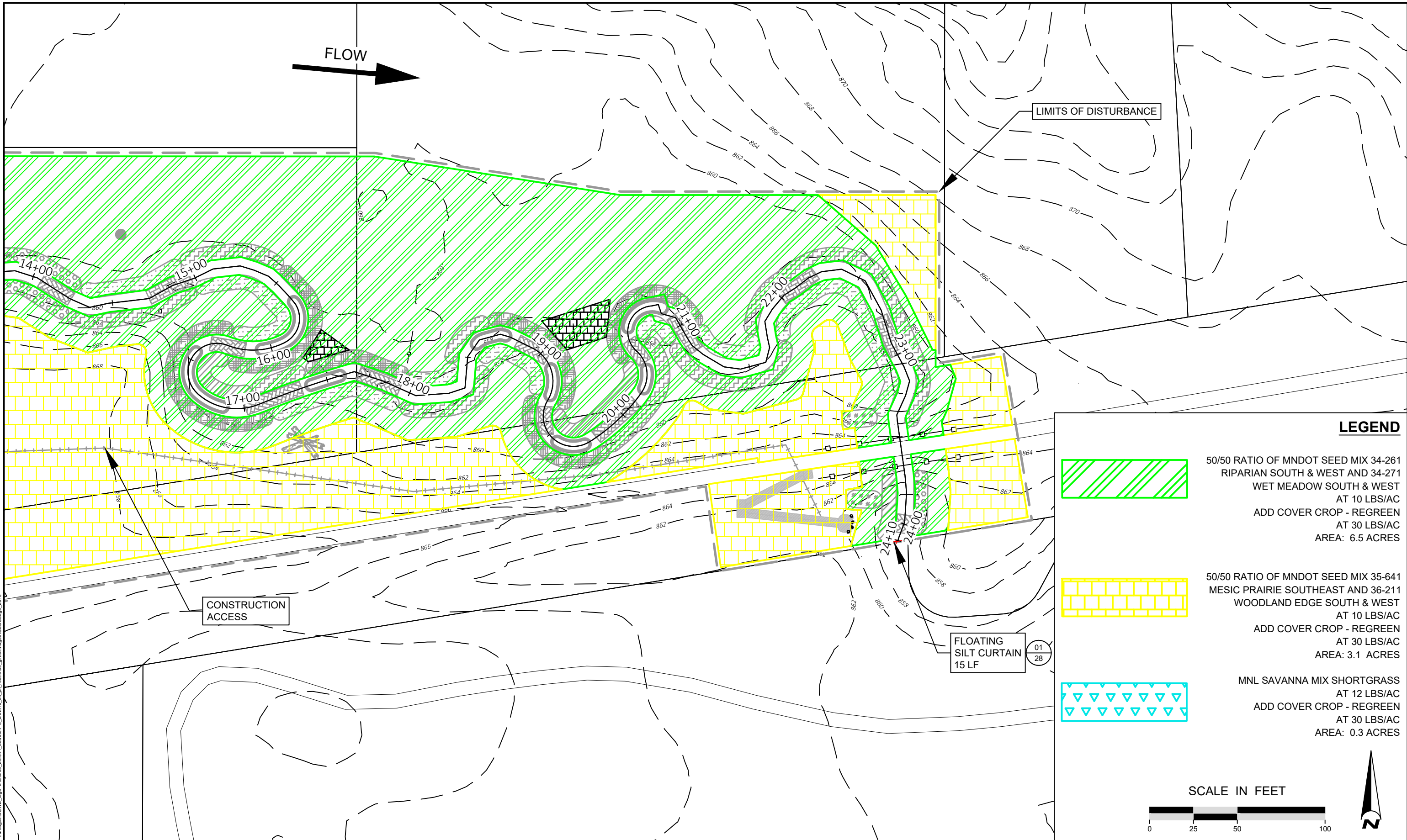
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| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
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|            | 6   |                     |

DESIGNED BY: EOR  
 DRAWN BY: DEM  
 CHECKED BY: MJM  
 EOR JOB #0041-0418

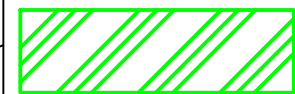
**BROWN'S CREEK WATERSHED DISTRICT**  
 CLIENT PROJECT #XXX-XXXX

**BROWN'S CREEK PARK STREAM RESTORATION**  
 WASHINGTON COUNTY, STILLWATER, MN  
 BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

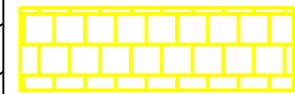
ESC & RESTORATION PLAN 2  
 SHEET 22 OF 28



**LEGEND**



50/50 RATIO OF MNDOT SEED MIX 34-261  
 RIPARIAN SOUTH & WEST AND 34-271  
 WET MEADOW SOUTH & WEST  
 AT 10 LBS/AC  
 ADD COVER CROP - REGREEN  
 AT 30 LBS/AC  
 AREA: 6.5 ACRES

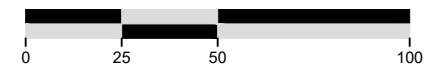


50/50 RATIO OF MNDOT SEED MIX 35-641  
 MESIC PRAIRIE SOUTHEAST AND 36-211  
 WOODLAND EDGE SOUTH & WEST  
 AT 10 LBS/AC  
 ADD COVER CROP - REGREEN  
 AT 30 LBS/AC  
 AREA: 3.1 ACRES



MNL SAVANNA MIX SHORTGRASS  
 AT 12 LBS/AC  
 ADD COVER CROP - REGREEN  
 AT 30 LBS/AC  
 AREA: 0.3 ACRES

SCALE IN FEET



**NOT FOR CONSTRUCTION**

**EOR** water ecology community  
 EMMONS & OLIVIER RESOURCES, INC.  
 1919 UNIV. AVE. W. #300 ST. PAUL, MN  
 TEL: 651.770.8448 WWW.EORINC.COM

| DATE       | NO. | DESCRIPTION         |
|------------|-----|---------------------|
| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
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DESIGNED BY: EOR  
 DRAWN BY: DEM  
 CHECKED BY: MJM  
 EOR JOB #0041-0418

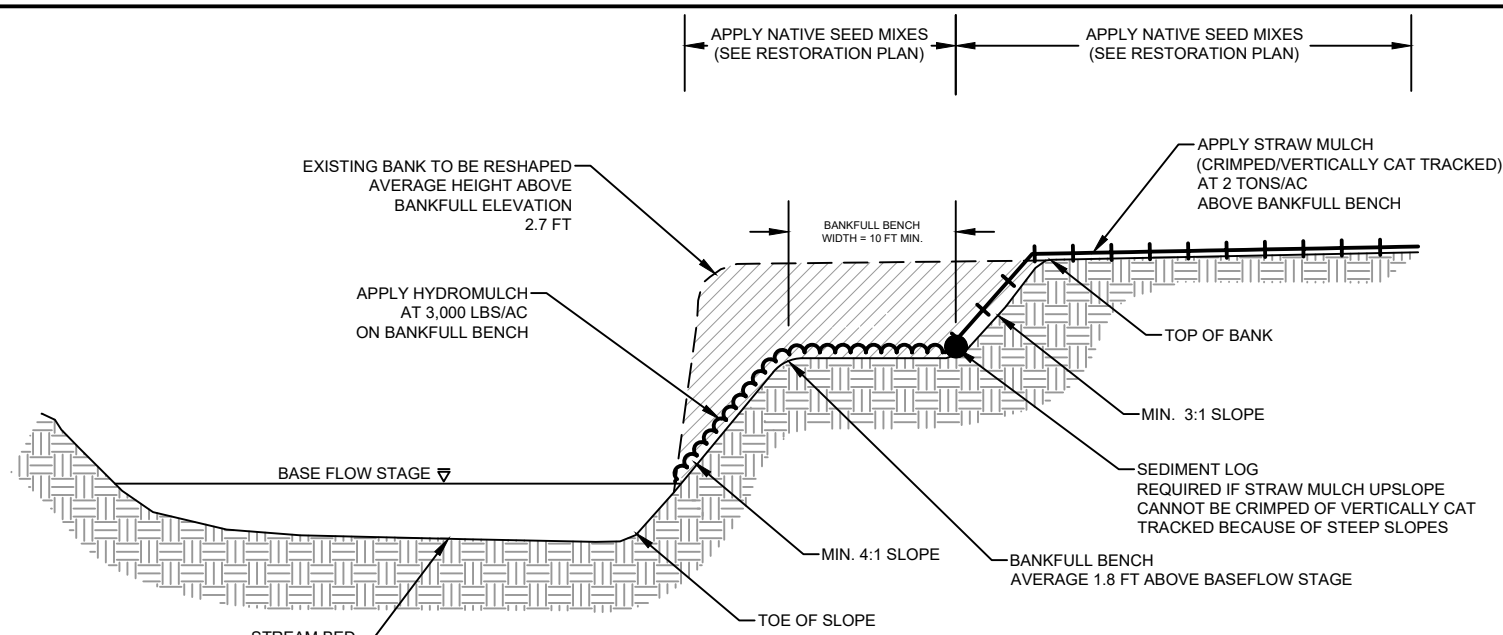


CLIENT PROJECT #XXX-XXXX

**BROWN'S CREEK PARK  
 STREAM RESTORATION**  
 WASHINGTON COUNTY, STILLWATER, MN  
 BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

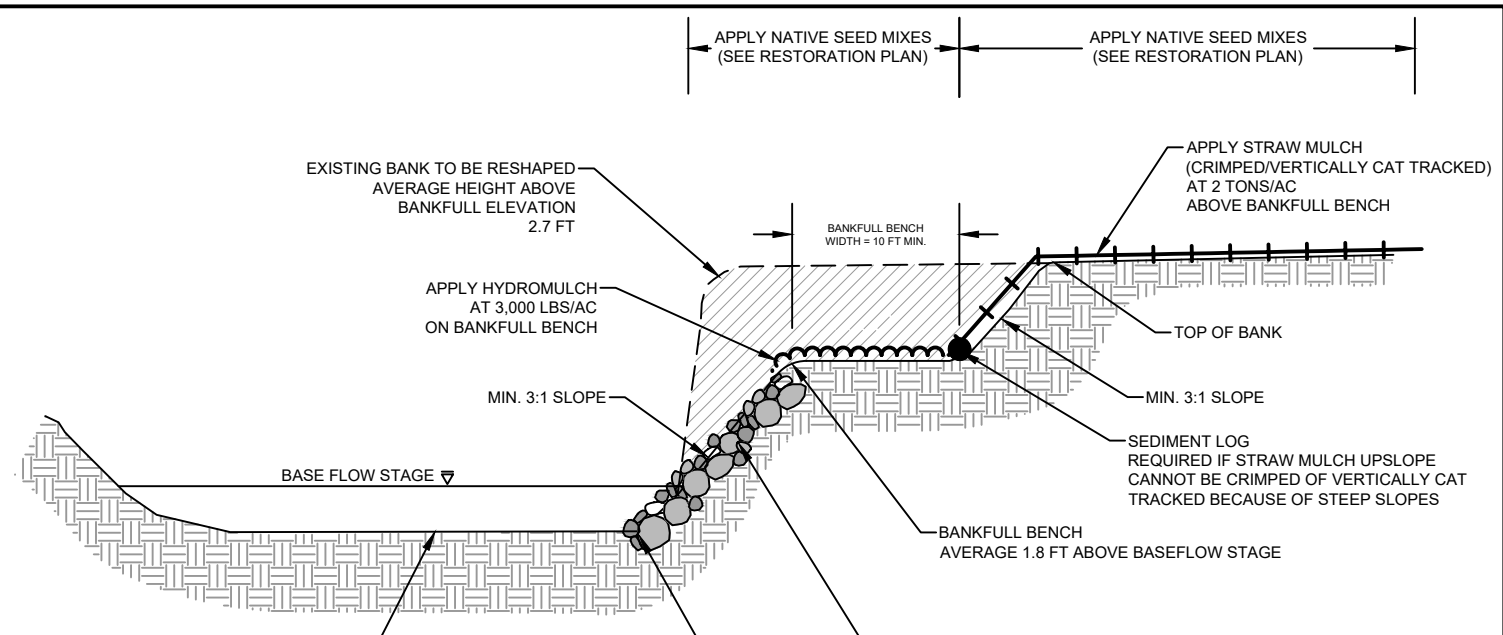
ESC & RESTORATION  
 PLAN 3  
 SHEET 23 OF 28

Plot Date: 12/04/2023  
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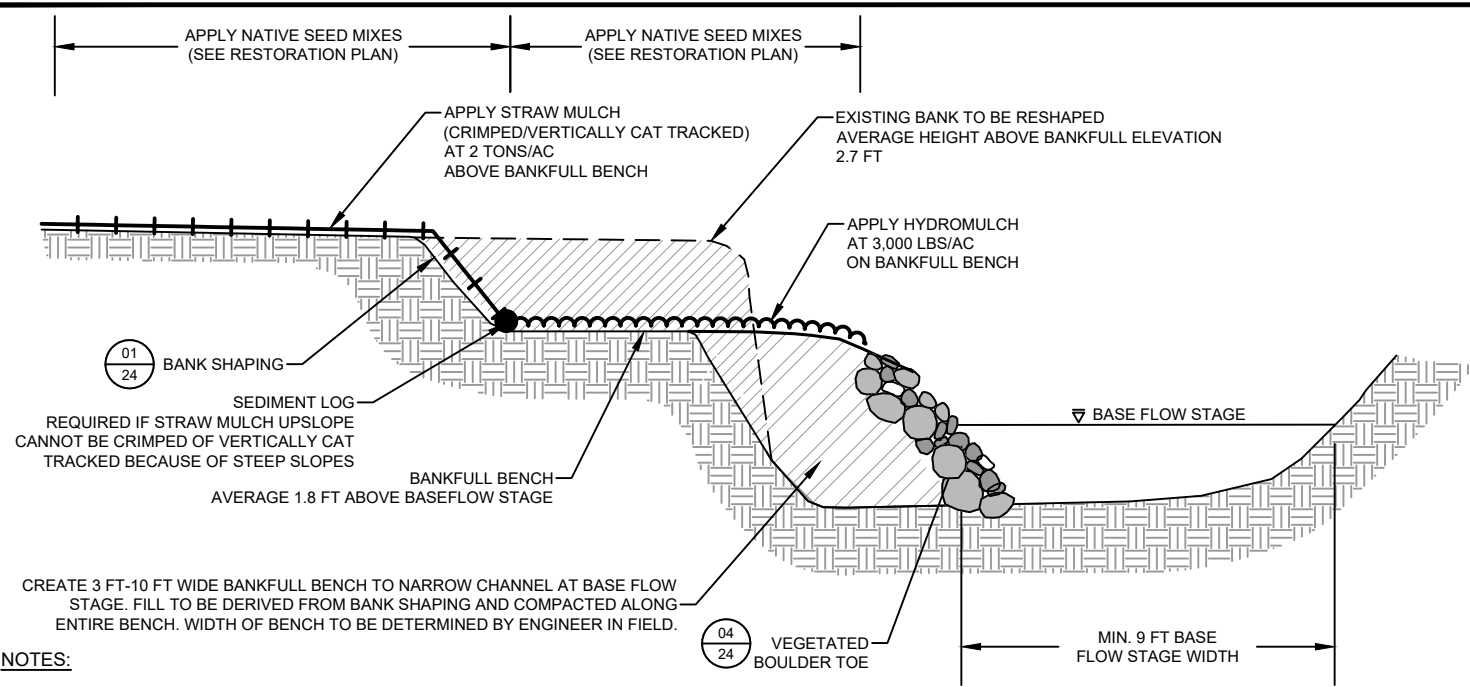
- NOTES:**
1. APPLY COVER CROP (REGREEN) TO ALL DISTURBED AREAS AT A RATE OF 30 LBS/AC
  2. REDUNDANT BMPS ARE:
    - 2.1 FLAT BANKFULL BENCH
    - 2.2 STRAW MULCH CRIMPED/VERTICAL CAT TRACKING ABOVE TOP OF BANK
  2. (2) ROWS OF SEDIMENT LOGS SPACED 5 FEET APART AT TOE OF STEEP SLOPES IF CRIMPING/VERTICAL CAT TRACKING AND FLAT BANKFULL BENCH IS NOT FEASIBLE

**01 BANK SHAPING**  
24 NOT TO SCALE



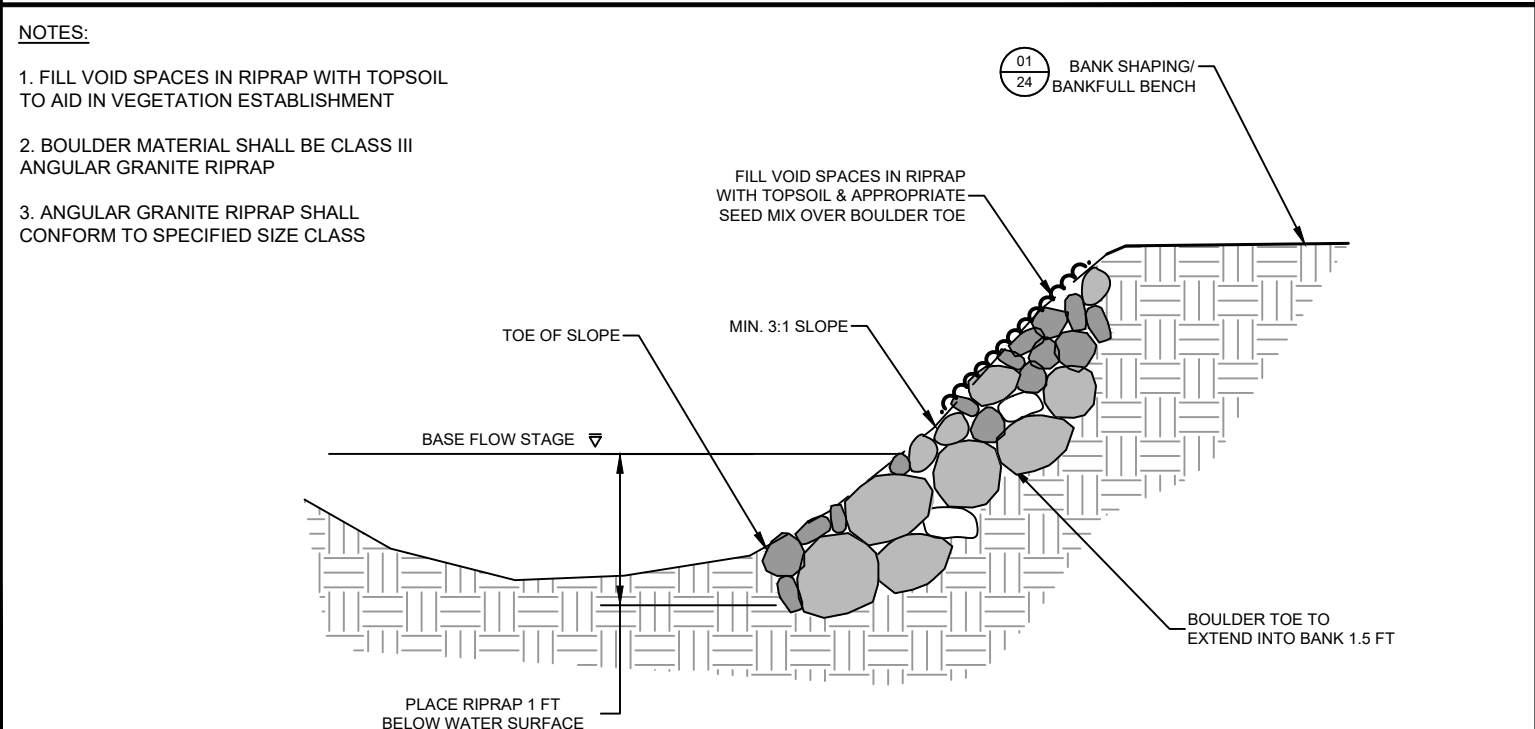
- NOTES:**
1. APPLY COVER CROP (REGREEN) TO ALL DISTURBED AREAS AT A RATE OF 30 LBS/AC
  2. REDUNDANT BMPS ARE:
    - 2.1 FLAT BANKFULL BENCH
    - 2.2 STRAW MULCH CRIMPED/VERTICAL CAT TRACKING ABOVE TOP OF BANK
  2. (2) ROWS OF SEDIMENT LOGS SPACED 5 FEET APART AT TOE OF STEEP SLOPES IF CRIMPING/VERTICAL CAT TRACKING AND FLAT BANKFULL BENCH IS NOT FEASIBLE

**02 BANK SHAPING W/ VEGETATED BOULDER TOE**  
24 NOT TO SCALE



- NOTES:**
1. APPLY COVER CROP (REGREEN) TO ALL DISTURBED AREAS AT A RATE OF 30 LBS/AC
  2. REDUNDANT BMPS ARE:
    - 2.1 FLAT BANKFULL BENCH
    - 2.2 STRAW MULCH CRIMPED/VERTICAL CAT TRACKING ABOVE TOP OF BANK
  2. (2) ROWS OF SEDIMENT LOGS SPACED 5 FEET APART AT TOE OF STEEP SLOPES IF CRIMPING/VERTICAL CAT TRACKING AND FLAT BANKFULL BENCH IS NOT FEASIBLE

**03 BANK SHAPING W/ CHANNEL NARROWING**  
24 NOT TO SCALE



- NOTES:**
1. FILL VOID SPACES IN RIPRAP WITH TOPSOIL TO AID IN VEGETATION ESTABLISHMENT
  2. BOULDER MATERIAL SHALL BE CLASS III ANGULAR GRANITE RIPRAP
  3. ANGULAR GRANITE RIPRAP SHALL CONFORM TO SPECIFIED SIZE CLASS

**04 VEGETATED BOULDER TOE**  
24 NOT TO SCALE

Plot Date: 12/04/2023  
 Drawing: E:\0041-BCWD\0418\_Brown's\_Ck\_Pk\_Restor\09\_GNIS\0418\_0418-CD.dwg  
 User: jbrown  
 Title: BANK SHAPING SURFACE  
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 40041\_0418-FBASE  
 40041\_0418-LBASE  
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NOT FOR CONSTRUCTION

| DATE       | NO. | DESCRIPTION         |
|------------|-----|---------------------|
| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
|            | 2   |                     |
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|            | 4   |                     |
|            | 5   |                     |
|            | 6   |                     |

DESIGNED BY: EOR  
 DRAWN BY: DEM  
 CHECKED BY: MJM  
 EOR JOB #0041-0418



**BROWN'S CREEK PARK  
 STREAM RESTORATION**  
 WASHINGTON COUNTY, STILLWATER, MN  
 BROWN'S CREEK WATERSHED DISTRICT  
 OAKDALE, MN 55128

DETAILS - 1  
 SHEET 24 OF 28



NOTES:

1. ROOTWADS SHOULD MIN. 6 FT IN LENGTH AND 18 INCHES IN DIAMETER.
2. SPECIFIC ORIENTATION OF LOGS AND BALLAST MATERIALS MAY VARY FROM TYPICAL DRAWINGS DEPENDING ON SIZE AND SHAPE OF MATERIAL DELIVERED OR SALVAGED.
3. BUILD OUT TOE WOOD FROM TOE OF EXISTING BANK. BLEND UPSTREAM AND DOWNSTREAM ENDS OF THE TOE WOOD INTO THE EXISTING BANK TO PREVENT SCOUR/EDDYING.
4. WOOD PLACEMENT TO BE DIRECTED BY THE OWNERS REPRESENTATIVE IN THE FIELD AT THE TIME OF CONSTRUCTION. EXACT PLACEMENT LOCATION AND NUMBER OF PIECES PER BANK TO BE DICTATED BASED ON FIELD CONDITIONS AND LOCALIZED GEOMORPHOLOGY.

**FOOTER LOGS & ROOT WADS:**

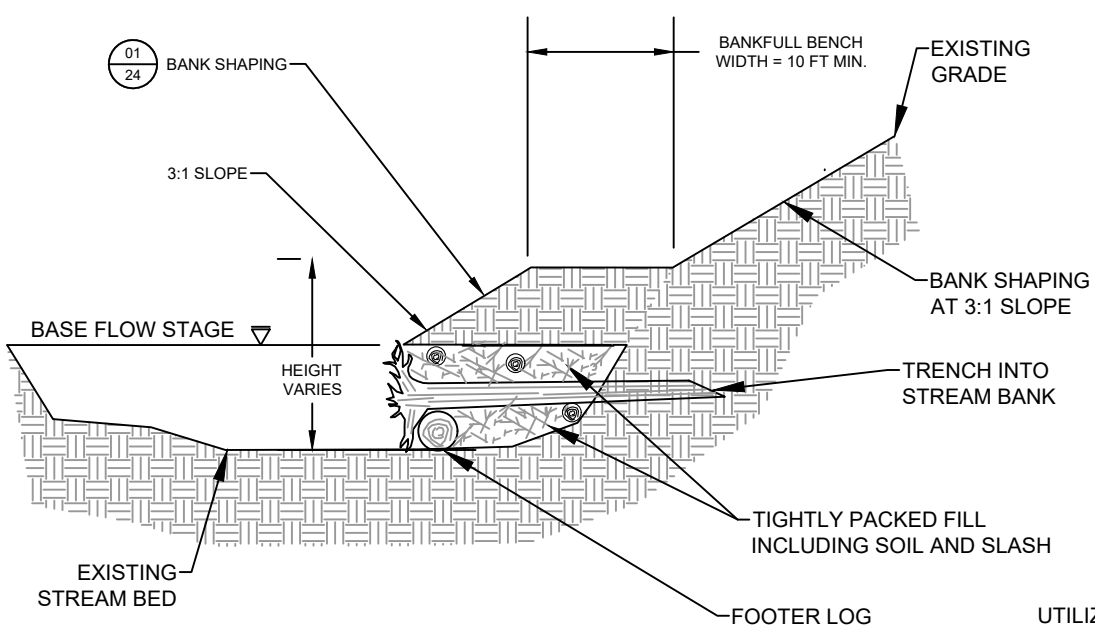
- TO BE HARVESTED ONSITE BY CONTRACTOR.
- SHALL BE FREE OF DECAY OR ROT. BOX ELDER & LARGE BUCKTHORN ARE ACCEPTABLE.
- MINIMUM 8 INCH TRUNK DIAMETER.
- ROOTWAD ROOT BOLE MUST BE INTACT AND HAVE A MINIMUM DIAMETER OF 18 INCHES AND A MAXIMUM DIAMETER OF 30 INCHES.

**FILLER MATERIAL:**

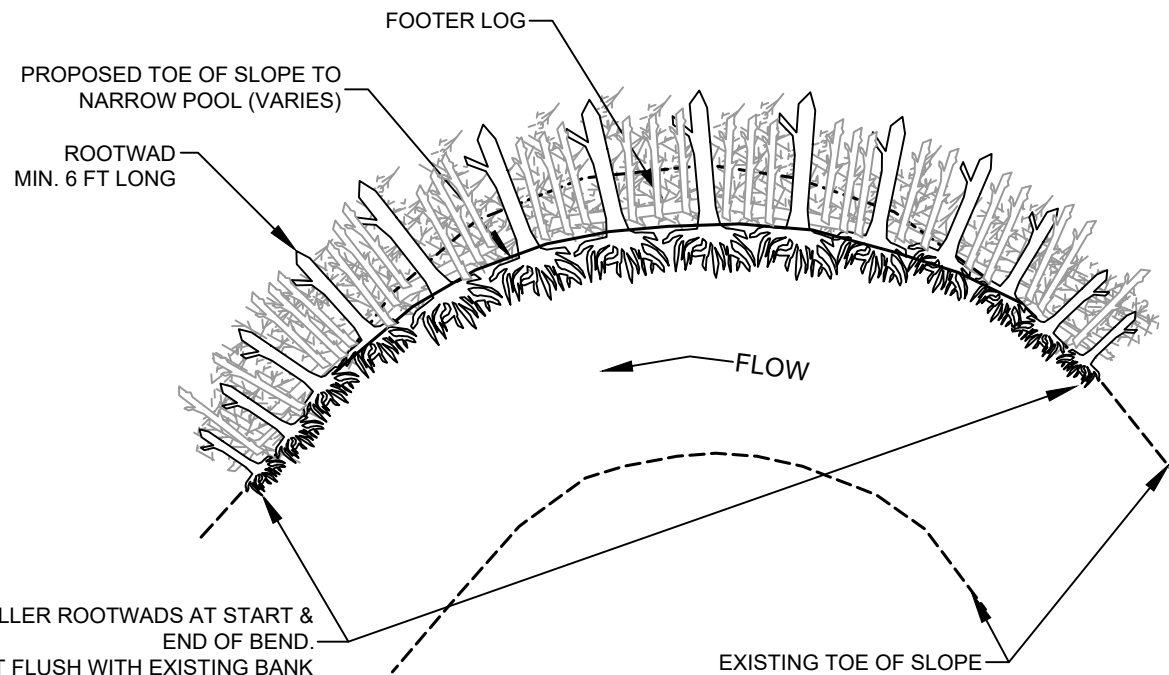
- TO BE HARVESTED ONSITE BY CONTRACTOR.
- SMALL LOGS, LIMBS AND TREE TOPS LESS THAN 6 INCHES DIAMETER.
- MATERIAL SHALL BE INSTALLED PARALLEL WITH ROOTWADS TO ACHIEVE MAXIMUM STEM DENSITY.

**BACKFILL MATERIAL:**

- ONSITE MATERIALS TO BE UTILIZED WHERE SUITABLE AS APPROVED BY THE ENGINEER. GRAVEL & COBBLE IS PREFERRED.
- IF ADDITIONAL MATERIAL IS REQUIRED, IT SHALL BE A MINERAL SOIL AND/OR NATURAL GRAVEL & COBBLE.

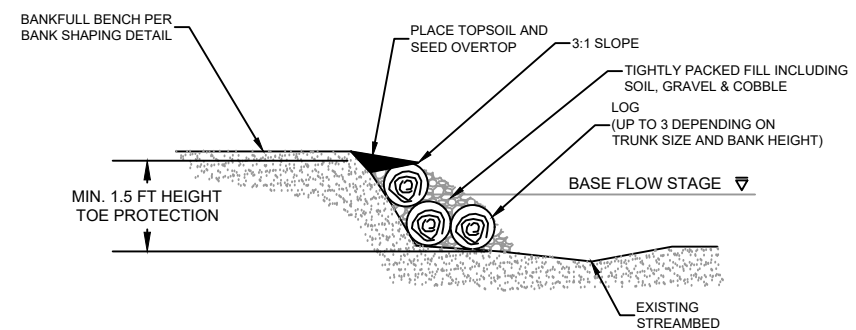
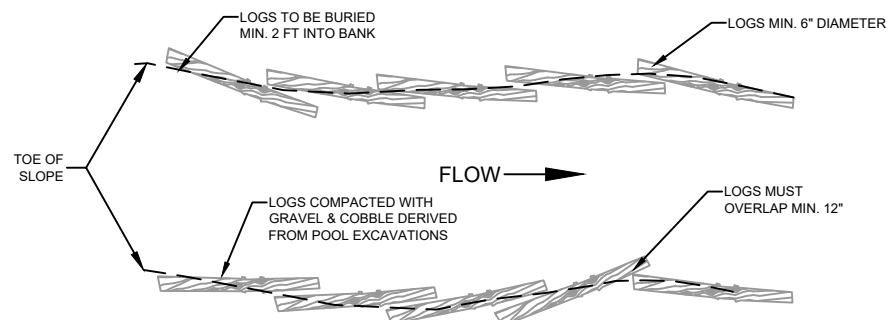


**CROSS SECTION**



**PLAN**

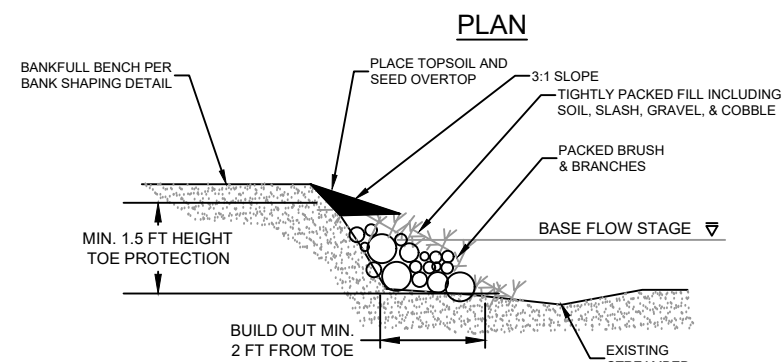
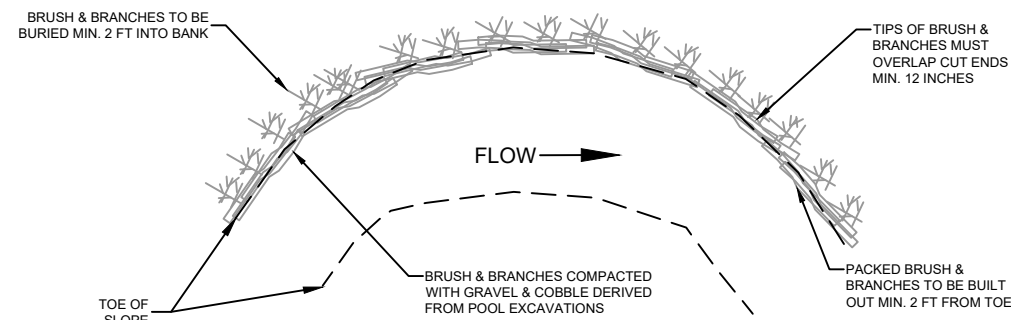
01 TOEWOOD  
25 NOT TO SCALE



**LOG TOE FOR STRAIGHT REACHES**

NOTES:

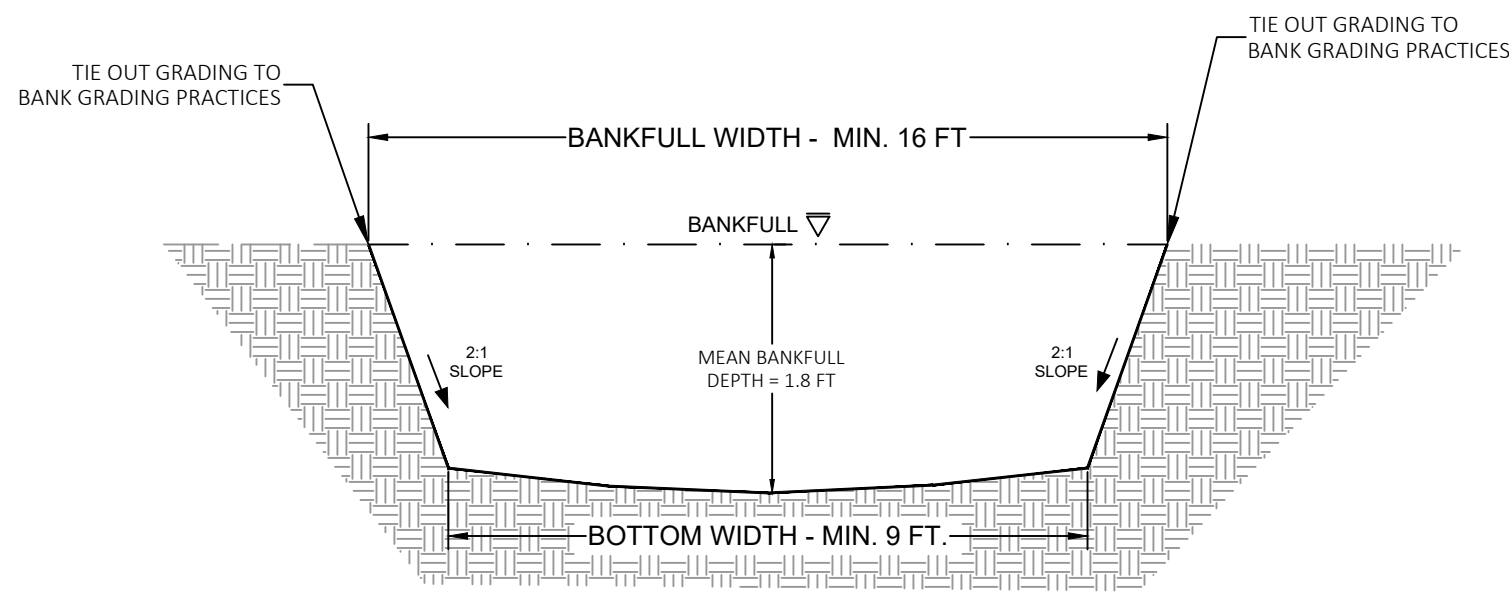
1. SPECIFIC ORIENTATION OF LOGS AND BRUSH MAY VARY FROM TYPICAL DRAWINGS DEPENDING ON SIZE AND SHAPE OF MATERIAL DELIVERED OR SALVAGED.
2. WOOD PLACEMENT TO BE DIRECTED BY ENGINEER IN THE FIELD AT THE TIME OF CONSTRUCTION. EXACT PLACEMENT LOCATION AND NUMBER OF PIECES PER BANK TO BE DICTATED BASED ON FIELD CONDITIONS.
3. UPSTREAM LOG/BRANCH TO OVERLAP START OF DOWNSTREAM LOG/BRANCH MINIMUM 12 INCHES.
4. INNER VOID SPACES OF LOGS & BRUSH TO BE FILLED WITH SOIL, OUTER FILL TO BE COMPRISED OF GRAVEL & COBBLE.
5. ROOTWADS OF LOGS/TRUNKS AND SHRUBS MAY REMAIN ATTACHED IF ROOTWADS ARE ABLE TO BE ADEQUATELY BURIED UNDER BANKFULL BENCH.
6. ALL MATERIAL SHALL BE FRESHLY CUT (NO ROTTEN LOGS OR LIMBS)
7. WOODY MATERIAL SHALL BE TIGHTLY COMPACTED WITH EXCAVATOR BUCKET TO LIMIT VOID SPACE AS MUCH AS POSSIBLE.



**BRUSH TOE FOR BENDS**

02 BRUSH/LOG TOE  
25 NOT TO SCALE

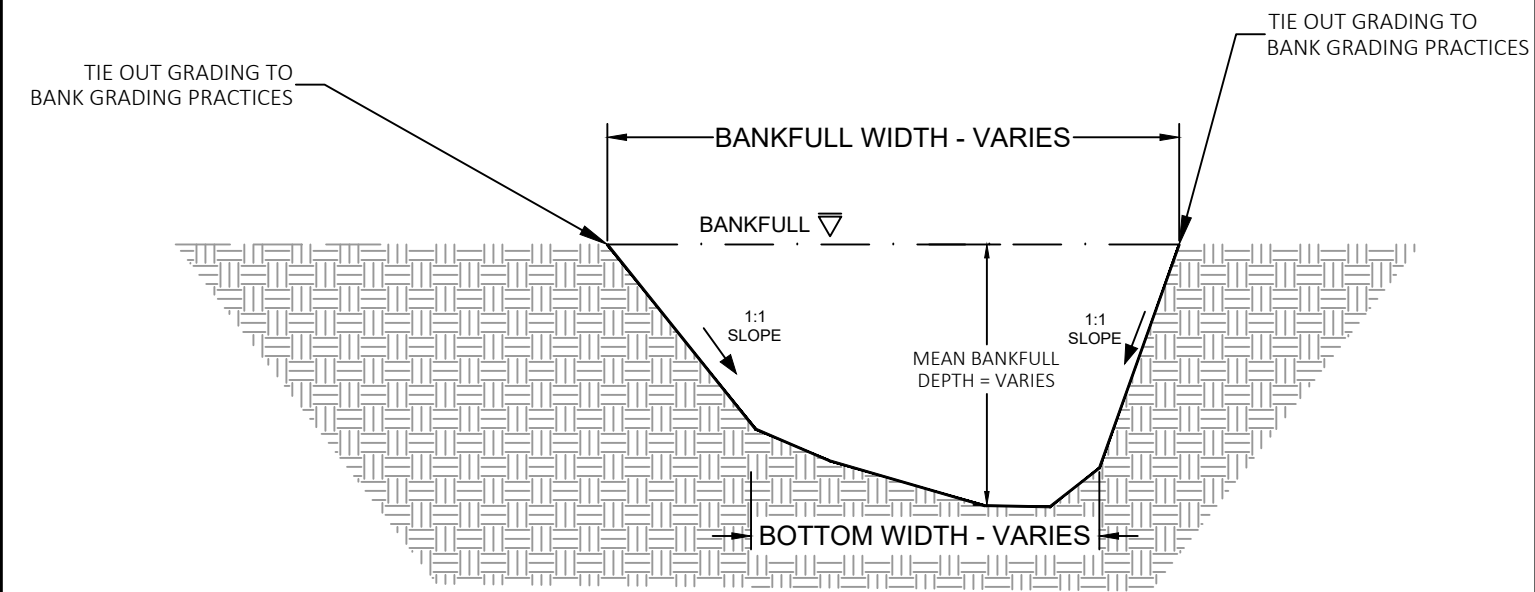
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| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
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**NOTES**

1. ALL BANKS TO TIE OUT TO BANK GRADING PRACTICES AT 3:1 SLOPE. A 2:1 SLOPE TRANSITION MAY BE REQUIRED IN AREAS WITH HIGH BANKS, FIELD ENGINEER WILL DIRECT WHEN REQUIRED.
2. TYPICAL CROSS SECTION MODELED AFTER AN "E" CHANNEL.

**01** TYPICAL RIFFLE CROSS SECTION  
26 NOT TO SCALE



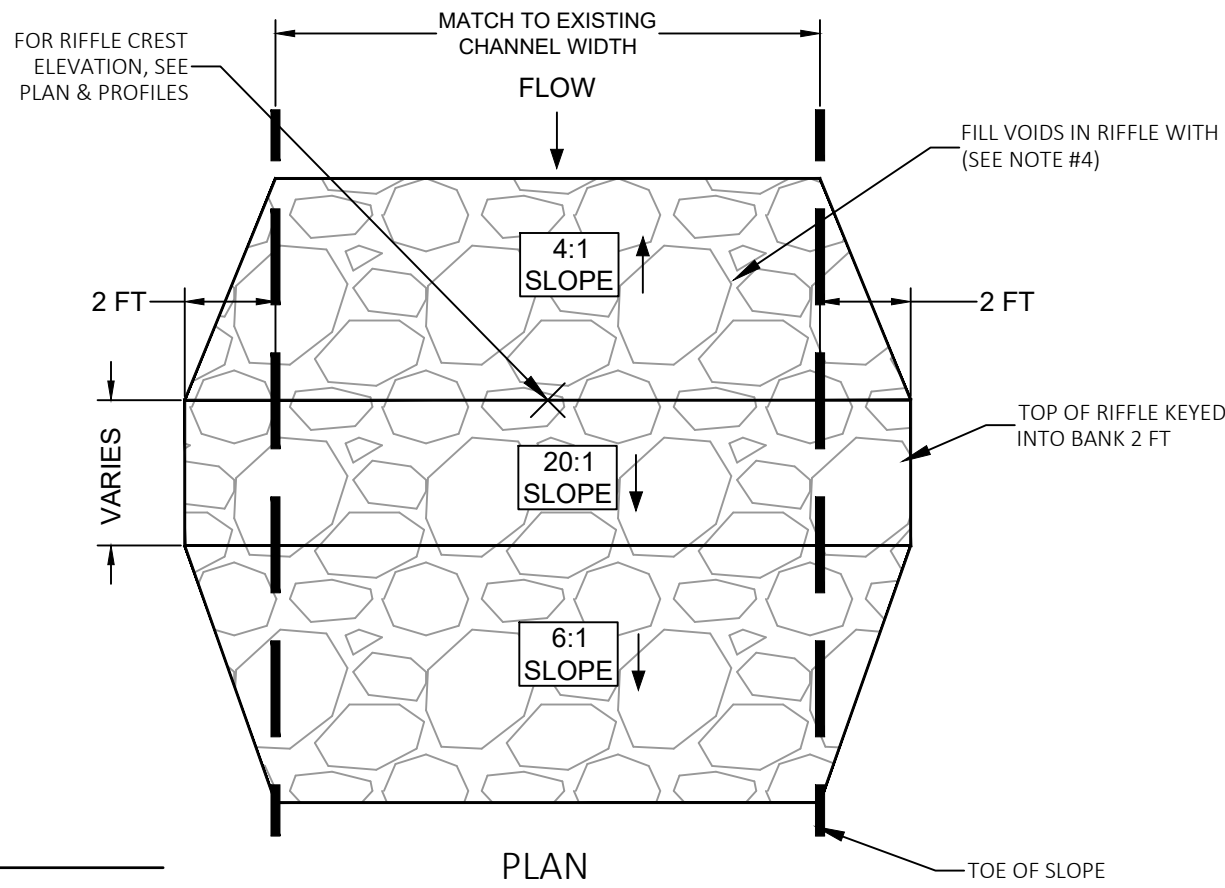
**NOTES**

1. A 2:1 SLOPE TRANSITION MAY BE REQUIRED IN AREAS WITH HIGH BANKS, FIELD ENGINEER WILL DIRECT WHEN REQUIRED.
2. TYPICAL CROSS SECTION MODELED AFTER AN "E" CHANNEL.

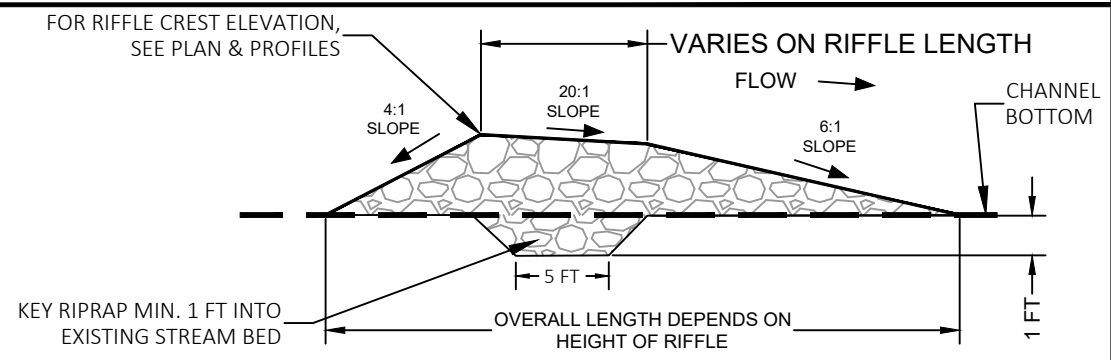
**02** TYPICAL POOL CROSS SECTION  
26 NOT TO SCALE

**NOTES**

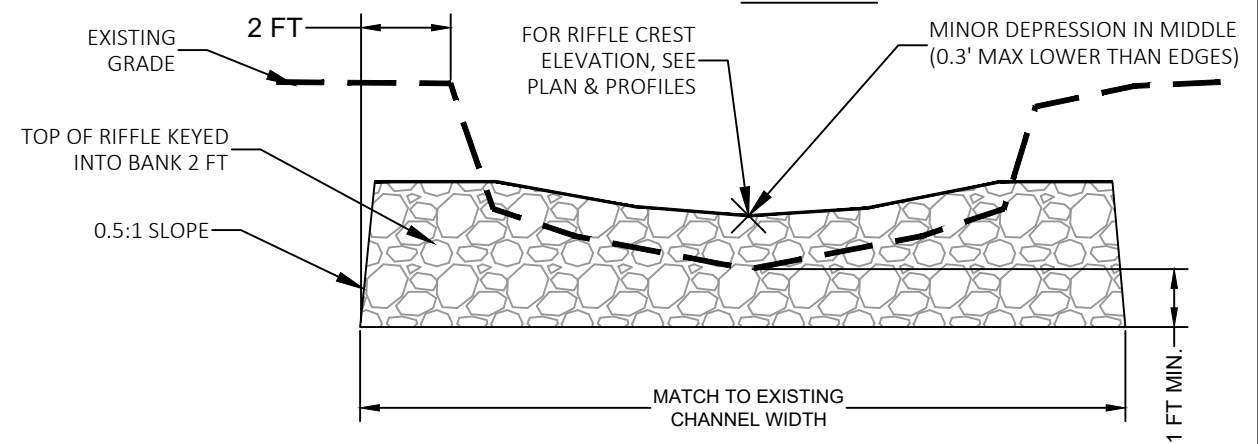
1. RIFFLE MATERIAL SHALL BE CLASS III RIPRAP - GRANITE AND 1"- 3" CRUSHED GRANITE MEETING MNDOT 3601.2 SPECIFICATIONS
2. ANGULAR GRANITE SHALL CONFORM TO SPECIFIED SIZE CLASS III
3. POSITION OF ROCK RIFFLE TO BE APPROVED BY PROJECT OWNERS REPRESENTATIVE/ ENGINEER
4. FILL VOID SPACES OVER ENTIRE RIFFLE WITH EXISTING GRAVEL DERIVED FROM CHANNEL EXCAVATIONS
5. FOR RIFFLE CREST ELEVATIONS, SEE PLAN & PROFILE CALL OUTS



**PLAN**



**PROFILE**



**CROSS SECTION**

**03** ROCK RIFFLE  
26 NOT TO SCALE

**NOT FOR CONSTRUCTION**

**EOR** water ecology community  
EMMONS & OLIVIER RESOURCES, INC.  
1919 UNIV. AVE. W. #300 ST. PAUL, MN  
TEL: 651.770.8448 WWW.EORINC.COM

| DATE       | NO. | DESCRIPTION         |
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| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
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DESIGNED BY: EOR  
DRAWN BY: DEM  
CHECKED BY: MJM  
EOR JOB #0041-0418

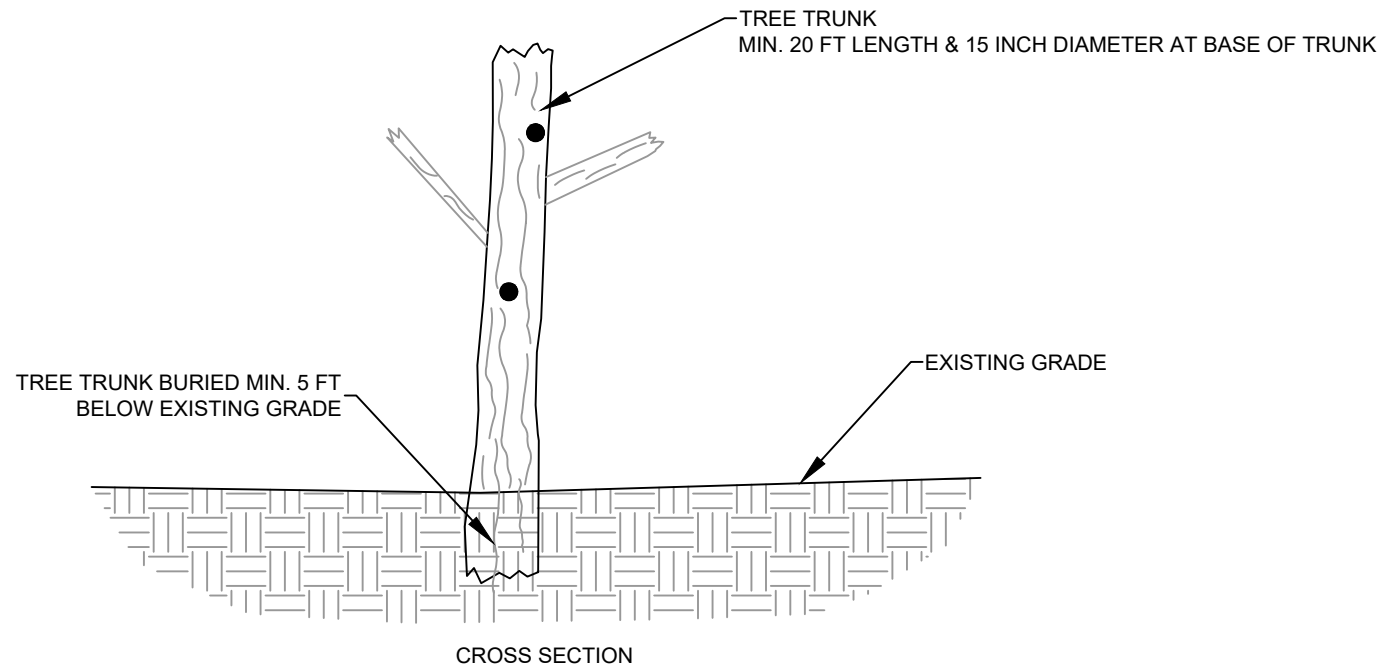


CLIENT PROJECT #XXX-XXXX

**BROWN'S CREEK PARK  
STREAM RESTORATION**  
WASHINGTON COUNTY, STILLWATER, MN  
BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

DETAILS - 3  
SHEET 26 OF 28

Plot Date: 12/04/2023  
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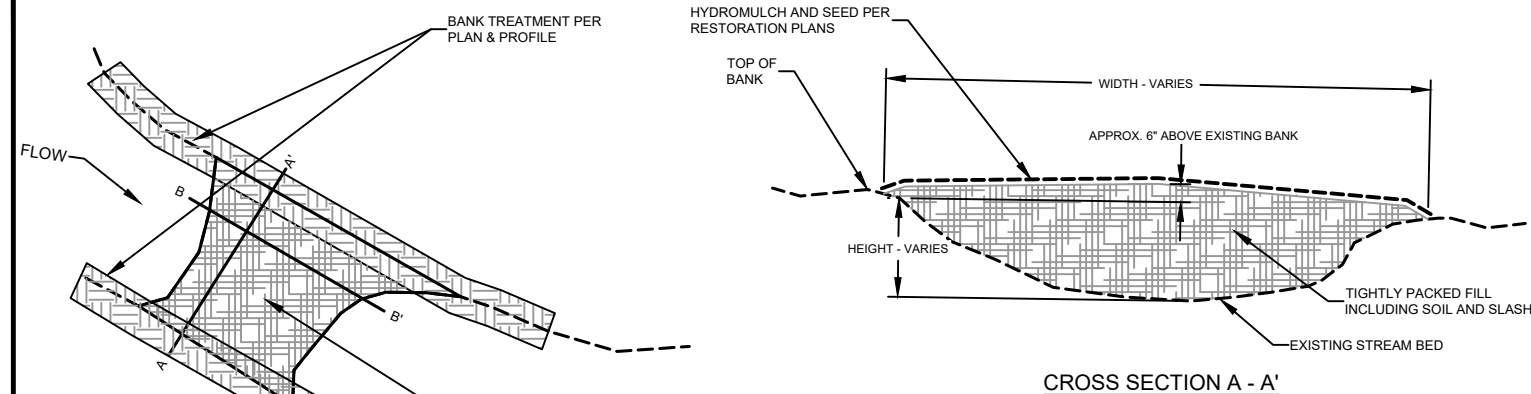


CROSS SECTION

NOTES:

1. TRUNK LOCATION & PLACEMENT TO BE DIRECTED BY PROJECT ENGINEER IN THE FIELD. INSTALLATION OF SNAG TREE SHOULD BE CONDUCTED USING AN EXCAVATOR.
2. TRUNK SHALL BE SOURCED FROM A DEAD TREE, IDEALLY WITH SIGNS OF DECAY, CAVITIES, OR LOOSE BARK.
3. PRESERVE ANY BRANCHES AND BARK AS MUCH AS POSSIBLE DURING INSTALLATION.
4. COMPACT SOIL AROUND TREE TRUNK USING EXCAVATOR BUCKET.

01 SNAG TREE  
27 NOT TO SCALE

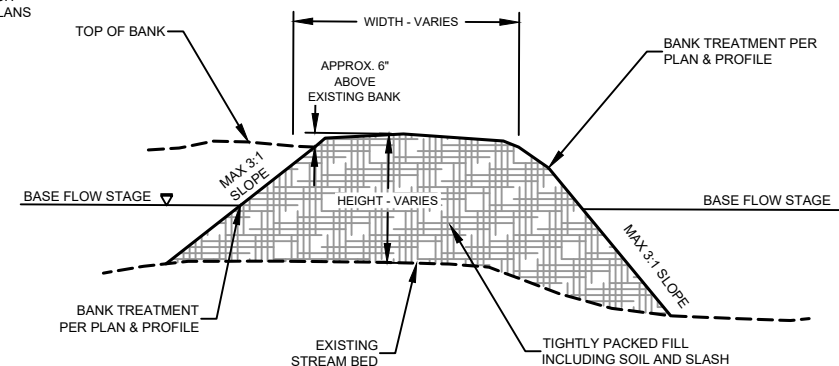


PLAN

CROSS SECTION A - A'

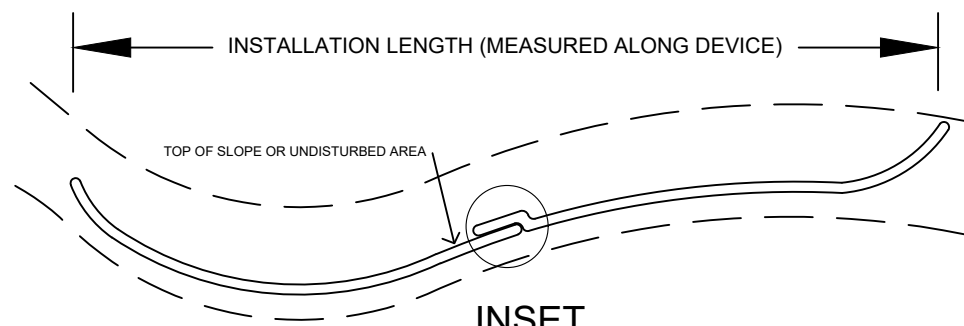
NOTES:

- 1) ALL MATERIALS SHALL BE CONSIDERED INCIDENTAL TO EXCAVATION.
- 2) UTILIZE SOILS FROM BANK SHAPING ACTIVITIES AND SLASH AS NEEDED FOR FILL.
- 3) SOIL PLUG TO BE TIGHTLY COMPACTED WITH MACHINERY ON-SITE (I.E. EXCAVATOR OR BULLDOZER TRACKING OVERTOP MULTIPLE TIMES)



CROSS SECTION B - B'

02 CHANNEL PLUG  
27 NOT TO SCALE

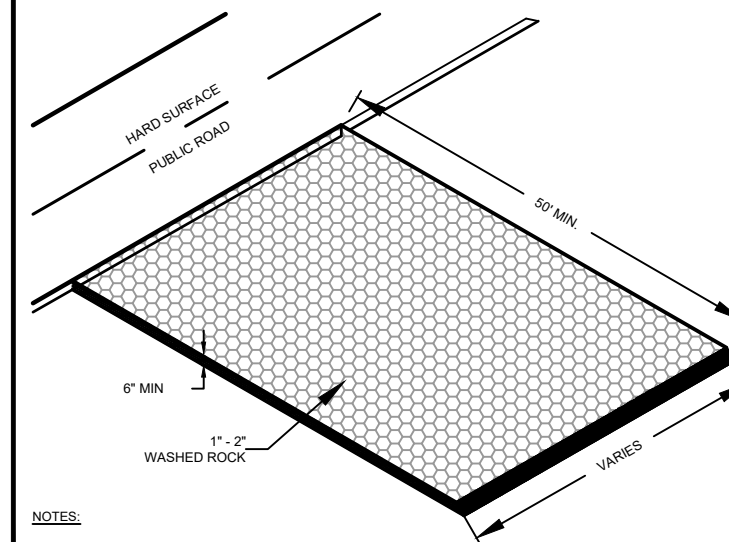


INSET

1. SEDIMENT LOGS SHOULD BE 6" CURLEX SEDIMENT LOG WITH WITH BIODEGRADABLE CONTAINMENT MATERIAL (OR APPROVED EQUIVALENT)
2. SEDIMENT CONTROL LOGS MAY BE REQUIRED ALONG ACCESS ROUTES AND/OR DOWNSLOPE OF STOCKPILES, AS DEEMED NECESSARY BY ENGINEER
3. SEDIMENT CONTROL LOGS MUST BE 100% BIODEGRADABLE. SYNTHETIC NETTING OR PHOTODEGRADABLE NETTING WILL NOT BE ACCEPTED
4. SPACE STAKES AT 1"X1" NOMINAL WOOD STAKES AT 8 FOOT MAXIMUM SPACING
5. INSTALL SLOPE PROTECTION PERPENDICULAR TO SLOPE (PARALLEL TO CONTOURS). OVERLAP JOINTS PER DETAIL 'A'. RUN THE LAST 10 FEET OF EACH DEVICE UP THE SLOPE TO PREVENT FLOW RUNAROUND
6. STAKES ARE NOT TO PROTRUDE THROUGH LOGS, BUT RATHER PLACED ON THE DOWNSTREAM SIDE AT A 45 DEGREE ANGLE SO AS TO "PINCH" THE LOG TIGHT TO THE GROUND SURFACE

INSET

03 SEDIMENT CONTROL LOG  
27 NOT TO SCALE



NOTES:

1. IF STABILIZED CONSTRUCTION EXITS ARE LOCATED IN SATURATED SOILS, CONTRACTOR SHALL PLACE GEOTEXTILE FABRIC UNDERNEATH ROCK TO PREVENT SETTLING.
2. ROCK CONSTRUCTION ENTRANCE SHALL BE MAINTAINED FOR THE DURATION OF THE CONSTRUCTION PROCESS.
3. CONTRACTOR IS RESPONSIBLE FOR REMOVAL & RESTORATION AT COMPLETION OF PROJECT.
4. ALTERNATIVE CONSTRUCTION ENTRANCE MAY BE UTILIZED AFTER APPROVAL BY OWNERS REPRESENTATIVE/ ENGINEER.

04 STABILIZED CONSTRUCTION EXIT  
27 NOT TO SCALE



NOT FOR CONSTRUCTION

| DATE       | NO. | DESCRIPTION         |
|------------|-----|---------------------|
| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
|            | 2   |                     |
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|            | 5   |                     |
|            | 6   |                     |

DESIGNED BY: EOR

DRAWN BY: DEM

CHECKED BY: MJM

EOR JOB #0041-0418



CLIENT PROJECT #XXX-XXXX

BROWN'S CREEK PARK  
STREAM RESTORATION

WASHINGTON COUNTY, STILLWATER, MN

BROWN'S CREEK WATERSHED DISTRICT

OAKDALE, MN 55128

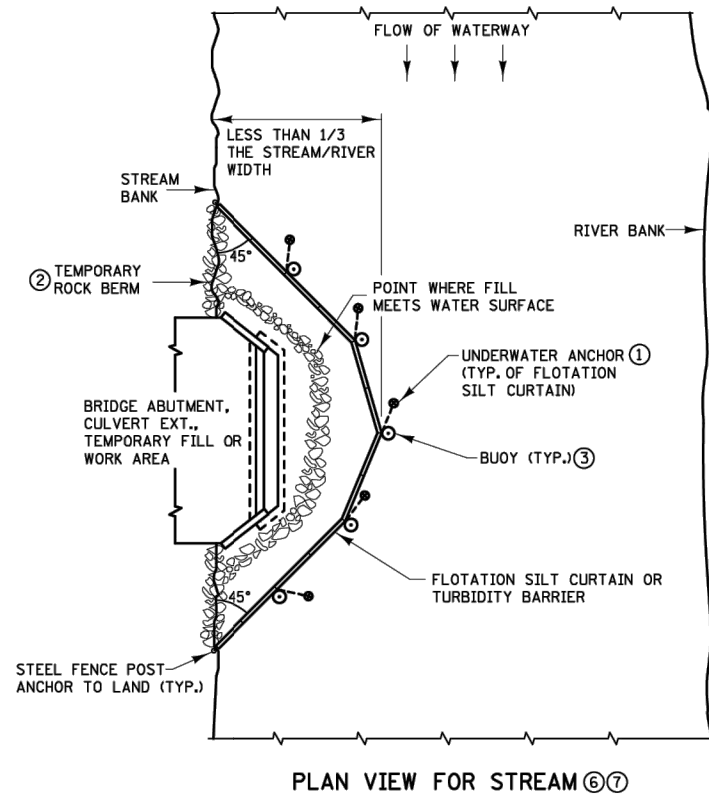
DETAILS - 4

SHEET 27 OF 28

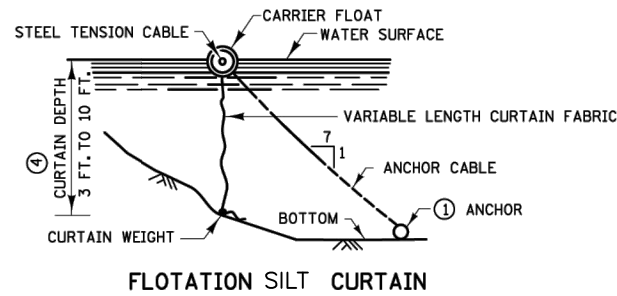
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 User: jmoran  
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PLOTTED/REVISED: 23-OCT-2013

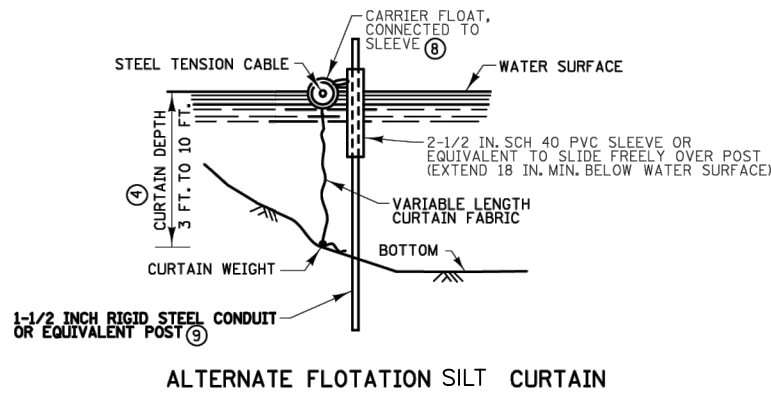
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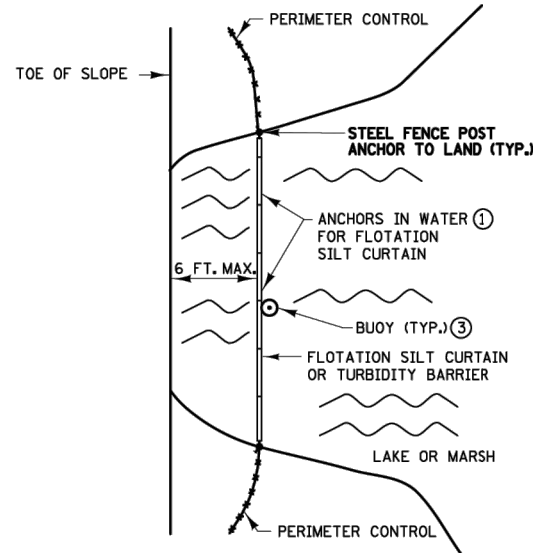
PLAN VIEW FOR STREAM (6, 7)



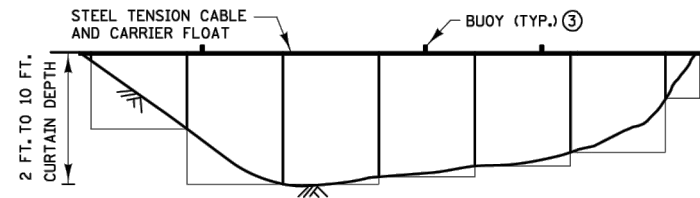
FLOTATION SILT CURTAIN



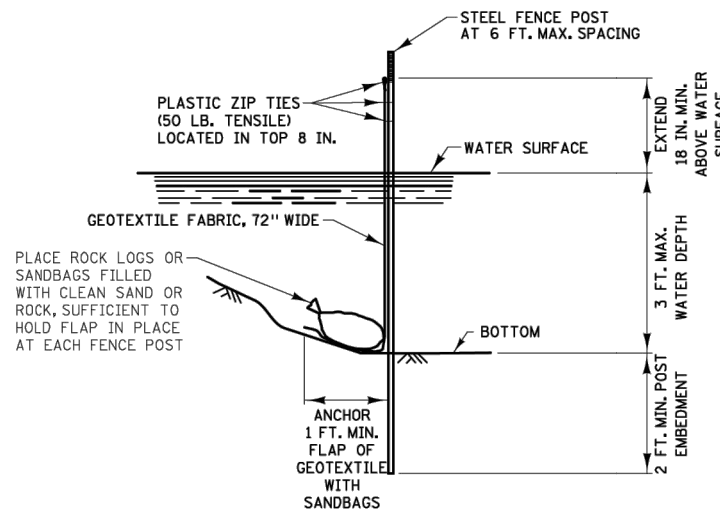
ALTERNATE FLOTATION SILT CURTAIN



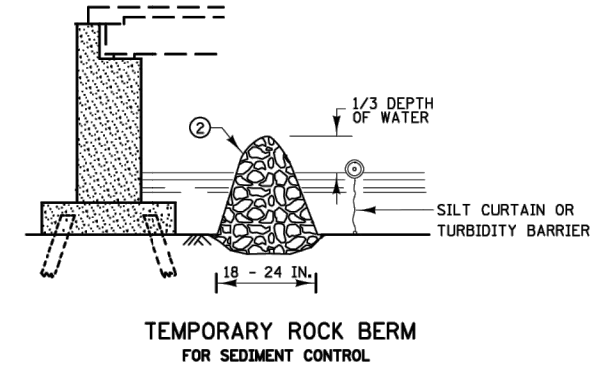
PLAN VIEW FOR LAKE OR MARSH (6, 7)



FRONT VIEW FOR FLOTATION SILT CURTAIN (4)



TURBIDITY BARRIER (SILT FENCE TYPE TB)



TEMPORARY ROCK BERM FOR SEDIMENT CONTROL

**INSTALLATION GUIDELINES TURBIDITY BARRIER (4)**  
 MINIMUM WATER DEPTH: 1 FT.  
 MAXIMUM WATER DEPTH: 3 FT.  
 MAXIMUM WATER VELOCITY: 5 FT./SEC.

**INSTALLATION GUIDELINES FLOTATION SILT CURTAIN TYPE: STILL WATER (5)**  
 MINIMUM WATER DEPTH: 3 FT.  
 MAXIMUM WATER DEPTH: 10 FT.  
 MAXIMUM WATER VELOCITY: 2 FT./SEC.  
 MAXIMUM WAVE HEIGHT: 1 FT

**INSTALLATION GUIDELINES FLOTATION SILT CURTAIN TYPE: MOVING WATER (5)**  
 MINIMUM WATER DEPTH: 3 FT.  
 MAXIMUM WATER DEPTH: 10 FT.  
 MAXIMUM WATER VELOCITY: 5 FT./SEC.  
 MAXIMUM WAVE HEIGHT: 2 FT.

**NOTES:**

- SEE SPECS. 2573, 3886, 3887 & 3893.
- (1) FOR ANCHOR SPACING AND WEIGHT REQUIREMENTS, SEE SPEC. 2573.
- (2) IN AREAS WHERE THE PLAN CALLS FOR RIPRAP AT A BRIDGE, CULVERT, OR SLOPE, A TEMPORARY ROCK BERM CONSTRUCTED FROM THE RIPRAP CAN BE USED TO PROVIDE ADDITIONAL PROTECTION. WHEN THE WORK IS COMPLETE THE RIPRAP CAN THEN BE MOVED TO THE PERMANENT LOCATION INDICATED IN THE PLANS. THE TEMPORARY ROCK BERM IS INCIDENTAL.
- (3) ON U.S. COAST GUARD OR OTHER MOTORIZED WATERWAYS, BUOYS ARE REQUIRED TO MARK THE ENDS AND SPECIAL AREAS FOR VISIBILITY. PLACE BUOYS AS REQUIRED FOR NAVIGATIONAL PURPOSES.
- (4) WATER DEPTH CAN BE 0 TO 10 FEET. THE DEPTH OF THE SILT CURTAIN VARIES.
- (5) MINIMUM WATER DEPTH APPLIES TO THE DEEPEST POINT ALONG THE FLOTATION SILT CURTAIN OR TURBIDITY BARRIER FOR DETERMINING APPLICABILITY OF FLOTATION SILT CURTAIN OR TURBIDITY BARRIER.
- (6) SILT CURTAIN SHOULD BE REMOVED WHEN THE AREA CONTRIBUTING DIRECT RUNOFF HAS BEEN TEMPORARILY OR PERMANENTLY STABILIZED. SILT CURTAIN SHOULD ALSO BE REMOVED BEFORE WINTER IF ICE UP OR ICE FLOW IS ANTICIPATED.
- (7) EMBED POST INTO BOTTOM A MINIMUM OF 40% OF THE WATER DEPTH (INCLUDING WAVE HEIGHT), BUT IN NO CASE SHALL EMBEDMENT BE LESS THAN 2 FEET.
- (8) ANCHOR FLOAT MUST BE CONNECTED SECURELY TO SLEEVE WITH A MINIMUM TENSILE STRENGTH OF 100 LBS. CONNECTION METHOD MUST ALLOW FOR SLEEVE TO MOVE FREELY ON POST.
- (9) PROVIDE SUFFICIENT NUMBER OF POST ANCHORS TO MAINTAIN SILT CURTAIN POSITION.

|                                   |       |           |           |
|-----------------------------------|-------|-----------|-----------|
| SILT CURTAIN OR TURBIDITY BARRIER |       |           |           |
| TEMPORARY SEDIMENT CONTROL        |       |           |           |
| STATE PROJ. NO.                   | (TH ) | SHEET NO. | OF SHEETS |

01 FLOTATION SILT CURTAIN  
 28 NOT TO SCALE

**NOT FOR CONSTRUCTION**



| DATE       | NO. | DESCRIPTION         |
|------------|-----|---------------------|
| 12/04/2023 | 1   | 95% DESIGN PLAN SET |
|            | 2   |                     |
|            | 3   |                     |
|            | 4   |                     |
|            | 5   |                     |
|            | 6   |                     |

DESIGNED BY: EOR  
 DRAWN BY: DEM  
 CHECKED BY: MJM  
 EOR JOB #0041-0418



CLIENT PROJECT #XXX-XXXX

**BROWN'S CREEK PARK STREAM RESTORATION**

WASHINGTON COUNTY, STILLWATER, MN

BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

DETAILS - 5

SHEET 28 OF 28

Plot Date: 12/04/2023  
 Drawing Name: IP\_PWP-df567933temporary\_sediment\_control\_ldgn  
 User: jbrown  
 Path: C:\Users\jbrown\AppData\Local\Temp\120423\120423-0418-CD.dwg  
 Plot Date: 12/04/2023  
 Drawing Name: IP\_PWP-df567933temporary\_sediment\_control\_ldgn  
 User: jbrown  
 Path: C:\Users\jbrown\AppData\Local\Temp\120423\120423-0418-CD.dwg  
 Plot Date: 12/04/2023  
 Drawing Name: IP\_PWP-df567933temporary\_sediment\_control\_ldgn  
 User: jbrown  
 Path: C:\Users\jbrown\AppData\Local\Temp\120423\120423-0418-CD.dwg

**EXHIBIT B**

**Site Plan - Construction Area**

**EXHIBIT C**

**Maintenance Easement**

[MAINTAIN 3-INCH MARGIN]

**MAINTENANCE EASEMENT  
On the Van Tassel Property at 13093 McKusick Road North  
Washington County, Minnesota**

THIS EASEMENT is granted by Beltram H. Van Tassel, an individual, and Barbara Van Tassel, an individual, and Beltram H. Van Tassel and Barbara Van Tassel as trustees for the Beltram H. Van Tassel Revocable Trust (collectively, Van Tassels) to the Brown's Creek Watershed District, a special purposes district of the State of Minnesota with powers set forth at Minnesota Statutes chapters 103B and 103D (BCWD).

**WITNESS:**

A. Van Tassels own in fee simple certain real property consisting of 4.6 acres of land, more or less, at 13093 McKusick Rd North in the City of Stillwater, Washington County, legally described as:

That part of the east 335 feet of the west 650 feet of the northwest quarter of the southwest quarter of section 20, township 30 north, range 20 west, Washington County, Minnesota, lying southerly of the southerly line of Washington County Highwater Right of Way No. 85 - County Road 64, recorded as Document No. 714569 in the office of the County Recorder, Washington County, Minnesota, and lying northerly of the northerly line of the Minnesota Transportation Museum property, formerly the Stillwater St. Paul Railroad Company property, as describe Book "U" of Deeds, page 499, on file and of record in said office of the County Recorder, Washington County, Minnesota.

(the Van Tassel Property).

B. BCWD has undertaken a construction project reconnecting floodplain, stabilizing eroded and eroding creek banks, reshaping banks, constructing in-stream riffles and pools, thinning tree cover to improve habitat and prevent erosion, removing invasive species and replacing with native vegetation, and improving access to the creek on public property from the Brown's Creek State Trail (the Project). The Project has been constructed on city-owned land, county right-of-way, state property (including along Brown's Creek State Trail), and on the Van Tassel Property, benefitting Van Tassels by stabilizing and improving the Van Tassel Property and securing against soil loss from erosion, and will contribute to the realization of the public purposes for which BCWD was established;

C. BCWD has requested and Van Tassels have agreed to grant to BCWD an easement over the Van Tassel Property providing BCWD with the right to access and use the Van Tassel Property to maintain the Project after construction.

NOW, THEREFORE, for one dollar and other good and valuable consideration, the sufficiency of which the parties hereby acknowledge, the parties agree as follows:

1. Grant of Easement. Van Tassels hereby grant and convey to BCWD, its contractors, agents, successors and assigns a perpetual easement over, under, upon and across that portion of the Van Tassel Property delineated and labeled on Exhibit 1, attached hereto and incorporated herein (the Maintenance Area), for purposes of access for maintenance of the Project in accordance with the Maintenance Plan developed for and approved by the Van Tassels as part of the Project. The easement includes the right of ingress and egress and to pass over and through the Maintenance Area on foot and using motorized equipment to conduct maintenance of the Project, including the right to inspect, monitor, reconstruct and otherwise maintain the Project on the Van Tassel Property, including but not limited to correction of erosion and structural problems observed to ensure stability of the Maintenance Area, maintenance or replacement of plantings; seeding and reseedling to maintain ecological health and function; removal of invasive species and weeds as necessary to achieve the intended purposes of the Project. The rights granted hereby include the right to lay and maintain temporary utilities across or above the surface of the Maintenance Area for purposes of maintenance of the Project.

2. Restrictions on Van Tassels' Use of Maintenance Area. Van Tassels will not use the Maintenance Area or permit the construction of any improvements within the Maintenance Area in any manner that would damage or interfere with the function or physical structure of the Project. Specifically, Van Tassels will not alter or allow alteration of any grade-control structures or any filling or grading of land or construction of structures within the Maintenance Area to ensure the Project continues to protect water quality and moderate flow in the creek. Weeds may be hand-pulled or spot-treated with herbicide according to instructions on the herbicide label. Van Tassels will not mow or otherwise disturb vegetation, apply fertilizer to, or dispose of yard or other waste in the Maintenance Area.



3. No Public Access or Use; Van Tassels' Reserved Rights. No right of access or use is granted to the general public to the Van Tassel Property by this easement. Van Tassels may use and enjoy the Maintenance Area for any purposes and engage in or allow others to engage in all activities or uses and enjoy all rights accruing from their ownership of the Van Tassel Property, subject to the restrictions stated herein and the right of BCWD to use the Maintenance Area for the purposes herein expressed. Van Tassels retain the right to sell or transfer all or part of the Van Tassel Property subject to the easement. Van Tassels will inform all others who exercise any right on the Van Tassel Property by or through Van Tassels of the requirements and constraints imposed by the easement, and will take any other steps as necessary to ensure that the terms of the easement are met.

4. Conduct of the Project Maintenance; Property Condition. All activity by BCWD on the Van Tassel Property will be conducted in a safe and workmanlike manner at BCWD's sole cost. In the event the Maintenance Area or Van Tassel Property is damaged by the activities of BCWD or its contractors, agents or assigns pursuant to the exercise of any of BCWD's rights under the easement, BCWD will promptly repair or restore the Van Tassel Property to the extent reasonably practicable. BCWD will repair, seed or plant disturbed or damaged areas with vegetation suitable for the intended uses of the Van Tassel Property.

5. Inspection and Enforcement. BCWD representatives, agents and contractors may enter the Maintenance Area at reasonable times to monitor activities on and uses of the Maintenance Area. In acting under this paragraph, BCWD will not unreasonably interfere with Van Tassels' use and quiet enjoyment of the Van Tassel Property. BCWD may act to prevent or remedy all activities and uses of the Maintenance Area not consistent with the terms of the easement. BCWD will remain responsible for its legal fees and related expenses for any unlawful action taken by BCWD, its employees, agents or contractors.

6. Notice. BCWD may access the Maintenance Area and undertake work in accordance with and under the terms of the easement at any time, but after completion of construction of the Project, BCWD will notify Van Tassels by telephone or email at least 24 hours prior to commencement of any exercise of BCWD's further rights under the easement.

7. Regulatory Authorities Not Affected. The easement does not replace or diminish the regulatory authority of BCWD or any other public body, as may apply to the Van Tassel Property or any activity within it.

8. Insurance. Van Tassels remain solely responsible for maintaining liability and other insurance for its own uses of and authority over the Van Tassel Property.

9. Running with the Land. This easement, rights and privileges hereby granted, the restrictions and obligations hereby imposed, and the agreements contained in this easement will be easements, restrictions and covenants running with the land in perpetuity and will inure to the benefit of and be binding on the parties hereto and their respective heirs, successors and assigns including but not limited to all subsequent owners of any portion of the Van Tassel Property and all persons claiming under them.

10. Notices. Except as otherwise specifically provided herein, all notices required or permitted under this easement will be in writing and will be deemed delivered when personally delivered, delivered by documented courier delivery or mailed by United States registered or certified mail, return receipt requested, at the address appearing below or to such other address as each party may designate by a written notice to the other.

If to Van Tassels:            Barbara Van Tassel  
   13093 McKusick Road  
   Stillwater MN 55082

If to BCWD:                    Brown's Creek Watershed District  
   Attn: Administrator  
   455 Hayward  
   Oakdale MN 55128  
   KKill@mnwcd.org

11. Severability. If any one or more of the provisions of this easement, or the applicability of any such provision to a specific situation, will be held invalid or unenforceable, such provision will be modified to the extent necessary to make it or its application valid and enforceable, and the validity and enforceability of all other provisions of this agreement and all other applications of any such provision will not be affected thereby.

12. Governing Law; Venue. This easement will be construed and governed by the laws of the State of Minnesota. Venue for any action taken under or related to the Easement will be in the district court of Washington County, Minnesota.

13. No Waiver of Immunity. No provision of this easement will be interpreted as a waiver of any statutory or common law immunity from or limitation of liability available to BCWD, all such immunities and limitations being expressly reserved by BCWD.

14. Recording. BCWD may, at its expense, record and rerecord this easement.

*{Signature page follows.}*

IN WITNESS WHEREOF, the undersigned execute this easement, intending to be legally bound.

**Van Tassels**

\_\_\_\_\_ Date: \_\_\_\_\_  
By Barbara Van Tassel, as trustee of the Beltram H. Van Tassel Revocable Trust

\_\_\_\_\_ Date: \_\_\_\_\_  
By Barbara Van Tassel, individually

\_\_\_\_\_ Date: \_\_\_\_\_  
By Beltram H. Van Tassel, as trustee of the Beltram H. Van Tassel Revocable Trust

\_\_\_\_\_ Date: \_\_\_\_\_  
By Beltram H. Van Tassel, individually

STATE OF MINNESOTA  
COUNTY OF WASHINGTON

This instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 202\_\_, by Beltram H. Van Tassel and Barbara Van Tassel as trustees of the Beltram H. Van Tassel Revocable Trust, and by Beltram H. Van Tassel, as an individual, and Barbara Van Tassel, , as an individual.

\_\_\_\_\_  
Notary Public

**Brown’s Creek Watershed District**

\_\_\_\_\_ Date: \_\_\_\_\_  
By Karen Kill  
Its administrator

STATE OF MINNESOTA  
COUNTY OF WASHINGTON

This instrument was acknowledged before me this \_\_\_ day of \_\_\_\_\_, 202\_\_, by Karen Kill, as administrator of the Brown’s Creek Watershed District, a special purposes

district of the State of Minnesota with powers set forth at Minnesota Statutes chapters 103B and 103D, on behalf of the district.

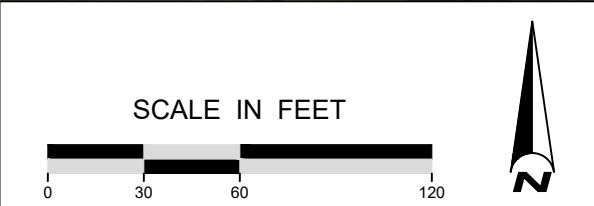
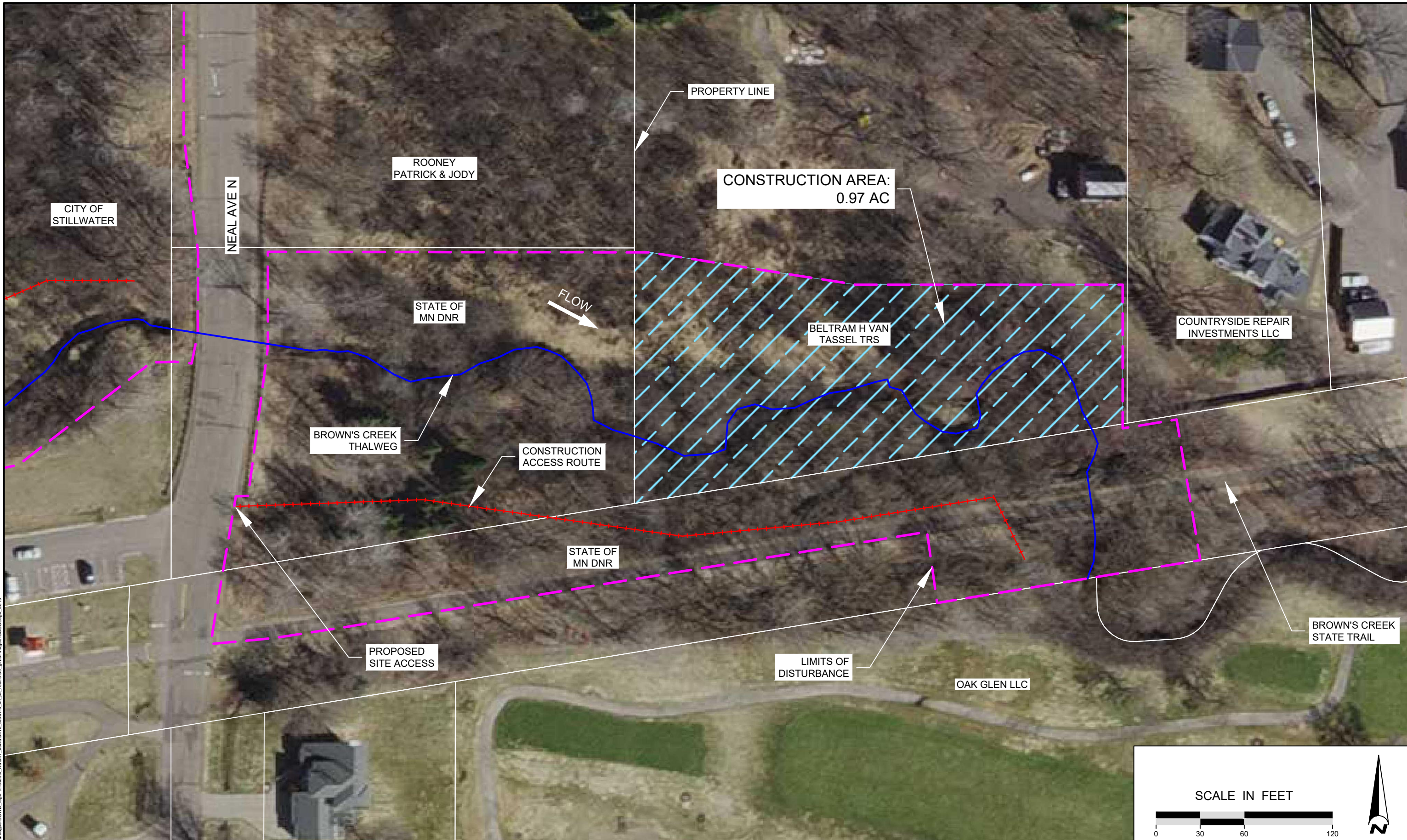
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Notary Public

Drafted by:  
Smith Partners PLLP – MJW  
250 Marquette Avenue South, Suite 250  
Minneapolis Minn 55401

**EXHIBIT 1**

**Maintenance Area**



**NOT FOR CONSTRUCTION**

**EOR** water ecology community  
 EMMONS & OLIVIER RESOURCES, INC.  
 1919 UNIV. AVE. W. #300 ST. PAUL, MN  
 TEL: 651.770.8448 WWW.EORINC.COM

| DATE       | NO. | DESCRIPTION      |
|------------|-----|------------------|
| 12/12/2023 | 1   | EASEMENT EXHIBIT |
|            | 2   |                  |
|            | 3   |                  |
|            | 4   |                  |
|            | 5   |                  |
|            | 6   |                  |

DESIGNED BY: EOR  
 DRAWN BY: DEM  
 CHECKED BY: MJM  
 EOR JOB #0041-0418



**BROWN'S CREEK PARK STREAM RESTORATION**  
 WASHINGTON COUNTY, STILLWATER, MN  
 BROWN'S CREEK WATERSHED DISTRICT OAKDALE, MN 55128

EASEMENT EXHIBIT  
 SHEET 01 OF 01

Plot Date: 12/12/2023  
 Drawing: emmons\_olivier\_resources\_inc\_images\gis\img\0041\_0418-EasementExhibit.dwg  
 User: mjm  
 40041\_0418-XBASE  
 40041\_0418-FBASE  
 40041\_0418-LBASE  
 Esri Border: images...images\11...images\BCWD\_bgp\_x\clients\_wd\041\_bowl\0418\_brown's\_creek\_rest\09\_gis\img\0041\_0418-EasementExhibit.dwg

**CONSENT AND SUBORDINATION**

MidWestOne Bank, an [STATE OF INCORPORATION] corporation, the holder of a mortgage dated October 2, 2015, filed for record with the office of the recorder of Washington County, Minnesota, on April 19, 2016, as Document no. 4064032, hereby consents to the recording of the easement to which this consent and subordination is attached and agrees that its rights in the property affected by the easement will be subordinated thereto.

**IN WITNESS WHEREOF**, \_\_\_\_\_, a [STATE OF INCORPORATION] corporation, has caused this consent and subordination to be executed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_ a [STATE OF INCORPORATION] corporation

By:\_\_\_\_\_

Its:\_\_\_\_\_

STATE OF MINNESOTA )  
 )ss.  
 COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, by \_\_\_\_\_, as \_\_\_\_\_ of \_\_\_\_\_.

\_\_\_\_\_  
 Notary Public